

PERGOLA 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.

OPTION 1: Standard Anchor Kit

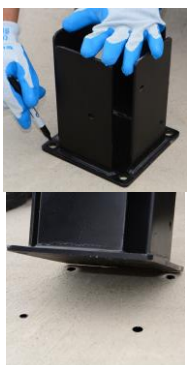
The metal anchors sit on the surface and are attached using either 4 anchor bolts (for concrete) or 4 lag bolts (if you attaching to a wood deck). The posts sit on the anchors and are attached to the anchors with lag bolts provided. A wood trim box is included to hide the metal from view. See anchor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

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

If you are placing the Pergola on a paver patio, flagstone, or undeveloped ground, we recommend digging holes 30" deep (in snow areas adjust depth to go below the frost line by 6") and placing cardboard Sono tubing in the hole up to ground level (see anchorage table 1 to know the diameter). Then add some metal and rebar and pour concrete flush to ground level (or level with the walking surface area of your paver or flagstone patio). Allow up to 7 days for the concrete to cure before attaching metal anchors at the top of the concrete pour (see below).

By going with an 12 inch diameter concrete pour, when you finish attaching the posts to the anchors and adding the trim, the posts at the base with the trim box included wind up being 8 1/2"W x 8 1/2"L x 10"H and they hide the concrete from view from above. The posts with the trim boxes will look like they are just sitting on the ground or the flagstone or pavers. You can buy anchors at your local hardware store, but we do not recommend it because if you set the anchors in the concrete pour and they are not exactly on center to the fraction of an inch, your installation will not go smoothly. By using our anchor kit, if your concrete pour is off by a half inch or so, you can always place the anchor a bit off the center of the concrete pour at installation to compensate.

If you do not want the posts in the weather and do not mind being able to see the concrete from below, pour the concrete half an inch above ground level.



STEP 1:
Place the anchor where it will be installed; mark the ground as shown



STEP 2:
Drill for holes as shown 1/2" wide hole 4" deep and hit down the anchor bolts (1/2" x 4") with a hammer. Then take off the nut before you place the metal anchor (**note: for wood deck use lag bolt**).



STEP 3:
Place and attach metal anchor to concrete with anchor bolt (1/2" x 4") and place the post.



STEP 4:
Attach post to metal anchors with lag bolts (5/16" x 3")



STEP 5:
Place the wood boots over the anchors, fixed it with the screws.

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 Pergola in our [FAQ, including the best grade of wood to choose for your climate.](#)

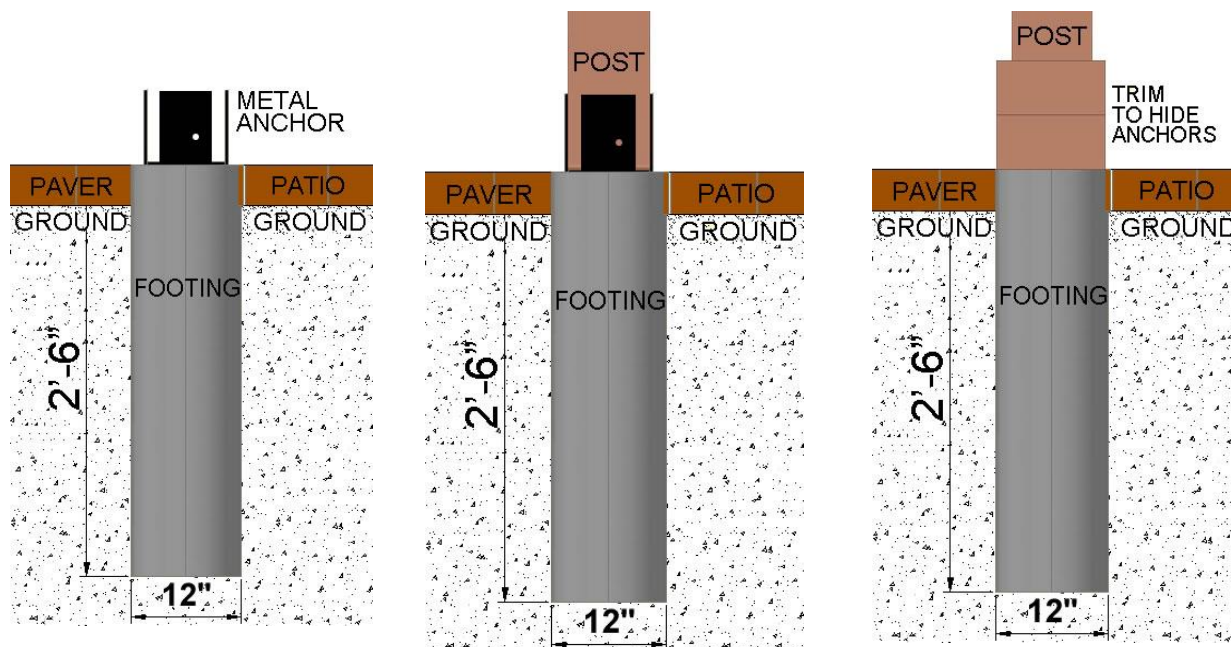
More technical details:

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.



STEP 1: Attach metal anchors (made with 1/4" thick steel) to concrete with anchor bolt (1/2" x 4")

STEP 2: Attach post to metal anchor with lag bolts (5/16" x 3")

STEP 3: Add wood trim to hide metal when finished

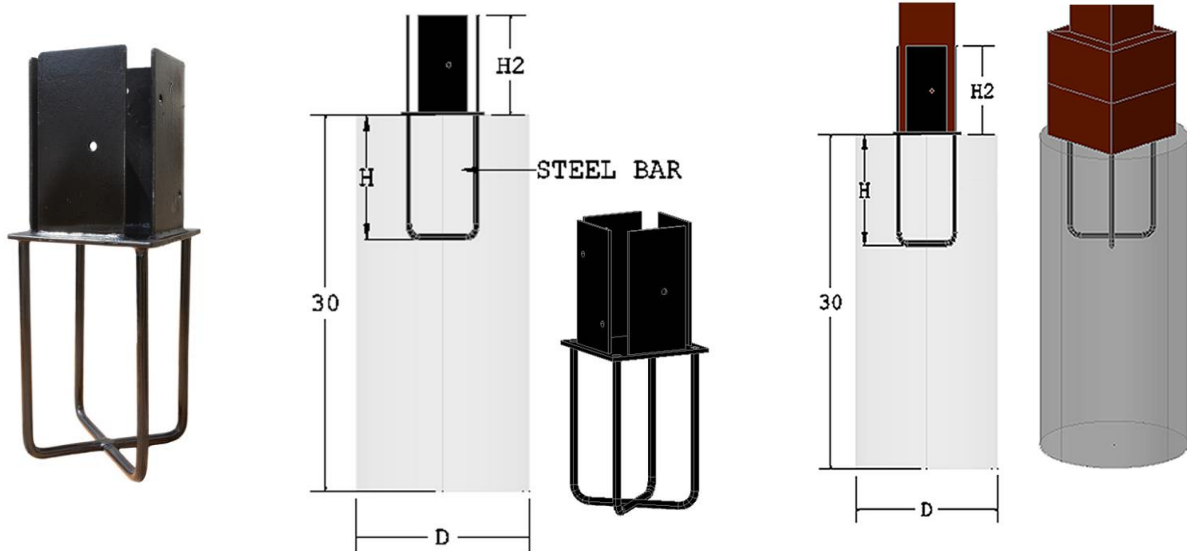
If you decide to order the Anchoring Kit you'll have all the hardware you need and will not need anything from the hardware store if you are attaching to an existing deck. If building on undeveloped ground, just add the concrete and a bit of rebar as described above. Choose the anchor kit for the appropriate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

OPTION 2: Gale-Wind Anchor Kit

Gale Wind Anchors are recommended for installations where strong winds of up to 80 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:

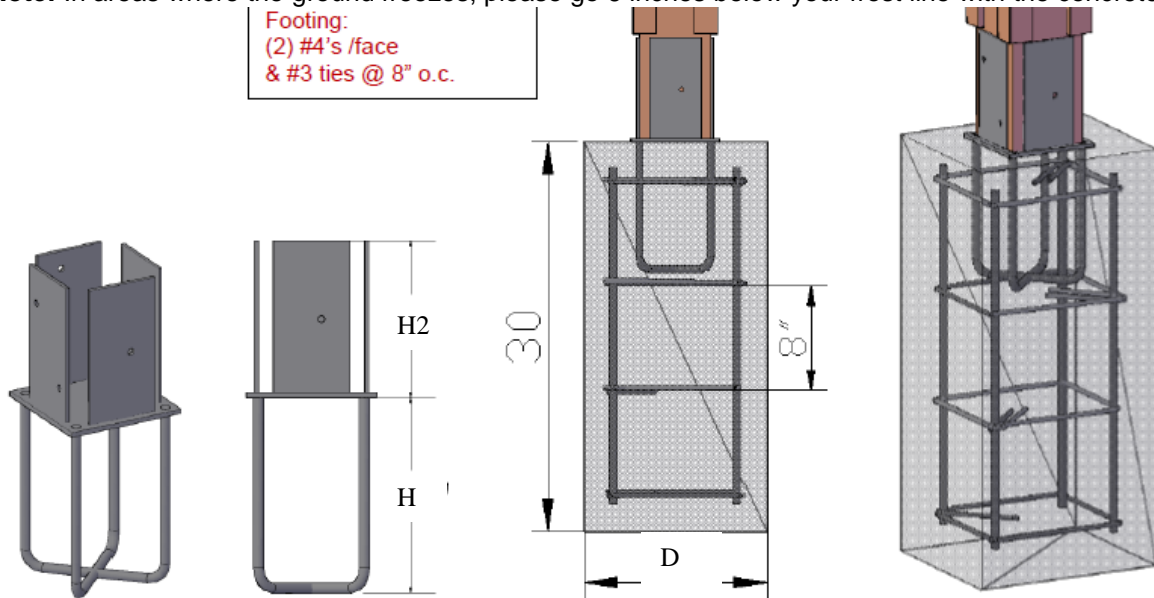
Place the anchors in wet concrete. The rebar of the anchors must be at least 2" away from the edge of the footing

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



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

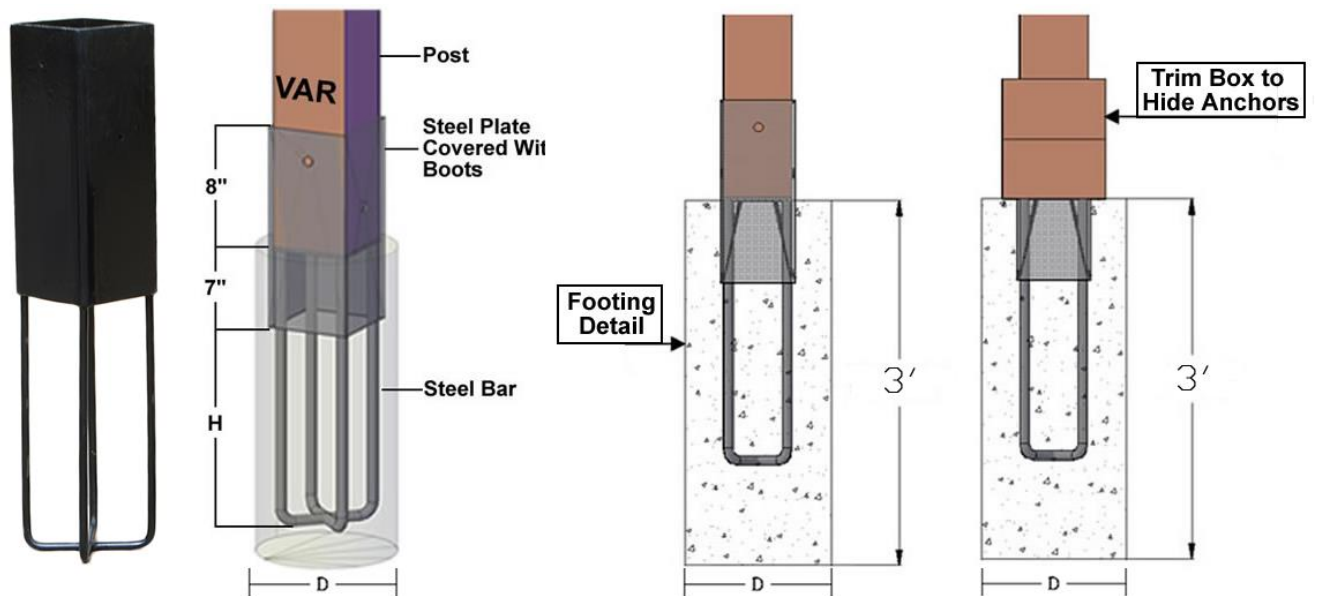
Footing:
(2) #4's /face
& #3 ties @ 8" o.c.



Anchorage Table 1

Posts	Steel Bar Diameter	D	H	Base Steel Gauge	H2
3 3/4" x 3 3/4"	1/2"	10"	8"	3/16"	6"
5 1/2" x 5 1/2"	1/2"	14"	10"	3/16"	8"
7 1/4" x 7 1/4"	5/8"	16"	12"	1/4"	8"
9 1/4" x 9 1/4"	5/8"	18"	14"	1/4"	10"
11 1/4" x 11 1/4"	5/8"	20"	16"	1/4"	10"

OPTION 3: Hurricane Wind Anchor Kit



Posts	Steel Bar Diameter	D	H	Anchor Steel Base (PTR)	PTR Gauge
3 3/4" x 3 3/4"	1/2"	12"	12"	4" x 4"	3/16"
5 1/2" x 5 1/2"	1/2"	16"	15"	6" x 6"	3/16"
7 1/4" x 7 1/4"	5/8"	18"	18"	8" x 8"	1/4"
9 1/4" x 9 1/4"	5/8"	20"	20"	10" x 10"	1/4"
11 1/4" x 11 1/4"	5/8"	24"	24"	12" x 12"	1/4"

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 look 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