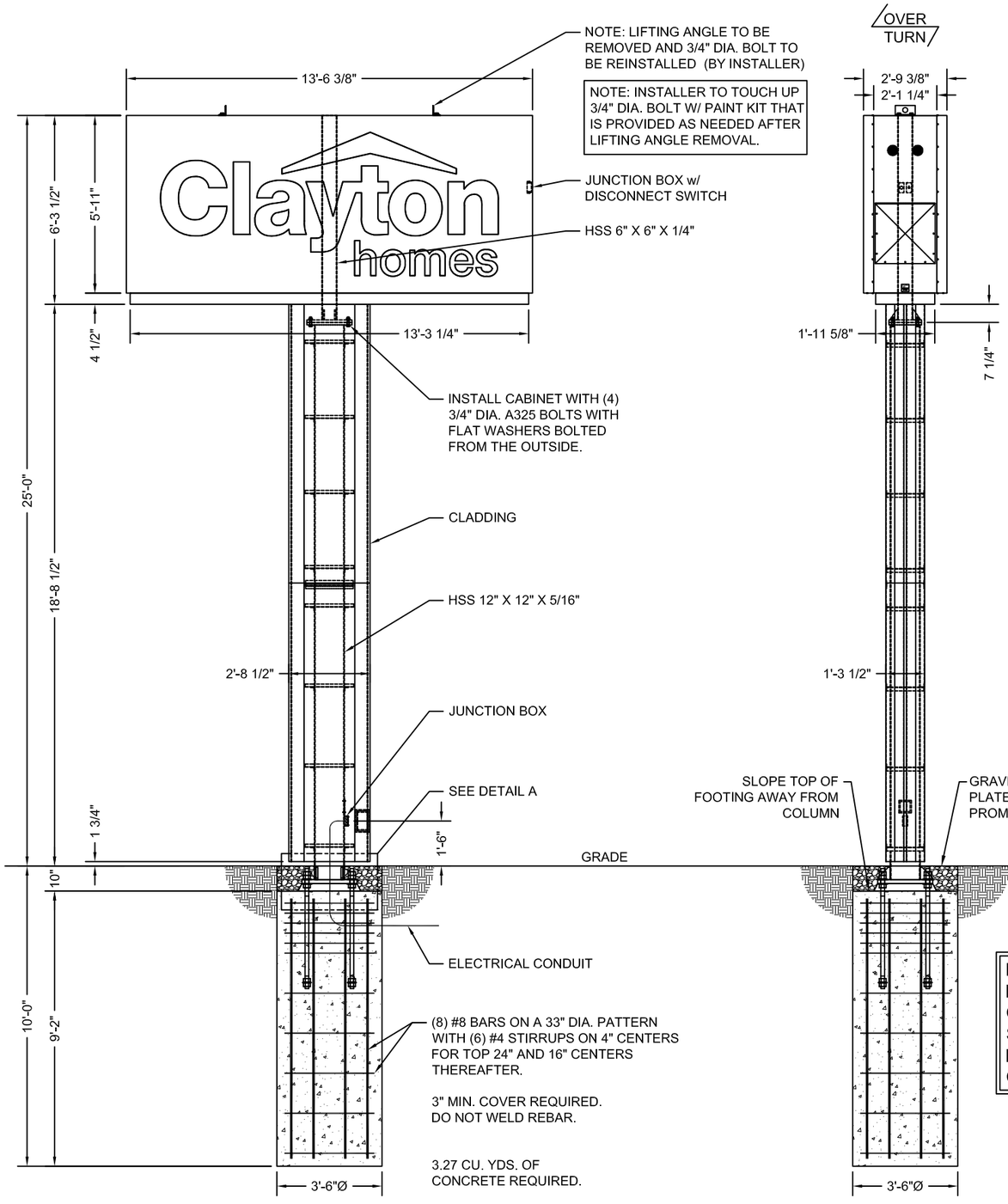
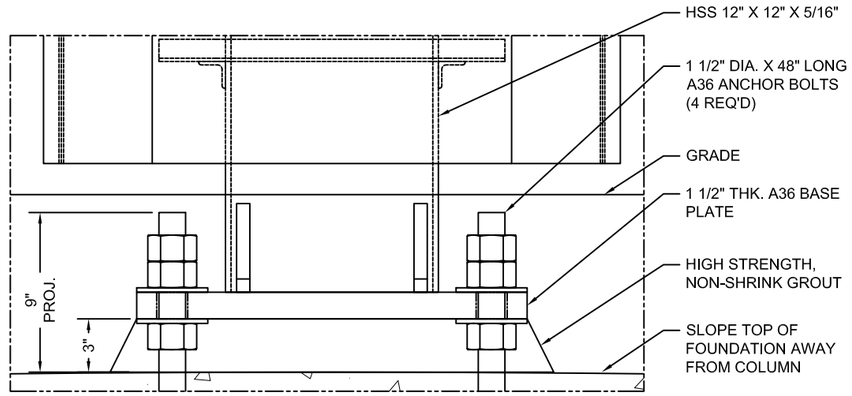
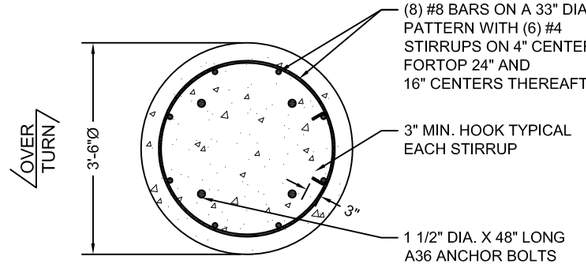


NOTE:
INSTALLER TO APPLY A COLD GALVANIZING COATING TO SUB-GRADE STEEL AFTER INSTALLATION TO PREVENT CORROSION.

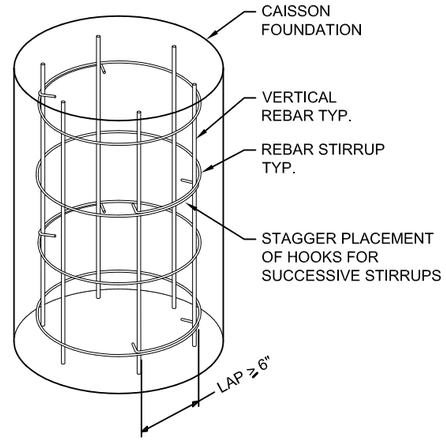
PRIMARY ELECTRICAL BY OTHERS



DETAIL A



SECTION @ CAISSON



STIRRUP ILLUSTRATION - N.T.S.

INSTALLATION ADDRESS:

CLAYTON HOMES
4068 WEST US HIGHWAY 90
LAKE CITY, FL 32055

CLIENT:

THE InSite Group
410 Cedar Bluff Rd, Ste 201 Knoxville, Tennessee 37923
Voice: 865.342.8200 • Fax: 865.539.6311

REV	DATE	DESCRIPTION
1	-/-/-	----------
2	-/-/-	----------

IMAD N. KASHIF, P.E.
FLORIDA STATE LICENSE NO.: 41374

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SEAL & SIGNATURE:

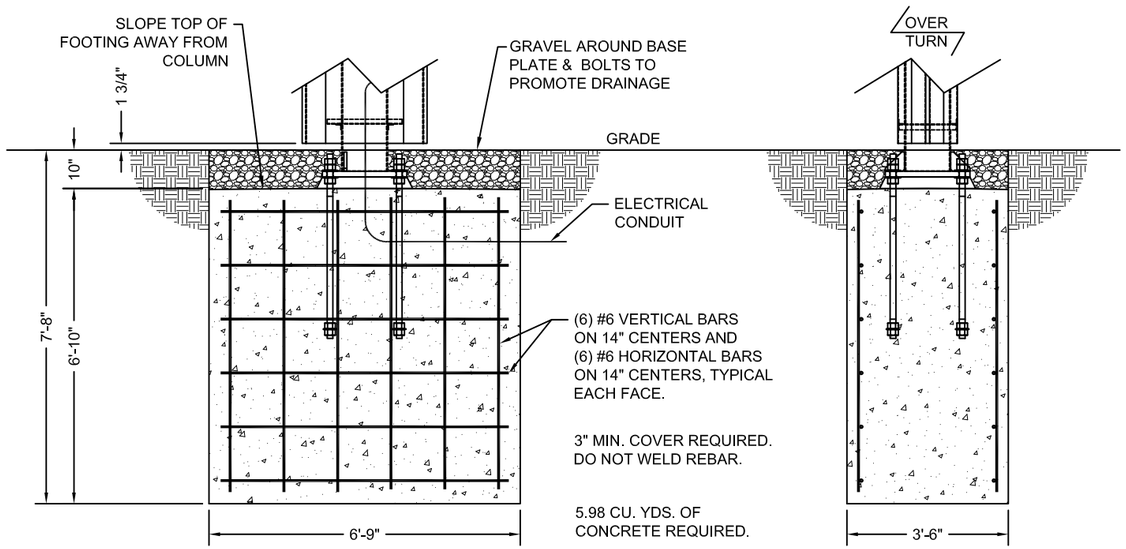
IMAD KASHIF

Digitally signed by IMAD KASHIF
DN: c=US, st=Tennessee, l=Knoxville, o=Link Engineering, cn=IMAD KASHIF, email=IKASHIF@LINKENGR.COM
Date: 2024.12.30 15:10:34 -05'00'

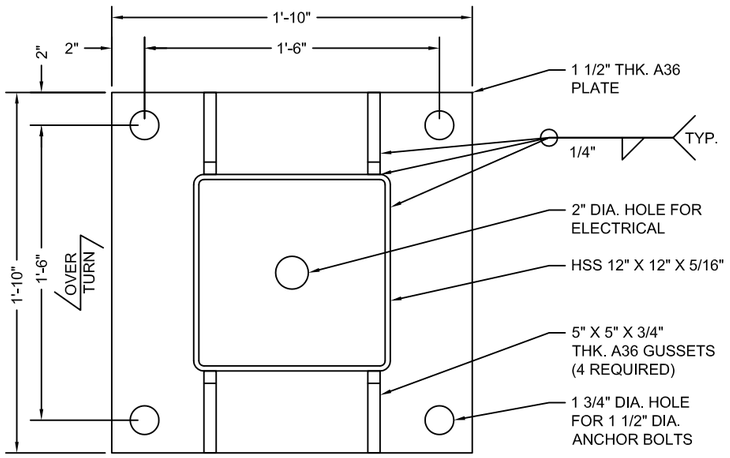
IMAD N. KASHIF
LICENSE
No. 41374
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
12/30/24

LINK Engineering, L.L.C.
135 South David Lane • Knoxville, Tennessee 37922
Phone: (865) 539-4001 • www.linkengr.com
Florida State Certificate of Authorization No.: 27148

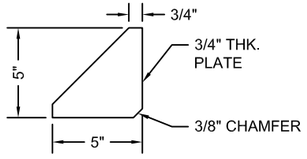
Project Number:		Drawing Number:	
24-0788		B1014073	
SHT.	OF	DATE:	BY:
1	3	12/30/24	SR



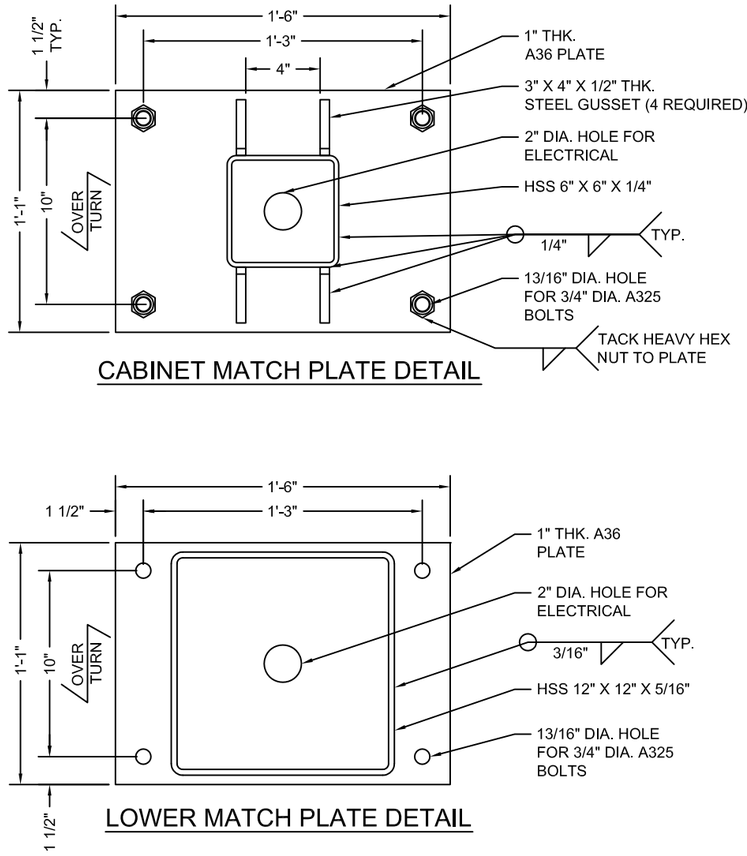
OPTIONAL VERTICAL SLAB FOUNDATION



BASE PLATE DETAIL

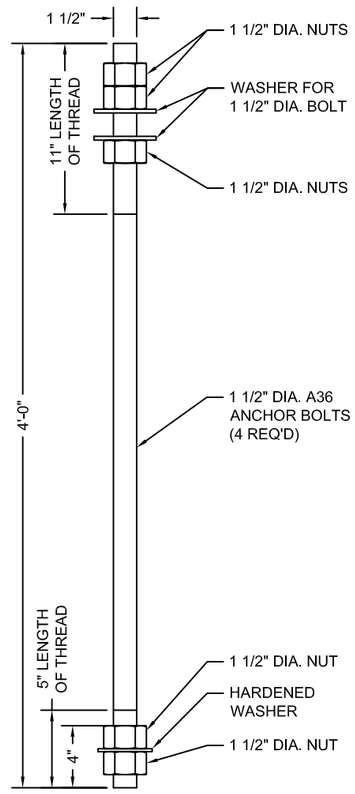


BASE PLATE GUSSET DETAIL

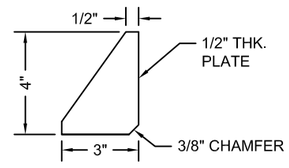


CABINET MATCH PLATE DETAIL

LOWER MATCH PLATE DETAIL



ANCHOR BOLT DETAIL



MATCH PLATE GUSSET DETAIL

INSTALLATION ADDRESS:

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LAKE CITY, FL 32055

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24-0788	B1014073

SHT.	OF	DATE:	BY:
2	3	12/30/24	SR

	PROJECT #	24-0788		OWNER:	CLAYTON HOMES			
	December 19, 2024				4068 WEST US HIGHWAY 90			
	DRAWING #	B1014073			LAKE CITY, FL 32055			
	WIND LOAD	28.13	PSF					
	WIND SPEED	120	MPH	CLIENT:	THE INSITE GROUP			
	# COLUMNS	1	FBC 8TH ED (2023)		410 CEDAR BLUFF ROAD, SUITE 201			
	DESIGNER	SR			KNOXVILLE, TN			

	ITEM	HEIGHT	WIDTH	SHAPE FACTOR	CENTROID HEIGHT	AREA	TOTAL FORCE	MOMENT
	CABINET	6.292	13.531	1.000	3.146	85.134	2.395	7.535
	CLADDING	0.604	2.708	1.000	0.302	1.636	2.441	8.996
	CLADDING	18.104	2.708	1.000	9.052	49.032	3.821	65.679
	SUBGRADE	0.833			0.417	0.000	3.821	68.863
	OAH	25.000						

COLUMN CALCULATIONS (CODES P=PIPE;O=OTHER;T=TUBE)

	ITEM	COLUMN WIDTH	COLUMN DEPTH	COLUMN WALL	Ixx COLUMN	DESIGN MODULUS COLUMN	REQUIRED MOMENT	AVAILABLE FLEXURAL STRENGTH	UNITY
T	CABINET	6.000	6.000	0.233	28.6	11.22	7.535	25.75	0.425
T	CLADDING	6.000	6.000	0.233	28.6	11.22	8.996	25.75	0.483
T	CLADDING	12.000	12.000	0.291	292.0	48.66	65.679	111.70	0.588
T	SUBGRADE	12.000	12.000	0.291	292.0	48.66	68.863	111.70	0.617

BOLT CALCULATIONS

****

ITEM	MOMENT	BOLT SPACING	BOLTS/ PLATE	TENSION/ BOLT	BOLT DIAM.	ALLOW. STRESS	ALLOWABLE TENSION
CLADDING	8.996	10.000	4.000	5.397	0.750	45.000	19.880
BASE PL.	68.863	18.000	4.000	22.954	1.500	19.100	33.752

PLATE CALCULATIONS

****

ITEM	TENSION/ BOLT	MOMENT ARM	MOMENT PLATE	PLATE WIDTH	PLATE DEPTH	PLATE THICK.	MINIMUM THICK.
CLADDING	5.397	5.063	27.325	7.250	13.000	1.000	0.915
BASE PL.	22.954	3.625	83.209	11.000	22.000	1.500	1.297

ANCHOR BOLT PROJECTION	ANCHOR EMBEDMENT	ANCHOR BOLT MIN. LENGTH
9.000	30.444	40.000

VERTICAL SLAB						
MOMENT					68.863	FT-KIP
FORCE					3.821	KIP
REFERENCE IBC 1807.3.2 & TABLE 1806.2						
ASSUME SOIL CLASS #4 SW, SP, SM, SC, GM & GC						
LATERAL BEARING PRESSURE - PSF/FT OF DEPTH					150.0	PSF/FT
S1					683.3	
SLAB DEPTH (d)					6.833	FT.
SLAB WIDTH (b)					6.750	FT.
SLAB THICKNESS					3.500	FT.
AVERAGE HEIGHT (h)					18.024	FT.
A = 2.34*FORCE/(S1*b)					1.721	
CALCULATED DEPTH					6.738	FT.
MINIMUM THICKNESS WITHOUT REBAR					23.457	IN.
SQRT(M*12*6*1.7*.75/(.178*12*WIDTH))						
ACTUAL THICKNESS					42.000	IN.
CONCRETE					5.979	CU. YD.
CAISSON						
MOMENT					68.863	FT-KIP
FORCE					3.821	KIP
REFERENCE IBC 1807.3.2 & TABLE 1806.2						
ASSUME SOIL CLASS #4 SW, SP, SM, SC, GM & GC						
LATERAL BEARING PRESSURE - PSF/FT OF DEPTH					150.0	PSF/FT
S1					916.7	
DEPTH					9.167	FT.
DIAMETER					3.500	FT.
					18.024	FT.
					2.787	FT.
CALCULATED DEPTH					8.922	FT.
MINIMUM THICKNESS WITHOUT REINFORCEMENT					44.376	IN.
ACTUAL DIAMETER					42.000	IN.
CONCRETE					3.267	CU. YD.

General Notes:

1. Design is based on a 120 mph, 3 second gust wind design per Florida Building Code, 8th Edition (2023). Category II, Exposure C.
2. Caisson and Vertical Slab foundations are based on a presumptive safe lateral soil bearing pressure minimum of 150 psf per foot of depth. Isolated lateral bearing footings subject to short-term lateral loads and not adversely affected by a 1/2" motion at grade are permitted to be designed using twice the tabulated value of the corresponding soil class.
3. A soil report was not provided. Foundation analysis assumes Soil Classification 4. Allowable bearing pressure should be verified prior to placement of concrete. In the event that the stated requirements are not met and conditions appear deleterious, cease and secure excavation and immediately contact THE INSITE GROUP.
4. Foundation shall not be placed at the top of, or on the side of a slope exceeding 3:1, or adjacent to a fill slope unless re-evaluated by a competent Professional Engineer. Do not place foundation in fill.
5. Concrete shall be mixed to attain a minimum 28 day compressive strength of 3000 psi.
6. Steel reinforcing bars shall conform to ASTM A615, Grade 60 with deformations in accordance with ASTM A305. Welding of reinforcing bars is prohibited.
7. All voids between column base plate and foundation surface shall be completely filled with high-strength, non-shrink grout.
8. Anchor bolts shall meet ASTM F1554 Grade 36. Exposed surfaces shall be galvanized or coated to prevent corrosion.
9. All support members shall be free from defects. Steel tube shall meet ASTM A500 Grade B with a minimum yield strength of 46000 psi. Steel angle, channel and plate shall meet ASTM A36.
10. Steel welds shall be made with E70xx low hydrogen electrodes by persons qualified in accordance with AWS standards within the past two years.
11. All structural bolts shall conform to ASTM A325, and be zinc coated unless noted otherwise. When used with structural bolts, heavy hex nuts shall conform to ASTM A563, and washers shall conform to ASTM F436. Pretension all high strength bolts using the Turn-of-Nut method unless noted otherwise.
12. The scope of this engineer does not include onsite observations.
13. LINK Engineering will not be responsible for the safety on this job site before, during or after installation of this structure. It is the responsibility of the owners, contractors and installers to ensure that the installation and erection of this structure is performed using methods that are in full compliance with OSHA regulations.
14. Any deviation from this design or from any part of this drawing, including the General Notes, without prior written consent from LINK Engineering voids this drawing in its entirety.
15. The structure designed on this drawing is intended to be installed at the address shown and should not be used at any other location.

INSTALLATION ADDRESS:

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CLIENT:

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24-0788	B1014073		
SHT. 3	OF 3	DATE: 12/30/24	BY: SR