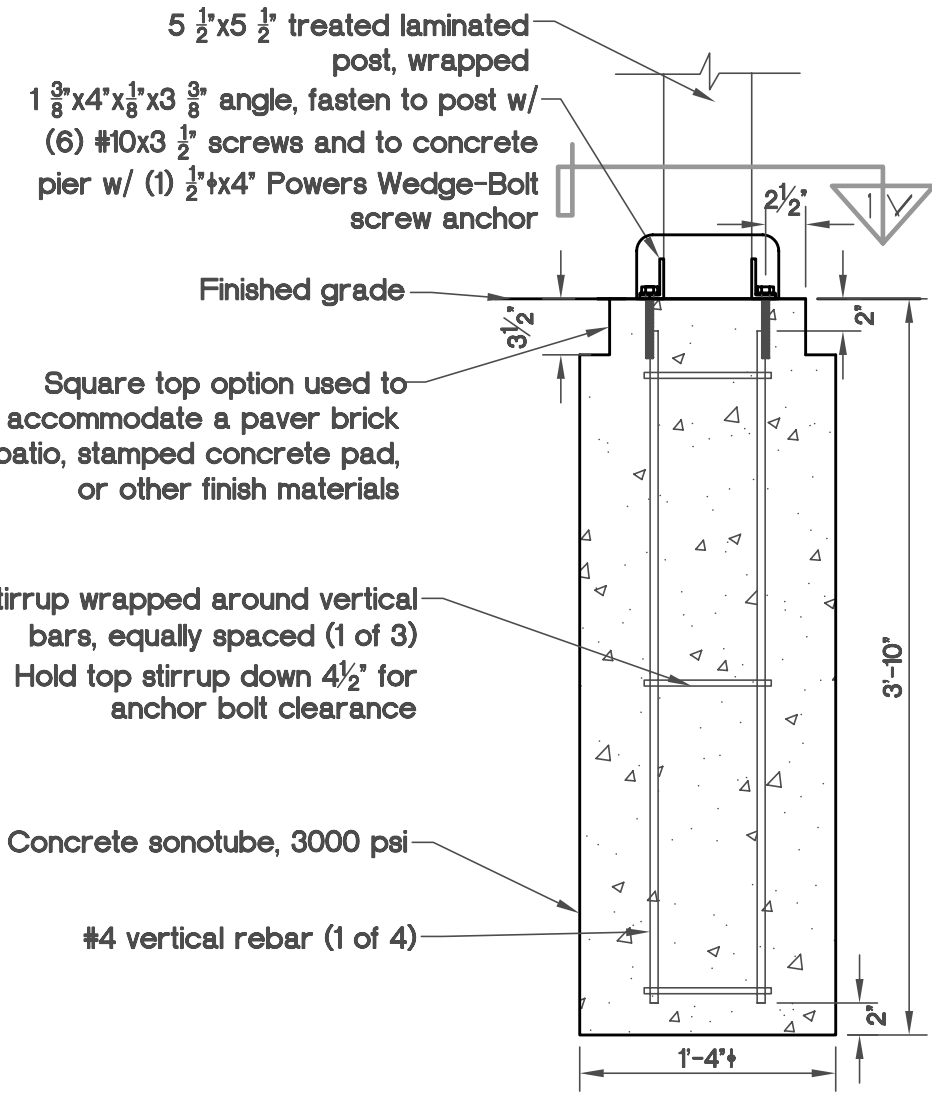


This foundation design is to be used together with the complete structural pavilion drawings by Timber Tech Engineering, Inc. and is acceptable for the following four-post PVC pavilion sizes only: 10'x10', 10'x12', 10'x14', 10'x16', 10'x18', 12'x12', 12'x14', 12'x16', and 12'x18'.

Pier Design Scale 1" = 1'-0"

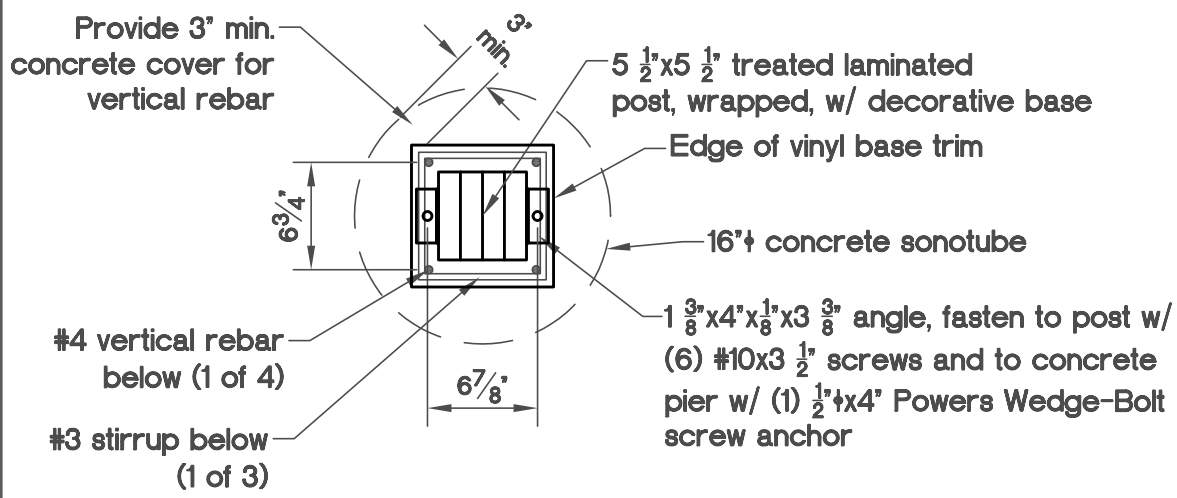


Square top option used to accommodate a paver brick patio, stamped concrete pad, or other finish materials

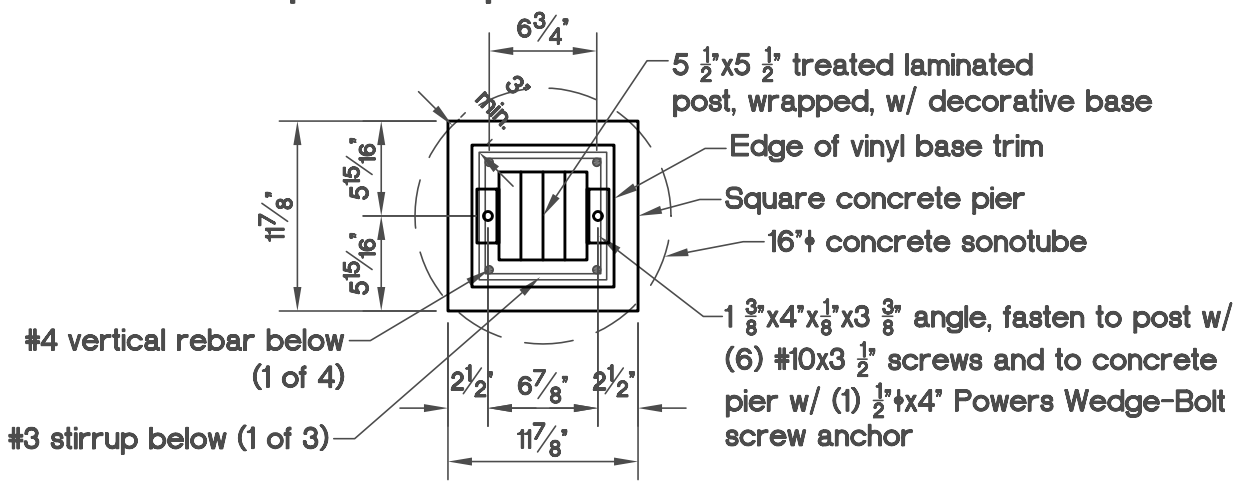
#3 stirrup wrapped around vertical bars, equally spaced (1 of 3)
Hold top stirrup down 4 1/2" for anchor bolt clearance

Concrete sonotube, 3000 psi
#4 vertical rebar (1 of 4)

Alternative Pier Design Square Top Scale 1" = 1'-0"



View 1 Pier Design Scale 1" = 1'-0"



View 1 Alternative Pier Design Square Top Scale 1" = 1'-0"

timbertech
ENGINEERING

East: 22 Denver Road, Suite B Denver, PA 17517
717.335.2750 Fax: 717.335.2753
West: 206 S Main Street, PO Box 509 Kouts, IN 46347
219.766.2499 Fax: 219.766.2394
www.timbertecheng.com
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CONTRACTOR:
Country Lane Woodworking
191 Jalyn Drive
New Holland, PA 17557
PH: (717) 351-9250

DRAWING TITLE:
Pier Detail
Alternative Pier Detail

PROJECT:
Standard Pier Foundation
Drawings for Selected
4 Post Rectangle PVC Pavilions

REVISIONS:	DATE:	BY:
DRAWING NUMBER:		
DATE: 8/5/2011	PAGE: F1	SCALE: Noted
BY: kms		

EARTHWORK

- 1. Requirements
 - A. Provide a construction grade extending ten feet beyond building exterior walls or an alternative method per Section 1804.3 of the IBC 2009.
 - B. Excavate for foundations to subgrade elevations regardless of character of materials and obstructions encountered, unless otherwise approved by the structural engineer.
 - C. Perform excavation work in compliance with applicable requirements of authorities having jurisdiction.
- 2. Materials
 - A. Satisfactory soil: ASTM D2487-06 unified soil classification groups GW, GP, GM, SW, SP, and SM; free of rock or gravel larger than two inches in any dimension, debris, waste, frozen materials, vegetation, or other deleterious matter.
 - B. Unsatisfactory soil: ASTM D2487-06 unified soil classification groups GC, SC, ML, MH, CL, CH, OL, OH, and PT.
 - C. Backfill and fill: satisfactory soil materials.
- 3. Execution
 - A. Footings have been designed for an assumed allowable loadbearing pressure of 2,000 psf on supporting soil at 1 foot deep into grade. Pressure may be increased 20% for each additional 1 ft of width and/or depth to a maximum of 6,000 psf. The contractor shall verify this assumption, and shall immediately notify the structural engineer in writing of any deficiency.
 - B. Place backfill and fill in layers not more than eight inches in loose depth at optimum moisture content. Compact each layer under footings and slabs to a dry density of at least 95 percent of maximum dry density as determined by ASTM D1557-02e01.
 - C. Bottom of exterior footings shall be a minimum of 36 inches below finished grade, unless noted otherwise

CAST-IN-PLACE CONCRETE

- 1. Concrete work shall conform to the following specifications by The American Concrete Institute (ACI).
 - A. 'Building Code Requirements for Structural Concrete' (ACI 318-08).
 - B. 'Hot Weather Concreting' (ACI 318-08, Sect. 5.13).
 - C. 'Cold Weather Concreting' (ACI 318-08, Sect. 5.12).
- 2. Materials used shall adhere to the following:
 - A. Portland Cement: ASTM C150-07, type 1.
 - B. Fly Ash: ACI 318-08, Sect. 4.4.2.
 - C. Aggregates: ASTM C33-03, maximum aggregate size is one inch.
 - D. Fiberglass reinforcement: PCI MNL 128 Standard.
 - E. Air-entraining admixture: ACI 318-08, Sect. 4.4.1.
 - F. Chemical admixtures: ASTM C494, water reducing. All concrete, except footings, shall contain a water reducing admixture. No admixtures containing calcium chloride are permitted. All other additives shall not be used without prior approval of the structural engineer.
 - G. Vapor retarder: Clear 8-mil thick polyethylene.
- 3. Proportion normal-weight (145 pcf) concrete mixes to provide the following properties:
 - A. Compressive strength: 3,000 psi at 28 days (unless noted otherwise).
 - B. Slump limit: 4 inches (3 inches for slab-on-grade) at point of placement.
 - C. Water-cement ratio: 0.45 maximum at point of placement.
 - D. Air content: 5 to 7 percent for concrete exposed to freezing and thawing, 2 to 4 percent elsewhere.
- 4. Reinforcing steel shall be fabricated, detailed and placed in accordance with the ACI 318-08, and shall conform to the following:
 - A. Deformed reinforcing bars: ASTM A615/A 615M-04a with a minimum yield strength of 60,000 psi (grade 60).
 - B. Welded wire fabric (WWF): ASTM A185-07, flat sheets, not rolls.
 - C. Ties/Stirrups: ASTM A615/A615M-04a, grade 40.
- 5. Concrete work shall be executed according to the following:
 - A. Maintain tolerances and surface irregularities within ACI 117-08 limits of class A for concrete exposed to view, and class C for other concrete surfaces. Floor slabs shall be screeded, floated and steel troweled to a smooth, dense and plane surface.
 - B. Accurately position, support, and secure reinforcement.
 - 1. Reinforcing bars shall lap 48 bar diameters at splices in concrete unless otherwise noted.
 - 2. Provide corner bars to match all continuous reinforcing in concrete and masonry.
 - 3. Reinforcing bar hooks shall be ACI standard.
 - 4. WWF shall have ends lapped one full mesh, and shall extend onto supporting walls.
 - 5. Chairs, bolsters, bar supports, and spacers shall be sized and shaped for strength and support of reinforcement during concrete placement.
 - C. Provide minimum concrete cover on reinforcing bars as follows:
 - 1. Cast against earth.....3'
 - 2. Exposed to earth or weather (#5 or smaller)...1 1/2'
 - 3. Exposed to earth or weather (#6 or larger).....2'
 - 4. Slabs and walls not exposed.....3/4'
 - D. The contractor shall be responsible for stability and integrity of all excavations and existing structures.



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DRAWING TITLE:
General Notes

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