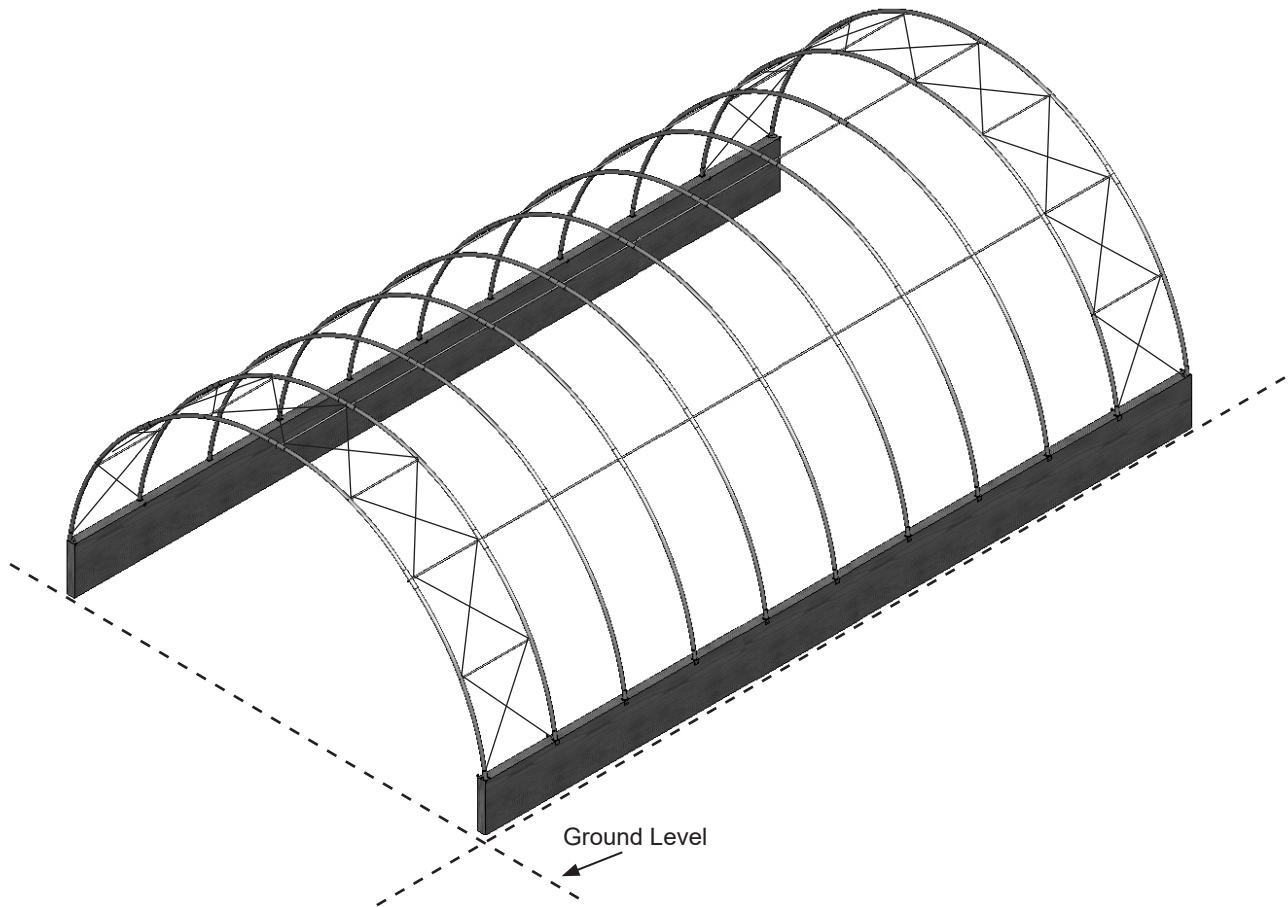




## ClearSpan™ 36' Wide Pony Wall Building



*Photo may show a model of a different length. Cover is not shown.*

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

STK#	DIMENSIONS
108467	36' W x 16' 2" H x 60' L
108468	36' W x 16' 2" H x 72' L
108469	36' W x 16' 2" H x 84' L
108470	36' W x 16' 2" H x 96' L

*\*Building height does not include pony wall.*



### YOU MUST READ THIS DOCUMENT BEFORE YOU BEGIN TO ASSEMBLE THE SHELTER.

Thank you for purchasing this ClearSpan™ shelter. When properly assembled and maintained, this product will provide years of reliable service. These instructions include helpful hints and important information needed to safely assemble and properly maintain the shelter. Please read these instructions **before** you begin.

If you have any questions during the assembly, contact Customer Service for assistance.

### SAFETY PRECAUTIONS

- Wear eye protection.
- Wear head protection.
- Wear gloves when handling metal tubes.
- Use a portable GFCI (Ground Fault Circuit Interrupter) when working with power tools and cords.
- Do not climb on the shelter or framing during or after construction.
- Do not occupy the shelter during high winds, tornadoes, or hurricanes.
- Provide adequate ventilation if the structure is enclosed.
- Do not store hazardous materials in the shelter.
- Provide proper ingress and egress to prevent entrapment.

### ANCHORING INSTRUCTIONS

Prior to assembling this shelter, please read the anchoring precautions and instructions included with the kit. Anchoring instructions are included in the **MUST READ** document. *You must anchor the building after the frame is assembled and before the cover is installed.*

**⚠ WARNING:** The anchor assembly is an integral part of the shelter construction. Improper anchoring may cause shelter instability and failure of the structure. Failing to anchor the shelter properly *will void the manufacturer's warranty* and may cause serious injury and damage.

### LOCATION

Choosing the proper location is an important step before you begin to assemble the structure. *Always consult local and regional building codes before you begin.*

The following suggestions and precautions will help you determine whether your selected location is the best location.

- Never erect the structure under power lines.
- Identify whether underground cables and pipes are present *before* preparing the site or anchoring the structure.
- Location should be away from structures that could cause snow to drift on or around the building.
- Do not position the shelter where large loads such as snow and ice, large tree branches, or other overhead obstacles could fall.

### SITE

After choosing a location, proper preparation of the site is essential. The following site characteristics will help ensure the integrity of the structure.

- A level site is required to properly and safely erect and anchor the frame.
- Drainage: Water draining off the structure and from areas surrounding the site should drain away from the site to prevent damage to the site, the structure, and contents of the structure.

**⚠ WARNING:** The individuals assembling this structure are responsible for designing and furnishing all temporary bracing, shoring and support needed during the assembly process. For safety reasons, those who are not familiar with recognized construction methods and techniques *must seek the help of a qualified contractor.*

### SITE PREPARATION AND SUPPORT STRUCTURE

The information regarding the preparation of the site and constructing the pony walls is presented as a general set of guidelines.

**⚠** Soil conditions vary greatly among different sites. Consult the services of a qualified engineer before you prepare the site to determine the best and most efficient way to construct a support structure for the horse barn system.

Prepare the site so drainage is away from the building and in a direction that will not cause erosion around the support structure.

## ASSEMBLY PROCEDURE

Following the instructions as presented will help ensure the proper assembly of your shelter. Failing to follow these steps may result in an improperly assembled and anchored shelter and will void all warranty and protection the owner is entitled to.

The steps outlining the assembly process are as follows:

1. Verify that all parts are included in the shipment. Notify Customer Service for questions or concerns.
2. Read these instructions, the Must Read document, and all additional documentation included with the shipment **before** you begin assembling the shelter.
3. Gather the tools, bracing, ladders (and lifts), and assistants needed to assemble the shelter.
4. Check the weather **before** you install the roof cover and any panels (if equipped). Do not install covers or panels on a windy or stormy day.
5. Re-evaluate the location and site based on the information and precautions presented in the documentation included with the shipment.
6. Lay out the site (if this has not been completed).
7. Assemble the frame components in the order they are presented in these instructions.
8. Assemble the frame including the bracing (if equipped).
9. Consult the Must Read document for anchoring comments and instructions.
10. Install, tighten, and secure the end panel (if equipped) and main cover. This applies to fabric covers that stretch over the frame assembly.
11. Read the care and maintenance information at the end of these instructions.
12. Complete and return all warranty information as instructed.

## LIST OF WORDS AND PHRASES

Before you begin, it is important to become familiar with the words and phrases used in this instruction manual.

These words and phrases are common to most ClearSpan™ shelters and identify the different parts of the shelter. (Some are used in this document. Others may not apply to this particular shelter.) These terms describe the shipped parts and can also be found on the materials list/spec sheets included with the shipment. To aid in the assembly, read through the following definitions before you begin to assemble your shelter.

- **Conduit:** An assembly of pipes used to secure the main cover and end panels (if equipped). Purlins and some strut assemblies also consist of connected pipes to form a conduit. Each pipe joint of a conduit assembly is secured with a self-tapping Tek screw.
- **Coupler or Fitting:** A part of the frame assembly where legs, purlins and rafter pipes are inserted and secured. In most instances, 3-way and 4-way couplers are used. In some larger applications, couplers are used to secure the joints of the different rafter sections during the assembly of the rafters. Some shelters do not use couplers.
- **Foot, Rafter Foot, or Base Plate:** The part attached to and found at the base of the rafter or leg of the shelter. Depending on the shelter, the foot is an optional purchase. Some shelters do not offer an optional foot. Some use 1-way connectors; others use ground posts.
- **Must Read Document:** This document includes building and shelter anchoring instructions, steps for end wall reinforcement, safety precautions, and notices and warnings. The Must Read document is sent with all shelters and buildings. If you did not receive a Must Read document, contact Customer Service to request one.
- **On-Center:** Term used to describe a measurement taken from the vertical center of the rafter or frame member to the vertical center of another.
- **Purlin or Angled (or Lateral) Bracing:** The pipe assemblies that run perpendicular to the rafters or framework that supports the main cover. These assemblies are found on the sides and roof areas of the assembled frame, are evenly spaced, and typically run from the front to the back of the shelter.
- **Plain or Straight Pipe:** A term used to describe a pipe that has the same diameter or width throughout its entire length.
- **Strut:** A strut is usually a length of pipe with two flattened ends and is used for diagonal bracing of the shelter frame. A strut is typically secured to the frame work by special brackets, bolts, and/or clamps.
- **Swaged End or Swaged Pipe:** The term "swaged" refers to the tapered end of the pipe or tube. Swaged ends of a pipe can be inserted into couplers and the straight ends of other pipes of the same diameter.
- **Tek Screw:** A self-tapping fastener used to secure pipe joints and to fasten brackets to rafters.

## CLEARSPAN™ PONY WALL BUILDINGS

### REQUIRED TOOLS

The following list identifies the main tools needed to assemble the shelter. Additional tools and supports may be needed.



Space below is reserved for customer notes.

- Transit or laser level for site and pony wall layout
- String line and tape measure
- Marker, carpenter's level, and shovel
- Variable speed drill and impact driver (cordless with extra batteries works best)
- Wrenches or ratchet and impact socket set (recommended)
- Drill and bits
- Saw to cut wood and metal
- Magnetic nut setter (3/8" x 2-9/16")
- Scissors or utility knife to cut cover material and strap
- Tool to cut cable to the required length
- Hammers, gloves, and eye protection
- Ladders, work platforms, and other machinery for lifting designed to work safely at the height of the shelter
- Rope (or straps) for cover installation

### UNPACK AND IDENTIFY PARTS

The following steps will ensure that you have all the necessary parts *before* you begin to assemble the shelter.

1. Unpack the contents of the shipment and place where you can easily inventory the parts. Refer to the Bill of Materials/Spec Sheets.
2. Verify that all parts listed on the Bill of Materials/Spec Sheets are present. If anything is missing or you have questions, consult the Pictorial Parts Guide and all shelter diagrams throughout these instructions for clarification, or contact Customer Service.

**NOTE:** At this time, you do not need to open the plastic bags containing the fasteners (if used).

### QUICK START GUIDE

For a quick overview of this shelter and its components, consult the Quick Start Guide near the back of these instructions. The pages of the Quick Start Guide show exploded views of all critical connections. Use the diagrams in the Quick Start section to assemble the frame of your building.

Consult the remainder of these instructions for important details that will help during the construction.

# ClearSpan

The following graphics and photos will help identify the different parts of the building. Consult the Quick Start Guide for additional details and diagrams. (Some parts are not shown.)



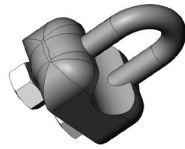
FA4482B  
Tek Screw



QH1061  
1" Ratchet



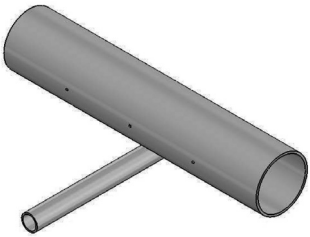
AS1084  
1/4" Cable Thimble



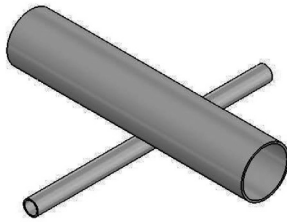
AS1004  
1/4" Cable Clamp



104074  
Square-to-Round  
Connect Bracket



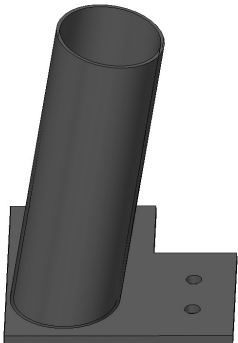
CP287X125E  
End Coupler



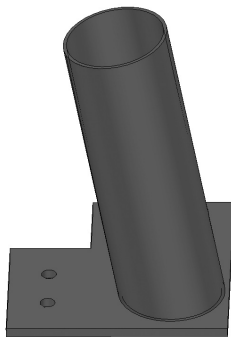
CP287X125M  
Mid Coupler



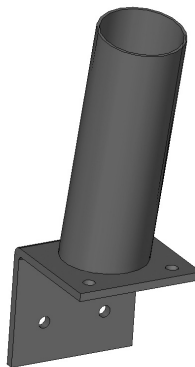
104189 Turnbuckle



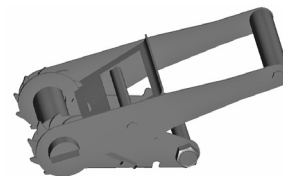
110617L  
Rafter Feet



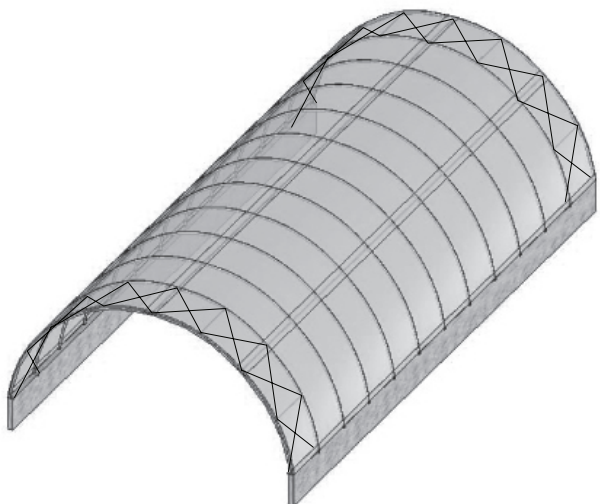
110617R  
Rafter Feet



F325HBM  
Rafter Feet



QH1065  
2" Ratchet

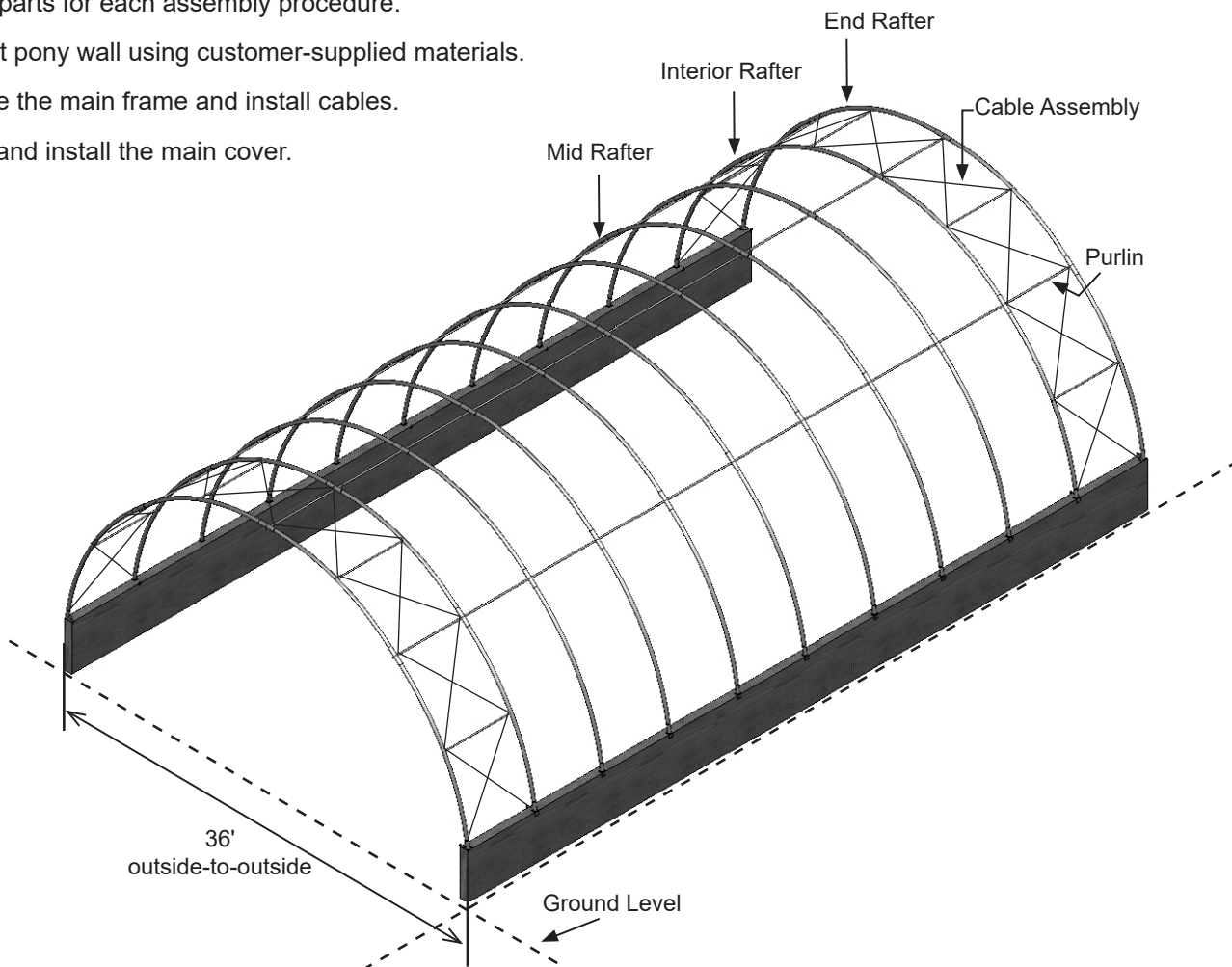


## ClearSpan™ 36' Wide Pony Wall Building

### OVERVIEW

This section describes assembling your building. For details of each assembly procedure, consult the Quick Start Guide and the individual sections of these instructions. See illustration below to identify main parts of shelter.

1. Grade, level, and layout the site, and identify the required parts for each assembly procedure.
2. Construct pony wall using customer-supplied materials.
3. Assemble the main frame and install cables.
4. Prepare and install the main cover.



*Photo may show a model of a different length. Cover is not shown.*

**LAY OUT THE BUILDING SITE**

Review the previous Location and Site information before you begin construction of the pony wall.

You (and your contractor, if any) are responsible for providing a pony wall suitable for the shelter, the soil conditions, and weather (including but not limited to wind, rain, snow, frost, and ice, etc.). Depending on location, climate and weather, timbers or other posts may need to be cemented into the ground at least 4' to prevent movement caused by frost and other weather related loads. Consult the building codes (if any) for your area before you construct the pony wall. Consult a qualified contractor before you begin construction of your pony wall.

**ATTENTION:** To install and secure the cover properly, the rafters must be positioned to the outside edge of the pony wall. This allows the main cover to drape evenly down the side of the pony wall where it is secured to ratchets.

Read the following before you begin pony wall construction:

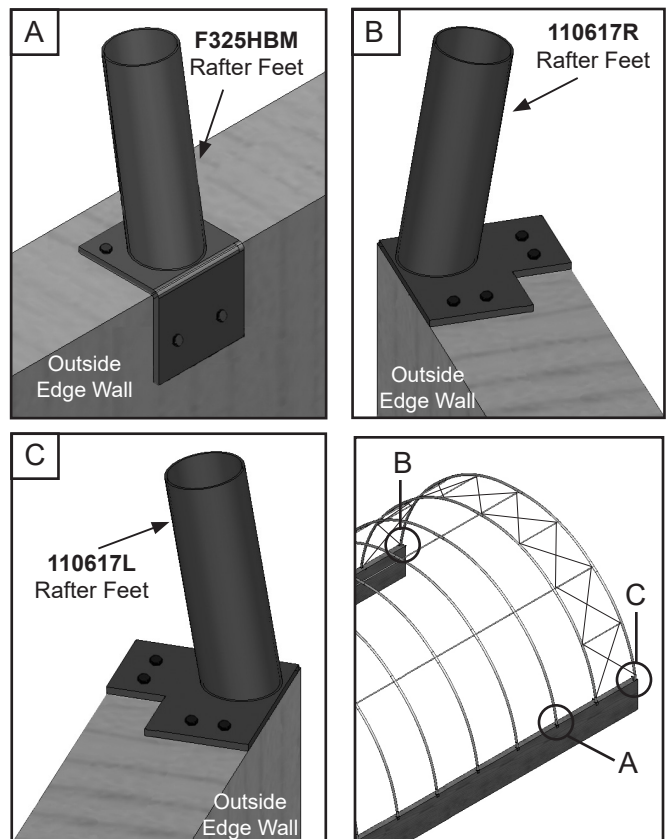
- **Width:** The recommended width of the pony wall for a 36' wide building is 36' 0" (outside-to-outside). Wall must accommodate the on-center width of the rafters without being too wide to interfere with cover installation. See pony wall thickness comment below.
- **Length:** The length of the pony wall should be the on-center shelter length plus an additional 3"-6" to accommodate the dimensions of the mounting feet, which extend beyond the end rafters.



- The top of the pony wall must be level. The building frame will not assemble properly if the top of the pony wall is uneven.
- Pony wall thickness: The thickness of the pony wall must provide a surface for the entire mounting base of each rafter foot. See the diagram to the right.

**REMEMBER:** The cover of the building attaches to the outside of the wall. Position rafters as shown in the diagrams for both sides.

- The pony wall must support the load created by the shelter plus the additional loads imposed by the wind and other elements. Concrete, large pre-cast concrete blocks, or 8" x 8" (or larger) timbers (to accommodate the rafter mounting feet) are all acceptable materials when constructing the pony wall.
- Standard and approved building techniques are required. You must observe and adhere to all local and national building codes and requirements. Consult a professional contractor when in doubt.
- Due to the characteristics of the pipe (including bend radius) and the design of the shelter, there are often variations in the width and height of the building. Covers and end panels purchased or supplied with the shelter include sufficient material to accommodate these variations.



**ATTENTION:** The procedures that follow describe attaching the rafter feet to the pony wall (see diagram above) and then assembling the rafters and frame.

**Review all diagrams before you begin.**

The customer is responsible for supplying the fasteners to secure the rafter feet to the pony wall structure.

# 1

## ATTACH RAFTER FEET

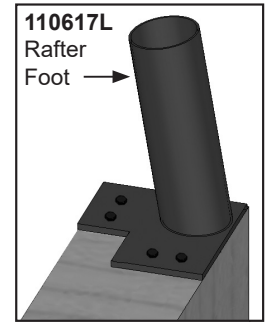
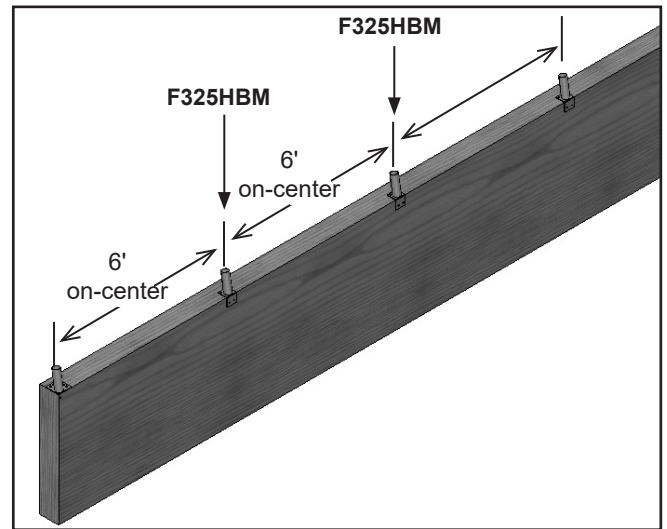
Gather the parts:

- 110617R Rafter Feet
- 110617L Rafter Feet
- F325HBM Rafter Feet
- Customer-supplied fasteners

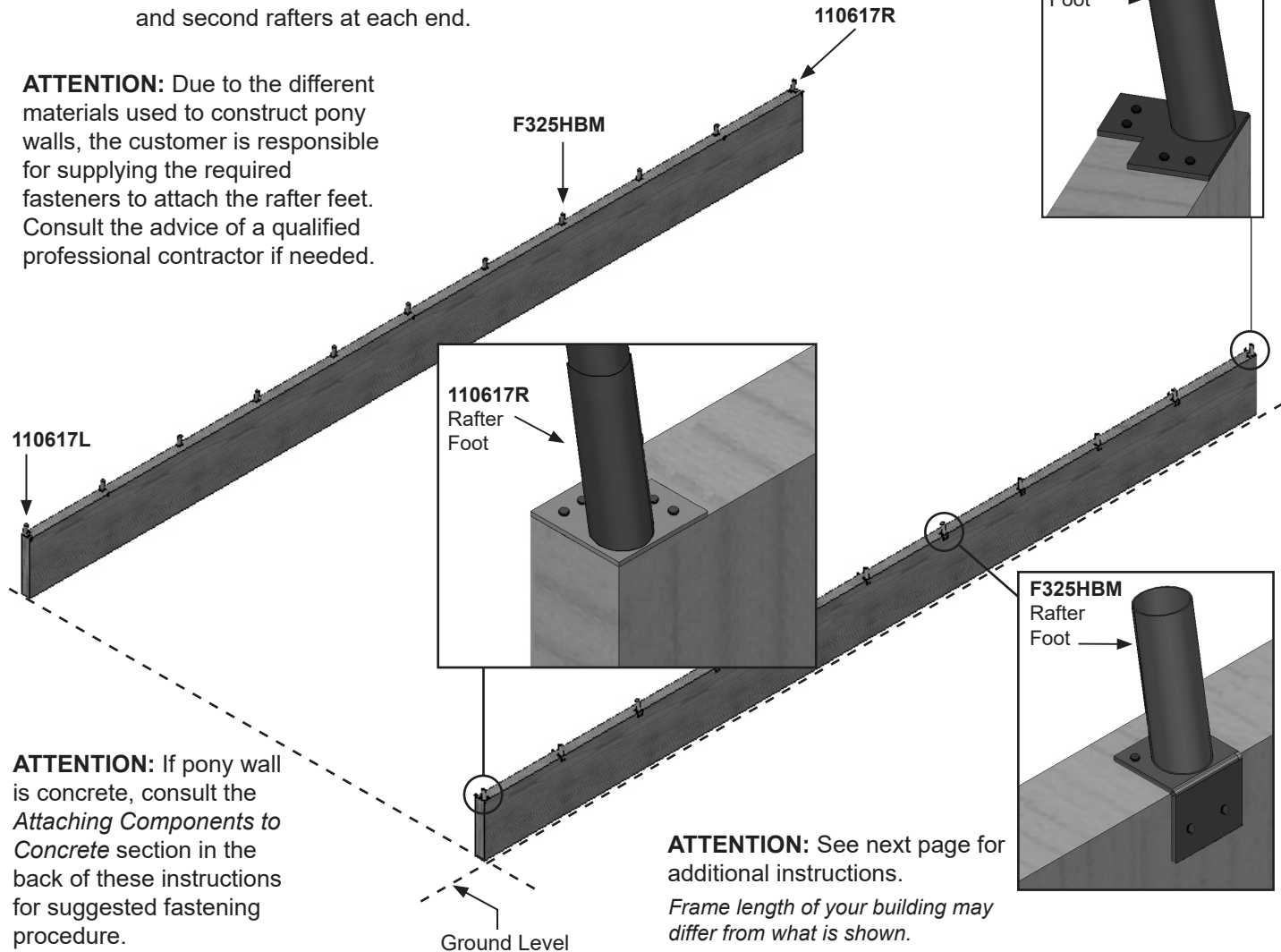
Use the diagrams to attach the four (4) corner rafter feet for the two end rafters. Attach feet flush with the outside of the pony walls. Consult the Side Profile diagrams in the Quick Start section before setting feet. **Frame length is measured on-center.**

With the corner feet attached, measure 6' on-center and attach each F325HBM foot to the top of the pony wall.

Continue with the information on the following page to install the 104074 brackets used to attach cables between the first and second rafters at each end.



**ATTENTION:** Due to the different materials used to construct pony walls, the customer is responsible for supplying the required fasteners to attach the rafter feet. Consult the advice of a qualified professional contractor if needed.



**ATTENTION:** If pony wall is concrete, consult the *Attaching Components to Concrete* section in the back of these instructions for suggested fastening procedure.

**ATTENTION:** See next page for additional instructions.

*Frame length of your building may differ from what is shown.*



# 2

## ATTACH 104074 BRACKETS FOR CABLES

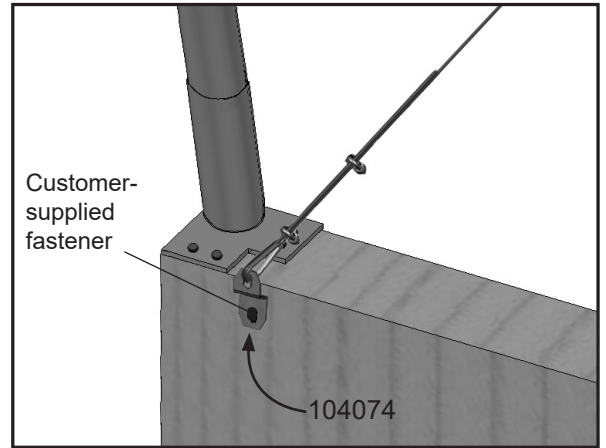
For the first and second rafter at each end, install a 104074 bracket as shown.

**For the end rafters**, secure the bracket to the inside of the pony wall using a customer-supplied fastener. See Diagram A.

**For the second rafter from each end**, secure the bracket to the inside of the pony wall using a customer-supplied fastener on the side closest to the end rafter. See Diagram B.

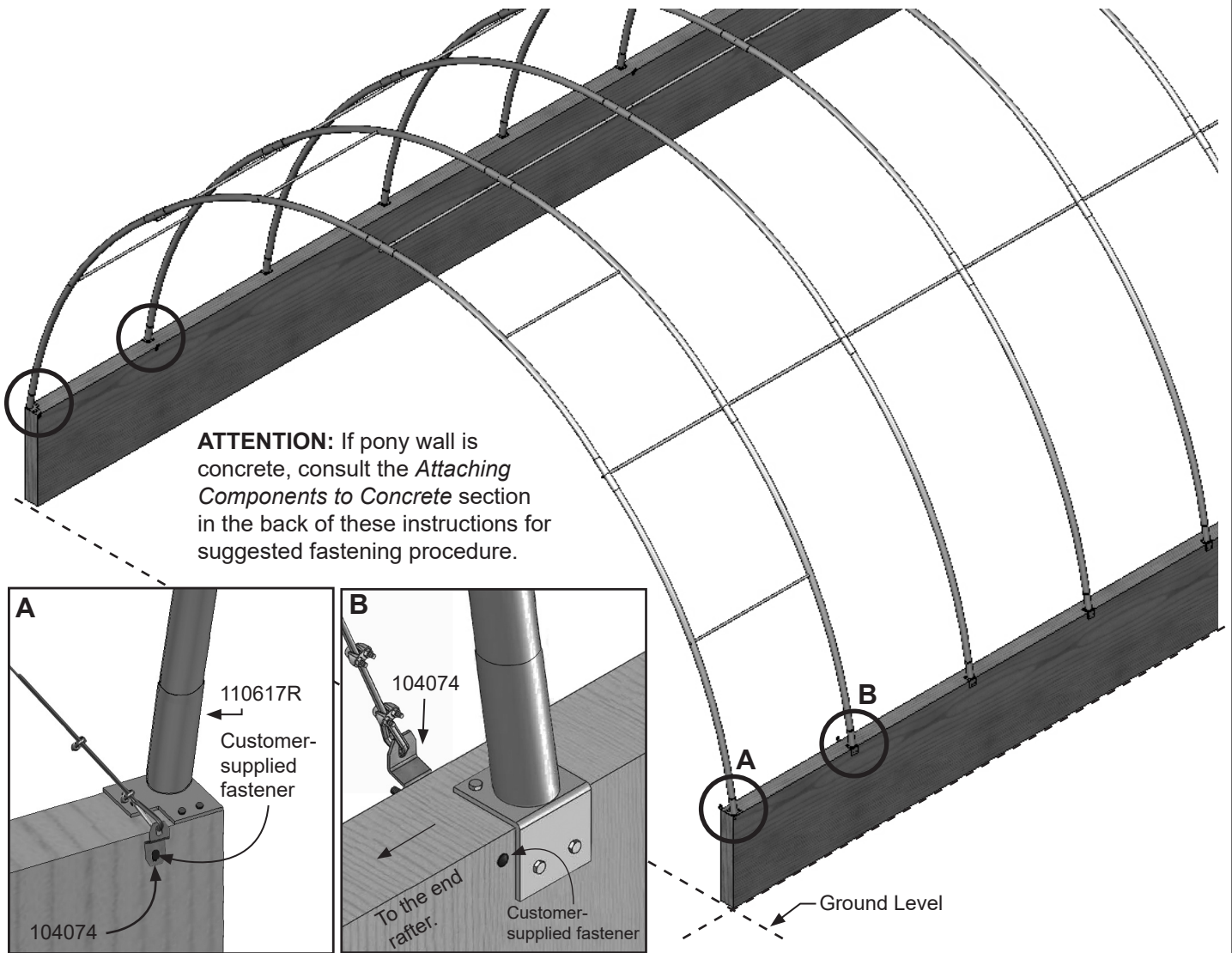
After attaching all 104074 brackets, install the rafters and main frame assembly. See the diagrams and steps on the next page.

*Rafters are installed later in this manual.*

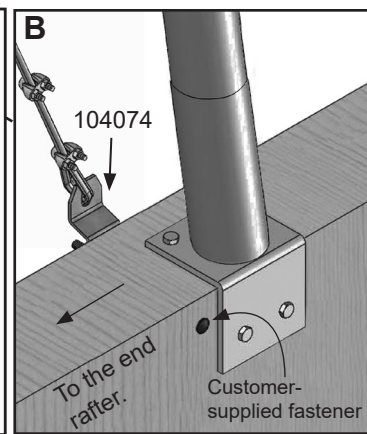
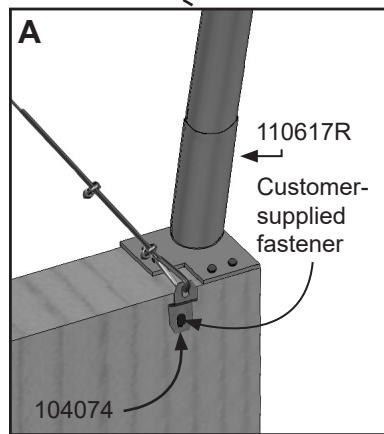


The 104074 brackets provide a mounting point for each of the lower cable ends between the first and second rafters at each end. Cable shown above is installed later.

Attach all 104074 brackets to the inside of the constructed pony wall.



**ATTENTION:** If pony wall is concrete, consult the *Attaching Components to Concrete* section in the back of these instructions for suggested fastening procedure.



# 3

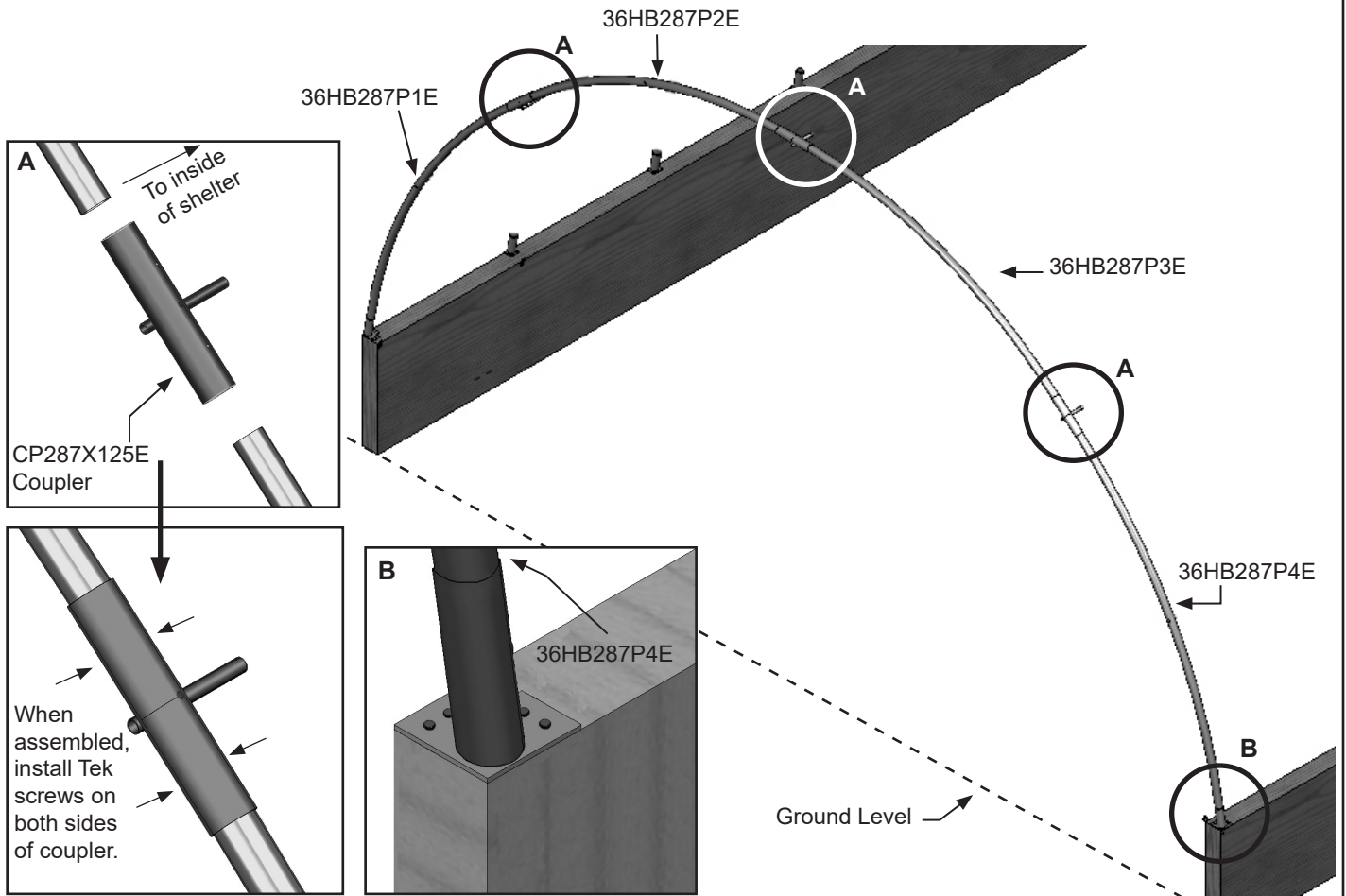
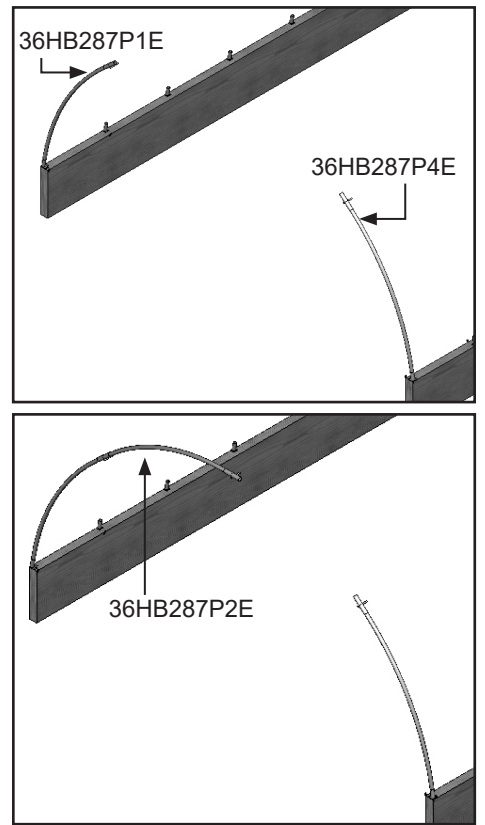
## RAFTER AND MAIN FRAME ASSEMBLY

Assistance and lifts are required to assemble the main frame. The illustrations that follow identify the main parts of the frame assembly.

1. Locate three (3) couplers (CP287X125E) and four individual pipes for the end rafter: 36HB287P1E, 36HB287P2E, 36HB287P3E and 36HB287P4E.
2. Install a Tek screw (FA4484B) into the center hole of each coupler to set the distance the coupler slides onto each pipe.
3. Take the first two pipes (top right diagram) and slide each into the mounted rafter foot. *Position the correct pipe into the correct rafter foot and support the pipe until rafter is complete.*

**NOTE:** Purlin holes in the end rafter pipes should point toward the inside of the frame.

4. Slide a coupler onto the end of each pipe installed in previous step. See Diagram A below.
5. Take the final coupler and two (2) remaining rafter pipes and install to complete the end rafter. Temporarily brace the rafter in position until additional rafters are installed.



# 3

## RAFTER AND MAIN FRAME ASSEMBLY (continued)

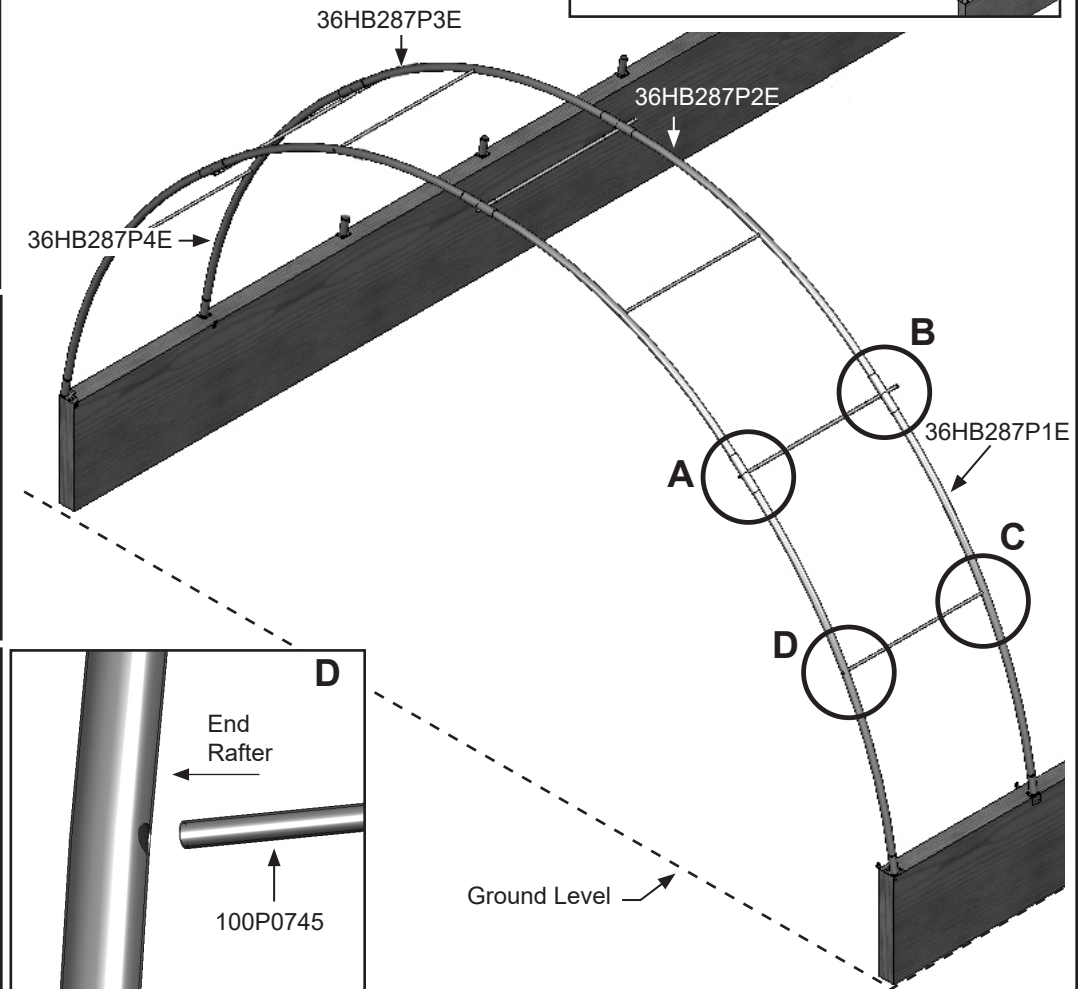
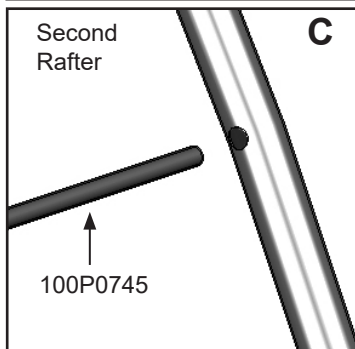
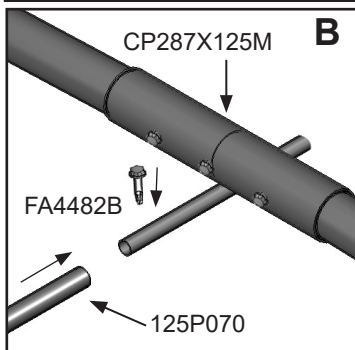
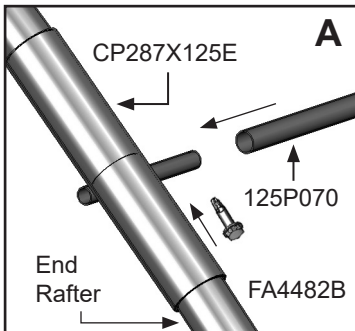
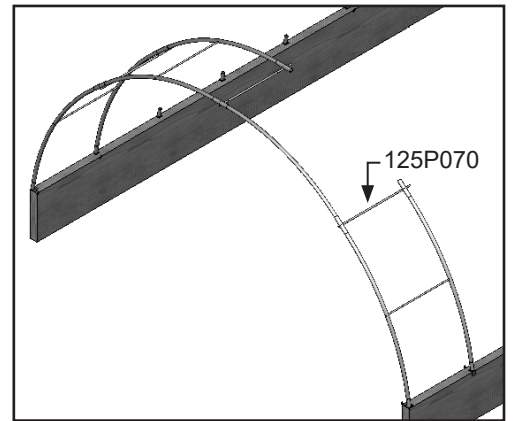
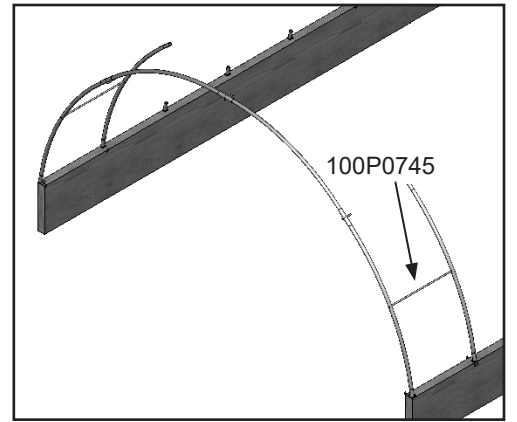
6. Locate the first two rafter pipes for the second rafter and slide each into a mounted rafter foot.

**ATTENTION: Order of pipes is opposite that of the end rafter.** Verify that the purlin holes of the second rafter pipes are toward the end rafter. Holes will align with the those of the end rafter. See diagrams to the right.

7. Using the diagrams below and the previous steps, assemble the remainder of the second rafter, including the purlins as shown below. Remember to install a Tek screw in the center hole of each coupler to set the rafter depth. Verify that you have selected the correct rafter and purlin pipes and have placed them in the correct location.

8. After assembling the rafter and adding the purlins, return to both rafters and install FA4482B Tek screws through all remaining coupler holes and into the rafter pipes.

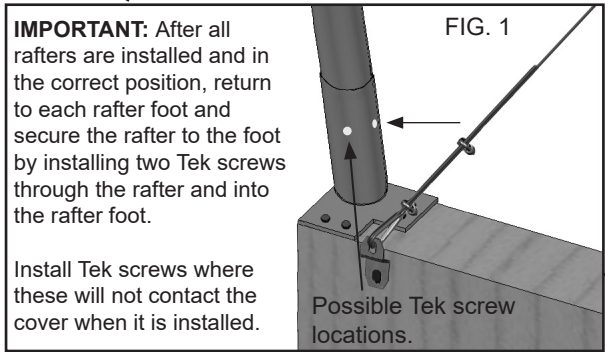
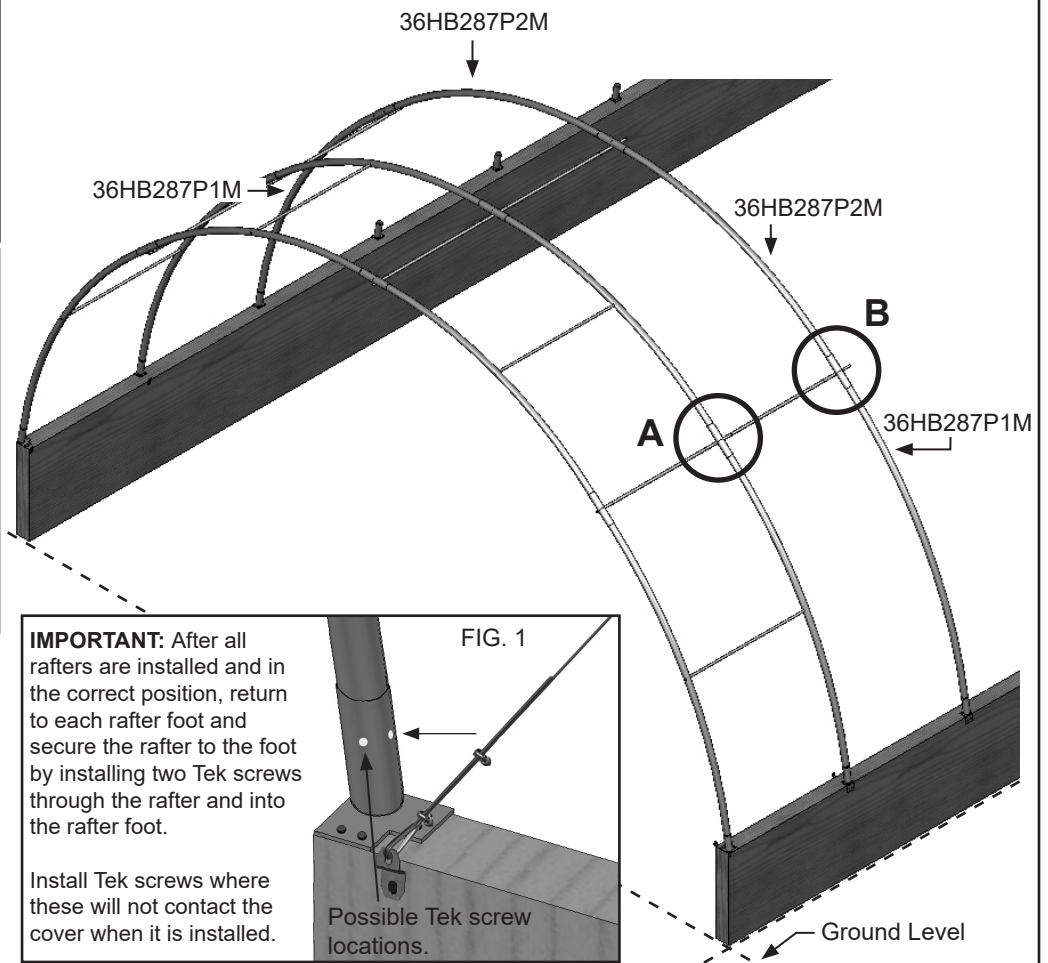
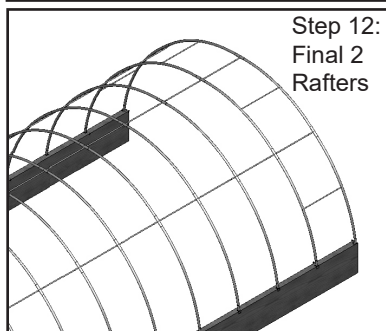
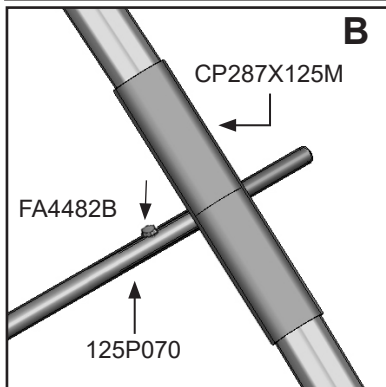
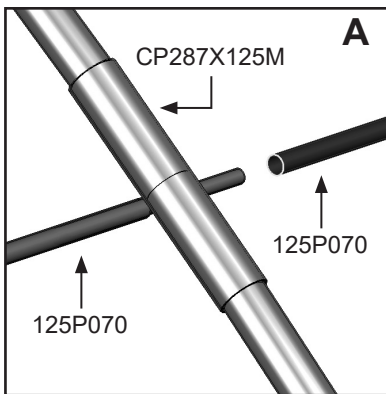
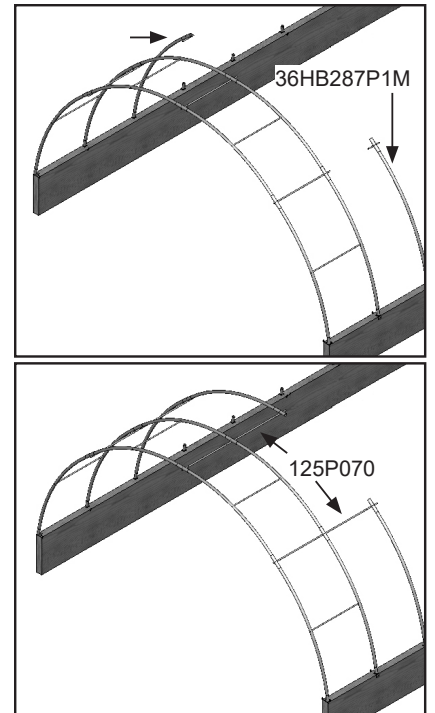
**IMPORTANT:** Also install a Tek screw through each purlin pipe and into the coupler pipe. **To prevent cover wear, use the supplied tape to tape over the heads of the Tek screws on the outer edge of each end rafter coupler.**



# 3

## RAFTER AND MAIN FRAME ASSEMBLY (continued)

9. Using the diagrams on this page and those at the end of this instruction guide, assemble the next interior rafter. **ATTENTION:** Only the first two rafters at each end include the additional purlin pipes inserted into pre-drilled holes in the rafter pipes. See the diagrams for details.
10. Repeat Step 8 to secure the rafter pipes in the couplers and purlins to the couplers. **IMPORTANT:** Install a FA4482B Tek screw through each purlin pipe and into the coupler pipe.
11. Repeat the rafter assembly procedure (Steps 9-10) and work toward the final two rafters at the other end of the building.
12. Repeat Steps 1-8 as needed to complete the assembly of the main frame and the final two rafters. See diagrams.
13. Remove any temporary rafter bracing and check that Tek screws have been installed through both sides of each coupler to secure the rafter pipe joints. Install if needed.
14. Secure each rafter to each foot using two (2) Tek screws (FIG. 1).



**IMPORTANT:** After all rafters are installed and in the correct position, return to each rafter foot and secure the rafter to the foot by installing two Tek screws through the rafter and into the rafter foot.

Install Tek screws where these will not contact the cover when it is installed.

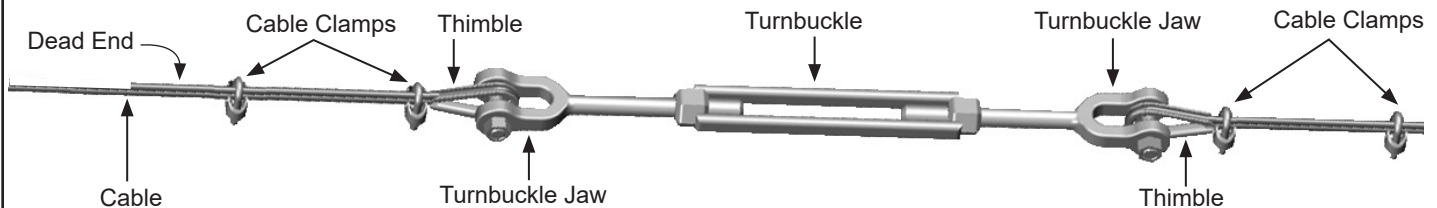
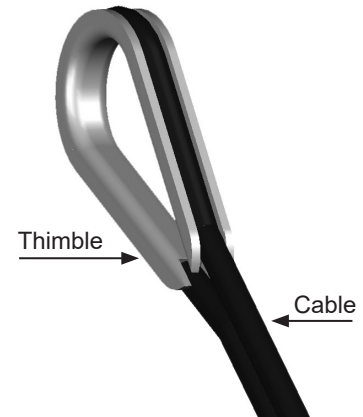
## 4

**CABLE ASSEMBLY**

Cable assemblies provide diagonal bracing for the building. *Each cable assembly* includes the following items:

- Two (2) lengths of cable: Measure from point-to-point on the frame and cut as needed. Allow extra to secure the connections and install the clamps.
- Turnbuckle (1)
- Cable thimbles (2—see note below) and cable clamps (8)

**NOTE:** The four (4) lower cables at each end require one (1) additional thimble per cable to connect the cable to the 104074 bracket attached earlier. See Step 2. Consult the Cable Diagram on the following page and the Side Profile Diagram in the Quick Start section for clarification and cable locations.



*Typical Turnbuckle Assembly*

#### Cable Assembly Procedure

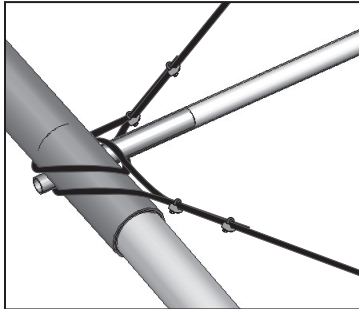
1. Using the Side Profile Diagram in the Quick Start section (and others) as guides, measure the distance needed on the frame and cut the cable to the proper length for each assembly. Remember to account for the turnbuckle and the cable length needed to wrap around the rafter and to install clamps. (Extra cable has been sent for the cabling.) Make a single assembly *before* making them all. This allows a check to be sure the correct length has been cut. Make the necessary length adjustments as needed before making additional assemblies. **Always measure before cutting the cable.**
2. Place one cable thimble approximately twelve inches (12") from the end of a cable section and wrap the cable around the thimble as shown above.
3. Grasp both sections of the cable near the thimble and position one cable clamp one inch away from the thimble as shown above. *Position the clamp on the cable with its U-bolt portion over the short/dead section of the cable.*
4. With the saddle portion of the cable clamp in position on the "live" section of cable, thread the nuts onto the U-bolt section of the clamp and tighten slightly to maintain the position of the clamp on the cable.
5. Install a second cable clamp on the cable six to eight (6"-8") inches from the first clamp and tighten both clamps.
6. Remove the bolt from the jaw of the turnbuckle and position the cable end with the thimble into the turnbuckle jaw.
7. Insert the bolt through the turnbuckle jaw and the cable thimble, thread the nut onto the bolt, and tighten to secure the cable to the turnbuckle.
8. Repeat Steps 2-7 for the remaining length of cable for this assembly.
9. Open the turnbuckle to its longest position and set the assembly aside.
10. Repeat the above procedure for all remaining cable assemblies. *Always measure length on the frame before cutting the cables.*
11. Attach the cables to the assembled frame. See the diagrams on the next page.

# 5

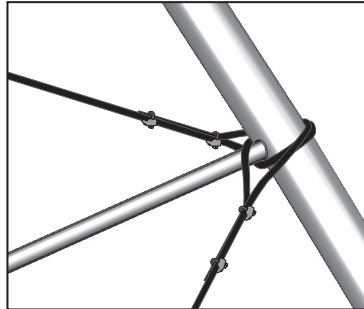
## INSTALL AND TIGHTEN ALL CABLES

The diagram and inserts below identify the placement and proper way to attach the cable assemblies to the building. Attach the end rafters to the end wall frame before you install and tighten the cables. After attaching all cables to the frame between the first two rafters at each end, tighten the turnbuckles. *Cable placement and position is the same at the other end of the assembled frame.*

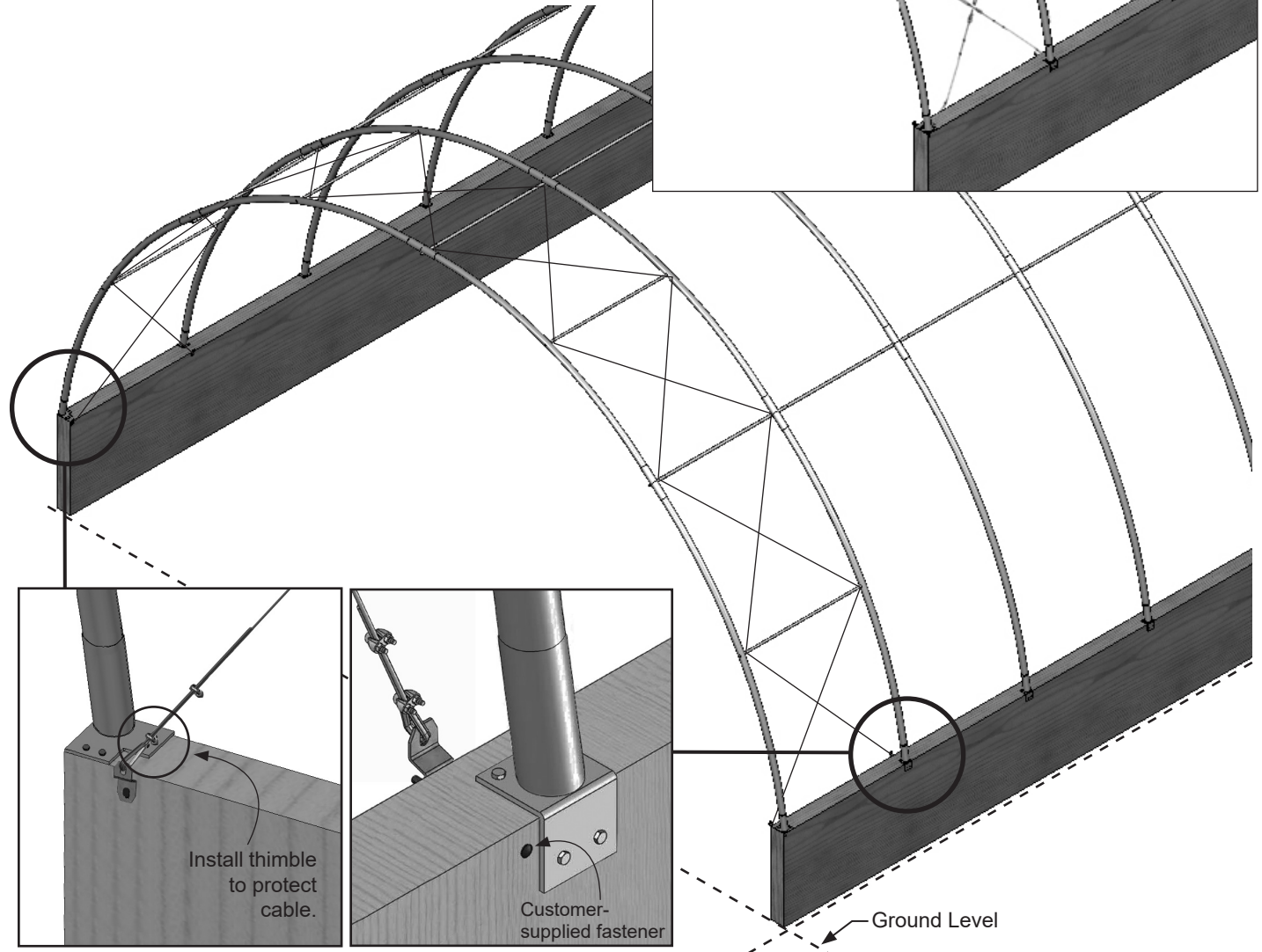
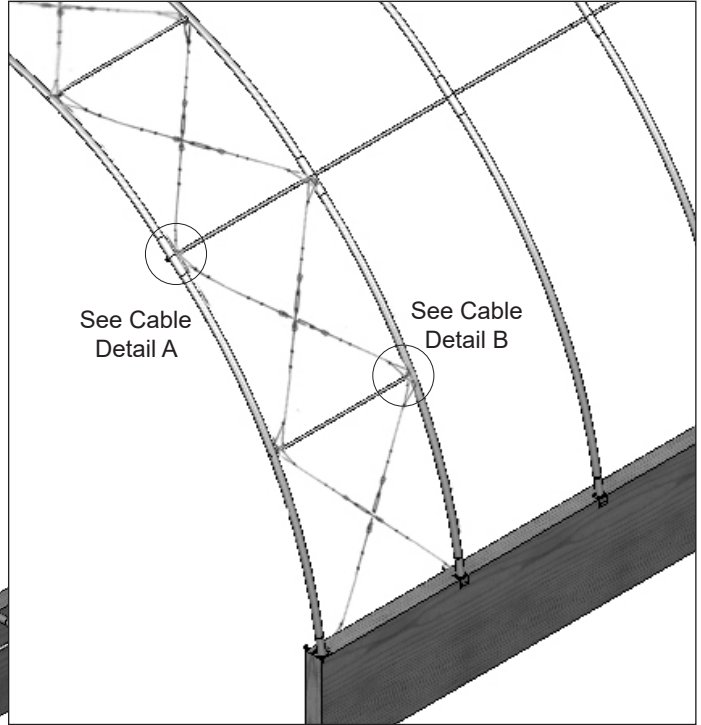
**ATTENTION:** Verify that all 104074 brackets are attached to the inside surface of the pony wall before attaching the cables.



Cable Detail A



Cable Detail B



Install thimble to protect cable.

Customer-supplied fastener

Ground Level

# 6

## INSTALL SIDE RATCHETS

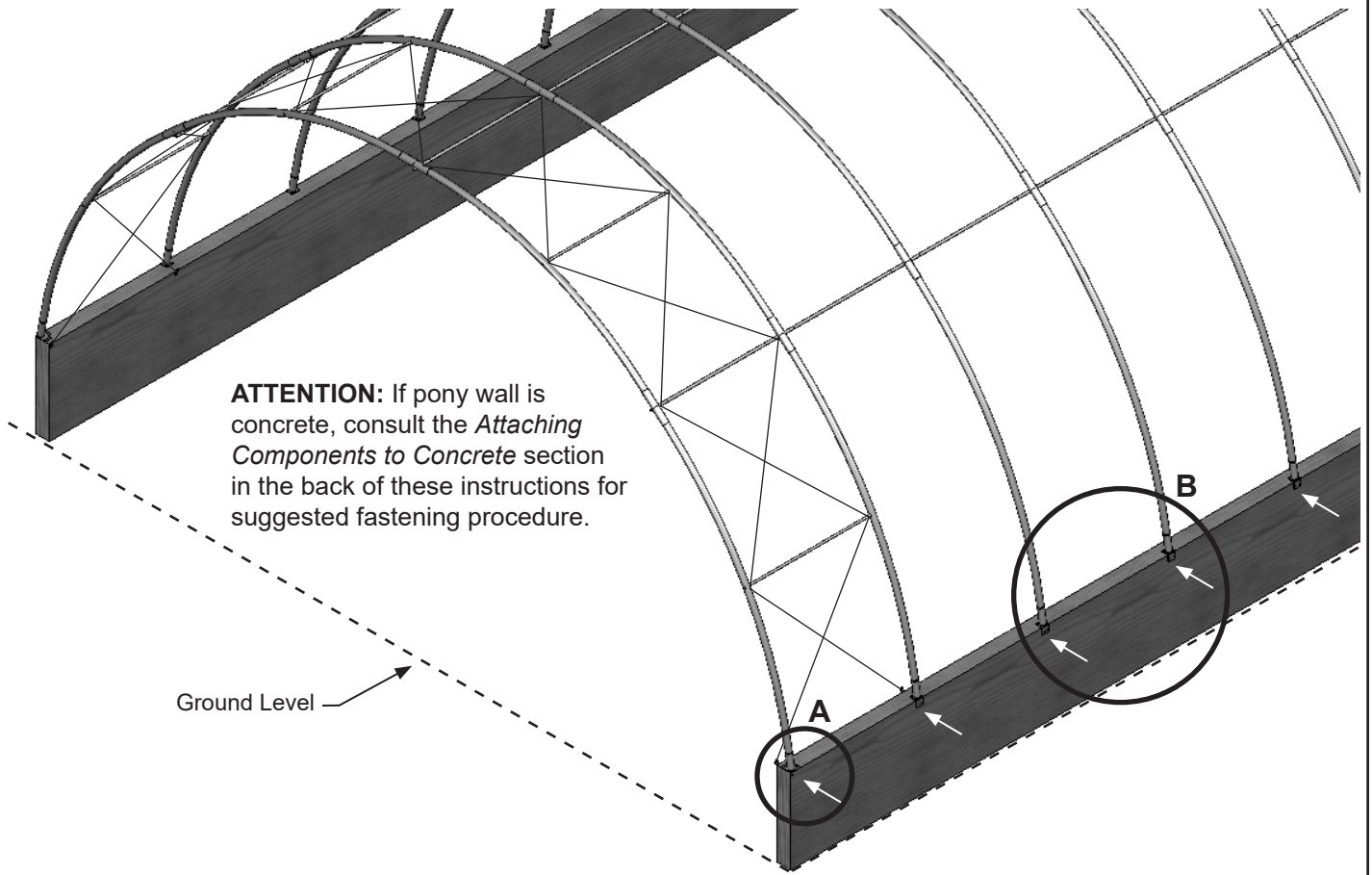
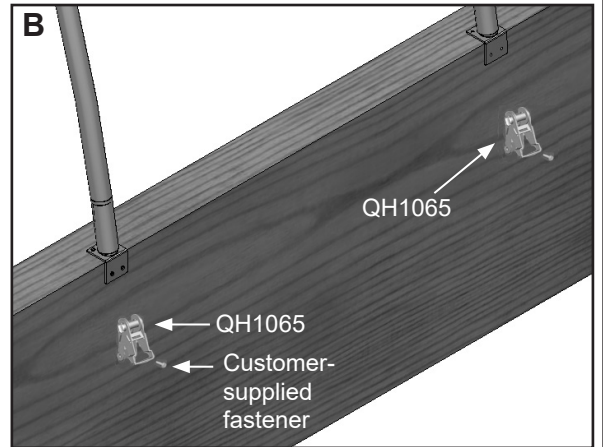
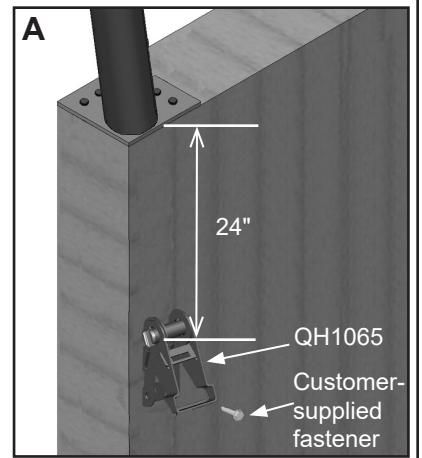
Attach all ratchets *on the outside of the pony wall*. Attach two (2) ratchets per rafter (one on each side).

1. Along either side of the frame, attach one ratchet to the pony wall in line with each rafter. Use one customer-supplied fastener for each ratchet.

**ATTENTION:** Measure approximately 24" down from the top of the pony wall and attach as shown.

2. Install ratchets immediately across from each other *below the same rafter*. See diagrams.
3. Continue with the final frame inspection for cover installation.

**ATTENTION:** Due to the different materials used to construct pony walls, the customer is responsible for supplying the required fasteners to attach the ratchets. Consult the advice of a qualified professional contractor if needed.



**ATTENTION:** If pony wall is concrete, consult the *Attaching Components to Concrete* section in the back of these instructions for suggested fastening procedure.

Ground Level →

7

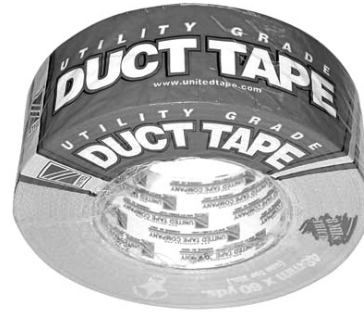
**FINAL FRAME INSPECTION FOR COVER INSTALLATION**

Before the cover is installed, complete these steps to prepare and inspect the frame.

1. Verify that all fasteners are installed and tight.
2. Inspect the frame for fasteners that are installed in areas where the main cover meets the frame. Reposition these fasteners (if possible) or wrap with tarp or duct tape to protect the cover.
3. Inspect all pipe and connections for sharp edges and file smooth or wrap with tape.
4. Move to *each cable assembly* at the point where the cables wrap around the rafters and apply the premium tarp tape over the cables to protect the main cover once it is installed.
5. Continue with the installation of the main cover.

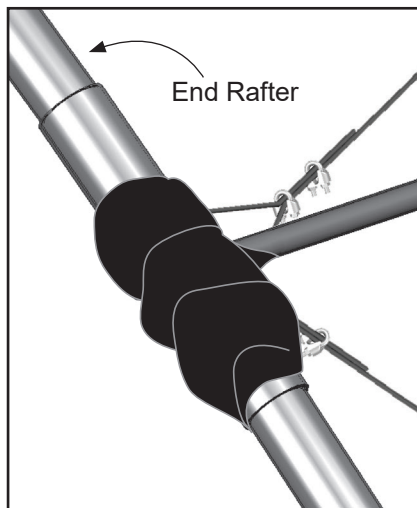
Required Parts:

- 105383 premium tarp tape
- Duct tape (Customer supplied)
- Metal file to smooth sharp edges

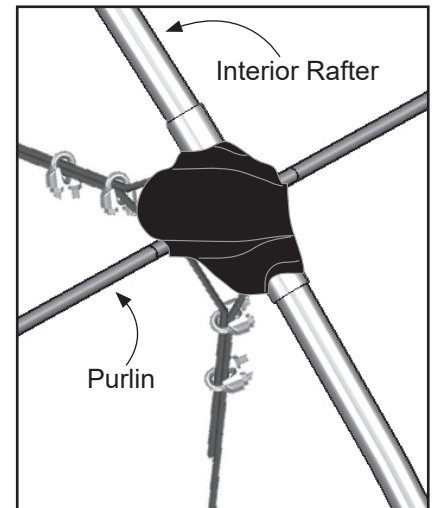


105383

**Examples show connections wrapped with tarp tape.**



End Rafter Cable Connection



Interior Rafter Connection



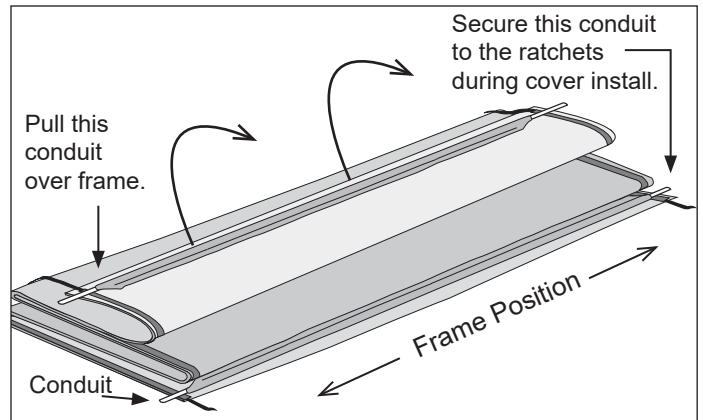
8

**PREPARE MAIN COVER**

Gather the parts:

- Pipe 1.90" x 99" swaged
- Pipe 1.90" x XX" plain
- Main cover
- FA4482B Tek screws and duct tape

**NOTE:** The "XX" represents the remaining length required to reach the end of the shelter. Consult Spec Sheet and Side Profile diagrams for part identification.



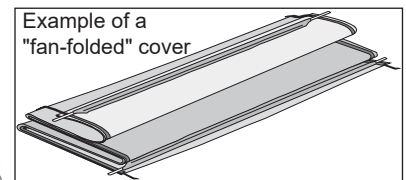
Example of a "fan-folded" cover.

Assembly Procedure

**NOTE:** When handling the main cover and setting it in position, do not pull on the end straps. They will pull out of the cover. *Do not insert any cover conduit into a cover pocket that includes a pre-installed strap.*

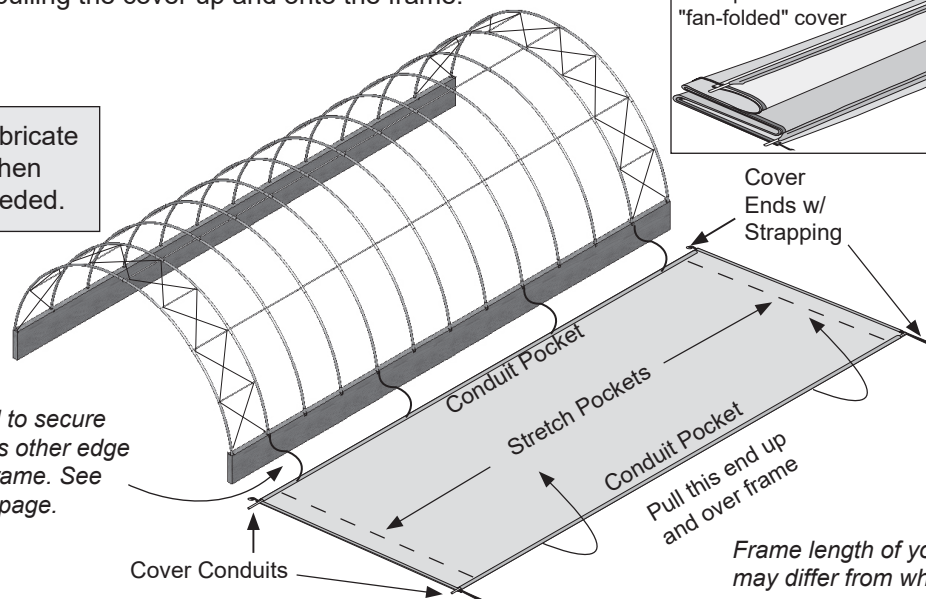
**⚠ WARNING:** To prevent damage to the cover and to prevent serious personal injury, *do not attempt to install the main cover on windy days.*

1. Assemble two main cover conduits. Start each cover conduit assembly with one plain pipe and add swaged pipes to arrive at the length of the frame. Secure each joint with a Tek screw and wrap the screw and joint with duct tape. Once assembled, the cover conduits are inserted into the side pockets of the main cover. The conduits are used to tighten and secure the main cover to the frame. *Consult the Side Profile Diagram in the Quick Start section for pipe identification.*
2. After assembling the cover conduits, locate the main cover and partially unfold it on a clean, smooth surface near the frame. Unfold the main cover with the inside surface facing up and the straps positioned at the front and back of the frame. If the cover is "fan folded" (see insert below), see the information on the next page. *Unroll, but do not unfold a fan-folded cover at this time.*
3. Align the cover ends—ends have pre-installed straps—with the front and back of the shelter and insert one cover conduit into each side pocket of the main cover. Tape or cover the end of conduit with part of a plastic soda bottle and insert that end into the pocket for easier installation.
4. Continue by pulling the cover up and onto the frame.



Use liquid dish soap to lubricate the conduit and pocket when inserting the conduit if needed.

Rope or strap used to secure free end of cover as other edge is pulled over the frame. See Step 2 on the next page.



Frame length of your building may differ from what is shown.

9

**PULL MAIN COVER OVER FRAME**

Gather the parts:

- Main cover (with conduits inserted)
- Ropes (provided by customer) or strap long enough to reach over the frame
- Box cutter or utility knife

**⚠ WARNING:** To prevent damage to the cover and to prevent serious personal injury, DO NOT attempt to install the main cover on windy days.

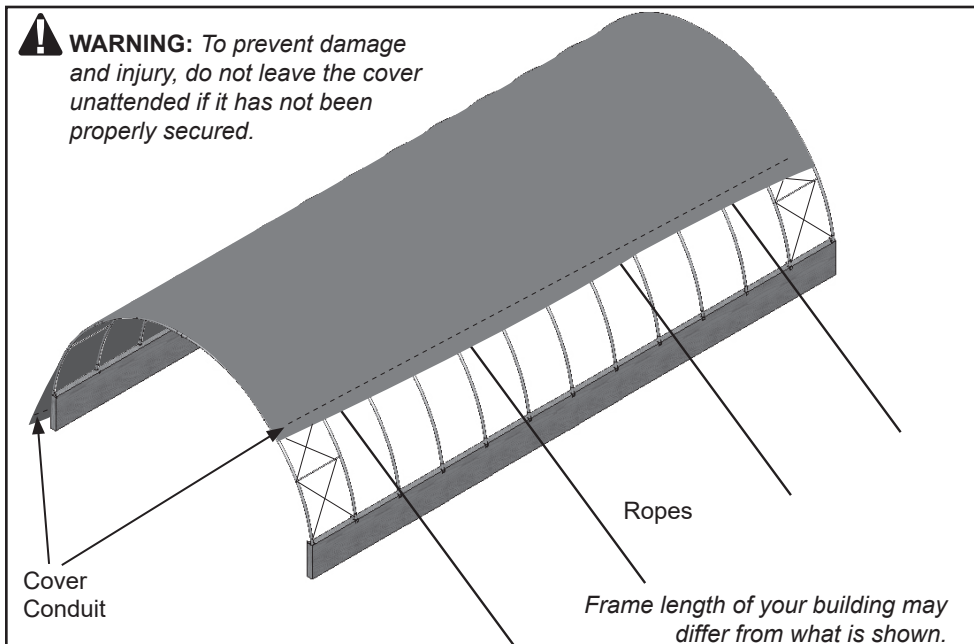
**⚠ WARNING:** To prevent damage and injury, do not leave the cover unattended if it has not been properly secured. Use ropes or straps to keep the cover from blowing off the frame during installation.

Main Cover Procedure (describes the installation of a single cover)

1. Attach ropes or straps to both ends of the cover conduit positioned *farthest from the frame* if the cover was spread out on the ground. Space additional ropes every 20' or so to prevent cover damage when pulling onto the frame. Cut small slits in the pocket to gain access to the cover conduit.

**ATTENTION:** If the cover is fan folded, as shown in the diagram on previous page, tie the rope or straps to the conduit that is on the top of the folded cover.

2. Cut 4 or 5 pieces of 2" strap (13'-14' long) from the bulk roll. Evenly space the straps and wrap each around the remaining cover conduit. Insert the free ends of each strap into a ratchet attached to the side wall and slightly tighten to keep the strap in place. These straps keep the free end of the cover in place as the other end is pulled up and over the frame.
3. With all ropes attached to the cover conduit, lift and carry the conduit and cover toward the base of the assembled frame. *This is the conduit that will be pulled over the frame to the other side.*
4. Toss the ropes over the frame and pull the cover into position. Position 2-3 assistants at each rope. *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:** Use lifts and additional assistants (if needed) to help pull the cover up and over the frame.

5. Once the main cover is pulled into position, center the cover on the frame (end-to-end and side-to-side).
6. Tie the ropes, used to pull the cover into position, to the frame to temporarily hold the cover in place.

# 10

## SECURE MAIN COVER TO THE FRAME

The main cover straps wrap around the conduit in the cover pocket. The ends of each strap are then fed into a ratchet attached to both pony walls.

Required parts and tools:

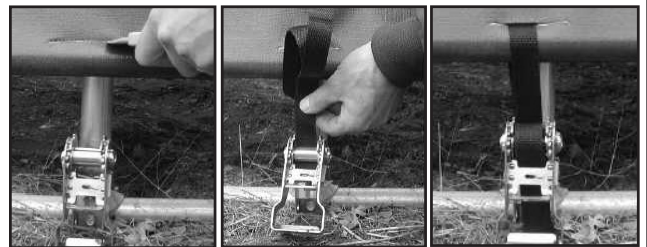
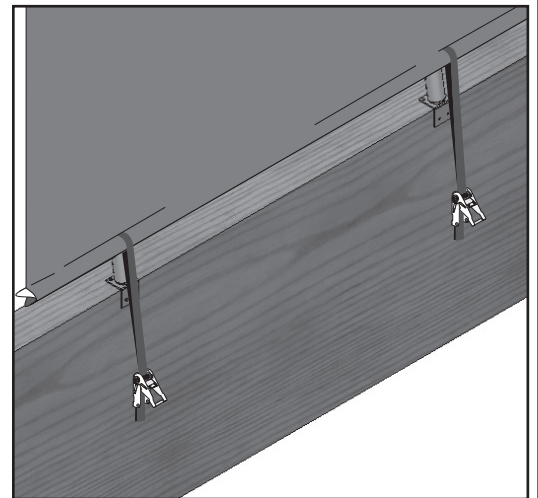
- CC5391 - 2" yellow strap (Measure and cut bulk strap to length as needed.)
- Tool to cut cover and strap

Complete these steps to install the main 2" straps:

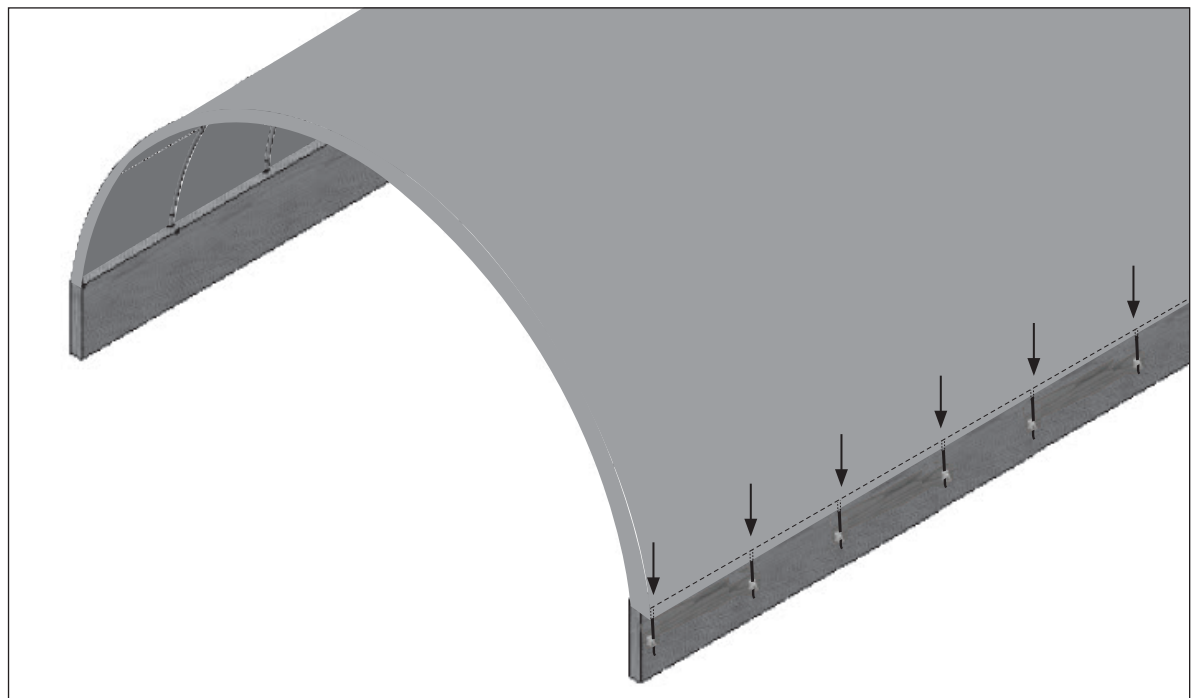
1. Locate the side ratchets attached to one wall, and cut a slit in (or notch from) the conduit pocket in line with each ratchet. *Do not cut the main cover; cut only the pocket material.*
2. Measure the length needed to reach from the ratchet to the conduit and back to the ratchet, add a few inches extra, and cut a 2" strap for the first side ratchet.
3. Feed the strap around the conduit, insert both ends through the slot in the ratchet, and slightly tighten the strap.
4. Using the first strap as a guide, cut additional straps to the proper length for the wall side and install. *Do not cut the straps too short.*
5. Repeat the previous steps to install and slightly tighten the remaining straps for the other side of the building.

**NOTE:** Do not fully tighten the straps at this time. Cover must be stretched end-to-end before tightening the side straps.

6. Continue by stretching the main cover end-to-end.



Frame and ratchet location differ from actual frame. Steps to install the main cover are similar however.



# 11

## INSTALL PVC CONDUIT TO STRETCH COVER

The PVC conduit is inserted into notched pockets at each end of the main cover. Strapping is then threaded around the conduit and the end rafters. This strapping is then evenly tightened to stretch the main cover end-to-end.

Required parts and tools:

- LJ2842 (3/4" PVC conduit) and 103620E (1" strap)
- Duct tape, Tek screws, and driver for Tek screws
- Tool to cut strap, a lift or ladders to reach top of frame, and assistants to install and tighten strap

PVC conduits are installed near the ends of the main cover to provide an additional tie-down position. Complete these steps to install the conduit and strapping for the stretch pockets of the main cover.

1. Take the first section of PVC conduit and feed it into the stretch pocket from the bottom at one end of the cover. *Insert the plain end of the conduit into the pocket so the next section can be joined to the first.*

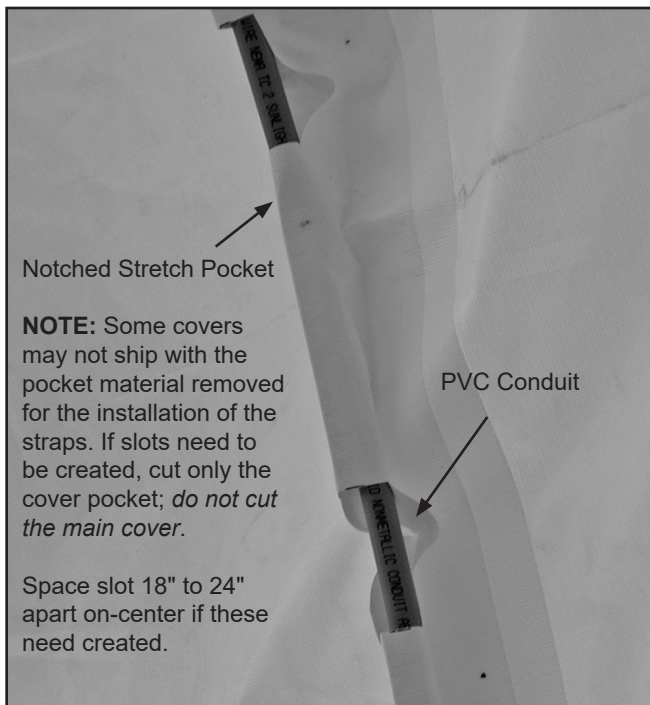


Photo above shows a similar cover and the location of the stretch pocket. Cover is shown with the underside facing up, which is the side visible from inside the frame when the cover is installed.



Photo shows the notched stretch pocket and the installed PVC conduit at the end of a similar main cover.

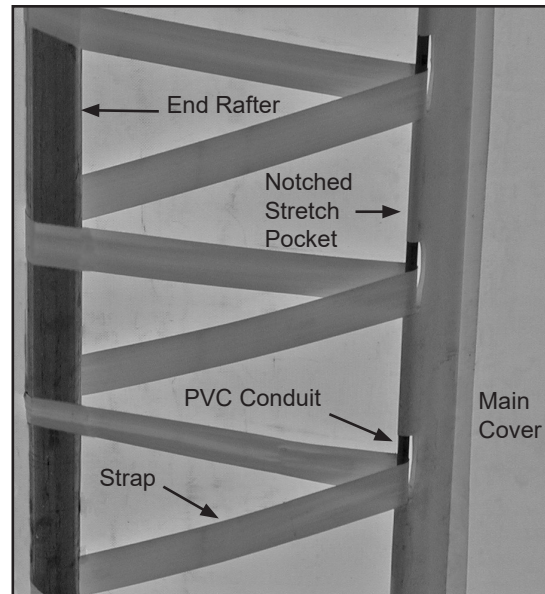
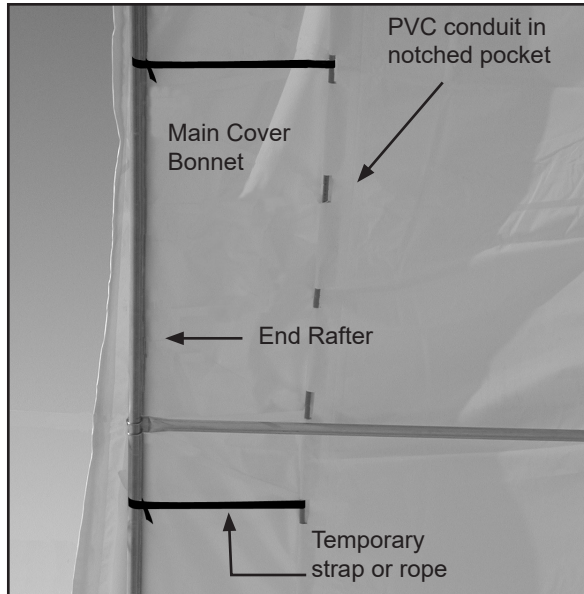
2. Once the bell end reaches the pocket, take another section of PVC conduit, insert the plain end into the bell end of the previous section and secure the joint using a Tek screw or customer-supplied PVC glue.
 

**NOTE:** If a Tek screw was used, wrap the Tek screw and joint with duct tape. (PVC glue works best.)
3. Repeat the steps and continue to assemble and feed the PVC conduit into the pocket.
4. Once the PVC conduit is fully assembled, secured at the joints, and inserted into the pocket, repeat the steps for the remaining end of the main cover.
5. With both PVC conduits assembled and installed, verify that the cover is centered on the frame (side-to-side and end-to-end) and move to one end rafter.

# 11

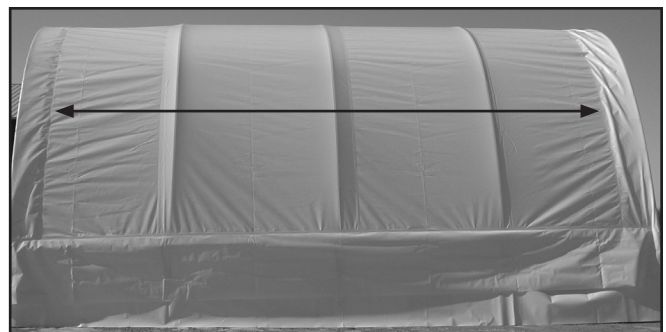
## INSTALL PVC CONDUIT TO STRETCH COVER (continued)

6. Take the rope or strap used to pull the cover and cut a few sections long enough to tie the PVC conduit to the end rafter in evenly spaced locations. See example in the photo below.
7. Move to the cover opposite the end where the temporary straps were tied, take one end of the bulk roll of 1" strapping, and weave it around the rafter and PVC conduit.
8. Continue weaving the strap around the end rafter and PVC conduit working up and over the rafter and down to the other end of the PVC conduit. *Keep the strapping snug during this step, but do not over tighten. Also, maintain an even distance between the rafter and the PVC conduit.*



9. After weaving the strapping, cut the strap and tie it to the rafter to temporarily secure it.
10. Take the remainder of the bulk strap roll, move to the other end of the cover, and repeat the steps to weave the strap between the PVC conduit and the end rafter. *The temporary rope or strap at this end can be removed once the main strapping is in place.*
11. After the strap is completely installed at this end, cut the strap to length and tie it to the end rafter.
12. Beginning at either end of the cover, tighten the strap. The strapping will pull against the strapping installed at the other end of the frame. *Maintain an even distance between the rafters and the PVC conduit as the strap is tightened.*

Also check that the bonnet portion of the main cover overlaps the end rafter (or rafters) evenly *before* stretching the cover. Check this periodically as the cover is stretched. *If the side straps are too tight and prevent the cover from stretching end-to-end, loosen but do not remove the straps as needed and continue stretching the cover.*



*Shelter shown above may be a different model and length.*

13. Once the strap is tight at one end, cut it to length (if needed) and tie it to the other leg of the same end rafter.
14. Return to the other end of the cover and tighten that strapping (if needed) to complete the stretching of the main cover end-to-end. Drive a Tek screw through the strapping and into the rafter near the end of the strap to keep it tight.

# 12

## TIGHTEN THE MAIN COVER SIDE RATCHETS

Verify that the cover is in the desired position and centered on the frame. (Loosen and reposition if needed.) Continue with these steps to tighten the side ratchets.

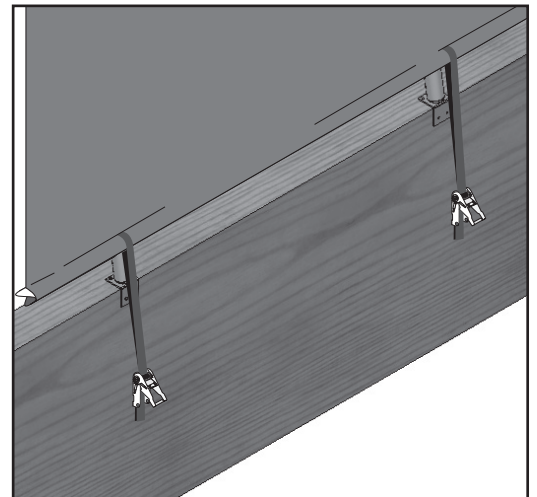
1. Move to the side ratchets attached to the pony wall. Begin with the pair of ratchets closest to the center of the wall and opposite each other.
2. With someone on each side of the shelter, tighten the first pair of ratchets opposite each other until the cover is snug. Do not overtighten.

**ATTENTION:** Tightening ratchets opposite each other at the same time helps keep the cover centered and results in a more uniform appearance.

3. Move to the next pair of ratchets and repeat the steps to tighten them.

**NOTE:** If the strap builds up in the ratchet, loosen the ratchet, remove some of the strap, and retighten.

4. Repeat the steps until all side ratchets are snug.
5. Continue by installing the end ratchets for the main cover.



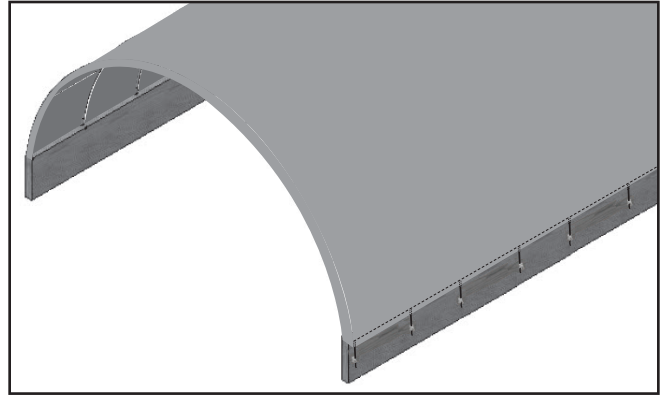
## 13

**INSTALL THE END RATCHETS FOR THE MAIN COVER**

After the side ratchets are tight, attach the end ratchets for the main cover bonnet.

Gather the parts:

- Small ratchet (#QH1061)
- Customer-supplied fastener



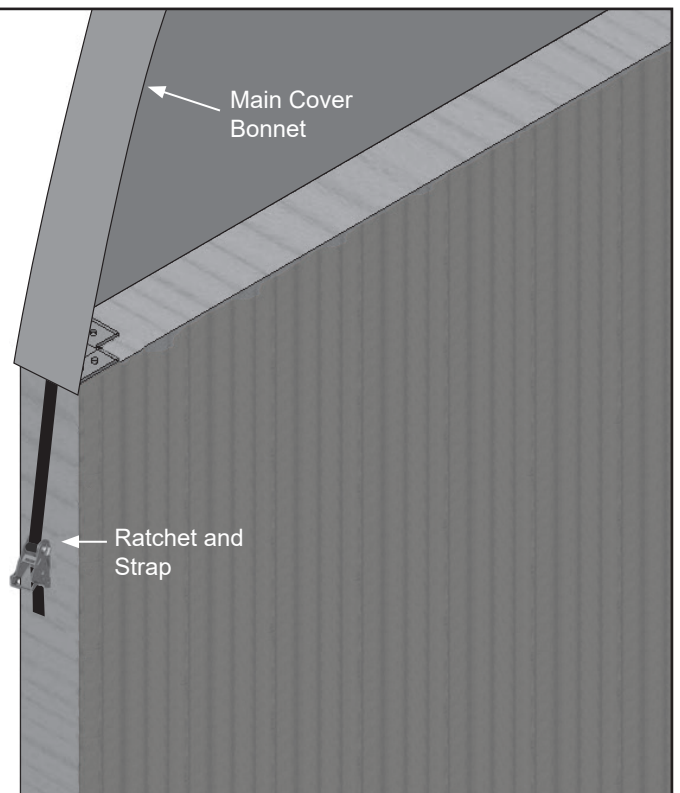
Complete the following steps to secure the ratchets:

1. Pull the bonnet portion of the main cover back over the end rafter if needed.
2. Locate four (4) small ratchets (#QH1061) and attach each ratchet to the outside end of the pony wall using customer-supplied fasteners. See diagram below. Use the bonnet strap to determine where to attach the ratchet.
3. Locate the straps at the front and rear of the main cover and feed the straps through the center slot in each end ratchet.
4. Tighten the end ratchets to secure the bonnet portion of the main cover.
5. Move to the other end of the building and secure the bonnet at that end.
6. Continue by reading the care maintenance section that follows.

**ATTENTION:** Due to the different materials used to construct pony walls, the customer is responsible for supplying the required fasteners to attach the ratchets. Consult the advice of a qualified professional contractor if needed.

Diagram shows the ratchet attached to the end of the pony wall. The ratchets are used to secure the bonnet portion of the main cover.

**ATTENTION:** If pony wall is concrete, consult the *Attaching Components to Concrete* section in the back of these instructions for suggested fastening procedure.



## 14

## SHELTER CARE AND MAINTENANCE

Proper care and maintenance of your shelter is important. ***Check the following items periodically to properly maintain your shelter:***

- Regularly check the main cover and panels (if equipped) to see that these remain tight and in proper repair.

**ATTENTION:** Covers installed in cool or cold temperatures may relax as the air temperature increases. Check the main cover straps frequently during the first few weeks and after stormy or windy weather to verify that they remain tight. Tighten as needed.

- Repair any damage to the cover immediately to prevent further complications and damage.
- Check connections and all fasteners to verify that they remain tight.
- Do not climb or stand on the shelter at anytime.
- Remove debris and objects that may accumulate on the shelter cover. Use tools that will not damage the cover or end panels when removing debris.
- Remove snow to prevent excess accumulation. Use tools that will not damage the cover when removing snow. ***Never allow snow to accumulate on the cover!***
- Check the contents of the shelter to verify that nothing is touching the cover that could cause damage.
- Check the anchoring system (if equipped) to ensure that all components are tight and in good repair.
- Check the pony wall periodically to ensure that it is in good repair and that all rafter mounts are secure.
- Repair or replace all customer-supplied materials as needed to prevent injury or damage.
- Verify that all fasteners remain tight and in place.
- Replace all worn or damaged parts promptly.
- For replacement or missing parts, call 1.800.245.9881 for assistance.

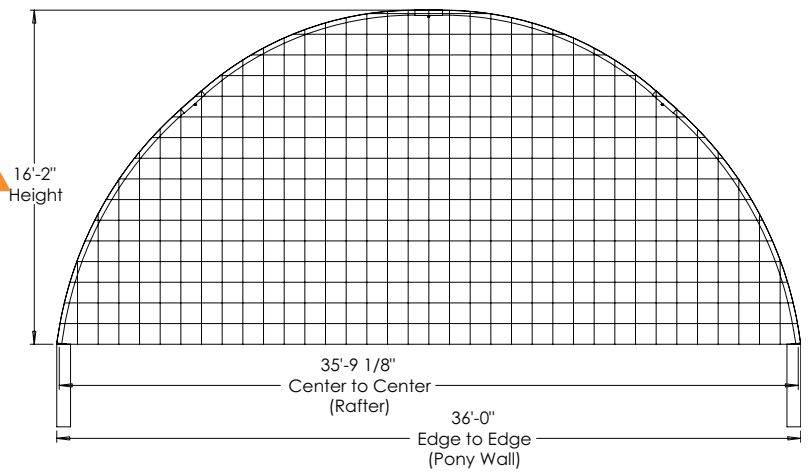
**NOTE:** With the exception of Truss Arch buildings and unless otherwise noted, ClearSpan™ shelters and greenhouses *do not* have any tested loading criteria.



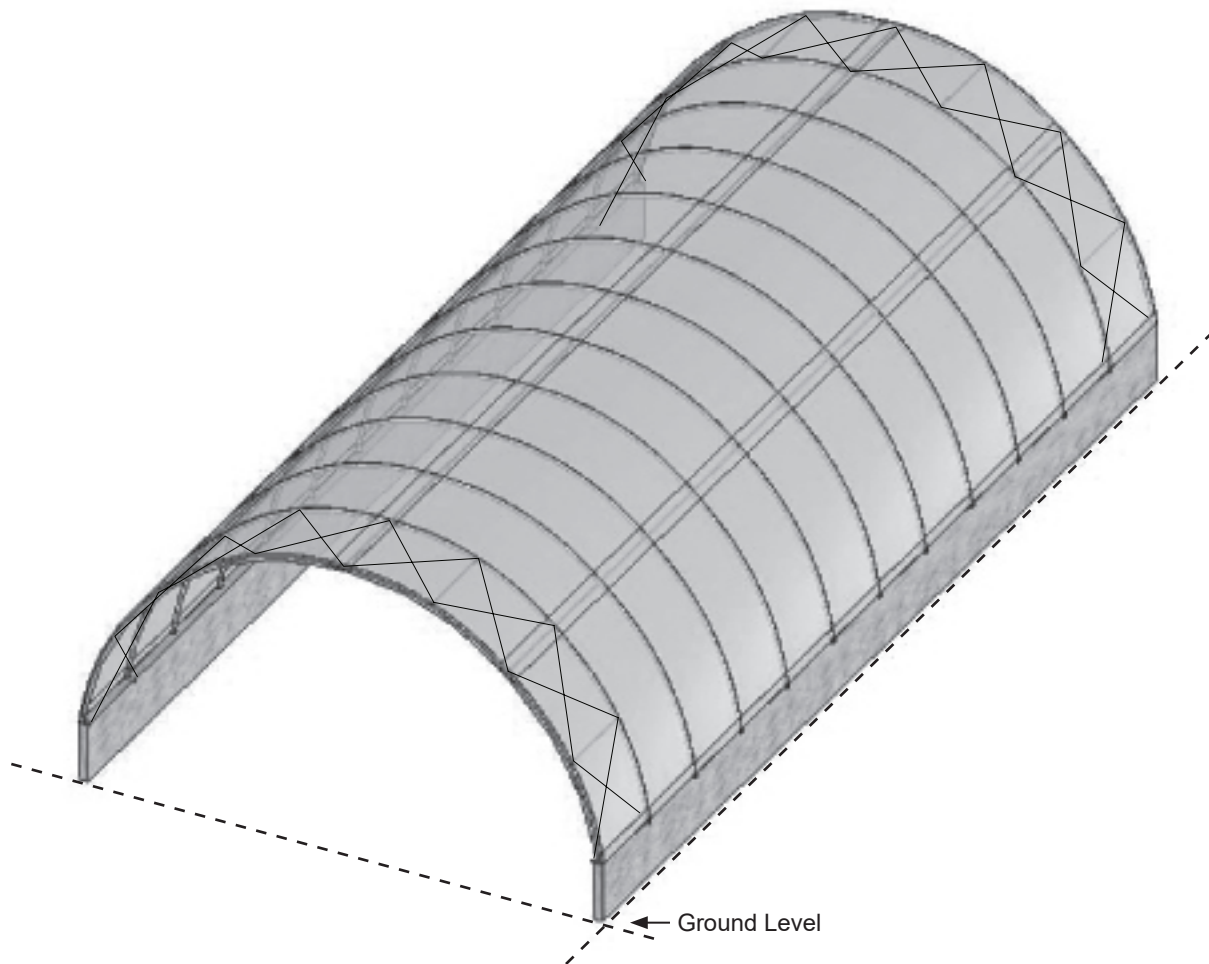


**QUICK START GUIDE**

36' Wide Pony Wall Building

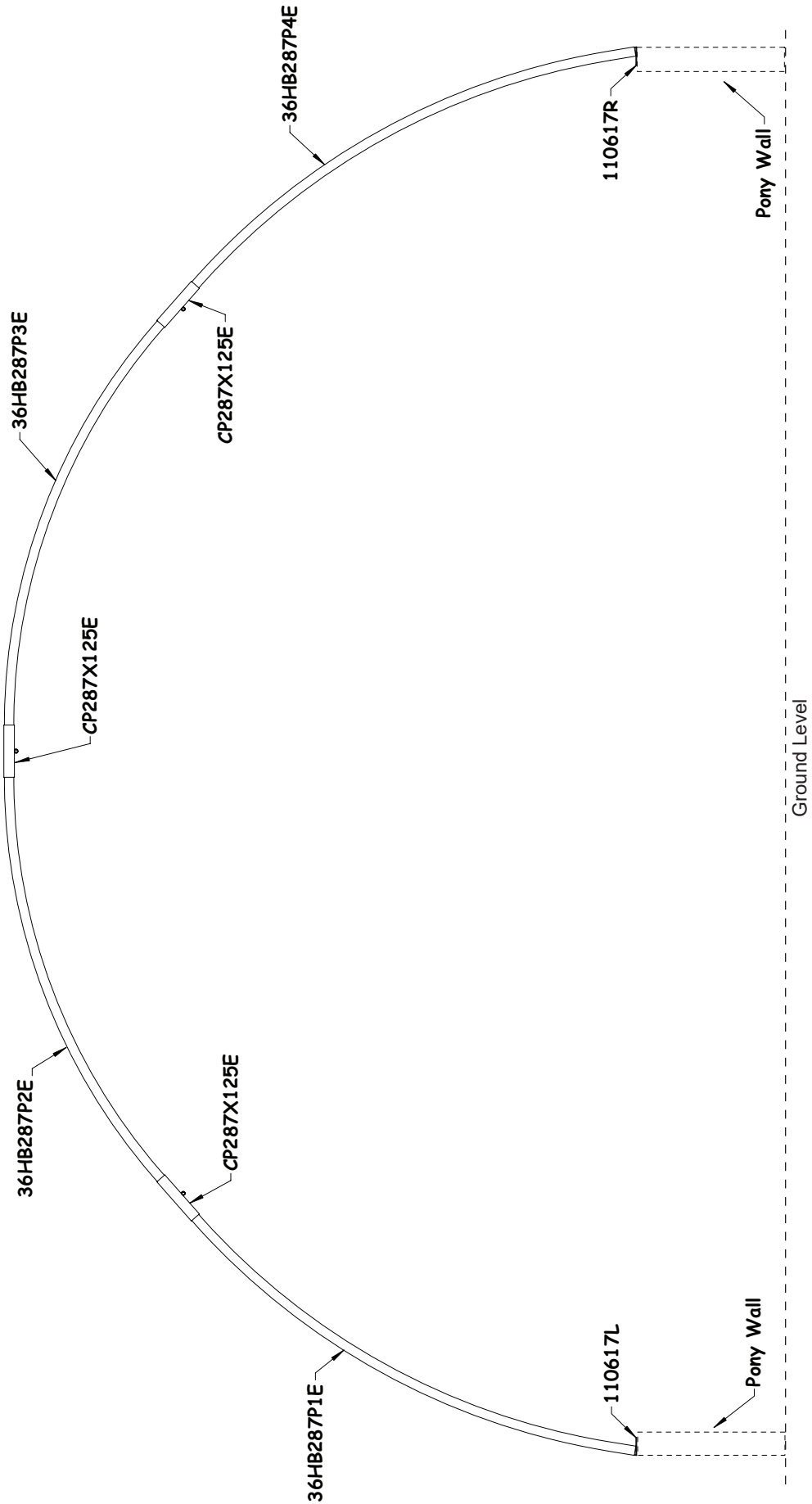


**FRONT**  
Grid Represents 12" Squares

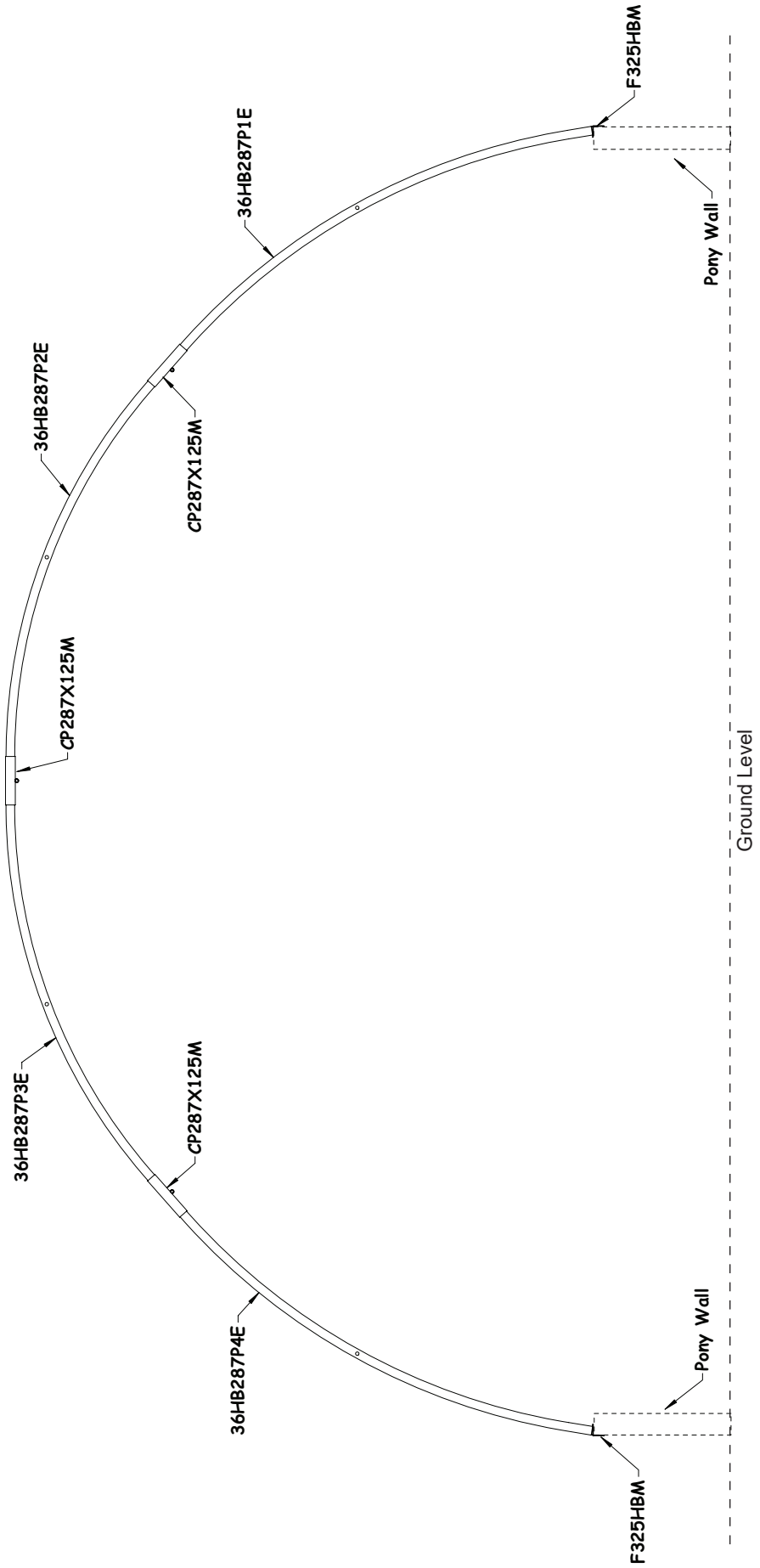


Frame shown may differ in length from actual frame.

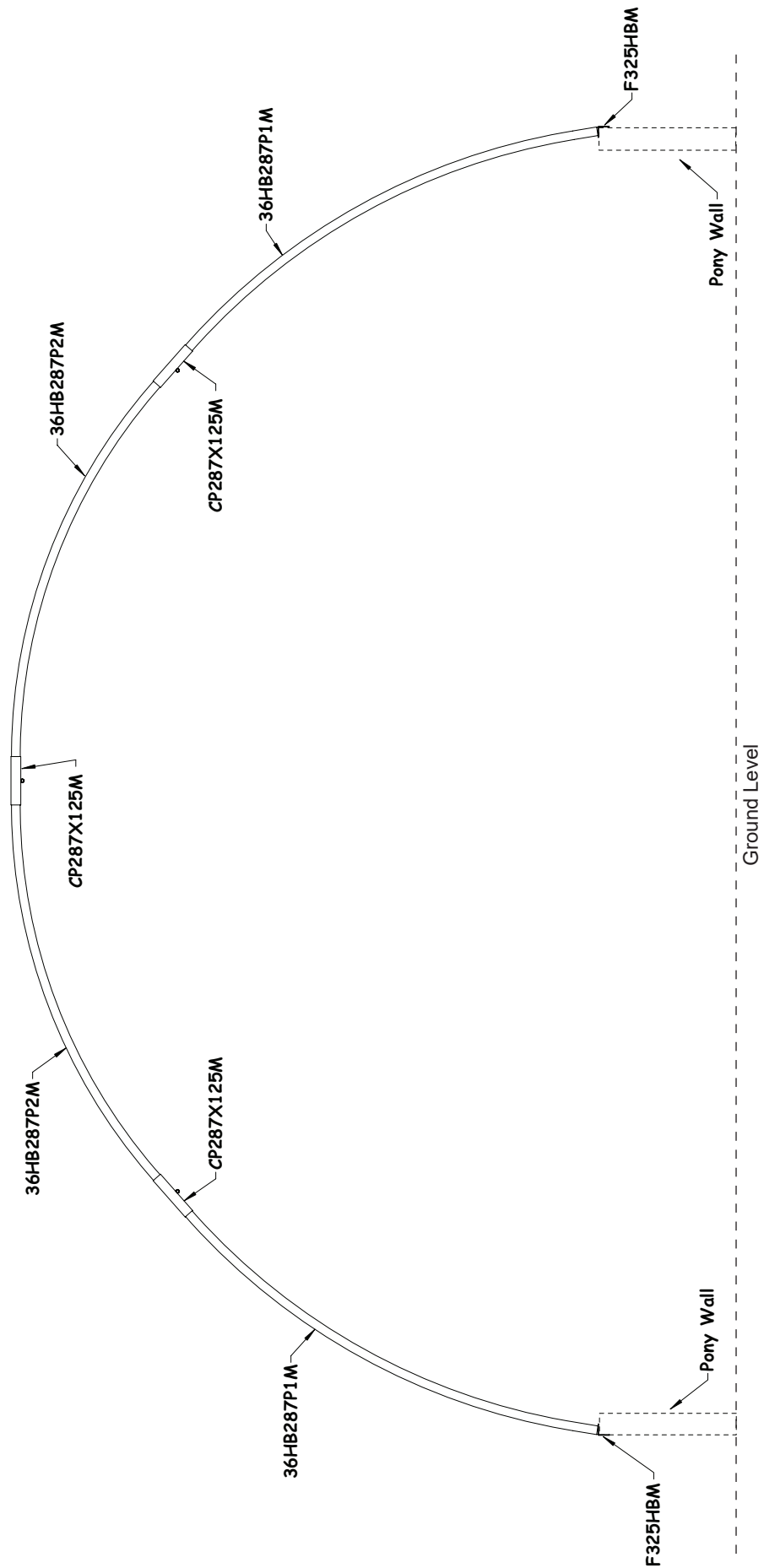
# FRONT PROFILE - END RAFTER



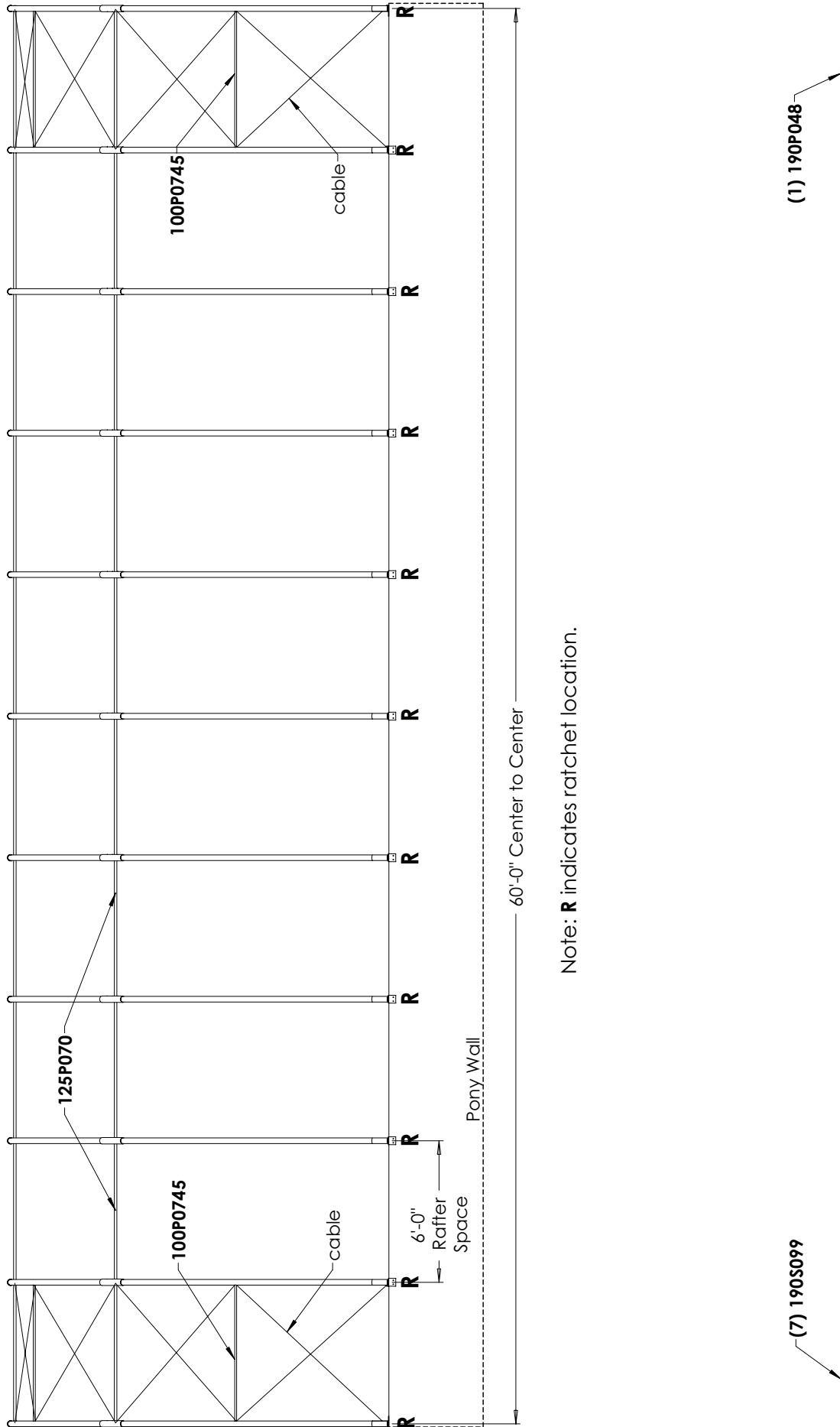
# FRONT PROFILE - FIRST INTERIOR RAFTER



# FRONT PROFILE - MID RAFTER

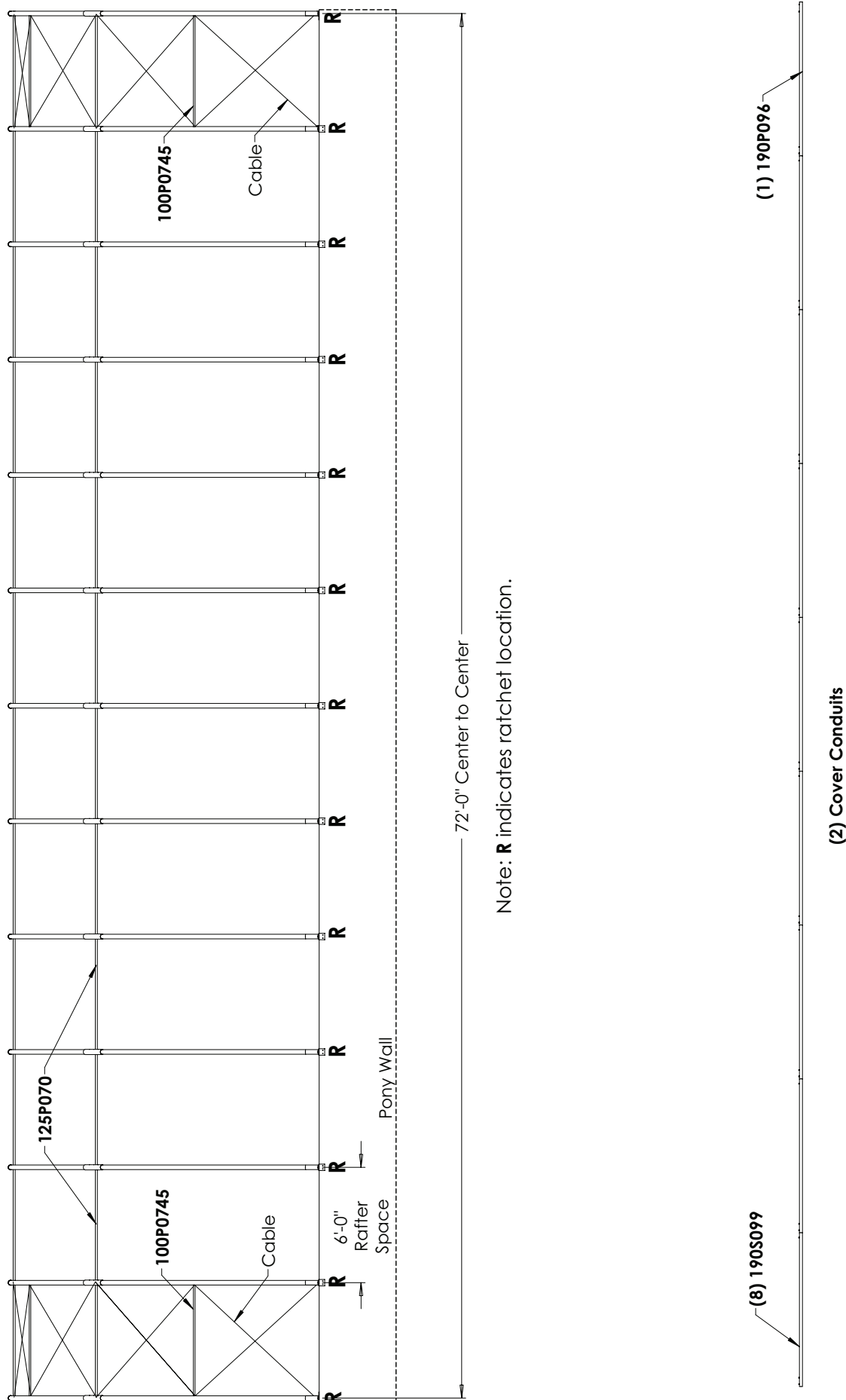


# SIDE PROFILE - 108467

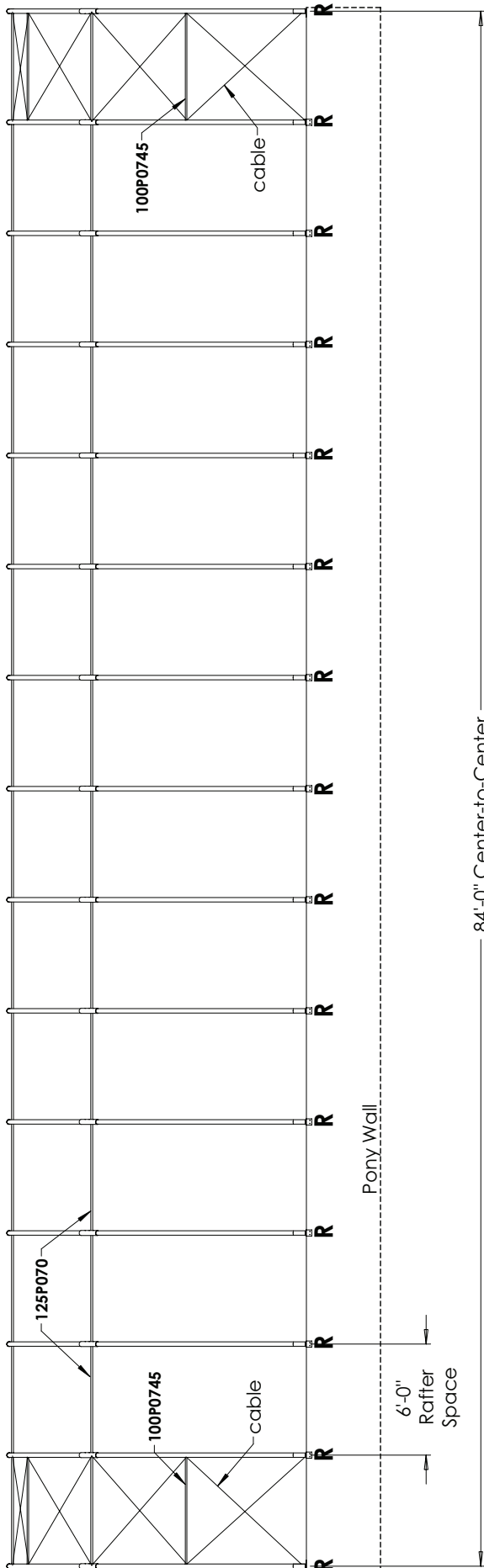


Note: **R** indicates ratchet location.

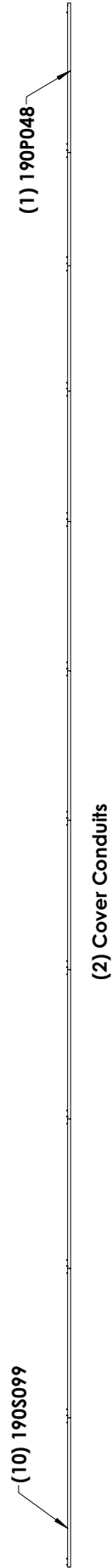
# SIDE PROFILE - 108468



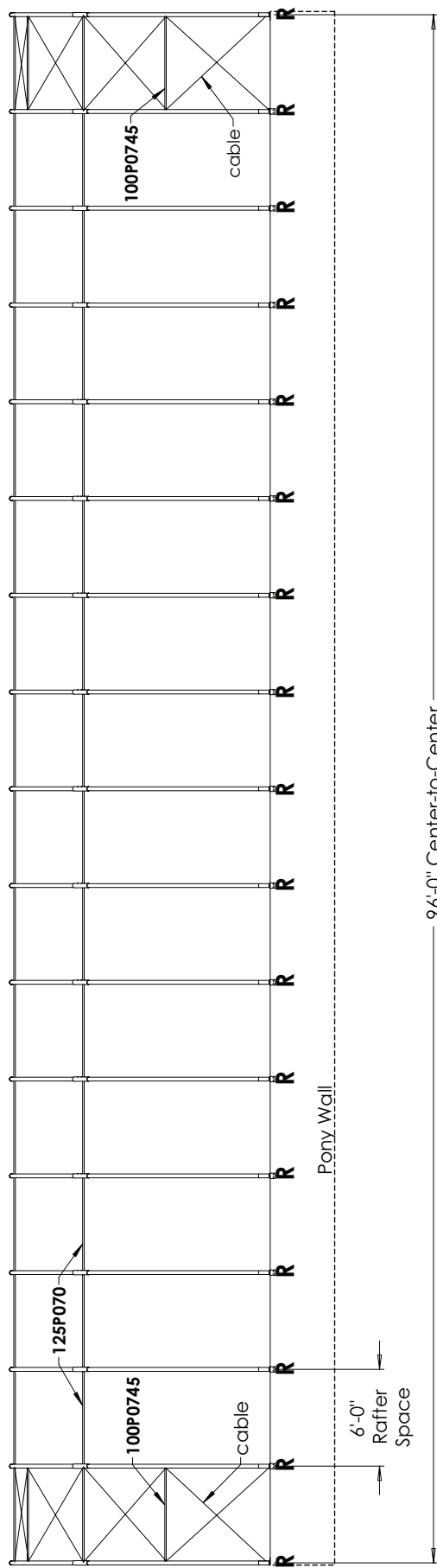
# SIDE PROFILE - 108469



Note: **R** indicates ratchet location.



# SIDE PROFILE - 108470



Note: **R** indicates ratchet location.

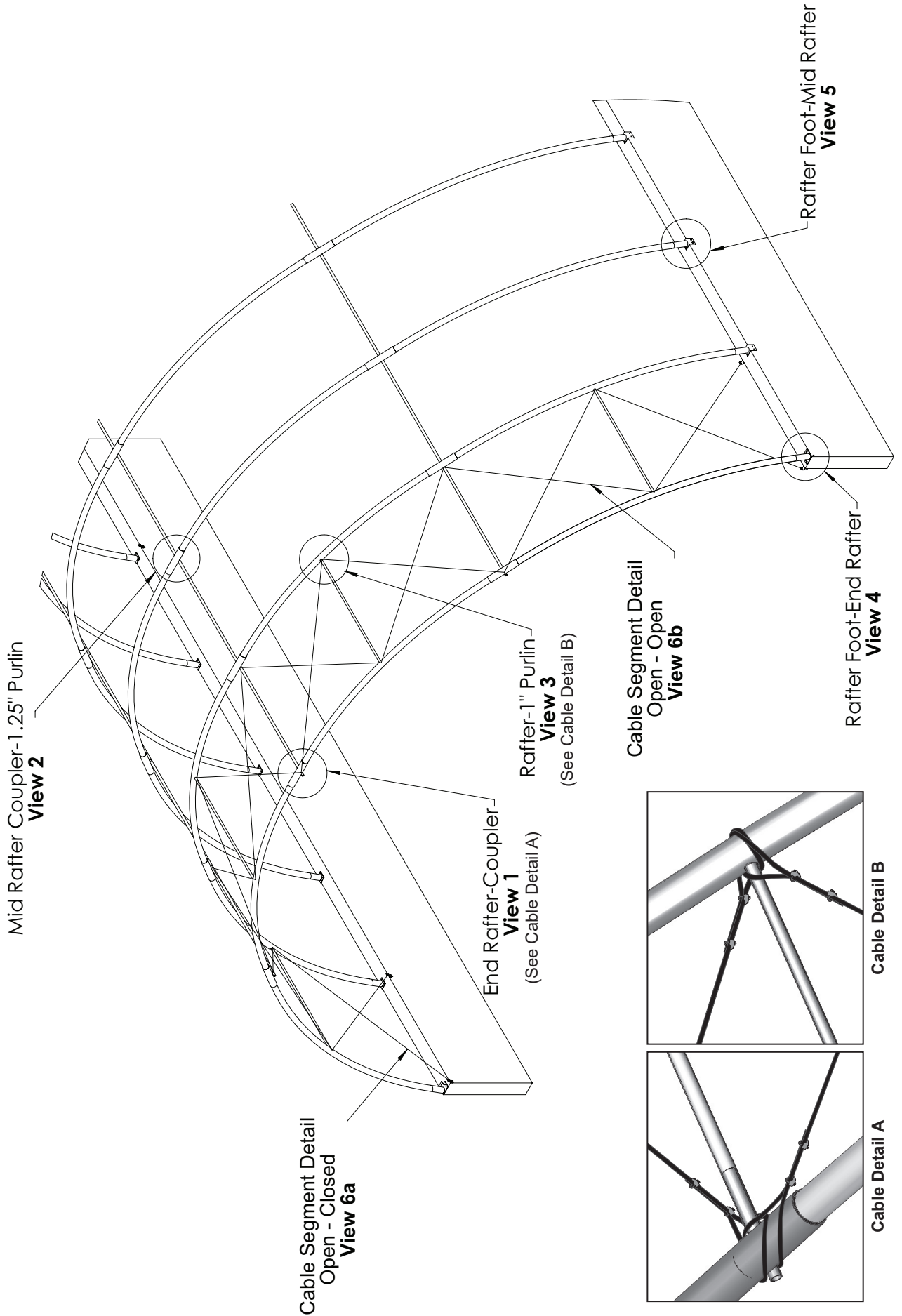
(11) 190S099

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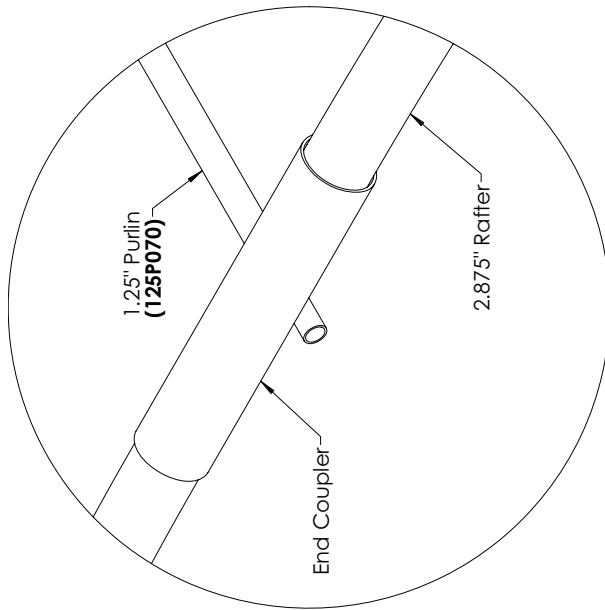
(2) Cover Conduits



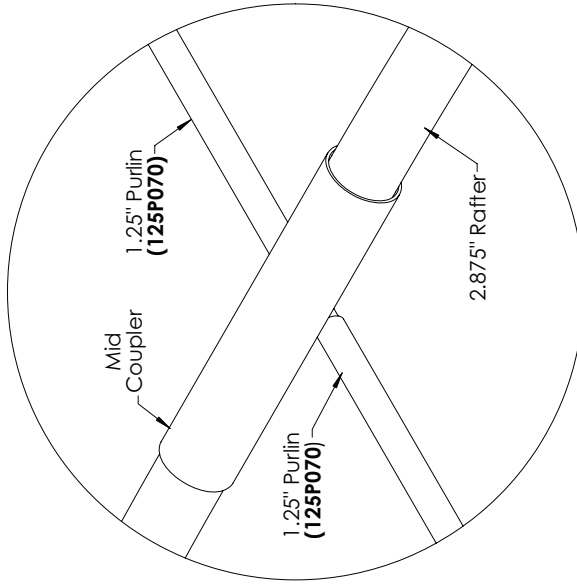
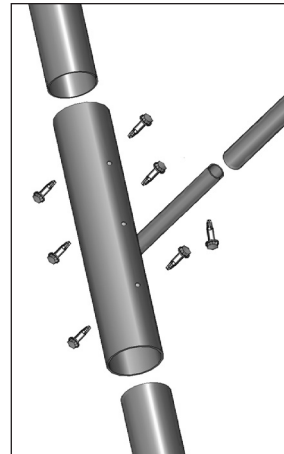
# CONNECTIONS



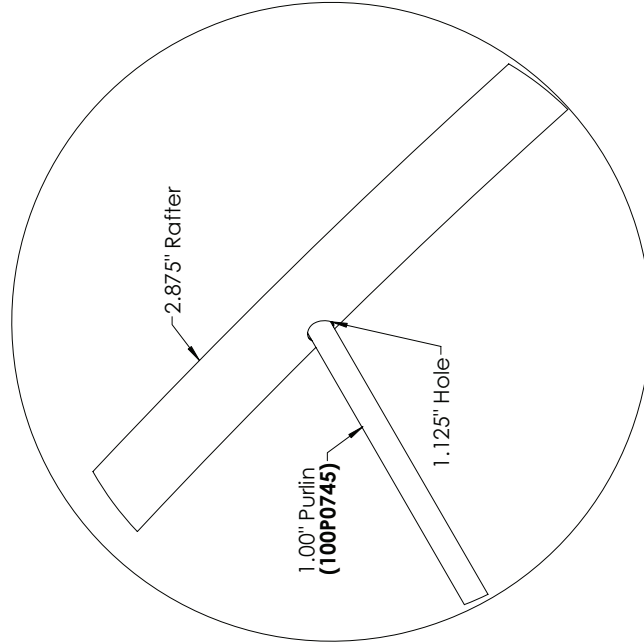
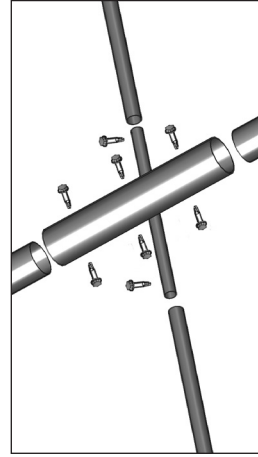
# CONNECTION DETAILS 1-3



**View 1**  
End Rafter-Coupler

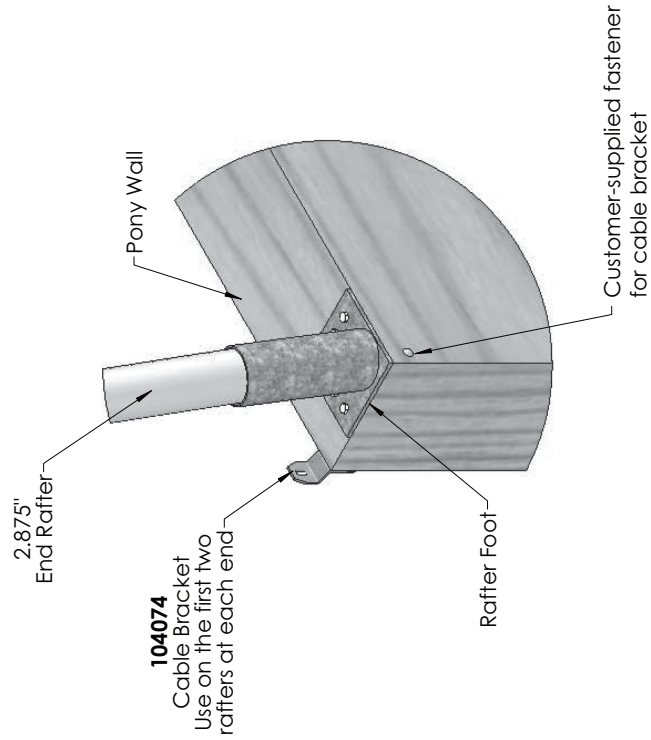


**View 2**  
Mid Rafter-Coupler 1.25" Purlin

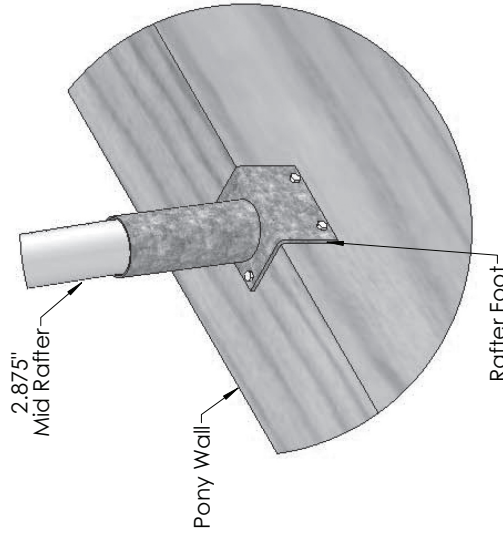


**View 3**  
Rafter-1" Purlin

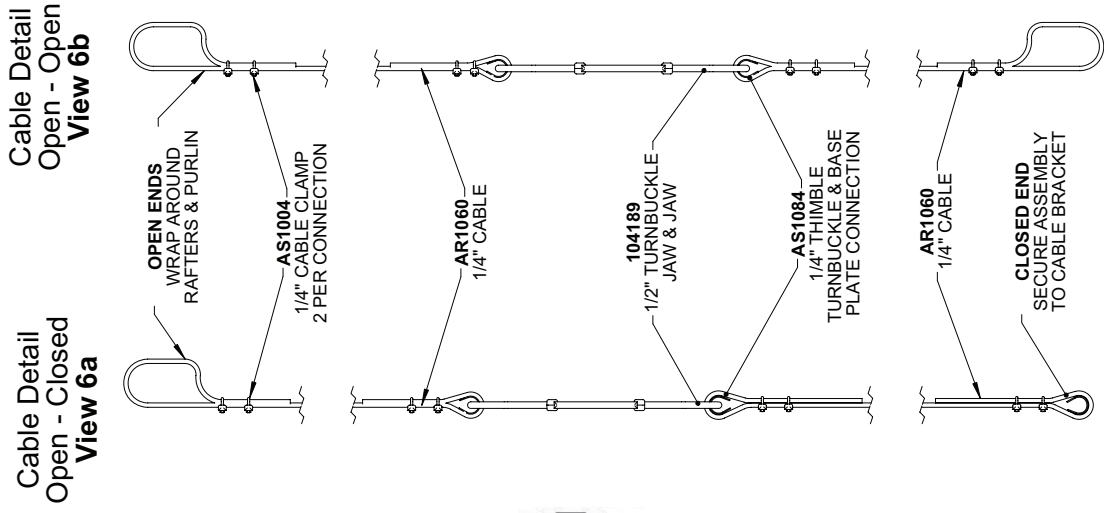
# CONNECTION DETAILS 4-6



**View 4**  
Rafter Foot - End Rafter



**View 5**  
Rafter Foot - Mid Rafter



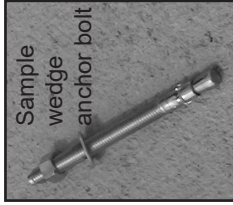
**NOTE:** REMOVE EXCESS CABLE FOLLOWING INSTALLATION.

# ATTACHING COMPONENTS TO CONCRETE

Additional materials required to secure the rafter feet, ratchets, or any other component to the concrete base are not included and must be purchased by customer. Materials and components shown in the following diagrams may differ from actual purchases.

Use the following information to determine the size of the anchor bolt that best applies to your purchase.

**Length of Anchor Bolt equals (=):**  
 Thickness of material to be fastened  
 +plus minimum embedment (see manufacturer recommendation)  
 +plus 1" for nut and washer application.



## ATTACHING RAFTER FEET TO CONCRETE

1. Verify rafter foot is in the correct position. Using the fastener holes as a guide, drill holes into concrete base according to the anchor bolt size.

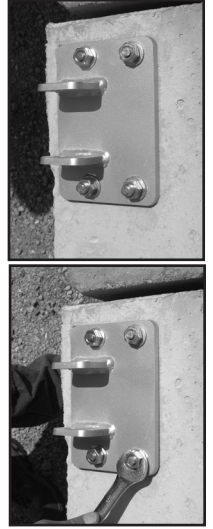
**NOTE:** Rafter foot shown may differ from actual rafter foot. Installation is the same.

**IMPORTANT:** DO NOT over-drill hole. Wedge anchor bolt will not work properly if hole is too deep.

2. Insert anchor bolt into one drilled hole. Firmly tap with a hammer to secure wedge anchor into concrete.

**NOTE:** Depending on wedge anchor bolt, verify that the washer and securing nut are attached *before* driving the anchor bolt into concrete. Striking bolt may cause thread damage and prevent the nut installation.

3. Tighten the nut.
4. Repeat for each anchor bolt until rafter foot is adequately secured to the concrete base.
5. Repeat for each rafter foot.



## ATTACHING RATCHETS TO CONCRETE

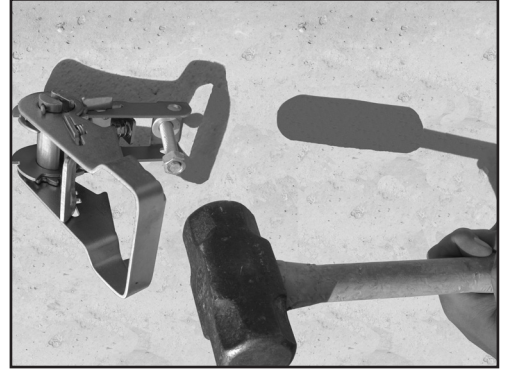
1. Determine where the first ratchet will be attached and drill the mounting hole according to the anchor bolt size.

**NOTE:** Hole needs to be deep enough that the anchor bolt will not interfere with ratchet operation.

2. With ratchet in the open position, insert anchor bolt through ratchet hole and into mounting hole. Firmly tap with a hammer to secure wedge anchor into concrete.

**NOTE:** Depending on wedge anchor bolt, verify that the washer and securing nut are attached *before* driving the anchor bolt into concrete. Striking bolt may cause thread damage and prevent the nut installation.

3. Tighten the nut.
4. Test ratchet operation. Cut excess if needed.
5. Repeat for each ratchet.





Space below is reserved for customer notes.