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Natures Composites
Sustainable Outdoor Living

MODERN HORIZONTAL PRIVACY FULL SIZE GATE

INSTALLATION GUIDE (12/24)

Our products and/or processes are protected by the following patents, as well as other patents that are pending: US 11,053,707; US 12,110,703; US 12,084,880

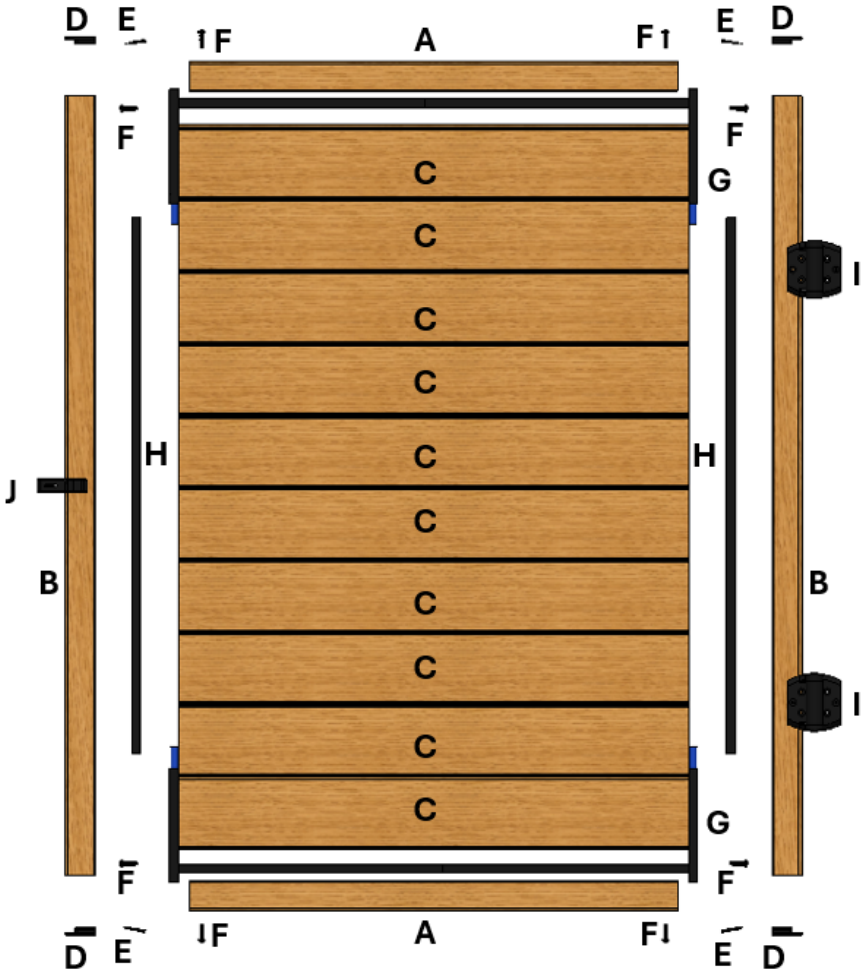
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COMPONENTS

ITEM	QTY	DESCRIPTION	NC PART
Complete Product	**1**	**Modern Horizontal Full Size Fence Gate**	100304TB60400
A	2	Horizontal U-Post-40.5- Full	300722XX0405-FI-FUL
B	2	Vertical U- Post-64-Full	300722XX064-SCTC-FUL
C	10	T&G Board 1x6-43"	300341XX430
D	4	Modern Sliding Top Cap	200721BK00000
E	4	Screw -1 5/8 Torx composite	TOP CAP SCREW
F	8	90087A896_Rounded Head Thread-Cutting Screws for Metal	90273A571
G	2	Horizontal Upper/ Lower Frame	AC GATE UPPER FRAME
H	2	Frame Extension	AC GATE FRAME EXT
I	1	Heavy Duty Hinge Set	AC F/S HINGE large
J	1	Heavy Duty Latch Set	AC F/S LATCH large

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For any further information or questions please visit www.naturescomposites.com or call us at (307) 338-2608

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BEFORE YOU BEGIN

A. **Verify Underground Utilities**
Before starting, contact local utility companies or use utility location services to ensure the installation area is clear of underground lines and potential hazards (call 811).

B. **Locate Property Lines**
Confirm the fence will be placed within your property boundaries to prevent encroachment and comply with any applicable legal requirements.

C. **Review Local Building Codes**
Check local building codes to ensure your installation complies with all requirements. Obtain any necessary permits prior to beginning the installation.

D. **Use Appropriate Safety Gear**
Wear protective equipment, including gloves, safety goggles, and work boots, to ensure a safe installation

TOOLS REQUIRED

A. **Rubber mallet** (not included; used for securing angle brackets)

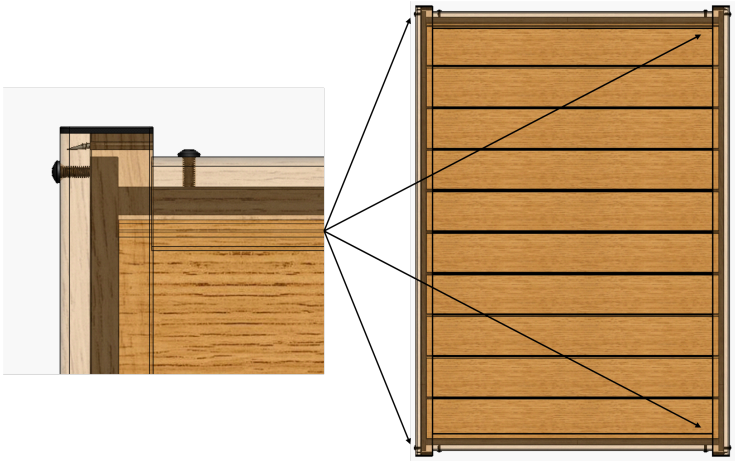
B. **#4 Phillips screwdriver**

C. **Power drill** (compatible with a #4 Phillips head screwdriver)

D. **Torx T20 Bit** (for fastening the top cap)

E. **Two 2x4** (6 ft long) wood lumber pieces as support

HORIZONTAL PRIVACY GATE INSTALLATION SUMMARY



TO ENSURE YOUR NC GATE OPERATES CORRECTLY FOLLOW THESE GUIDELINES

- This assembly requires an intermediate skill level. Prior experience with tools and assembly techniques is necessary.

- For the assembly of this gate, NC recommends to position components on a sturdy work table.

- NC Gates come in a fixed size of 45.5 inches wide by 65 inches tall and are not adjustable. Proper planning for the gate opening is essential to accommodate these exact dimensions.

- Gate Opening:The space between posts should measure 48 inches. This clearance is essential for the smooth operation of the hinges and latch, ensuring they function correctly and reducing the risk of operational issues caused by restricted hardware space.

- This full-size gate weights around 90 pounds, in order to work properly it requires strong support. NC offers a 5x5 commercial post that matches your gate, we recommend to reinforced the composite post by inserting a 4x4 treated lumber.

- Post Installation Accuracy: NC recommends taking the time to position the posts where the gate will be hung with precision before securing them into the ground. This careful preparation can prevent the need for adjustments or reinstallation later, saving both time and effort.

The following instructions outline the assembly process for the Horizontal Privacy Full-Size Gate. You will find the CAD drawing exploded view with all components, followed by a fully assembled gate view in transparent format, allowing you to easily identify each part behind the composite U-Posts and boards.

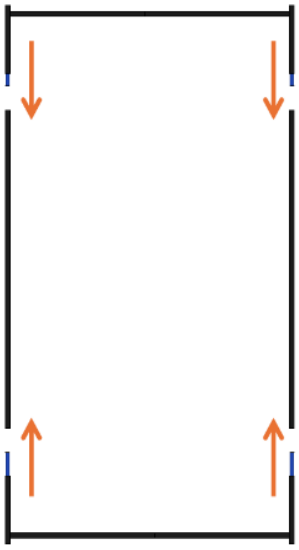
1. **Assemble the Metal Frame:** Begin by assembling the metal frame according to the provided specifications.
2. **Install theT&G Boards:** Insert the boards into the frame.
3. **Position the Horizontal & Vertical U-Posts::** Position the 2 Horizontal Posts around the top and bottom metal frames, then do the same with the 2 Vertical U-Posts.
4. **Fasten the Gate:** Predrill a 17/64 holes (8) through the pre-drilled composite holes into the metal frame. Insert the 8 cutting screws (F), into the U-Posts into the metal frame.
5. **Attach Top Caps:** Slide the top caps onto each corner of the gate and secure them using the provided screws.

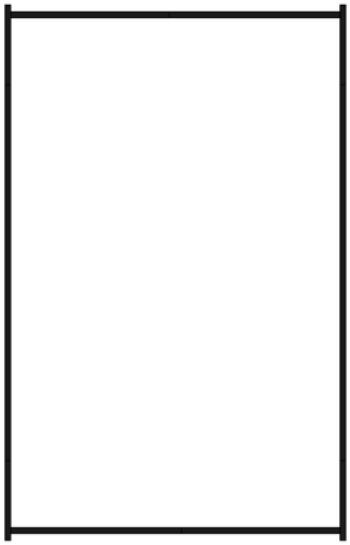
Once the gate is fully assembled, refer to the additional instructions for mounting the hardware and hanging the gate onto the posts.

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PART A: GATE ASSEMBLY INSTRUCTIONS

1. Metal Frame Assembly





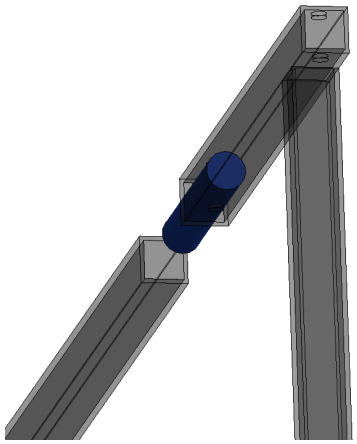
Assemble the Metal Frame
Begin by assembling the metal frame, which serves as the structural backbone of the gate.

1.1 Connect the Frame Components

- Take **2 Horizontal Upper/Lower Frames (G)** and connect them with **2 Frame Extensions (H)**.
- Ensure the components are aligned properly for a seamless connection.

Tips for a Secure Fit:

- The fit between the metal frame parts (G and H) is designed to be tight to ensure structural stability.
- Use a **rubber mallet** to gently tap the components together, ensuring they are securely connected without damaging the frame.
    - Start with light taps and gradually increase force as needed until the parts are firmly joined.

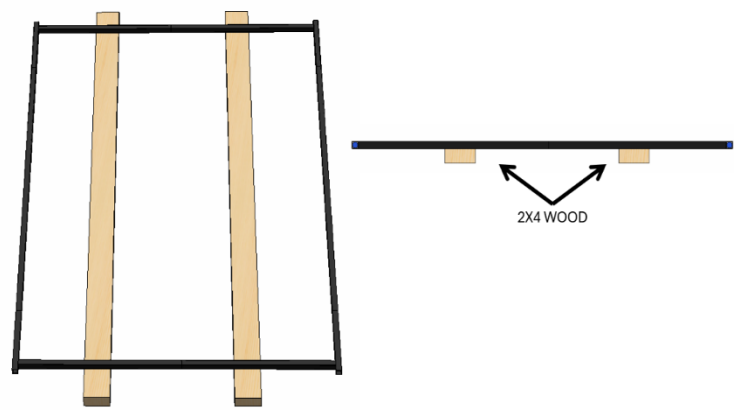


Once the frame components are fully assembled, verify that all connections are tight and properly aligned before proceeding to the next step.

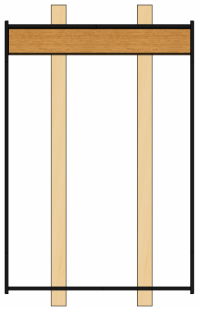
2. Install the T&G Boards

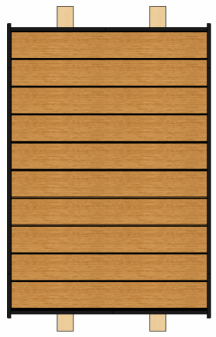
Prepare the Work Area
To facilitate the assembly process, place the assembled frame on **two support structures**, such as **2x4 wood pieces**.

- This setup provides stability and elevates the frame just enough for easy access in the next step when the U-Posts are positioned.



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2.1 Position the T&G Boards

1. Take the **11 Tongue & Groove (T&G) boards** and begin inserting them into the frame.
2. Start by positioning the first board at one edge of the frame, ensuring it aligns properly within the U-channel.
3. Insert subsequent boards one by one, sliding each board's tongue into the groove of the previous board to create a snug, interlocking fit.

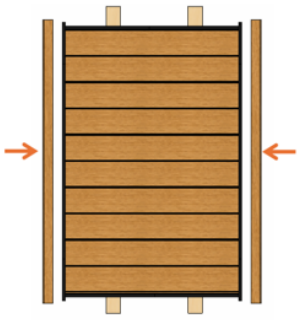
Tip for the Final Board:The **last T&G board** may require careful maneuvering to fit its tongue into the groove of the preceding board. Use a gentle side-to-side motion to guide the board into place without forcing it, ensuring the board sits flush within the frame.

After all 11 boards are securely installed and aligned, confirm that the frame and boards remain stable on the support structures before proceeding to the next step.

3. Position the Horizontal and Vertical U-Posts

3.1 Insert the Vertical U-Posts

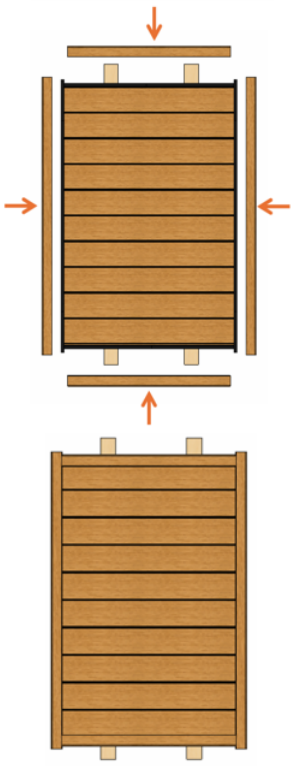
1. Take the **2 Vertical U-Posts (B)** and insert them into the **metal frame and the T&G boards inside the frame**.
    - Align the channel of the Vertical U-Post (B) with the edge of the metal frame and the sides of the T&G boards. Slide the U-Post into place until it fits securely and is **all the way in**, ensuring that both the **T&G boards and the metal frame** are fully enclosed within the U-Post channel.
2. Repeat this process for the **opposite side**, ensuring the T&G boards and the metal frame are enclosed and aligned on both vertical edges.



Note: The length of the **Vertical U-Post (B)** should be equal on both the top and bottom relative to the metal frame. Ensure that the gaps at the top and bottom of the U-Post are identical to maintain proper alignment and aesthetic balance.

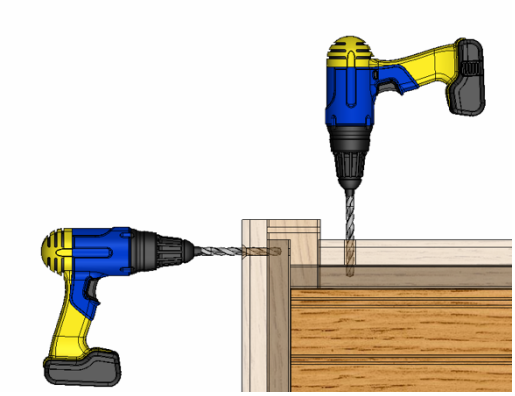
3.2 Insert the Horizontal U-Posts

1. Take the **2 Horizontal U-Posts (A)** and prepare to insert them into the metal frame.
2. Adjust the **2 support structures (e.g., 2x4s)** to provide enough room for the first Horizontal U-Post (A) to fit into the frame.
    - Slide the first Horizontal U-Post (A) into the frame, ensuring that its channel fits snugly over the edge of the metal frame and secures the Square Edge boards in place.
    - Push the U-Post **all the way in**, ensuring that the **T&G boards and the metal frame** are fully enclosed within the U-Post channel.
3. Once the first Horizontal U-Post (A) is fully inserted, **carefully slide the the 2 support structures** to provide space for the second Horizontal U-Post (A). *Make sure to do this carefully to ensure that the assembled pieces remain in place during this process.*
4. Insert the second Horizontal U-Post (A) in the same manner, ensuring that its channel also fits securely into the metal frame and encloses the Square Edge boards.



Key Notes: Double-check that all U-Posts (both Vertical and Horizontal) are properly seated and aligned, fully enclosing the **T&G boards and the metal frame**. At this stage, the assembly should be secure, with no visible gaps or misalignment.

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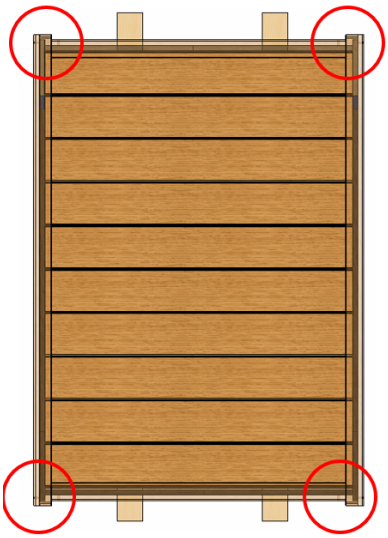


4. Secure the Gate

At this stage, you are ready to secure the gate by fastening the cutting screws through the pre-drilled holes on the horizontal and vertical U-Posts into the metal frame. This process requires **8 pre-drilled holes and 8 screws** for a secure and stable assembly. Follow these steps:

4.1 Verify Alignment

The alignment of the composite U-Posts with the metal frame was completed in the previous step. Before proceeding, double-check to ensure that the alignment has not shifted. The pre-drilled holes on the U-Posts must remain perfectly aligned with the metal frame beneath.



4.2 Pre-Drill Holes into the Metal Frame

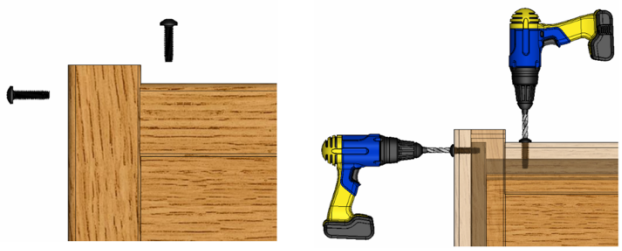
Using a power drill and a 17/64-inch drill bit, pre-drill **8 holes** into the metal frame at each location where the pre-drilled holes in the U-Posts align.

- Drill carefully through the composite U-Posts and into the metal frame to maintain accurate alignment.
- Tip: Keep the drill perpendicular to the surface to avoid misaligned holes and ensure a precise fit for the screws.

4.3 Insert Cutting Screws

Once the pre-drilling is complete, insert the cutting screws into each pre-drilled hole on the composite U-Posts. Use a power drill to drive the screws securely into the metal frame.

- Tighten all **8 screws** until they are flush with the U-Posts' surface, ensuring a seamless and robust connection.



4.4 Check Stability

After securing all 8 screws, verify the gate's stability. Ensure that all screws are tightened and that the U-Posts are firmly and uniformly

5. Top Cap Installation

5.1 Slide the Modern Sliding Top Cap (D) into the Top Cap Routed space on the top of the Horizontal U-Channel Post (A).

5.2 Fix into position using one 1 5/8 Torx composite screw (E) and a drill (find these in the small package with screws).

5.3 Repeat for all Vertical U-Channel Posts (B).



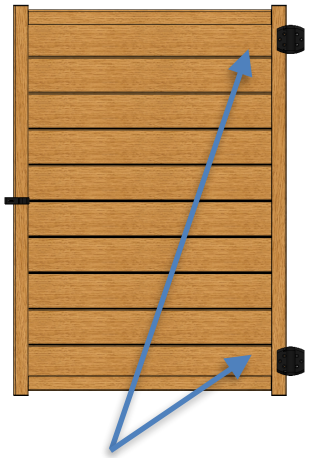


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PART B: HANGING THE MODERN GATE

Premium Hardware for Optimal Performance

NC gates are crafted for durability, with the full-size gate weighing approximately 90 pounds. Proper installation is essential to ensure smooth functionality and longevity in your chosen location.



Hinges position should be installed as shown in drawing [3.5 inches from the top and bottom (B)]

Hinge Installation Note

The NC Gate requires the hinges to be secured into the gate through the composite material and into the metal frame to properly support the gate's weight and ensure optimal functionality.

Pre-Drill for the Gate Side: Pre-drill holes using a 5/32" drill bit for the hinge screws.
On the gate, the hinge screws must penetrate the composite U-Post and the metal frame. Ensure proper alignment so the screws securely fasten into the metal frame; 4 of the 6 screws on the gate side will anchor into the metal frame for stability.

Pre-Drill for the Post Side:
If using an NC 5x5 Commercial Post, pre-drill the holes using the same 5/32" drill bit.
Insert a 4x4 post insert inside the 5x5 post for additional reinforcement. Ensure the hinge screws penetrate both the 5x5 post and the 4x4 post insert for a secure connection.

For additional details and installation steps, please refer to the D&D installation manual provided in the hinge package. The package also includes the screws required for installation. Proper adherence to these instructions ensures the long-term performance of your gate.

D&D Manuals

To provide a reliable and hassle-free experience, NC has partnered with D&D Technologies, the premier gate hardware manufacturer. Every NC gate kit includes a pair of D&D hinges and a latch, selected specifically to support the weight and design of our gates. This premium hardware is engineered to deliver optimal operation, ensuring that your gate functions smoothly and securely over time.

For further installation instructions, please refer to the provided link for the specific D&D hinge and latch model included in the gate kit (www.us.ddtech.com) *Please note D&D recommends a different positioning, please use NC recommendation (see image right).

Note: For the hinge screws, the pre-drilled hole needs to go through the composite material and penetrate through the internal metal frame.

Download Hinge, SKU# TCHDMA1S3BT: https://us.ddtech.com/products/truclose-multi-adjust-heavy-duty-series-3?variant=43821580943517

Download Latch, part # 210003, instructions here: https://us.ddtech.com/products/wood-hardware-standard-post-latch

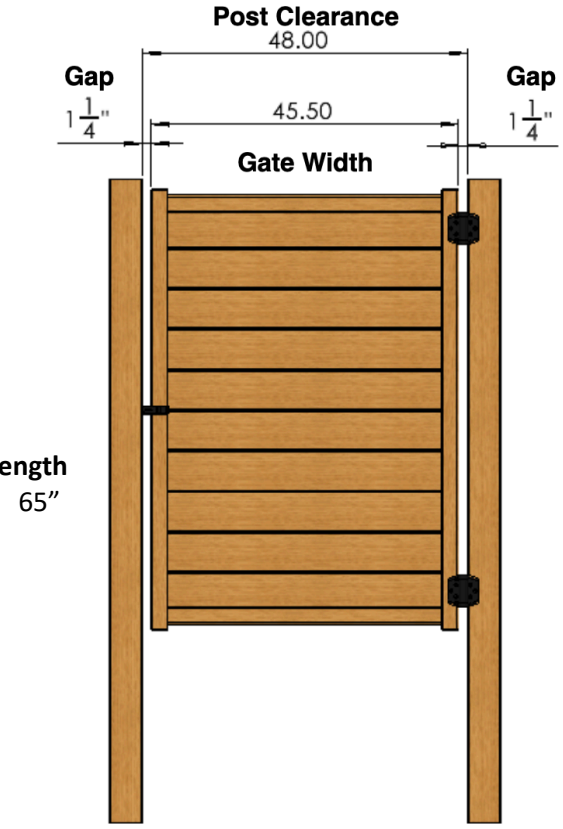
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Gate Opening Requirements

The gate opening must be measured accurately to ensure proper fit and function of the hinges and latch:

Recommended Gate Opening: To properly accommodate the NC gate width and required hardware spacing, the opening between posts should measure 48 inches. This allows the 45.5-inch-wide gate plus 1.25-inch clearance on each side, as needed for the D&D hinges.



Proper Support for Your Gate

For optimal performance and durability, it's important to understand that our full-size NC gate weighs approximately 90 pounds. Due to this weight, it needs robust support to ensure smooth operation and prevent sagging over time.

NC offers a 5x5 Commercial Grade Composite Post that matches the gate’s color and material, offering a cohesive, seamless look.

- NC 5x5 Commercial post dimension.
    - Outside dimensions 5X5. inches.
    - Inside dimensions 3.87 inches (3 7/8").

The NC 5X5 NC post when used as support of a full size gate should be reinforced inserting a 4x4 treated wood post inside the composite post. This added reinforcement greatly increases the strength and durability of the post.

- Commercial 4x4 treated wood post dimension is 3.5 X 3.5”
    - This lumber post will fit inside our 5X5 NC Commercial post.

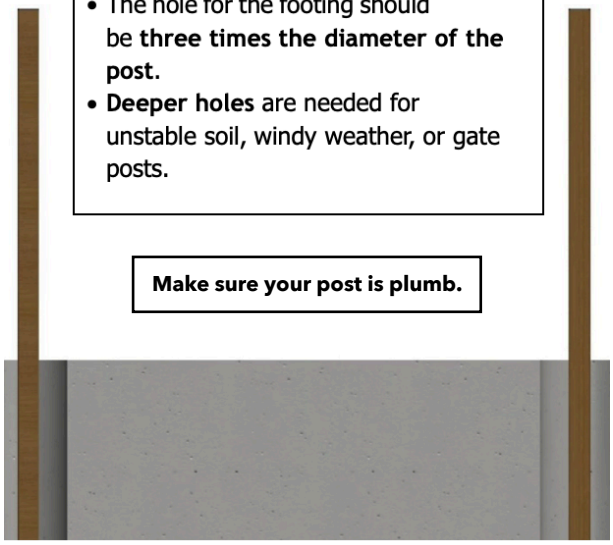
Post Burial Recommendations

Select the Correct Post Length: For full-size gates, choose a post length suitable for your local soil and engineering conditions. NC offers 5x5 Commercial Posts in lengths of 94", 108", and 132” to meet different installation needs. Consult your contractor for guidance on the appropriate post length.

Burial Depth and Concrete Requirements: To ensure stability, we recommend burying at least 1/3 of the post length in the ground. For example, a 94" post should be buried 31 inches deep. Use a minimum of 80-100 pounds of concrete per post to provide a solid foundation. **Make sure your post is plumb.**

Post Burial Depth Recommendations

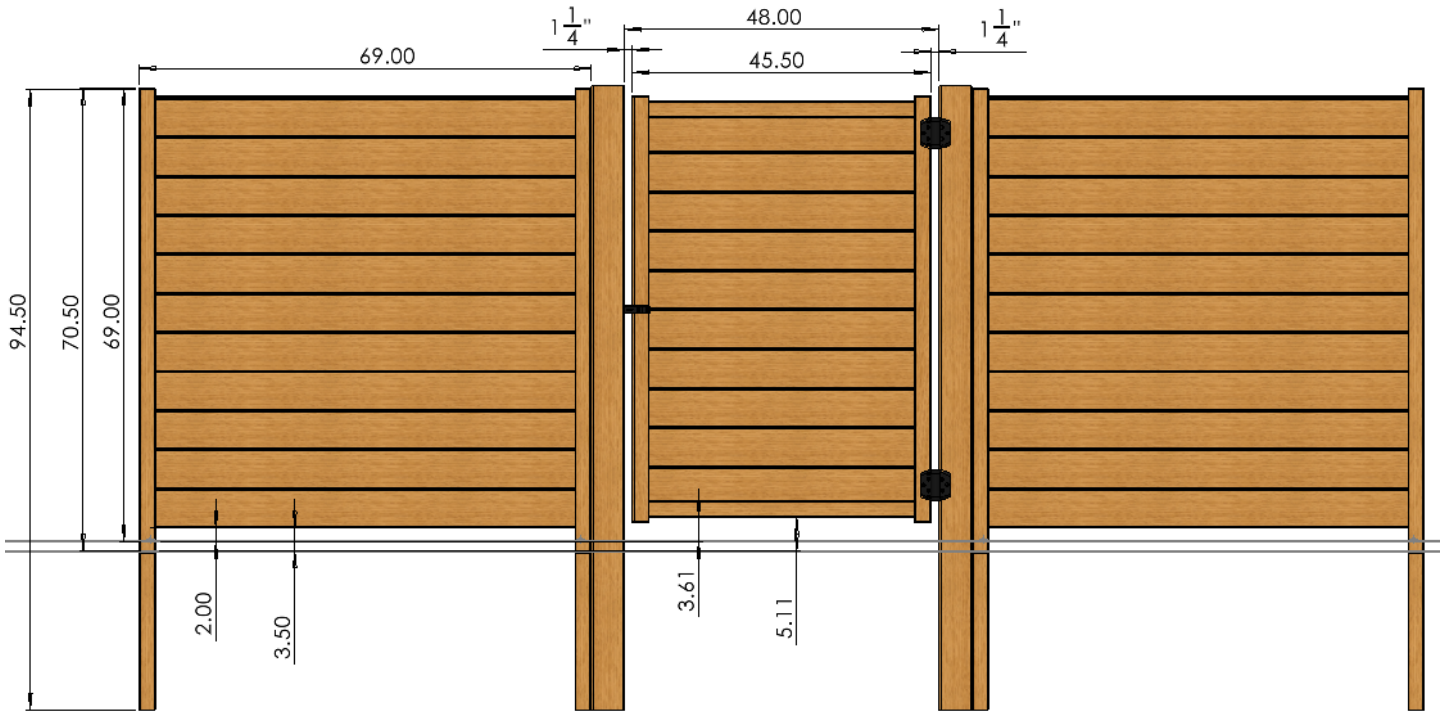
- **Bury one-third of the aboveground height of the post.**
- The hole for the footing should be **three times the diameter of the post.**
- **Deeper holes** are needed for unstable soil, windy weather, or gate posts.



When building a double gate, a 4x4 or metal stiffener is required in both NC 5x5 posts.

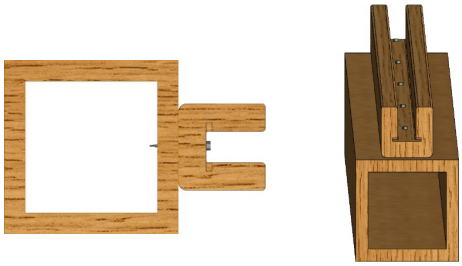
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PART C: INSTALLING GATE WITH NC MODERN FENCE SYSTEM



1. Screw the U-Channel Fence Post to the 5x5 Post

1.1 **This is VITAL.** Attach the NC U-Channel fence post to the 5x5 commercial grade post using screws. This step is VITAL for the structural integrity and weight of the gate!



2. Bury the Posts Together into the Ground

2.1 Assembled posts should be buried together in the ground.

