Adding Stability to Posts/Pillars

Techniques for building taller posts/pillars or building in poor soil.

BUILDING TALLER POSTS/PILLARS

For projects where a taller post/pillar is desired or needed, it may be necessary to provide additional stability under the post/pillar. Foundation widths and depths will vary from project to project. The 4 options below show how this can be achieved.

Adding Strength with a Concrete Pile and Sonotube

Option 1:

You will need:
- 8 in. sonotube (200 mm), cut to desired length
- Posthole digger
- Ready mix concrete
- Rebar (as required based on application)

Step 1: Layout
Determine the location of the post/pillar and lay the first course of block to establish where to dig the foundation pad.

Step 2: Foundation*
Mark the location of the post/pillar with a shovel, remove the blocks and dig a 24 in. (600 mm) square, 4 in. (100 mm) deep hole. Using a post hole digger, dig a hole for the sonotube approximately 3 ft (1.0 m) deep with a 8 in. (200 mm) diameter to accommodate for a 8 in. (200 mm) sonotube in the center of the foundation pad.

Step 2: Sonotube
Mark and horizontally cut the sonotube so that the tube will extend up within the top 3 courses of the post/pillar. Install bracing (if necessary) on the sonotube 12 in. (300 mm) from the bottom. Next place the sonotube in the post hole and install vertical bracing to hold the sonotube in a level upright position.

Step 3: Concrete Pile
Pour the concrete mixture into the top of the sonotube until both the sonotube and the posthole are filled. Make sure the sonotube is level and plumb. (Rebar can be added while concrete is wet, as required based on application). Allow concrete to set a minimum of 4 hours before proceeding. Once the concrete is set, remove the vertical and horizontal bracing on the sonotube.

NOTE FOR ALL POST/PILLAR CONSTRUCTION:
The soil beneath the foundation pad must be a good quality compactable material. If soft soils are encountered, you will need to remove and replace them with additional base rock. A good foundation will ensure a stable post/pillar for years to come.

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Step 4: Foundation
Fill around the sonotube with 4 in. (100 mm) of base rock to build the post/pillar foundation. Use a hand tamper to compact. Level foundation pad from front to back and side to side, making adjustments where needed. A level foundation pad will ensure a level and plumb post/pillar.

Step 5: Base Course
Install the first course with 4 Corner Blocks with the long sides facing out. Square up the blocks, tamp into place and level.

Step 6: Continue Building
Continue stacking courses, alternating between the patterns to offset the seams from the course below until the desired height is achieved. Do not stack the blocks up in stacked bond (seams should not create a straight line the full height of the post/pillar).

Step 7: Finish
Finish the post/pillar with two Post Caps. Secure the Wall Caps in place with a bead of masonry adhesive along the outside edge of the top course of Corner Blocks and then set the Post Caps in place.

BUILDING POSTS/PILLARS IN SOFT SOILS OR ADDING ADDITIONAL STABILITY

Use one of these three additional options when building in soft soil conditions. If building with posts/pillars and panels, interlock the panels into the posts/pillars for additional stability. See How-to sheet #230.

ADDENDUM STABILITY

Option 2: Increase Base Depth and Width
Install Concrete Pile with Bell
Option 3: Install Concrete Footing Below Post/Pillar

Option 4:

Secure the blocks together with masonry adhesive to add strength to the post/pillar

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