

July 17, 2024

Project Hardee County Camera Deployment

Commissioned By Byron Tabor
Byron.Tabor@nsafieldservice.com

POD Information Project Number: 23-162473

Site Data Hardee County, FL

Dear Byron Tabor,

The purpose of this design is to determine whether the proposed Camera posts located at the aforementioned site are capable of supporting the proposed loading configuration. The structures have been designed for conformance to applicable local, state, and federal codes unless otherwise stated in the report.

Results	Post Capacity	49.9%
	Foundation Capacity	49.1%

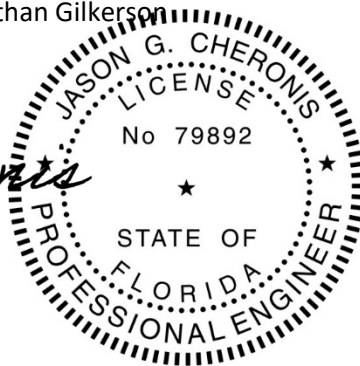
Thank you for allowing us to provide these engineering services. If there are any comments or concerns, please do not hesitate to call.

Structural Analysis prepared by: Nathan Gilkerson

Sincerely,



Jason G. Cheronis P.E.
Florida PE#: 79892



This Item has been electronically signed and sealed by Jason G. Cheronis, PE, using a digital signature and date. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Design Criteria

The proposed Camera Post has been designed per the following requirements.

Governing	2020 FBC 7th Ed., AASHTO LRFDLTS 2015 with 2017-2022 Amendments
Risk Category	III
Exposure Category	C
Topographic Category	1
Design Wind Speed	150 mph

Structure Description

The proposed structures are 14 ft traffic camera post mounts with break-away anchor foundations. The following grades were assumed for the members:

Materials

Structural Component	Material Strength
Pipes	ASTM A53 Gr. B (35 KSI Yield Strength)

Referenced Documents

Document Type	Designation	Source
Data Sheets	Motorola Product #: L6Q Dated: 04/2023	NSA Field Service
Anchor Specifications	Xcessories Squared Development & MFG., INC. Part #: SB8-CTA-36-G	NSA Field Service

Site List

Coordinates	Direction	Equipment
27.638251,-81.824009	South	Motorola VSF-L6Q-S-KIT; Camera @ 10', Solar Panel @ 14'
27.637082,-81.823972	North	Motorola VSF-L6Q-S-KIT; Camera @ 10', Solar Panel @ 14'
27.595017,-81.823570	West	Motorola VSF-L6Q-S-KIT; Camera @ 10', Solar Panel @ 14'
27.594769,-81.947197	East	Motorola VSF-L6Q-S-KIT; Camera @ 10', Solar Panel @ 14'
27.500246,-81.799719	West	Motorola VSF-L6Q-S-KIT; Camera @ 10', Solar Panel @ 14'
27.482095,-81.919166	East	Motorola VSF-L6Q-S-KIT; Camera @ 10', Solar Panel @ 14'
27.500080,-81.796668	East	Motorola VSF-L6Q-S-KIT; Camera @ 10', Solar Panel @ 14'
27.500021,-81.798021	South	Motorola VSF-L6Q-S-KIT; Camera @ 10', Solar Panel @ 14'
27.370648,-81.797390	North	Motorola VSF-L6Q-S-KIT; Camera @ 10', Solar Panel @ 14'
27.551776,-81.698136	West	Motorola VSF-L6Q-S-KIT; Camera @ 10', Solar Panel @ 14'
27.493415,-81.790153	East	Motorola VSF-L6Q-S-KIT; Camera @ 10', Solar Panel @ 14'

Conclusions and Recommendations

Component Stresses vs. Capacity (Summary)

Notes	Component	% Capacity	Pass/Fail
1	Posts	49.9	Pass
	Post Embedment	Adequate	-
	Redi-Torque System	Adequate	-
	Foundation	49.1	Pass

Structure Rating (max from all components) =	49.9%
---	--------------

. Notes:

- 1) See additional documentation in "Additional Calculations" for calculations supporting the % capacity

The camera post has sufficient capacity to carry the proposed loading configuration. In order for the results of the design to be considered valid, the design changes below must be completed.

1. Camera post must be ASTM A53 Gr. B P2.5 XX-Strong Pipe.
2. Redi-Torque anchor foundation (Part #: SB8-CTA-36-G) shall be installed per manufacturer specifications.
 - o The contractor shall provide shop drawings to POD Group prior to material ordering and/or fabrication of the above specified modification part.
 - o Any substitutes, additions, or alterations shall be approved by POD Group prior to material ordering and/or fabrication.

If any of these guidelines are not met, POD Group shall not be held liable.

Design Requirements

This Camera Post design analysis is based on the theoretical capacity of the members and is not a condition assessment of the Camera Post. It has been compiled from information supplied, and therefore, its results are based on and are as accurate as that supplied data. POD has made no independent determination of its accuracy. The following assumptions were made for this Camera Post design.

1. Camera Post will be built in accordance with the manufacturer’s specifications.
2. The Camera Post will be maintained in accordance with the manufacturer’s specifications.
3. Material grades are assumed as provided in this report.

If any of these assumptions are not valid or have been made in error, this analysis may be affected, and POD should be allowed to review any new information to determine its effect on the structural integrity of the tower.

Additional Calculations



POD Job # 23-162473
 Site Name -
 Project Hardee County FL

Design Code AASHTO
 Wind Loads Article 3
 zg 900 Article 3.8.4
 α 9.5 Article 3.8.4
 Zmin 15 Article 3.8.4
 K_z 0.849 Eq. 3.8.4-1

V (Ult. Wind Speed) 150 mph
 Structure Class 3
 t 0 in
 V_i 30 mph
 Ground Elevation 49.6 ft
 Exposure C
 G 1.14 Article 3.8.6
 K_d 0.95 Table 3.8.5-1
 Elevation (z) 14

Appurtenances	L (in)	W (in)	D (in)	Weight (lbs)	Height (ft)	Front (L/W)	Aspect		Cd (Table 3.8.7-1)		Pz (Eq. 3.8.1-1, psf)		Force (kip)	
							Side (L/D)	Front	Side	Front	Side	Front	Side	
L6Q Solar Camera	7.1	5	2.4	3	10	1.42	2.958	1	1	52.954	52.954	0.013	0.004	
Solar Panel	30.78	18.53	7.39	21	14	1.661090124	4.165	1	1	52.954	52.954	0.210	0.050	

Post Member	L (ft)	D (in)	t (in)	Weight (lb/ft)	rs	Cd (Table 3.8.7-1)	Pz (Eq. 3.8.1-1, Load (kip/ft))
Pole	14	2.875	0.522	13.7	0.544695652	0.45	23.829 0.006

Capacities	Front	Side	Corner
Pmax (kip)	0.270	0.270	0.270
Mmax (kip-ft)	3.626	1.309	3.701
Vmax (kip)	0.303	0.135	0.328
Tmax (kip-ft)	0.178	0.017	0.146
Fy (ksi)	35	35	35
E (ksi)	29000	29000	29000
D (in)	2.875	2.875	2.875
t (in)	0.522	0.522	0.522
A (in ²)	3.83	3.83	3.83
r (in)	1.52	1.52	1.52
R (in)	1.1765	1.1765	1.1765
λp	58.000	58.000	58.000 Table 5.7.2-1
λr (compression)	91.143	91.143	91.143 Table 5.7.2-1
λr (flexure)	256.857	256.857	256.857 Table 5.7.2-1
λ	5.508	5.508	5.508 Table 5.7.2-1
Zx (in ³)	2.91	2.91	2.91
Mp (kip-ft)	8.488	8.488	8.488 Table 5.8.2-1
Mn (kip-ft)	8.488	8.488	8.488 Table 5.8.2-1
φ	0.9	0.9	0.9
φMn (kip-ft)	7.639	7.639	7.639
Flexural Capacity	47.5%	17.1%	48.5%
Q	1	1	1 Eq. 5.10.2.1-5
K	2.1	2.1	2.1
KL/r	232.105	232.105	232.105
Fe (ksi)	5.313	5.313	5.313 Eq. 5.10.2.1-4
Fcr (ksi)	4.659	4.659	4.659 Eq. 5.10.2.1-3
Pnc (kip)	17.845	17.845	17.845
φ	0.9	0.9	0.9
φPn (kip)	16.061	16.061	16.061
Compressive Capacity	1.7%	1.7%	1.7%
Av (in ²)	1.915	1.915	1.915 Eq. 5.11.2.1.1-3
Lv (in)	120.000	17.040	35.500
Fnv (ksi)	21.000	21.000	21.000 Eq. 5.11.2.1.1-1 and Eq. 5.11.2.1.1-2
Vn (kip)	40.215	40.215	40.215
φ	0.9	0.9	0.9
φVn (kip)	36.194	36.194	36.194
Shear Capacity	0.8%	0.4%	0.9%
Fnt (ksi)	21.000	21.000	21.000 Eq. 5.11.3.1.1-1 and Eq. 5.11.3.1.1-2
Ct (in ³)	16.661	16.661	16.661 Table 8.3-1
Tn (kip-ft)	29.156	29.156	29.156 Eq. 5.11.3-1
φ	0.95	0.95	0.95
φTn (kip)	27.698	27.698	27.698
Torsion Capacity	0.6%	0.1%	0.5%
Pe (kip)	20.348	20.348	20.348 Eq. 5.12.1-11
B	1.013	1.013	1.013 Eq. 5.12.1-10
Overall capacity	49.0%	18.2%	49.9% Eq. 5.12.1-3

Hardee County FL Camera Deployment Post Embedment						
		M_{Max} (K-ft)			3.701	
		P_{Max} (K)			0.27	
		V_{Max} (K)			0.328	
		V_{Net} (K)			2.302	
Tensile Breakout in Concrete	Code	ACI 318-19	Shear Breakout in Concrete	Code	ACI 318-19	
	Section	17.6.2		Section	17.7.2	
	f'c (psi)	4000		f'c (psi)	4000	
	h_{ef} (in)	32		h_{ef} (in)	32	
	C_a (in)	9		C_a (in)	9	
	A_{nc}	5472		λ_a	1	
	A_{nco}	9216.00		A_{vc}	121.500	
	$\Psi_{ed,N}$	0.756		A_{vco}	121.500	
	$\Psi_{cp,N}$	1		$\Psi_{ed,V}$	1	
	$\Psi_{c,N}$	1.25		$\Psi_{c,V}$	1	
	k_c	24		$\Psi_{h,V}$	1	
	λ_a	1		d_a (in)	4.000	
	N_b (lbs)	274768.0		V_b (lbs)	36236.0	
	Φ	0.75		V_{cb} (lbs)	36236.0	
	ΦN_{cb} (K)	115.666		Φ	0.75	
Result:	0.2%	ΦV_{cb} (K)	27.177	Result:	8.5%	
Tension Bond Strength in Concrete	Code	ACI 318-19	Concrete Pryout	Code	ACI 318-19	
	Section	17.6.5		Section	17.7.3	
	C_a (in)	9.000		k_{cp}	2	
	C_{ac} (in)	60		N_{cp} (lbs)	36236.0	
	f'c (psi)	4000		Φ	0.7	
	τ_{uncr} (psi)	1000	ΦN_{cp} (K)	25.36517325		
	τ_{cr} (psi)	300	Result:	9.1%		
	Perimeter (in)	16	Combined Loading	Code	ACI 318-19	
	h_{ef} (in)	30		Section	17.7.4	
	λ_a	1		Concrete Tensior	1.1%	
	d_a (in)	4.000		Concrete Shear	9.1%	
	C_{Na} (in)	38.139		V+P	10.2%	
	A_{nao} (in ²)	5818.18		Result:	Anchor OK	
	A_{na} (in ²)	3595.58				
	N_{ba} (lbs)	144000.0				
	$\Psi_{ed,Na}$	0.771				
	$\Psi_{cp,Na}$	0.636				
	N_a (lbs)	43600.92465				
	Φ	0.55				
	ΦN_a (K)	23.98050856				
Result:	1.1%					



POD Job #	23-162473
Site Number	-
Site Name	Hardee County FL

Reactions

Wind Speed	150 mph
Camera Area	0.247 ft ²
Panel Area	3.96 ft ²
Total Area	4.207 ft ²
Panel Height	14 ft

Redi-Torque System Check

Wind Speed	120 mph
Height	14 ft
Allowable Area	8 ft ²

Allowable Area at 160mph	5.12 ft ²
Area Check	OK



POD Job #	23-162473
Site Number	-
Site Name	Hardee County FL

Reactions

Moment	3.701 kip-ft
Shear	0.328 kips

Foundation Check

Shaft Diameter=	1.50 ft	
Soil Weight=	0.110 k/ft ³	
Ultimate Shear Strength c=	1.0 ksf	
L embedment Length=	3.8 ft	
H=	11.284	C13.6.1.1-3 AASHTO
q=	0.024	C13.6.1.1-1 AASHTO
Calculated L=	3.422	C13.6.1.1-2 AASHTO
Max Moment Mu=	4.4 kip-ft	C13.6.1.1-4 AASHTO
Depth for Max Moment=	2.3 ft	

Foundation Depth is **OK**

f'c=	4000 psi
S=	572.555 cu.in.
Mn=	15.088 kip-ft
φ=	0.6
φMn=	9.052894 kip-ft
Plain Concrete Capacity	49.1%

Foundation Design Drawings



SITE:
HARDEE COUNTRY CAMERA DEPLOYMENT

FOUNDATION DESIGN DRAWING FOR A NEW 1'-6" CONCRETE FOUNDATION

PLANS PREPARED FOR:

PLANS PREPARED BY:

POD
POWER OF DESIGN
1033 E. TURKEYFOOT LAKE RD.
SUITE 206 AKRON, OHIO 44312
330-961-7432

CARRIER:

DRAWING NOTICE:
THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF NSA FIELD SERVICE AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF NSA FIELD SERVICE.

FOUNDATION DESIGN DRAWING

7/17/2024

Jason Cheronis

THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY JASON G. CHERONIS, P.E. USING A DIGITAL SIGNATURE AND DATE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

REV.	DATE	DESCRIPTION

SITE INFORMATION:
HARDEE COUNTRY CAMERA DEPLOYMENT

SITE NUMBER:
SR-70-FL

POD NUMBER: 23-162474
DESIGNED BY: JM
DRAWN BY: CR
CHECKED BY: NWG
DATE: 2/1/2024

SHEET TITLE:
TITLE SHEET

T-01

SHEET INDEX	
T-01	TITLE SHEET
N-01	NOTES
S-01	PLAN VIEW
S-02	ELEVATION VIEW

PROJECT INFORMATION	
COUNTY:	HARDEE
SITE ADDRESS:	
LATITUDE:	VARIED
LONGITUDE:	VARIED

SCOPE OF WORK:
FOUNDATION DESIGN DRAWINGS INCLUDES: PROPOSED CONCRETE FOUNDATION & STEEL EMBEDMENT

GENERAL NOTES

1. THE MODIFICATIONS REPRESENTED IN THESE DRAWINGS ARE BASED ON THE STRUCTURAL DOCUMENTS PROVIDED IN THE STRUCTURAL DOCUMENTS TABLE. THE CONTRACTOR SHALL OBTAIN AND BECOME FAMILIAR WITH ALL REFERENCED DOCUMENTS.

REFERENCE DOCUMENTS	
DOCUMENT TYPE	DESIGNATION
CAMERA POST ANALYSIS	POD PROJECT NUMBER: 23-162473 DATED: 11/14/2023

2. ALL MODIFICATIONS MUST BE INSTALLED TO BRING THE TOWER INTO CONFORMANCE WITH ALL APPLICABLE CODES.
- | | |
|----------------------|---|
| GOVERNING CODES | 2020 FBC 7TH ED., AASHTO LRFDLTS 2015 W/ 2017-2022 AMMENDMENTS & FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION FY 2023-2024 |
| ULTIMATE WIND SPEED | 150 MPH 3 SECOND GUST |
| STRUCTURE CLASS | III |
| EXPOSURE CATEGORY | C |
| TOPOGRAPHIC CATEGORY | 1 |
3. ALL WORK PRESENTED ON THESE DRAWINGS MUST BE COMPLETED BY THE CONTRACTOR UNLESS NOTED OTHERWISE OR APPROVED BY THE EOR. THE CONTRACTOR MUST HAVE CONSIDERABLE EXPERIENCE PERFORMING WORK SIMILAR TO THAT DESCRIBED WITHIN THESE DRAWINGS. BY ACCEPTANCE OF THIS PROJECT, THE CONTRACTOR IS ATTESTING THAT HE HAS SUFFICIENT EXPERIENCE AND ABILITY, THAT HE IS KNOWLEDGEABLE OF THE WORK TO BE PERFORMED AND THAT HE IS PROPERLY LICENSED AND REGISTERED TO PERFORM THE WORK IN THE PROJECT JURISDICTION.
4. WORK SHALL ONLY BE PERFORMED DURING CALM, DRY DAYS (WINDS LESS THAN 10XMPH). IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE INSTALLATION PROCEDURE AND SEQUENCE TO INSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION AND/OR MODIFICATIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF TEMPORARY BRACING, GUYS OR TIEXDOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER THE COMPLETION OF THE PROJECT.
5. ALL DIMENSIONS, ELEVATIONS AND EXISTING CONDITIONS SHOWN ON THE DRAWINGS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO BEGINNING ANY MATERIALS ORDERING, FABRICATION OR CONSTRUCTION WORK ON THIS PROJECT. CONTRACTOR SHALL NOT SCALE CONTRACT DRAWINGS IN LIEU OF FIELD VERIFICATIONS. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND EOR. THE DISCREPANCIES MUST BE RESOLVED BEFORE THE CONTRACTOR IS TO PROCEED WITH THE WORK. THE CONTRACT DOCUMENTS DO NOT INDICATE THE METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY THE OWNER AND/OR THE EOR SHALL NOT INCLUDE INSPECTION OF THE PROTECTIVE MEASURES AND PROCEDURES.
6. THE DESIGN WITHIN THESE DRAWINGS ASSUMES THE TOWER AND ITS FOUNDATIONS HAVE BEEN WELL MAINTAINED, IN GOOD CONDITION AND ARE WITHOUT DEFECT. BENT MEMBERS, CORRODED MEMBER, LOOSE BOLTS, CRACKED WELDS, AND OTHER STRUCTURAL DEFECTS HAVE NOT BEEN CONSIDERED UNLESS SPECIFICALLY NOTED. THE TOWER IS ASSUMED TO BE PLUMB AND THE SITE IS ASSUMED LEVEL. THE OWNER AND/OR EOR SHALL BE NOTIFIED IMMEDIATELY IF ANY VARIANCES ARE FOUND.
7. THE CONTRACTOR SHALL ONLY WORK WITHIN THE LIMITS OF THE TOWER OWNER'S PROPERTY, LEASE AREA OR APPROVED EASEMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY WORK IS PERFORMED WITHIN THESE BOUNDARIES. CONSTRUCTION STAKING AND BOUNDARY MARKING IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL EMPLOY A SURVEYOR AS REQUIRED. ANY WORK OUTSIDE THESE BOUNDARIES SHALL BE APPROVED IN WRITING BY THE OWNER.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAIN AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR INSURING THAT ALL WORK PERFORMED COMPLIES WITH ALL APPLICATION SAFETY CODES AND GOVERNING REGULATIONS.
9. ACCESS TO THE PROPOSED WORK SITE MAY BE RESTRICTED. THE CONTRACTOR SHALL COORDINATE INTENDED CONSTRUCTION ACTIVITY, INCLUDING WORK SCHEDULES AND MATERIAL DELIVERIES, WITH THE OWNER/RESIDENT LEASING AGENT FOR APPROVAL.
10. THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS FOR THIS PROJECT FROM ALL APPLICABLE GOVERNING AGENCIES. THE CONTRACTOR WILL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
11. ALL MATERIAL UTILIZED FOR THIS PROJECT MUST BE NEW AND FREE OF ANY DEFECTS. ANY MATERIAL SUBSTITUTIONS, INCLUDED BUT NOT LIMITED TO ALTERED SIZED AND/OR STRENGTHS, MUST BE APPROVED BY THE EOR.
12. UNLESS NOTED OTHERWISE, ALL NEW MEMBERS SHALL MAINTAIN THE EXISTING MEMBER WORKING LINES AND NOT INTRODUCE ECCENTRICITIES INTO THE STRUCTURE.
13. ALL DIMENSIONS AND QUANTITIES LISTED WITHIN THESE DRAWINGS ARE INTENDED TO AID THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY ALL DIMENSION AND QUANTITIES PRIOR TO BIDDING AND/OR ORDERING MATERIALS.
14. ALL MANUFACTURERS' INSTRUCTIONS SHALL BE FOLLOWED EXACTLY. ANY DEVIATION REQUIRES WRITTEN APPROVAL FROM THE EOR.
15. THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARILY REMOVING COAX, BRACKETS, ANTENNAS MOUNTS AND ANY OTHER TOWER APPURTENANCE THAT MAY INTERFERE WITH THE INSTALLATION OF THE TOWER MODIFICATIONS. ALL TOWER APPURTENANCES MUST BE REPLACE AND/OR RESTORED TO ITS ORIGINAL LOCATION. SOME MOUNTS OR ATTACHMENTS MAY REQUIRE CUSTOM MODIFICATION TO PROPERLY FIT THE MODIFIED REGION OF THE STRUCTURE. THESE CUSTOM MOUNTS OR ATTACHMENTS ARE DESIGNED BY OTHERS AND MUST BE APPROVED BY THE OWNER/EOR PRIOR TO REMOVAL. ANY CARRIER DOWNTIME MUST BE COORDINATED WITH THE OWNER IN WRITING.
16. DO NOT SCALE DRAWINGS.

STRUCTURAL STEEL NOTES

- ALL DETAILING, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AISC SPECIFICATIONS, LATEST EDITION.
- ALL STRUCTURAL STEEL ELEMENTS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS.

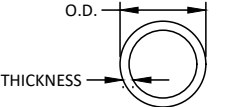
MATERIAL SPECIFICATIONS	
HSS	ASTM A500 GR.B (46 KSI YIELD STRENGTH)
CONCRETE	4000 PSI
PIPES	ASTM A53 GR. B (35 KSI YIELD STRENGTH)

- ALL CONNECTIONS NOT FULLY DETAILED ON THESE PLANS SHALL BE DETAILED BY THE FABRICATOR IN ACCORDANCE WITH AISC SPECIFICATIONS, LATEST EDITION.
- CAULKING SHALL BE PROVIDED AROUND PERIMETER OF ANY AND ALL MODIFICATION MEMBERS TO ENSURE COMPLETE SEAL BETWEEN EXISTING STRUCTURE AND REINFORCING MEMBERS IN FULL CONTACT WITH EXISTING STEEL. SEALANT IS TO BE EXTERIOR GRADE, PAINTABLE SILICONE CAULKING AS MANUFACTURED BY DOW AND ACCEPTABLE TO EOR.
- HOLES SHALL NOT BE FLAME CUT THROUGH STEEL UNLESS APPROVED BY THE EOR.
- ALL EXPOSED STEEL SHALL BE HOTXDIPPED GALVANIZED PER ASTM A123, ASTM A153/A153M, OR ASTM A653 G90, AS APPLICABLE FOR FULL WEATHER PROTECTION. FOR HIGH STRENGTH STEEL FASTENERS WHERE HOTXDIPPED GALVANIZING IS NOT PERMITTED DACROMET F1136 GRADE 3 COATING SHALL BE USED. IN ADDITION ALL NEW STEEL SHALL BE PAINTED TO MATCH EXISTING TOWER STEEL. CONTRACTOR SHALL OBTAIN EOR APPROVAL FOR STEEL PROTECTION BY ANY OTHER MEANS.
- REPAIR DAMAGED PAINTED/GALVANIZED SURFACES WITH TWO COATS OF BRUSH OR ROLL ON ZRC COLD GALVANIZING COMPOUND OR EOR APPROVED COATING. SURFACES MUST BE WIRE BRUSHED AND SOLVENT CLEANED PRIOR TO APPLICATION OF GALVANIZING COMPOUND.
- ALL BOLT ASSEMBLIES FOR STRUCTURAL MEMBERS REPRESENTED IN THIS DRAWING REQUIRE LOCKING DEVICES (LOCKING NUT/PAL NUT) TO BE INSTALLED IN ACCORDANCE WITH TIA/EIAX222 REQUIREMENTS.
- ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH SUCH THAT THE END OF THE BOLT BE AT LEAST FLUSH WITH THE FACE OF THE NUT. IT IS NOT PERMITTED FOR THE BOLT END TO BE BELOW THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETED.

FOUNDATION NOTES

- ALL FOUNDATION SHALL REST ON AND AGAINST FIRM UNDISTURBED SOIL FREE FROM WATER, ORGANIC MATTER, AND FORM WORK. SUBGRADE SHALL BE COMPACTED AS REQUIRED.
- ALL FOOTINGS ARE CENTERED UNDER WALLS UNLESS OTHERWISE NOTED
- CONTRACTOR IS RESPONSIBLE FOR OFFSITE DISPOSAL OF ANY EXCESS SOIL
- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318 AND THE SPECIFICATION 330 FOR CAST-IN-PLACE CONCRETE.
- CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE.
- REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.
- 1/2" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.A.
- INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL, OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT EOR APPROVAL WHEN DRILLING HOLES IN CONCRETE.
- CONCRETE WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES, SAFETY REGULATIONS AND UNLESS OTHERWISE NOTED, THE LATEST REVISION OF AASHTO SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS. PROCEDURES FOR THE PROTECTION OF EXCAVATIONS, EXISTING CONSTRUCTION AND UTILITIES SHALL BE ESTABLISHED PRIOR TO FOUNDATION INSTALLATION
- MAXIMUM SIZE OF AGGREGATE SHALL NOT EXCEED SIZE SUITABLE FOR INSTALLATION METHOD UTILIZED OR 1/3 CLEAR DISTANCE BEHIND OR BETWEEN REINFORCING. MAXIMUM SIZE MAY BE INCREASED TO 2/3 CLEAR DISTANCE PROVIDED WORKABILITY AND METHODS OF CONSOLIDATION SUCH AS VIBRATING WILL PREVENT HONEYCOMBS OR VOIDS
- WELDING IS PROHIBITED ON REINFORCING STEEL.
- REINFORCEMENT SHALL BE DEFORMED AND CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60 UNLESS OTHERWISE NOTED
- SPICES IN REINFORCEMENT SHALL NOT BE ALLOWED UNLESS OTHERWISE INDICATED
- MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE 3 INCHES UNLESS OTHERWISE NOTED. APPROVED SPACERS SHALL BE USED TO INSURE A 3 INCH MINIMUM COVER. ALL REINFORCEMENT SHALL BE EQUALLY SPACED UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL SECURE SITE BACK TO EXISTING CONDITION. ALL DRAINAGE, FENCE, STONE, GEOFABRIC, GROUNDING, AND SURROUNDING GRADE SHALL BE REPLACED AND REPAIRED AS REQUIRED TO ACHIEVE OWNER APPROVAL.
- CONTRACTOR SHALL VERIFY LOCATION OF ALL PRIVATE AND PUBLIC UTILITIES PRIOR TO EXCAVATION. IF NECESSARY, UTILITIES SHALL BE RELOCATED PRIOR TO FOUNDATION MODIFICATION. CONSENT FROM THE EOR AND THE OWNER MUST BE OBTAINED PRIOR TO THE ENCASEMENT OF UTILITIES IN CONCRETE.
- FILL PLACEMENT AND COMPACTION OF SHALLOW FOUNDATION: A) CONTAIN NO MORE THAN 5% BY ORGANIC MATTER, WASTE, DEBRIS OR ANY OTHERWISE DELETERIOUS MATERIALS. B) SHOULD BE MAXIMUM DRY DENSITY OF AT LEAST 100 POUNDS PER CUBIC (ASTM D 698). C) LIQUID LIMIT NO GREATER THAN 40, PLASTICITY INDEX NO GREATER THAN 20, MAX. PARTICLE SIZE BETWEEN OF 4 IN, 20% OR LESS OF MATERIAL HAVING PARTICLE SIZE BETWEEN 2 AND 4 INCHES. D) BACKFILL SHOULD BE PLACED IN THING HORIZONTAL LIFTS NOT EXCEED 6 INCH AND MINIMUM COMPACTION WITH WALK BEHIND COMPACTION EQUIPMENT.

PIPE SCHEDULE			
NAME	P2.5 XXS		
O.D.	2.875		
THICKNESS	.522		



- DIMENSIONS GIVEN IN INCHES.

- MATCH EXISTING WHEN APPLICABLE.

DESIGN VALUES	
MOMENT	9.05 KIP - FT
SHEER	0.328 KIP
TORSION	0.178 KIP - FT
ALLOWABLE SURFACE AREA	5.12 FT ²

SITE COORDINATES		
27.638251,-81.824009	SOUTH	Motorola VSF-L6Q-S-KIT; Camera @ 10', Solar Panel @ 14'
27.637082,-81.823972	NORTH	Motorola VSF-L6Q-S-KIT; Camera @ 10', Solar Panel @ 14'
27.595017,-81.823570	WEST	Motorola VSF-L6Q-S-KIT; Camera @ 10', Solar Panel @ 14'
27.594769,-81.947197	EAST	Motorola VSF-L6Q-S-KIT; Camera @ 10', Solar Panel @ 14'
27.500246,-81.799719	WEST	Motorola VSF-L6Q-S-KIT; Camera @ 10', Solar Panel @ 14'
27.482095,-81.919166	EAST	Motorola VSF-L6Q-S-KIT; Camera @ 10', Solar Panel @ 14'
27.500080,-81.796668	EAST	Motorola VSF-L6Q-S-KIT; Camera @ 10', Solar Panel @ 14'
27.500021,-81.798021	SOUTH	Motorola VSF-L6Q-S-KIT; Camera @ 10', Solar Panel @ 14'
27.370648,-81.797390	NORTH	Motorola VSF-L6Q-S-KIT; Camera @ 10', Solar Panel @ 14'
27.551776,-81.698136	WEST	Motorola VSF-L6Q-S-KIT; Camera @ 10', Solar Panel @ 14'
27.493415,-81.790153	EAST	Motorola VSF-L6Q-S-KIT; Camera @ 10', Solar Panel @ 14'

PLANS PREPARED FOR:



PLANS PREPARED BY:



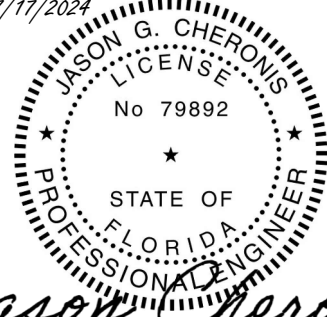
POWER OF DESIGN
1033 E. TURKEYFOOT LAKE RD.
SUITE 206 AKRON, OHIO 44312
330-961-7432

CARRIER:

DRAWING NOTICE:
THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF NSA FIELD SERVICE AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF NSA FIELD SERVICE.

FOUNDATION DESIGN DRAWING

7/17/2024



Jason Cheronis

THIS ITEM HAS BEEN ELECTRONICALLY SIGNED/PREPARED BY JASON G. CHERONIS, P.E. USING A DIGITAL SIGNATURE AND DATE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

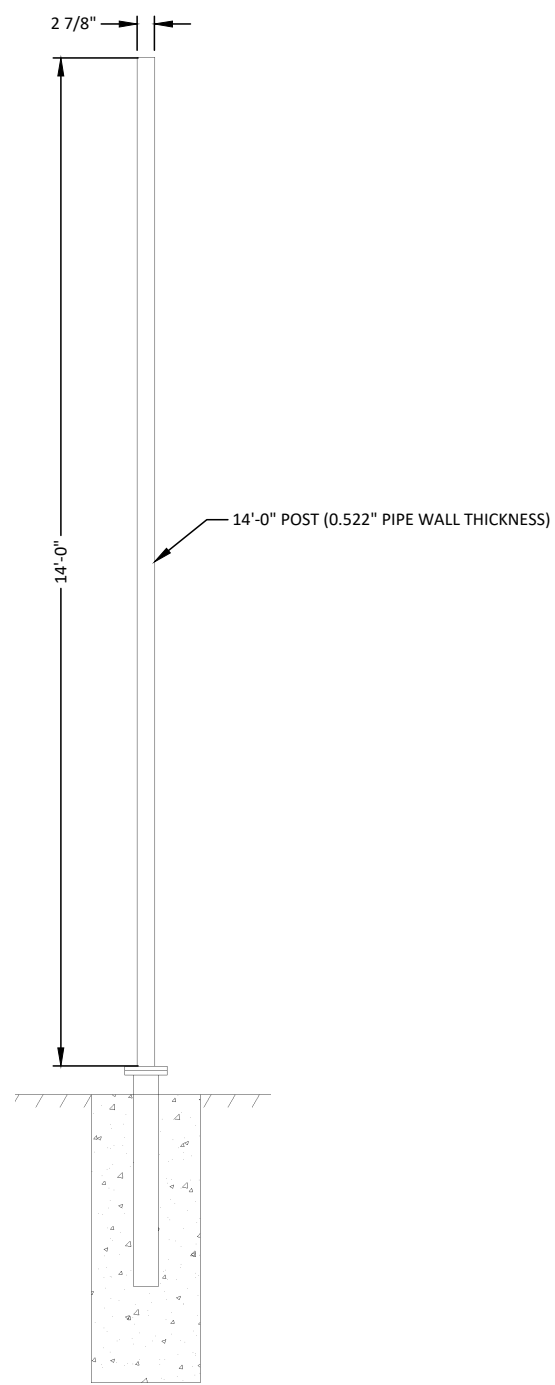
REV.	DATE	DESCRIPTION

SITE INFORMATION:
HARDEE COUNTRY CAMERA DEPLOYMENT

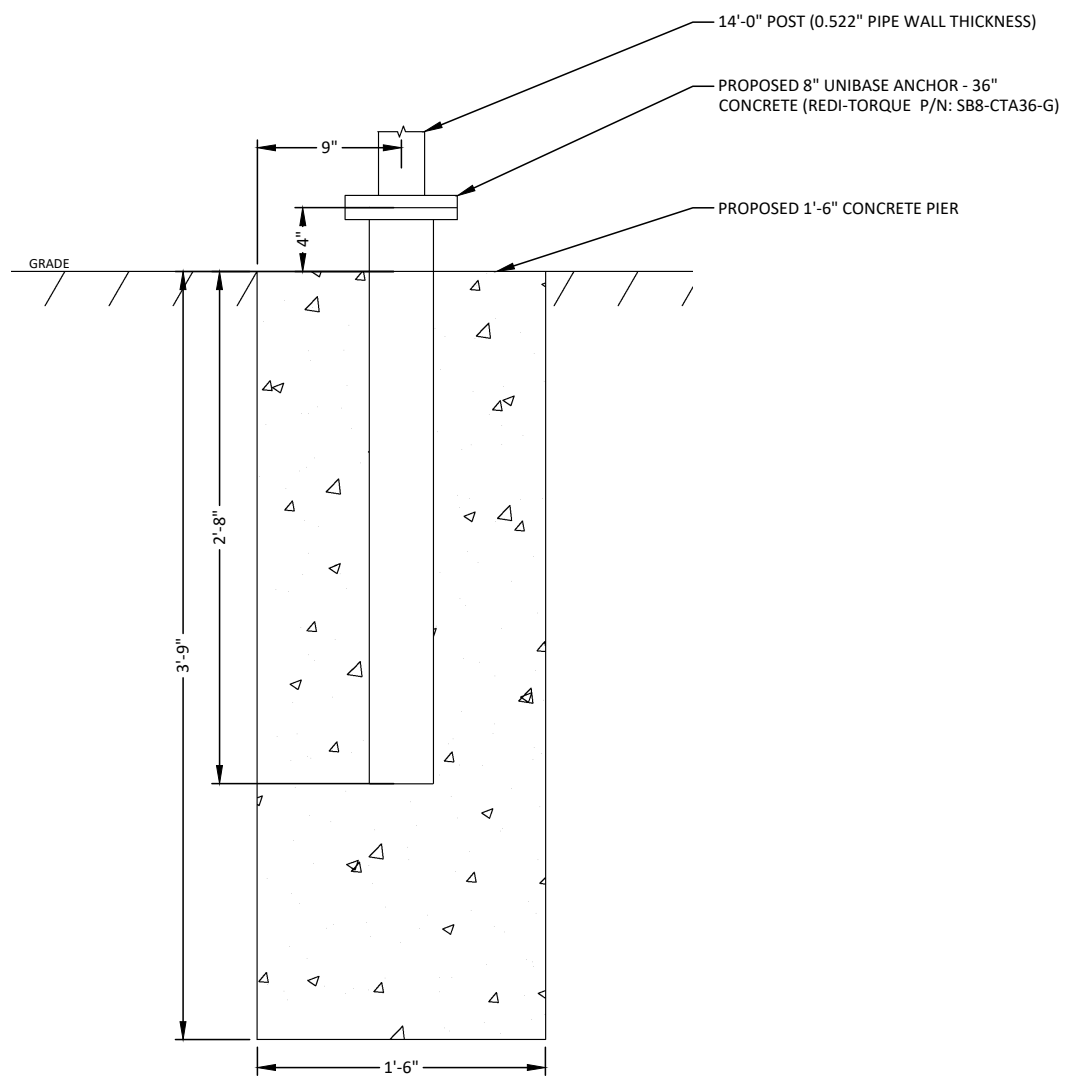
SITE NUMBER:
SR-70-FL

POD NUMBER: 23-162474
DESIGNED BY: JM
DRAWN BY: CR
CHECKED BY: NWG
DATE: 2/1/2024

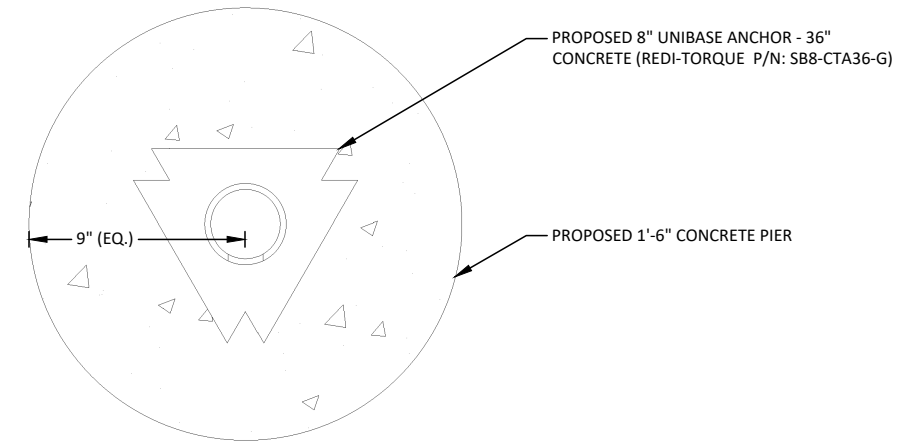
SHEET TITLE:
NOTES
N-01



ELEVATION VIEW
1" = 1'-0"




ELEVATION VIEW
1" = 1'-0"




PLAN VIEW
1-1/2" = 1'-0"

PLANS PREPARED FOR:



PLANS PREPARED BY:



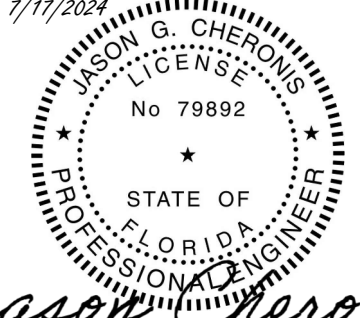
POWER OF DESIGN
1033 E. TURKEYFOOT LAKE RD.
SUITE 206 AKRON, OHIO 44312
330-961-7432

CARRIER:

DRAWING NOTICE:
THESE DOCUMENTS ARE CONFIDENTIAL AND ARE THE SOLE PROPERTY OF NSA FIELD SERVICE AND MAY NOT BE REPRODUCED, DISSEMINATED OR REDISTRIBUTED WITHOUT THE EXPRESS WRITTEN CONSENT OF NSA FIELD SERVICE.

FOUNDATION DESIGN DRAWING

7/17/2024



Jason Cheronis

REV.	DATE	DESCRIPTION

SITE INFORMATION:

HARDEE COUNTRY CAMERA DEPLOYMENT

SITE NUMBER:
SR-70-FL

POD NUMBER: 23-162474
DESIGNED BY: JM
DRAWN BY: CR
CHECKED BY: NWG
DATE: 2/1/2024

SHEET TITLE:
PLAN VIEW

S-01