Cool and Cobb Engineering Company

Date: 2/12/2025 Job: 25-1068

Job: Josh Heringer

Location: 208 SW Burnett Ln, Lake City, FL 32024

PUSH PIER DESIGN ANALYSIS

The load requirements for the pilings designed to assist in supporting the identified areas of the subject residence were determined. The selected piling locations and the specific piling are identified on the Pier Identification and Location Plan attached. The calculated total loads on the piles in the specific location, including both dead and live loads are documented in the attached table which is designated as Attachment "A". Based on the total load requirements for each of these piles, the push pier driver is to be employed. The push pier driver should be employed with a calculated load of 11,390 lbs., which will provide pile capacity, including the 2 to 1 safety factor of 22,780 lbs. which is greater than the maximum calculated total load of 11,390 lbs. which occurs on the pile identified as no. 1 . Based on this analysis, the use of the push pier driver for the ECP piles with a specific load of 22,780 lbs. and a minimum depth of 15' is approved and certified as meeting all the requirements of the Florida Building Code 2023 8th Edition, and good engineering practice. This is not to be the primary support structure, but a supplement support to assist in support of the weight of the structure, which will reduce the total pressure on the existing soils. After completion of installation, Cool and Cobb Engineering Company shall be supplied with a drilling log of the location and depths of each pile installed so they can evaluate the installation and prepare the "As Built" drawings.

General Notes:

1. A log of each pile to be kept by Contractor noting depth for each pile.
2. Piles installed less than 48" apart are to be battered 10° away from each other.
3. All pile calculations are based on a maximum spacing of 8'-0".
4. This design is based on the loads of the structure placed on the shallow soils under the structure.
5. No deep soils geotechnical testing information was provided for this design.
6. This design does not address any possible sink hole activity as defined in Florida Statute § 627.706.

2/12/2025
Kenneth F Wheeler, P.E.
State of Florida
Professional Engineer No. 60417

Digitally signed by Kenneth F Wheeler
Date: 2025.02.12 15:47:38 -05'00'

This item has been digitally signed and sealed by Kenneth F. Wheeler, P.E. on the date adjacent to the seal.

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203 W. Main St.
Avon Park, FL 33825
Office: (863) 657-2323
Fax: (863) 657-2324

Contractor: Foundation Professionals

Cool and Cobb Engineering Company

Date: 2/12/2025 Job: 25-1068

Job: Josh Heringer

Location: 208 SW Burnett Ln, Lake City, FL 32024

CRAWLSPACE JACK DESIGN ANALYSIS

The load requirements for the Crawl Space Jacks designed to assist in supporting the identified areas of the subject residence were determined. The selected Crawl Space Jack locations and the specific Crawl Space Jacks are identified on the Jack Identification and Location Plan attached. The calculated total loads on the Crawl Space Jacks in the specific location, including both dead and live loads are documented in the attached table which is designated as Attachment "A". This Crawl Space Jack design is approved and certified as meeting all the requirements of the Florida Building Code 2023 8th Edition, and good engineering practice. This is not to be the primary support structure, but a supplement support to assist in support of the weight of the structure, which will reduce the total pressure on the existing soils and reduce deflection in beams. After completion of installation, Cool and Cobb Engineering Company shall be supplied with a log of the location of each Crawl Space Jack installed so they can evaluate the installation and prepare the "As Built" drawings.

General Notes:

1. The Crawl Space Bracket attached in this design is approved as minimum size required for the loads.
2. Top plate to be secured to beam by one of the below methods:
   Steel Beam – Field spot weld, min. 2 locations each jack.
   Wood Beam – (2) Min. 2 ½" length deck screw
3. Assumed allowable soil loading of 2,000 psf.
4. A log of each Crawl Space Jack to be kept by Contractor.

2/12/2025

Kenneth F Wheeler, P.E.
State of Florida
Professional Engineer No. 60417

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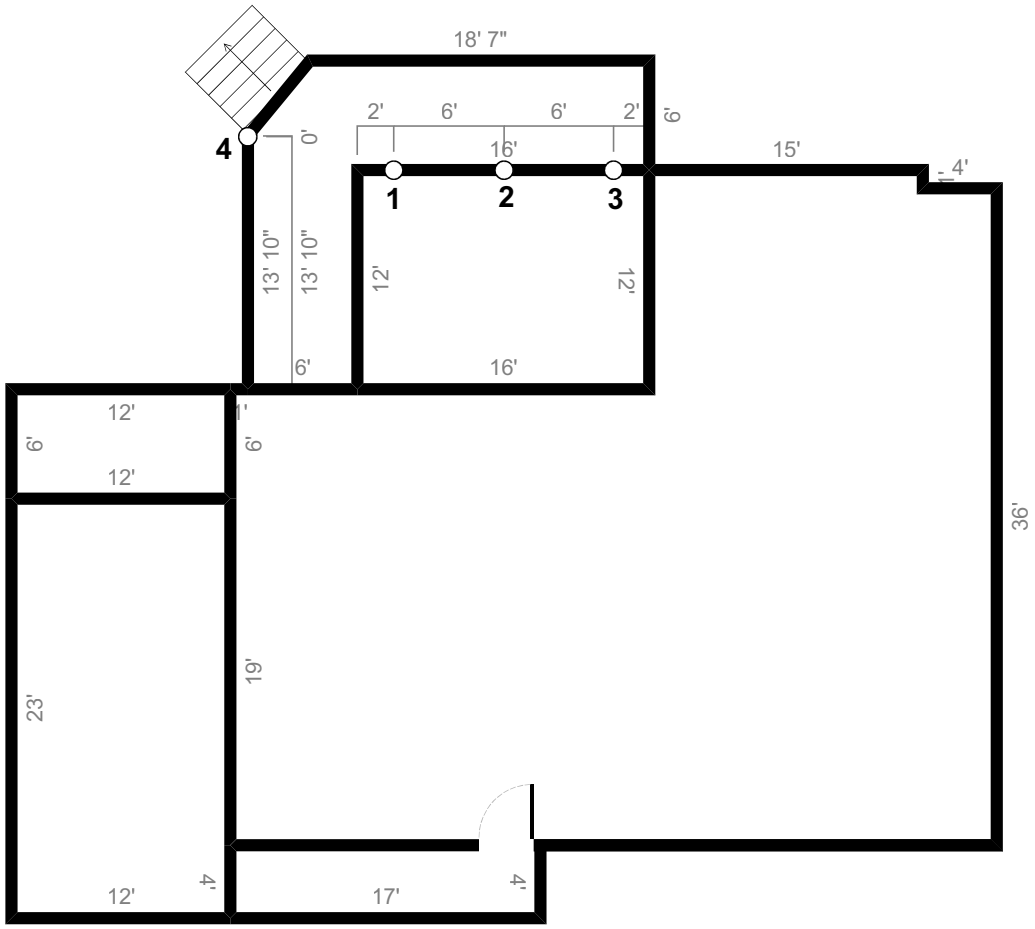
203 W. Main St.
Avon Park, FL 33825
Office: (863) 657-2323
Fax: (863) 657-2324

Contractor: Foundation Professionals

Legend

Foundation

Exterior Pier



Wood-frame structure	- Locations 1-3 are Concentric Push Piers to be installed below the foundation slab
Age: 1978	
Foundation: Concrete slab	
Slab depth: 8"	- Location 4 is a PPB-107 Crawl Space Jack along the exterior rim joist of porch
Siding: Brick	
Roof: Shingle	

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Cool and Cobb Engineering Co.
203 W. Main Street.,
Avon Park, FL 33825

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Heringer - Crawl Space Repair

Foundation Professionals of Florida
3309 SW State Road 247
Lake City, FL 32024
www.foundationprosfl.com
(386) 755-3002

Project Address
Joshua Heringer
208 SW Burnett Ln
Lake City, FL 32024
(352) 256-2897 | JDHerin@gmail.com

Created By
Conner Rawlins
(904) 515-8680
crawlins@foundationprosfl.com
Created 1/17/2025

Cool and Cobb Engineering Company

Date:	2/12/2025	Project #	25-1068
Job:	Josh Heringer		
Location:	208 SW Burnett Ln, Lake City, FL 32024		

Attachment "A"

Total Load on Support (Live Load + Dead Load)

SUPPORT NO.		TOTAL CALCULATE LOAD	
1	Push Pier	11,390	lbs
2	Push Pier	8,910	lbs
3	Push Pier	9,830	lbs
4	Crawlspace Jack	950	lbs

Maximum Total Load on Pile: 11,390 lbs

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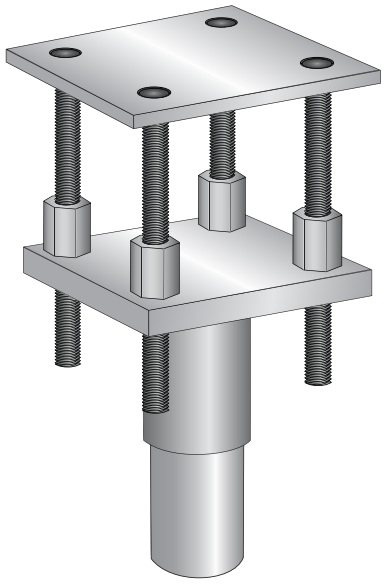
PE# 60417

Cool and Cobb Engineering Co.
203 W. Main St.
Avon Park, FL 33825

The ECP Concentric Pier

The Patented ECP PPB-250 concentric pier is the latest in steel resistance piering. The unique design and engineering allows you to use ECP push pier technology directly beneath the load or footing. The steel pier design penetrates the soil deeply beyond the active expansive clay soils to a true end bearing configuration. ECP, the leaders in steel pier technologies, has created the strongest and deepest driving concentric pier system on the market today!



Another Choice for Foundation Repair Underpinning!

No longer do you have to settle for weak, shallow driving under footing piers. The PPB-250 pier system drives deeper, lifts larger loads and is more stable than any other concentric pier on the market. The engineers at Earth Contact Products developed this pier to be placed directly under loads for crawl space applications, limited access areas and slab on grade homes.

The PPB-250 steel pier was designed to be the strongest foundation pier in the industry by combining galvanized steel pier material with a manifold lifting system. It is installed centrally beneath the footing rather than outside of the footing, thus transferring the structural load directly on top of the pier bracket. Our concentric pier system will achieve the greatest depth while installed in a position to provide the greatest support.

Designed to be the strongest foundation structural support in the industry

- Made of galvanized steel pier material
- Sturdy enough for commercial foundations
- Uses hydraulic manifold lifting system
- Installs with industry leading 10,000 psi system
- Designed by engineers for homeowners

Creates a deep foundation that exceeds your home's original structural strength!

EARTH CONTACT PRODUCTS
1-866-327-0007
15612 S Keeler Terr.
Olathe, Ks 66062
Phone:913-393-0007
Fax:913-393-0008
info@getecp.com
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2/12/2025
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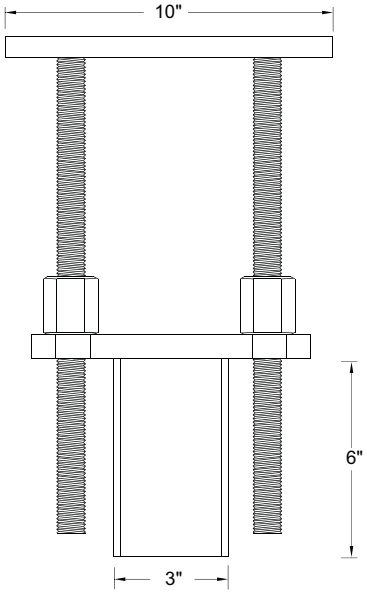
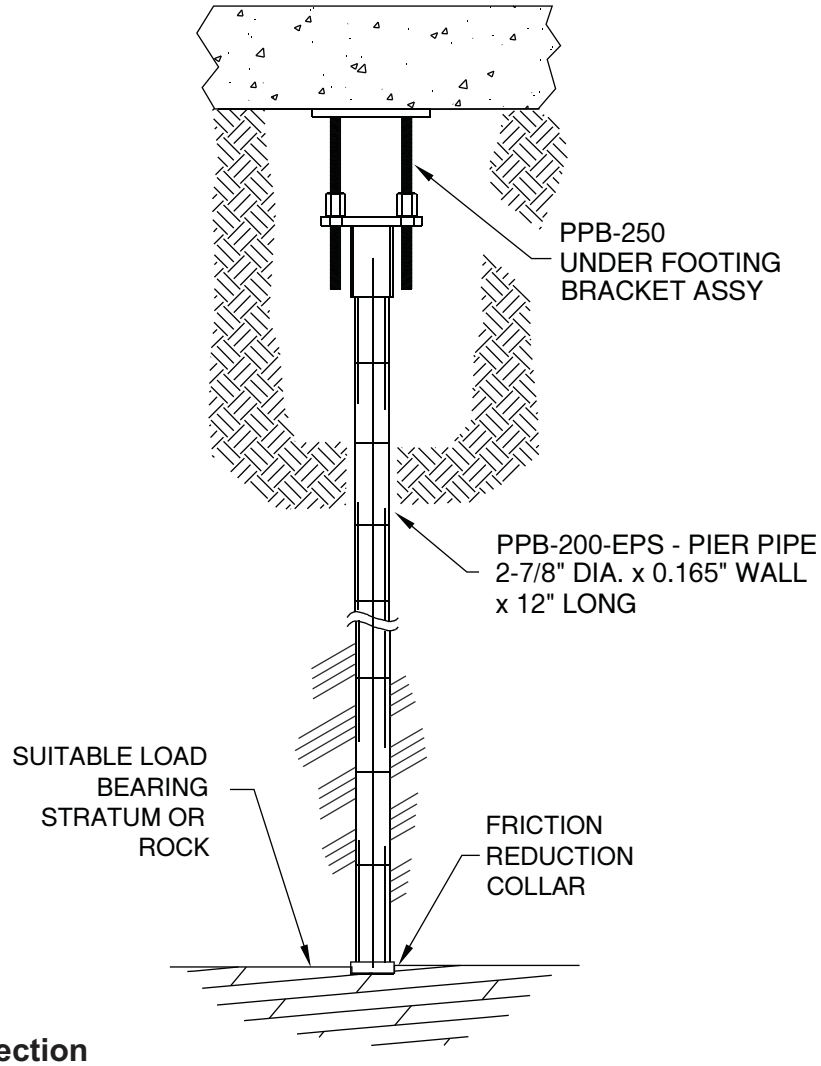
203 W. Main St., Avon Park, FL 33825

ECP Steel Pier ™ - PPB-250 Utility Bracket Pier System



PPB-250
Utility Bracket Details



- **Ultimate Capacity – 54,000 lb**
- **Fully Adjustable Unlimited Lift Capability**
- **Installs From Outside or Inside Structure**
- **Friction Reduction Collar On Lead Pier Section**
- **Installs With Portable Equipment**
- **Installed With Little or No Vibration**
- **Installs To Rock or Verified Load Bearing Stratum**
- **100% of Piers Field Load Tested During Installation**

EARTH
CONTACT
PRODUCTS
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2/12/2025
Kenneth F. Wheeler, P.E.# 60417
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203 W. Main St., Avon Park, FL 33825

EARTH CONTACT PRODUCTS, LLC

Product Datasheet

PPB-103 & PPB-107--Crawl Space Jack

2/12/2025
Kenneth F. Wheeler, P.E.
PE #60417
Cool and Cobb Engineering Co.
203 W. Main St.
Avon Park, FL 33825

PPB-103

PPB-107

Product Specifications	
Anchor Style	Resistance
Component	Crawl Space Jack
Ultimate Capacity	60,000 lbs.
Shaft Material	3-1/2" O.D. x .165" Wall
Bearing Plate Size	5" x 6"
PPB-103 Baseplate	3-1/2" x 3-1/2"
PPB-107 Baseplate	7" x 7"
Threaded Rod	1-1/4" x 10"
Coating	Galvanized
Standard Package	Each

Notes

Pre-cast or poured footing provided by contractor.

2/12/2025
Kenneth F. Wheeler, P.E.
PE #60417

Cool and Cobb Engineering Co.
203 W. Main St.
Avon Park, FL 33825

NEW GROUND SUPPORT PAD FOR CRAWL SPACES

TAKE YOUR SUPPORT TO THE NEXT LEVEL

ECP's new Footing Pad for supplemental support replaces the need to handle concrete or crushed gravel in confined crawl space areas. The 24" round composite Footing Pad has a capacity of 9,327 lbs. with a 3:1 Factor of Safety when used on 3,000 psi soil. This load is backed up by the ICC and ESR-2147.

ECP is offering the Footing Pad at two different price points. Full skid quantity is 68 pieces, and full skids will be priced at per Footing Pad. For quantities less than 68, the Footing Pad will be each. Please contact ECP to order your Footing Pad and Crawl Space Supports today.

Part #	Description	Qty	Price	Bulk	Price
PPB -107-FP24	24" Footing Pad for use with PPB -107	1 - 67		68 Per Skid	