COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF GOGO, LLC)
FOR ISSUANCE OF A CERTIFICATE OF PUBLIC)
CONVENIENCE AND NECESSITY TO CONSTRUCT) CASE: **2015-00310**
A WIRELESS COMMUNICATIONS FACILITY AT)
5011 SCAFFOLD CANE ROAD, MT. VERNON)
ROCKCASTLE COUNTY, KENTUCKY, 40456)

SITE NAME: CONWAY (KY005 THACKER)

APPLICATION FOR CERTIFICATE
OF PUBLIC CONVENIENCE AND NECESSITY
TO CONSTRUCT A WIRELESS COMMUNICATIONS FACILITY

GoGo, LLC, a Delaware limited liability company, ("Applicant"), by counsel, pursuant to (i) KRS §§ 278.020, 278.040, 278.650, 278.665 and the rules and regulations applicable thereto, and (ii) the Telecommunications Act of 1996, respectfully submits this Application requesting the issuance of a Certificate of Public Convenience and Necessity ("CPCN") from the Kentucky Public Service Commission ("PSC") to construct, maintain and operate a Wireless Communications Facility ("WCF") to serve the customers of GoGo, LLC with wireless communication services. In support of this Application, Applicant respectfully provides and states the following:

1. The complete name and address of the Applicant is: GoGo, LLC, a Delaware limited liability company having a mailing address of 1111 North Canal Street, Chicago, Illinois 60606. Applicant is a leading global aero-

communications service provider that offers in-flight voice, internet, text messaging, connected aircraft services and a host of other communications-related services to the commercial and business aviation markets. GoGo, LLC was created on June 15, 2011 through a name change and filing of a Certificate of Amendment. GoGo, LLC is in good standing with the State of Delaware and is authorized to transact business in the Commonwealth of Kentucky. Delaware Certified Certificate of Merger, Certificate of Conversion, Certificate of Formation and Certificate of Amendment documents are attached as **Exhibit A**.

2. The public convenience and necessity require the construction of the proposed WCF. The construction of the WCF will improve Applicant's air to ground services to an area currently not served or not adequately served by Applicant by enhancing coverage and/or capacity and thereby increasing the public's access to wireless communication services. A statement from Applicant's RF Design Engineer outlining said need is attached as **Exhibit N**. The WCF is an integral link in the Applicant's network design that must be in place to provide adequate coverage to the service area.

3. To address the above-described service needs, Applicant proposes to construct a WCF in Rockcastle County located at 5011 Scaffold Cane Road, Mt. Vernon, Kentucky 40456 (37° 30' 05.27" North Latitude, 84° 17' 00.81" West Longitude (NAD 83)), in an area which is outside the jurisdiction of a planning commission. Applicant submits the Application to the PSC for a CPCN pursuant to KRS §§ 278.020(1), 278.040, 278.650, and 278.665. The property in which the WCF will be located is currently owned by Wendell Thacker and wife, Patty Thacker pursuant to that Deed of record in Deed Book 248, Page 535 in the Office of the Rockcastle County Clerk. The proposed WCF will consist of a 111 foot self-support tower with an approximately 9-foot tall lightning arrestor attached to the top of the tower for a total height of 120 feet. The WCF will also include concrete foundations to accommodate the placement of a prefabricated equipment shelter. The WCF compound will be fenced and all access gate(s) will

be secured. A detailed site development plan and survey, signed and sealed by a professional land surveyor and/or engineer registered in Kentucky is attached as **Exhibit B**.

4. The site development plan or survey, signed and sealed by a professional engineer registered in Kentucky, that shows the proposed location of the tower and all easements and existing structures within 500 feet of the proposed site on the property on which the tower will be located, and all easements and existing structures within 200 feet of the access drive, including the intersection with the public street system is attached as **Exhibit B**.

5. A vertical profile sketch of the tower indicating the height of the tower and the placement of all antennas is attached as **Exhibit C**. Tower and Foundation design plans and a description of the standards according to which the tower was designed which have been signed and sealed by a professional engineer registered in Kentucky are attached as **Exhibit D**.

6. A geotechnical engineering report was performed at the WCF site by G2 Consulting Group, LLC of Troy, Michigan, dated January 15, 2015 and is attached as **Exhibit E**. (Note: site address on report is the address for the WCF prior to local authority issuing the E911 address which is used throughout this Application) The name and address of the geotechnical engineering firm and the professional engineer registered in Kentucky who prepared the report are included as part of **Exhibit E**.

7. A list of public utilities, corporations, and/or persons with whom the proposed WCF is likely to compete is attached as **Exhibit F**.

8. A Site Specific Obstruction Evaluation Report was completed and determined that the proposed WCF would not be considered an obstruction to air navigation by the Federal Aviation Administration and therefore notice of

proposed construction is not required. The said report is attached as **Exhibit G**. The proposed WCF does not require a permit from the Kentucky Airport Zoning Commission as confirmed by John Houlihan, Administrator, in an email dated August 26, 2015 and also attached as **Exhibit G**.

9. Applicant operates on frequencies licensed by the Federal Communications Commission ("FCC") pursuant to applicable federal requirements. Copies of the license(s) are attached as **Exhibit H**. The WCF has been designed, and will be built and operated in accordance with all applicable FCC and FAA regulations. Appropriate FCC required signage will be posted on the site.

10. Based on the review of Federal Emergency Management Agency Flood Insurance Rate Map, the licensed, professional land surveyor has noted in **Exhibit B** that the Flood Insurance Rate Map (FIRM) Community Panel No. 21203C010001C dated August 3, 2009, indicates that the proposed WCF is not located within any flood hazard area.

11. Personnel directly responsible for the design and construction of the proposed WCF are well qualified and experienced and are noted in **Exhibits B, C and D.** Project Manager for the site is Ryan Wehman of Eco-Site.

12. Clear directions to the proposed WCF site from the county seat are attached as **Exhibit I**, including the name and telephone number of the preparer. A copy of the lease for the property on which the tower is proposed to be located is included as part of **Exhibit I**.

13. Applicant has notified, by certified mail, return receipt requested, every person of the proposed construction who, according to the records of the Rockcastle County Property Valuation Administrators, owns property which is within 500 feet of the proposed tower or is contiguous to the site property.

Applicant included in said notices the docket number under which the Application will be processed and informed each person of his or her right to request intervention. A list of the property owners who received notices along with the notices are attached as **Exhibit J**.

14. Applicant has notified the Rockcastle County Judge Executive by certified mail, return receipt requested, of the proposed construction. The notice included the docket number under which the Application will be processed and informed the Rockcastle County Judge Executive of his right to request intervention. A copy of the notice is attached as **Exhibit K**.

15. Pursuant to 807 KAR 5:063, Applicant affirms that two (2) notice signs measuring at least two feet by four feet in size with all required language in letters of required height have been posted in a visible location on the proposed site and on the nearest road. Copy of the posted text is attached as **Exhibit L**. Such signs shall remain posted for at least two weeks after filing the Application. Notice of the proposed construction has been posted in a newspaper of general circulation in the county in which the construction is proposed (*Mt. Vernon Signal).*

16. The site of the proposed WCF is located in a rural area that is mostly wooded with few residential occupancies near Raccoon, Kentucky.

17. Applicant has considered the likely effects of the proposed construction on nearby land uses and values and has concluded that there is no more suitable location reasonably available from which adequate service to the area can be provided. Applicant carefully evaluated locations within the search area for co-location opportunities and found no suitable towers or other existing structures that met the requirements necessary in providing adequate service to the area When suitable towers or structures exist, Applicant has attempted to co-locate on towers designed to host multiple wireless service providers' facilities

or existing structures, such as a telecommunications tower or another suitable structure capable of supporting the Applicant's facilities.

18. A map of the area in which the proposed WCF is located, that is drawn to scale and that clearly depicts the search area in which a site should, pursuant to radio frequency requirements, be located is attached as **Exhibit M**.

19. Correspondence and communication with regard to this Application should be directed to:

Todd R. Briggs
Briggs Law Office, PSC
4965 U.S. Hwy 42
Suite 1000
Louisville, KY 40222
(502) 412-9222
todd@briggslawoffice.net

WHEREFORE, Applicant respectfully requests that the PSC accept the foregoing application for filing and enter an order granting a Certificate of Public Convenience and Necessity to Applicant for construction and operation of the proposed WCF and providing for such other relief as is necessary and appropriate.

Respectfully submitted,

Todd R. Briggs
Briggs Law Office, PSC
4965 U.S. Hwy 42
Suite 1000
Louisville, KY 40222
Telephone 502-412-9222
Counsel for GoGo, LLC

LIST OF EXHIBITS

Exhibit A	Certificate of Merger Certificate of Amendment Certificate of Formation Certificate of Conversion
Exhibit B	Site Development Plan and Survey Flood Plain Statement 500' Vicinity Map
Exhibit C	Vertical Tower Profile
Exhibit D	Structural and Foundation Design Report
Exhibit E	Geotechnical Engineering Report
Exhibit F	Utilities List
Exhibit G	Site Specific Obstruction Evaluation Report KAZC Email
Exhibit H	FCC Documentation
Exhibit I	Directions to Site and Copy of Lease Agreement
Exhibit J	Notification Listing and Copy of Property Owner Notifications
Exhibit K	Copy of County Judge Executive Notice
Exhibit L	Copy of Posted Notices
Exhibit M	Map of Search Area
Exhibit N	RF Engineer Statement

Exhibit A

Delaware

The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED ARE TRUE AND CORRECT COPIES OF ALL DOCUMENTS FILED FROM AND INCLUDING THE RESTATED CERTIFICATE OR A MERGER WITH A RESTATED CERTIFICATE ATTACHED OF "GOGO LLC" AS RECEIVED AND FILED IN THIS OFFICE.

THE FOLLOWING DOCUMENTS HAVE BEEN CERTIFIED:

CERTIFICATE OF MERGER, FILED THE THIRTY-FIRST DAY OF JANUARY, A.D. 2007, AT 8:20 O'CLOCK P.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE EFFECTIVE DATE OF THE AFORESAID CERTIFICATE OF MERGER IS THE THIRTY-FIRST DAY OF JANUARY, A.D. 2007, AT 11:57 O'CLOCK P.M.

CERTIFICATE OF CONVERSION, CHANGING ITS NAME FROM "AIRCELL, INC." TO "AIRCELL LLC", FILED THE THIRTY-FIRST DAY OF JANUARY, A.D. 2007, AT 8:27 O'CLOCK P.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE EFFECTIVE DATE OF THE AFORESAID CERTIFICATE OF CONVERSION IS THE THIRTY-FIRST DAY OF JANUARY, A.D. 2007, AT 11:58 O'CLOCK P.M.

CERTIFICATE OF FORMATION, FILED THE THIRTY-FIRST DAY OF JANUARY, A.D. 2007, AT 8:27 O'CLOCK P.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE EFFECTIVE DATE OF

Jeffrey W. Bullock, Secretary of State

2692227 8100X

110727819

AUTHENTICATION: 8837109

DATE: 06-15-11

You may verify this certificate online at corp.delaware.gov/authver.shtml

Delaware

The First State

THE AFORESAID CERTIFICATE OF FORMATION IS THE THIRTY-FIRST DAY OF JANUARY, A.D. 2007, AT 11:58 O'CLOCK P.M.

CERTIFICATE OF AMENDMENT, CHANGING ITS NAME FROM "AIRCELL LLC" TO "GOGO LLC", FILED THE FIFTEENTH DAY OF JUNE, A.D. 2011, AT 8:18 O'CLOCK A.M.

Jeffrey W. Bullock, Secretary of State

2692227 8100X

110727819

AUTHENTICATION: 8837109

DATE: 06-15-11

You may verify this certificate online at corp.delaware.gov/authver.shtml

State of Delaware
Secretary of State
Division of Corporations
Delivered 08:27 PM 01/31/2007
FILED 08:20 PM 01/31/2007
SRV 070111417 - 2692227 FILE

CERTIFICATE OF MERGER OF

AC MERGER SUB, INC.,
a Delaware corporation

WITH AND INTO

AIRCELL, INC.,
a Delaware corporation

Pursuant to the provisions of Section 251 of the General Corporation Law of the State of Delaware (the "***DGCL***"), this Certificate of Merger is being executed and filed for the purpose of merging AC Merger Sub, Inc., a Delaware corporation ("***Merger Sub***"), with and into AirCell, Inc., a Delaware corporation ("***AirCell***"). The undersigned corporation does hereby certify:

FIRST: That the name and state of incorporation of each of the constituent corporations to the merger (the "***Merger***") are as follows:

Name	**State of Incorporation**
AirCell, Inc.	Delaware
AC Merger Sub, Inc.	Delaware

SECOND: That an Agreement and Plan of Merger (the "***Merger Agreement***") among AC Partners LLLP, a Delaware limited liability limited partnership, Merger Sub, a wholly owned subsidiary of AC Partners LLLP, and AirCell has been approved, adopted, certified, executed and acknowledged by each of the constituent corporations to the Merger in accordance with Section 251 of the DGCL.

THIRD: That the name of the surviving entity shall be AirCell, Inc. (the "***Surviving Entity***").

FOURTH: That the Certificate of Incorporation of the Surviving Entity shall be amended and restated to read in its entirety as set forth in **Exhibit A** hereto, such that the Certificate of Incorporation as set forth in Exhibit A hereto shall be the Certificate of Incorporation of the Surviving Entity, until duly amended in accordance with applicable law.

FIFTH: That the executed Merger Agreement is on file at the principal offices of the Surviving Entity, and the address is as follows:

AirCell, Inc.
1172 Century Drive
Building B, Suite 280
Louisville, Colorado 80027

SIXTH: That a copy of the Merger Agreement will be furnished by the Surviving Entity, on request and without cost, to any stockholder of any constituent corporation.

SEVENTH: That this Certificate of Merger shall be effective at 11:57 p.m., Eastern Standard Time, on January 31, 2007 (the "***Effective Time***").

[Signature Page Follows]

IN WITNESS WHEREOF, this Certificate of Merger has been duly executed as of January 29, 2007, to be effective as of the Effective Time.

AIRCELL, INC.

By: _____
Jack W. Blumenstein
Chief Executive Officer

Exhibit A

Amended and Restated Certificate of Incorporation
of
AirCell, Inc.

I.

The name of this corporation is AirCell, Inc.

II.

The address of the registered office of the corporation in the State of Delaware is 1209 Orange Street, City of Wilmington, County of New Castle, and the name of the registered agent of the corporation in the State of Delaware at such address is The Corporation Trust Company.

III.

The purpose of this corporation is to engage in any lawful act or activity for which a corporation may be organized under the Delaware General Corporation Law ("DGCL").

IV.

This corporation is authorized to issue only one class of stock, to be designated Common Stock. The total number of shares of Common Stock presently authorized is 1,000, each having a par value of $0.001.

V.

The management of the business and the conduct of the affairs of the corporation shall be vested in its Board of Directors. The number of directors which shall constitute the whole Board of Directors shall be fixed by the Board of Directors in the manner provided in the Bylaws.

A. Directors shall be elected at each annual meeting of stockholders to hold office until the next annual meeting. Each director shall hold office either until the expiration of the term for which elected or appointed and until a successor has been elected and qualified, or until such director's death, resignation or removal. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director. No person entitled to vote at an election for directors may cumulate votes to which such person is entitled.

B. Subject to any limitations imposed by law, the Board of Directors or any director may be removed from office at any time with or without cause by the affirmative vote of the holders of a majority of the voting power of all then-outstanding shares of capital stock of the corporation entitled to vote generally at an election of directors, voting together as a single class.

C. The Board of Directors is expressly empowered to adopt, amend or repeal the Bylaws of the corporation. The stockholders shall also have power to adopt, amend or repeal the Bylaws of the corporation by the affirmative vote of the holders of at least a majority of the

voting power of all then-outstanding shares of the capital stock of the corporation entitled to vote generally in the election of directors, voting together as a single class.

VI.

A. The liability of the directors for monetary damages shall be eliminated to the fullest extent under applicable law. If the DGCL is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the corporation shall be eliminated or limited to the fullest extent permitted by the DGCL, as so amended.

B. Any repeal or modification of this Article VI shall be prospective and shall not affect the rights under this Article VI in effect at the time of the alleged occurrence of any act or omission to act giving rise to liability or indemnification.

VII.

The corporation reserves the right to amend, alter, change or repeal any provision contained in this Certificate of Incorporation, in the manner now or hereafter prescribed by statute, and all rights conferred upon the stockholders herein are granted subject to this reservation.

State of Delaware
Secretary of State
Division of Corporations
Delivered 08:27 PM 01/31/2007
FILED 08:27 PM 01/31/2007
SRV 070111420 - 2692227 FILE

CERTIFICATE OF CONVERSION

OF

AIRCELL, INC.

AIRCELL, INC. (the "***Company***"), a corporation organized and existing under the General Corporation Law of the State of Delaware (the "***DGCL***"), does hereby certify that:

1. The name of the Company is AirCell, Inc. The name under which it was organized is AirCell, Inc.

2. The date on which the original Certificate of Incorporation of the Company was filed with the Secretary of State of the State of Delaware is December 10, 1996.

3. The name of the limited liability company into which the Company shall be converted is AirCell LLC.

4. The conversion of the Company has been approved by the directors and the stockholders of the Company in accordance with the provisions of Sections 141, 228 and 266 of the DGCL.

5. The conversion of the Company into a limited liability company shall be effective at 11:58 p.m., Eastern Standard Time, on January 31, 2007.

IN WITNESS WHEREOF, the Company has caused this Certificate of Conversion to be executed as of January 29, 2007.

AIRCELL, INC.

By: _____
Todd Londa
Chief Financial Officer

596705 v1/HN

State of Delaware
Secretary of State
Division of Corporations
Delivered 08:27 PM 01/31/2007
FILED 08:27 PM 01/31/2007
SRV 070111420 - 2692227 FILE

CERTIFICATE OF FORMATION

OF

AIRCELL LLC

The undersigned, for the purpose of forming a limited liability company under the Limited Liability Company Act of the State of Delaware (the "***LLC Act***"), hereby certifies that:

1. The name of the limited liability company is AirCell LLC (the "***Company***").

2. The address of the registered office of the Company is 1209 Orange Street, Wilmington, New Castle County, Delaware 19801, and the name of the registered agent of the corporation in the State of Delaware at such address is The Corporation Trust Company.

   The name of the manager of the Company, as appointed pursuant to Sections 18-101(10) and 18-401 of the LLC Act, is AC Partners LLLP, a Delaware limited liability limited partnership. As manager of the Company, AC Partners LLLP is authorized to control the business and affairs of, and to carry out all acts on behalf of, the Company.

4. The Company shall be formed effective at 11:58 p.m., Eastern Standard Time, on January 31, 2007.

IN WITNESS WHEREOF, the undersigned authorized person has executed this Certificate of Formation as of January 29, 2007.

Todd Londa
Organizer

State of Delaware
Secretary of State
Division of Corporations
Delivered 08:18 AM 06/15/2011
FILED 08:18 AM 06/15/2011
SRV 110723245 - 2692227 FILE

CERTIFICATE OF AMENDMENT
OF
CERTIFICATE OF FORMATION
OF
AIRCELL LLC

1. The name of the limited liability company is Aircell LLC (the "Company").

2. The Certificate of Formation of the limited liability company is hereby amended as follows:

Article First of the Certificate of Formation is hereby amended to read in its entirety as follows:

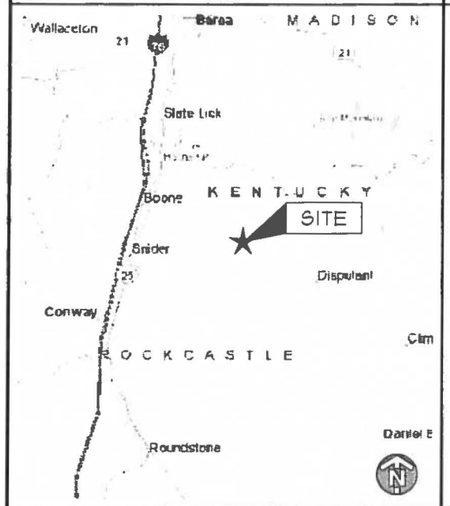
"FIRST: The name of the limited liability company is Gogo LLC."

IN WITNESS WHEREOF, the undersigned has duly executed this Certificate of Amendment this 9th day of June, 2011.

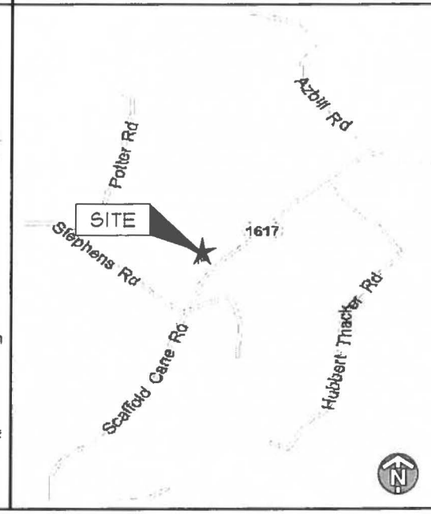
Name: Marguerite M. Elias
Authorized Person

Exhibit B

REGIONAL MAP



VICINITY MAP



DRIVING DIRECTIONS

DEPART MOUNT VERNON ON US-150 (EAST). TURN LEFT (NORTH) ONTO US-25. KEEP STRAIGHT ONTO US-25. TURN RIGHT (EAST) ONTO FAIRVIEW LOOP RD. BEAR RIGHT (EAST) ONTO LITTLE CLEAR CREEK RD. TURN RIGHT (EAST) ONTO STEPHENS RD . TURN LEFT (NORTH) ONTO KY-1617. TURN LEFT (NORTH-WEST) ONTO LOCAL ROAD(S). ARRIVE AT SITE.

PROJECT TEAM

ENGINEER:

FULLERTON ENGINEERING CONSULTANTS, INC.
9600 W BRYN MAWR AVE, SUITE 200
ROSEMONT, IL 60018
CONTACT: VENERA TAKO
E-MAIL: vtako@fullertonengineering.com
PHONE: (847) 292-0200
FAX: (847) 292-0206

APPLICANT/LESSEE:

GOGO LLC
1250 N. ARLINGTON HTS. RD., SUITE 500
ITASCA, IL 60143

CONTACT: TIM OSBORNE
E-MAIL: todboure@gogoair.com
PHONE: (630) 647-1217

PROJECT MANAGER
CONTACT: ALEX MOULEDOUS
E-MAIL: amouledous@gogoair.com
PHONE: (630) 647-1026

GENERAL SITE INFORMATION

SITE NUMBER:	KY005
SITE NAME:	THACKER
LANDLORD SITE NUMBER:	-
LANDLORD SITE NAME:	-
PROPERTY OWNER:	WENDELL & PATTY THACKER 1689 STEPHENS RD. MT. VERNON, KY 40456
CONTACT:	RYAN P. WEHMANN
PHONE:	(919) 913-3112
JURISDICTION:	ROCKCASTLE COUNTY
COUNTY:	ROCKCASTLE
A.P.N:	054-00-044
BUILDING CODE:	2013 KENTUCKY BUILDING CODE (INTERNATIONAL BUILDING CODE, 2012 EDITION)
ELECTRIC CODE:	NATIONAL ELECTRIC CODE, 2011 EDITION
SITE COORDINATES FROM SURVEY	
LATITUDE:	37.501464° (NAD 83)
LONGITUDE:	-84.283558° (NAD 83)
ELEVATION:	1,406.6' (AMSL)
POWER COMPANY	JACKSON ENERGY CUSTOMER SERVICE (800) 262-7480
TELCO: COMPANY	WINDSTREAM CUSTOMER SERVICE (866) 444-2841

PROJECT DESCRIPTION:
CONSTRUCTION OF TOWER AND COMPOUND FOR USE OF GOGO WITH NEW EQUIPMENT SHELTER, (12) ANTENNAS AND (12) NEW COAX CABLES ROUTED ON EXTERIOR OF NEW SELF-SUPPORT TOWER

SHEET INDEX

SHEET	DESCRIPTION
T-1	TITLE SHEET
1 OF 1	EASEMENT SURVEY
1 OF 2	EASEMENT SURVEY
C-1A	LOCATION PLAN- AERIAL
C-1B	LOCATION PLAN
C-2	ENLARGED SITE PLAN
C-3	ELEVATION
C-4	SITE DETAILS
C-5	SHELTER FOUNDATION PLAN & DETAILS
C-6	EQUIPMENT SHELTER ELEVATIONS
C-7	TRAPEZE ROUTING
C-8	ANTENNA SPECIFICATIONS
C-9	ANTENNA MOUNTING DETAILS
C-10	ANTENNA MOUNTING DETAILS
C-11	FENCE DETAILS
C-12	ECO-SITE SIGNAGE
E-1	UTILITY SITE PLAN
E-2	UTILITY DETAILS
E-3	UTILITY DETAILS
E-4	ELECTRIC PANEL SCHEDULE
EG-1	GROUNDING PLAN AND NOTES
EG-2	GROUNDING DETAILS
EG-3	GROUNDING DETAILS
EG-4	GROUNDING DETAILS
SP-1	GENERAL SPECIFICATIONS (GOGO)
SP-2	ELECTRICAL / GROUNDING SPECIFICATIONS (GOGO)
SP-3	CLOSE OUT NOTES (GOGO)
GN-1	GENERAL NOTES (ECO-SITE)
GN-2	GENERAL NOTES (ECO-SITE)

APPROVALS:

PROPERTY OWNER: _____
TOWER OWNER: _____
LEASING: _____
ZONING: _____
RF: _____
DEPLOYMENT ENGINEER MGR: _____
DEPLOYMENT ENGINEER: _____
OPERATIONS: _____

gogo®
IN AIR. ONLINE.

GOGO LLC (A DELAWARE LIMITED LIABILITY COMPANY)
1250 N. ARLINGTON HEIGHTS ROAD, SUITE 500
ITASCA, IL 60143
PHONE: (630) 647-1400 FAX: (630) 647-1687

KY005
THACKER

5011 SCAFFOLD CANE RD
MT VERNON, KY 40456

gogo
1250 N. ARLINGTON HEIGHTS RD.
STE 500
ITASCA, IL 60143
PHONE: (630) 647-1400
FAX: (630) 647-1687

Eco-Site
Urban Renewal Wireless.
240 LEIGH FARM ROAD, SUITE 415
DURHAM, NC 27707
PHONE: (919) 636-6810

FULLERTON
ENGINEERING DESIGN
9600 W. BRYN MAWR AVE., SUITE 200
ROSEMONT, ILLINOIS 60018
TEL: 847-292-0200
FAX: 847-292-0206
www.FullertonEngineering.com

CHECKED BY: VT
APPROVED BY: MB

#	DATE	DESCRIPTION	INT.
	12/5/14	90% CD's	RC
	1/8/15	REV. 90% CD's	RC
	1/26/15	REV. 90% CD's	KS
	2/21/15	FINAL	RC

STATE OF KENTUCKY
HENRY M. BELLAGAMBA
23246
LICENSED PROFESSIONAL ENGINEER

SITE NO.
KY005

SITE NAME
THACKER

LANDLORD NO.
-

SITE ADDRESS
5011 SCAFFOLD CANE RD
MT VERNON, KY 40456

SHEET NAME
TITLE SHEET

SHEET NUMBER
T-1

SUBJECT PROPERTY

OWNER: THACKER, WENDALL & PATTY

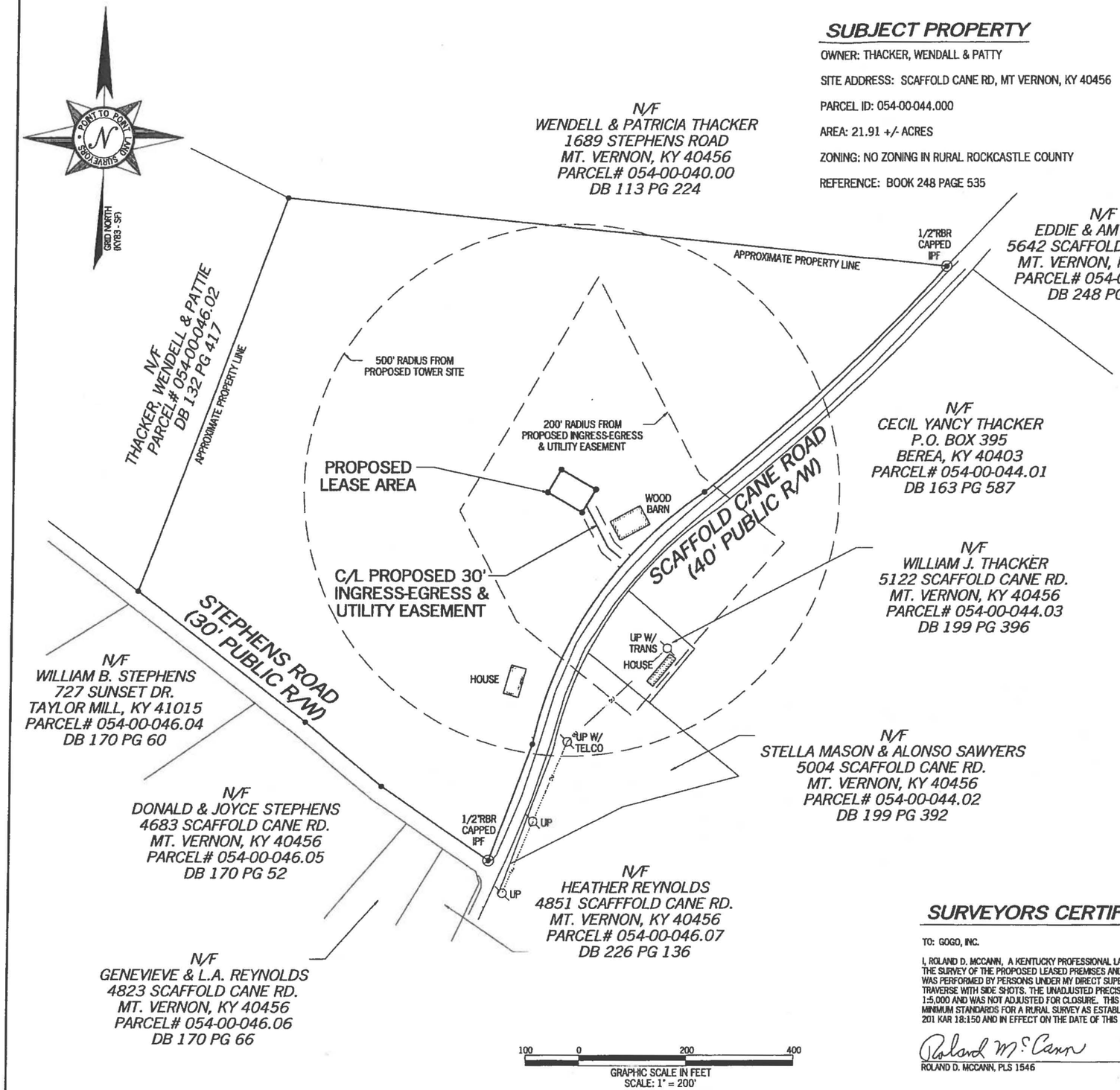
SITE ADDRESS: SCAFFOLD CANE RD, MT VERNON, KY 40456

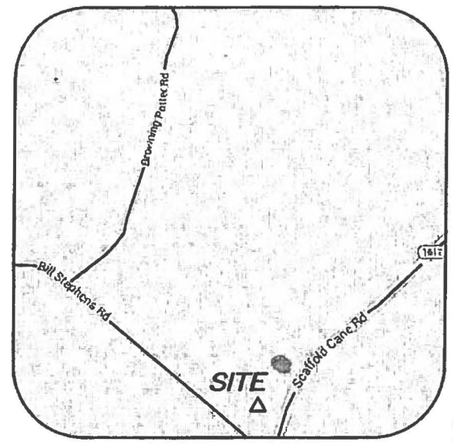
PARCEL ID: 054-00-044.000

AREA: 21.91 +/- ACRES

ZONING: NO ZONING IN RURAL ROCKCASTLE COUNTY

REFERENCE: BOOK 248 PAGE 535





VICINITY MAP

NOT TO SCALE

GENERAL NOTES

THIS EASEMENT SURVEY WAS PREPARED FOR THE EXCLUSIVE USE OF GOGO, INC. AND EXCLUSIVELY FOR THE TRANSFERRAL OF THE LEASEHOLD AND THE RIGHTS OF EASEMENT SHOWN HEREON AND SHALL NOT BE USED AS AN EXHIBIT OR EVIDENCE IN THE FEE SIMPLE TRANSFERRAL OF THE SUBJECT PROPERTY NOR ANY PORTION OR PORTIONS THEREOF. NO BOUNDARY SURVEY WAS PERFORMED. BOUNDARY SHOWN HEREON FROM DEED DESCRIPTIONS ONLY.

THIS EASEMENT SURVEY WAS PREPARED WITHOUT BENEFIT OF A TITLE REPORT WHICH MAY REVEAL ADDITIONAL CONVEYANCES, EASEMENTS, OR RIGHTS-OF-WAY NOT SHOWN HEREON.

EQUIPMENT USED FOR ANGULAR & LINEAR MEASUREMENTS: LEICA TCRA 1103 ROBOTIC. (DATE OF LAST FIELD VISIT: 10-24-14)

THE PLAT HAS BEEN CALCULATED FOR CLOSURE AND IS FOUND TO BE ACCURATE TO WITHIN ONE FOOT IN 100,000+ FEET.

THE 2' CONTOURS AND SPOT ELEVATIONS SHOWN ON THIS EASEMENT SURVEY ARE ADJUSTED TO NAVD 88 DATUM AND HAVE A VERTICAL ACCURACY OF ± 1'. CONTOURS OUTSIDE THE IMMEDIATE SITE AREA ARE APPROXIMATE.

BEARINGS SHOWN ON THIS EASEMENT SURVEY ARE BASED ON GRID NORTH (KY83-SF).

NO PORTION OF THIS PROPERTY IS LOCATED IN A SPECIAL FLOOD AREA AS PER F.I.R.M. COMMUNITY PANEL NO. 21203C0100C DATED AUG 3, 2009.

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM ABOVE GROUND FIELD SURVEY INFORMATION. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

I HEREBY CERTIFY THAT THIS IS A CATEGORY II SURVEY AND THE RATIO OR PRECISION OF THE UNADJUSTED SURVEY IS 1:15,000 AS SHOWN HEREON.

SURVEYORS CERTIFICATE

TO: GOGO, INC.

I, ROLAND D. MCCANN, A KENTUCKY PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT THE SURVEY OF THE PROPOSED LEASED PREMISES AND EASEMENTS AS DEPICTED BY THIS SURVEY, WAS PERFORMED BY PERSONS UNDER MY DIRECT SUPERVISION, BY THE METHOD OF RANDOM TRAVERSE WITH SIDE SHOTS. THE UNADJUSTED PRECISION RATIO OF THE TRAVERSE EXCEEDED 1:5,000 AND WAS NOT ADJUSTED FOR CLOSURE. THIS SURVEY MEETS OR EXCEEDS THE MINIMUM STANDARDS FOR A RURAL SURVEY AS ESTABLISHED BY THE STATE OF KENTUCKY, PER 201 KAR 18:150 AND IN EFFECT ON THE DATE OF THIS SURVEY.

Roland McCann

ROLAND D. MCCANN, PLS 1546 — 08/31/2015 DATE

LEGEND

POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
IPF	IRON PIN FOUND
UP	UTILITY POLE
EP	EDGE OF PAVEMENT
OU	OVERHEAD UTILITY
TR	TRANSFORMER
N/F	NOW OR FORMERLY

SURVEY NOT VALID WITHOUT SHEET 2

STATE of KENTUCKY
ROLAND D. McCANN
1546
LICENSED PROFESSIONAL LAND SURVEYOR

Roland McCann

NO.	DATE	REVISION
1	08/13/2015	CLIENT COMMENTS - NRW
2	08/31/2015	CLIENT COMMENTS - NRW

EASEMENT SURVEY PREPARED BY:
POINT TO POINT LAND SURVEYORS
1010 Pennsylvania Avenue
McDonough, Georgia 30253
(p) 678.565.4440 (f) 678.565.4497
(w) pointtopointsurvey.com

EASEMENT SURVEY PREPARED FOR:

gogo IN AIR. ONLINE

"KY-005"

ROCKCASTLE COUNTY, KENTUCKY

DRAWN BY: DAH	SHEET: 1
CHECKED BY: JKL	OF 2
APPROVED: C. INER	
DATE: NOV 06, 2014	
P2P JOB #: 2014.0818	

K:\2014\2014.0818-Conway\2014.0818.pro

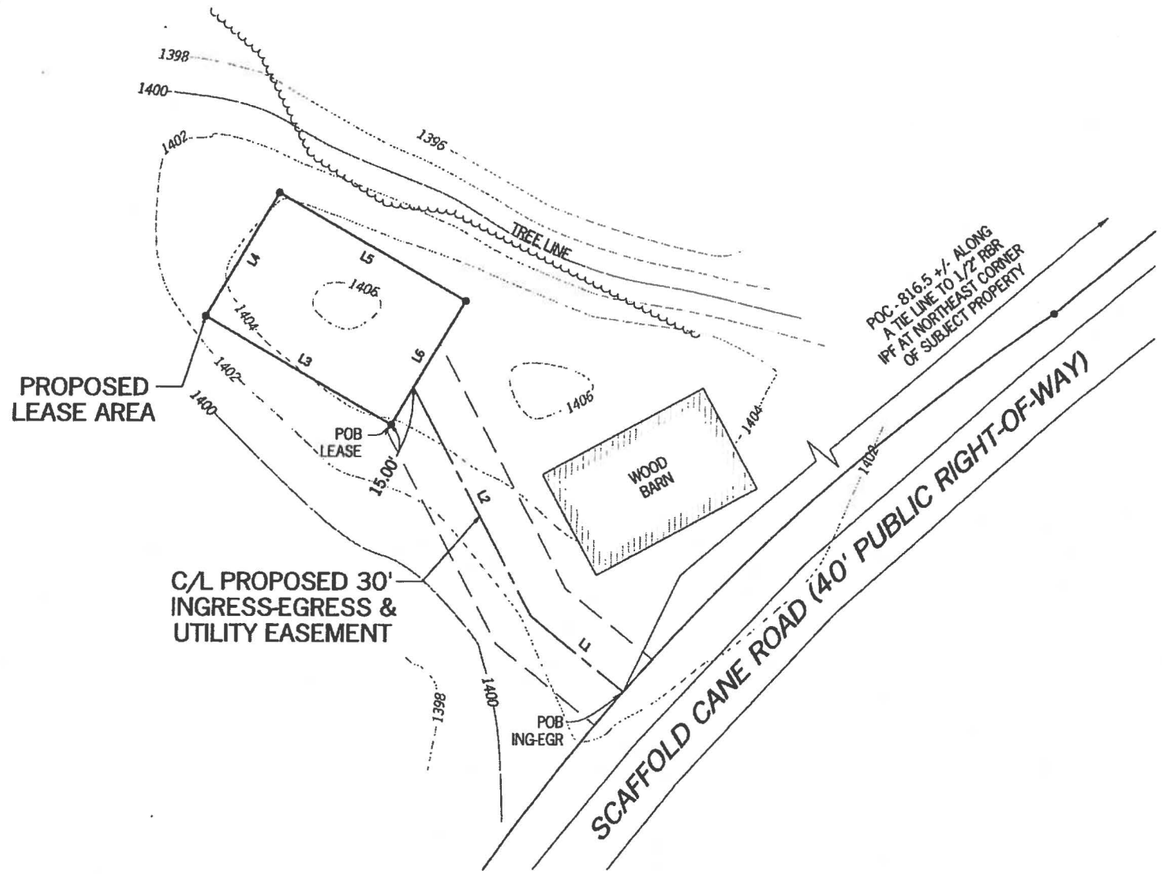
GRID NORTH (KY83 - SP)

SITE INFORMATION

PROPOSED LEASE AREA = 3,750 SQUARE FEET (0.0861 ACRES)

LATITUDE = 37°30'05.27" (NAD 83)
AT CENTER PROPOSED LEASE AREA
LONGITUDE = -84°17'00.81" (NAD 83)

ELEVATION AT CENTER OF PROPOSED LEASE AREA = 1406.6' A.M.S.L.



LINE TABLE

LINE	BEARING	DISTANCE
L1	N50°50'22"W	41.60'
L2	N27°26'24"W	89.87'
L3	N59°46'16"W	75.00'
L4	N30°13'44"E	50.00'
L5	S59°46'16"E	75.00'
L6	S30°13'44"W	50.00'

PROPOSED 30' INGRESS-EGRESS & UTILITY EASEMENT

TOGETHER WITH A 30-FOOT INGRESS-EGRESS AND UTILITY EASEMENT LYING AND BEING IN ROCKCASTLE COUNTY, KENTUCKY, BEING DESCRIBED BY THE FOLLOWING CENTERLINE DATA:

TO FIND THE POINT OF BEGINNING, COMMENCE AT A HALF-INCH REBAR FOUND AT THE INTERSECTION FORMED BY NORTHEAST CORNER OF THE SUBJECT PROPERTY (PARCEL ID: 054-00-044) AND THE WESTERLY RIGHT-OF-WAY OF SCAFFOLD CRANE ROAD (HAVING A 40-FOOT PUBLIC RIGHT-OF-WAY) AND RUNNING ALONG A TIE LINE IN A SOUTHWESTERLY DIRECTION, 816.50 FEET, MORE OR LESS TO A POINT AND THE TRUE POINT OF BEGINNING; THENCE RUNNING, NORTH 50°50'22" WEST, 41.60 FEET TO A POINT; THENCE, NORTH 27°26'24" WEST, 89.87 FEET TO THE ENDING AT A POINT.

PROPOSED LEASE AREA

ALL THAT TRACT OR PARCEL OF LAND LYING AND BEING IN ROCKCASTLE COUNTY, KENTUCKY, BEING DESCRIBED BY THE FOLLOWING:

TO FIND THE POINT OF BEGINNING, COMMENCE AT A HALF-INCH REBAR FOUND AT THE INTERSECTION FORMED BY NORTHEAST CORNER OF THE SUBJECT PROPERTY (PARCEL ID: 054-00-044) AND THE WESTERLY RIGHT-OF-WAY OF SCAFFOLD CRANE ROAD (HAVING A 40-FOOT PUBLIC RIGHT-OF-WAY) AND RUNNING ALONG A TIE LINE IN A SOUTHWESTERLY DIRECTION, 816.50 FEET, MORE OR LESS TO A POINT; THENCE, NORTH 50°50'22" WEST, 41.60 FEET TO A POINT; THENCE, NORTH 27°26'24" WEST, 89.87 FEET TO A POINT; THENCE, SOUTH 30°13'44" WEST, 15.00 FEET TO A POINT AND THE TRUE POINT OF BEGINNING; THENCE RUNNING, NORTH 59°46'16" WEST, 75.00 FEET TO A POINT; THENCE, NORTH 30°13'44" EAST, 50.00 FEET TO A POINT; THENCE, SOUTH 59°46'16" EAST, 75.00 FEET TO A POINT; THENCE, SOUTH 30°13'44" WEST, 50.00 FEET TO A POINT AND TRUE POINT OF BEGINNING.

SAID TRACT OR PARCEL CONTAINS 0.0861 ACRES (3,750 SQUARE FEET) MORE OR LESS.

LEGEND

POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
IPF	IRON PIN FOUND
UP	UTILITY POLE
EP	EDGE OF PAVEMENT
OU	OVERHEAD UTILITY
TR	TRANSFORMER
N/F	NOW OR FORMERLY

25 0 50 100
GRAPHIC SCALE IN FEET
SCALE: 1" = 50'

SURVEY NOT VALID WITHOUT SHEET 1

STATE of KENTUCKY
ROLAND D. McCANN
1546
LICENSED PROFESSIONAL LAND SURVEYOR

Roland McCann

NO.	DATE	REVISION
1	08/13/2015	CLIENT COMMENTS - NRW
2	08/31/2015	CLIENT COMMENTS - NRW

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EASEMENT SURVEY PREPARED FOR:

gogo IN AIR. ONLINE.

"KY-005"

ROCKCASTLE COUNTY, KENTUCKY

DRAWN BY: DAH
CHECKED BY: JKL
APPROVED: C. INER
DATE: NOV 06, 2014
P2P JOB #: 2014.0818

SHEET: 2 OF 2

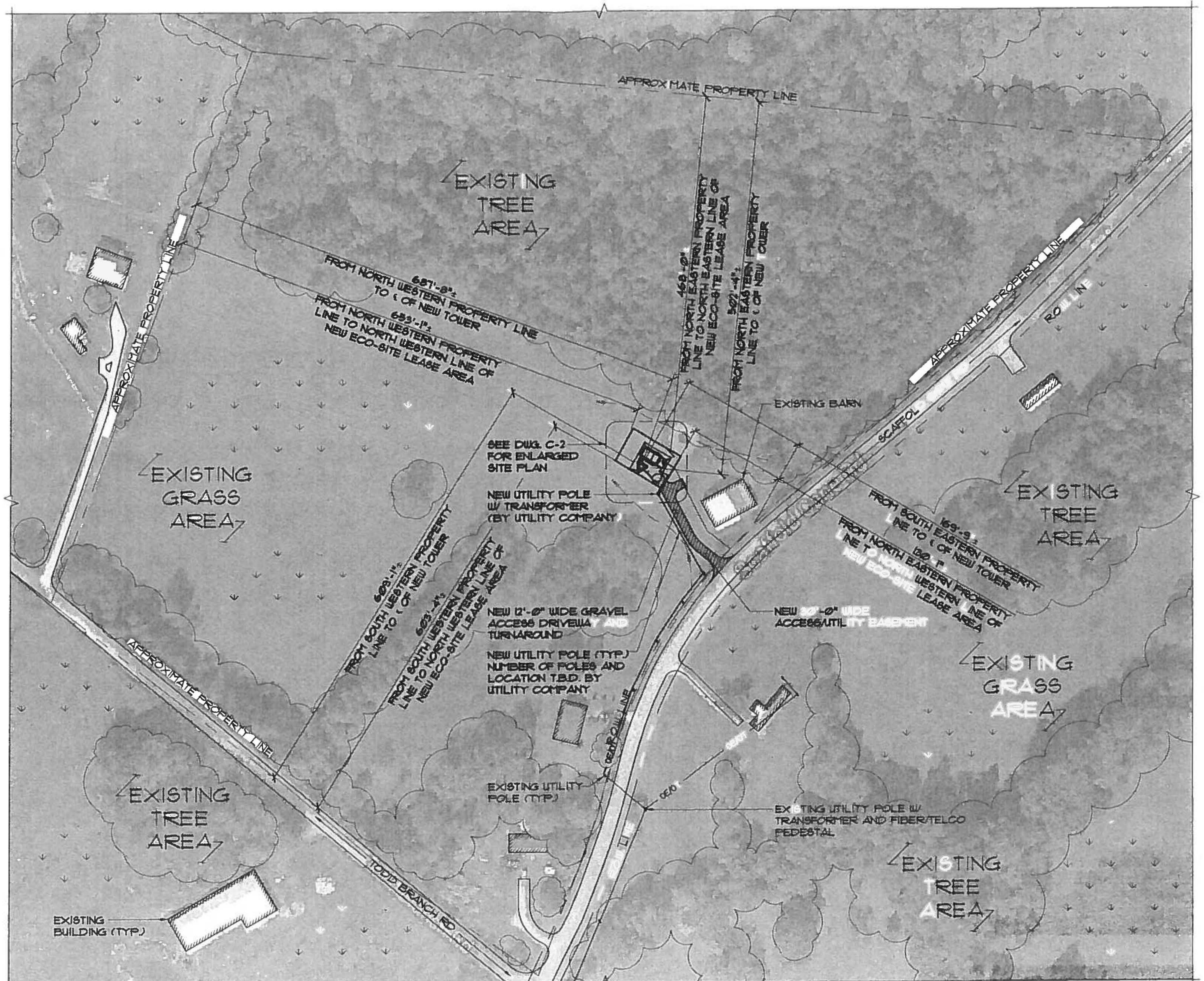
K:\2014\2014.0818-Conway\2014.0818.dwg

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AGL	ABOVE GRADE LEVEL
AMSL	ABOVE MEAN SEA LEVEL
APPROX	APPROXIMATE
AWG	AMERICAN WIRE GAUGE
BLDG	BUILDING
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CND	CONDUIT
DWG	DRAWING
FT	FOOT(FEET)
EGB	EQUIPMENT GROUND BAR
ELEC	ELECTRICAL
EMT	ELECTRICAL METALLIC TUBING
ELEV	ELEVATION
EQUIP	EQUIPMENT
EXISTING	EXISTING
EXT	EXTERIOR
FND	FOUNDATION
GA	GAUGE
GALV	GALVANIZED
GPS	GLOBAL POSITIONING SYSTEM
GND	GROUND
LTE	LONG TERM EVOLUTION
MAX	MAXIMUM
MFR	MANUFACTURER
MGB	MASTER GROUND BAR
MIN	MINIMUM
NTS	NOT TO SCALE
O.C.	ON CENTER
OE/OT	OVERHEAD ELECTRIC/TELCO
RGS	RIGID GALVANIZED STEEL
IN	INCH(ES)
INT	INTERIOR
LB.(#)	POUND(S)
RRU	REMOTE RADIO UNIT
SF	SQUARE FOOT
STL	STEEL
TYP	TYPICAL
UE/UT	UNDERGROUND ELECTRIC/TELCO
UNO	UNLESS NOTED OTHERWISE
VIF	VERIFY IN FIELD
W/	WITH
XFMR	TRANSFORMER
℄	CENTERLINE
℘	PLATE

SYMBOLS

- ℄ — CENTERLINE
- REVISION
- WORK POINT
- UTILITY POLE
- BRICK
- COMPRESSED STONE
- CONCRETE
- EARTH
- GRAVEL
- MASONRY
- STEEL
- CENTERLINE
- PROPERTY LINE
- LEASE LINE
- EASEMENT LINE
- —X—X— CHAIN LINK FENCE
- WOOD FENCE
- —UE— BELOW GRADE ELECTRIC
- —UT— BELOW GRADE TELEPHONE
- —OE/OT— OVERHEAD ELECTRIC/TELEPHONE
- A / S-1, A — SECTION REFERENCE



LOCATION PLAN-AERIAL

0 75 150 225 SCALE: 1" = 150'-0" 1

1250 N. ARLINGTON HEIGHTS RD. STE 500 ITASCA, IL 60143 PHONE: (630) 647-1400 FAX: (630) 647-1687

Eco-Site Urban Wireless. 240 LEIGH FARM ROAD, SUITE 415 DURHAM, NC 27707 PHONE: (919) 636-6810

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TEL: 847-292-0200
FAX: 847-292-0206
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CHECKED BY:	VT		
APPROVED BY:	MB		
#	DATE	DESCRIPTION	INT.
	12/15/14	90% CD's	RC
	1/8/15	REV. 90% CD's	RC
	1/26/15	REV. 90% CD's	KS
	9/21/15	FINAL	RC

STATE OF KENTUCKY HENRY M. BELLAGAMBA 23246 LICENSED PROFESSIONAL ENGINEER

SITE NO.
KY005

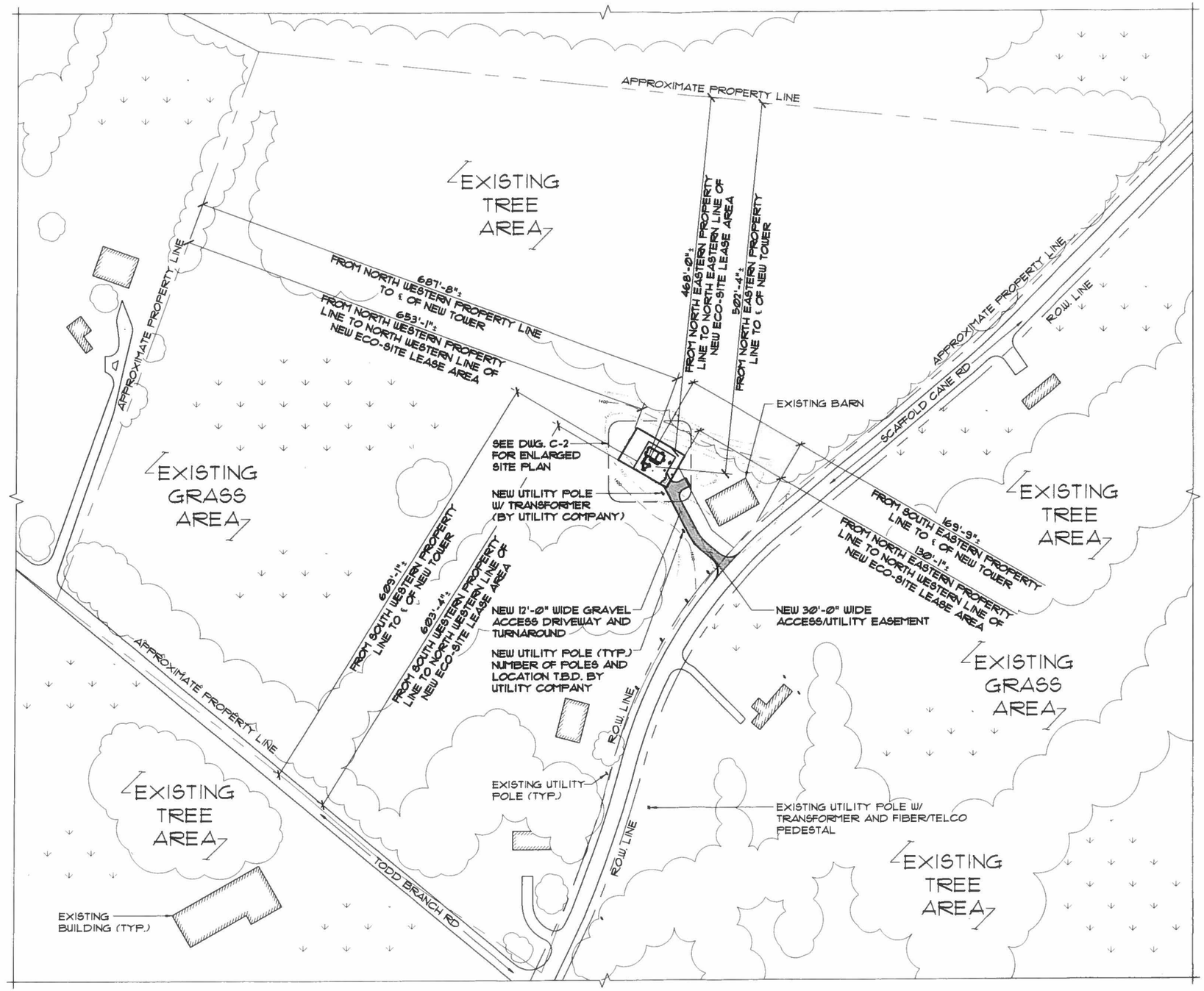
SITE NAME
THACKER

LANDLORD NO.
-

SITE ADDRESS
5011 SCAFFOLD CANE RD
MT VERNON, KY 40456

SHEET NAME
LOCATION PLAN AERIAL

SHEET NUMBER
C-1A



LOCATION PLAN

0 75 150 225 SCALE: 1" = 150'-0"

1

gogo

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STATE OF KENTUCKY
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23246
LICENSED PROFESSIONAL ENGINEER

SITE NO.
KY005

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-

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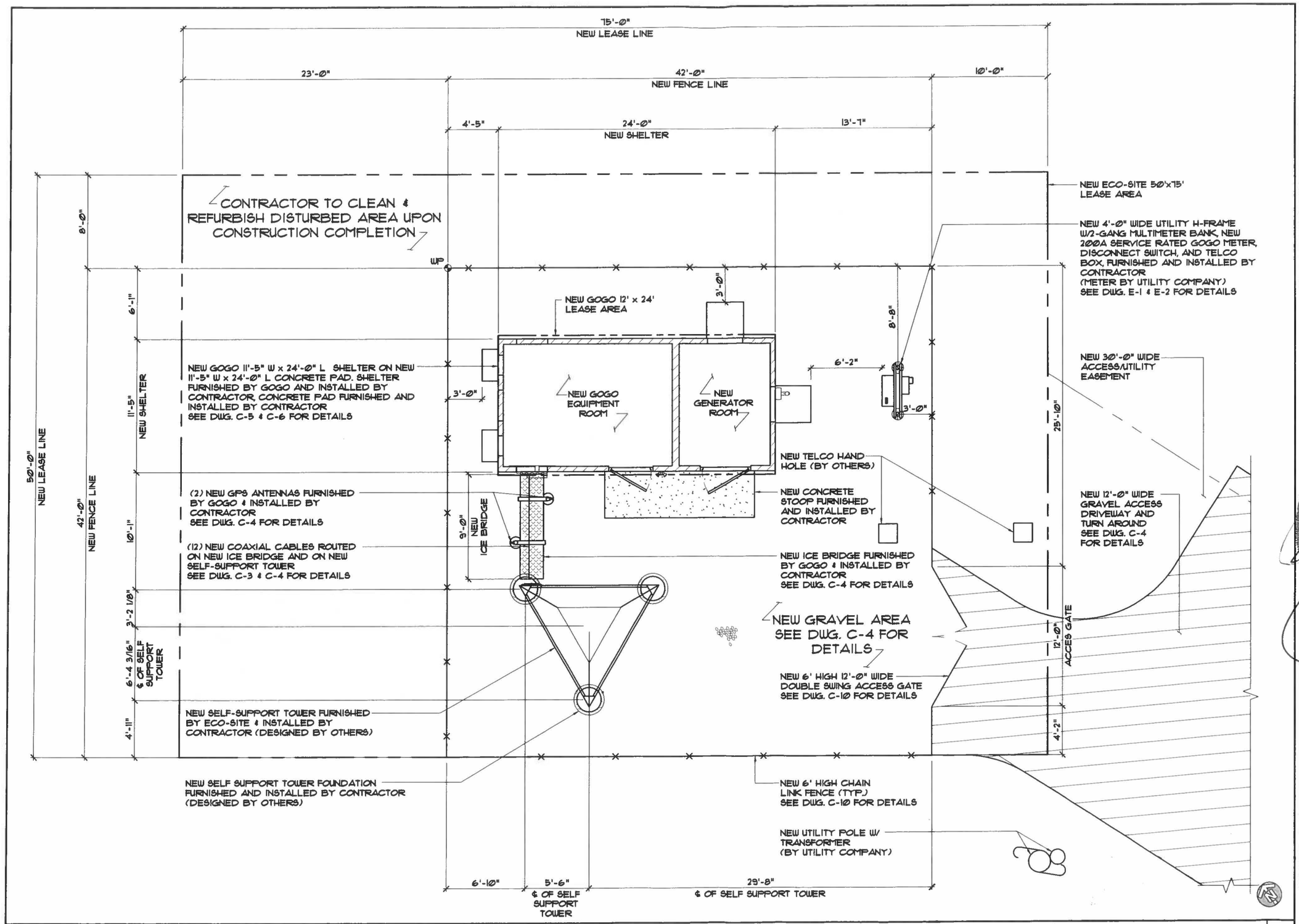
SHEET NAME
LOCATION PLAN

SHEET NUMBER
C-1B



ENLARGED SITE PLAN

SCALE: 1/8" = 1'-Ø"

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STE 500
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FAX: (630) 647-1687

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Urban Wireless.

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	1/26/15	REV. 90% CD's	KS
	2/21/15	FINAL	RC

STATE OF KENTUCKY
HENRY M. BELLAGAMBA
23246
LICENSED PROFESSIONAL ENGINEER

SITE NO.
KY005

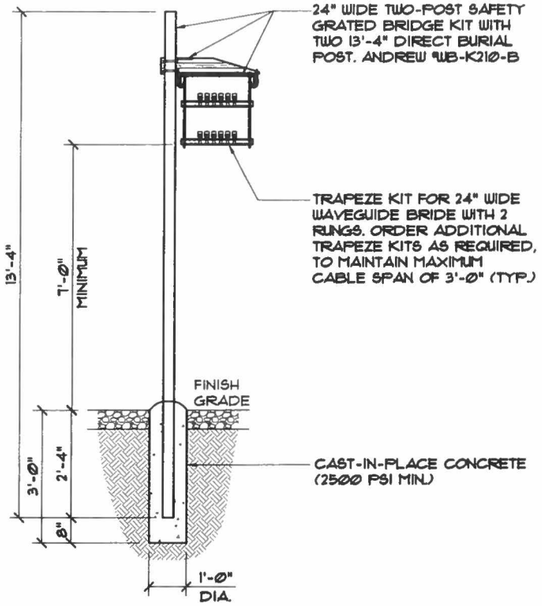
SITE NAME
THACKER

LANDLORD NO.
-

SITE ADDRESS
5011 SCAFFOLD CANE RD
MT VERNON, KY 40456

SHEET NAME
ENLARGED SITE PLAN

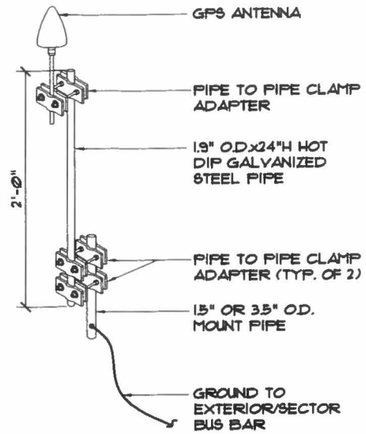
SHEET NUMBER
C-2



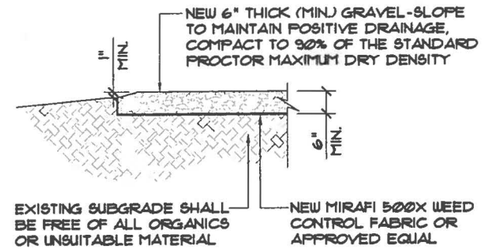
NOTES:

1. WHEN USING COMPONENTS AS SHOWN IN STANDARD DETAILS, MAXIMUM ALLOWABLE SPAN BETWEEN SUPPORTS ON A CONTINUOUS SINGLE SECTION OF BRIDGE CHANNEL SHALL BE 9 FEET FOR 10 FEET BRIDGE CHANNEL.
2. WHEN USING COMPONENTS FOR SPLICING BRIDGE CHANNEL SECTIONS, THE SPLICE SHOULD BE PROVIDED AT THE SUPPORT IF POSSIBLE, OR AT A MAXIMUM OF 2 FEET FROM THE SUPPORT.
3. WHEN USING COMPONENTS, SUPPORT SHOULD BE PROVIDED AS CLOSE AS POSSIBLE TO THE ENDS OF ICE BRIDGES WITH A MAXIMUM CANTILEVER DISTANCE OF 2 FEET FROM THE SUPPORT TO THE FREE END OF THE ICE BRIDGE.
4. CUT BRIDGE CHANNEL SECTIONS SHALL HAVE RAW EDGES TREATED WITH A MATERIAL TO RESTORE THESE EDGES TO THE ORIGINAL CHANNEL OR EQUIVALENT, FINISH.
5. ICE BRIDGES MAY BE CONSTRUCTED WITH COMPONENTS FROM OTHER MANUFACTURERS, PROVIDED THE MANUFACTURER'S INSTALLATION GUIDELINES ARE FOLLOWED.
6. DEVIATIONS FROM STANDARDS FOR COMPONENT INSTALLATIONS ARE PERMITTED WITH THE RESPECTIVE MANUFACTURE'S APPROVAL.
7. DEVIATIONS FROM ICE BRIDGE FOUNDATIONS REQUIRE ENGINEERING APPROVAL.

ICE BRIDGE SECTION — SCALE: N.T.S. | 1



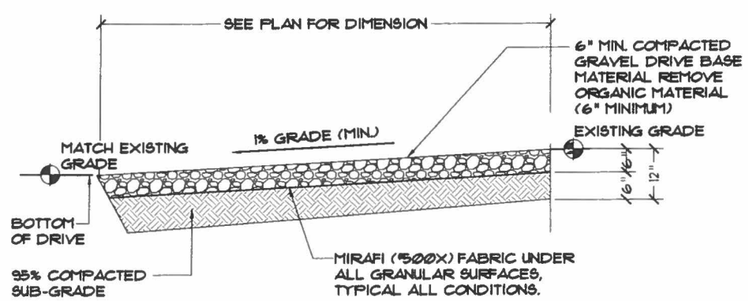
GPS ANTENNA MOUNT — SCALE: N.T.S. | 2



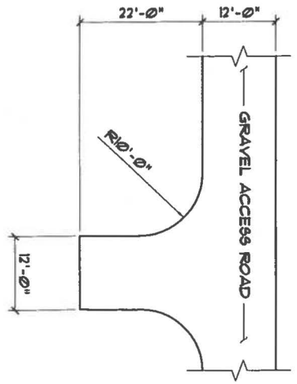
NOTE:
WEED CONTROL FABRIC SHALL BE USED UNDER ENTIRE PROPOSED GRAVELED AREA. CONTRACTOR SHALL INSTALL FABRIC PER MANUFACTURER'S RECOMMENDATIONS.

YARD DETAIL — SCALE: N.T.S. | 3

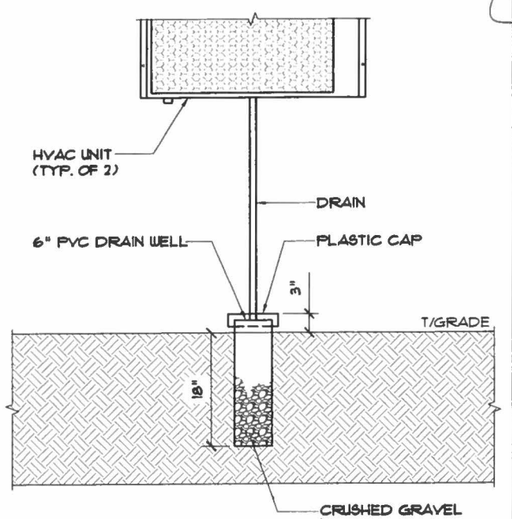
NOTE:
DRIVE IS TO BE MARKED WITH STEEL POSTS PAINTED DARK GREEN AND 2" DIA. RED REFLECTORS AT 100' STRAIGHT AND 20' ON THE CURVE. REFLECTORS ARE TO BE AT 3' ABOVE GRADE.



ACCESS DRIVE DETAIL — SCALE: 1/4" = 1'-0" | 4



TURN AROUND — SCALE: N.T.S. | 5



DRAIN WELL DETAIL — SCALE: N.T.S. | 6

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	1/8/15	REV. 90% CD's	RC
	1/26/15	REV. 90% CD's	KS
	9/21/15	FINAL	RC

HENRY M. BELTAGAMBA 29246 LICENSED PROFESSIONAL ENGINEER STATE OF KENTUCKY

SITE NO.
KY005

SITE NAME
THACKER

LANDLORD NO.
-

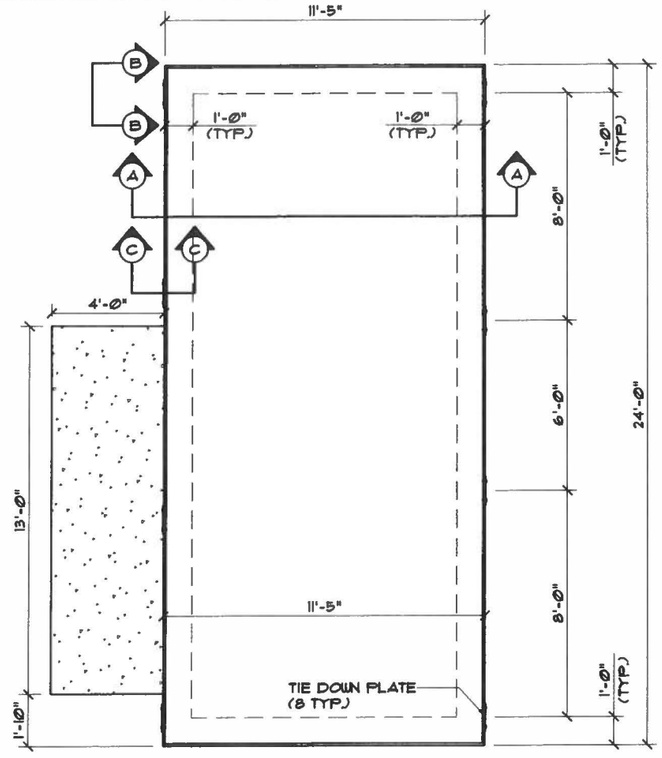
SITE ADDRESS
5011 SCAFFOLD CANE RD
MT VERNON, KY 40456

SHEET NAME
SITE DETAILS

SHEET NUMBER
C-4

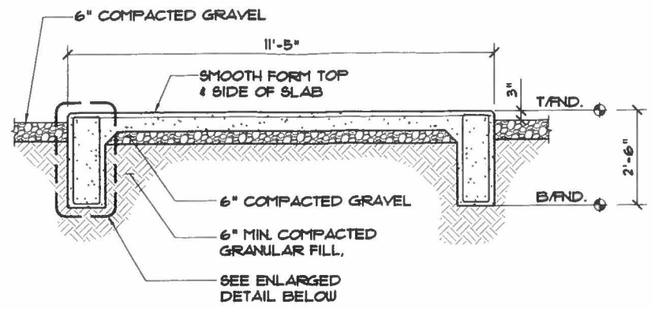
NOTES:

1. REFER TO SITE PLAN FOR SHELTER ORIENTATION.
2. REMOVE ALL OLD FILL, TOPSOIL, ORGANIC MATERIAL, AND FROZEN OR EXCESSIVELY SOFT OR LOOSE MATERIAL BENEATH THE FOOTINGS AND FLOOR SLAB. ANY UNSUITABLE MATERIAL THAT IS REMOVED SHALL BE REPLACED WITH ENGINEERED FILL THAT IS COMPACTED TO 95% (MIN.) OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D-698)
3. USE SHIMS AS REQUIRED TO ASSURE SHELTER IS BEARING AT PERIMETER SEAL PERIMETER W/GROUT IF SHIMS ARE USED.



CONCRETE PAD PLAN

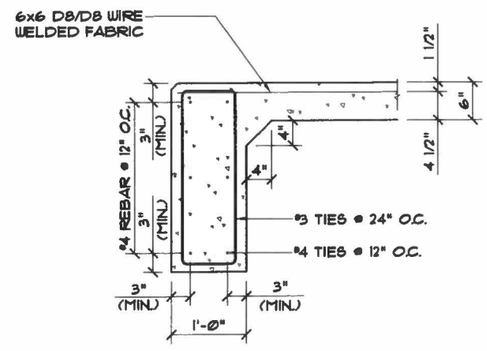
SCALE: 3/16" = 1'-0" | 1



NOTES:
1. SLAB TO BE LEVEL ±1/4".
2. FOOTING TO EXTEND A MINIMUM OF 24" BELOW GRADE.
3. FINAL SITE DESIGN IS THE RESPONSIBILITY OF THE SITE CONTRACTOR.
4. SLAB FOUNDATION DESIGNED ASSUMING ALLOWABLE SOIL BEARING PRESSURE OF 1500 PSF.

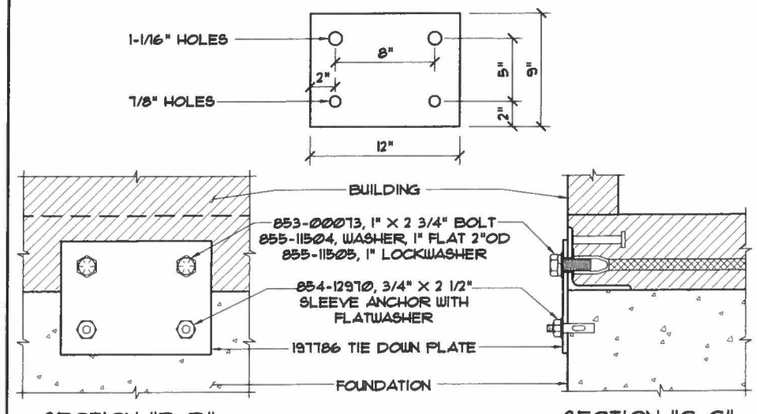
SECTION "A-A"

SCALE: 1/4" = 1'-0" | 3



ENLARGED DETAIL

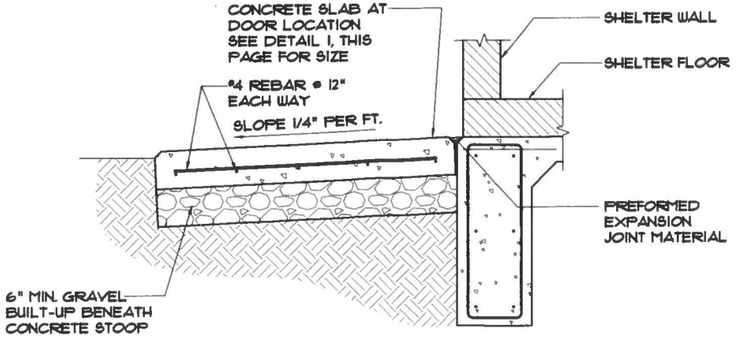
SCALE: 1/2" = 1'-0" | 4



SECTION "B-B" SECTION "C-C"

197786 TIE DOWN PLATE DETAIL

SCALE: 1" = 1'-0" | 2



CONCRETE STOOP DETAIL

SCALE: 1/2" = 1'-0" | 5

BUILDING FOUNDATION AND ANCHORING NOTES

1. WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES, SAFETY REGULATIONS AND UNLESS OTHERWISE NOTED THE LATEST REVISION OF ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE". PROCEDURES FOR THE PROTECTION OF EXCAVATIONS AND UTILITIES SHALL BE ESTABLISHED PRIOR TO FOUNDATION INSTALLATION.
2. CONCRETE MATERIALS SHALL CONFORM TO THE APPROPRIATE REQUIREMENTS FOR EXPOSED STRUCTURAL CONCRETE.
3. PROPORTIONS OF CONCRETE MATERIALS SHALL BE SUITABLE FOR THE INSTALLATION METHOD UTILIZED AND SHALL RESULT IN DURABLE CONCRETE FOR RESISTANCE TO LOCAL ANTICIPATED AGGRESSIVE ACTIONS. THE DURABILITY REQUIREMENTS OF ACI 318 CHAPTER 4 SHALL BE SATISFIED BASED ON THE CONDITIONS EXPECTED AT THE SITE. AS A MINIMUM, ALL CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF F'C = 3000 P.S.I. AT 28 DAYS TESTING UNLESS NOTED OTHERWISE ON DRAWINGS.
4. MAXIMUM SIZE OF CONCRETE AGGREGATE SHALL NOT EXCEED 3/4 INCH± SIZE SUITABLE FOR INSTALLATION METHOD UTILIZED, OR ONE-THIRD CLEAR DISTANCE BEHIND OR BETWEEN REINFORCING.
5. ALL REINFORCING STEEL SHALL BE DEFORMED AND CONFORM TO THE REQUIREMENTS OF ASTM-A-615 GRADE 60, AND BE DETAILED IN ACCORDANCE WITH ACI-318 UNLESS OTHERWISE NOTED.
6. WELDING IS PROHIBITED ON REINFORCING STEEL AND EMBEDMENTS.
7. WELDED WIRE FABRIC FOR CONCRETE SHALL CONFORM TO ASTM-A-185.
8. MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE 3 INCHES UNLESS OTHERWISE NOTED.
9. CONCRETE COVER FROM TOP OF FOUNDATION TO ENDS OF VERTICAL REINFORCEMENT SHALL NOT EXCEED 3 INCHES NOR BE LESS THAN 2 INCHES.
10. APPROVED SPACERS SHALL BE ATTACHED INTERMITTENTLY TO REINFORCEMENTS TO INSURE 3" MINIMUM COVER FOR ALL REINFORCEMENT.
11. GENERAL CONTRACTOR SHALL CHECK WITH ARCHITECTURAL, BUILDING AND ELECTRICAL DRAWINGS, FOR OPENINGS, SLEEVES, ANCHORS, HANGERS AND OTHER ITEMS RELATED TO CONCRETE WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THE PROPER LOCATION BEFORE PLACING CONCRETE.
12. ALL CONCRETE SHALL BE VIBRATED.
13. ALL REINFORCING STEEL SHALL BE INSPECTED AND APPROVED BY THE CONSTRUCTION PROJECT MANAGER PRIOR TO PLACEMENT OF CONCRETE. CONTRACTOR SHALL NOTIFY CONSTRUCTION PROJECT MANAGER 48 HOURS BEFORE PLACING CONCRETE.
14. CONCRETE SHALL BE SAMPLE TESTED AND TESTS SUBMITTED IN ACCORDANCE WITH ASTM-C-31 AND C-39. THREE CYLINDERS SHALL BE TAKEN FOR EACH DAY'S CONCRETE PLACEMENT.
15. READY MIX CONCRETE SHALL BE IN ACCORDANCE WITH ASTM-C-94.
16. THE BOTTOM OF THE FOUNDATION MAY BE PLACED AGAINST UNDISTURBED SOIL. EXCAVATED MATERIALS, EXCEPT THAT CONTAINING ORGANICS, MAY BE PLACED AS STRUCTURAL BACKFILL TO BE COMPACTED IN 8 INCH MAXIMUM LAYERS TO 95% OF MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT IN ACCORDANCE ASTM D698. EXCAVATED MATERIALS CONTAINING ORGANICS MUST BE REPLACED WITH ENGINEERED SOIL TO BE USED AS STRUCTURAL BACKFILL MATERIAL.
17. CONSTRUCTION PROJECT MANAGER SHALL BE NOTIFIED NO LESS THAN 48 HOURS IN ADVANCE OF CONCRETE POURS AND SHELTER PLACEMENTS.
18. SHIM APPROPRIATELY TO INSURE AN EVEN AND EQUALLY LOADED SUPPORT FOR SHELTER.

NOTES

SCALE: N.T.S. | 6

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ITASCA, IL 60143
PHONE: (630) 647-1400
FAX: (630) 647-1687

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FULLERTON ENGINEERING DESIGN
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TEL: 847-292-0200
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	12/15/14	90% CD's	RC
	1/8/15	REV. 90% CD's	RC
	1/26/15	REV. 90% CD's	KS
	9/21/15	FINAL	RC

STATE OF KENTUCKY
HENRY M. BELLAGAMBA
29246
LICENSED PROFESSIONAL ENGINEER

SITE NO.
KY005

SITE NAME
THACKER

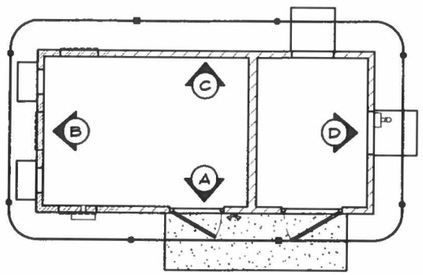
LANDLORD NO.
-

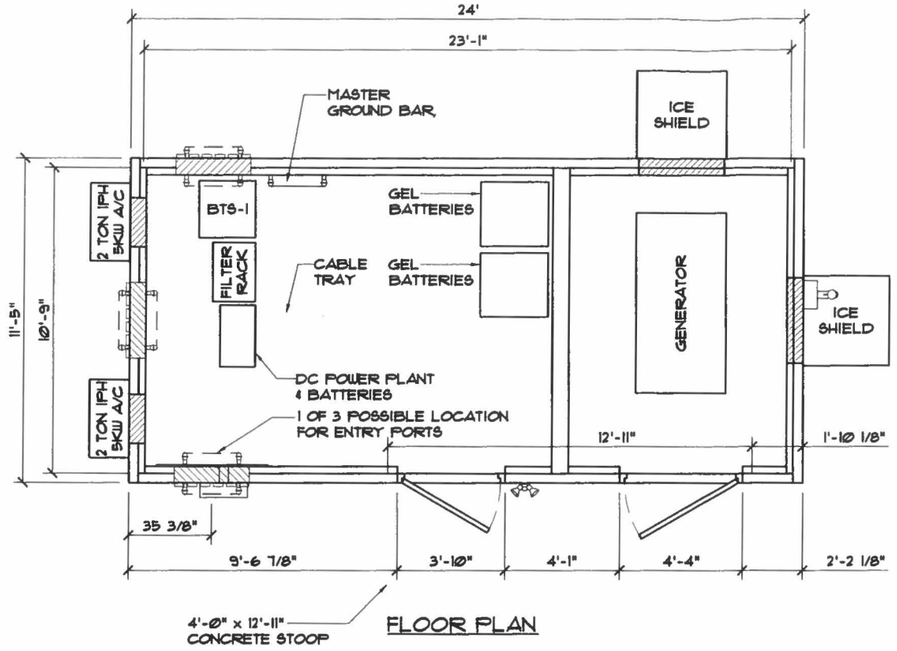
SITE ADDRESS
5011 SCAFFOLD CANE RD
MT VERNON, KY 40456

SHEET NAME
SHELTER FND. PLAN & DETAILS

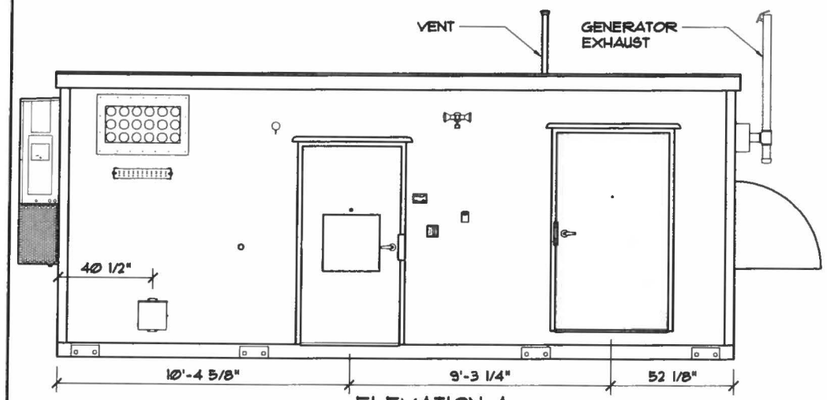
SHEET NUMBER
C-5

FIBREBOND MODEL D-8960

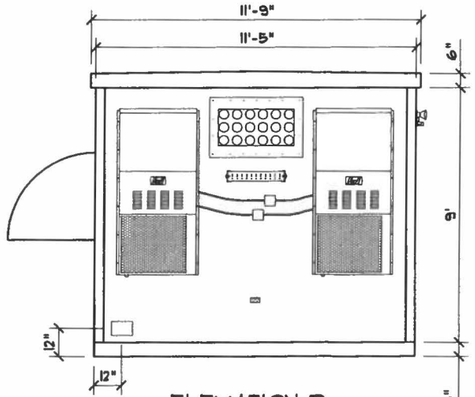




FLOOR PLAN



ELEVATION A



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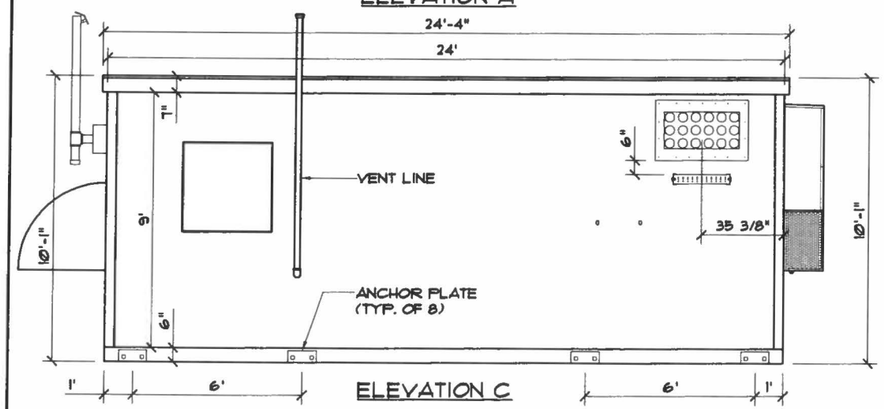
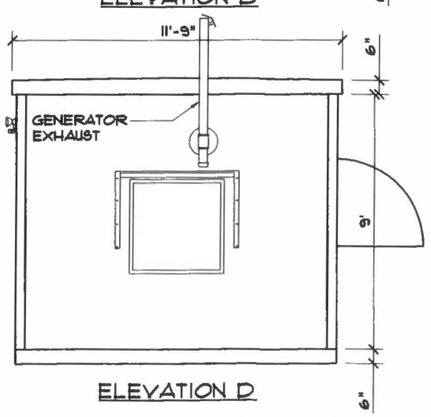


ELEVATION C



ELEVATION D

FIBREBOND D-10063 SHELTER

SCALE: 3/16" = 1'-0"

1

USE GROUP: B (BOCA, MASBC)
S-2 (FBC, IBC, SBC, UBC)
CONSTRUCTION TYPE: 5B (BOCA, MASBC)
IV-UNP (SBC)
V-B (IBC, FBC)
V-N (UBC)
ROOF LIVE LOAD: 93 PSF

FLOOR LIVE LOAD: 208 PSF

GROUND SNOW LOAD: 102 PSF

WIND SPEED:
110 MPH/EXPOSURE C (UBC, BOCA)
120 MPH/EXPOSURE C (UBC)
150 MPH/EXPOSURE C (SBC, IBC, FBC)

SEISMIC ZONE FOR SBC & UBC: 4

SEISMIC DESIGN CATEGORY FOR IBC:
D (IBC)
USE GROUP-III (OBC)
SITE CLASS-D (OBC)
CONCRETE f'c: 5000 PSI AT 28 DAYS
CONCRETE UNIT WEIGHT: 110 PCF
FIRE RATING: 2 HOUR WALL AND ROOF
(LIMITATIONS MAY APPLY DUE TO OPENINGS AND PROXIMITY ON SITE)

PHYSICAL PROPERTIES

SHELTER DIMENSIONS: 24'x11'-5"x9'-7"
SHIPPING DIMENSIONS:
SHELTER WEIGHT: (SHELTER ONLY)

DESIGN CRITERIA

N.T.S. | 2

CONTRACTOR IS RESPONSIBLE FOR THE FOLLOWING WORK:

1. PREFABRICATED SHELTER SHALL BE SUPPLIED BY GOGO.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OFFLOADING SHELTER FROM TRUCK AND PLACING SHELTER ON FOUNDATIONS.
3. THE CONTRACTOR SHALL SECURE SHELTER TO FOUNDATION WITH A STEEL BRACKETS SUPPLIED BY OWNER. BRACKETS SHALL BE PLACED AND ANCHORED BY METHODS APPROVED BY THE SHELTER MANUFACTURER. THE CONTRACTOR SHALL REMOVE FROM THE SITE ALL STEEL BRACKETS ORIGINALLY SECURED TO THE SHELTER OR OFF-LOADING PURPOSES.
4. THE CONTRACTOR SHALL INSTALL EXTERIOR LIGHT SUPPLIED WITH THE SHELTER AT THE LOCATION PREPPED ON THE SHELTER. CONTRACTOR SHALL ALSO TEST AND INSURE THE LIGHT IS TURNED ON AT NIGHT ONLY.
5. THE CONTRACTOR SHALL INSTALL ALL COMPONENTS OF THE SITE COMPLETION KIT SUPPLIED WITH THE SHELTER OR BY GOGO.
6. CONTRACTOR SHALL CLEAN THE INTERIOR OF SHELTER UPON COMPLETION OF INSTALLATION. THE FLOOR SHALL BE WAXED WITH AN ANTI-STATIC WAX AND ALL SURFACES SHALL BE WIPED DOWN AND BE FREE OF MARKS, DUST, AND DEBRIS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BRING ANY CONTAINERS OF LIQUID INTO THE SHELTER.
7. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE SECURITY OF THE SITE AND THE PROTECTION OF THE RADIO EQUIPMENT IN THE SHELTER UNTIL THE SITE IS 100%% COMPLETE. CONTRACTOR SHALL CARRY ALL NECESSARY INSURANCE FOR REPLACEMENT VALUE OF THE RADIO EQUIPMENT.
8. THE CONTRACTOR SHALL MOUNT THE EXTERIOR BUSS BAR AT THE SPECIFIED LOCATION.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MOUNTING STEEL CANOPY AT THE LOCATION SPECIFIED IN THE DRAWINGS.
10. REMOVE COVER ON EMERGENCY LIGHT AND CONNECT BATTERY LEADS TO THE BATTERY. REPLACE COVER.
11. THE WAVEGUIDE BULKHEAD PLATES (INTERIOR AND EXTERIOR) THAT ARE SHIPPED LOOSE WITH THE SHELTER, SHALL BE MOUNTED AT THE PRECUT OPENING PORT HOLE) BY THE CONTRACTOR. THE JOINTS BETWEEN THE METAL PLATE AND THE SHELTER SHALL BE SEALED. PROPER FASTENERS ARE TO BE USED IN MOUNTING THE PLATES TO THE WALL.
12. ALL COMPONENTS OF THE SITE COMPLETION KIT WILL BE SUPPILED BY THE SHELTER MANUFACTURER AND SHIPPED LOOSE WITH THE SHELTER. ALL ITEMS TO BE MOUNTED AT THE APPROPRIATE LOCATIONS AS TO NOT INTERFERE WITH THE EQUIPMENT OR ACCESS TO THE EQUIPMENT.
13. THE MGB (MASTER GROUND BUS BAR) SHALL BE MOUNTED BELOW THE WAVEGUIDE PLATE INSIDE THE SHELTER AND SHALL HAVE A CADWELD TO THE BOTTOM EDGE OF THE BAR. A #2 SOLID TINNED GROUND WIRE SHALL RUN FROM THE BUS BAR TO THE EXTERIOR OF THE SHELTER THROUGH A PENETRATION IN THE SHELTER WALL (MFG) AND SHALLNOT COME IN CONTACT WITH ANY INTERIOR CONDUITS OR OBJECTS. STANDOFF SHALL ANCHOR #2 TO WALL EVERY 16" O.C. SAID PENETRATION SHALL BE WATERTIGHT SEALED.
14. THE INTERIOR GROUND HALO SHALL BE CUT AT THE LOCATION OF THE WAVEGUIDE PLATE. EACH OF THE TWO ENDS SHALL HAVE A PIECE ADDED AND HAVE A 2 HOLE LUG ATTACHED WITH HEAT SHRINK WRAPPING THE CONNECTION AT THE STEM OF THE LUG. EACH OF THE ENDS TO BE ATTACHED TO THE MGB AT THE SPECIFIED LOCATIONS AND PER ACCEPTED METHODS.

NOTES

SCALE: N.T.S. | 3

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1250 N. ARLINGTON HEIGHTS RD.
STE 500
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STATE OF KENTUCKY
HENRY M. BELLAGAMBA
23246
LICENSED PROFESSIONAL ENGINEER

SITE NO.
KY005

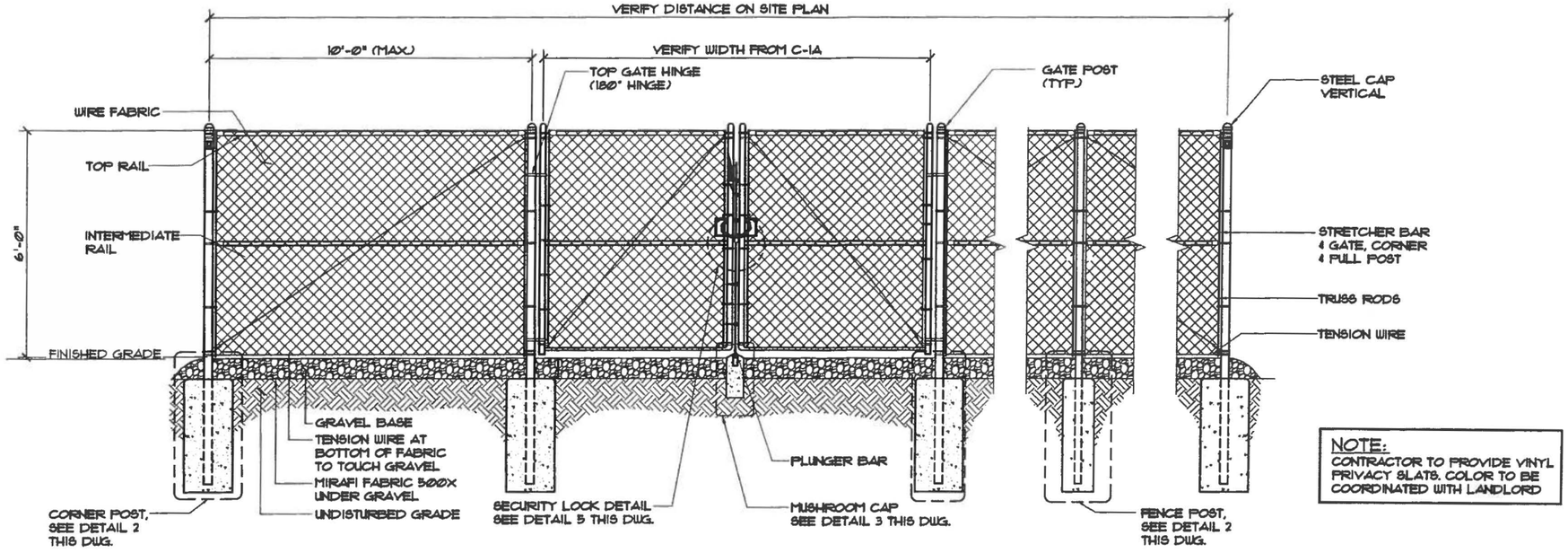
SITE NAME
THACKER

LANDLORD NO.
-

SITE ADDRESS
5011 SCAFFOLD CANE RD
MT VERNON, KY 40456

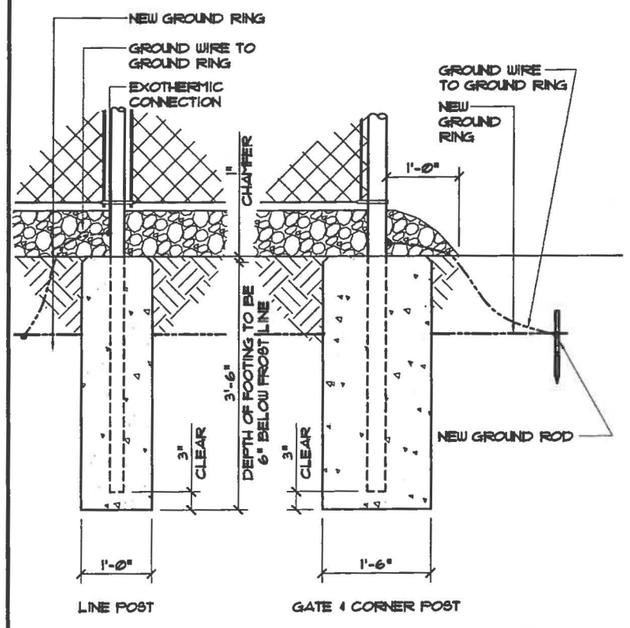
SHEET NAME
EQUIPMENT SHELTER ELEVATIONS

SHEET NUMBER
C-6

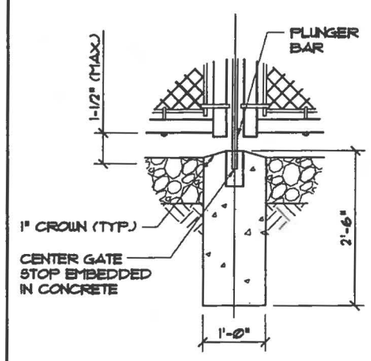


NOTE:
CONTRACTOR TO PROVIDE VINYL PRIVACY SLATS. COLOR TO BE COORDINATED WITH LANDLORD

FENCE DETAIL — SCALE: N.T.S. | 1



POSTS FOOTING DETAIL — SCALE: N.T.S. | 2

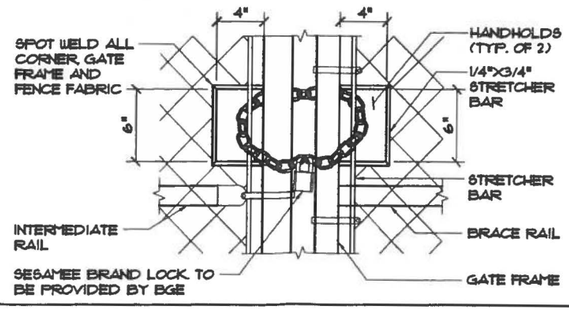


MUSHROOM CAP DETAIL SCALE: N.T.S. | 3

FENCING NOTES:
(INSTALL FENCING PER ASTM F-567, SWING GATES PER ASTM F-900)

1. ALL FENCING AND RELATED ASSEMBLIES SHALL BE HOT DIP GALVANIZED ZINC FINISH:
   - FABRIC - ASTM A392-84
   - FRAME WORK - ASTM F669-81.
2. GATE POST: 3" STD. PIPE SCH. 40 FOR GATE WIDTHS UP THRU 6'-0" OR 12'-0" FOR DOUBLE SWING GATE.
3. END, CORNER & PULL POST: 3" STD. PIPE SCH. 40 LINE POST: 2 3/8" O.D. PIPE 16 GA.
4. GATE FRAME: 1 1/2" STD. PIPE SCH. 40 FOR GATE WIDTHS UP THRU 6'-0" OR 12'-0" FOR DOUBLE SWING GATE. GATE FRAME TO BE WELDED BEFORE GALVANIZING OR ASSEMBLY.
5. TOP RAIL & BRACE RAIL: 1 5/8" O.D. PIPE, 17 GA.
6. FABRIC: 9 GA. CORE WIRE SIZE, 2" MESH, CONFORMING TO ASTM A-392.
7. TIE WIRE: 11 GA. 12" O.C. SPACING @ POST/GATES, 24" O.C. AT RAILS / TENSION WIRE.
8. TENSION WIRE: 7 GA. GALVANIZED STEEL OR ALUMINUM COATED COIL SPRING WIRE.
9. STRETCHER BAR: 3/16" X 3/4" - FULL HEIGHT OF FABRIC. SPACE TENSION BANDS 15" O.C. FOR FULL HEIGHT OF FENCE.
10. GATE LATCH: 1 3/8" O.D. PLUNGER ROD W/ MUSHROOM TYPE CATCH AND COMBINATION LOCK.
11. ECO-SITE CM SHALL PROVIDE LOCK.
12. PROVIDE A CORNER POST WHERE THE FENCE CHANGES IN DIRECTION, HORIZONTALLY OR VERTICALLY, BY MORE THAN 30 DEGREES.
13. ALL CONCRETE FOOTINGS SHALL BE 2500 PSI CONCRETE.

NOTES — SCALE: N.T.S. | 4



LOCK DETAIL — SCALE: N.T.S. | 5

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	1/26/15	REV. 90% CD's	KS
	9/21/15	FINAL	RC

STATE OF KENTUCKY
HENRY M. BELLAGAMBA
29246
LICENSED PROFESSIONAL ENGINEER

SITE NO
KY005

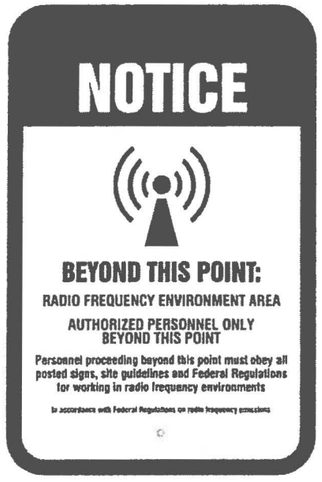
SITE NAME
THACKER

LANDLORD NO.
-

SITE ADDRESS
3011 SCAFFOLD CANE RD
MT VERNON, KY 40456

SHEET NAME
FENCE DETAILS

SHEET NUMBER
C-11



18" x 12" digital print mounted to .040 thick aluminum.
Qty 1

18" x 12" digital print mounted to .040 thick aluminum.
Qty 1

18" x 12" digital print mounted to .040 thick aluminum.
Qty 1

12" x 18" digital print mounted to .040 thick aluminum.
Qty 1

TOWER ID:
SITE NAME:
E911 ADDRESS:
FCC#:

Eco-Site
Urban Renewal Wireless

FOR TOWER LEASING INFORMATION &

EMERGENCY CONTACT
1-866-899-6191

18" x 36" digital print mounted to max metal.
Qty 1

ECO-SITE SIGNAGE

SCALE: N.T.S. | 1

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STATE OF KENTUCKY
HENRY M. BELLAGAMBA
23245
LICENSED PROFESSIONAL ENGINEER

SITE NO.
KY005

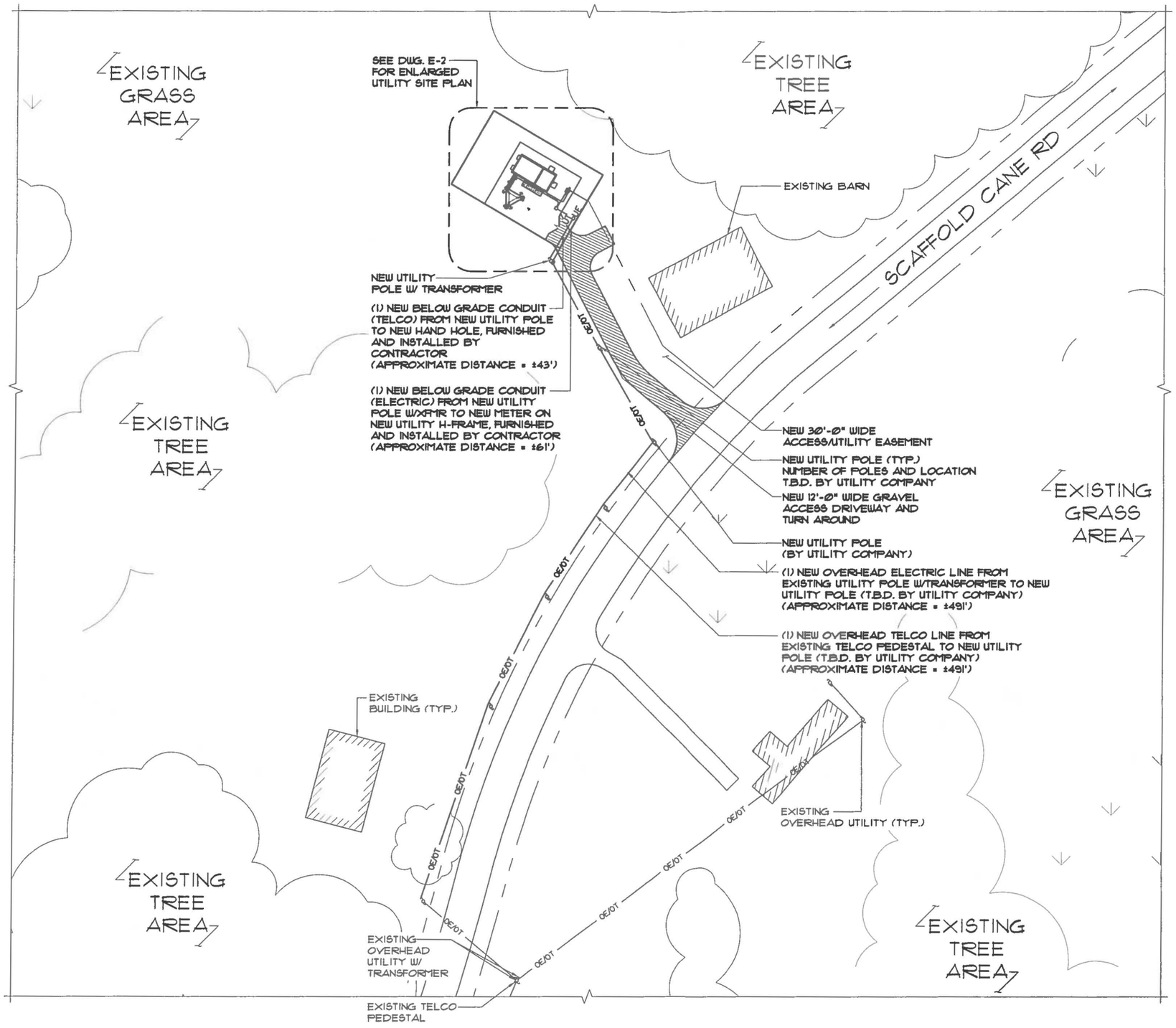
SITE NAME
THACKER

LANDLORD NO.
-

SITE ADDRESS
5011 SCAFFOLD CANE RD
MT VERNON, KY 40456

SHEET NAME
ECO-SITE SIGNAGE

SHEET NUMBER
C-12



NOTE:
SEE DWG. E-3 FOR CONDUIT SIZES AND DETAILS

UTILITY SITE PLAN

SCALE: 1" = 150'-0"

0 75 150 225

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KY005

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-

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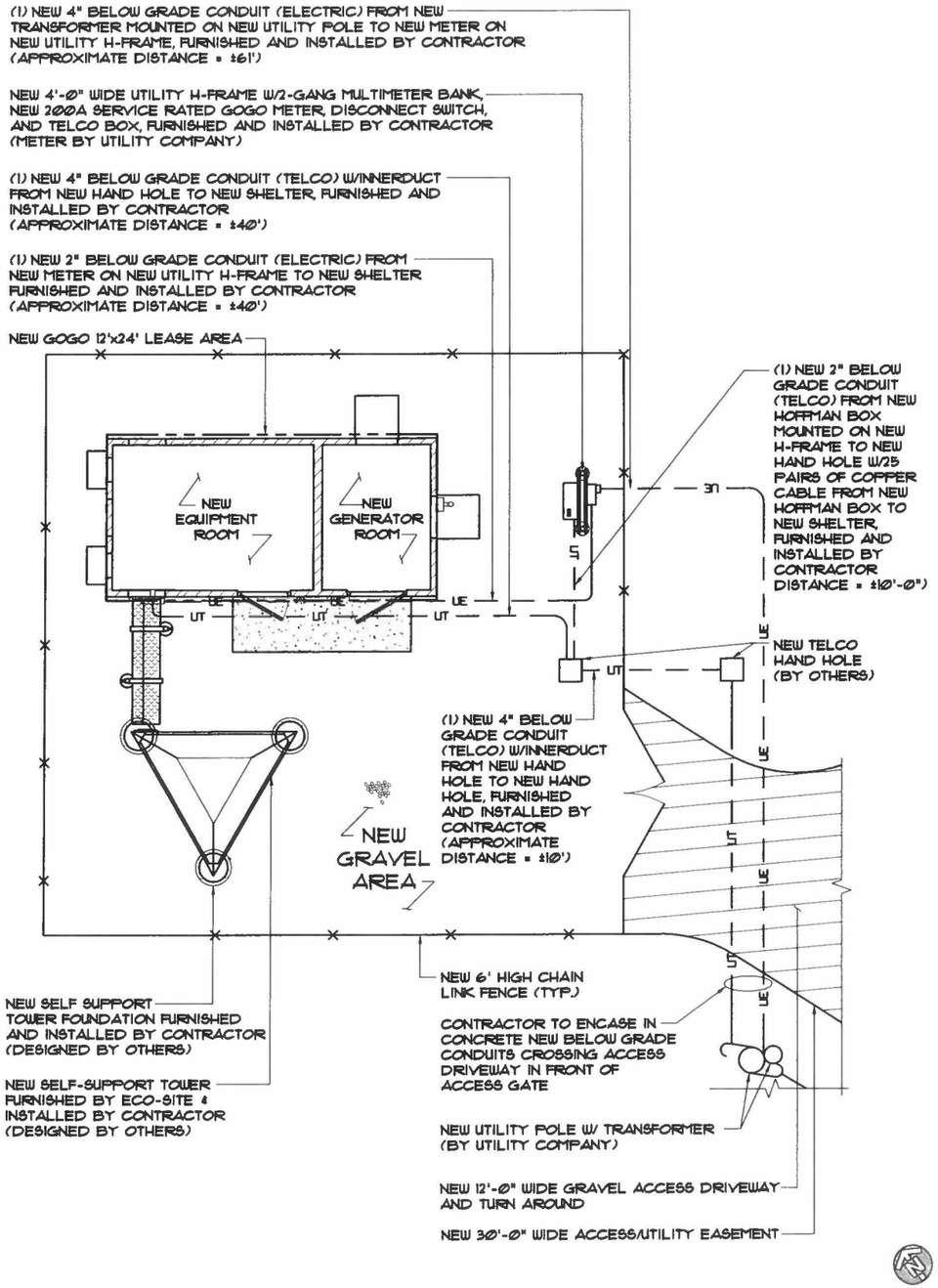
5011 SCAFFOLD CANE RD
MT VERNON, KY 40456

SHEET NAME
UTILITY SITE PLAN

SHEET NUMBER
E-1

NOTE:
SEE DWG. E-3 FOR CONDUIT SIZES AND DETAILS



ENLARGED UTILITY SITE PLAN

SCALE: 3/32" = 1'-Ø" | 1

GENERAL NOTES:

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE PROPERTY OWNER AND NECESSARY UTILITY COMPANIES FOR THE LOCATION OF ALL EXISTING BELOW GRADE UTILITIES PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE COSTS ASSOCIATED WITH EXISTING BELOW GRADE UTILITIES.
2. CONTRACTOR TO COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOKUP COSTS TO BE PAID BY CONTRACTOR
3. CONTRACTOR TO CALL KENTUCKY ONE CALL @ 1-800-752-6007, 72 HRS PRIOR TO EXCAVATING FOR UNDERGROUND UTILITY LOCATIONS. LOCATION SURROUNDING EXCAVATED AREA MUST BE PRIVATELY LOCATED FOR NONPUBLIC UTILITIES.
4. PROPOSED UTILITY SERVICES SHOWN NEED TO BE VERIFIED AND APPROVED BY UTILITY COMPANIES BEFORE START OF CONSTRUCTION. CONTRACTOR TO VERIFY WITH GOGO AND ECO-SITE PROJECT MANAGER TO OBTAIN FINAL APPROVAL
5. LINES SHOWN DO NOT REPRESENT THE EXACT LOCATION OF THE CONDUIT ROUTING - CONTRACTOR TO VERIFY SERVICE LOCATIONS W/ACTUAL FIELD CONDITIONS AND PROVIDE AS-BUILTS TO GOGO AND ECO-SITE PROJECT MANAGER.

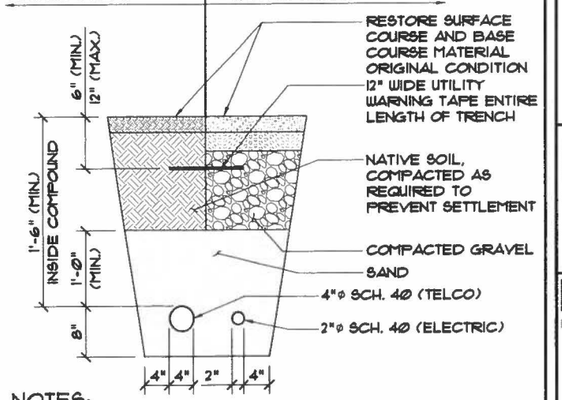
UTILITY COORDINATION NOTES:

POWER COMPANY:	JACKSON ENERGY
CONTACT PERSON:	CUSTOMER SERVICE
PHONE:	(800) 262-7480
TELEPHONE COMPANY:	WINDSTREAM
CONTACT PERSON:	CUSTOMER SERVICE
PHONE:	(866) 444-2841

NOTES

SCALE: N.T.S. | 2

SECTION FOR USE UNDER GRASS OR BARE GROUND AREAS | SECTION FOR USE UNDER PAVEMENT OR VEHICLE TRAFFIC AREAS



NOTES:

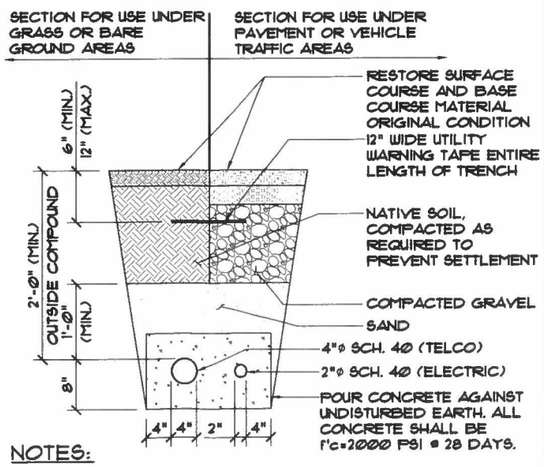
1. CONTRACTOR TO VERIFY LOCAL UTILITY REQUIREMENTS FOR DEPTH, SIZE & SEPARATION OF CONDUITS PRIOR TO INSTALLATION. NOTIFY CONSTRUCTION MANAGER IMMEDIATELY OF ANY DISCREPANCIES.
2. CONTRACTOR TO CALL 811, 48 HRS PRIOR TO EXCAVATING FOR UNDERGROUND UTILITY LOCATIONS. LOCATION SURROUNDING EXCAVATED AREA MUST BE PRIVATELY LOCATED FOR NON-PUBLIC UTILITIES.

811 Know what's below. Call before you dig.

UTILITY TRENCH DETAIL

SCALE: N.T.S. | 3

SECTION FOR USE UNDER GRASS OR BARE GROUND AREAS | SECTION FOR USE UNDER PAVEMENT OR VEHICLE TRAFFIC AREAS



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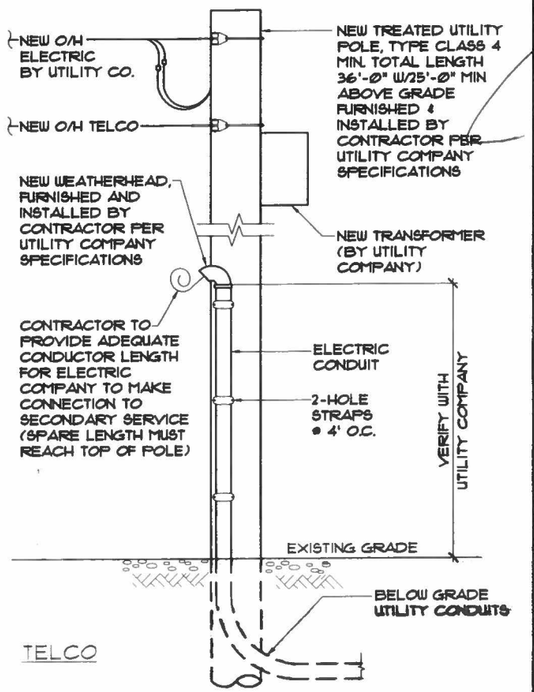
UTILITY TRENCH DETAIL @ GATE

SCALE: N.T.S. | 4



NEW UTILITY POLE DETAIL

SCALE: N.T.S. | 5

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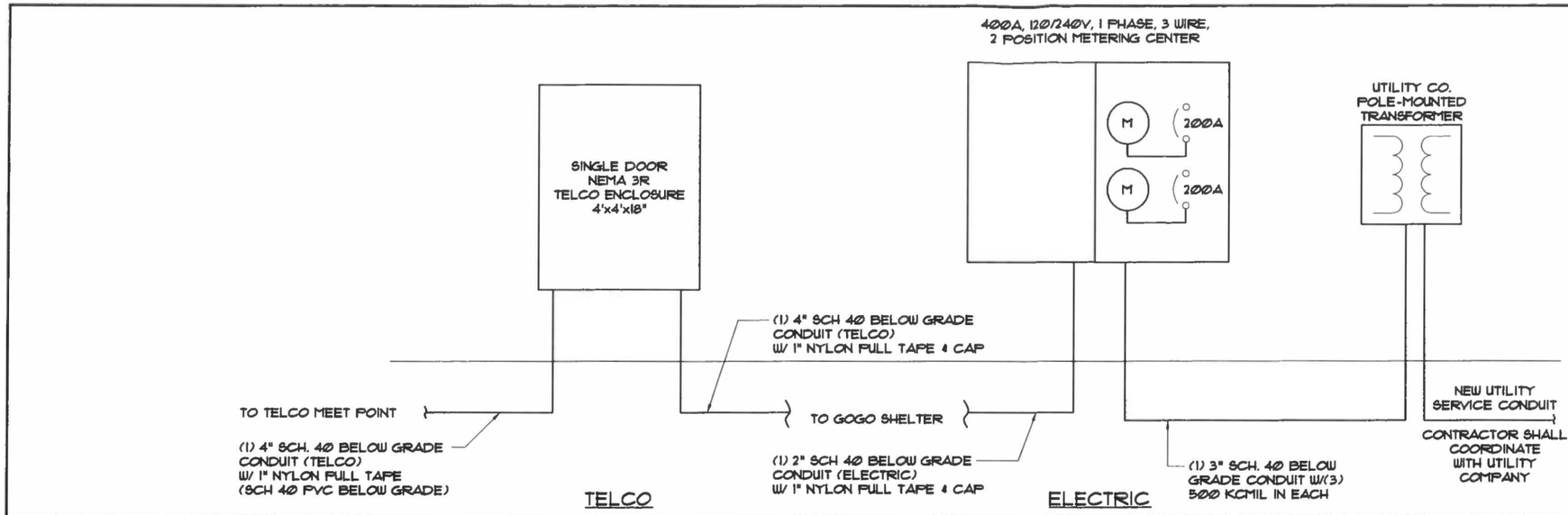
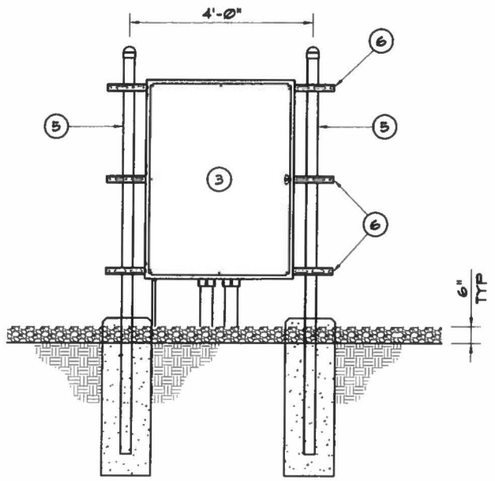
SHEET NAME
UTILITY DETAILS

SHEET NUMBER
E-2

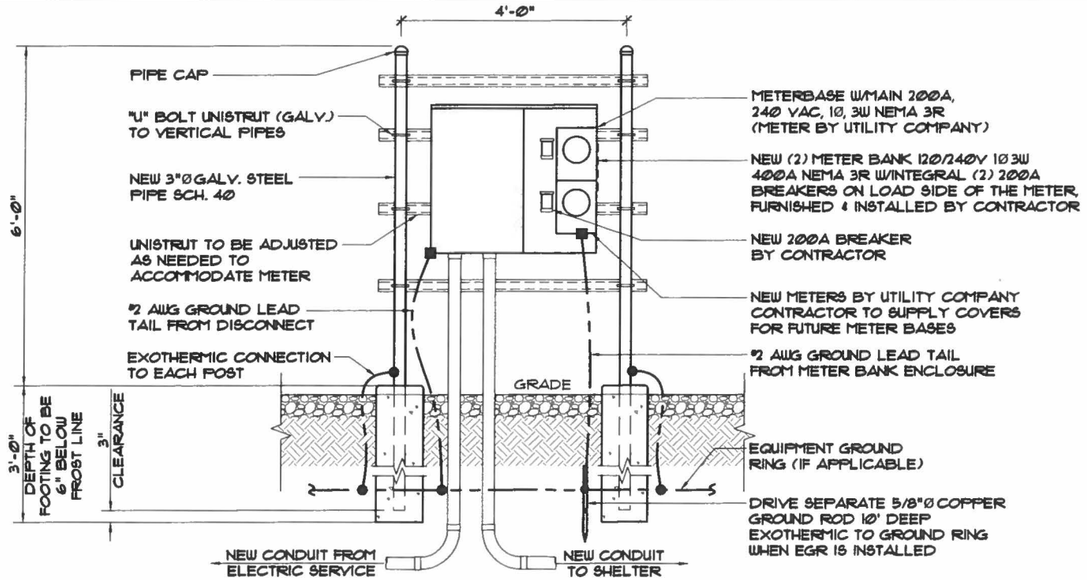


SINGLE LINE DIAGRAM

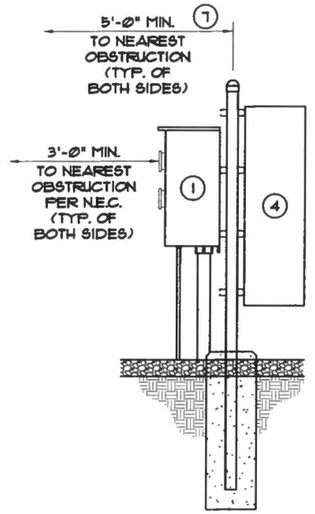
SCALE: N.T.S. | 1



H-FRAME (TELCO)
REAR VIEW



H-FRAME (ELECTRIC)
REAR VIEW



H-FRAME
SIDE VIEW

BALLOON REFERENCE NOTES:

1. 400A, 120/240V, 1 PHASE, 3 WIRE, 2 POSITION METERING CENTER (200A MAX CIRCUIT BREAKER)
2. 200A TENANT SERVICE DISCONNECT
3. SINGLE DOOR NEMA 3R TELCO ENCLOSURE 4'x4'x18" (HOFFMAN CATALOG #CSD483612, OR APPROVED EQUAL)
4. 3/4" PLYWOOD BACK BOARD INSIDE ENCLOSURE
5. 3" NOMINAL GALVANIZED STEEL PIPE WITH PIPE CAP
6. HORIZONTAL SUPPORT MEMBER (UNISTRUT P1000 GALVANIZED, OR APPROVED EQUAL)
7. CONTRACTOR TO MAINTAIN 5'-0" MINIMUM CLEARANCE FROM FACE OF H-FRAME TO NEAREST OBSTRUCTION. MAINTAIN A 3'-0" MINIMUM CLEARANCE FROM FACE OF METER TO NEAREST OBSTRUCTION PER N.E.C.
8. CONCRETE POST, 2500 PSI CONCRETE MIN,

ENLARGED UTILITY PLAN

SCALE: N.T.S. | 2

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STATE OF KENTUCKY
HENRY M. BELLAGAMBA
23246
LICENSED PROFESSIONAL ENGINEER

SITE NO.
KY005

SITE NAME
THACKER

LANDLORD NO.
-

SITE ADDRESS
5011 SCAFFOLD CANE RD
MT VERNON, KY 40456

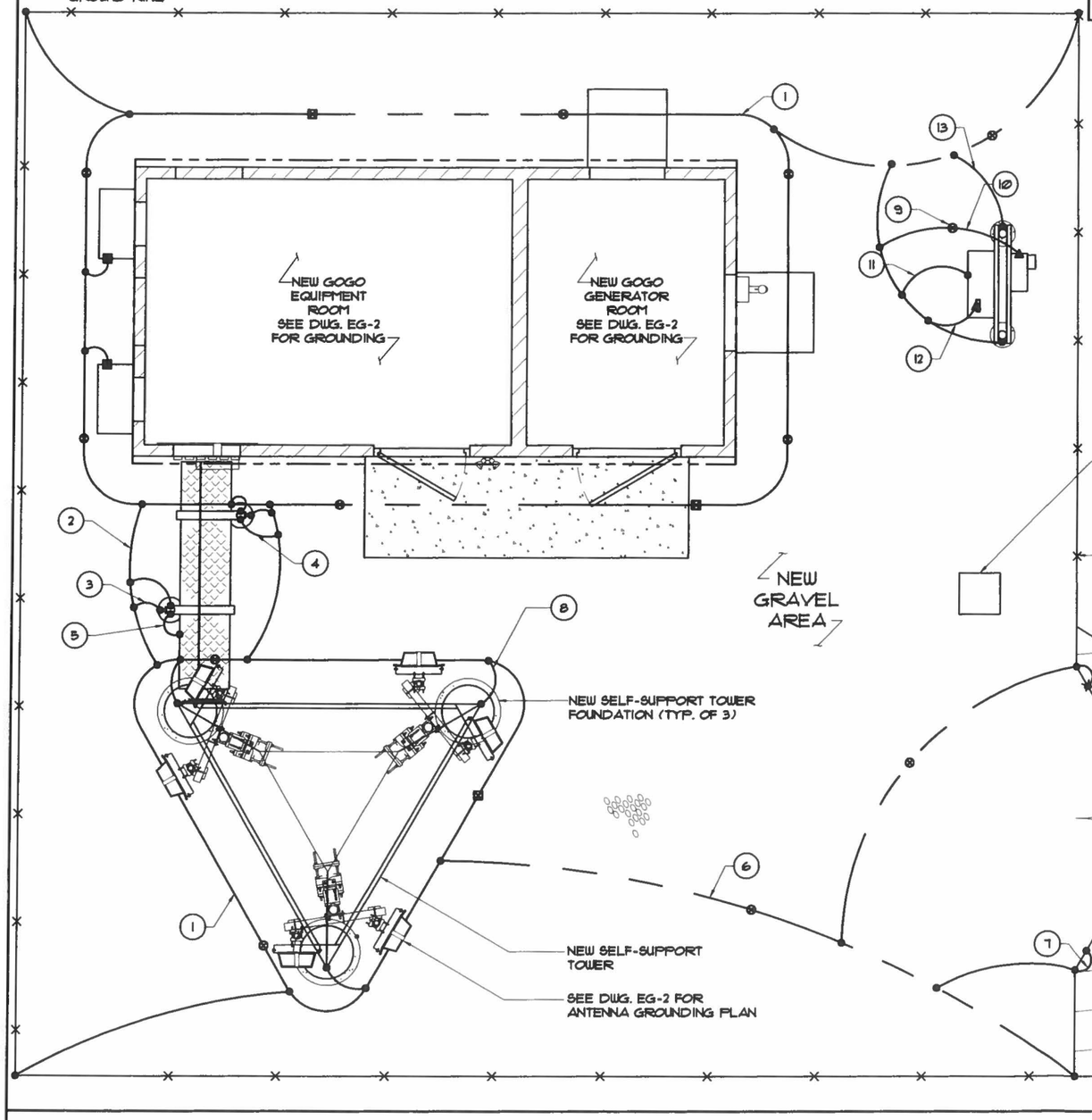
SHEET NAME
UTILITY DETAILS

SHEET NUMBER
E-3

LEGEND:

- FOR GROUNDING WITHIN THE SHELTER GROUND RING SEE EG-2/DETAIL 1
- ALL CONNECTIONS TO GROUND RINGS

1. GROUND RING CONSTRUCTED OF #2 SOLID TINNED BARE COPPER GROUND WIRE IN ONE CONTINUOUS PIECE.
2. #2 SOLID TINNED BARE COPPER GROUND WIRE FOR CONNECTION TO TOWER GROUND RING IN (2) LOCATIONS, MINIMUM 6 FT. APART (TYP.)
3. #2 STRANDED INSULATED COPPER GROUND WIRE FROM GPS ANTENNA SUPPORT TO GROUND RING
4. #2 SOLID TINNED BARE COPPER GROUND WIRE FROM ICE BRIDGE SUPPORT POSTS TO GROUND RING
5. #2 STRANDED INSULATED COPPER GROUND WIRE FROM ICE BRIDGE POST TO ICE BRIDGE WAVE
6. #2 SOLID TINNED BARE COPPER GROUND WIRE FROM FENCE POSTS TO GROUND RING
7. A.L.T. OR EQUAL 2/0 GROUND WIRE W/BLACK NEOPRENE INSULATION & PRECAPPED ENDS ATTACHED TO GATE POST AND GATE FRAME W/VS TYPE CADWELD. INSTALL W/WELDS 18" ABOVE FINISH GRADE
8. #2 SOLID TINNED BARE COPPER GROUND WIRE FROM TOWER LEG TO GROUND RING (TYP.)
9. 5/8"ø x 10'-0" COPPER CLAD GROUND ROD FOR ELECTRICAL SERVICE GROUND
10. #2 SOLID, TINNED, BARE COPPER GROUND WIRE TO ELECTRIC METER
11. #2 SOLID, TINNED, BARE COPPER GROUND WIRE TO TELCO BOX
12. #2 SOLID, TINNED, BARE COPPER GROUND WIRE TO TELCO BOX GROUND BAR
13. #2 SOLID, TINNED BARE COPPER GROUND WIRE FROM UTILITY H-FRAME POSTS TO GROUND RING



SITE GROUNDING PLAN

Ø 2' 4' 8' 12'

SCALE: 3/16" = 1'-Ø" | 1

SYMBOL LEGEND:

- GROUND ROD (SEE DWG EG-3/DETAIL 1)
- GROUND ROD WITH ACCESS (SEE DWG EG-3/DETAIL 2)
- NEW GROUND WIRE
- EXISTING GROUND WIRE
- EXOTHERMIC CONNECTION
- MECHANICAL CONNECTION
- EXOTHERMIC OR MECHANICAL CONNECTION

NEW COAX CABLE GROUNDING NOTES:

1. GROUND KITS SHALL BE INSTALLED AT (3) PLACES:
   - A. AT ANTENNA
   - B. BASE OF TOWER
   - C. BEFORE ENTRY TO SHELTER
2. CONTRACTOR SHALL CONNECT GROUND KITS TO THE NEW SECTOR GROUND BARS AT THE ANTENNA AND THE NEW TOWER GROUND BAR AT THE BASE OF TOWER
3. CONTRACTOR SHALL CONNECT GROUND KITS TO THE NEW GROUND BAR BEFORE ENTRY TO SHELTER

NEW GROUND BAR NOTES:

CONTRACTOR SHALL FURNISH & INSTALL THE FOLLOWING GROUND BARS:

ANTENNA SECTOR GROUND BARS (12x4x1/4) - (3) TYPICAL
TOWER GROUND BAR (24x4x1/4)
SHELTER EXTERIOR GROUND BAR (24x4x1/4)

SHELTER MFR SHALL FURNISH & INSTALL THE FOLLOWING GROUND BARS:
SHELTER INTERIOR GROUND BAR (24x4x1/4)
MASTER GROUND BAR (24x4x1/4)
TELCO GROUND BAR (12x4x1/4)

GENERAL GROUNDING NOTES:

1. GROUND RODS WILL BE 5/8" X 10 FOOT COPPER CLAD NOT LESS THAN 10 FOOT OR MORE THAN 15 FOOT APART AND MINIMUM OF 36 INCHES BELOW FINISHED GRADE OR 6 INCHES BELOW LOCAL FROST DEPTH WHICHEVER IS GREATER.
2. ALL CONNECTIONS TO THE GROUND RING, AND PERIPHERAL EQUIPMENT WILL BE MADE VIA EXOTHERMIC PROCESS UNLESS OTHERWISE SPECIFIED.
3. ALL BELOW GRADE GROUND WIRES SHALL BE SOLID BARE COPPER UNLESS OTHERWISE SPECIFIED.
4. 4. ALL METALLIC COMPONENTS ON THE SITE MUST BE GROUNDED TO THE GROUND RING. THIS INCLUDES STEEL CONDUITS USED TO DELIVER THE TELCO AND POWER UTILITY LINES TO THE SITE OR USED TO PROVIDE ACCESS BY UTILITIES OR CONTRACTORS TO THE VARIOUS CABINETS.
5. ALL GROUND LEADS DENOTED BY (•) SHALL BE INSTALLED IN 3/4" SCHEDULE 40 PVC ABOVE GRADE W/ WEATHER SEALED ENDS.
6. WHEN EARTH RESISTANCE TEST INDICATE THAT THE SOIL IS ABOVE MINIMUM ALLOWABLE RESISTANCE, THEN CONTRACTOR SHALL ESTIMATE THE TYPE, NUMBER AND ARRANGEMENT OF EARTH ELECTRODES. CONTRACTOR SHALL ALSO CONSIDER OWNER'S SITE SPECIFIC APPROACHES FOR IMPROVING EARTH RESISTANCE AT THE SITE BY THE METHODS INDICATED BELOW:

   RAW LAND:
   - A. USE MULTIPLE RODS
   - B. LENGTHEN THE EARTH ELECTRODE
   - C. TREAT THE SOIL
   - D. USE CHEMICAL RODS

7. ALL GROUNDING MATERIALS AND INSTALLATION METHODS SHALL BE DONE IN ACCORDANCE WITH GOGO'S AND ECO-SITE'S SPECIFICATIONS.
8. ALL INTERIOR GROUND WIRES SHALL BE GREEN STRANDED INSULATED UNLESS NOTED OTHERWISE.
9. THE CONTRACTOR MUST VERIFY THAT NEW GROUNDING SYSTEM RESISTANCE IS EQUAL TO OR LESS THAN FIVE (5) OHMS PER OWNER SPECIFICATIONS.
10. RUN ALL GROUND WIRES IN AN ORGANIZED MANNER, C-TAPPING PER OWNER SPECIFICATIONS WHERE POSSIBLE TO REDUCE THE NUMBER OF GROUND WIRES. AVOID CROSSING OF WIRES WHEREVER POSSIBLE.
11. INSTALL ALL GROUND WIRES IN A DOWNWARD SLOPE FOR MAXIMUM LIGHTNING PROTECTION.
12. MAINTAIN ALL MINIMUM BENDING RADII OF THE GROUNDING WIRES.
13. DO NOT REMOVE MORE INSULATION FROM THE GROUND WIRES THAN NECESSARY WHEN EXOTHERMICALLY WELDING OR CRIMPING. IF EXCESS INSULATION IS REMOVED, THE CONNECTION WILL BE CONSIDERED UNACCEPTABLE AND WILL BE CORRECTED PER GOGO'S AND ECO-SITE'S PROJECT MANAGER'S DIRECTION.
14. CONTRACTOR TO ROLL UP ALL FUTURE GROUND LEADS WITH TIE WRAP AND ELIMINATE POSSIBLE TRIP HAZARD.
15. WEATHER SEAL ALL SHELTER PENETRATIONS FOR GROUNDING CONDUCTORS WHICH ARE INSTALLED BETWEEN THE INTERIOR AND EXTERIOR OF SHELTER.

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KY005

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LANDLORD NO.
-

SITE ADDRESS
5011 SCAFFOLD CANE RD
MT VERNON, KY 40456

SHEET NAME
GROUNDING PLAN AND NOTES

SHEET NUMBER
EG-1

GENERAL:

1. REPRESENTATIVES OF ECO-SITE MUST BE NOTIFIED AT LEAST TWO FULL DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. DO NOT EXCAVATE OR DISTURB BEYOND THE PROPERTY LINES OR LEASE LINES, UNLESS OTHERWISE NOTED.
3. DO NOT SCALE BUILDING DIMENSIONS FROM DRAWINGS.
4. ANY DRAIN AND/OR FIELD TILE ENCOUNTERED DURING CONSTRUCTION SHALL BE RETURNED TO ITS ORIGINAL CONDITION PRIOR TO COMPLETION OF WORK. SIZE, LOCATION AND TYPE OF ANY UNDERGROUND UTILITIES OR IMPROVEMENTS SHALL BE ACCURATELY NOTED AND PLACED ON AS-CONSTRUCTED DRAWINGS BY GENERAL CONTRACTOR AND ISSUED TO ENGINEER AT COMPLETION OF PROJECT.
5. ALL EXISTING UTILITIES, FACILITIES, CONDITIONS, AND THEIR DIMENSIONS SHOWN ON PLANS HAVE BEEN PLOTTED FROM AVAILABLE RECORDS. THE ENGINEER AND OWNER ASSUME NO RESPONSIBILITY WHATSOEVER AS TO THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN ON THE PLANS OR THE MANNER OF THEIR REMOVAL OR ADJUSTMENT. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL EXISTING UTILITIES AND FACILITIES PRIOR TO START OF CONSTRUCTION. CONTRACTOR SHALL ALSO OBTAIN FROM EACH UTILITY COMPANY DETAILED INFORMATION RELATIVE TO WORKING SCHEDULES AND METHODS OF REMOVING OR ADJUSTING EXISTING UTILITIES.
6. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES BOTH HORIZONTALLY AND VERTICALLY PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES OR DOUBTS AS TO THE INTERPRETATION OF PLANS SHOULD BE IMMEDIATELY REPORTED TO THE ENGINEER FOR RESOLUTION AND INSTRUCTION, AND NO FURTHER WORK SHALL BE PERFORMED UNTIL THE DISCREPANCY IS CHECKED AND CORRECTED BY THE ENGINEER. FAILURE TO SECURE SUCH INSTRUCTION MEANS CONTRACTOR WILL HAVE WORKED AT HIS/HER OWN RISK AND EXPENSE.
7. ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS TO BE DISTURBED BY CONSTRUCTION SHALL BE ADJUSTED TO FINISH ELEVATIONS PRIOR TO FINAL INSPECTION OF WORK.
8. THE BUILDING DEPARTMENT ISSUING THE BUILDING PERMIT SHALL BE NOTIFIED AT LEAST TWO WORKING DAYS PRIOR TO THE COMMENCEMENT OF WORK OR AS STIPULATED BY THE CODE ENFORCEMENT OFFICIAL HAVING JURISDICTION.
9. GRADING OF THE SITE WORK AREA IS TO BE SMOOTH AND CONTINUOUS IN SLOPE AND IS TO FEATHER INTO EXISTING GRADES AT THE GRADING LIMITS.
10. ALL TEMPORARY EXCAVATIONS FOR THE INSTALLATION OF FOUNDATIONS, UTILITIES, ETC., SHALL BE PROPERLY LAID BACK OR BRACED IN ACCORDANCE WITH CORRECT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REQUIREMENTS.
11. STRUCTURAL FILLS SUPPORTING PAVEMENTS SHALL BE COMPACTED TO 100% OF MAXIMUM STANDARD PROCTOR DRY DENSITY.
12. NEW GRADES NOT IN BUILDING AND DRIVEWAY IMPROVEMENT AREA TO BE ACHIEVED BY FILLING WITH APPROVED CLEAN FILL AND COMPACTED TO 95% OF STANDARD PROCTOR DENSITY.
13. ALL FILL SHALL BE PLACED IN UNIFORM LIFTS. THE LIFTS THICKNESS SHOULD NOT EXCEED THAT WHICH CAN BE PROPERLY COMPACTED THROUGHOUT ITS ENTIRE DEPTH WITH THE EQUIPMENT AVAILABLE.
14. ANY FILLS PLACED ON EXISTING SLOPES THAT ARE STEEPER THAN 10 HORIZONTAL TO 1 VERTICAL SHALL BE PROPERLY BENCHED INTO THE EXISTING SLOPE AS DIRECTED BY A SOILS REPORT.
15. THE GRADES WITHIN THE FENCED-IN AREA ARE TO BE ACHIEVED BY COMPACTING CLEAN FILL TO A DENSITY OF 90% OF STANDARD PROCTOR COVERING THE AREA WITH 6 MIL. MIRAFI 500 FABRIC (1' OVERLAP AT SEAMS) FOR WEED SUPPRESSION, THEN ACHIEVING FINISH GRADE BY ADDING 6" THICK (MIN.) 3/4" CLEAN STONE.
16. CONTRACTOR SHALL CLEAN ENTIRE SITE AFTER CONSTRUCTION SUCH THAT NO PAPERS, TRASH, WEEDS, BRUSH OR ANY OTHER DEPOSITS WILL REMAIN. ALL MATERIALS COLLECTED DURING CLEANING OPERATIONS SHALL BE DISPOSED OF OFF-SITE BY THE GENERAL CONTRACTOR.
17. ALL TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH THE IMPROVEMENTS SHALL BE PROTECTED BY THE GENERAL CONTRACTOR.
18. GOGO SHALL PROVIDE AND CONTRACTOR SHALL INSTALL THE FOLLOWING MATERIALS:
    - A. EQUIPMENT SHELTER
    - B. ANTENNA SUPPORTS
    - C. GPS ANTENNA
    - D. TRANSMISSION LINE
    - E. TRANSMISSION LINE JUMPERS
    - F. TRANSMISSION LINE CONNECTORS WITH WEATHERPROOFING KITS
    - G. TRANSMISSION LINE GROUND KITS
    - H. BTS EQUIPMENT
19. CONTRACTOR TO FURNISH AND INSTALL THE FOLLOWING: THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL OTHER MATERIALS FOR THE COMPLETE INSTALLATION OF THE SITE INCLUDING, BUT NOT LIMITED TO, SUCH MATERIALS AS FENCING, STRUCTURAL STEEL SUPPORTING SUB-FRAME FOR PLATFORM OR SHELTER, ROOFING LABOR AND MATERIALS, GROUNDING RINGS, GROUNDING WIRES, COPPER-CLAD OR XIT CHEMICAL GROUND ROD(S), BUSS BARS, TRANSFORMERS AND DISCONNECT SWITCHES WHERE APPLICABLE, ELECTRICAL FEEDER WIRE, CONDUIT, LANDSCAPING COMPOUND STONE, CRANES, CORE DRILLING, SLEEPERS AND RUBBER MATTING, REBAR, CONCRETE CAISSONS, PADS AND/OR SCREW-IN ANCHORS, MISCELLANEOUS FASTENERS, ICE BRIDGE, ANGLE BRACKETS & SNAP-IN HANGERS, CABLE TRAY WITH COVER, GPS MOUNTS, STANDARD & NON-STANDARD ANTENNA FRAMES, BRACKETS, PIPES FOR MOUNTING, AC/TELCO INTERFACE BOX AND ALL OTHER MATERIAL AND LABOR REQUIRED TO COMPLETE THE JOB ACCORDING TO THE DRAWINGS AND SPECIFICATIONS. IT IS THE POSITION OF OWNER TO APPLY FOR PERMITTING AND CONTRACTOR RESPONSIBLE FOR PICKUP OF REQUIRED PERMITS. THE COST OF THE BUILDING PERMIT WILL BE PAID FOR BY OWNER.
20. GOGO FURNISHED EQUIPMENT SHALL BE SHIPPED FROM GOGO'S WAREHOUSE AND INSTALLED BY THE CONTRACTOR WITH ALL APPURTENANCES REQUIRED TO PLACE THE EQUIPMENT IN OPERATION, READY FOR USE.
21. ALL EQUIPMENT FURNISHED AND WORK PERFORMED UNDER THE CONTRACT DOCUMENTS SHALL BE GUARANTEED AGAINST DEFECTS IN MATERIALS OR WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE, UNLESS NOTED OTHERWISE. ANY FAILURE OF EQUIPMENT OR WORK DUE TO DEFECTS IN MATERIALS OR WORKMANSHIP SHALL BE CORRECTED BY THE CONTRACTOR AT NO COST TO THE OWNER.
22. ALL WORK, MATERIAL, AND EQUIPMENT SHALL COMPLY WITH ALL REQUIREMENTS OF THE LATEST EDITIONS AND INTERIM AMENDMENTS OF THE NATIONAL ELECTRICAL CODE (NEC), NATIONAL ELECTRICAL SAFETY CODE, OSHA, AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND ORDINANCES. ALL ELECTRICAL EQUIPMENT PROVIDED UNDER THIS CONTRACT SHALL BE NEW (EXCEPT WHERE OTHERWISE NOTED) AND SHALL COMPLY WITH THE REQUIREMENTS OF THE UNDERWRITERS' LABORATORIES (U.L.) AND BEAR THE U.L. LABEL.
23. GOGO OR ENGINEER RESERVES THE RIGHT TO REJECT ANY EQUIPMENT OR MATERIALS WHICH, IN HIS OPINION ARE NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS, EITHER BEFORE OR AFTER INSTALLATION AND THE EQUIPMENT SHALL BE REPLACED WITH EQUIPMENT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE CONTRACTOR AT NO COST TO GOGO.
24. THE CONTRACTOR SHALL SUPPORT, BRACE AND SECURE EXISTING STRUCTURE AS REQUIRED. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PROTECTION OF ANY EXISTING STRUCTURES DURING CONSTRUCTION. FIELD VERIFY ALL EXISTING DIMENSIONS WHICH AFFECT THE NEW CONSTRUCTION.
25. THE CONTRACTOR SHALL NOT ALLOW OR CAUSE ANY OF THE WORK TO BE COVERED UP OR ENCLOSED UNTIL IT HAS BEEN INSPECTED BY THE GOVERNING AUTHORITIES. ANY WORK THAT IS ENCLOSED OR COVERED UP BEFORE SUCH INSPECTION AND TEST SHALL BE UNCOVERED AT THE CONTRACTOR'S EXPENSE AFTER IT HAS BEEN INSPECTED, THE CONTRACTOR SHALL RESTORE THE WORK TO ITS ORIGINAL CONDITION AT HIS OWN EXPENSE.
26. ALL EXISTING UTILITIES, FACILITIES, CONDITIONS, AND THEIR DIMENSIONS SHOWN ON PLANS HAVE BEEN PLOTTED FROM AVAILABLE RECORDS. THE ENGINEER AND OWNER ASSUME NO RESPONSIBILITY WHATEVER AS TO THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN ON THE PLANS OR THE MANNER OF THEIR REMOVAL OR ADJUSTMENT. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL SAID UTILITIES AND FACILITIES PRIOR TO START OF CONSTRUCTION.
27. CONTRACTOR SHALL ALSO OBTAIN FROM EACH UTILITY COMPANY DETAILED INFORMATION RELATIVE TO WORKING SCHEDULES AND METHODS OF REMOVING OR ADJUSTING AFFECTED UTILITIES. ALL SITE WORK SHALL BE CAREFULLY COORDINATED BY THE CONTRACTOR WITH LOCAL GAS, ELECTRIC, TELEPHONE, AND ANY OTHER UTILITY COMPANIES HAVING JURISDICTION OVER THIS LOCATION. DURING CONSTRUCTION, THE CONTRACTOR SHALL AT ALL TIMES MAINTAIN THE UTILITIES OF THE BUILDING/SITE WITHOUT INTERRUPTION.
28. SHOULD IT BE NECESSARY TO INTERRUPT ANY SERVICE OR UTILITY, THE CONTRACTOR SHALL SECURE PERMISSION IN WRITING FROM THE BUILDING/PROPERTY OWNER FOR SUCH INTERRUPTION, AT LEAST 72 HOURS IN ADVANCE. ANY INTERRUPTION SHALL BE MADE WITH A MINIMUM AMOUNT OF INCONVENIENCE TO THE BUILDING/PROPERTY OWNER AND ANY SUCH SHUTDOWN TIME SHALL BE COORDINATED WITH THE BUILDING/PROPERTY OWNER.
29. CONTRACTOR SHALL SUBMIT AT THE END OF THE PROJECT A COMPLETE SET OF AS BUILT DRAWINGS TO OWNER'S PROJECT ENGINEER.

SITE WORK:

1. THE CONTRACTOR SHALL CALL UTILITIES PRIOR TO THE START OF CONSTRUCTION. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY ENGINEERING. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR PIER DRILLING AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT LIMITED TO:
    - A. FALL PROTECTION
    - B. CONFINED SPACE
    - C. ELECTRICAL SAFETY
    - D. TRENCHING AND EXCAVATION
2. REMOVE FROM ECO-SITE'S PROPERTY ALL WASTE MATERIALS, UNUSED EXCAVATED MATERIAL INCLUDING MATERIAL CLASSIFIED UNSATISFACTORY, CONTAMINATED OR DANGEROUS TRASH AND DEBRIS, AND DISPOSE OF IN A LEGAL MANNER.
3. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF ENGINEERING.
4. THE AREAS OF ECO-SITE'S PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE BUILDING OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, FERTILIZED, SEEDED, AND COVERED WITH MULCH AS SPECIFIED IN THE SPECIFICATION LANDSCAPE WORK.
5. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL AND STATE STANDARD GUIDELINES FOR EROSION AND SEDIMENT CONTROL.

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STATE OF KENTUCKY
HENRY M. BELLAGAMBA
23246
LICENSED PROFESSIONAL ENGINEER

SITE NO.
KY005

SITE NAME
THACKER

LANDLORD NO.
-

SITE ADDRESS
5011 SCAFFOLD CANE RD
MT VERNON, KY 40456

SHEET NAME
GENERAL SPECIFICATIONS (GOGO)

SHEET NUMBER
SP-1

QUALITY ASSURANCE:

1. ALL CONTRACTOR FURNISHED MATERIALS AND EQUIPMENT SPECIFIED ON THE PROJECT SHALL BE NEW AND UNUSED, OF CURRENT MANUFACTURE AND OF THE HIGHEST GRADE.
2. ALL EQUIPMENT, MATERIAL AND THE INSTALLATION METHODS SPECIFIED ON THE PROJECT DRAWINGS SHALL BE DESIGNED AND FABRICATED IN COMPLIANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL CODES AND REGULATIONS, AND APPROPRIATE INDUSTRIAL CONSENSUS STANDARDS AND CODES INCLUDING ANSI, IEEE, NEMA, NFPA AND UL, ALL AS REVISED AS OF THE DATE OF THIS WORK PACKAGE.
3. ALL ELECTRICAL ITEMS BOTH CONTRACTOR AND GOGO FURNISHED SHALL BE CHECKED FOR AGREEMENT WITH THE PROJECT DRAWINGS AND SPECIFICATIONS AND SHALL BE VISUALLY INSPECTED TO ENSURE THAT EQUIPMENT IS UNDAMAGED AND IS IN PROPER ALIGNMENT, INSTALLED PER MANUFACTURER'S INSTRUCTIONS, ELECTRICAL CONNECTIONS ARE TIGHT AND PROPERLY INSULATED WHERE REQUIRED, FUSES ARE OF THE PROPER TYPE AND SIZE, AND ELECTRICAL ENCLOSURES ARE OF THE PROPER NEMA TYPE.
4. NOTIFY GOGO IN WRITING OF ALL DISCREPANCIES BETWEEN DRAWINGS/SPECIFICATIONS AND FIELD INSTALLATIONS, OR IF THE VISUAL INSPECTIONS SHOW DAMAGE OR IMPROPER INSTALLATION.

GENERAL:

1. THE EQUIPMENT AND MATERIAL SHALL BE FURNISHED AND INSTALLED TO OPERATE SAFELY AND CONTINUOUSLY OUTDOORS WITH NO PROTECTION FROM THE WEATHER.
2. ELECTRICAL WORK REPRESENTED ON THE PROJECT DRAWINGS IS SHOWN DIAGRAMMATICALLY. EXACT LOCATIONS AND ELEVATIONS OF ELECTRICAL EQUIPMENT SHALL BE DETERMINED IN THE FIELD AND VERIFIED WITH GOGO'S REPRESENTATIVE.
3. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF TEMPORARY, IF REQUIRED, AND PERMANENT POWER WITH THE LOCAL UTILITY COMPANY. THE TEMPORARY POWER AND ALL HOOKUP COSTS ARE TO BE PAID BY THE CONTRACTOR.
4. PROVIDE MOLDED CASE, BOLT-ON, THERMAL MAGNETIC TRIP, SINGLE, TWO OR THREE POLE CIRCUIT BREAKERS. MULTIPLE POLE CIRCUIT BREAKERS SHALL BE SINGLE HANDLE COMMON TRIP. SHORT CIRCUIT INTERRUPTING RATING SHALL BE AS REQUIRED FOR AVAILABLE FAULT CURRENTS. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE A SHORT CIRCUIT INTERRUPTING RATING EQUAL TO OR GREATER THAN THAT SHOWN ON PROJECT DRAWINGS.
5. CONTRACTOR SHALL PERFORM ALL EXCAVATION, TRENCHING, BACKFILLING, AND REMOVAL OF DEBRIS IN CONNECTION WITH THE ELECTRICAL WORK IN ACCORDANCE WITH THE PROJECT DRAWINGS. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF UNDERGROUND UTILITIES AND GROUNDING WITH THE FOUNDATION INSTALLATION.
6. CONTRACTOR SHALL PROVIDE ALL NECESSARY SUPPORTS FOR EQUIPMENT INSTALLED AS PART OF THIS PROJECT. SUPPORTS SHALL CONSIST OF GALVANIZED STEEL FRAMES, PLATES, BRACKETS, RACKS AND OTHER SHAPES OF ADEQUATE SIZE AND FASTENED WITH BOLTS, SCREWS OR BY WELDING TO PROVIDE RIGID SUPPORT.
7. CONTRACTOR SHALL CALL THE APPROPRIATE UTILITIES PROTECTION SERVICE BEFORE ANY UNDERGROUND WORK IS PERFORMED, SUCH AS TRENCHING, EXCAVATING, AND DRIVING GROUND RODS. CONTRACTOR SHALL SEAL AROUND ELECTRICAL PENETRATIONS THROUGH FIRE-RATED
8. WALLS/FLOORS USING APPROVED FIRE STOP MATERIALS TO MAINTAIN THE FIRE RESISTANCE RATING. ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENTLY ENGRAVED
9. LAMINATED PHENOLIC NAMEPLATES WITH WHITE ON BLUE BACKGROUND (MINIMUM LETTER HEIGHT SHALL BE 1/2 - INCH). NAMEPLATES SHALL BE FASTENED WITH STAINLESS STEEL SCREWS.

RACEWAYS:

1. CONDUIT AND CONDUIT FITTINGS SHALL MEET ANSI AND NEC STANDARDS FOR MATERIAL AND WORKMANSHIP AND SHALL BE UL LISTED.
   - A. RIGID STEEL CONDUIT SHALL CONFORM TO ANSI C80.1 AND THE REQUIREMENTS OF NEC, PARAGRAPH 346 AND BE STANDARD WEIGHT, MILD RIGID STEEL, HOT DIP GALVANIZED WITH INSIDE AND OUTSIDE FINISHED WITH A PROTECTIVE ZINC COATING. COUPLING, ELBOWS AND BENDS SHALL MEET THESE SAME REQUIREMENTS. FITTINGS SHALL BE OF THE GALVANIZED IRON OR STEEL THREADED TYPE.
   - B. PVC CONDUIT SHALL CONFORM TO UL STANDARD 651-89 AND THE REQUIREMENTS OF NEC, PARAGRAPH 347. CONDUIT SHALL BE HEAVY WALL TYPE, SCHEDULE 40 OR 80, AND SUNLIGHT RESISTANT. FITTINGS SHALL BE OF THE UNTHREADED SOLVENT CEMENT TYPE.
   - C. EMT CONDUIT (FOR USE BEHIND WALLS OR ABOVE SUSPENDED CEILINGS ONLY): ELECTRIC METALLIC TUBING SHALL CONFORM TO ANSI C80.3 AND THE REQUIREMENTS OF NEC, PARAGRAPH 348 AND BE PROTECTED ON EXTERIOR WITH A ZINC COATING AND ON INTERIOR SURFACES WITH EITHER A ZINC COATING OR LACQUER ENAMEL. FITTINGS SHALL BE ZINC COATED STEEL.
2. MINIMUM CONDUIT SIZE SHALL BE 3/4-INCH, SIZES NOT SHOWN ON DRAWINGS SHALL BE PER NEC.
3. ALL SPARE CONDUITS SHALL HAVE A METALLIC PULL WIRE.
4. CONDUIT SUPPORTS SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR AND IN ACCORDANCE WITH THE NEC.
5. UNDERGROUND CONDUITS:
   - A. INSTALL A WARNING TAPE TWELVE INCHES ABOVE EACH CONDUIT OR SET OF CONDUITS.
   - B. IDENTIFY EACH CONDUIT AT BOTH ENDS. INSTALL MINIMUM OF 36 INCHES BELOW THE FINISHED GRADE, OR DEEPER IF NOTED ON PLAN DRAWINGS.
   - C. SLOPE A MINIMUM OF 4 INCHES PER 100 FEET TO DRAIN AWAY FROM BUILDINGS AND EQUIPMENT.
   - D. USE MANUFACTURED ELECTRICAL ELBOWS AND FITTINGS FOR BELOW GRADE BENDS.
   - E. MAKE JOINTS AND FITTINGS WATERTIGHT ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
   - F. INSTALL A COUPLING BEFORE EACH WALL PENETRATION.
   - G. RESTORE SURFACE FEATURES DISTURBED BY EXCAVATION (AND TRENCHING) IN ALL AREAS.

CABLE TRAYS:

1. ALL CABLE TRAYS AND FITTINGS SHALL BE DESIGNED, MANUFACTURED AND TESTED IN CONFORMANCE WITH NEMA VE 1
2. CABLE TRAYS SHALL BE LADDER TYPE WITH 9-INCH SPACING.
3. CABLE TRAYS SHALL BE CAPABLE OF SUPPORTING 75 LBS/LINEAR FOOT.
4. CABLE TRAYS AND FITTINGS SHALL BE MANUFACTURED OF GALVANIZED STEEL.
5. CABLE TRAYS SHALL BE FURNISHED WITH COVERS WHERE SHOWN ON THE PROJECT DRAWINGS.
6. ALL DISCONTINUOUS SECTIONS OF CABLE TRAY SHALL BE BONDED ACROSS JOINTS.

CONDUCTORS:

1. ALL POWER, CONTROL AND COMMUNICATION WIRING SHALL MEET NEMA- WC, ASTM, UL, AND NEC STANDARDS FOR MATERIAL AND WORKMANSHIP UNLESS OTHERWISE SPECIFIED.
   - A. SERVICE ENTRANCE CONDUCTORS SHALL BE COPPER, 600 VOLT, SUNLIGHT RESISTANT, SUITABLE FOR WET LOCATIONS, TYPE USE-2. THE GROUNDED NEUTRAL CONDUCTOR, SHALL BE IDENTIFIED WITH A WHITE MARKING AT EACH TERMINATION.
   - B. CONDUCTORS FOR FEEDER AND BRANCH CIRCUITS SHALL BE COPPER 600 VOLT, TYPE THHN / THWN WITH A MINIMUM SIZE OF #12 AWG.
2. ALL CONDUCTOR ACCESSORIES INCLUDING CONNECTORS, TERMINATIONS, INSULATING MATERIALS, SUPPORT GRIPS, MARKER AND CABLE TIES SHALL BE FURNISHED AND INSTALLED. SUPPLIER'S INSTALLATION INSTRUCTIONS SHALL BE OBTAINED FOR CABLE ACCESSORIES. THESE INSTRUCTIONS SHALL BE IN THE POSSESSION OF THE CRAFTSMAN WHILE INSTALLING THE ACCESSORIES AND SHALL BE AVAILABLE TO THE COMPANY FOR REFERENCE.
3. WHERE POSSIBLE, NO. 6 AWG AND SMALLER WIRE SHALL BE COLOR CODED BY THE COLOR OF THE INSULATION COVERING. COLOR CODING OF WIRE LARGER THAN NO. 6 AWG MAY BE BY MEANS OF SELF-ADHESIVE WRAP-AROUND TYPE MARKERS, PER NEC.
4. TERMINAL CONNECTORS FOR CONDUCTORS SMALLER THAN 8 AWG SHALL BE COMPRESSION TYPE CONNECTORS SIZED FOR THE CONDUCTOR AND THE TERMINAL. THE CONNECTORS SHALL BE CONSTRUCTED OF FINE GRADE HIGH CONDUCTIVITY COPPER IN ACCORDANCE WITH QQ-C-576 AND SHALL BE TIN-PLATED IN ACCORDANCE WITH MIL-T-10727. THE INTERIOR SURFACE OF THE CONNECTOR WIRE BARREL SHALL BE SERRATED, AND THE EXTERIOR SURFACE OF THE CONNECTOR WIRE BARREL SHALL BE PROVIDED WITH CRIMP GUIDES.
5. TERMINAL CONNECTORS FOR CONDUCTORS 8 AWG AND LARGER SHALL BE PRESSURE OR BOLTED CLAMP TYPE, BURNDY QUIKLUG, VARILUG OR ACCEPTABLE EQUAL: OR COMPRESSION TYPE, BURNDY TYPE YAV OR YA (LONG BARREL.), PANDUIT TYPE LCA OR LCC, OR ACCEPTABLE EQUAL. ACCEPTABLE CONNECTORS INCLUDED WITH COMPANY-FURNISHED EQUIPMENT MAY BE USED.
6. TERMINATION PROVISIONS OF EQUIPMENT FOR CIRCUITS RATED 100 AMPERES OR LESS, OR MARKED FOR NOS. 14 THROUGH 1 CONDUCTORS, SHALL BE USED ONLY FOR CONDUCTORS RATED 60°C (140°F). CONDUCTORS WITH HIGHER TEMPERATURE RATINGS SHALL BE PERMITTED, PROVIDED THE AMPACITY OF EACH CONDUCTOR IS DETERMINED BASED ON THE 60°C (140°F) AMPACITY OF THE CONDUCTOR SIZE USED.
7. TERMINATION PROVISIONS OF EQUIPMENT FOR CIRCUITS RATED OVER 100 AMPERES, OR MARKED FOR CONDUCTORS LARGER THAN NO. 1, SHALL BE USED ONLY FOR CONDUCTORS RATED 75°C (167°F). CONDUCTORS WITH HIGHER TEMPERATURE RATINGS SHALL BE PERMITTED, PROVIDED THE AMPACITY OF EACH CONDUCTOR IS DETERMINED BASED ON THE 75°C (167°F) AMPACITY OF THE CONDUCTOR SIZE USED.
8. ALL 600 VOLT OF LESS WIRING, WHERE COMPRESSION TYPE CONNECTORS ARE USED, SHALL BE INSULATED WITH AT LEAST ONE TURN OF "SCOTCHFILL" ELECTRICAL INSULATING PUTTY AND THEN COVERED WITH TWO HALF TURNS OF TAPE SIMILAR TO 3M COMPANY'S "33 PLUS" (33+) PLASTIC TAPE OR 88 OUTDOOR

GROUNDING:

1. ALL BASE TRANSCEIVER SITE EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC), AND LATEST EDITION OF LIGHTNING PROTECTION CODE NFPA 780 AND OWNER STANDARDS.
2. THE ELECTRICAL SERVICE TO THE SITE SHALL BE GROUNDED AT THE SERVICE DISCONNECTING MEANS REQUIRED IN ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE, IN ACCORDANCE WITH ANY LOCAL CODE.
3. ALL UNDERGROUND (BELOW GRADE) GROUNDING CONNECTIONS SHALL BE MADE BY THE EXOTHERMIC PROCESS (MECHANICAL LUG ATTACHMENTS BELOW GRADE ARE NOT ACCEPTABLE). CONNECTIONS SHALL INCLUDE ALL CABLE TO CABLE SPLICES (TEES, Xs, ETC.), ALL CABLE CONNECTIONS TO GROUND RODS, GROUND ROD SPLICES, AND LIGHTNING PROTECTION SYSTEM AS INDICATED. ALL MATERIALS USED (MOLDS, WELDING METAL, TOOLS, ETC.) SHALL BE BY EXOTHERMIC AND INSTALLED PER MANUFACTURER'S RECOMMENDATION AND PROCEDURES.
4. ALL GROUNDING AND BONDING CONDUCTORS THAT ARE CONNECTED ABOVE GRADE OR INTERIOR TO A BUILDING SHALL BE CONNECTED USING TWO HOLD CRIMP TYPE (COMPRESSION) CONNECTIONS FOR #2 AND #6 AWG INSULATED COPPER CONDUCTOR.
5. ALL GROUNDING CONNECTIONS, INTERIOR AND EXTERIOR, MADE THROUGHOUT THIS DOCUMENT SHALL BE MADE USING AN ANTI-OXIDATION COMPOUND. THE ANTI-OXIDATION COMPOUND SHALL BE THOMAS AND BETTS KOPR-SHIELD (TM OF JET LUBE INC.). THERE IS NO EQUIVALENT FOR THIS PRODUCT: NO OTHER COMPOUND WILL BE ACCEPTED. COAT ALL WIRES BEFORE LUGGING. COAT ALL SURFACES BEFORE CONNECTING.
6. ALL CONNECTIONS SHALL BE MADE TO BARE METAL. ALL PAINTED SURFACES SHALL BE FIELD INSPECTED AND MODIFIED TO ENSURE PROPER CONTACT. PRIOR TO EXOTHERMIC WELDING, GALVANIZING SHALL BE REMOVED BY GRINDING SURFACE TO BARE METAL. "SLAG" FROM CADWELD MUST BE REMOVED AND WELD SHALL BE SPRAYED WITH COLD GALVANIZE AFTER COMPLETION.
7. FERROUS METAL CLIPS WHICH COMPLETELY SURROUND THE GROUNDING CONDUCTOR SHALL NOT BE USED. CLIPS OF THE FOLLOWING MATERIALS AND TYPES MAY BE USED TO SUPPORT GROUNDING CONDUCTORS.
   - PLASTIC CLIPS
   - STAINLESS STEEL CLIPS WHICH DO NOT COMPLETELY SURROUND THE GROUNDING CONDUCTOR
   - FERROUS METAL CLIPS WHICH DO NOT COMPLETELY SURROUND THE GROUNDING CONDUCTOR.
8. ALL BELOW-GRADE GROUNDING CONDUCTORS SHALL BE BARE TINNED SOLID COPPER WIRE. ABOVE-GRADE GROUNDING CONDUCTORS MAY BE EITHER:
   - BARE TINNED SOLID COPPER WIRE
   - THWN-INSULATED, CONTINUOUS GREEN COLOR, SOLID COPPER WIRE.
   - THWN-INSULATED, CONTINUOUS GREEN COLOR, STRANDED COPPER WIRE.
   - A. THE UNDERGROUND GROUND RING SHALL BE A #2 AWG BARE TINNED SOLID COPPER WIRE. #2 THWN SHALL BE STRANDED COPPER WITH GREEN THWN
   - B. INSULATION SUITABLE FOR WET INSTALLATION (SOME ABOVE GROUND APPLICATIONS, I.E., INDOOR GROUNDING RING).
   - C. #4/0 THWN (I.E., TO MAIN GROUND, BUILDING STEEL, MAIN WATER LINE OF THE BUILDING OR EXISTING GROUND ROD) SHALL BE STRANDED COPPER WITH THWN INSULATION (GREEN TAPE AT EACH END) SUITABLE FOR WET LOCATIONS.
   - D. #2 BARE TINNED COPPER SHALL BE SOLID. ALL BURIED WIRE SHALL MEET THIS CRITERIA, INCLUDING CABLE TRAY GROUNDING WIRES AND WIRES INDICATED ON THE DRAWINGS.
   - E. FENCE GATE BONDING JUMPER SHALL BE 4/0 WELDING CABLE THAT HAS BEEN CRIMPED ON EACH END WITH A CAP FOR THE CADWELD PROCESS.

   (THE MINIMUM BEND RADIUS IS 8 INCHES FOR #6 AWG AND SMALLER: 12- INCHES FOR WIRE LARGER THAN #6 AWG.)
9. ALL HARDWARE, BOLTS, NUTS, WASHERS AND LOCK WASHERS SHALL BE 18-8 STAINLESS STEEL. EVERY CONNECTION SHALL BE BOLT-FLAT WASHER-BUSS-LUG-FLAT WASHER-LOCK WASHER-NUT IN THAT EXACT ORDER, WITH NUT FACING OUTWARD. BACK-TO-BACK LUGGING, BOLT-FLAT WASHER-LUG-FLAT WASHER-LUG-BUSS-LUG-FLAT WASHER-LOCK WASHER-NUT, IN THAT EXACT ORDER IS ACCEPTED WHERE NECESSARY TO CONNECT MANY LUGS TO A BUSS BAR. STACKING OF LUGS, BUSS-LUG-LUG, IS NOT ACCEPTABLE.
10. THE COMPRESSION GROUND LUG FOR #2 AWG BARE SOLID GROUNDING CONDUCTOR SHALL BE BURNDY TYPE YA3C-2TC.
11. THE DEPTH OF THE GROUND RING, WHEN SPECIFIED, SHALL BE INSTALLED TO THE MINIMUM DEPTH REQUIRED BY LOCALLY ENFORCED CODES, REGULATIONS AND ORDINANCES, WHICHEVER IS DEEPER.
12. THE GROUND RING, WHEN SPECIFIED, SHALL BE WITHIN 18 TO 36 INCHES OF THE EQUIPMENT PLATFORM.
13. GROUND RODS, WHEN SPECIFIED, SHALL BE 5/8 INCH STEEL, CLAD WITH A PURE COPPER JACKET OF NOT LESS THAN 0.0012 INCHES THICK, 10 FEET LONG. GROUND RODS SHALL BE DRIVEN IN THE QUANTITY AND LOCATION AS SHOWN ON THE DRAWINGS TO THE FULL VERTICAL LENGTH IN UNDISTURBED EARTH.
14. SPACING BETWEEN GROUND RODS, WHEN SPECIFIED, SHALL BE A MINIMUM OF 10'-0" AND A MAXIMUM OF 15'-0" ON CENTERS.
15. XIT RODS.
    WHEN SPECIFIED ON THE PROJECT DRAWINGS, ALL XIT RODS SHALL BE 2-1/8" OD TYPE K COPPER WITH A WALL THICKNESS OF 0.083" AND SHALL HAVE A LENGTH AS SPECIFIED ON THE SITE SPECIFIC DESIGN DRAWINGS. THE XIT COPPER PIPE/ROD SHALL BE FILLED WITH NON-HAZARDOUS CALSOLYTE. THE BACKFILL MATERIAL SHALL BE NATURAL CLAY LYNCONITE. THE COVER SHALL BE INDUSTRIAL POLYPLASTIC, LYNCOLE MODEL XB-11, FOR NON-TRAFFIC AREAS, AND CONCRETE, LYNCOLE MODEL XB-12, FOR TRAFFIC OR PAVED AREAS.
16. THE ANTENNA CABLES SHALL BE GROUNDED AT THE TOP AND BOTTOM OF THE VERTICAL RUN. THE ANTENNA CABLE SHIELD SHALL BE BONDED TO A COPPER GROUND BUS AT THE LOWEST POINT OF VERTICAL RUN, THE ANTENNA CABLE SHIELD SHALL BE GROUNDED JUST BEFORE ENTERING THE BTS. GROUNDING KITS ON COAX CABLE SHALL HAVE A MINIMUM BEND OF 6" AND SHALL BE KEPT AS CLOSE TO VERTICAL AS POSSIBLE. FLAT WASHER SENT WITH GROUND KITS MUST BE REPLACED WITH SMALLER STAINLESS FLAT WASHERS. WASHERS MUST REMAIN FLAT AGAINST GROUND BAR. ALL FASTENERS MUST BE STAINLESS STEEL AND KOPR-SHIELD MUST BE USED ON BOTH SIDES OF GROUND BAR.

TELCO CABLING SPECIFICATIONS:

PHYSICAL SPECIFICATIONS:

GAUGE:	24 AWM
PAIR SIZE:	25
CONDUCTOR:	SOLID BARE COPPER
INSULATION:	SOLID POLYOLEFIN
FILLING COMPOUND:	CORE ASSEMBLY FILLED WITH ETPR COMPOUND, FILLING THE INTERSTICES BETWEEN THE PAIRS AND UNDER THE CORE TAPE
INNER JACKET:	BLACK, LINEAR LOW-DENSITY POLYETHYLENE
SHIELD:	CORRUGATED, COPOLYMER COATED .008" (8 MIL) TAPE APPLIED LONGITUDINALLY WITH AN OVERLAP
OUTER JACKET:	BLACK, LINEAR LOW-DENSITY POLYETHYLENE

ELECTRICAL SPECIFICATIONS:

GAUGE:	24 AWM, SHIELDED SOLID COPPER CONDUCTOR
DC RESISTANCE:	27.3 OHMS/1,000 FT
MUTUAL CAPACITANCE:	15.7 nF/FT @ 1kHz
CHARACTERISTIC IMPEDANCE:	100 OHMS
ATTENUATION:	6.4 dB/1,000 FT @ 1 MHz
DC RESISTANCE:	27.3 OHMS/1,000 FT (8.96 OHMS/100M), MAXIMUM
MUTUAL CAPACITANCE (@ 1kHz):	15.7/1,000 FT (5.15 nF/100M) (25 PAIR), MAXIMUM
IMPEDANCE:	100 OHMS (25 PAIR)

BURIED/UNDERGROUND CABLE ATTENUATION:

(dB/1,000 FT, (305M))

AT 772kHz:	5.6 (25 PAIR), MAXIMUM
AT 1MHz:	6.4 (25 PAIR), MAXIMUM

OVERHEAD CABLE ATTENUATION:

(dB/1,000 FT, (305M))

AT 772kHz:	5.3 (25 PAIR), MAXIMUM
AT 1MHz:	6.7 (25 PAIR), MAXIMUM

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#	DATE	DESCRIPTION	INT.
	12/15/14	90% CD's	RC
	1/8/15	REV. 90% CD's	RC
	1/26/15	REV. 90% CD's	KS
	2/21/15	FINAL	RC

STATE OF KENTUCKY
HENRY M. BELLAGAMBA
23246
LICENSED PROFESSIONAL ENGINEER

SITE NO.
KY005

SITE NAME
THACKER

LANDLORD NO.
-

SITE ADDRESS
5011 SCAFFOLD CANE RD
MT VERNON, KY 40456

SHEET NAME
ELECTRICAL/ GROUNDING SPECS (GOGO)

SHEET NUMBER
SP-2

SITE WORK GENERAL NOTES:

1. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
2. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR/ SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES.
3. ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS AND PROJECT SPECIFICATIONS.
4. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
5. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF CONTRACTOR, OWNER AND/OR LOCAL UTILITIES.
6. THE OWNER SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE (TO BE INSTALLED BY CONTRACTOR).
7. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE BTS EQUIPMENT AND TOWER AREAS.
8. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
9. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
10. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE PROJECT SPECIFICATIONS.
11. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
12. CONTRACTOR SHALL NOT INSTALL EQUIPMENT THAT WILL IMPEDE DOOR OR ACCESS PANELS.

STRUCTURAL STEEL NOTES:

1. ALL STEEL WORK SHALL BE PAINTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND IN ACCORDANCE WITH ASTM A36 UNLESS OTHERWISE NOTED.
2. ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION". PAINTED SURFACES SHALL BE TOUCHED UP.
3. BOLTED CONNECTIONS SHALL BE ASTM A325 BEARING TYPE (3/4"ø) CONNECTIONS AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE.
4. NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8"ø ASTM A307 BOLTS UNLESS NOTED OTHERWISE.
5. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER MANUFACTURER'S 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 PRIOR CONTRACTOR APPROVAL WHEN DRILLING HOLES IN CONCRETE. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE PERFORMED IN ORDER TO MAINTAIN MANUFACTURER'S MAXIMUM ALLOWABLE LOADS.

CONCRETE AND REINFORCING STEEL NOTES:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. SLAB FOUNDATION DESIGN ASSUMING ALLOWABLE SOIL BEARING PRESSURE OF 2000 PSF.
3. 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. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, U.N.O.
4. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:

   CONCRETE CAST AGAINST EARTH_____3 IN.
   CONCRETE EXPOSED TO EARTH OR WEATHER:
   #6 AND LARGER_____2 IN.
   #5 AND SMALLER & W.W.F._____1 1/2 IN.
   CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:
   SLAB AND WALLS_____3/4 IN.
   BEAMS AND COLUMNS_____1 1/2 IN.

5. A CHAMFER 3/4" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, U.N.O. IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

MASONRY NOTES:

1. HOLLOW CONCRETE MASONRY UNITS SHALL MEET A.S.T.M. SPECIFICATION C90, GRADE N, TYPE I. THE SPECIFIED DESIGN COMPRESSIVE STRENGTH OF CONCRETE MASONRY (F'm) SHALL BE 1500 PSI.
2. MORTAR SHALL MEET THE PROPERTY SPECIFICATION OF A.S.T.M. C270 TYP. "S" MORTAR AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI.
3. GROUT SHALL MEET A.S.T.M. SPECIFICATION C476 AND HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2000 PSI.
4. CONCRETE MASONRY SHALL BE LAID IN RUNNING (COMMON) BOND.
5. WALL SHALL RECEIVE TEMPORARY BRACING. TEMPORARY BRACING SHALL NOT BE REMOVED UNTIL GROUT IS FULLY CURED.

GENERAL NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
   CONTRACTOR- GENERAL CONTRACTOR
   SUBCONTRACTOR- SUBCONTRACTOR HIRED BY GENERAL CONTRACTOR
   OWNER- ECO-SITE
   OEM- ORIGINAL EQUIPMENT MANUFACTURER
2. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF OWNER.
3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH AL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
4. DRAWINGS PROVIDED WERE DESIGNED AND SCALED TO 11x17 FORMAT.
5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
6. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
7. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE OWNER.
8. CONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND TI CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWINGS.
9. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
10. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY.
11. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
12. CONSTRUCTION SHALL COMPLY WITH ECO-SITE MASTER SPECIFICATIONS AND THESE DRAWINGS WHERE A CONFLICT EXISTS IT IS CONTRACTORS RESPONSIBILITY TO NOTIFY OWNER.
13. NOTHING CONTAINED IN THESE DRAWINGS SHALL CREATE ANY CONTRACTUAL RELATIONSHIP BETWEEN ANY SUBCONTRACTOR(S) AND ECO-SITE.
14. CONTRACTOR SHALL HOLD HARMLESS ECO-SITE AND ITS REPRESENTATIVES FROM ALL SUITS, ACTIONS, OR CLAIMS OF ANY KIND BROUGHT ABOUT AS A RESULT OF ANY INJURIES OR DAMAGES SUSTAINED BY PERSON(S) OR PROPERTY DURING THE CONSTRUCTION OF THIS PROJECT.
15. CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS FOR ANY AND ALL PERSONS, INCLUDING SUBCONTRACTORS, ON SITE AS REQUIRED BY CURRENT OSHA STANDARDS; INCLUDING BUT NOT LIMITED TO
   A) PERSONAL PROTECTIVE & LIFE SAVING EQUIPMENT
   B) SIGNS, SIGNALS, & BARRICADES
   C) TOOLS - HAND & POWER
   D) ELECTRICAL
   E) FALL PROTECTION
   F) EXCAVATIONS
   G) CONCRETE & MASONRY CONSTRUCTION
   H) STEEL ERECTION
   I) POWER TRANSMISSION & DISTRIBUTION
   J) CRANES & DERRICKS IN CONSTRUCTION.

NOTES

SCALE: N.T.S. | 1

gogo
1250 N. ARLINGTON HEIGHTS RD.
STE 500
ITASCA, IL 60143
PHONE: (630) 647-1400
FAX: (630) 647-1687

Eco-Site
Urban. Renewal. Wireless.
240 LEIGH FARM ROAD, SUITE 415
DURHAM, NC 27707
PHONE: (919) 636-6810

FULLERTON ENGINEERING DESIGN
9600 W. BRYN MAWR AVE., SUITE 200
ROSEMONT, ILLINOIS 60018
TEL: 847-292-0200
FAX: 847-292-0206
www.FullertonEngineering.com

CHECKED BY:	VT
APPROVED BY:	MB

#	DATE	DESCRIPTION	INT.
	12/15/14	90% CD's	RC
	1/8/15	REV. 90% CD's	RC
	1/26/15	REV. 90% CD's	KS
	2/21/15	FINAL	RC

STATE OF KENTUCKY
HENRY M BELLAGAMBA
23246
LICENSED PROFESSIONAL ENGINEER

SITE NO.
KY0005

SITE NAME
THACKER

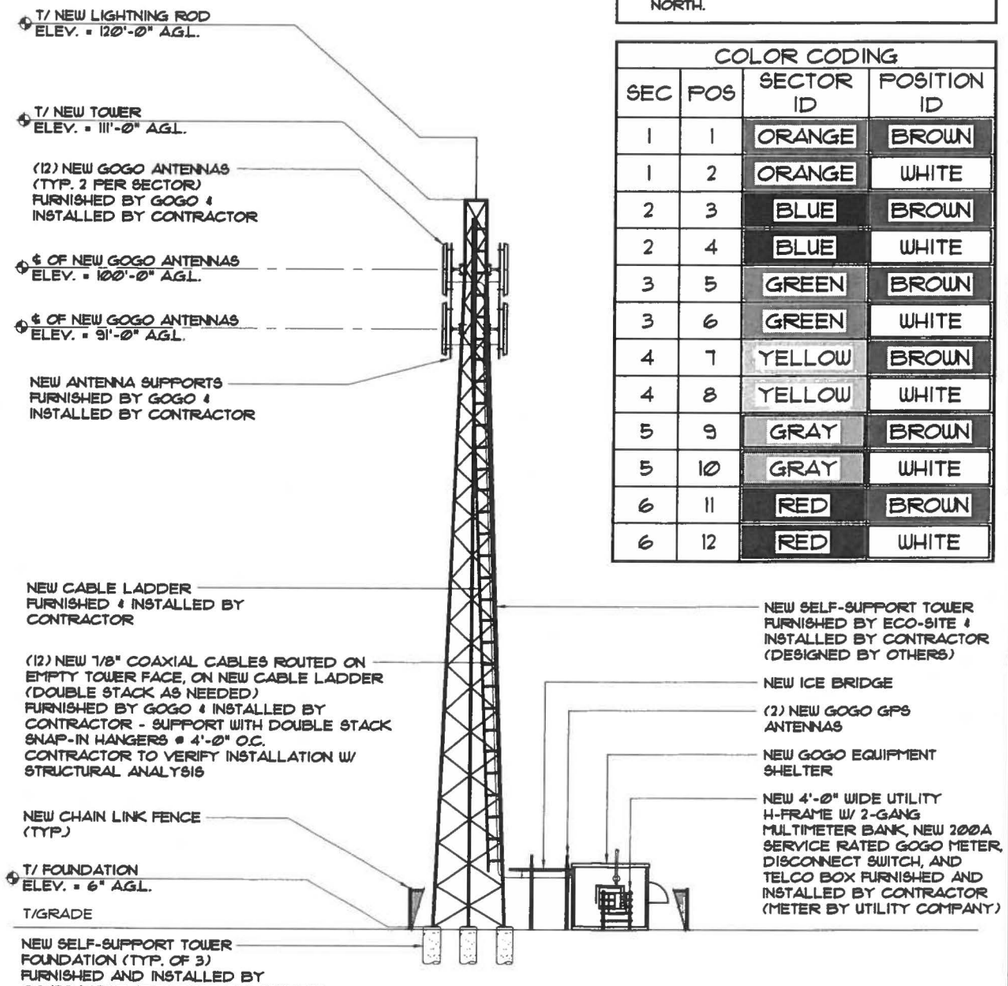
LANDLORD NO.
-

SITE ADDRESS
5011 SCAFFOLD CANE RD
MT VERNON, KY 40456

SHEET NAME
GENERAL NOTES (ECO-SITE)

SHEET NUMBER
GN-1

Exhibit C



EAST ELEVATION

SCALE: N.T.S. | 1

STRUCTURAL NOTES:

1. STRUCTURAL CALCULATION PREPARED BY OTHERS. CONTRACTOR TO VERIFY WITH GOGO PROJECT MANAGER TO OBTAIN A COPY.
2. CONTRACTOR TO REFER TO TOWER STRUCTURAL CALCULATIONS FOR ADDITIONAL LOADS. NO ERECTION OR MODIFICATION OF TOWER SHALL BE MADE WITHOUT APPROVAL OF STRUCTURAL ENGINEER.

ANTENNA NOTES:

1. THE SIZE, HEIGHT, AND DIRECTION OF THE ANTENNA SHALL BE ADJUSTED TO MEET SYSTEM REQUIREMENTS.
2. CONTRACTOR SHALL VERIFY HEIGHT OF ANTENNA WITH GOGO PROJECT MANAGER.
3. ALL ANTENNA AZIMUTH TO BE FROM TRUE NORTH.

COLOR CODING

SEC	POS	SECTOR ID	POSITION ID
1	1	ORANGE	BROWN
1	2	ORANGE	WHITE
2	3	BLUE	BROWN
2	4	BLUE	WHITE
3	5	GREEN	BROWN
3	6	GREEN	WHITE
4	7	YELLOW	BROWN
4	8	YELLOW	WHITE
5	9	GRAY	BROWN
5	10	GRAY	WHITE
6	11	RED	BROWN
6	12	RED	WHITE

RF Approval Form AirCell

Date:	12/16/2014 6:39:31 PM	Latitude, Longitude	37.5014 | 548029 ZTE | 37° 30' 5.04" N -84.2834 | -1212661 ZTE | 84° 17' 0.24" W
Site Number:	KY005	Tower Company:	TBD
Site Name:	Conway	Tower Co SiteID:	TBD
	Desired Tx AMSL:	1509 ft	Address: TBD
RF Candidate Rank:	Primary (6-sector config	County:	Rockcastle
Tower Type/ Structure:	TBD	State:	KY

Sector 1	Tx/Rx Ant	Rx Diversity Ant
Azimuth:	30	30
RAD center:	100 ft	91 ft
Antenna Model:	TA-819-10H-39B	TA-819-10H-39B
Antenna Dimentions:	96" x 18" x 6"	96" x 18" x 6"
Mechanical uptilt:	4	4
Coax Run Length:	150 ft	141 ft
Coax Size:	7/8"	7/8"
Color ID:	Orange / Brown	Orange / White

Sector 2	Tx/Rx Ant	Rx Diversity Ant
Azimuth:	210	210
RAD center:	100 ft	91 ft
Antenna Model:	TA-819-10H-39B	TA-819-10H-39B
Antenna Dimentions:	96" x 18" x 6"	96" x 18" x 6"
Mechanical uptilt:	4	4
Coax Run Length:	150 ft	141 ft
Coax Size:	7/8"	7/8"
Color ID:	Blue / Brown	Blue / White

Sector 3	Tx/Rx Ant	Rx Diversity Ant
Azimuth:	330	330
RAD center:	100 ft	91 ft
Antenna Model:	TA-819-10H-39B	TA-819-10H-39B
Antenna Dimentions:	96" x 18" x 6"	96" x 18" x 6"
Mechanical uptilt:	4	4
Coax Run Length:	150 ft	141 ft
Coax Size:	7/8"	7/8"
Color ID:	Green / Brown	Green / White

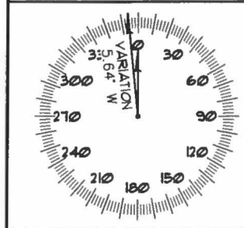
Sector 4	Tx/Rx Ant	Rx Diversity Ant
Azimuth:	30	30
RAD center:	100 ft	91 ft
Antenna Model:	TA-819-10V-39B	TA-819-10V-39B
Antenna Dimentions:	96" x 24" x 8"	96" x 24" x 8"
Mechanical uptilt:	4	4
Coax Run Length:	150 ft	141 ft
Coax Size:	7/8"	7/8"
Color ID:	Yellow / Brown	Yellow / White

Sector 5	Tx/Rx Ant	Rx Diversity Ant
Azimuth:	150	150
RAD center:	100 ft	91 ft
Antenna Model:	TA-819-10V-39B	TA-819-10V-39B
Antenna Dimentions:	96" x 24" x 8"	96" x 24" x 8"
Mechanical uptilt:	4	4
Coax Run Length:	150 ft	141 ft
Coax Size:	7/8"	7/8"
Color ID:	Grey / Brown	Grey / White

Sector 6	Tx/Rx Ant	Rx Diversity Ant
Azimuth:	270	270
RAD center:	100 ft	91 ft
Antenna Model:	TA-819-10V-39B	TA-819-10V-39B
Antenna Dimentions:	96" x 24" x 8"	96" x 24" x 8"
Mechanical uptilt:	4	4
Coax Run Length:	150 ft	141 ft
Coax Size:	7/8"	7/8"
Color ID:	Red / Brown	Red / White

BTS-Sector Assignment:

RF Comments:
7/29/14: Release new RFA. 12/16/14: Change to RL candidate G.



MAGNETIC DECLINATION

ANTENNA CONFIGURATION

SCALE: 3/16" = 1'-0" | 2

1. VERIFY EACH COAXIAL CABLE LENGTH, DIAMETER AND ALL MOUNTING APPURTENANCES WITH GOGO PRIOR TO ORDER.
2. TAG ALL MAIN CABLES AT THREE (3) LOCATIONS:
   A. TOP OF TOWER AT ANTENNAS
   B. INSIDE EQUIPMENT SHELTER NEAR THE WAVEGUIDE ENTRY PORT
   C. OUTSIDE EQUIPMENT SHELTER NEAR THE WAVEGUIDE ENTRY PORT
3. EACH COAX SHALL BE SUPPORTED WITH COLUMN GRIP (CHINESE FINGER GRIP) HUNG FROM A J-HOOK AT TOP OF TOWER, (10' ABOVE FOR LATTICE TOWER).
4. EACH COAX SHALL BE GROUNDED AT (3) THREE LOCATIONS, TOWER BASE, TOWER TOP, AND BUILDING ENTRY PORT.
5. COAXIAL CABLES TO BE SUPPORTED EVERY 3'-0" ON ICE BRIDGE WITH STAINLESS STEEL HANGERS.
6. JUMPERS TO BE SUPPORTED EVERY 18" WITH STAINLESS STEEL HANGERS.
7. ANTENNA CONTRACTOR RESPONSIBLE FOR FABRICATING ENCLOSURE JUMPERS.

ANTENNA NOTES

SCALE: N.T.S. | 3

gogo
1250 N. ARLINGTON HEIGHTS RD.
STE 500
ITASCA, IL 60143
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FAX: 630) 647-1687

Ec -Site
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FULLERTON ENGINEERING DESIGN
9600 W. BRYN MAWR AVE., SUITE 200
ROSEMONT, ILLINOIS 60018
TEL: 847-292-0200
FAX: 847-292-0206
www.FullertonEngineering.com

CHECKED BY:	VT
APPROVED BY:	MB

#	DATE	DESCRIPTION	INT.
	12/15/14	90% CD's	RC
	1/8/15	REV. 90% CD's	RC
	1/26/15	REV. 90% CD's	KS
	9/21/15	FINAL	RC

STATE OF KENTUCKY
HENRY M. BELLAGAMBA
23246
LICENSED PROFESSIONAL ENGINEER

SITE NO.
KY005

SITE NAME
THACKER

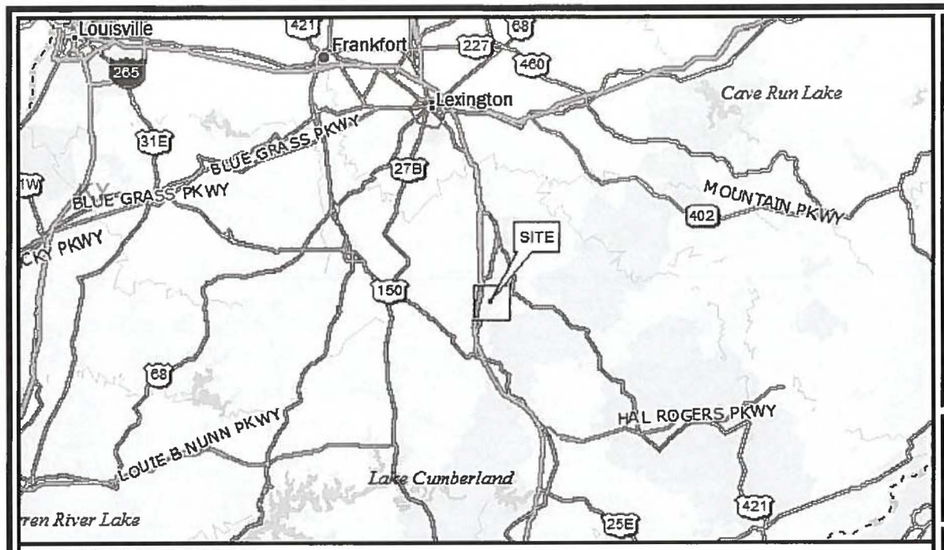
LANDLORD NO.
-

SITE ADDRESS
5011 SCAFFOLD CANE RD
MT VERNON, KY 40456

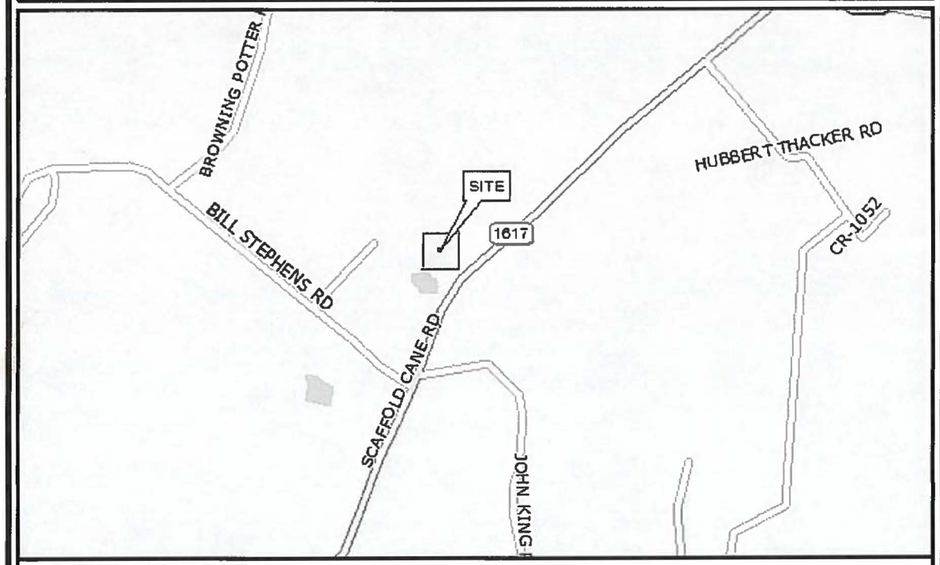
SHEET NAME
ELEVATION

SHEET NUMBER
C-3

Exhibit D



PROXIMITY MAP



LOCATION MAP

START AT BLUE GRASS AIRPORT. GO STRAIGHT (NE) ON TERMINAL DR. IN 0.45 MI GO STRAIGHT (N) ON TO MAN O WAR BLVD. IN 0.26 MI TURN RIGHT (E) ON TO US 60 (VERSAILLES RD). IN 1.33 MI KEEP RIGHT (ESE) ON TO SR 4 (W NEW CIRCLE RD) RAMP. IN 8.78 MI KEEP RIGHT (NNE) ON TO US 25 (US 421|RICHMOND RD) RAMP 15 00:14:18 10.82 MI IN 0.24 MI KEEP RIGHT (E) ON US 25 (US 421|RICHMOND RD) RAMP. IN 0.03 MI KEEP RIGHT (SE) ON TO US 25 (US 421|RICHMOND RD). IN 2.52 MI KEEP LEFT (SE) ON TO RICHMOND RD. IN 0.04 MI KEEP LEFT (SE) ON TO SR 418 (ATHENS BOONESBORO RD). IN 2.39 MI KEEP RIGHT (S) ON TO I-75 S RAMP. IN 28.23 MI GO STRAIGHT (SSW) ON TO SR 21 (PAINT LICK RD|CHESTNUT ST) RAMP 76. IN 0.26 MI TURN LEFT (E) ON TO SR 21 (PAINT LICK RD|CHESTNUT ST). IN 0.54 MI TURN RIGHT (SSW) ON TO US 25 (MOUNT VERNON RD). IN 4.48 MI TURN LEFT (E) ON TO OTTIS MIRACLE RD. IN 0.27 MI TURN RIGHT (S) ON OTTIS MIRACLE RD. IN 0.44 MI TURN LEFT (ENE) ON TO LITTLE CLEAR CREEK RD. IN 0.27 MI TURN RIGHT (E) ON TO BILL STEPHENS RD. IN 1.84 MI TURN LEFT (NNE) N TO SR 1617 (SCAFFOLD CANE RD). IN 0.12 MI FINISH AT SITE.

DRIVING DIRECTIONS

PROJECT INFORMATION:

110.6' SELF-SUPPORTING LATTICED STRUCTURE DRILLED SHAFT FOUNDATION DESIGN

SITE NAME:

THACKER

SITE NUMBER:

KY-0005

SITE LOCATION:

3802 SCAFFOLD CANE ROAD
MT. VERNON, KY 40456
(ROCKCASTLE COUNTY)

LATITUDE	N37° 30' 5.27"±
LONGITUDE	W84° 17' 0.81"±
ELEVATION	1,407-FT±

2-C CERTIFICATION (REF: ECO-SITE)

SITE CONSTRUCTON MANAGER:

NAME	ECO-SITE, INC.
ADDRESS	240 LEIGH FARM RD. SUITE 415
CITY, STATE, ZIP	DURHAM, NC 27707
CONTACT	N/A
PHONE	(919) 913-3112

SITE APPLICANT:

NAME	N/A
ADDRESS	N/A
CITY, STATE, ZIP	N/A
CONTACT	N/A
PHONE	N/A

SURVEYOR:

NAME	N/A
ADDRESS	N/A
CITY, STATE, ZIP	N/A
CONTACT	N/A
PHONE	N/A

CIVIL ENGINEER:

NAME	VERTICAL SOLUTIONS
ADDRESS	113 EDINBURGH SOUTH DRIVE, SUITE 130
CITY, STATE, ZIP	CARY, NC 27511
CONTACT	MIKE LASSITER
PHONE	(888) 321-6167

ELECTRICAL ENGINEER:

NAME	N/A
ADDRESS	N/A
CITY, STATE, ZIP	N/A
CONTACT	N/A
PHONE	N/A

PROPERTY INFORMATION:

NAME	THACKER
ADDRESS	3802 SCAFFOLD CANE ROAD
CITY, STATE, ZIP	MT. VERNON, KY 40456
CONTACT	MADELINE VARNEY
PHONE	(919) 913-3112

UTILITIES:

POWER COMPANY	N/A
CONTACT	N/A
PHONE	N/A
TELEPHONE COMPANY	N/A
CONTACT	N/A
PHONE	N/A
PHONE # NEAR SITE	N/A

CONTACT INFORMATION

PROJECT DESCRIPTION:
FOUNDATION DESIGN

TOWER TYPE:
110.6' SELF-SUPPORTING LATTICED STRUCTURE

AREA OF CONSTRUCTION:
-

PROJECT INFORMATION

Kentucky Underground Protection, Inc

KENTUCKY ONE CALL
CALL BEFORE YOU DIG
1-800-752-6007

ONE CALL

SHEET	DESCRIPTION	REV
T-1	TITLE SHEET	0
B-1	PROJECT NOTES / BILL OF MATERIAL	0
F-1	DRILLED SHAFT DESIGN	0

INDEX OF SHEETS

PLANS PREPARED FOR:

EC

240 LEIGH FARM RD., SUITE 415
DURHAM, NC 27707
OFFICE: (919) 913-3112

PROJECT INFORMATION: **(D.S.)**

THACKER
KY-0005

3802 SCAFFOLD CANE ROAD
MT. VERNON, KY 40456
(ROCKCASTLE COUNTY)

PLANS PREPARED BY:

vertical solutions
"execute & deliver"

113 EDINBURGH SOUTH DRIVE, SUITE 130
CARY, NC 27511
OFFICE: (888) 321-6167
www.verticalsolutions-inc.com

REV	DATE	ISSUED FOR:
0	09-14-15	CONSTRUCTION

DRAWN BY: MEA | CHECKED BY: AVF

SHEET TITLE:

TITLE SHEET

SHEET NUMBER: **T-1**

REVISION: **0**

VSI #: 150740

SEAL:

STATE OF KENTUCKY
MICHAEL A. LASSITER
24895
LICENSED PROFESSIONAL ENGINEER

September 14, 2015

GENERAL NOTES:

1. FOUNDATION DESIGN(S) ARE BASED ON:
   A. TOWER DESIGN DRAWINGS BY NELLO CORPORATION DATED AUGUST 31, 2015, DRAWING NO. 311719 WITH DESIGN CRITERIA:
      i. BASIC WIND SPEED (V3s) OF 90 MPH, NO ICE
      ii. BASIC WIND SPEED (V3s) OF 30 MPH, 3/4-IN RADIAL ICE
      iii. WIND IMPORTANCE FACTOR OF 1
      iv. EXPOSURE CATEGORY C
      v. TOPOGRAPHY CATEGORY 1
   B. REACTIONS AND ANCHOR BOLT LAYOUT FROM DESIGN DRAWINGS:
      i. TOWER REACTIONS:
         a. SHEAR = 25.2 KIPS
         b. MOMENT = 1,737.5 FT-KIPS
         c. WEIGHT = 22.1 KIPS
      ii. LEG REACTIONS:
         a. COMPRESSION = 189.7 KIPS
         b. UPLIFT = 172.0 KIPS
         c. SHEAR = 15.9 KIPS
      iii. (8) 0.75-INCH Ø X 72" ANCHOR RODS EQUALLY SPACED ON 9.25-INCH B.C. WITH 66.25-INCH MINIMUM EMBEDMENT.
   C. GEOTECHNICAL INVESTIGATION BY G2 CONSULTING GROUP DATED JANUARY 15, 2015, PROJECT NO. 142540.
   D. 1.50" DEFLECTION LIMIT CRITERIA AT UNFACTORED DESIGN REACTIONS.
   E. 0.75" DEFLECTION LIMIT CRITERIA AT UNFACTORED SERVICE REACTIONS.

2. ABBREVIATIONS:
   A. CONC = CONCRETE
   B. VERT = VERTICAL REINFORCEMENT BAR
   C. TIE = TIE REINFORCEMENT BAR
   D. HORIZ = HORIZONTAL REINFORCEMENT BAR
   E. T&B = TOP AND BOTTOM
   F. E.W. = EACH WAY
   G. O/C = ON CENTER
   H. CY = CUBIC YARDS
   J. PSI = POUNDS PER SQUARE INCH

3. SEISMIC DESIGN PARAMETERS:
   A. OCCUPANCY CATEGORY II (COMMERCIAL USE & NON-EMERGENCY COMMUNICATION)
   B. MAPPED SPECTRAL RESPONSE VALUES
      i. Ss = 0.190g
      ii. S1 = 0.093g
      iii. SITE CLASS D
      iv. Fa = 1.600
      v. Fv = 2.400
      vi. S(Ds) = 0.203g
      vii. S(D1) = 0.149g
   C.SEISMIC DESIGN CATEGORY "B"

BILL OF MATERIAL - DRILLED SHAFT DESIGN (EACH)

MARK NO.	DESCRIPTION	SIZE	QTY
CONC.	4000-PSI MIX	5.5 CY	1
VERT.	VERTICAL BAR	#9 ASTM A615-60 x 20'-6"	12
TIE	TIE	#4 ASTM A615-60 x 10'-0"	29
TUBE	SONO TUBE	SEE NOTE 1	1

NOTE:
1. WE ANTICIPATE DRILLING OPERATIONS FOR THE TOWER FOUNDATION CAN BE COMPLETED WITHIN OPEN, NEAT EXCAVATIONS. ONCE THE DRILLED PIER EXCAVATIONS HAVE BEEN COMPLETED TO THE DESIGN BEARING DEPTHS, REINFORCING STEEL SHOULD BE SET AND CONCRETE PLACED BY FREEFALL METHOD. WE RECOMMEND USING A TEMPORARY FORM, SUCH AS SONO TUBE, TO FORM THE TOP PORTION OF THE DRILLED PIERS.

FOUNDATION NOTES:

1. CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI.
2. REBAR SHALL CONFORM TO ASTM SPECIFICATION A615.
3. ALL REBAR SHALL HAVE 3 INCHES MINIMUM COVER.
4. ALL EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 1 INCH.
5. SEE GEOTECHNICAL REPORT FOR INSTALLATION REQUIREMENTS.
6. REINFORCEMENT SHALL BE 3 INCHES CLEAR FROM EDGES OF CONCRETE.

PLANS PREPARED FOR:

Eco-Site

240 LEIGH FARM RD., SUITE 415
DURHAM, NC 27707
OFFICE: (919) 913-3112

PROJECT INFORMATION: **(D.S.)**

THACKER
KY-0005

3802 SCAFFOLD CANE ROAD
MT. VERNON, KY 40456
(ROCKCASTLE COUNTY)

PLANS PREPARED BY:

vertical solutions
"execute & deliver"

113 EDINBURGH SOUTH DRIVE, SUITE 130
CARY, NC 27511
OFFICE: (888) 321-6167
www.verticalsolutions-inc.com

REV	DATE	ISSUED FOR:
0	09-14-15	CONSTRUCTION

DRAWN BY: MEA | CHECKED BY: AVF

SHEET TITLE:
PROJECT NOTES
BILL OF MATERIAL

SHEET NUMBER: **B-1**

REVISION: **0**

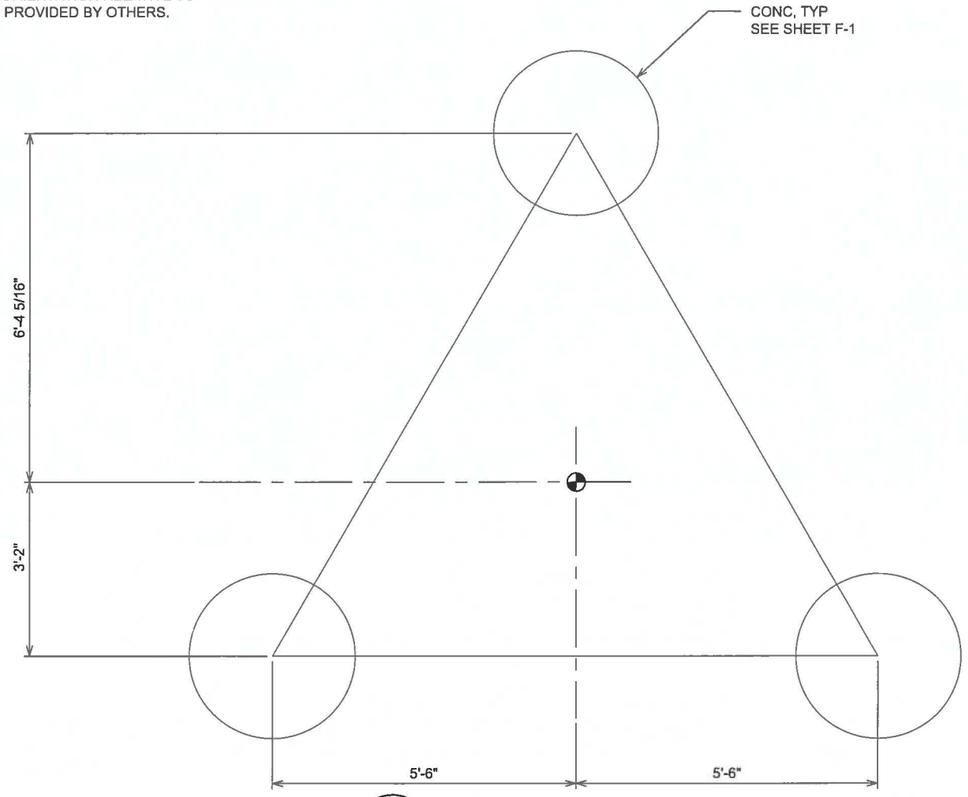
VSI #: 150740

SEAL:

STATE OF KENTUCKY
C. MICHAEL LATT
ASSITER
24895
LICENSED
PROFESSIONAL ENGINEER

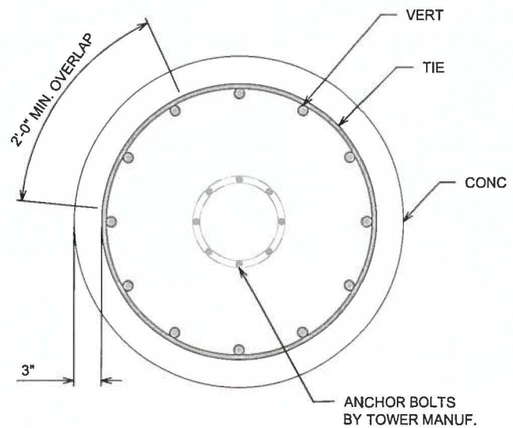
September 14, 2015

NOTE:
FOUNDATION ORIENTATION RELATIVE TO NORTH TO BE PROVIDED BY OTHERS.

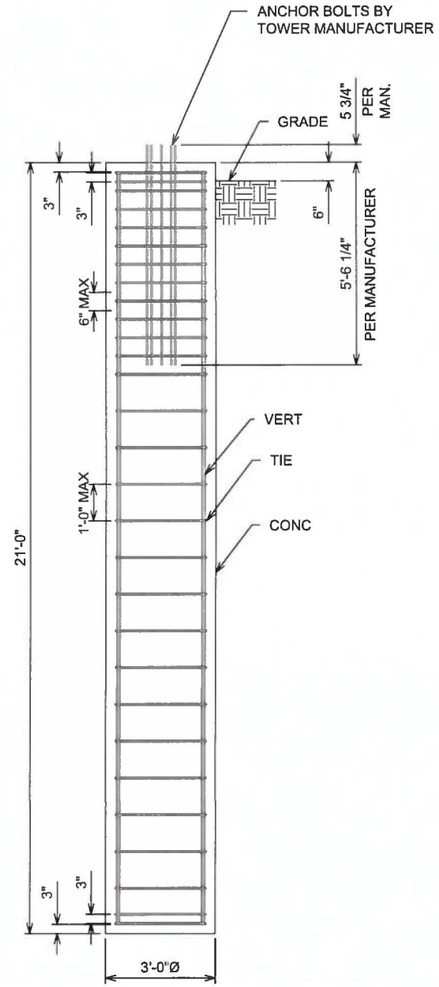


1 / F-1 FOUNDATION LAYOUT
SCALE: 3/8" = 1'-0"

NOTE:
1. WE ANTICIPATE DRILLING OPERATIONS FOR THE TOWER FOUNDATION CAN BE COMPLETED WITHIN OPEN, NEAT EXCAVATIONS. ONCE THE DRILLED PIER EXCAVATIONS HAVE BEEN COMPLETED TO THE DESIGN BEARING DEPTHS, REINFORCING STEEL SHOULD BE SET AND CONCRETE PLACED BY FREEFALL METHOD. WE RECOMMEND USING A TEMPORARY FORM, SUCH AS SONO TUBE, TO FORM THE TOP PORTION OF THE DRILLED PIERS.



2 / F-1 FOUNDATION - PLAN
SCALE: 3/4" = 1'-0"



3 / F-1 FOUNDATION - ELEV
SCALE: 1/4 = 1'-0"

PLANS PREPARED FOR:

Eco-Site

240 LEIGH FARM RD., SUITE 415
DURHAM, NC 27707
OFFICE: (919) 913-3112

PROJECT INFORMATION: **(D.S.)**

THACKER
KY-0005

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PLANS PREPARED BY:

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www.verticalsolutions-inc.com

REV	DATE	ISSUED FOR:
0	09-14-15	CONSTRUCTION

DRAWN BY: MEA | CHECKED BY: AVF

SHEET TITLE:
DRILLED SHAFT DESIGN

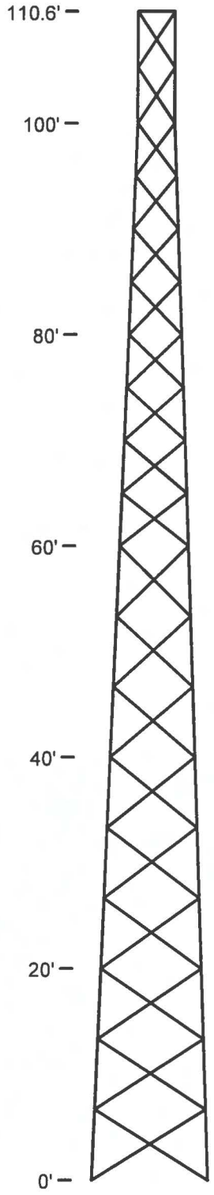
SHEET NUMBER: **F-1**

REVISION: **0**

VSI #: 150740

SEAL:

September 14, 2015



Self-Supporting Tower Section Data

Section Number	Bottom Elevation (ft)	Top Elevation (ft)	Model	Bottom Face Width (ft)	Top Face Width (ft)	Number of Panels	Leg Size (in)	Diagonal Size (in)	Girt Size (in)	Mid-Horizontal Size (in)	Redundant Horizontal Size (in)	Redundant Diagonal Size (in)
6	100	110.6	NSX	3.5	3.5	2	P2x.154	L1 3/4x1 3/4x1/8	L1 3/4x1 3/4x1/8			
5	80	100	NSX	5.0	3.5	4	P2x.154	L1 3/4x1 3/4x1/8				
4	60	80	NSX	6.5	5.0	4	P3x.216	L2x2x1/8				
3	40	60	NSX	8.0	6.5	3	P5x.258	L2x2x3/16				
2	20	40	NSX	9.5	8.0	3	P5x.258	L2x2x3/16				
1	0	20	NSX	11.0	9.5	3	P6x.28	L2 1/2x2 1/2x3/16				

Tower Reactions

No Ice
Shear: 25.2 kips
Moment: 1737.5 ft-kips
Weight: 22.1 kips

With Ice
Shear: 2.6 kips
Moment: 179.6 ft-kips
Weight: 61.3 kips

Leg Reactions
Compression: 189.7 kips
Uplift: -172.0 kips
Shear: 15.9 kips

STATE OF KENTUCKY
JASON MARK LAMBERT
No. 28217
LICENSED PROFESSIONAL ENGINEER
SEP 25 2015

REV	BY	DATE	DESCRIPTION
1	DF	9/15/2015	Revised anchor bolt length per foundation design per ECO 5907

ORIG. DATE: 8/27/2015
DWG NO: 311719
DWG. PROG: v2.05
SHEET: 1 OF 6

TITLE:
Eco-Site
NSX 11' X 110.6'
Thacker_KY-0005
Rockcastle Co., KY

NELLO CORPORATION
211 W. Washington St., Suite 2000
South Bend, IN 46601-1705
Bus: (574)288-3632
Fax: (574)288-5860

Tower Notes:

1. Tower is designed per TIA-222-G, "Structural Standard for Antenna Supporting Structures and Antennas," for the following loading conditions:
   90 mph 3-second gust basic wind speed with no ice (Equivalent to 116 mph 3-second gust ultimate design wind speed)
   30 mph 3-second gust basic wind speed with 3/4 inch basic ice thickness
   Structure Class: II
   Exposure Category: C
   Topographic Category: 1
2. A tower field inspection shall be performed in order to verify that design exposure and topographic parameters are consistent with the existing tower site conditions.
3. Tower design includes the antennas, dishes, and/or lines listed in the appurtenance loading tables on sheet 5.
4. Antenna mounting pipes may need to be field cut to match the lengths listed in the appurtenance loading tables on sheet 5.
5. Tower member design does not include stresses due to erection since erection equipment and procedures are unknown. Tower installation shall be performed by competent and qualified erectors in accordance with TIA-222-G and OSHA standards and all applicable building codes.
6. Field connections shall be bolted. No field welds shall be allowed unless otherwise noted.
7. Structural bolts shall conform to ASTM A325, except for 1/2 inch diameter and smaller bolts, which shall conform to ASTM A449 or SAE J429 Grade 5.
8. Structural steel and connection bolts shall be galvanized after fabrication in accordance with TIA-222-G.
9. All high strength bolts shall be tightened to a "snug tight" condition as defined in the RCSC "Specification for Structural Joints Using ASTM A325 or A490 Bolts."
10. Tower shall be marked and lighted in conformance with local building codes, FAA regulations, and TIA-222-G.
11. Tower shall be grounded in conformance with local building codes and TIA-222-G.
12. Allowable tolerance on as-built tower steel height is plus 1% or minus 1/2%.
13. Maintenance and inspection shall be performed over the life of the structure in accordance with TIA-222-G.
14. Material specifications:
    Self Supporting Pipe Legs - ASTM A500 Grade 50
    Angle Bracing - ASTM A529 Grade 50
    Leg Footpads - ASTM A572 Grade 50
    Leg Side Plates - ASTM A36 (Min)
15. Remove anchor bolt template before erecting tower. Place non-shrink grout under base section footpads after leveling tower.
16. Concrete contractor shall be responsible for properly aligning anchor bolts and materials before and after placing concrete, regardless of whether an anchor bolt template is provided.
17. Foundation by others.

STATE OF KENTUCKY
JASON MARK LAMBERT
No. 28217
LICENSED PROFESSIONAL ENGINEER
SEP 23 2015

REV	BY	DATE	DESCRIPTION
1	DF	9/15/2015	Revised anchor bolt length per foundation design per ECO 5907

ORIG. DATE: 8/27/2015
DWG NO: 311719
DWG. PROG: v2.05
SHEET: 6 OF 6

TITLE:
Eco-Site
NSX 11' X 110.6'
Thacker_KY-0005
Rockcastle Co., KY

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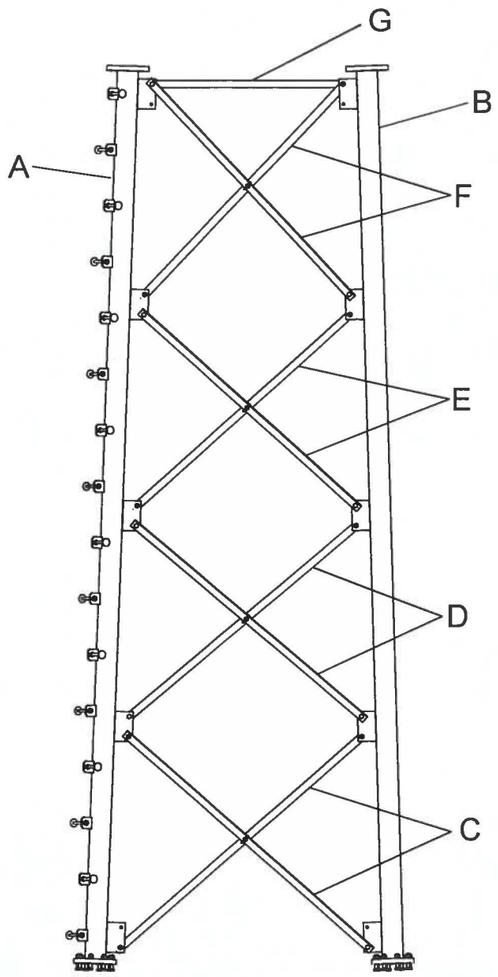
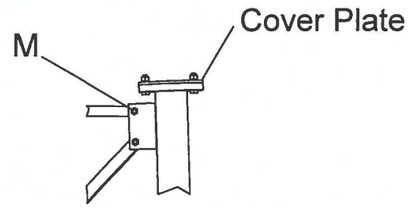


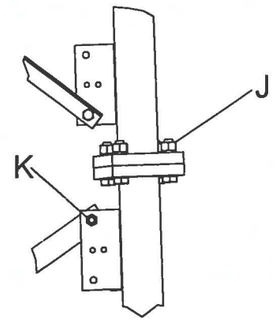
NSX Section Detail

1. A part number is stamped on the bottom footpad of each leg.
2. A part number is stamped and /or labeled on the bottom end of each angle.
3. Be sure to place diagonal bracing angles in correct positions, angles in the top panel may be longer than they are in the middle panel.
4. The bolt head must bear against the angle bracing.



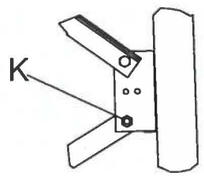
One plain nut and one lockwasher per bolt.

NSX Top Connection Detail



One plain nut and one lockwasher per bolt.

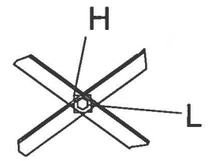
NSX Leg Connection



One plain nut and one lockwasher per bolt.

NSX Bracing Detail

NSX Section Legend:
A. Climbing Leg
B. Non-Climbing Leg
C. Diag., Panel 1
D. Diag., Panel 2
E. Diag., Panel 3
F. Diag., Panel 4
G. Top Girt
H. Spacer
J. Leg Bolts
K. Diagonal Bolts
L. Stitch Bolts
M. Top Girt Bolts



One plain nut and one lockwasher per bolt.

NSX Spacer Detail

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REV	BY	DATE	DESCRIPTION
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ORIG. DATE: 8/27/2015
DWG NO: 311719
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TITLE:
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NSX Section Part Numbers

Item	Elevation	Climbing Leg (A)	Non-Climbing Leg (B)	Diagonal - Panel 1 (C)	Diagonal - Panel 2 (D)	Diagonal - Panel 3 (E)	Diagonal - Panel 4 (F)	Top Girt (G)	Spacer (H)
6	100' - 110.6'	141404	141403	108264	108264			109627	132233
5	80' - 100'	141238	141232	103233	103234	103235	103236		132233
4	60' - 80'	141387	141383	103560	103561	103562	103563		132233
3	40' - 60'	141264	141263	106367	106368	106369			132233
2	20' - 40'	141264	141263	102674	102675	102676			132233
1	0' - 20'	141268	141266	106767	106768	106769			132233

NSX Section Hardware

Item	Elevation	Leg Bolts (J)	Diagonal Bolts (K)	Stitch Bolts (L)	Top Girt Bolts (M)	Section Weight (Lbs.)
6	100' - 110.6'	(12) 3/4" x 3-1/2"	(24) 1/2" x 1-1/2"	(6) 1/2" x 1-1/2"	(6) 1/2" x 1-1/2"	430
5	80' - 100'	(12) 3/4" x 3-1/2"	(48) 1/2" x 1-1/2"	(12) 1/2" x 1-1/2"		720
4	60' - 80'	(24) 3/4" x 3-1/2"	(48) 1/2" x 1-1/2"	(12) 1/2" x 1-1/2"		1080
3	40' - 60'	(24) 3/4" x 3-1/2"	(36) 5/8" x 2-1/2"	(9) 5/8" x 2-1/2"		1660
2	20' - 40'	(24) 3/4" x 3-1/2"	(36) 5/8" x 2-1/2"	(9) 5/8" x 2-1/2"		1720
1	0' - 20'	0	(36) 5/8" x 2-1/2"	(9) 5/8" x 2-1/2"		2190

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NSX 11' X 110.6'
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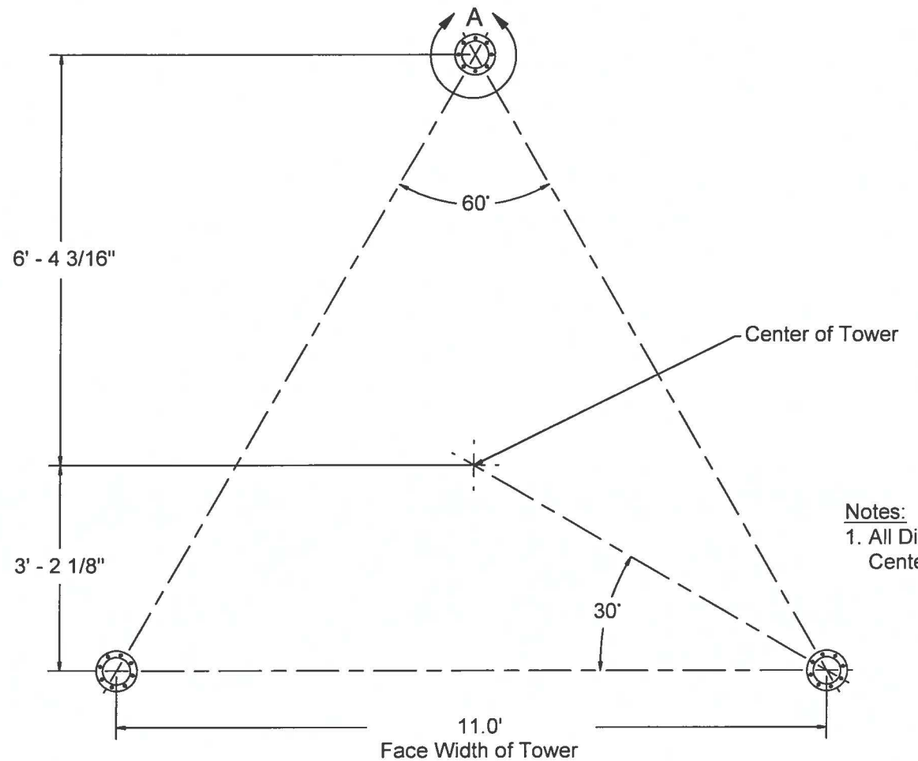
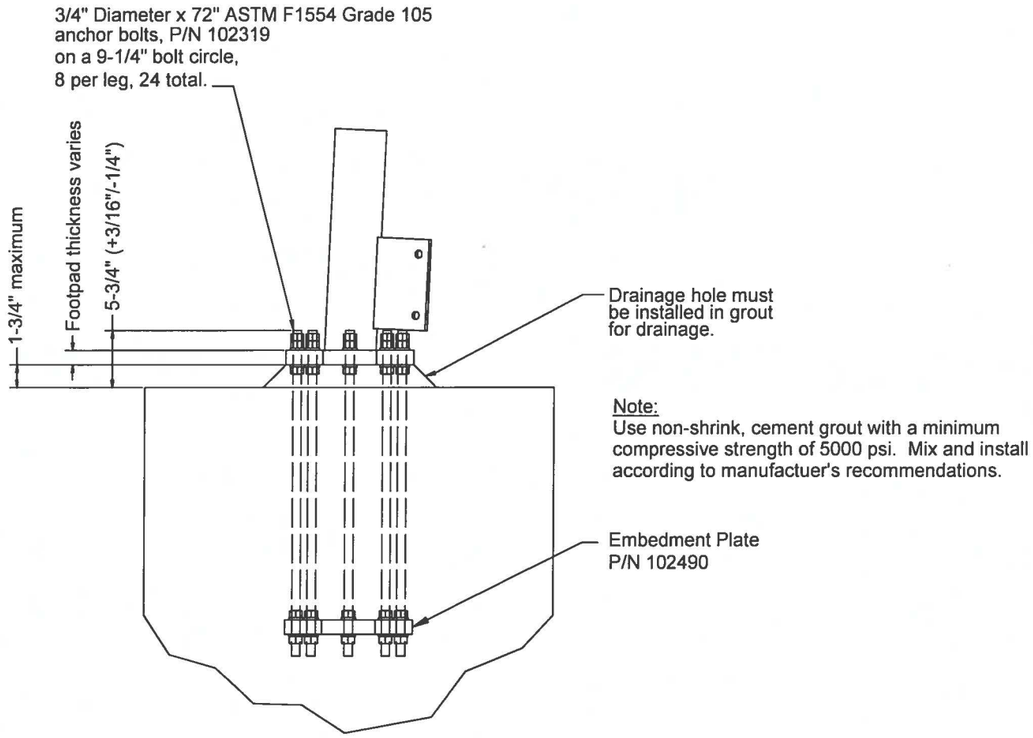
DETAIL A
Bolt hole must be aligned with center of tower.



Notes:
1. All Dimensions are from Center of Bolt Circles.



Note:
Use non-shrink, cement grout with a minimum compressive strength of 5000 psi. Mix and install according to manufactuer's recommendations.

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ORIG. DATE: 8/27/2015
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Antenna Loading

Height	Qty.	Description
110'	1	10' Lightning Rod
100'	2	TA-819-10V-39
100'	1	2' Standoff Arm w/ 2' Face
100'	2	TA-819-10V-39
100'	1	2' Standoff Arm w/ 2' Face
100'	2	TA-819-10V-39
100'	1	2' Standoff Arm w/ 2' Face
91'	2	TA-819-10V-39
91'	1	2' Standoff Arm w/ 2' Face
91'	2	TA-819-10V-39
91'	1	2' Standoff Arm w/ 2' Face
91'	2	TA-819-10V-39
91'	1	2' Standoff Arm w/ 2' Face
80'	15	Panel-96x15x6
80'	21	RRU - 28"x20"x12"
80'	2	Panel-24x12x3
80'	2	Panel-24x12x3
85'	2	Dish Pipe Mount
80'	1	VX-Sector Frame 12' (3)

Feedline Loading

Height	Qty.	Description
0' - 100'	15	LDF7-50A (1-5/8 FOAM)
0' - 91'	15	LDF7-50A (1-5/8 FOAM)
0' - 85'	2	LDF7-50A (1-5/8 FOAM)
0' - 80'	13	LDF7-50A (1-5/8 FOAM)

Dish Loading

Height	Qty.	Description
85'	2	2' Dish with Radome

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Eco-Site
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Exhibit E

CONSULTING
GROUP

January 15, 2015

Ms. Venera Tako
Fullerton Engineering Consultants, Inc.
9600 West Bryn Mawr Avenue, Suite 200
Rosemont, Illinois 60018

Re: Report on Geotechnical Investigation
GoGo Site KY005-G Thacker
3802 Scaffold Cane Road
Mt. Vernon, Kentucky 40456
G2 Project No. 142540

Dear Ms. Tako:

We have completed the geotechnical investigation for GoGo Site KY005-G Thacker in Mt. Vernon, Kentucky. This report presents the results of our observations and analysis and our recommendations for subgrade preparation, foundation design, and construction considerations.

As always, we appreciate the opportunity to be of service to Fullerton Engineering Consultants, Inc. and look forward to discussing the recommendations presented. In the meantime, if you have any questions regarding the report or any other matter pertaining to the project, please call us.

Sincerely,

G2 Consulting Group, LLC

Jeffrey T. Votava
Staff Engineer

Bruce J. Wilberding, P.E.
Principal

STATE OF KENTUCKY
BRUCE J. WILBERDING
PE-18694
REGISTERED
PROFESSIONAL ENGINEER

01-15-15

JTV/ALP/BJW/jkg

Enclosures

EXECUTIVE SUMMARY

We understand the project includes construction of a 130-foot high free-standing tower and installation of a prefabricated equipment shelter. Approximately 7 inches of silty clay topsoil are present at the soil boring location. Stiff to very stiff silty clay underlies the topsoil and extends to the explored depth of 45 feet. No measurable ground water was encountered during or upon completion of drilling operations.

Based on the encountered subsurface conditions and estimated tower loads, we recommend the proposed 130-foot high free-standing tower be supported on straight shaft drilled piersor a mat foundation. We anticipate straight shaft drilled piers will be 4 to 4-1/2 feet in diameter and bear at a depth of 15 to 20 feet. We recommend the following design parameters for temporary wind loading conditions. The allowable skin friction parameters are based on a factor of safety of 2. The allowable bearing capacity parameters are based on a factor of safety of 3.

Depth (feet)	Allowable Skin Friction (psf)	Allowable Compression Bearing Pressure (psf)
0 to 3	0	----
3 to 8	450	----
8 to 26	700	10,500
26 to 45	450	4,500

Alternatively, the proposed free-standing tower can be supported on a mat foundation or pad and pier foundation system bearing on the very stiff silty clay between approximate depths of 6 and 10 feet. We recommend a net allowable bearing pressure of 4,000 pounds per square foot (psf) for pad and pier foundations or mat foundation bearing on the very stiff silty clay. Based on our estimated tower loads, we anticipate mat foundations will range from 15 to 20 feet square and each foundation pad will range from 10 to 12 feet square. A total unit weight of 120 pounds per cubic foot (pcf) may be used for the on-site silty clay and placed and compacted above the top of the foundation pads.

We recommend the equipment shelter be supported on strip footings bearing on the very stiff silty clay at a minimum depth of 2 feet for protection against frost action. We further recommend an allowable bearing pressure of 3,000 psf be used for design of the equipment shelter foundations.

We anticipate drilling operations for the tower foundation can be completed within open, neat excavations. Once the drilled pier excavations have been completed to the design bearing depths, reinforcing steel should be set and concrete placed by freefall method.

Do not consider this summary separate from the entire text of this report, with all the conclusions and qualifications mentioned herein. Details of our analysis and recommendations are discussed in the following sections and in the Appendix of this report.

PROJECT DESCRIPTION

We understand the project includes construction of a 130-foot high free-standing tower. At the time of this investigation, the tower manufacturer and actual tower loading conditions were not available. However, based on our experience with similar communication towers, we anticipate the tower will impose a maximum compression load per leg in the range of 150 to 200 kips, a maximum uplift load per leg in the range of 100 to 150 kips, a shear load per leg in the range of 20 to 30 kips, and a total overturning moment between 3,000 and 5,000 ft-kips. Once the actual tower loading conditions and manufacturer are determined, G2 Consulting Group, LLC (G2) should be notified so we can evaluate our recommendations in light of the actual loading conditions.

In addition, an equipment shelter will be installed north of the tower base. We estimate the prefabricated shelter weight will range from 60 to 80 kips.

At the time of this investigation, the finished free-standing tower foundation elevation was not available. However, we anticipate the tower and equipment shelter foundations will be constructed 6 to 12 inches higher than the existing grade elevation.

SCOPE OF SERVICES

Field operations, laboratory testing, and engineering report preparation were performed under the direction and supervision of a licensed professional engineer. Our services were performed according to generally accepted standards and procedures in the practice of geotechnical engineering in this area. Our scope of services for this project is as follows:

1. We drilled one soil boring to a depth of 45 feet at the proposed tower location.

2. We performed laboratory testing on representative soil samples obtained from the soil boring. Laboratory testing included visual engineering classification, natural moisture content, and unconfined compressive strength determination.

3. We prepared this engineering report. The report includes recommendations regarding the allowable soil skin friction and bearing capacities, estimated settlement, and construction considerations related to foundation construction.

FIELD OPERATIONS

G2 selected the depth and location of the soil boring. The proposed center of tower was staked by others prior to our field operations. The soil boring was performed at the staked tower location. The approximate soil boring location is shown on the Soil Boring Location Plan, Plate No. 1. The ground surface elevation at the soil boring was interpolated from the enlarged site plan prepared by Fullerton Engineering Consultants, Inc. dated November 14, 2014.

The soil boring was drilled using a truck-mounted rotary drilling rig. Continuous flight, 4 inch outside diameter solid-stem augers were used to advance the borehole to the explored depth. Soil samples were obtained at intervals of 2-1/2 feet within the upper 10 feet and at intervals of 5 feet below that depth. These samples were obtained by the Standard Penetration Test method (ASTM D 1586), which involves driving a 2-inch diameter split-spoon sampler into the soil with a 140-pound weight falling 30 inches. The sampler is generally driven three successive 6-inch increments, with the number of blows for each increment recorded. The number of blows required to advance the sampler the last 12 inches is termed the Standard Penetration Test resistance (N). The blow counts for each 6-inch increment and the resulting N-values are presented on the soil boring log.

The soil samples were placed in sealed containers in the field and brought to our laboratory for testing and classification. During field operations, the driller maintained a log of the subsurface conditions, including changes in stratigraphy and observed groundwater levels. The final boring log is based on the driller's field boring log supplemented by laboratory soil classification and test results. The borehole was backfilled with auger cuttings after completion of drilling.

LABORATORY TESTING

Representative soil samples were subjected to laboratory testing to determine soil parameters pertinent to foundation design and site preparation. An experienced geotechnical engineer classified the samples in general conformance with the Unified Soil Classification System.

Laboratory testing included natural moisture content and unconfined compressive strength determinations. The unconfined compressive strengths were determined by using a spring loaded hand penetrometer. The hand penetrometer estimates the unconfined compressive strength to a maximum of 4-1/2 tons per square foot (tsf) by measuring the resistance of the soil sample to the penetration of a calibrated spring loaded cylinder.

The results of the laboratory tests are indicated on the boring log at the depths the samples were obtained. We will hold the soil samples for 60 days from the date of this report, after which time they will be discarded. If you would like to retain the samples beyond that date, please let us know.

SITE CONDITIONS

The proposed site is located at 3802 Scaffold Cane Road in Mt. Vernon, Kentucky. The proposed site is located in a relatively flat grass-covered area. Heavily wooded areas are located to the north and the south. An existing barn is located to the east of the proposed site. The site will be accessed by constructing an access drive heading northwest off of Scaffold Cane Road.

SOIL CONDITIONS

Approximately 6 inches of silty clay topsoil are present at the soil boring location. Silty clay underlies the topsoil and extends to the explored depth of 45 feet. The silty clay extending to an approximate depth of 26 feet is very stiff in consistency with natural moisture contents ranging between 27 and 31 percent and unconfined compressive strengths ranging between 4,500 and 7,500 psf. The silty clay present between the approximate depth of 26 feet and the explored depth of 45 feet is stiff in consistency with natural moisture contents ranging between 24 and 29 percent and unconfined compressive strengths ranging between 2,000 and 3,000 psf.

The stratification depths shown on the soil boring log represent the soil conditions at the boring location. Variations may occur away from the boring location. Additionally, the stratigraphic lines represent the approximate boundary between soil types. The transition may be more gradual than what is shown. We have prepared the boring log on the basis of the field log of soil encountered supplemented by laboratory classification and testing.

The Soil Boring Location Plan, Plate No. 1, and Soil Boring Log, Figure No. 1, are presented in the Appendix. The soil profiles described above are generalized descriptions of the conditions encountered at the boring location. General Notes Terminology defining the nomenclature used on the soil boring log and elsewhere in this report are presented on Figure No. 2.

GROUNDWATER CONDITIONS

No measurable groundwater was encountered during or upon completion of drilling operations at the soil boring location. Fluctuations in perched and long term groundwater levels should be anticipated due to seasonal variations and following periods of prolonged precipitation. It should also be noted that groundwater observations made during drilling operations in predominantly cohesive soils are not necessarily indicative of the static groundwater level. This is due to the low permeability of such soils and the tendency of drilling operations to seal off the natural paths of groundwater flow.

SITE PREPARATION

On the basis of the available data, it appears a little earthwork will be required to achieve final design grades. Earthwork operations are anticipated to consist principally removing the existing topsoil and vegetation in the proposed lease area and access drive, constructing the access drive, and excavating for the tower and equipment shelter foundations. We recommend all earthwork operations be performed under adequate specifications and observed by qualified technical staff working under the direction of a licensed professional engineer.

At the start of earthwork operations, the existing topsoil and vegetation must be completely removed in the proposed lease area and access drive locations. The exposed subgrade should be visually evaluated for instability and/or unsuitable soil conditions. Any unstable or unsuitable areas noted should be improved by additional compaction or removed and replaced with engineered fill.

Engineered fill should be free of organic matter, frozen soil, clods, or other harmful material. The fill should be placed in uniform horizontal layers that are not more than 9 inches in loose thickness. The engineered fill should be compacted to achieve a density of at least 95 percent of the maximum dry density as determined by the Modified Proctor compaction test (ASTM D 1557). All engineered fill material should be placed and compacted at approximately the optimum moisture content. Frozen material should not be used as fill, nor should fill be placed on a frozen subgrade.

FOUNDATION RECOMMENDATIONS

Based on the encountered subsurface conditions and estimated tower loads, we recommend the proposed 130-foot high free-standing tower be supported on straight shaft drilled piers or a mat foundation. We anticipate straight shaft drilled piers will be 4 to 4-1/2 feet in diameter and bear at a depth of 15 to 20 feet. We recommend the following design parameters for temporary wind loading conditions. The allowable skin friction parameters are based on a factor of safety of 2. The allowable bearing capacity parameters are based on a factor of safety of 3.

Depth (feet)	Allowable Skin Friction (psf)	Allowable Compression Bearing Pressure (psf)
0 to 3	0	----
3 to 8	450	----
8 to 26	700	10,500
26 to 45	450	4,500

Alternatively, the proposed free-standing tower can be supported on a mat foundation or pad and pier foundation system bearing on the very stiff silty clay between approximate depths of 6 and 10 feet. We recommend a net allowable bearing pressure of 4,000 psf for pad and pier foundations or mat foundation bearing on the very stiff silty clay clay. Based on our estimated tower loads, we anticipate mat foundations will range from 15 to 20 feet square and each foundation pad will range from 10 to 12 feet square. A total unit weight of 120 pcf may be used for the on-site silty clay placed and compacted above the top of the foundation pads.

For straight shaft piers, the factored concrete weight and the allowable skin friction along the pier's shaft resist the uplift forces. The compression loads are resisted by end bearing at the bottom of the drilled pier and skin friction along the perimeter of the drilled pier. Skin friction should be used for compression load from a depth of 3 feet to a depth equal to the drilled pier depth minus 1-1/2 shaft diameters.

For pad and pier foundations, the uplift forces imposed at each leg are resisted by the factored weight of the soil above the pad along with the weight of the pad and pier concrete. The compression loads are resisted by end bearing at the bottom of the pad.

We recommend the equipment shelter be supported on strip footings bearing on the very stiff silty clay at a minimum depth of 2 feet for protection against frost action. We further recommend an allowable bearing pressure of 3,000 psf be used for design of the equipment shelter foundations.

We estimate tower and equipment foundation settlement may be in the range of 1/2 to 1 inch. We base these estimates on our experience with similar soil and loading conditions.

CONSTRUCTION CONSIDERATIONS

Drilled Piers

We anticipate drilling operations for the tower foundation can be completed within open, neat excavations. Once the drilled pier excavations have been completed to the design bearing depths, reinforcing steel should be set and concrete placed by freefall method.

To reduce lateral movement of the tower drilled piers, the contractor must place the concrete in intimate contact with undisturbed soil. This includes filling any voids or enlargements in the drilled pier shaft excavation with concrete at the time of drilled pier concrete placement. We recommend using a concrete mix design with a slump of 5 to 7 inches for free fall placement to reduce the potential for concrete arching and provide a workable material.

We recommend using a temporary form, such as sono tube, to form the top portion of the drilled piers. The use of this top form is a very beneficial aid to the correct placement and orientation of the anchor bolts on free-standing towers.

Mat Foundation or Pad and Pier Foundation

We anticipate the contractor can construct mat foundation or the pad and pier foundation alternative in open, neat excavations. All excavations should be safely sloped, sheeted, shored, or braced in accordance with OSHA requirements. If material is stored or equipment is operated near an excavation, stronger shoring must be used to resist the extra pressure due to superimposed loads.

We anticipate excavations for the shallow foundation alternative will be dry. Pumping from properly constructed sumps can control accumulation of surface water runoff within shallow foundation excavations.

The contractor must place concrete in intimate contact with undisturbed soil and fill any voids or enlargements in the foundation excavations with concrete at the time of concrete placement. We recommend using a concrete mix design with a slump of 4 to 6 inches for the mat foundation or pad and pier foundation to reduce the potential for concrete arching and provide a workable material.

Equipment Foundation

The sides of the footings for the shelter foundation should be constructed straight and vertical to reduce the risk of frozen soil adhering to the concrete and raising the foundations. We anticipate the strip footings can be excavated neatly within the silty clay.

We do not anticipate significant groundwater accumulations will occur during foundation excavation operations. In general, we expect accumulations of surface run-off water can be controlled with normal pumping from properly constructed sumps.

GENERAL COMMENTS

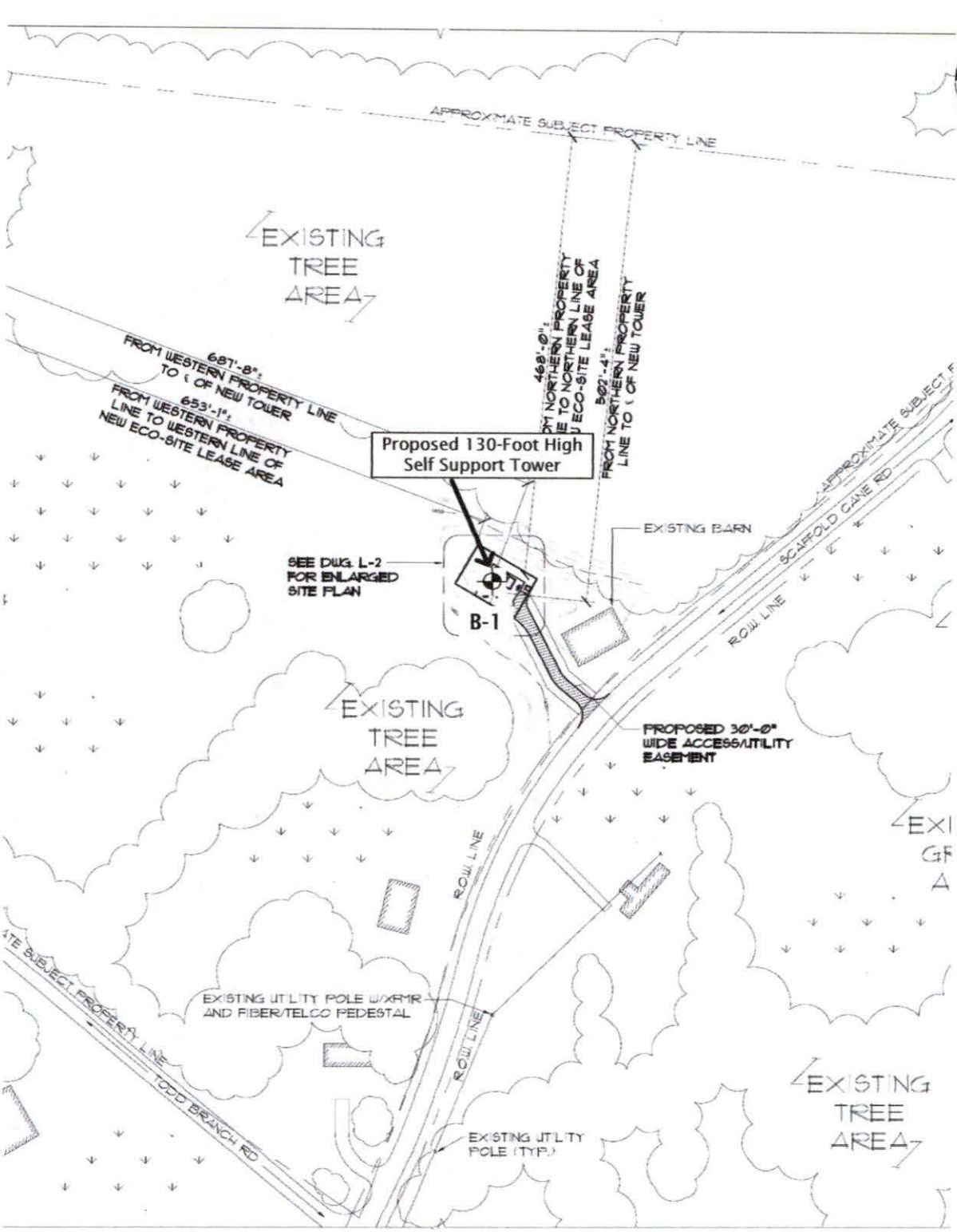
We have formulated the evaluations and recommendations presented in this report relative to site preparation and foundations on the basis of data provided to us relating to the location, type, and grade for the proposed site. Any significant change in this data should be brought to our attention for review and evaluation with respect to the prevailing subsurface conditions. Furthermore, if changes occur in the design, location, or concept of the project, the conclusions and recommendations contained in this report are not valid unless G2 Consulting Group, LLC reviews the changes. G2 Consulting Group, LLC will then confirm the recommendations presented herein or make changes in writing.

The scope of the present investigation was limited to evaluation of subsurface conditions for the support of proposed tower foundation and equipment shelter and other related aspects of the development. No chemical, environmental or hydrogeological testing or analyses were included in the scope of this investigation.

We base the analyses and recommendations submitted in this report upon the data from the soil boring performed at the approximate location shown on the Soil Boring Location Plan, Plate No. 1. This report does not reflect variations that may occur away from the actual boring location. The nature and extent of any such variations may not become clear until the time of construction. If significant variations then become evident, it may be necessary for us to re-evaluate our report recommendations.

Accordingly, we recommend G2 Consulting Group, LLC observe all geotechnical related work, including foundation construction, subgrade preparation, and engineered fill placement. G2 Consulting Group, LLC will perform the appropriate testing to confirm the geotechnical conditions given in the report are found during construction.

APPENDIX



Legend

Soil Boring Drilled by Geo-Drill, Inc. on January 7, 2015

Soil Boring Location Plan		
GoGo Site KY005-G Thacker 3802 Scaffold Cane Road Mount Vernon, Kentucky 40456		
2G CONSULTING GROUP	Project No. 142540	
	Drawn by: JKG	
	Date: 12-8-14	Plate No. 1
	Scale: NTS	

Project Name: GOGO Site KY005-G Thacker

Project Location: 3802 Scaffold Cane Road
Mt. Vernon, Kentucky 40456

G2 Project No. 142540

Latitude: 37.501400° Longitude: -84.283400°

Soil Boring No. B-1

CONSULTING GROUP

ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 1405.0 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Topsoil: Brown Silty Clay 0.6							
				S-1	5 8 10	18	28.9		4500*
1400.0			5	S-2	5 5 5	10	27.1		4500*
				S-3	5 11 13	24	30.9		4500*
1395.0			10	S-4	6 13 16	29	30.3		7000*
		Very Stiff Mottled Reddish Brown Silty Clay with trace sand and gravel							
1390.0			15	S-5	6 11 13	24	27.6		7000*
1385.0			20	S-6	5 8 11	19	34.3		7500*
1380.0			25	S-7	6 8 12	20	31.5		7000*
		26.0							
1375.0		Stiff Reddish Brown Silty Clay with trace sand and gravel	30	S-8	6 8 10	18	29.3		3000*
1370.0			35	S-9	5 9 11	20	27.5		3000*

Total Depth: 45 ft
Drilling Date: January 7, 2015
Inspector:
Contractor: Geo-Drill, Inc.
Driller: P. Frary

Drilling Method:
4-inch outside diameter solid stem augers

Water Level Observation:
Dry during and upon completion of drilling operations

Notes:
* Calibrated Hand Penetrometer

Excavation Backfilling Procedure:
Borehole backfilled with auger cuttings

Figure No. 1a

SOIL / PAVEMENT BORING 142540.GPJ 20140820 G2 CONSULTING DATA TEMPLATE.GDT 1/15/15

Project Name: GOGO Site KY005-G Thacker

Project Location: 3802 Scaffold Cane Road
Mt. Vernon, Kentucky 40456

G2 Project No. 142540

Latitude: 37.501400° Longitude: -84.283400°

Soil Boring No. B-1

CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 1405.0 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/ 6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
1365.0		Stiff Reddish Brown Silty Clay with trace sand and gravel *(continued)*	40	S-10	6 9 10	19	25.8		2000*
1360.0		45.0	45	S-11	6 8 10	18	23.8		3000*
		End of Boring @ 45 ft							
1355.0			50						
1350.0			55						
1345.0			60						
1340.0			65						
1335.0			70						

Total Depth: 45 ft
Drilling Date: January 7, 2015
Inspector:
Contractor: Geo-Drill, Inc.
Driller: P. Frary

Drilling Method:
4-inch outside diameter solid stem augers

Water Level Observation:
Dry during and upon completion of drilling operations

Notes:
* Calibrated Hand Penetrometer

Excavation Backfilling Procedure:
Borehole backfilled with auger cuttings

Figure No. 1b

SOIL / PAVEMENT BORING 142540.GPJ 20140820 G2 CONSULTING DATA TEMPLATE.GDT 1/15/15

CONSULTING GROUP

GENERAL NOTES TERMINOLOGY

Unless otherwise noted, all terms herein refer to the Standard Definitions presented in ASTM 653.

PARTICLE SIZE

Boulders		- greater than 12 inches
Cobbles		- 3 inches to 12 inches
Gravel	- Coarse	- 3/4 inches to 3 inches
	- Fine	- No. 4 to 3/4 inches
Sand	- Coarse	- No. 10 to No. 4
	- Medium	- No. 40 to No. 10
	- Fine	- No. 200 to No. 40
Silt		- 0.005mm to 0.074mm
Clay		- Less than 0.005mm

CLASSIFICATION

The major soil constituent is the principal noun, i.e. *clay, silt, sand, gravel. The second major soil* constituent and other minor constituents are reported as follows:

Second Major Constituent (percent by weight)	Minor Constituent (percent by weight)
Trace - 1 to 12%	Trace - 1 to 12%
Adjective - 12 to 35%	Little - 12 to 23%
And - over 35%	Some - 23 to 33%

COHESIVE SOILS

If clay content is sufficient so that clay dominates soil properties, clay becomes the principal noun with the other major soil constituent as modifier, i.e. sandy clay. Other minor soil constituents may be included in accordance with the classification breakdown for cohesionless soils, i.e. silty clay, trace sand, little gravel.

Consistency	Unconfined Compressive Strength (psf)	Approximate Range of (N)
Very Soft	Below 500	0 - 2
Soft	500 - 1,000	3 - 4
Medium	1,000 - 2,000	5 - 8
Stiff	2,000 - 4,000	9 - 15
Very Stiff	4,000 - 8,000	16 - 30
Hard	8,000 - 16,000	31 - 50
Very Hard	Over 16,000	Over 50

Consistency of cohesive soils is based upon an evaluation of the observed resistance to deformation under load and not upon the Standard Penetration Resistance (N).

COHESIONLESS SOILS

Density Classification	Relative Density %	Approximate Range of (N)
Very Loose	0 - 15	0 - 4
Loose	16 - 35	5 - 10
Medium Compact	36 - 65	11 - 30
Compact	66 - 85	31 - 50
Very Compact	86 - 100	Over 50

Relative Density of cohesionless soils is based upon the evaluation of the Standard Penetration Resistance (N), modified as required for depth effects, sampling effects, etc.

SAMPLE DESIGNATIONS

AS - Auger Sample – Cuttings directly from auger flight
BS - Bottle or Bag Samples
S - Split Spoon Sample - ASTM D 1586
LS - Liner Sample with liner insert 3 inches in length
ST - Shelby Tube sample - 3 inch diameter unless otherwise noted
PS - Piston Sample - 3 inch diameter unless otherwise noted
RC - Rock Core - NX core unless otherwise noted

STANDARD PENETRATION TEST (ASTM D 1586) - A 2.0 inch outside-diameter, 1-3/8 inch inside-diameter split barrel sampler is driven into undisturbed soil by means of a 140-pound weight falling freely through a vertical distance of 30 inches. The sampler is normally driven three successive 6-inch increments. The total number of blows required for the final 12 inches of penetration is the Standard Penetration Resistance (N).

Exhibit F

Navigation | Reports | PSC Home

KY Public Service Commission

Master Utility Search

- Search for the utility of interest by using any single or combination of criteria.
- Enter Partial names to return the closest match for Utility Name and Address/City /Contact entries.

Utility ID **Utility Name** **Address/City /Contact** **Utility Type** **Status**

Active

Search

	Utility ID	Utility Name	Utility Type	Class	City	State
View	4107900	365 Wireless, LLC	Cellular	D	Atlanta	GA
View	4109300	Access Point, Inc.	Cellular	D	Cary	NC
View	4108300	Air Voice Wireless, LLC	Cellular	D	Bloomfield Hill	MI
View	44451184	Alltel Communications, LLC	Cellular	A	Basking Ridge	NJ
View	4107800	American Broadband and Telecommunications Company	Cellular	D	Toledo	OH
View	4108650	AmeriMex Communications Corp.	Cellular	B	Roswell	GA
View	4105100	AmeriVision Communications, Inc. d/b/a Affinity 4	Cellular	D	Norfolk	VA

View	4107400	Bandwidth.com, Inc.	Cellular	B	Raleigh	NC
View	4108600	BCN Telecom, Inc.	Cellular	D	Morristown	NJ
View	4108750	Blue Jay Wireless, LLC	Cellular	D	Addison	TX
View	4202300	Bluegrass Wireless, LLC	Cellular	A	Elizabethtown	KY
View	4107600	Boomerang Wireless, LLC	Cellular	D	Hiawatha	IA
View	4105600	Budget PrePay, Inc. dba Budget Mobile	Cellular	A	Bossier City	LA
View	4105500	BullsEye Telecom, Inc.	Cellular	D	Southfield	MI
View	4100700	Cellco Partnership dba Verizon Wireless	Cellular	A	Basking Ridge	NJ
View	4106600	Cintex Wireless, LLC	Cellular	D	Rockville	MD
View	4101900	Consumer Cellular, Incorporated	Cellular	A	Portland	OR
View	4104900	Credit Union Wireless, LLC	Cellular	D	Salem	OR
View	4106400	Credo Mobile, Inc.	Cellular	A	San Francisco	CA
View	4201000	Cricket Communications, LLC	Cellular	A	Atlanta	GA
View	4108850	Cricket Wireless, LLC	Cellular	D	Alpharetta	GA
View	4001900	CTC Communications Corp. d/b/a EarthLink Business I	Cellular	D	Marlborough	MA
View	10640	Cumberland Cellular Partnership	Cellular	A	Elizabethtown	KY
View	4109250	Defense Mobile Corporation	Cellular	D	Westport	CT
View	4101000	East Kentucky Network, LLC dba Appalachian Wireless	Cellular	A	Ivel	KY
View	4002300	Easy Telephone Service Company dba Easy Wireless	Cellular	D	Ocala	FL
View	4109500	Enhanced Communications Group, LLC	Cellular	D	Bartlesville	OK
View	4109050	EOS Mobile Holdings, LLC	Cellular	D	Southlake	TX
View	4104700	Ernest Communications, Inc.	Cellular	D	Norcross	GA
View	4105900	Flash Wireless, LLC	Cellular	D	Concord	NC
View	4107100	Flatel Wireless, Inc dba Zing PCS	Cellular	D	Royal Palm Bch	FL
View	4104800	France Telecom Corporate Solutions L.L.C.	Cellular	D	Oak Hill	VA

View	4109350	Global Connection Inc. of America	Cellular	D	Norcross	GA
View	4102200	Globalstar USA, LLC	Cellular	B	Covington	LA
View	4109600	Google North America Inc.	Cellular	C	Mountain View	CA
View	33350363	Granite Telecommunications, LLC	Cellular	D	Quincy	MA
View	4106000	GreatCall, Inc. d/b/a Jitterbug	Cellular	A	San Diego	CA
View	10630	GTE Wireless of the Midwest dba Verizon Wireless	Cellular	A	Basking Ridge	NJ
View	4103100	i-Wireless, LLC	Cellular	A	Newport	KY
View	4109800	IM Telecom, LLC d/b/a Infiniti Mobile	Cellular	C	Tulsa	OK
View	22215360	KDDI America, Inc.	Cellular	C	New York	NY
View	10872	Kentucky RSA #1 Partnership	Cellular	A	Basking Ridge	NJ
View	10680	Kentucky RSA #3 Cellular General	Cellular	A	Elizabethtown	KY
View	10681	Kentucky RSA #4 Cellular General	Cellular	A	Elizabethtown	KY
View	4109750	Konatel, Inc. dba telecom.mobi	Cellular	C	Johnstown	PA
View	4107300	Lycamobile USA, Inc.	Cellular	D	Newark	NJ
View	4108100	MCC Telephony of the South, LLC	Cellular	D	Mediacom Park	NY
View	4108800	MetroPCS Michigan, LLC	Cellular	A	Bellevue	WA
View	4109650	Mitel Cloud Services, Inc.	Cellular	C	Mesa	AZ
View	4109400	NetZero Wireless, Inc.	Cellular	D	Woodland Hills	CA
View	4202400	New Cingular Wireless PCS, LLC dba AT&T Mobility, PCS	Cellular	A	San Antonio	TX
View	10900	New Par dba Verizon Wireless	Cellular	A	Basking Ridge	NJ
View	4000800	Nextel West Corporation	Cellular	A	Overland Park	KS
View	4104500	Nexus Communications, Inc.	Cellular	D	Columbus	OH
View	4001300	NPCR, Inc. dba Nextel Partners	Cellular	A	Overland Park	KS
View	4001800	OnStar, LLC	Cellular	A	Detroit	MI
View	4109450	Pix Wireless, LLC	Cellular	D	Boca Raton	FL

View	4109850	PLATINUMTEL COMMUNICATIONS, LLC d/b/a Care Wireless	Cellular	C	Justice	IL
View	33351182	PNG Telecommunications, Inc. dba PowerNet Global Communications	Cellular	D	Cincinnati	OH
View	4202100	Powertel/Memphis, Inc. dba T-Mobile	Cellular	A	Bellevue	WA
View	4107700	Puretalk Holdings, LLC	Cellular	A	Covington	GA
View	4106700	Q Link Wireless, LLC	Cellular	A	Dania	FL
View	4108700	Ready Wireless, LLC	Cellular	C	Hiawatha	IA
View	4106200	Rural Cellular Corporation	Cellular	A	Basking Ridge	NJ
View	4108550	Sage Telecom Communications, LLC	Cellular	D	Dallas	TX
View	4109150	SelecTel, Inc. d/b/a SelecTel Wireless	Cellular	D	Freemont	NE
View	4106300	SI Wireless, LLC	Cellular	A	Carbondale	IL
View	4109100	Solavei, LLC	Cellular	C	Bellevue	WA
View	4200100	Sprint Spectrum, L.P.	Cellular	A	Atlanta	GA
View	4200500	SprintCom, Inc.	Cellular	A	Atlanta	GA
View	4109550	Stream Communications, LLC	Cellular	C	Dallas	TX
View	4202200	T-Mobile Central, LLC dba T-Mobile	Cellular	A	Bellevue	WA
View	4002500	TAG Mobile, LLC	Cellular	D	Carrollton	TX
View	4109700	Telecom Management, Inc. dba Pioneer Telephone	Cellular	C	South Portland	ME
View	4107200	Telefonica USA, Inc.	Cellular	D	Miami	FL
View	4108900	Telrite Corporation dba Life Wireless	Cellular	D	Covington	GA
View	4108450	Tempo Telecom, LLC	Cellular	D	Kansas City	MO
View	4109000	Ting, Inc.	Cellular	B	Toronto	ON
View	4103900	Total Call Mobile, Inc.	Cellular	A	Gardena	CA
View	4103300	Touchtone Communications, Inc.	Cellular	D	Whippany	NJ
View	4104200	TracFone Wireless, Inc.	Cellular	D	Miami	FL
View	4002000	Truphone, Inc.	Cellular	D	Durham	NC
View	4105700	Virgin Mobile USA, L.P.	Cellular	A	Atlanta	GA
View	4104100	WDT Wireless Telecommunications, Inc.	Cellular	D	Dallas	TX

View	22251693	WDT World Discount Telecommunications Co.	Cellular	D	Dallas	TX
View	4200600	West Virginia PCS Alliance, L.C.	Cellular	A	Waynesboro	VA
View	4106500	WiMacTel, Inc.	Cellular	D	Omaha	NE

Exhibit G

SITESAFE
RF COMPLIANCE EXPERTS
A BUSINESS OF FDH VELOCITEL

SITE SPECIFIC EVALUATION
FOR
Client Site Name: Thacker
Client Site Number: KY005
Client Site Location: Berea, KY.

Client/Requestor Name: Jessica George Date: 8/25/15
Company Name: Eco-Site
Address: 240 Leigh Farm Road, Suite 415
Address: Durham, NC. 27707

This is an evaluation based on application of surfaces identified in Federal Aviation Regulation (FAR) Part 77 and Federal Communication Commission (FCC) Rules Part 17.

EXECUTIVE SUMMARY OF FINDINGS

- **The maximum height that can be built at this site without notice to the FAA is 200 feet AGL or 1607 feet AMSL.**
- Maximum No Extended Study height at this site is 393 AGL, or 1800 AMSL.
- Maximum No Hazard height at this site is 393 AGL, or 1800 AMSL.
- Maximum no marking and lighting height at this site is 200 AGL, or 1607 AMSL.

SITE DATA SUBMITTED FOR STUDY

Type of Structure:	Antenna	
Coordinates of site:	Lat:	37° 30' 5.27"
	Long:	84° 17' 0.81"
	Datum:	NAD 83
Site Ground Elevation:		1407

AIRPORT AND HELIPAD INFORMATION

Nearest public use or Government Use (DOD) facility is Madison.

This structure would be located 8.1 NM or 49489 FT from the airport on a bearing of 343 degrees true to the airport.

Nearest private use facility is Saint Joseph Berea.

This structure would be located 4.6 NM from the helipad on a bearing of 358 degrees true to the helipad.

FINDINGS

AM Facilities:

(The FCC protects AM transmission stations from possible electro magnetic interference for a distance of 3.0 km for directional facilities, and 1.0 km for non-directional facilities. Any antenna structures within these distances will most likely require a detuning evaluation of the site) ***(Sitesafe offers a full range of detuning services)***

For a free analysis of this site against the most current FCC data, go to our AM evaluation web site at http://sitesafe.com. A negative certificate can be generated, (on-line) if no conflict is found. If a conflict is found, our AM Detune will contact you to review the findings.

This site was evaluated against the FCC's AM antenna database, and is not within an AM transmission area.

FCC Notice Requirements:

(FCC Rules, Part 17)

This structure does not require notification to the FAA or FCC based on these rules.

FAA EMI:

(The FAA protects certain air navigational aids and radio transmitters from possible electro-magnetic interference. The distance and direction are dependent on the type of facility be evaluated. Most of these transmission and receiver facilities are listed in the National Flight Data Center (NFDC) database.)

This site would not affect any FAA air navigational aids or transmitters listed in the NFDC database.

Military Airspace:

This structure will not affect this airspace.

***Note**: This report is for planning purposes only. If notification to the FAA or FCC is submitted on a site (whether it is, or is not required), a determination of no hazard or an approval letter should be received prior to any actions taken at this site.*

FAA Evaluation:

FAR Part 77 paragraph 9 (FAR 77.9). Construction or Alteration requiring notice:
(These are the imaginary surfaces that the FAA has implemented to provide general criteria for notification purposes only.)

This structure does not require notification to the FAA.

FAR Part 77 paragraph 17(FAR 77.17). Standards for Determining Obstructions:
(These are the imaginary surfaces that the FAA has implemented to protect aircraft safety. If any of these surfaces are penetrated, the structure may pose a Hazard to Air Navigation.)

This structure does not exceed these surfaces.

MARKING AND LIGHTING

FAA Advisory Circular 70/7460-1

Marking and lighting is not required for this structure.

RECOMMENDATIONS OR ACTIONS

SiteSafe does not consider this site to be a Hazard to Air Navigation as specified in FAR part 77.


Clear Creek
Little
MADISON CO.
ROCKCASTLE CO.
KY005
Soft Spring Hollow
Owens Knob
Todd
Disputanta
Branch

500 m

From: Houlihan, John (KYTC) [mailto:John.Houlihan@ky.gov]
Sent: Wednesday, August 26, 2015 11:08 AM
To: Dale Smith
Subject: RE: KY005

Mr. Smith, please see below study results.

Aeronautical Study Result
The structure is not in KAZC's jurisdiction and does not require a permit.
Structure's Coordinates: 37°30'5.27"N, 84°17'0.81"W
Structure's Height :120ft
User-submitted ground elevation is 1407 ft.
DEM's ground elevation is 1395.3 ft

Kentucky Airport Zoning Commission (KAZC)
John Houlihan, Administrator
90 Airport Road, Building 400
Frankfort, KY 40601
Direct Line 502-564-0310, Cell 502-330-3955, Office 502-564-4480, Fax 502-564-7953

KAZC webpage: http://transportation.ky.gov/Aviation/Pages/Zoning-Commission.aspx

Exhibit H

Federal Communications Commission
Wireless Telecommunications Bureau
Radio Station Authorization

LICENSEE NAME: AC BidCo LLC

CHRISTOPHER P. MINNETIAN
AC BIDCO LLC
ONE ROCKEFELLER PLAZA32ND FLOOR
NEW YORK NY 10020

FCC Registration Number (FRN)	
0014830616	
Call Sign	**File Number**
WQFX728	
Radio Service	
CJ - Commercial Aviation Air-Ground Radiotelephone (800	

Grant Date	Effective Date	Expiration Date	Print Date
10-31-2006	10-31-2006	10-31-2016	11-01-2006

Market Number	Channel Block	Sub-Market Designator
NWA255	C	0

Market Name: U.S. and Possessions

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date
10-31-2009	10-31-2011		

SPECIAL CONDITIONS OR WAIVERS/CONDITIONS

The authority to construct and operate air-ground radio service stations pursuant to this authorization
is subject to technical and operational requirements contained in the Protocols of Agreements between the United States of
America and the United Mexican States and the United States of America and Canada, as applicable.

1. This authorization is subject to the condition that the licensee comply with all rules and

("Special Conditions or Waivers/Conditions" continued on next page ...)

Conditions:
Pursuant to Section 309(h) of the Communications Act of 1934, as amended, 47 U.S.C. Section 309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. Section 310(d). This license is subject in terms to the right of use or control conferred by Section 706 of the Communications Act of 1934, as amended. See 47 U.S.C. Section 606.

To view the geographic areas associated with the license, go to the Universal Licensing System (ULS) homepage at http://wireless.fcc.gov/uls and select "License Search". Follow the instructions on how to search for license information.

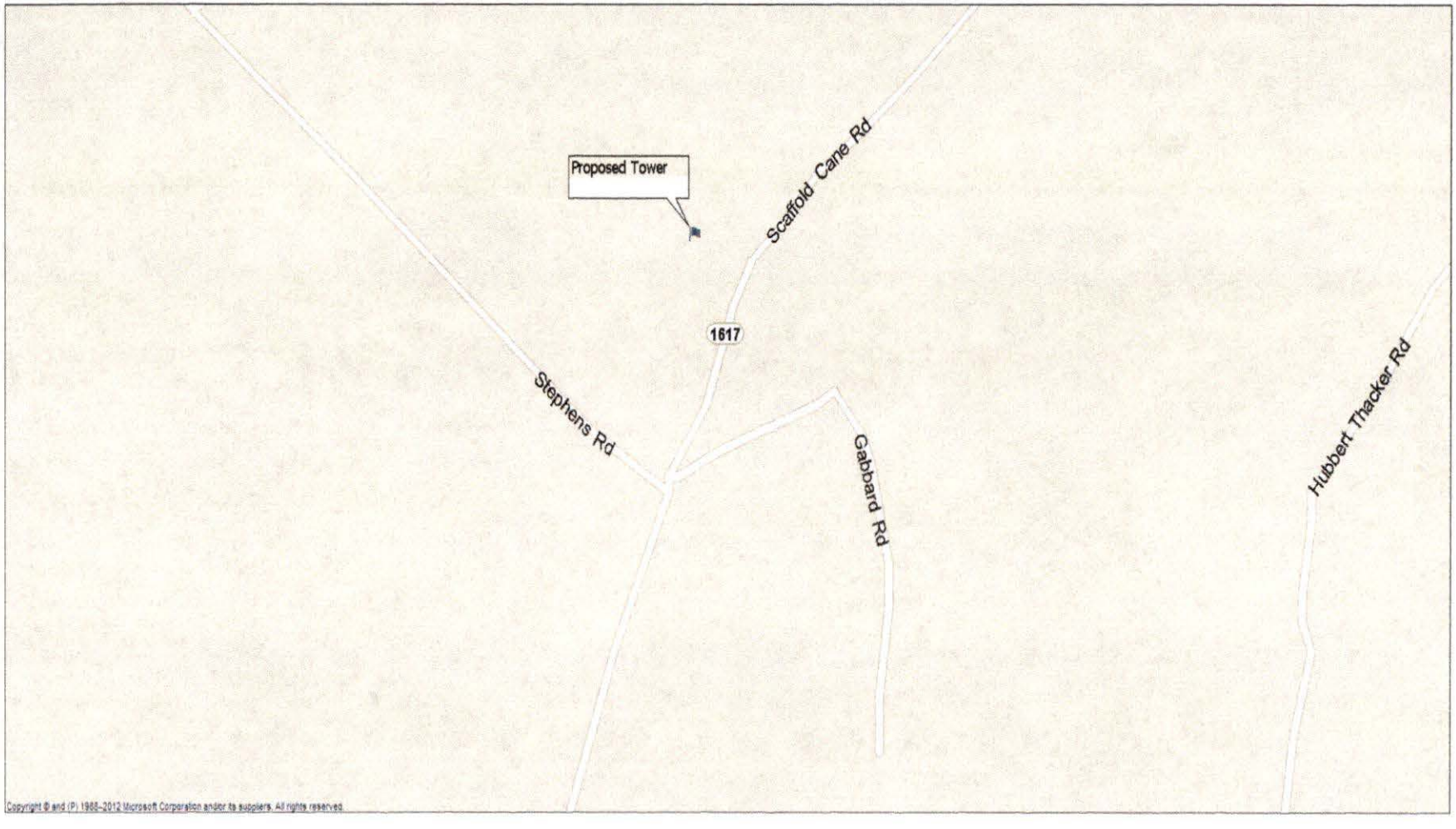
Licensee Name: AC BidCo LLC

Call Sign	File Number	Print Date
WQFX728		11-01-2006

Special Conditions or Waivers/Conditions

policies of the Federal Communications Commission regarding the use of licensed or unlicensed frequencies on aircraft of any type, including, but not limited to, all wireless handsets, all other portable electronic devices, and wireless base stations. See, e.g., 47 CFR Part 15 (radio frequency devices); 47 CFR 22.925 (prohibition on airborne operation of cellular telephones); 47 CFR 90.423(a)(1) (limiting air
borne use of specialized mobile radio telephones to aircraft regularly flown at altitudes below 1.6 km (1 mi) above the earth's surface).
2. This authorization is subject to the condition that the licensee comply with all agreements between the United States and Canada regarding use of the 849-851 and 894-896 MHz bands.
3. This authorization is subject to the condition that the licensee comply with all agreements between the United States and Mexico regarding use of the 849-851 and 894-896 MHz bands.
4. This authorization is subject to the condition that the licensee comply with all rules and policies of the Federal Aviation Administration regarding the operation of electronic devices on aircraft of any type, including, but not limited to, all wireless handsets, all other portable electronic devices, and wireless base stations.

Exhibit I



Directions to Site: From the County Seat in Mt. Vernon and the intersection of East Main Street and U.S. 25 (Richmond Street), proceed North on U.S. 25 for approximately 11.3 miles to Fairview Loop Road. Turn Right onto Fairview Loop Road and proceed for approximately 0.7 miles to Little Clear Creek Road. Turn right onto Little Clear Creek Road and proceed approximately 0.3 miles to Stephens Road (Bill Stephens Road). Turn right onto Stephens Road and proceed approximately 2.0 miles to Scaffold Cane Road. Turn left onto Scaffold Cane Road (KY-1617) and proceed approximately 200 yards and the access road to the proposed site is on the left. Prepared by: Briggs Law Office, PSC (502) 412-9222

RAWLAND LEASE

THIS RAWLAND LEASE (this "Lease") is by and between Wendell Thacker and wife Patty Thacker, of 1689 Stephens Rd, Mt Vernon, KY 40456 ("Landlord") and Gogo LLC, a Delaware limited liability company ("Tenant").

1. Option to Lease.

(a) In consideration of the payment of [redacted] ("Option Fee") by Tenant to Landlord, Landlord hereby grants to Tenant an option to lease the use of a portion of the real property described Exhibit A (the "Property") on the terms and conditions set forth herein (the "Option"). The Option shall be for an initial term of twelve (12) months, commencing on the Effective Date (as defined below) (the "Option Period"). The Option Period may be extended by Tenant for an additional twelve (12) months upon written notice to Landlord and payment of the sum of [redacted] ("Additional Option Fee") at any time prior to the end of the Option Period.

1. Suitability.

(a) Landlord agrees to cooperate with Tenant in obtaining at Tenant's expense, all licenses and permits or authorizations required for Tenant's use of the Premises (as defined below) from all applicable government and/or regulatory entities (**including**, without limitation, zoning and land use authorities, and the Federal Communications Commission ("FCC")) ("Governmental Approvals"), including all land use and zoning permit applications, and Landlord agrees to cooperate with and to allow Tenant, at no cost to Landlord, to obtain a title report, zoning approvals, variances, and land use permits. Landlord expressly grants to Tenant a right of access to the Property (as defined below) to perform any surveys, soil test, and other engineering procedures or environmental investigations ("Test") on the Property deemed necessary or appropriate by Tenant to evaluate the suitability of the Property for the uses contemplated under this Lease. Landlord agrees it will not interfere with Tenant's efforts to secure other licenses and permits or authorizations that relate to other property:

(b) If Tenant determines in its own discretion the Premises are suitable for its intended operations, then Landlord hereby leases to Tenant the real property described in the attached Exhibit A (the "Property"), together with the right to erect an antenna tower or pole and foundation ("Tower") sufficient for placement of the Antenna Facilities (as defined below), together with all necessary space and easements for access and utilities, as generally described and depicted in the attached Exhibit B (collectively referred to hereinafter as the "Premises").

(c) If Landlord should require a notice to proceed (NTP) prior to Tenant commencing construction or installation, the NTP will be provided within 24 hours of its request by Tenant.

2. Term. The initial term of this Lease shall be five (5) years commencing on the first day of the month following the construction completion date as determined by Tenant (the "Commencement Date") and terminating at midnight on the last day of the initial term (the "Initial Term").

3. Renewal. Tenant shall have the right to extend this Lease for five (5) additional and successive five-year terms (each a "Renewal Term") on the same terms and conditions as set forth herein. This Lease shall automatically renew for each successive Renewal Term unless Tenant notifies Landlord in writing of Tenant's intention not to renew this Lease at least sixty (60) days prior to the expiration of the Initial Term or any Renewal Term. If Tenant shall remain in possession of the Premises at the expiration of this Lease or any Renewal Term without a written agreement, such tenancy shall be deemed a month-to month tenancy under the same terms and conditions of this Lease.

4. Rent.

(a) From and after the Commencement Date, Tenant shall pay Landlord or designee, as rent, [redacted] per month ("Rent"). The first payment of Rent shall be due within twenty (20) days following the Commencement Date. Thereafter, Rent will be payable monthly by the tenth day of each month to

Landlord at the address specified in Section 12 below. If this Lease is terminated for any reason (other than default by Tenant) at a time other than on the last day of the month, Rent shall be prorated as of the termination date and all prepaid Rent shall be immediately refunded to Tenant.

(b) During the Initial Term and any Renewal Term, monthly Rent shall be adjusted, effective on the first day of the Initial or Renewal Term, to an amount equal to [redacted] of the monthly Rent in effect immediately prior to the adjustment date.

5. Permitted Use. The Premises may be used by Tenant for the transmission and reception of radio communication signals and for the construction, installation operation, maintenance, repair, removal or replacement of related facilities, including without limitation, tower and base, antennas, microwave dishes, equipment shelters and/or cabinet, and related activities. Tenant will operate the Tower in full compliance with all zoning and permitting laws as well as all Federal Aviation Agency ("FAA") and FCC requirements.

6. Interference. Landlord shall not use, nor shall Landlord permit its lessees, licensees, invitees or agents to use, any portion of the Property or make any alterations to the Property or property contiguous thereto owned or controlled by Landlord in any way which interferes with the operation of Tenant. Such interference shall be deemed a material breach by the Landlord, who shall, upon written notice from the Tenant, be responsible for terminating said interference. In the event any such interference does not cease promptly, the parties acknowledge that continuing interference may cause irreparable injury and, therefore, the Tenant shall have the right, in addition to any other rights that it may have at law or in equity, to bring a court action to enjoin such interference or to terminate this Lease immediately upon written notice Further, if Tenant determines that Landlord or another tenant at the Premises is causing interference to Tenant and if the interference is not corrected within forty-eight (48) hours from Tenant's determination, and such interference precludes Tenant from using the Premises for its intended purpose and cannot be corrected, Landlord or another tenant causing interference shall cease transmission, except for intermittent testing for the purpose of correcting the interference, then if not corrected within sixty (60) days, Tenant may terminate this Lease. Landlord will require substantially similar interference language as outlined in this paragraph in all future tenant agreements related to the Property

7. Improvements; Utilities; Access; Relocation.

(a) Tenant shall have the right, at its expense, to erect and maintain on the Property improvements, personal property and facilities necessary to operate its communications system including, without limitation, a Tower, radio transmitting and receiving antennas, microwave dishes, power generators and generator pad, air conditioned equipment shelters and/or cabinets with unlimited airspace above such shelters and/or cabinets, , supporting equipment and structures, related cables and utility lines and a location based system (collectively, the "Antenna Facilities"). All of Tenant's construction and installation work will be performed at Tenant's sole cost and expense and in a good and workmanlike manner. Tenant will hold title to the Tower and Antenna Facilities and all of the Tower and Antenna Facilities will remain Tenant's personal property and are not fixtures. Tenant may broadcast at any frequency allowed it by the FCC. Tenant shall have the right to alter, replace, enhance and upgrade the Antenna Facilities at any time during the term of this Lease without Landlord's approval. Tenant shall cause all construction to occur lien-free and in compliance with all applicable laws and ordinances. Landlord acknowledges that it shall neither interfere with any aspects of construction nor attempt to direct construction personnel as to the location of or method of installation of the Antenna Facilities and the Easements (as defined below). Tenant shall have the right to remove the Tower and/or Antenna Facilities at any time during and upon the expiration and termination of the Lease. In the event of an emergency, Tenant has the right to bring in a temporary site (cell on wheels and a generator) to maintain the Lessee's transmission and reception of signals

(b) Tenant, at its expense, may use any and all appropriate means of restricting access to the Tower and Antenna Facilities, including, without limitation, the construction of a fence.

(c) Tenant shall, at Tenant expense, keep and maintain the Tower and Antenna Facilities now or hereafter located on the Property in commercially reasonable condition and repair during the term of this Lease, normal wear and tear and casualty excepted. Upon termination or expiration of this Lease, Tenant shall remove the Tower and any Antenna Facilities from the Property and the Property shall be returned to Landlord in good, usable condition,

normal wear and tear and casualty excepted and excluding foundations, concrete pads, ground rings, or other anchors more than one foot below grade level that may have been installed by Tenant.

(d) Tenant shall have the right to install utilities, at Tenant's expense, and to improve the present utilities on the Property (including, but not limited to, the installation of emergency power generators). Landlord agrees to use reasonable efforts in assisting Tenant to acquire necessary utility service. Tenant shall, wherever practical, install separate meters for utilities used on the Property by Tenant. In the event separate meters are not installed, Tenant shall pay the periodic charges for all utilities attributable to Tenant's use, at the rate charged by the servicing utility. Landlord shall diligently correct any variation, interruption or failure of utility service.

(e) As partial consideration for Rent paid under this Lease, Landlord hereby grants Tenant easement on, under and across the Property for ingress, egress, utilities and access (including access for the purposes described in Section 1) to the Premises adequate to install and maintain utilities, including, but not limited to, the installation of power and telephone service cable, and to service the Premises and the Antenna Facilities at all times during the Initial Term of this Lease and any Renewal Term (collectively, the "Easement"). The Easements provided hereunder shall have the same term as this Lease.

(f) Tenant shall have 24-hours-a-day, 7-days-a-week access to the Premises at all times during the Initial Term of this Lease and any Renewal Term, at no charge to Tenant.

(g) Landlord shall maintain and repair all access roadways from the nearest public roadway to the Premises in a manner sufficient to allow vehicular and pedestrian access at all times, including snow removal at its sole expense, except for any damage to such roadways caused by Tenant.

8. Termination. Except as otherwise provided herein, this Lease may be terminated, without any penalty or further liability as follows:

(a) upon sixty (60) days' written notice by Landlord if Tenant fails cure a default for payments of amounts due under this Lease within such sixty (60) day period;

(b) immediately upon written notice by Tenant if Tenant notifies Landlord of any unacceptable results of Tests prior to Tenant's installation of the Antenna Facilities on the Premises, or if Tenant does not obtain, maintain or otherwise forfeits or cancels any license (including, without limitation, an FCC license), permit or any Governmental Approval necessary to the installation and/or operation of the Antenna Facilities or Tenant's business;

(c) upon thirty (30) day written notice by Tenant if Tenant determines that the Property or the Antenna Facilities are inappropriate or unnecessary for Tenant's operations for economic or technological reasons;

(d) immediately upon written notice by Tenant if the Premises or the Antenna Facilities are destroyed or damaged so as in Tenant's reasonable judgment to substantially and adversely affect the effective use of the Antenna Facilities. In such event, all rights and obligations of the parties shall cease as of the date of the damage or destruction, and Tenant shall be entitled to the reimbursement of Rent prepaid by Tenant. If Tenant elects to continue to this Lease, then all Rent shall abate until the Premises and/or the Antenna Facilities are restored to the condition existing immediately prior to such damage or destruction; or

(e) at the time title to the Property transfers to a condemning authority pursuant to a taking of all or a portion of the Property sufficient in Tenant's determination to render the Premises unsuitable for Tenant's use. Landlord and Tenant shall each be entitled to pursue their own separate awards with respect to such taking. Sale of all or part of the Property to a purchaser with the power of eminent domain in the face of the exercise of the power shall be treated as a taking by condemnation.

9. Default and Right to Cure. Notwithstanding anything contained herein to the contrary and without waiving any other rights granted to it at law or in equity, each party shall have the right but not the obligation, to terminate this Lease on written notice pursuant to Section 12 hereof, to take effect immediately if the other party fails to perform any covenant or commits a material breach of this Lease and fails to diligently pursue a cure thereof to its completion after thirty (30) days written notice specifying such failure or performance or default.

10. Taxes. Landlord shall pay when due all real property taxes for Property, including the Premises. In the event that Landlord fails to pay any such real property taxes or other fees and assessments, Tenants shall have the right, but not the obligation, to pay such owed amounts and deduct them from Rent amounts due under the Lease. Notwithstanding the foregoing, Tenant shall pay any personal property tax, its pro-rata share of any increase in real property tax or any other tax or fee which is directly attributable to the presence or installation of Tenant's Tower or Antenna Facilities, only for so long as this Lease remains in effect. Landlord agrees to provide Tenant with reasonable documentation showing Tenant's pro-rata share of taxes, including financial worksheets, receipted bills or assessments, which is the basis for payment. If Landlord receives notice of any personal property or real property tax assessment against Landlord, which may affect Tenant and is directly attributable to Tenant installation, Landlord shall provide timely notice of the assessment to Tenant sufficient to allow Tenant to challenge such assessment, whether in a Court, administrative proceeding, or other venue on behalf of Landlord and/or Tenant. Further, Landlord shall provide to Tenant any and all documentation associated with the assessment and shall execute any and all documents reasonably necessary to effectuate the intent of this Section 10. In the event real property taxes are assessed against the Landlord or Tenant for the Premises or the Property, Tenant shall have the right, but not the obligation, to terminate the Lease without further liability after thirty (30) days' written notice to Landlord, provided Tenant pays any real property taxes assessed as provided herein.

11. Insurance and Subrogation and Indemnification.

(a) Tenant and Landlord each will maintain commercial liability insurance in amount of One Million and no /100 Dollars ($1,000,000.00) per occurrence and Two Million and no/100 ($2,000,000.00) aggregate. Each party may satisfy this requirement by obtaining the appropriate endorsement to any master policy of liability insurance such party may maintain.

(b) Tenant and Landlord shall each maintain "all risk" or "special causes of loss" property insurance on a replacement cost basis for their respective owned real and/or personal property.

(c) Landlord and Tenant hereby mutually release each other (and their successors or assigns) from liability and waive all right of recovery against the other for any loss or damages covered by their respective first party property Insurance policies for all perils in insured thereunder. In the event of insured loss, neither party's insurance company shall have a subrogated claim against the other.

(d) Subject to the Property insurance waivers set forth in Subsection 11(c), Landlord and Tenant each agree to indemnify and hold harmless the other party from and against any and all claims, damages, costs and expense, including reasonable attorney fees, to the extent caused by or arising out of the negligent acts or omissions or willful misconduct in the operations or activities on the Property by the indemnifying party or the employees, agents, contractors, licensees, tenants and/or subtenants of the indemnifying party or a breach of any obligation of the indemnifying party under this Lease. The indemnifying party's obligations under this section are contingent upon its receiving prompt written notice of any event giving rise to an obligation to indemnifying the other party and the indemnified party's granting all the right to control the defense and settlement of the same.

(e) Notwithstanding anything to the contrary in this Lease, the parties hereby confirm that the provisions of this Section 11 shall survive the expiration of this Lease.

(f) Tenant shall not be responsible to Landlord, or any third-party, for any claims, costs or damages (including fines or penalties) attributable to pre-existing violations of applicable codes, statutes or other regulations governing the Property.

12. Notices. All notices, requests, demands and other communications shall be in writing and are effective five (5) days after deposit in the U.S. mail, certified and postage paid, or upon receipt if personally delivered or sent by next-business-day-delivery via a nationally recognized overnight courier to the address set forth below. Landlord or Tenant may from time to time designate any other address for this purpose by providing written notice to the other party.

If to Tenant:
Gogo LLC.
1250 N. Arlington Heights Rd., Suite 500

Itasca, IL 60143
Attn: Network Development

With a copy to:

If to Landlord:
Wendell Thacker
1689 Stephens Rd
Mt Vernon, KY 40456

13. Quiet Enjoyment, Title and Authority. As of the Effective Date and at all times during the Initial Term any Renewal Terms of this Lease, Landlord covenants and warrants to Tenant that (i) Landlord has full right, power and authority to execute and perform this Lease; (ii) Landlord has good and unencumbered fee title to the Property free and clear of any liens, mortgages, except the disclosed in writing to Tenant and which will not interfere with Tenant's right to or use the Premises (iii) execution and performance of this Lease will not violate any laws, ordinances, or covenants or the provisions of any mortgage, lease or other agreement bonding on Landlord; and (iv) Tenant's quiet enjoyment of the Premises or any part thereof shall not be disturbed as long as Tenant is not in default beyond any applicable grace or cure period.

14. Environmental Laws. Landlord represents that it has no knowledge of any substance, chemical or waste (collectively "Hazardous Substance") on the Property that is identified as hazardous, toxic or dangerous in any applicable federal, state or local law or regulation. Landlord or Tenant shall not introduce or use any Hazard Substance on the Property in violation of any applicable law. Landlord shall be responsible for, and shall promptly conduct any investigation and remediation as required by any applicable environmental laws, all spills or other releases of any Hazardous substance not caused solely by Tenant, that have occurred or which may occur on the Property. Each party agree to defend, indemnify and hold harmless the other from and against any all administrative and judicial actions and rulings, claims, causes of action, demands, and liability (collectively "Claims") including, but not limited to, damages, costs expenses, assessments, penalties, fines, losses judgments and reasonable attorney fees that the indemnitee may suffer or incur due to the existence of Hazardous Substance on the Property or the mitigation of any Hazardous Substance to other properties or the release of any Hazardous Substance into the environment (collectively "Actions"), that relate to or arise from the indemnitors activities on the Property. Landlord agrees to defend, indemnify and hold Tenant harmless from Claims resulting from Actions on the Property not caused by Landlord or Tenant prior to and during the Initial Term or any Renewal Term. The indemnification in this section specifically include, without limitation, costs incurred in connection with any investigation of site conditions or any cleanup, remedial, removal, or restoration work required by any governmental authority. This Section 14 shall survive the termination or expiration of this Lease.

15. Assignment and Subleasing. Tenant shall have the right to assign or otherwise transfer this Lease and the Easements (as defined above) granted herein upon written notice to the Landlord. Upon such assignment, Tenant shall be relieved of all liabilities and obligations hereunder and Landlord shall look solely to the assignee for performance under this Lease and all obligations hereunder. Tenant may sublease the Premise upon written notice to Landlord.

Landlord shall have the right to assign or otherwise transfer the Lease and Easement granted herein, upon written notice to Tenant except for the following: any assignment or transfer of this Lease which is separate and distinct from a transfer of Landlord's entire rights, title, and interest in the Property, shall require the prior written consent of Tenant which may be withheld in Tenant's sole discretion. Upon assignment and including such assignment where Tenant's consent is required and received, Landlord shall be relieved of all liabilities and obligations hereunder and Tenant shall look solely to the assignee for performance under this Lease and all obligations hereunder.

Additionally, notwithstanding anything to the contrary above, Landlord or Tenant may, upon notice to the other, grant a security interest in this Lease (and as regards the Tenant and the Antenna Facilities), and may collaterally assign this Lease (and as regards the Tenant and the Antenna Facilities) to any mortgagee, or holders of security interest, including their successors or assigns (collectively "Secured Parties"). In such event, Landlord or Tenant, as the case may be, shall execute such consent to leasehold financing as may be reasonably be required by Secured Parties.

16. Successors and Assigns. This Lease and the Easements granted herein shall run with the land, and shall be binding upon and inure to the benefit of the parties, their respective successors, personal representatives and assigns.

17. Waiver of Landlord's Liens. Landlord hereby waives any and all lien rights it may have, statutory or otherwise concerning the Antenna Facilities or any portion thereof, which shall be deemed personal property for the purposes of this Lease, whether or not the same is deemed real or personal property under applicable laws and, and Landlord gives Tenant and Secured Parties the right to remove all or any portion of the same from time to time, whether before or after a default under this Lease, In Tenant's and/or Secured Party's sole discretion and without Landlord's consent.

18. Miscellaneous.

(a) The prevailing party in any litigation arising hereunder shall be entitled to reimbursement from the other party of its reasonable attorneys' fees and court costs, including appeals, if any.

(b) This Lease constitutes the entire agreement and understanding of the parties, and supersedes all offers, negotiations, and other agreements with respect to the subject matter and property covered by this Lease. Any amendments to this Lease must be in writing and executed by both parties.

(c) Landlord agrees to cooperate with Tenant in executing any document necessary to protect Tenant's rights in or use of the Premises. A Memorandum of Lease in substantially the form attached hereto as Exhibit C may be recorded in place of the Lease by Tenant.

(d) In the event the Property is encumbered by a mortgage or deed of trust, Landlord agrees upon request of Tenant, to obtain and furnish to Tenant a non-disturbance and attornment agreement for each such mortgage or deed of trust, in a form reasonably acceptable to Tenant.

(e) Tenant may obtain title insurance on its interest in the Premises. Landlord agrees to execute such documents as the title company may require in connection therewith.

(f) This Lease shall be construed in accordance with the laws of the state in which the Property is located, without regard to the conflicts of law principles of such state.

(g) If any term of the Lease is found to be void or invalid, the remaining terms of this Lease shall continue in full force and effect. Any questions of particular interpretation shall not be interpreted against the drafter, but rather in accordance to the fair meaning thereof. No provision of this Lease will be deemed waived by either party unless expressly waived in writing by the waiving party. No waiver shall be implied by delay or any act or omission of either party. No waiver by either party of any provision of this Lease shall be deemed a waiver of such provision with respect to any subsequent matter relating to such provisions

(h) The persons who have executed this Lease represent and warrant that they are duly authorized to execute this Lease in their individual or representative capacities as indicated

(i) This Lease may be executed in any number of counterparts, each of which shall be deemed an original, but all of which constitute a single instrument.

(j) All Exhibits referred to herein and any addenda are incorporated herein for all purposes. The parties understand and acknowledge that Exhibits A and B may be attached to this Lease and the Memorandum of Lease, in preliminary form. Accordingly, the parties agree that upon the preparation of final, more complete exhibits, Exhibits A and/or B, as the case may be, may be replaced by Tenant with such final, more complete exhibit(s).

(k) If either party is represented by any broker or any other leasing agent, such party is responsible for all commission fee or other payment to such agent, and agree to indemnify and hold the other party harmless from all claims by such broker or anyone claiming through such broker.

19. Tower Marking and Lighting Requirements. Tenant, shall be responsible for compliance with all Tower marking and lighting requirements of the FAA and the FCC.

20. Confidentiality. Tenant and Landlord agree not to discuss publicly, advertise, nor publish in any newspaper, journal, periodical, magazine, or other form of mass media, the terms or conditions of this Agreement. Doing so shall constitute a default under this Lease immediately. Tenant and Landlord will not discuss terms and conditions with any parties not directly involved with this Lease; provided, however, that notwithstanding the foregoing, Landlord and/or Tenant may provide a copy of this Lease or discuss any of the terms and conditions hereof with third parties as is reasonably necessary for Landlord and/or Tenant's business purposes, including, but not limited to Landlord and/or Tenant's directors, advisors, regulatory and other governmental authorities, lenders and ground lessors.

The effective date of this Lease is the date of execution by the last party to sign (the "Effective Date").

LANDLORD:

By: Wendell Thacker
Print Name: Wendell Thacker Wendell Thacker
Title: Landlord
Date: 10/23/14

By: Patty Thacker (Patty Thacker)
Print Name: Patty Thacker
Title: Landlord
Date: 10/23/14

TENANT:

By:
Print Name: Mark Malosh
Title: Senior Vice President
Date: 1/7/15

EXHIBIT A
Legal Description

The Property is legally described as follows:

following described real property located in Rockcastle County, Kentucky, to-wit:

Being all of Lots 1, 2, 3, 4, 5, 6, and 7 of the Thacker Estate Boundary Survey-Division Plat of record in Plat Book 5, page 160, slide 1149 in the Office of the Rockcastle County Clerk. Reference is hereby made to said plat for a more complete description of said lots.

Latitude: 37° 30' 05.27" NAD 83
Longitude: -84° 17' 00.81" NAD 83

MEMORANDUM OF LEASE
("Memorandum")

A Rawland Lease (the "Lease") by and between Wendell Thacker and wife Patty Thacker, of 1689 Stephens Rd, Mt Vernon, KY 40456, a husband and wife ("Landlord") and Gogo LLC, a Delaware limited liability company ("Tenant") was made regarding a portion of the following property:

See attached Exhibit "A" incorporated herein for all purposes.

The Lease is for a term of five (5) years and commenced on _____. Tenant shall have the right to extend the Lease for five (5) additional five-year terms.

IN WITENESS WHEREOF, the parties hereto have respectively executed this Memorandum effective as of the date of the last party to sign.

LANDLORD:

By: Wendell Thacker
Print Name: Wendell Thacker Wendell Thacker
Title: Landlord
Date: 10/23/14

By: Patty Thacker (Patty Thacker)
Print Name: Patty Thacker
Title: Landlord
Date: 10/23/14

TENANT:

By:
Print Name: ~~Mark Malosh~~
Title: ~~Senior Vice President~~
Date: 1/7/15

Amendment No.1

To RAWLAND LEASE dated January 7, 2015 between Wendell Thacker and wife Patty Thacker, husband and wife ("Landlord"), whose address is 1689 Stephens Rd, Mt Vernon, KY 40456, as the Landlord, and Gogo LLC, a Delaware limited liability company, whose address is 1250 North Arlington Heights Road, Suite 500, Itasca, Illinois 60143, as the Tenant ("Agreement")

This Amendment, effective as of the last date signed, ("Amendment"), amends the Exhibit B "Lease Premises" to the Agreement. Landlord and Tenant may also be referenced to as a "Party" or the "Parties".

In consideration of the mutual agreements, promises, covenants and understandings within this Amendment and the Agreement, the Parties agree as follows:

1. The attached revised Exhibit B replaces the former Exhibit B.
2. The revised Exhibit B is effective as of _____.

Except as provided in this Amendment, all terms and conditions of the Agreement are hereby ratified and confirmed by the Parties.

IN WITNESS WHEREOF, the Parties have signed this Amendment, by their duly authorized representatives:

LANDLORD

By: Wendell Thacker
Print Name: Wendell Thacker
Title: Landlord
Date: 2/10/2015

By: Patty Thacker
Print Name: Patty Thacker
Title: Landlord
Date: 2/10/2015

TENANT

By: _____
Print Name: Mark Malosh
Title: Senior Vice President
Date: _____

Exhibit J

Wendell & Patricia Thacker
1689 Stephens Road
Mt. Vernon, KY 40456

Eddie & Amy Todd
5642 Scaffold Cane Road
Mt. Vernon, KY 40456

Cecil Yancy Thacker
P.O. Box 395
Berea, KY 40403

William J. Thacker
5122 Scaffold Cane Road
Mt. Vernon, KY 40456

Stella Mason & Alonso Sawyers
5004 Scaffold Cane Road
Mt. Vernon, KY 40456

Heather Reynolds
4851 Scaffold Cane Road
Mt. Vernon, KY 40456

Genevieve & L.A. Reynolds
4823 Scaffold Cane Road
Mt. Vernon, KY 40456

Donald & Joyce Stephens
4683 Scaffold Cane Road
Mt. Vernon, KY 40456

William B. Stephens
727 Sunset Drive
Taylor Mill, KY 41015

BRIGGS LAW OFFICE, PSC

4965 U. S. Highway 42 | Suite 1000 | Louisville, Kentucky 40222
Telephone [502] 412-9222 | Mobile [502] 468-3751 | Facsimile [866] 632-2757
todd@briggslawoffice.net

TODD R. BRIGGS
also admitted in Colorado

Notice of Proposed Construction
Wireless Telecommunications Facility

Wendell & Patricia Thacker
1689 Stephens Road
Mt. Vernon, KY 40456

Via Certified Mail Return Receipt Requested

Dear Landowner:

GoGo, LLC is applying to the Kentucky Public Service Commission (the "Commission") for a Certificate of Public Convenience and Necessity to construct and operate a new wireless telecommunications facility located at 5011 Scaffold Cane Road, Mt. Vernon, Kentucky 40456. A map showing the location is attached. The proposed facility will include a 120 foot self-support tower, plus related ground facilities.

This notice is being sent to you because the Rockcastle County Property Valuation Administrator's records indicate that you own property that is within a 500' radius of the proposed tower site OR is contiguous to the property on which the tower is to be constructed.

The Commission invites your comments regarding the proposed construction and wants you to be aware of your right to intervene in the Commission's proceedings on this application. Your comments and request for intervention should be addressed to: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to case number 2015-00310 in any correspondence.

Sincerely,

Todd R. Briggs

Enclosure

BRIGGS LAW OFFICE, PSC

4965 U. S. Highway 42 | Suite 1000 | Louisville, Kentucky 40222
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Notice of Proposed Construction
Wireless Telecommunications Facility

Eddie & Amy Todd
5642 Scaffold Cane Road
Mt. Vernon, KY 40456

Via Certified Mail Return Receipt Requested

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This notice is being sent to you because the Rockcastle County Property Valuation Administrator's records indicate that you own property that is within a 500' radius of the proposed tower site OR is contiguous to the property on which the tower is to be constructed.

The Commission invites your comments regarding the proposed construction and wants you to be aware of your right to intervene in the Commission's proceedings on this application. Your comments and request for intervention should be addressed to: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to case number 2015-00310 in any correspondence.

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Notice of Proposed Construction
Wireless Telecommunications Facility

Cecil Yancy Thacker
P.O. Box 395
Berea, KY 40403

Via Certified Mail Return Receipt Requested

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This notice is being sent to you because the Rockcastle County Property Valuation Administrator's records indicate that you own property that is within a 500' radius of the proposed tower site OR is contiguous to the property on which the tower is to be constructed.

The Commission invites your comments regarding the proposed construction and wants you to be aware of your right to intervene in the Commission's proceedings on this application. Your comments and request for intervention should be addressed to: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to case number 2015-00310 in any correspondence.

Sincerely,

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Notice of Proposed Construction
Wireless Telecommunications Facility

William J. Thacker
5122 Scaffold Cane Road
Mt. Vernon, KY 40456

Via Certified Mail Return Receipt Requested

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This notice is being sent to you because the Rockcastle County Property Valuation Administrator's records indicate that you own property that is within a 500' radius of the proposed tower site OR is contiguous to the property on which the tower is to be constructed.

The Commission invites your comments regarding the proposed construction and wants you to be aware of your right to intervene in the Commission's proceedings on this application. Your comments and request for intervention should be addressed to: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to case number 2015-00310 in any correspondence.

Sincerely,

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also admitted in Colorado

Notice of Proposed Construction
Wireless Telecommunications Facility

Stella Mason & Alonso Sawyers
5004 Scaffold Cane Road
Mt. Vernon, KY 40456

Via Certified Mail Return Receipt Requested

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This notice is being sent to you because the Rockcastle County Property Valuation Administrator's records indicate that you own property that is within a 500' radius of the proposed tower site OR is contiguous to the property on which the tower is to be constructed.

The Commission invites your comments regarding the proposed construction and wants you to be aware of your right to intervene in the Commission's proceedings on this application. Your comments and request for intervention should be addressed to: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to case number 2015-00310 in any correspondence.

Sincerely,

Todd R. Briggs

Enclosure

BRIGGS LAW OFFICE, PSC

4965 U. S. Highway 42 | Suite 1000 | Louisville, Kentucky 40222
Telephone [502] 412-9222 | Mobile [502] 468-3751 | Facsimile [866] 632-2757
todd@briggslawoffice.net

TODD R. BRIGGS
also admitted in Colorado

Notice of Proposed Construction
Wireless Telecommunications Facility

Heather Reynolds
4851 Scaffold Cane Road
Mt. Vernon, KY 40456

Via Certified Mail Return Receipt Requested

Dear Landowner:

GoGo, LLC is applying to the Kentucky Public Service Commission (the "Commission") for a Certificate of Public Convenience and Necessity to construct and operate a new wireless telecommunications facility located at 5011 Scaffold Cane Road, Mt. Vernon, Kentucky 40456. A map showing the location is attached. The proposed facility will include a 120 foot self-support tower, plus related ground facilities.

This notice is being sent to you because the Rockcastle County Property Valuation Administrator's records indicate that you own property that is within a 500' radius of the proposed tower site OR is contiguous to the property on which the tower is to be constructed.

The Commission invites your comments regarding the proposed construction and wants you to be aware of your right to intervene in the Commission's proceedings on this application. Your comments and request for intervention should be addressed to: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to case number 2015-00310 in any correspondence.

Sincerely,

Todd R. Briggs

Enclosure

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Notice of Proposed Construction
Wireless Telecommunications Facility

Genevieve & L.A. Reynolds
4823 Scaffold Cane Road
Mt. Vernon, KY 40456

Via Certified Mail Return Receipt Requested

Dear Landowner:

GoGo, LLC is applying to the Kentucky Public Service Commission (the "Commission") for a Certificate of Public Convenience and Necessity to construct and operate a new wireless telecommunications facility located at 5011 Scaffold Cane Road, Mt. Vernon, Kentucky 40456. A map showing the location is attached. The proposed facility will include a 120 foot self-support tower, plus related ground facilities.

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Sincerely,

Todd R. Briggs

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TODD R. BRIGGS
also admitted in Colorado

Notice of Proposed Construction
Wireless Telecommunications Facility

Donald & Joyce Stephens
4683 Scaffold Cane Road
Mt. Vernon, KY 40456

Via Certified Mail Return Receipt Requested

Dear Landowner:

GoGo, LLC is applying to the Kentucky Public Service Commission (the "Commission") for a Certificate of Public Convenience and Necessity to construct and operate a new wireless telecommunications facility located at 5011 Scaffold Cane Road, Mt. Vernon, Kentucky 40456. A map showing the location is attached. The proposed facility will include a 120 foot self-support tower, plus related ground facilities.

This notice is being sent to you because the Rockcastle County Property Valuation Administrator's records indicate that you own property that is within a 500' radius of the proposed tower site OR is contiguous to the property on which the tower is to be constructed.

The Commission invites your comments regarding the proposed construction and wants you to be aware of your right to intervene in the Commission's proceedings on this application. Your comments and request for intervention should be addressed to: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to case number 2015-00310 in any correspondence.

Sincerely,

Todd R. Briggs

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todd@briggslawoffice.net

TODD R. BRIGGS
also admitted in Colorado

Notice of Proposed Construction
Wireless Telecommunications Facility

William B. Stephens
727 Sunset Drive
Taylor Mill, KY 41015

Via Certified Mail Return Receipt Requested

Dear Landowner:

GoGo, LLC is applying to the Kentucky Public Service Commission (the "Commission") for a Certificate of Public Convenience and Necessity to construct and operate a new wireless telecommunications facility located at 5011 Scaffold Cane Road, Mt. Vernon, Kentucky 40456. A map showing the location is attached. The proposed facility will include a 120 foot self-support tower, plus related ground facilities.

This notice is being sent to you because the Rockcastle County Property Valuation Administrator's records indicate that you own property that is within a 500' radius of the proposed tower site OR is contiguous to the property on which the tower is to be constructed.

The Commission invites your comments regarding the proposed construction and wants you to be aware of your right to intervene in the Commission's proceedings on this application. Your comments and request for intervention should be addressed to: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to case number 2015-00310 in any correspondence.

Sincerely,

Todd R. Briggs

Enclosure

Exhibit K

BRIGGS LAW OFFICE, PSC

4965 U. S. Highway 42 | Suite 1000 | Louisville, Kentucky 40222
Telephone [502] 412-9222 | Mobile [502] 468-3751 | Facsimile [866] 632-2757
todd@briggslawoffice.net

TODD R. BRIGGS
also admitted in Colorado

Via Certified Mail Return Receipt Requested

Honorable Doug Bishop
Rockcastle County Judge Executive
P.O. Box 755
Mt. Vernon, KY 40456

RE: Notice of Proposal to Construct Wireless Telecommunications Facility
Kentucky Public Service Commission--Case No. 2015-00310

Dear Judge Bishop:

GoGo, LLC is applying to the Kentucky Public Service Commission (the "Commission") for a Certificate of Public Convenience and Necessity to construct and operate a new wireless telecommunications facility located at 5011 Scaffold Cane Road, Mt. Vernon, Kentucky 40456. A map showing the location is attached. The proposed facility will include a 120 foot self-support tower, plus related ground facilities.

You have a right to submit comments regarding the proposed construction to the Commission or to request intervention in the Commission's proceedings on this application.

Your comments and request for intervention should be addressed to: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to case number 2015-00310 in any correspondence.

Sincerely,

Todd R. Briggs
Counsel for GoGo, LLC

Enclosure

Exhibit L

PUBLIC NOTICE

GoGo, LLC proposes
to construct
a telecommunications

TOWER

on this site. If you have
any questions please contact:

Briggs Law Office, PSC
4965 U.S. Hwy 42
Suite 1000
Louisville, KY. 40222
(502) 412-9222

or

Executive Director
Public Service Commission
211 Sower Boulevard
P.O. Box 615
Frankfort, KY 40602

Please refer to Commission's

Case #2015-00310

in your correspondence.

PUBLIC NOTICE

GoGo, LLC proposes
to construct
a telecommunications

TOWER

near this site. If you have
any questions please contact:

Briggs Law Office, PSC
4965 U.S. Hwy 42
Suite 1000
Louisville, KY. 40222
(502) 412-9222

or

Executive Director
Public Service Commission
211 Sower Boulevard
P.O. Box 615
Frankfort, KY 40602

Please refer to Commission's

Case #2015-00310

in your correspondence.

Exhibit M

Search Area Map

Site Information:		Site Objective:
Site Name:	Conway	360 degree coverage up to 150 mile radius from site.
Site Number:	KY005	
State:	KY	
County:	Rockcastle	
Desired Latitude:	~37°27'0.66"N	
Desired Longitude:	~84°20'1.88"W	
Desired GE:	1180 ft.	**Search Area Description**
Desired Rad Center:	Enough to clear local obstructions	Need a tower structure within ½ mile of the ring center capable of holding 12 of our ATG antennas.
Total Height AMSL:	~1280 ft.	
Azimuths:	0, 60, 120, 180, 240, 300	
Site Configuration:	6 sectors	

Notes:

RF Engineer: Terry Doyle	Rev: 2	Date Issued: 2/19/14

Exhibit N

gogo COMMERCIAL AVIATION

September 4, 2015

To Whom It May Concern:

Re: Gogo Inc. Tower–Rockcastle County

Dear Sir or Madam:

This letter is to state the need for proposed Gogo site called KY005_Conway to be located in Rockcastle County KY. This site is necessary to improve Air to Ground (ATG) service coverage within a 150 mile radius of this site. Without the KY005_Conway site ATG customers would experience poor data throughput and high service latency. With the addition of this site the customers in the area surrounding Rockcastle County will be provided with more reliable ATG communications.

Terry Doyle
RF Design Engineer
Gogo Inc. Chicago Illinois
Terence Doyle