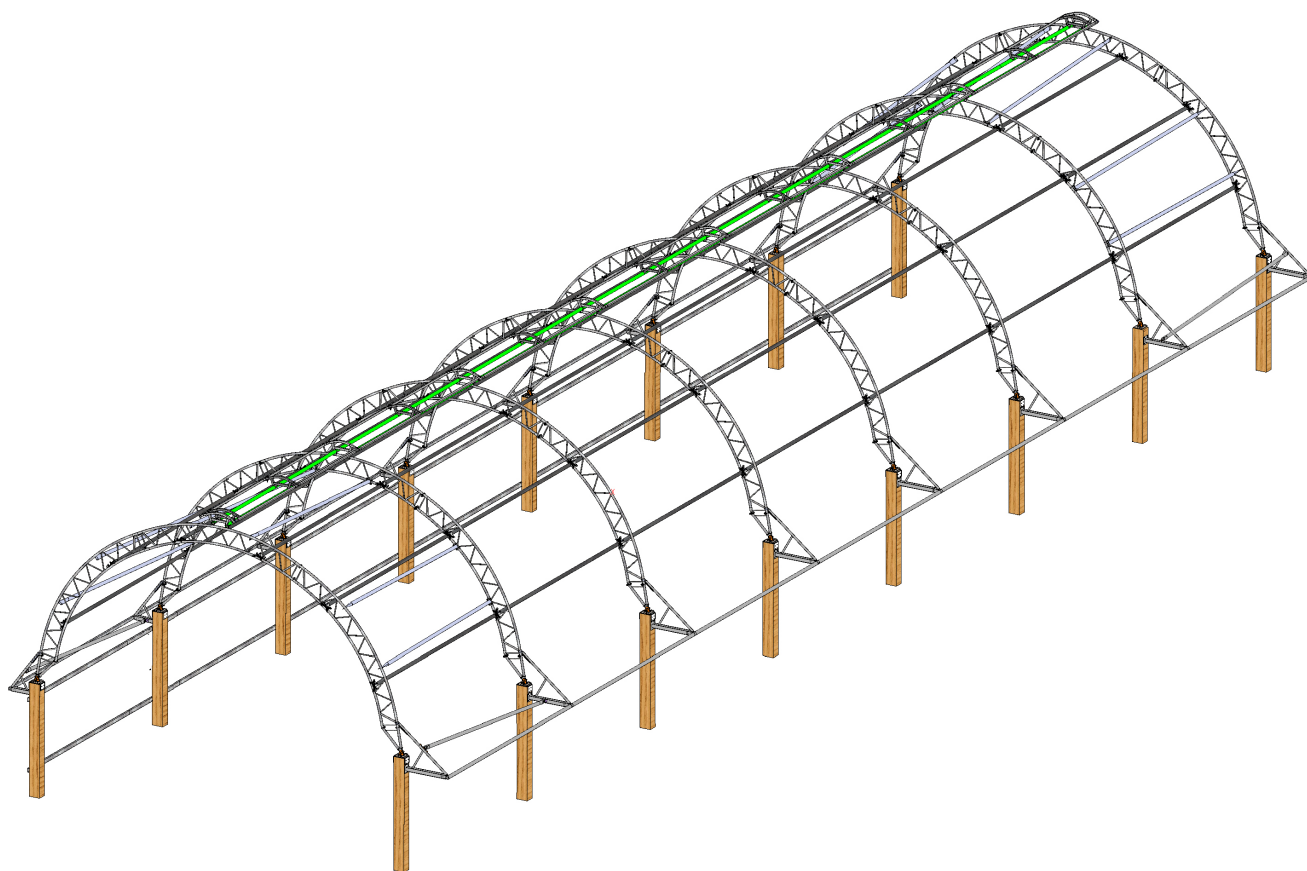




ClearSpan™ Beef Master™ Truss Frame Assembly



Actual building width and length may differ from example shown. This guide outlines basic frame assembly steps. Always consult final drawings and all documentation included with Beef Master truss building **before and during** assembly.

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WARNING: Cancer and Reproductive Toxicity - P65Warnings.ca.gov

Revision date: 05.20.20

General Truss Frame
Assembly Steps



READ THIS GUIDE BEFORE YOU BEGIN.

This guide includes helpful hints and important information needed to safely erect a truss frame. Please read these instructions **before** you begin.

SAFETY PRECAUTIONS

- Wear eye and head protection.
- Wear gloves when handling truss components.
- Use a portable GFCI (Ground Fault Circuit Interrupter) when working with electric power tools and cords.
- Use lifts and other power tools suitable to accomplish the procedures outlined in this document and in the detailed final drawings.
- Safety harnesses are required for all workers in elevated positions.

⚠ WARNING: For safety reasons, those who are not familiar with recognized construction methods and techniques must seek help from a qualified contractor.

SAFETY AND ASSEMBLY NOTICE

THE ASSEMBLY OF A CLEARSPAN TRUSS BUILDING MUST CONFORM TO ALL AUTHORITIES HAVING JURISDICTION IN THE REGION WHERE THE BUILDING ERECTION WILL OCCUR. CLEARSPAN WILL NOT BE RESPONSIBLE FOR FAILURE TO COMPLY WITH ESTABLISHED BUILDING CODES AND RESTRICTIONS BY A CONTRACTOR SUPPLIED BY THE CUSTOMER. IN THOSE AREAS WHERE SUCH AUTHORITIES DO NOT EXIST, THE BUILDING ASSEMBLY MUST CONFORM TO THE REQUIREMENTS IDENTIFIED IN THIS DOCUMENT AND THE APPROVED BUILDING DRAWINGS.

ADDITIONALLY, CLEARSPAN WILL NOT BE RESPONSIBLE FOR ANY DAMAGE OR INJURY DIRECTLY OR INDIRECTLY RESULTING FROM THE ERECTION OF THE BUILDING REGARDLESS OF THE EXISTENCE OF CODES AND RESTRICTIONS AND WHETHER THESE WERE FOLLOWED OR IGNORED.

ATTENTION: The Beef Master truss building is typically supported by customer-supplied wood supports. Contact a contractor familiar with the area to determine how deep to set posts.

PRE-ASSEMBLY PROCEDURE

Review the following steps to help plan the truss building assembly.

1. Verify that all parts are included in the shipment. Notify Customer Service for questions or concerns.

ATTENTION: Inspect shipment for damage. Record any damage on the bill of lading *before it is signed*. If damage is found after opening a container, contact the carrier or carrier agent immediately. Contact your sales representative for additional information immediately when damage is discovered.

2. Unload shipment. Use diagram on the following page for a suggestion for material placement when truss building is unloaded.
3. Read these instructions, final drawings, and all additional documentation included with shipment **before** you begin.
4. Gather tools, bracing, lifts, ladders, and required personnel. See sample tool and equipment list below.
5. Check weather **before** you begin and plan accordingly.
6. Read warranty information and complete the documentation as instructed.

REQUIRED TOOLS

The following list identifies the basic equipment and some main tools needed to assemble a typical truss building. *The size of the required personnel lifts will vary as will the equipment needed to unload and move truss-building components. Additional hand tools and supports may be needed depending on the structure size, location, and existing restrictions and codes.*

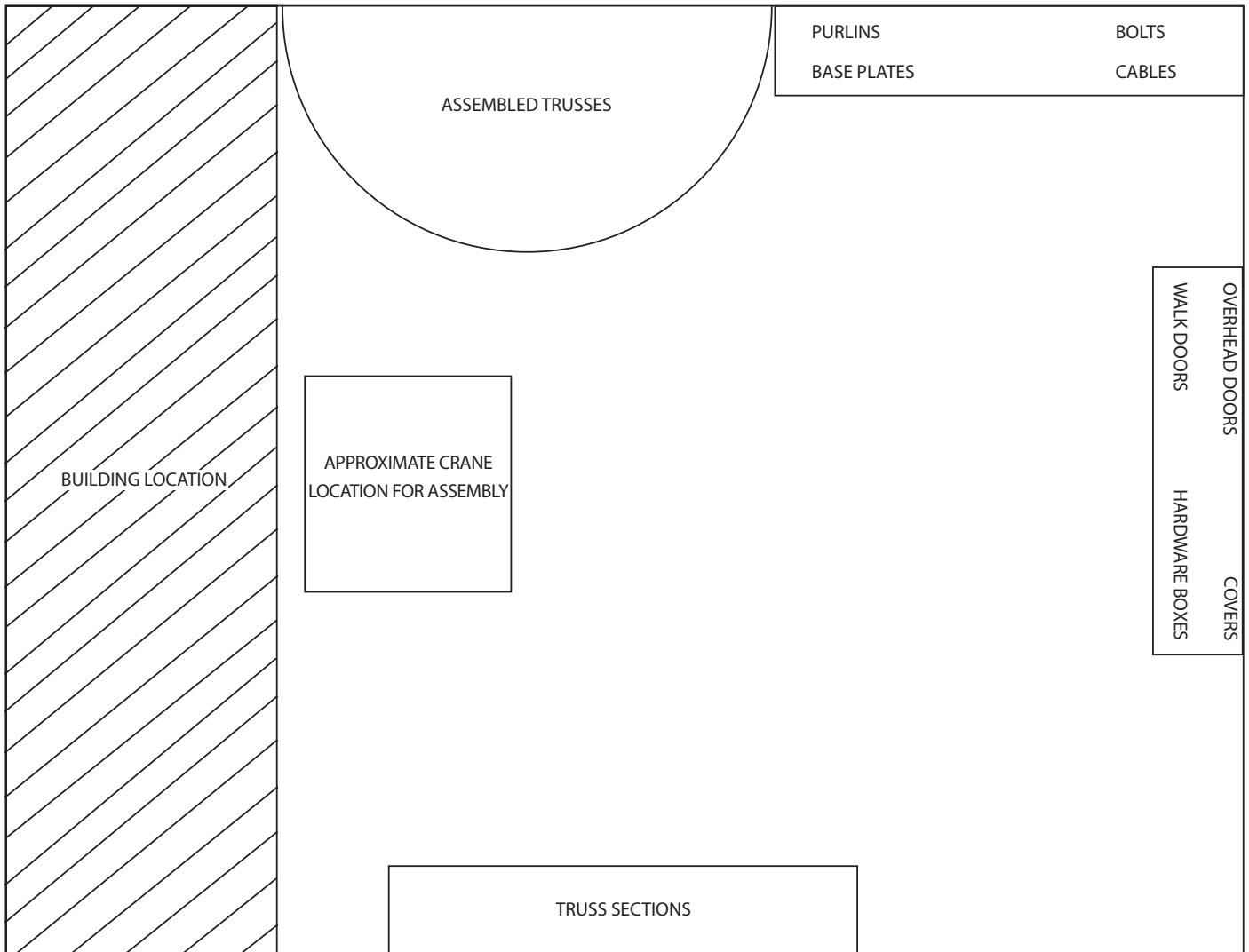
- Tape measure or measuring device, clutched drill driver and impact wrench. *See note about driving self-tapping screws below.*
- Metal file, metal cutting saw, wrenches, impact socket set, scissors or utility knife, hammers, and work gloves.
- Rough-terrain 6,000 lb telescoping fork truck (unloading and moving truss-building components).
- 40' - 80' 4WD boom (personnel lift).
- 26', 33', or 40' rough-terrain scissors lift (mainly single-chord buildings or insulation packages).

ASSEMBLY NOTE: Install Tek screws using a clutched drill driver running approximately 750 RPM while applying approximately 50 lbs of force.

Do not use an impact driver!

SAMPLE LAYOUT DIAGRAM SHOWING POSITIONS OF UNLOADED TRUSS BUILDING COMPONENTS

The diagram below shows one way to position truss components to minimize unnecessary steps after delivery. This is a best-case scenario. In many cases, the available site space is limited. Use this diagram to position components for easier access and truss assembly. Adjust positions based on availability of space.



REQUIRED UNLOADING PROCEDURES:

- Set all truss sections/bundles on 4" x 4" blocks as needed to keep components off the ground and out of water, snow, mud, etc.
- Set all end wall columns, end framing, and remaining straight frame members on 4" x 4" blocks to keep components off the ground and out of water, snow, mud, etc.
- Protect all covers, end panels, and cardboard shipping containers and contents from elements. Set on pallets off the ground and cover with plastic film or place in a building for use when needed.
- When unloading the bundles of truss segments from flatbed, forks of fork truck must support both chords of the truss segment. If forks are not long enough, use a sling and lift to unload the truss segment bundles.
- Do not position components and truss segments in the staging area or any place where a lift must pass or be positioned for the assembly of the truss building.

CLEARSPAN™ BEEF MASTER™ TRUSS ASSEMBLY

SPECIAL ASSEMBLY NOTE: BEFORE YOU BEGIN

MANY OF THE PROCEDURES DESCRIBED BELOW AND WITHIN THIS GUIDE CAN OCCUR SIMULTANEOUSLY. SOME, HOWEVER, MUST BE COMPLETED BEFORE MOVING ON TO THE NEXT PROCEDURE.

TO BETTER UNDERSTAND THE ENTIRE ASSEMBLY PROCESS AND TO PREVENT DAMAGE OR POSSIBLE INJURY, READ THROUGH THIS ENTIRE GUIDE **BEFORE** YOU BEGIN.

ASSEMBLY NOTE: Install Tek screws using a clutched drill driver running approximately 750 RPM while applying approximately 50 lbs of force.

Do not use an impact driver!



BASIC ASSEMBLY PROCEDURES

The steps that follow describe the typical sequence that can be followed to ensure proper assembly of a truss building. When present, local restrictions and building codes may require additional or alternative steps. Failure to follow these steps or adhere to recognized codes and standards or both **may result in an improperly assembled truss building and will void the warranty and all protection the building owner is entitled to.**

NOTE: The assembly procedure that follows assumes the foundation/support posts are installed and are of a design adequate for the building and related forces.

Complete the steps in order presented. Consult procedures later in this guide for additional details.

1. Verify that all support posts are properly installed and prepared for base and adapter plate installation.

ATTENTION: Some Beef Master buildings may not include adapter plates for base plates. Review technical documents included with building for details.

2. Install base and adapter plates (if equipped) according to technical drawings and details.
3. Assemble trusses on the ground and stage trusses for lifting and frame assembly.

4. Set first end truss, anchor to base plates, and brace truss in place or hold with lift.

IMPORTANT: END TRUSSES CAN BE SET ON BASE PLATES INCORRECTLY. REVIEW TECHNICAL DOCUMENTS TO DETERMINE WHICH FACE OF THE TRUSS TO POSITION TOWARD THE OUTSIDE OF THE FRAME. SETTING TRUSS INCORRECTLY WILL REQUIRE RESETTING THE TRUSS OR TRUSSES.

5. Set next truss and install all lateral bracing (purlins) and structural cables between installed end truss and second truss.

IMPORTANT: REVIEW ALL LATERAL BRACE CONNECTION DETAILS TO INSTALL ALL CABLE CONNECTION PLATES.

6. Tighten structural cables between first two trusses to plumb them.
7. Continue setting assembled trusses and installing bracing until all are trusses are set. *See details in the procedures that follows.*
8. Install all awning components (both sides), framing for roll-up side (if equipped), and ridge vent (if equipped). See installation steps for those items later in this guide for additional details.
9. Set end wall columns, install end wall headers if any, and install telescoping purlins. (Some buildings may not include end wall framing.)
10. Install end panels (if equipped).
11. Install main covers according to Cover Installation Guide and cover layout diagrams.
12. Install roll-up side curtain panel if equipped.
13. Install all doors (if applicable). Consult technical diagrams and instructions included with door for details.

Use table below when procedures call for installation of box bolts (blind connection bolts). **Installation of these bolts cannot be reversed.**

BOX BOLT HOLE SIZES & INSTALLATION TORQUE		
BOX BOLT DIAMETER	HOLE/DRILL BIT DIAMETER	INSTALLATION TORQUE
1/4"	1/2"	14 FT LBS
5/16"	9/16"	18 FT LBS
3/8"	3/4"	33 FT LBS
1/2"	13/16"	59 FT LBS
5/8"	1-1/8"	140 FT LBS
3/4"	1-3/8"	221 FT LBS

IMPORTANT: CABLE INSTALLATION AND TIGHTENING

Typically, there are two cable types for a Beef Master truss building: structural and sway. Structural cables (and braces for that matter) span between lower chords of trusses in specified locations on frame. ***During frame assembly and before cover installation, install and tighten all structural cables.***

Sway cables are typically installed between upper and lower chords of trusses *between* a pair of adjacent trusses. ***Install and tighten these cables after you install and tighten each main cover panel.***

If sway cables are installed and tightened before keder-to-keder covers are installed, cables must be loosened to prevent cover damage during installation.

EXCEPTIONS: Beef Master truss buildings covered by a single bonnet-to-bonnet cover design **are not included** in the above requirement. Sway cables can be installed and tightened before installing the main cover.

For buildings that include only two keder-to-bonnet cover designs, the same exception applies. Install and tighten sway cables that attach to the truss common to both covers. ***This will be the truss where the keder rail is attached near the center of the frame.*** The sway cables once tightened will prevent the truss from being pulled out of plumb when covers are stretched and tightened.

Consult the **Cover Installation Guide** and building drawings to determine which cover types your building includes.

DO NOT ATTEMPT TO INSTALL ANY COVER WITHOUT FIRST CONFIRMING COVER IDENTIFICATION AND ITS LOCATION ON THE ASSEMBLED TRUSS FRAME.

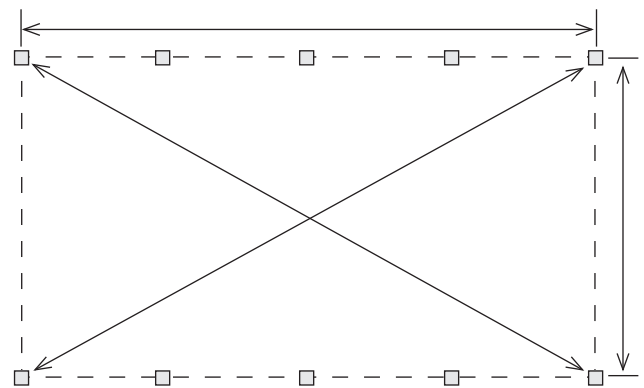
This information applies to standard Beef Master buildings. Custom buildings may include special components and details not addressed in this guide. Consult the technical drawings included with the building for additional details.

CHECK FOUNDATION/SUPPORT POSTS

Other than overall design, foundations can be divided into two categories: engineered and non-engineered. Consult the information that follows to check the foundation before you begin truss assembly steps.

Engineered Foundations

1. Check support post locations against final drawings to ensure actual dimensions match those shown on the drawing. *Contact engineer of record if dimensions exceed acceptable tolerances.*
2. Check the set posts for square by measuring from corner-to-corner and comparing the dimensions. Frame is square when diagonal dimensions are the same.



Sample Foundation showing Support Posts

3. Confirm that posts are capable of supporting the truss building and associated loads.
4. Address all other concerns by contacting the engineer who designed the foundation and the contractor who constructed the foundation.

Non-Engineered Foundations

In those instances when an engineered foundation is not required by regional codes and restrictions or the building manufacturer, complete these steps:

1. Use the final building drawings to check dimensions.
2. Verify that support posts create a square foundation.
3. Consult final truss building drawings to determine the minimum requirements for the foundation.

NOTE: If foundation does not appear adequate to support the building and associated loads, resolve all issues and concerns ***before frame assembly.***

Contact a qualified contractor to discuss any issues that are identified.

CLEARSPAN™ BEEF MASTER™ TRUSS ASSEMBLY

ASSEMBLE TRUSSES

Prior to assembly of frame, construct trusses. Plan the assembly and setting of trusses to best use space, equipment, and contractors. In many instances, limited space and building size may not allow you to assemble all trusses without beginning frame assembly. Steps below describe basic truss assembly process.

1. Consult building drawings to identify different truss segments needed to assemble one truss.

NOTE: Some buildings may include trusses that *require a specific frame position*. Others may have trusses that install in any frame position. *Consult building drawings to identify truss positions on frame*. When possible, assemble trusses in a stack using blocks to separate them. One end truss must be set in place first during frame assembly. If trusses differ, do not bury end trusses in the stacks. **Take time to plan the truss assemble process.**



Photo above shows a stack of assembled trusses ready to lift and set in position on the base plates attached to support posts.

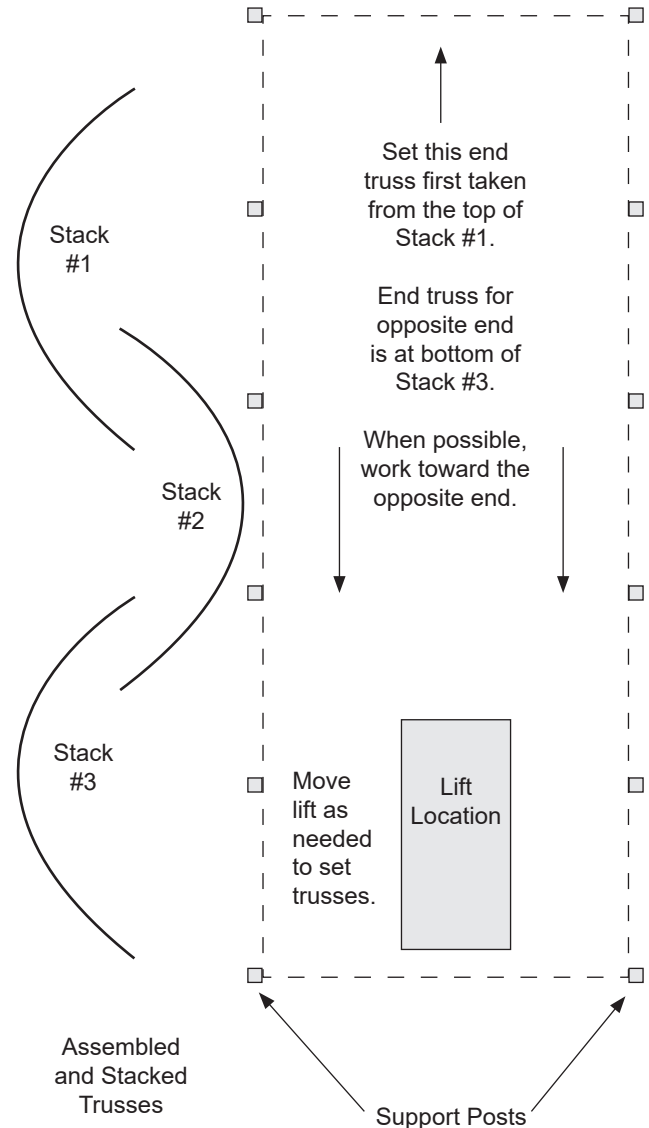
2. Assemble trusses according to drawings supplied with truss building and tighten all fasteners.

NOTE: Use details supplied with drawings to identify the different connections and fasteners. Bolt tightening details are also described within final drawing packet. The "snug-tight" condition is defined as the "tightness attained by a few impacts of an impact wrench, or the full effort of a man using an ordinary spud wrench."

3. Continue by setting trusses.

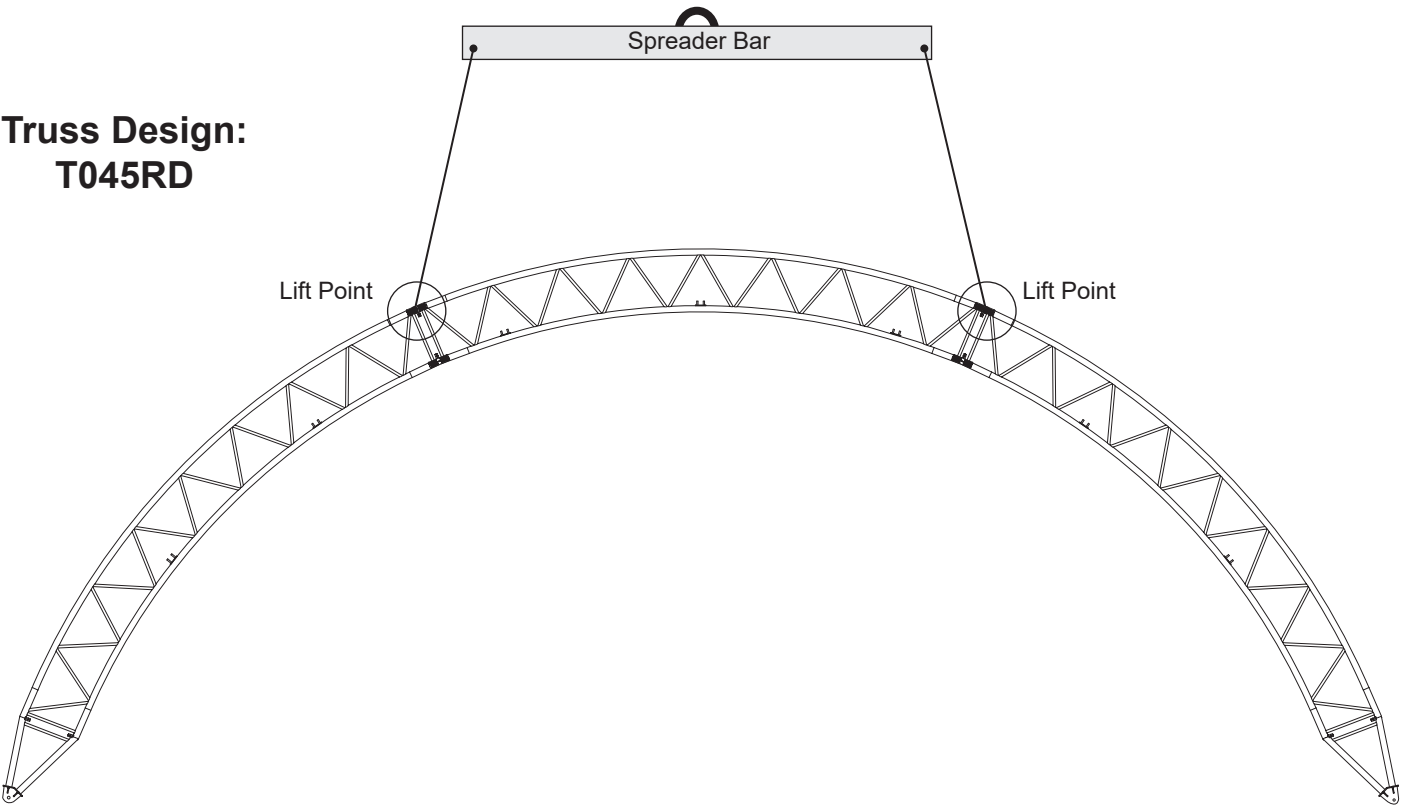
EXAMPLE OF TRUSSES STAGED FOR LIFTING

Sample foundation with support posts and trusses staged for assembly is shown. This is one possibility. Site, building size, available equipment and other factors may require a different approach and lifting sequence.



LIFTING ASSEMBLED TRUSS

Use the following sample diagram to rig the assembled truss for lifting.



FRONT PROFILE
GRID REPRESENTS 24" SQUARES

FULLY ASSEMBLED TRUSS — SEE TABLE FOR
ESTIMATED INDIVIDUAL TRUSS WEIGHTS.

ASSEMBLED TRUSS WEIGHTS FOR LIFTING	
Truss Width	Approximate Weight (lbs.)
35'	350 lbs.
45'	500 lbs.
54'	850 lbs.
65'	1000 lbs.

CLEARSPAN™ BEEF MASTER™ TRUSS ASSEMBLY

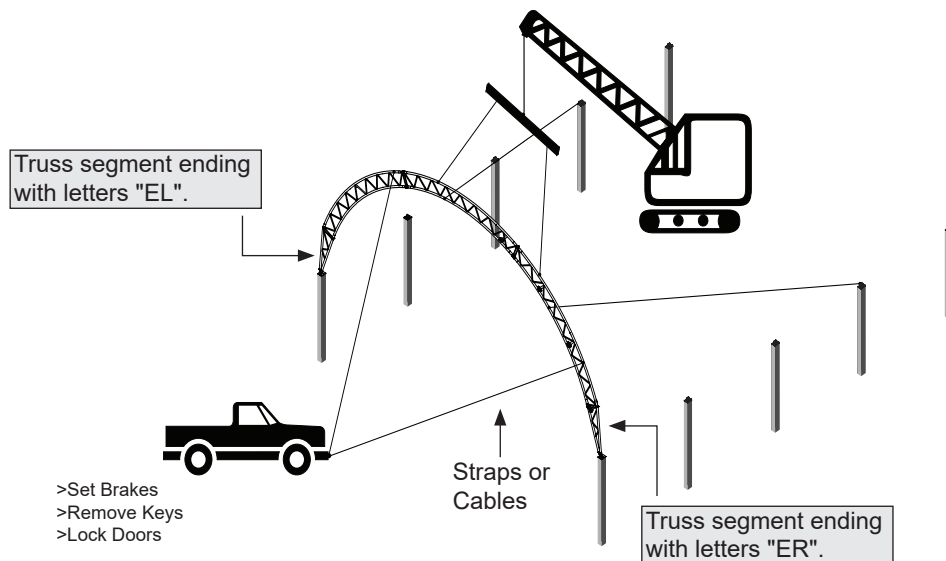
SETTING ASSEMBLED TRUSSES

In most cases, trusses are set beginning at one end and working toward the other. Always consult final drawings and other documentation included with building to determine if special assembly instructions are present. The following steps and diagrams describe how to lift and set the basic truss.

1. Verify all base and adapter plates are installed and secured to support posts or foundation per drawing specifications.
2. Use diagram on previous page to properly rig, lift, and set the first end truss in place. Secure it to the installed base and adapter plates.

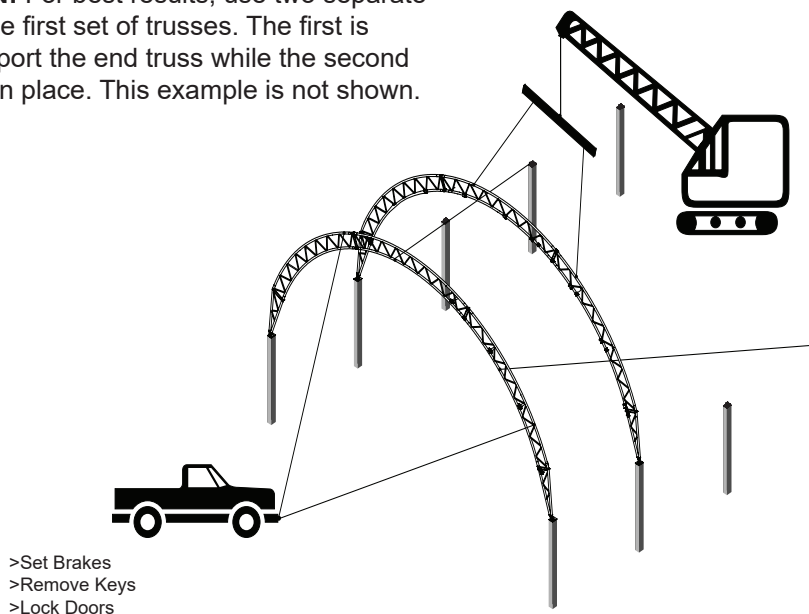
ATTENTION: *Trusses can be set on supports posts or I-beams incorrectly!* Take time to examine end truss and diagrams to determine truss position as it sits on supports. End Profile diagrams in final drawings show trusses **as viewed from outside looking at the frame**. Use this to determine truss orientation when end segments of end truss differ. Typically this affects only end trusses, but examining all assembled trusses before setting is recommended.

3. Secure truss using straps or cable as shown in diagram below. Strapping must remain in place until next truss is secured and attached to end truss. (Using a lift works best to hold end truss until another lift sets a second truss in place and it is connected to the first. Only then can lifts be removed.)



4. Unhook lift, rig first interior truss, set it into position, and secure it to the installed base plates.

ATTENTION: For best results, use two separate lifts to set the first set of trusses. The first is used to support the end truss while the second truss is set in place. This example is not shown.



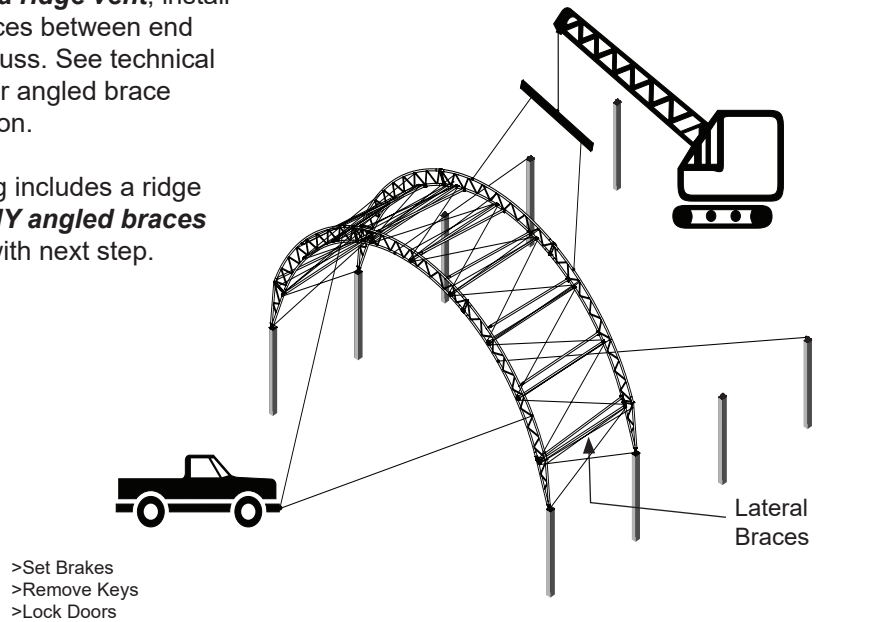
IMPORTANT! Verify that lateral brace mounting studs are aligned between these first trusses. *Do not continue if mounting studs are misaligned.*

Review technical drawings to identify assembly error and to determine if end truss was set incorrectly.

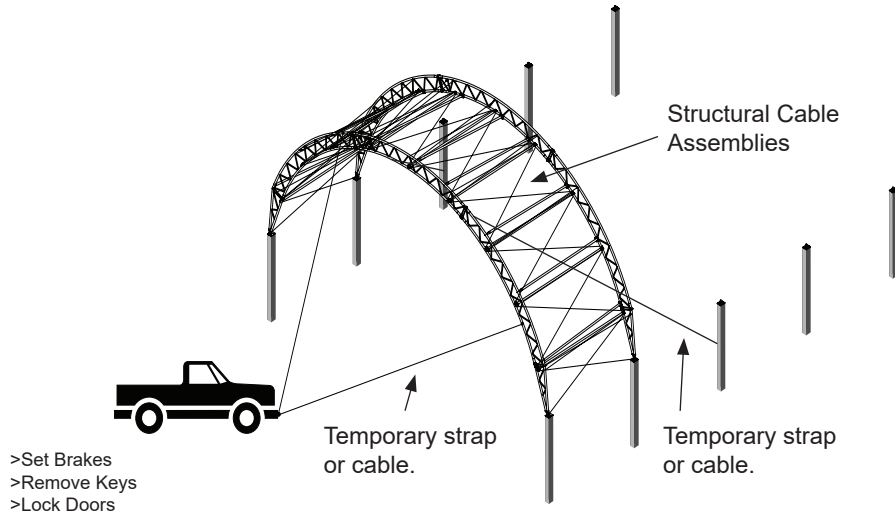
SETTING THE ASSEMBLED TRUSSES – CONTINUED

5. With lift in place, install lateral bracing between end truss and first interior truss. Tighten all lateral bracing mounting bolts. **Do not remove straps at this time. REVIEW ALL LATERAL BRACE CONNECTION DETAILS!**
6. For a building **without a ridge vent**, install and tighten angled braces between end truss and first interior truss. See technical drawings for building for angled brace identification and location.

ATTENTION: If building includes a ridge vent, **do not install ANY angled braces** at this time. Continue with next step.



7. Once lateral and angled bracing (if no ridge vent) is installed and tightened, install and tighten all *structural cable assemblies* between these two trusses, and plumb assembled trusses by tightening cables.



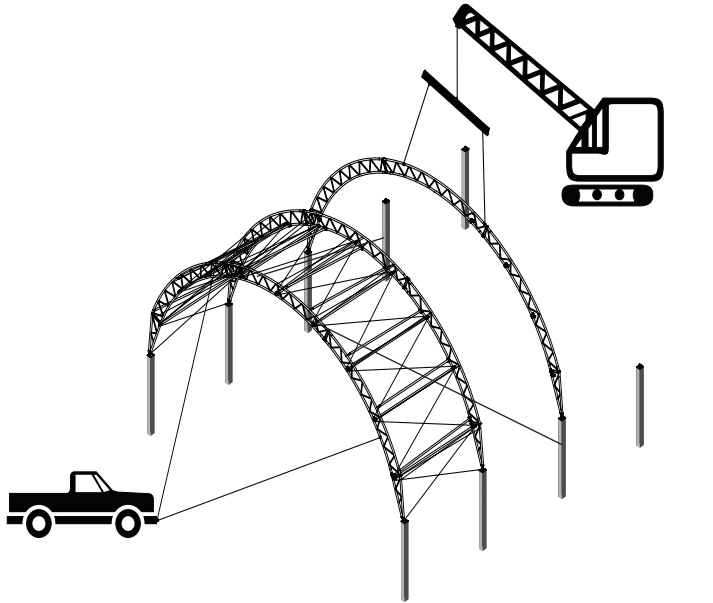
8. If needed, adjust or reposition temporary strapping holding the end truss so strapping does not interfere with installation of next truss (#3).

*Actual frame design may differ from example shown.

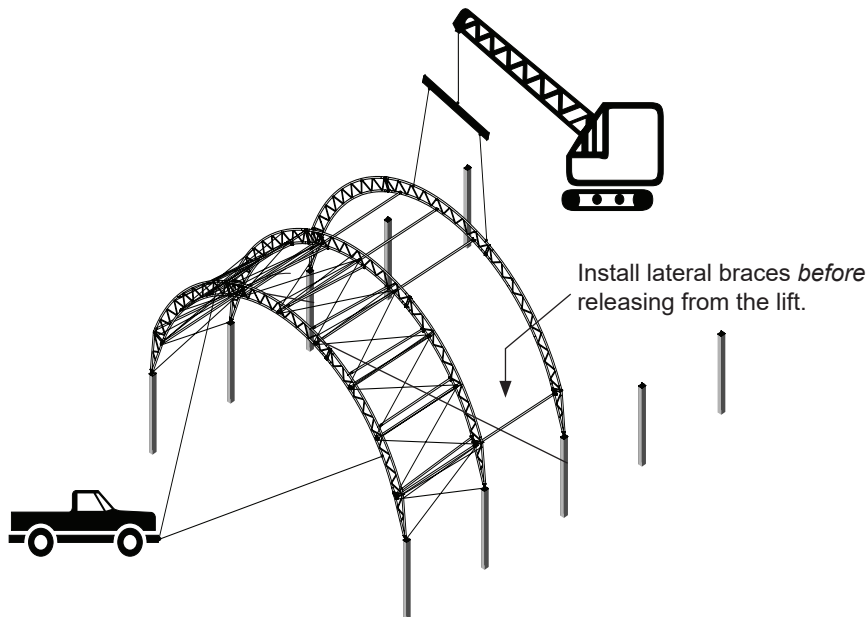
CLEARSPAN™ BEEF MASTER™ TRUSS ASSEMBLY

SETTING THE ASSEMBLED TRUSSES – CONTINUED

9. Rig next truss, set it in place, and secure it to base and adapter plates.



10. With lift still supporting the truss, install lateral bracing between trusses.



11. Unhook rigging from truss and attach rigging to next truss to set it in place.
12. Continue this pattern of setting a truss, installing lateral braces, detaching rigging, and setting next truss — including final end truss — until all are set and secure.

ATTENTION: Depending on personnel and equipment, all lateral bracing can be installed as subsequent trusses are set and attached. See diagram and cable information on next page. Install angled braces for last bay if no ridge vent is to be installed. ***Be sure to set final/end truss according to technical drawings. Review earlier steps if needed.***

*Actual frame design may differ from example shown.

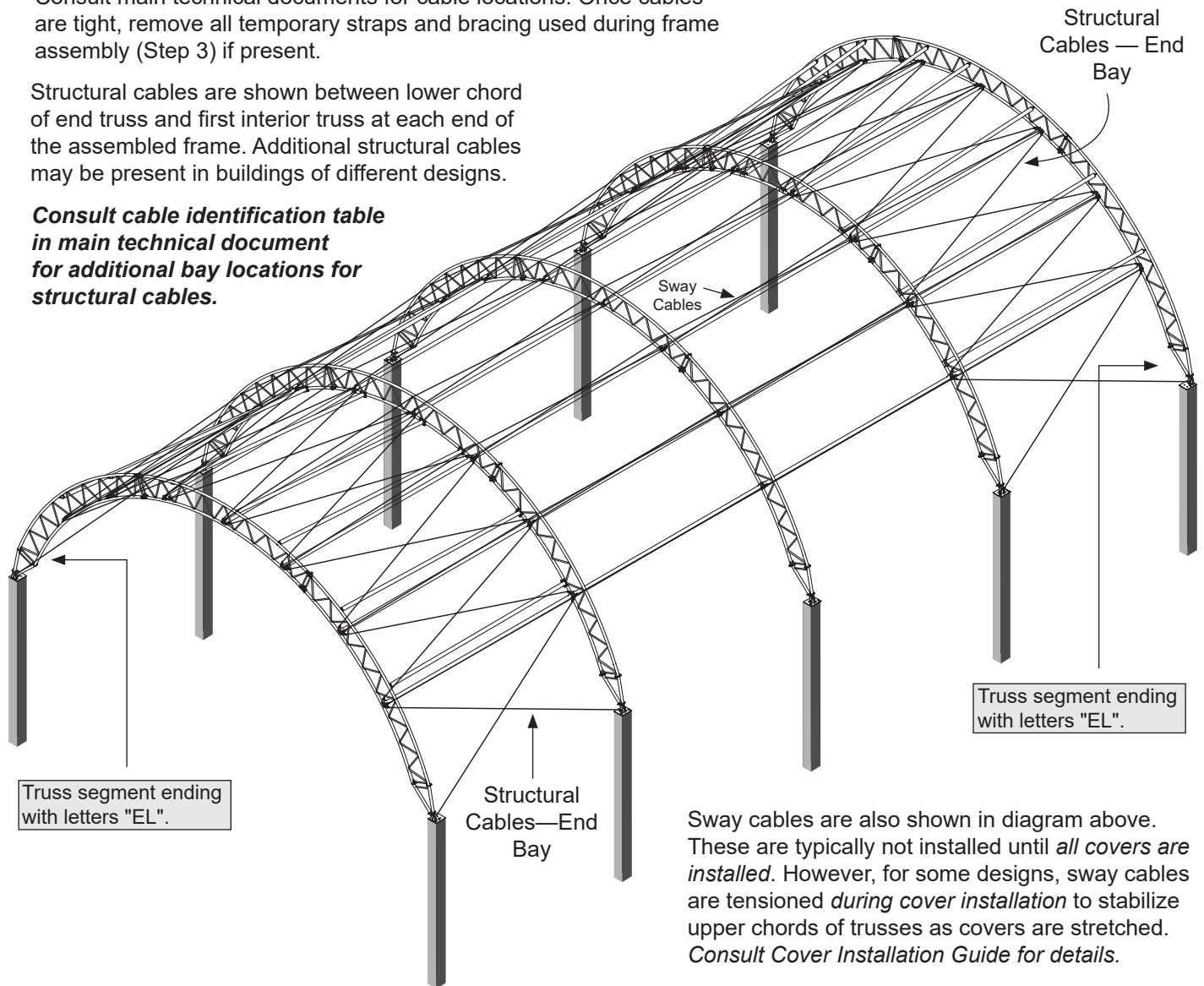
SETTING THE ASSEMBLED TRUSSES – CONTINUED

13. Install and tighten the remaining **structural cables for last frame bay**.

Consult main technical documents for cable locations. Once cables are tight, remove all temporary straps and bracing used during frame assembly (Step 3) if present.

Structural cables are shown between lower chord of end truss and first interior truss at each end of the assembled frame. Additional structural cables may be present in buildings of different designs.

Consult cable identification table in main technical document for additional bay locations for structural cables.



Sway cables are also shown in diagram above. These are typically not installed until *all covers are installed*. However, for some designs, sway cables are tensioned *during cover installation* to stabilize upper chords of trusses as covers are stretched. *Consult Cover Installation Guide for details.*

14. If building is **without a ridge vent** and has only **one (1) or two (2) main covers**, install and tighten all sway cable assemblies. Sway cables are located at each lateral brace in each bay except for the end bays, which included angled braces. **Recheck all cables to ensure they are tight. Then continue with the next step.**

ATTENTION: If building includes a ridge vent to install, skip to and continue with next step. Do not install sway cables at this time.

15. Continue with procedures on the following pages.

CLEARSPAN™ BEEF MASTER™ TRUSS ASSEMBLY

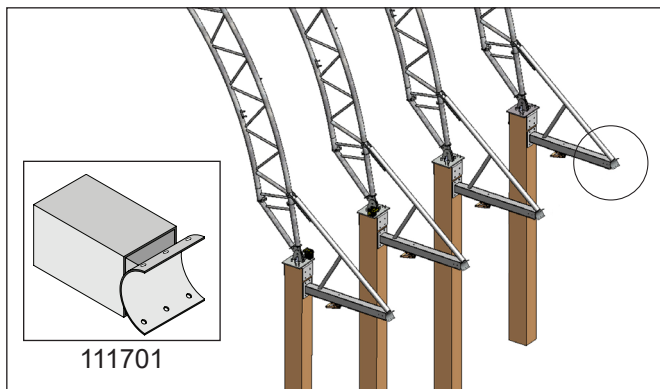
4' AWNING INSTALLATION — FEED BUNK SIDE OF BUILDING (Standard 35', 45', 54', & 65' Wide)

Review all technical diagrams sent with the building to install awning components. Use information and assembly tips that follow to help install awning. **If Beef Master is 50' wide, skip this page and install 7' awning — next page.**

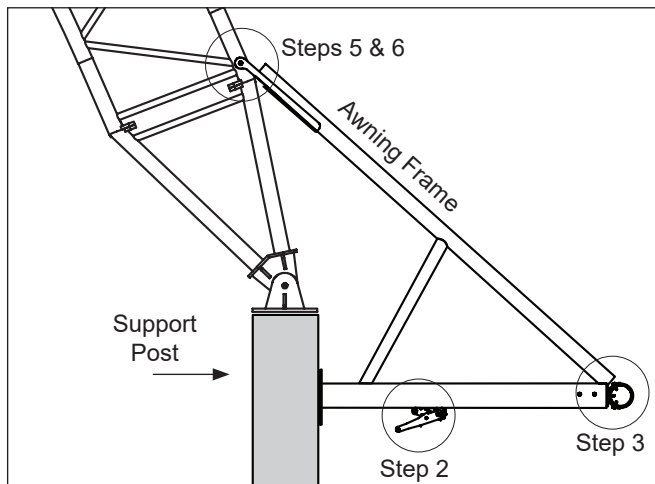
BOX BOLT INSTALLATION: Box bolts are used to secure the overhang angled brace bracket to awning chord. See main building technical drawing details. See diagrams below (Step 8) for box bolt installation instructions and information.

BASIC STEPS FOR AWNING INSTALLATION

1. Review all technical drawing details that pertain to the awning components and connections.
2. Take each awning assembly (AWN0XXRD106L048) and attach a QH1065 ratchet to the underside of the square tube as shown below and in technical drawings. **Letters XX in part number refer to width of frame.**
3. Slide a 111701 awning insert into each assembly and secure using four (4) 1" Tek screws. See technical drawings. **Install screws so these will not contact cover.**
4. With assistance, attach one awning assembly to each truss support post as shown in building technical diagrams. Install all at the same height along one side of the assembled frame.



5. Next, drill a 9/16" hole through the truss chord to install the upper mounting bolt. See diagram. For best results, use upper bracket of the awning assembly as the template to mark bolt hole position, then drill hole.

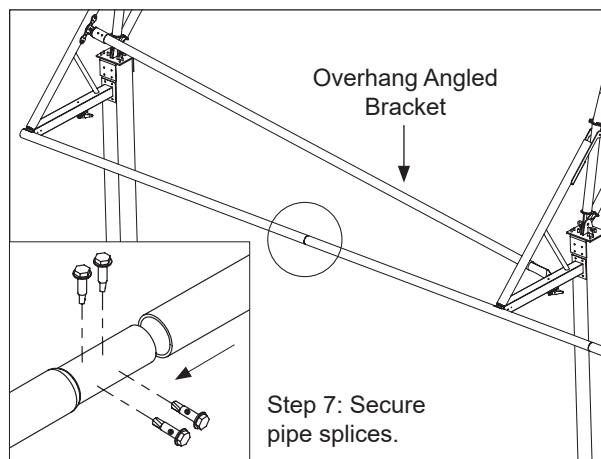


6. Install the 1/2" x 5" mounting bolt to secure top of awning assembly. Repeat for all remaining assemblies.

7. With all assemblies secured to support posts, with assistance, attach the 3.50" diameter eave tube assembly to the 111701 inserts using six (6) 1" Tek screws for each insert. **Secure each 3.5" tube splice using four (4) 1" Tek screws.**

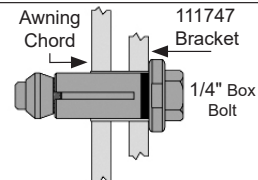
ATTENTION: Install Tek screws on backside of 3.5" pipe. Do not install in a location that contacts main cover once it is installed. See technical drawing.

8. Finally, return to each end bay and install the overhang angled brace and related brackets. **See the technical drawings for the building for all related details.**

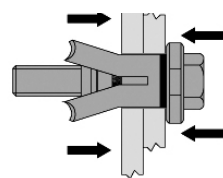


IMPORTANT: Installation of blind connection bolts (box bolts) cannot be reversed. Follow instructions when installing these fasteners.

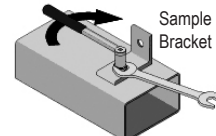
1. Drill 1/2" hole through awning chord and insert 1/4" box bolt through bracket and into hole.



2. Clamp components tightly together.



3. Hold box bolt collar with a wrench. Tighten center bolt using a wrench or socket. Exercise caution if using an impact driver and socket.



NOTE: Use the above box bolt information when attaching brackets to awning assemblies.

9. Continue by installing 2' awning opposite side for 35' 45' 54' or 65' wide buildings — page 16.

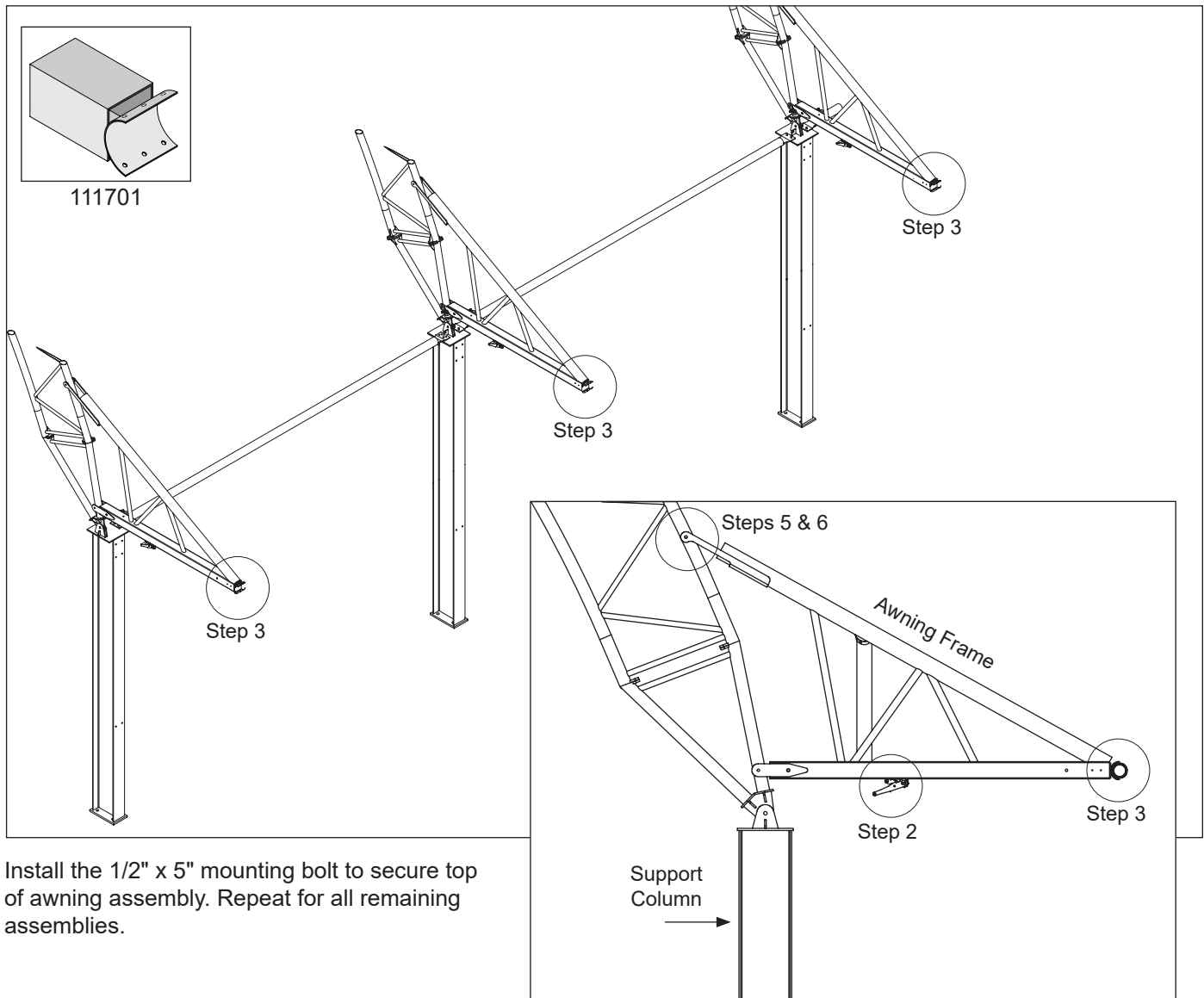
7' AWNING INSTALLATION — FEED BUNK SIDE OF BUILDING (Standard 50' Wide Mounted on I-Beams)

Review all technical diagrams sent with the building to install awning components. Use the information and assembly tips that follow to help install awning.

BOX BOLT INSTALLATION: Box bolts are used to secure the overhang angled brace bracket to awning chord. See main building technical drawing details. See diagrams next page for box bolt installation, instructions, and information.

BASIC STEPS FOR AWNING INSTALLATION

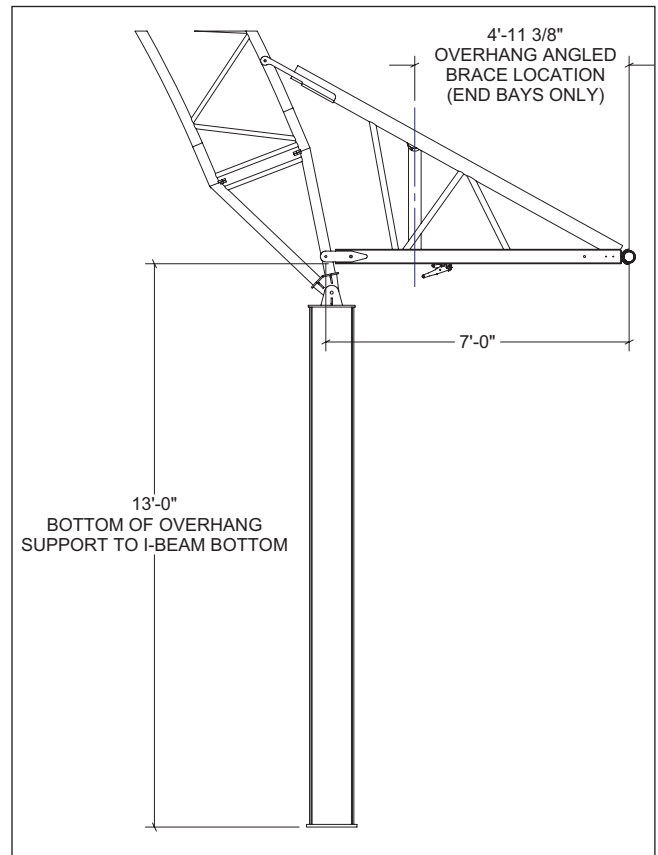
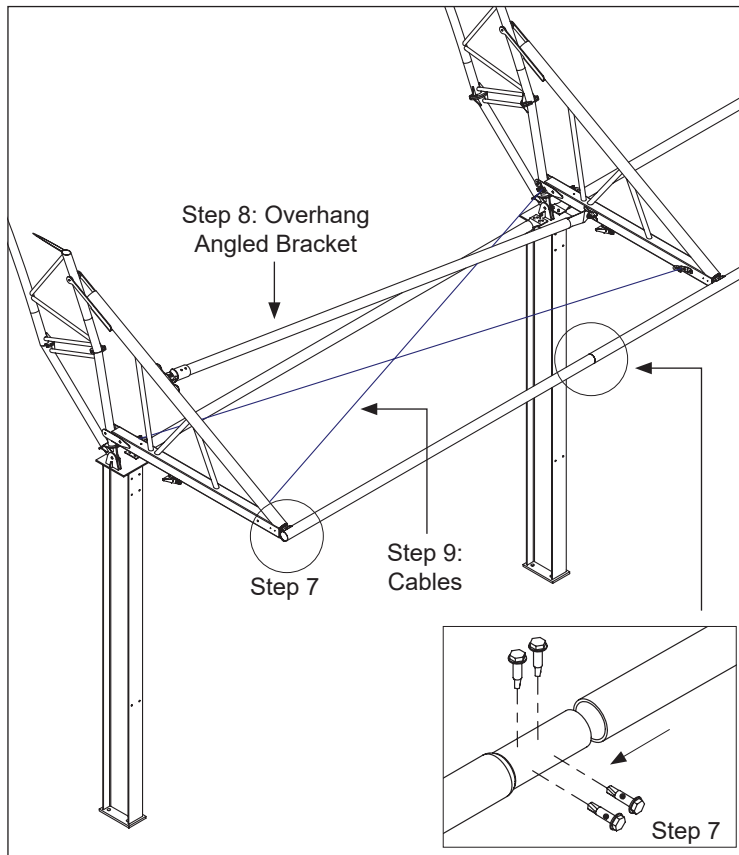
1. Review all technical drawing details that pertain to the awning components and connections.
2. Take each awning assembly (AWN0XXRDL084) and attach a QH1065 ratchet to the underside of the square tube as shown below and in technical drawings. **Letters XX in part number refer to width of frame.**
3. Slide a 111701 awning insert into each assembly and secure using four (4) 1" Tek screws. See technical drawings. *Install screws so these will not contact cover.*
4. With assistance, attach one awning assembly to each truss support post as shown in building technical diagrams. Install all at the same height along one side of the assembled frame.
5. Next, drill a 9/16" hole through the truss chord to install the upper mounting bolt. See diagram. For best results, use upper bracket of the awning assembly as template to mark bolt hole position, then drill hole.



CLEARSPAN™ BEEF MASTER™ TRUSS ASSEMBLY

7' AWNING INSTALLATION — FEED BUNK SIDE OF BUILDING (Standard 50' Wide) — continued

7. With awning frames installed, attach the 3.50" diameter eave tube assembly to the 111701 inserts using six (6) 1" Tek screws for each insert. **Secure each 3.5" tube splice using four (4) 1" Tek screws.**



ATTENTION: Install screws on backside of pipe. Do not install in a location that contacts cover once it is installed.

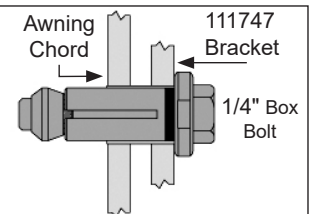
8. Return to each end bay and install the overhang angled brace and related brackets. *See the technical drawings for the building for all related details.*

NOTE: Use the box bolt information (right) when attaching brackets to awning assemblies. See table on page 4.

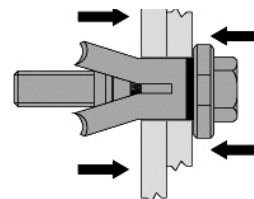
9. Finally, install cable brackets and cables in locations shown in technical documents for the building.
10. Continue by installing 2' awning frame (for the 50' wide Beef Master) along opposite side above roll-up curtain (if equipped) — next page.

IMPORTANT: Installation of blind connection bolts (box bolts) cannot be reversed. Follow instructions when installing these fasteners.

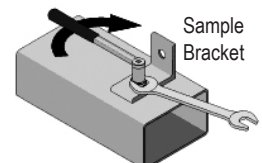
1. Drill 1/2" hole through awning chord and insert 1/4" box bolt through bracket and into hole.



2. Clamp components tightly.



3. Hold box bolt collar with a wrench. Tighten *center bolt* using a wrench or socket. Exercise caution if using an impact driver and socket.

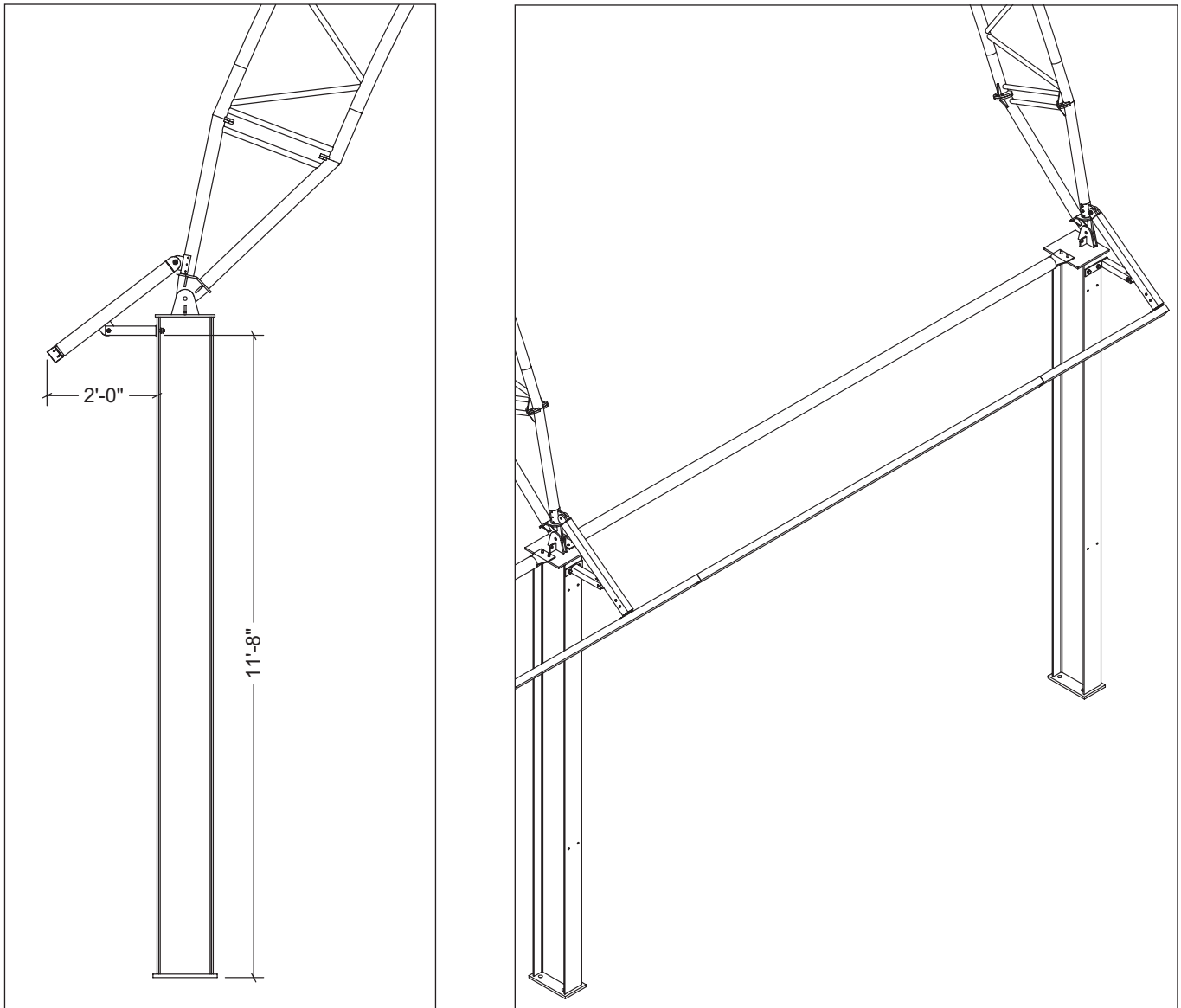


2' AWNING INSTALLATION — ROLL-UP CURTAIN SIDE (OPPOSITE FEED BUNK AWNING)

The assembly and installation of the smaller, 2' awning frame is similar to the larger awning; some parts differ. This smaller awning is typically above the roll-up curtain (if present) and opposite larger awning located on feed bunk side of frame. Construct the 2' awning according to technical drawings included with your building.

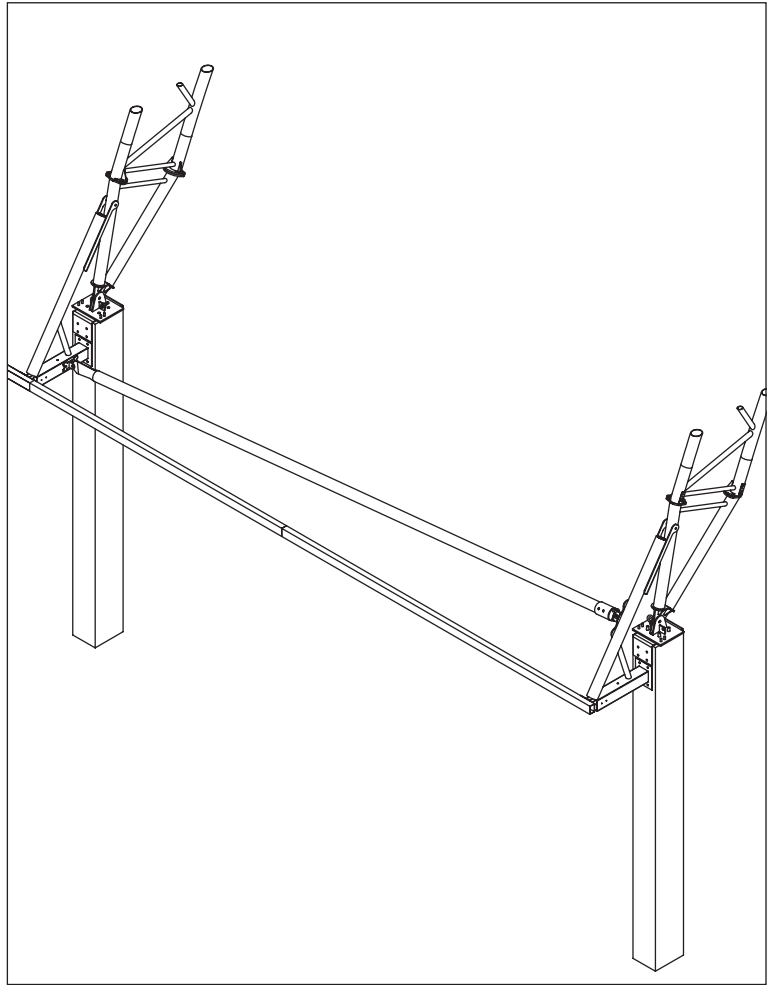
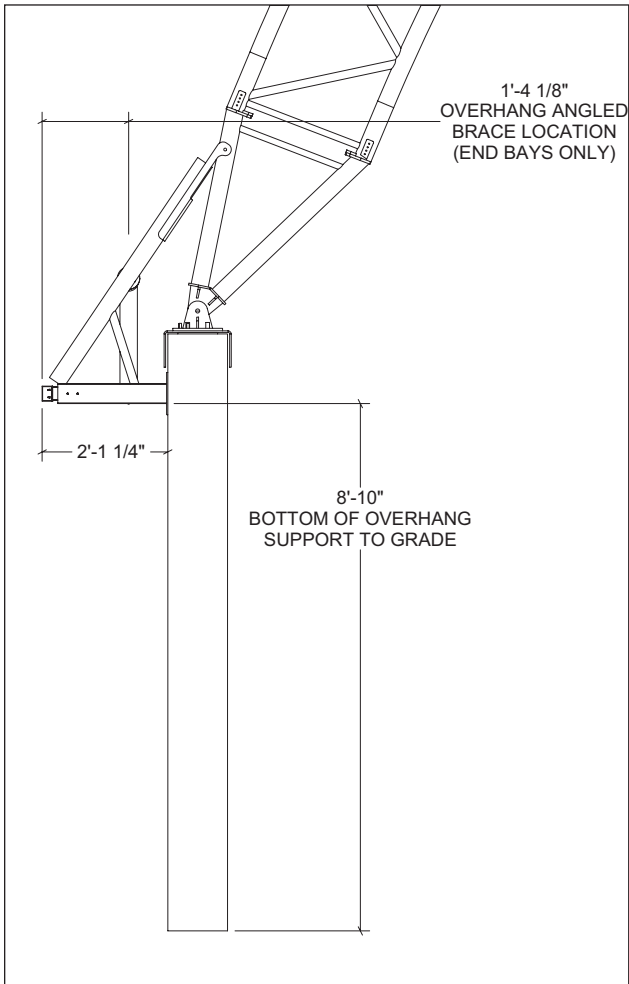
Complete these step:

1. Review all technical diagrams and call-out details sent with building to install 2' awning frame.

**2' AWNING FOR 50' WIDE BEEF MASTER BUILDING MOUNTED ON I-BEAMS**

CLEARSPAN™ BEEF MASTER™ TRUSS ASSEMBLY

2' AWNING INSTALLATION — ROLL-UP CURTAIN SIDE (OPPOSITE FEED BUNK AWNING) — continued



2' AWNING FOR 35', 45', 54', & 65' WIDE BEEF MASTER BUILDINGS

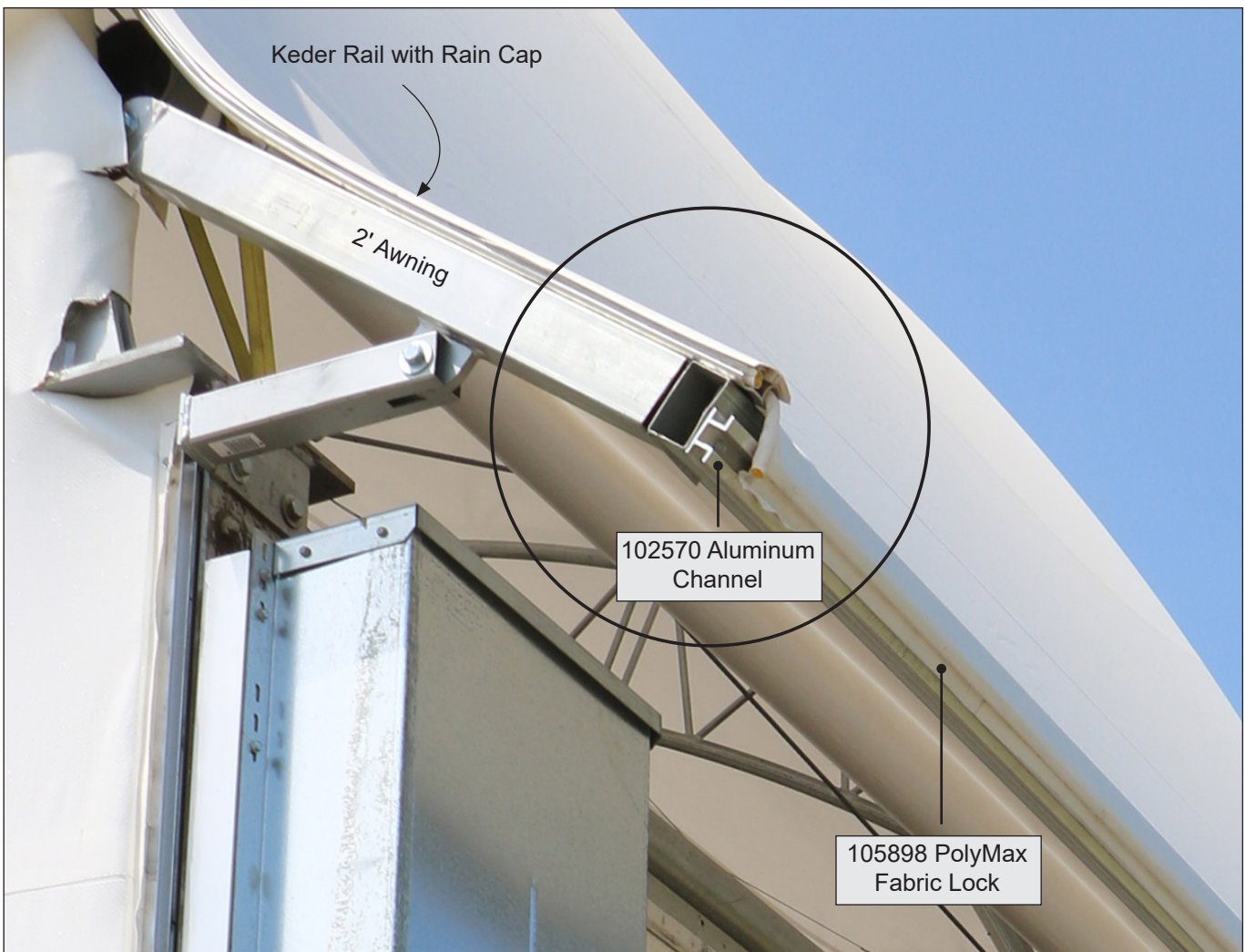
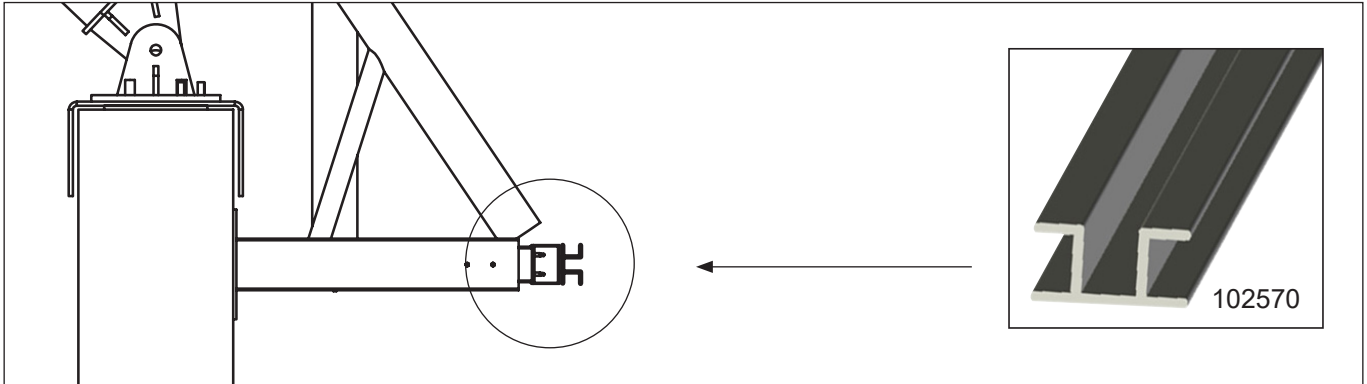
2. After awnings are constructed, continue with procedure on next page.

ATTACH POUND-IN STRIP PROFILE (102570) TO 2' AWNING FOR COVER TERMINATION

Before pulling cover (or covers), attach 102570 aluminum profile to **awning tube of the 2' awning**. Once cover is pulled, awning portion is pulled over awning frame and secured using 105898 PolyMax fabric lock (pound-in strip).

Complete these steps to install 102570 aluminum channel:

1. Hold or clamp the first section of 102570 against awning frame tubes.



2. Secure using FA4482B Tek screws spaced every 12" on-center.
3. Continue adding 8' sections of 102570 profile until you reach opposite end of awning frame. Cut the last section to length and attach using Tek screws.

CLEARSPAN™ BEEF MASTER™ TRUSS ASSEMBLY

ROLL-UP SIDE: INSTALL UPPER & LOWER 2" X 4" FRAME TUBES (if equipped)

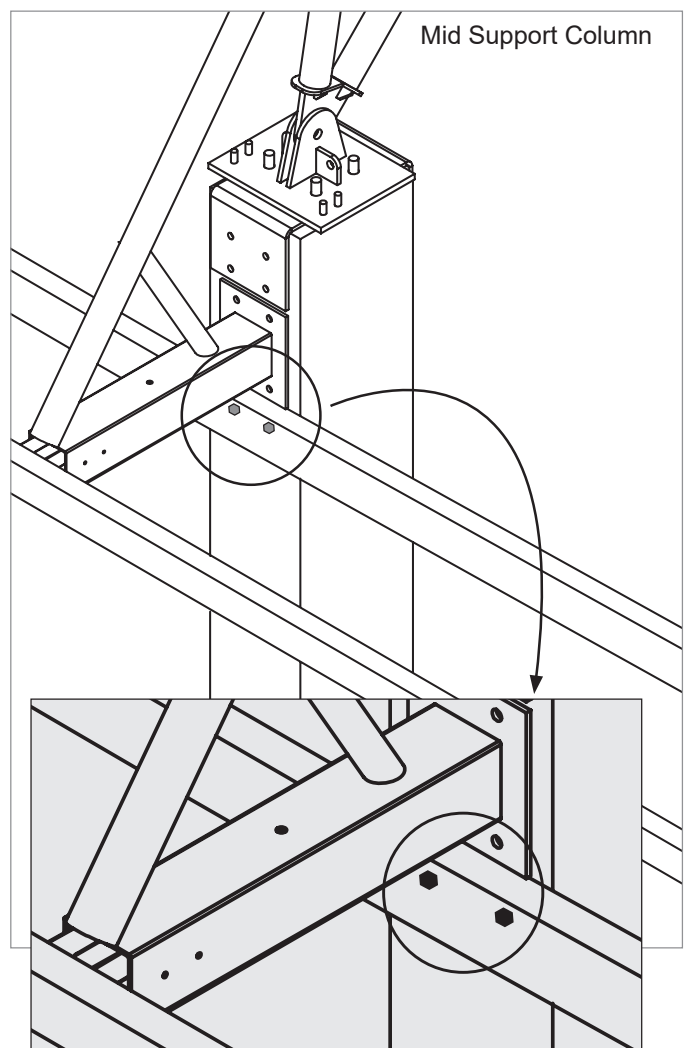
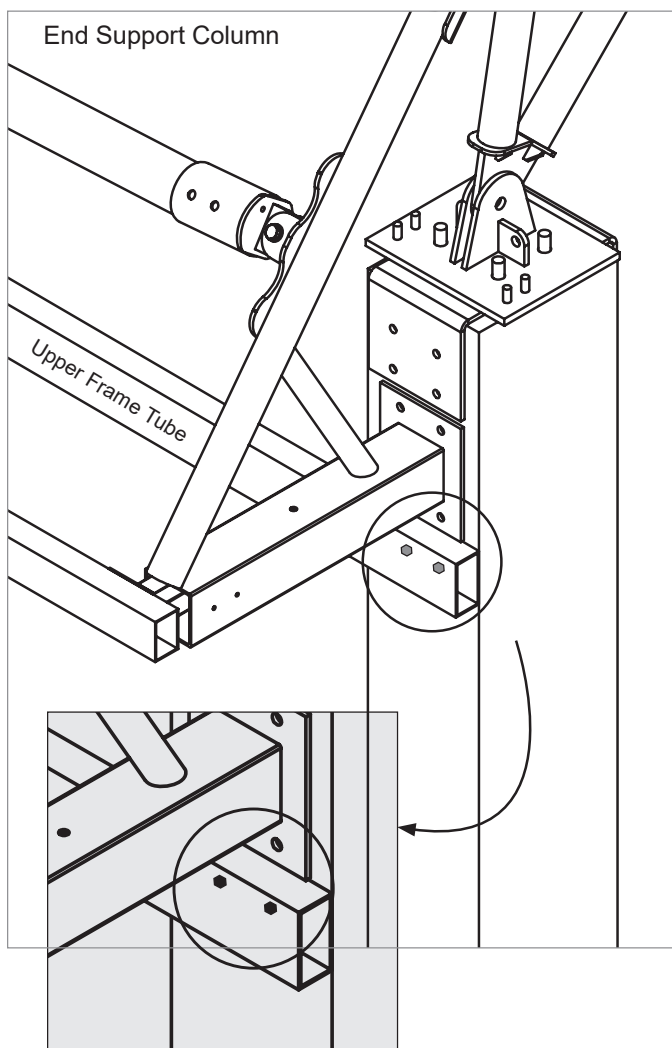
NOTE: This section applies only to those Beef Master buildings *equipped with a roll-up side panel*. If your building is without a roll-up side panel, skip to and continue with the ridge vent installation.

The assembly and installation of the roll-up side curtain frame components can occur anytime; however, it is best to install the actual roll-up curtain, anti-billow straps, and gearbox assemblies **after** main cover installation to prevent accidental damage to roll-up curtain components. Use the following information and roll-up side panel technical document diagrams and details to install those components. Complete these steps:

1. Locate the 2" x 4" rectangular tubes (R24P20100GA14) and 2" x 4" inserts (112333).
2. Connect first two (2) 2" x 4" rectangular tubes with insert using technical documents and diagrams as guides.

ATTENTION: Secure each tube splice as shown in the technical document. Position Tek screws as shown in SPLICE CONNECTION detail in tech doc. (This will be the back (or inside) surface of the tube assembly when it is attached to support posts.) Outside surface must remain clear for installation of keder rail, anti-billow strap brackets, and drive and tail door assemblies. **Do not position splice connections on a truss support post.**

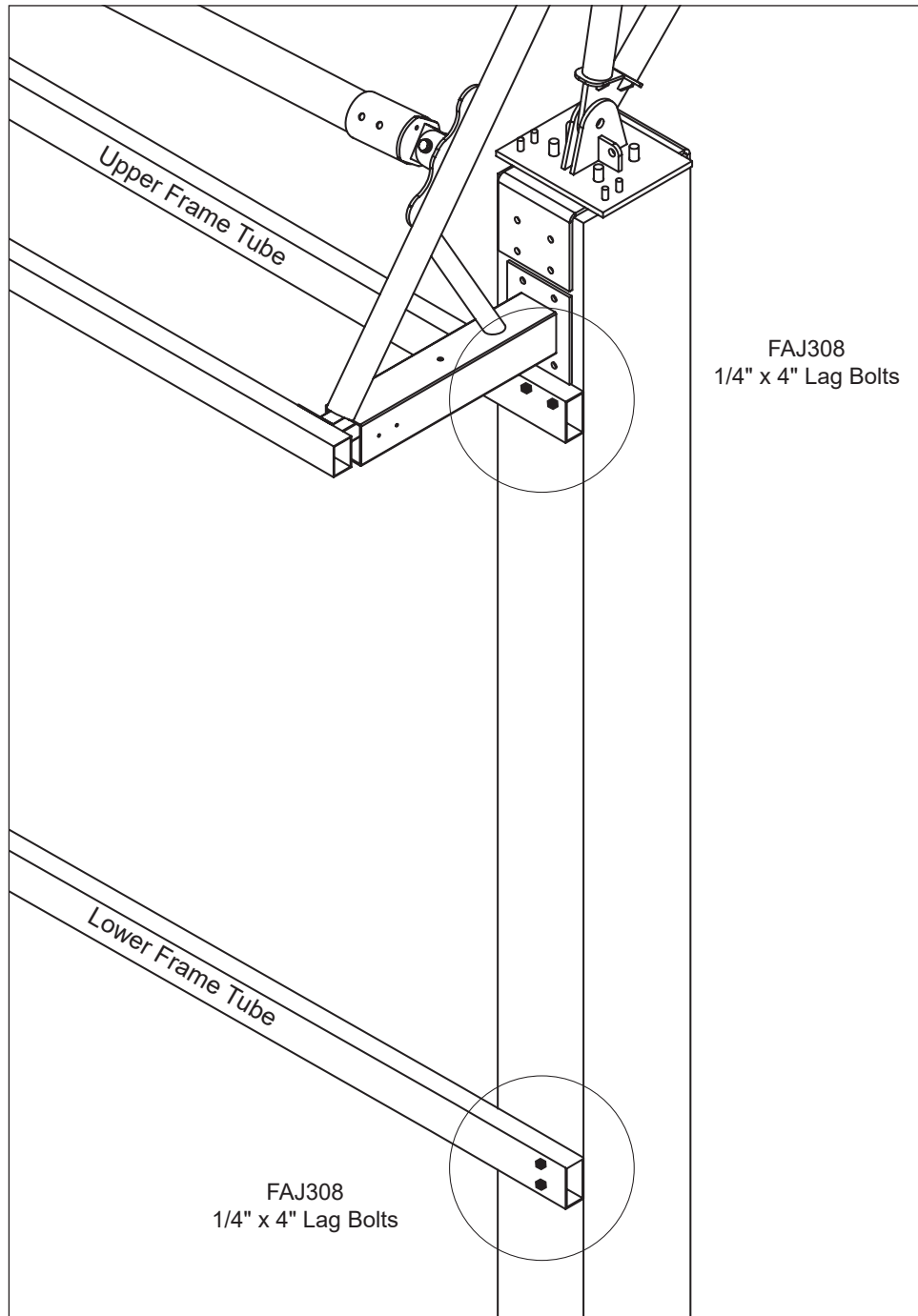
3. Carefully lift assembly into upper position against support posts and clamp or strap in place.
4. Drill two (2) 5/16" mounting holes through 2" x 4" tube at each support post. (Can also be drilled on the ground.)
5. Secure tube assembly to support posts using 1/4" x 4" lag bolts (FAJ308).



ATTENTION: Position mounting holes near top of tube and side-by-side a few inches apart to allow space for keder rails and anti-billow straps. See diagrams above.

INSTALL ROLL-UP SIDE CURTAIN FRAME — continued

6. Prepare another 112333 insert as shown in SPLICE CONNECTION detail found in technical document. Attach it to a 2" x 4" tube, lift tube assembly, and attach it to mounted 2" x 4" assembly. Secure splice as previously described.
7. Drill mounting holes in 2" x 4" tube and secure tube to support post using 1/4" x 4" lag bolts (FAJ308).
8. Repeat these steps as needed to reach end of building and to complete installation of upper frame tube. Cut the last 2" x 4" tube to length and secure to last support post.



9. Repeat to assemble and attach lower 2" x 4" side curtain frame tube. **Review technical documents for required spacing between upper and lower frame tubes. Spacing depends on curtain panel dimensions.**
10. After installing upper and lower 2" x 4" sidewall frame tubes, continue by attaching insert brackets to support post.

CLEARSPAN™ BEEF MASTER™ TRUSS ASSEMBLY

ROLL-UP SIDE: ATTACH INSERT BRACKETS TO SUPPORT POST

Review technical document details to determine position of gearbox and drive door.

SINGLE OUTPUT ROLL-UP GEARBOX: Position a single output roll-up gearbox and drive door at either end of the sidewall frame depending on preference. Install tail door at end opposite drive door and gearbox. ***Single output roll-ups are typically found on building lengths up to and including 100'.***

DOUBLE OUTPUT ROLL-UP GEARBOX: Position roll-up gearbox and drive door according to GEARBOX LOCATION (TOP VIEW) diagram included in technical documents. Install tail doors at each end of roll-up curtains as shown in diagram. ***Double output roll-up curtains are typically found on building lengths greater than 100'.***

Complete these steps:

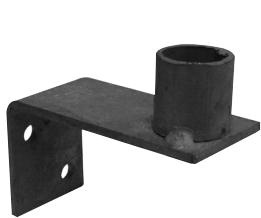
1. Locate insert brackets for roll-up gearbox and the 1/4" x 4" lag bolts (FAJ308).

Use these brackets when gearbox is mounted near the middle of sidewall. See roll-up curtain instruction manual.



109394
Top/Bottom Insert Bracket

Use these brackets when gearbox is mounted at end of sidewall. See roll-up curtain instruction manual.

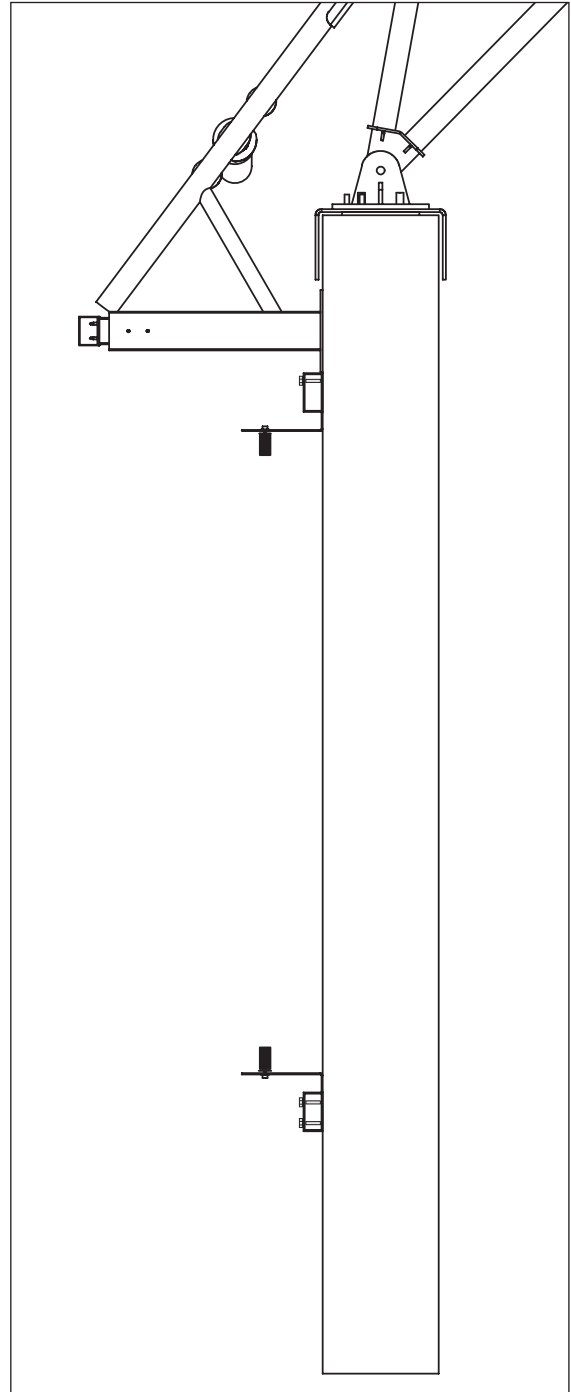


109330
Bottom Insert Bracket



109334 Bracket
with Slot

2. Use details in technical documents to attach brackets in the correct locations.
3. Continue by attaching strap brackets and keder rail to upper 2" x 4" frame tube installed earlier.



ROLL-UP SIDE: INSTALL ANTI-BILLOW STRAP BRACKETS AND KEDER RAILS (if equipped)

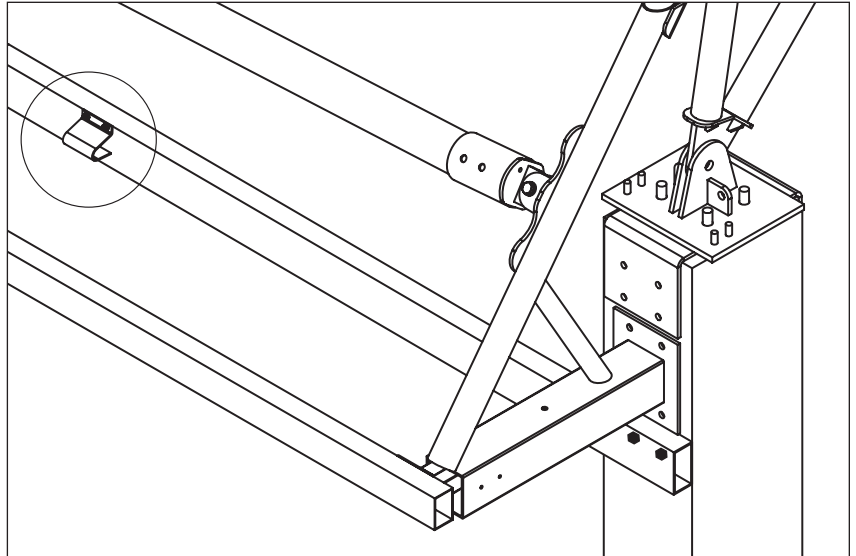
The anti-billow strap brackets and keder rail sections attach to the upper 2" x 4" frame tube installed earlier. Install the strap brackets first to help set position of keder rail on the 2" x 4" frame tube. See details below and in technical drawings included with building. Use these basic steps to attach the components shown below. Use FA4482B Tek screws to secure each component to the frame tube.

Complete these steps:

1. Measure and mark the 109332 bracket locations at 5' on-center intervals along the upper 2" x 4" frame tube for the roll-up curtain.



109332 Strap Bracket

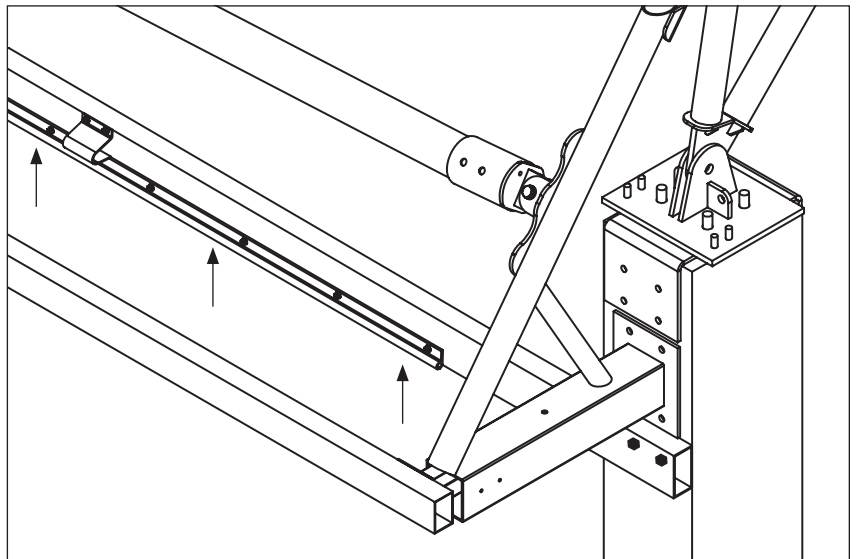


ATTENTION: Align top of bracket with top of 2" x 4" frame tube. When attaching bracket for center-mounted double-output gearboxes, adjust position of bracket so it remains outside any drive box position when it is installed.

2. After attaching all strap brackets, attach the 111984 keder rail sections to upper frame tube using FA4482B Tek screws. Use the previously installed strap brackets to set position of keder rail. See diagram below.



111984 Keder Rail



3. Continue by assembling gearbox and roller and attaching these components to insert brackets.

CLEARSPAN™ BEEF MASTER™ TRUSS ASSEMBLY

ROLL-UP SIDE: ASSEMBLE GEARBOX AND ROLLER

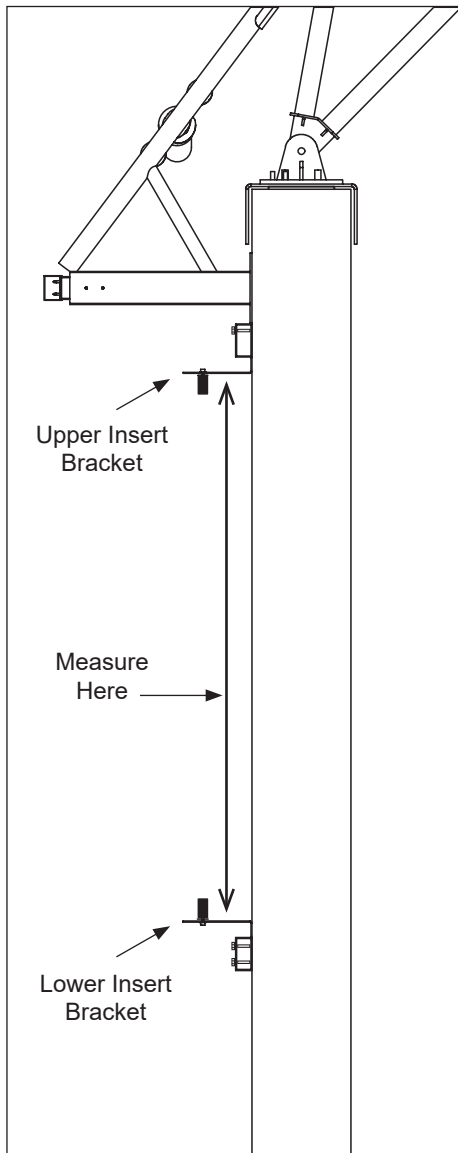
The single and double output gearbox and roller assemblies differ slightly. Review all technical documents and connection details included with the building and components for assembly diagrams.

Once parts are identified and located, follow these general steps to assemble and install gearbox and roller:

1. Assemble gearbox as shown in GEARBOX ASSEMBLY diagram (see technical documents included with building) for end mount (or center mount) curtain assembly, depending on building specifics.

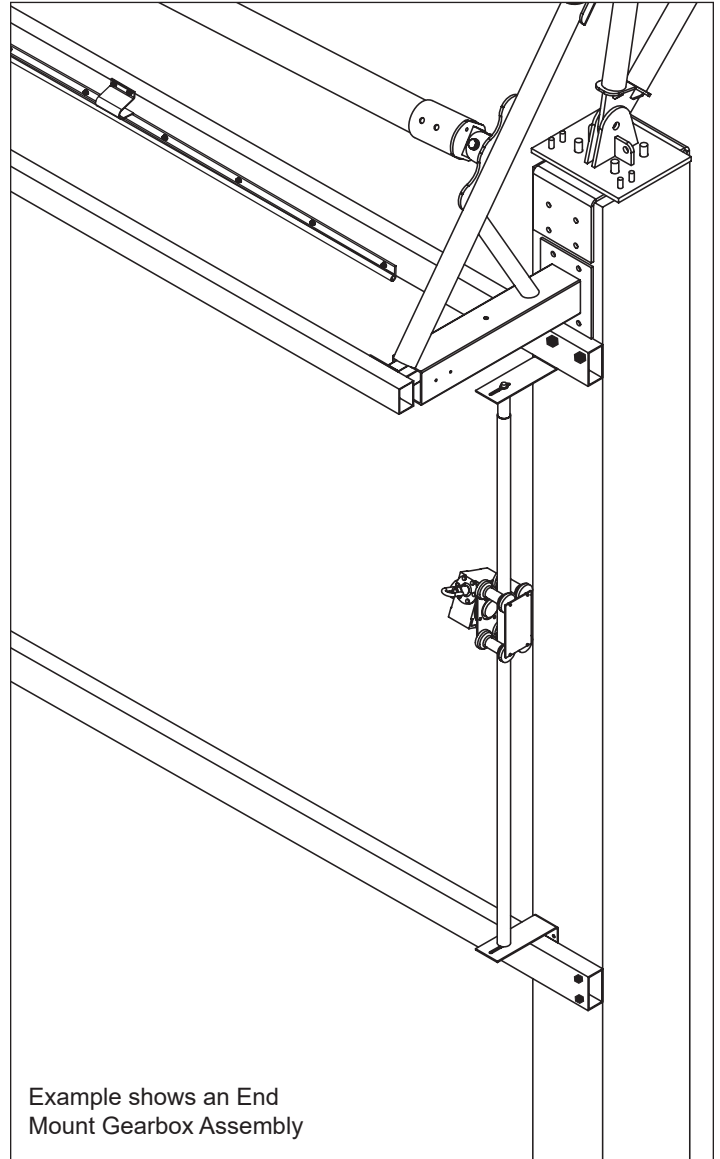
ATTENTION: For single output roll-up sides, the 111189 screws (included with components) secure roller and dust cap to gearbox.

2. Measure distance between upper and lower insert brackets attached to support post.



NOTE: Ensure lock nuts and barrel inserts of brackets are loose to allow installation of roller assembly pipe.

3. Locate the 131S075 pipe and cut it to the length determined in previous step.



4. Slide roller assembly onto pipe and attach pipe between upper and lower insert brackets. *Point gearbox output shaft toward opening that curtain panel covers when installed.* Slide barrel inserts of brackets into pipe and tighten locknuts slightly to keep vertical roller pipe in place between insert brackets. Ensure clearance remains between support post and gearbox.

ATTENTION: Review double output gearbox assembly diagrams for correct installation of those components. Adjust curtain later when it is installed.

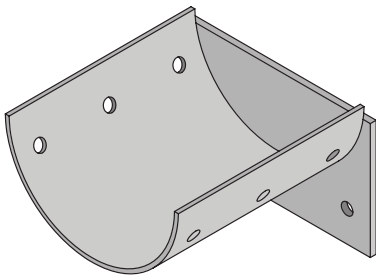
5. Continue with the procedures on next pages.

RIDGE VENT: ASSEMBLY AND INSTALLATION (if equipped)

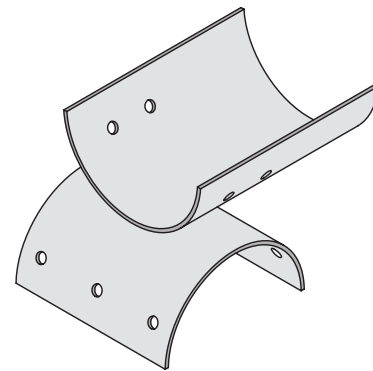
NOTE: This section applies only to those Beef Master buildings **equipped with a ridge vent**. If your building is without a ridge vent, skip to and continue with the **end frame installation**.

Ridge vent is centered at top of assembled building frame. Ridge vent frame can be assembled in sections on the ground and lifted into position if equipment is present to set it in place; or, it can be assembled and secured to the frame beginning at one end and working toward the other. Read these notes *before* you begin assembly of the ridge vent components:

- Review all technical diagrams included with the ridge vent and main building.
- Buildings with a ridge vent include keder-to-keder covers. For easier installation of these covers, some trusses must be "rolled" together. This requires loosening or removal and reinstallation of some ridge vent frame brackets. Cover installation steps are described in the **Cover Installation Guide**.
- Ridge vent brackets **at ends of ridge vent frame** and those where keder rail is attached to mid trusses will require initial installation. However, once entire ridge vent frame is in place, brackets are removed or loosened during cover installation. With this in mind, install only a few mounting screws upon initial assembly. See the following diagrams for bracket identification and location.

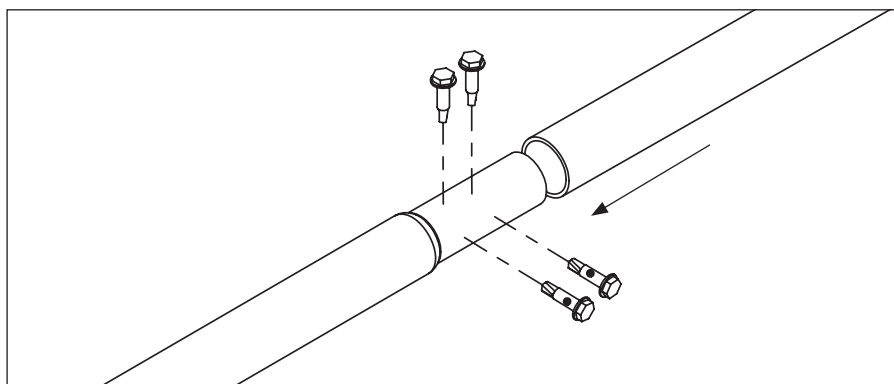


HGRCLP3500S014: Clip to secure 3.50" lateral tubes to end trusses. *May need to remove or loosen to install end bay keder-to-keder covers.*



HGRCLP3500S012: Clip to secure 3.50" lateral tubes to mid trusses. (This bracket is sometimes found on end trusses.) *For trusses with keder rail installed, do not fully attach this clip to ridge vent tubes until keder cover is installed. Secure only to truss. After cover installation, secure clip to 3.50" lateral tubes.*

- Secure all 3.50" (350S148) splices using four (4) Tek screws. These are main lateral support pipes that attach to main building trusses to support main ridge vent frame.

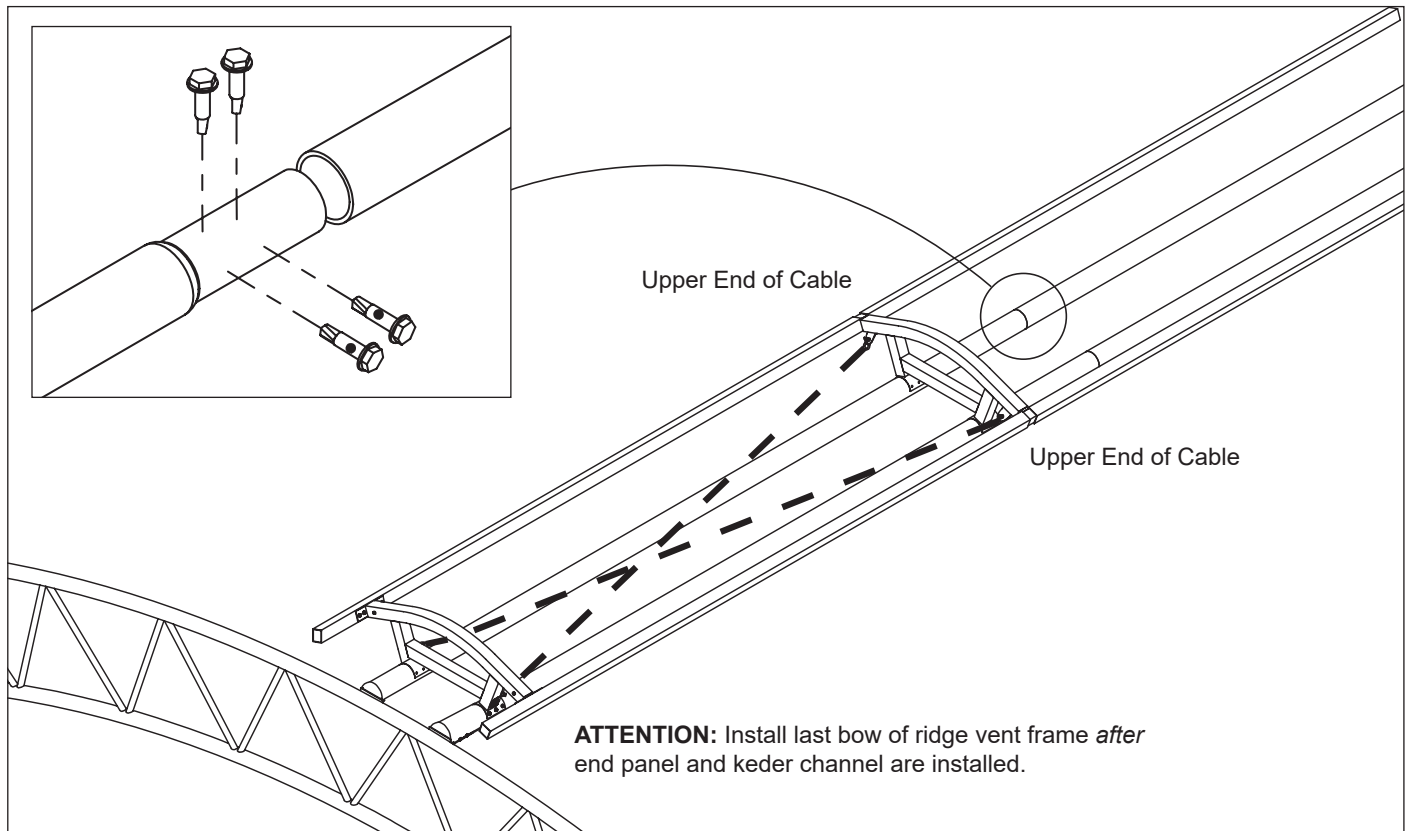


- To prevent possible damage and wear, install all Tek screws and fasteners in locations that *will not contact* the ridge vent cover (or any main cover) panel.

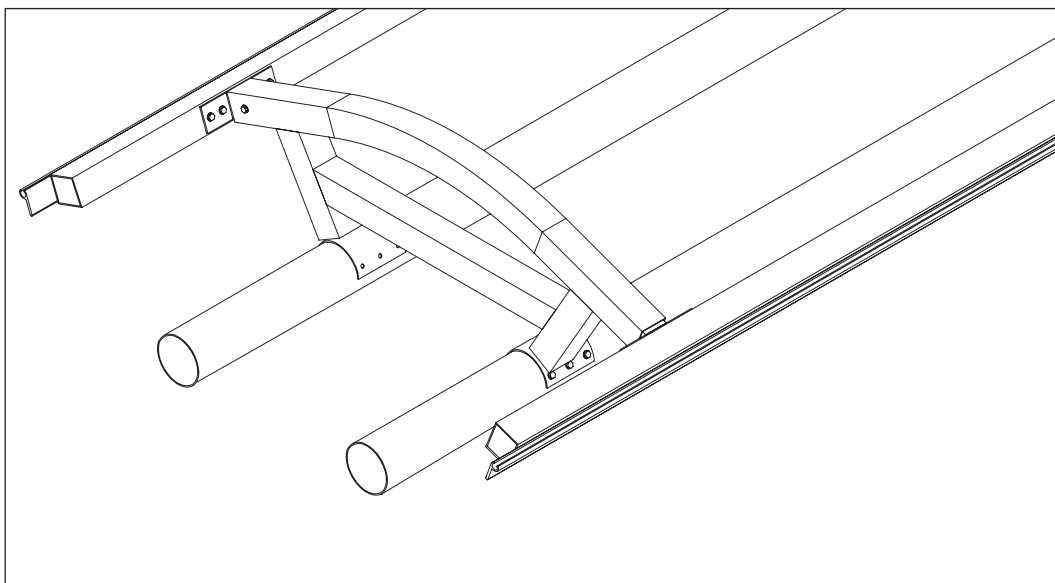
CLEARSPAN™ BEEF MASTER™ TRUSS ASSEMBLY

RIDGE VENT: ASSEMBLY AND INSTALLATION — CONTINUED

- Install cable brackets and cables. Tighten cables at *each end of ridge vent frame before installing* ridge vent cover panel. **Review ridge vent cable diagrams for additional details.**



- If possible, install end bow of ridge vent *after end panel and keder channel* are attached to each end truss. End bow can be initially installed, but will need removed to install end panel and keder channel.

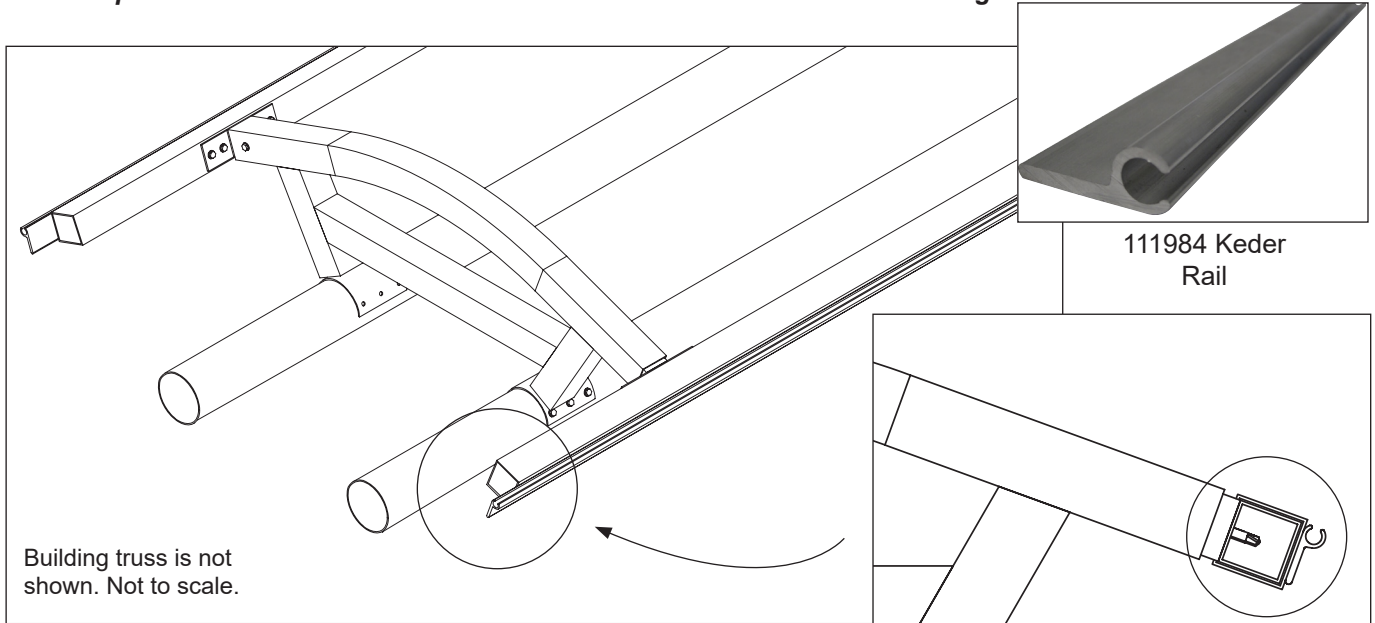


INSTALL RIDGE VENT COVER

Install ridge vent cover panel *before installing* any main building cover panels. Depending on length, ridge vent cover panel may need stretched end-to-end. Part number of ridge vent cover panel begins with these letters: **QPRC**.

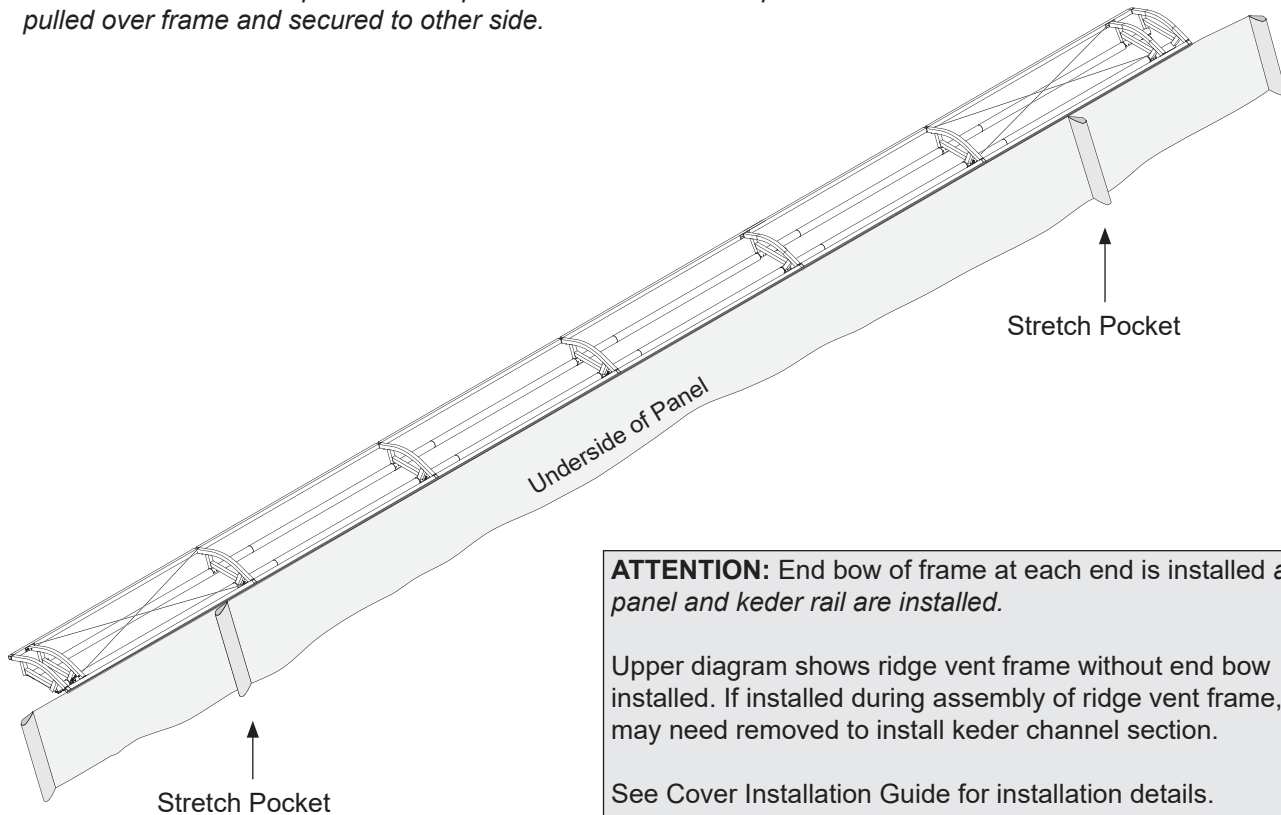
Complete steps that follow to install and stretch ridge vent cover panel over ridge vent frame.

1. Attach 111984 keder rail to one side only of assembled ridge vent frame using FA4482 Tek screws. ***Allow keder rail to extend past end of outer frame tube to account for width of end bow framing.***



2. Beginning at one end, slide ridge vent panel into keder rail attached to frame. (Lubricate rail using soap and water mixture if needed.)

ATTENTION: *Install so panel stretch pockets face down when panel is pulled over frame and secured to other side.*



ATTENTION: End bow of frame at each end is installed *after end panel and keder rail are installed.*

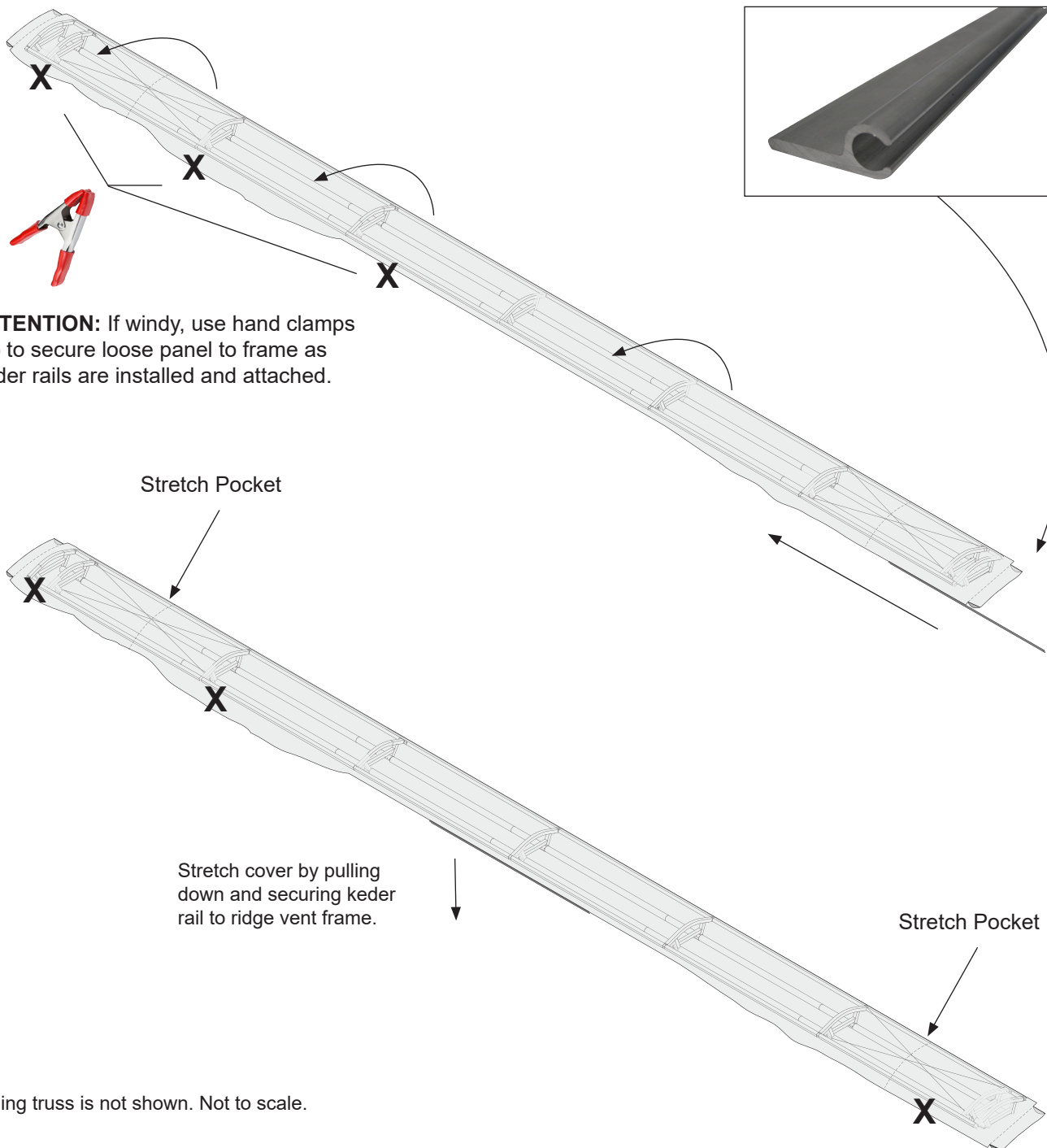
Upper diagram shows ridge vent frame without end bow installed. If installed during assembly of ridge vent frame, bow may need removed to install keder channel section.

See Cover Installation Guide for installation details.

CLEARSPAN™ BEEF MASTER™ TRUSS ASSEMBLY

INSTALL RIDGE VENT COVER — continued

- With panel secured in keder rail on one side, flip free edge over frame to the other side and slide one keder rail onto panel. Position rail at or near center of panel **depending on length of rail and overall length of ridge vent**.

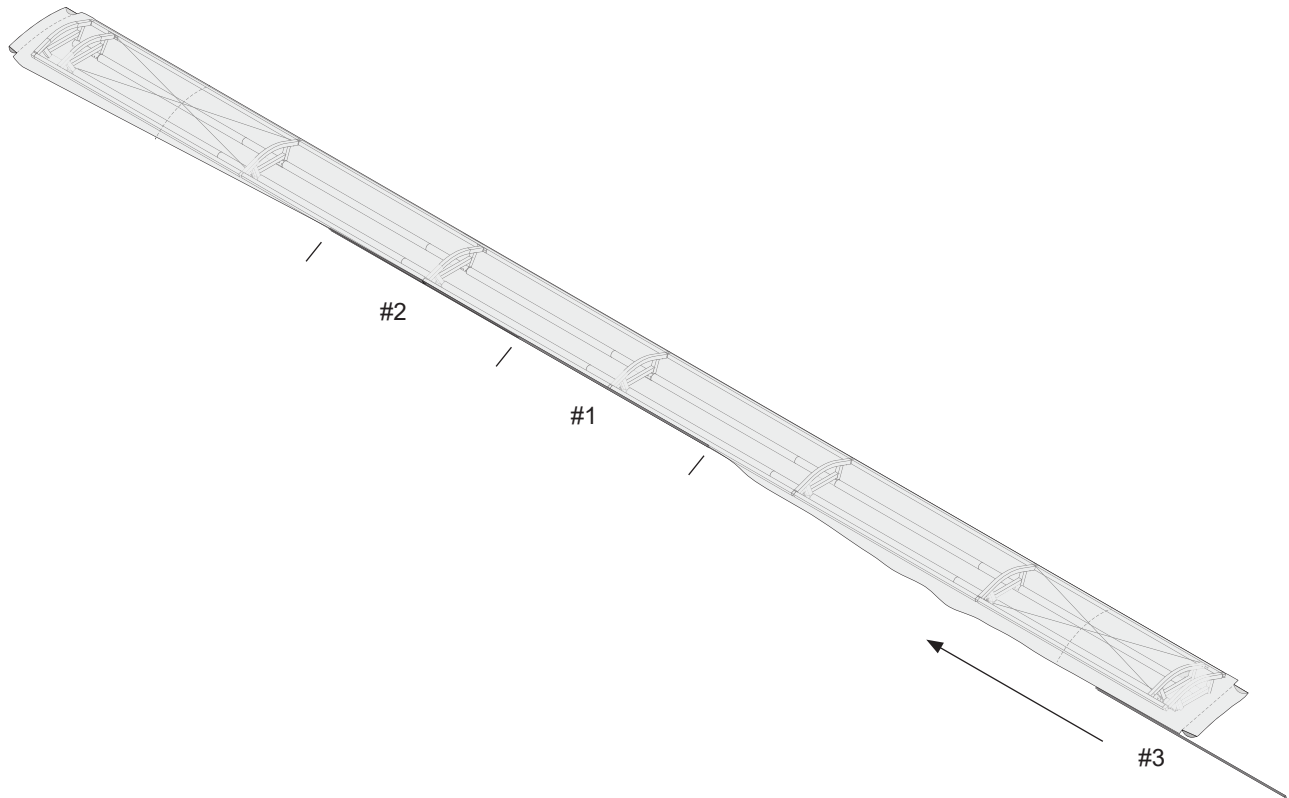


- With assistance, clamp duck-billed pliers or similar tools onto edge of keder and/or cover panel and *pull downward to stretch panel and to align keder rail with frame tube*.
- Clamp or hold keder in position and secure to ridge vent frame using FA4482 Tek screws.

ATTENTION: Ensure keder is installed level and in line with frame tube.

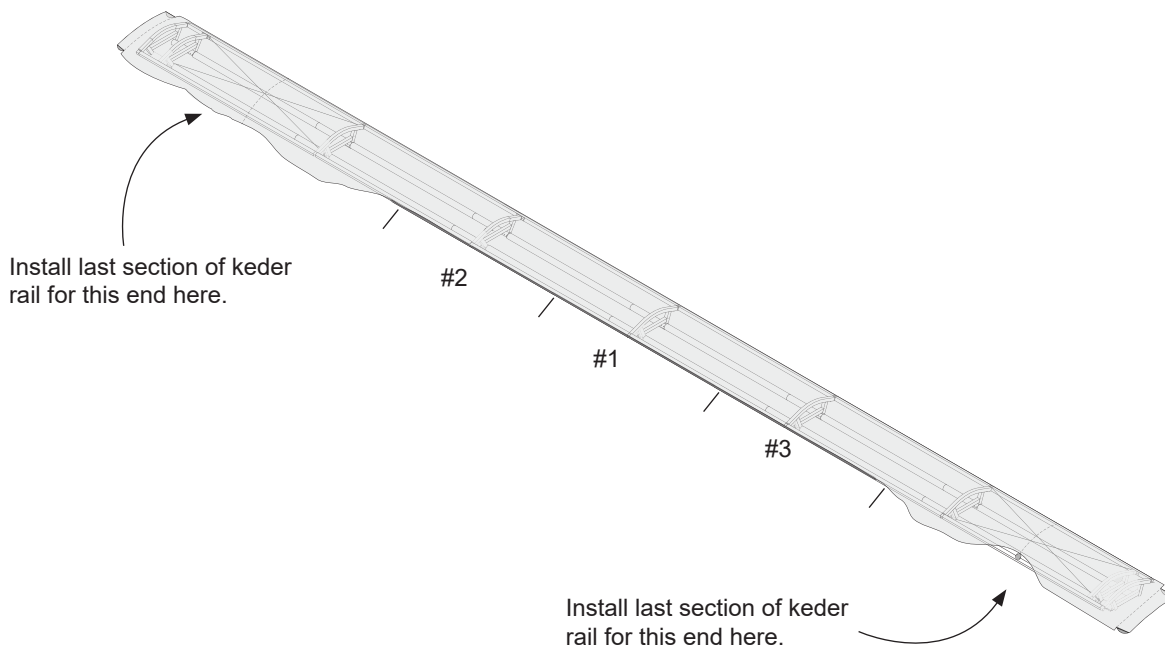
INSTALL RIDGE VENT COVER — continued

6. After installing all screws for first keder rail, slide another rail onto panel edge and up to installed keder rail. Repeat steps to secure rail to ridge vent frame.
7. Move to opposite end of panel and repeat previous step to secure that rail.



ATTENTION: For best results, alternate rail installation and work from center of panel out toward each end.

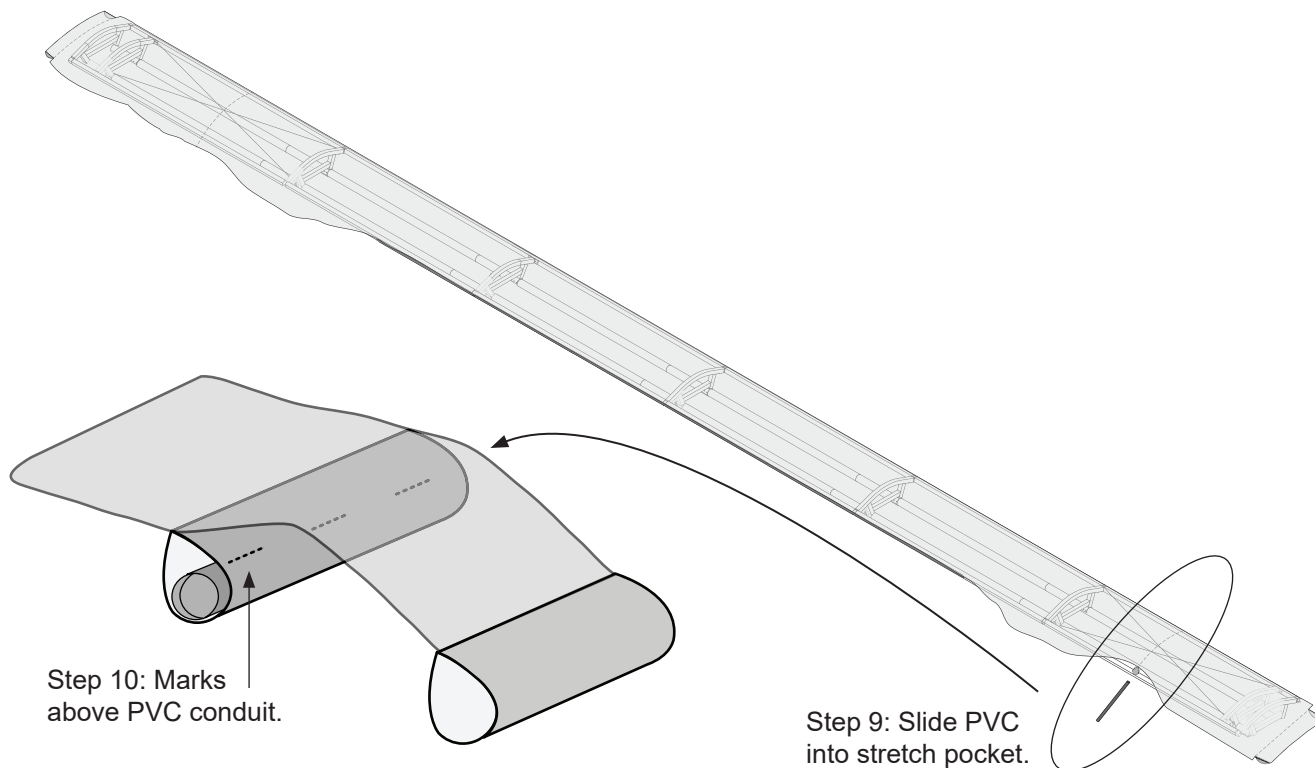
8. Continue adding keder rails until rails are within ten (or so) feet from each frame end. ***Do not install final rails until next steps are completed.***



CLEARSPAN™ BEEF MASTER™ TRUSS ASSEMBLY

INSTALL RIDGE VENT COVER — continued

9. Measure stretch pocket near end of panel and cut a small section of PVC from the 108478 conduit included with building. Insert conduit into pocket. *Conduit should not rub on ridge vent frame when installed and should remain a few inches away from keder rope seams along panel edges. Trim conduit as needed.*



ATTENTION: Ridge vents lengths up to and including 200' as shown in the example include a stretch pocket near each end; ridge vents longer than 200' will have additional stretch pockets throughout length of cover panel. **Be certain to install short sections of PVC conduit in those pockets before installing all keder rail.**

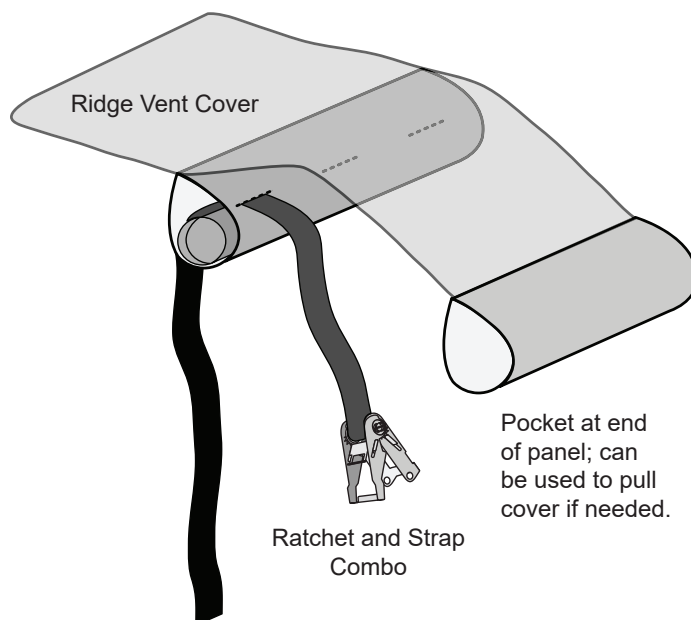
10. After inserting PVC section into stretch pocket, position PVC so it is square in the pocket and mark three (3) strap locations on pocket above PVC using marker. **Evenly space locations along PVC conduit.** See diagrams above.

NOTE: Strap and ratchet assemblies are used to stretch panel end-to-end. See diagram below.

11. Using a sharp utility knife or similar tool, cut through pocket material at each mark to gain access to conduit. *Do not cut through cover; cut only the pocket material!*
12. Take one (1) 111399 ratchet and strap combo and thread free end of strap through slot in pocket, around PVC conduit, and back out of pocket.

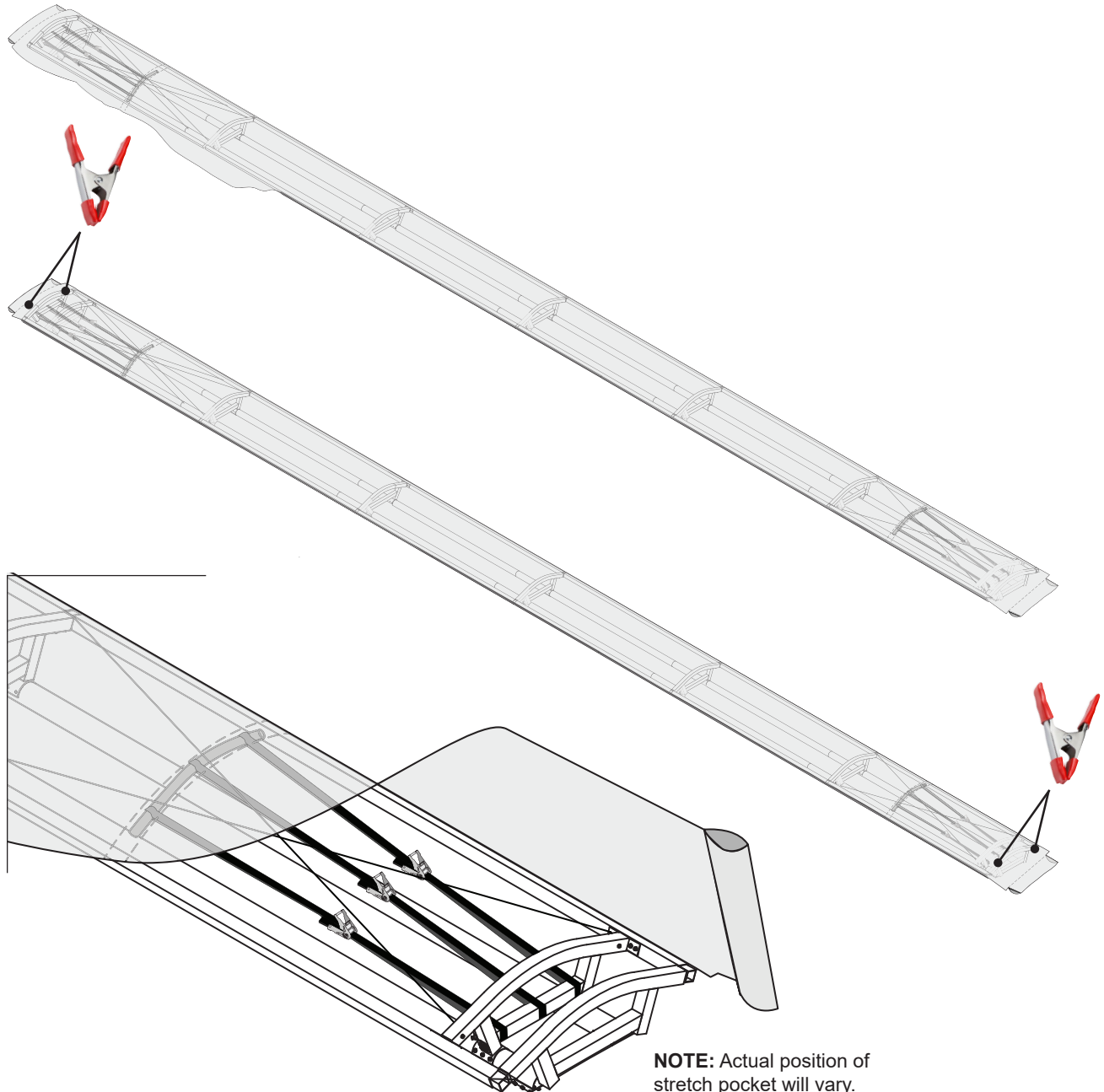
NOTE: Temporarily tie strap to ratchet to prevent it from slipping out.

13. Repeat this step for remaining two (2) ratchet and strap combos.



INSTALL RIDGE VENT COVER — continued

14. Take last section of keder rail for this first end and install it as previously described.
15. Repeat Steps 9 –14 at opposite end of ridge vent to install ratchet and strap combos and final section of keder rail.



16. With all keder rails installed and the panel secured to ridge vent main frame, return to each end and thread ratchet straps around lower ridge vent tube of peak ridge cap as shown in diagrams above.
17. Check position of panel and tighten ratchets to stretch panel end-to-end. Conduit pocket at each end should remain equal distance from frame member when panel is center. Loosen and retighten straps as needed. Trim straps or tie to frame tubes. Straps should be snug. **Do not over-tighten.**
18. Continue with end frame installation if equipped. If Beef Master is without end frames and end panels, continue with main cover installation. **Consult the Cover Installation Guide.**

ATTENTION: Termination of ridge vent cover end occurs after end panel installation. **Until that occurs, clamp panel end to ridge vent frame to prevent damage to panel. If end panel is already installed, view Cover Installation Guide to secure ridge vent panel at each end.**

CLEARSPAN™ BEEF MASTER™ TRUSS ASSEMBLY

END WALL FRAMES INSTALLATION (if equipped)

NOTE: This section applies only to Beef Master buildings equipped with an end wall frame and end panel. If your building is without an end wall frame and end panel, continue with the installation of main cover or covers. Consult **Cover Installation Guide** included with building to install main covers and ridge vent cover.

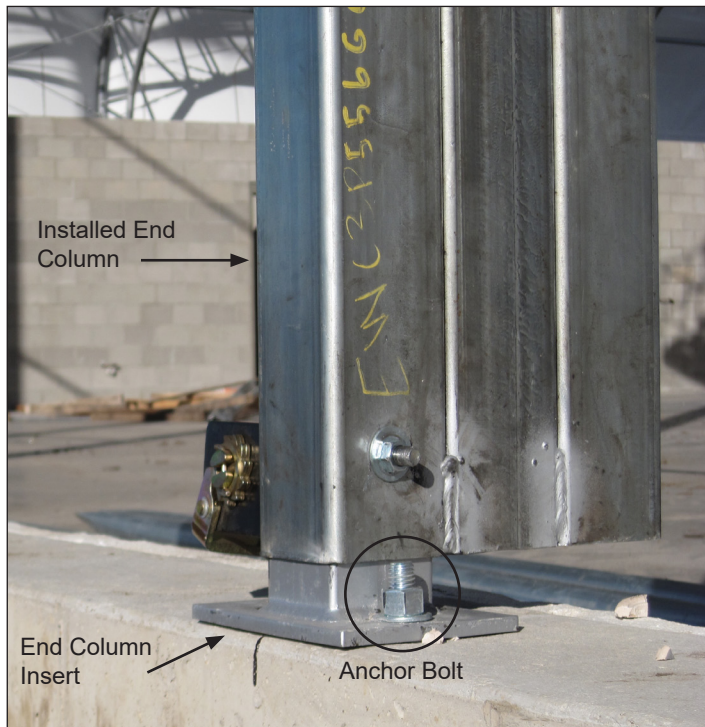
ATTENTION: Consult technical drawings for your truss building for end frame connection and component details. Use the following information for general assembly only. Actual component locations and connections may differ. Follow all dimensions as noted in technical documents for the building.

INSTALL END FRAMING – General Steps

The following procedure describes basic steps to install end framing of a typical truss building.

1. Locate end frame components and review details regarding end frame as presented in building drawings.
2. Determine column positions on concrete piers/foundation and install anchors for end column inserts.

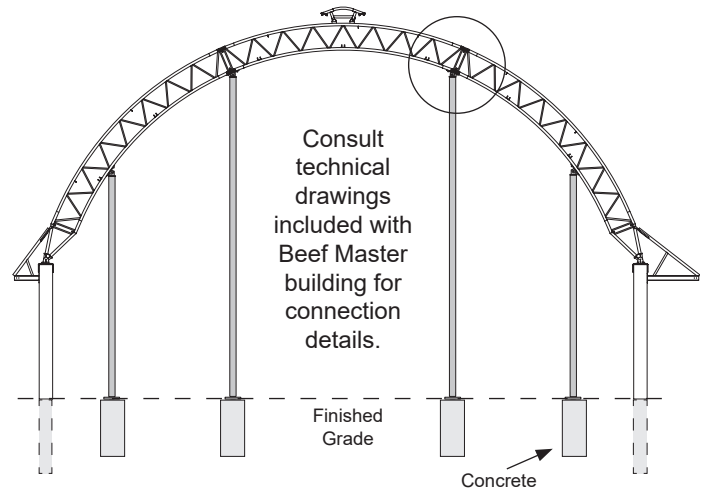
NOTE: Consult services of a professional contractor familiar with the construction of similar structures for additional information regarding the installation of anchor bolts in concrete.



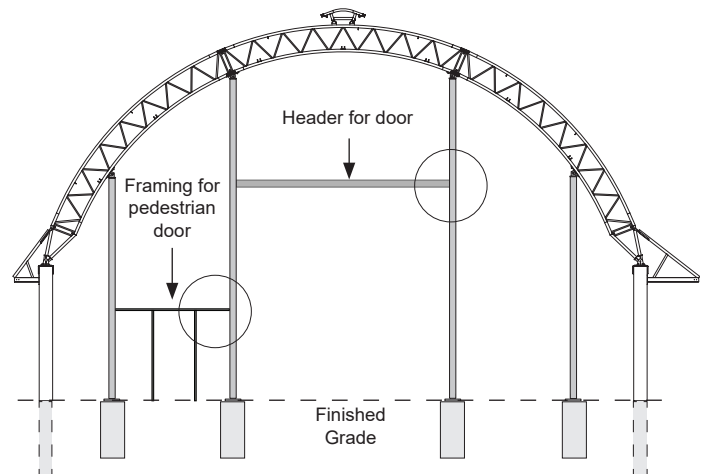
3. With anchors installed, attach column inserts to the concrete foundation.

NOTE: Actual end column and insert may differ. Consult main building technical drawings for details.

4. Install all vertical columns as shown in technical drawings. Slide column onto anchored insert, plumb column, and secure top to truss as shown in the building technical drawings.



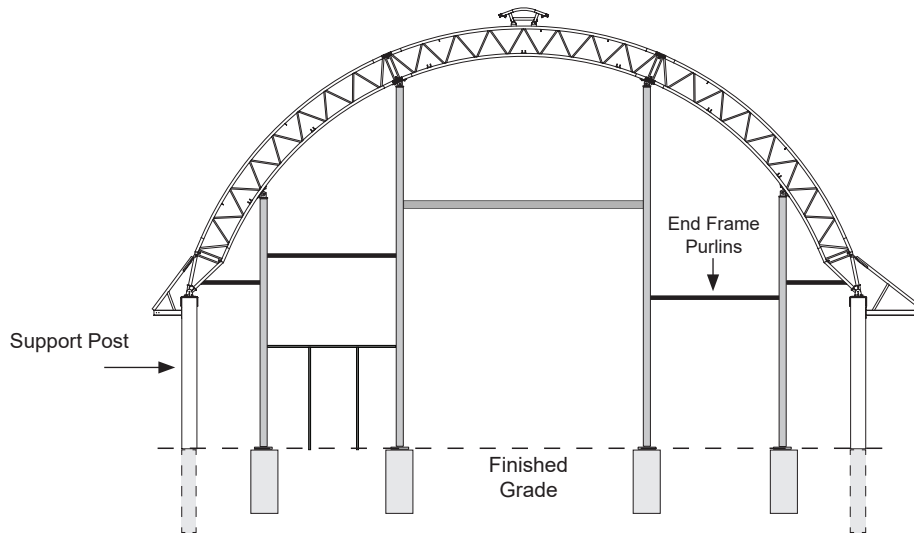
5. After all vertical columns are installed, verify dimensions and install header(s) for overhead and pedestrian doors according to drawings.



ATTENTION: Actual column connections and locations may differ. For connection details, consult technical drawings for the main building.

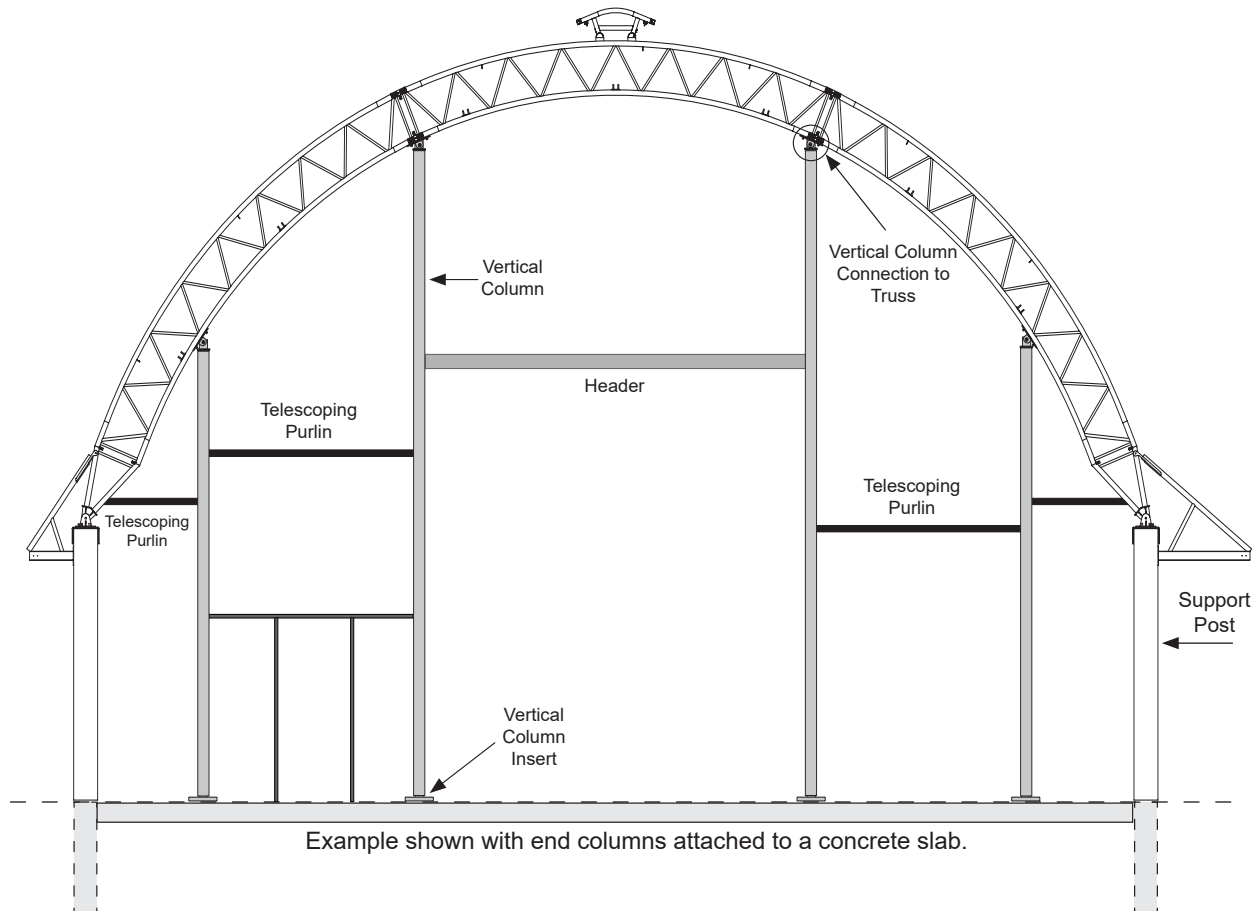
END FRAMING DIAGRAM – CONTINUED

6. After attaching headers, install all telescoping purlins (if equipped) between vertical columns. Consult end wall technical drawings of building for location and connection details.



SAMPLE END FRAME DIAGRAM

Diagram below shows a typical end wall for a Beef Master building. Components are labeled. Consult actual end wall final drawings for connection and other details important to the assembly of end frame.



7. Continue with installation of end panels (End Panel Installation Guide), main covers, roll-up curtains (Cover Installation Guide), and doors (instructions included with doors) as equipped. See additional documents included with shipment.