

WAYS TO ATTACH YOUR PERGOLA POSTS TO THE GROUND



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I. PAVILION/PERGOLA POST ANCHORING

All posts should be attached to the ground. Below are the most common scenarios.

To anchor the posts, you need metal anchors and bolts. Our anchor kits, whether for concrete or wood decks come with everything you need to attach your structure securely.

A. Option 1: Standard Anchor Kit

The stainless steel anchors sit on the surface and attach using either 4 expansion anchor bolts (for concrete) or 4 lag bolts (if attaching to a wood deck). The posts sit in the anchors and are attached to the anchors with lag bolts provided. A wood trim box is included to hide the metal from view (see anchor kit installation images below).

For paver, stone or flagstone patios we don't recommend attaching directly to these surfaces because you may have cracking or movement long term. Instead, we recommend installing footings (concrete foundations for the posts) to make sure you have zero issues long term.

For most applications, we recommend digging holes 30" deep (in snow areas adjust depth to go below the frost line by 6"), place cardboard Sono tubing in the hole up to ground level (see anchorage table 1 to know the diameter). Then pour concrete flush to ground level (or level with the walking surface area of your paver or flagstone patio). Allow up to 3 days for the concrete to cure before attaching metal anchors at the top of the concrete pour (see below). You can use fast drying concrete if you don't want to wait.

If you do not want the posts in the weather, pour the concrete half an inch above ground level. The trim boxes will still drop to the floor.



The photos above show the 5 simple steps to follow once your surface below the Structure is in place. Choose the anchor kit for the appropriate surface:

- **Stone, Brick or Concrete - Anchor Bolts (1/2")** for attaching to stone, brick, or concrete.
- **Wood (e.g., Wood Deck) - Lag Bolts (3/8")** for attaching to a wood deck.

Read more about anchoring your Pavilion in our [FAQ](#), including the best grade of wood to choose for your climate.

More technical details:

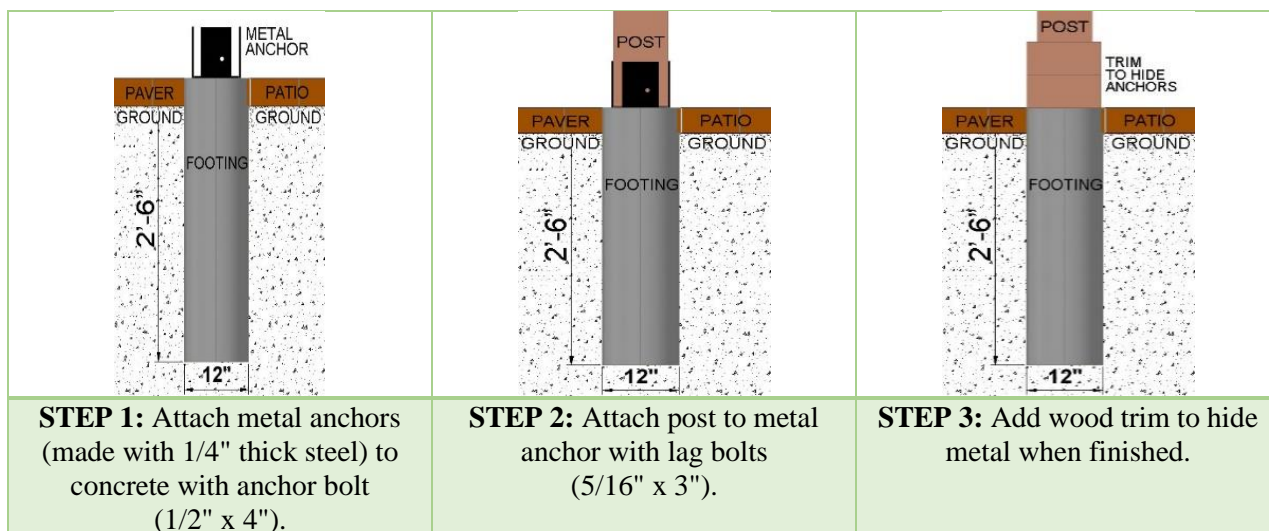
Ideally Confirm your Structure Drawings prior to laying foundations – especially for paver or flagstone patios.

By confirming your Structure drawings first, you may realize that you overlooked something or you may want to make a change that will affect the length or width. For example, for a standard 10' x 12' Arched Pavilion, the posts are recessed back 12 inches from the edge of the roof. This places your posts at 8' x 10' to the outside 4 corners of the posts and at 7' 6 1/2" x 9' 6 1/2" on center. If you are certain this is what you want, you can do the footings before ordering your Structure and before you receive your drawings for your order (all Structure orders receive drawings within 3 business days for your review to give you the time and tool to make last minute adjustments before building). Often, when customers see their drawings, they decide to change some detail like adding a bit more space between the posts or you may want to add a foot or two to the length or width.

If you are in the process of laying a foundation for a Structure that will require footings (recommended for flagstone or paver patios), it is best to have the design of the structure confirmed so you or your contractor can incorporate footings in the exact location (see descriptions of footing above).

Once footings are installed you will not be able to move the post position after reviewing the drawings without causing yourself an unnecessary headache.

Paver or Flagstone Patio Installation details - If you are placing your Structure on a paver patio, pour the concrete to be level with the finished pavers. This way, after adding the trim, the bottom of the trim will rest atop the pavers seamlessly. Since the paver patio is usually a few inches above grade, you may have to pour a bit higher than on undeveloped ground to get the post height to line up exactly with the paver height.



If you decide to order the Anchoring Kit you'll have all the hardware you need and will not need anything from the hardware store if you are attaching to an existing deck. If building on undeveloped ground, just add the concrete and a bit of rebar as described above. Choose the anchor kit for the appropriate surface either wood decking or stone, brick or concrete surfaces.

B. Option 2: Gale-Wind Anchor Kit

Our Stainless Steel Gale Wind Anchors are recommended as a minimum anchoring solution for most pavilion or pergola structures because they have much more wind resistance. Standard anchors can be used for smaller structures (under 180 square ft) and where you have other building shielding your structure for prevailing winds. But, in general, we recommend the Gale Wind Anchors for Pavilions placed in relatively open areas and if the square footage exceeds 180 square ft.

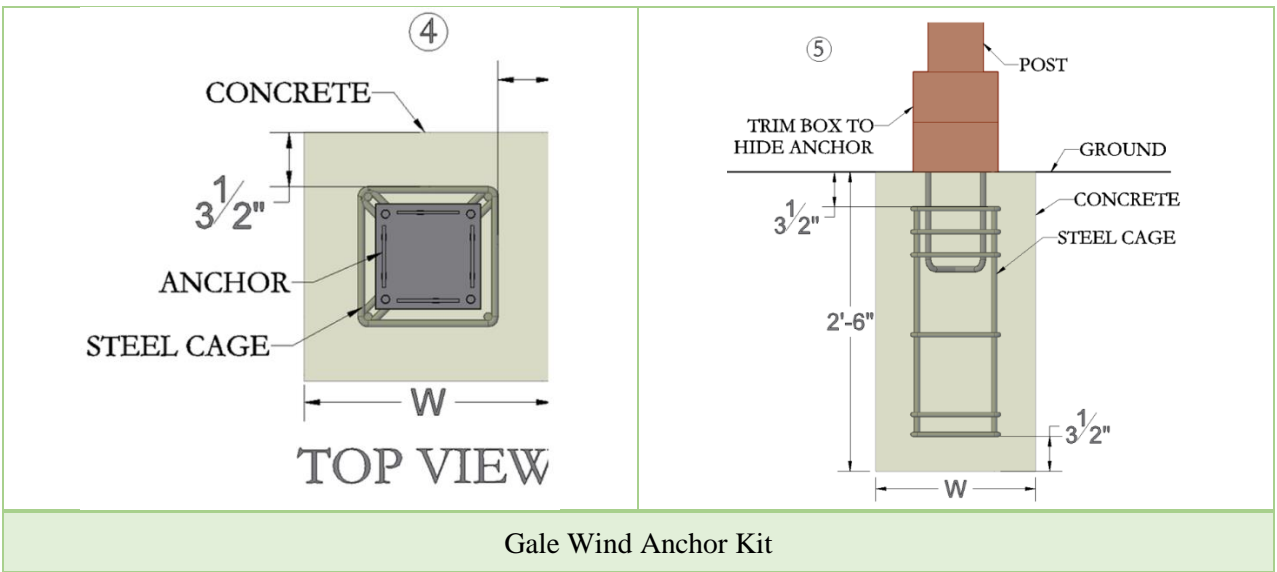
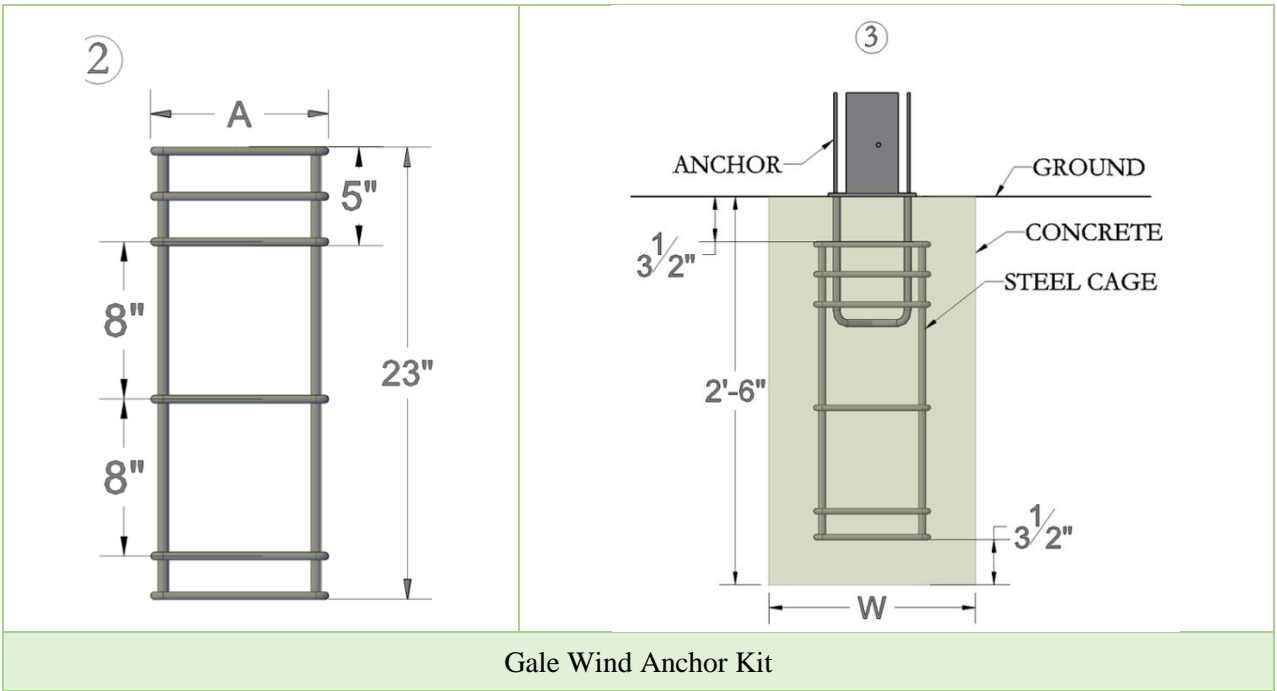
For installations where strong winds of up to 100 mph are expected occasionally. It is not recommended for hurricane areas. Each structure order includes drawings for concrete installation instructions. The Gale Wind Anchors are normally installed in a 30-inch-deep concrete pour, please see the table 1 and make the footings depending of the dimensions of the posts:

Note: In areas where the ground freezes, please go 6 inches below your frost line with the concrete pour.

Place the anchors in wet concrete. The rebar of the anchors must be at least 3-1/2" away from the edge of the footing.

Attach post to anchors with 5/16" x 3" lag bolts, add the trim boxes at the bottom of the posts to hide the anchors.



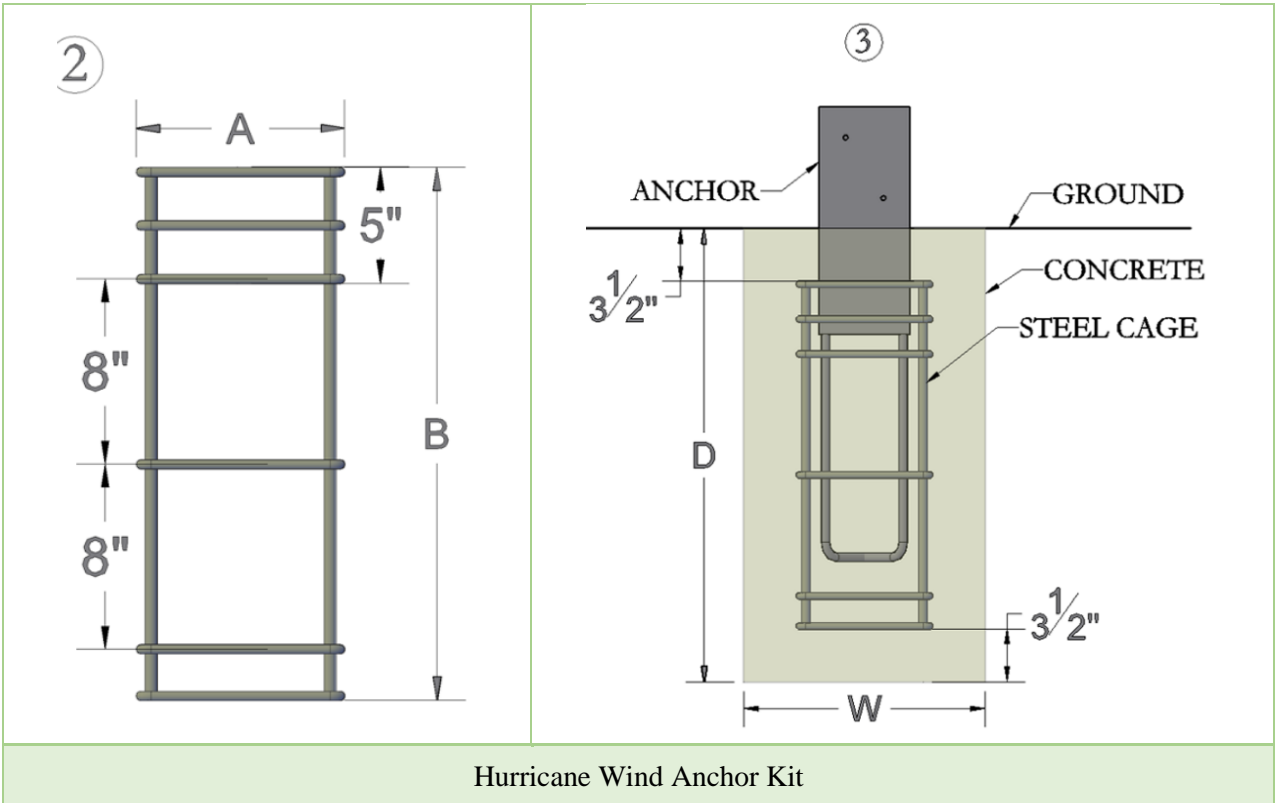


POSTS	ANCHOR BASES				STEEL CAGE	FOOTING
	Base Steel Gauge	H1	Steel Base Diameter	H2		
3 3/4" x 3 3/4"	3/16"	6"	1/2"	8"	7"	14"
5 1/2" x 5 1/2"	3/16"	8"	1/2"	12"	9"	16"
7 1/4" x 7 1/4"	1/4"	8"	5/8"	12"	11"	18"
9 1/4" x 9 1/4"	1/4"	10"	5/8"	15"	13"	20"
11 1/4" x 11 1/4"	1/4"	10"	5/8"	18"	17"	24"

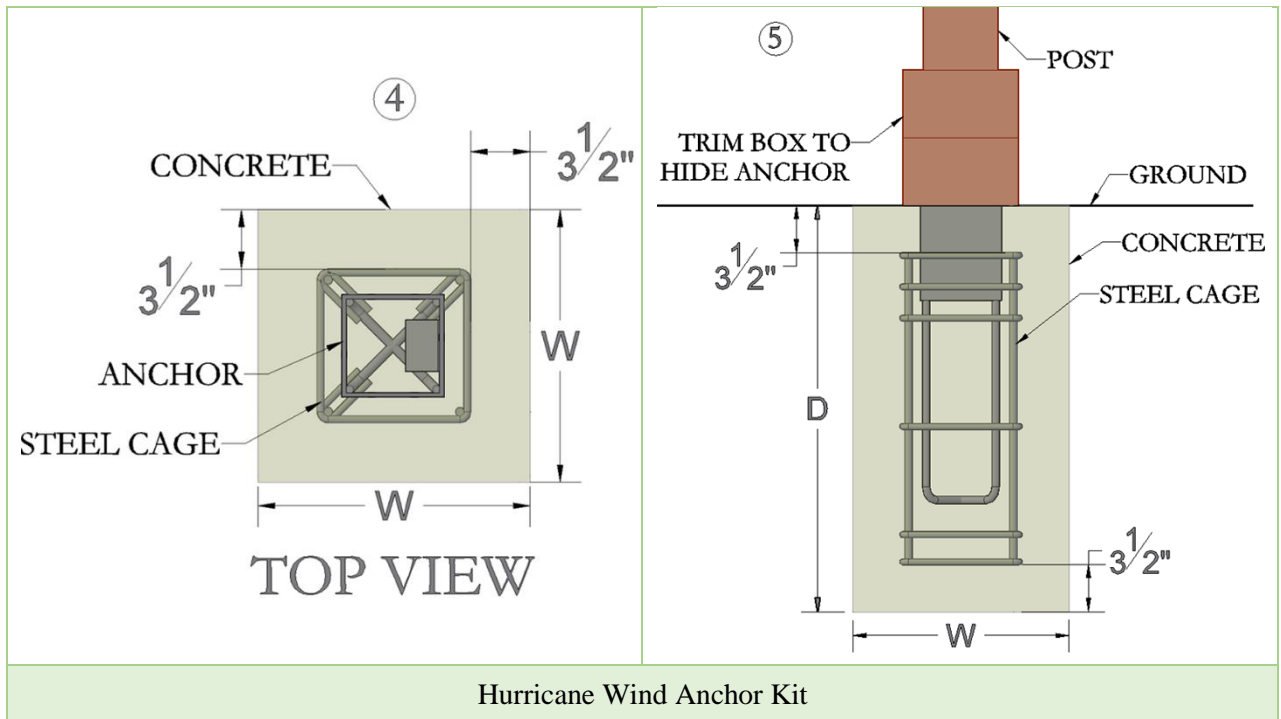
C. Option 3: Hurricane Wind Anchor Kit



Hurricane Wind Anchor Kit



Hurricane Wind Anchor Kit



Hurricane Wind Anchor Kit

POSTS	ANCHOR BASES				STEEL CAGE		FOOTING	
	Base Steel Gauge	Anchor Steel Base (PTR)	Steel Base Diameter	H	A	B	W	D
3 3/4" x 3 3/4"	3/16"	4" x 4"	1/2"	12"	7"	23"	14"	30"
5 1/2" x 5 1/2"	1/4"	6" x 6"	1/2"	15"	9"	29"	16"	36"
7 1/4" x 7 1/4"	1/4"	8" x 8"	5/8"	18"	11"	29"	18"	36"
9 1/4" x 9 1/4"	1/4"	10" x 10"	5/8"	20"	13"	35"	20"	42"
11 1/4" x 11 1/4"	1/4"	12" x 12"	5/8"	24"	17"	35"	24"	42"

Note: At least 2" clearance between edge and steel to be filled by concrete.

We have installed our structure in Hurricane areas with the Hurricane Wind Anchor kit shown above. It is rated to withstand winds of up to 110 miles per hour. The Hurricane Wind Anchors are normally installed in a 30-inch-deep concrete pour (**or 48" if your posts are 9 1/4" x 9 1/4" or 11 1/4" x 11 1/4"**) and place a significant portion of the anchor in concrete underground as shown in the drawings above. For best results, we recommend doing the concrete work at least 3 days ahead of the Structure install so the concrete will cure prior to attaching the Structure to it. You then place the wood posts in the cradle and bolt the wood to the anchor. We supply wood trim pieces to hide the metal hardware completely so the bottom of the posts looks like they have a wooden boot around them when installation is complete.

Note: If your Structure is placed in a snow area, the concrete must be 6 inches below the frost line.