

Cool and Cobb Engineering Company

Date: 2/28/2024

Project: 24-1085

Job: Ames Detrick Investments LLC

Location: 254 SW Meridan Ct. Fort White, FL 32038



PUSH PIER DESIGN ANALYSIS

The load requirements for the piers designed to assist in supporting the identified areas of the subject residence were determined. The selected pier locations and the specific piling are identified on the Pier Identification and Location Plan attached. The calculated total loads on the piers 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 piers, the push pier driver is to be employed. The push pier driver should be employed with a calculated load of 15,000 lbs., which will provide pier capacity, including the 2 to 1 safety factor, of 30,000 lbs. which is greater than the maximum calculated total load of 15,000 lbs. which occurs on the pier identified as no. 2 . Based on this analysis, the use of the push pier driver for the push piers with a specific load of 30,000 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 pier installed so they can evaluate the installation and prepare the "As Built" drawings.

General Notes:

1. All piers to be installed in accordance with ICC ES AC 358.
2. A log of each pier to be kept by Contractor noting depth for each pile.
3. Piers installed less than 48" apart are to be battered 10° away from each other.
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.

2/28/2024

Kenneth F Wheeler, P.E.

State of Florida

Professional Engineer No. 60417



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Wheeler

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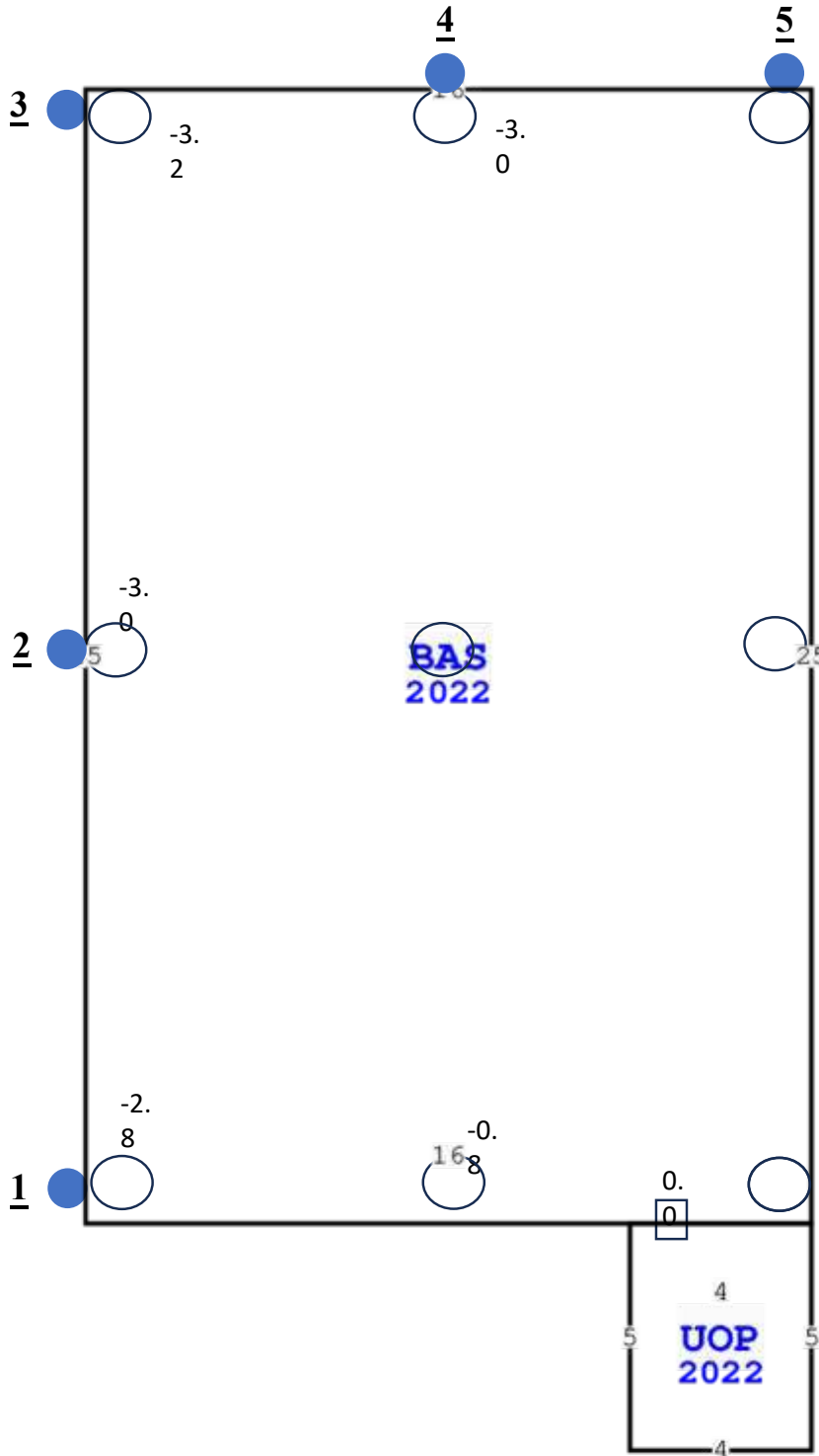
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203 W. Main St.
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AMES DETRICK INVESTMENTS LLC
254 SW MERIDAN CT
FORT WHITE, FL 32038 (COLUMBIA COUNTY)

- 5 MODEL 250 PUSH PIERS
- EXISTING STEEL COLUMNS



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2/28/2024
Kenneth F. Wheeler, P.E.# 60417
Cool and Cobb Engineering Co.
203 W. Main St.,
Avon Park, FL 33825

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Attachment "A"

Total Load on Support (Live Load + Dead Load)

SUPPORT NO.	TOTAL CALCULATE LOAD	
1	8,400	lbs
2	15,000	lbs
3	7,500	lbs
4	9,020	lbs
5	7,500	lbs

Maximum Total Load on Pile: 15,000 lbs



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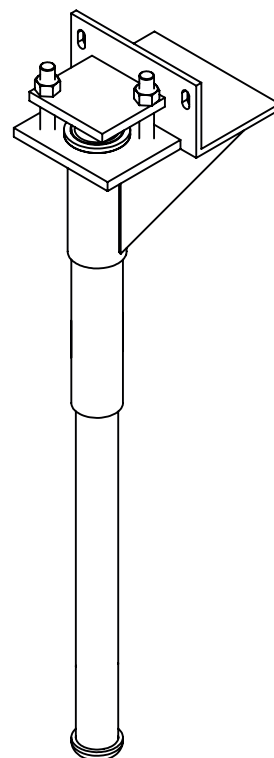
2/28/2024
Kenneth F Wheeler, P.E.
PE# 60417

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Avon Park, FL 33825

Lift Brackets

TMG Manufacturing offers 4 different foundation brackets designed to meet the needs of any foundation support application. Choose between our heavy duty lift bracket or our medium duty lift bracket. Both brackets are also available for grout injection. All of our brackets are made from high-tensile strength steel and comprised of CNC machined parts, ensuring precision and accuracy. In addition, all brackets are robotically welded guaranteeing a quality product every time. All brackets have been field and lab tested and can be powder-coated or galvanized.

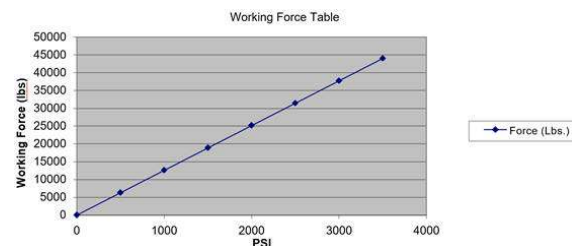
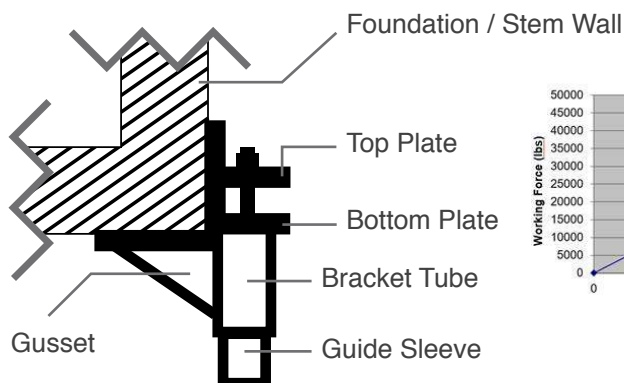
Product	Capacity
Standard Duty Lift Bracket	45 kips
Heavy Duty Lift Bracket	70 kips
Standard Duty Injection Bracket	45 kips
Heavy Duty Injection Bracket	70 kips

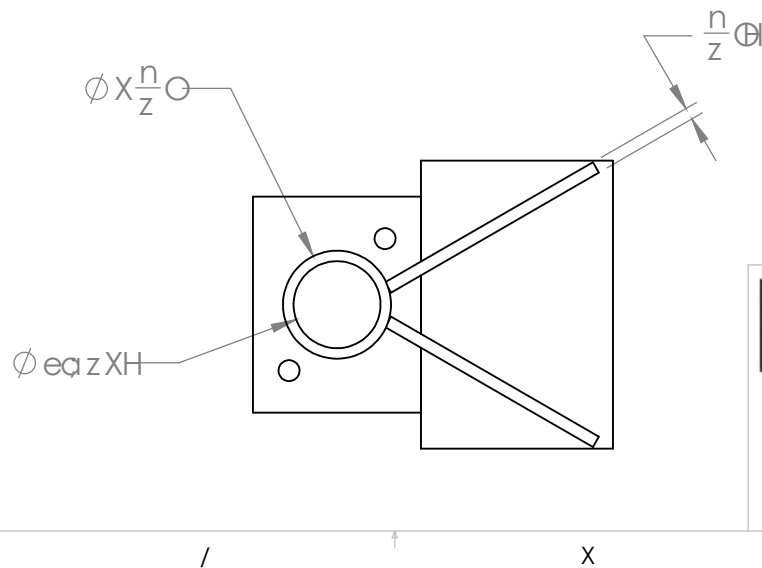
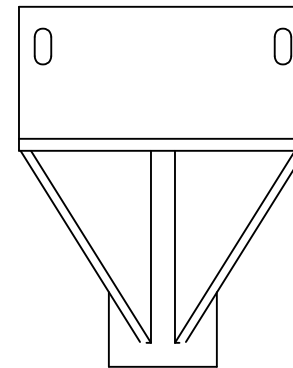
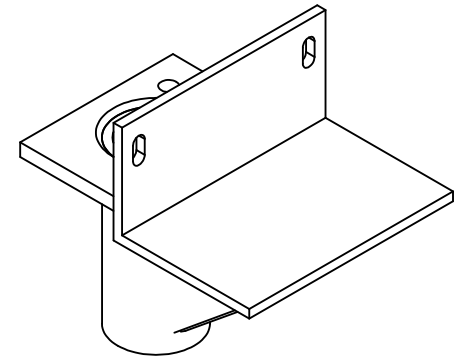
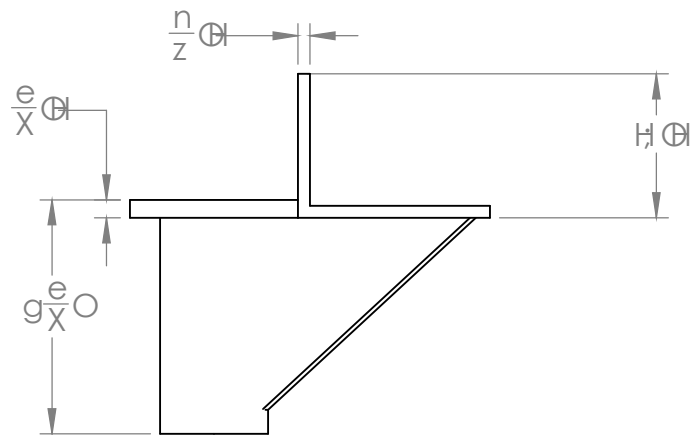
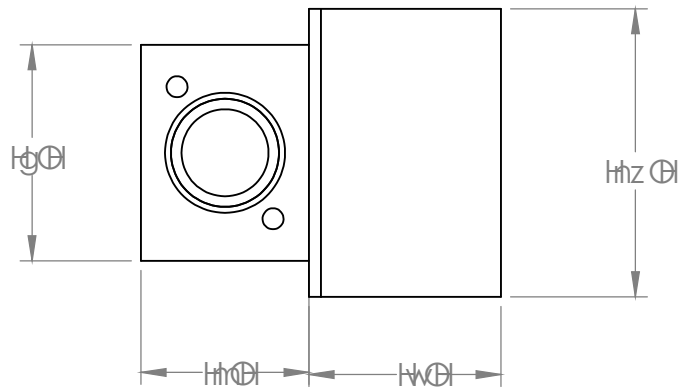


Push Pipe

TMG Manufacturing offers several types of foundation support piers, designed to be installed directly to load bearing strata. All piers are used in conjunction with our lift brackets to stabilize and strengthen existing foundations. All piers are engineer certified and field and lab-tested. Can be galvanized or powder-coated.


Product	Wall Thickness	Outside Diameter	Tensile Strength (lbs)	Yield Strength (lbs)
Standard Push Pipe	.217"	2.875"	14,500	262,000
Heavy Duty Push Pipe	.308"	2.875"	16,900	276,400
Standard Injection Push Pipe	.217"	2.875"	14,500	262,000
Heavy Duty Injection Push Pipe	.308"	2.875"	16,900	276,400





2/28/2024
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PE #60417

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