



CULTIVATE
HORTICULTURE

KOOTENAY TUNNEL

KIT ASSEMBLY & INSTRUCTIONAL MANUAL



Watch the video!

Scan code or visit cultivatehort.ca

**SOLUTIONS FOR
GROWERS**



Kootenay Tunnel Kit

Assembly and Instruction Manual

Congratulations on your new Kootenay Tunnel structure!

This guide is to assist you in setting up your new tunnel with infographics, images and descriptions. Please pay attention and understand the directions before setting up your structure. There is also a video instruction guide listed on our website and YouTube.

If you have any questions during your setup, please contact us and we can help you through your situation.

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Manual Version: January 2024



Cultivate Horticulture is here to help growers reach their full potential with innovative equipment, tools and technology, as well as education and consulting services. Many years of trials on our own family farm have gone into the design, development and selection of the products we offer.

I personally want to thank you for supporting not only your own mission to grow more food but to support our developing business. We are working hard to solve the issues facing grower's long term economic, environmental and social sustainability. Being a third generation and young farmer myself, I realize there is a big transition happening right now within our food system where local food production will continue to be important for the many communities it supports. Myself and the team are looking forward to the challenge of supporting growers to keep up with the demand to produce great food for a growing population!

Myself and the team at Cultivate Horticulture wish you the best season ahead and we are proud to be on the same team!

Thank you,

A handwritten signature in black ink, appearing to read "Matt Carr".

Matthew Carr, A.Ag.
Founder and Innovator
Cultivate Horticulture



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Disclaimer

Kootenay Tunnels are classified as temporary, uninhabited structures. There is no official wind or snow rating for our tunnels. The structures are designed to be installed by customers without extensive building knowledge. It is up to our customers to select a proper site, assess their climatic conditions, develop and initiate climatic mitigation plans and properly install the structure based on this guide for the best results. Cultivate Horticulture is not responsible for any damages or injury caused during or after installation.

Please reach out as soon as possible if you think there is a quality concern upon the arrival of your order. This includes visual damage to shipment or materials, or shortage of parts during installation. We want you to have the best experience possible!

Getting Started

BEFORE BEGINNING INSTALLATION, PLEASE CAREFULLY READ THROUGH ALL INSTRUCTIONS. CONTACT OUR TEAM WITH ANY QUESTIONS YOU HAVE BEFORE BEGINNING YOUR BUILD.

FOR FASTEST RESPONSE TIMES PLEASE CONTACT VIA EMAIL.

CONTACT DETAILS

EMAIL: tunnelsupport@cultivatehort.ca

PHONE: 250-551-0619

Recommended Tool List

For Your Safety: Take all necessary safety precautions with power tools and building equipment. Personal protective gear such as: gloves, eye protection, ear plugs, and closed toe shoes are recommended.

Tools Included with Kit

- Hex Screw Bit
- Ground Post Driver
- ½" (13mm) Deep Socket
- Impact Socket Driver Adapter

Electric Tools Required

- Drill or Impact Driver
- Socket Driver (optional)
- Metal Saw (reciprocating or chop)
- Grinder

Manual Tools Required

- Level (long, magnetic & string line)
- String Line
- Scissors/blade
- Sledge hammer
- Hammer
- Socket Set
- Wrench Set
- Adjustable Wrench
- Spare Rope & Tennis Ball
- Stakes/markers
- Step Ladder** (at least 6ft)
- Tape Measure
- Metal File (if needed)
- Metal Hacksaw (if needed)

****HEIGHT WARNING:** Our 16' kit has a center height of 11'6" which means you will have to work 12-14' from the ground. CULTIVATE HORTICULTURE cannot be held liable for unsafe work practices. Installers are encouraged to rent a lift from your local equipment rental company. Refer to their safety equipment recommendations and best practices for the unit you rent during use, loading, unloading, and transport. On the build site keep the lift level and on packed solid ground. Do not operate in inclement weather.

Parts List

For quantities of parts, refer to the attached parts list for your order.

Part	Detail	Size	Tunnel Kit Length		
			25'	55'	105'
Ground Posts	36"	1 5/8"	12	24	44
Side Arch		1 5/8"	12	24	44
Peak Arch		1 5/8"	6	12	22
Gable End Crossbars	10' 6"	1 5/8"	2	2	2
Mid Span Crossbars	10' 6"	1 3/8"	10	22	42
Peak Purlin	10' 4"	1 3/8"	3	6	11
Peak Purlin Extension	5' 4"	1 3/8"	0	0	0
Wind Bracing	Parallel	1 5/8"	4	4	4
Wind Bracing	Perpendicular	1 5/8"	4	4	4
Wirelock Channel	12'		6	6	6
Spring Wire	6'		18	18	18
Greenhouse Plastic	36' W		40'	70'	120'
Galvanized Brace Band		1 5/8"	12	48	88
Galvanized Tension Band		1 5/8"	16	16	16
Self-tapping Screw	1"	#14	80	119	164
Galvanized Bolt		1.25"	28	64	104
Galvanized Bolt		3.5"	6	12	22
Galvanized Flange Nut	1/2" 6-point		34	76	126
Finish Plastic Cap		1 3/8"	2	2	2
Nylon Rope Cord	500'		1	2	3
Ground Post Driver		1 5/8"	1	1	1
Magnetic Driver Bit		#14	1	1	1
Impact Socket Adaptor			1	1	1
1/2" Deep Socket			1	1	1

TUNNEL HARDWARE

Use these images as a guide while you build!

3.5" Carriage Bolt



1.25" Carriage Bolt



Rope Securement Hook

Flange Nuts



Self-tapping Screws

Brace Band

Spring Wire



Tension Band



Nylon Rope



Wirelock Channel



**Images for illustration purposes. Not to scale.*

1 - Site Selection & Orientation

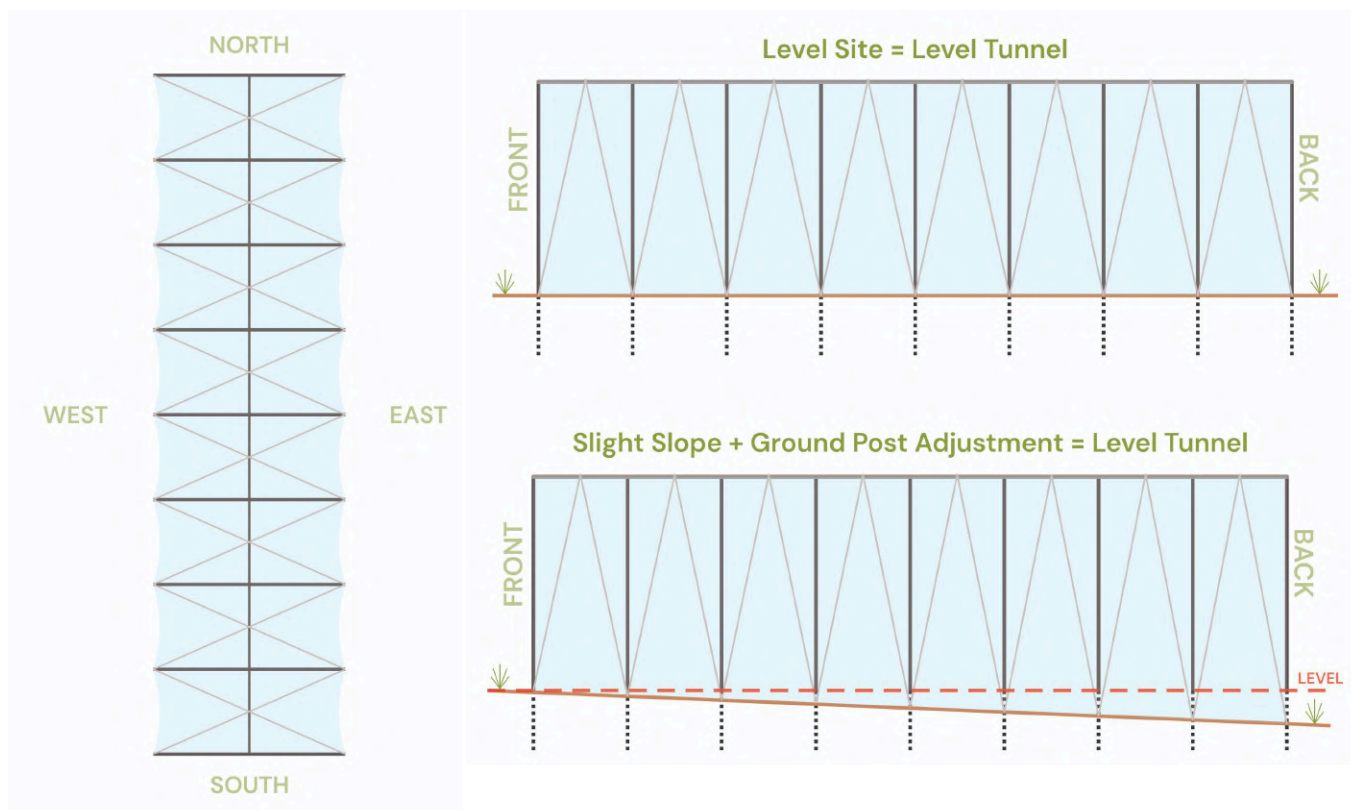
Your tunnel's location is very important and there are many factors to consider.

An ideal location is relatively flat with exposure to sunlight, protection from wind, close proximity to utilities such as water and electricity and with access for people and equipment. It is important to consider water runoff and snow storage/clearing when assessing your site.

In Canada the majority of single span structures are oriented North-South along their peak. While this is not optimal to maximize over-winter light exposure, it allows snow to evenly build up on both sides of the structure. We have seen instances where East-West oriented tunnels have the snow on the southside melt and the north side build, creating an uneven stress along the structure. No matter the orientation, it is important to consider the amount of cumulative snow that your location receives and have a plan in place to clear the snow during extreme weather events.

Wind is another important environmental consideration since it is a main and consistent stress for structures. Generally it is best to orient your gable end to face your prevailing wind to streamline the flow of air around the structure. The site can also be protected by other structures, natural tree lines or topography, reducing the stresses on the structure.

While there may not be the perfect site for your structure, adjustments and improvements can be made to enhance any site or structure to meet the requirements.



2 - Layout & Ground Posts

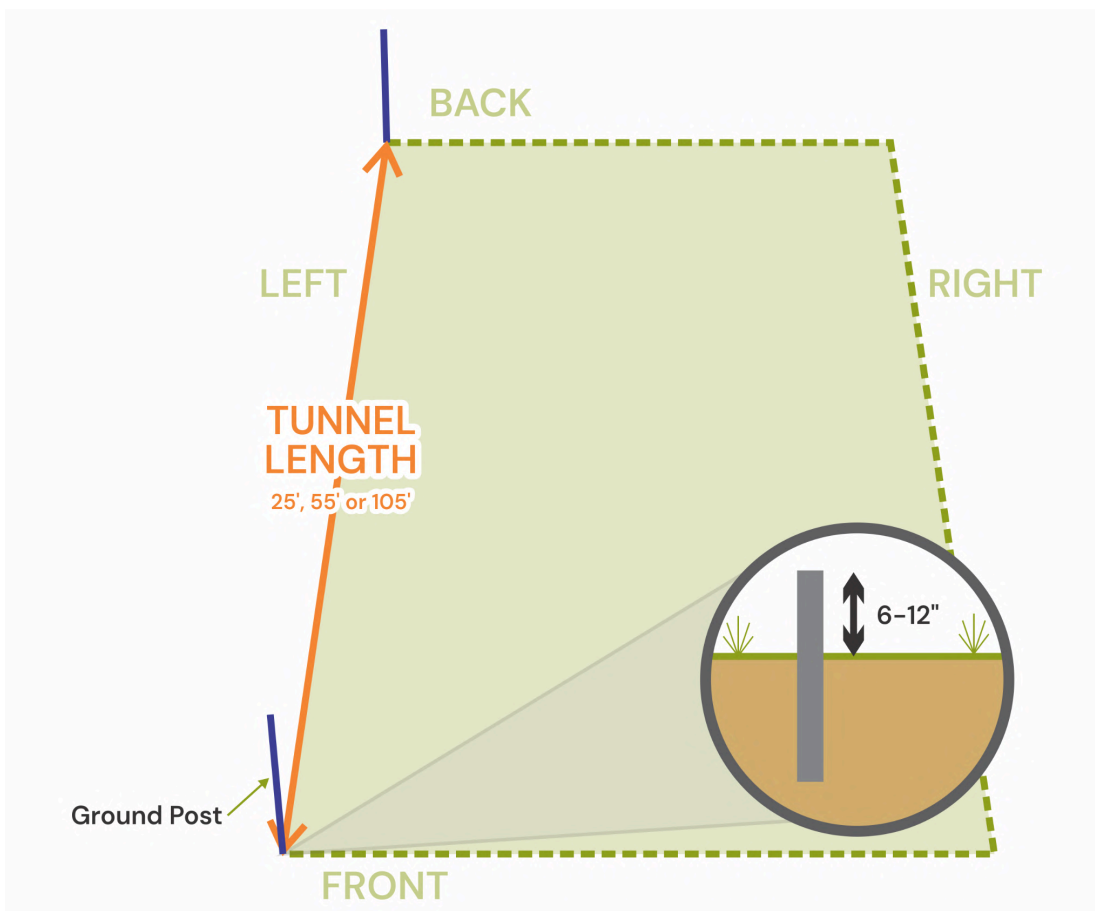
PARTS NEEDED

- Ground Posts
- Ground Post Driver
- 4 Self-tapping Screws
- Hex Drill Bit

TOOLS NEEDED

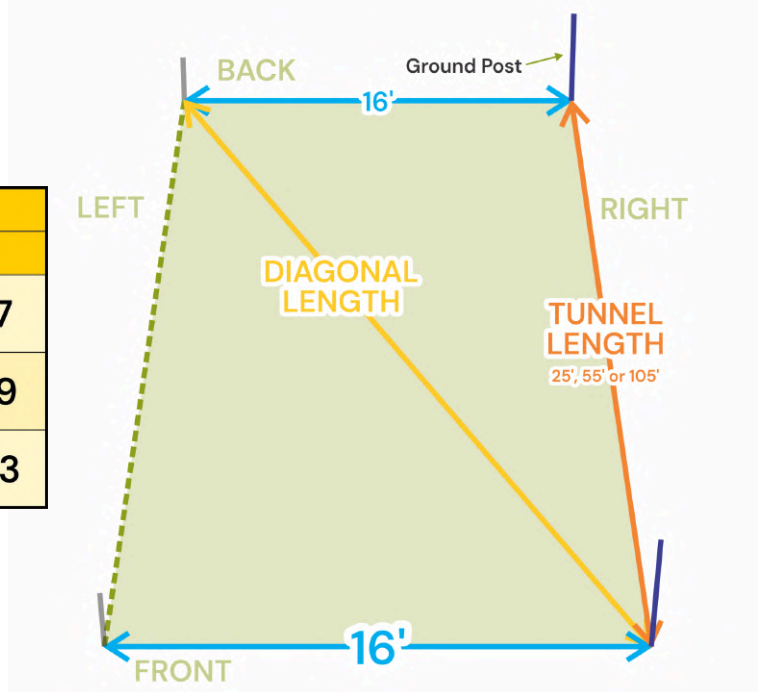
- Sledge Hammer
- Measuring Tape
- String Line
- Drill

1. Determine your desired site and orientation of your tunnel.
2. Starting at the **front-left** corner, drive a ground post in using the ground post driver and sledge hammer. We recommend leaving 6-12" of ground post exposed varying with the slope of your location. Leaving the corner posts a bit higher will allow for any adjustments in step 10.
3. Measure down the length of your tunnel and drive in another corner post (**back-left**). **Be sure to measure from outside to outside of ground posts while keeping the tape measure tight.**



4. To determine the location of the **front-right** corner post, measure over 16' from outside of the **front-left** corner post and place a mark here.
5. Measure the tunnel's diagonal length from the outside of the **back-left** corner post to the outside of the **front-right** corner post.
6. Drive the **front-right** corner post in at the mark where both the width and diagonal lengths meet. This will ensure your tunnel is square.
7. Measure from outside to outside to install the **back-right** corner post. 16' directly across from the **back-left** corner post and the tunnel length from the **front-right** corner.
8. Check the diagonal measurement from **back-right** to **front-left** to ensure the structure is square.

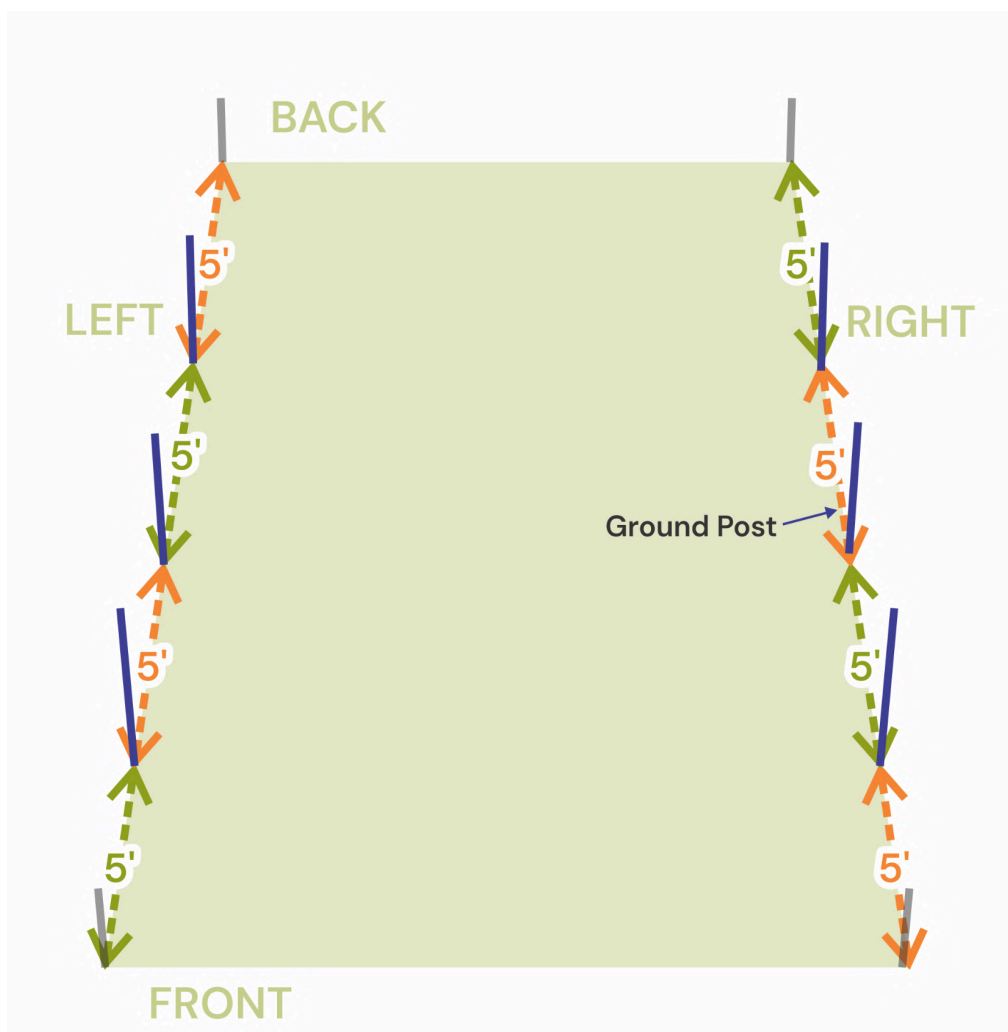
Tunnel Length	Diagonal Length	
	Imperial	cm
25'	29' 8 1/4 "	904.7
55'	57' 3 1/2 "	1745.9
105'	106' 2 1/2 "	3237.3



9. To set the string line for the remaining ground post install, partially set a **self-tapping screw** into each corner post facing outwards on the gable ends.
10. Secure a string line from the front to back corner posts over the top of the posts using the self-tapping screws from step 9. This string line (top) will be used to guide the height of the remaining ground posts along the length of the tunnel. It is important to try to **make both of these string lines on either side level to keep the upper arches square**. It is also important to ensure that you account for any slope of the site and that **at least 6" of ground post is exposed above the soil line**. *Adjustments to the corner ground posts may be necessary.*



11. Secure a second “bottom” string line by wrapping the string around the ground posts so the string ends up on the outside of the tunnel. This string line will be the guide for keeping the other ground posts in a straight line.
12. **MEASURE 5' on-center** from the first ground post to install the next ground post along the outside string line.
13. Drive this ground post into the ground until the post is level with the upper string line.
14. Repeat this process down the length of the tunnel on both sides.
15. Remove string lines and self-tapping screws once all ground posts have been installed.



3 - Rope Attachment Bases

Install the rope attachment hardware to the bases of the ground posts before installing arches.

PARTS NEEDED PER POST

- 1 x Brace Band
- 1 x 1.25" Carriage Bolt
- 1 x Flange Nut
- 1 x Rope Securement Hook
- ½" Socket

TOOLS NEEDED

- Socket Driver or wrench

1. Slide a **Brace Band** down the arch.
2. Secure a **Rope Attachment Hook** with a **1.25" Bolt** and **Flange Nut** through the Brace Band and tighten. **Ensure that the Rope Attachment Hook is facing towards the outside of the tunnel and is located as close as possible to the ground.**
3. Repeat this process for each ground post.



4 - Arch Assembly

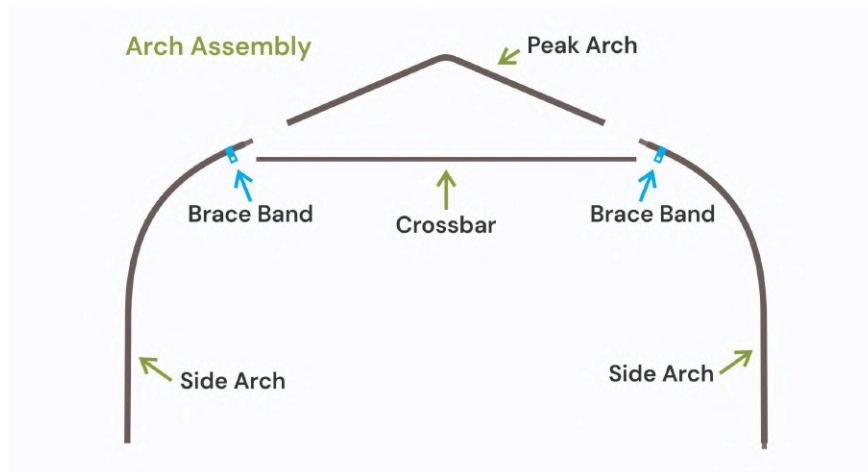
PARTS NEEDED PER ARCH

- 2 x 1 5/8" Side arches
- 1 x 1 5/8" Peak arch
- 1 x Crossbar
 - 1 3/8" for middle arches
 - 1 5/8" for gable ends
- 2 x Self-tapping Screws
- 2 x Brace Bands
- 2 x 1.25" Carriage bolts
- 2 x Flange nuts
- Hex Drill Bit
- 1/2" Deep Socket

TOOLS NEEDED

- Measuring tape
- Impact or Drill Driver
- Socket driver or manual wrenches

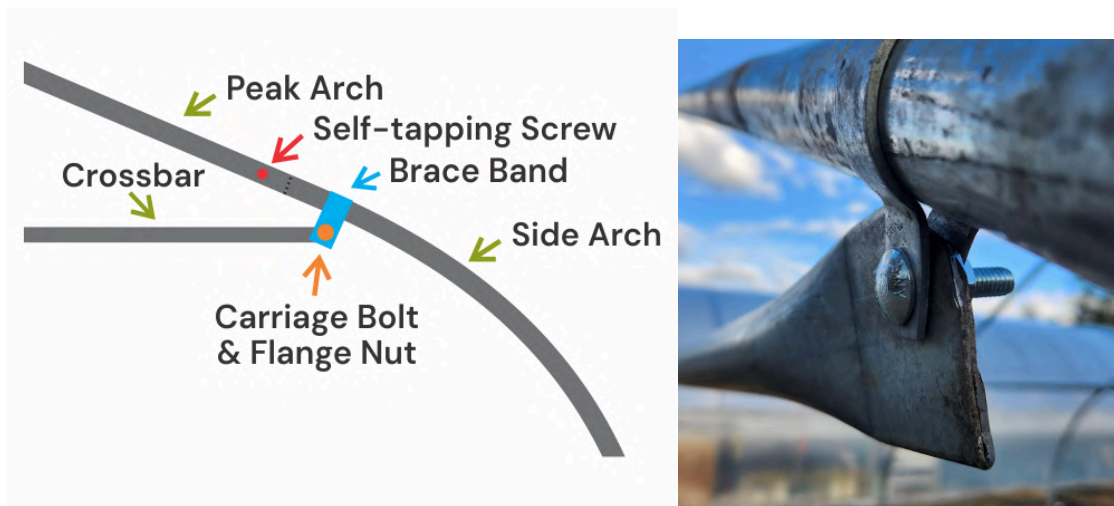
1. Find level surface to assemble arches.
2. Lay out the **peak arch**, **two side arches** and **crossbar**.
3. Slide one **brace band** onto each side arch on the curved end of the arch.
4. Slide the side arch swages into the peak arch tube.



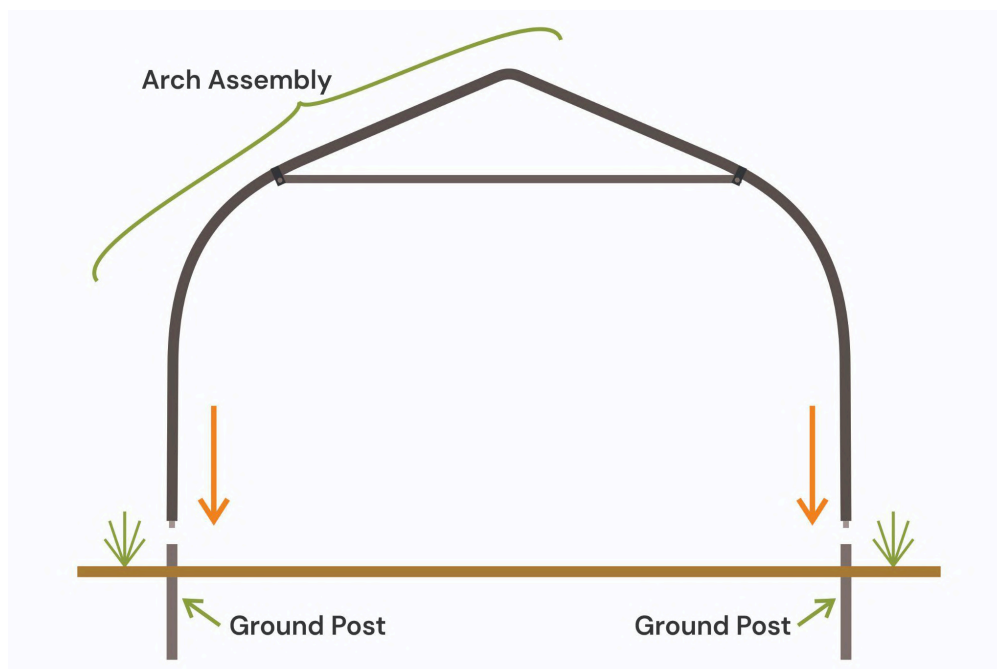
5. Secure the side arches to the peak arch by driving a **self tapping screw 2"** from the joint. **Ensure the screw head is not located where it could come in contact with the future poly covering.**



6. Lay out the **crossbar** in the approximate location. Secure the **crossbar** to the **brace bands** using the **1.25" carriage bolts** and **flange nut**, but do not fully tighten. Measure from the arch joints down to the purlin to level and correct purlin if necessary. **Once in the final location, tighten the nut on each bolt.**
7. Repeat this process for remaining bows. **Remember that the 1 5/8" (larger) crossbars are to be used on the gable end arches at each end.**



8. With two people, take your assembled frames and set the swaged ends into the ground posts.
 - Start by installing at the end of the tunnel that is furthest away from where you assembled the arches for an easier, unobstructed path.
 - **Install gable end arches with the crossbar bolts and screw heads facing in from each end to avoid coming in contact with the plastic.**



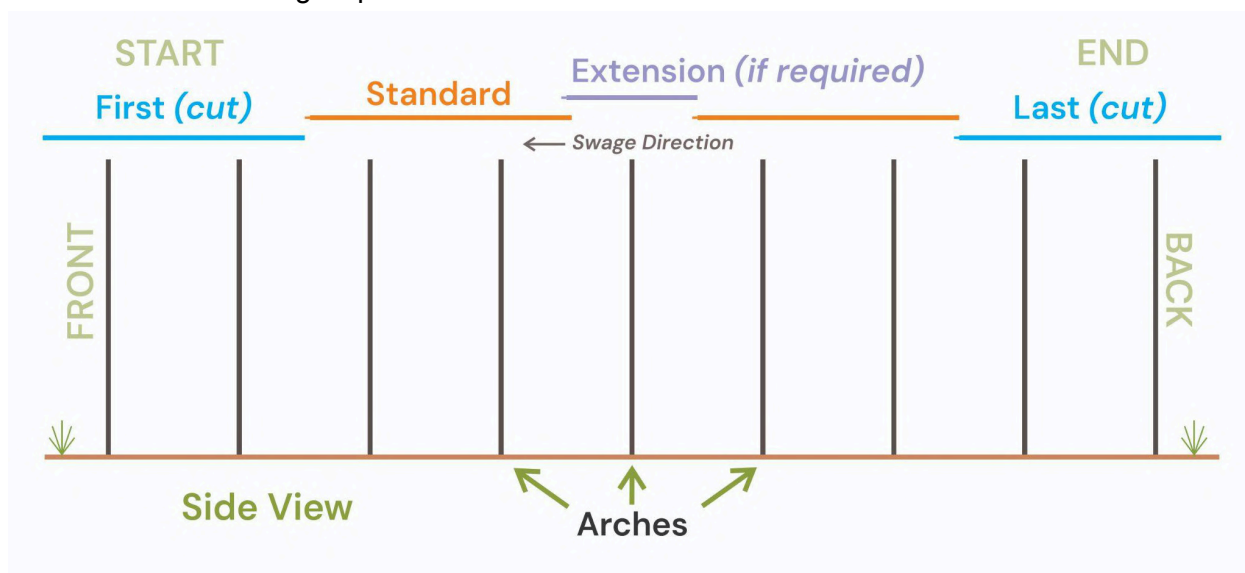
5 - Peak Purlins

PARTS NEEDED

- 1 $\frac{3}{8}$ " Peak purlin non-swaged
- 1 $\frac{3}{8}$ " Peak purlins swaged
- 3.5" Carriage bolts
- Flange nuts
- $\frac{1}{2}$ " Deep Socket
- Self Tapping Screws
- Hex Drill Bit
- Plastic Finishing Caps

TOOLS NEEDED

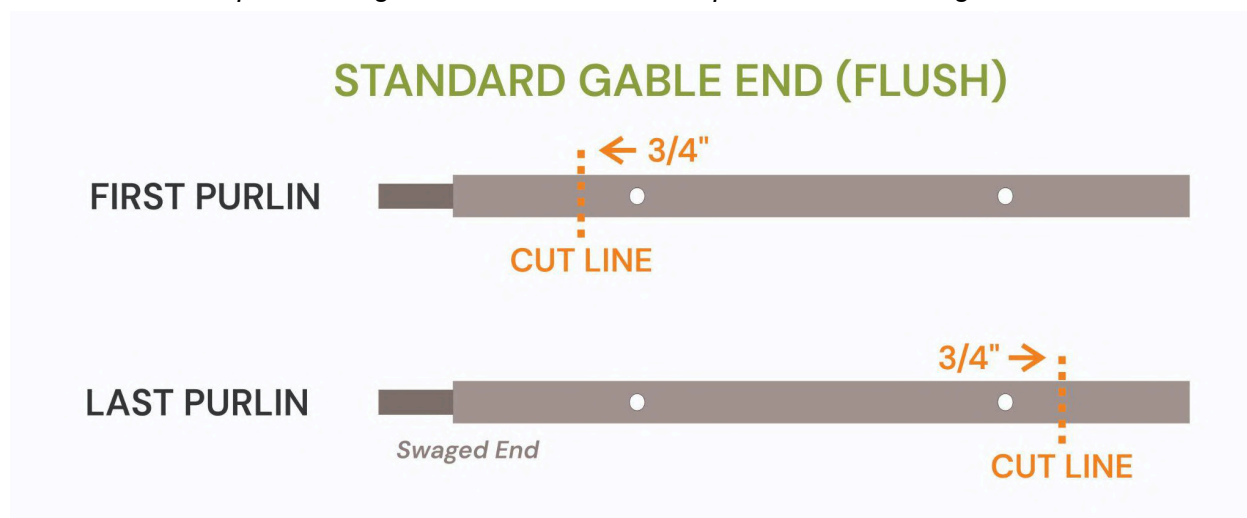
- Metal saw
- Measuring tape
- Ladders (x2)
- Impact or Drill Driver
- Socket driver or manual wrench



1. Layout the **peak purlins** in sequence on ground with all the swaged ends pointing towards the front of the tunnel.
 - a. If your tunnel requires a **peak purlin extension**, place this extension towards the middle of the tunnel. Do not start or end the structure with the extension.
2. While purlins are on ground, **CUT** the **first and last purlins** to length. See details on where to cut for Standard Gable End vs. Scissor Door End options.

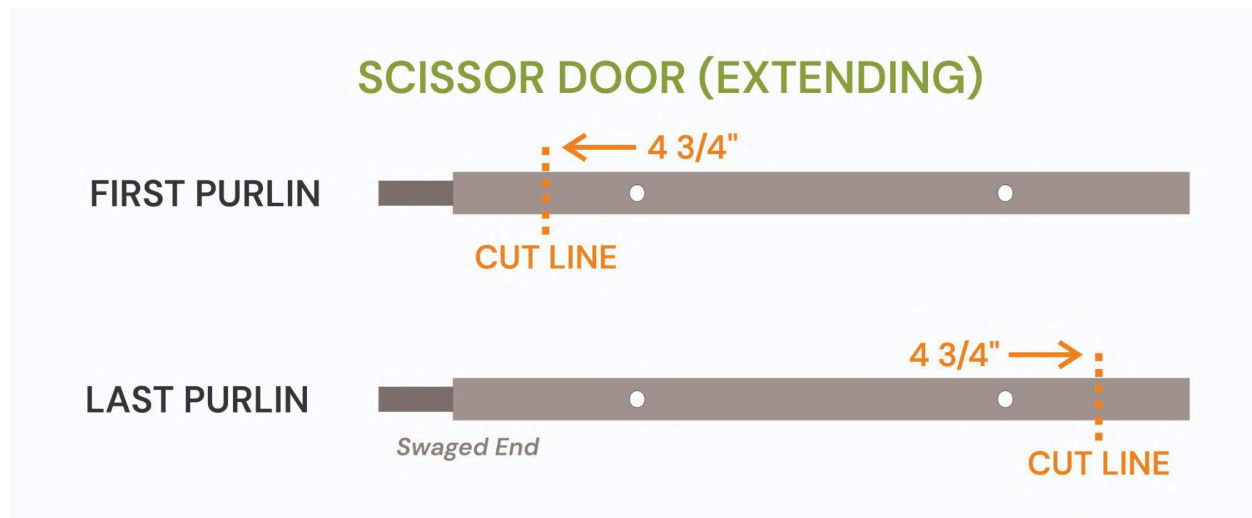
Standard Gable End

- To create a flush edge on the gable end, **MEASURE** and **CUT** $\frac{3}{4}$ " from the center of a hole towards the swaged end on the **first purlin**. This will create a flush edge to the gable end wall by removing the swaged portion.
- On the **last Purlin**, **MEASURE** and **CUT** $\frac{3}{4}$ " from the center of a hole towards the non-swaged end. This will create a flush edge to the gable end wall by removing the extra length.
- File down any sharp edges from the cuts and insert a **plastic finishing cap** at each newly cut end with a hammer. *Finishing caps may need to be trimmed to allow the bolt to pass through the nearest hole in the purlin and into the gable arch.*

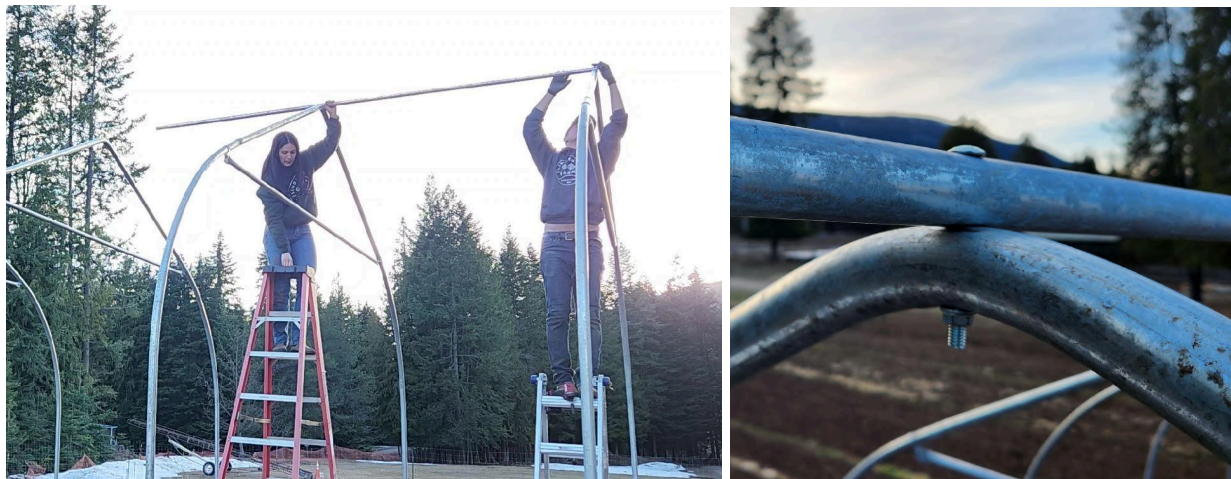
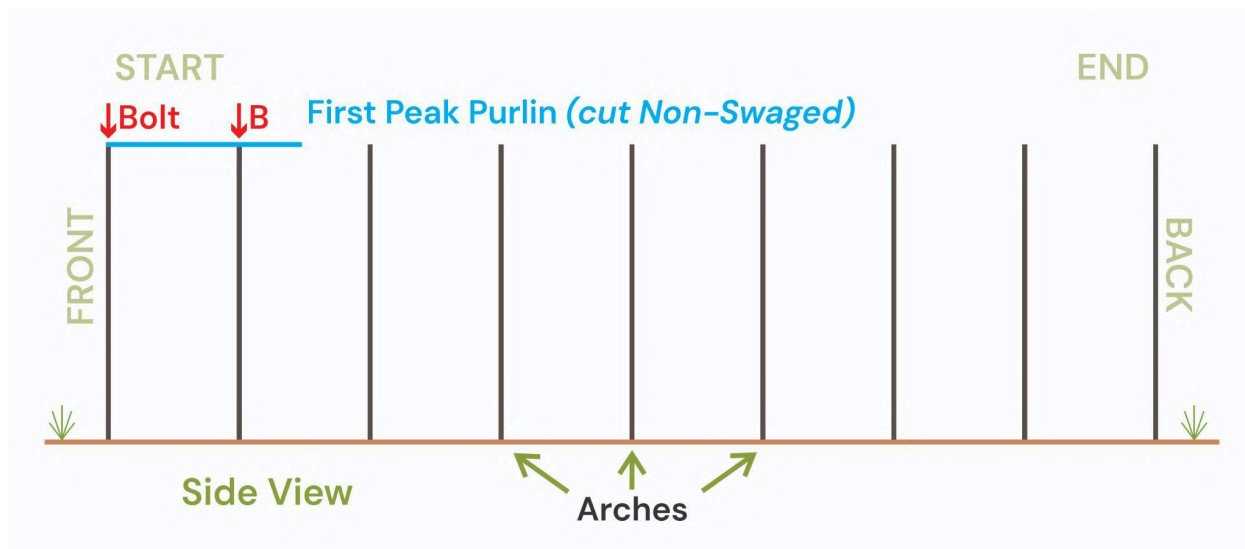


Scissor Doors

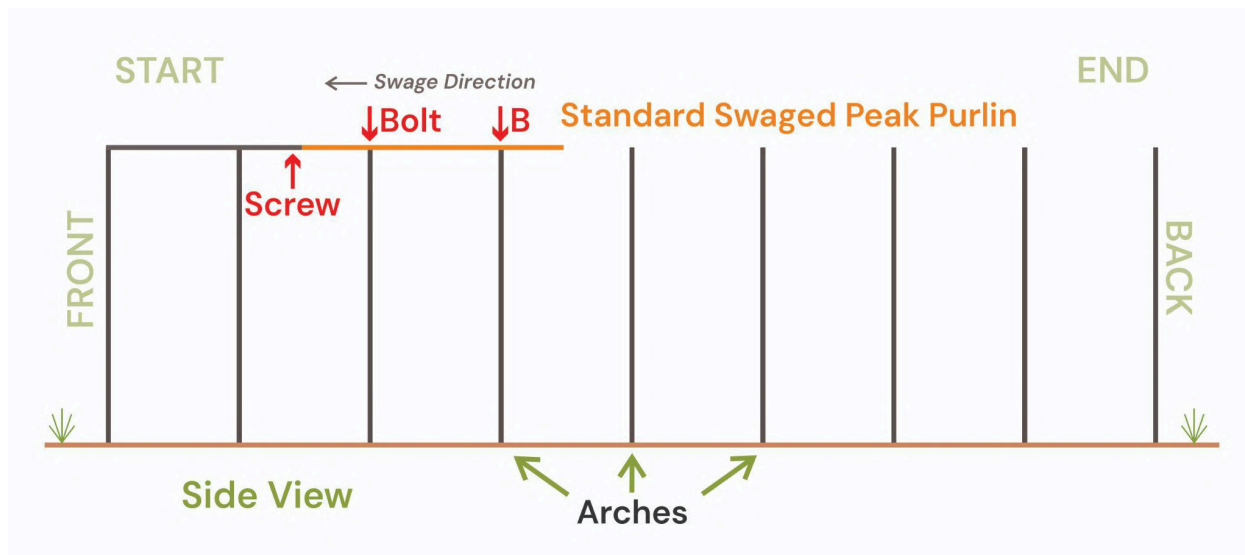
- To create an extension to hang a scissor door, **MEASURE** and **CUT at least 4 ¾"** from the center of a hole towards the **first purlin**. This will create an extension that goes past the gable end wall once installed, to hang the scissor door hardware.
- On the **last Purlin**, **MEASURE** and **CUT 4 ¾"** from the center of a hole towards the non-swaged end. This will create an extension that goes past the gable end wall once installed, to hang the scissor door hardware.
 - * If you are planning only one scissor door, cut the extension on the first purlin and cut the last purlin as you would a standard gable end. Ensure that you start the purlin on the gable end you wish to have your door.*
- File down any sharp edges from the cuts and insert a **plastic finishing cap** at each newly cut end with a hammer.



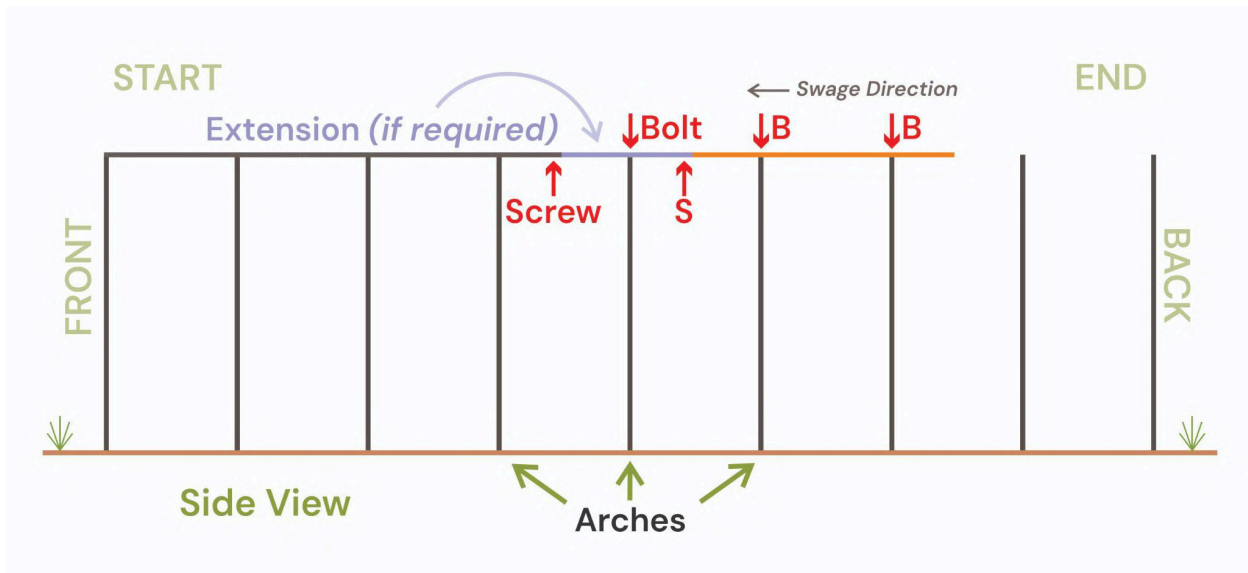
3. Start attaching with the now cut-to-length non-swaged peak purlin using two people on ladders at each arch. Insert a **3.5" carriage bolt** from the top of the purlin through the gable end arch and secure it with a **flange nut** from the bottom. Insert the second 3.5" carriage bolt at the next arch and secure it with a flange nut. Once both bolts are in place, tighten until the top of the carriage bolt sits flush with the peak purlin, avoiding leaving a space where the poly covering could catch. ****Important:** Only for gable ends with wirelock channeling, tap the carriage bolt head with a hammer while tightening to slightly compress the peak purlin tube to reduce the button of the carriage bolt. This will reduce the chances of breakage when bending wirelock over the peak.*



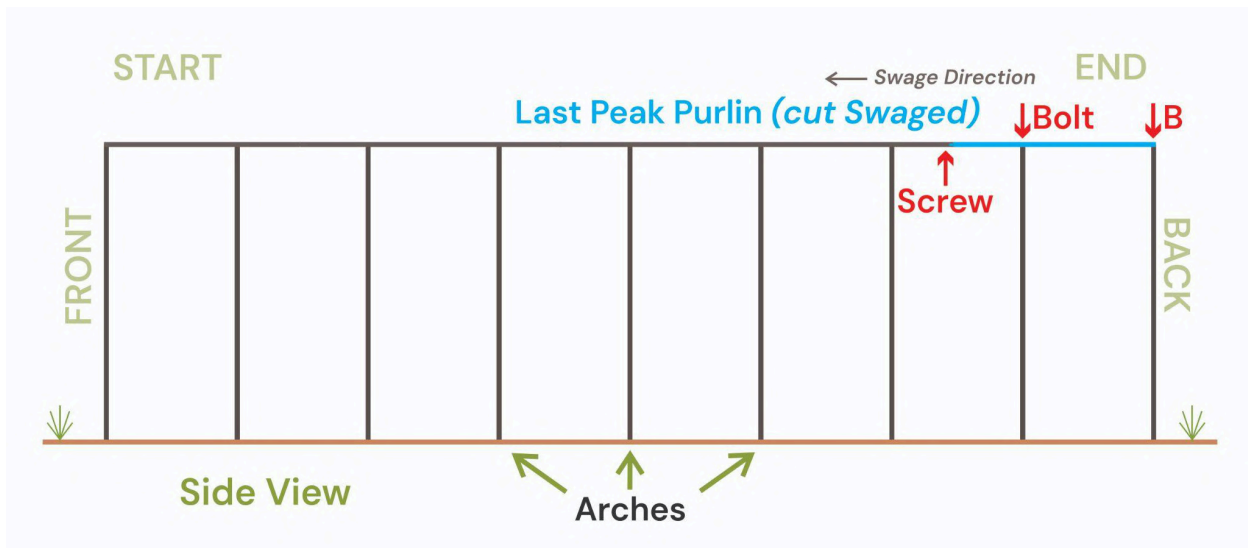
- Slide the swaged end of the next **peak purlin** into the purlin attached to the arches. Align the new purlin using a **3.5" carriage bolt** and **flange nut** through the purlin at the arch closest to the joint to ensure proper alignment. Using a **self tapping screw** from below, connect the two purlin pieces through the swage joint. Then secure the purlin to the other arch with the remaining 3.5" carriage bolt and nut, and tighten, as previously instructed.



- Repeat step 5 to continue to secure purlins until the last purlin is reached in sequence. Insert peak purlin extension towards the middle of the tunnel if required for a tunnel with a customized length.



- Insert last remaining peak purlins and secure accordingly. End purlin with the remaining end purlin tube that was previously cut for either being flush to gable end or leaving the overhang for the scissor door. Again, tap the final gable carriage bolt while tightening to sink the button of the carriage bolt to make installing the wirelock channel easier.



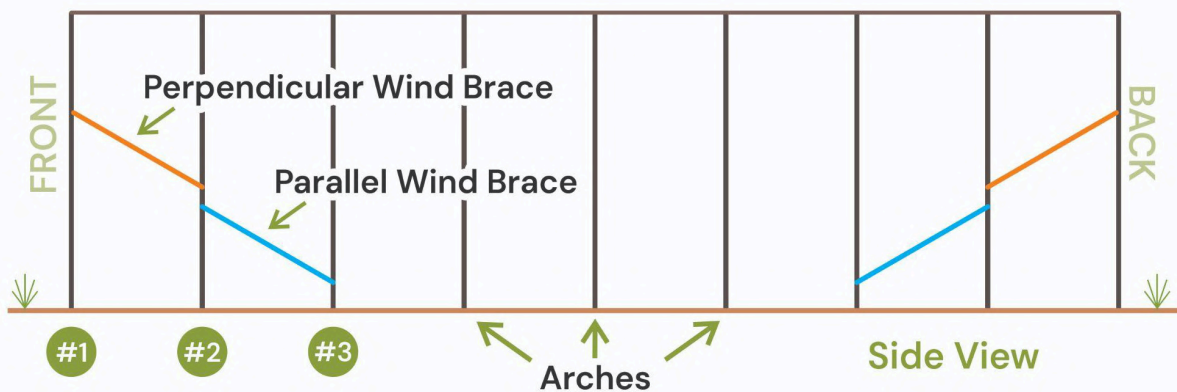
6 - Wind Bracing

PARTS NEEDED PER GABLE END

- 2 x Parallel Wind Braces
- 2 x Perpendicular Wind Braces
- 8 x Brace bands
- 8 x 1.25" Carriage bolts
- 8 x Flange nuts
- 8 x Self Tapping Screws
- ½" Deep Socket
- Hex Drill Bit
- Additional Self Tapping Screws

TOOLS NEEDED

- Measuring tape
- Level
- Ladder or stool
- Impact or Drill Driver
- Socket driver or manual wrench
- Pliers

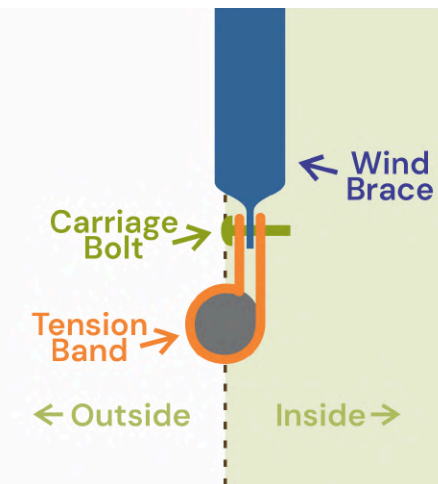


Step 1- Parallel Wind Bace between arches #3 and #2

1. Using gentle force, slip a **tension band** over the base of the **arch #3** from a gable end, ensuring that the band's flat side is towards the inside of the tunnel when **pointing towards arch #2**. *If needed, the tension band can be pried open using two pairs of pliers to make it easier.*



2. Squeeze the tension band back together with pliers once over the arch.
3. Attach a **parallel wind brace** using a **1.25" carriage bolt** and **flange nut**, ensuring the bolts face the inside of the tunnel to avoid puncturing the plastic.



4. Slide the tension band into position approximately 4-6" above the joint between the ground post and arch assembly. Tighten bolt and nut securely.
5. Attach the tension band to the arch using a **self tapping screw**.
6. Now slip another **tension band** on arch #2, ensuring the flat side is towards the inside of the tunnel when **pointing towards arch #3**.
7. Connect the parallel wind brace using a 1.25" carriage bolt and flange nut, ensuring the bolts face the inside of the tunnel to avoid puncturing the plastic.
8. Using a **level**, ensure that the **arch #2 is plumb**, before tightening the bolt and nut. Secure in place with a **self tapping screw** through the tension band.

Step 2 - Perpendicular Wind Brace between arches #2 and #1

9. Slip another **tension band** over arch #2 above the already secured tension band. Ensure its flat side is towards the inside of the tunnel when **pointing towards arch #1**.
10. Attach a **perpendicular wind brace** using a **1.25" carriage bolt** and **flange nut**, ensuring the bolts face the inside of the tunnel to avoid puncturing the plastic.
11. Move this tension band into position 2-4" above the already secured tension band and tighten the bolt and nut.



12. Slip a **tension band** over arch #1 (gable end) just below the crossbar connection. Ensure that the flat side of the band is facing downward when **pointing towards arch #2**.
13. Connect the perpendicular wind brace to the tension band using a **1.25" carriage bolt** and **flange nut**, ensuring the bolts face the downward (inside) of the tunnel to avoid puncturing the plastic.



- Using a **level**, ensure that **arch #1 is plumb**, before tightening the bolt and nut. Secure in place with a **self tapping screw** through the tension band.



- Make any final adjustments before securing the remaining tension band on arch #2 with a **self tapping screw**.
- Repeat processes 1-15 until both ends of the tunnel have been plumbed and secured.
- Now, secure the arch assemblies to the ground posts using a **self tapping screw** approximately **2"** **below the joint** from the inside of the structure to avoid coming in contact with the poly covering.



7 - Gable Wirelock Channel

If you plan on installing one of our door kits or building your own door setup with framing, do so **BEFORE** installing the gable wirelock channels.

PARTS NEEDED PER GABLE END

- 3 x Wirelock Channels
- Self Tapping Screws
- Hex Drill Bit

TOOLS NEEDED

- Metal saw
- Measuring tape
- Ladder
- Impact or Drill Driver

1. Starting approximately 4" above the rope securement brace band, attach a **wirelock channel** using a **self tapping screw**. The gap between the rope securement and channel can vary depending on the owner's preferences.
2. Fasten the channel every 12-18" with **self tapping screws**, pressing the channel against the arch to contour to the bend.



3. To add additional lengths of channel, make sure there is a screw within 2" of each end of the channels.

4. Using gentle pressure, bend the channel over the peak continuing to secure it. **If the channel cracks, flatten with a hammer, smooth with a file and place a piece of duct-tape over the joint to avoid catching on the poly covering.*



5. **MEASURE** the final length and **CUT** the final section of channel accordingly using a metal saw.

8 - Gable Endwall Poly Covering

PARTS NEEDED

- Poly Covering
- Spring Wire (wiggly-wire)

TOOLS NEEDED

- Knife or scissors
- Measuring tape
- Ladder
- Permanent Marker
- Bolt cutter

1. Partially unroll about **20'** of the **poly cover** spool over a safe location avoiding materials that could damage the plastic. **We recommend a grassy area.*
2. **MEASURE 14'** from the end of the roll and **CUT** poly using a straight line.



3. Unfold the 14' piece of poly and **CUT** it in half, leaving **two pieces 14' x 18'**.
4. Mark one side of the 18' at 9' with a permanent marker or crease to determine the middle.
5. Bring the marked middle of the poly piece to the peak of a gable end. Ensure that there is a 4" overhang into the tunnel. Temporarily secure the poly using a **spring wire** in the **wirelock channel** at the peak.
6. Adjust plastic as needed to create a smooth gable endwall. Secure bottom middle and both corners of plastic with a rock/weight or temporarily with spring wire to create some tension.

7. Starting at the peak of the arch, insert a **spring wire** starting in the **middle** of the wire. Hold the poly covering with tension as you work down one side.



8. Continue to insert additional spring wires by overlapping one link at each end as you tension the poly cover, avoiding any bunching/folds of the material.
9. Trim any excess spring wire using bolt cutters once you have reached the ground.
10. Repeat the process for the other half of the gable endwall.
11. **CUT** excess poly covering from the inside of the structure using **scissors** or **knife** leaving approximately 4" for readjustment if needed. *Do not trim excess poly from the bottom where it touches the ground as the extra material creates a better seal.*
12. If any additional framing (door kits, DIY, fans, etc.) have a wirelock channel, secure the poly using spring wires. Trim poly according to openings leaving at least 1" of excess. .
13. Repeat this step for the other gable end of the tunnel.

9 - Main Poly Covering

PARTS NEEDED

- Poly Covering
- Spring Wire (wiggle-wire)

TOOLS NEEDED

- Knife or scissors
- Ladders
- Bolt cutter
- Tennis ball or rock
- String/rope

1. Open roll of **poly covering** carefully to avoid any damage. The easiest place to unroll is down the length of the structure.
2. **CUT** to length if required, ensuring **at least 18-24” of extra material on each end.**
3. Pull poly covering over the tunnel, ensuring the **“inside” printed marks are legible from the inside** of the structure. Tying one edge of the poly with a tennis ball or rock in a few places makes it easy to pull over with only a few people.





4. Once poly is pulled over, align the middle crease with the peak purlin and evaluate the other crease along the length of the tunnel to ensure it is even on both sides.
5. Partially secure poly with **spring wire** at the peak on one end.
6. At the opposite end, pull tension on the poly and secure it with **spring wire** to one side of the peak.
7. Continue to secure the poly while tensioning downward and adding additional spring wires. Avoid any creases, folds or bunching of poly.



8. Trim excess spring wire once reached the bottom.
9. Repeat steps 7 & 8 for the other side of the current gable end.
10. Now working on the other end of the structure, remove the temporary spring wire if needed.
11. Repeat steps 6 to 9 to finish securing the main poly covering.

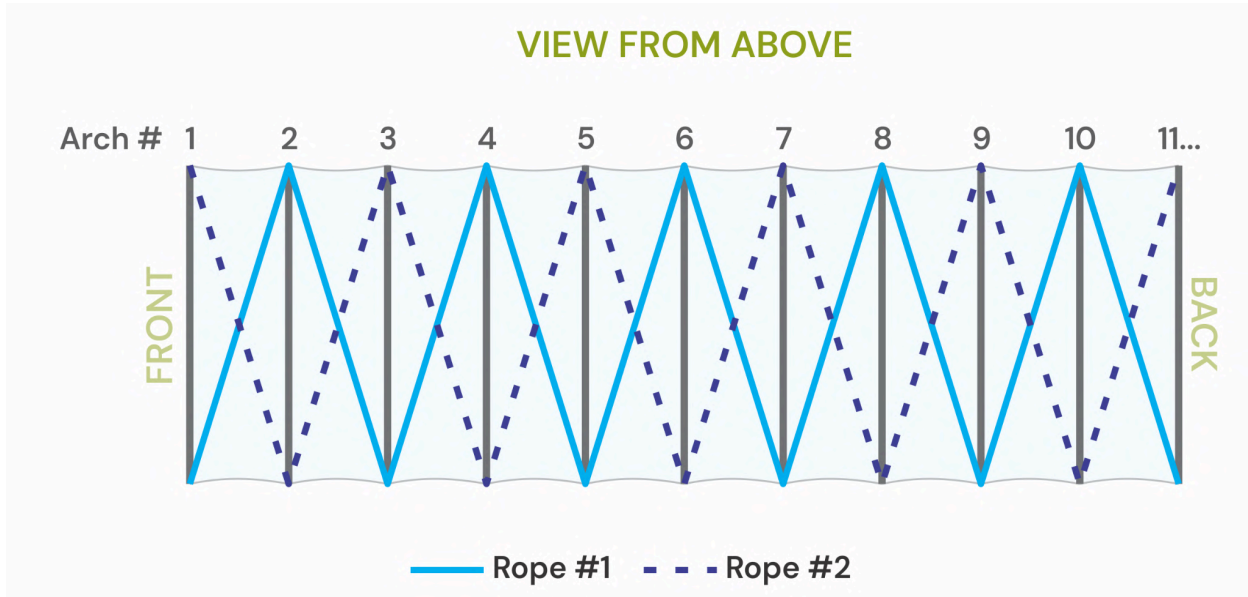
10 - Rope Installation

PARTS NEEDED

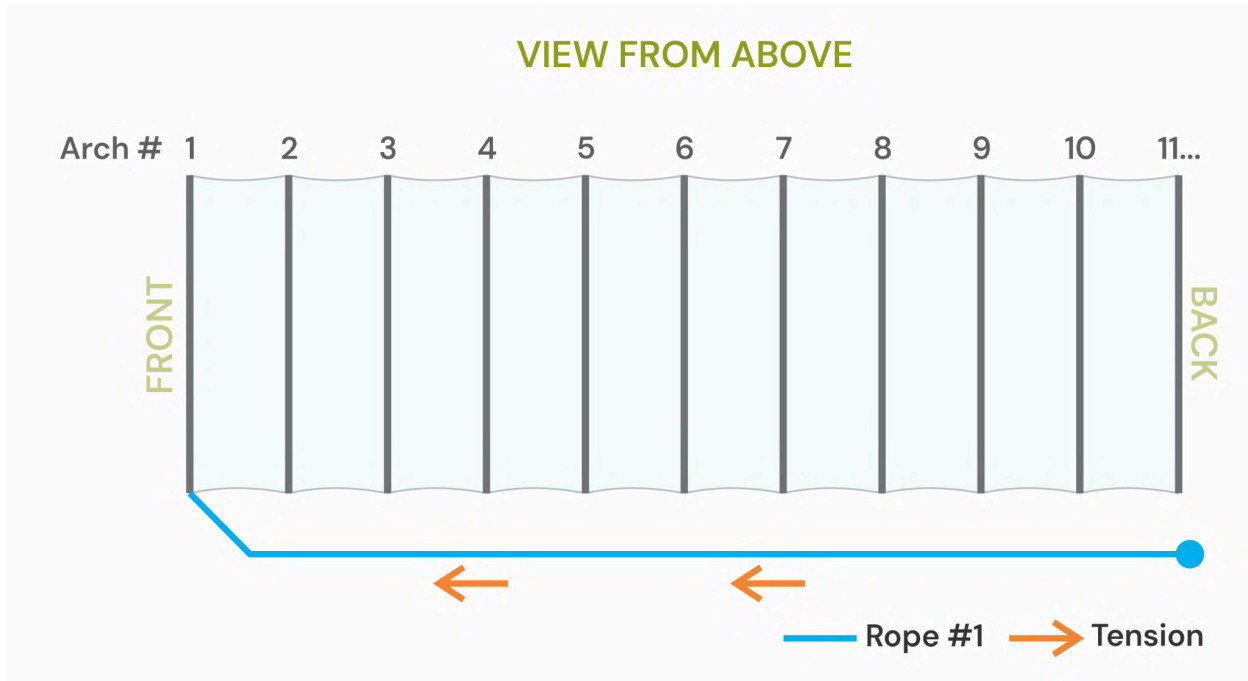
- Nylon Rope

TOOLS NEEDED

- Knife or scissors



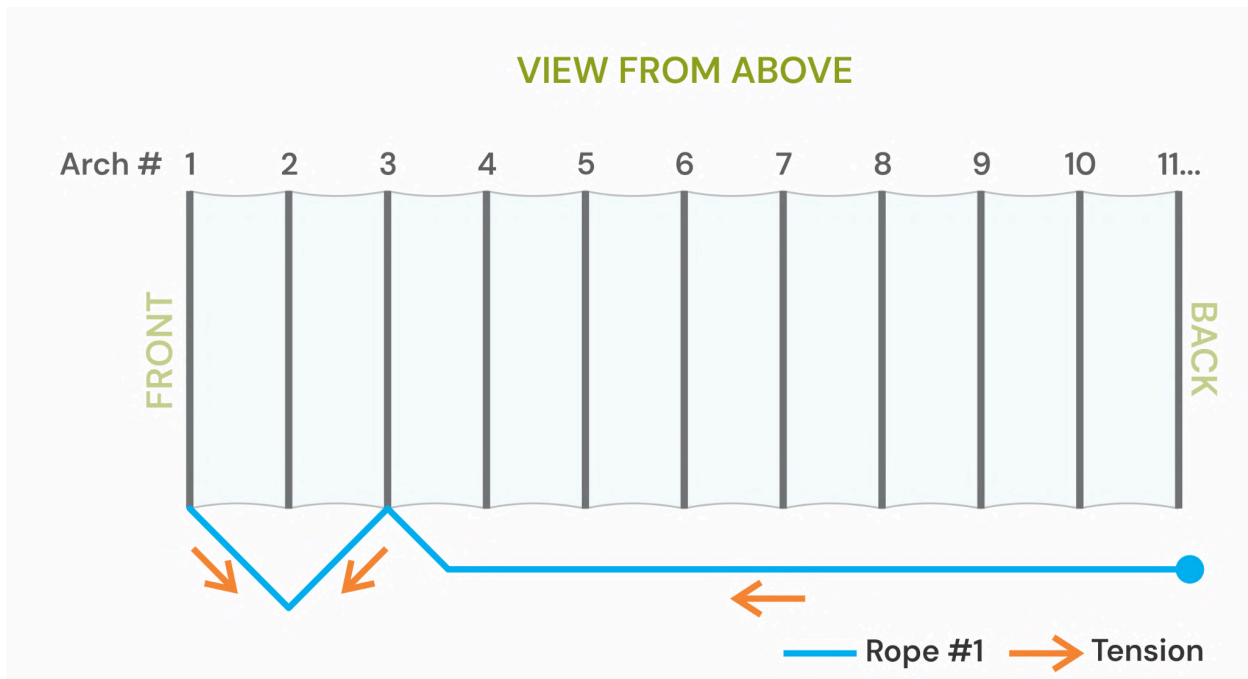
1. Tie one end of **nylon rope** to a **rope securement hook** at a **gable end**.
2. Walk out nylon rope down the length of the tunnel.



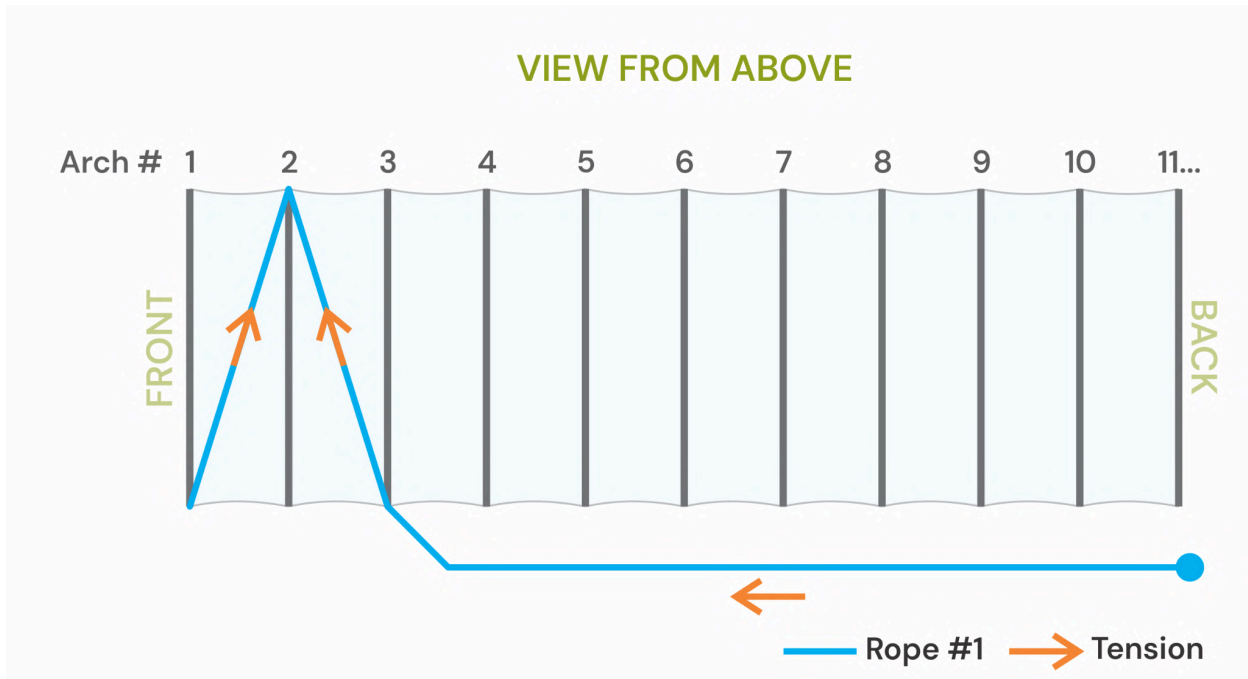
3. Loop the nylon through the rope securement hook on arch #3.



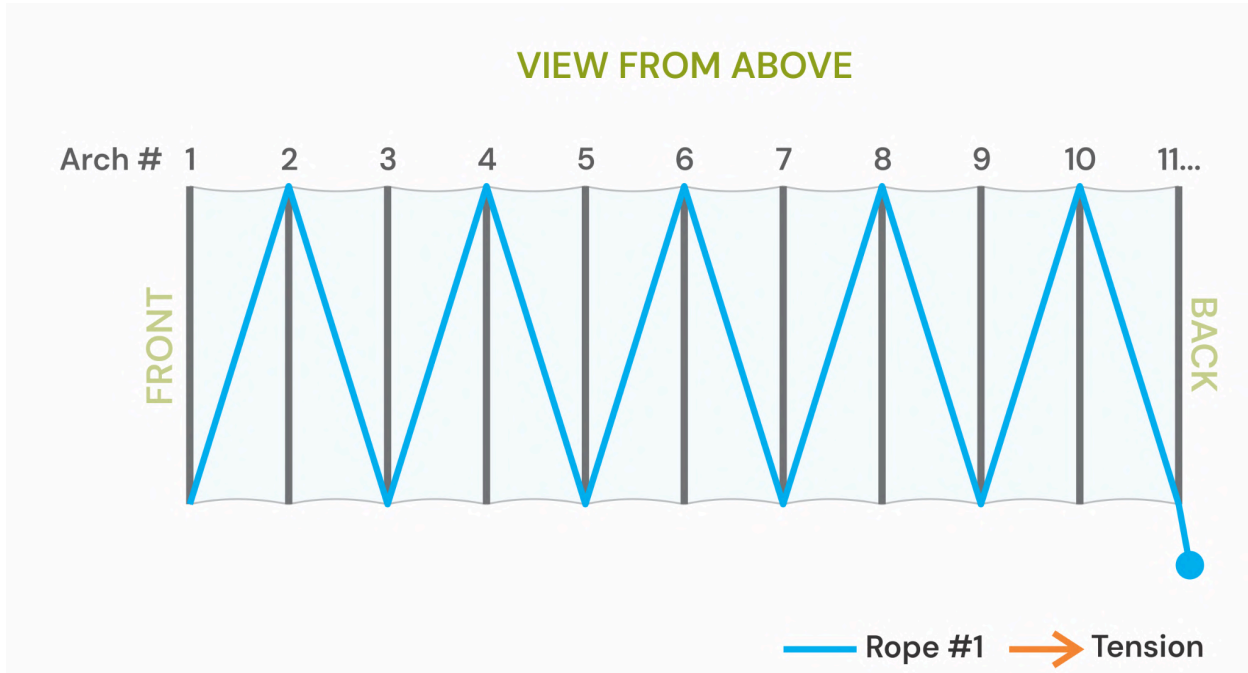
4. Pull out enough rope between arches #1 and #3 hooks to throw over the tunnel.



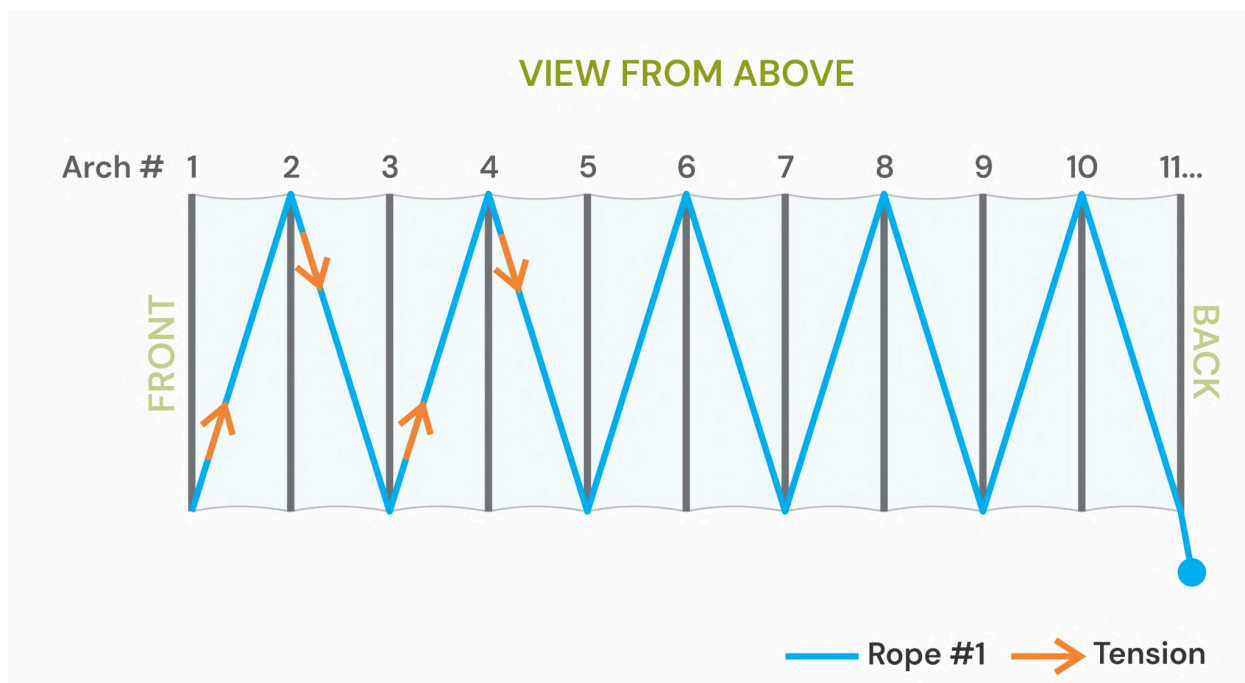
5. Feed the rope through the rope securement hook on arch #2 on the other side of the tunnel.



6. Repeat this process until the end of the structure. Tie nylon rope lengths together as needed.



7. Tighten the rope with two people by tensioning at each arch starting at the end where the rope was tied off. Once excess slack has been removed, tie the rope at the end of the tunnel and **CUT** off excess.



8. Repeat steps 1-7 for the opposite side of the tunnel until a **criss-crossing pattern with satisfactory tension** is created. The rope tension should be firm to avoid any billowing of the main poly covering.

Maintenance

While tunnels are relatively low maintenance, it is important to protect the longevity of your investment.

Conduct at least an annual walk through of the structure to look for any potential or current issues. Most growers conduct these walkthroughs monthly and after any major weather events.

Look for any rips, tears or stretches in the poly covering, loosening of the nylon rope, poly covering, spring wires or wirelock channels, dislodgement of rope from a rope securement hook, any debris or materials that could potentially cause issues such as branches, tools and equipment.

It is important to keep the poly covering tight. Tensioning should be done in late spring, early fall, or summer morning or evening when the poly is warm and flexible. Tensioning in the high heat of the summer or on an extremely sunny day can cause issues of tearing when the poly contracts in the winter at consistently lower temperature and under the stress of snow load. Tensioning in winter or cold weather is not recommended as it is difficult to properly tension the material since it will stretch once it warms. Loose poly is more likely to tear or rub during inclement weather.

While most coverings are rated for 4-year life spans, they can often last much longer. Greenhouse poly loses on average 5-10% of its light transmittance per year due to UV degradation. After 5 years, many growers choose to change the poly covering to maximize light transmittance.

Repairing Poly Holes

Keeping a roll of repair tape is best practice. Commercially available greenhouse repair tape is recommended however many growers have used UV resistant Tuck Tape for vapour barriers.

When repairing a small hole, clean the poly on both sides of the hole. Ensure that the poly is dry before attaching tape. Place a piece of tape large enough to extend past the damage on both the inside and outside of the plastic. Tape repairs should be checked twice annually to ensure they are still secure.

Seasonal Considerations

Annually run through this list during your walk through inspect

1. Tighten any loosening bolts, screws and fastener
2. Oil hinges and moving parts
3. Tighten poly covering or nylon rope as needed
4. Repair poly if needed
5. Remove any weeds, debris or materials from edges of tunnel
6. Ensure ground posts have not moved due to wind or frost-heaving

Special Weather Conditions

During weather events,

1. Ensure snow is shedding from the peak of the tunnel. If not, remove snow before it can freeze to poly or build up. Wet snow or snow frozen to the poly that can collect rain is extremely heavy.
2. Remove snow from sides of the tunnel if it is building up unbalanced or is taller than the straight sidewalls.
3. During heavy rains, ensure water is flowing away from the structure and the sides are released to the ground.
4. During windy events, ensure sides are down and secured using sandbags or weights.
5. If extreme wind is predicted for your area, remove the plastic to avoid damage to the structure.