



**ClearSpan™
PolyMax® Windbreak Wall**

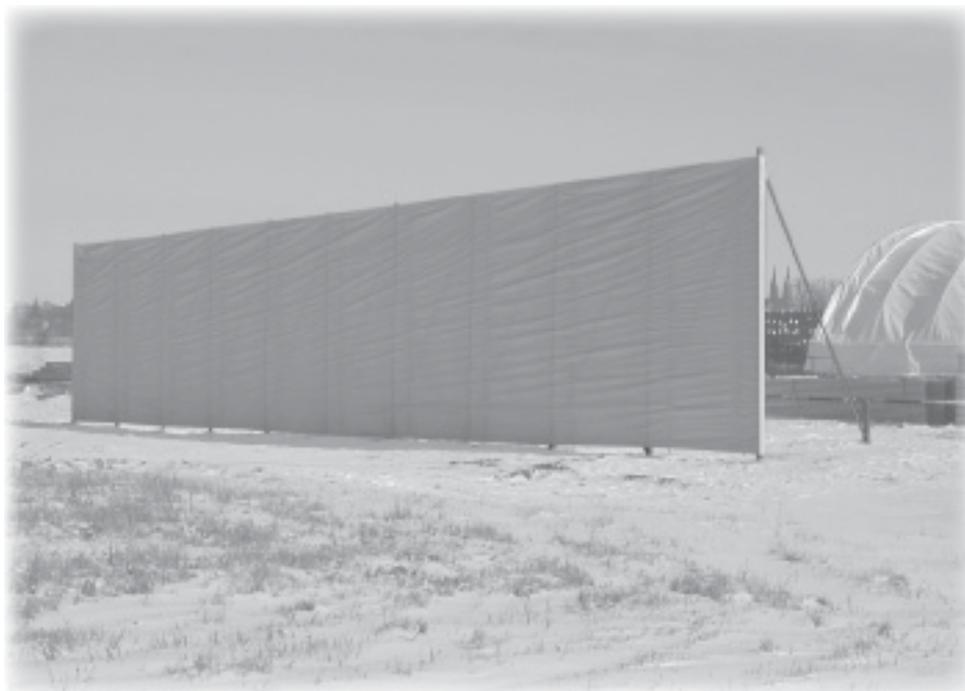


Photo may show a different but similar model.

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Revision date: April 2007ldg

STK#	DIMENSIONS
106708	20' H x (Length Varies)



YOU MUST READ THIS DOCUMENT BEFORE YOU BEGIN TO ASSEMBLE THE WINDBREAK WALL.

Thank you for purchasing this ClearSpan™ PolyMax® Windbreak Wall. 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 windbreak wall. Please read these instructions **before** you begin.

These instructions describe one way to assemble the windbreak wall. The site and the availability of equipment may require adjustments to be made to these instructions. Consult the services of a qualified professional contractor for assistance if needed throughout the procedures.

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 windbreak wall during or after construction.

LOCATION

Choosing the proper location is an important step before you begin to assemble the structure. Read the following precautions before you begin:

- Never erect the structure under power lines.
- Identify whether underground cables and pipes are present **before** preparing the site or digging the post holes.
- Allow sufficient room for equipment to work around the posts (if possible) during the assembly. Spacing between the ground post and the main column post is 10' on-center. Consult the diagrams near the end of this instruction packet for additional details.

SITE

Follow the information below to prepare the site:

- *A level site is required.* The site must be level to properly and safely erect the windbreak wall.
- **Drainage:** Water draining from areas surrounding the site should drain away from the site to prevent damage to the site and the structure.
- These instructions require setting the ground posts into the site 4' below the surface and the lower section of the main column posts 10' below ground level. *If these depths cannot be achieved, consult an expert familiar with the area and with constructing similar frames before continuing.*
- Although not required, concrete is recommended for some loose or sandy soil types. Consult a professional familiar with the area for additional information when setting the posts.

⚠ 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.

ASSEMBLY PROCEDURE

Following the instructions as presented will help ensure the proper assembly of your windbreak wall. Failing to follow these steps may result in an improperly assembled windbreak wall and will void all warranty and protection the owner is entitled. 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 and all additional documentation included with the shipment **before** you begin assembling the windbreak wall.
3. Gather the tools, bracing, ladders (and lifts), and assistance needed to assemble the windbreak wall.
4. Re-evaluate the location and site based on the information and precautions presented in the documentation included with the shipment.
5. Prepare the site (if applicable).
6. Assemble the frame components in the order they are presented in these instructions.
7. Install, tighten, and secure the main panel.
8. Read the care and maintenance information at the end of these instructions.

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™ fencing and identify the different parts of the windbreak wall. (Some are used in this document. Others may not apply to this particular windbreak wall.) 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.

- **Conduit:** An assembly of pipes used to secure the windbreak wall panel. Each pipe joint (if present) of a conduit assembly is typically secured using a self-tapping Tek screw.
- **Must Read Document:** This document includes building and shelter anchoring instructions, steps for end wall reinforcement, safety precautions, 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 pipe to the vertical center of another.
- **Plain or Straight Pipe:** A term used to describe a pipe that has the same diameter or width throughout its entire length.
- **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.
- **Strut or Brace:** A strut or brace is usually a length of pipe with two flattened ends and is used for diagonal bracing of the frame. A strut or brace is typically secured to the frame work by special brackets and bolts.
- **Tek Screw:** A self-tapping fastener used to secure pipes at the joints and to secure ratchets to posts.

REQUIRED TOOLS

The following list identifies the main tools needed to assemble the windbreak wall. Additional tools and supports may be needed depending on the structure, location, and application.

- Tape measure or measuring device
- Variable speed drill and impact driver (cordless with extra batteries works best)
- Drill bits
- Wrenches, ratchet and sockets (recommended)
- Scissors and gloves
- Welder and additional equipment to cut and prepare the metal tubes
- Ladders, work platforms, and other machinery for lifting designed to work safely at the height of the windbreak wall
- Power auger to dig holes
- Equipment to backfill and to tamp around ground posts and the lower main column posts when setting the frame.

UNPACK AND IDENTIFY PARTS

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

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 diagrams for clarification, or contact Customer Service.

NOTE: At this time, you do not need to open the plastic bags containing smaller parts such as fasteners or washers (if equipped).



PolyMax® Windbreak Wall

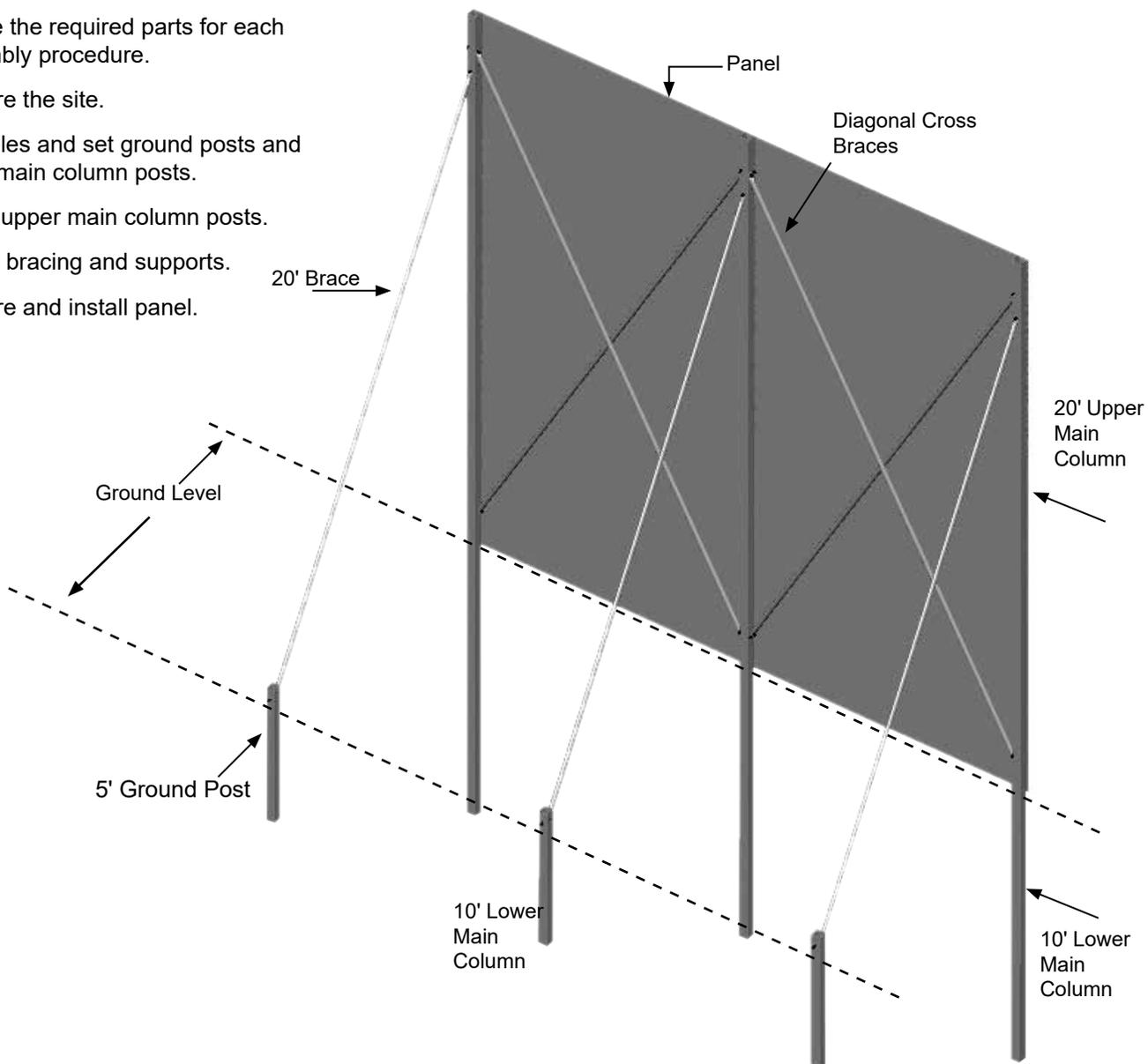
ATTENTION: These instructions describe setting all ground post and main column posts and then installing the diagonal bracing. To install the bracing, the mounting holes are drilled in the field at the tops of each main post. This procedure requires a lift to reach the tops of all main posts to drill the mounting holes.

The windbreak wall shown below may differ from the actual wall in length. It is presented to identify the main parts of the windbreak wall.

OVERVIEW

This section is an overview of the process for assembling your PolyMax® Windbreak Wall. See illustration below to identify main parts of windbreak wall.

1. Locate the required parts for each assembly procedure.
2. Prepare the site.
3. Dig holes and set ground posts and lower main column posts.
4. Install upper main column posts.
5. Attach bracing and supports.
6. Prepare and install panel.



MARK THE LOCATION OF THE WINDBREAK WALL

After the site is prepared, *mark the location on the site where the windbreak wall will be situated then set the ground posts.* The following procedure is a suggested method. Those familiar with constructing similar structures may elect to use alternative methods.

MARK THE SITE AND DIG GROUND POST HOLES

These steps describe marking all ground post hole locations and digging the holes. For some sites, it may not be possible to complete the procedure in this manner. An alternative procedure such as working from one end of the wall toward the other may be necessary. Determine the best procedure based on the site and other factors and proceed as needed.

1. Determine on which side of the main frame to set the five foot (5') ground posts and stake a string line in place to *mark the ground post locations.* Stakes should be spaced longer than the windbreak wall and off the actual line to allow room to dig all ground post holes.
2. On the ground, mark the hole locations using the 10' on-center spacing for the ground posts and the string line for guidance.

NOTE: Length is measured from the center of one end ground post to the center of the other end post when the wall is in a straight line.

3. Move the string line from above the hole positions (if needed) and dig each ground post hole to a depth of four feet (4'). A power auger works best.

ATTENTION: If the proper equipment is available, these 5' posts can be driven to the proper depth. Skip this step and continue by setting the ground posts.

4. Continue by setting the ground posts.

SETTING THE GROUND POSTS

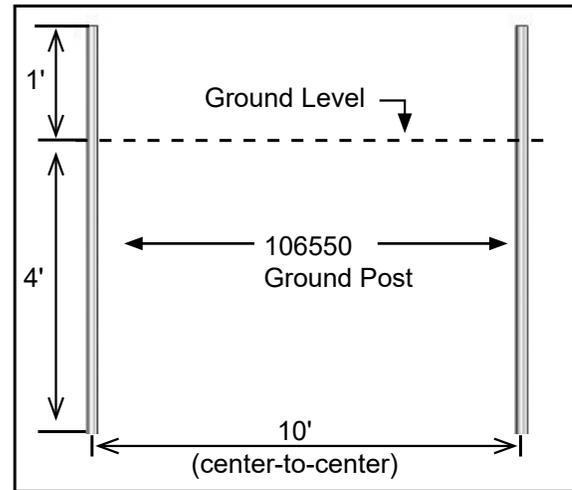
This procedure describes setting the ground posts in holes, adding backfill, and packing the fill using a mechanical tamping device. If the ground posts are driven into the site, read the steps that describe aligning the posts and proceed as needed to drive the posts into the site.

Required parts and equipment:

- 106550 (4" x 4" x 60") posts
- Equipment to add and pack backfill

NOTE: For best results, the use of concrete to secure all posts in the post holes is strongly recommended. If concrete is not used, use a mechanical tamper to pack backfill.

1. Take one 4" x 4" x 5' ground post tube, measure 48" from one end, and mark the location on the pipe.



NOTE: Set all posts four (4) feet below ground level as shown in the diagram above.

2. Place the ground post into the hole, or drive the post into position. Check that the post is straight (plumb) and square, add fill, and tamper the post in place, or set with concrete.



Photo may show a different frame length. It is used for illustration purposes only. When properly installed, twelve (12") inches of the ground post will remain above ground.

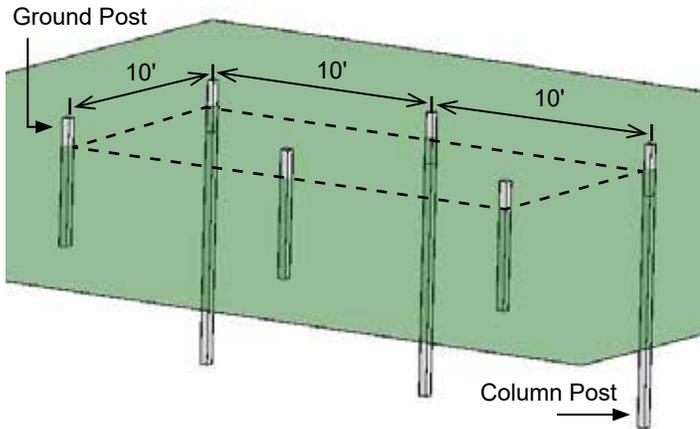
3. After setting the first ground post, measure ten (10') feet along the string line from the *center of the first ground post* to mark the center of the next post.
4. Set the next post and repeat the steps to secure the post in place.
5. Repeat the above steps to complete the installation of all 5' ground posts.
6. Continue by marking the locations of the main column posts and setting the 10' lower main column posts.

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MARK MAIN COLUMN POST LOCATIONS

The main column posts are set using the same spacing and methods described in the ground post procedure. *The line of main posts runs parallel with the ground posts. The spacing between the ground posts and the main posts is 10' on-center.*

1. After setting the ground posts, stake another string line in place (parallel to the row of ground posts) to identify the locations of the *main column posts* of the windbreak wall. See diagram below.



NOTE: The spacing *between the ground post and the main column post* is 10' on-center. The tops of all lower 10' sections of the main column post (installed in the next procedure) will be at ground level when set at the proper depth. The insert welded to the tops of all lower main column posts will be 12" above the ground as shown in the layout diagram above.



Special equipment is needed to dig a hole to the required depth of 10', or to drive a 10' post to the required depth.

2. Mark the hole locations on the ground using the string line as a guide. Reposition the string line if needed.
3. Dig the holes for the main column posts.

4. After holes are dug, position the string line over all holes and mark the 10' on-center locations of each main column post to align with each ground post.
5. Continue by preparing the lower main column posts.

INSTALL SPLICE INSERTS

The splice insert (S350P024) can be welded to either the lower section of the main column post or to the upper section of the main column post. The steps that follow describe preparing the lower 10' section of the main column post (104258) by welding the insert in place and then setting the post into the post hole.

NOTE: *If the lower section is to be driven into place, do not weld the insert to the lower post at this time. Skip this section and continue by setting the lower post in place.*

Required parts and tools:

- S350P024 splice inserts and 104258 lower main column posts (120")
- Welder, gloves, and head and eye protection; metal grinder and wire brush to prepare posts
- Tape measure, marker, and clamps to hold insert in place during welding

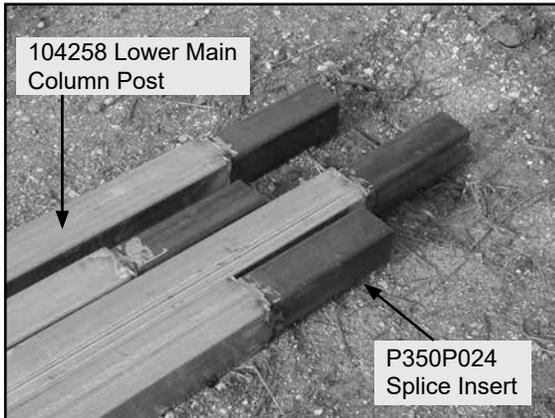
Complete the following steps to weld the insert to the lower section of the main column post.

1. Locate all of the 104258 splice inserts and mark the center of each insert. Each insert is 24" long. Center is at the 12" mark.
2. Take one (1) 104258 (4" x 4" x 120") lower column post, slide an insert into one end of the post, and align the center mark on the insert with the top edge of the post.
3. Clamp or hold the insert in position and weld the insert to the lower main column post.



INSTALL SPLICE INSERTS (CONTINUED)

- Repeat the steps to weld the remaining inserts to the remaining lower main column post sections.



- Continue by setting the lower main column posts in position.

SETTING THE LOWER COLUMN POST

After welding all inserts to the lower 120" section of the main column post, set the lower posts in the post holes as described in this procedure. Continue with Step 1.

NOTE: If the proper equipment is available, the lower 120" post sections can be driven into the site as needed. If posts are driven into place, damage to the tops of the posts may occur. Allow a few inches of the posts to remain above ground level so the posts can be cut and prepared to receive the insert.

Consult the photos that follow if you are driving the posts into the site. (Proceed with Step 1 if you are not driving the posts into the site.)

Photo shows the top of the post after driving it into the site using special equipment.



Damaged portion of the lower column post is removed and the post edge is cleaned to receive the insert.

Place insert into the prepared post, align center line with the post top, and clamp or tack the insert in place.

ATTENTION: Do not allow the insert to drop into the lower post.



Weld the insert to the post and grind the high ridges of the weld (if any) so that the upper column section fits easily over the insert when that section is installed.

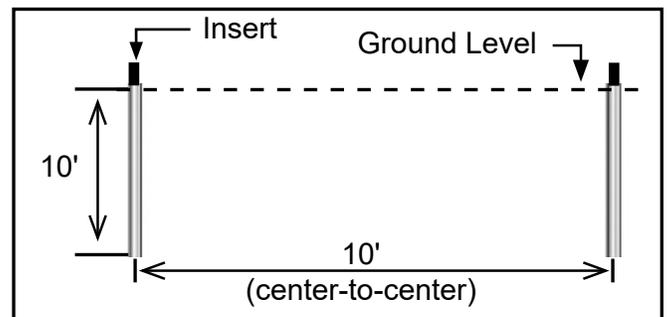
Continue with setting the upper posts.

If the posts are not driven into the site, continue with these steps to set lower posts into the holes prepared in the previous procedure:

- Using the proper lifts and assistants, take one lower 120" column post (#104258) with the welded insert and set the post in the first hole.

NOTE: The tops of the lower main column posts will be flush with the ground level when properly installed; *the welded insert will be 12" above the ground.*

- Check that the post is aligned with the ground post and that it is spaced the correct distance from the ground post (10' on-center). Consult the diagrams for details.
- Verify that the post is straight (plumb) and square with the ground post, add fill, and tamper the post in place using a machine-powered tamping device. Use the string line as a guide when setting the post.



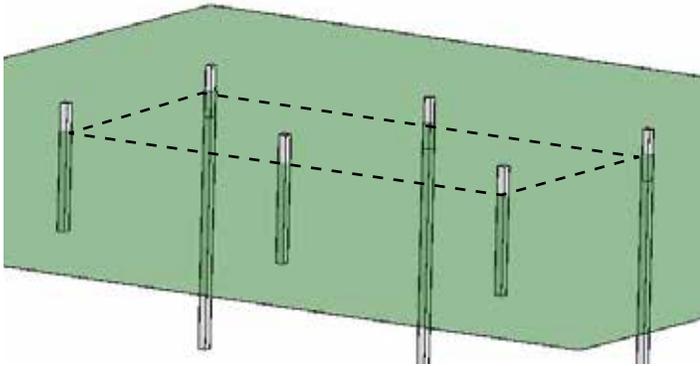
Lower Main Column Posts on 10' centers

- After setting the first post, measure ten (10') feet along the string line from the *center of the first post to mark the center of the next post*. This mark will align with the center of the next ground post. Consult diagrams if needed to view the proper layout.

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SETTING THE LOWER COLUMN POST (CONTINUED)

- Repeat these steps until each lower main column post is set in a hole, properly aligned (10' on-center), and secured in place.



- After all lower main column posts are set, continue by installing the upper main column posts as described in the next procedure.

INSTALL THE UPPER MAIN COLUMN POST

To this point, all lower main column post sections are secured in place and in line with the ground posts. These two separate rows of posts run parallel with each other at a spacing of 10' (on-center). Distance between each post in the same row is also 10' on-center.

Required parts, equipment, and tools:

- 105926 upper main column posts (240")
- Welder, grinder, gloves, and protective head and eye equipment
- Lift and straps to set posts in place

Complete these steps to install the upper main column posts:

- Locate one 105926 (4" x 4" x 240") post, secure it to the lift using a proper chain or strap, and lift the post off the ground as shown.



Photo may show a slightly different windbreak wall frame. The steps to assemble the frame are similar.

- Align the lower end of the upper post with the insert that is welded to the top of the lower post.

NOTE: Use adequate help during these steps to prevent injury. Consult a professional contractor for assistance if needed.

- Lower the upper post onto the insert of the lower post section as shown in the previous photo.
- Inspect the joint between the upper and lower main column post sections to verify that nothing has prevented the upper post from sliding down over the insert and to the top of the lower post.

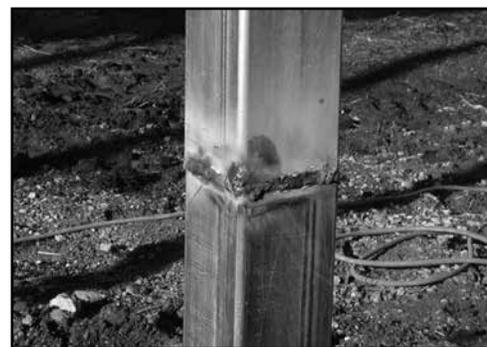
NOTE: A small gap will remain between the two post sections. This gap is closed when the upper and lower post sections are welded together.

- With the first post in position, repeat the steps to set the remaining upper main column posts on the inserts of the lower post sections.



NOTE: To speed the assembly procedure for walls longer than 40', the joint between the two post sections can be welded (Steps 6-7) while additional assistants lift the remaining upper sections into position.

- Take a grinder or wire brush and clean the joint between the post sections. *Do not remove the weld that secures the insert to the lower post section.*



- Weld the seam between the upper and lower post sections.
- Continue by installing the diagonal bracing for the windbreak wall.

DRILL MOUNTING HOLES AND ATTACH BRACING

Consult the diagrams in the Quick Start section near the back of these instructions to view brace locations.

Required parts and equipment:

- 106551 brace (20')
- 105348 (1/2" x 5" carriage bolts) and FALF43B (1/2" lock nuts)
- Drill and 9/16" drill bit, wrenches, or socket set

Complete these steps to install the diagonal bracing:

1. At one end of the frame, move to the top of the main column post and measure 25" down on the side of the main column that is *toward the ground post* and mark the location.

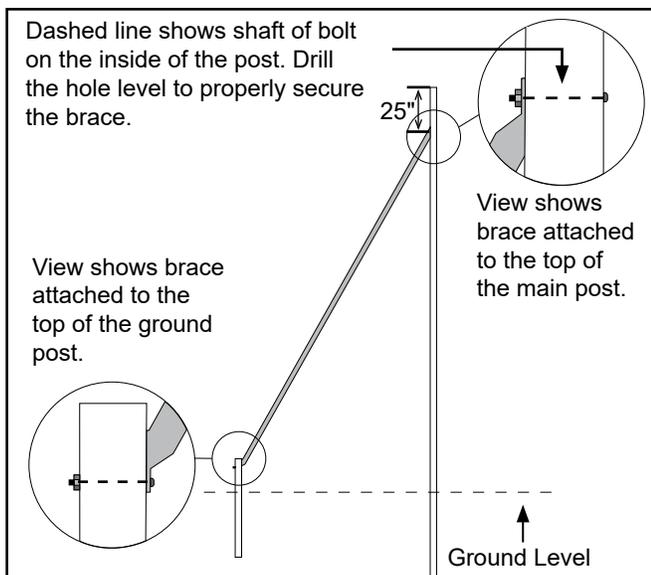


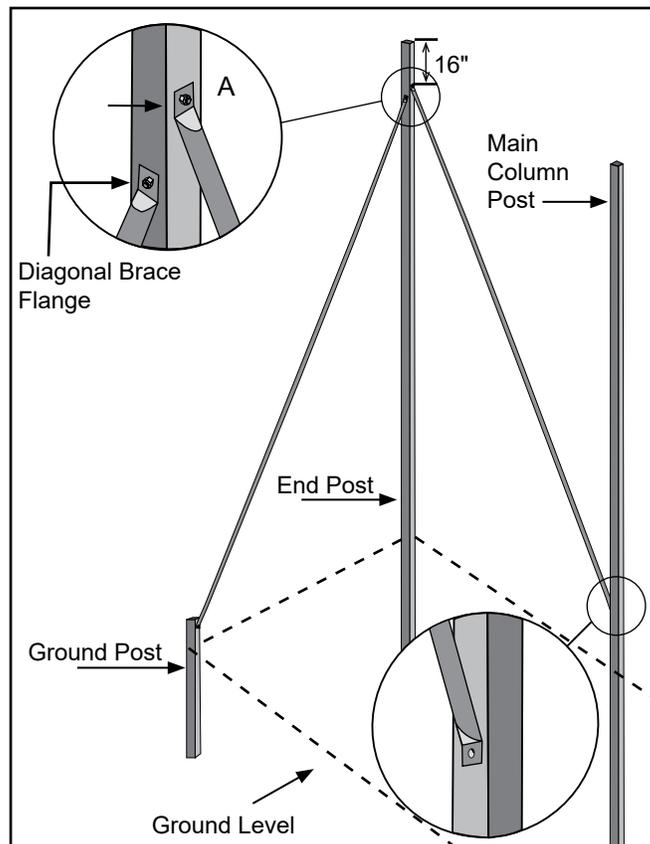
Diagram shows the ground post-to-main column post brace. All post pairs are connected as shown above.

2. Using the proper drill and a 9/16" bit, drill a hole through the top of the *end main column post*.
3. Take one 20' brace and bolt it to the main column post using a 1/2" x 5" carriage bolt and lock nut.

NOTE: To prevent damage to the main panel when it is installed, insert the bolt so the nut is on the brace side of the post. Do not full tighten the bolt at this time. The brace is loosened when the main panel is laced in position on the assembled frame.

4. After attaching the upper end of the brace, move to the lower end, place the brace against the ground post, and mark the hole location using the hole in the brace as a template. *Center the hole on the post.*
5. Move the brace to the side, drill the 9/16" hole, and connect the *lower end of the brace to the ground post* using the 1/2" bolt and lock nut.

6. Tighten the mounting bolt.
7. Move back to the top of the end column post, measure 16" down from the top on the side of the post that is *toward the next main column post* of the frame, and mark the location on the center of the post.



8. Drill a 9/16" hole through the top of the column post at the center as shown above (Insert A). Verify that the hole remains level as it is drilled.
9. Take another 20' brace and secure it to the top of the end, main column post using a 1/2" x 5" carriage bolt and lock nut. Tighten the lock nut.

NOTE: Insert the bolt so the nut is against the brace.

10. Mark and drill the lower hole near the bottom of the second main column post (Insert B above).

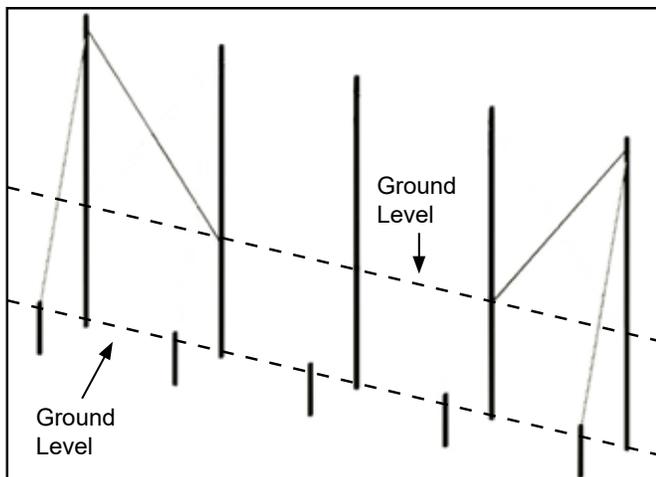
NOTE: The diagram shown in Insert B (above) has been rotated 90° to better show the brace position.

11. Insert a bolt through the brace and hole and temporarily install the lock nut to keep the brace in place.
12. Move to the other end of the frame and repeat the above steps to install the first two diagonal braces at that end. See the diagram at the top of the next page.

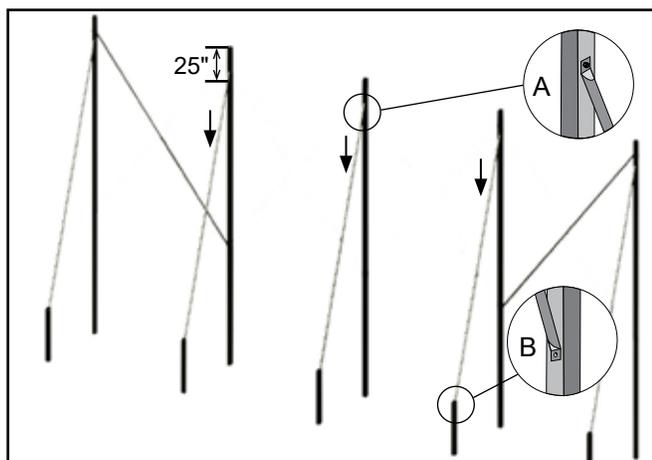
NOTE: All braces are centered on each column. The cross braces *between* each set of main column posts share the same 1/2" x 5" mounting bolt and nut.

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ATTACH BRACING (CONTINUED)



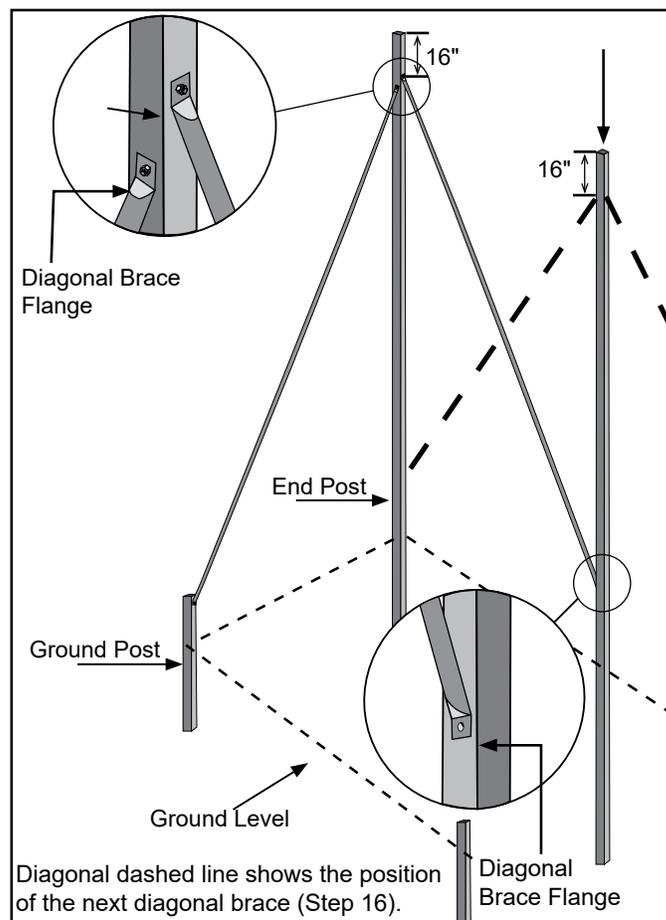
13. Once the end braces are installed as shown in the example above, return to the tops of each inside main column post and repeat Steps 1-6 to install the braces that secure the main column posts to the ground posts.



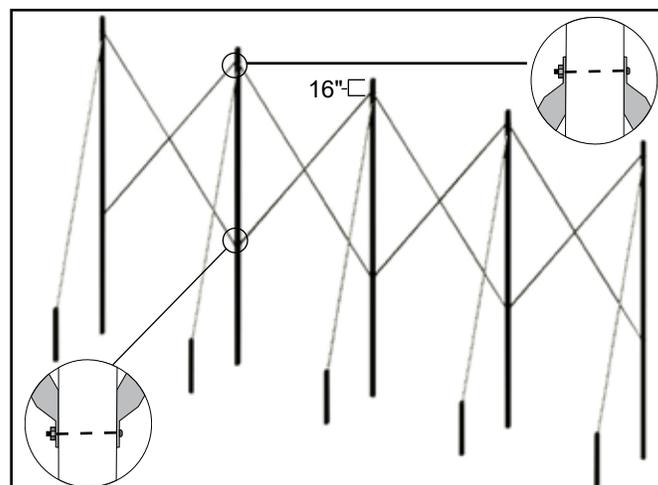
NOTE: Verify that all ground post-to-main column braces are tight and that the mounting bolt nuts are *against the diagonal brace flange*.

The view shown in the Insert B diagram (above) has been rotated 90° to better show how the brace is attached to the ground post.

14. With all ground posts secured to the main column posts by diagonal braces, return to one end of the frame and measure 16" down from the top of the first inside main column post and mark the location on the center of the post. *Braces are installed between each main column.*
15. Drill the mounting bolt hole through the top of the main column post. Use Steps 7-8 for a reference if needed.
16. Install the two (2) diagonal braces that extend from the top of the second main column to the lower position on the end main column post and to the lower position on the third main column post. *See the diagrams in the next column.*



17. Tighten the lower mounting bolt on the end main column post to secure the diagonal brace.
18. Move to the top of the second main column post, center the braces, and tighten the mounting bolt.



19. Repeat the steps to drill the remaining mounting bolt holes and to install the remaining diagonal cross braces between the main column posts.

NOTE: Cross braces share the same bolt and nut at the top and bottom of each inside main column post.

ATTACH BRACING (CONTINUED)

Space below reserved for customer notes.

20. Verify that all mounting bolts for all diagonal braces are tight.

NOTE: When checking the bolts, do not tighten the upper mounting bolt for *the two end main column post-to-ground post diagonal brace*. These two diagonal braces must remain loose to allow for the installation of the main windbreak panel, which wraps around each end post when it is installed.

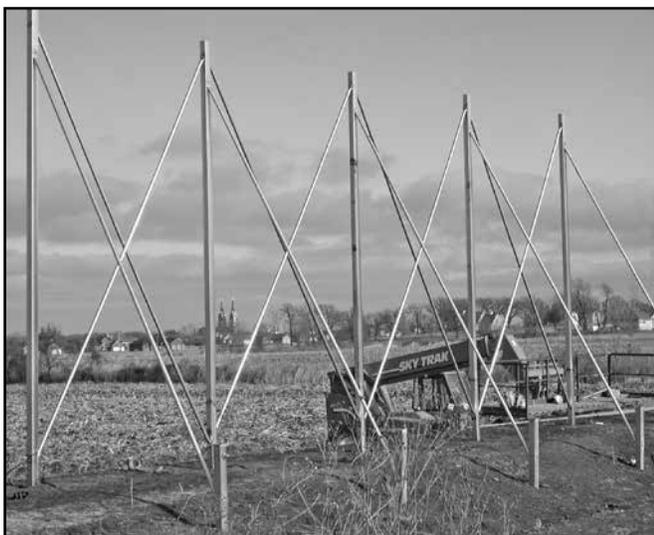


Photo above shows a similar windbreak wall frame with all diagonal bracing in place. Design may differ from actual frame.

21. After the frame is complete, prepare the main panel for installation.

MAIN PANEL INSTALLATION: GENERAL INFORMATION

The main panel for the windbreak wall is typically shipped as a single piece that is as long as the wall frame. This panel is prepared, pulled into position, and laced to the frame using straps and 3/4" conduit.

The procedures that follow describe one way to prepare the panel and to attach it to the frame. The process of lifting the panel into position and properly securing it to the frame depends on these and other factors:

- Location and conditions
- Available equipment and assistants
- Length of the windbreak wall

It is the customer's responsibility to determine the best and safest way to pull the panel into position based on the above factors and other factors specific to the project.

For additional information and installation assistance, consult the services of a qualified, professional contractor familiar with the assembly of similar structures.

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MAIN PANEL PREPARATION

After assembling the frame, prepare the main panel. If concrete was used to secure the ground posts, allow the concrete to set before installing the main panel.

Required parts and equipment:

- Main panel, 3/4" conduit, Tek screws, fabric clips, and repair tape (106502)
- Scissors (or utility knife), tape measure, marker
- Power driver and nut setter to drive Tek screws

This procedure describes installing the 3/4" conduit and cutting the strap notches in the panel. Complete the following steps to prepare the main panel.

1. Clear the site of any materials that could damage the panel and unfold the panel on the ground along the main column posts.

NOTE: Verify that the panel pockets face up.

2. Take two (2) ten foot sections of PVC conduit, slide the plain end of one into the bell end of the other, and wrap the joint using the repair tape. The tape will prevent the two sections of PVC from separating after installation.

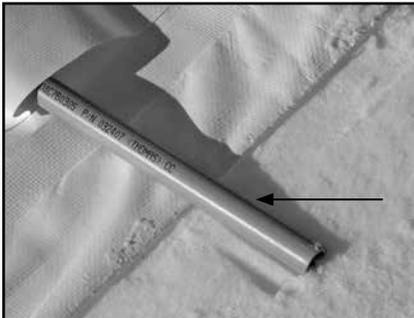
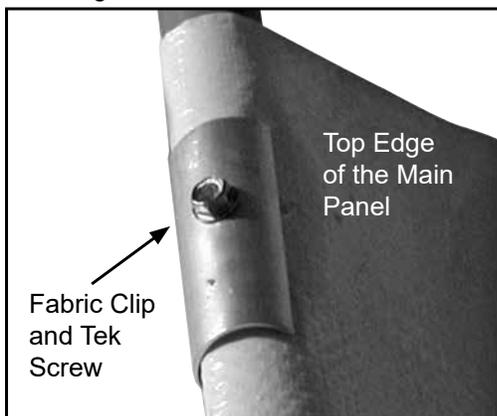


Photo shows a section of PVC conduit in a pocket of a similar panel. Pocket design and location may differ from actual panel pocket.

3. At one end of the main panel, slide one PVC conduit assembly into the end pocket.
4. Determine which edge of the panel will be pulled to the top of the wall frame and align the PVC conduit flush with that edge.



5. Take a Tek screw and fabric clip and secure the panel to the PVC conduit, which is inside the panel pocket, as shown above.

6. Move to the other end of the PVC conduit and cut it (if needed) so that it is flush with that edge of the panel.

NOTE: The PVC conduit should be flush with the top and bottom of the main panel.

7. Using a tape measure, measure 6" down from the top of the panel pocket (which includes the PVC conduit) and mark the location on the pocket.
8. From the 6" mark (previous step) and working toward the bottom of the panel, measure and mark the remainder of the pocket at 24" intervals. These marks identify the positions of the strap notches that are cut from the pocket panel to expose the PVC conduit.
9. Beginning at the first mark (which is 6" from the top of the panel: Step 5), cut a 6" notch from the pocket to create a place where the strap can be wrapped around the PVC conduit.



ATTENTION: Cut only the pocket material when creating the strap notches. Do not cut the main panel material.

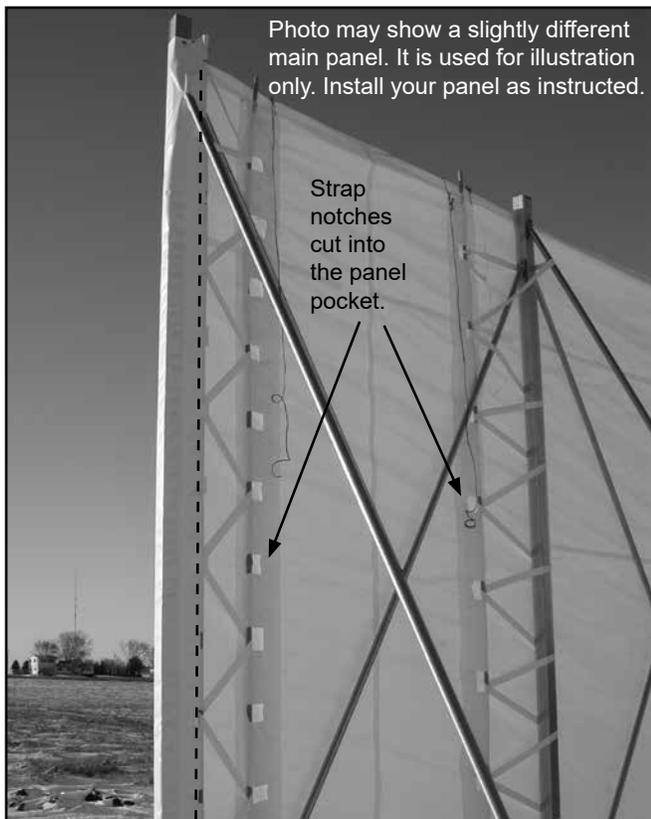
NOTE: Use the mark as the center of the notch. (The removed pocketed material will extend 3" on each side of the mark to create the 6" notch in the pocket.)

10. Continue removing the material from the pocket at each of the remaining marks to create a 6" strap notch at each of the 24" marks.
11. Move to the next pocket of the main panel and install another PVC conduit assembly. (Use Steps 2-3 for reference if needed.)
12. Measure 18" down from the top edge of the panel and mark the location.
13. Continue marking the pocket at 24" intervals beginning at the 18" mark made in the previous step.
14. Beginning at the first mark (which is 18" from the top of the panel: Step 11), cut a 6" notch from the pocket to create a place where the strap can be wrapped around the PVC conduit.
15. Continue removing the material from the pocket at each of the remaining marks to create a 6" strap notch at each of the 24" marks.

ATTENTION: Cut only the pocket material when creating the strap notches. *Do not cut the main panel material.*

MAIN PANEL PREPARATION (CONTINUED)

16. Move to the other end of the panel and repeat the above steps to install the two sections of PVC conduit at that end of the panel.
17. With the two conduit sections installed at each end of the main panel, move to the first interior pocket of the panel and insert a 20' section of PVC conduit into the pocket.
18. Position the conduit flush with the top of the panel and secure it using a fabric clip and Tek screw as previously described.



19. Measure 12" down from the top of the panel and mark the location.
20. From that location and working toward the bottom edge, continue marking the panel pocket in 24" intervals.
21. Repeat the steps to create the strap notches in the panel pocket.
22. Move to the remaining inside pockets and repeat the steps to install the PVC conduit assemblies and to create the strap notches.
23. Once all conduit assemblies are installed and secure and all notches are cut, continue by lifting the panel into position and securing it to the windbreak wall frame using the supplied strap.

PANEL INSTALLATION

After preparing the panel for installation, lift the main panel into position and secure it to the frame.

Required parts and equipment:

- Prepared main panel and 2" panel strapping
- Assistants, lifts, and ropes (or straps) for lifting

⚠ WARNING: To prevent damage or injury or both, do not attempt to hang the panel on windy or stormy days.

Additional assistance is required to hang and secure the panel. Use lifts designed to work safely at the height of the windbreak wall.

The follow steps describe one way to pull the main panel up and into position. It is the customer's responsibility to determine the best and safest method based on the length and location of the wall and other regional, environmental, and site factors and influences.

Complete the following steps to lift and secure the panel:

1. Pull the panel up to the top of the first end column post and reposition the panel as needed to align the panel with the frame.



NOTE: Lifts are recommended to pull the panel up and into position. Use ropes or straps to temporarily hold the panel in position.

CLEARSPAN™ FENCING

PANEL INSTALLATION (CONTINUED)

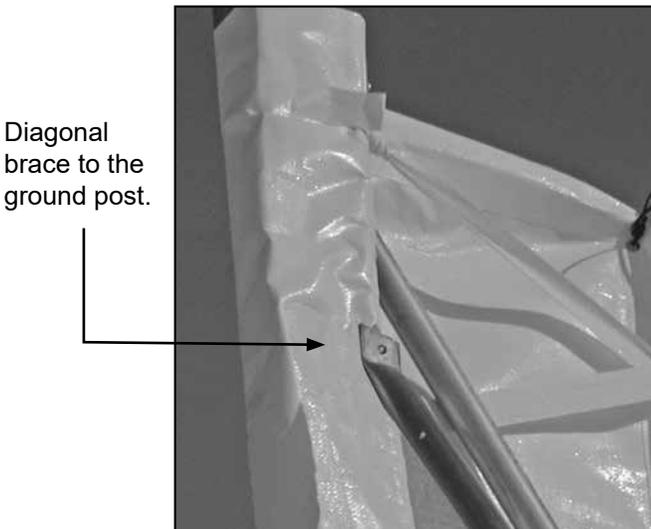
2. After the end of the panel is in position and temporarily secured, move 20' toward the other end of the panel and use a lift and assistants to lift the panel into position.



3. Align the panel with the frame.

NOTE: Depending on the length of the panel and the weather conditions, it may be best to lift the entire panel up into position and to temporarily secure it in place, allowing it to hang from the top.

4. Move to the end main column and wrap the panel pocket (which includes the conduit) around the column as shown below.



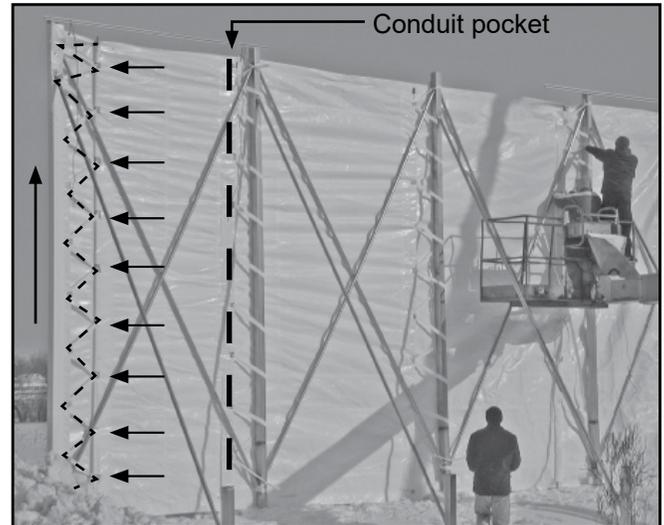
NOTE: If needed, remove the bolt and nut on the main column diagonal brace that runs to the ground post and fold the panel end around the end column.

The brace is re-attached after the panel is stretched.

5. Take the first length of strap and, beginning at the bottom of the panel, feed the strap end around the PVC conduit in the panel pocket.
6. Using a zig-zag pattern, lace the end conduit and the next conduit at that location together.

NOTE: Do not tighten the strap at this time.

7. Continue the zig-zag pattern and work toward the top of the panel.



NOTE: Do not tighten the strap at this time.

8. At the top, tie the end of the strap to the conduit in the pocket where the strap ended. The strap can be tied to either conduit.
9. Verify that the panel is in the desired position and begin to tighten the strap by pulling the strap and working back toward the ground.

NOTE: The panel is in the correct position when the pocket near the second main column is 12" or more away from the interior main column post. (See the vertical dashed line in the above photo.)

The distance between the main column post and the conduit identified by the arrows (above photo) must remain between 18" and 24" from top to bottom.

All interior conduit pockets (i.e., those that are between the conduit pockets at each end) are positioned to the left of each interior main column post when the panel is viewed from the ground post side. This allows the panel to be stretched from one end of the frame toward the other.

PANEL INSTALLATION (CONTINUED)

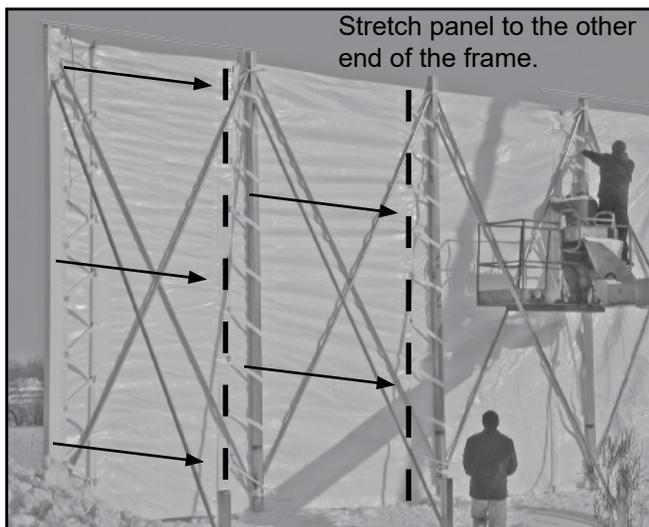
The top of the panel should be at or near the tops of the main column posts during the installation. The site and how the posts were installed may influence how the main panel is ultimately installed. Accounting for these and other factors are beyond the scope of these instructions. The individuals installing the main panel and the frame are responsible for making all necessary field adjustments.

- At the bottom of this first conduit run, cut the strap to the desired length and tie it to the conduit to finish the lacing for the end conduits.

NOTE: Allow 2'-3' of extra strap to remain in case the panel needs to be adjusted.

- Move to the next run of conduit and repeat the steps to lace the next length of strapping for this section of main panel.

NOTE: For all interior runs of conduit, lace the strapping around the conduit and the main column post and work to the top. The main panel is stretched between each main column post as you work toward the other end. See the arrows below.



- Tie the strap to the main column post at the top and tighten the strap and main panel as you work back to the ground.

NOTE: At this point, the main panel should be stretched evenly between the end main column and the first interior column as shown above.

- At the bottom of the conduit run, tie the strap to the main column post to finish the section. Allow 2'-3' to remain for later adjustments.
- Move to the next conduit pocket and repeat the steps to install the strap and to stretch the main panel as shown above.

NOTE: Verify that the panel remains in position.

- Continue this process and work toward the end of the main panel.



- At the end of the main panel, repeat Steps 3-8 to secure the end of the panel to the end main column post.
- Inspect the main panel and retighten the straps and adjust the panel as needed.
- Remove any temporary bracing, ropes or straps if present.
- Move to one end of the frame and secure the top of the ground post diagonal brace to the main column support using the carriage bolt and nut as shown below.



NOTE: Mounting bolt is placed through the main panel as shown with the lock nut against the brace flange.

CLEARSPAN™ FENCING

PANEL INSTALLATION (CONTINUED)

- Repeat the step to secure the remaining end diagonal support to the main column at the other end of the frame.



- Once the panel is secured and in the desired position and all mounting bolts for the bracing are tight, continue with the installation of the panel mounting plates at the top of each main column.

INSTALL PANEL MOUNTING PLATES

The panel mounting brackets are installed *at the top of each main column post* to secure the panel to the post. These square brackets help to keep the top of the panel in place.

Required parts and equipment:

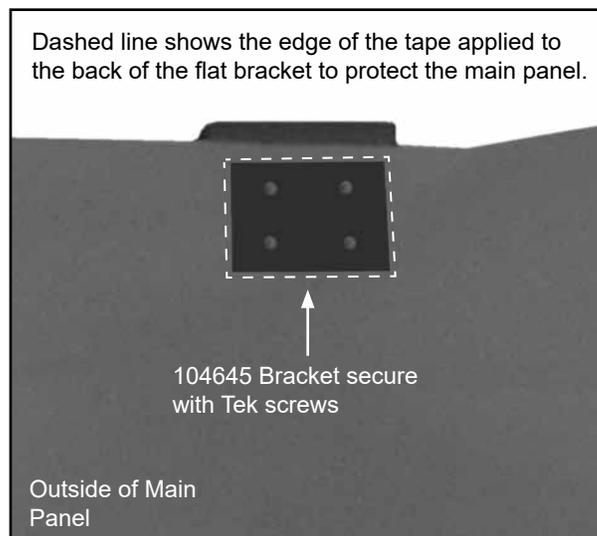
- 104645 (3" x 3" flat bracket)
- 106502 (premium tape)
- Tek screws and magnetic driver
- Lift and power tool to drive screws
- Tool to cut tape to the desired size

Complete the following steps:

- Locate the 104645 flat brackets and the 106502 tape.
- Using a flat bracket as a template, cut a piece of tape for each flat bracket and stick the piece to the bracket. This becomes the front or outside face of the bracket.
- Mark the hole positions on the bracket.
- Cut another piece of tape for the other side of the bracket. See the note that follows.

NOTE: Cut this piece of tape so that it is 1/4"-1/2" larger than the plate and stick it to the remaining surface of the bracket. This side, which has the larger piece of tape, is placed against the main panel when the bracket is attached to the main column.

- Stick the second piece of tape to the bracket. Tape should now cover both sides of the bracket.
- Center the bracket on the post at the top of the panel edge and secure it through the panel and into the main column post using Tek screws.



- Repeat the steps for all remaining flat brackets.

NOTE: After the panel has been installed, it may be necessary to tighten the security straps to re-stretch the panel. If the panel needs to be stretched, remove the mounting brackets before stretching the panel. Once the panel is tight, reinstall the flat brackets.

- Continue by reading the care and maintenance information that follows.

WINDBREAK WALL CARE AND MAINTENANCE

Proper care and maintenance of the windbreak wall is important. Check the following items periodically to properly maintain the windbreak wall:

- Regularly check the panel to see that it remains tight and in proper repair. If the panel is re-stretched, remove the flat brackets first, stretch the panel, and then reinstall the brackets.
- Check connections and all mounting bolts to verify that they remain tight.
- Inspect all straps to verify that they are in good repair. Replace damaged straps.
- Do not climb on the frame or panel at anytime.
- Check the windbreak wall to verify that nothing is touching the panel that could cause damage.
- For replacement or missing parts, call 1-800-245-9881 for assistance.



QUICK START GUIDE

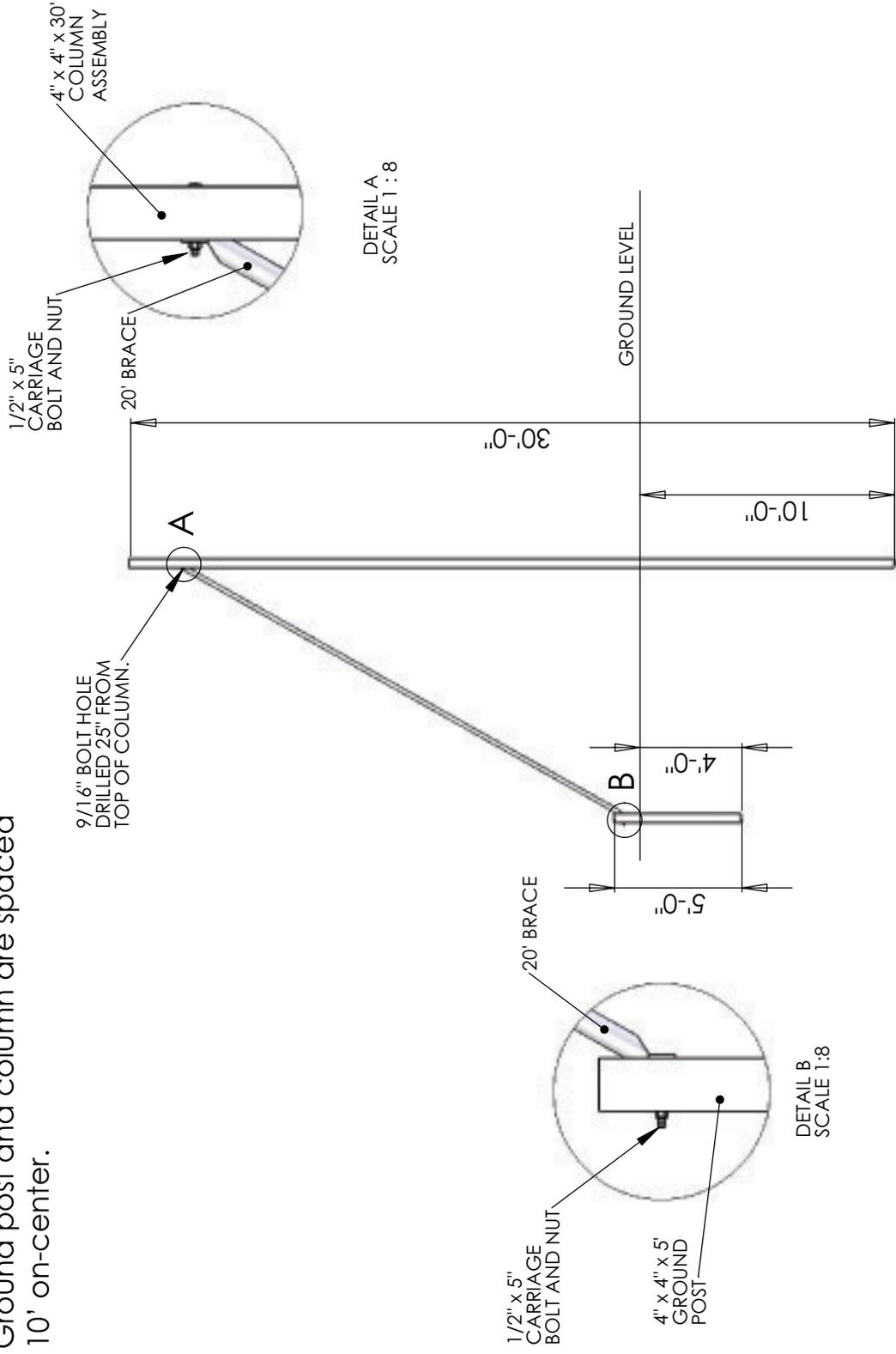
PolyMax® Windbreak Wall



Frame shown may differ in length from actual windbreak wall.

END POST (SIDE VIEW)

NOTE: 4" x 4" posts will be field drilled.
Ground post and column are spaced
10' on-center.



INSIDE POST SECTION

