



ClearSpan™ Econoline Truss Building



Actual truss design and length may differ from what is shown. This guide outlines the basic truss assembly sequence. Always consult the final drawings and all documentation included with the truss building.

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

118242 (70'W x 28'H x 80'L)
117743 (70'W x 28'H x 100'L)
118243 (70'W x 28'H x 120'L)

Revision date: 02.05.24 Econoline_Truss_Building



READ THIS DOCUMENT BEFORE YOU BEGIN

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

If you have any questions before or during assembly, contact your project manager.

SAFETY PRECAUTIONS

- Wear eye and head protection.
- Wear gloves when handling truss-building 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 the help of a qualified contractor.

SAFETY AND ASSEMBLY NOTICE

THE ASSEMBLY OF A CLEARSPAN TRUSS-BUILDING SYSTEM 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.

PRE-ASSEMBLY PROCEDURE

The following general series of steps will help plan the erection of the truss-building system:

1. Verify that all parts are included in the shipment. Notify Customer Service for questions or concerns.
ATTENTION: Inspect the 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.
3. Read these instructions, the final drawings, and all additional documentation included with the shipment **before** you begin.
4. Gather the tools, bracing, lifts, ladders, and required personnel. See sample tool and equipment list below.
5. Check the weather **before** you begin and plan accordingly.
6. Read the warranty information and complete the documentation as instructed.

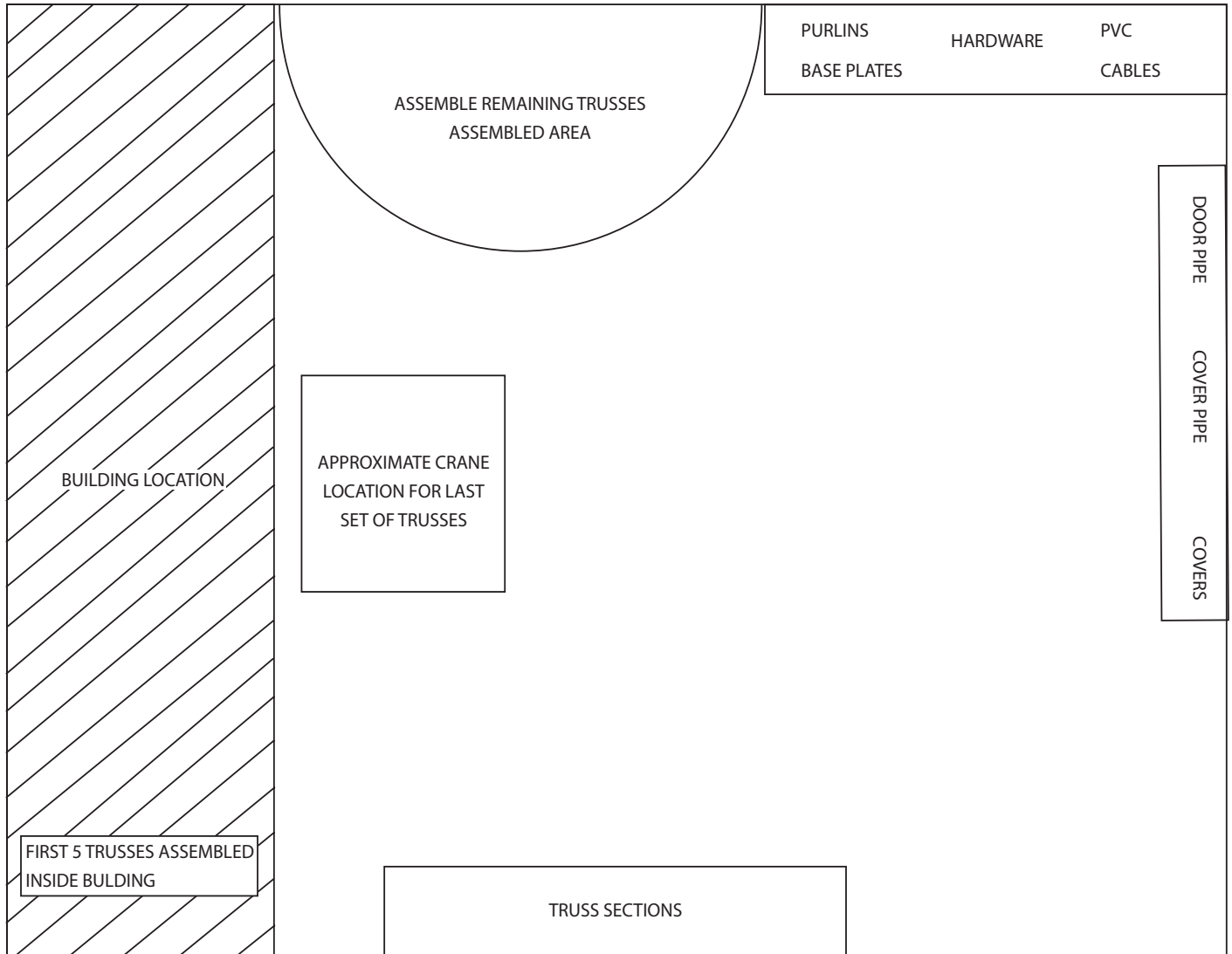
REQUIRED TOOLS

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, variable speed drill and impact driver (cordless with extra batteries works best).
- Metal file or angle grinder, reciprocating saw with blades for metal, metric wrenches, metric impact socket set, scissors or utility knife, hammers, and work gloves.
- Rough-terrain 6,000 lb telescoping fork truck
- 26', 33', or 40' rough-terrain scissors lifts
- Hammer drill (anchor bolt installation).

SAMPLE LAYOUT DIAGRAM SHOWING POSITIONS OF UNLOADED TRUSS BUILDING COMPONENTS

The diagram below shows one way to position the components of the truss shipment 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 the 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 and end panels, from the elements. Set on pallets off the ground and cover with plastic film or place in a building for use when needed.
- Do not position components and truss segments in the staging area or any place where a forklift must pass or be positioned for the assembly of truss-building components.

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 must be followed to ensure the proper assembly of a truss-building system. 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 system and *will void the warranty and all protection the building owner is entitled to.*

Complete these steps in the order they are presented. Consult the procedures later in this guide for additional details pertaining to the general steps listed below.

1. Verify that foundation is square and prepared for base plate installation.
2. Install anchor bolts and base plates.
3. Assemble trusses on the ground and stage for lifting into position.
4. Set the first end truss and brace it in place.
5. Set the next truss and install all lateral bracing (purlins) and structural cables between the installed end truss and the second truss.
6. Tighten structural cables between the first two trusses to plumb them.
7. Continue setting assembled trusses and installing bracing until all trusses are set. See details in the procedure that follows.
8. Set end wall columns, install headers, and install end wall purlins.

9. Install end panel. Lace and tighten all ropes
10. Install all main covers. Lace and tighten all ropes.
11. Install sway cables and tighten to plumb the upper chord of the truss.
12. Install all doors (if applicable).

IMPORTANT: CABLE INSTALLATION AND TIGHTENING

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

Sway cables are typically installed between the upper and lower chords of trusses between a pair of trusses. Install and tighten these cables *after you install and tighten* the main cover(s).

EXCEPTIONS: 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 or after the installation of the main cover.

Consult Truss Cover Installation guide and building drawings to determine which cover types your building includes.

Parts List



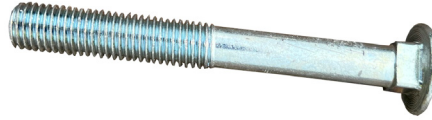
9/16" x 1-15/16" Bolt, Lock Washer, Washer (2), and Hex Nut (#23)



13/32" x 3-17/32" Bolt and Serrated Lock Nut (#25)



15/32" x 1-3/16" Bolt, Washer (2), Lock Washer, and Hex Nut (#23A)



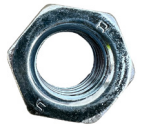
13/32" x 3-17/32" Carriage Bolt and Serrated Lock Nut (#25A)



15/32" x 4-11/32" Carriage Bolt, Washer, and Serrated Lock Nut (#24)



13/32" x 1-3/16" Bolt and Hex Nut (#33)



Plug



Rope



Mid-Bay Ratchet



2" Strapping



Base Plate Ratchet



1" Ratchet and Strap



Cable Clamp



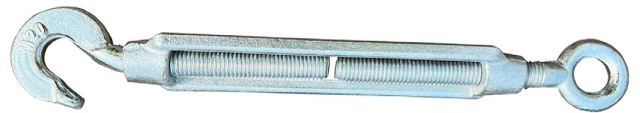
Cable



Cable Plate



Band Clamp/



Hook and Eye Turnbuckle



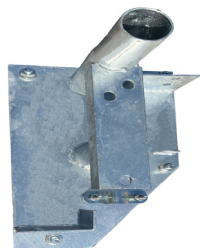
Door Wrench



Anchor Pin



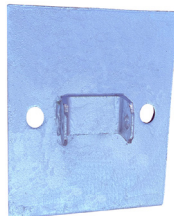
Wedge Anchor



Corner Base Plate



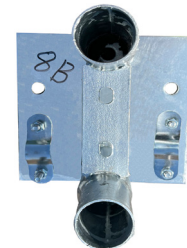
Mid-Base Plate



Mid-Cover Plate



End Wall Base Plate For Door



Mid-End Wall Base Plate

Anchoring of Shelter

Improper anchoring may cause shelter instability and ultimate structural failure and will void the manufacturer's warranty.

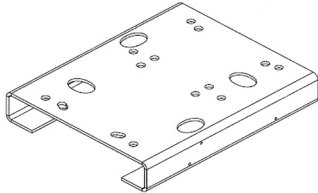
- In sandy soil conditions, concrete must be used to secure anchor.
- Because of varying soil conditions, it is recommended that a local building consultant review your site plan.

Note: If a shelter is constructed on bare ground, grass, gravel, asphalt, sand, or other fill material that can have characteristic changes because of rain, sun, or snow, please support base or feet of shelter by setting on solid substrate such as treated wood or concrete to assist in the prevention of shelter base or feet sinking into material that shelter is constructed on.

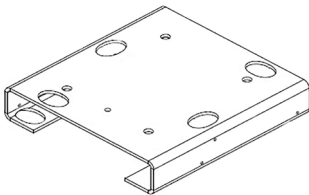
DRIVEN TUBE ANCHOR KIT (SOLD SEPARATELY)

1. Layout foundation plates on grade for building placement.

FOUNDATION PLATES

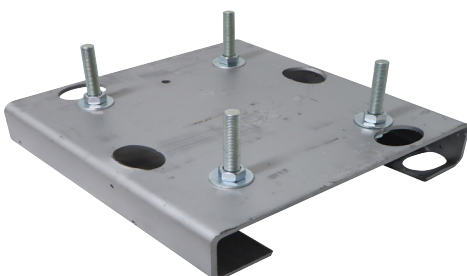


118143 - Corner Anchor Plate



118145- Middle and End Wall Anchor Plates

2. Pre-drill holes in the ground for easier installation of 1.90" pipes.
3. Fully thread each 3/4" x 6" stud into the foundation plate.
4. Secure using a washer and nut for each. Tighten all nuts.



*Actual design will vary

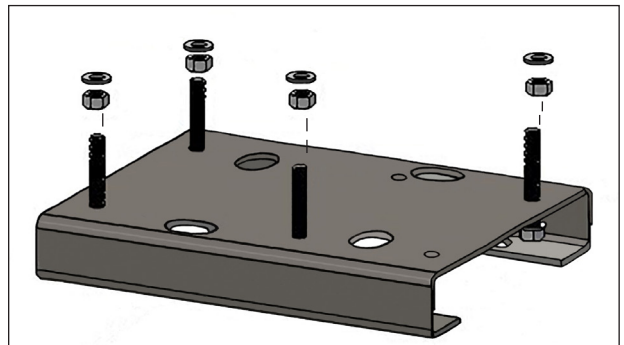
5. Drive 1.90" pipes through guide holes in the foundation plate and into the ground.

Note: For best results, alternate between the 1.90" pipes when driving them.

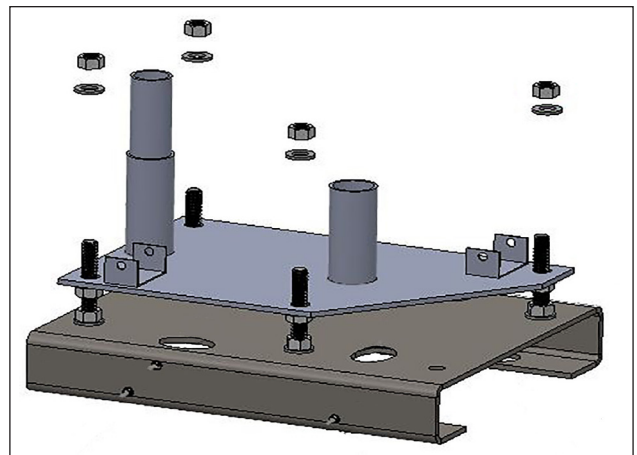
6. After driving all pipes, install a tek screw through the foundation plate and into each 1.90 pipe.



7. Place another washer and nut on each stud, then install the base/endwall plate.



8. Add another washer and nut to each stud to secure the base/end wall plate.



9. Use the nuts to level the base/endwall plate. Tighten the nuts to secure the plates.

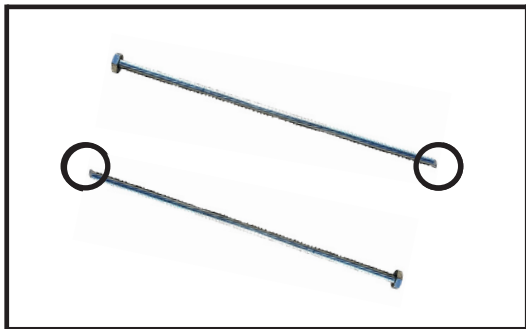
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DRIVING STAKE PEGS (USE FOR BASE PLATE 7B FOR CONNECTING ROOF COVERS ONLY)

1. Layout the big base plates for connecting roof covers at 40', 50', or 60' on center depending on length of building.
2. Pre-drill the holes at an angle for easier installation and to remove chances of the base plate "walking" or moving as the stake peg is hammered in.



NOTE: For best results, each stake peg should be splayed out.



3. Using a short handled sledge hammer, pound the first stake peg in at an angle.



4. Repeat the steps for the remaining holes on the base.

NOTE: The big base plate should be held down (as shown above) when both pre-drilling and hammering the stake peg in.

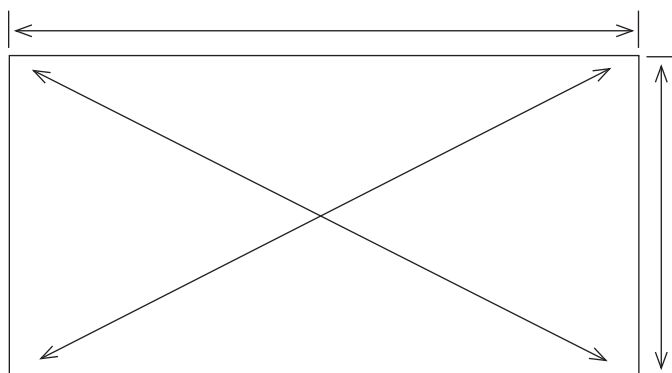
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CONCRETE FOUNDATION

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 the truss assembly steps.

Engineered Foundations

1. Check the foundation against the engineer's final drawings to ensure the actual dimensions match those shown on the drawing. Contact the engineer of record if the dimensions exceed acceptable tolerances.
2. Check the foundation for square by measuring from corner-to-corner and comparing the dimensions.



Sample Foundation

3. Verify foundation is level and capable of supporting the truss building.
4. Address all other concerns by contacting the engineer who designed the foundation and the contractor who constructed the foundation.

SETTING ANCHOR BOLTS

After foundation has passed inspection, set anchor bolts for base plates. In some instances, these bolts may have been installed during foundation construction. Consult the following information for typical anchor bolt installation.

- If wedge anchors for base plates were installed during foundation construction, use the final truss drawings to confirm base plate and anchor bolt locations. If issues are found, contact foundation contractor and foundation engineer for resolution.

⚠ ATTENTION: Do not set *base plates and trusses* until anchor issues are resolved.

- For engineered truss foundations, consult the final drawings and install wedge anchors according to those instructions.

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 final building drawings to check the foundation dimensions.
2. Verify foundation is square.
3. Consult final truss building drawings to determine minimum requirements for the foundation.

NOTE: If foundation does not appear adequate to support building, resolve all issues and concerns before setting trusses. Contact a qualified contractor to discuss any issues that are identified.

INSTALL BASE PLATES

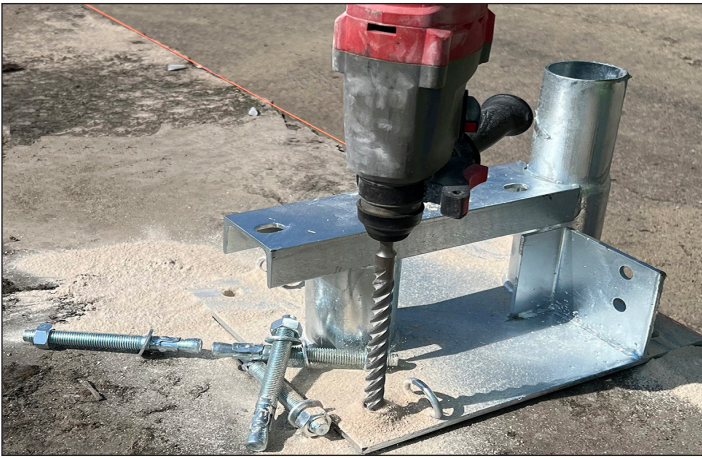
When wedge anchors are installed during foundation construction, base plates are usually placed over the bolts and secured using washers and nuts as described in the final building or foundation drawings.

In many instances, wedge anchors and base plates can be installed simultaneously. Here are those steps:

1. After foundation is inspected and approved, consult building diagrams to determine base plate placement. Mark the center line of each plate position on the foundation.
2. Mark the center of each plate and set the first end truss base plate in position.
3. Align center marks, square plate on foundation, and mark anchor bolt holes using base as a template.
4. Drill anchor bolt holes to required depth using the appropriate drill bit for anchor bolts.

NOTE: Drill 1/2" deeper than the minimum depth of embedment or will penetrate.

5. Slide a washer and thread the nut to the end of the wedge anchor so that there are three to five threads above the top of the nut.
6. Clean hole using a wire brush, air hose or vacuum.
7. Place the wedge anchor in the hole, ped end first.
8. Drive the anchor into the concrete using a hammer until six threads are either embedded into the concrete or beneath the base plate.
9. Hand tighten the nuts.
10. Repeat procedure to install remaining base plates.
11. Tighten all anchor bolts to the proper torque value for the diameter of the wedge anchor according to instructions.



STEP 4: Drill wedge anchor bolt holes.



STEP 6: Clean out the hole.



WEDGE ANCHOR



STEP 7: Install wedge anchors.



STEP 8: Hammer wedge anchors into holes.



STEP 10: Hand tighten all nuts.

Assembling Cables

Please note there are three (3) lengths of cable for the buildings. Structural and side wall cabling are the same length. Sway cables will be the next longer length. **The cable for the roll up doors - the longest cable - will not be included in these instructions as they do not use turnbuckles.**

1. Gather four (4) cable clamps, one (1) hook and eye turnbuckle, and one (1) cable.
2. Loosen the the nuts on the cable clamps and slide them onto the cable.



3. Slip the eye side of the hook and eye turnbuckle 1' down on one end of the cable.

4. Bend the cable around the eye and push the cable clamps back up the cable leaving at least 6" in between each cable clamp and 2" after the second cable clamp. Do not push the top cable clamp too close to the eye.



5. Tighten these cable clamps.
6. Continue with remaining cables.
7. Leave the cable assemblies unfinished on the opposite end.

Assembling 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 setting some in the process. The steps below describe the basic truss assembly process.

1. Identify different truss segments that are needed to assemble one truss.
2. Locate the 9/16" x 1-15/16" bolt (part #23), flat washers, lock washer, and hex nut hardware.
3. Assemble trusses according to drawings on the next page.
4. Slide trusses together firmly so the bolt holes line up.



5. Slip the bolt and one (1) flat washer through each hole. Slide the other flat washer and the lock washer onto the bolt before finishing with the hex nut.

NOTE: Always point the bolt to the ground in case the nut and washers fall off.

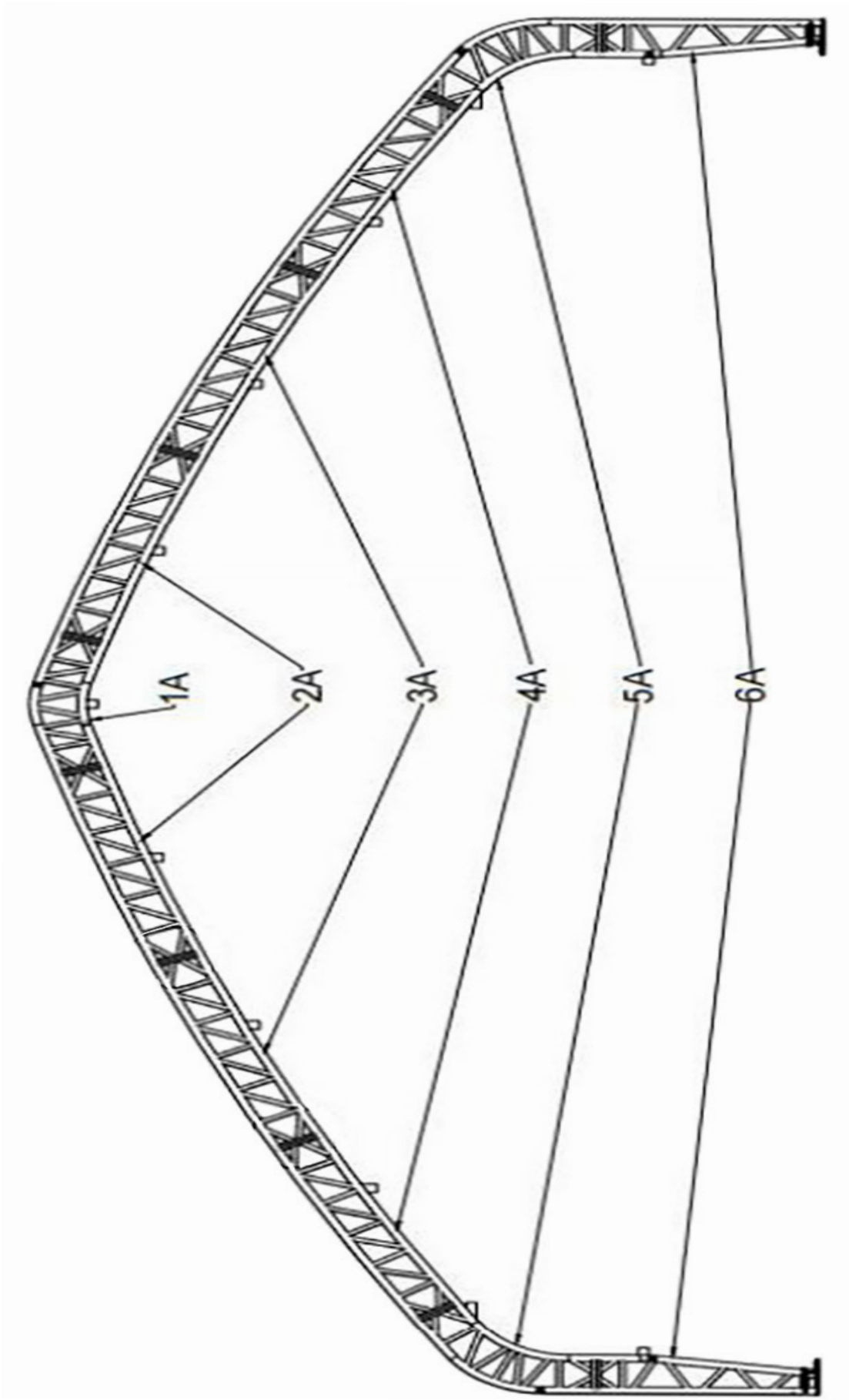


6. Tighten all fasteners.

NOTE: 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."



7. Continue by setting trusses.



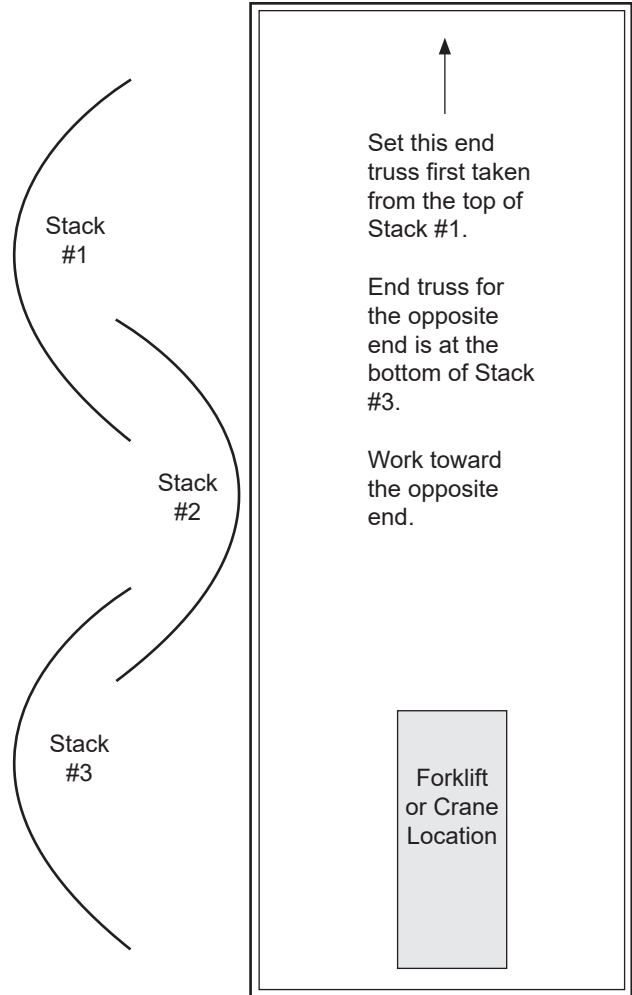
NOTE: Assemble trusses in a stack using blocks to separate them. One end truss must be set in place first during frame assembly. ***If trusses differ, do not bury end trusses in the stacks. Take time to plan the truss assembly process.***

EXAMPLE OF TRUSSES STAGED FOR LIFTING

Sample foundation with 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.



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



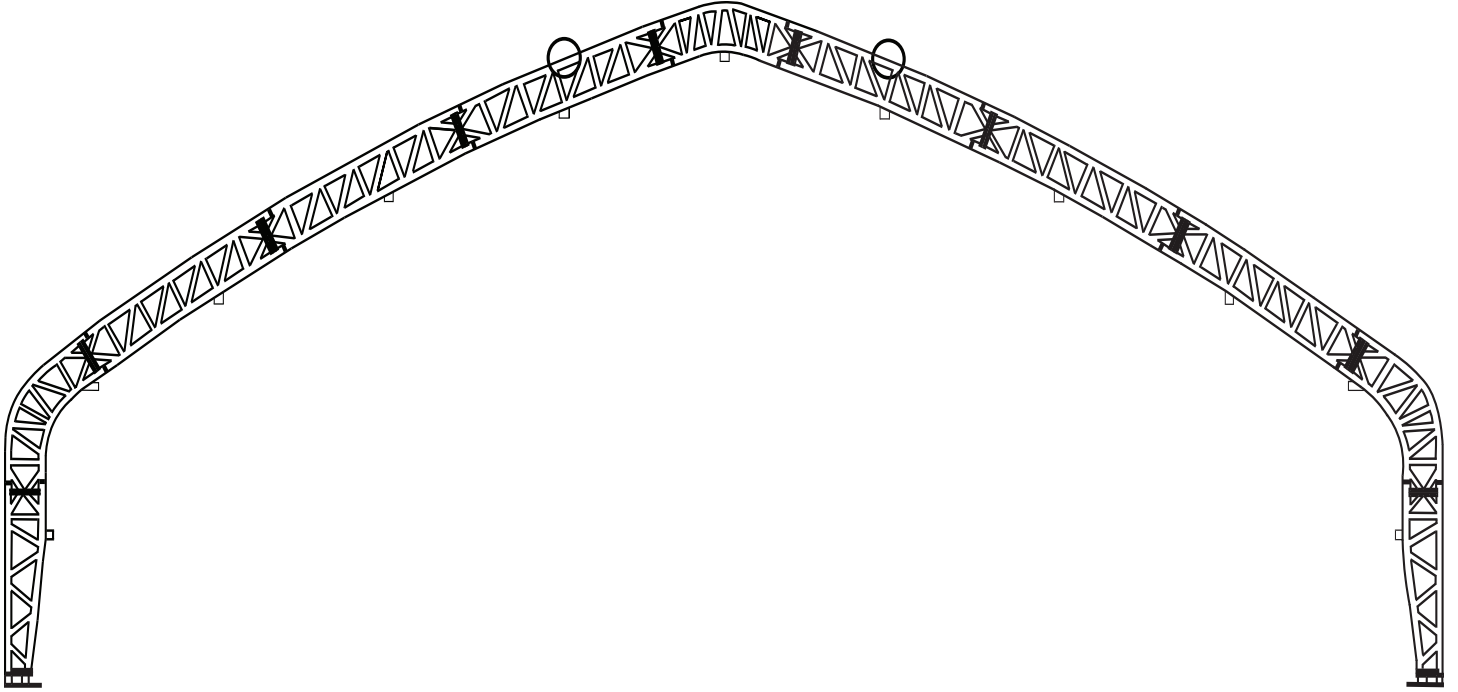
Assembled and Stacked Trusses

Move forklift or crane as needed to set trusses.

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HOW TO LIFT THE ASSEMBLED TRUSS

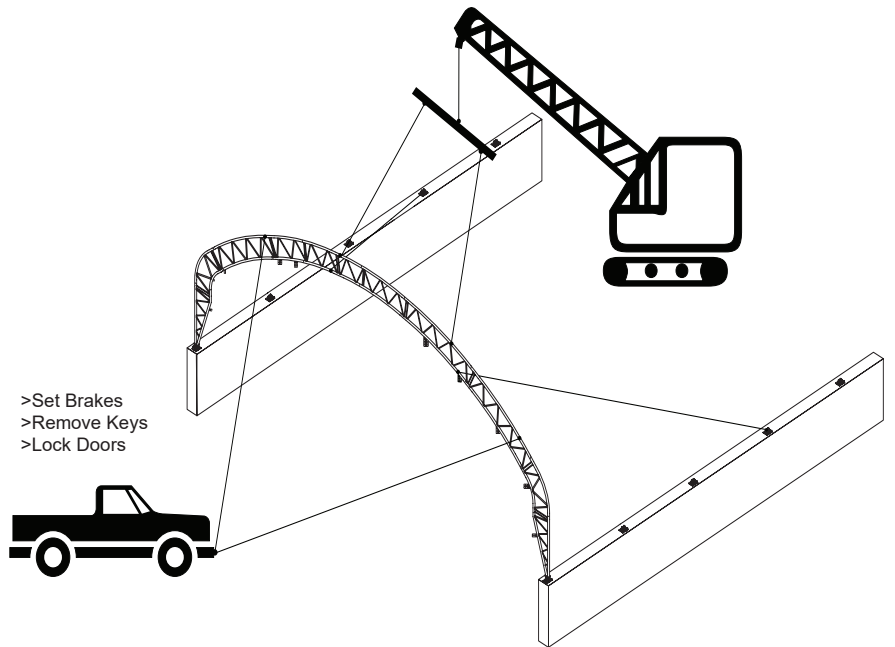
Use the following sample diagrams to rig the assembled truss for lifting.



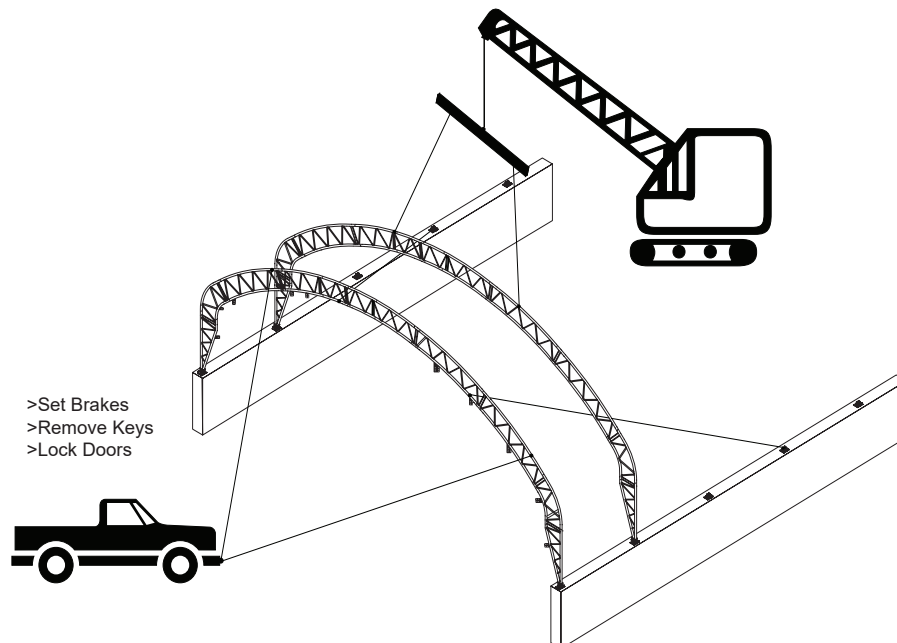
SETTING THE ASSEMBLED TRUSSES

Trusses are set beginning at one end of the foundation and working toward the other. The following steps and diagrams describe how to lift and set the basic truss.

1. Verify that all anchor bolts are tight.
2. Using the diagrams on the previous page to properly rig the truss, lift and set the first end truss onto the swaged end of the installed base plates. Secure it using the same bolt, washer, and nut sequence as in step 2 on page 11.
3. Secure truss using straps or cable as shown in diagram below. This strapping must remain in place until next truss is secured and attached to end truss. (Using another lift works best to hold the end truss until next truss is connected.)



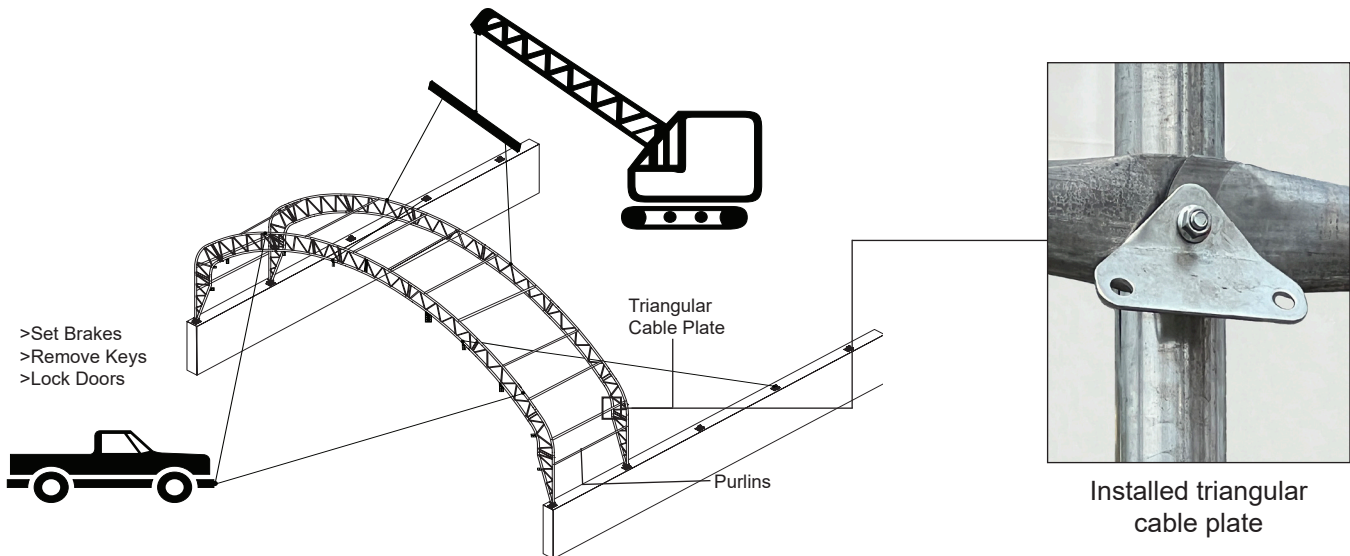
4. Unhook the forklift or crane, rig the first interior truss, set it into position, and secure it to the installed base plates.



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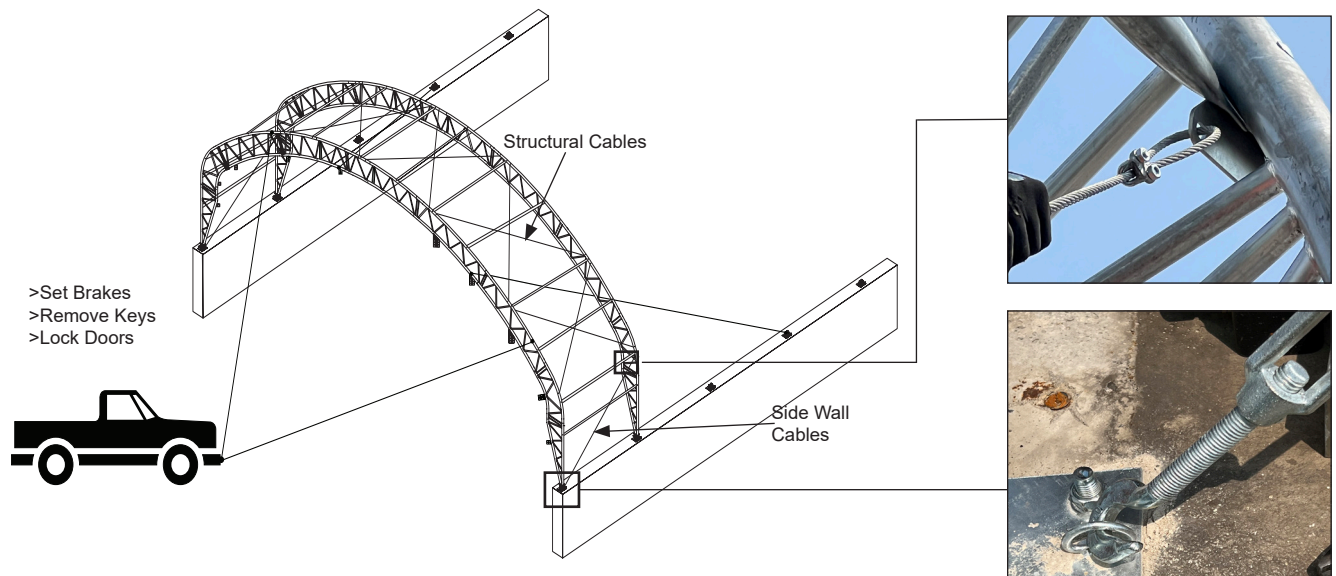
SETTING THE ASSEMBLED TRUSSES – CONTINUED

5. With the forklift in place, install all purlins between the end truss and the first interior truss using part #24 carriage bolt and serrated lock nut. **Do not remove the straps at this time.**



NOTE: Slide the triangular cable plate (part 18A for the 50'W or part 19A for the 70'W) on the same carriage bolt as the second purlin.

6. Once all purlins are installed and tight, remove the crane, install all structural and side wall cable assemblies between the two trusses, and plumb the assembled trusses using the band clamp/.



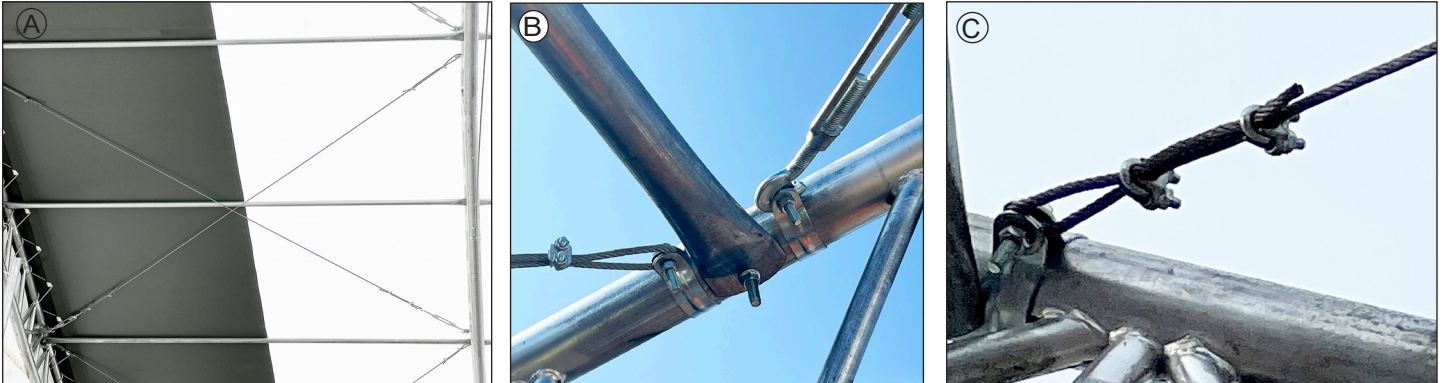
SETTING THE ASSEMBLED TRUSSES – CONTINUED

7. After installing the structural and side wall cables and plumbing the trusses, remove the strapping that holds the end truss. The two trusses can now stand on their own.

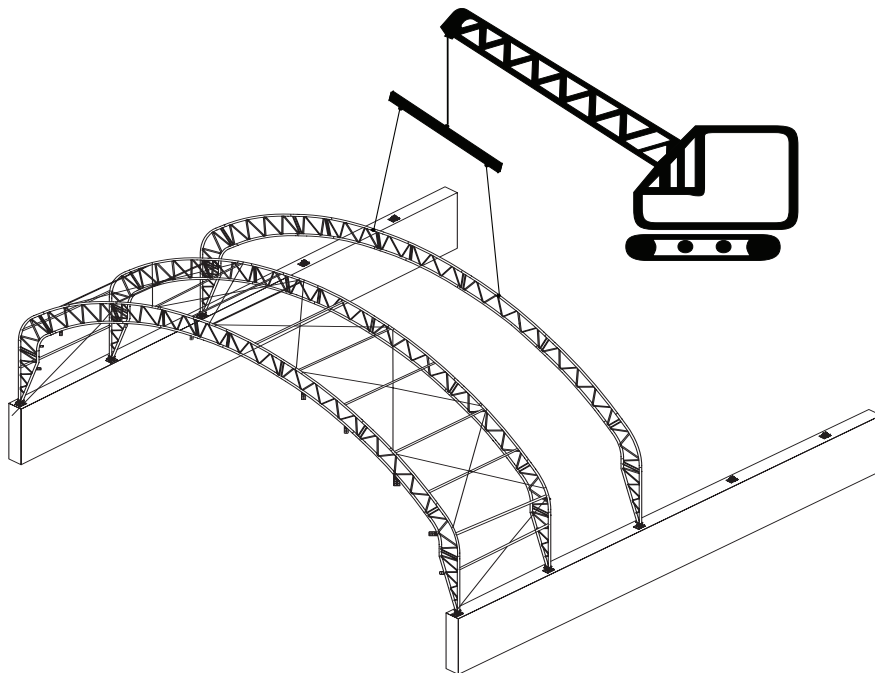
NOTES: A. Skip one row of purlin for every structural cable.

B. Alternate a turnbuckle and plain end on the end wall.

C. Wrap the plain end of the cable around the band clamp/ bolt, slide the cable clamps up side and tighten both the cable clamps and the band clamp/ bolt.



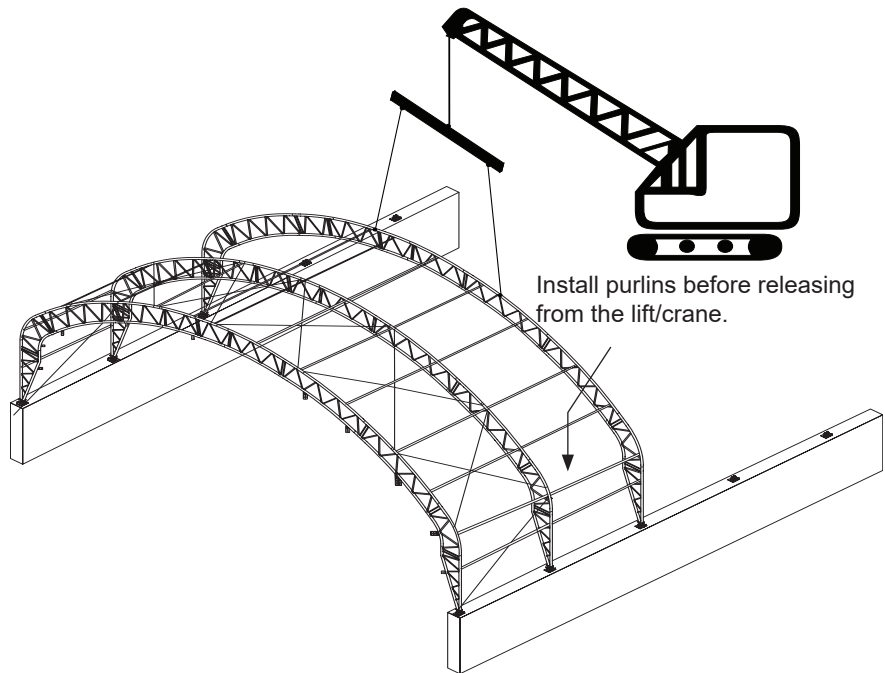
8. Rig the next truss, set it in place, and secure it to the base plates.



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SETTING THE ASSEMBLED TRUSSES – CONTINUED

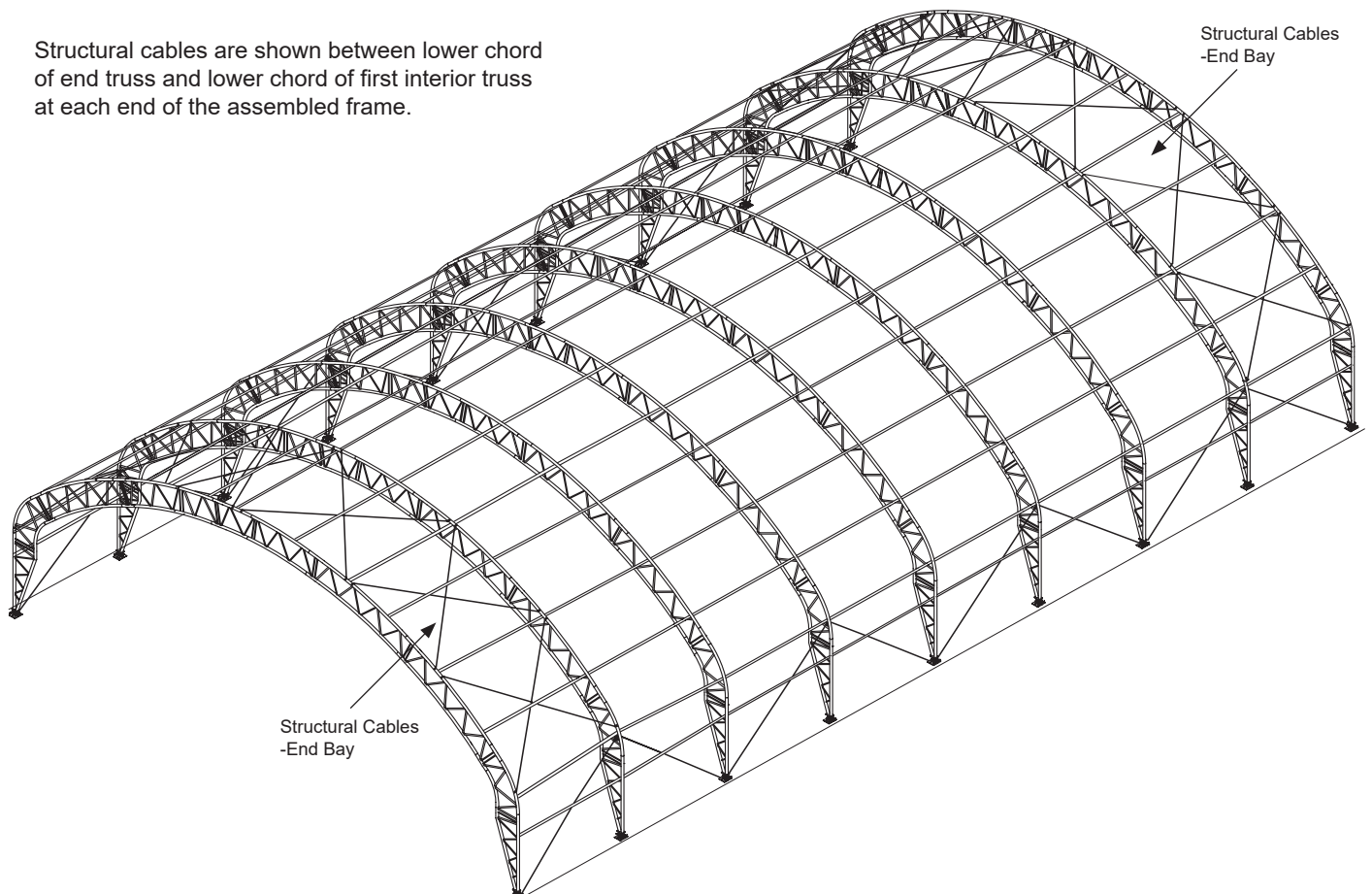
9. With the crane still supporting the truss, install at least half of the purlins between the trusses.



10. Unhook the rigging from the truss and attach it to the next truss to set that assembly in place.

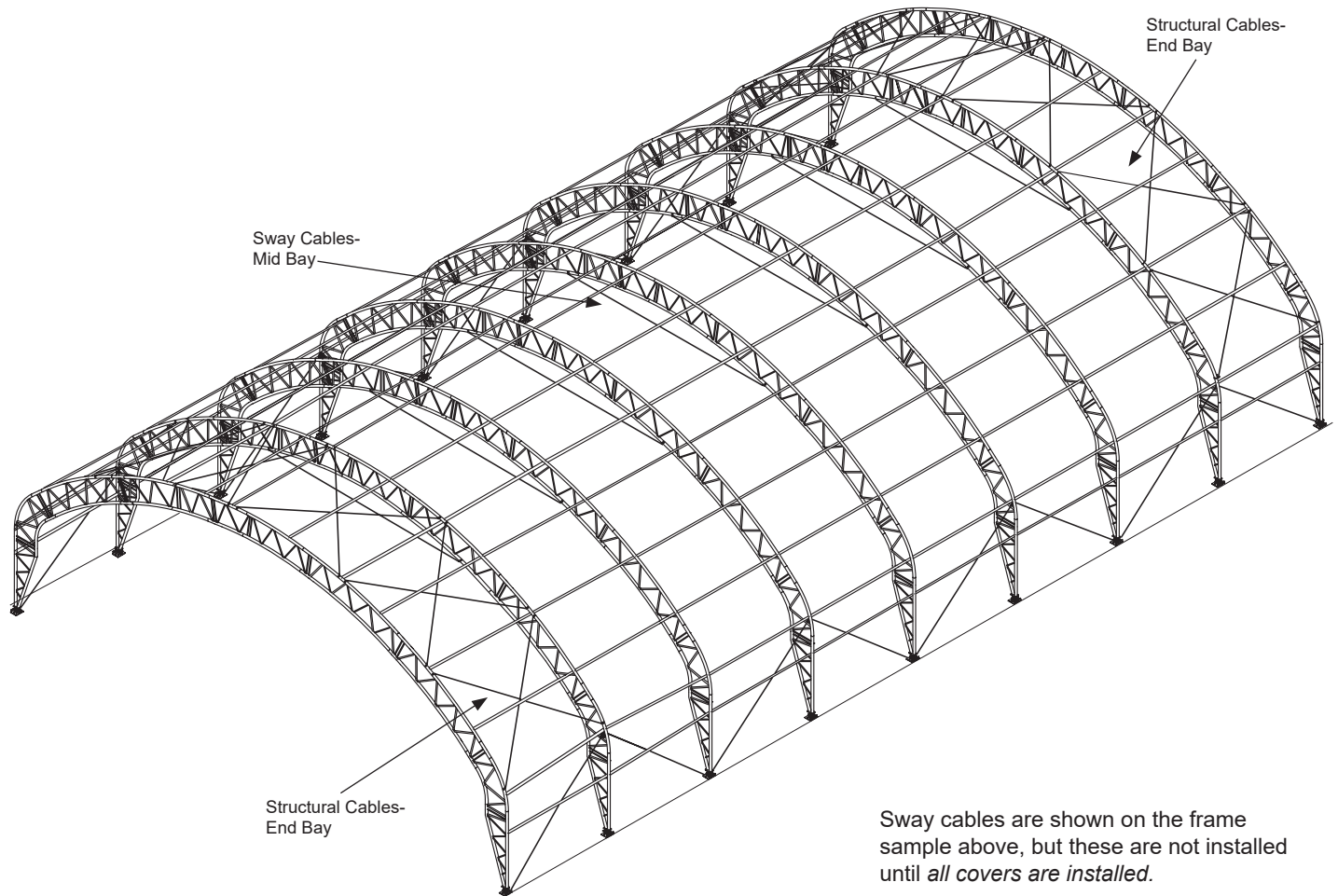
11. Continue this pattern of setting a truss, installing at least half of the purlins, unhooking the rigging, and setting the next truss — including the final end truss — until all are set and secure.

Structural cables are shown between lower chord of end truss and lower chord of first interior truss at each end of the assembled frame.

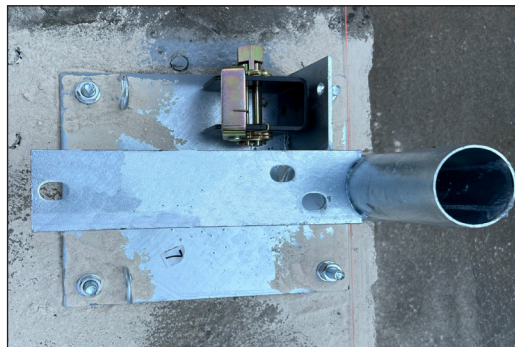
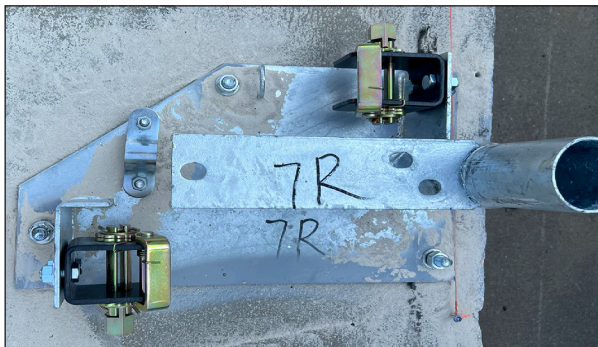


SETTING THE ASSEMBLED TRUSSES – CONTINUED

12. Return to the assembled frame and install and tighten the remaining *structural cables*.



13. With the frame assembled, install all of the base plate winches.



14. Continue with the installation of the end wall framing and end panels. See information on the following pages.

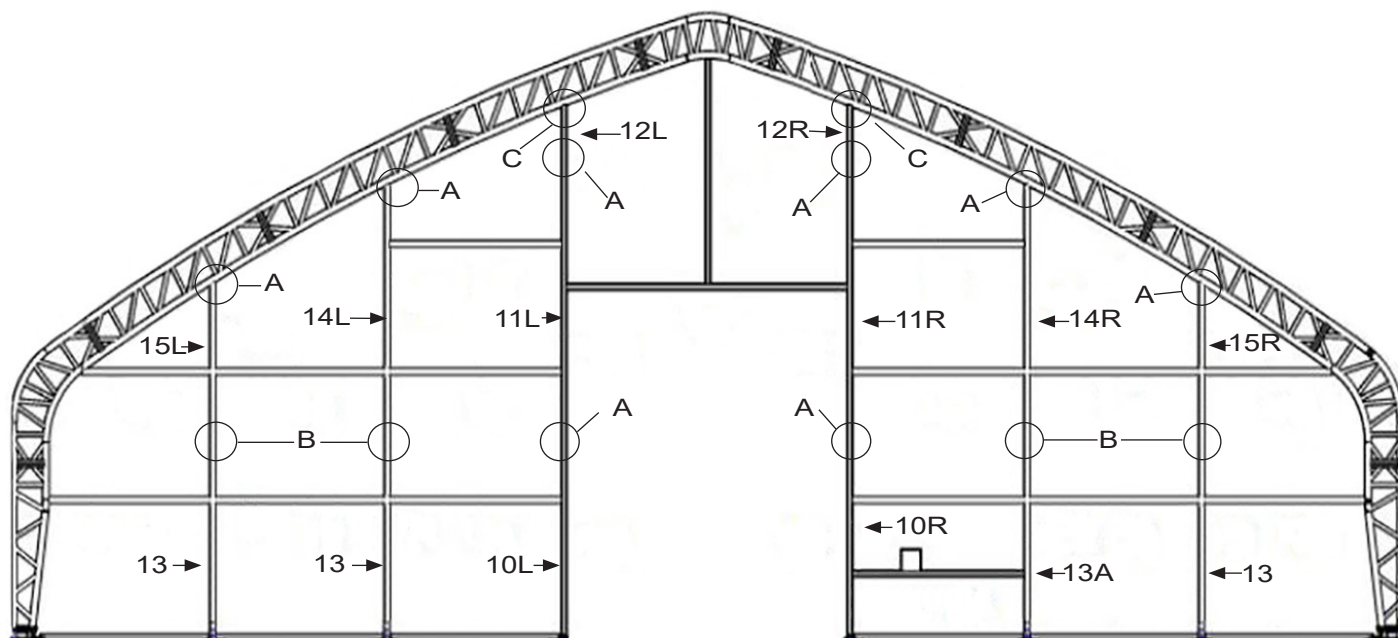
15. After installing the end framing and end panels, install the covers. **Consult the cover instructions.**

16. After cover installation, install and tighten the sway cables. During this step, ensure that the cables are tensioned to pull the upper chord of each truss back into place if it was pulled out of plumb during the covers.

Assembling End Walls

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

1. Locate the end frame components.
2. Install the base plates using the anchors that were ordered with the building. **See pages 6-9.**
3. Bolt the vertical door and end frame components together using the following bolt sequences:



A: 13/32" X 1-3/16" Bolt and Hex Nut (Part #33)

B: 15/32" x 1-9/16" Bolt, (2) Flat Washers, Lock Washer, and Hex Nut (Part #23A)

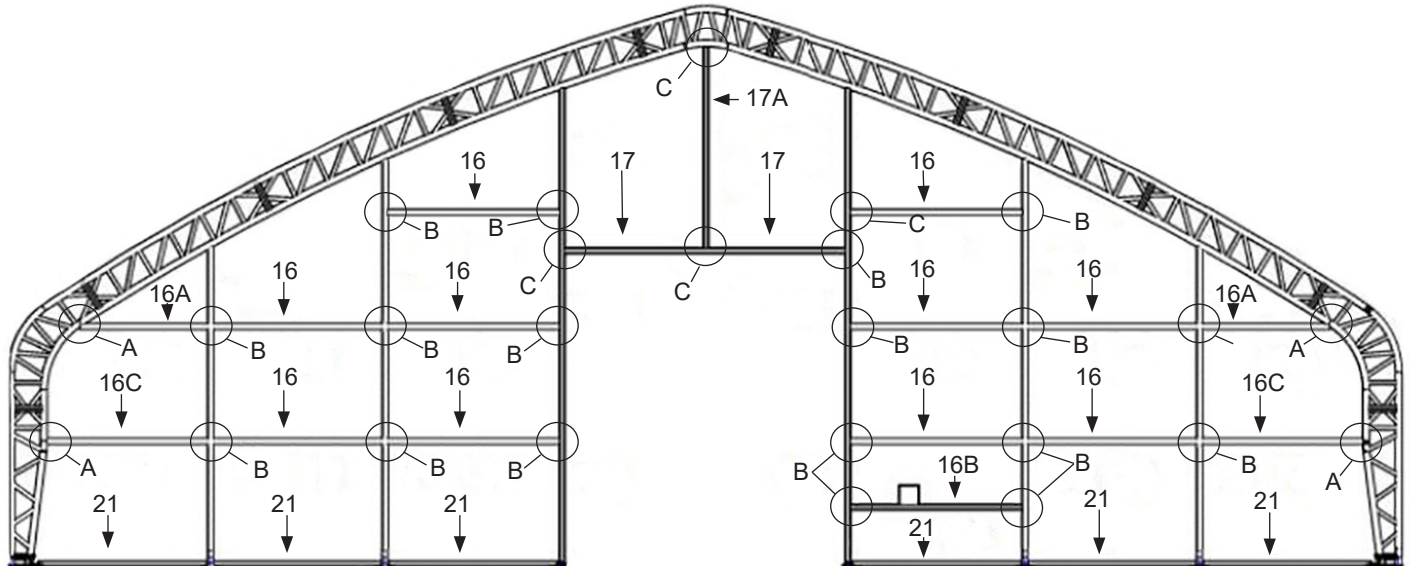
C: 13/32" x 3-17/32" Bolt and Hex Nut (Part #25)

NOTE: The door guides must be to the outside of the building and facing each other. The velcro should be facing the outside of the building.



ASSEMBLING END WALLS– CONTINUED

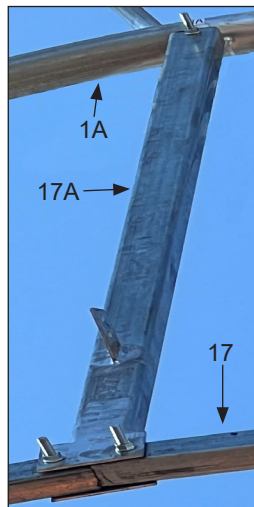
4. Slide the bottom onto the installed base, plumb the column, and secure to the top via the tabs welded on the end wall truss sections. Use the bolt sequences as shown in the previous models.
5. After all vertical columns are installed, fasten the end wall girts using the following bolt sequences:



- A: 13/32" X 1-3/16" Bolt and Hex Nut (Part #33)
- B: 13/32" x 3-5/32" Carriage Bolt and Serrated Lock Nut (Part #25A)
- C: 13/32" x 3-17/32" Bolt and Hex Nut (Part #25)

6. After the end wall girts are attached, install all the door headers using the parts indicated in the previous drawings.

NOTE: This building will have another part that connects to the tab on the door header vertical (part #17A). Attach part #17B to the door header vertical with a 13/32" x 1-3/16" bolt and hex nut (part #33), and to the top building purlin using a band clamp/ (part #19).



7. The base pipe (part #21) slips under the pre-installed pipe clamps and is tightened down.
8. Slide black pipe caps to each end of the base pipe.
9. Continue with the installation of end panels, covers, and doors as described in the documentation included with those components.

End Panel Installation

NOTE: Ratchets used to secure the covers and end panels will typically be removed or repositioned. Once the covers and end panels are installed on the end wall, the ratchets will be attached for mid-rafter lacing.

1. Position the end panel flat on the ground with its long edge placed along the end wall base rail (part #21). The PVC pipe pocket will be on the inside of the building.



2. Locate the red arrow in the middle of the panel. This is the peak of the panel.
3. Starting at the peak, slide one PVC pipe (part #37A) into the pre-cut pipe pocket going towards the right and another pipe going towards the left.
4. Tie a customer supplied rope or 2" strap around the PVC pipe.
5. Throw the other end of the rope or strap from the inside of the frame over the top of the end wall truss to the outside of the frame.
6. Slide two (2) additional PVC pipe through the pre-cut PVC pipe pocket on each side of the center rope. Space these several feet from the center arrow.
7. Using the proper lifts and with assistance, lift or pull the end panel into position and secure it to the upper chord of the truss using a 1" strap and ratchet.



8. Beginning at the peak moving toward the ground, attach a 1" strap and ratchet at every other pre-cut hole in the pipe pocket.
9. Feed the PVC pipe into the pocket after attaching the 1" strap and ratchets to the previous PVC as shown.



NOTE: The end panel, location, and available lifts all affect how best to pull a panel into position. *To prevent personal injury or property damage, do not install end panel or main cover during stormy or windy conditions. Using a lift to pull large, heavy panels into place is recommended. Consult the photos throughout these instructions for additional information.*

END PANELS INSTALLATION – CONTINUED

10. Continue until the entire pocket is attached to the upper chord of the end truss.



NOTE: The end panel will have about a 15" skirt past the base pipe (part #21).

11. Slip PVC into each vertical pipe pocket by the door. Fasten the 1" strap and ratchets around the PVC and the door jamb and tighten.



12. Put PVC pipe in the horizontal pockets above the base pipe (part #21) and the door header (part #17). Secure the 1" strap and ratchets around the PVC and pipe and tighten.
13. Slide PVC pipe in the horizontal pockets below the end wall girts (parts #16, 16A, and 16C). Fasten the 1" strap and ratchets around the PVC and pipe and tighten.

NOTE: Only attach the 1" strap and ratchet to every other pre-cut hole on both the horizontal and vertical pockets.



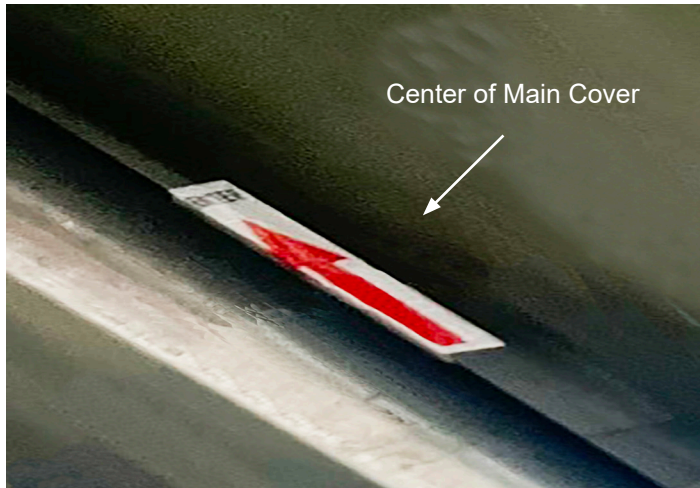
14. Repeat on the other end wall.

Covers Installation

ATTENTION: To prevent personal injury or property damage, do not install end panel or main cover during stormy or windy conditions. Using a lift to pull large, heavy panels into place is recommended.

Once the frame and site are prepared for cover installation, prepare the covers. The following series of steps explain how to prepare one cover. After the first cover is installed, repeat the steps as needed for the remaining cover.

Unpack the first main cover and verify where the red arrow is on the inside of the cover. Position cover along one side of the frame in the appropriate location. Use adequate help and lifts to move the cover into position. If the site is muddy, spread plastic (customer supplied) on the ground to protect the cover during preparation if desired.



Cover is set into position next to the frame.

Cover is heavy. Use assistants to unroll and prepare cover.



The photo (below) shows bonnet strapping at the end of the cover. The strapping is pre-installed during manufacturing and is used to secure the bonnet portion of the end cover.



In addition to the bonnet strap, the photo (below) shows the straps used to pull a main cover onto the frame. These straps are tied to the cover pipe at evenly spaced intervals throughout the length of the cover. **Do not bend the cover pipe when pulling a cover.** Add as many straps as needed to keep pipe supported.



ATTENTION: Do not use the bonnet strap to lift or pull the cover. The strap will pull out of the bonnet pocket.

COVERS INSTALLATION– CONTINUED

1. Gather the cover (part #35), cover pipe (part #22), and the PVC (part #27/28). One cover will have a bonnet on each end. Install the cover with two (2) bonnets first. The other cover will finish with grommets on one end.
2. Click five (5) of the longer and one (1) of the shorter pieces of the cover pipe together. *Confirm that the spring button has popped through the hole of the previous pipe.*



3. If needed, prepare the pipe by taping an object with a rounded end to the end of the side of the pipe that has the spring button. This allows the pipe to slide more easily into the pipe pocket. *A plastic soda bottle is shown below.*



4. If needed, mix a lubricating solution of liquid soap and water and apply it liberally to pipe and pipe pocket to allow pipe to glide more easily into pocket. Insert end into the pocket as shown.



5. Continue sliding pipe into pocket. Apply soap solution at various times throughout installation of cover pipe if needed.



6. Install a cap on the last pocket pipe closest to the end wall.

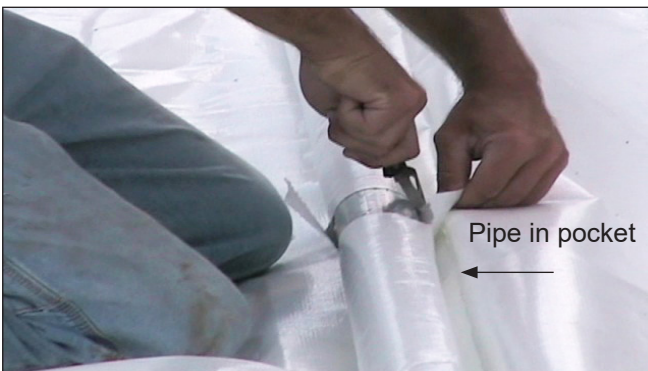
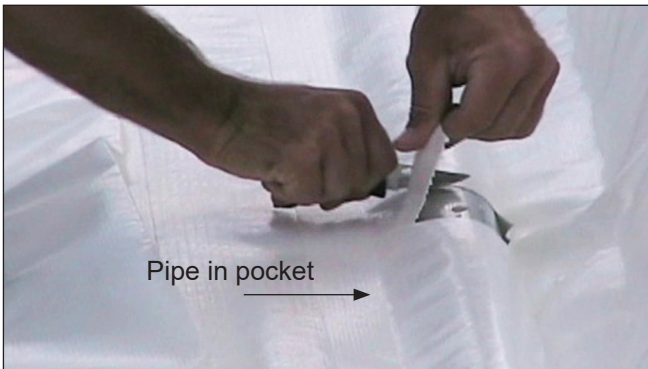
CLEARSPAN™ ECONOLINE TRUSS BUILDING

7. Reposition the cover and pipes as needed to prepare for cover installation. Verify that the cover will unfold as desired when it is pulled onto the frame. Check also that the cover is in the desired position.

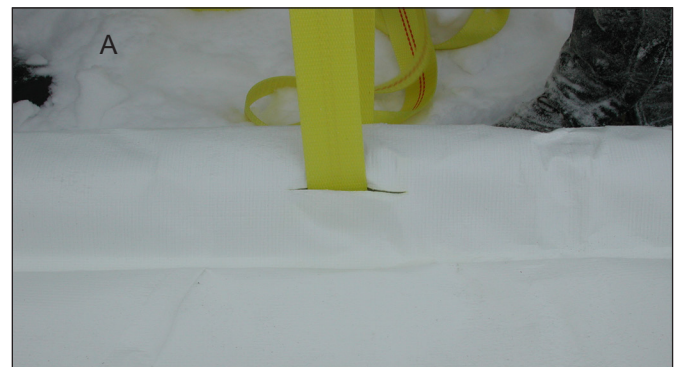
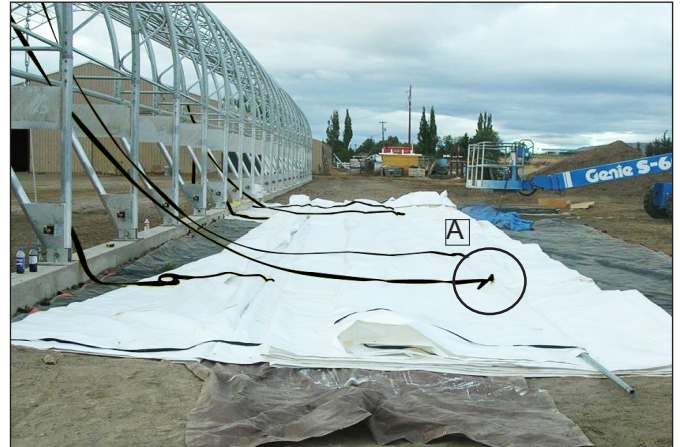


NOTE: Covers are heavy and difficult to reposition once they are pulled onto the frame. To prevent possible cover damage, follow the steps above.

8. Determine where to attach straps to pull cover onto the frame. Remove a section of *pipe pocket* in those locations to access pipe. **DO NOT CUT THROUGH COVER!** Straps are typically evenly spaced along the pipe. Quantity depends on available assistants.

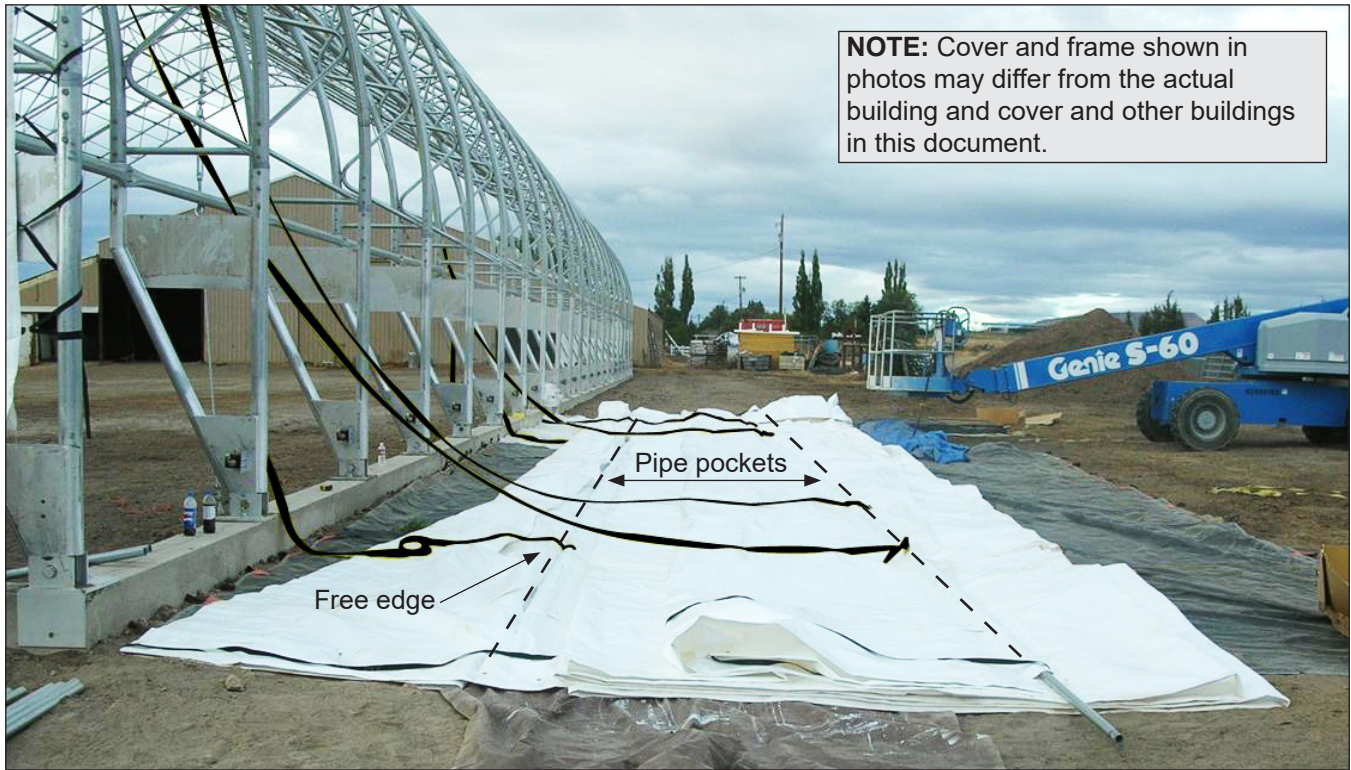


9. With the pocket material removed, tie straps or ropes to the pipe. Tie straps to each end and between the ends at evenly spaced intervals and toss the straps or ropes over the frame to the other side.



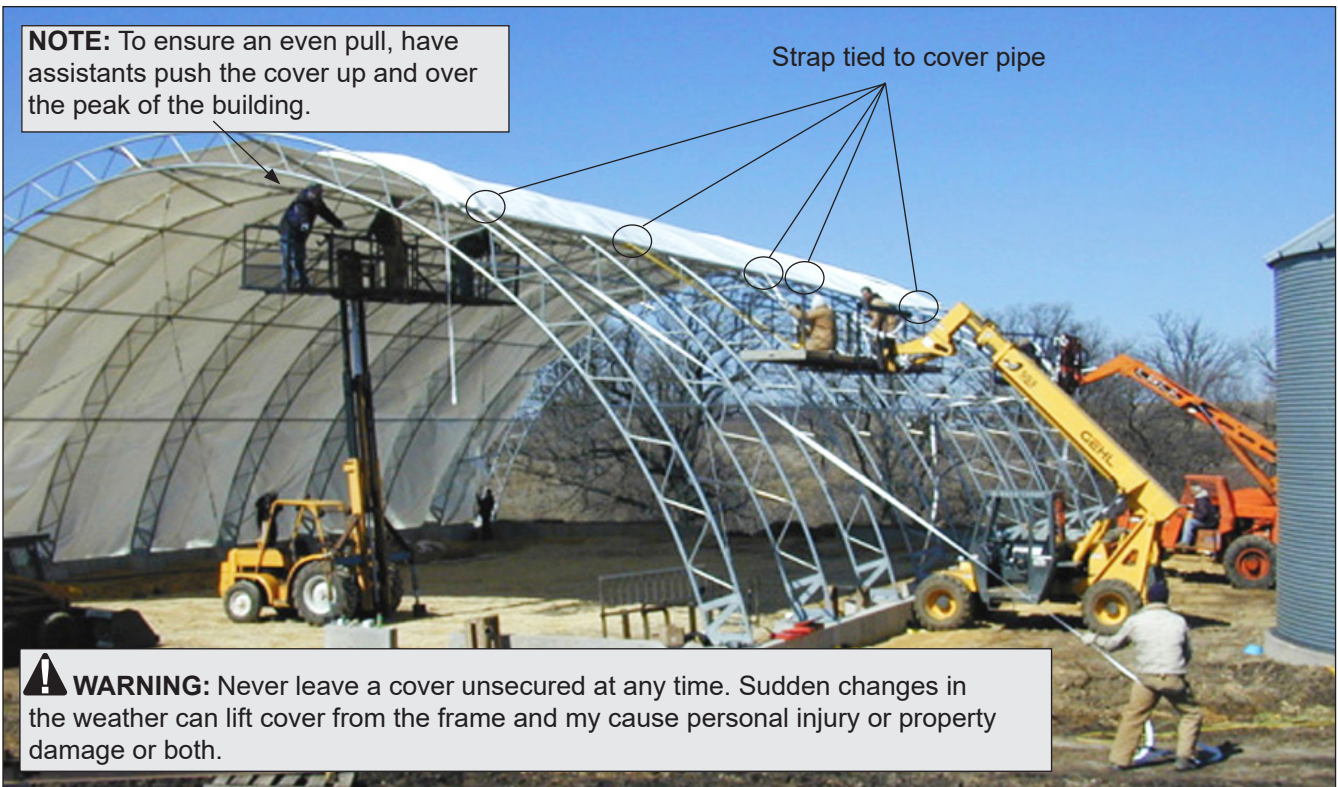
COVERS INSTALLATION– CONTINUED

- Temporarily secure the one main cover pipe to the frame while the other is pulled over the frame during the cover installation. This helps keep the free edge of the cover in position in case the wind blows. In the photo below, the main pipe closest to the frame is tied to the frame.



NOTE: Cover and frame shown in photos may differ from the actual building and cover and other buildings in this document.

- Toss pulling straps over frame and evenly pull cover into position. Position one or more people at each strap. *Verify that the cover pockets are to the inside of the building. This will be the underside of the cover when it is pulled into position on the frame.*



NOTE: To ensure an even pull, have assistants push the cover up and over the peak of the building.

Strap tied to cover pipe

⚠ WARNING: Never leave a cover unsecured at any time. Sudden changes in the weather can lift cover from the frame and may cause personal injury or property damage or both.

CLEARSPAN™ ECONOLINE TRUSS BUILDING

COVERS INSTALLATION– CONTINUED

12. Continue pulling cover into position. Ensure that free edge of cover (opposite the pulling straps) is secured to the trusses. See the top photo on the previous page for details.
13. Once the cover is completely pulled into position, align the ends with the frame and center the cover. Example below shows the installation of one cover for the sample building frame.

Consult a professional contractor experienced with similar cover installations to safely install the cover for your building and for additional cover installations suggestions if needed.



14. Locate the winches attached to the base plates. Remove the section of main cover pipe pocket material (or create a slit in the material above the pipe) in line with the winches to prepare for strap installation.
15. Measure and cut the 2" straps to the required length. Install by wrapping each strap around the pipe and insert the strap ends into the winch. Slightly tighten to remove strap slack, and temporarily secure cover in place.



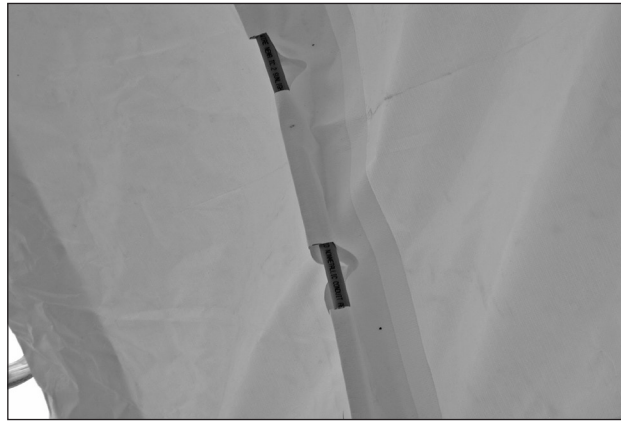
IMPORTANT: When measuring strap length, remember that straps wrap around the pipe and *both ends* are inserted into a winch.

When making the pipe pocket cuts, be sure to account for the change in position once the cover is stretched toward the end truss.

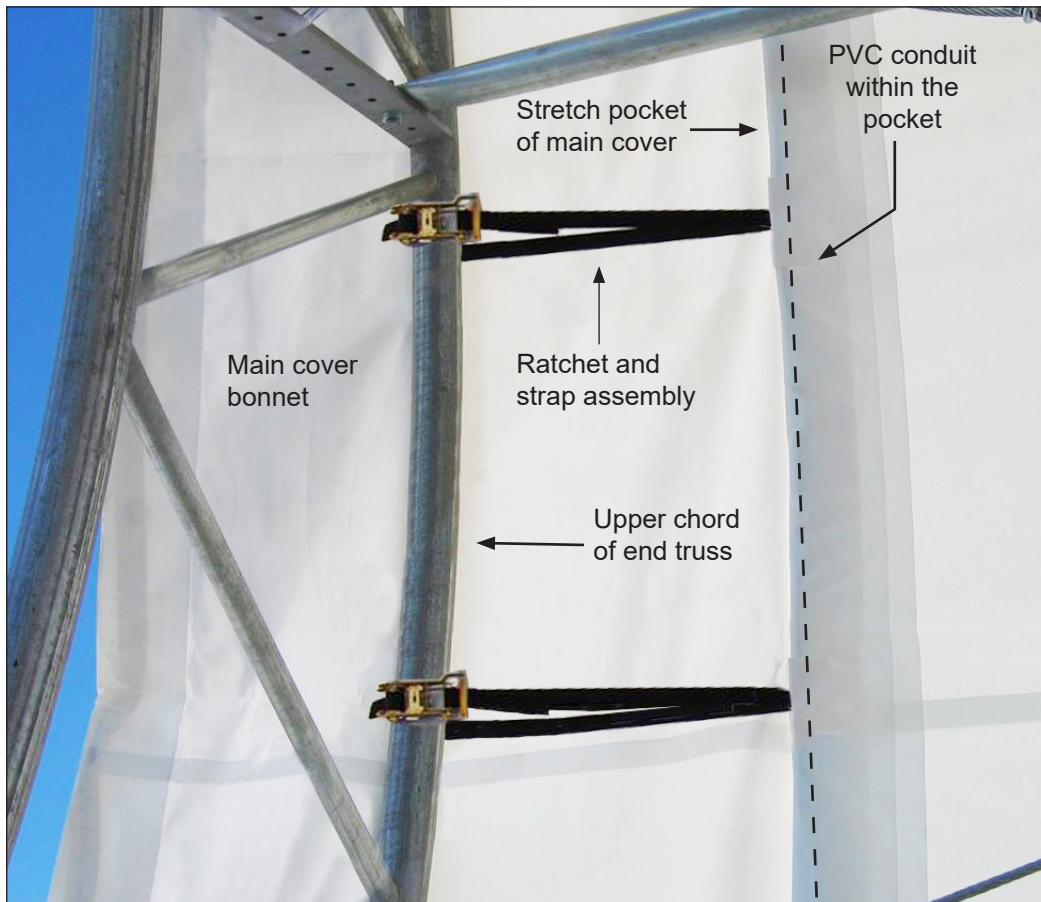
Straps should be loose enough to allow the cover to be stretched. Refer to the photos on these pages to view sample strap and winch connections.

COVERS INSTALLATION– CONTINUED

16. Move to the bonnet end of the cover and slide first piece of PVC conduit into the PVC pocket.



17. The main cover will have pre-cut holes in the PVC stretch pockets. Attach a 1" strap and ratchet around the PVC in every 3rd pre-cut hole. Install ratchets between the end truss upper chord and the PVC conduit inside the stretch pocket. Stretch the main cover toward the end truss.



ATTENTION: As covers are stretched, verify they remain centered end-to-end and side to side. If side winches are too tight, cover will not stretch properly. Loosen - DO NOT REMOVE - the side winches as needed.

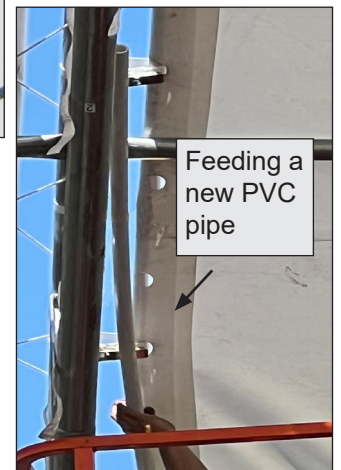
The red arrow is the exact center of the main cover.

During stretching of cover, do not over tighten strap and ratchet assemblies. Doing so may pull the common interior truss.

View the common truss from the ground and verify that the upper and lower chords remain aligned.

18. Feed the PVC into the stretch pocket after finishing attaching the 1" strap and ratchets to the previous PVC as shown.

19. Continue until the entire stretch pocket is attached to the upper chord of the end truss.



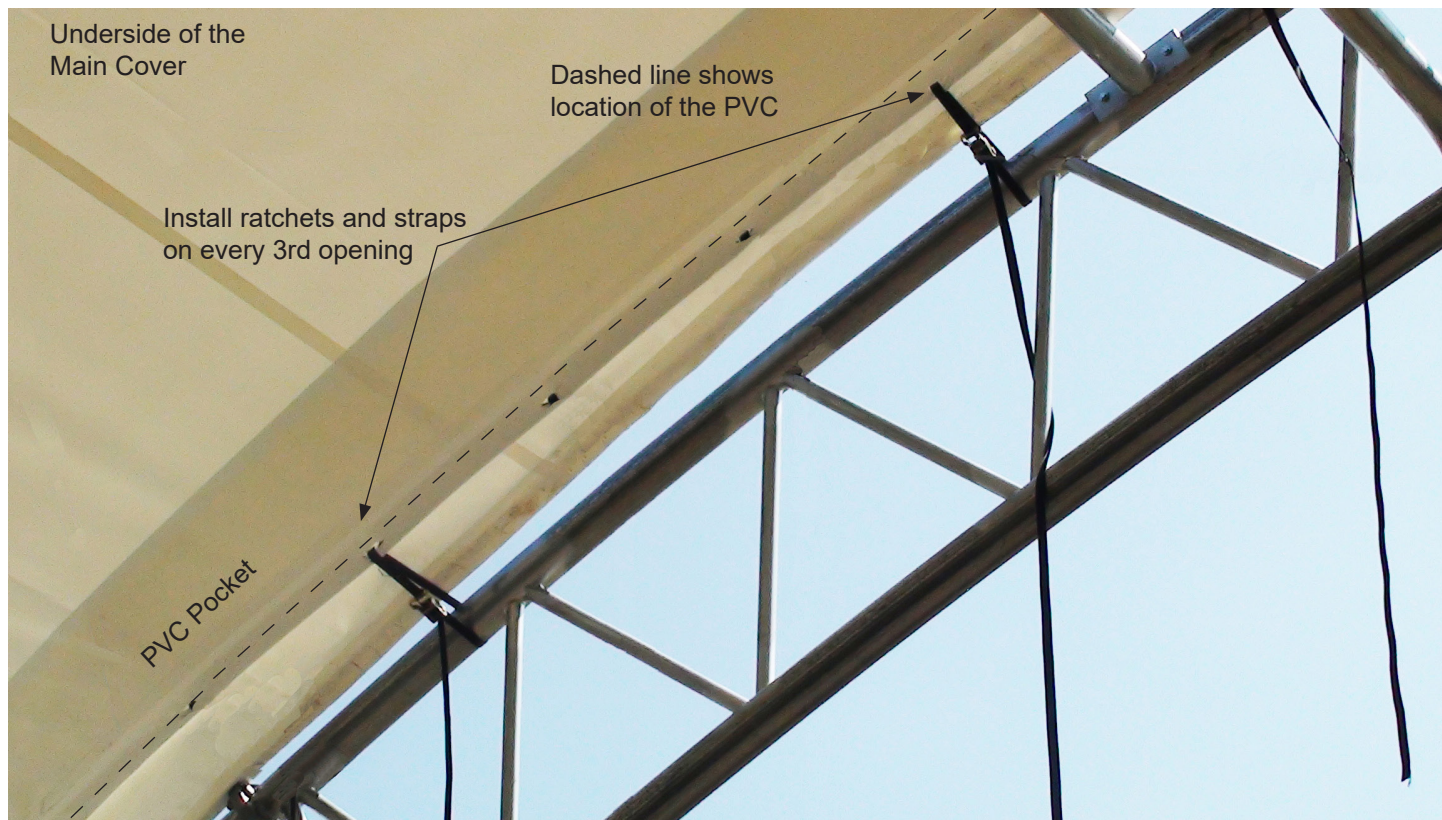


Photo above shows the end truss as seen from the ground looking straight up. The vertical end wall framing is also visible. Ratchet and strap assemblies are shown between the upper chord of the truss and the PVC conduit in the pocket.

20. Repeat the stretch pocket steps on the mid-rafter.



21. After ensuring the cover is centered and 1" straps are tightened, the base 2" straps and ratchets can be tightened on the first main cover.
22. Click the remaining five (5) cover pipes together.
23. With the second cover, repeat step 3, making sure the plain end of the pipe (without the spring button) is fed toward the spring button on the already installed cover.
24. Repeat steps 4 through 21.



COVERS INSTALLATION– CONTINUED

- 25. Install the big base plate for connecting roof cover.
- 26. Return to the end trusses, pull the bonnet portion of each cover over the top of the end truss. Insert the pre-installed bonnet strap ends through the pre-cut hole in the end panel and into each end winch attached to the corner base plate and tighten.



- 27. Finish the cover installation by anchoring the big base plate where the two main covers meet at the mid-rafter.



NOTE: Ensure that the bonnet lays over the opening between the two cover.

NOTE: The cover will have a skirt of about 17" past the pipe pocket.

- 28. Attach the 2" ratchet to the base plate.
- 29. Pull the pre-installed bonnet strap ends into each ratchet and tighten.



SEE YOUR SALES REPRESENTATIVE FOR COVER AND END PANEL TERMINATION RECOMMENDATIONS.

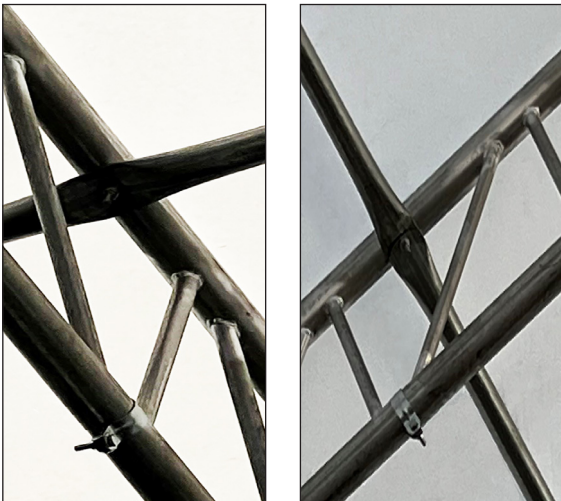
Installing Sway Cable

Sway cables attach to the bottom of the truss only.

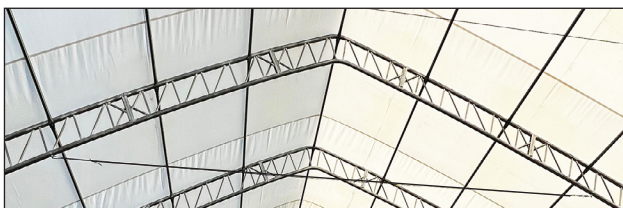
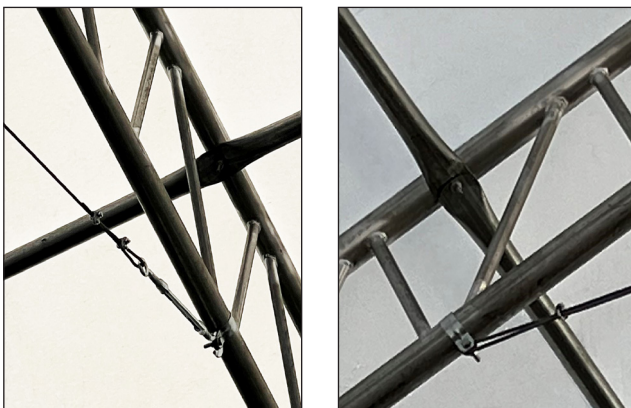
Install sway cables only to the middle trusses. **Do not attach to the end rafters.**

Reference page 10, **Assembling Cables**, for creating the sway cable assemblies.

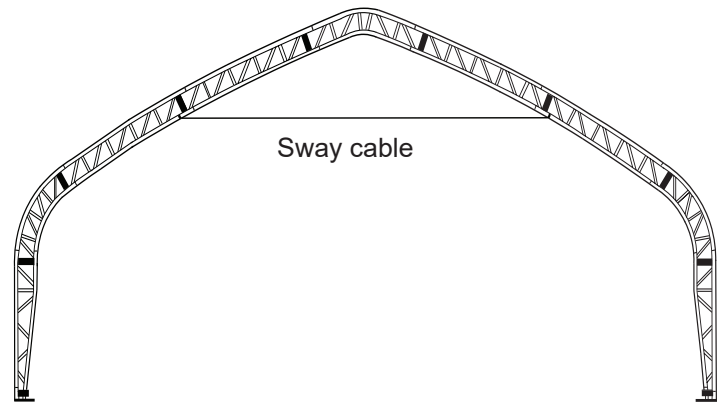
1. Attach band clamps/clips to the bottom of the interior trusses under the 5th purlin from the ground.



2. Wrap the open end of the cable around the bolt of the band clamp/clip and cable clamp. Tighten bolt.
3. Hook the turnbuckle to the band clamp/clip on the opposite side of the building on the same truss. Tighten bolt.



4. Tighten sway cables using the turnbuckle.



Assembling and Installing Door

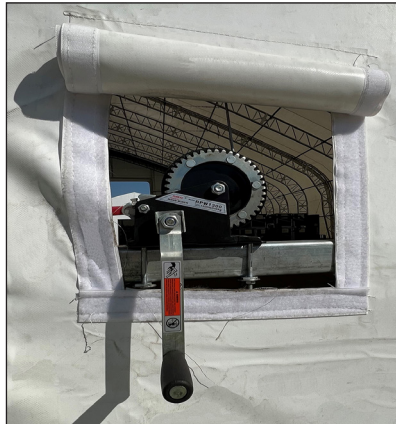
DO NOT attempt to hang the door panel in windy or stormy conditions or when such conditions are expected.

1. Locate the roll-up door pipe, door material, door cable, and door winches. *Roll-up door pipe is shown below.*



Half of the roll-up door pipe will have a spring button on one end. The other half will have the hole to receive the button once the pipes are pieced together.

2. Slide the two roll-up door pipes together so the round guide is at each end. *Ensure the spring button pops through the hole.*
3. Slide the roll-up door pipe through the pipe pocket of the door.
4. Pull the hook and loop fastener from the perimeter of the small square window next to the door opening, roll it up and attach to the tabs sewn at the top of the square.
5. Bolt the roll-up door winch to the girt using the u-bolts and plate supplied with the winch, exposed by the window.



NOTE: The brake and arm should face the outside of the building.

6. Lift the door material with the pipe pockets to the inside of the building into the door opening and hold into place with strap and ratchets in the same manner as the cover and end panels.
7. Weave rope through the grommets and the end wall door header, tighten, and remove straps and ratchets.

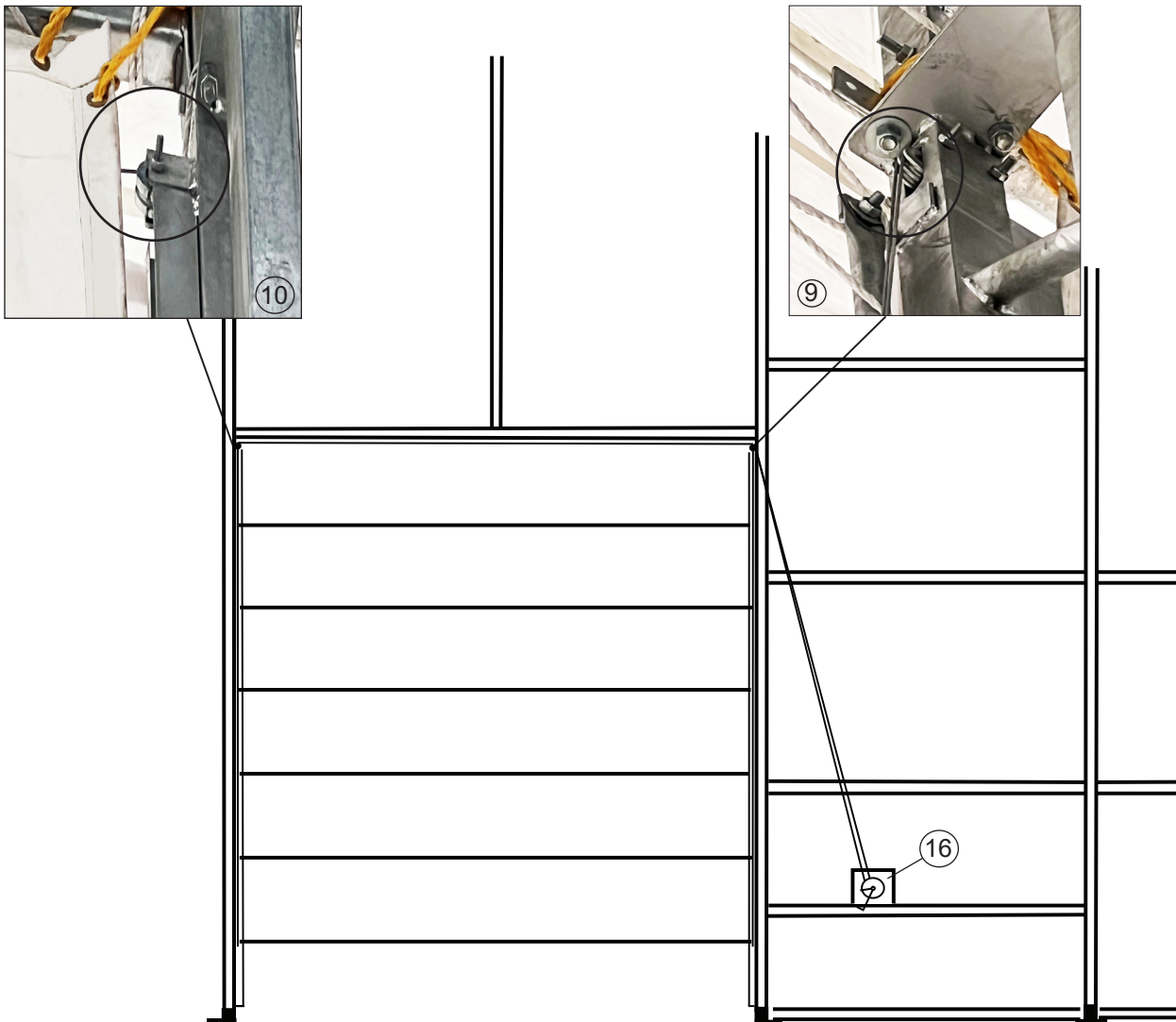


8. Wrap the ends of the door cable with duct tape.

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ASSEMBLING AND INSTALLING DOOR – CONTINUED

9. Run one end of the cable through the pulley in the right door jamb. Pull the cable behind the door and in front of the end panel. This will be under the door header. Thread the end through the second pulley in the left door jamb.
10. Work the other end of the cable through the second groove of the pulley in the right door jamb.



11. Starting with the top pipe of the roll-up door, insert the cable on the left side through the hole of each of the pipe.
12. Upon reaching the bottom pipe, pull the cable through and back up to the guiding cable. Double cable clamp the end.

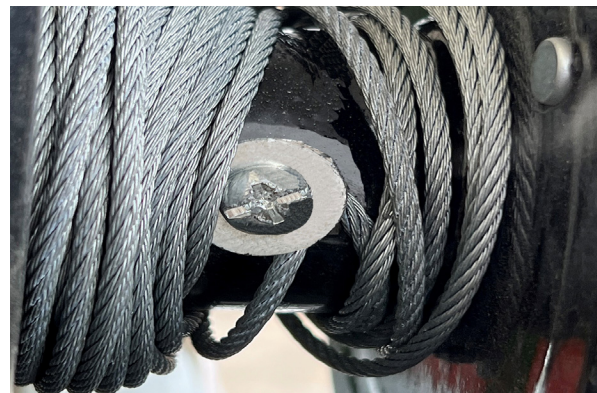


13. Repeat steps 11 and 12 for the right side of the door.

14. Guide the pipe from the door pockets into the pre-installed track of the door jamb.
15. With the door completely down, as shown above, find the middle of the remaining cable and wrap around the screw of the winch and tighten.

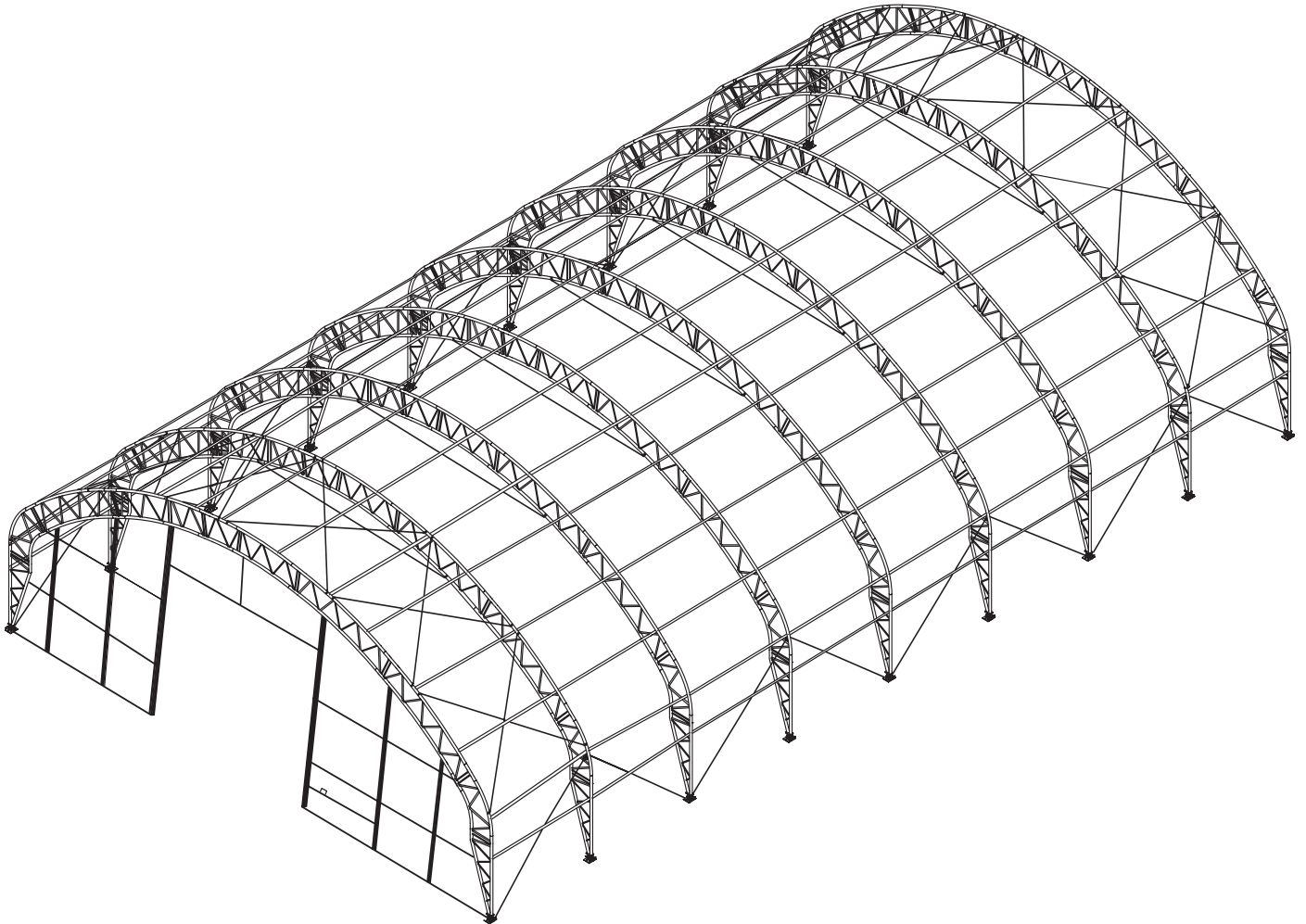


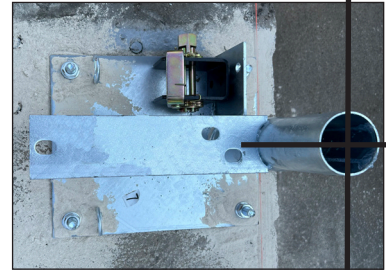
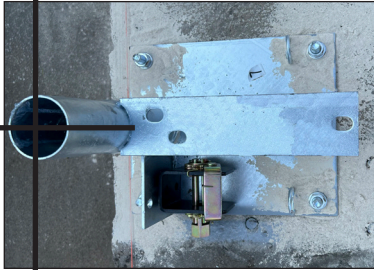
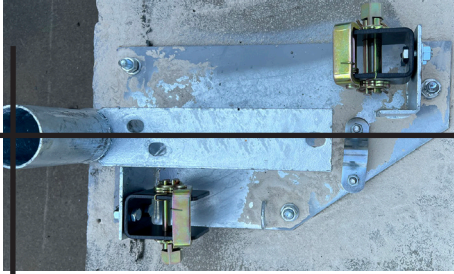
16. Wrap the remaining cable around the winch and set the brake.



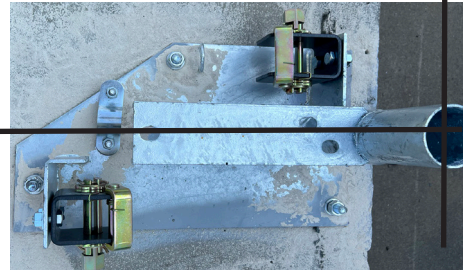
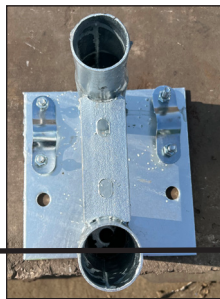
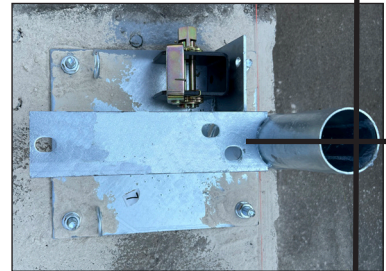
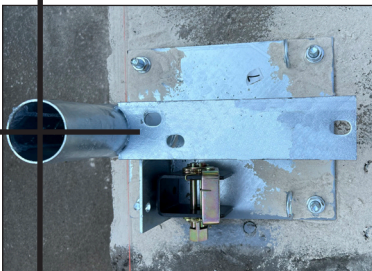
17. Determine the door rolls up evenly. Adjust the middle of the cable on the winch if necessary.

QUICK START GUIDE



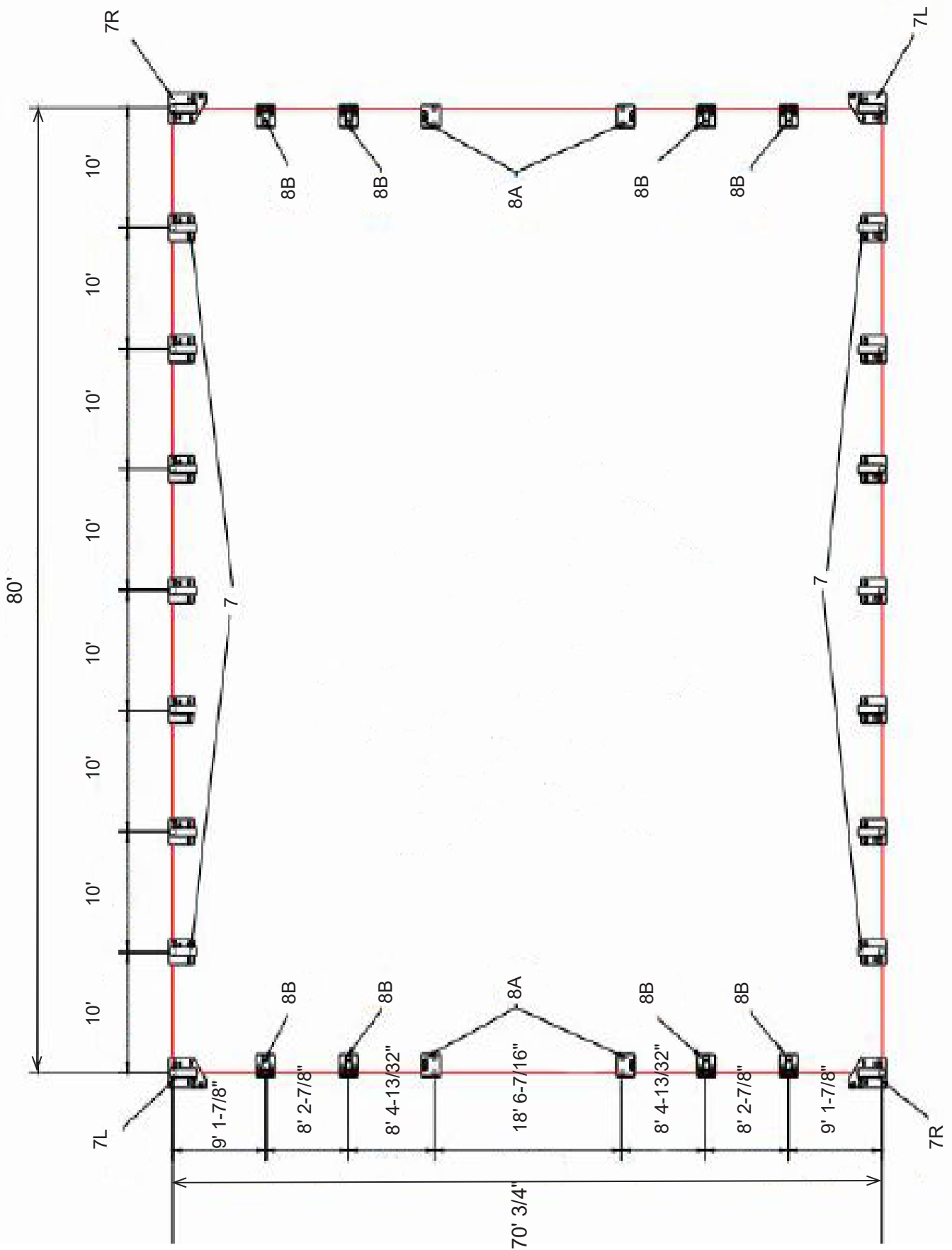


Measurements on the next pages are based on widths, center-to-center, of the protruding piece of welded pipe on the base plates.

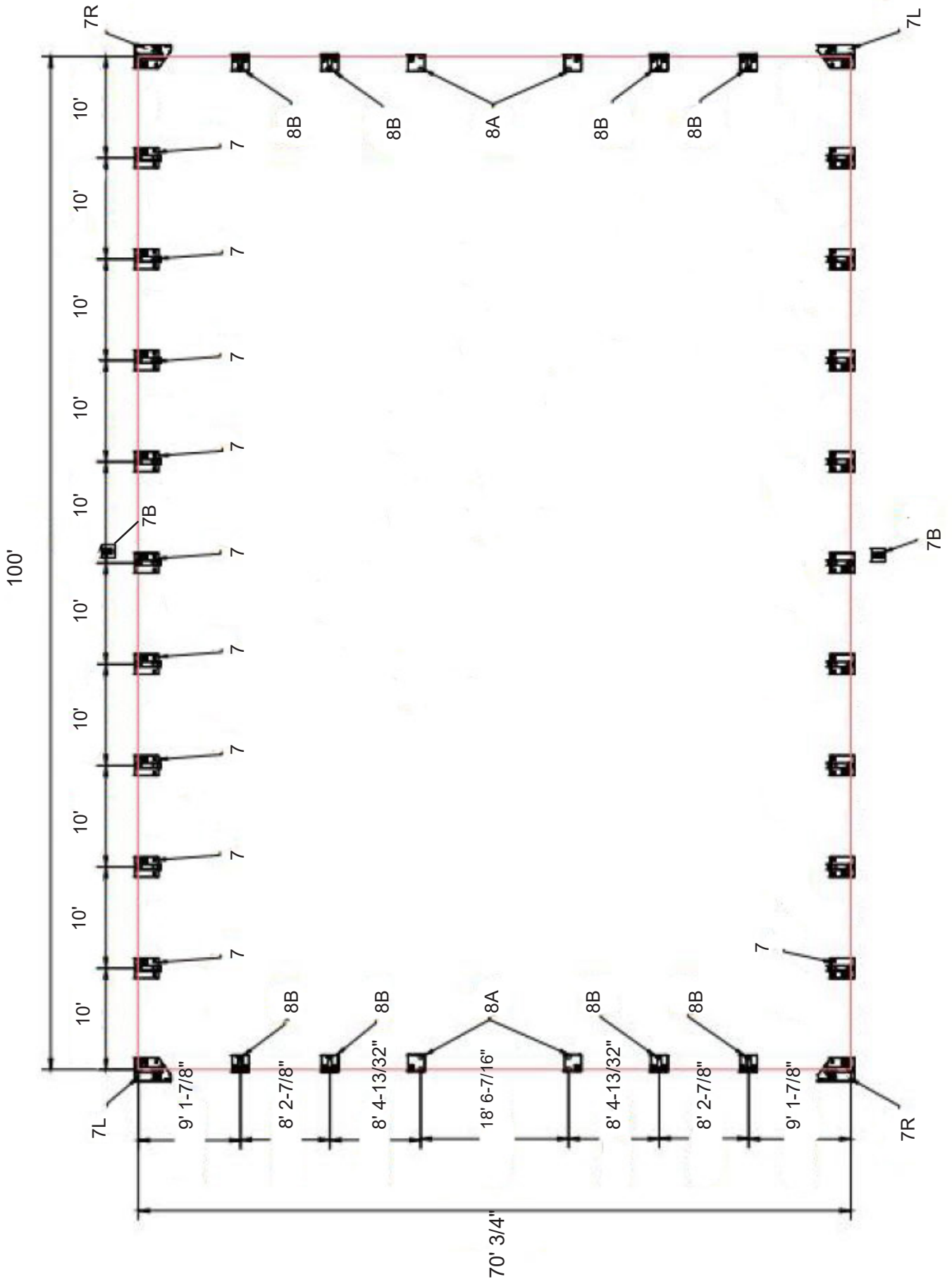


CLEARSPAN™ ECONOLINE TRUSS BUILDING

70' x 80' W BUILDING BASE PLATE LAYOUT

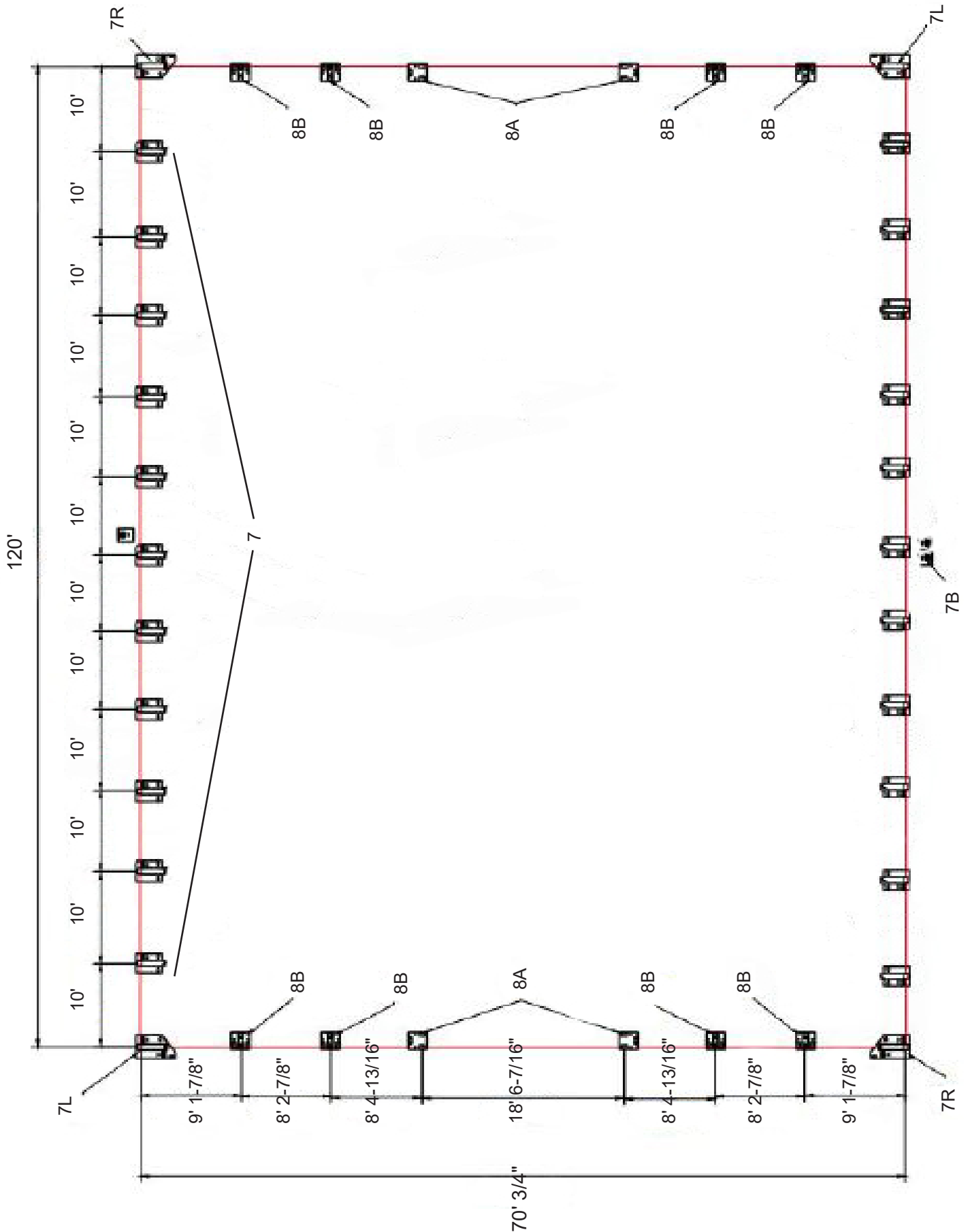


70' x 100' W BUILDING BASE PLATE LAYOUT

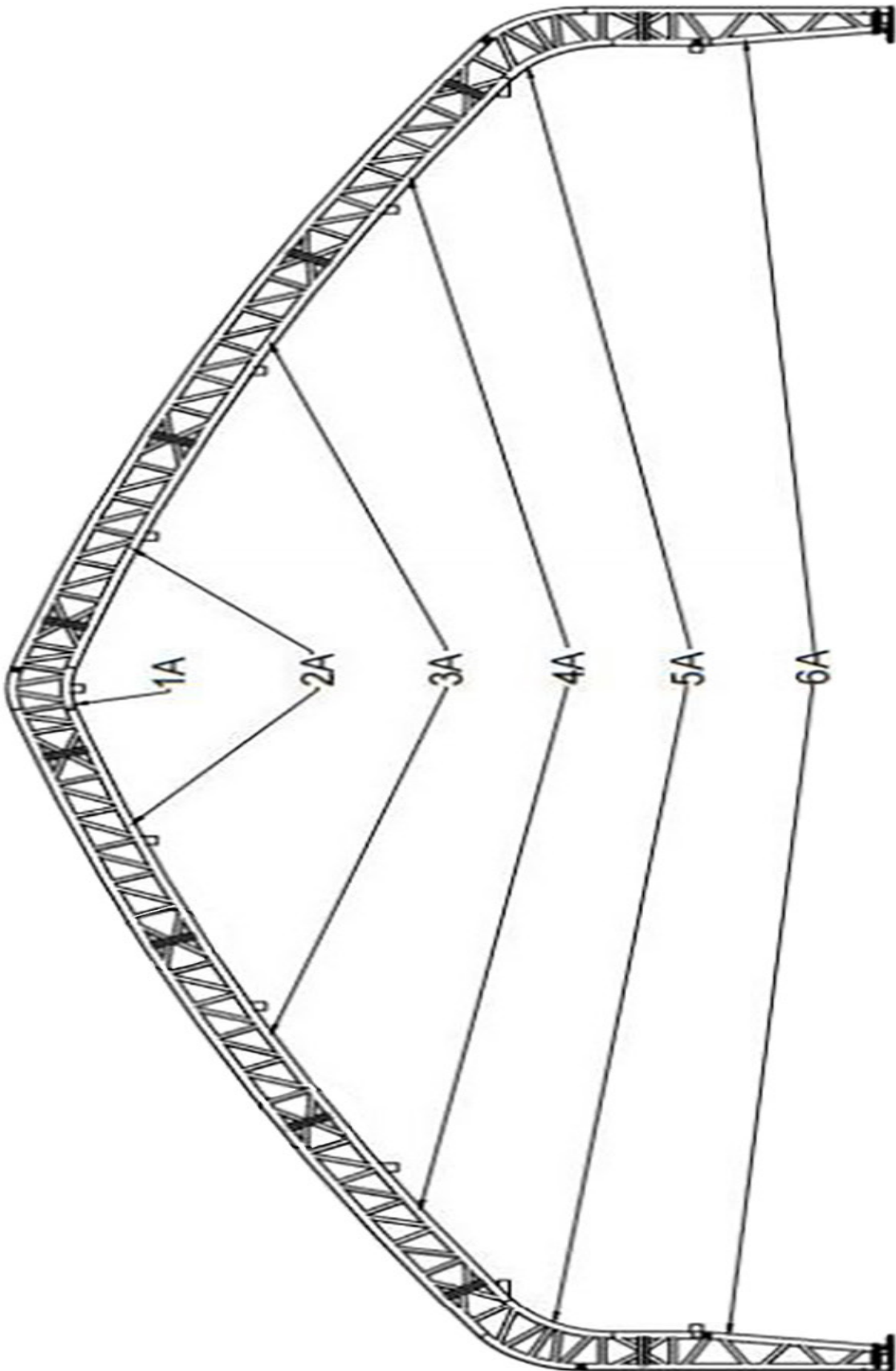


CLEARSPAN™ ECONOLINE TRUSS BUILDING

70' x 120' W BUILDING BASE PLATE LAYOUT

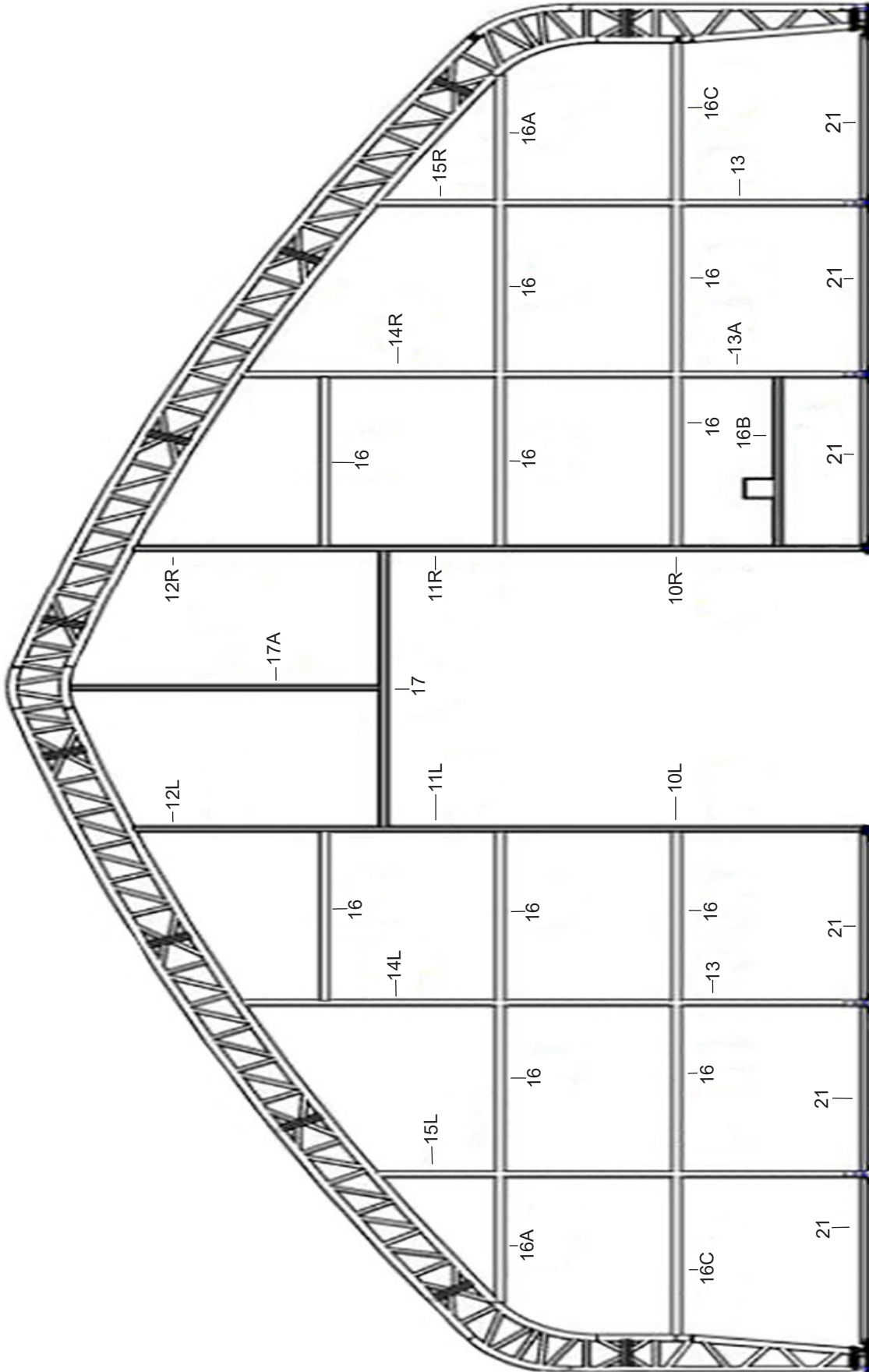


70"W RAFTERS



CLEARSPAN™ ECONOLINE TRUSS BUILDING

END WALL LAYOUT



118242 (70' x 80') Box 1

Part #	Item	Size	Qty
9	Purlin	2-3/8" x 10' 1-5/8" OR 60mm x 3.09m	120
16B	Front and rear door horizontal girts for door wench	1-9/16" x 2-3/8" x 8' 3/8" OR 4cm x 6cm x 2.47m	2
17	Door header	1-9/16" x 2-3/8" x 9' 1-21/32" OR 4cm x 6cm x 2.785m	4
17A	Vertical support for door header	1-9/16" x 2-3/8" x 6' 3" OR 4cm x 6cm x 1.9m	2
17B	Support for front and back door	1-7/8" x 9' 10-7/8" OR 48mm x 3m	2
21	Base tensioning pipe for end wall cover	1-1/2" x 8' 1/16" OR 38mm x 2.44m	12
22	Base tensioning pipe for roof cover	1-1/2" x 9' 10-7/8" OR 38mm x 3m	32
26	Roll up door pipe	1-1/4" x 9' 2-5/8" OR 32mm x 2.81m	32
35	Roof cover		2
36	End wall cover		2

118242 (70' x 80') Box 2

3	Middle upper roof rafter	3" x 10' 2-1/16" OR 76mm x 3.1m	12
4	Middle roof rafter	3" x 10' 2-1/16" OR 76mm x 3.1m	14

118242 (70' x 80') Box 3

2	Upper roof rafter	3" x 10' 2-1/16" OR 76mm x 3.1m	13
2A	End wall upper roof rafter	3" x 10' 2-1/16" OR 76mm x 3.1m	4
3A	End wall middle upper roof rafter	3" x 10' 2-1/16" OR 76mm x 3.1m	4
4A	End wall middle roof rafter	3" x 10' 2-1/16" OR 76mm x 3.1m	4

118242 (70' x 80') Box 4

1	Roof peak	3" x 10' 2-1/16" OR 76mm x 3.1m	7
1A	End wall roof peak	3" x 10' 2-1/16" OR 76mm x 3.1m	2
2	Upper roof rafter	3" x 10' 2-1/16" OR 76mm x 3.1m	1
3	Middle upper roof rafter	3" x 10' 2-1/16" OR 76mm x 3.1m	2
7C	Stake peg	5/8" x 3' 3-3/8" OR 16mm x 1m	4
10L	Lower door track at left for front and back door	10' 3/32" OR 3.05m	2
10R	Lower door track at right for front and back door	10' 3/32" OR 3.05m	2
11L	Left middle door track for front and back door	10' 3/32" OR 3.05m	2
11R	Right middle door track for front and back door	10' 3/32" OR 3.05m	2
12L	Left upper door track for front and back door	3' 1-13/32" OR .95m	2
12R	Right upper door track for front and back door	3' 1-13/32" OR .95m	2

118242 (70' x 80') Box 4 (continued)

Part #	Item	Size	Qty
13	Lower end wall column	2-3/8" x 9' 8-5/32" OR 60mm x 2.95m	6
13A	Right lower end wall column for connecting wench	2-3/8" x 9' 8-5/32" OR 60mm x 2.95m	2
14L	Upper left end wall column	2-3/8" x 9' 5" OR 60mm x 2.87m	2
14R	Upper right end wall column	2-3/8" x 9' 5" OR 60mm x 2.87m	2
15L	Far upper left end wall column	2-3/8" x 5' 3" OR 60mm x 1.6m	2
15R	Far upper right end wall column	2-3/8" x 5' 3" OR 60mm x 1.6m	2
16	End wall horizontal girt	3-3/8" x 8' 4-3/8" OR 60mm x 2.55m	20
16A	End upper end wall girt	3-3/8" x 5' 4" OR 60mm x 1.6m	4
16C	End lower end wall girt	3-3/8" x 7' 7-3/8" OR 60mm x 2.27m	4
32	PVC for roof cover	9' 10-7/8" OR 3m	48

118242 (70' x 80') Box 5

5	Hip rafter	3" x 8' 4-3/8" OR 76mm x 2.55m	3
6	Bottom rafter leg	3" x 7" 4-19/32" OR 76mm x 2.25m	14
7	Middle base plate		14
7A	Base plate for connecting roof cover		2
7B	Base plate ratchet		22
7D	2" Ratchets		2
7L	Left corner base plate		2
7R	Right corner base plate		2
8A	End wall base plate for door		4
8B	End wall base plate		8
18	Sidewall steel cable	16' 4-27-32" OR 5m	16
19	Band clamp/Clip	2-3/8" OR 76mm	68
19A	Triangular cable plate		8
20	End rafter steel cable	16' 4-27/32" OR 5m	24
20A	Rafter to rafter steel cable	36' 1-1/16" OR 11m	7
27	Door wench		2
27A	Door steel cable	104' 9-27/32" OR 32m	2
29	Rope	196' 10-13/64" OR 60m	1
32A	PVC for end panel	6' 3/4" OR 2m	100
23	Bolt (1), flat washer (2), lock washer (1), hex nut (1)	9/16" x 1-15/16" OR 14mm x 50mm	432
23A	Bolt (1), flat washer (2), lock washer (1), hex nut (1)	15/32" x 1-9/16" OR 12mm x 40mm	44
24	Carriage bolt (1), serrated lock nut (1)	15/32" x 4-11/32" OR 12mm x 110mm	135

118242 (70' x 80') Box 5 (continued)

Part #	Item	Size	Qty
25	Bolt (1), hex nut (1)	13/32" x 3-17/32" OR 10mm x 90mm	28
25A	Carriage bolt (1), serrated lock nut (1)	13/32" x 3-17/32" OR 10mm x 90mm	24
28	Plug	1/2" OR 38mm	28
30	Tool		2
31	2" Ratchet strapping		18
33	Bolt (1), hex nut (1)	13/32" x 1-3/16" OR 10mm x 30mm	44
34	1" Ratchet and strapping		344
37	Wedge anchors		100

118242 (70' x 80') Box 6

5	Hip rafter	3" x 8" 4-13/32" OR 76mm x 2.55m	11
5A	End wall hip rafter	3" x 8' 4-3/8" OR 76mm x 2.55m	4
6A	End wall bottom rafter leg	3" x 7' 4-19/32" OR 76mm x 2.25m	4

117743 (70' x 100') Box 1			
Part #	Item	Size	Qty
35	Roof cover		1
117743 (70' x 100') Box 2			
2	Upper roof rafter	3" x 10' 2-1/16" OR 76mm x 3.1m	18
3	Middle upper roof rafter	3" x 10' 2-1/16" OR 76mm x 3.1m	8
117743 (70' x 100') Box 3			
3	Middle upper roof rafter	3" x 10' 2-1/16" OR 76mm x 3.1m	8
4	Middle roof rafter	3" x 10' 2-1/16" OR 76mm x 3.1m	18
117743 (70' x 100') Box 4			
1	Roof peak	3" x 10' 2-1/16" OR 76mm x 3.1m	9
1A	End wall roof peak	3" x 10' 2-1/16" OR 76mm x 3.1m	2
5A	End wall hip rafter	3" x 8' 4-3/8" OR 76mm x 2.55m	4
16	End wall horizontal girt	3-3/8" x 8' 4-3/8" OR 60mm x 2.55m	20
16A	End upper end wall girt	3-3/8" x 5'4" OR 60mm x 1.6m	4
16C	End lower end wall girt	3-3/8" x 7'7-3/8" OR 60mm x 2.27m	4
117743 (70' x 100') Box 5			
5	Hip rafter	3" x 8" 4-13/32" OR 76mm x 2.55m	3
6	Bottom rafter leg	3" x 7" 4-19/32" OR 76mm x 2.25m	18
7	Middle base plate		18
7L	Left corner base plate		2
7R	Right corner base plate		2
7A	Base plate for connecting roof cover		2
7C	Stake peg	5/8" x 3' 3-3/8" OR 16mm x 1m	4
37	Wedge anchors		116
7B	Base plate ratchet		26
7D	2" Ratchets		2
8A	End wall base plate for door		4
8B	End wall base plate		8
18	Sidewall steel cable	16' 4-27-32" OR 5m	20
19	Band clamp/Clip	2-3/8" OR 76mm	72
19A	Triangular cable plate		10
20	End rafter steel cable	16' 4-27/32" OR 5m	24

117743 (70' x 100') Box 5 (continued)

Part #	Item	Size	Qty
20A	Rafter to rafter steel cable	36' 1-1/16" OR 11m	9
27	Door wench		2
27A	Door steel cable	104' 9-27/32" OR 32m	2
29	Rope	196' 10-13/64" OR 60m	1
23	Bolt (1), flat washer (2), lock washer (1), hex nut (1)	9/16" x 1-15/16" OR 14mm x 50mm	528
23A	Bolt (1), flat washer (2), lock washer (1), hex nut (1)	15/32" x 1-9/16" OR 12mm x 40mm	44
24	Carriage bolt (1), serrated lock nut (1)	15/32" x 4-11/32" OR 12mm x 110mm	165
25	Bolt (1), hex nut (1)	13/32" x 3-17/32" OR 10mm x 90mm	28
25A	Carriage bolt (1), serrated lock nut (1)	13/32" x 3-17/32" OR 10mm x 90mm	24
28	Plug	1/2" OR 38mm	28
30	Tool		2
31	2" Ratchet strapping		22
33	Bolt (1), hex nut (1)	13/32" x 1-3/16" OR 10mm x 30mm	44
34	1" Ratchet and strapping		344

117743 (70' x 100') Box 6

2A	End wall upper roof rafter	3" x 10' 2-1/16" OR 76mm x 3.1m	4
3	Middle upper roof rafter	3" x 10' 2-1/16" OR 76mm x 3.1m	2
3A	End wall middle upper roof rafter	3" x 10' 2-1/16" OR 76mm x 3.1m	4
4A	End wall middle roof rafter	3" x 10' 2-1/16" OR 76mm x 3.1m	4
9	Purlin	2-3/8" x 10' 1-5/8" OR 60mm x 3.09m	150

117743 (70' x 100') Box 7

5	Hip rafter	3" x 8' 4-3/8" OR 76mm x 2.55m	15
6A	End wall bottom rafter leg	3" x 7' 4-19/32" OR 76mm x 2.25m	4

117743 (70' x 100') Box 8

10L	Lower door track at left for front and back door	10' 3/32" OR 3.05m	2
10R	Lower door track at right for front and back door	10' 3/32" OR 3.05m	2
11L	Left middle door track for front and back door	10' 3/32" OR 3.05m	2
11R	Right middle door track for front and back door	10' 3/32" OR 3.05m	2
12L	Left upper door track for front and back door	3' 1-13/32" OR .95m	2
12R	Right upper door track for front and back door	3' 1-13/32" OR .95m	2
13	Lower end wall column	2-3/8" x 9' 8-5/32" OR 60mm x 2.95m	6

117743 (70' x100) Box 8 (continued)

Part #	Item	Size	Qty
13A	Right lower end wall column for connecting wench	2-3/8" x 9' 8-5/32" OR 60mm x 2.95m	2
14L	Upper left end wall column	2-3/8" x 9' 5" OR 60mm x 2.87m	2
14R	Upper right end wall column	2-3/8" x 9' 5" OR 60mm x 2.87m	2
15L	Far upper left end wall column	2-3/8" x 5' 3" OR 60mm x 1.6m	2
15R	Far upper right end wall column	2-3/8" x 5' 3" OR 60mm x 1.6m	2
16B	Front and rear door horizontal girts for door wench	1-9/16" x 2-3/8" x 8' 3/8" OR 4cm x 6cm x 2.47m	2
17	Door header	1-9/16" x 2-3/8" x 9' 1-21/32" OR 4cm x 6cm x 2.785m	4
17A	Vertical support for door header	1-9/16" x 2-3/8" x 6' 3" OR 4cm x 6cm x 1.9m	2
17B	Support for front and back door	1-7/8" x 9' 10-7/8" OR 48mm x 3m	2
21	Base tensioning pipe for end wall cover	1-1/2" x 8' 1/16" OR 38mm x 2.44m	12
22	Base tensioning pipe for roof cover	1-1/2" x 9' 10-7/8" OR 38mm x 3m	40
26	Roll up door pipe	1-1/4" x 9' 2-5/8" OR 32mm x 2.81m	32
32	PVC for roof cover	9' 10-7/8" OR 3m	192
32A	PVC for end panels	6' 3/4" OR 2m	100
35	Roof cover		1
36	End wall cover		2

118243 (70' x 120') Box 1

Part #	Item	Size	Qty
10L	Lower door track at left for front and back door	10' 3/32" OR 3.05m	2
10R	Lower door track at right for front and back door	10' 3/32" OR 3.05m	2
11L	Left middle door track for front and back door	10' 3/32" OR 3.05m	2
11R	Right middle door track for front and back door	10' 3/32" OR 3.05m	2
12L	Left upper door track for front and back door	3' 1-13/32" OR .95m	2
12R	Right upper door track for front and back door	3' 1-13/32" OR .95m	2
13	Lower end wall column	2-3/8" x 9' 8-5/32" OR 60mm x 2.95m	6
13A	Right lower end wall column for connecting wenches	2-3/8" x 9' 8-5/32" OR 60mm x 2.95m	2
17B	Support for front and back door	1-7/8" x 9' 10-7/8" OR 48mm x 3m	2
21	Base tensioning pipe for end wall cover	1-1/2" x 8' 1/16" OR 38mm x 2.44m	12
22	Base tensioning pipe for roof cover	1-1/2" x 9' 10-7/8" OR 38mm x 3m	48
26	Roll up door pipe	1-1/4" x 9' 2-5/8" OR 32mm x 2.81m	32
32	PVC for roof	9' 10-7/8" OR 3m	72
32A	PVC for end walls	6' 3/4" OR 2m	100
35	Roof cover		3
36	End wall cover		2

118243 (70' x 120') Box 2

2	Upper roof rafter	3" x 10' 2-1/16" OR 76mm x 3.1m	22
6	Bottom rafter leg	3" x 7" 4-19/32" OR 76mm x 2.25m	4

118243 (70' x 120') Box 3

3	Middle upper roof rafter	3" x 10' 2-1/16" OR 76mm x 3.1m	22
6	Bottom rafter leg	3" x 7" 4-19/32" OR 76mm x 2.25m	4

118243 (70' x 120') Box 4

4	Middle roof rafter	3" x 10' 2-1/16" OR 76mm x 3.1m	22
6	Bottom rafter leg	3" x 7" 4-19/32" OR 76mm x 2.25m	4

118243 (70' x 120') Box 5

5	Hip rafter	3" x 8" 4-13/32" OR 76mm x 2.55m	15
6	Bottom rafter leg	3" x 7" 4-19/32" OR 76mm x 2.25m	4

118243 (70' x 120') Box 6

2A	End wall upper roof rafter	3" x 10' 2-1/16" OR 76mm x 3.1m	4
3A	End wall middle upper roof rafter	3" x 10' 2-1/16" OR 76mm x 3.1m	4
4A	End wall middle roof rafter	3" x 10' 2-1/16" OR 76mm x 3.1m	4
9	Purlin	2-3/8" x 10' 1-5/8" OR 60mm x 3.09m	180

118243 (70' x 120') Box 7

Part #	Item	Size	Qty
5	Hip rafter	3" x 8' 4-3/8" OR 76mm x 2.55m	7
5A	End wall hip rafter	3" x 8' 4-3/8" OR 76mm x 2.55m	4
6	Bottom rafter leg	3" x 7" 4-19/32" OR 76mm x 2.25m	6
6A	End wall bottom rafter leg	3" x 7' 4-19/32" OR 76mm x 2.25m	4
7C	Stake peg	5/8" x 3' 3-3/8" OR 16mm x 1m	4
7D	2" Ratchets		4
18	Sidewall steel cable	16' 4-27/32" OR 5m	24
19	Band clamp/Clip	2-3/8" OR 76mm	76
19A	Triangular cable plate		12
20	End rafter steel cable	16' 4-27/32" OR 5m	24
20A	Rafter to rafter steel cable	36' 1-1/16" OR 11m	11
27	Door wench		2
29	Rope	196' 10-13/16" OR 60m	1
23	Bolt (1), flat washer (2), lock washer (1), hex nut (1)	9/16" x 1-15/16" OR 14mm x 50mm	624
23A	Bolt (1), flat washer (2), lock washer (1), hex nut (1)	15/32" x 1-3/16" OR 12mm x 30mm	44
24	Carriage bolt (1), serrated lock nut (1)	15/32" x 4-11/32" OR 12mm x 110mm	195
25	Bolt (1), hex nut (1)	13/32" x 3-17/32" OR 10mm x 90mm	28
25A	Carriage bolt (1), serrated lock nut (1)	13/32" x 3-17/32" OR 10mm x 90mm	26
27A	Door steel cable	104' 9-27/32" OR 32m	2
28	Plug	1/2" OR 38mm	30
30	Tool		2
31	2" Ratchet strapping		26
33	Bolt (1), hex nut (1)	13/32" x 1-3/16" OR 10mm x 30mm	44
34	1" Ratchet and strapping		410
37	Wedge anchors		136

118243 (70' x 120') Box 8

1	Roof peak	3" x 10' 2-1/16" OR 76mm x 3.1m	11
1A	End wall roof peak	3" x 10' 2-1/16" OR 76mm x 3.1m	2
7	Middle base plate		22
7A	Base plate for connecting roof cover		4
7B	Base plate ratchet		30
7L	Left corner base plate		2
7R	Right corner base plate		2

118243 (70' x120) Box 8 (continued)

Part #	Item	Size	Qty
8A	End wall base plate for door		4
8B	End wall base plate		8
14L	Upper left end wall column	2-3/8" x 9' 5" OR 60mm x 2.87m	2
14R	Upper right end wall column	2-3/8" x 9' 5" OR 60mm x 2.87m	2
15L	Far upper left end wall column	2-3/8" x 5' 3" OR 60mm x 1.6m	2
15R	Far upper right end wall column	2-3/8" x 5' 3" OR 60mm x 1.6m	2
16	End wall horizontal girt	3-3/8" x 8' 4-3/8" OR 60mm x 2.55m	20
16A	End upper end wall girt	3-3/8" x 5'4" OR 60mm x 1.6m	4
16B	Front and rear door horizontal girts for door wench	1-9/16" x 2-3/8" x 8' 3/8" OR 4cm x 6cm x 2.47m	2
16C	End lower end wall girt	3-3/8" x 7'7-3/8" OR 60mm x 2.27m	4
17	Door header	1-9/16" x 2-3/8" x 9' 1-21/32" OR 4cm x 6cm x 2.785m	4
17A	Vertical support for door header	1-9/16" x 2-3/8" x 6' 3" OR 4cm x 6cm x 1.9m	2