

**COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION**

In the Matter of:

THE APPLICATION OF)
CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS)
AND VB BTS II, LLC D/B/A VERTICAL BRIDGE)
FOR ISSUANCE OF A CERTIFICATE OF PUBLIC) CASE NO. 2024-00163
CONVENIENCE AND NECESSITY TO CONSTRUCT)
A WIRELESS COMMUNICATIONS FACILITY)
IN THE COMMONWEALTH OF KENTUCKY)
IN THE COUNTY OF MARSHALL)

SITE NAME: OAK LEVEL

* * * * *

**APPLICATION FOR
CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY
FOR CONSTRUCTION OF A WIRELESS COMMUNICATIONS FACILITY**

Cellco Partnership, d/b/a Verizon Wireless and VB BTS II, LLC d/b/a Vertical Bridge (“Co-Applicants”), by counsel, pursuant to (i) KRS §§278.020, 278.040, 278.650, 278.665, and other statutory authority, and the rules and regulations applicable thereto, and (ii) the Telecommunications Act of 1996, respectfully submits this Application requesting 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 the Co-Applicants with wireless communications services.

In support of this Application, Co-Applicants respectfully provide and state the following information:

1. The complete name and address of the Co-Applicants:
 - a. Cellco Partnership, d/b/a Verizon Wireless, having a local address of 2902 Ring Road, Elizabethtown, KY 42701.

b. VB BTS II, LLC d/b/a Vertical Bridge, having an address of 750 Park of Commerce Dr, Boca Raton, FL 33487.

2. Co-Applicants;

a. Cellco Partnership, d/b/a Verizon Wireless is a Delaware general partnership, and a copy of the Statement of Good Standing from Delaware and Amended Certificate of Assumed Name is on file with the Secretary of State of Commonwealth of Kentucky is included as part of **Exhibits A**.

b. VB BTS II, LLC d/b/a Vertical Bridge is a Delaware Limited Liability Company organized in the State of Delaware. We attest that VB BTS II, LLC d/b/a Vertical Bridge is in good standing with the State of Delaware and is also authorized to transact business in the Commonwealth of Kentucky. A copy of the Delaware Certificate of Formation and Certificate of Good Standing is included as part of **Exhibits A**. The Certificate of Authority is on file with the Secretary of State of Commonwealth of Kentucky and is included as part of **Exhibits A**.

3. Co-Applicants propose construction of an antenna tower for communications services, which is to be located in an area outside the jurisdiction of a planning commission, and Co-Applicants submit this application to the PSC for a certificate of public convenience and necessity pursuant to KRS §§ 278.020(1), 278.040, 278.650, 278.665, and other statutory authority.

4. The Co-Applicant, Cellco Partnership, d/b/a Verizon Wireless operates on frequencies licensed by the Federal Communications Commission ("FCC") pursuant to applicable FCC requirements. A copy of the Co-Applicant's FCC Application and Licenses

with Authorization to provide wireless services are attached to this Application as part of **Exhibit B**, and the facility will be constructed and operated in accordance with applicable FCC regulations.

5. The public convenience and necessity require the construction of the proposed WCF. The construction of the WCF will bring or improve the Co-Applicants' services to an area currently not served or not adequately served by the Co-Applicants by increasing coverage or capacity and thereby enhancing the public's access to innovative and competitive wireless communications services. A statement from Co-Applicant, Cellco Partnership, d/b/a Verizon Wireless's RF Design Engineer outlining said need is attached as **Exhibit Q** along with Propagation Maps attached as **Exhibit R**. The WCF is an integral link in the Co-Applicant's network design that must be in place to provide adequate coverage to the service area.

6. To address the above-described service needs, Co-Applicants propose to construct a WCF at the southeast quadrant of the intersection of Symsonia Highway and Elva Road, Symsonia, KY 42025 (North Latitude: (36° 53' 57.87", West Longitude 88° 27' 53.09"), on a parcel of land located entirely within the county referenced in the caption of this application. The property on which the WCF will be located is owned by Toby & Stacey Haines, LLC pursuant to a Deed recorded at Deed Book 371, Page 299 in the office of the County Clerk. The proposed WCF will consist of a 300-foot-tall tower, with an approximately 10-foot-tall lightning arrestor attached at the top, for a total height of 310-feet. The WCF will also include concrete foundations and a shelter or cabinets to accommodate the placement of the Co-Applicant's radio electronics equipment and appurtenant equipment. The Co-Applicant's equipment cabinet or shelter will be approved

for use in the Commonwealth of Kentucky by the relevant building inspector. The WCF compound will be fenced, and all access gate(s) will be secured. A description of the manner in which the proposed WCF will be constructed is attached as **Exhibit C** and **Exhibit D**.

7. A list of utilities, corporations, or persons with whom the proposed WCF is likely to compete along with a map showing the proposed location as well as the identified like facilities is attached as **Exhibit E**.

8. The site development plan and a vertical profile sketch of the WCF signed and sealed by a professional engineer registered in Kentucky depicting the tower height, as well as a proposed configuration for the antennas of the Co-Applicant, Cellco Partnership, d/b/a Verizon Wireless has also been included as part of **Exhibit C**.

9. Foundation design plans signed and sealed by a professional engineer registered in Kentucky and a description of the standards according to which the tower was designed are included as part of **Exhibit D**.

10. Co-Applicants have considered the likely effects of the installation of the proposed WCF on nearby land uses and values and has concluded that there is no more suitable location reasonably available from which adequate services can be provided, and that there are no reasonably available opportunities to co-locate Co-Applicant's antennas on an existing structure. When suitable towers or structures exist, Co-Applicant's attempts to co-locate on existing structures such as communications towers or other structures capable of supporting Co-Applicant's facilities; however, no other suitable or available co-location site was found to be located in the vicinity of the site. A statement from Co-Applicant,

Cellco Partnership, d/b/a Verizon Wireless's RF Design Engineer outlining exploration of co-location opportunities is attached as **Exhibit Q**.

11. A copy of the Application for Federal Aviation Administration's ("FAA") and the FAA Determination of No Hazard to Air Navigation is attached as **Exhibit F**.

12. A copy of Application and Approval from the Kentucky Airport Zoning Commission ("KAZC") are attached as **Exhibit G**.

13. A geotechnical engineering report was performed by WMG, Louisville, KY, dated March 27, 2024, and is attached as **Exhibit H**. 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 S**.

14. Clear directions to the proposed WCF site from the County seat are attached as **Exhibit I**. The name and telephone number of the preparer of **Exhibit I** are included as part of this exhibit.

15. Co-Applicants, pursuant to a written agreement, have acquired the right to use the WCF site and associated property rights. A copy of the agreement is attached as **Exhibit J**.

16. Personnel directly responsible for the design and construction of the proposed WCF are well qualified and experienced. The tower and foundation drawings for the proposed tower submitted as part of **Exhibit D** bear the signature and stamp of a professional engineer registered in the Commonwealth of Kentucky. All tower designs meet or exceed the minimum requirements of applicable laws and regulations. The identity and qualifications of each person directly responsible for design and construction of the proposed tower are contained in **Exhibit S**.

17. The Construction Manager for the proposed facility is Vince Caprino and the identity and qualifications of each person directly responsible for design and construction of the proposed tower are contained in **Exhibit S**.

18. As noted on the Survey attached as part of **Exhibit C**, the surveyor has determined that the tower site and access easement are not within any flood hazard area per Flood Hazard Boundary Map, Community Panel Number 21157C00075E, Dated June 2, 2011.

19. **Exhibit C** includes a map drawn to an appropriate scale that shows the location of the proposed tower and identifies every owner of real estate within 500 feet of the proposed tower, every owner of real estate within 200 feet of the access road including intersection with the public street system and all abutting property owners (according to the records maintained by the County Property Valuation Administrator). Attached as **Exhibit K** is the Notification List with screen shots of the PVA records verified and updated using the Marshall County PVA on May 20, 2024. **Exhibit C** also identifies every structure and every easement within 500 feet of the proposed tower or within 200 feet of the access road including intersection with the public street system.

20. Co-Applicants have sent certified notices to every person who, according to the records of the County Property Valuation Administrator, owns property which is within 500 feet of the proposed tower or contiguous to the site property, by certified mail, return receipt requested, of the proposed construction. Each notified property owner has been provided with a map of the location of the proposed construction, the PSC docket number for this application, the address of the PSC, and informed of his or her right to request intervention. A copy of the form of the notice sent by certified mail to each landowner on May 21, 2024, is attached as **Exhibit L**. Ten (10) notices were sent to surrounding property

owners; to date seven (7) notice green cards have been returned. USPS tracking indicates that two (2) notices have been delivered and one notice is “moving though the system”. New notice has been sent to the owner, whose May 21st notice was identified “as working through the system” on June 13, 2024. This information will be updated as received.

21. Co-Applicants have notified the applicable County Judge/Executive by certified mail, return receipt requested, of the proposed construction. This notice included the PSC docket number under which the application will be processed and informed the County Judge/Executive of his/her right to request intervention. A copy of this notice is attached as **Exhibit M**.

22. Notice signs meeting the requirements prescribed by 807 KAR 5:063, Section 1(2) that measure at least 2 feet in height and 4 feet in width and that contain all required language in letters of required height, have been posted, one in a visible location on the proposed site and one on the nearest public road. Such signs shall remain posted for at least two weeks after filing of the Application, and a copy of the posted text is attached as **Exhibit N**.

23. A legal notice advertisement regarding the location of the proposed facility has been published in a newspaper of general circulation in the county in which the WCF is proposed to be located. A copy of the newspaper legal notice advertisement is attached as **Exhibit O**.

24. The area of the proposed facility is in the unincorporated area of Marshall County, Kentucky. The area is largely agricultural and wooded area with a mix of scattered residential and commercial properties. The terrain in this area is relatively moderate, rolling topography. There is no zoning or Plan Commission in Marshall County. The general area

where the proposed facility is to be located is a vacant field with trees. The nearest residential structure is 370 feet from the proposed tower site.

25. The process that was used by the Co-Applicant, Cellco Partnership, d/b/a Verizon Wireless radio frequency engineers in selecting the site for the proposed WCF was consistent with the general process used for selecting all other existing and proposed WCF facilities within the proposed network design area. Co-Applicant's radio frequency engineers have conducted studies and tests to develop a highly efficient network that is designed to handle voice and data traffic in the service area. The engineers determined an optimum area for the placement of the proposed facility in terms of elevation and location to provide the best quality service to customers in the service area. A radio frequency design search area prepared in reference to these radio frequency studies was considered by the Co-Applicant when searching for sites for its antennas that would provide the coverage deemed necessary by the Co-Applicant. A map of the area in which the tower is proposed to be located which is drawn to scale and clearly depicts the necessary search area within which the site should be located pursuant to radio frequency requirements is attached as **Exhibit P**.

26. The tower must be located at the proposed location and proposed height to provide necessary service to wireless communications users in the subject area, as set out and documented in the RF Design Engineers' Statement of Need and Propagation Maps attached as **Exhibit Q and R**. The proposed tower will expand and improve voice and data service for Verizon Wireless customers.

27. Attached hereto as **Exhibit T** please find an Affidavit of Certification for all information contained in this application.

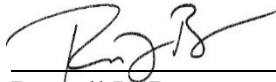
28. All Exhibits to this Application are hereby incorporated by reference as if fully set out as part of the Application.

29. All responses and requests associated with this Application may be directed to:

Russell L. Brown
Clark, Quinn, Moses, Scott & Grahn, LLP
320 North Meridian Street, Suite 1100
Indianapolis, IN 46204
Phone: (317) 637-1321
FAX: (317) 687-2344
Email: rbrown@clarkquinnlaw.com
Attorney for Cellco Partnership d/b/a Verizon Wireless

WHEREFORE, Co-Applicants respectfully request that the PSC accept the foregoing Application for filing and having met the requirements of KRS §§278.020(1), 278.650, and 278.665 and all applicable rules and regulations of the PSC, grant a Certificate of Public Convenience and Necessity to construct and operate the WCF at the location set forth herein.

Respectfully submitted,



Russell L. Brown
Clark, Quinn, Moses, Scott & Grahn, LLP
320 North Meridian Street, Suite 1100
Indianapolis, IN 46204
Phone: (317) 637-1321 / FAX: (317) 687-2344
Email: rbrown@clarkquinnlaw.com
Attorney for Cellco Partnership d/b/a Verizon Wireless

LIST OF EXHIBITS

- A Co-Applicant Entities
- B FCC Application and License Documentation
- C Site Development Plan:
 - 500' Vicinity Map Legal Descriptions
 - Flood Plain Certification Site Plan
 - Vertical Tower Profile
- D Tower and Foundation Design
- E Competing Utilities, Corporations, or Persons List
And Map of Like Facilities in Vicinity
- F FAA Application and Determination of no Hazard
- G KAZC Application and Approval
- H Geotechnical Report
- I Directions to WCF Site
- J Real Estate Agreement
- K Notification Listing w/ PVA Verification
- L Property Owner Notification
- M County Judge Executive Notice
- N Posted Notices
- O Newspaper Legal Notice Advertisement
- P Radio Frequency Design Search Area
- Q RF Design Engineer Statement of Need
- R Propagation Maps
- S List of Qualified Professionals
- T Affidavit of Certification

Delaware

The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY "CELLCO PARTNERSHIP" IS DULY FORMED UNDER THE LAWS OF THE STATE OF DELAWARE AND IS IN GOOD STANDING AND HAS A LEGAL EXISTENCE SO FAR AS THE RECORDS OF THIS OFFICE SHOW, AS OF THE TWENTY-SEVENTH DAY OF APRIL, A.D. 2023.

AND I DO HEREBY FURTHER CERTIFY THAT THE ANNUAL TAXES HAVE BEEN PAID TO DATE.




Jeffrey W. Bullock, Secretary of State

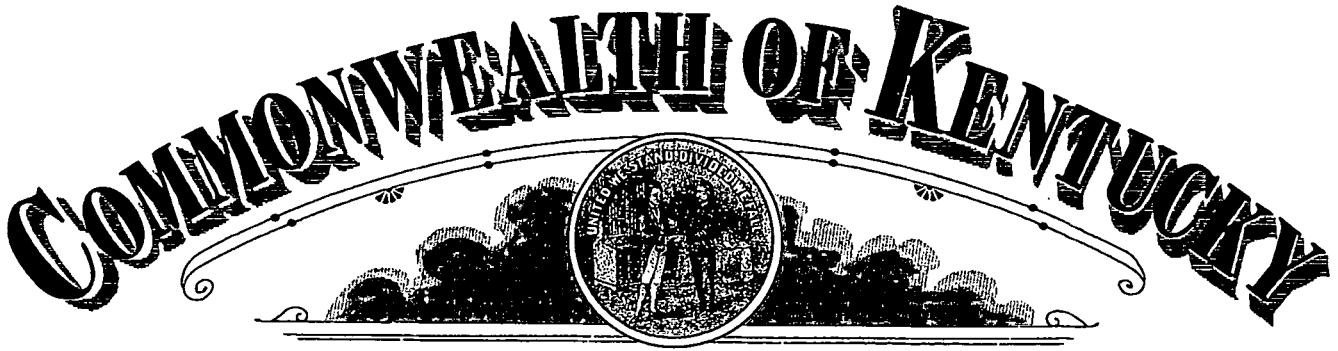
3341134 8300

SR# 20231665976

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

Authentication: 203227418

Date: 04-27-23



Michael G. Adams
Secretary of State

Certificate

I, Michael G. Adams, Secretary of State for the Commonwealth of Kentucky, do hereby certify that the foregoing writing has been carefully compared by me with the original thereof, now in my official custody as Secretary of State and remaining on file in my office, and found to be a true and correct copy of

CERTIFICATE OF ASSUMED NAME OF VERIZON WIRELESS ADOPTED BY
GENERAL PARTNERS OF CELLCO PARTNERSHIP FILED JUNE 21, 2006.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my
Official Seal at Frankfort, Kentucky, this 10th day of May, 2023.



Michael G. Adams

Michael G. Adams
Secretary of State
Commonwealth of Kentucky
kdcoleman/0641227 - Certificate ID: 290787

COMMONWEALTH OF KENTUCKY
TREY GRAYSON
SECRETARY OF STATE



0641227.07

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C226

Trey Grayson
Secretary of State
Received and Filed

06/21/2006 12:06:09 PM
Fee Receipt: \$20.00

CERTIFICATE OF ASSUMED NAME

This certifies that the assumed name of
Verizon Wireless

(Name under which the business will be conducted)

has been adopted by See Addendum

(Real name - KRS 365.015(1))

which is the "real name" of (YOU MUST CHECK ONE)

a Domestic General Partnership

a Foreign General Partnership

a Domestic Registered Limited Liability Partnership

a Foreign Registered Limited Liability Partnership

a Domestic Limited Partnership

a Foreign Limited Partnership

a Domestic Business Trust

a Foreign Business Trust

a Domestic Corporation

a Foreign Corporation

a Domestic Limited Liability Company

a Foreign Limited Liability Company

a Joint Venture

organized and existing in the state or country of Delaware, and whose address is

One Verizon Way

Basking Ridge

NJ

07920

Street address, if any

City

State

Zip Code

The certificate of assumed name is executed by

NYNEX PCS Inc.

Jane A. Schapker - Assistant Secretary

Print or type name and title

June 15, 2006

Date

Signature

Print or type name and title

Date

Addendum

The full name of the Partnership is Cellco Partnership; a Delaware general partnership with its headquarters located One Verizon Way, Basking Ridge NJ 07920-1097.

| General Partners of Cellco Partnership | Address |
|---|---|
| Bell Atlantic Cellular Holdings, L.P. | One Verizon Way Basking Ridge, NJ 07920 |
| NYNEX PCS Inc. | One Verizon Way Basking Ridge, NJ 07920 |
| PCSCO Partnership | One Verizon Way Basking Ridge, NJ 07920 |
| GTE Wireless Incorporated | One Verizon Way Basking Ridge, NJ 07920 |
| GTE Wireless of Ohio Incorporated | One Verizon Way Basking Ridge, NJ 07920 |
| PCS Nucleus, L.P. | 2999 Oak Road, 7 th Floor Walnut Creek, CA 94597 |
| JV PartnerCo, LLC | 2999 Oak Road, 7 th Floor Walnut Creek, CA 94597 |

Delaware

Page 1

The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF FORMATION OF "VB BTS II, LLC", FILED IN THIS OFFICE ON THE EIGHTH DAY OF JUNE, A.D. 2022, AT 1:01 O`CLOCK P.M.




Jeffrey W. Bullock, Secretary of State

6844426 8100
SR# 20222658754

Authentication: 203631822
Date: 06-08-22

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

STATE OF DELAWARE
CERTIFICATE OF FORMATION
OF LIMITED LIABILITY COMPANY

The undersigned authorized person, desiring to form a limited liability company pursuant to the Limited Liability Company Act of the State of Delaware, hereby certifies as follows:

1. The name of the limited liability company is _____
VB BTS II, LLC

2. The Registered Office of the limited liability company in the State of Delaware is located at _____ 850 New Burton Road, Suite 201 _____ (street), in the City of _____ Dover _____, Zip Code _____ 19904 _____. The name of the Registered Agent at such address upon whom process against this limited liability company may be served is _____
COGENCY GLOBAL INC.

State of Delaware
Secretary of State
Division of Corporations
Delivered 01:01 PM 06/08/2022
FILED 01:01 PM 06/08/2022
SR 20222658754 - File Number 6844426

By: _____ /s/ Daniel Marinberg
Authorized Person

Name: _____ Daniel Marinberg
Print or Type

Delaware

The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY "VB BTS II, LLC" IS DULY FORMED UNDER THE LAWS OF THE STATE OF DELAWARE AND IS IN GOOD STANDING AND HAS A LEGAL EXISTENCE SO FAR AS THE RECORDS OF THIS OFFICE SHOW, AS OF THE TWENTY-THIRD DAY OF JANUARY, A.D. 2023.

AND I DO HEREBY FURTHER CERTIFY THAT THE SAID "VB BTS II, LLC" WAS FORMED ON THE EIGHTH DAY OF JUNE, A.D. 2022.

AND I DO HEREBY FURTHER CERTIFY THAT THE ANNUAL TAXES HAVE BEEN ASSESSED TO DATE.




Jeffrey W. Bullock, Secretary of State

6844426 8300

SR# 20230223025

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

Authentication: 202551773

Date: 01-23-23



202303080004
 FAYETTE CO, KY FEE \$46.00
 PRESENTED / LODGED: 03-08-2023 08:19:15 AM

RECORDED: 03-08-2023
 SUSAN LAMB
 CLERK
 BY: HALLIE WOOSLEY
 DEPUTY CLERK



COMMONWEALTH OF KENTUCKY
 MICHAEL G. ADAMS, SECRETARY OF STATE

1265644.06 mmoore
 ADD
 Michael G. Adams
 Kentucky Secretary of State
 Received and Filed:
 3/7/2023 12:33 PM
 Fee Receipt: \$90.00

BK: IB 428
 PG: 690-690

Division of Business Filings
 P.O. Box 718
 Frankfort, KY 40602
 (502) 564-3490
 www.sos.ky.gov

Certificate of Authority
 (Foreign Business Entity)

FBE

Pursuant to the provisions of KRS 14A - 030 the undersigned hereby applies for authority to transact business in Kentucky on behalf of the entity named below and, for that purpose, submits the following statements:

1. The entity is a:
- | | | |
|--|---|---|
| <input type="checkbox"/> profit corporation | <input checked="" type="checkbox"/> nonprofit corporation | <input type="checkbox"/> professional limited liability company |
| <input type="checkbox"/> business trust | <input type="checkbox"/> limited liability company | <input type="checkbox"/> statutory trust |
| <input type="checkbox"/> limited partnership | <input type="checkbox"/> llc cooperative association | <input type="checkbox"/> other |
| <input type="checkbox"/> non-profit llc | <input type="checkbox"/> professional service corporation | |

2. The name of the entity is VB BTS II, LLC
 (The name must be identical to the name on record with the Secretary of State.)

3. The name of the entity to be used in Kentucky is (if applicable): _____
 (Only provide if "real name" is unavailable for use; otherwise, leave blank.)

4. The state or country under whose law the entity is organized is Delaware

5. The date of organization is 6/8/2022 and the period of duration is _____
 (if left blank, duration is considered perpetual.)

6. The mailing address of the entity's principal office is
750 Park of Commerce Drive, Suite 200 Boca Raton FL 33487
 Street Address City State Zip Code

7. The street address of the entity's registered office in Kentucky is
828 Lane Allen Road, Suite 219 Lexington KY 40504
 Street Address (No P.O. Box Numbers) City State Zip Code

and the name of the registered agent at that office is Cogency Global Inc.

8. The names and business addresses of the entity's representatives (secretary, officers and directors, managers, trustees or general partners):

| | | | | |
|-------------------------|---|-------------------|-----------|--------------|
| <u>Daniel Marinberg</u> | <u>750 Park of Commerce Dr, Ste 200</u> | <u>Boca Raton</u> | <u>FL</u> | <u>33487</u> |
| Name | Street or P.O. Box | City | State | Zip Code |
| | | | | |
| Name | Street or P.O. Box | City | State | Zip Code |
| Name | Street or P.O. Box | City | State | Zip Code |

9. If a professional service corporation, all the individual shareholders, not less than one half (1/2) of the directors, and all of the officers other than the secretary and treasurer are licensed in one or more states or territories of the United States or District of Columbia to render a professional service described in the statement of purposes of the corporation.

10. I certify that, as of the date of filing this application, the above-named entity validly exists under the laws of the jurisdiction of its formation.

11. If a limited partnership, it elects to be a limited liability limited partnership. Check the box if applicable:

12. If a limited liability company, check box if manager-managed:

13. This application will be effective upon filing.

[Signature] Adam B. Ginder-Vice President & Associate General Counsel 03/07/23
 Signature of Authorized Representative Printed Name & Title Date

I, Cogency Global Inc., consent to serve as the registered agent on behalf of the business entity.

[Signature] Eric B Hood ASSISTANT SECRETARY 3/7/23
 Signature of Registered Agent Printed Name Title Date



Antenna Structure Registration

[FCC](#) > [WTB](#) > [ASR](#) > [Online Systems](#) > ASR Search

[FCC Site Map](#)

ASR Application Search

Application A1261794

[? HELP](#)

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Application Detail

| | | | |
|---------------------|----------|-------------|----|
| File Number | A1261794 | Constructed | |
| Registration Number | | Dismantled | |
| NEPA | | EMI | No |

Application Information

| | | | |
|---------|-------------|---------------|------------|
| Status | Pending | Date Received | 01/16/2024 |
| Purpose | Amendment | Entered | 01/16/2024 |
| Mode | Interactive | | |

Antenna Structure

Structure Type LTOWER - Lattice Tower

Location (in NAD83 Coordinates - [Convert to NAD27](#))

| | | | |
|--------------------|----------------------------|----------------------------|-------------------------------|
| Lat/Long | 36-53-57.9 N 088-27-53.1 W | Address | 6145 Symsonia Highway KY-5183 |
| City, State | Symsonia , KY | | |
| Zip | 42082 | County | MARSHALL |
| Center of AM Array | | Position of Tower in Array | |

Heights (meters)

| | | | |
|--|-------|---|------|
| Elevation of Site Above Mean Sea Level | 149.2 | Overall Height Above Ground (AGL) | 94.5 |
| Overall Height Above Mean Sea Level | 243.7 | Overall Height Above Ground w/o Appurtenances | 91.4 |

Proposed Marking and/or Lighting

FAA Style E

FAA Notification

| | |
|-----------|----------------|
| FAA Study | FAA Issue Date |
|-----------|----------------|

Owner & Contact Information

| | | | |
|-----|------------|-------------------|---------------------------|
| FRN | 0033815929 | Owner Entity Type | Limited Liability Company |
|-----|------------|-------------------|---------------------------|

Owner

| | |
|---|---|
| The Towers, Inc. Attention To: JULIE HEFFERNAN 750 PARK OF COMMERCE DR BOCA RATON , FL 33487 | P: (561)406-4015 F: E: fcc-faa@verticalbridge.com |
|---|---|

Contact

Heffernan , Julie
Attention To: JULIE HEFFERNAN
750 PARK OF COMMERCE DR
BOCA RATON , FL 33487

P: (561)406-4015
F:
E: fcc-faa@verticalbridge.com

Environmental Compliance

Does the applicant request a Waiver of the Commission's rules for environmental notice?

No

Is another Federal Agency taking responsibility for environmental review?

No

Reason for another Federal Agency taking responsibility for environmental review

Is the applicant submitting an Environmental Assessment?

No

Does the applicant certify to No Significant Environmental Effect pursuant to Section

Basis for Certification

Name of Federal Agency

Local Notice Date

National Notice Date

01/30/2024

Certification

Authorized Party HEFFERNAN, JULIE Title LEASING PROJECT MANAGER

Receipt Date 01/16/2024

Comments

Comments

None

History

Date

11/30/2023

Event

New Application Received

Trans Log

| Date | Description | Existing Value | Requested Value |
|------------|--|-----------------------|-------------------------------|
| 01/16/2024 | Application : Identify the change type as Major or Minor | Minor | Major |
| 01/16/2024 | Structure : The street address of the antenna structure | 6145 Symsonia Highway | 6145 Symsonia Highway KY-5183 |
| 01/16/2024 | Structure : The type of the antenna structure | GTOWER | LTOWER |

Pleadings

| Pleading Type | Filer Name | Description | Date Entered |
|---------------|------------|-------------|--------------|
|---------------|------------|-------------|--------------|

None

Automated Letters

| Date | Description |
|------|-------------|
|------|-------------|

None

Attachments

| Type | Description | Date Entered |
|------|-------------|--------------|
|------|-------------|--------------|

None

ASR Help

[ASR License Glossary](#) - [FAQ](#) - [Online Help](#) - [Documentation](#) - [Technical Support](#)

ASR Online Systems

[TOWAIR](#)- [CORES](#) - [ASR Online Filing](#) - [Application Search](#) - [Registration Search](#)

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By Registration Number ▼

SUBMIT

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Federal Communications Commission
45 L Street NE
Washington, DC 20554

Phone: 1-877-480-3201
TTY: 1-717-338-2824
[Submit Help Request](#)

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**Federal Communications Commission
Wireless Telecommunications Bureau**

RADIO STATION AUTHORIZATION

LICENSEE: KENTUCKY RSA NO. 1 PARTNERSHIP

ATTN: REGULATORY
KENTUCKY RSA NO. 1 PARTNERSHIP
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

| | |
|---------------------------------------|---------------------------|
| Call Sign KNKQ306 | File Number |
| Radio Service CL - Cellular | |
| Market Numer CMA443 | Channel Block B |
| Sub-Market Designator 0 | |

FCC Registration Number (FRN): 0001836709

| |
|---|
| Market Name Kentucky 1 - Fulton |
|---|

| | | | | |
|---------------------------------|-------------------------------------|--------------------------------------|-------------------------------|-------------------|
| Grant Date 08-30-2011 | Effective Date 11-02-2016 | Expiration Date 10-01-2021 | Five Yr Build-Out Date | Print Date |
|---------------------------------|-------------------------------------|--------------------------------------|-------------------------------|-------------------|

Site Information:

| | | | | | |
|-----------------|-----------------|------------------|----------------------------------|--------------------------------------|---|
| Location | Latitude | Longitude | Ground Elevation (meters) | Structure Hgt to Tip (meters) | Antenna Structure Registration No. |
|-----------------|-----------------|------------------|----------------------------------|--------------------------------------|---|

1 36-20-59.2 N 089-22-12.3 W 98.0

Address: 0.68 MILE SOUTH OF LASSITER CORNER & REEL FOOT LAKE

City: LASSITER CORNER **County:** LAKE **State:** TN **Construction Deadline:**

Antenna: 1

Maximum Transmitting ERP in Watts: 135.800

| | | | | | | | | |
|------------------------------------|----------|-----------|-----------|------------|------------|------------|------------|------------|
| Azimuth(from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 148.000 | 117.000 | 107.000 | 117.000 | 121.000 | 147.000 | 149.000 | 146.000 |
| Transmitting ERP (watts) | 133.300 | 103.500 | 36.500 | 4.500 | 1.500 | 3.900 | 38.800 | 109.600 |

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §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. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

Licensee Name: KENTUCKY RSA NO. 1 PARTNERSHIP

Call Sign: KNKQ306

File Number:

Print Date:

| Location | Latitude | Longitude | Ground Elevation (meters) | Structure Hgt to Tip (meters) | Antenna Structure Registration No. |
|----------|--------------|---------------|---------------------------|-------------------------------|------------------------------------|
| 2 | 36-45-58.0 N | 088-38-50.0 W | 143.0 | 147.8 | 1043917 |

Address: 416 Jimtown Road

City: MAYFIELD County: GRAVES State: KY Construction Deadline:

Antenna: 2

| | | | | | | | | |
|------------------------------------|---------|---------|---------|--------|--------|---------|---------|---------|
| Maximum Transmitting ERP in Watts: | 140.820 | | | | | | | |
| Azimuth(from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 124.300 | 120.000 | 100.800 | 92.100 | 88.300 | 103.100 | 108.600 | 100.800 |
| Transmitting ERP (watts) | 91.200 | 87.100 | 85.110 | 85.110 | 89.130 | 87.100 | 89.130 | 89.130 |

| Location | Latitude | Longitude | Ground Elevation (meters) | Structure Hgt to Tip (meters) | Antenna Structure Registration No. |
|----------|--------------|---------------|---------------------------|-------------------------------|------------------------------------|
| 4 | 36-54-35.5 N | 089-04-01.6 W | 110.3 | 121.0 | 1030662 |

Address: (Wickliffe) 353 CR 1307

City: Bardwell County: CARLISLE State: KY Construction Deadline:

Antenna: 4

| | | | | | | | | |
|------------------------------------|---------|--------|---------|--------|--------|---------|---------|---------|
| Maximum Transmitting ERP in Watts: | 140.820 | | | | | | | |
| Azimuth(from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 107.500 | 98.100 | 119.800 | 96.700 | 86.900 | 133.300 | 130.900 | 130.400 |
| Transmitting ERP (watts) | 189.230 | 48.640 | 1.690 | 0.930 | 0.930 | 0.930 | 1.810 | 52.120 |

Antenna: 5

| | | | | | | | | |
|------------------------------------|---------|--------|---------|---------|--------|---------|---------|---------|
| Maximum Transmitting ERP in Watts: | 140.820 | | | | | | | |
| Azimuth(from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 107.500 | 98.100 | 119.800 | 96.700 | 86.900 | 133.300 | 130.900 | 130.400 |
| Transmitting ERP (watts) | 1.710 | 64.860 | 368.980 | 174.580 | 8.750 | 0.930 | 0.930 | 0.930 |

Antenna: 6

| | | | | | | | | |
|------------------------------------|---------|--------|---------|--------|---------|---------|---------|---------|
| Maximum Transmitting ERP in Watts: | 140.820 | | | | | | | |
| Azimuth(from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 107.800 | 98.100 | 119.800 | 96.700 | 86.900 | 133.300 | 130.900 | 130.400 |
| Transmitting ERP (watts) | 0.350 | 0.350 | 1.230 | 35.330 | 112.440 | 35.270 | 1.000 | 0.350 |

| Location | Latitude | Longitude | Ground Elevation (meters) | Structure Hgt to Tip (meters) | Antenna Structure Registration No. |
|----------|--------------|---------------|---------------------------|-------------------------------|------------------------------------|
| 6 | 36-31-12.4 N | 088-50-41.5 W | 144.2 | 122.2 | 1030665 |

Address: (Fulton) 550 Powell Road

City: Fulton County: HICKMAN State: KY Construction Deadline:

Antenna: 4

| | | | | | | | | |
|------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Maximum Transmitting ERP in Watts: | 140.820 | | | | | | | |
| Azimuth(from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 128.200 | 122.800 | 123.200 | 135.200 | 147.500 | 157.200 | 143.900 | 141.700 |
| Transmitting ERP (watts) | 110.570 | 412.100 | 98.560 | 4.220 | 1.510 | 0.920 | 0.920 | 6.530 |

Antenna: 5

| | | | | | | | | |
|------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Maximum Transmitting ERP in Watts: | 140.820 | | | | | | | |
| Azimuth(from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 128.200 | 122.800 | 123.200 | 135.200 | 147.500 | 157.200 | 143.900 | 141.700 |
| Transmitting ERP (watts) | 0.550 | 0.550 | 0.550 | 0.550 | 1.480 | 16.430 | 11.480 | 0.700 |

Licensee Name: KENTUCKY RSA NO. 1 PARTNERSHIP

Call Sign: KKNQ306

File Number:

Print Date:

| Location | Latitude | Longitude | Ground Elevation (meters) | Structure Hgt to Tip (meters) | Antenna Structure Registration No. |
|----------|--------------|---------------|---------------------------|-------------------------------|------------------------------------|
| 6 | 36-31-12.4 N | 088-50-41.5 W | 144.2 | 122.2 | 1030665 |

Address: (Fulton) 550 Powell Road

City: Fulton County: HICKMAN State: KY Construction Deadline:

Antenna: 6

| | | | | | | | | |
|------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Maximum Transmitting ERP in Watts: | 140.820 | | | | | | | |
| Azimuth(from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 128.200 | 122.800 | 123.200 | 135.200 | 147.500 | 157.200 | 143.900 | 141.700 |
| Transmitting ERP (watts) | 135.480 | 5.650 | 2.230 | 0.920 | 1.320 | 5.450 | 78.640 | 402.820 |

| Location | Latitude | Longitude | Ground Elevation (meters) | Structure Hgt to Tip (meters) | Antenna Structure Registration No. |
|----------|--------------|---------------|---------------------------|-------------------------------|------------------------------------|
| 7 | 36-38-26.2 N | 088-16-00.1 W | 165.8 | 90.8 | 1030663 |

Address: (Murray) 1431 Van Cleave Road

City: Murray County: CALLOWAY State: KY Construction Deadline:

Antenna: 4

| | | | | | | | | |
|------------------------------------|---------|---------|---------|---------|--------|--------|--------|---------|
| Maximum Transmitting ERP in Watts: | 140.820 | | | | | | | |
| Azimuth(from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 106.900 | 107.100 | 115.000 | 106.900 | 87.400 | 91.300 | 86.200 | 97.500 |
| Transmitting ERP (watts) | 124.240 | 6.420 | 0.560 | 0.560 | 0.560 | 0.830 | 39.630 | 251.940 |

Antenna: 5

| | | | | | | | | |
|------------------------------------|---------|---------|---------|---------|--------|--------|--------|--------|
| Maximum Transmitting ERP in Watts: | 140.820 | | | | | | | |
| Azimuth(from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 106.900 | 107.100 | 115.000 | 106.900 | 87.400 | 91.300 | 86.200 | 97.500 |
| Transmitting ERP (watts) | 3.450 | 96.460 | 263.070 | 57.230 | 1.700 | 0.560 | 0.560 | 0.560 |

Antenna: 6

| | | | | | | | | |
|------------------------------------|---------|---------|---------|---------|---------|---------|--------|--------|
| Maximum Transmitting ERP in Watts: | 140.820 | | | | | | | |
| Azimuth(from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 106.900 | 107.100 | 115.000 | 106.900 | 87.400 | 91.300 | 86.200 | 97.500 |
| Transmitting ERP (watts) | 0.370 | 0.370 | 0.370 | 12.730 | 121.110 | 104.340 | 9.310 | 0.370 |

| Location | Latitude | Longitude | Ground Elevation (meters) | Structure Hgt to Tip (meters) | Antenna Structure Registration No. |
|----------|--------------|---------------|---------------------------|-------------------------------|------------------------------------|
| 8 | 37-03-51.4 N | 088-57-23.6 W | 116.4 | 92.4 | 1030664 |

Address: (La Center) 220 RICHARDSON LN

City: LA CENTER County: BALLARD State: KY Construction Deadline:

Antenna: 2

| | | | | | | | | |
|------------------------------------|---------|--------|---------|--------|--------|--------|--------|--------|
| Maximum Transmitting ERP in Watts: | 140.820 | | | | | | | |
| Azimuth(from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 85.600 | 78.400 | 71.900 | 66.000 | 65.300 | 67.000 | 87.700 | 96.100 |
| Transmitting ERP (watts) | 2.110 | 71.430 | 167.460 | 63.670 | 0.330 | 0.640 | 0.330 | 0.330 |

Antenna: 3

| | | | | | | | | |
|------------------------------------|---------|--------|--------|--------|---------|---------|--------|--------|
| Maximum Transmitting ERP in Watts: | 140.820 | | | | | | | |
| Azimuth(from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 85.600 | 78.400 | 71.900 | 66.000 | 65.300 | 67.000 | 87.700 | 96.100 |
| Transmitting ERP (watts) | 1.230 | 1.000 | 1.380 | 23.440 | 338.840 | 457.090 | 66.070 | 2.240 |

Licensee Name: KENTUCKY RSA NO. 1 PARTNERSHIP

Call Sign: KKNQ306

File Number:

Print Date:

| Location | Latitude | Longitude | Ground Elevation (meters) | Structure Hgt to Tip (meters) | Antenna Structure Registration No. |
|----------|--------------|---------------|---------------------------|-------------------------------|------------------------------------|
| 8 | 37-03-51.4 N | 088-57-23.6 W | 116.4 | 92.4 | 1030664 |

Address: (La Center) 220 RICHARDSON LN

City: LA CENTER County: BALLARD State: KY Construction Deadline:

Antenna: 4

| | | | | | | | | |
|------------------------------------|---------|--------|--------|--------|--------|--------|--------|---------|
| Maximum Transmitting ERP in Watts: | 140.820 | | | | | | | |
| Azimuth(from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 85.600 | 78.400 | 71.900 | 66.000 | 65.300 | 67.000 | 87.700 | 96.100 |
| Transmitting ERP (watts) | 165.960 | 6.610 | 0.910 | 0.500 | 0.500 | 0.890 | 45.710 | 223.870 |

| Location | Latitude | Longitude | Ground Elevation (meters) | Structure Hgt to Tip (meters) | Antenna Structure Registration No. |
|----------|--------------|---------------|---------------------------|-------------------------------|------------------------------------|
| 10 | 36-44-07.9 N | 088-58-29.2 W | 131.9 | 92.9 | 1030723 |

Address: 3975 State Route 2206

City: CLINTON County: HICKMAN State: KY Construction Deadline:

Antenna: 2

| | | | | | | | | |
|------------------------------------|---------|---------|--------|--------|---------|---------|---------|---------|
| Maximum Transmitting ERP in Watts: | 140.820 | | | | | | | |
| Azimuth(from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 100.500 | 101.900 | 98.900 | 84.700 | 107.900 | 118.900 | 119.900 | 100.400 |
| Transmitting ERP (watts) | 96.610 | 96.610 | 96.610 | 96.610 | 96.610 | 96.610 | 96.610 | 96.610 |

| Location | Latitude | Longitude | Ground Elevation (meters) | Structure Hgt to Tip (meters) | Antenna Structure Registration No. |
|----------|--------------|---------------|---------------------------|-------------------------------|------------------------------------|
| 11 | 37-02-00.0 N | 088-22-10.0 W | 105.5 | 106.7 | 1040303 |

Address: (Calvert City) 641 Jary Johnson Rd.

City: Calvert City County: MARSHALL State: KY Construction Deadline:

Antenna: 2

| | | | | | | | | |
|------------------------------------|---------|---------|---------|--------|--------|--------|--------|--------|
| Maximum Transmitting ERP in Watts: | 140.820 | | | | | | | |
| Azimuth(from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 78.900 | 77.600 | 88.100 | 83.000 | 68.600 | 85.300 | 97.900 | 93.100 |
| Transmitting ERP (watts) | 23.380 | 330.300 | 378.360 | 36.130 | 0.970 | 0.970 | 0.970 | 0.970 |

Antenna: 3

| | | | | | | | | |
|------------------------------------|---------|--------|--------|--------|---------|---------|--------|--------|
| Maximum Transmitting ERP in Watts: | 140.820 | | | | | | | |
| Azimuth(from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 78.900 | 77.600 | 88.100 | 83.000 | 68.600 | 85.300 | 97.900 | 93.100 |
| Transmitting ERP (watts) | 0.970 | 0.970 | 0.970 | 14.730 | 240.930 | 357.480 | 49.940 | 1.230 |

Antenna: 4

| | | | | | | | | |
|------------------------------------|---------|--------|--------|--------|--------|--------|---------|---------|
| Maximum Transmitting ERP in Watts: | 140.820 | | | | | | | |
| Azimuth(from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 78.900 | 77.600 | 88.100 | 83.000 | 68.600 | 85.300 | 97.900 | 93.100 |
| Transmitting ERP (watts) | 63.740 | 2.060 | 0.660 | 0.660 | 0.660 | 4.020 | 107.530 | 274.970 |

Licensee Name: KENTUCKY RSA NO. 1 PARTNERSHIP

Call Sign: KNKQ306

File Number:

Print Date:

| Location | Latitude | Longitude | Ground Elevation (meters) | Structure Hgt to Tip (meters) | Antenna Structure Registration No. |
|----------|--------------|---------------|---------------------------|-------------------------------|------------------------------------|
| 12 | 36-34-49.2 N | 088-31-45.2 W | 155.5 | 91.4 | 1202399 |

Address: 12201 SR 97

City: TriCity County: GRAVES State: KY Construction Deadline:

Antenna: 2

| | | | | | | | | |
|------------------------------------|---------|--------|--------|--------|---------|---------|--------|--------|
| Maximum Transmitting ERP in Watts: | 140.820 | | | | | | | |
| Azimuth(from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 75.100 | 73.400 | 74.100 | 70.100 | 102.600 | 100.900 | 74.700 | 81.300 |
| Transmitting ERP (watts) | 0.280 | 4.680 | 67.610 | 91.200 | 13.180 | 0.450 | 0.250 | 0.200 |

Antenna: 3

| | | | | | | | | |
|------------------------------------|---------|--------|--------|--------|---------|---------|--------|--------|
| Maximum Transmitting ERP in Watts: | 140.820 | | | | | | | |
| Azimuth(from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 75.100 | 73.400 | 74.100 | 70.100 | 102.600 | 100.900 | 74.700 | 81.300 |
| Transmitting ERP (watts) | 0.360 | 0.200 | 0.200 | 0.350 | 18.200 | 89.130 | 66.070 | 2.630 |

Antenna: 4

| | | | | | | | | |
|------------------------------------|---------|--------|--------|--------|---------|---------|--------|--------|
| Maximum Transmitting ERP in Watts: | 140.820 | | | | | | | |
| Azimuth(from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 75.100 | 73.400 | 74.100 | 70.100 | 102.600 | 100.900 | 74.700 | 81.300 |
| Transmitting ERP (watts) | 100.000 | 38.020 | 0.200 | 0.380 | 0.200 | 0.200 | 1.260 | 42.660 |

| Location | Latitude | Longitude | Ground Elevation (meters) | Structure Hgt to Tip (meters) | Antenna Structure Registration No. |
|----------|--------------|---------------|---------------------------|-------------------------------|------------------------------------|
| 14 | 37-05-47.2 N | 088-42-35.2 W | 104.2 | 63.4 | 1200593 |

Address: (Paducah West) 4415 Merredith Rd.

City: Paducah County: MCCRACKEN State: KY Construction Deadline: 07-08-2014

Antenna: 4

| | | | | | | | | |
|------------------------------------|---------|--------|--------|--------|--------|--------|--------|--------|
| Maximum Transmitting ERP in Watts: | 140.820 | | | | | | | |
| Azimuth(from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 59.900 | 55.900 | 65.200 | 50.700 | 38.200 | 34.700 | 42.800 | 64.600 |
| Transmitting ERP (watts) | 24.580 | 50.820 | 50.310 | 19.100 | 0.840 | 0.330 | 0.330 | 1.370 |

Antenna: 5

| | | | | | | | | |
|------------------------------------|---------|--------|--------|--------|---------|--------|--------|--------|
| Maximum Transmitting ERP in Watts: | 140.820 | | | | | | | |
| Azimuth(from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 59.900 | 55.900 | 65.200 | 50.700 | 38.200 | 34.700 | 42.800 | 64.600 |
| Transmitting ERP (watts) | 0.440 | 0.440 | 12.210 | 76.570 | 112.800 | 57.980 | 5.460 | 0.440 |

Antenna: 6

| | | | | | | | | |
|------------------------------------|---------|--------|--------|--------|--------|--------|---------|--------|
| Maximum Transmitting ERP in Watts: | 140.820 | | | | | | | |
| Azimuth(from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 59.900 | 55.900 | 65.200 | 50.700 | 38.200 | 34.700 | 42.800 | 64.600 |
| Transmitting ERP (watts) | 20.830 | 0.780 | 0.440 | 0.440 | 2.790 | 42.940 | 108.040 | 89.900 |

Licensee Name: KENTUCKY RSA NO. 1 PARTNERSHIP

Call Sign: KNKQ306

File Number:

Print Date:

| Location | Latitude | Longitude | Ground Elevation (meters) | Structure Hgt to Tip (meters) | Antenna Structure Registration No. |
|----------|--------------|---------------|---------------------------|-------------------------------|------------------------------------|
| 15 | 36-46-54.2 N | 088-03-28.1 W | 199.0 | 126.5 | 1205551 |

Address: 14664 Canton Road

City: Golden Pond County: TRIGG State: KY Construction Deadline: 05-19-2006

Antenna: 2

| | | | | | | | | |
|------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Maximum Transmitting ERP in Watts: | 140.820 | | | | | | | |
| Azimuth(from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 165.000 | 178.000 | 160.400 | 174.500 | 170.600 | 167.000 | 177.000 | 183.900 |
| Transmitting ERP (watts) | 96.610 | 96.610 | 96.610 | 96.610 | 96.610 | 96.610 | 96.610 | 96.610 |

| Location | Latitude | Longitude | Ground Elevation (meters) | Structure Hgt to Tip (meters) | Antenna Structure Registration No. |
|----------|--------------|---------------|---------------------------|-------------------------------|------------------------------------|
| 16 | 36-34-03.0 N | 089-10-30.9 W | 109.4 | 91.4 | 1282534 |

Address: (Hickman site) Holley Street

City: Hickman County: FULTON State: KY Construction Deadline: 05-28-2014

Antenna: 1

| | | | | | | | | |
|------------------------------------|---------|---------|--------|--------|--------|--------|---------|---------|
| Maximum Transmitting ERP in Watts: | 140.820 | | | | | | | |
| Azimuth(from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 105.500 | 102.800 | 96.700 | 89.300 | 75.700 | 68.400 | 107.900 | 107.300 |
| Transmitting ERP (watts) | 141.700 | 118.910 | 1.140 | 0.580 | 0.580 | 0.580 | 0.580 | 4.050 |

Antenna: 2

| | | | | | | | | |
|------------------------------------|---------|---------|---------|---------|--------|--------|---------|---------|
| Maximum Transmitting ERP in Watts: | 140.820 | | | | | | | |
| Azimuth(from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 105.500 | 102.800 | 96.700 | 89.300 | 75.700 | 68.400 | 107.900 | 107.300 |
| Transmitting ERP (watts) | 0.580 | 4.050 | 141.730 | 118.910 | 1.140 | 0.580 | 0.580 | 0.580 |

Antenna: 3

| | | | | | | | | |
|------------------------------------|---------|---------|--------|--------|--------|--------|---------|---------|
| Maximum Transmitting ERP in Watts: | 140.820 | | | | | | | |
| Azimuth(from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 105.500 | 102.800 | 96.700 | 89.300 | 75.700 | 68.400 | 107.900 | 107.300 |
| Transmitting ERP (watts) | 0.460 | 0.460 | 0.460 | 0.460 | 0.460 | 7.710 | 45.610 | 24.600 |

| Location | Latitude | Longitude | Ground Elevation (meters) | Structure Hgt to Tip (meters) | Antenna Structure Registration No. |
|----------|--------------|---------------|---------------------------|-------------------------------|------------------------------------|
| 17 | 37-10-55.4 N | 088-56-43.7 W | 102.7 | 99.1 | 1252613 |

Address: (Monkey's Eyebrow) 4625 Odgen Colvin Circle

City: Kevil County: BALLARD State: KY Construction Deadline: 10-24-2014

Antenna: 1

| | | | | | | | | |
|------------------------------------|---------|---------|---------|---------|--------|--------|--------|--------|
| Maximum Transmitting ERP in Watts: | 140.820 | | | | | | | |
| Azimuth(from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 85.900 | 83.500 | 90.600 | 69.600 | 74.300 | 84.600 | 86.500 | 83.200 |
| Transmitting ERP (watts) | 7.080 | 125.890 | 478.630 | 112.200 | 4.570 | 1.580 | 1.000 | 1.000 |

Antenna: 2

| | | | | | | | | |
|------------------------------------|---------|--------|--------|---------|---------|--------|--------|--------|
| Maximum Transmitting ERP in Watts: | 140.820 | | | | | | | |
| Azimuth(from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 85.900 | 83.500 | 90.600 | 69.600 | 74.300 | 84.600 | 86.500 | 83.200 |
| Transmitting ERP (watts) | 1.000 | 1.410 | 12.020 | 213.800 | 446.680 | 64.570 | 2.820 | 1.000 |

Licensee Name: KENTUCKY RSA NO. 1 PARTNERSHIP

Call Sign: KNKQ306

File Number:

Print Date:

| Location | Latitude | Longitude | Ground Elevation (meters) | Structure Hgt to Tip (meters) | Antenna Structure Registration No. |
|----------|--------------|---------------|---------------------------|-------------------------------|------------------------------------|
| 17 | 37-10-55.4 N | 088-56-43.7 W | 102.7 | 99.1 | 1252613 |

Address: (Monkey's Eyebrow) 4625 Odgen Colvin Circle

City: Kevil County: BALLARD State: KY Construction Deadline: 10-24-2014

Antenna: 4

Maximum Transmitting ERP in Watts: 140.820

| Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
|-----------------------------|--------|--------|--------|--------|--------|---------|---------|--------|
| Antenna Height AAT (meters) | 85.900 | 83.500 | 90.600 | 69.600 | 74.300 | 84.600 | 86.500 | 83.200 |
| Transmitting ERP (watts) | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 398.110 | 549.540 | 4.900 |

Control Points:

Control Pt. No. 3

Address: 500 W. Dove Rd.

City: Southlake County: TARRANT State: TX Telephone Number: (800)264-6620

Waivers/Conditions:

NONE

REFERENCE COPY

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Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY
CELLCO PARTNERSHIP
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

Table with Call Sign (KNLH404), File Number, and Radio Service (CW - PCS Broadband).

FCC Registration Number (FRN): 0003290673

Table with columns: Grant Date, Effective Date, Expiration Date, Print Date, Market Number, Channel Block, Sub-Market Designator, Market Name, 1st Build-out Date, 2nd Build-out Date, 3rd Build-out Date, 4th Build-out Date.

Waivers/Conditions:

This authorization is subject to the condition that, in the event that systems using the same frequencies as granted herein are authorized in an adjacent foreign territory (Canada/United States), future coordination of any base station transmitters within 72 km (45 miles) of the United States/Canada border shall be required to eliminate any harmful interference to operations in the adjacent foreign territory and to ensure continuance of equal access to the frequencies by both countries.

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §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. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at http://wireless.fcc.gov/uls/index.htm?job=home and select "License Search". Follow the instructions on how to search for license information.

Licensee Name: CELLCO PARTNERSHIP

Call Sign: KNLH404

File Number:

Print Date:

700 MHz Relicensed Area Information:

| Market | Market Name | Buildout Deadline | Buildout Notification | Status |
|---------------|--------------------|--------------------------|------------------------------|---------------|
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Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: ALLTEL CORPORATION

ATTN: REGULATORY
ALLTEL CORPORATION
5055 NORTH POINT PKWY, NP2NE ENGINEERING
ALPHARETTA, GA 30022

Table with 2 columns: Call Sign (WQBT313), File Number, and Radio Service (CW - PCS Broadband).

FCC Registration Number (FRN): 0002942159

Table with 4 columns: Grant Date (06-05-2015), Effective Date (05-07-2020), Expiration Date (06-23-2025), Print Date, Market Number (MTA026), Channel Block (A), Sub-Market Designator (18), Market Name (Louisville-Lexington-Evansville), 1st Build-out Date (10-23-2000), 2nd Build-out Date, 3rd Build-out Date, 4th Build-out Date.

Waivers/Conditions:

This authorization is subject to the condition that, in the event that systems using the same frequencies as granted herein are authorized in an adjacent foreign territory (Canada/United States), future coordination of any base station transmitters within 72 km (45 miles) of the United States/Canada border shall be required to eliminate any harmful interference to operations in the adjacent foreign territory and to ensure continuance of equal access to the frequencies by both countries.

This authorization is subject to the condition that the remaining balance of the winning bid amount will be paid in accordance with Part 1 of the Commission's rules, 47 C.F.R. Part 1.

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §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. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

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Licensee Name: ALLTEL CORPORATION

Call Sign: WQBT313

File Number:

Print Date:

This license is conditioned upon compliance with the provisions of Applications of AT&T Wireless Services, Inc. and Cingular Wireless Corporation For Consent to Transfer Control of Licenses and Authorizations, Memorandum Opinion and Order, FCC 04-255 (rel. Oct. 26, 2004).

Reference Copy

Licensee Name: ALLTEL CORPORATION

Call Sign: WQBT313

File Number:

Print Date:

700 MHz Relicensed Area Information:

| Market | Market Name | Buildout Deadline | Buildout Notification | Status |
|---------------|--------------------|--------------------------|------------------------------|---------------|
|---------------|--------------------|--------------------------|------------------------------|---------------|

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Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: ALLTEL CORPORATION

ATTN: REGULATORY
ALLTEL CORPORATION
5055 NORTH POINT PKWY, NP2NE ENGINEERING
ALPHARETTA, GA 30022

Table with Call Sign (WQBT318), File Number, and Radio Service (CW - PCS Broadband).

FCC Registration Number (FRN): 0002942159

Table with columns: Grant Date, Effective Date, Expiration Date, Print Date, Market Number, Channel Block, Sub-Market Designator, Market Name, 1st Build-out Date, 2nd Build-out Date, 3rd Build-out Date, 4th Build-out Date.

Waivers/Conditions:

This authorization is subject to the condition that, in the event that systems using the same frequencies as granted herein are authorized in an adjacent foreign territory (Canada/United States), future coordination of any base station transmitters within 72 km (45 miles) of the United States/Canada border shall be required to eliminate any harmful interference to operations in the adjacent foreign territory and to ensure continuance of equal access to the frequencies by both countries.

This authorization is subject to the condition that the remaining balance of the winning bid amount will be paid in accordance with Part 1 of the Commission's rules, 47 C.F.R. Part 1.

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §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. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

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Licensee Name: ALLTEL CORPORATION

Call Sign: WQBT318

File Number:

Print Date:

This license is conditioned upon compliance with the provisions of Applications of AT&T Wireless Services, Inc. and Cingular Wireless Corporation For Consent to Transfer Control of Licenses and Authorizations, Memorandum Opinion and Order, FCC 04-255 (rel. Oct. 26, 2004).

Reference Copy

Licensee Name: ALLTEL CORPORATION

Call Sign: WQBT318

File Number:

Print Date:

700 MHz Relicensed Area Information:

| Market | Market Name | Buildout Deadline | Buildout Notification | Status |
|---------------|--------------------|--------------------------|------------------------------|---------------|
|---------------|--------------------|--------------------------|------------------------------|---------------|

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Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY
CELLCO PARTNERSHIP
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

Table with Call Sign (WQGA718), File Number (0007518718), and Radio Service (AW - AWS (1710-1755 MHz and 2110-2155 MHz)).

FCC Registration Number (FRN): 0003290673

Table with columns: Grant Date (11-29-2006), Effective Date (12-13-2016), Expiration Date (11-29-2021), Print Date (02-04-2017), Market Number (REA004), Channel Block (F), Sub-Market Designator (15), Market Name (Mississippi Valley), and 4th Build-out Date.

Waivers/Conditions:

This authorization is conditioned upon the licensee, prior to initiating operations from any base or fixed station, making reasonable efforts to coordinate frequency usage with known co-channel and adjacent channel incumbent federal users operating in the 1710-1755 MHz band whose facilities could be affected by the proposed operations. See, e.g., FCC and NTIA Coordination Procedures in the 1710-1755 MHz Band, Public Notice, FCC 06-50, WTB Docket No. 02-353, rel. April 20, 2006.

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §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. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at http://wireless.fcc.gov/uls/index.htm?job=home and select "License Search". Follow the instructions on how to search for license information.

Licensee Name: CELLCO PARTNERSHIP

Call Sign: WQGA718

File Number: 0007518718

Print Date: 02-04-2017

700 MHz Relicensed Area Information:

| Market | Market Name | Buildout Deadline | Buildout Notification | Status |
|---------------|--------------------|--------------------------|------------------------------|---------------|
|---------------|--------------------|--------------------------|------------------------------|---------------|

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Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY
CELLCO PARTNERSHIP
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

Table with Call Sign (WQGA960), File Number, and Radio Service (AW - AWS (1710-1755 MHz and 2110-2155 MHz)).

FCC Registration Number (FRN): 0003290673

Table with columns: Grant Date (11-29-2006), Effective Date (11-01-2016), Expiration Date (11-29-2021), Print Date, Market Number (BEA072), Channel Block (B), Sub-Market Designator (0), Market Name (Paducah, KY-IL), 1st Build-out Date, 2nd Build-out Date, 3rd Build-out Date, 4th Build-out Date.

Waivers/Conditions:

This authorization is conditioned upon the licensee, prior to initiating operations from any base or fixed station, making reasonable efforts to coordinate frequency usage with known co-channel and adjacent channel incumbent federal users operating in the 1710-1755 MHz band whose facilities could be affected by the proposed operations. See, e.g., FCC and NTIA Coordination Procedures in the 1710-1755 MHz Band, Public Notice, FCC 06-50, WTB Docket No. 02-353, rel. April 20, 2006.

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §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. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at http://wireless.fcc.gov/uls/index.htm?job=home and select "License Search". Follow the instructions on how to search for license information.

Licensee Name: CELLCO PARTNERSHIP

Call Sign: WQGA960

File Number:

Print Date:

700 MHz Relicensed Area Information:

| Market | Market Name | Buildout Deadline | Buildout Notification | Status |
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Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY
CELLCO PARTNERSHIP
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

Table with Call Sign (WQJQ692), File Number (0008587218), and Radio Service (WU - 700 MHz Upper Band (Block C)).

FCC Registration Number (FRN): 0003290673

Table with columns: Grant Date, Effective Date, Expiration Date, Print Date, Market Number, Channel Block, Sub-Market Designator, Market Name, 1st Build-out Date, 2nd Build-out Date, 3rd Build-out Date, 4th Build-out Date.

Waivers/Conditions:

If the facilities authorized herein are used to provide broadcast operations, whether exclusively or in combination with other services, the licensee must seek renewal of the license either within eight years from the commencement of the broadcast service or within the term of the license had the broadcast service not been provided, whichever period is shorter in length. See 47 CFR §27.13(b).

This authorization is conditioned upon compliance with section 27.16 of the Commission's rules

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §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. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

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Licensee Name: CELLCO PARTNERSHIP

Call Sign: WQJQ692

File Number: 0008587218

Print Date: 01-14-2020

700 MHz Relicensed Area Information:

| Market | Market Name | Buildout Deadline | Buildout Notification | Status |
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Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY
CELLCO PARTNERSHIP
5055 NORTH POINT PKWY, NP2NE ENGINEERING
ALPHARETTA, GA 30022

| | |
|---|--------------------|
| Call Sign WQXD406 | File Number |
| Radio Service AT - AWS-3 (1695-1710 MHz, 1755-1780 MHz, and 2155-2180 MHz) | |

FCC Registration Number (FRN): 0003290673

| | | | |
|---|---|--------------------------------------|---------------------------|
| Grant Date 02-04-2016 | Effective Date 12-04-2019 | Expiration Date 02-04-2028 | Print Date |
| Market Number BEA072 | Channel Block 1 | Sub-Market Designator 0 | |
| Market Name Paducah, KY-IL | | | |
| 1st Build-out Date 02-04-2022 | 2nd Build-out Date 02-04-2028 | 3rd Build-out Date | 4th Build-out Date |

Waivers/Conditions:

NONE

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §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. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

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Licensee Name: CELLCO PARTNERSHIP

Call Sign: WQXD406

File Number:

Print Date:

700 MHz Relicensed Area Information:

| Market | Market Name | Buildout Deadline | Buildout Notification | Status |
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Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY
CELLCO PARTNERSHIP
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

Table with Call Sign (WREF223), File Number, and Radio Service (UU - Upper Microwave Flexible Use Service).

FCC Registration Number (FRN): 0003290673

Table with columns: Grant Date, Effective Date, Expiration Date, Print Date, Market Number, Channel Block, Sub-Market Designator, Market Name, 1st Build-out Date, 2nd Build-out Date, 3rd Build-out Date, 4th Build-out Date.

Waivers/Conditions:

NONE

Conditions: Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §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.

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Licensee Name: CELLCO PARTNERSHIP

Call Sign: WREF223

File Number:

Print Date:

700 MHz Relicensed Area Information:

| Market | Market Name | Buildout Deadline | Buildout Notification | Status |
|---------------|--------------------|--------------------------|------------------------------|---------------|
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Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: STRAIGHT PATH SPECTRUM, LLC

ATTN: REGULATORY
STRAIGHT PATH SPECTRUM, LLC
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

| | |
|---|--------------------|
| Call Sign WRHG984 | File Number |
| Radio Service UU - Upper Microwave Flexible Use Service | |

FCC Registration Number (FRN): 0012576435

| | | | |
|-----------------------------------|-------------------------------------|--------------------------------------|---------------------------|
| Grant Date 06-04-2020 | Effective Date 06-04-2020 | Expiration Date 06-04-2030 | Print Date |
| Market Number PEA243 | Channel Block M1 | Sub-Market Designator 0 | |
| Market Name Paducah, KY | | | |
| 1st Build-out Date | 2nd Build-out Date | 3rd Build-out Date | 4th Build-out Date |

Waivers/Conditions:

NONE

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §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. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

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Licensee Name: STRAIGHT PATH SPECTRUM, LLC

Call Sign: WRHG984

File Number:

Print Date:

700 MHz Relicensed Area Information:

| Market | Market Name | Buildout Deadline | Buildout Notification | Status |
|---------------|--------------------|--------------------------|------------------------------|---------------|
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Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: STRAIGHT PATH SPECTRUM, LLC

ATTN: REGULATORY
STRAIGHT PATH SPECTRUM, LLC
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

| | |
|---|--------------------|
| Call Sign WRHG985 | File Number |
| Radio Service UU - Upper Microwave Flexible Use Service | |

FCC Registration Number (FRN): 0012576435

| | | | |
|-----------------------------------|-------------------------------------|--------------------------------------|---------------------------|
| Grant Date 06-04-2020 | Effective Date 06-04-2020 | Expiration Date 06-04-2030 | Print Date |
| Market Number PEA243 | Channel Block M10 | Sub-Market Designator 0 | |
| Market Name Paducah, KY | | | |
| 1st Build-out Date | 2nd Build-out Date | 3rd Build-out Date | 4th Build-out Date |

Waivers/Conditions:

NONE

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §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. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

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Licensee Name: STRAIGHT PATH SPECTRUM, LLC

Call Sign: WRHG985

File Number:

Print Date:

700 MHz Relicensed Area Information:

| Market | Market Name | Buildout Deadline | Buildout Notification | Status |
|---------------|--------------------|--------------------------|------------------------------|---------------|
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Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: STRAIGHT PATH SPECTRUM, LLC

ATTN: REGULATORY
STRAIGHT PATH SPECTRUM, LLC
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

Table with Call Sign (WRHG986), File Number, and Radio Service (UU - Upper Microwave Flexible Use Service).

FCC Registration Number (FRN): 0012576435

Table with columns: Grant Date, Effective Date, Expiration Date, Print Date, Market Number, Channel Block, Sub-Market Designator, Market Name, 1st Build-out Date, 2nd Build-out Date, 3rd Build-out Date, 4th Build-out Date.

Waivers/Conditions:

NONE

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §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.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS).

Licensee Name: STRAIGHT PATH SPECTRUM, LLC

Call Sign: WRHG986

File Number:

Print Date:

700 MHz Relicensed Area Information:

| Market | Market Name | Buildout Deadline | Buildout Notification | Status |
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Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: STRAIGHT PATH SPECTRUM, LLC

ATTN: REGULATORY
STRAIGHT PATH SPECTRUM, LLC
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

| | |
|---|--------------------|
| Call Sign WRHG987 | File Number |
| Radio Service UU - Upper Microwave Flexible Use Service | |

FCC Registration Number (FRN): 0012576435

| | | | |
|-----------------------------------|-------------------------------------|--------------------------------------|---------------------------|
| Grant Date 06-04-2020 | Effective Date 06-04-2020 | Expiration Date 06-04-2030 | Print Date |
| Market Number PEA243 | Channel Block M3 | Sub-Market Designator 0 | |
| Market Name Paducah, KY | | | |
| 1st Build-out Date | 2nd Build-out Date | 3rd Build-out Date | 4th Build-out Date |

Waivers/Conditions:

NONE

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §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. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

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Licensee Name: STRAIGHT PATH SPECTRUM, LLC

Call Sign: WRHG987

File Number:

Print Date:

700 MHz Relicensed Area Information:

| Market | Market Name | Buildout Deadline | Buildout Notification | Status |
|---------------|--------------------|--------------------------|------------------------------|---------------|
|---------------|--------------------|--------------------------|------------------------------|---------------|

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Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: STRAIGHT PATH SPECTRUM, LLC

ATTN: REGULATORY
STRAIGHT PATH SPECTRUM, LLC
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

| | |
|---|--------------------|
| Call Sign WRHG988 | File Number |
| Radio Service UU - Upper Microwave Flexible Use Service | |

FCC Registration Number (FRN): 0012576435

| | | | |
|-----------------------------------|-------------------------------------|--------------------------------------|---------------------------|
| Grant Date 06-04-2020 | Effective Date 06-04-2020 | Expiration Date 06-04-2030 | Print Date |
| Market Number PEA243 | Channel Block M4 | Sub-Market Designator 0 | |
| Market Name Paducah, KY | | | |
| 1st Build-out Date | 2nd Build-out Date | 3rd Build-out Date | 4th Build-out Date |

Waivers/Conditions:

NONE

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §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. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

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Licensee Name: STRAIGHT PATH SPECTRUM, LLC

Call Sign: WRHG988

File Number:

Print Date:

700 MHz Relicensed Area Information:

| Market | Market Name | Buildout Deadline | Buildout Notification | Status |
|---------------|--------------------|--------------------------|------------------------------|---------------|
|---------------|--------------------|--------------------------|------------------------------|---------------|

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Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: STRAIGHT PATH SPECTRUM, LLC

ATTN: REGULATORY
STRAIGHT PATH SPECTRUM, LLC
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

| | |
|---|--------------------|
| Call Sign WRHG989 | File Number |
| Radio Service UU - Upper Microwave Flexible Use Service | |

FCC Registration Number (FRN): 0012576435

| | | | |
|-----------------------------------|-------------------------------------|--------------------------------------|---------------------------|
| Grant Date 06-04-2020 | Effective Date 06-04-2020 | Expiration Date 06-04-2030 | Print Date |
| Market Number PEA243 | Channel Block M5 | Sub-Market Designator 0 | |
| Market Name Paducah, KY | | | |
| 1st Build-out Date | 2nd Build-out Date | 3rd Build-out Date | 4th Build-out Date |

Waivers/Conditions:

NONE

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §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. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

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Licensee Name: STRAIGHT PATH SPECTRUM, LLC

Call Sign: WRHG989

File Number:

Print Date:

700 MHz Relicensed Area Information:

| Market | Market Name | Buildout Deadline | Buildout Notification | Status |
|---------------|--------------------|--------------------------|------------------------------|---------------|
|---------------|--------------------|--------------------------|------------------------------|---------------|

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Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: STRAIGHT PATH SPECTRUM, LLC

ATTN: REGULATORY
STRAIGHT PATH SPECTRUM, LLC
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

Table with Call Sign (WRHG990), File Number, and Radio Service (UU - Upper Microwave Flexible Use Service).

FCC Registration Number (FRN): 0012576435

Table with columns: Grant Date, Effective Date, Expiration Date, Print Date, Market Number, Channel Block, Sub-Market Designator, Market Name, 1st Build-out Date, 2nd Build-out Date, 3rd Build-out Date, 4th Build-out Date.

Waivers/Conditions:

NONE

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §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.

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Licensee Name: STRAIGHT PATH SPECTRUM, LLC

Call Sign: WRHG990

File Number:

Print Date:

700 MHz Relicensed Area Information:

| Market | Market Name | Buildout Deadline | Buildout Notification | Status |
|---------------|--------------------|--------------------------|------------------------------|---------------|
|---------------|--------------------|--------------------------|------------------------------|---------------|

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Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: STRAIGHT PATH SPECTRUM, LLC

ATTN: REGULATORY
STRAIGHT PATH SPECTRUM, LLC
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

Table with Call Sign (WRHG991), File Number, and Radio Service (UU - Upper Microwave Flexible Use Service).

FCC Registration Number (FRN): 0012576435

Table with columns: Grant Date, Effective Date, Expiration Date, Print Date, Market Number, Channel Block, Sub-Market Designator, Market Name, 1st Build-out Date, 2nd Build-out Date, 3rd Build-out Date, 4th Build-out Date.

Waivers/Conditions:

NONE

Conditions:

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Licensee Name: STRAIGHT PATH SPECTRUM, LLC

Call Sign: WRHG991

File Number:

Print Date:

700 MHz Relicensed Area Information:

| Market | Market Name | Buildout Deadline | Buildout Notification | Status |
|---------------|--------------------|--------------------------|------------------------------|---------------|
|---------------|--------------------|--------------------------|------------------------------|---------------|

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Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: STRAIGHT PATH SPECTRUM, LLC

ATTN: REGULATORY
STRAIGHT PATH SPECTRUM, LLC
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

Table with Call Sign (WRHG992), File Number, and Radio Service (UU - Upper Microwave Flexible Use Service).

FCC Registration Number (FRN): 0012576435

Table with columns: Grant Date, Effective Date, Expiration Date, Print Date, Market Number, Channel Block, Sub-Market Designator, Market Name, 1st Build-out Date, 2nd Build-out Date, 3rd Build-out Date, 4th Build-out Date.

Waivers/Conditions:

NONE

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §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.

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Licensee Name: STRAIGHT PATH SPECTRUM, LLC

Call Sign: WRHG992

File Number:

Print Date:

700 MHz Relicensed Area Information:

| Market | Market Name | Buildout Deadline | Buildout Notification | Status |
|---------------|--------------------|--------------------------|------------------------------|---------------|
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RADIO STATION AUTHORIZATION

LICENSEE: STRAIGHT PATH SPECTRUM, LLC

ATTN: REGULATORY
STRAIGHT PATH SPECTRUM, LLC
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

| | |
|---|--------------------|
| Call Sign WRHG993 | File Number |
| Radio Service UU - Upper Microwave Flexible Use Service | |

FCC Registration Number (FRN): 0012576435

| | | | |
|-----------------------------------|-------------------------------------|--------------------------------------|---------------------------|
| Grant Date 06-04-2020 | Effective Date 06-04-2020 | Expiration Date 06-04-2030 | Print Date |
| Market Number PEA243 | Channel Block M9 | Sub-Market Designator 0 | |
| Market Name Paducah, KY | | | |
| 1st Build-out Date | 2nd Build-out Date | 3rd Build-out Date | 4th Build-out Date |

Waivers/Conditions:

NONE

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §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. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

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Licensee Name: STRAIGHT PATH SPECTRUM, LLC

Call Sign: WRHG993

File Number:

Print Date:

700 MHz Relicensed Area Information:

| Market | Market Name | Buildout Deadline | Buildout Notification | Status |
|---------------|--------------------|--------------------------|------------------------------|---------------|
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RADIO STATION AUTHORIZATION

LICENSEE: STRAIGHT PATH SPECTRUM, LLC

ATTN: REGULATORY
STRAIGHT PATH SPECTRUM, LLC
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

| | |
|---|--------------------|
| Call Sign WRHG994 | File Number |
| Radio Service UU - Upper Microwave Flexible Use Service | |

FCC Registration Number (FRN): 0012576435

| | | | |
|-----------------------------------|-------------------------------------|--------------------------------------|---------------------------|
| Grant Date 06-04-2020 | Effective Date 06-04-2020 | Expiration Date 06-04-2030 | Print Date |
| Market Number PEA243 | Channel Block N1 | Sub-Market Designator 0 | |
| Market Name Paducah, KY | | | |
| 1st Build-out Date | 2nd Build-out Date | 3rd Build-out Date | 4th Build-out Date |

Waivers/Conditions:

NONE

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §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. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

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Licensee Name: STRAIGHT PATH SPECTRUM, LLC

Call Sign: WRHG994

File Number:

Print Date:

700 MHz Relicensed Area Information:

| Market | Market Name | Buildout Deadline | Buildout Notification | Status |
|---------------|--------------------|--------------------------|------------------------------|---------------|
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Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: STRAIGHT PATH SPECTRUM, LLC

ATTN: REGULATORY
STRAIGHT PATH SPECTRUM, LLC
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

| | |
|---|--------------------|
| Call Sign WRHG995 | File Number |
| Radio Service UU - Upper Microwave Flexible Use Service | |

FCC Registration Number (FRN): 0012576435

| | | | |
|-----------------------------------|-------------------------------------|--------------------------------------|---------------------------|
| Grant Date 06-04-2020 | Effective Date 06-04-2020 | Expiration Date 06-04-2030 | Print Date |
| Market Number PEA243 | Channel Block N2 | Sub-Market Designator 0 | |
| Market Name Paducah, KY | | | |
| 1st Build-out Date | 2nd Build-out Date | 3rd Build-out Date | 4th Build-out Date |

Waivers/Conditions:

NONE

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §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. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

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Licensee Name: STRAIGHT PATH SPECTRUM, LLC

Call Sign: WRHG995

File Number:

Print Date:

700 MHz Relicensed Area Information:

| Market | Market Name | Buildout Deadline | Buildout Notification | Status |
|---------------|--------------------|--------------------------|------------------------------|---------------|
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Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: STRAIGHT PATH SPECTRUM, LLC

ATTN: REGULATORY
STRAIGHT PATH SPECTRUM, LLC
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

| | |
|---|--------------------|
| Call Sign WRHG996 | File Number |
| Radio Service UU - Upper Microwave Flexible Use Service | |

FCC Registration Number (FRN): 0012576435

| | | | |
|-----------------------------------|-------------------------------------|--------------------------------------|---------------------------|
| Grant Date 06-04-2020 | Effective Date 06-04-2020 | Expiration Date 06-04-2030 | Print Date |
| Market Number PEA243 | Channel Block N3 | Sub-Market Designator 0 | |
| Market Name Paducah, KY | | | |
| 1st Build-out Date | 2nd Build-out Date | 3rd Build-out Date | 4th Build-out Date |

Waivers/Conditions:

NONE

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §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. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

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Licensee Name: STRAIGHT PATH SPECTRUM, LLC

Call Sign: WRHG996

File Number:

Print Date:

700 MHz Relicensed Area Information:

| Market | Market Name | Buildout Deadline | Buildout Notification | Status |
|---------------|--------------------|--------------------------|------------------------------|---------------|
|---------------|--------------------|--------------------------|------------------------------|---------------|

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Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: STRAIGHT PATH SPECTRUM, LLC

ATTN: REGULATORY
STRAIGHT PATH SPECTRUM, LLC
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

| | |
|---|--------------------|
| Call Sign WRHG997 | File Number |
| Radio Service UU - Upper Microwave Flexible Use Service | |

FCC Registration Number (FRN): 0012576435

| | | | |
|-----------------------------------|-------------------------------------|--------------------------------------|---------------------------|
| Grant Date 06-04-2020 | Effective Date 06-04-2020 | Expiration Date 06-04-2030 | Print Date |
| Market Number PEA243 | Channel Block N4 | Sub-Market Designator 0 | |
| Market Name Paducah, KY | | | |
| 1st Build-out Date | 2nd Build-out Date | 3rd Build-out Date | 4th Build-out Date |

Waivers/Conditions:

NONE

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §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. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

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Licensee Name: STRAIGHT PATH SPECTRUM, LLC

Call Sign: WRHG997

File Number:

Print Date:

700 MHz Relicensed Area Information:

| Market | Market Name | Buildout Deadline | Buildout Notification | Status |
|---------------|--------------------|--------------------------|------------------------------|---------------|
|---------------|--------------------|--------------------------|------------------------------|---------------|

Reference Copy



750 PARK OF COMMERCE DRIVE
BOCA RATON, FL 33487

**NEW 300' SELF-SUPPORT TOWER
w/10' LIGHTNING ROD
TOTAL TOWER HEIGHT 310'**

| | |
|--|---|
| TOWER OWNER SITE EV OAK LEVEL SITE #: US-KY-5183 | POLICE MARSHALL COUNTY SHERIFF 202 W 5th ST BENTON, KY 42025 PHONE: 270-527-3112 |
| VERIZON WIRELESS SITE EV OAK LEVEL FUZE ID: 16984936 MARKET ID: EV MOF#: 5000917935 | FIRE SYMSONIA FIRE DEPT. 467 KY-348 E SYMSONIA, KY 42082 PHONE: 270-851-3800 |
| SITE ADDRESS 6145 SYMSONIA HWY SYMSONIA, KY 42025 MARSHALL COUNTY E911 ADDRESS: T80 | GENERAL INFORMATION LATITUDE - 36° 53' 57.87" N LONGITUDE - 88° 27' 53.08" W 1983 (NAD83) ELEVATION - 489.5' AMSL 1988 (NAV88) |
| TOWER OWNER VERTICAL BRIDGE (THE TOWERS, LLC) 750 PARK OF COMMERCE DRIVE BOCA RATON, FL 33487 PHONE: 704-472-0374 MOBILE: N/A E-MAIL: GRETCHEN.BLANTON@verticalbridge.com | TOWER OWNER LEASE AREA 100'-0" x 100'-0" (10000 SF) |
| PROPERTY OWNER TOBBY & STACEY HAINES 6145 SYMSONIA HWY SYMSONIA, KY 42025 CONTACT: TOBBY HAINES PHONE: 618-918-0276 E-MAIL: N/A | VERIZON WIRELESS LEASE AREA 12'-0" x 41'-8" (500 SF) |
| PROJECT SUMMARY PROJECT TOTAL DISTURBED AREA 6145 SYMSONIA HWY SYMSONIA, KY 42025 ACCESS DRIVE: (4990 SF) = (0.115 ACRE) PHONE: 618-918-0276 E-MAIL: N/A | PROJECT TOTAL DISTURBED AREA COMPOUND: (10000 SF) = (0.23 ACRE) ACCESS DRIVE: (4990 SF) = (0.115 ACRE) GROSS AREA: (23059 SF) = (0.53 ACRE) |



EV OAK LEVEL

SITE #: US-KY-5183

6145 SYMSONIA HWY
SYMSONIA, KY 42025
MARSHALL COUNTY

TENANT: LEGAL BUSINESS ENTITY d/b/a VERIZON WIRELESS
FUZE ID: 16984936

FROM EVANSVILLE MTSO: 800 RUSSELL ROAD CHANDLER, IN 47610: HEAD WEST ON RUSSELL RD (0.3 MI.). TURN LEFT ONTO GARDNER RD (1.6 MI.). TURN LEFT ONTO IN-62 (4.2 MI.)> TAKE RAMP ON RIGHT ONTO I-69 S (0.3 MI.). MERGE ONTO I-69 S (8.1 MI.). TAKE EXIT 0 FOR US-41 AND KEEP LEFT (1.0 MI.). MERGE ONTO US-41 S (6.1 MI.). KEEP LEFT TO SAY ON US-41 S (4.3 MI.). CONTINUE ON I-69 S (80.2 MI.). TAKE EXIT 68B TO MERGE ONTO N-24 W (16.2 MI.). USE LEFT 2 LANES TO TAKE EXIT 25A FOR I-69 S (0.9 MI.). MERGE ONTO I-69 (8.0 MI.). TAKE EXIT 43 TO KY-348 W (0.4 MI.). TURN RIGHT ONTO KY-348 W (6 MI.). SITE WILL BE ON THE LEFT.

FROM MARSHALL COUNTY COURT HOUSE: 80 JUDICIAL DR, BENTON, KY 42025: HEAD N ON POPLAR ST (0.5 MI.). TURN LEFT ONTO KY-348 W (0.7 MI.). SITE WILL BE ON THE LEFT.

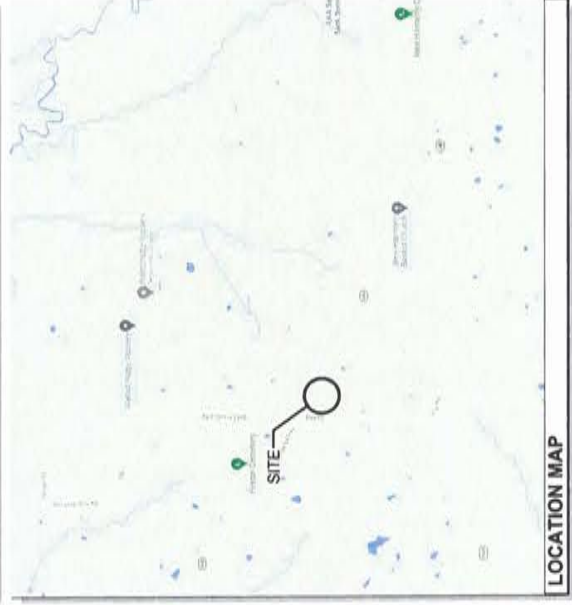
PROJECT DESCRIPTION:
NOTE: ALL ITEMS WITHIN THESE CONSTRUCTION DOCUMENTS ARE BY TOWER OWNER'S GENERAL CONTRACTOR AND HIS SUB-CONTRACTORS UNLESS NOTED AS (VZW GC) WHICH SHALL INCLUDE VERIZON WIRELESS GENERAL CONTRACTOR AND HIS SUB-CONTRACTORS. GENERALLY DESCRIBED BELOW:

TOWER OWNER SCOPE:

- INSTALL A NEW 300' TOWER w/ 10' LIGHTNING ROD (TOTAL 310')
- INSTALL A NEW TOWER FOUNDATION SYSTEM
- REMOVE EXISTING TOWER FOUNDATION
- INSTALL A NEW ELECTRICAL SERVICE FROM SITE UTILITY H-FRAME
- INSTALL A NEW GRAVEL ACCESS DRIVE
- NO WATER OR SEWAGE SERVICES RUN TO SITE
- INSTALL NEW TOWER & SITE GROUNDING SYSTEM
- INSTALL NEW VZW SUBSURFACE GROUNDING SYSTEM
- INSTALL A NEW VZW CONCRETE GENERATOR PAD
- INSTALL ELECTRICAL SERVICE CONDUIT WITH PULL TAPES FROM ILC ENCLOSURE STUB-UP TO UTILITY H-FRAME
- INSTALL NEW CONDUITS WITH PULL TAPES FROM VZW ILC STUB-UP LOCATION TO THE GENERATOR STUB-UP AT VZW GENERATOR PAD
- INSTALL NEW CONDUITS WITH PULL TAPES FROM VZW ILC STUB-UP LOCATION TO (E) 1-1/4" INHEDUCTS WITH PULL TAPES AND TRACER WIRE FROM VZW EQUIPMENT TO NEW VERIZON WIRELESS ILC AT 24'x36' HOLE AND HOLE COUSE R.O.W. ON NEW VERIZON WIRELESS ONLY 24'x36' HOLE AT
- PERMANENT ELECTRIC POWER MUST BE AVAILABLE FOR VERIZON WIRELESS AT THE METER BASE PRIOR TO THE SITE BEING RELEASED AS TENANT READY

VERIZON WIRELESS SCOPE (VZW GC):

- INSTALL VZW PREFABRICATED CANOPY AND FOUNDATIONS
- INSTALL VZW ICE BRIDGE AND FOUNDATIONS
- INSTALL VZW EQUIPMENT H-FRAME AND FOUNDATIONS
- INSTALL VZW ANTENNA MOUNTING SUPPORT STRUCTURE ON TOWER
- INSTALL VZW ANTENNAS, LINES, COAX, GPS ANTENNA AND RADIO EQUIPMENT
- INSTALL VZW ELECTRICAL SERVICE CONDUITS FROM UTILITY H-FRAME TO VZW ILC ENCLOSURE
- INSTALL NEW CONDUITS WITH PULL TAPES FROM RF CABINET TO OVP H-FRAME LIT FIBER LOCATION
- INSTALL NEW CONDUITS AND CIRCUITS FROM VZW ILC ENCLOSURE TO EQUIPMENT ENCLOSURE
- INSTALL VZW GENERATOR CIRCUITS FROM VZW ILC & EQUIPMENT ENCLOSURES TO VZW GENERATOR
- INSTALL NEW OUTDOOR OVPs AND CABLEING ON VERIZON EQUIPMENT H-FRAME



APPLICABLE CODES

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

BUILDING CODE 2018 KENTUCKY BUILDING CODE (IBC 2015)
STRUCTURAL CODE TIA/EA-222 - REVISION G (INCLUDES ADDENDUM #2)
MECHANICAL CODE 2015 INTERNATIONAL MECHANICAL CODE (IMC 2015)
PLUMBING CODE KENTUCKY STATE PLUMBING CODE (815 KAR CHAP. 20)
ELECTRICAL CODE 2017 NATIONAL ELECTRICAL CODE (NEC) - NFPA 70
FIRE/LIFE SAFETY CODE 2015 INTERNATIONAL FIRE CODE (2015 IFC)
ENERGY CODE 2012 INTERNATIONAL ENERGY CODE (COMMERCIAL)
GAS CODE 2012 NATIONAL FUEL GAS CODE (NFPA 54)

ACCESSIBILITY REQUIREMENTS:
FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS REQUIREMENTS ARE NOT REQUIRED IN ACCORDANCE WITH THE 2015 IBC BUILDING CODE.

ARCHITECTURAL
BOWMAN
161 MARTIN RD, BON AQUA, TN 37025
PHONE: 615-513-0032
EMAIL: SHARNDAL@BELLSOUTH.NET

ELECTRICAL
WESTERN KENTUCKY RECC
ADDRESS: 1767 MARFIELD HWY
BENTON, KY 42025
PHONE: 270-705-1285
EMAIL: mjones@wkrecc.com



| SHEET NUMBER | DESCRIPTION |
|--------------|--|
| T-1 | PROJECT INFORMATION, SITE MAPS, SHEET INDEX |
| C-1 | OVERALL SITE PLAN w/ NORMAL OVERLAY LINES |
| C-1A | OVERALL SITE PLAN w/ PLATFORM DISTANCE TO PROPERTY LINES |
| C-1B | TOWER DISTANCE TO RESIDENTIAL STRUCTURES |
| C-1C | COUNTY TOWER MAP |
| C-2 | GRADING AND EAS CONTROL PLAN |
| C-3 | DETAILED SITE PLAN |
| C-4 | DIMENSIONED SITE PLAN |
| C-5 | DETAILED EQUIPMENT PAD PLAN |
| D-1 | FENCE DETAILS AND NOTES |

| ISSUED FOR: | REVIEW | PERMIT | CONSTRUCTION | RECORD |
|---|--------|--------|--------------|--------|
| PROJECT INFORMATION, SITE MAPS, SHEET INDEX | - | - | - | - |

| | |
|-----------------|-----|
| PROJECT MANAGER | JTL |
| DESIGNER | JTL |

JOB NUMBER
240764-01-001

Bowman
CONSULTING ENGINEERS
LANDSCAPE ARCHITECTS, PLANNERS AND SURVEYORS

2001 TAYLOR SPRINGS DRIVE
LOUISVILLE, KENTUCKY 40225
PHONE: (502) 459-8402
FAX: (502) 459-8427

verticalbridge

750 PARK OF COMMERCE DRIVE
BOCA RATON, FL 33487
PHONE: (561) 946-4387

| REV | DATE | DESCRIPTION |
|-----|----------|------------------|
| 0 | 11/28/23 | ISSUE FOR ZONING |
| 1 | 01/05/24 | ISSUE FOR ZONING |



EV OAK LEVEL
6145 SYMSONIA HWY
SYMSONIA, KY 42025

PROJECT INFORMATION,
SITE MAPS, SHEET INDEX

STATE OF KENTUCKY
JEFFREY LASHBROOK
35042
PROFESSIONAL ENGINEER
01/05/2024

ISSUED FOR:
PROJECT INFORMATION,
SITE MAPS, SHEET INDEX

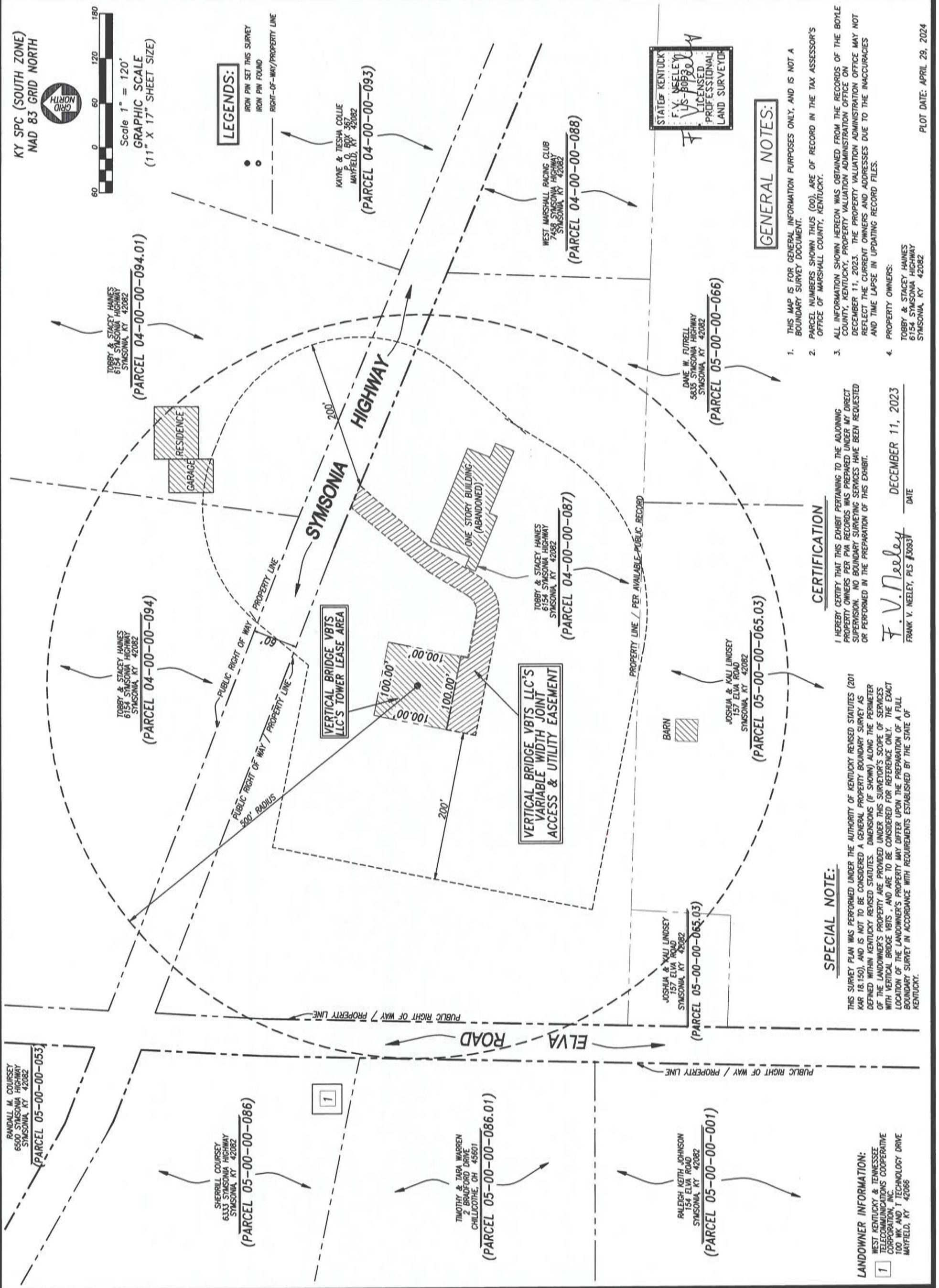
REVIEW
PERMIT
CONSTRUCTION
RECORD

PROJECT MANAGER: JTL
DESIGNER: JTL

JOB NUMBER: 240764-01-001

T-1

MR. PHO & COMPANY REV 3 FINAL 10/16/23



KY SPC (SOUTH ZONE)
NAD 83 GRID NORTH

Scale 1" = 60'
GRAPHIC SCALE
(11" X 17" SHEET SIZE)

GPS SURVEY CERTIFICATION:

1. THIS SURVEY WAS PERFORMED USING RTK POSTIONAL DATA.
2. EQUIPMENT USED WAS A SOKKIA GRC3, DUAL FREQUENCY, BASE SERIAL # 1467-10565, ROVER SERIAL # 1467-10560.
3. THE GRID COORDINATES OF THE FIXED STATION(S) SHOWN WERE DERIVED USING A VRS NETWORK OF THE CORPS STATIONS REFERENCING NAD 83 (2011), (EPOCH 2010), GEOD 12B.
4. THE RELATIVE POSITIONAL ACCURACY OF THE GPS VECTORS DOES NOT EXCEED 0.17" & 0.01" V.
5. BEARINGS ARE RELATIVE TO KENTUCKY (SOUTH ZONE) STATE PLANE. ALL REFERENCES TO GRID BEARINGS AND KENTUCKY (SOUTH ZONE) STATE PLANE COORDINATES AS INDICATED ARE UNADJUSTED, NAD 83 SURVEY FEET, WITH CONVERGENCE ANGLE OF -0.87927222 DEGREES, A SCALE FACTOR OF 0.999898967 DEGREES, AND A COMBINED FACTOR OF 0.99979061 DEGREES.

FLOOD HAZARD STATEMENT:
THIS COMMUNICATIONS SITE (THE SUBJECT SITE AS SHOWN) IS NOT LOCATED WITHIN THE LIMITS OF A DESIGNATED 100 YEAR FLOOD ZONE PER FEMA/FIRM MAP COMMUNITY PANEL NUMBER 21157C 00075 E, MARSHALL COUNTY, KENTUCKY, EFFECTIVE DATE JUNE 2, 2011.

PROJECT BENCHMARK
PROJECT BENCHMARK ELEVATION DATUM IS BASED UPON GPS SURVEY METHODS AND PROCEDURES.
TOP OF SURVEY NAIL IN PAVEMENT SET THIS SURVEY ELEVATION = 492.63' N.A.V.D. 88
(SEE PLAN FOR LOCATION)

SPECIAL NOTE:
THIS SURVEY PLAN WAS PERFORMED UNDER THE AUTHORITY OF KENTUCKY REVISED STATUTES (201 KAR 18.150) AND IS NOT TO BE CONSIDERED A GENERAL PROPERTY BOUNDARY SURVEY AS DEFINED WITHIN KENTUCKY REVISED STATUTES (DIMENSIONS (IF SHOWN) ALONG THE PERIMETER OF THE LANDOWNER'S PROPERTY ARE PROVIDED UNDER THIS SURVEY'S SCOPE OF SERVICES BY SPA THOMPSON & LLC AND ARE TO BE CONSIDERED FOR REFERENCE ONLY. THE EXACT LOCATION OF A FULL BOUNDARY SURVEY MAY DIFFER UPON THE PREPARATION OF A FULL BOUNDARY SURVEY IN ACCORDANCE WITH REQUIREMENTS ESTABLISHED BY THE STATE OF KENTUCKY.

LEGENDS:

- IRON PIN SET THIS SURVEY
- IRON PIN FOUND
- RIGHT-OF-WAY/PROPERTY LINE
- INDEX CONTOURS
- 560
- 1' INTERVAL
- OHE & T
- OVERHEAD ELECTRIC & TELEPHONE LINES
- OHE
- OVERHEAD ELECTRIC
- FENCELINE

CENTERLINE OF PROPOSED TOWER LEASE AREA
LATITUDE = 36° 53' 57.87"
LONGITUDE = 88° 27' 53.09"
ELEVATION = 489.50' N.A.V.D. 88

POINT OF BEGINNING
VERTICAL BRIDGE VBTS LLC'S TOWER LEASE AREA
KY SPC (SOUTH ZONE)
NAD 83 GRID COORDINATE
NORTH 1,658,011.02
EAST 846,949.31

POINT OF BEGINNING
VERTICAL BRIDGE VBTS LLC'S TOWER LEASE AREA
KY SPC (SOUTH ZONE)
NAD 83 GRID COORDINATE
NORTH 1,857,797.90
EAST 846,669.46



UNDERGROUND UTILITIES
CALL 2 WORKING DAYS
BEFORE YOU DIG
KENTUCKY 1-800-752-6007
UTILITIES PROTECTION SERVICE
NON-MEMBERS MUST CALL DIRECTLY

UTILITY NOTE:
THIS SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES ABOVE GRADE AND UNDERGROUND UTILITIES SHOWN WERE TAKEN FROM VISIBLE APPURTENANCES AT THE SITE. PUBLIC RECORDS AND/OR MAPS PREPARED BY OTHERS. THE SURVEYOR MAKES NO GUARANTEE 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 ARE IN THE EXACT LOCATION INDICATED. THEREFORE, RELIANCE UPON THE TYPE, SIZE AND LOCATION OF UTILITIES SHOWN SHOULD BE DONE SO WITH THIS CIRCUMSTANCE CONSIDERED. DETAILED VERIFICATION OF EXISTENCE, LOCATION AND DEPTH SHOULD ALSO BE MADE PRIOR TO ANY DECISION RELATIVE THERETO. IS MADE. AVAILABILITY AND COST OF SERVICE SHOULD BE CONFIRMED WITH THE APPROPRIATE UTILITY COMPANY.

PERIMETER DATA - VERTICAL BRIDGE VBTS LLC'S VARIABLE WIDTH JOINT ACCESS & UTILITY EASEMENT

| NO. | DELTA/BEARING | RADIUS | LENGTH | TAN | CHORD |
|-----|-----------------|--------|--------|--------|------------------------|
| 1 | S 67° 34' 25" E | — | 31.97' | — | — |
| 2 | 69° 47' 03" | 55.00' | 66.99' | 38.36' | S 66° 18' 44" W/62.92' |
| 3 | 69° 47' 03" | 35.00' | 30.45' | 17.44' | N 66° 18' 44" E/28.60' |
| 4 | S 11° 12' 16" W | — | 10.00' | — | — |

GENERAL NOTES:

1. I HEREBY CERTIFY THAT THE SURVEY DEPICTED BY THIS PLAT WAS PREPARED BY PERSONS UNDER MY DIRECT SUPERVISION BY THE METHOD OF RANDOM TRAVERSE WITH SIGHT SHOTS. THE UNADJUSTED PRECISION OF THE TRAVERSE RATIO WAS 1:23,220, AND WAS NOT ADJUSTED. THE SURVEY AS SHOWN HEREON IS AN URBAN SURVEY, AND THE ACCURACY AND PRECISION OF SAID SURVEY MEETS ALL THE SPECIFICATIONS OF THIS CLASS.
2. TOPOGRAPHIC ELEVATIONS SHOWN WERE DERIVED FROM GRID CROSS-SECTIONS, USING A LEVELING STATION FOR POSITIONAL AND VERTICAL CONTROL. ALL DISTANCES MEASURED HAVE BEEN ADJUSTED FOR TEMPERATURE.
3. DATE: OCTOBER 30, 2023
4. PARCEL NUMBERS SHOWN THUS (00), REFER TO TAX MAP NO. 60, OF THE PROPERTY VALUATION OFFICE OF MARSHALL COUNTY, KENTUCKY.
5. BEARINGS SHOWN ARE REFERENCED FROM GLOBALLY POSITIONED SATELLITE MONUMENTS AS ESTABLISHED FOR THIS SURVEY.
6. PROPERTY OWNER:
CUNDIFF FARMS
P. O. BOX 506
CAOZ, KY 42211
7. IRON PINS SET ARE 18" MINIMUM LENGTH REINFORCING STEEL BARS WITH A PLASTIC CAPPED EMBOSSED "KY PLS #3093", UNLESS ROCK OR OTHER LIKE MATERIAL IS ENCOUNTERED.
8. DATE OF FIELD SURVEY: WEDNESDAY, OCTOBER 4, 2023.
9. NOT VALID WITHOUT THE ORIGINAL SIGNATURE OF THE PROFESSIONAL LICENSED SURVEYOR.

F. V. Nolley
FRANK V. NOLLEY, P.L.S., 29831
DATE: OCTOBER 30, 2023

STATE OF KENTUCKY
F. V. NOLLEY
P.L.S. #00930
LICENSED PROFESSIONAL LAND SURVEYOR

PROPERTY LINE / PER AVAILABLE PUBLIC RECORD
TOSBY & STACEY HAINES
(DEED BOOK 371, PAGE 259)
(PARCEL 04-00-00-087)

JOSHUA & KALIA LINDSEY
(DEED BOOK 486, PAGE 546)
(PARCEL 05-00-00-065)

WEST MARSHALL RIDING CLUB
(DEED BOOK 140, PAGE 279)
(PARCEL 04-00-00-088)

**VERTICAL BRIDGE VBTS LLC'S
TOWER LEASE AREA DESCRIPTION**

Beginning at a capped "Sharondale Nashville" iron pin set at the northwest corner of Vertical Bridge VBTS LLC's tower lease area located at Kentucky State Plane (South Zone) NMD 83 Grid Coordinate North 1,857,979.90, East 846,669.46, said iron pin being South 53 degrees 24 minutes 41 seconds East, 495.83 feet from the point of intersection of the south margin of Symsonia Highway with the east margin of Elva Road;

Thence, South 78 degrees 47 minutes 44 seconds East, 100.00 feet to a capped "XY PLS #3093" iron pin set at the northeast corner of Vertical Bridge VBTS LLC's tower lease area ;

Thence, South 11 degrees 12 minutes 16 seconds West, 100.00 feet to a capped "XY PLS #3093" iron pin set at the northwest corner of Vertical Bridge VBTS LLC's tower lease area;

Thence, North 78 degrees 47 minutes 44 seconds West, 100.00 feet to a capped "XY PLS # 3093" iron pin set at the northeast corner of Vertical Bridge VBTS LLC's tower lease area;

Thence, North 11 degrees 12 minutes 16 seconds East, 100.00 feet to the point of beginning, containing 10,000 square feet, (0.230 acres).

Being a portion of the property conveyed to Tabby J. Haines and wife, Stacey M. Haines, of record in Deed Book 371, Page 299, of the Court Clerk's Office of Marshall County, Kentucky.

**VERTICAL BRIDGE VBTS LLC'S VARIABLE WIDTH
JOINT ACCESS & UTILITY EASEMENT AREA DESCRIPTION**

Being a variable width joint access and utility easement extending from the south margin of Symsonia Highway to the south margin of Vertical Bridge VBTS LLC's tower lease area, being more particularly described as follows:

Beginning at a capped "Sharondale Nashville" iron pin set in the south margin of Symsonia Highway located at Kentucky State Plane (South Zone) NMD 83 Grid Coordinate North 1,858,011.02, East 846,549.31, said iron pin being South 68 degrees 41 minutes 26 seconds East, 727.81 feet from the point of intersection of the south margin of Symsonia Highway with the east margin of Elva Road;

Thence, with the south margin of Symsonia Highway, South 67 degrees 34 minutes 25 seconds East, 31.97 feet to a capped "Sharondale Nashville" iron pin set;

Thence, leaving the south margin of Symsonia Highway, South 41 degrees 24 minutes 32 seconds West, 122.79 feet to a point;

Thence, South 31 degrees 25 minutes 12 seconds West, 81.59 feet to a point;

Thence, along a curve to the right with a central angle of 69 degrees 47 minutes 03 seconds, a radius of 55.00 feet, and a chord bearing of South 66 degrees 18 minutes 44 seconds West, 62.92 feet, a total distance of 66.99 feet to a point;

Thence, North 78 degrees 47 minutes 44 seconds West, 158.25 feet to a point;

Thence, North 11 degrees 12 minutes 16 seconds East, 40.00 feet to a capped "Sharondale Nashville" iron pin set at the southwest corner of Vertical Bridge VBTS LLC's tower lease area;

Thence, with the south margin of Vertical Bridge VBTS LLC's tower lease area, South 78 degrees 47 minutes 44 seconds East, 100.00 feet to a capped "Sharondale Nashville" iron pin set at the southeast corner of Vertical Bridge VBTS LLC's tower lease area;

Thence, leaving the south margin of Vertical Bridge VBTS LLC's tower lease area; South 11 degrees 12 minutes 16 seconds West, 10.00 feet to a point;

Thence, South 78 degrees 47 minutes 44 seconds East, 58.25 feet to a point;

Thence, along a curve to the left with a central angle of 69 degrees 47 minutes 03 seconds, a radius of 25.00 feet, and a chord bearing of North 66 degrees 18 minutes 44 seconds East, 28.60 feet, a total distance of 30.45 feet to a point;

Thence, North 31 degrees 25 minutes 12 seconds East, 62.07 feet to a point;

Thence, North 39 degrees 42 minutes 10 seconds East, 136.88 feet to the point of beginning, containing 13,060 square feet, (0.300 acres).

Being a portion of the property conveyed to Tabby J. Haines and wife, Stacey M. Haines, of record in Deed Book 371, Page 299, of the Court Clerk's Office of Marshall County, Kentucky.

UNDERLYING LANDOWNER'S PROPERTY AREA DESCRIPTION

The following land lying in Marshall County, Kentucky, to-wit:

A tract of land located on the South side of the Benton-Symsonia Road and more particularly described as beginning at a concrete marker in the Southern right-of-way which is the Northwest corner of the West Marshall Riding Club property and the Northeast corner of the Tract herein conveyed; thence, North 73 degrees 10' West approximately 310 feet along the Southern edge of the Benton-Symsonia Road to an iron pipe; thence continuing along the Southern right-of-way a distance approximately 205 feet to an existing fence; thence, South with the fence a distance of approximately 350 feet to a fence located in the South boundary of the parent tract; thence, South 88 degrees 39' East a distance of approximately 500 feet to a point which is the Southwest corner of the West Marshall Riding Club property; thence, in a Northerly direction marking an interior angle of 90 degrees 31.2 feet to the concrete marker which is the point of beginning.

Parcel ID: 04-00-00-087. (Account # 801440)

This being the same property conveyed to Tabby J. Haines and wife, Stacey M. Haines, jointly and equally, with title vested in survivor of this union from Home Care Management, Inc., in a deed dated November 7, 2006 and recorded November 21, 2006 in Book 371, and Page 299.

**SURVEYOR'S REVIEW OF
"SPECIAL EXCEPTIONS"**

NOTES CORRESPONDING TO TOWER TITLE & CLOSING COMPANY'S "TITLE COMMITMENT" - COMMITMENT NO. VTB-148967-C, ISSUED MARCH 6, 2023. EXCEPTION NUMBERS ONE THROUGH NINE ARE NOT THE TYPE OF EXCEPTIONS TO BE SHOWN UPON THE FACE OF THIS SURVEY.

PERMANENT UTILITY EASEMENT BETWEEN TOBBY HAINES AND WIFE, STACEY HAINES, AND THE CITY OF BENTON, KENTUCKY; A MUNICIPAL CORPORATION, OF RECORD IN BOOK 500, PAGE 370, INSTRUMENT 1091907, OF THE COURT CLERK'S OFFICE OF MARSHALL COUNTY, KENTUCKY, IS APPLICABLE TO, BUT DOES NOT ADVERSELY AFFECT, VERTICAL BRIDGE VBTS LLC'S VARIABLE WIDTH JOINT ACCESS AND UTILITY EASEMENT AREA.

SURVEYOR'S STATEMENTS:

I hereby certify to: Vertical Bridge REIT, LLC, a Delaware limited liability company, its subsidiaries, and their respective successors and/or assigns, and (i) Toronto Dominion (Texas) LLC, as Administrative Agent, for itself and on behalf of the lenders parties from time to time to that certain Second Amended And Restated Loan Agreement dated June 17, 2016 with Vertical Bridge Holdco, LLC, as borrower, and Vertical Bridge Holdco Parent, LLC, as parent, as may be amended, modified or renewed their successors and assigns as their interests may appear, and Tower Title, LLC, that (i) the Vertical Bridge VBTS LLC Access and Utility Easement run to a confirmed public R.O.W., (ii) Vertical Bridge VBTS LLC's tower lease and easement areas lie entirely within the Parent Parcel(s), (iii) at the time of this survey, there were no encroachments affecting the Vertical Bridge VBTS LLC's Tower Lease or Vertical Bridge VBTS LLC Easement Areas.

F.V. Neeley
Frank V. Neeley, Registered Land Surveyor
State of Kentucky PLS # 3093.



SHARONDALE SURVEYING INC.
161 MARTIN ROAD
BON AQUA, TN 37025
(615) 513-0032
E-Mail: Shmrd@bellsouth.net

VERTICAL BRIDGE REIT LLC SITE SURVEY: KENTUCKY
"EV OAK LEVEL" TOWER SITE
LOCATED IN: MARSHALL COUNTY, KENTUCKY
TOWER LEASE AREA SURVEY
PREPARED FOR: VERTICAL BRIDGE REIT LLC
VERTICAL BRIDGE REIT LLC SITE NUMBER: US-KY-5183

SHEET NUMBER:
2 OF 2
PROJECT NUMBER:
223.095.20

| REV | DATE | DESCRIPTION |
|-----|----------|------------------|
| 0 | 11/28/23 | ISSUE FOR ZONING |
| 1 | 01/05/24 | ISSUE FOR ZONING |



EV OAK LEVEL
6145 SYMSONIA HWY
SYMSONIA, KY 42025

OVERALL SITE PLAN W/
AERIAL OVERLAY

| ISSUED FOR: | REVIEW | PERMIT | CONSTRUCTION | RECORD |
|-------------|--------|--------|--------------|--------|
| | - | - | - | - |

| PROJECT MANAGER | DESIGNER |
|-----------------|----------|
| JTL | JTL |

JOB NUMBER
240764-01-001

C-1



**OVERALL SITE PLAN
W/ AERIAL OVERLAY**

SCALE: 1" = 80'



Kentucky 811
Call before you dig.
1-800-752-6007
FOR KENTUCKY STATE LAW, IT IS AGAINST THE LAW TO EXCAVATE WITHOUT NOTIFYING THE WORKING DAYS BEFORE COMMENCING WORK.

| REV | DATE | DESCRIPTION |
|-----|----------|------------------|
| 0 | 11/28/23 | ISSUE FOR ZONING |
| 1 | 01/05/24 | ISSUE FOR ZONING |



EV OAK LEVEL
6145 SYMSONIA HWY
SYMSONIA, KY 42025
OVERALL SITE PLAN W/
PLATFORM DISTANCE TO
PROPERTY LINES

| ISSUED FOR | REVIEW | PERMIT | CONSTRUCTION | RECORD |
|------------|--------|--------|--------------|--------|
| | - | - | - | - |

| PROJECT MANAGER | DESIGNER |
|-----------------|----------|
| JTL | JTL |

JOB NUMBER
240764-01-001

C-1A
MR. PRO & COMPANY REV 3 FINAL 10/16/23



OVERALL SITE PLAN W/TOWER DISTANCE TO PROPERTY LINES
SCALE: 1" = 80'
NORTH

Kentucky 811
Know what's below.
Call before you dig.
Call before you dig.
1-800-752-6007
PER KENTUCKY STATE LAW, IT IS AGAINST THE LAW TO EXCAVATE WITHOUT NOTIFYING THE APPROPRIATE AGENCIES AT LEAST 48 HOURS BEFORE COMMENCING WORK.

| REV | DATE | DESCRIPTION |
|-----|----------|------------------|
| 0 | 11/28/23 | ISSUE FOR ZONING |
| 1 | 01/05/24 | ISSUE FOR ZONING |

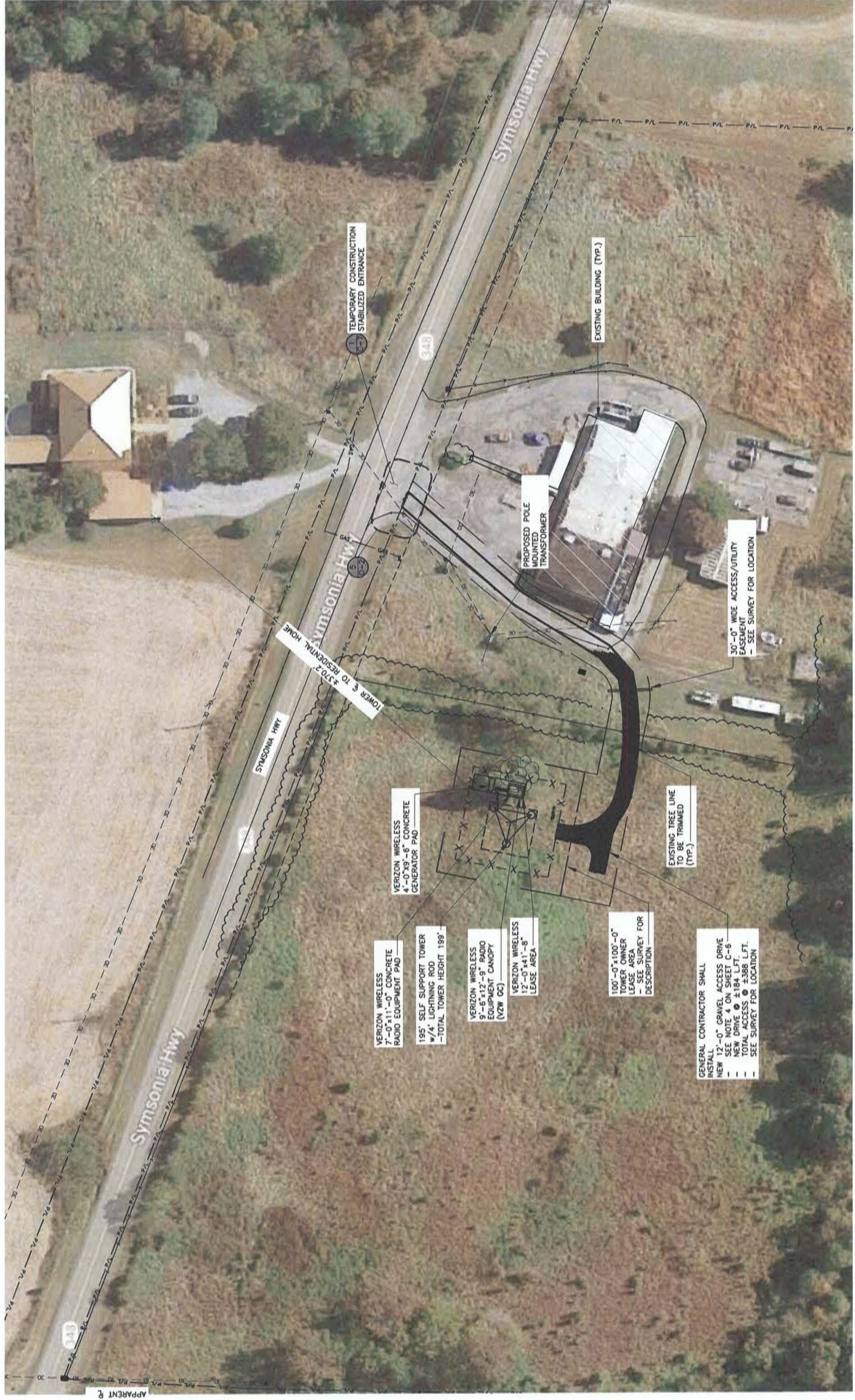


EV OAK LEVEL
6145 SYMSONIA HWY
SYMSONIA, KY 42025
TOWER DISTANCE TO
RESIDENTIAL STRUCTURES

| ISSUED FOR: | REVIEW | PERMIT | CONSTRUCTION | RECORD |
|-------------|--------|--------|--------------|--------|
| | - | - | - | - |

| PROJECT MANAGER | DESIGNER |
|-----------------|----------|
| JTL | JTL |

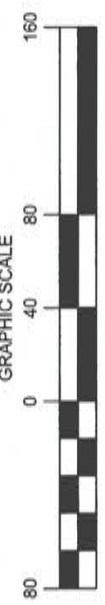
JOB NUMBER
240764-01-001
C-1B
INK PLO & CHECK REV 3 FINAL 10/16/23



Kentucky 811
Call before you dig - 7 am to 5 pm
1-800-752-6007
FOR ANY SITE USE, IT IS ADVISORY TO CALL 811 TO LOCATE ALL UNDERGROUND UTILITIES BEFORE ANY WORKING BEGINS.

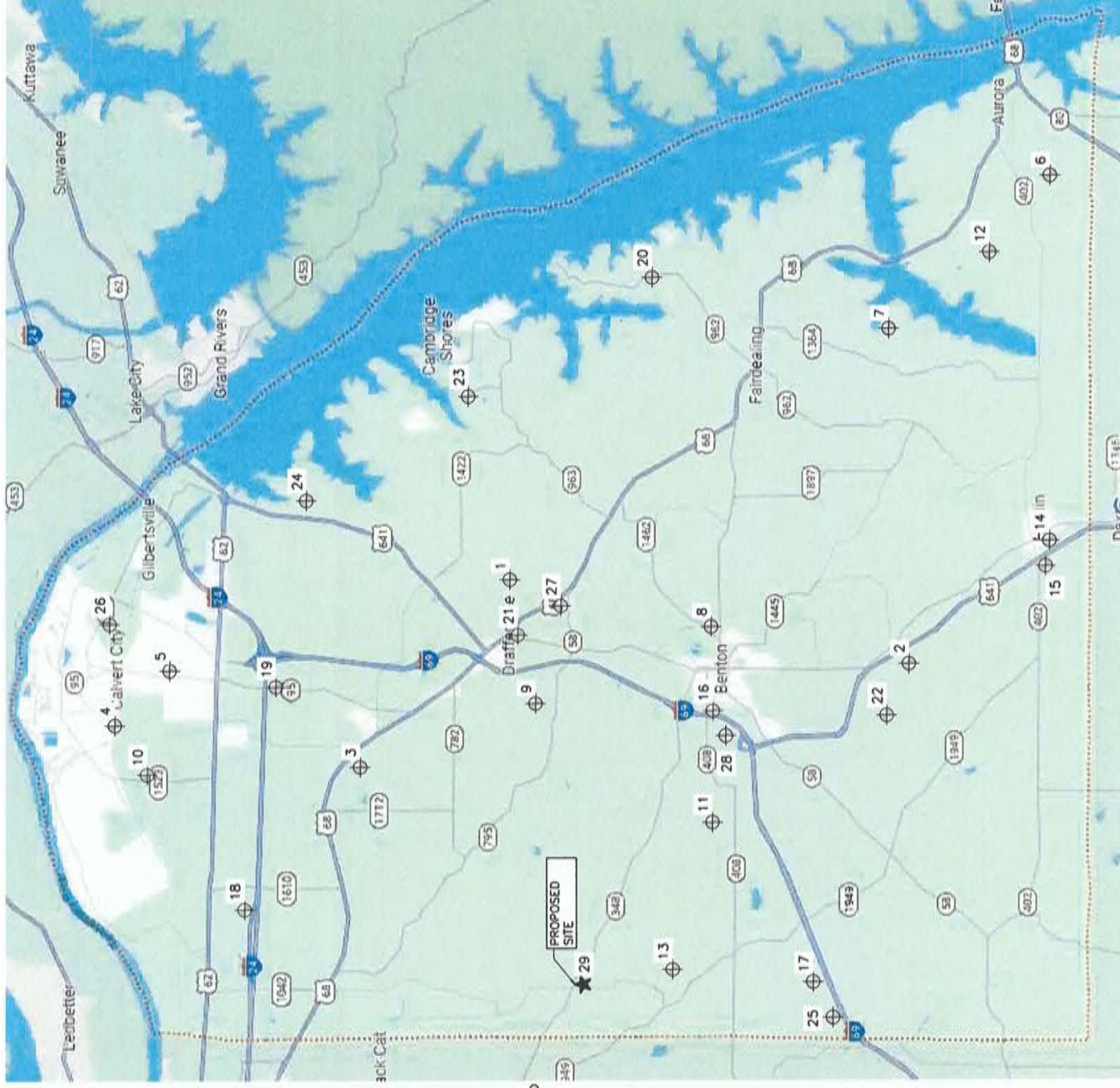


**TOWER DISTANCE TO
RESIDENTIAL STRUCTURES**
SCALE: 1" = 80'



**FCC REGISTERED SITES
(MARSHALL COUNTY)**

| TOWER | ASR | LATITUDE | LONGITUDE | TOWER_OWNER |
|-------|---------|------------------|------------------|--|
| 1 | 1030666 | 36° 54' 58.8" N | 88° 18' 48.9" W | Crown Castle GT Company, LLC |
| 2 | 1038664 | 36° 47' 53.0" N | 88° 20' 50.0" W | Jack Dunnigan |
| 3 | 1039662 | 36° 57' 47.0" N | 88° 23' 06.0" W | Texas Gas Transmission, LLC |
| 4 | 1040303 | 37° 02' 00.0" N | 88° 22' 10.0" W | Pinnacle Towers LLC |
| 5 | 1041840 | 37° 01' 05.0" N | 88° 21' 7.0" W | Calvert City, KY |
| 6 | 1043411 | 36° 45' 30.7" N | 88° 10' 11.4" W | Crown Castle South LLC |
| 7 | 1044649 | 36° 48' 31.0" N | 88° 13' 26.0" W | Heartland Ministries Inc WVHM |
| 8 | 1044669 | 36° 51' 31.0" N | 88° 20' 11.0" W | Purchase Broadcasting Company WCBL |
| 9 | 1052496 | 36° 54' 37.7" N | 88° 21' 25.3" W | Crown Castle South LLC |
| 10 | 1053410 | 37° 01' 26.0" N | 88° 23' 24.0" W | Withers Broadcasting Company of Paducah, LLC |
| 11 | 1058357 | 36° 45' 58.3" N | 88° 26' 33.6" W | Kentucky RSA No.1 Partnership |
| 12 | 1200973 | 36° 46' 33.9" N | 88° 11' 35.7" W | Kentucky RSA No.1 Partnership |
| 13 | 1201214 | 36° 52' 19.0" N | 88° 27' 23.0" W | West Kentucky Rural Electric Coop Corp |
| 14 | 1202514 | 36° 45' 45.0" N | 88° 18' 17.0" W | West Kentucky Rural Electric Coop Corp |
| 15 | 1215863 | 36° 45' 46.2" N | 88° 18' 41.4" W | SBA Properties, LLC |
| 16 | 1221947 | 36° 51' 33.5" N | 88° 21' 59.2" W | SBA Properties, LLC |
| 17 | 1221975 | 36° 49' 23.1" N | 88° 28' 34.5" W | SBA Properties, LLC |
| 18 | 1222118 | 36° 59' 45.3" N | 88° 25' 59.1" W | SBA Properties, LLC |
| 19 | 1222232 | 36° 59' 09.9" N | 88° 21' 18.6" W | SBA Properties, LLC |
| 20 | 1223751 | 36° 52' 41.6" N | 88° 12' 19.4" W | Crown Castle GT Company LLC |
| 21 | 1233410 | 36° 54' 55.2" N | 88° 20' 15.1" W | County of Marshall, KY |
| 22 | 1235812 | 36° 48' 36.1" N | 88° 21' 33.1" W | Mobile Communications America INC. |
| 23 | 1264821 | 36° 55' 46.1" N | 88° 14' 53.8" W | SBA Towers II LLC |
| 24 | 1301361 | 36° 58' 37.3" N | 88° 17' 10.5" W | PI Tower Development, LLC |
| 25 | 1304962 | 36° 49' 24.3" N | 88° 28' 25.5" W | Tillman Infrastructure, LLC |
| 26 | 1306050 | 37° 02' 10.8" N | 88° 19' 56.2" W | Skyway Towers, LLC |
| 27 | 1313735 | 36° 54' 10.5" N | 88° 19' 24.9" W | CTI Towers Assets II, LLC |
| 28 | 1315674 | 36° 51' 12.0" N | 88° 22' 23.9" W | Tillman Infrastructure, LLC |
| 29 | | 36° 53' 57.87" N | 88° 27' 53.09" W | VERTICAL BRIDGE (PROPOSED TOWER) |



COUNTY TOWER MAP
SCALE: N/A

Bowman
CONSULTING ENGINEERS
LANDSCAPE ARCHITECTS, PLANNERS AND SURVEYORS
3201 TANK SPRINGS DRIVE
LOUISVILLE, KENTUCKY 40220
PHONE: (502) 459-8402
FAX: (502) 459-8427

verticalbridge
750 PARK OF COMMERCE DRIVE
BOCA RATON, FL 33487
PHONE: (561) 948-0367

| REV | DATE | DESCRIPTION |
|-----|----------|------------------|
| 0 | 11/28/23 | ISSUE FOR ZONING |
| 1 | 01/05/24 | ISSUE FOR ZONING |



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| ISSUED FOR: | REVIEW: | PERMIT: | CONSTRUCTION: | RECORD: |
|-------------|---------|---------|---------------|---------|
| | | | | |

| PROJECT MANAGER | DESIGNER |
|-----------------|----------|
| JTL | JTL |

JOB NUMBER
240764-01-001

C-1C
ME P10 & C10P1 REV 3 P10, 11/16/23

| REV | DATE | DESCRIPTION |
|-----|----------|------------------|
| 0 | 11/28/23 | ISSUE FOR ZONING |
| 1 | 01/05/24 | ISSUE FOR ZONING |



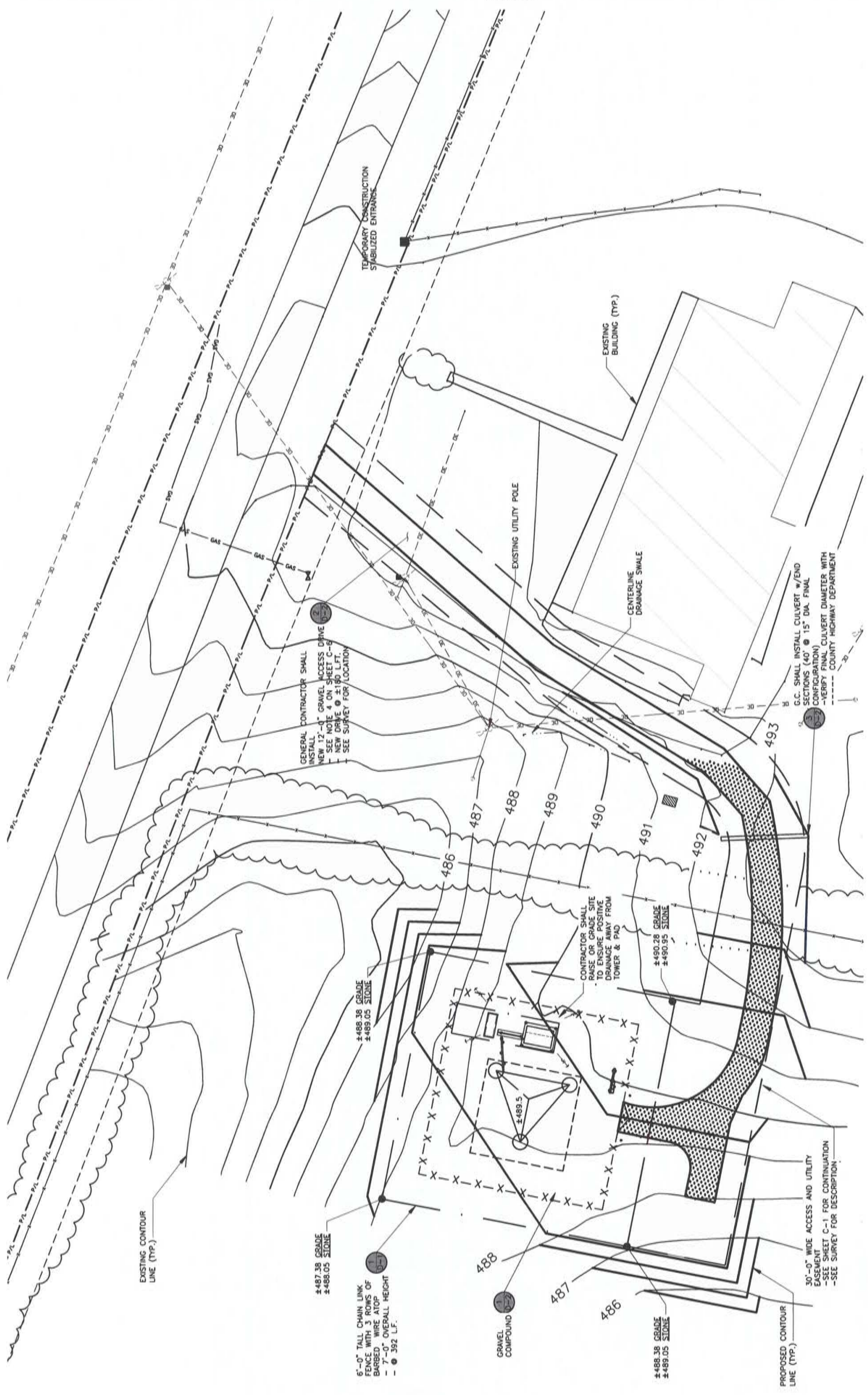
EV OAK LEVEL
 6145 SYMSONIA HWY
 SYMSONIA, KY 42025
 GRADING AND E&S
 CONTROL PLAN

| ISSUED FOR: | REVIEW | PERMIT | CONSTRUCTION | RECORD |
|-------------|--------|--------|--------------|--------|
| | - | - | - | - |

| PROJECT MANAGER | DESIGNER |
|-----------------|----------|
| JTL | JTL |

| JOB NUMBER |
|---------------|
| 240764-01-001 |

C-2
 MK P&E & CAD/PT REV 3 FINAL 10/16/23



GRAPHIC SCALE
 0 20 40 80

NORTH

GRADING AND E&S
 CONTROL PLAN
 SCALE: 1" = 40'

Kentucky 811
 Know what's below.
 Call before you dig.
 Call Monday thru Friday - 7 am. to 6 pm.
 1-800-752-6007
 FOR KENTUCKY STATE LAW, IT IS AGAINST THE LAW TO EXCAVATE WITHOUT NOTIFYING THE UTILITY LOCATOR SERVICE (811) WORKING DAYS BEFORE COMMENCING WORK.

| REV | DATE | DESCRIPTION |
|-----|----------|------------------|
| 0 | 11/28/23 | ISSUE FOR ZONING |
| 1 | 01/05/24 | ISSUE FOR ZONING |

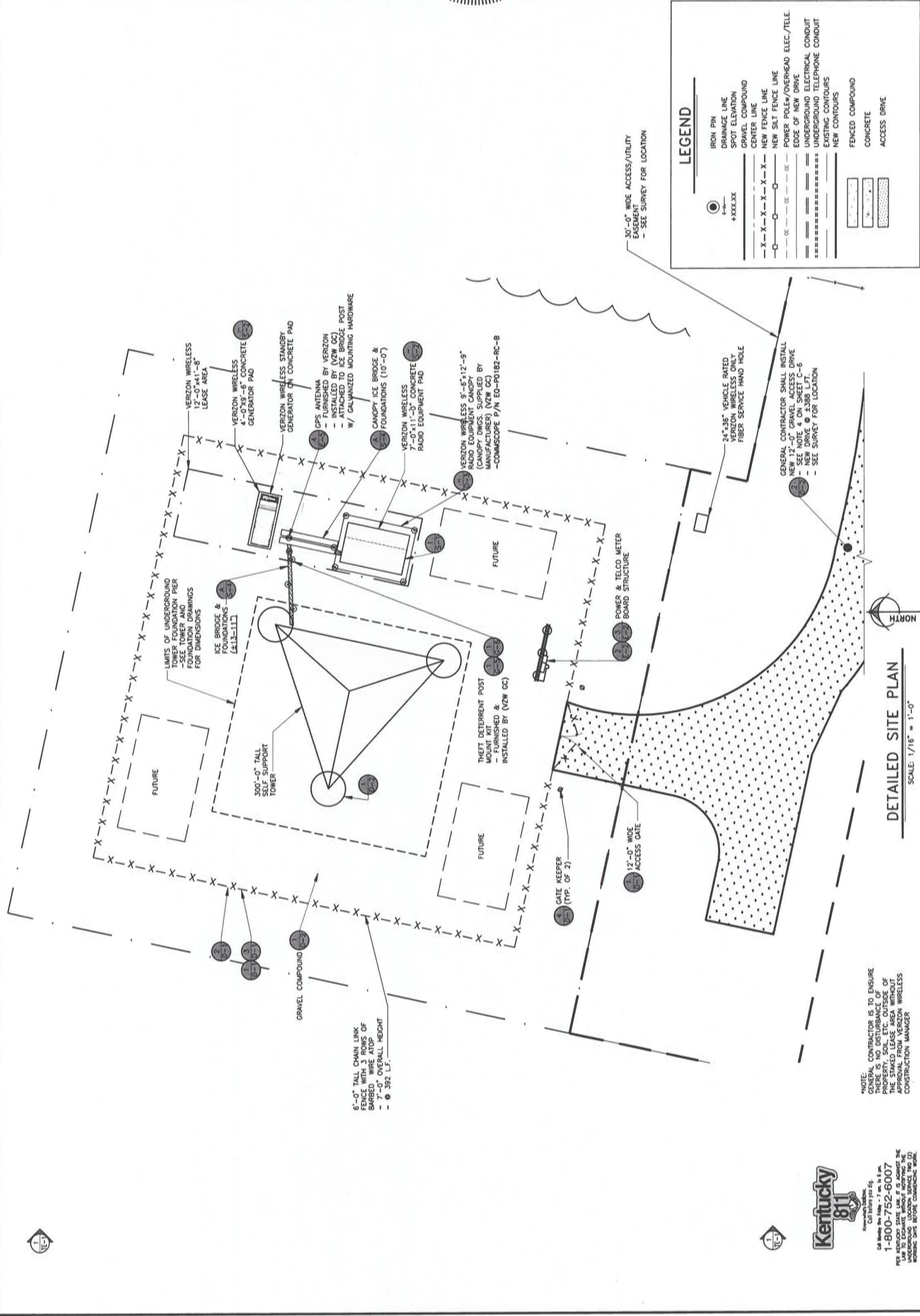


EV OAK LEVEL
6145 SYMONIA HWY
SYMONIA, KY 42025
DETAILED SITE PLAN

| ISSUED FOR: | |
|-----------------|----------|
| REVIEW | - |
| PERMIT | - |
| CONSTRUCTION | - |
| RECORD | - |
| PROJECT MANAGER | DESIGNER |
| JTL | JTL |

JOB NUMBER
240764-01-001

C-3



LEGEND

- IRON PIN
- DRAINAGE LINE
- SPOT ELEVATION
- GRAVEL COMPOUND
- CENTER LINE
- NEW FENCE LINE
- NEW SILT FENCE LINE
- POWER POLE/OVERHEAD ELEC./TELE
- EDGE OF NEW DRIVE
- UNDERGROUND ELECTRICAL CONDUIT
- UNDERGROUND TELEPHONE CONDUIT
- EXISTING CONTOURS
- NEW CONTOURS
- FENCED COMPOUND
- CONCRETE
- ACCESS DRIVE

DETAILED SITE PLAN
SCALE: 1/16" = 1'-0"

*NOTE:
GENERAL CONTRACTOR IS TO ENSURE
THERE IS NO DISTURBANCE OF
PROPERTY, SOIL, ETC. OUTSIDE OF
THE STAKED LEASE AREA WITHOUT
APPROVAL FROM THE VERIZON WIRELESS
CONSTRUCTION MANAGER



Call before you dig.
Know what's below.
1-800-752-6007
FOR A FREE STATE LINK, IT IS YOUR RESPONSIBILITY TO EXAMINE THE UNDERGROUND UTILITY SOURCE (S) (S) BEFORE ANY CONSTRUCTION.

| REV | DATE | DESCRIPTION |
|-----|----------|------------------|
| 0 | 11/28/23 | ISSUE FOR ZONING |
| 1 | 01/05/24 | ISSUE FOR ZONING |



EV OAK LEVEL
6145 SYMONIA HWY
SYMONIA, KY 42025

DIMENSIONED SITE PLAN

| ISSUED FOR: | DESIGNER |
|-----------------|----------|
| REVIEW | JTL |
| PERMIT | JTL |
| CONSTRUCTION | JTL |
| RECORD | JTL |
| PROJECT MANAGER | JTL |

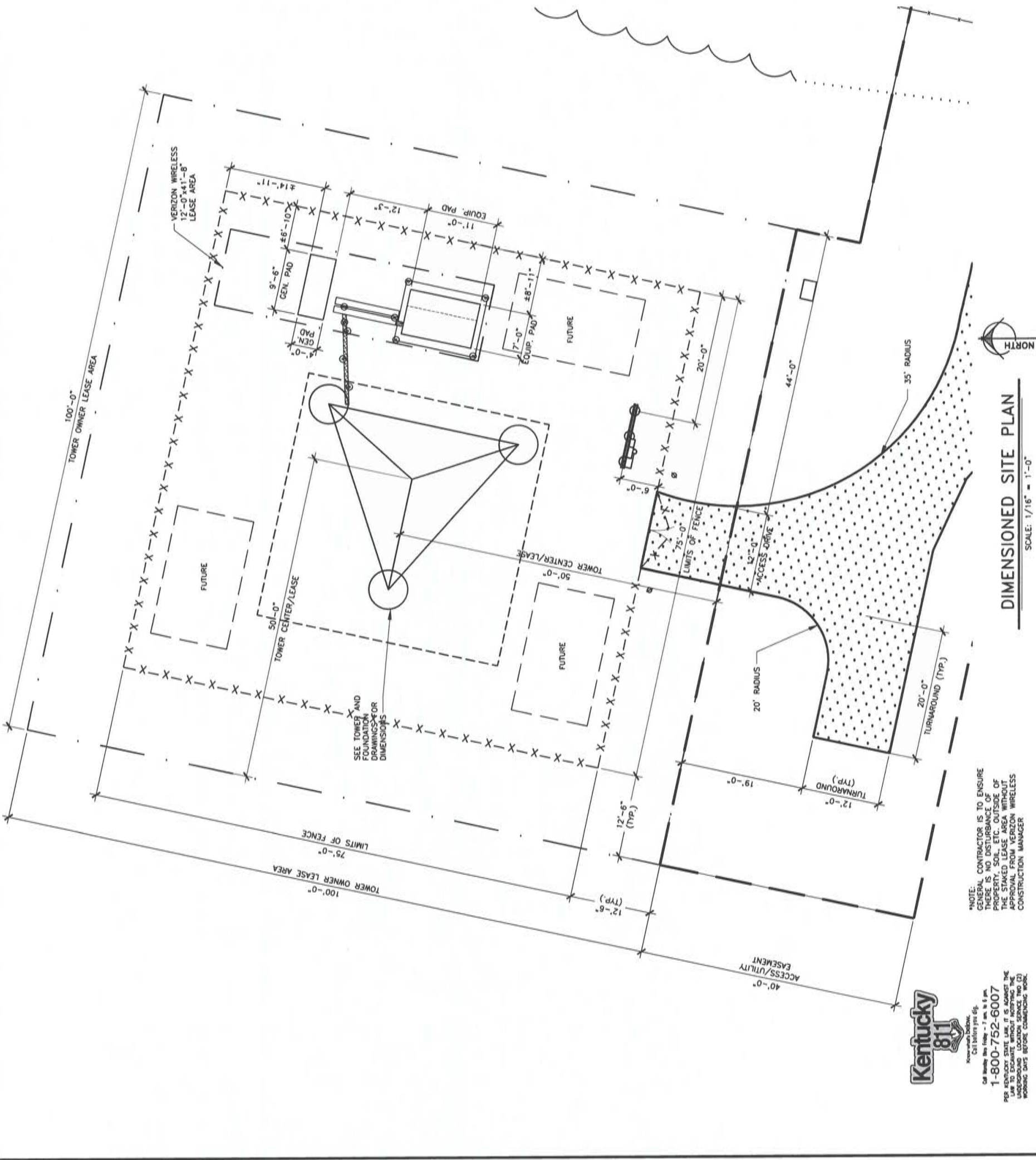
JOB NUMBER
240764-01-001

C-4

MR. PINE & COMPANY REV 3 FINAL 10/16/23

LEGEND

- IRON PIN
- DRAINAGE LINE
- SPOT ELEVATION
- GRAVEL COMPOUND
- CENTER LINE
- NEW FENCE LINE
- NEW SALT FENCE LINE
- POWER POLE/ OVERHEAD ELEC./TELE.
- EDGE OF NEW DRIVE
- UNDERGROUND ELECTRICAL CONDUIT
- UNDERGROUND TELEPHONE CONDUIT
- EXISTING CONTOURS
- NEW CONTOURS
- NEW LEASE AREA AND EASEMENT
- FENCED COMPOUND
- CONCRETE
- ACCESS DRIVE



DIMENSIONED SITE PLAN

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

*NOTE: GENERAL CONTRACTOR IS TO ENSURE THERE IS NO DISTURBANCE OF PROPERTY, SOIL, ETC. OUTSIDE OF THE STAKE PLACES. LEASES FROM APPROPRIATE UTILITIES AND WIRELESS CONSTRUCTION MANAGER.



Call before you dig.
1-800-752-6007
For more information, visit www.ky811.com
per relevant state law, it is advised to call 811 for utility location services two (2) working days before commencing work.

| REV | DATE | DESCRIPTION |
|-----|----------|------------------|
| 0 | 11/20/23 | ISSUE FOR ZONING |
| 1 | 01/05/24 | ISSUE FOR ZONING |



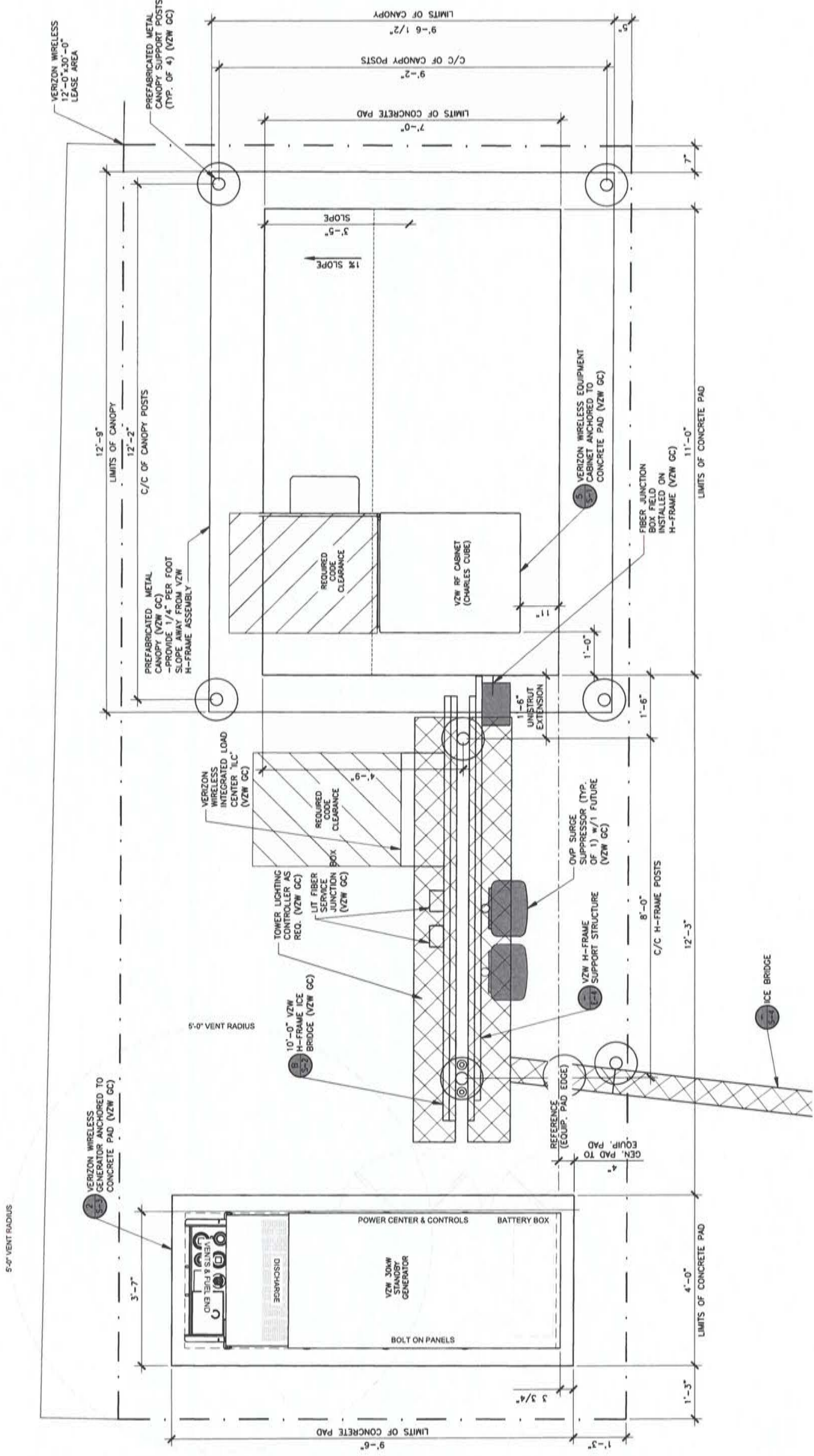
EV OAK LEVEL
6145 SYMONIA HWY
SYMONIA, KY 42025
DETAILED EQUIPMENT PAD
PLAN

| ISSUED FOR: | REVIEW | PERMIT | CONSTRUCTION | RECORD |
|-------------|--------|--------|--------------|--------|
| | - | - | - | - |

| | | | |
|-----------------|-----|----------|-----|
| PROJECT MANAGER | JTL | DESIGNER | JTL |
|-----------------|-----|----------|-----|

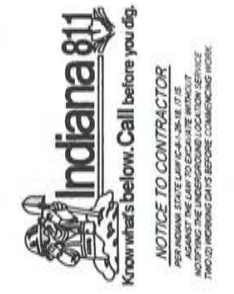
JOB NUMBER
240764-01-001

C-5
MR. PIG & DIMPY REV 3 FINAL 10/16/23



DETAILED VZW EQUIPMENT PLAN
SCALE: 3/8" = 1'-0"
NORTH

*NOTE:
GENERAL CONTRACTOR IS TO ENSURE
THERE IS NO DISTURBANCE OF
PROPERTY, SOIL, ETC. OUTSIDE OF
THE STAKED LEASE AREA WITHOUT
APPROVAL FROM VERIZON WIRELESS
CONSTRUCTION MANAGER



NOTICE TO CONTRACTOR
BY ACCEPTING THE UNDERGROUND LOCATION SERVICE
AGAINST THE LEASE TO EXCAVATE WITHOUT
FIRST CALLING 811 TO REPORT THE LOCATION OF
UTILITIES

| REV | DATE | DESCRIPTION |
|-----|----------|------------------|
| 0 | 11/28/23 | ISSUE FOR ZONING |
| 1 | 01/05/24 | ISSUE FOR ZONING |



FENCE DETAILS AND NOTES
EV OAK LEVEL
6145 SYMONIA HWY
SYMONIA, KY 42025

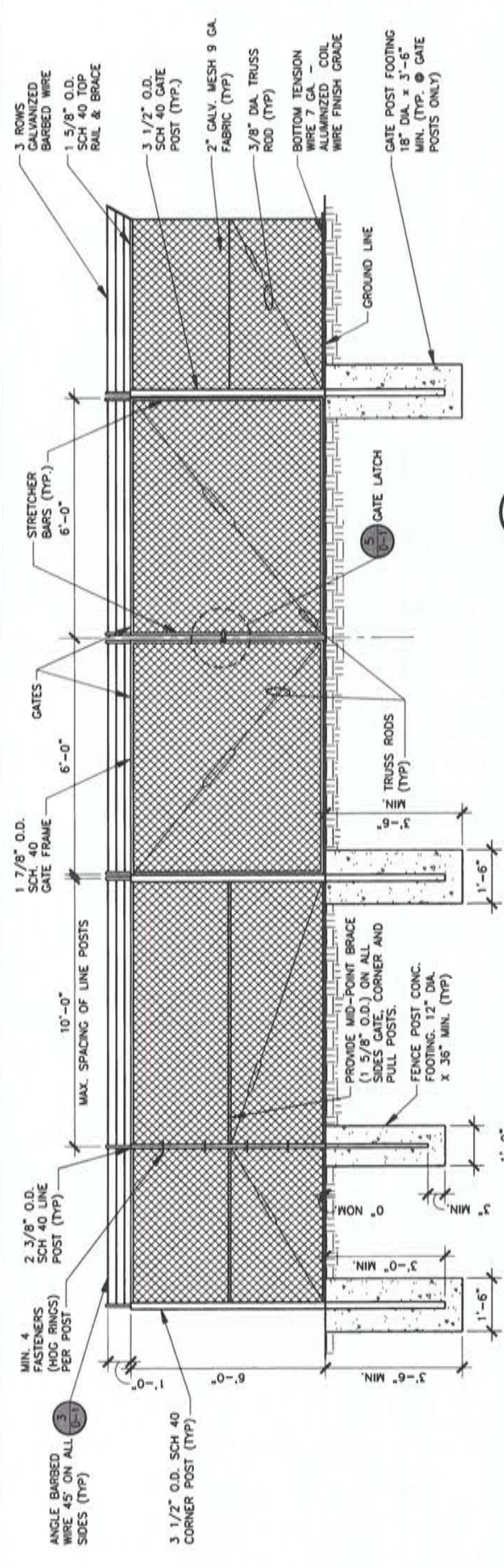
| ISSUED FOR: | REVIEW | PERMIT | CONSTRUCTION | RECORD |
|-------------|--------|--------|--------------|--------|
| | | | | |

| PROJECT MANAGER | DESIGNER |
|-----------------|----------|
| JTL | JTL |

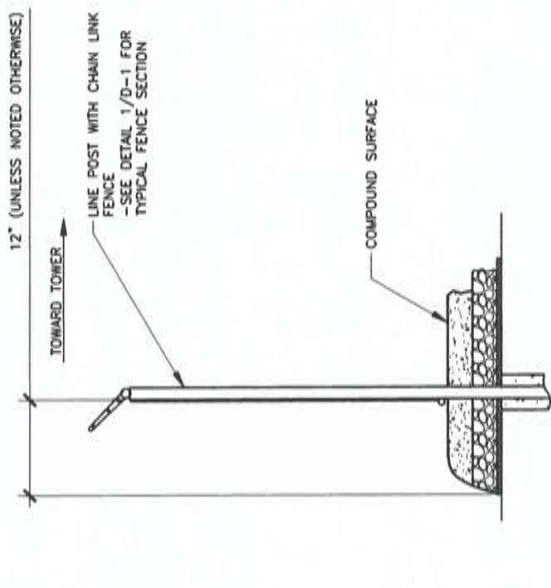
| JOB NUMBER |
|---------------|
| 240764-01-001 |

CHAIN LINK FENCING NOTES

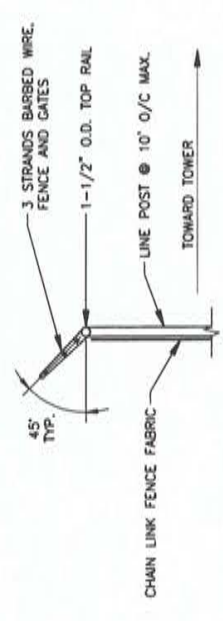
- ALL FENCE AND FABRIC SHALL BE HOT DIPPED GALVANIZED WITH A MINIMUM OF 2 OZ. PER SQUARE FOOT. 9 GAUGE WIRE (MIN. BREAKING STRENGTH OF 1,250 LBS) WITH 2" MESH. ALL BARBED WIRE SHALL BE ALUMINUM OR COATED PER NOTE #4.
- BOTTOM EDGE OF FENCE FABRIC SHALL EXTEND TO FINISHED GRADE.
- SITE FENCE SHALL BE 6'-0" FABRIC W/ 3 STRAND BARBED WIRE FOR TOTAL HEIGHT OF 7'-0".
- BARBED WIRE SHALL MEET ASTM A 121, CLASS 3 GALV. OR ASTM A 585, TYPE 1, CLASS 2 COATING (NOT LESS THAN 0.8 OZ. PER SQ. FT.) AND SHALL BE THREE STRAND 12.5 GAUGE W/4 POINT BARBS AT 5" O/C.
- BOTTOM OF CONCRETE BASE SHALL BE SET BELOW FROSTLINE (SEE LOCAL CODE). WHERE SOIL BEARING CAPACITY IS LESS THAN 2000 PSF, INCREASE CONCRETE SURROUNDING FENCE POST FOUNDATION DIAMETERS BY 8". PROVIDE CONCRETE WITH A 28 DAY STRENGTH OF 3000 PSI (MIN.).
- PROVIDE A DIAGONAL BRACE ROD AND TURN BUCKLE ON BOTH GATE LEAFS.
- ALL RAILS AND BRACES SHALL BE SCHEDULE 40 STEEL PIPE, AND ALL FENCE POSTS SHALL BE SCHEDULE 40 STEEL PIPE, AND BE 2 OZ. GALVANIZED COATED.
- CONTRACTOR SHALL ENSURE ALL POSTS ARE PLUMB.
- ALL FENCE SHALL BE FABRICATED AND INSTALLED PER ASTM F2611-15, ASTM F567-14a AND CHAIN LINK FABRIC MANUFACTURER'S INSTITUTE CLFMI-PM 2445.
- CONTRACTOR SHALL FURNISH AND INSTALL ONE (1) MASTER LOCK LONG SHANK #175LH COMBINATION PADLOCK. COMBINATION TO BE SET AT 7011.



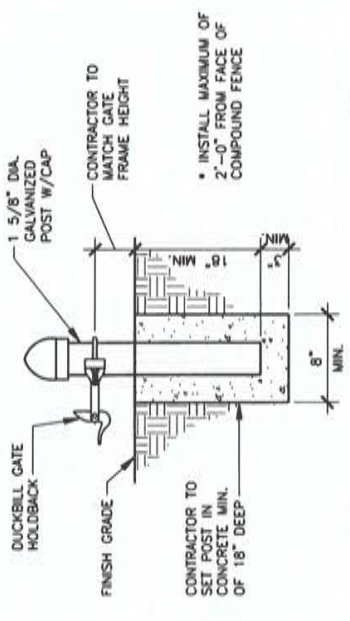
CHAIN LINK FENCE & POST DETAIL
SCALE: N.T.S.



SITE AREA SURFACING
SCALE: N.T.S.



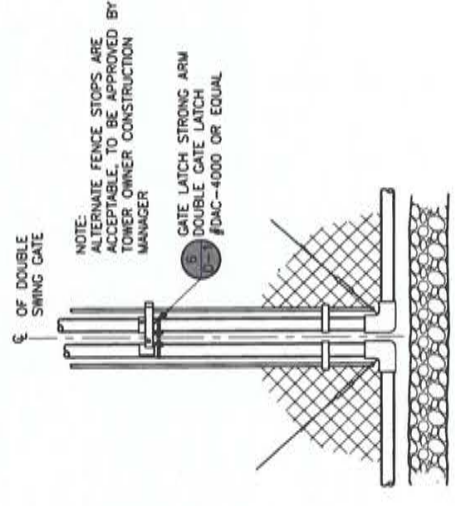
TYPICAL BARBED WIRE DETAIL
SCALE: N.T.S.



GATE KEEPER DETAIL
SCALE: N.T.S.



GATE LATCH DETAIL
SCALE: N.T.S.



GATE LATCH DETAIL
SCALE: N.T.S.

| REV | DATE | DESCRIPTION |
|-----|----------|------------------|
| 0 | 11/28/23 | ISSUE FOR ZONING |
| 1 | 01/05/24 | ISSUE FOR ZONING |



EV OAK LEVEL
 6145 SYMSONIA HWY
 SYMSONIA, KY 42025
 TOWER ELEVATION

| ISSUED FOR: | |
|--------------|---|
| REVIEW | - |
| PERMIT | - |
| CONSTRUCTION | - |
| RECORD | - |

| PROJECT MANAGER | |
|-----------------|-----|
| JTL | JTL |

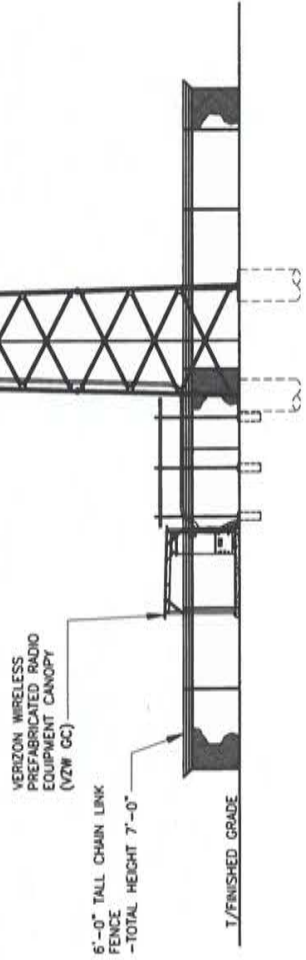
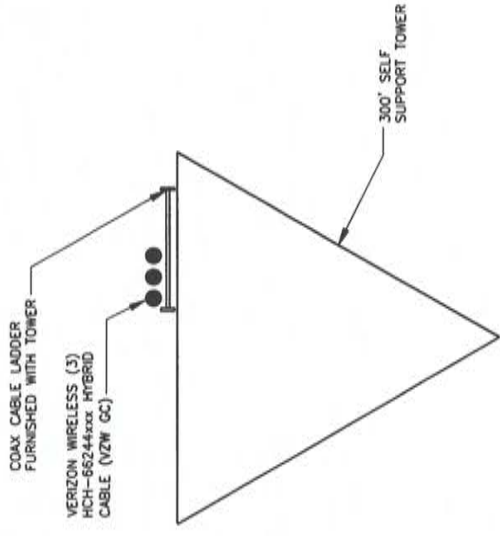
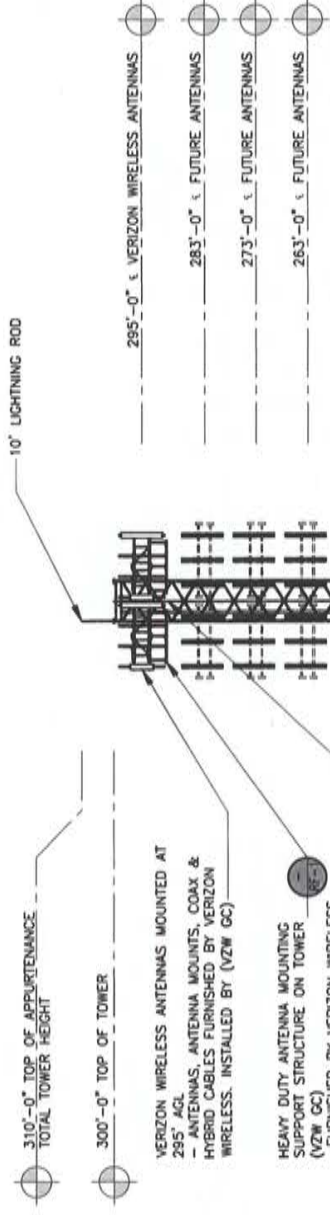
| DESIGNER | |
|----------|-----|
| JTL | JTL |

JOB NUMBER
 240764-01-001

TE-1

NOTE:

- IT IS THE INSTALLING CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL ANTENNA INFORMATION AGAINST FINAL RADIO ENGINEERING PLAN PROVIDED BY VERIZON LOCAL BUSINESS ENTITY d/b/a VERIZON WIRELESS (VZW GC)
- ALL TOWER LIGHTING SHALL BE INSTALLED AS REQUIRED BY THE FEDERAL AVIATION ADMINISTRATION AND RECOMMENDED BY THE USFWS INTERIM GUIDELINES (2000) FOR LIGHTING OF TOWERS OVER 200' IN HEIGHT.



TOWER ELEVATION
 1
 TE-1
 SCALE: N.T.S.

| REV | DATE | DESCRIPTION |
|-----|----------|------------------|
| 0 | 11/29/23 | ISSUE FOR ZONING |
| 1 | 01/05/24 | ISSUE FOR ZONING |

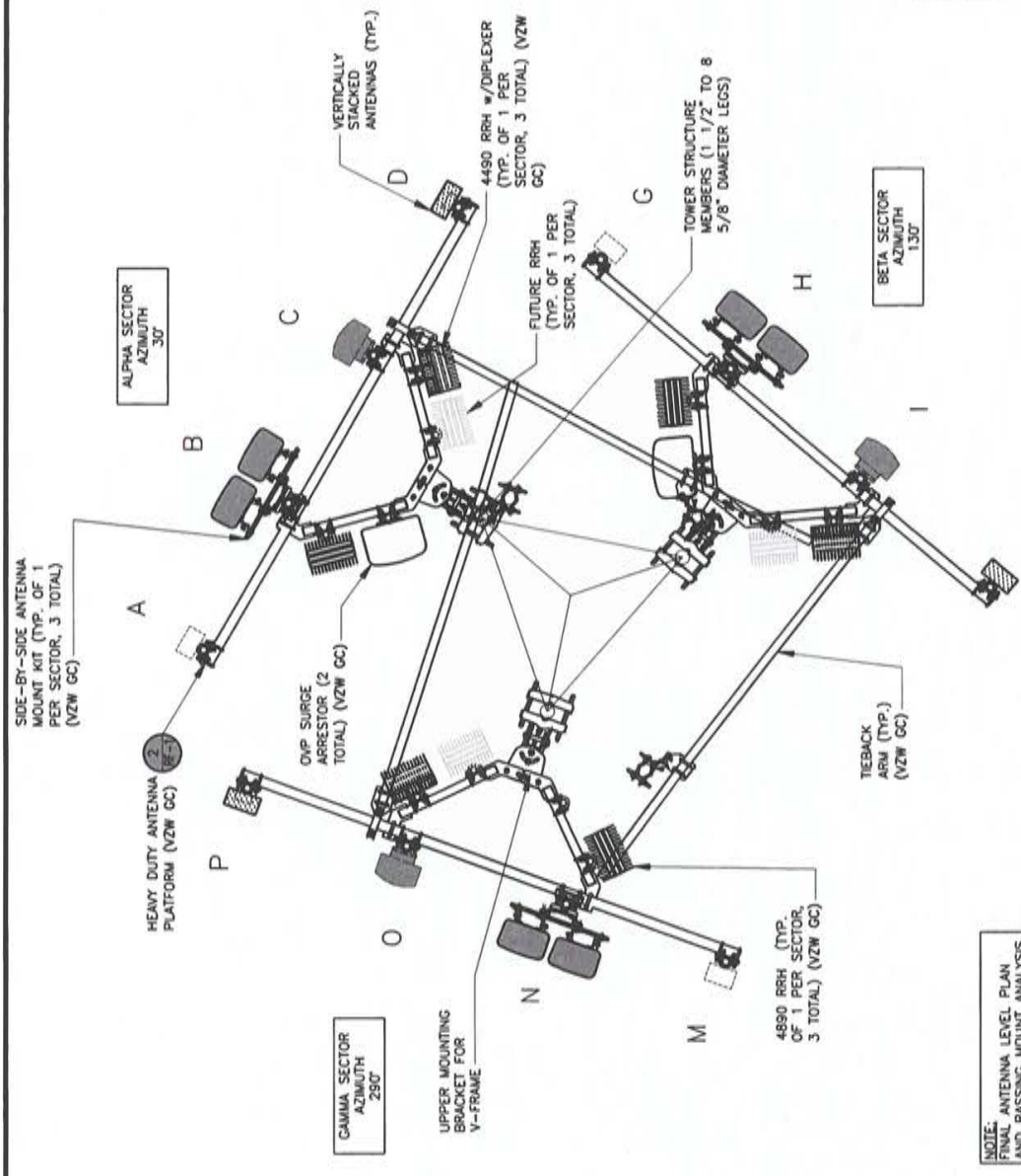


EV OAK LEVEL
6145 SYMONIA HWY
SYMONIA, KY 42025
ANTENNA PLAN AND
DETAILS (REFERENCE ONLY)

| ISSUED FOR: | DESIGNER |
|-----------------|----------|
| REVIEW | JTL |
| PERMIT | JTL |
| CONSTRUCTION | JTL |
| RECORD | JTL |
| PROJECT MANAGER | JTL |

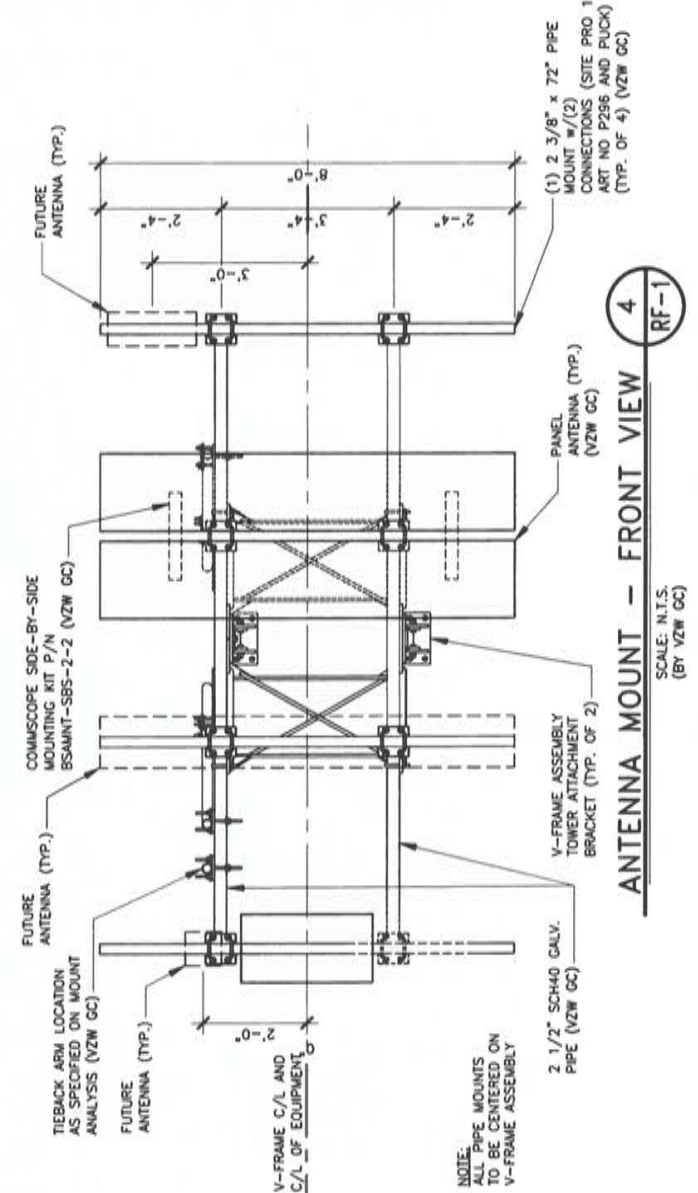
JOB NUMBER
240764-01-001

RF-1
MJK PRO & CHIPPY REV 3 FINAL 10/16/23



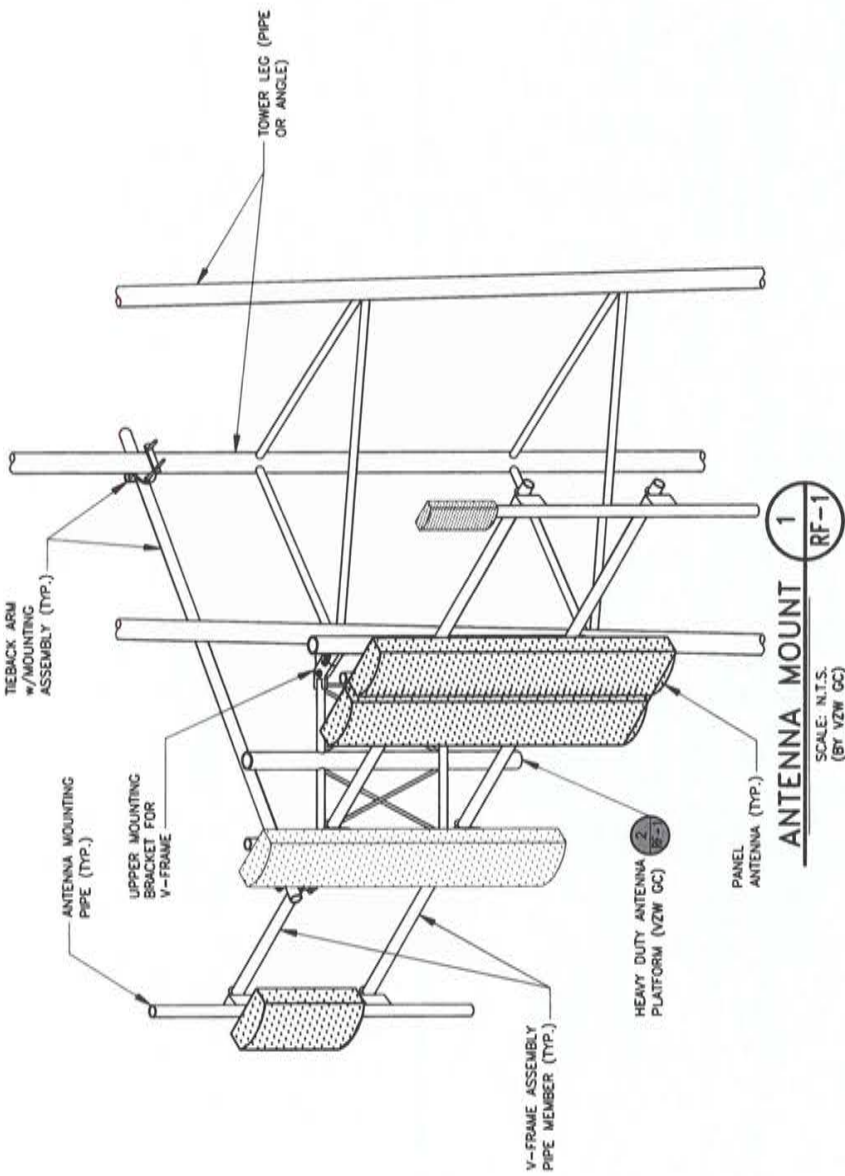
ANTENNA LAYOUT - PLAN VIEW
SCALE: N.T.S. (BY VZW GC)

NOTE:
FINAL ANTENNA LEVEL PLAN
AND PASSING MOUNT ANALYSIS
MUST MATCH. NOTIFY VZW
CONSTRUCTION MANAGER IF
DISCREPANCY EXISTS.



ANTENNA MOUNT - FRONT VIEW
SCALE: N.T.S. (BY VZW GC)

NOTE:
ALL PIPE MOUNTS
TO BE CENTERED ON
V-FRAME ASSEMBLY



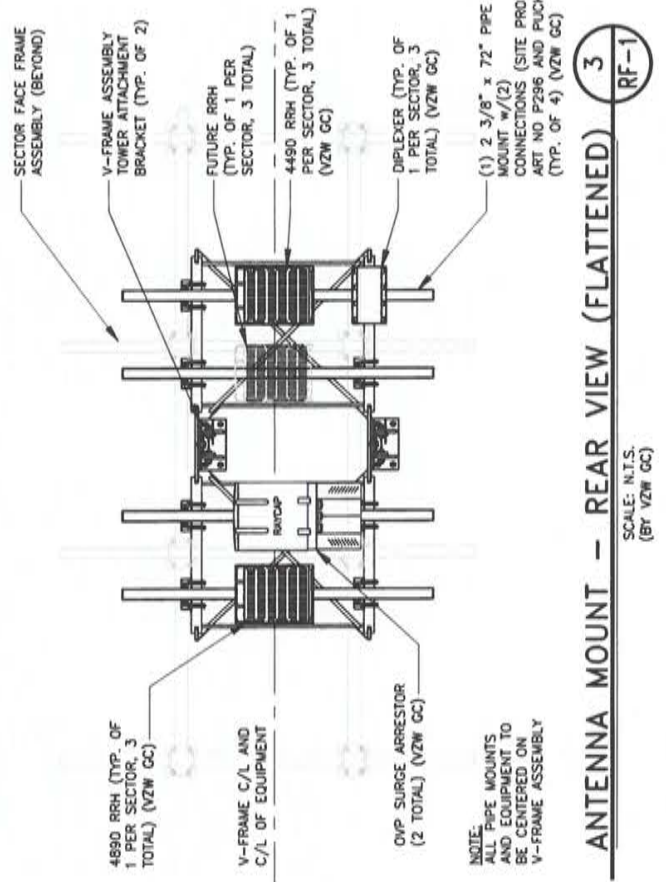
ANTENNA MOUNT
SCALE: N.T.S. (BY VZW GC)

ANTENNA AND HYBRID CABLES
CONTRACTOR MAY SUBSTITUTE AN
ALTERNATE METHOD TO SUPPORT THE
HYBRID CABLES, BUT SHALL SUBMIT
ANALYSIS FOR REQUIRED HYBRID
CABLE SUPPORT CONFIGURATIONS
FOR ENGINEER APPROVAL
PRIOR TO PROCEEDING WITH THE
INSTALLATION OF THE CABLES.

HYBRID CABLE SUPPORT DETAIL
SCALE: N.T.S. (BY VZW GC)

GENERAL NOTES:

- VERIFY EACH HYBRID CABLE LENGTH, DIAMETER, ROUTING, AND ALL MOUNTING APPURTENANCES WITH OWNER PRIOR TO ORDER.
- THE MAXIMUM HYBRID CABLE LENGTH HAS BEEN ESTIMATED AT 100 FEET. APPROXIMATELY FROM ANTENNA C/L TO EQUIPMENT C/L. MAXIMUM ESTIMATED MAXIMUM LENGTH AND MUST BE VERIFIED.
- TAG ALL MAIN CABLES AT TWO (2) LOCATIONS. 1) AT ANTENNAS 2) OUTSIDE EQUIPMENT CABINET NEAR THE WAVEGUIDE ENTRY PORT.
- EACH CABLE SHALL BE GROUNDED AT (3) THREE LOCATIONS. ANTENNA LEVEL ON TOWER, TOWER BASE, AND EQUIPMENT H-FRAME.
- HYBRID CABLES TO BE SUPPORTED EVERY 36" OFF MOUNTING FRAMES WITH STAINLESS STEEL HANGERS.
- JUMPER CABLES TO BE SUPPORTED EVERY 18" WITH STAINLESS STEEL HANGERS.



ANTENNA MOUNT - REAR VIEW (FLATTENED)
SCALE: N.T.S. (BY VZW GC)

NOTE:
ALL PIPE MOUNTS
AND EQUIPMENT TO
BE CENTERED ON
V-FRAME ASSEMBLY



Structural Design Report

300' S3TL Series HD1 Self-Supporting Tower

Site: Oak Level, KY

Site Number: US-KY-5183

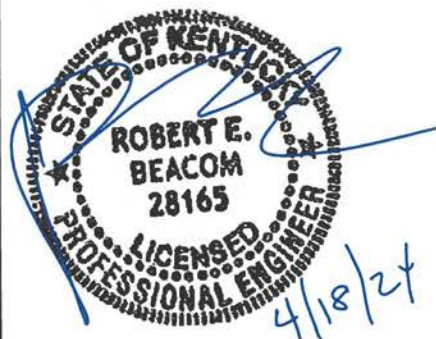
Prepared for: VERTICAL BRIDGE REIT, LLC

by: Sabre Industries™

Job Number: 541131

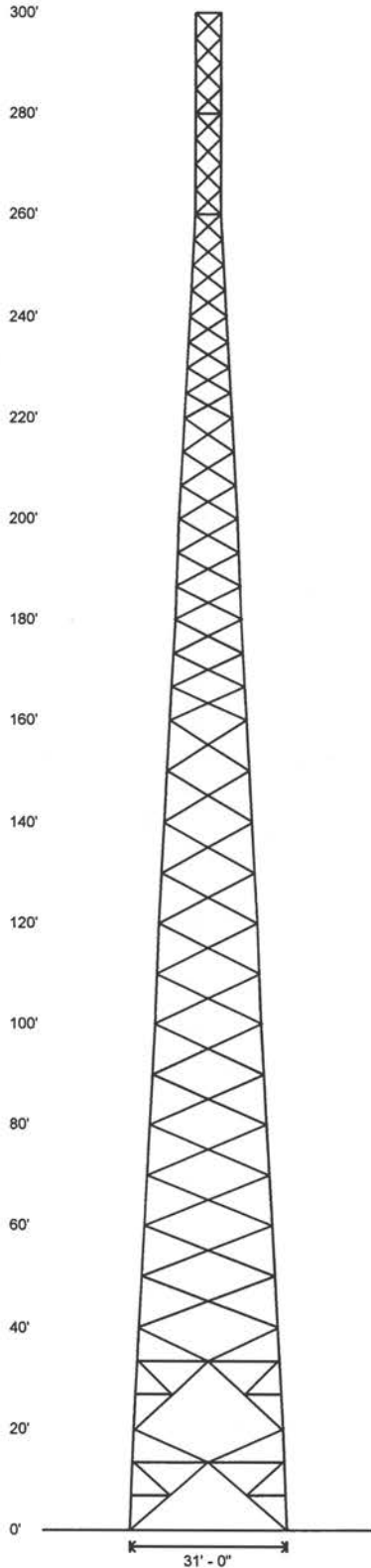
April 18, 2024

| | |
|---|------|
| Tower Profile..... | 1-2 |
| Foundation Design Summary (Option 1)..... | 3 |
| Foundation Design Summary (Option 2)..... | 4 |
| Maximum Leg Loads..... | 5 |
| Maximum Diagonal Loads..... | 6 |
| Maximum Foundation Loads..... | 7 |
| Calculations..... | 8-33 |



Digitally Signed By Robert Beacom
DN:
C=US,SERIALNUMBER=MAS20240205295328,ST=Texas,L=Alvarado,O=SABRE INDUSTRIES, INC.,CN=Robert Beacom Date: 2024.04.18 09:30:38

| | | | | | | | | | | |
|--------------------|-----------------------|--|------------------------|--|-----------------|--|---------------|--|---------------|--|
| Legs | 8.625 OD X .500 | | A | | 5.563 OD X .500 | | B | | C | |
| Diagonals | L 4 X 4 X 1/4 | | L 2 1/2 X 2 1/2 X 3/16 | | L 2 X 2 X 1/8 | | L 2 X 2 X 1/4 | | L 2 X 2 X 1/8 | |
| Horizontals | L 3 1/2 X 3 1/2 X 1/4 | | NONE | | NONE | | NONE | | NONE | |
| Internals | NONE | | NONE | | NONE | | NONE | | NONE | |
| Sub-Diagonals | NONE | | NONE | | NONE | | NONE | | NONE | |
| Sub-Horizontals | NONE | | NONE | | NONE | | NONE | | NONE | |
| Brace Bolts | (2) 3/4" | | (1) 3/4" | | (1) 5/8" | | | | | |
| Top Face Width | 29' | | 15' | | 7' | | 5' | | | |
| Panel Count/Height | Q R Q R | | 12 @ 10' | | 9 @ 6.6667' | | 16 @ 5' | | | |
| Section Weight | 6569 | | 4654 | | 1925 | | 1633 | | 835 | |



Designed Apurtenance Loading

| Elev | Description | Tx-Line |
|------|--|-------------|
| 295 | (1) 42,000 Sq. In. (Ka = 0.82) + 12,000 lb | (18) 1 5/8" |
| 284 | (1) 30,000 Sq. In. (Ka = 0.82) + 8,000 lbs | (12) 1 5/8" |
| 274 | (1) 30,000 Sq. In. (Ka = 0.82) + 8,000 lbs | (12) 1 5/8" |
| 240 | (2) Leg Dish Mount | |
| 240 | (2) 6' Solid Dish W/ Radome | (2) 1 5/8" |

Design Criteria - ANSI/TIA-222-H

| | |
|--------------------------------------|--|
| Wind Speed (No Ice) | 106 mph |
| Wind Speed (Ice) | 30 mph |
| Design Ice Thickness | 1.50 in |
| Risk Category | II |
| Exposure Category | C |
| Topographic Factor Procedure | Method 1 (Simplified) |
| Topographic Category | 1 |
| Ground Elevation | 492 ft |
| Seismic Importance Factor, Ie | 1.00 |
| 0.2-sec Spectral Response, Ss | 0.897 g |
| 1-sec Spectral Response, S1 | 0.3 g |
| Site Class | D (DEFAULT) |
| Seismic Design Category | D |
| Basic Seismic Force-Resisting System | Telecommunication Tower (Truss: Steel) |

Base Reactions - Wind/Ice

| Total Foundation | | Individual Footing | |
|------------------|-------|--------------------|-------|
| Shear (kips) | 79 | Shear (kips) | 49.05 |
| Axial (kips) | 286.1 | Compression (kips) | 555 |
| Moment (ft-kips) | 13893 | Uplift (kips) | 469 |

Base Reactions - Seismic

| Total Foundation | | Individual Footing | |
|------------------|--------|--------------------|-------|
| Shear (kips) | 14.68 | Shear (kips) | 11.97 |
| Axial (kips) | 137.13 | Compression (kips) | 178 |
| Moment (ft-kips) | 3542 | Uplift (kips) | 106 |

Notes

- 1) All legs are A500 (50 ksi Min. Yield).
- 2) All braces are A572 Grade 50.
- 3) All brace bolts are A325-X.
- 4) The tower model is S3TL Series HD1.
- 5) Transmission lines are to be attached to standard 8 hole waveguide ladders with stackable hangers.
- 6) Azimuths are relative (not based on true north).
- 7) Foundation loads shown are maximums.
- 8) All unequal angles are oriented with the short leg vertical.
- 9) Weights shown are estimates. Final weights may vary.
- 10) This tower design and, if applicable, the foundation design(s) shown on the following page(s) also meet or exceed the requirements of the 2015 International Building Code.
- 11) Tower Rating: 98.44%
- 12) No grout is required under the base plates.




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| | |
|--------------|---------------------------|
| Job: | 541131 |
| Customer: | VERTICAL BRIDGE REIT, LLC |
| Site Name: | Oak Level, KY US-KY-5183 |
| Description: | 300' S3TL |
| Date: | 4/18/2024 |
| By: | REB |

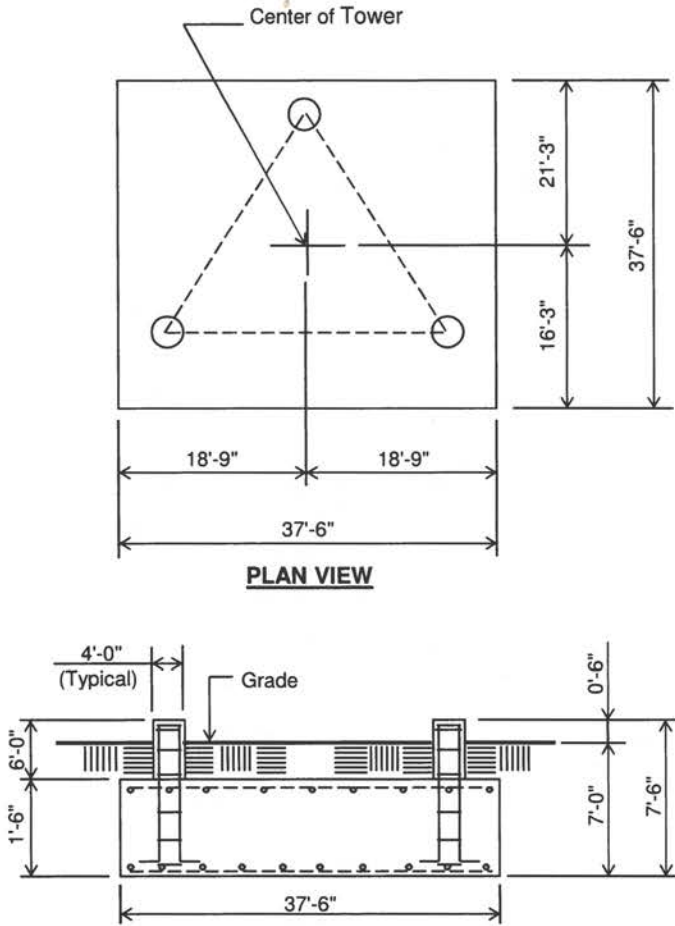
Material List

| Display | Value |
|---------|-----------------------|
| A | 8.625 OD X .322 |
| B | 4.000 OD X .318 |
| C | 2.375 OD X .218 |
| D | L 5 X 3 1/2 X 5/16 |
| E | L 4 X 4 X 5/16 |
| F | L 5 X 3 1/2 X 1/4 |
| G | L 3 X 3 X 3/16 |
| H | L 2 X 2 X 3/16 |
| I | L 3 1/2 X 3 1/2 X 1/4 |

| Display | Value |
|---------|------------------------|
| J | NONE |
| K | L 4 X 4 X 1/4 |
| L | L 2 X 2 X 1/8 |
| M | L 2 X 2 X 1/4 |
| N | L 3 X 3 X 1/4 |
| O | L 2 1/2 X 2 1/2 X 3/16 |
| P | L 2 1/2 X 2 1/2 X 1/4 |
| Q | 1 @ 13.333' |
| R | 1 @ 6.667' |

| | |
|---|---|
|  <p>Sabre Industries 7101 Southbridge Drive P.O. Box 658 Sioux City, IA 51102-0658 Phone: (712) 258-6690 Fax: (712) 279-0614</p> <p><small>Information contained herein is the sole property of Sabre Communications Corporation, constitutes a trade secret as defined by Iowa Code Ch. 550 and shall not be reproduced, copied or used in whole or part for any purpose whatsoever without the prior written consent of Sabre Communications Corporation.</small></p> | <p>Job: 541131</p> <p>Customer: VERTICAL BRIDGE REIT, LLC</p> <p>Site Name: Oak Level, KY US-KY-5183</p> <p>Description: 300' S3TL</p> <p>Date: 4/18/2024 By: REB</p> |
|---|---|

Customer: VERTICAL BRIDGE REIT, LLC
Site: Oak Level, KY US-KY-5183
300 ft. Model S3TL Series HD1 Self Supporting Tower



PLAN VIEW

ELEVATION VIEW

(86.5 cu. yds.)
(1 REQD.; NOT TO SCALE)

CAUTION: Center of tower is not in center of slab.

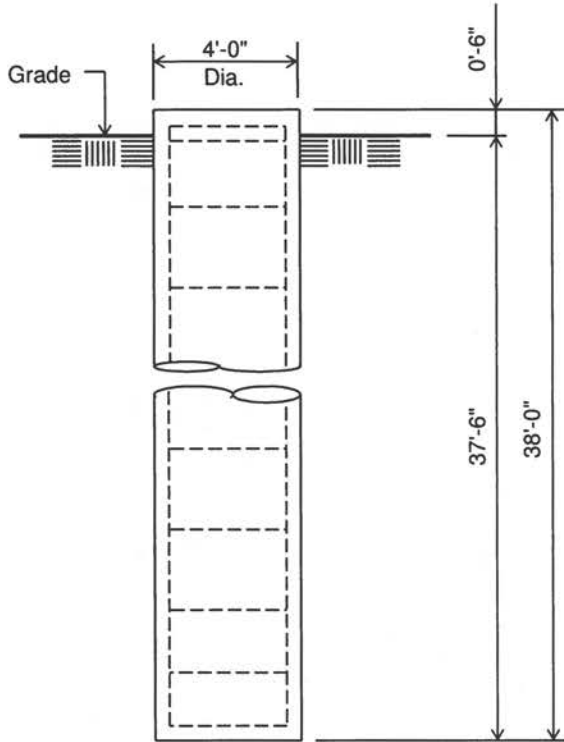
Notes:

- 1) Concrete shall have a minimum 28-day compressive strength of 5,000 psi, in accordance with ACI 318-14.
- 2) Rebar to conform to ASTM specification A615 Grade 60.
- 3) All rebar to have a minimum of 3" concrete cover.
- 4) All exposed concrete corners to be chamfered 3/4".
- 5) The foundation design is based on the geotechnical report by WMG project no. 2024-603, dated: 3/27/24.
- 6) See the geotechnical report for compaction requirements, if specified.
- 7) 5.5' of soil cover is required over the entire area of the foundation slab.
- 8) The bottom anchor bolt template shall be positioned as closely as possible to the bottom of the anchor bolts.

| Rebar Schedule per Mat and per Pier | |
|---|---|
| Pier | (24) #7 vertical rebar w/ hooks at bottom w/ #4 rebar ties, two (2) within top 5" of pier then 4" C/C |
| Mat | (68) #9 horizontal rebar evenly spaced each way top and bottom. (272 total) |
| Anchor Bolts per Leg | |
| (6) 1.25" dia. x 63" F1554-105 on a 12.75" B.C. w/ 8" max. projection above concrete. | |

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Customer: VERTICAL BRIDGE REIT, LLC
Site: Oak Level, KY US-KY-5183
300 ft. Model S3TL Series HD1 Self Supporting Tower



ELEVATION VIEW
(17.7 cu. yds.)
(3 REQUIRED; NOT TO SCALE)

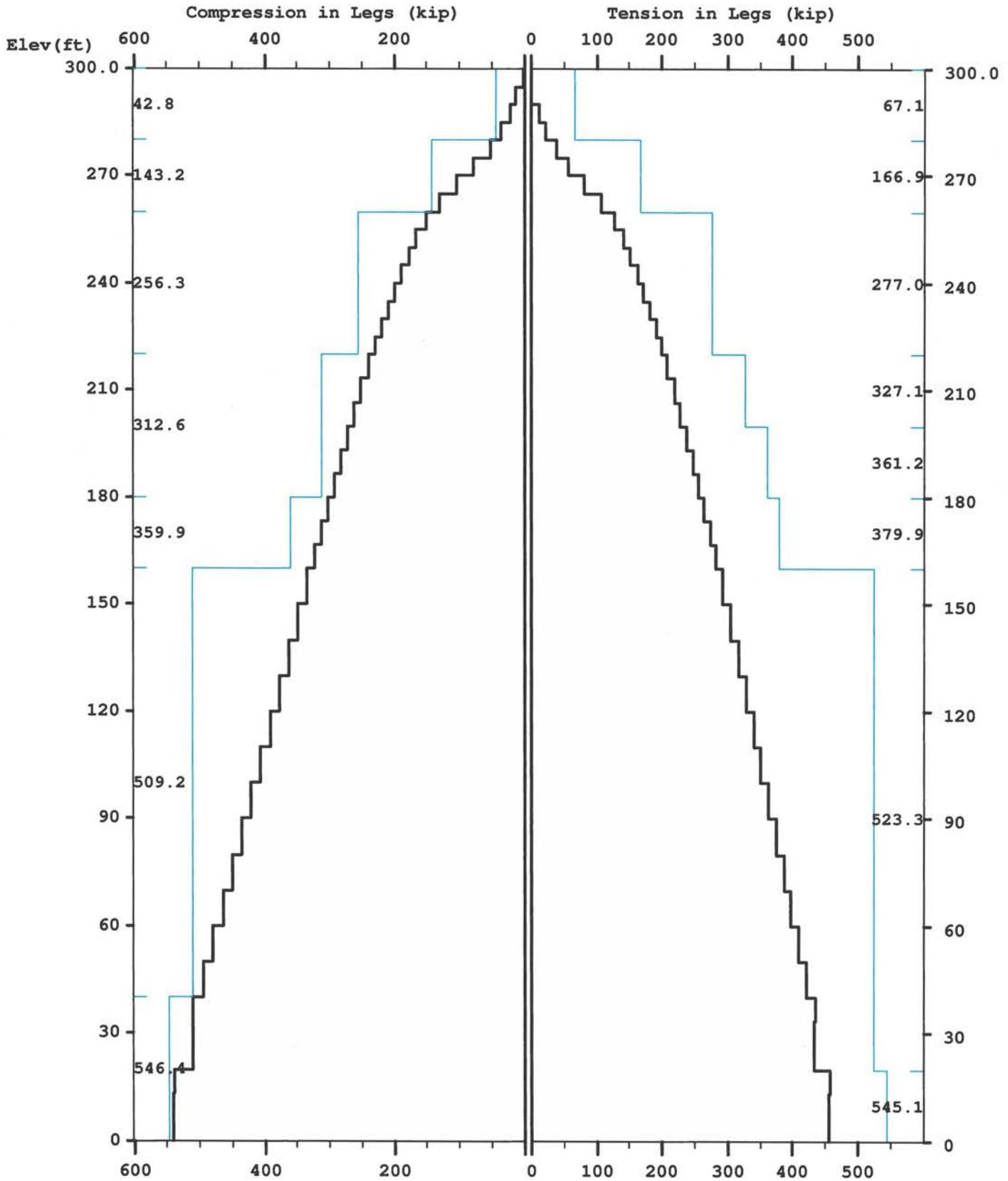
Notes:

- 1) Concrete shall have a minimum 28-day compressive strength of 5,000 psi, in accordance with ACI 318-14.
- 2) Rebar to conform to ASTM specification A615 Grade 60.
- 3) All rebar to have a minimum of 3" concrete cover.
- 4) All exposed concrete corners to be chamfered 3/4".
- 5) The foundation design is based on the geotechnical report by WMG project no. 2024-603, dated: 3/27/24.
- 6) See the geotechnical report for drilled pier installation requirements, if specified.
- 7) The bottom anchor bolt template shall be positioned as closely as possible to the bottom of the anchor bolts.

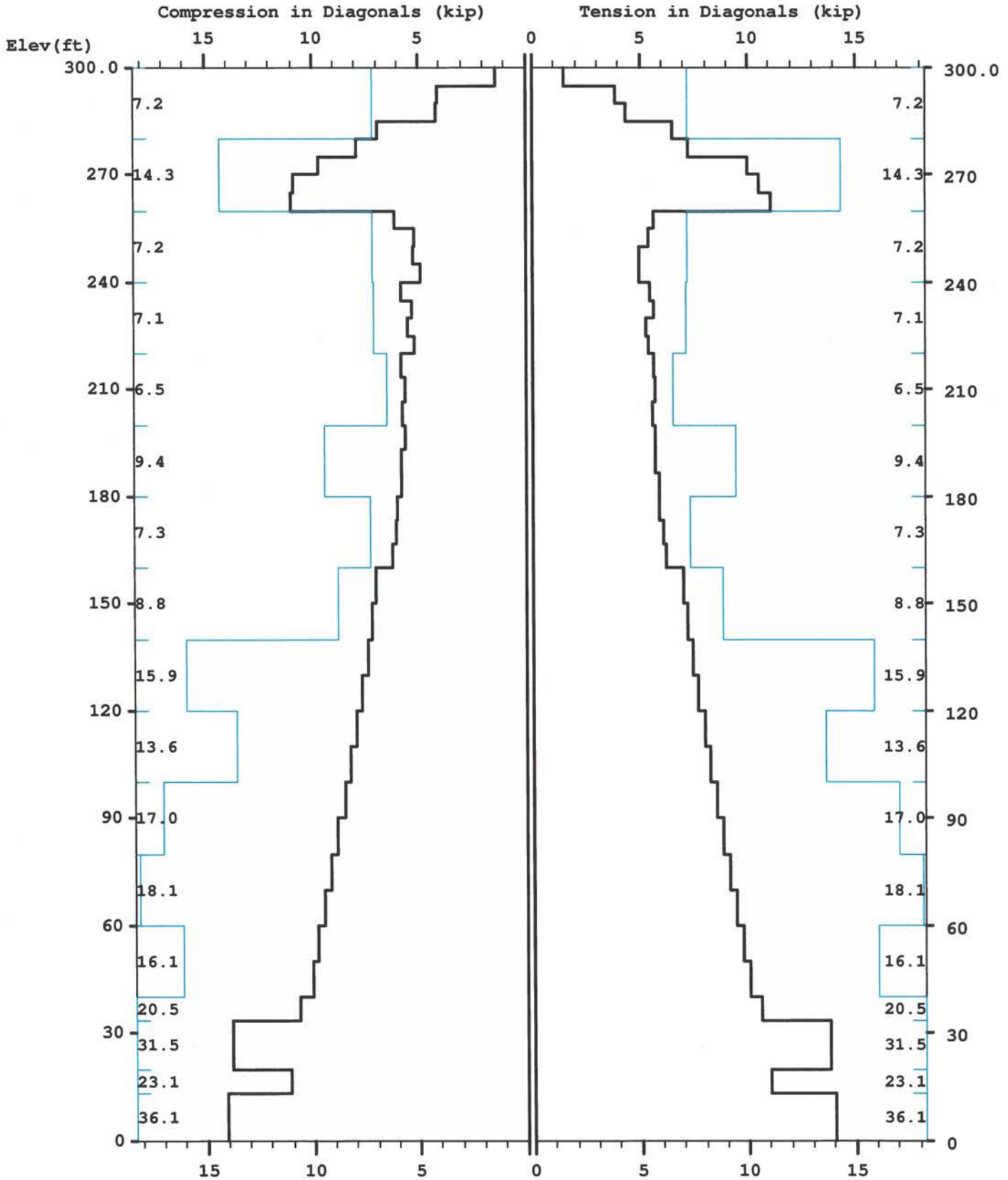
| Rebar Schedule per Pier | |
|--------------------------------|---|
| Pier | (14) #10 vertical rebar w/ #4 ties, two (2) within top 5" of pier then 9" C/C |
| Anchor Bolts per Leg | |
| | (6) 1.25" dia. x 63" F1554-105 on a 12.75" B.C. w/ 8" max. projection above concrete. |

Information contained herein is the sole property of Sabre Industries, constitutes a trade secret as defined by Iowa Code Ch. 550 and shall not be reproduced, copied or used in whole or part for any purpose whatsoever without the prior written consent of Sabre Industries.

Maximum

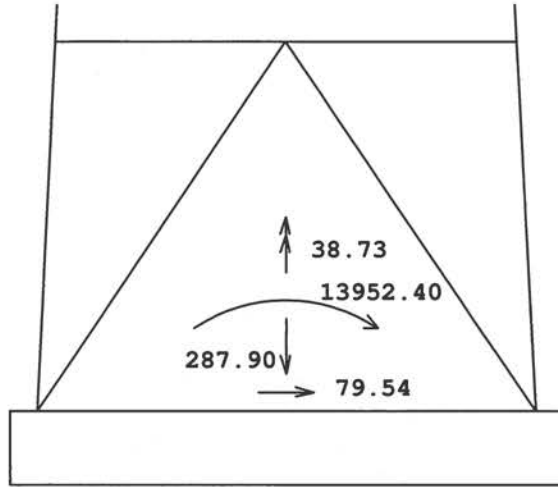


Maximum

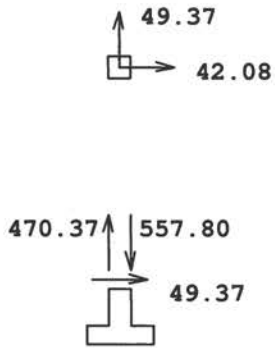


Maximum

TOTAL FOUNDATION LOADS (kip, ft-kip)



INDIVIDUAL FOOTING LOADS (kip)



MAST GEOMETRY (ft)

| PANEL TYPE | NO.OF LEGS | ELEV.AT BOTTOM | ELEV.AT TOP | F.W..AT BOTTOM | F.W..AT TOP | TYPICAL PANEL HEIGHT |
|------------|------------|----------------|-------------|----------------|-------------|----------------------|
| X | 3 | 295.00 | 300.00 | 5.00 | 5.00 | 5.00 |
| X | 3 | 280.00 | 295.00 | 5.00 | 5.00 | 5.00 |
| X | 3 | 275.00 | 280.00 | 5.00 | 5.00 | 5.00 |
| X | 3 | 260.00 | 275.00 | 5.00 | 5.00 | 5.00 |
| X | 3 | 255.00 | 260.00 | 5.50 | 5.00 | 5.00 |
| X | 3 | 240.00 | 255.00 | 7.00 | 5.50 | 5.00 |
| X | 3 | 220.00 | 240.00 | 9.00 | 7.00 | 5.00 |
| X | 3 | 200.00 | 220.00 | 11.00 | 9.00 | 6.67 |
| X | 3 | 180.00 | 200.00 | 13.00 | 11.00 | 6.67 |
| X | 3 | 160.00 | 180.00 | 15.00 | 13.00 | 6.67 |
| X | 3 | 140.00 | 160.00 | 17.00 | 15.00 | 10.00 |
| X | 3 | 120.00 | 140.00 | 19.00 | 17.00 | 10.00 |
| X | 3 | 100.00 | 120.00 | 21.00 | 19.00 | 10.00 |
| X | 3 | 80.00 | 100.00 | 23.00 | 21.00 | 10.00 |
| X | 3 | 60.00 | 80.00 | 25.00 | 23.00 | 10.00 |
| X | 3 | 40.00 | 60.00 | 27.00 | 25.00 | 10.00 |
| V | 3 | 33.33 | 40.00 | 27.67 | 27.00 | 6.67 |
| A | 3 | 20.00 | 33.33 | 29.00 | 27.67 | 13.33 |
| V | 3 | 13.33 | 20.00 | 29.67 | 29.00 | 6.67 |
| A | 3 | 0.00 | 13.33 | 31.00 | 29.67 | 13.33 |

MEMBER PROPERTIES

| MEMBER TYPE | BOTTOM ELEV ft | TOP ELEV ft | X-SECTN AREA in.sq | RADIUS OF GYRAT in | ELASTIC MODULUS ksi | THERMAL EXPANSN /deg |
|-------------|----------------|-------------|--------------------|--------------------|---------------------|----------------------|
| LE | 280.00 | 300.00 | 1.477 | 0.766 | 29000. | 0.0000117 |
| LE | 260.00 | 280.00 | 3.678 | 0.766 | 29000. | 0.0000117 |
| LE | 220.00 | 260.00 | 6.111 | 0.766 | 29000. | 0.0000117 |
| LE | 180.00 | 220.00 | 7.952 | 0.766 | 29000. | 0.0000117 |
| LE | 160.00 | 180.00 | 8.399 | 0.766 | 29000. | 0.0000117 |
| LE | 0.00 | 160.00 | 12.763 | 0.766 | 29000. | 0.0000117 |
| DI | 280.00 | 300.00 | 0.484 | 0.626 | 29000. | 0.0000117 |
| DI | 260.00 | 280.00 | 0.938 | 0.626 | 29000. | 0.0000117 |
| DI | 220.00 | 260.00 | 0.484 | 0.626 | 29000. | 0.0000117 |
| DI | 200.00 | 220.00 | 0.715 | 0.626 | 29000. | 0.0000117 |
| DI | 160.00 | 200.00 | 0.902 | 0.626 | 29000. | 0.0000117 |
| DI | 140.00 | 160.00 | 1.090 | 0.626 | 29000. | 0.0000117 |
| DI | 100.00 | 140.00 | 1.688 | 0.626 | 29000. | 0.0000117 |
| DI | 33.33 | 100.00 | 1.938 | 0.626 | 29000. | 0.0000117 |
| DI | 20.00 | 33.33 | 2.062 | 0.626 | 29000. | 0.0000117 |
| DI | 13.33 | 20.00 | 2.402 | 0.626 | 29000. | 0.0000117 |
| DI | 0.00 | 13.33 | 2.559 | 0.626 | 29000. | 0.0000117 |
| HO | 295.00 | 300.00 | 0.484 | 0.626 | 29000. | 0.0000117 |
| HO | 275.00 | 280.00 | 0.938 | 0.626 | 29000. | 0.0000117 |
| HO | 255.00 | 260.00 | 0.484 | 0.626 | 29000. | 0.0000117 |
| HO | 20.00 | 33.33 | 1.438 | 0.626 | 29000. | 0.0000117 |
| HO | 0.00 | 13.33 | 1.688 | 0.626 | 29000. | 0.0000117 |
| BR | 20.00 | 33.33 | 1.438 | 0.000 | 29000. | 0.0000117 |
| BR | 0.00 | 13.33 | 1.438 | 0.000 | 29000. | 0.0000117 |

FACTORED MEMBER RESISTANCES

| BOTTOM ELEV ft | TOP ELEV ft | LEGS | | DIAGONALS | | HORIZONTALS | | INT BRACING | |
|----------------|-------------|----------|----------|-----------|----------|-------------|----------|-------------|----------|
| | | COMP kip | TENS kip | COMP kip | TENS kip | COMP kip | TENS kip | COMP kip | TENS kip |
| 295.0 | 300.0 | 42.85 | 67.10 | 7.16 | 7.16 | 7.16 | 7.16 | 0.00 | 0.00 |
| 280.0 | 295.0 | 42.85 | 67.10 | 7.16 | 7.16 | 0.00 | 0.00 | 0.00 | 0.00 |
| 275.0 | 280.0 | 143.18 | 166.92 | 14.32 | 14.32 | 13.88 | 13.88 | 0.00 | 0.00 |

| | | | | | | | | | |
|-------|-------|--------|--------|-------|-------|-------|-------|------|------|
| 260.0 | 275.0 | 143.18 | 166.92 | 14.32 | 14.32 | 0.00 | 0.00 | 0.00 | 0.00 |
| 255.0 | 260.0 | 256.32 | 277.05 | 7.16 | 7.16 | 7.16 | 7.16 | 0.00 | 0.00 |
| 240.0 | 255.0 | 256.32 | 277.05 | 7.16 | 7.16 | 0.00 | 0.00 | 0.00 | 0.00 |
| 220.0 | 240.0 | 256.32 | 277.05 | 7.13 | 7.13 | 0.00 | 0.00 | 0.00 | 0.00 |
| 200.0 | 220.0 | 312.59 | 327.10 | 6.51 | 6.51 | 0.00 | 0.00 | 0.00 | 0.00 |
| 180.0 | 200.0 | 312.59 | 361.16 | 9.45 | 9.45 | 0.00 | 0.00 | 0.00 | 0.00 |
| 160.0 | 180.0 | 359.86 | 379.88 | 7.32 | 7.32 | 0.00 | 0.00 | 0.00 | 0.00 |
| 140.0 | 160.0 | 509.22 | 523.32 | 8.84 | 8.84 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120.0 | 140.0 | 509.22 | 523.32 | 15.88 | 15.88 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100.0 | 120.0 | 509.22 | 523.32 | 13.59 | 13.59 | 0.00 | 0.00 | 0.00 | 0.00 |
| 80.0 | 100.0 | 509.22 | 523.32 | 17.02 | 17.02 | 0.00 | 0.00 | 0.00 | 0.00 |
| 60.0 | 80.0 | 509.22 | 523.32 | 18.13 | 18.13 | 0.00 | 0.00 | 0.00 | 0.00 |
| 40.0 | 60.0 | 509.22 | 523.32 | 16.06 | 16.06 | 0.00 | 0.00 | 0.00 | 0.00 |
| 33.3 | 40.0 | 546.43 | 523.32 | 20.48 | 20.48 | 0.00 | 0.00 | 0.00 | 0.00 |
| 20.0 | 33.3 | 546.43 | 523.32 | 31.46 | 31.46 | 9.52 | 9.52 | 9.39 | 9.39 |
| 13.3 | 20.0 | 546.43 | 545.12 | 23.11 | 23.11 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.0 | 13.3 | 546.43 | 545.12 | 36.11 | 36.11 | 12.85 | 12.85 | 8.35 | 8.35 |

=====
 * Only 5 condition(s) shown in full
 * Some wind loads may have been derived from full-scale wind tunnel testing
 =====

LOADING CONDITION A

106 mph wind with no ice. Wind Azimuth: 0° (1.2 D + 1.0 Wo)

MAST LOADING

=====

| LOAD TYPE | ELEV ft | APPLY. RADIUS ft | LOAD. AT AZI | LOAD AZI |FORCES..... | |MOMENTS..... | |
|-----------|------------|------------------------|--------------------|-------------|------------------|-------------|--------------------|-------------------|
| | | | | | HORIZ kip | DOWN kip | VERTICAL ft-kip | TORSNAL ft-kip |
| C | 295.0 | 0.00 | 0.0 | 0.0 | 7.76 | 14.40 | 0.00 | 0.00 |
| C | 284.0 | 0.00 | 0.0 | 0.0 | 5.50 | 9.60 | 0.00 | 0.00 |
| C | 274.0 | 0.00 | 0.0 | 0.0 | 5.46 | 9.60 | 0.00 | 0.00 |
| D | 300.0 | 0.00 | 180.0 | 0.0 | 0.06 | 0.04 | 0.00 | 0.00 |
| D | 295.0 | 0.00 | 180.0 | 0.0 | 0.06 | 0.04 | 0.00 | 0.00 |
| D | 295.0 | 0.00 | 345.7 | 0.0 | 0.10 | 0.07 | 0.04 | -0.02 |
| D | 285.0 | 0.00 | 345.7 | 0.0 | 0.10 | 0.07 | 0.04 | -0.02 |
| D | 285.0 | 0.00 | 359.7 | 0.0 | 0.12 | 0.09 | 0.02 | -0.02 |
| D | 280.0 | 0.00 | 359.7 | 0.0 | 0.12 | 0.09 | 0.02 | -0.02 |
| D | 280.0 | 0.00 | 7.8 | 0.0 | 0.14 | 0.14 | 0.02 | -0.02 |
| D | 275.0 | 0.00 | 7.8 | 0.0 | 0.14 | 0.14 | 0.02 | -0.02 |
| D | 275.0 | 0.00 | 312.4 | 0.0 | 0.16 | 0.15 | 0.03 | -0.07 |
| D | 270.0 | 0.00 | 312.4 | 0.0 | 0.16 | 0.15 | 0.03 | -0.07 |
| D | 270.0 | 0.00 | 305.0 | 0.0 | 0.17 | 0.15 | 0.03 | -0.08 |
| D | 260.0 | 0.00 | 305.0 | 0.0 | 0.17 | 0.15 | 0.03 | -0.08 |
| D | 260.0 | 0.00 | 313.6 | 0.0 | 0.18 | 0.17 | 0.03 | -0.08 |
| D | 245.0 | 0.00 | 308.7 | 0.0 | 0.17 | 0.17 | 0.03 | -0.08 |
| D | 245.0 | 0.00 | 306.2 | 0.0 | 0.18 | 0.17 | 0.03 | -0.08 |
| D | 240.0 | 0.00 | 306.2 | 0.0 | 0.18 | 0.17 | 0.03 | -0.08 |
| D | 240.0 | 0.00 | 321.2 | 0.0 | 0.18 | 0.17 | 0.05 | -0.08 |
| D | 220.0 | 0.00 | 315.7 | 0.0 | 0.18 | 0.18 | 0.04 | -0.08 |
| D | 220.0 | 0.00 | 326.8 | 0.0 | 0.18 | 0.20 | 0.05 | -0.08 |
| D | 200.0 | 0.00 | 323.1 | 0.0 | 0.18 | 0.21 | 0.05 | -0.08 |
| D | 200.0 | 0.00 | 331.3 | 0.0 | 0.19 | 0.22 | 0.06 | -0.08 |
| D | 180.0 | 0.00 | 328.4 | 0.0 | 0.19 | 0.22 | 0.06 | -0.08 |
| D | 180.0 | 0.00 | 334.7 | 0.0 | 0.20 | 0.23 | 0.07 | -0.07 |
| D | 160.0 | 0.00 | 332.5 | 0.0 | 0.20 | 0.23 | 0.06 | -0.07 |
| D | 160.0 | 0.00 | 337.3 | 0.0 | 0.20 | 0.28 | 0.08 | -0.07 |
| D | 140.0 | 0.00 | 336.0 | 0.0 | 0.20 | 0.28 | 0.07 | -0.07 |
| D | 140.0 | 0.00 | 339.6 | 0.0 | 0.20 | 0.32 | 0.08 | -0.07 |
| D | 120.0 | 0.00 | 338.5 | 0.0 | 0.21 | 0.32 | 0.08 | -0.07 |
| D | 120.0 | 0.00 | 341.5 | 0.0 | 0.20 | 0.32 | 0.09 | -0.07 |
| D | 100.0 | 0.00 | 340.6 | 0.0 | 0.21 | 0.33 | 0.09 | -0.07 |
| D | 100.0 | 0.00 | 343.0 | 0.0 | 0.21 | 0.34 | 0.10 | -0.06 |
| D | 80.0 | 0.00 | 342.3 | 0.0 | 0.22 | 0.35 | 0.10 | -0.07 |
| D | 80.0 | 0.00 | 344.4 | 0.0 | 0.21 | 0.35 | 0.11 | -0.06 |
| D | 60.0 | 0.00 | 343.7 | 0.0 | 0.21 | 0.36 | 0.10 | -0.06 |
| D | 60.0 | 0.00 | 345.5 | 0.0 | 0.20 | 0.36 | 0.12 | -0.06 |
| D | 40.0 | 0.00 | 344.9 | 0.0 | 0.20 | 0.37 | 0.11 | -0.06 |
| D | 40.0 | 0.00 | 346.6 | 0.0 | 0.17 | 0.34 | 0.12 | -0.05 |
| D | 33.3 | 0.00 | 346.6 | 0.0 | 0.17 | 0.34 | 0.12 | -0.05 |
| D | 33.3 | 0.00 | 346.1 | 0.0 | 0.20 | 0.41 | 0.12 | -0.05 |

| | | | | | | | | |
|---|------|------|-------|-----|------|------|------|-------|
| D | 20.0 | 0.00 | 346.1 | 0.0 | 0.20 | 0.41 | 0.12 | -0.05 |
| D | 20.0 | 0.00 | 347.4 | 0.0 | 0.16 | 0.37 | 0.13 | -0.04 |
| D | 13.3 | 0.00 | 347.4 | 0.0 | 0.16 | 0.37 | 0.13 | -0.04 |
| D | 13.3 | 0.00 | 347.0 | 0.0 | 0.19 | 0.44 | 0.13 | -0.05 |
| D | 0.0 | 0.00 | 347.0 | 0.0 | 0.19 | 0.44 | 0.13 | -0.05 |

ANTENNA LOADING

|ANTENNA..... | ATTACHMENT | |ANTENNA FORCES..... | | | | | |
|-------------------|------------|-------|--------------------------|-------|-------|-------|---------|---------|
| TYPE | ELEV | AZI | RAD | AZI | AXIAL | SHEAR | GRAVITY | TORSION |
| | ft | | ft | | kip | kip | kip | ft-kip |
| STD+R | 240.0 | 90.0 | 5.5 | 120.0 | 0.12 | -0.36 | 0.24 | -0.80 |
| STD+R | 240.0 | 270.0 | 5.5 | 240.0 | 0.12 | 0.36 | 0.24 | 0.80 |

LOADING CONDITION M

106 mph wind with no ice. Wind Azimuth: 0° (0.9 D + 1.0 Wo)

MAST LOADING

| LOAD TYPE | ELEV ft | APPLY. RADIUS ft | LOAD. AT AZI | LOAD AZI |FORCES..... | |MOMENTS..... | |
|-----------|---------|------------------|--------------|----------|------------------|----------|-------------------|----------------|
| | | | | | HORIZ kip | DOWN kip | VERTICAL ft-kip | TORSNAL ft-kip |
| C | 295.0 | 0.00 | 0.0 | 0.0 | 7.76 | 10.80 | 0.00 | 0.00 |
| C | 284.0 | 0.00 | 0.0 | 0.0 | 5.50 | 7.20 | 0.00 | 0.00 |
| C | 274.0 | 0.00 | 0.0 | 0.0 | 5.46 | 7.20 | 0.00 | 0.00 |
| D | 300.0 | 0.00 | 180.0 | 0.0 | 0.06 | 0.03 | 0.00 | 0.00 |
| D | 295.0 | 0.00 | 180.0 | 0.0 | 0.06 | 0.03 | 0.00 | 0.00 |
| D | 295.0 | 0.00 | 345.7 | 0.0 | 0.10 | 0.05 | 0.03 | -0.02 |
| D | 285.0 | 0.00 | 345.7 | 0.0 | 0.10 | 0.05 | 0.03 | -0.02 |
| D | 285.0 | 0.00 | 359.7 | 0.0 | 0.12 | 0.06 | 0.02 | -0.02 |
| D | 280.0 | 0.00 | 359.7 | 0.0 | 0.12 | 0.06 | 0.02 | -0.02 |
| D | 280.0 | 0.00 | 7.8 | 0.0 | 0.14 | 0.11 | 0.01 | -0.02 |
| D | 275.0 | 0.00 | 7.8 | 0.0 | 0.14 | 0.11 | 0.01 | -0.02 |
| D | 275.0 | 0.00 | 312.4 | 0.0 | 0.16 | 0.11 | 0.02 | -0.07 |
| D | 270.0 | 0.00 | 312.4 | 0.0 | 0.16 | 0.11 | 0.02 | -0.07 |
| D | 270.0 | 0.00 | 305.0 | 0.0 | 0.17 | 0.11 | 0.02 | -0.08 |
| D | 260.0 | 0.00 | 305.0 | 0.0 | 0.17 | 0.11 | 0.02 | -0.08 |
| D | 260.0 | 0.00 | 313.6 | 0.0 | 0.18 | 0.13 | 0.03 | -0.08 |
| D | 245.0 | 0.00 | 308.7 | 0.0 | 0.17 | 0.13 | 0.02 | -0.08 |
| D | 245.0 | 0.00 | 306.2 | 0.0 | 0.18 | 0.13 | 0.02 | -0.08 |
| D | 240.0 | 0.00 | 306.2 | 0.0 | 0.18 | 0.13 | 0.02 | -0.08 |
| D | 240.0 | 0.00 | 321.2 | 0.0 | 0.18 | 0.13 | 0.03 | -0.08 |
| D | 220.0 | 0.00 | 315.7 | 0.0 | 0.18 | 0.13 | 0.03 | -0.08 |
| D | 220.0 | 0.00 | 326.8 | 0.0 | 0.18 | 0.15 | 0.04 | -0.08 |
| D | 200.0 | 0.00 | 323.1 | 0.0 | 0.18 | 0.16 | 0.04 | -0.08 |
| D | 200.0 | 0.00 | 331.3 | 0.0 | 0.19 | 0.16 | 0.05 | -0.08 |
| D | 180.0 | 0.00 | 328.4 | 0.0 | 0.19 | 0.17 | 0.04 | -0.08 |
| D | 180.0 | 0.00 | 334.7 | 0.0 | 0.20 | 0.17 | 0.05 | -0.07 |
| D | 160.0 | 0.00 | 332.5 | 0.0 | 0.20 | 0.17 | 0.05 | -0.07 |
| D | 160.0 | 0.00 | 337.3 | 0.0 | 0.20 | 0.21 | 0.06 | -0.07 |
| D | 140.0 | 0.00 | 336.0 | 0.0 | 0.20 | 0.21 | 0.05 | -0.07 |
| D | 140.0 | 0.00 | 339.6 | 0.0 | 0.20 | 0.24 | 0.06 | -0.07 |
| D | 100.0 | 0.00 | 340.6 | 0.0 | 0.21 | 0.24 | 0.07 | -0.07 |
| D | 100.0 | 0.00 | 342.6 | 0.0 | 0.21 | 0.26 | 0.07 | -0.06 |
| D | 70.0 | 0.00 | 343.9 | 0.0 | 0.21 | 0.26 | 0.08 | -0.06 |
| D | 70.0 | 0.00 | 344.1 | 0.0 | 0.21 | 0.27 | 0.08 | -0.06 |
| D | 40.0 | 0.00 | 345.3 | 0.0 | 0.20 | 0.28 | 0.09 | -0.06 |
| D | 40.0 | 0.00 | 346.6 | 0.0 | 0.17 | 0.25 | 0.09 | -0.05 |
| D | 33.3 | 0.00 | 346.6 | 0.0 | 0.17 | 0.25 | 0.09 | -0.05 |
| D | 33.3 | 0.00 | 346.1 | 0.0 | 0.20 | 0.30 | 0.09 | -0.05 |
| D | 20.0 | 0.00 | 346.1 | 0.0 | 0.20 | 0.30 | 0.09 | -0.05 |
| D | 20.0 | 0.00 | 347.4 | 0.0 | 0.16 | 0.28 | 0.10 | -0.04 |
| D | 13.3 | 0.00 | 347.4 | 0.0 | 0.16 | 0.28 | 0.10 | -0.04 |
| D | 13.3 | 0.00 | 347.0 | 0.0 | 0.19 | 0.33 | 0.10 | -0.05 |
| D | 0.0 | 0.00 | 347.0 | 0.0 | 0.19 | 0.33 | 0.10 | -0.05 |

ANTENNA LOADING

|ANTENNA..... | ATTACHMENT | |ANTENNA FORCES..... | | | | | |
|-------------------|------------|-----|--------------------------|-----|-------|-------|---------|---------|
| TYPE | ELEV | AZI | RAD | AZI | AXIAL | SHEAR | GRAVITY | TORSION |
| | ft | | ft | | kip | kip | kip | ft-kip |

| | | | | | | | | |
|-------|-------|-------|-----|-------|------|-------|------|-------|
| STD+R | 240.0 | 90.0 | 5.5 | 120.0 | 0.12 | -0.36 | 0.18 | -0.80 |
| STD+R | 240.0 | 270.0 | 5.5 | 240.0 | 0.12 | 0.36 | 0.18 | 0.80 |

=====
LOADING CONDITION Y =====

30 mph wind with 1.5 ice. Wind Azimuth: 0° (1.2 D + 1.0 Di + 1.0 Wi)

MAST LOADING
=====

| LOAD TYPE | ELEV ft | APPLY. RADIUS ft | LOAD. AT AZI | LOAD AZI |FORCES..... | |MOMENTS..... | |
|--------------|------------|------------------------|--------------------|-------------|------------------|-------------|--------------------|-------------------|
| | | | | | HORIZ kip | DOWN kip | VERTICAL ft-kip | TORSNAL ft-kip |
| C | 295.0 | 0.00 | 0.0 | 0.0 | 1.09 | 36.81 | 0.00 | 0.00 |
| C | 284.0 | 0.00 | 0.0 | 0.0 | 0.77 | 24.48 | 0.00 | 0.00 |
| C | 274.0 | 0.00 | 0.0 | 0.0 | 0.76 | 24.43 | 0.00 | 0.00 |
| D | 300.0 | 0.00 | 180.0 | 0.0 | 0.01 | 0.19 | 0.00 | 0.00 |
| D | 295.0 | 0.00 | 180.0 | 0.0 | 0.01 | 0.19 | 0.00 | 0.00 |
| D | 295.0 | 0.00 | 353.9 | 0.0 | 0.01 | 0.28 | 0.17 | 0.00 |
| D | 285.0 | 0.00 | 353.9 | 0.0 | 0.01 | 0.28 | 0.17 | 0.00 |
| D | 285.0 | 0.00 | 1.2 | 0.0 | 0.01 | 0.34 | 0.07 | 0.00 |
| D | 280.0 | 0.00 | 1.2 | 0.0 | 0.01 | 0.34 | 0.07 | 0.00 |
| D | 280.0 | 0.00 | 7.8 | 0.0 | 0.02 | 0.45 | 0.05 | 0.00 |
| D | 275.0 | 0.00 | 7.8 | 0.0 | 0.02 | 0.45 | 0.05 | 0.00 |
| D | 275.0 | 0.00 | 309.2 | 0.0 | 0.02 | 0.47 | 0.11 | -0.01 |
| D | 270.0 | 0.00 | 309.2 | 0.0 | 0.02 | 0.47 | 0.11 | -0.01 |
| D | 270.0 | 0.00 | 305.0 | 0.0 | 0.02 | 0.48 | 0.14 | -0.01 |
| D | 260.0 | 0.00 | 305.0 | 0.0 | 0.02 | 0.48 | 0.14 | -0.01 |
| D | 260.0 | 0.00 | 313.6 | 0.0 | 0.02 | 0.54 | 0.15 | -0.01 |
| D | 255.0 | 0.00 | 313.6 | 0.0 | 0.02 | 0.54 | 0.15 | -0.01 |
| D | 255.0 | 0.00 | 311.1 | 0.0 | 0.02 | 0.51 | 0.15 | -0.01 |
| D | 240.0 | 0.00 | 306.2 | 0.0 | 0.02 | 0.53 | 0.14 | -0.01 |
| D | 240.0 | 0.00 | 321.2 | 0.0 | 0.02 | 0.54 | 0.21 | -0.01 |
| D | 220.0 | 0.00 | 315.7 | 0.0 | 0.02 | 0.56 | 0.19 | -0.01 |
| D | 220.0 | 0.00 | 326.8 | 0.0 | 0.02 | 0.57 | 0.24 | -0.01 |
| D | 213.3 | 0.00 | 326.8 | 0.0 | 0.02 | 0.57 | 0.24 | -0.01 |
| D | 213.3 | 0.00 | 325.0 | 0.0 | 0.02 | 0.57 | 0.23 | -0.01 |
| D | 206.7 | 0.00 | 325.0 | 0.0 | 0.02 | 0.57 | 0.23 | -0.01 |
| D | 206.7 | 0.00 | 323.1 | 0.0 | 0.02 | 0.58 | 0.22 | -0.01 |
| D | 200.0 | 0.00 | 323.1 | 0.0 | 0.02 | 0.58 | 0.22 | -0.01 |
| D | 200.0 | 0.00 | 331.3 | 0.0 | 0.02 | 0.61 | 0.27 | -0.01 |
| D | 193.3 | 0.00 | 331.3 | 0.0 | 0.02 | 0.61 | 0.27 | -0.01 |
| D | 193.3 | 0.00 | 329.9 | 0.0 | 0.02 | 0.62 | 0.26 | -0.01 |
| D | 186.7 | 0.00 | 329.9 | 0.0 | 0.02 | 0.62 | 0.26 | -0.01 |
| D | 186.7 | 0.00 | 328.5 | 0.0 | 0.02 | 0.62 | 0.25 | -0.01 |
| D | 180.0 | 0.00 | 328.5 | 0.0 | 0.02 | 0.62 | 0.25 | -0.01 |
| D | 180.0 | 0.00 | 334.7 | 0.0 | 0.02 | 0.65 | 0.30 | -0.01 |
| D | 160.0 | 0.00 | 332.5 | 0.0 | 0.02 | 0.67 | 0.28 | -0.01 |
| D | 160.0 | 0.00 | 337.3 | 0.0 | 0.02 | 0.69 | 0.33 | -0.01 |
| D | 150.0 | 0.00 | 337.3 | 0.0 | 0.02 | 0.69 | 0.33 | -0.01 |
| D | 150.0 | 0.00 | 336.0 | 0.0 | 0.02 | 0.70 | 0.31 | -0.01 |
| D | 140.0 | 0.00 | 336.0 | 0.0 | 0.02 | 0.70 | 0.31 | -0.01 |
| D | 140.0 | 0.00 | 339.6 | 0.0 | 0.02 | 0.75 | 0.36 | -0.01 |
| D | 130.0 | 0.00 | 339.6 | 0.0 | 0.02 | 0.75 | 0.36 | -0.01 |
| D | 130.0 | 0.00 | 338.5 | 0.0 | 0.02 | 0.76 | 0.34 | -0.01 |
| D | 120.0 | 0.00 | 338.5 | 0.0 | 0.02 | 0.76 | 0.34 | -0.01 |
| D | 120.0 | 0.00 | 341.5 | 0.0 | 0.02 | 0.76 | 0.38 | -0.01 |
| D | 100.0 | 0.00 | 340.6 | 0.0 | 0.02 | 0.77 | 0.37 | -0.01 |
| D | 100.0 | 0.00 | 343.0 | 0.0 | 0.02 | 0.81 | 0.41 | -0.01 |
| D | 80.0 | 0.00 | 342.3 | 0.0 | 0.02 | 0.82 | 0.40 | -0.01 |
| D | 80.0 | 0.00 | 344.4 | 0.0 | 0.02 | 0.82 | 0.44 | -0.01 |
| D | 60.0 | 0.00 | 343.7 | 0.0 | 0.02 | 0.83 | 0.42 | -0.01 |
| D | 60.0 | 0.00 | 345.5 | 0.0 | 0.02 | 0.83 | 0.46 | -0.01 |
| D | 40.0 | 0.00 | 344.9 | 0.0 | 0.02 | 0.84 | 0.45 | -0.01 |
| D | 40.0 | 0.00 | 346.6 | 0.0 | 0.02 | 0.75 | 0.47 | 0.00 |
| D | 33.3 | 0.00 | 346.6 | 0.0 | 0.02 | 0.75 | 0.47 | 0.00 |
| D | 33.3 | 0.00 | 346.1 | 0.0 | 0.02 | 0.95 | 0.47 | -0.01 |
| D | 20.0 | 0.00 | 346.1 | 0.0 | 0.02 | 0.95 | 0.47 | -0.01 |
| D | 20.0 | 0.00 | 347.4 | 0.0 | 0.02 | 0.62 | 0.19 | 0.00 |
| D | 13.3 | 0.00 | 347.4 | 0.0 | 0.02 | 0.62 | 0.19 | 0.00 |
| D | 13.3 | 0.00 | 347.0 | 0.0 | 0.02 | 0.89 | 0.36 | 0.00 |
| D | 0.0 | 0.00 | 347.0 | 0.0 | 0.02 | 0.89 | 0.36 | 0.00 |

ANTENNA LOADING
=====

|ANTENNA..... | | | ATTACHMENT | |ANTENNA FORCES..... | | | |
|-------------------|-------|-------|------------|-------|--------------------------|-------|---------|---------|
| TYPE | ELEV | AZI | RAD | AZI | AXIAL | SHEAR | GRAVITY | TORSION |
| | ft | | ft | | kip | kip | kip | ft-kip |
| STD+R | 240.0 | 90.0 | 5.5 | 120.0 | 0.01 | -0.03 | 0.82 | -0.08 |
| STD+R | 240.0 | 270.0 | 5.5 | 240.0 | 0.01 | 0.03 | 0.82 | 0.08 |

=====

LOADING CONDITION k =====

Seismic - Azimuth: 0* (1.2 D + 1.0 Ev + 1.0 Eh)

MAST LOADING
=====

| LOAD TYPE | ELEV ft | APPLY. RADIUS ft | LOAD. AT AZI | LOAD AZI |FORCES..... | |MOMENTS..... | |
|-----------|---------|------------------|--------------|----------|------------------|----------|-------------------|----------------|
| | | | | | HORIZ kip | DOWN kip | VERTICAL ft-kip | TORSNAL ft-kip |
| C | 295.0 | 0.00 | 0.0 | 0.0 | 3.53 | 16.12 | 0.00 | 0.00 |
| C | 290.0 | 0.00 | 0.0 | 0.0 | 0.24 | 1.12 | 0.00 | 0.00 |
| C | 289.5 | 0.00 | 0.0 | 0.0 | 0.05 | 0.24 | 0.00 | 0.00 |
| C | 289.5 | 0.00 | 0.0 | 0.0 | 0.03 | 0.15 | 0.00 | 0.00 |
| C | 284.0 | 0.00 | 0.0 | 0.0 | 2.23 | 10.75 | 0.00 | 0.00 |
| C | 282.0 | 0.00 | 0.0 | 0.0 | 0.02 | 0.09 | 0.00 | 0.00 |
| C | 282.0 | 0.00 | 0.0 | 0.0 | 0.02 | 0.09 | 0.00 | 0.00 |
| C | 282.0 | 0.00 | 0.0 | 0.0 | 0.01 | 0.06 | 0.00 | 0.00 |
| C | 277.0 | 0.00 | 0.0 | 0.0 | 0.02 | 0.08 | 0.00 | 0.00 |
| C | 277.0 | 0.00 | 0.0 | 0.0 | 0.03 | 0.13 | 0.00 | 0.00 |
| C | 277.0 | 0.00 | 0.0 | 0.0 | 0.03 | 0.13 | 0.00 | 0.00 |
| C | 274.0 | 0.00 | 0.0 | 0.0 | 2.12 | 10.75 | 0.00 | 0.00 |
| C | 270.0 | 0.00 | 0.0 | 0.0 | 0.42 | 2.19 | 0.00 | 0.00 |
| C | 267.0 | 0.00 | 0.0 | 0.0 | 0.06 | 0.31 | 0.00 | 0.00 |
| C | 267.0 | 0.00 | 0.0 | 0.0 | 0.06 | 0.31 | 0.00 | 0.00 |
| C | 267.0 | 0.00 | 0.0 | 0.0 | 0.06 | 0.31 | 0.00 | 0.00 |
| C | 267.0 | 0.00 | 0.0 | 0.0 | 0.04 | 0.19 | 0.00 | 0.00 |
| C | 250.0 | 0.00 | 0.0 | 0.0 | 0.08 | 0.44 | 0.00 | 0.00 |
| C | 250.0 | 0.00 | 0.0 | 0.0 | 0.08 | 0.44 | 0.00 | 0.00 |
| C | 250.0 | 0.00 | 0.0 | 0.0 | 0.05 | 0.28 | 0.00 | 0.00 |
| C | 250.0 | 0.00 | 0.0 | 0.0 | 0.08 | 0.44 | 0.00 | 0.00 |
| C | 250.0 | 0.00 | 0.0 | 0.0 | 0.44 | 2.53 | 0.00 | 0.00 |
| C | 240.0 | 0.00 | 0.0 | 0.0 | 0.01 | 0.07 | 0.00 | 0.00 |
| C | 240.0 | 0.00 | 0.0 | 0.0 | 0.08 | 0.48 | 0.00 | 0.00 |
| C | 240.0 | 0.00 | 0.0 | 0.0 | 0.08 | 0.48 | 0.00 | 0.00 |
| C | 240.0 | 0.00 | 0.0 | 0.0 | 0.07 | 0.42 | 0.00 | 0.00 |
| C | 240.0 | 0.00 | 0.0 | 0.0 | 0.07 | 0.42 | 0.00 | 0.00 |
| C | 240.0 | 0.00 | 0.0 | 0.0 | 0.01 | 0.07 | 0.00 | 0.00 |
| C | 230.0 | 0.00 | 0.0 | 0.0 | 0.07 | 0.44 | 0.00 | 0.00 |
| C | 230.0 | 0.00 | 0.0 | 0.0 | 0.40 | 2.59 | 0.00 | 0.00 |
| C | 230.0 | 0.00 | 0.0 | 0.0 | 0.07 | 0.44 | 0.00 | 0.00 |
| C | 230.0 | 0.00 | 0.0 | 0.0 | 0.05 | 0.33 | 0.00 | 0.00 |
| C | 230.0 | 0.00 | 0.0 | 0.0 | 0.07 | 0.44 | 0.00 | 0.00 |
| C | 210.0 | 0.00 | 0.0 | 0.0 | 0.06 | 0.44 | 0.00 | 0.00 |
| C | 210.0 | 0.00 | 0.0 | 0.0 | 0.04 | 0.33 | 0.00 | 0.00 |
| C | 210.0 | 0.00 | 0.0 | 0.0 | 0.06 | 0.44 | 0.00 | 0.00 |
| C | 210.0 | 0.00 | 0.0 | 0.0 | 0.45 | 3.32 | 0.00 | 0.00 |
| C | 210.0 | 0.00 | 0.0 | 0.0 | 0.06 | 0.44 | 0.00 | 0.00 |
| C | 190.0 | 0.00 | 0.0 | 0.0 | 0.05 | 0.44 | 0.00 | 0.00 |
| C | 190.0 | 0.00 | 0.0 | 0.0 | 0.04 | 0.33 | 0.00 | 0.00 |
| C | 190.0 | 0.00 | 0.0 | 0.0 | 0.05 | 0.44 | 0.00 | 0.00 |
| C | 190.0 | 0.00 | 0.0 | 0.0 | 0.45 | 3.85 | 0.00 | 0.00 |
| C | 190.0 | 0.00 | 0.0 | 0.0 | 0.05 | 0.44 | 0.00 | 0.00 |
| C | 170.0 | 0.00 | 0.0 | 0.0 | 0.04 | 0.44 | 0.00 | 0.00 |
| C | 170.0 | 0.00 | 0.0 | 0.0 | 0.03 | 0.33 | 0.00 | 0.00 |
| C | 170.0 | 0.00 | 0.0 | 0.0 | 0.40 | 4.09 | 0.00 | 0.00 |
| C | 170.0 | 0.00 | 0.0 | 0.0 | 0.04 | 0.44 | 0.00 | 0.00 |
| C | 170.0 | 0.00 | 0.0 | 0.0 | 0.04 | 0.44 | 0.00 | 0.00 |
| C | 150.0 | 0.00 | 0.0 | 0.0 | 0.03 | 0.33 | 0.00 | 0.00 |
| C | 150.0 | 0.00 | 0.0 | 0.0 | 0.44 | 5.28 | 0.00 | 0.00 |
| C | 150.0 | 0.00 | 0.0 | 0.0 | 0.04 | 0.44 | 0.00 | 0.00 |
| C | 150.0 | 0.00 | 0.0 | 0.0 | 0.04 | 0.44 | 0.00 | 0.00 |
| C | 150.0 | 0.00 | 0.0 | 0.0 | 0.04 | 0.44 | 0.00 | 0.00 |
| C | 130.0 | 0.00 | 0.0 | 0.0 | 0.02 | 0.33 | 0.00 | 0.00 |
| C | 130.0 | 0.00 | 0.0 | 0.0 | 0.03 | 0.44 | 0.00 | 0.00 |
| C | 130.0 | 0.00 | 0.0 | 0.0 | 0.03 | 0.44 | 0.00 | 0.00 |
| C | 130.0 | 0.00 | 0.0 | 0.0 | 0.41 | 6.07 | 0.00 | 0.00 |
| C | 130.0 | 0.00 | 0.0 | 0.0 | 0.03 | 0.44 | 0.00 | 0.00 |
| C | 110.0 | 0.00 | 0.0 | 0.0 | 0.02 | 0.44 | 0.00 | 0.00 |

| | | | | | | | | |
|---|-------|------|-------|-------|------|------|------|------|
| C | 110.0 | 0.00 | 0.0 | 0.0 | 0.02 | 0.44 | 0.00 | 0.00 |
| C | 110.0 | 0.00 | 0.0 | 0.0 | 0.02 | 0.44 | 0.00 | 0.00 |
| C | 110.0 | 0.00 | 0.0 | 0.0 | 0.02 | 0.33 | 0.00 | 0.00 |
| C | 110.0 | 0.00 | 0.0 | 0.0 | 0.33 | 6.25 | 0.00 | 0.00 |
| C | 90.0 | 0.00 | 0.0 | 0.0 | 0.02 | 0.44 | 0.00 | 0.00 |
| C | 90.0 | 0.00 | 0.0 | 0.0 | 0.02 | 0.44 | 0.00 | 0.00 |
| C | 90.0 | 0.00 | 0.0 | 0.0 | 0.02 | 0.44 | 0.00 | 0.00 |
| C | 90.0 | 0.00 | 0.0 | 0.0 | 0.01 | 0.33 | 0.00 | 0.00 |
| C | 90.0 | 0.00 | 0.0 | 0.0 | 0.27 | 6.74 | 0.00 | 0.00 |
| C | 70.0 | 0.00 | 0.0 | 0.0 | 0.01 | 0.44 | 0.00 | 0.00 |
| C | 70.0 | 0.00 | 0.0 | 0.0 | 0.01 | 0.44 | 0.00 | 0.00 |
| C | 70.0 | 0.00 | 0.0 | 0.0 | 0.01 | 0.44 | 0.00 | 0.00 |
| C | 70.0 | 0.00 | 0.0 | 0.0 | 0.01 | 0.33 | 0.00 | 0.00 |
| C | 70.0 | 0.00 | 0.0 | 0.0 | 0.19 | 7.06 | 0.00 | 0.00 |
| C | 50.0 | 0.00 | 0.0 | 0.0 | 0.12 | 7.26 | 0.00 | 0.00 |
| C | 50.0 | 0.00 | 0.0 | 0.0 | 0.01 | 0.44 | 0.00 | 0.00 |
| C | 50.0 | 0.00 | 0.0 | 0.0 | 0.01 | 0.44 | 0.00 | 0.00 |
| C | 50.0 | 0.00 | 0.0 | 0.0 | 0.01 | 0.44 | 0.00 | 0.00 |
| C | 50.0 | 0.00 | 0.0 | 0.0 | 0.01 | 0.33 | 0.00 | 0.00 |
| C | 30.0 | 0.00 | 0.0 | 0.0 | 0.00 | 0.44 | 0.00 | 0.00 |
| C | 30.0 | 0.00 | 0.0 | 0.0 | 0.00 | 0.33 | 0.00 | 0.00 |
| C | 30.0 | 0.00 | 0.0 | 0.0 | 0.00 | 0.44 | 0.00 | 0.00 |
| C | 30.0 | 0.00 | 0.0 | 0.0 | 0.00 | 0.44 | 0.00 | 0.00 |
| C | 30.0 | 0.00 | 0.0 | 0.0 | 0.06 | 8.03 | 0.00 | 0.00 |
| C | 10.0 | 0.00 | 0.0 | 0.0 | 0.00 | 0.33 | 0.00 | 0.00 |
| C | 10.0 | 0.00 | 0.0 | 0.0 | 0.00 | 0.44 | 0.00 | 0.00 |
| C | 10.0 | 0.00 | 0.0 | 0.0 | 0.00 | 0.44 | 0.00 | 0.00 |
| C | 10.0 | 0.00 | 0.0 | 0.0 | 0.00 | 0.44 | 0.00 | 0.00 |
| C | 10.0 | 0.00 | 0.0 | 0.0 | 0.01 | 8.83 | 0.00 | 0.00 |
| D | 300.0 | 0.00 | 180.0 | 180.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| D | 0.0 | 0.00 | 180.0 | 180.0 | 0.00 | 0.00 | 0.00 | 0.00 |

ANTENNA LOADING

=====

|ANTENNA..... | ATTACHMENT | | | |ANTENNA FORCES..... | | | |
|-------------------|------------|-------|-----|-------|--------------------------|-------|---------|---------|
| TYPE | ELEV | AZI | RAD | AZI | AXIAL | SHEAR | GRAVITY | TORSION |
| | ft | | ft | | kip | kip | kip | ft-kip |
| STD+R | 240.0 | 90.0 | 5.5 | 120.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| STD+R | 240.0 | 270.0 | 5.5 | 240.0 | 0.00 | 0.00 | 0.00 | 0.00 |

LOADING CONDITION n

Seismic - Azimuth: 0* (0.9 D - 1.0 Ev + 1.0 Eh)

MAST LOADING

=====

| LOAD TYPE | ELEV ft | APPLY RADIUS ft | LOAD AT AZI | LOAD AZI |FORCES..... | |MOMENTS..... | |
|-----------|---------|-----------------|-------------|----------|------------------|----------|-------------------|----------------|
| | | | | | HORIZ kip | DOWN kip | VERTICAL ft-kip | TORSNAL ft-kip |
| C | 295.0 | 0.00 | 0.0 | 0.0 | 3.53 | 9.08 | 0.00 | 0.00 |
| C | 290.0 | 0.00 | 0.0 | 0.0 | 0.24 | 0.63 | 0.00 | 0.00 |
| C | 289.5 | 0.00 | 0.0 | 0.0 | 0.05 | 0.14 | 0.00 | 0.00 |
| C | 289.5 | 0.00 | 0.0 | 0.0 | 0.03 | 0.09 | 0.00 | 0.00 |
| C | 284.0 | 0.00 | 0.0 | 0.0 | 2.23 | 6.05 | 0.00 | 0.00 |
| C | 282.0 | 0.00 | 0.0 | 0.0 | 0.02 | 0.05 | 0.00 | 0.00 |
| C | 282.0 | 0.00 | 0.0 | 0.0 | 0.02 | 0.05 | 0.00 | 0.00 |
| C | 282.0 | 0.00 | 0.0 | 0.0 | 0.01 | 0.03 | 0.00 | 0.00 |
| C | 277.0 | 0.00 | 0.0 | 0.0 | 0.02 | 0.05 | 0.00 | 0.00 |
| C | 277.0 | 0.00 | 0.0 | 0.0 | 0.03 | 0.07 | 0.00 | 0.00 |
| C | 277.0 | 0.00 | 0.0 | 0.0 | 0.03 | 0.07 | 0.00 | 0.00 |
| C | 274.0 | 0.00 | 0.0 | 0.0 | 2.12 | 6.05 | 0.00 | 0.00 |
| C | 270.0 | 0.00 | 0.0 | 0.0 | 0.42 | 1.24 | 0.00 | 0.00 |
| C | 267.0 | 0.00 | 0.0 | 0.0 | 0.06 | 0.17 | 0.00 | 0.00 |
| C | 267.0 | 0.00 | 0.0 | 0.0 | 0.06 | 0.17 | 0.00 | 0.00 |
| C | 267.0 | 0.00 | 0.0 | 0.0 | 0.06 | 0.17 | 0.00 | 0.00 |
| C | 267.0 | 0.00 | 0.0 | 0.0 | 0.04 | 0.11 | 0.00 | 0.00 |
| C | 250.0 | 0.00 | 0.0 | 0.0 | 0.08 | 0.25 | 0.00 | 0.00 |
| C | 250.0 | 0.00 | 0.0 | 0.0 | 0.08 | 0.25 | 0.00 | 0.00 |
| C | 250.0 | 0.00 | 0.0 | 0.0 | 0.05 | 0.15 | 0.00 | 0.00 |
| C | 250.0 | 0.00 | 0.0 | 0.0 | 0.08 | 0.25 | 0.00 | 0.00 |
| C | 250.0 | 0.00 | 0.0 | 0.0 | 0.44 | 1.42 | 0.00 | 0.00 |
| C | 240.0 | 0.00 | 0.0 | 0.0 | 0.01 | 0.04 | 0.00 | 0.00 |
| C | 240.0 | 0.00 | 0.0 | 0.0 | 0.08 | 0.27 | 0.00 | 0.00 |

| | | | | | | | | |
|---|-------|------|-------|-------|------|------|------|------|
| C | 240.0 | 0.00 | 0.0 | 0.0 | 0.08 | 0.27 | 0.00 | 0.00 |
| C | 240.0 | 0.00 | 0.0 | 0.0 | 0.07 | 0.23 | 0.00 | 0.00 |
| C | 240.0 | 0.00 | 0.0 | 0.0 | 0.07 | 0.23 | 0.00 | 0.00 |
| C | 240.0 | 0.00 | 0.0 | 0.0 | 0.01 | 0.04 | 0.00 | 0.00 |
| C | 230.0 | 0.00 | 0.0 | 0.0 | 0.07 | 0.25 | 0.00 | 0.00 |
| C | 230.0 | 0.00 | 0.0 | 0.0 | 0.40 | 1.46 | 0.00 | 0.00 |
| C | 230.0 | 0.00 | 0.0 | 0.0 | 0.07 | 0.25 | 0.00 | 0.00 |
| C | 230.0 | 0.00 | 0.0 | 0.0 | 0.05 | 0.19 | 0.00 | 0.00 |
| C | 230.0 | 0.00 | 0.0 | 0.0 | 0.07 | 0.25 | 0.00 | 0.00 |
| C | 210.0 | 0.00 | 0.0 | 0.0 | 0.06 | 0.25 | 0.00 | 0.00 |
| C | 210.0 | 0.00 | 0.0 | 0.0 | 0.04 | 0.19 | 0.00 | 0.00 |
| C | 210.0 | 0.00 | 0.0 | 0.0 | 0.06 | 0.25 | 0.00 | 0.00 |
| C | 210.0 | 0.00 | 0.0 | 0.0 | 0.45 | 1.87 | 0.00 | 0.00 |
| C | 210.0 | 0.00 | 0.0 | 0.0 | 0.06 | 0.25 | 0.00 | 0.00 |
| C | 190.0 | 0.00 | 0.0 | 0.0 | 0.05 | 0.25 | 0.00 | 0.00 |
| C | 190.0 | 0.00 | 0.0 | 0.0 | 0.04 | 0.19 | 0.00 | 0.00 |
| C | 190.0 | 0.00 | 0.0 | 0.0 | 0.05 | 0.25 | 0.00 | 0.00 |
| C | 190.0 | 0.00 | 0.0 | 0.0 | 0.45 | 2.17 | 0.00 | 0.00 |
| C | 190.0 | 0.00 | 0.0 | 0.0 | 0.05 | 0.25 | 0.00 | 0.00 |
| C | 170.0 | 0.00 | 0.0 | 0.0 | 0.04 | 0.25 | 0.00 | 0.00 |
| C | 170.0 | 0.00 | 0.0 | 0.0 | 0.03 | 0.19 | 0.00 | 0.00 |
| C | 170.0 | 0.00 | 0.0 | 0.0 | 0.40 | 2.30 | 0.00 | 0.00 |
| C | 170.0 | 0.00 | 0.0 | 0.0 | 0.04 | 0.25 | 0.00 | 0.00 |
| C | 170.0 | 0.00 | 0.0 | 0.0 | 0.04 | 0.25 | 0.00 | 0.00 |
| C | 150.0 | 0.00 | 0.0 | 0.0 | 0.03 | 0.19 | 0.00 | 0.00 |
| C | 150.0 | 0.00 | 0.0 | 0.0 | 0.44 | 2.97 | 0.00 | 0.00 |
| C | 150.0 | 0.00 | 0.0 | 0.0 | 0.04 | 0.25 | 0.00 | 0.00 |
| C | 150.0 | 0.00 | 0.0 | 0.0 | 0.04 | 0.25 | 0.00 | 0.00 |
| C | 150.0 | 0.00 | 0.0 | 0.0 | 0.04 | 0.25 | 0.00 | 0.00 |
| C | 130.0 | 0.00 | 0.0 | 0.0 | 0.02 | 0.19 | 0.00 | 0.00 |
| C | 130.0 | 0.00 | 0.0 | 0.0 | 0.03 | 0.25 | 0.00 | 0.00 |
| C | 130.0 | 0.00 | 0.0 | 0.0 | 0.03 | 0.25 | 0.00 | 0.00 |
| C | 130.0 | 0.00 | 0.0 | 0.0 | 0.41 | 3.42 | 0.00 | 0.00 |
| C | 130.0 | 0.00 | 0.0 | 0.0 | 0.03 | 0.25 | 0.00 | 0.00 |
| C | 110.0 | 0.00 | 0.0 | 0.0 | 0.02 | 0.25 | 0.00 | 0.00 |
| C | 110.0 | 0.00 | 0.0 | 0.0 | 0.02 | 0.25 | 0.00 | 0.00 |
| C | 110.0 | 0.00 | 0.0 | 0.0 | 0.02 | 0.25 | 0.00 | 0.00 |
| C | 110.0 | 0.00 | 0.0 | 0.0 | 0.02 | 0.19 | 0.00 | 0.00 |
| C | 110.0 | 0.00 | 0.0 | 0.0 | 0.33 | 3.52 | 0.00 | 0.00 |
| C | 90.0 | 0.00 | 0.0 | 0.0 | 0.02 | 0.25 | 0.00 | 0.00 |
| C | 90.0 | 0.00 | 0.0 | 0.0 | 0.02 | 0.25 | 0.00 | 0.00 |
| C | 90.0 | 0.00 | 0.0 | 0.0 | 0.02 | 0.25 | 0.00 | 0.00 |
| C | 90.0 | 0.00 | 0.0 | 0.0 | 0.01 | 0.19 | 0.00 | 0.00 |
| C | 90.0 | 0.00 | 0.0 | 0.0 | 0.27 | 3.79 | 0.00 | 0.00 |
| C | 70.0 | 0.00 | 0.0 | 0.0 | 0.01 | 0.25 | 0.00 | 0.00 |
| C | 70.0 | 0.00 | 0.0 | 0.0 | 0.01 | 0.25 | 0.00 | 0.00 |
| C | 70.0 | 0.00 | 0.0 | 0.0 | 0.01 | 0.19 | 0.00 | 0.00 |
| C | 70.0 | 0.00 | 0.0 | 0.0 | 0.19 | 3.97 | 0.00 | 0.00 |
| C | 50.0 | 0.00 | 0.0 | 0.0 | 0.12 | 4.09 | 0.00 | 0.00 |
| C | 50.0 | 0.00 | 0.0 | 0.0 | 0.01 | 0.25 | 0.00 | 0.00 |
| C | 50.0 | 0.00 | 0.0 | 0.0 | 0.01 | 0.25 | 0.00 | 0.00 |
| C | 50.0 | 0.00 | 0.0 | 0.0 | 0.01 | 0.25 | 0.00 | 0.00 |
| C | 50.0 | 0.00 | 0.0 | 0.0 | 0.01 | 0.19 | 0.00 | 0.00 |
| C | 30.0 | 0.00 | 0.0 | 0.0 | 0.00 | 0.25 | 0.00 | 0.00 |
| C | 30.0 | 0.00 | 0.0 | 0.0 | 0.00 | 0.19 | 0.00 | 0.00 |
| C | 30.0 | 0.00 | 0.0 | 0.0 | 0.00 | 0.25 | 0.00 | 0.00 |
| C | 30.0 | 0.00 | 0.0 | 0.0 | 0.00 | 0.25 | 0.00 | 0.00 |
| C | 30.0 | 0.00 | 0.0 | 0.0 | 0.06 | 4.52 | 0.00 | 0.00 |
| C | 10.0 | 0.00 | 0.0 | 0.0 | 0.00 | 0.19 | 0.00 | 0.00 |
| C | 10.0 | 0.00 | 0.0 | 0.0 | 0.00 | 0.25 | 0.00 | 0.00 |
| C | 10.0 | 0.00 | 0.0 | 0.0 | 0.00 | 0.25 | 0.00 | 0.00 |
| C | 10.0 | 0.00 | 0.0 | 0.0 | 0.01 | 4.97 | 0.00 | 0.00 |
| D | 300.0 | 0.00 | 180.0 | 180.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| D | 0.0 | 0.00 | 180.0 | 180.0 | 0.00 | 0.00 | 0.00 | 0.00 |

ANTENNA LOADING
=====

| ANTENNA | ATTACHMENT | | ANTENNA FORCES | | | | | |
|---------------------|------------|-------|----------------------------|-------|-------|-------|---------|---------|
| TYPE | ELEV | AZI | RAD | AZI | AXIAL | SHEAR | GRAVITY | TORSION |
| | ft | | ft | | kip | kip | kip | ft-kip |
| STD+R | 240.0 | 90.0 | 5.5 | 120.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| STD+R | 240.0 | 270.0 | 5.5 | 240.0 | 0.00 | 0.00 | 0.00 | 0.00 |

=====

MAXIMUM ANTENNA AND REFLECTOR ROTATIONS:

=====

| ELEV ft | AZI deg | TYPE * |BEAM DEFLECTIONS (deg)..... | | | |
|------------|------------|-----------|----------------------------------|---------|----------|---------|
| | | | ROLL | YAW | PITCH | TOTAL |
| 240.0 | 90.0 | STD+R | 1.525 J | 0.152 T | -1.575 G | 1.578 G |
| 240.0 | 270.0 | STD+R | -1.525 J | 0.152 T | 1.575 G | 1.578 G |

MAXIMUM TENSION IN MAST MEMBERS (kip)

| ELEV ft | LEGS | DIAG | HORIZ | BRACE |
|------------|----------|---------|--------|--------|
| 300.0 | ----- | ----- | 0.97 Q | 0.00 A |
| | 0.86 W | 1.46 K | | |
| 295.0 | ----- | ----- | 0.18 C | 0.00 A |
| | 0.96 Q | 3.88 P | | |
| 290.0 | ----- | ----- | 0.12 I | 0.00 A |
| | 11.30 Q | 4.34 J | | |
| 285.0 | ----- | ----- | 0.22 c | 0.00 A |
| | 21.29 Q | 6.48 Q | | |
| 280.0 | ----- | ----- | 2.62 E | 0.00 A |
| | 37.60 Q | 7.24 Q | | |
| 275.0 | ----- | ----- | 0.36 E | 0.00 A |
| | 57.33 Q | 10.01 J | | |
| 270.0 | ----- | ----- | 0.08 S | 0.00 A |
| | 81.49 Q | 10.54 V | | |
| 265.0 | ----- | ----- | 0.43 E | 0.00 A |
| | 107.69 Q | 11.08 J | | |
| 260.0 | ----- | ----- | 1.06 W | 0.00 A |
| | 127.40 M | 5.63 M | | |
| 255.0 | ----- | ----- | 0.31 E | 0.00 A |
| | 140.90 M | 5.39 J | | |
| 250.0 | ----- | ----- | 0.04 D | 0.00 A |
| | 151.72 M | 4.98 M | | |
| 245.0 | ----- | ----- | 0.26 A | 0.00 A |
| | 162.49 M | 4.96 L | | |
| 240.0 | ----- | ----- | 0.06 D | 0.00 A |
| | 171.88 M | 5.45 V | | |
| 235.0 | ----- | ----- | 0.22 A | 0.00 A |
| | 182.05 M | 5.62 J | | |
| 230.0 | ----- | ----- | 0.09 E | 0.00 A |
| | 190.55 M | 5.25 P | | |
| 225.0 | ----- | ----- | 0.16 A | 0.00 A |
| | 199.46 M | 5.42 J | | |
| 220.0 | ----- | ----- | 0.10 E | 0.00 A |
| | 208.48 M | 5.62 P | | |
| 213.3 | ----- | ----- | 0.16 A | 0.00 A |
| | 219.06 M | 5.73 J | | |
| 206.7 | ----- | ----- | 0.09 E | 0.00 A |
| | 228.58 M | 5.57 P | | |
| 200.0 | ----- | ----- | 0.12 A | 0.00 A |
| | 238.19 M | 5.72 J | | |
| 193.3 | ----- | ----- | 0.08 E | 0.00 A |
| | 247.13 M | 5.69 P | | |
| 186.7 | ----- | ----- | 0.10 A | 0.00 A |
| | 256.15 M | 5.86 J | | |
| 180.0 | ----- | ----- | 0.07 E | 0.00 A |
| | 264.73 M | 5.90 V | | |
| 173.3 | ----- | ----- | 0.11 A | 0.00 A |
| | 273.37 M | 6.10 J | | |
| 166.7 | ----- | ----- | 0.06 E | 0.00 A |
| | 281.76 M | 6.19 P | | |
| 160.0 | ----- | ----- | 0.10 A | 0.00 A |
| | 292.10 M | 7.01 D | | |
| 150.0 | ----- | ----- | 0.09 E | 0.00 A |
| | 304.27 M | 7.17 V | | |
| 140.0 | ----- | ----- | 0.09 A | 0.00 A |
| | 316.32 M | 7.42 P | | |
| 130.0 | ----- | ----- | 0.08 E | 0.00 A |
| | 328.16 M | 7.65 V | | |
| 120.0 | ----- | ----- | 0.08 A | 0.00 A |
| | 339.97 M | 7.94 D | | |
| 110.0 | ----- | ----- | 0.07 E | 0.00 A |
| | 351.66 M | 8.19 V | | |
| 100.0 | ----- | ----- | 0.07 A | 0.00 A |
| | 363.32 M | 8.51 P | | |
| 90.0 | ----- | ----- | 0.06 A | 0.00 A |
| | 374.90 M | 8.81 V | | |
| 80.0 | ----- | ----- | 0.06 A | 0.00 A |

| | | | | |
|------|----------|---------|--------|--------|
| 70.0 | 386.50 M | 9.14 D | 0.06 A | 0.00 A |
| | 398.03 M | 9.44 J | | |
| 60.0 | 409.57 M | 9.76 J | 0.24 k | 0.00 A |
| 50.0 | 421.03 M | 10.05 P | 0.07 S | 0.00 A |
| 40.0 | 434.56 M | 10.60 P | 0.25 A | 0.00 A |
| 33.3 | 433.60 M | 13.77 P | 0.70 M | 0.00 I |
| 20.0 | 456.93 M | 11.05 P | 0.13 A | 0.00 I |
| 13.3 | 455.87 M | 14.03 P | 0.65 M | 0.00 V |
| 0.0 | | | 0.00 A | 0.00 A |

MAXIMUM COMPRESSION IN MAST MEMBERS (kip)

=====

| ELEV ft | LEGS | DIAG | HORIZ | BRACE |
|------------|-----------|----------|---------|--------|
| 300.0 | -0.99 E | -1.41 Q | -1.00 K | 0.00 A |
| 295.0 | -13.17 i | -4.07 J | -0.07 U | 0.00 A |
| 290.0 | -20.57 K | -4.16 P | -0.11 O | 0.00 A |
| 285.0 | -34.64 K | -6.92 K | 0.00 A | 0.00 A |
| 280.0 | -52.35 K | -7.88 K | -1.97 W | 0.00 A |
| 275.0 | -78.53 K | -9.66 P | -0.21 W | 0.00 A |
| 270.0 | -103.62 K | -10.85 D | -0.11 A | 0.00 A |
| 265.0 | -131.19 K | -10.97 P | -0.29 W | 0.00 A |
| 260.0 | -151.01 G | -6.10 G | -1.58 A | 0.00 A |
| 255.0 | -166.03 G | -5.19 V | -0.23 W | 0.00 A |
| 250.0 | -177.03 G | -5.28 G | -0.03 V | 0.00 A |
| 245.0 | -188.90 G | -4.88 R | -0.18 W | 0.00 A |
| 240.0 | -198.78 G | -5.79 J | -0.05 Q | 0.00 A |
| 235.0 | -210.05 G | -5.34 P | -0.14 W | 0.00 A |
| 230.0 | -219.04 G | -5.53 J | -0.08 S | 0.00 A |
| 225.0 | -228.94 G | -5.23 V | -0.11 W | 0.00 A |
| 220.0 | -238.69 G | -5.84 J | -0.08 S | 0.00 A |
| 213.3 | -250.60 G | -5.60 P | -0.12 W | 0.00 A |
| 206.7 | -261.13 G | -5.73 J | -0.08 S | 0.00 A |
| 200.0 | -272.04 G | -5.64 P | -0.09 W | 0.00 A |
| 193.3 | -282.11 G | -5.81 J | -0.07 S | 0.00 A |
| 186.7 | -292.45 G | -5.80 P | -0.08 W | 0.00 A |
| 180.0 | -302.25 G | -6.00 D | -0.06 S | 0.00 A |
| 173.3 | -312.25 G | -6.07 J | -0.09 W | 0.00 A |
| 166.7 | -321.93 G | -6.27 J | -0.05 S | 0.00 A |
| 160.0 | -334.10 G | -7.02 J | -0.08 S | 0.00 A |
| 150.0 | | | -0.07 S | 0.00 A |

| | | | | |
|-------|-----------|----------|---------|--------|
| 140.0 | -348.57 G | -7.25 D | -0.07 S | 0.00 A |
| | -363.09 G | -7.44 J | | |
| 130.0 | -377.49 G | -7.73 D | -0.06 S | 0.00 A |
| | -391.96 G | -7.97 J | | |
| 120.0 | -406.32 G | -8.26 D | -0.06 S | 0.00 A |
| | -420.78 G | -8.54 J | | |
| 110.0 | -435.23 G | -8.88 J | -0.05 S | 0.00 A |
| | -449.78 G | -9.17 J | | |
| 100.0 | -464.32 G | -9.50 J | -0.05 S | 0.00 A |
| | -478.94 G | -9.79 J | | |
| 90.0 | -493.51 G | -10.09 J | -0.04 S | 0.00 A |
| | -509.88 G | -10.69 D | | |
| 80.0 | -511.16 G | -13.83 J | -0.02 P | 0.00 A |
| | -538.86 G | -11.13 J | | |
| 70.0 | -540.27 G | -14.08 J | -0.09 A | 0.00 A |
| | | | | |
| 60.0 | | | -0.21 S | 0.00 A |
| | | | | |
| 50.0 | | | -0.85 G | 0.00 D |
| | | | | |
| 40.0 | | | -0.11 S | 0.00 D |
| | | | | |
| 33.3 | | | -0.81 G | 0.00 C |
| | | | | |
| 20.0 | | | 0.00 A | 0.00 A |
| | | | | |
| 13.3 | | | | |
| | | | | |
| 0.0 | | | | |

FORCE/RESISTANCE RATIO IN LEGS
=====

| MAST ELEV ft | -- LEG COMPRESSION -- | | | ---- LEG TENSION ---- | | |
|--------------------|-----------------------|----------------|---------------------------|-----------------------|----------------|---------------------------|
| | MAX COMP | COMP RESIST | FORCE/ RESIST RATIO | MAX TENS | TENS RESIST | FORCE/ RESIST RATIO |
| 300.00 | 0.99 | 42.85 | 0.02 | 0.86 | 67.10 | 0.01 |
| 295.00 | 13.17 | 42.85 | 0.31 | 0.96 | 67.10 | 0.01 |
| 290.00 | 20.57 | 42.85 | 0.48 | 11.30 | 67.10 | 0.17 |
| 285.00 | 34.64 | 42.85 | 0.81 | 21.29 | 67.10 | 0.32 |
| 280.00 | 52.35 | 143.18 | 0.37 | 37.60 | 166.92 | 0.23 |
| 275.00 | 78.53 | 143.18 | 0.55 | 57.33 | 166.92 | 0.34 |
| 270.00 | 103.62 | 143.18 | 0.72 | 81.49 | 166.92 | 0.49 |
| 265.00 | 131.19 | 143.18 | 0.92 | 107.69 | 166.92 | 0.65 |
| 260.00 | 151.01 | 256.32 | 0.59 | 127.40 | 277.05 | 0.46 |
| 255.00 | 166.03 | 256.32 | 0.65 | 140.90 | 277.05 | 0.51 |
| 250.00 | 177.03 | 256.32 | 0.69 | 151.72 | 277.05 | 0.55 |
| 245.00 | 188.90 | 256.32 | 0.74 | 162.49 | 277.05 | 0.59 |
| 240.00 | 198.78 | 256.32 | 0.78 | 171.88 | 277.05 | 0.62 |
| 235.00 | 210.05 | 256.32 | 0.82 | 182.05 | 277.05 | 0.66 |
| 230.00 | 219.04 | 256.32 | 0.85 | 190.55 | 277.05 | 0.69 |
| 225.00 | 228.94 | 256.32 | 0.89 | 199.46 | 277.05 | 0.72 |
| 220.00 | 238.69 | 312.59 | 0.76 | 208.48 | 327.10 | 0.64 |
| 213.33 | 250.60 | 312.59 | 0.80 | 219.06 | 327.10 | 0.67 |
| 206.67 | 261.13 | 312.59 | 0.84 | 228.58 | 327.10 | 0.70 |
| 200.00 | 272.04 | 312.59 | 0.87 | 238.19 | 361.16 | 0.66 |
| 193.33 | | | | | | |

| | | | | | | |
|--------|--------|--------|------|--------|--------|------|
| 186.67 | 282.11 | 312.59 | 0.90 | 247.13 | 361.16 | 0.68 |
| | 292.45 | 312.59 | 0.94 | 256.15 | 361.16 | 0.71 |
| 180.00 | 302.25 | 359.86 | 0.84 | 264.73 | 379.88 | 0.70 |
| 173.33 | 312.25 | 359.86 | 0.87 | 273.37 | 379.88 | 0.72 |
| 166.67 | 321.93 | 359.86 | 0.89 | 281.76 | 379.88 | 0.74 |
| 160.00 | 334.10 | 509.22 | 0.66 | 292.10 | 523.32 | 0.56 |
| 150.00 | 348.57 | 509.22 | 0.68 | 304.27 | 523.32 | 0.58 |
| 140.00 | 363.09 | 509.22 | 0.71 | 316.32 | 523.32 | 0.60 |
| 130.00 | 377.49 | 509.22 | 0.74 | 328.16 | 523.32 | 0.63 |
| 120.00 | 391.96 | 509.22 | 0.77 | 339.97 | 523.32 | 0.65 |
| 110.00 | 406.32 | 509.22 | 0.80 | 351.66 | 523.32 | 0.67 |
| 100.00 | 420.78 | 509.22 | 0.83 | 363.32 | 523.32 | 0.69 |
| 90.00 | 435.23 | 509.22 | 0.85 | 374.90 | 523.32 | 0.72 |
| 80.00 | 449.78 | 509.22 | 0.88 | 386.50 | 523.32 | 0.74 |
| 70.00 | 464.32 | 509.22 | 0.91 | 398.03 | 523.32 | 0.76 |
| 60.00 | 478.94 | 509.22 | 0.94 | 409.57 | 523.32 | 0.78 |
| 50.00 | 493.51 | 509.22 | 0.97 | 421.03 | 523.32 | 0.80 |
| 40.00 | 509.88 | 546.43 | 0.93 | 434.56 | 523.32 | 0.83 |
| 33.33 | 511.16 | 546.43 | 0.94 | 433.60 | 523.32 | 0.83 |
| 20.00 | 538.86 | 546.43 | 0.99 | 456.93 | 545.12 | 0.84 |
| 13.33 | 540.27 | 546.43 | 0.99 | 455.87 | 545.12 | 0.84 |
| 0.00 | | | | | | |

FORCE/RESISTANCE RATIO IN DIAGONALS
=====

| MAST ELEV ft | - DIAG COMPRESSION - | | | --- DIAG TENSION --- | | |
|--------------------|----------------------|----------------|---------------------------|----------------------|----------------|---------------------------|
| | MAX COMP | COMP RESIST | FORCE/ RESIST RATIO | MAX TENS | TENS RESIST | FORCE/ RESIST RATIO |
| 300.00 | 1.41 | 7.16 | 0.20 | 1.46 | 7.16 | 0.20 |
| 295.00 | 4.07 | 7.16 | 0.57 | 3.88 | 7.16 | 0.54 |
| 290.00 | 4.16 | 7.16 | 0.58 | 4.34 | 7.16 | 0.61 |
| 285.00 | 6.92 | 7.16 | 0.97 | 6.48 | 7.16 | 0.90 |
| 280.00 | 7.88 | 14.32 | 0.55 | 7.24 | 14.32 | 0.51 |
| 275.00 | 9.66 | 14.32 | 0.67 | 10.01 | 14.32 | 0.70 |
| 270.00 | 10.85 | 14.32 | 0.76 | 10.54 | 14.32 | 0.74 |
| 265.00 | 10.97 | 14.32 | 0.77 | 11.08 | 14.32 | 0.77 |
| 260.00 | 6.10 | 7.16 | 0.85 | 5.63 | 7.16 | 0.79 |
| 255.00 | 5.19 | 7.16 | 0.72 | 5.39 | 7.16 | 0.75 |
| 250.00 | 5.28 | 7.16 | 0.74 | 4.98 | 7.16 | 0.70 |
| 245.00 | 4.88 | 7.16 | 0.68 | 4.96 | 7.16 | 0.69 |
| 240.00 | 5.79 | 7.13 | 0.81 | 5.45 | 7.13 | 0.76 |
| 235.00 | 5.34 | 7.13 | 0.75 | 5.62 | 7.13 | 0.79 |
| 230.00 | 5.53 | 7.13 | 0.78 | 5.25 | 7.13 | 0.74 |

| | | | | | | |
|--------|-------|-------|------|-------|-------|------|
| 225.00 | | | | | | |
| 220.00 | 5.23 | 7.13 | 0.73 | 5.42 | 7.13 | 0.76 |
| 213.33 | 5.84 | 6.51 | 0.90 | 5.62 | 6.51 | 0.86 |
| 206.67 | 5.60 | 6.51 | 0.86 | 5.73 | 6.51 | 0.88 |
| 200.00 | 5.73 | 6.51 | 0.88 | 5.57 | 6.51 | 0.86 |
| 193.33 | 5.64 | 9.45 | 0.60 | 5.72 | 9.45 | 0.61 |
| 186.67 | 5.81 | 9.45 | 0.61 | 5.69 | 9.45 | 0.60 |
| 180.00 | 5.80 | 9.45 | 0.61 | 5.86 | 9.45 | 0.62 |
| 173.33 | 6.00 | 7.32 | 0.82 | 5.90 | 7.32 | 0.81 |
| 166.67 | 6.07 | 7.32 | 0.83 | 6.10 | 7.32 | 0.83 |
| 160.00 | 6.27 | 7.32 | 0.86 | 6.19 | 7.32 | 0.85 |
| 150.00 | 7.02 | 8.84 | 0.79 | 7.01 | 8.84 | 0.79 |
| 140.00 | 7.25 | 8.84 | 0.82 | 7.17 | 8.84 | 0.81 |
| 130.00 | 7.44 | 15.88 | 0.47 | 7.42 | 15.88 | 0.47 |
| 120.00 | 7.73 | 15.88 | 0.49 | 7.65 | 15.88 | 0.48 |
| 110.00 | 7.97 | 13.59 | 0.59 | 7.94 | 13.59 | 0.58 |
| 100.00 | 8.26 | 13.59 | 0.61 | 8.19 | 13.59 | 0.60 |
| 90.00 | 8.54 | 17.02 | 0.50 | 8.51 | 17.02 | 0.50 |
| 80.00 | 8.88 | 17.02 | 0.52 | 8.81 | 17.02 | 0.52 |
| 70.00 | 9.17 | 18.13 | 0.51 | 9.14 | 18.13 | 0.50 |
| 60.00 | 9.50 | 18.13 | 0.52 | 9.44 | 18.13 | 0.52 |
| 50.00 | 9.79 | 16.06 | 0.61 | 9.76 | 16.06 | 0.61 |
| 40.00 | 10.09 | 16.06 | 0.63 | 10.05 | 16.06 | 0.63 |
| 33.33 | 10.69 | 20.48 | 0.52 | 10.60 | 20.48 | 0.52 |
| 20.00 | 13.83 | 31.46 | 0.44 | 13.77 | 31.46 | 0.44 |
| 13.33 | 11.13 | 23.11 | 0.48 | 11.05 | 23.11 | 0.48 |
| 0.00 | 14.08 | 36.11 | 0.39 | 14.03 | 36.11 | 0.39 |

MAXIMUM INDIVIDUAL FOUNDATION LOADS: (kip)

| LOAD COMPONENTS | | | | TOTAL SHEAR |
|-----------------|---------|----------|-----------|-------------|
| NORTH | EAST | DOWN | UPLIFT | |
| 49.37 G | 42.08 K | 557.80 G | -470.37 M | 49.37 G |

MAXIMUM TOTAL LOADS ON FOUNDATION : (kip & kip-ft)

| HORIZONTAL | | | DOWN | OVERTURNING | | | TORSION |
|------------|--------|--------|---------|-------------|-----------|-----------|---------|
| NORTH | EAST | TOTAL | | NORTH | EAST | TOTAL | |
| | | @ 0.0 | | | | @ 0.0 | |
| 79.5 G | 73.5 J | 79.5 G | 287.9 e | 13952.4 G | 13186.8 J | 13952.4 G | 38.7 H |

 ***** Service Load Condition *****

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* Only 1 condition(s) shown in full
 * Some wind loads may have been derived from full-scale wind tunnel testing

=====

LOADING CONDITION A

60 mph wind with no ice. Wind Azimuth: 0° (1.0 D + 1.0 Wo)

MAST LOADING
 =====

| LOAD TYPE | ELEV ft | APPLY. RADIUS ft | LOAD. AT AZI | LOAD AZI | FORCES..... | | MOMENTS..... | |
|-----------|------------|------------------------|--------------------|-------------|-------------------|-------------|--------------------|-------------------|
| | | | | | HORIZ kip | DOWN kip | VERTICAL ft-kip | TORSNAL ft-kip |
| C | 295.0 | 0.00 | 0.0 | 0.0 | 2.49 | 12.00 | 0.00 | 0.00 |
| C | 284.0 | 0.00 | 0.0 | 0.0 | 1.76 | 8.00 | 0.00 | 0.00 |
| C | 274.0 | 0.00 | 0.0 | 0.0 | 1.75 | 8.00 | 0.00 | 0.00 |
| D | 300.0 | 0.00 | 180.0 | 0.0 | 0.02 | 0.04 | 0.00 | 0.00 |
| D | 295.0 | 0.00 | 180.0 | 0.0 | 0.02 | 0.04 | 0.00 | 0.00 |
| D | 295.0 | 0.00 | 345.7 | 0.0 | 0.03 | 0.06 | 0.04 | -0.01 |
| D | 285.0 | 0.00 | 345.7 | 0.0 | 0.03 | 0.06 | 0.04 | -0.01 |
| D | 285.0 | 0.00 | 359.7 | 0.0 | 0.04 | 0.07 | 0.02 | -0.01 |
| D | 280.0 | 0.00 | 359.7 | 0.0 | 0.04 | 0.07 | 0.02 | -0.01 |
| D | 280.0 | 0.00 | 7.8 | 0.0 | 0.04 | 0.12 | 0.02 | -0.01 |
| D | 275.0 | 0.00 | 7.8 | 0.0 | 0.04 | 0.12 | 0.02 | -0.01 |
| D | 275.0 | 0.00 | 311.2 | 0.0 | 0.05 | 0.12 | 0.02 | -0.02 |
| D | 260.0 | 0.00 | 303.8 | 0.0 | 0.05 | 0.13 | 0.03 | -0.03 |
| D | 260.0 | 0.00 | 313.6 | 0.0 | 0.06 | 0.14 | 0.03 | -0.03 |
| D | 245.0 | 0.00 | 308.7 | 0.0 | 0.06 | 0.14 | 0.03 | -0.03 |
| D | 245.0 | 0.00 | 306.2 | 0.0 | 0.06 | 0.14 | 0.02 | -0.03 |
| D | 240.0 | 0.00 | 306.2 | 0.0 | 0.06 | 0.14 | 0.02 | -0.03 |
| D | 240.0 | 0.00 | 321.2 | 0.0 | 0.06 | 0.14 | 0.04 | -0.03 |
| D | 220.0 | 0.00 | 315.7 | 0.0 | 0.06 | 0.15 | 0.03 | -0.03 |
| D | 220.0 | 0.00 | 326.8 | 0.0 | 0.06 | 0.17 | 0.04 | -0.02 |
| D | 200.0 | 0.00 | 323.1 | 0.0 | 0.06 | 0.17 | 0.04 | -0.02 |
| D | 200.0 | 0.00 | 331.3 | 0.0 | 0.06 | 0.18 | 0.05 | -0.02 |
| D | 180.0 | 0.00 | 328.4 | 0.0 | 0.06 | 0.18 | 0.05 | -0.02 |
| D | 180.0 | 0.00 | 334.7 | 0.0 | 0.07 | 0.19 | 0.06 | -0.02 |
| D | 160.0 | 0.00 | 332.5 | 0.0 | 0.07 | 0.19 | 0.05 | -0.02 |
| D | 160.0 | 0.00 | 337.3 | 0.0 | 0.07 | 0.23 | 0.06 | -0.02 |
| D | 140.0 | 0.00 | 336.0 | 0.0 | 0.07 | 0.24 | 0.06 | -0.02 |
| D | 140.0 | 0.00 | 339.6 | 0.0 | 0.07 | 0.26 | 0.07 | -0.02 |
| D | 120.0 | 0.00 | 338.5 | 0.0 | 0.07 | 0.27 | 0.07 | -0.02 |
| D | 120.0 | 0.00 | 341.5 | 0.0 | 0.07 | 0.27 | 0.08 | -0.02 |
| D | 100.0 | 0.00 | 340.6 | 0.0 | 0.07 | 0.27 | 0.07 | -0.02 |
| D | 100.0 | 0.00 | 343.0 | 0.0 | 0.07 | 0.29 | 0.08 | -0.02 |
| D | 80.0 | 0.00 | 342.3 | 0.0 | 0.07 | 0.29 | 0.08 | -0.02 |
| D | 80.0 | 0.00 | 344.4 | 0.0 | 0.07 | 0.29 | 0.09 | -0.02 |
| D | 60.0 | 0.00 | 343.7 | 0.0 | 0.07 | 0.30 | 0.09 | -0.02 |
| D | 60.0 | 0.00 | 345.5 | 0.0 | 0.07 | 0.30 | 0.10 | -0.02 |
| D | 40.0 | 0.00 | 344.9 | 0.0 | 0.07 | 0.31 | 0.09 | -0.02 |
| D | 40.0 | 0.00 | 346.6 | 0.0 | 0.06 | 0.28 | 0.10 | -0.02 |
| D | 33.3 | 0.00 | 346.6 | 0.0 | 0.06 | 0.28 | 0.10 | -0.02 |
| D | 33.3 | 0.00 | 346.1 | 0.0 | 0.07 | 0.34 | 0.10 | -0.02 |
| D | 20.0 | 0.00 | 346.1 | 0.0 | 0.07 | 0.34 | 0.10 | -0.02 |
| D | 20.0 | 0.00 | 347.4 | 0.0 | 0.05 | 0.31 | 0.11 | -0.01 |
| D | 13.3 | 0.00 | 347.4 | 0.0 | 0.05 | 0.31 | 0.11 | -0.01 |
| D | 13.3 | 0.00 | 347.0 | 0.0 | 0.06 | 0.37 | 0.11 | -0.01 |
| D | 0.0 | 0.00 | 347.0 | 0.0 | 0.06 | 0.37 | 0.11 | -0.01 |

ANTENNA LOADING
 =====

..... ANTENNA..... ATTACHMENT ANTENNA FORCES.....

| TYPE | ELEV ft | AZI | RAD ft | AZI | AXIAL kip | SHEAR kip | GRAVITY kip | TORSION ft-kip |
|-------|------------|-------|-----------|-------|--------------|--------------|----------------|-------------------|
| STD+R | 240.0 | 90.0 | 5.5 | 120.0 | 0.04 | -0.11 | 0.20 | -0.26 |
| STD+R | 240.0 | 270.0 | 5.5 | 240.0 | 0.04 | 0.11 | 0.20 | 0.26 |

=====

MAXIMUM MAST DISPLACEMENTS:

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| ELEV ft | -----DEFLECTIONS (ft)----- | | | --TILTS (DEG)--- | | TWIST DEG |
|------------|----------------------------|----------|---------|------------------|----------|--------------|
| | NORTH | EAST | DOWN | NORTH | EAST | |
| 300.0 | 1.567 G | -1.513 D | 0.025 G | 0.730 G | -0.711 D | 0.064 H |
| 295.0 | 1.504 G | -1.451 D | 0.025 G | 0.731 G | -0.712 D | 0.064 H |
| 290.0 | 1.439 G | -1.388 D | 0.024 G | 0.727 G | -0.709 D | 0.064 H |
| 285.0 | 1.375 G | -1.326 D | 0.023 G | 0.716 G | -0.697 D | 0.063 H |
| 280.0 | 1.312 G | -1.264 D | 0.022 G | 0.696 G | -0.677 D | 0.063 H |
| 275.0 | 1.251 G | -1.205 D | 0.021 G | 0.682 G | -0.664 D | 0.062 H |
| 270.0 | 1.192 G | -1.147 D | 0.021 G | 0.662 G | -0.645 D | 0.061 H |
| 265.0 | 1.133 G | -1.090 D | 0.020 G | 0.635 G | -0.617 D | 0.060 H |
| 260.0 | 1.079 G | -1.037 D | 0.019 G | 0.600 G | -0.582 D | 0.059 H |
| 255.0 | 1.026 G | -0.986 D | 0.019 G | 0.577 G | -0.560 D | 0.056 H |
| 250.0 | 0.976 G | -0.937 D | 0.018 G | 0.555 G | -0.538 D | 0.054 H |
| 245.0 | 0.927 G | -0.890 D | 0.017 G | 0.532 G | -0.516 D | 0.051 H |
| 240.0 | 0.881 G | -0.845 D | 0.017 G | 0.510 G | -0.494 D | 0.049 H |
| 235.0 | 0.836 G | -0.802 D | 0.016 G | 0.488 G | -0.473 D | 0.045 H |
| 230.0 | 0.793 G | -0.760 D | 0.016 G | 0.466 G | -0.451 D | 0.042 H |
| 225.0 | 0.753 G | -0.721 D | 0.015 G | 0.445 G | -0.431 D | 0.039 H |
| 220.0 | 0.714 G | -0.683 D | 0.015 G | 0.424 G | -0.410 D | 0.036 H |
| 213.3 | 0.664 G | -0.636 D | 0.014 G | 0.403 G | -0.389 D | 0.033 H |
| 206.7 | 0.618 G | -0.591 D | 0.014 G | 0.382 G | -0.369 D | 0.030 H |
| 200.0 | 0.574 G | -0.548 D | 0.013 G | 0.361 G | -0.348 D | 0.028 H |
| 193.3 | 0.532 G | -0.508 D | 0.013 G | 0.341 G | -0.329 D | 0.026 H |
| 186.7 | 0.493 G | -0.470 D | 0.012 G | 0.321 G | -0.309 D | 0.024 H |
| 180.0 | 0.456 G | -0.434 D | 0.012 G | 0.302 G | -0.290 D | 0.022 H |
| 173.3 | 0.420 G | -0.401 D | 0.011 G | 0.284 G | -0.273 D | 0.021 H |
| 166.7 | 0.388 G | -0.369 D | 0.011 G | 0.266 G | -0.255 D | 0.019 H |
| 160.0 | 0.357 G | -0.339 D | 0.010 G | 0.248 G | -0.238 D | 0.017 H |
| 150.0 | 0.313 G | -0.298 D | 0.010 G | 0.231 G | -0.222 D | 0.015 H |
| 140.0 | 0.273 G | -0.260 D | 0.009 G | 0.215 G | -0.206 D | 0.013 H |
| 130.0 | 0.236 G | -0.224 D | 0.009 G | 0.198 G | -0.190 D | 0.012 H |
| 120.0 | 0.202 G | -0.192 D | 0.008 G | 0.182 G | -0.174 D | 0.011 H |
| 110.0 | 0.171 G | -0.162 D | 0.008 G | 0.166 G | -0.159 D | 0.010 H |
| 100.0 | 0.142 G | -0.134 D | 0.007 K | 0.150 G | -0.144 D | 0.009 H |
| 90.0 | 0.116 G | -0.110 D | 0.007 K | 0.135 G | -0.129 D | 0.008 H |
| 80.0 | 0.093 G | -0.088 D | 0.006 K | 0.119 G | -0.114 D | 0.007 H |
| 70.0 | 0.072 G | -0.068 D | 0.005 K | 0.104 G | 0.099 J | 0.006 H |
| 60.0 | 0.054 G | -0.051 D | 0.005 K | 0.089 G | -0.085 D | 0.005 H |
| 50.0 | 0.037 G | -0.035 D | 0.004 K | 0.074 G | -0.070 D | 0.004 H |
| 40.0 | 0.021 G | -0.020 D | 0.003 L | 0.059 G | -0.056 D | 0.003 H |
| 33.3 | 0.016 G | 0.014 J | 0.003 F | 0.049 G | 0.047 J | 0.002 H |
| 20.0 | 0.005 G | 0.005 J | 0.002 K | 0.029 G | -0.028 D | 0.001 H |
| 13.3 | 0.002 G | 0.002 J | 0.001 K | 0.020 G | -0.019 D | 0.001 H |
| 0.0 | 0.000 A | 0.000 A | 0.000 A | 0.000 A | 0.000 A | 0.000 A |

=====

MAXIMUM ANTENNA AND REFLECTOR ROTATIONS:

=====

| ELEV ft | AZI deg | TYPE * |BEAM DEFLECTIONS (deg)..... | | | |
|------------|------------|-----------|----------------------------------|---------|----------|---------|
| | | | ROLL | YAW | PITCH | TOTAL |
| 240.0 | 90.0 | STD+R | -0.494 D | 0.049 H | -0.510 G | 0.511 G |
| 240.0 | 270.0 | STD+R | 0.494 D | 0.049 H | 0.510 G | 0.511 G |

=====

MAXIMUM TENSION IN MAST MEMBERS (kip)

=====

| ELEV ft | LEGS | DIAG | HORIZ | BRACE |
|------------|--------|--------|--------|--------|
| 300.0 | ----- | ----- | 0.31 E | 0.00 A |
| | 0.24 K | 0.48 K | | |
| 295.0 | ----- | ----- | 0.09 C | 0.00 A |
| | 0.00 A | 1.20 J | | |
| 290.0 | ----- | ----- | 0.04 I | 0.00 A |
| | 0.59 E | 1.45 J | | |
| 285.0 | ----- | ----- | 0.08 E | 0.00 A |
| | 2.48 E | 1.95 E | | |

| | | | | |
|-------|----------|--------|--------|--------|
| 280.0 | ----- | ----- | 1.03 E | 0.00 A |
| | 7.31 E | 2.14 E | | |
| 275.0 | ----- | ----- | 0.16 E | 0.00 A |
| | 11.56 E | 3.31 J | | |
| 270.0 | ----- | ----- | 0.02 G | 0.00 A |
| | 19.10 E | 3.28 J | | |
| 265.0 | ----- | ----- | 0.18 E | 0.00 A |
| | 27.17 E | 3.59 J | | |
| 260.0 | ----- | ----- | 0.16 G | 0.00 A |
| | 33.57 A | 1.68 A | | |
| 255.0 | ----- | ----- | 0.13 E | 0.00 A |
| | 37.47 A | 1.79 D | | |
| 250.0 | ----- | ----- | 0.02 D | 0.00 A |
| | 40.97 A | 1.53 A | | |
| 245.0 | ----- | ----- | 0.10 A | 0.00 A |
| | 44.15 A | 1.63 L | | |
| 240.0 | ----- | ----- | 0.02 D | 0.00 A |
| | 47.10 A | 1.70 J | | |
| 235.0 | ----- | ----- | 0.09 A | 0.00 A |
| | 50.10 A | 1.87 J | | |
| 230.0 | ----- | ----- | 0.03 E | 0.00 A |
| | 52.78 A | 1.64 J | | |
| 225.0 | ----- | ----- | 0.06 A | 0.00 A |
| | 55.42 A | 1.79 D | | |
| 220.0 | ----- | ----- | 0.04 E | 0.00 A |
| | 58.20 A | 1.78 D | | |
| 213.3 | ----- | ----- | 0.06 A | 0.00 A |
| | 61.32 A | 1.89 J | | |
| 206.7 | ----- | ----- | 0.04 E | 0.00 A |
| | 64.20 A | 1.78 D | | |
| 200.0 | ----- | ----- | 0.05 A | 0.00 A |
| | 67.02 A | 1.88 J | | |
| 193.3 | ----- | ----- | 0.03 E | 0.00 A |
| | 69.69 A | 1.83 D | | |
| 186.7 | ----- | ----- | 0.04 A | 0.00 A |
| | 72.33 A | 1.92 D | | |
| 180.0 | ----- | ----- | 0.03 E | 0.00 A |
| | 74.87 A | 1.91 D | | |
| 173.3 | ----- | ----- | 0.04 A | 0.00 A |
| | 77.40 A | 2.01 D | | |
| 166.7 | ----- | ----- | 0.02 E | 0.00 A |
| | 79.87 A | 2.03 D | | |
| 160.0 | ----- | ----- | 0.04 A | 0.00 A |
| | 82.86 A | 2.32 D | | |
| 150.0 | ----- | ----- | 0.03 E | 0.00 A |
| | 86.36 A | 2.36 J | | |
| 140.0 | ----- | ----- | 0.03 A | 0.00 A |
| | 89.77 A | 2.46 D | | |
| 130.0 | ----- | ----- | 0.03 E | 0.00 A |
| | 93.11 A | 2.53 J | | |
| 120.0 | ----- | ----- | 0.03 A | 0.00 A |
| | 96.43 A | 2.65 D | | |
| 110.0 | ----- | ----- | 0.03 E | 0.00 A |
| | 99.72 A | 2.73 J | | |
| 100.0 | ----- | ----- | 0.03 A | 0.00 A |
| | 102.97 A | 2.85 D | | |
| 90.0 | ----- | ----- | 0.02 E | 0.00 A |
| | 106.20 A | 2.94 J | | |
| 80.0 | ----- | ----- | 0.02 A | 0.00 A |
| | 109.41 A | 3.07 D | | |
| 70.0 | ----- | ----- | 0.02 A | 0.00 A |
| | 112.61 A | 3.16 J | | |
| 60.0 | ----- | ----- | 0.01 G | 0.00 A |
| | 115.80 A | 3.29 D | | |
| 50.0 | ----- | ----- | 0.02 G | 0.00 A |
| | 118.96 A | 3.38 D | | |
| 40.0 | ----- | ----- | 0.10 A | 0.00 A |
| | 122.97 A | 3.55 J | | |
| 33.3 | ----- | ----- | 0.21 A | 0.00 J |
| | 121.90 A | 4.64 J | | |
| 20.0 | ----- | ----- | 0.05 A | 0.00 J |
| | 129.02 A | 3.71 D | | |
| 13.3 | ----- | ----- | 0.19 A | 0.00 I |
| | 127.85 A | 4.73 J | | |
| 0.0 | ----- | ----- | 0.00 A | 0.00 A |

MAXIMUM COMPRESSION IN MAST MEMBERS (kip)
 =====

| ELEV ft | LEGS | DIAG | HORIZ | BRACE |
|------------|-----------|---------|---------|--------|
| 300.0 | ----- | ----- | -0.33 K | 0.00 A |
| | -0.35 E | -0.45 E | | |
| 295.0 | ----- | ----- | 0.00 A | 0.00 A |
| | -5.48 K | -1.37 J | | |
| 290.0 | ----- | ----- | -0.04 C | 0.00 A |
| | -9.29 K | -1.29 J | | |
| 285.0 | ----- | ----- | 0.00 A | 0.00 A |
| | -14.97 K | -2.33 K | | |
| 280.0 | ----- | ----- | -0.41 K | 0.00 A |
| | -21.01 K | -2.69 K | | |
| 275.0 | ----- | ----- | -0.02 K | 0.00 A |
| | -31.22 K | -2.99 D | | |
| 270.0 | ----- | ----- | -0.04 A | 0.00 A |
| | -39.47 K | -3.57 D | | |
| 265.0 | ----- | ----- | -0.05 K | 0.00 A |
| | -48.62 K | -3.49 D | | |
| 260.0 | ----- | ----- | -0.66 A | 0.00 A |
| | -54.95 G | -2.07 G | | |
| 255.0 | ----- | ----- | -0.05 K | 0.00 A |
| | -60.16 G | -1.60 D | | |
| 250.0 | ----- | ----- | -0.01 G | 0.00 A |
| | -63.69 G | -1.76 G | | |
| 245.0 | ----- | ----- | -0.04 K | 0.00 A |
| | -67.77 G | -1.54 F | | |
| 240.0 | ----- | ----- | -0.02 E | 0.00 A |
| | -71.04 G | -1.93 D | | |
| 235.0 | ----- | ----- | -0.03 K | 0.00 A |
| | -74.95 G | -1.67 J | | |
| 230.0 | ----- | ----- | -0.02 G | 0.00 A |
| | -77.93 G | -1.85 J | | |
| 225.0 | ----- | ----- | -0.02 K | 0.00 A |
| | -81.36 G | -1.66 J | | |
| 220.0 | ----- | ----- | -0.02 G | 0.00 A |
| | -84.66 G | -1.95 J | | |
| 213.3 | ----- | ----- | -0.03 K | 0.00 A |
| | -88.84 G | -1.80 D | | |
| 206.7 | ----- | ----- | -0.02 G | 0.00 A |
| | -92.46 G | -1.90 D | | |
| 200.0 | ----- | ----- | -0.02 K | 0.00 A |
| | -96.30 G | -1.83 D | | |
| 193.3 | ----- | ----- | -0.02 G | 0.00 A |
| | -99.82 G | -1.93 D | | |
| 186.7 | ----- | ----- | -0.02 K | 0.00 A |
| | -103.48 G | -1.89 D | | |
| 180.0 | ----- | ----- | -0.01 G | 0.00 A |
| | -106.93 G | -1.99 D | | |
| 173.3 | ----- | ----- | -0.02 K | 0.00 A |
| | -110.49 G | -1.99 D | | |
| 166.7 | ----- | ----- | -0.01 G | 0.00 A |
| | -113.93 G | -2.08 J | | |
| 160.0 | ----- | ----- | -0.02 K | 0.00 A |
| | -118.31 G | -2.33 J | | |
| 150.0 | ----- | ----- | -0.02 G | 0.00 A |
| | -123.57 G | -2.42 D | | |
| 140.0 | ----- | ----- | -0.02 K | 0.00 A |
| | -128.90 G | -2.49 J | | |
| 130.0 | ----- | ----- | -0.02 G | 0.00 A |
| | -134.22 G | -2.60 D | | |
| 120.0 | ----- | ----- | -0.01 G | 0.00 A |
| | -139.59 G | -2.67 J | | |
| 110.0 | ----- | ----- | -0.01 G | 0.00 A |
| | -144.93 G | -2.79 D | | |
| 100.0 | ----- | ----- | -0.01 G | 0.00 A |
| | -150.33 G | -2.88 J | | |
| 90.0 | ----- | ----- | -0.01 G | 0.00 A |
| | -155.75 G | -3.00 D | | |
| 80.0 | ----- | ----- | -0.01 G | 0.00 A |
| | -161.21 G | -3.10 D | | |
| 70.0 | ----- | ----- | -0.01 G | 0.00 A |
| | -166.68 G | -3.22 D | | |
| 60.0 | ----- | ----- | -0.01 I | 0.00 A |
| | -172.19 G | -3.31 J | | |
| 50.0 | ----- | ----- | -0.04 A | 0.00 A |
| | -177.70 G | -3.41 J | | |
| 40.0 | ----- | ----- | -0.05 G | 0.00 A |

| | | | | |
|------|-----------|---------|---------|--------|
| 33.3 | -183.67 G | -3.64 J | -0.31 G | 0.00 D |
| 20.0 | -184.74 G | -4.69 J | -0.02 G | 0.00 D |
| 13.3 | -194.73 G | -3.78 J | -0.29 G | 0.00 C |
| 0.0 | -195.90 G | -4.77 J | 0.00 A | 0.00 A |

MAXIMUM INDIVIDUAL FOUNDATION LOADS: (kip)

| LOAD---COMPONENTS | | | | TOTAL |
|-------------------|---------|----------|-----------|---------|
| NORTH | EAST | DOWN | UPLIFT | SHEAR |
| 17.43 G | 14.87 K | 202.29 G | -132.20 A | 17.43 G |

MAXIMUM TOTAL LOADS ON FOUNDATION : (kip & kip-ft)

| HORIZONTAL | | | DOWN | OVERTURNING | | | TORSION |
|------------|--------|--------|--------|-------------|----------|----------|---------|
| NORTH | EAST | TOTAL | | NORTH | EAST | TOTAL | |
| | | @ 0.0 | | | | @ 0.0 | |
| 26.3 G | 24.4 J | 26.3 G | 95.2 F | 4578.6 G | 4333.1 J | 4578.6 G | 12.4 H |

Seismic Load Effects
Equivalent Lateral Force Procedure
ANSI/TIA-222-H

| | | Vertical Distribution of Seismic Forces | | | | | | |
|-------------------------|-----------------------|---|--------------|-------------|-------------------------|-----------------------|--------------------------|--------------------------|
| | | W_p (kips) | w_i (kips) | h_i (ft.) | $\frac{w_i h_i^2}{W_p}$ | F_x or E_b (kips) | $1.2 D + 1.0 E_v$ (kips) | $0.9 D - 1.0 E_v$ (kips) |
| | | | | | | E_v (kips) | | |
| Parameters | | | | | | | | |
| Risk Category | II | | | | | | | |
| R | 3.000 | | | | | | | |
| S _s | 0.897 | | | | | | | |
| S ₁ | 0.300 | | | | | | | |
| Site Class | D (default) | | | | | | | |
| T _L (sec) | 12.000 | | | | | | | |
| F _a | 1.200 | | | | | | | |
| F _v | 2.000 | | | | | | | |
| S _{MS} | 1.076 | | | | | | | |
| S _{MI} | 0.600 | | | | | | | |
| S _{BS} | 0.718 | | | | | | | |
| S _{BI} | 0.400 | | | | | | | |
| T _s | 0.557 | | | | | | | |
| l _e | 1.000 | | | | | | | |
| Ω | 1.500 | | | | | | | |
| C _s | 0.144 | | | | | | | |
| h (ft) | 300.00 | | | | | | | |
| K _r | 4.540 | | | | | | | |
| W _a (ft) | 16.27 | | | | | | | |
| W _o (ft) | 31.00 | | | | | | | |
| W (kips) | 102.991 | | | | | | | |
| W ₁ (kips) | 43.818 | | | | | | | |
| W ₂ (kips) | 12.920 | | | | | | | |
| f ₁ (Hertz) | 0.721 | | | | | | | |
| T (sec) | 1.386 | | | | | | | |
| k _g | 1.4430 | | | | | | | |
| V _s (kips) | 14.831 | | | | | | | |
| Seismic Design Category | D | | | | | | | |
| Description | Antenna Load | 12.0000 | 12.0000 | 295.00 | 43,967.7676 | 3.5309 | 1.7232 | 16.1232 |
| | Structure - Section 1 | 0.6263 | 0.8350 | 290.00 | 2,994.8794 | 0.2397 | 0.1199 | 1.1219 |
| | Ladder/Line | 0.1126 | 0.1126 | 289.50 | 401.5108 | 0.0322 | 0.0162 | 0.1513 |
| | Ladder/Line | 0.1813 | 0.1813 | 289.50 | 646.4824 | 0.0519 | 0.0260 | 0.2436 |
| | Antenna Load | 0.0000 | 8.0000 | 284.00 | 27,747.7870 | 2.2283 | 1.1488 | 10.7488 |
| | Ladder/Line | 0.0000 | 0.0659 | 282.00 | 226.2533 | 0.0182 | 0.0095 | 0.0886 |
| | Ladder/Line | 0.0000 | 0.0659 | 282.00 | 226.2533 | 0.0182 | 0.0095 | 0.0886 |
| | Ladder/Line | 0.0000 | 0.0410 | 282.00 | 140.7646 | 0.0113 | 0.0059 | 0.0551 |
| | Ladder/Line | 0.0000 | 0.0614 | 277.00 | 205.4313 | 0.0165 | 0.0085 | 0.0465 |
| | Ladder/Line | 0.0000 | 0.0989 | 277.00 | 330.8983 | 0.0266 | 0.0142 | 0.0748 |
| | Ladder/Line | 0.0000 | 0.0989 | 277.00 | 330.8983 | 0.0266 | 0.0142 | 0.0748 |
| | Antenna Load | 0.0000 | 8.0000 | 274.00 | 26,348.9946 | 2.1160 | 1.1488 | 10.7488 |
| | Structure - Section 2 | 0.0000 | 1.6330 | 270.00 | 5,265.5543 | 0.4229 | 0.2345 | 2.1941 |
| | Ladder/Line | 0.0000 | 0.2307 | 267.00 | 731.9870 | 0.0588 | 0.0331 | 0.3099 |
| | Ladder/Line | 0.0000 | 0.2307 | 267.00 | 731.9870 | 0.0588 | 0.0331 | 0.3099 |
| | Ladder/Line | 0.0000 | 0.2307 | 267.00 | 731.9870 | 0.0588 | 0.0331 | 0.3099 |
| | Ladder/Line | 0.0000 | 0.1434 | 267.00 | 454.9932 | 0.0365 | 0.0206 | 0.1927 |
| | Ladder/Line | 0.0000 | 0.3296 | 250.00 | 951.0747 | 0.0764 | 0.0473 | 0.4428 |
| | Ladder/Line | 0.0000 | 0.3296 | 250.00 | 951.0747 | 0.0764 | 0.0473 | 0.4428 |
| | Ladder/Line | 0.0000 | 0.2048 | 250.00 | 590.9590 | 0.0475 | 0.0294 | 0.2752 |
| | Ladder/Line | 0.0000 | 0.3296 | 250.00 | 951.0747 | 0.0764 | 0.0473 | 0.4428 |
| | Structure - Section 3 | 0.0000 | 1.8810 | 250.00 | 5,427.7049 | 0.4359 | 0.2701 | 2.5273 |
| | Antenna Load | 0.0000 | 0.3100 | 240.00 | 843.3474 | 0.0677 | 0.0445 | 0.4165 |
| | Antenna Load | 0.0000 | 0.3100 | 240.00 | 843.3474 | 0.0677 | 0.0445 | 0.4165 |
| | Mount Load | 0.0000 | 0.0500 | 240.00 | 136.0238 | 0.0109 | 0.0072 | 0.0378 |
| | Mount Load | 0.0000 | 0.0500 | 240.00 | 136.0238 | 0.0109 | 0.0072 | 0.0378 |
| | Mount/Antenna Load | 0.0000 | 0.3600 | 240.00 | 979.3712 | 0.0786 | 0.0517 | 0.4837 |
| | Mount/Antenna Load | 0.0000 | 0.3600 | 240.00 | 979.3712 | 0.0786 | 0.0517 | 0.4837 |
| | Ladder/Line | 0.0000 | 0.3296 | 230.00 | 843.2580 | 0.0677 | 0.0473 | 0.4428 |
| | Ladder/Line | 0.0000 | 0.2464 | 230.00 | 630.3968 | 0.0506 | 0.0354 | 0.3311 |
| | Ladder/Line | 0.0000 | 0.3296 | 230.00 | 843.2580 | 0.0677 | 0.0473 | 0.4428 |
| | Ladder/Line | 0.0000 | 0.3296 | 230.00 | 843.2580 | 0.0677 | 0.0473 | 0.4428 |
| | Structure - Section 4 | 0.0000 | 1.9250 | 230.00 | 4,924.9747 | 0.3955 | 0.2764 | 2.5864 |
| | Ladder/Line | 0.0000 | 0.3296 | 210.00 | 739.5195 | 0.0594 | 0.0473 | 0.4428 |
| | Ladder/Line | 0.0000 | 0.3296 | 210.00 | 739.5195 | 0.0594 | 0.0473 | 0.4428 |

Seismic Load Effects
Equivalent Lateral Force Procedure
ANSI/TIA-222-H

| Description | h _i (ft.) | w _i (kips) | W _i (kips) | w _i /h _i ² | Vertical Distribution of Seismic Forces | | | |
|------------------------|----------------------|-----------------------|-----------------------|---|---|---|-----------------------------------|-----------------------------------|
| | | | | | F _v of E _b (kips) | F _v of E _b (kips) | 1.2 D + 1.0 E _v (kips) | 0.9 D - 1.0 E _v (kips) |
| Ladder/Line | 210.00 | 0.2464 | 0.0000 | 552.8447 | 0.0444 | 0.0354 | 0.3311 | 0.1864 |
| Ladder/Line | 210.00 | 0.3296 | 0.0000 | 739.5195 | 0.0594 | 0.0473 | 0.4428 | 0.2493 |
| Structure - Section 5 | 210.00 | 2.4720 | 0.0000 | 5,546.3964 | 0.4454 | 0.3550 | 3.3214 | 1.8698 |
| Ladder/Line | 190.00 | 0.3296 | 0.0000 | 640.0717 | 0.0514 | 0.0473 | 0.4428 | 0.2493 |
| Ladder/Line | 190.00 | 0.2464 | 0.0000 | 478.5002 | 0.0384 | 0.0354 | 0.3311 | 0.1864 |
| Ladder/Line | 190.00 | 0.3296 | 0.0000 | 640.0717 | 0.0514 | 0.0473 | 0.4428 | 0.2493 |
| Ladder/Line | 190.00 | 0.3296 | 0.0000 | 640.0717 | 0.0514 | 0.0473 | 0.4428 | 0.2493 |
| Structure - Section 6 | 190.00 | 2.8670 | 0.0000 | 5,567.6143 | 0.4471 | 0.4117 | 3.8521 | 2.1686 |
| Ladder/Line | 170.00 | 0.2464 | 0.0000 | 407.5477 | 0.0327 | 0.0354 | 0.3311 | 0.1864 |
| Ladder/Line | 170.00 | 0.3296 | 0.0000 | 545.1613 | 0.0438 | 0.0473 | 0.4428 | 0.2493 |
| Ladder/Line | 170.00 | 0.3296 | 0.0000 | 545.1613 | 0.0438 | 0.0473 | 0.4428 | 0.2493 |
| Ladder/Line | 170.00 | 0.3296 | 0.0000 | 545.1613 | 0.0438 | 0.0473 | 0.4428 | 0.2493 |
| Structure - Section 7 | 170.00 | 3.0410 | 0.0000 | 5,029.8405 | 0.4039 | 0.4367 | 4.0859 | 2.3002 |
| Ladder/Line | 150.00 | 0.3296 | 0.0000 | 455.0791 | 0.0365 | 0.0473 | 0.4428 | 0.2493 |
| Ladder/Line | 150.00 | 0.3296 | 0.0000 | 455.0791 | 0.0365 | 0.0473 | 0.4428 | 0.2493 |
| Ladder/Line | 150.00 | 0.3296 | 0.0000 | 455.0791 | 0.0365 | 0.0473 | 0.4428 | 0.2493 |
| Ladder/Line | 150.00 | 0.2464 | 0.0000 | 340.2048 | 0.0273 | 0.0354 | 0.3311 | 0.1864 |
| Structure - Section 8 | 150.00 | 3.9300 | 0.0000 | 5,426.1555 | 0.4358 | 0.5643 | 5.2803 | 2.9727 |
| Ladder/Line | 130.00 | 0.2464 | 0.0000 | 276.7330 | 0.0222 | 0.0354 | 0.3311 | 0.1864 |
| Ladder/Line | 130.00 | 0.3296 | 0.0000 | 370.1753 | 0.0297 | 0.0473 | 0.4428 | 0.2493 |
| Ladder/Line | 130.00 | 0.3296 | 0.0000 | 370.1753 | 0.0297 | 0.0473 | 0.4428 | 0.2493 |
| Ladder/Line | 130.00 | 0.3296 | 0.0000 | 370.1753 | 0.0297 | 0.0473 | 0.4428 | 0.2493 |
| Structure - Section 9 | 130.00 | 4.5180 | 0.0000 | 5,074.1872 | 0.4075 | 0.6488 | 6.0704 | 3.4174 |
| Ladder/Line | 110.00 | 0.3296 | 0.0000 | 290.8820 | 0.0234 | 0.0473 | 0.4428 | 0.2493 |
| Ladder/Line | 110.00 | 0.3296 | 0.0000 | 290.8820 | 0.0234 | 0.0473 | 0.4428 | 0.2493 |
| Ladder/Line | 110.00 | 0.3296 | 0.0000 | 290.8820 | 0.0234 | 0.0473 | 0.4428 | 0.2493 |
| Structure - Section 10 | 110.00 | 4.6540 | 0.0000 | 4,107.2962 | 0.0175 | 0.0354 | 0.3311 | 0.1864 |
| Ladder/Line | 90.00 | 0.3296 | 0.0000 | 217.4555 | 0.0175 | 0.0354 | 0.3311 | 0.1864 |
| Ladder/Line | 90.00 | 0.3296 | 0.0000 | 217.4555 | 0.0175 | 0.0354 | 0.3311 | 0.1864 |
| Ladder/Line | 90.00 | 0.3296 | 0.0000 | 217.4555 | 0.0175 | 0.0354 | 0.3311 | 0.1864 |
| Ladder/Line | 90.00 | 0.3296 | 0.0000 | 217.4555 | 0.0175 | 0.0354 | 0.3311 | 0.1864 |
| Structure - Section 11 | 90.00 | 5.0130 | 0.0000 | 3,311.8423 | 0.0131 | 0.0354 | 0.3311 | 0.1864 |
| Ladder/Line | 70.00 | 0.3296 | 0.0000 | 151.5178 | 0.0122 | 0.0473 | 0.4428 | 0.2493 |
| Ladder/Line | 70.00 | 0.3296 | 0.0000 | 151.5178 | 0.0122 | 0.0473 | 0.4428 | 0.2493 |
| Ladder/Line | 70.00 | 0.3296 | 0.0000 | 151.5178 | 0.0122 | 0.0473 | 0.4428 | 0.2493 |
| Ladder/Line | 70.00 | 0.2464 | 0.0000 | 113.2706 | 0.0091 | 0.0354 | 0.3311 | 0.1864 |
| Structure - Section 12 | 70.00 | 5.2530 | 0.0000 | 2,414.8150 | 0.1939 | 0.7543 | 7.0579 | 3.9734 |
| Ladder/Line | 50.00 | 0.2464 | 0.0000 | 69.7035 | 0.0056 | 0.0354 | 0.3311 | 0.1864 |
| Ladder/Line | 50.00 | 0.3296 | 0.0000 | 93.2397 | 0.0075 | 0.0473 | 0.4428 | 0.2493 |

Seismic Load Effects
Equivalent Lateral Force Procedure
ANSI/TIA-222-H

| Description | h _i (ft.) | w _i (kips) | W ₂ (kips) | w _i h _i ² | Vertical Distribution of Seismic Forces | | | |
|------------------------|----------------------|-----------------------|-----------------------|--|---|-----------------------|-----------------------------------|-----------------------------------|
| | | | | | F _x or E _b (kips) | E _v (kips) | 1.2 D + 1.0 E _v (kips) | 0.9 D - 1.0 E _v (kips) |
| Ladder/Line | 50.00 | 0.3296 | 0.0000 | 93.2397 | 0.0075 | 0.0473 | 0.4428 | 0.2493 |
| Ladder/Line | 50.00 | 0.3296 | 0.0000 | 93.2397 | 0.0075 | 0.0473 | 0.4428 | 0.2493 |
| Structure - Section 13 | 50.00 | 5.4060 | 0.0000 | 1,529,2897 | 0.1228 | 0.7763 | 7.2635 | 4.0891 |
| Ladder/Line | 30.00 | 0.3296 | 0.0000 | 44.6142 | 0.0036 | 0.0473 | 0.4428 | 0.2493 |
| Ladder/Line | 30.00 | 0.2464 | 0.0000 | 33.3524 | 0.0027 | 0.0354 | 0.3311 | 0.1864 |
| Ladder/Line | 30.00 | 0.3296 | 0.0000 | 44.6142 | 0.0036 | 0.0473 | 0.4428 | 0.2493 |
| Ladder/Line | 30.00 | 0.3296 | 0.0000 | 44.6142 | 0.0036 | 0.0473 | 0.4428 | 0.2493 |
| Structure - Section 14 | 30.00 | 5.9770 | 0.0000 | 809.0386 | 0.0650 | 0.8583 | 8.0307 | 4.5210 |
| Ladder/Line | 10.00 | 0.3296 | 0.0000 | 9.1409 | 0.0007 | 0.0473 | 0.4428 | 0.2493 |
| Ladder/Line | 10.00 | 0.3296 | 0.0000 | 9.1409 | 0.0007 | 0.0473 | 0.4428 | 0.2493 |
| Ladder/Line | 10.00 | 0.2464 | 0.0000 | 6.8335 | 0.0005 | 0.0354 | 0.3311 | 0.1864 |
| Structure - Section 15 | 10.00 | 6.5690 | 0.0000 | 182.1794 | 0.0146 | 0.9433 | 8.8261 | 4.9688 |
| Σ | | 102.99 | 12.9202 | 184,678.29 | 14.83 | 14.79 | 138.38 | 77.90 |

Leg Connection Details

| Bottom Elevation (ft) | Top Elevation (ft) | Pipe Dimensions | Top Splice | | | | Bottom Splice/Base | | | | | | | |
|-----------------------|--------------------|-----------------|------------|----------------|------------------|----------------------|--------------------|-----------|----------------|------------------|----------------------|-----------------|------|-------|
| | | | Bolt Qty. | Bolt Dia. (in) | Bolt Circle (in) | Plate Thickness (in) | Plate Dia. (in) | Bolt Qty. | Bolt Dia. (in) | Bolt Circle (in) | Plate Thickness (in) | Plate Dia. (in) | | |
| 280 | 300 | 2.375 OD X .218 | | | | | | | | 6 | 1.00 | 9.00 | 0.75 | 11.50 |
| 260 | 280 | 4.000 OD X .318 | 6 | 1.00 | 9.00 | 1.25 | 11.50 | | | 6 | 1.00 | 9.00 | 1.25 | 11.50 |
| 240 | 260 | 5.563 OD X .375 | 6 | 1.00 | 9.00 | 1.25 | 11.50 | | | 6 | 1.00 | 9.00 | 1.25 | 11.50 |
| 220 | 240 | 5.563 OD X .375 | 6 | 1.00 | 9.00 | 1.25 | 11.50 | | | 6 | 1.00 | 9.00 | 1.25 | 11.50 |
| 200 | 220 | 5.563 OD X .500 | 6 | 1.00 | 9.00 | 1.25 | 11.50 | | | 6 | 1.00 | 9.00 | 1.25 | 11.50 |
| 180 | 200 | 5.563 OD X .500 | 6 | 1.00 | 9.00 | 1.25 | 11.50 | | | 6 | 1.25 | 12.50 | 1.75 | 15.75 |
| 160 | 180 | 8.625 OD X .322 | 6 | 1.25 | 12.50 | 1.50 | 15.75 | | | 6 | 1.25 | 12.50 | 1.50 | 15.75 |
| 140 | 160 | 8.625 OD X .500 | 6 | 1.25 | 12.50 | 1.50 | 15.75 | | | 6 | 1.25 | 12.50 | 1.50 | 15.75 |
| 120 | 140 | 8.625 OD X .500 | 6 | 1.25 | 12.50 | 1.50 | 15.75 | | | 6 | 1.25 | 12.50 | 1.50 | 15.75 |
| 100 | 120 | 8.625 OD X .500 | 6 | 1.25 | 12.50 | 1.50 | 15.75 | | | 6 | 1.25 | 12.50 | 1.50 | 15.75 |
| 80 | 100 | 8.625 OD X .500 | 6 | 1.25 | 12.50 | 1.50 | 15.75 | | | 6 | 1.25 | 12.50 | 1.50 | 15.75 |
| 60 | 80 | 8.625 OD X .500 | 6 | 1.25 | 12.50 | 1.50 | 15.75 | | | 6 | 1.25 | 12.50 | 1.50 | 15.75 |
| 40 | 60 | 8.625 OD X .500 | 6 | 1.25 | 12.50 | 1.50 | 15.75 | | | 6 | 1.25 | 12.50 | 1.50 | 15.75 |
| 20 | 40 | 8.625 OD X .500 | 6 | 1.25 | 12.50 | 1.50 | 15.75 | | | 6 | 1.25 | 12.50 | 1.50 | 15.75 |
| 0 | 20 | 8.625 OD X .500 | 6 | 1.25 | 12.50 | 1.50 | 15.75 | | | 6 | 1.25 | 12.75 | 1.50 | 16.00 |

Diagonal Bracing Connection Details

| Bottom Elevation (ft) | Top Elevation (ft) | Angle Shape | Bolt Qty. | Bolt Dia. (in) | Bolt End Distance (in) | Bolt Spacing (in) | Gage Distance From Heel (in) | Gusset Plate Thickness (in) |
|-----------------------|--------------------|------------------------|-----------|----------------|------------------------|-------------------|------------------------------|-----------------------------|
| 280 | 300 | L 2 X 2 X 1/8 | 1 | 0.625 | 1.500 | | 1.125 | 0.375 |
| 260 | 280 | L 2 X 2 X 1/4 | 1 | 0.625 | 1.500 | | 1.125 | 0.375 |
| 240 | 260 | L 2 X 2 X 1/8 | 1 | 0.625 | 1.500 | | 1.125 | 0.375 |
| 220 | 240 | L 2 X 2 X 1/8 | 1 | 0.625 | 1.500 | | 1.125 | 0.375 |
| 200 | 220 | L 2 X 2 X 3/16 | 1 | 0.625 | 1.500 | | 1.125 | 0.375 |
| 180 | 200 | L 2 1/2 X 2 1/2 X 3/16 | 1 | 0.625 | 1.500 | | 1.375 | 0.375 |
| 160 | 180 | L 2 1/2 X 2 1/2 X 3/16 | 1 | 0.750 | 1.500 | | 1.375 | 0.375 |
| 140 | 160 | L 3 X 3 X 3/16 | 1 | 0.750 | 1.625 | | 1.750 | 0.375 |
| 120 | 140 | L 3 1/2 X 3 1/2 X 1/4 | 1 | 0.750 | 1.625 | | 1.750 | 0.375 |
| 100 | 120 | L 3 1/2 X 3 1/2 X 1/4 | 1 | 0.750 | 1.625 | | 1.750 | 0.375 |
| 80 | 100 | L 4 X 4 X 1/4 | 1 | 0.750 | 1.625 | | 2.000 | 0.375 |
| 60 | 80 | L 4 X 4 X 1/4 | 2 | 0.625 | 1.625 | 2.1250 | 2.000 | 0.500 |
| 40 | 60 | L 4 X 4 X 1/4 | 2 | 0.625 | 1.625 | 2.1250 | 2.000 | 0.500 |
| 33.33 | 40 | L 4 X 4 X 1/4 | 2 | 0.750 | 1.625 | 2.6875 | 2.000 | 0.500 |
| 20 | 33.33 | L 5 X 3 1/2 X 1/4 | 2 | 0.750 | 1.625 | 2.6250 | 1.750 | 0.500 |
| 13.33 | 20 | L 4 X 4 X 5/16 | 2 | 0.750 | 1.625 | 2.5000 | 2.000 | 0.500 |
| 0 | 13.33 | L 5 X 3 1/2 X 5/16 | 2 | 0.750 | 1.625 | 2.5000 | 1.750 | 0.500 |

MAT FOUNDATION DESIGN BY SABRE INDUSTRIES

300' S3TL Series HD1 VERTICAL BRIDGE REIT, LLC Oak Level, KY (541131) 2024-04-18 REB

| | | | |
|---|----------|--|---------|
| Overall Loads: | | | |
| Factored Moment (ft-kips) | 13892.91 | | |
| Factored Axial (kips) | 286.10 | | |
| Factored Shear (kips) | 79.00 | | |
| Individual Leg Loads: | | | |
| Factored Uplift (kips) | 468.51 | | |
| Factored Download (kips) | 555.22 | | |
| Factored Shear (kips) | 49.05 | | |
| | | Tower eccentric from mat (ft)= | 2.5 |
| Width of Tower (ft) | 31 | Allowable Bearing Pressure (ksf) | 4.00 |
| Ultimate Bearing Pressure | 12.00 | Safety Factor | 3.00 |
| Bearing Φ s | 0.75 | | |
| Bearing Design Strength (ksf) | 9 | Max. Factored Net Bearing Pressure (ksf) | 2.54 |
| Water Table Below Grade (ft) | 28 | | |
| Width of Mat (ft) | 37.5 | Minimum Mat Width (ft) | 37.33 |
| Thickness of Mat (ft) | 1.5 | | |
| Depth to Bottom of Slab (ft) | 7 | | |
| Bolt Circle Diameter (in) | 12.75 | | |
| Effective Anchor Bolt Embedment | 52.125 | | |
| Diameter of Pier (ft) | 4 | Minimum Pier Diameter (ft) | 2.40 |
| Ht. of Pier Above Ground (ft) | 0.5 | Equivalent Square b (ft) | 3.54 |
| Ht. of Pier Below Ground (ft) | 5.5 | | |
| Quantity of Bars in Mat | 68 | | |
| Bar Diameter in Mat (in) | 1.128 | | |
| Area of Bars in Mat (in ²) | 67.95 | | |
| Spacing of Bars in Mat (in) | 6.61 | Recommended Spacing (in) | 6 to 12 |
| Quantity of Bars Pier | 24 | | |
| Bar Diameter in Pier (in) | 0.875 | | |
| Tie Bar Diameter in Pier (in) | 0.5 | | |
| Spacing of Ties (in) | 4 | | |
| Area of Bars in Pier (in ²) | 14.43 | Minimum Pier A_s (in ²) | 9.05 |
| Spacing of Bars in Pier (in) | 5.24 | Recommended Spacing (in) | 5 to 12 |
| f'c (ksi) | 5 | | |
| fy (ksi) | 60 | | |
| Unit Wt. of Soil (kcf) | 0.11 | | |
| Unit Wt. of Concrete (kcf) | 0.15 | | |
| Volume of Concrete (yd ³) | 86.50 | | |

MAT FOUNDATION DESIGN BY SABRE INDUSTRIES (CONTINUED)

Two-Way Shear:

| | | | |
|---|--------|-------------|-------|
| Average d (in) | 13.872 | | |
| ϕv_c (ksi) | 0.212 | v_u (ksi) | 0.183 |
| $\phi v_c = \phi(2 + 4/\beta_c)f'_c{}^{1/2}$ | 0.318 | | |
| $\phi v_c = \phi(\alpha_s d/b_o + 2)f'_c{}^{1/2}$ | 0.236 | | |
| $\phi v_c = \phi 4f'_c{}^{1/2}$ | 0.212 | | |
| Shear perimeter, b_o (in) | 225.64 | | |
| β_c | 1 | | |

Stability:

| | | | |
|------------------------------------|---------|------------------------------------|---------|
| Overturning Design Strength (ft-k) | 21075.8 | Factored Overturning Moment (ft-k) | 14485.4 |
|------------------------------------|---------|------------------------------------|---------|

One-Way Shear:

| | | | |
|-------------------|-------|--------------|-------|
| ϕV_c (kips) | 662.1 | V_u (kips) | 496.3 |
|-------------------|-------|--------------|-------|

Pier Design:

| | | | |
|--------------------------------|-------|--------------|-------|
| Design Tensile Strength (kips) | 779.3 | T_u (kips) | 468.5 |
|--------------------------------|-------|--------------|-------|

Shear:

| | | | |
|------------------------------|-------|--|--------|
| ϕ | 0.75 | | |
| V_c (kips) | 125.7 | | |
| V_s (kips) | 226.2 | $V_{s,max}$ (kips) | 1042.7 |
| ϕV_n (kips) | 263.9 | V_u (kips) | 49.1 |
| Maximum Spacing (in) | 9.26 | (Only if Shear Ties are Required) | |
| Actual Hook Development (in) | 12.74 | Req'd Hook Development l_{dh} (in) - Tension | 10.39 |
| | | Req'd Hook Development l_{dc} (in) - Compression | 11.81 |

Anchor Bolt Pull-Out:

| | | | |
|------------------------------------|-------|-------------------------------------|-------|
| $N_{ua} / \phi N_n$ | 0.89 | $V_{ua} / \phi V_n$ | 0.22 |
| Pier Rebar Development Length (in) | 39.54 | Required Length of Development (in) | 22.27 |

Flexure in Slab:

| | | | |
|----------------------------------|---------|-----------------|--------|
| ϕM_n (ft-kips) | 3916.0 | M_u (ft-kips) | 3849.5 |
| a (in) | 2.13 | | |
| Steel Ratio | 0.01089 | | |
| β_1 | 0.8 | | |
| Maximum Steel Ratio (ρ_t) | 0.0213 | | |
| Minimum Steel Ratio | 0.0018 | | |

| Condition | 1 is OK, 0 Fails |
|-------------------------------|------------------|
| Minimum Mat Width | 1 |
| Maximum Soil Bearing Pressure | 1 |
| Pier Area of Steel | 1 |
| Pier Shear | 1 |
| Two-Way Shear | 1 |
| Overturning | 1 |
| Anchor Bolt Pull-Out | 1 |
| Flexure | 1 |
| Steel Ratio | 1 |
| Interaction Diagram | 1 |
| One-Way Shear | 1 |
| Hook Development | 1 |
| Minimum Mat Depth | 1 |
| Anchor Bolt Punching Shear | 1 |

DRILLED STRAIGHT PIER DESIGN BY SABRE INDUSTRIES

300' S3TL Series HD1 VERTICAL BRIDGE REIT, LLC Oak Level, KY (541131) 2024-04-18 REB

| | | | |
|---------------------------------------|--------|--|------|
| Factored Uplift (kips) | 468.51 | | |
| Factored Download (kips) | 555.22 | | |
| Factored Shear (kips) | 49.05 | | |
| Ultimate Bearing Pressure | 21 | | |
| Bearing ϕ_s | 0.75 | | |
| Bearing Design Strength (ksf) | 15.75 | | |
| Water Table Below Grade (ft) | 28 | | |
| Bolt Circle Diameter (in) | 12.75 | | |
| Effective Anchor Bolt Embedment | 52.125 | | |
| Pier Diameter (ft) | 4 | Minimum Pier Diameter (ft) | 2.40 |
| Ht. Above Ground (ft) | 0.5 | | |
| Pier Length Below Ground (ft) | 37.5 | | |
| Quantity of Bars | 14 | | |
| Bar Diameter (in) | 1.27 | | |
| Area of Bars (in ²) | 17.73 | Minimum Area of Steel (in ²) | 9.05 |
| Spacing of Bars (in) | 8.84 | | |
| Tie Bar Diameter (in) | 0.5 | | |
| Spacing of Ties (in) | 9 | | |
| f'_c (ksi) | 5 | | |
| f_y (ksi) | 60 | | |
| Unit Wt. of Concrete (kcf) | 0.15 | | |
| Volume of Concrete (yd ³) | 17.69 | | |

Length to ignore download (ft)

Ignore bottom length in download?

0

| Depth at Bottom of Layer (ft) | Ult. Skin Friction (ksf) | (Ult. Skin Friction)*(Uplift Factor) | γ (kcf) |
|-------------------------------|--------------------------|--------------------------------------|----------------|
| 1.5 | 0.000 | 0.000 | 0.11 |
| 3 | 0.375 | 0.275 | 0.11 |
| 6 | 0.750 | 0.550 | 0.11 |
| 8 | 1.500 | 1.200 | 0.11 |
| 16.5 | 1.500 | 1.200 | 0.11 |
| 28 | 2.000 | 1.500 | 0.11 |
| 32 | 1.700 | 1.300 | 0.11 |
| 50 | 1.700 | 1.300 | 0.11 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

DRILLED STRAIGHT PIER DESIGN BY SABRE INDUSTRIES (CONTINUED)

| | | | |
|-------------------------------------|-------|------------------------------|-------|
| Download: | | | |
| Φ_s , Download Friction | 0.75 | | |
| Q_f , Skin Friction (kips) | 725.2 | W_s (kips) | 51.8 |
| Q_b , End Bearing Strength (kips) | 263.9 | W_c (kips) | 71.6 |
| Download Design Strength (kips) | 741.8 | Factored Net Download (kips) | 579.0 |

| | | | |
|--------------------------------|-------|------------------------|-------|
| Uplift (skin friction): | | | |
| Φ_s , Uplift (friction) | 0.75 | | |
| Q_f , Skin Friction (kips) | 556.2 | | |
| W_c (kips) | 71.6 | | |
| W_w (kips) | 7.4 | | |
| Uplift Design Strength (kips) | 474.9 | Factored Uplift (kips) | 468.5 |

| | | | |
|-------------------------------|--------|------------------------|-------|
| Uplift (cone): | | | |
| Φ_s , Uplift (cone) | 0.75 | | |
| $W_{s,cone}$ (kips) | 2586.0 | | |
| $W_{w,cone}$ (kips) | 39.1 | | |
| W_c (kips) | 71.6 | | |
| $W_{w,cyl}$ (kips) | 7.4 | | |
| Uplift Design Strength (kips) | 1967.9 | Factored Uplift (kips) | 468.5 |

| | | | |
|--------------------------------|-------|--------------|-------|
| Tension: | | | |
| Design Tensile Strength (kips) | 957.7 | T_u (kips) | 468.5 |

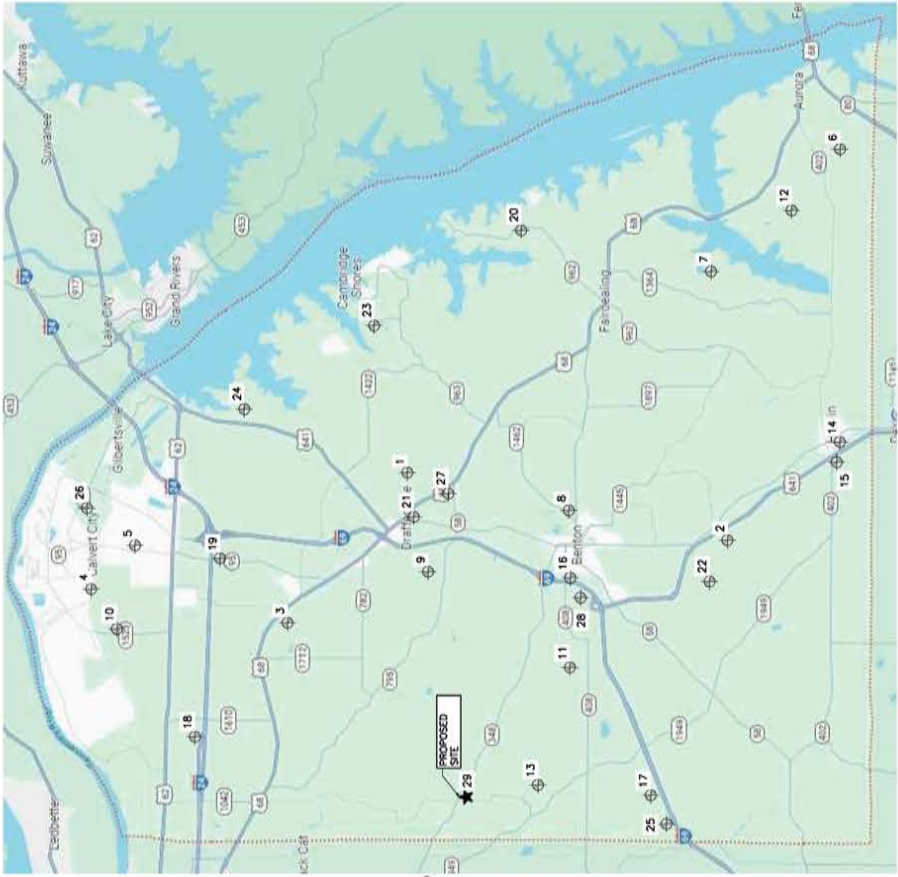
| | | | |
|-------------------|-------|--------------------|--------|
| Shear: | | | |
| ϕ | 0.75 | | |
| V_c (kips) | 125.7 | | |
| V_s (kips) | 100.5 | $V_{s,max}$ (kips) | 1042.7 |
| ϕV_n (kips) | 169.7 | V_u (kips) | 49.1 |

| | | | |
|-------------------------------|-------|-------------------------------------|-------|
| Anchor Bolt Pull-Out: | | | |
| $N_{ua} / \phi N_n$ | 0.89 | $V_{ua} / \phi V_n$ | 0.22 |
| Rebar Development Length (in) | 39.68 | Required Length of Development (in) | 32.33 |

| Condition | 1 is OK, 0 Fails |
|----------------------|------------------|
| Download | 1 |
| Uplift | 1 |
| Area of Steel | 1 |
| Shear | 1 |
| Anchor Bolt Pull-Out | 1 |
| Interaction Diagram | 1 |

**FCC REGISTERED SITES
(MARSHALL COUNTY)**

| TOWER | ASR | LATITUDE | LONGITUDE | TOWER OWNER |
|-------|---------|------------------|------------------|--|
| 1 | 1030666 | 36° 54' 58.8" N | 88° 18' 48.9" W | Crown Castle GT Company, LLC |
| 2 | 1038664 | 36° 47' 53.0" N | 88° 20' 50.0" W | Jack Dunningan |
| 3 | 1039662 | 36° 57' 47.0" N | 88° 23' 06.0" W | Texas Gas Transmission, LLC |
| 4 | 1040303 | 37° 02' 00.0" N | 88° 22' 10.0" W | Pinnacle Towers LLC |
| 5 | 1041840 | 37° 01' 05.0" N | 88° 21' 7.0" W | Colvert City, KY |
| 6 | 1043411 | 36° 45' 30.7" N | 88° 10' 11.4" W | Crown Castle South LLC |
| 7 | 1044649 | 36° 48' 31.0" N | 88° 13' 26.0" W | Heartland Ministries Inc WHHM |
| 8 | 1044669 | 36° 51' 31.0" N | 88° 20' 11.0" W | Purchase Broadcasting Company WCBL |
| 9 | 1052496 | 36° 54' 37.7" N | 88° 21' 25.3" W | Crown Castle South LLC |
| 10 | 1053410 | 37° 01' 26.0" N | 88° 23' 24.0" W | Withers Broadcasting Company of Paducah, LLC |
| 11 | 1058357 | 36° 45' 56.3" N | 88° 26' 33.6" W | Kentucky RSA No.1 Partnership |
| 12 | 1200973 | 36° 46' 33.9" N | 88° 11' 35.7" W | Kentucky RSA No.1 Partnership |
| 13 | 1201214 | 36° 52' 19.0" N | 88° 27' 23.0" W | West Kentucky Rural Electric Coop Corp |
| 14 | 1202514 | 36° 45' 45.0" N | 88° 18' 17.0" W | West Kentucky Rural Electric Coop Corp |
| 15 | 1215863 | 36° 45' 46.2" N | 88° 18' 41.4" W | SBA Properties, LLC |
| 16 | 1221947 | 36° 51' 33.5" N | 88° 21' 59.2" W | SBA Properties, LLC |
| 17 | 1221975 | 36° 49' 23.1" N | 88° 28' 34.5" W | SBA Properties, LLC |
| 18 | 1222118 | 36° 59' 45.3" N | 88° 25' 59.1" W | SBA Properties, LLC |
| 19 | 1222332 | 36° 59' 09.9" N | 88° 21' 18.6" W | SBA Properties, LLC |
| 20 | 1223751 | 36° 52' 41.6" N | 88° 12' 19.4" W | SBA Properties, LLC |
| 21 | 1233410 | 36° 54' 55.2" N | 88° 20' 15.1" W | Crown Castle GT Company LLC |
| 22 | 1235812 | 36° 48' 36.1" N | 88° 21' 33.1" W | County of Marshall, KY |
| 23 | 1264821 | 36° 55' 46.1" N | 88° 14' 53.8" W | Mobile Communications America INC. |
| 24 | 1301361 | 36° 58' 37.3" N | 88° 17' 10.5" W | SBA Towers II LLC |
| 25 | 1304962 | 36° 49' 24.3" N | 88° 28' 25.5" W | PI Tower Development, LLC |
| 26 | 1306050 | 37° 02' 10.8" N | 88° 19' 56.2" W | Tillman Infrastructure, LLC |
| 27 | 1313735 | 36° 54' 10.5" N | 88° 19' 24.9" W | Skyway Towers, LLC |
| 28 | 1315674 | 36° 51' 12.0" N | 88° 22' 23.9" W | CTI Towers Assets II, LLC |
| 29 | | 36° 53' 57.87" N | 88° 27' 53.09" W | Tillman Infrastructure, LLC |
| | | | | VERTICAL BRIDGE (PROPOSED TOWER) |



COUNTY TOWER MAP
SCALE: N/A



Bowman
LANDSCAPE ARCHITECTURE, PLANNING AND
CONSTRUCTION SERVICES
200 EAST MAIN STREET
LOUISVILLE, KY 40202
PHONE: (502) 496-4000
FAX: (502) 496-4002

verticalbridge
THE FIRM OF CHANDLER BONE
BOON WATSON, P.L.L.C.
PHONE: (502) 496-4307

| REV | DATE | DESCRIPTION |
|-----|----------|------------------|
| 1 | 01/09/24 | ISSUE FOR ZONING |
| 0 | 11/20/23 | ISSUE FOR ZONING |

STATE OF KENTUCKY
01/05/2024
JEFFREY LASHBROOK
35042
PROFESSIONAL ENGINEER

COUNTY TOWER MAP

#####

| ISSUED FOR: | REVIEW: | PERMIT: | CONSTRUCTION: | RECORD: |
|-------------|---------|---------|---------------|---------|
| - | - | - | - | - |

| PROJECT MANAGER: | DESIGNER: |
|------------------|-----------|
| JTL | JTL |

JOB NUMBER
240764-01-001

C-1C
M. PRO. & CONSP. REG. 3 FIRM. 02/19/23



Mail Processing Center
 Federal Aviation Administration
 Southwest Regional Office
 Obstruction Evaluation Group
 10101 Hillwood Parkway
 Fort Worth, TX 76177

Aeronautical Study No.
 2023-ASO-32068-OE

Issued Date: 01/04/2024

Julie Heffernan
 The Towers, LLC
 7500 Park of Commerce Dr
 Suite 200
 Boca Raton, FL 33487

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Antenna Tower US-KY-5183 Oak Level
 Location: Symsonia, KY
 Latitude: 36-53-57.87N NAD 83
 Longitude: 88-27-53.09W
 Heights: 490 feet site elevation (SE)
 310 feet above ground level (AGL)
 800 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Emissions from this site must be in compliance with the parameters set by collaboration between the FAA and telecommunications companies and reflected in the FAA 5G C band compatibility evaluation process (such as power, frequencies, and tilt angle). Operational use of this frequency band is not objectionable provided the Wireless Providers (WP) obtain and adhere to the parameters established by the FAA 5G C band compatibility evaluation process. **Failure to comply with this condition will void this determination of no hazard.**

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 M, Obstruction Marking and Lighting, a med-dual system-Chapters 4,8(M-Dual),&15.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Air Missions (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

See attachment for additional condition(s) or information.

This determination expires on 07/04/2025 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Communications Commission (FCC) because the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (718) 553-2611, or angelique.eersteling@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2023-ASO-32068-OE.

Signature Control No: 605902242-608721217

Angelique Eersteling
Technician

(DNE)

Attachment(s)
Additional Information
Case Description
Frequency Data
Map(s)

cc: FCC

BASIS FOR DECISION

Part 77 authorizes the FAA to evaluate a structure or object's potential electromagnetic effects on air navigation, communication facilities, and other surveillance systems. It also authorizes study of impact on arrival, departure, and en route procedures for aircraft operating under visual or instrument flight rules, as well as the impact on airport traffic capacity at existing public use airports. Broadcast in the 3.7 to 3.98 GHz frequency (5G C band) currently causes errors in certain aircraft radio altimeters and the FAA has determined they cannot be relied upon to perform their intended function when experiencing interference from wireless broadband operations in the 5G C band. The FAA has adopted Airworthiness Directives for all transport and commuter category aircraft equipped with radio altimeters that prohibit certain operations when in the presence of 5G C band

This determination of no hazard is based upon those mitigations implemented by the FAA and operators of transport and commuter category aircraft, and helicopters operating in the vicinity of your proposed location. It is also based on telecommunication industry and FAA collaboration on acceptable power levels and other parameters as reflected in the FAA 5G C band evaluation process.

The FAA 5G C band compatibility evaluation is a data analytics system used by FAA to evaluate operational hazards related to aircraft design. The FAA 5G C band compatibility evaluation process refers to the process in which the telecommunication companies and the FAA have set parameters, such as power output, locations, frequencies, and tilt angles for antenna that mitigate the hazard to aviation. As the telecommunication companies and FAA refine the tools and methodology, the allowable frequencies and power levels may change in the FAA 5G C band compatibility evaluation process. Therefore, your proposal will not have a substantial adverse effect on the safe and efficient use of the navigable airspace by aircraft provided the equipment and emissions are in compliance with the parameters established through the FAA 5G C band compatibility evaluation process.

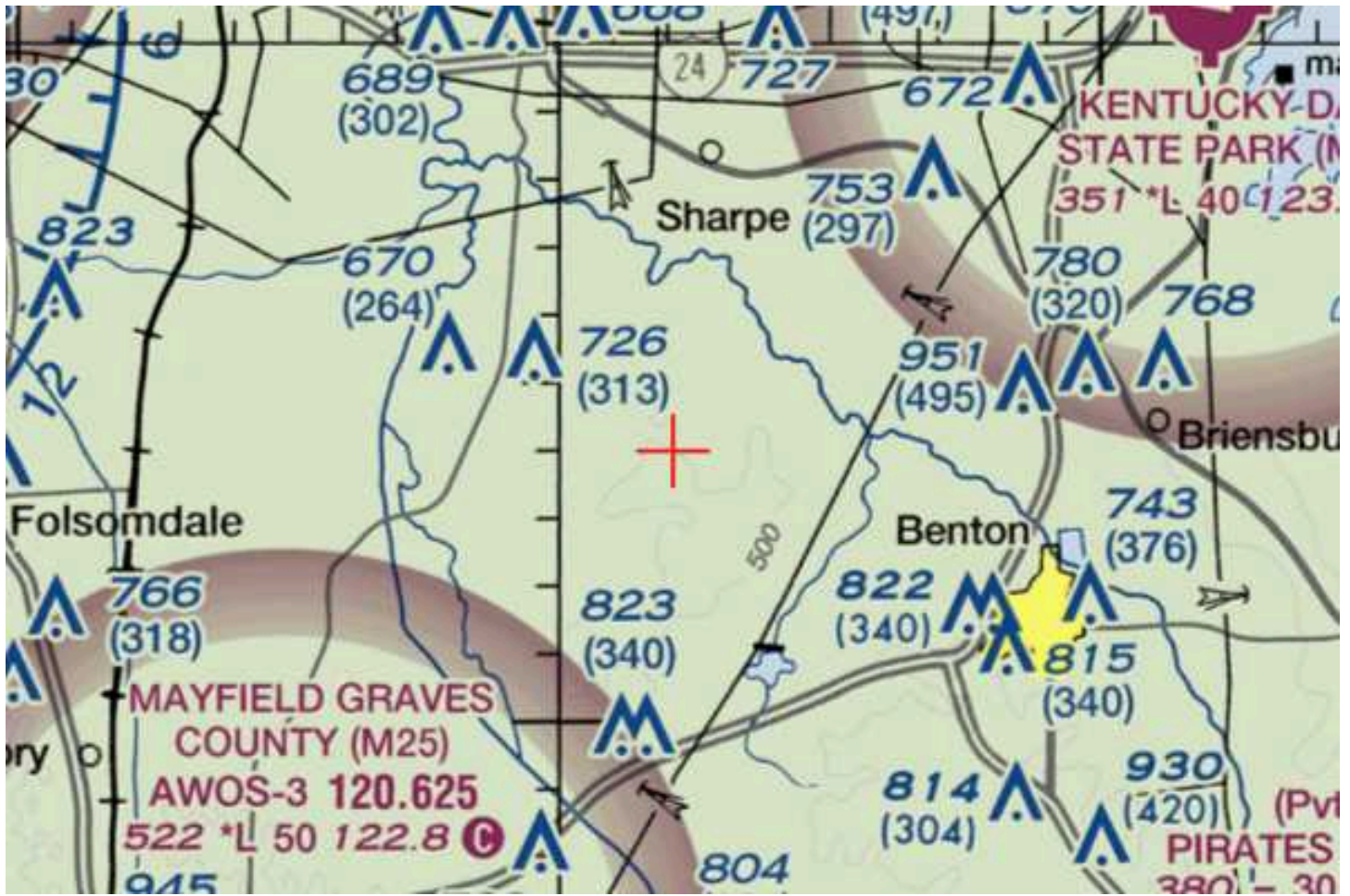
Any future changes that are not consistent with the parameters listed in the FAA 5G C band compatibility evaluation process will void this determination of no hazard.

New Site Build - MB

Frequency Data for ASN 2023-ASO-32068-OE

| LOW FREQUENCY | HIGH FREQUENCY | FREQUENCY UNIT | ERP | ERP UNIT |
|--------------------------|---------------------------|---------------------------|------------|---------------------|
| 6 | 7 | GHz | 55 | dBW |
| 6 | 7 | GHz | 42 | dBW |
| 10 | 11.7 | GHz | 55 | dBW |
| 10 | 11.7 | GHz | 42 | dBW |
| 17.7 | 19.7 | GHz | 55 | dBW |
| 17.7 | 19.7 | GHz | 42 | dBW |
| 21.2 | 23.6 | GHz | 55 | dBW |
| 21.2 | 23.6 | GHz | 42 | dBW |
| 614 | 698 | MHz | 2000 | W |
| 614 | 698 | MHz | 1000 | W |
| 698 | 806 | MHz | 1000 | W |
| 806 | 901 | MHz | 500 | W |
| 806 | 824 | MHz | 500 | W |
| 824 | 849 | MHz | 500 | W |
| 851 | 866 | MHz | 500 | W |
| 869 | 894 | MHz | 500 | W |
| 896 | 901 | MHz | 500 | W |
| 901 | 902 | MHz | 7 | W |
| 929 | 932 | MHz | 3500 | W |
| 930 | 931 | MHz | 3500 | W |
| 931 | 932 | MHz | 3500 | W |
| 932 | 932.5 | MHz | 17 | dBW |
| 935 | 940 | MHz | 1000 | W |
| 940 | 941 | MHz | 3500 | W |
| 1670 | 1675 | MHz | 500 | W |
| 1710 | 1755 | MHz | 500 | W |
| 1850 | 1910 | MHz | 1640 | W |
| 1850 | 1990 | MHz | 1640 | W |
| 1930 | 1990 | MHz | 1640 | W |
| 1990 | 2025 | MHz | 500 | W |
| 2110 | 2200 | MHz | 500 | W |
| 2305 | 2360 | MHz | 2000 | W |
| 2305 | 2310 | MHz | 2000 | W |
| 2345 | 2360 | MHz | 2000 | W |
| 2496 | 2690 | MHz | 500 | W |
| 3700 | 3980 | MHz | 3280 | W |







Archive Search Results Form 7460-1 for ASN 2023-ASO-32068-OE

| Overview | |
|---|---|
| Study (ASN): 2023-ASO-32068-OE | Received Date: 11/30/2023 |
| Prior Study: | Entered Date: 11/30/2023 |
| Status: Determined | Completion Date: 01/04/2024 |
| Letters: Determination | Expiration Date: 07/04/2025 |
| Supplemental Form 7460-2: Add 7460-2 | Map: View Map |
| Sponsor Information | |
| Sponsor: The Towers, LLC | Sponsor's Representative Information |
| Attention Of: Julie Heffernan | Representative: Vertical Bridge |
| Address: 7500 Park of Commerce Dr | Attention Of: Richard Hickey |
| Address2: Suite 200 | Address: 7500 Park of Commerce Dr, Suite 200 |
| City: Boca Raton | Address2: 200 |
| State: FL | City: Boca Raton |
| Postal Code: 33487 | State: FL |
| Country: US | Postal Code: 33487 |
| Phone: 561-406-4015 | Country: US |
| Fax: | Phone: 561-406-4015 |
| | Fax: |
| Construction Info | |
| Notice Of: CONSTR | Structure Summary |
| Duration: PERM (Months: 0 Days: 0) | Structure Type: Antenna Tower |
| Work Schedule: | Structure Name: US-KY-5183 Oak Level |
| Date Built: | FCC Number: |
| Structure Details | |
| Latitude (NAD 83): 36° 53' 57.87" N | Height and Elevation |
| Longitude (NAD 83): 88° 27' 53.09" W | Site Elevation: Proposed 490 DNE DET |
| Horizontal Datum: NAD 83 | Structure Height: 310 0 310 |
| Survey Accuracy: 1A | Total Height (AMSL): 800 0 800 |
| Marking/Lighting: Dual-red and medium intensity | |
| Other Description: | |
| Current Marking/Lighting: N/A Proposed Structure | Frequencies |
| Current Marking/Lighting Other Description: | Low Freq High Freq Unit ERP Unit |
| Name: | 6 7 GHz 55 dBW |
| City: Symsonia | 6 7 GHz 42 dBW |
| State: KY | 10 11.7 GHz 55 dBW |
| Nearest County: Marshall | 10 11.7 GHz 42 dBW |
| Nearest Airport: M25 | 17.7 19.7 GHz 55 dBW |
| Distance to Structure: 58859.58 feet | 17.7 19.7 GHz 42 dBW |
| On Airport: No | 21.2 23.6 GHz 55 dBW |
| Direction to Structure: 36.57° | 21.2 23.6 GHz 42 dBW |
| Description of Location: 6145 Symsonia Highway | 614 698 MHz 2000 W |
| Description of Proposal: New Site Build - MB | 614 698 MHz 1000 W |
| | 698 806 MHz 1000 W |
| | 806 901 MHz 500 W |
| | 806 824 MHz 500 W |
| | 824 849 MHz 500 W |
| | 851 866 MHz 500 W |
| | 869 894 MHz 500 W |
| | 896 901 MHz 500 W |
| | 901 902 MHz 7 W |
| | 929 932 MHz 3500 W |
| | 930 931 MHz 3500 W |
| | 931 932 MHz 3500 W |
| | 932 932.5 MHz 17 dBW |
| | 935 940 MHz 1000 W |
| | 940 941 MHz 3500 W |

| | | | | |
|------|------|-----|------|---|
| 1670 | 1675 | MHz | 500 | W |
| 1710 | 1755 | MHz | 500 | W |
| 1850 | 1910 | MHz | 1640 | W |
| 1850 | 1990 | MHz | 1640 | W |
| 1930 | 1990 | MHz | 1640 | W |
| 1990 | 2025 | MHz | 500 | W |
| 2110 | 2200 | MHz | 500 | W |
| 2305 | 2360 | MHz | 2000 | W |
| 2305 | 2310 | MHz | 2000 | W |
| 2345 | 2360 | MHz | 2000 | W |
| 2496 | 2690 | MHz | 500 | W |
| 3700 | 3980 | MHz | 3280 | W |

Previous [Back to Search Result](#) Next



KENTUCKY AIRPORT ZONING COMMISSION

ANDY BESHEAR
Governor

Department of Aviation, 90 Airport Road
Frankfort, KY 40601
www.transportation.ky.gov
502-564-0151

JIM GRAY
Secretary

APPROVAL OF APPLICATION

Thursday, February 8, 2024

The Towers, LLC
750 Park of Commerce Drive, Suite 200
Boca Raton, FL 33487

AS-2024-006-M25 **Mayfield Graves County Airport**

APPLICANTS NAME: The Towers, LLC

NEAREST CITY: Symsonia, KY

LATITUDE/LONGITUDE: 36°53'57.87" N, 88°27'53.09" W

HEIGHT (In Feet): 310' AGL/490' AMSL

CONSTRUCTION PROPOSED: Telecommunications Tower

NOTES: The tower location is approximately 11 nm NE of M25 and exceeds 200 ft AGL. It penetrates no protected air surfaces.

FAA DETERMINATION: 2023-ASO-32068-OE. No Hazard/No Impact to Navigation. Marking and Lighting required IAW AC 70/7460-1 M, med-dual system-Chapters 4,8(M-Dual),&15.

This letter is to notify you that the Kentucky Airport Zoning Commission approved your permit application for the construction of Structures at the Location, Coordinates, and Height as indicated above. Construction must comply with requirements, if any, listed in the FAA Determination.

This permit is valid for a period of 18 Month(s) from its date of issuance. If construction is not completed within said 18-Month period, this permit shall lapse and be void, and no work shall be performed without the issuance of a new permit.

An email of this letter was also sent to your representative, Robert Rodriguez, Robert.Rodriguez@verticalbridge.com. If you have any questions, please contact us.

Respectfully,

Anthony Adams

Airport Zoning Commission Administrator
KY Department of Aviation
502-564-0151 Office
AirportZoning@ky.gov

APPLICATION FOR PERMIT TO CONSTRUCT OR ALTER A STRUCTURE

JURISDICTION

602 KAR 50:030

Section 1. The commission has zoning jurisdiction over that airspace over and around the public use and military airports within the Commonwealth which lies above the imaginary surface that extends outward and upward at one (1) of the following slopes:

- (1) 100 to one (1) for a horizontal distance of 20,000 feet from the nearest point of the nearest runway of each public use airport and military airport with at least one (1) runway 3,200 feet or more in length; or
- (2) fifty (50) to one (1) for a horizontal distance of 10,000 feet from the nearest point of the nearest runway of each public use and military airport with its longest runway less than 3,200 feet in length.

Section 2. The commission has zoning jurisdiction over the use of land and structures within public use airports within the state.

Section 3. The commission has jurisdiction from the ground upward within the limits of the primary and approach surfaces of each public use airport and military airport as depicted on airport zoning maps approved by the Kentucky Airport Zoning Commission.

Section 4. The Commission has jurisdiction over the airspace of the Commonwealth that exceeds 200 feet in height above the ground.

Section 5. The owner or person who has control over a structure which penetrates or will penetrate the airspace over which the Commission has Jurisdiction shall apply for a permit from the Commission in accordance with 602 KAR 50:090.

INSTRUCTIONS

1. "Alteration" means to increase or decrease the height of a structure or change the obstruction marking and lighting.
2. "Applicant" means the person who will own or have control over the completed structure.
3. "Certification by Applicant" shall be made by the individual who will own or control the completed structure; or a partner in a partnership; or the president or authorized officer of a corporation company, or association; or the authorized official of a body politic; or the legally designated representative of a trustee, receiver, or assignee.
4. Prepare the application and forward to the Kentucky Dept. of Aviation, ATTN: Airport Zoning Commission, 90 Airport Drive, Frankfort KY 40601. For questions, telephone 502-782-4043.
5. The statutes applicable to the Kentucky Airport Commission are KRS 183.861 to 183.990 and the administrative regulations are 602 KAR Chapter 50.
6. When applicable, attach the following appendices to the application:

Appendix A. A 7.5 minute quadrangle topographical map prepared by the U.S. Geological Survey and the Kentucky Geological Survey with the exact location of the structure which is the subject of the application indicated thereon. (*The 7.5 minute quadrangle map may be obtained from the Kentucky Geological Survey, Department of Mines and Minerals, Lexington, KY 40506.*)

Appendix B. For structures on or very near to property of a public use airport, a copy of the airport layout drawing (ALP) with the exact location of the structure which is the subject of this application indicated thereon. (*The ALP may be obtained from the Chairperson of the local airport board or the Kentucky Airport Zoning Commission.*)

Appendix C. Copies of Federal Aviation Administration Applications (*FFA Form 7460-1*) or any orders issued by the manager, Air Traffic Division, FAA regional office.

Appendix D. If the applicant has indicated in item number 7 of the application that the structure will not be marked or lighted in accordance with the regulations of the Commission, the applicant shall attach a written request for a determination by the commission that the marking and lighting are not necessary. The applicant shall specifically state the reasons that the absence of marking and lighting will not impair the safety of air navigation.

Appendix E. The overall height in feet of the overhead transmission line or static wire above ground level or mean water level with span length 1,000 feet and over shall be depicted on a blueprint profile map.

PENALTIES

1. Persons failing to comply with the Airport Zoning Commission statutes and regulations are liable for a fine or imprisonment as set forth in KRS 183.990(3).
2. Applicants are cautioned: Noncompliance with Federal Aviation Administration Regulations may provide for further penalties.



KENTUCKY TRANSPORTATION CABINET
KENTUCKY AIRPORT ZONING COMMISSION

TC 55-2
Rev. 06/2020
Page 2 of 2

APPLICATION FOR PERMIT TO CONSTRUCT OR ALTER A STRUCTURE

| | | | | |
|--|---------------------------------|---|----------------------|---|
| APPLICANT (name) The Towers, LLC | | PHONE (561) 406-4015 | FAX | KY AERONAUTICAL STUDY # |
| ADDRESS (street) 750 Park of Commerce Drive, Suite 200 | | CITY Boca Raton | | STATE FL ZIP 33487 |
| APPLICANT'S REPRESENTATIVE (name) Robert Rodriguez | | PHONE (561) 596-9780 | FAX | |
| ADDRESS (street) 750 Park of Commerce Drive, Suite 200 | | CITY Boca Raton | | STATE FL ZIP 33487 |
| APPLICATION FOR <input checked="" type="checkbox"/> New Construction <input type="checkbox"/> Alteration <input type="checkbox"/> Existing | | | WORK SCHEDULE | |
| DURATION <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary (months days) | | | Start End | |
| TYPE <input type="checkbox"/> Crane <input type="checkbox"/> Building <input checked="" type="checkbox"/> Antenna Tower <input type="checkbox"/> Power Line <input type="checkbox"/> Water Tank <input type="checkbox"/> Landfill <input type="checkbox"/> Other | | MARKING/PAINTING/LIGHTING PREFERRED <input type="checkbox"/> Red Lights & Paint <input type="checkbox"/> White- medium intensity <input type="checkbox"/> White- high intensity <input checked="" type="checkbox"/> Dual- red & medium intensity white <input type="checkbox"/> Dual- red & high intensity white <input type="checkbox"/> Other | | |
| LATITUDE 36°53'57.87" | | LONGITUDE 88°27'53.09" | | DATUM <input checked="" type="checkbox"/> NAD83 <input type="checkbox"/> NAD27 <input type="checkbox"/> Other |
| NEAREST KENTUCKY Symsonia, Marshall County | | NEAREST KENTUCKY PUBLIC USE OR MILITARY AIRPORT Mayfield Graves County | | |
| SITE ELEVATION (AMSL, feet) 490 | | TOTAL STRUCTURE HEIGHT (AGL, feet) 310 | | CURRENT (FAA aeronautical study #) 2023-ASO-32068 |
| OVERALL HEIGHT (site elevation plus total structure height, feet) 800 | | | | PREVIOUS (FAA aeronautical study #) N/A |
| DISTANCE (from nearest Kentucky public use or Military airport to structure) 11 miles | | | | PREVIOUS (KY aeronautical study #) |
| DIRECTION (from nearest Kentucky public use or Military airport to structure) North East | | | | |
| DESCRIPTION OF LOCATION (Attach USGS 7.5 minute quadrangle map or an airport layout drawing with the precise site marked and any certified survey.) 36 53 57.87, -88 27 53.09 - Please find 1-A Survey attached. Site Address TBD | | | | |
| DESCRIPTION OF PROPOSAL Proposing a 300' Lattice Tower with a 10' lightning rod for cellular communications purposes. | | | | |
| FAA Form 7460-1 (Has the "Notice of Construction or Alteration" been filed with the Federal Aviation Administration?) <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes, when? | | | | |
| CERTIFICATION (I hereby certify that all the above entries, made by me, are true, complete, and correct to the best of my knowledge and belief.) | | | | |
| PENALTIES (Persons failing to comply with KRS 183.861 to 183.990 and 602 KAR 050 are liable for fines and/or imprisonment as set forth in KRS 183.990(3). Noncompliance with FAA regulations may result in further penalties.) | | | | |
| NAME Robert Rodriguez | TITLE Project Manager | SIGNATURE | | DATE 1/9/24 |
| COMMISSION ACTION <input type="checkbox"/> Chairperson, KAZC <input type="checkbox"/> Administrator, KAZC | | | | |
| <input type="checkbox"/> Approved | SIGNATURE | | DATE | |
| <input type="checkbox"/> Disapproved | | | | |

Date: October 30, 2023

Vertical Bridge VBTS LLC
750 Park of Commerce Drive
Suite 200
Boca Raton, FL 33487

Re: FAA "1-A" Letter
Vertical Birdge VBTS LLC. Site Name: EV OAK LEVEL
Vertical Bridge VBTS LLC. Site Number: US-KY-5183
Vertical Bridge VBTS Site Landowners: Tobey J. & Stacey M. Haines
Vertical Bridge VBTS LLC. Site Location: Marshall County, Kentucky

This is to advise you that we have conducted a Global Positioning System (GPS) observation for this project in order to establish a geographic position and elevation for the proposed tower at this location.

The nearest NGS base station used for the GPS observation is described as follows:
MOHT MODOT HAYTI CORS ARP.
Horizontal values are based upon the following datum: NAD-83.
Vertical values are based upon the following datum: NAVD-88.

Geographic Coordinates of the proposed tower center are as follows:

LATITUDE: 36° 53' 57.87" NORTH **LONGITUDE 88° 27' 53.09" WEST**

Ground elevation at the proposed tower center is **489.50 FEET N.A.V.D. 88.**

The accuracy of the above stated "proposed tower center" values meet or exceed "1-A" accuracy as required by the Federal Aviation Administration (horizontal accuracy +/- 15 feet, vertical accuracy +/- 3 feet).

If you have any questions concerning this information please contact us at any time.

Sincerely,

CONSULTANT TO VERTICAL BRIDGE VBTS LLC.



Checked by: *Frank V. Neeley*
Date: *October 30, 2023*

Sharondale Surveying, Inc. Land Surveying - GPS Services

161 Martin Road, Bon Aqua, TN 37025
(615) 513-0032 – Sharndal@bellsouth.net



Mail Processing Center
 Federal Aviation Administration
 Southwest Regional Office
 Obstruction Evaluation Group
 10101 Hillwood Parkway
 Fort Worth, TX 76177

Aeronautical Study No.
 2023-ASO-32068-OE

Issued Date: 01/04/2024

Julie Heffernan
 The Towers, LLC
 7500 Park of Commerce Dr
 Suite 200
 Boca Raton, FL 33487

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Antenna Tower US-KY-5183 Oak Level
 Location: Symsonia, KY
 Latitude: 36-53-57.87N NAD 83
 Longitude: 88-27-53.09W
 Heights: 490 feet site elevation (SE)
 310 feet above ground level (AGL)
 800 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Emissions from this site must be in compliance with the parameters set by collaboration between the FAA and telecommunications companies and reflected in the FAA 5G C band compatibility evaluation process (such as power, frequencies, and tilt angle). Operational use of this frequency band is not objectionable provided the Wireless Providers (WP) obtain and adhere to the parameters established by the FAA 5G C band compatibility evaluation process. **Failure to comply with this condition will void this determination of no hazard.**

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 M, Obstruction Marking and Lighting, a med-dual system-Chapters 4,8(M-Dual),&15.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Air Missions (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

See attachment for additional condition(s) or information.

This determination expires on 07/04/2025 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Communications Commission (FCC) because the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (718) 553-2611, or angelique.eersteling@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2023-ASO-32068-OE.

Signature Control No: 605902242-608721217

Angelique Eersteling
Technician

(DNE)

Attachment(s)
Additional Information
Case Description
Frequency Data
Map(s)

cc: FCC

BASIS FOR DECISION

Part 77 authorizes the FAA to evaluate a structure or object's potential electromagnetic effects on air navigation, communication facilities, and other surveillance systems. It also authorizes study of impact on arrival, departure, and en route procedures for aircraft operating under visual or instrument flight rules, as well as the impact on airport traffic capacity at existing public use airports. Broadcast in the 3.7 to 3.98 GHz frequency (5G C band) currently causes errors in certain aircraft radio altimeters and the FAA has determined they cannot be relied upon to perform their intended function when experiencing interference from wireless broadband operations in the 5G C band. The FAA has adopted Airworthiness Directives for all transport and commuter category aircraft equipped with radio altimeters that prohibit certain operations when in the presence of 5G C band

This determination of no hazard is based upon those mitigations implemented by the FAA and operators of transport and commuter category aircraft, and helicopters operating in the vicinity of your proposed location. It is also based on telecommunication industry and FAA collaboration on acceptable power levels and other parameters as reflected in the FAA 5G C band evaluation process.

The FAA 5G C band compatibility evaluation is a data analytics system used by FAA to evaluate operational hazards related to aircraft design. The FAA 5G C band compatibility evaluation process refers to the process in which the telecommunication companies and the FAA have set parameters, such as power output, locations, frequencies, and tilt angles for antenna that mitigate the hazard to aviation. As the telecommunication companies and FAA refine the tools and methodology, the allowable frequencies and power levels may change in the FAA 5G C band compatibility evaluation process. Therefore, your proposal will not have a substantial adverse effect on the safe and efficient use of the navigable airspace by aircraft provided the equipment and emissions are in compliance with the parameters established through the FAA 5G C band compatibility evaluation process.

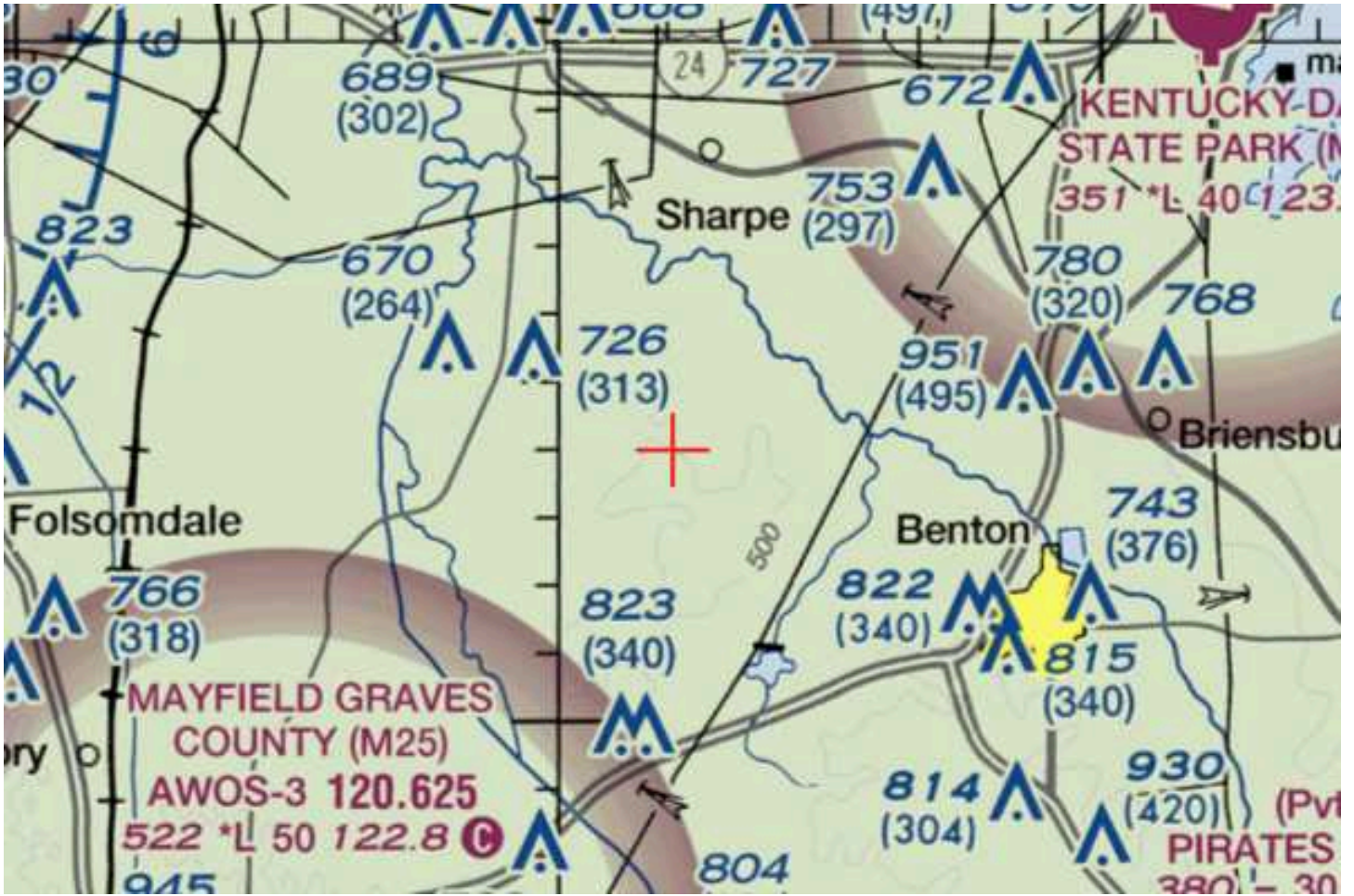
Any future changes that are not consistent with the parameters listed in the FAA 5G C band compatibility evaluation process will void this determination of no hazard.

New Site Build - MB

Frequency Data for ASN 2023-ASO-32068-OE

| LOW FREQUENCY | HIGH FREQUENCY | FREQUENCY UNIT | ERP | ERP UNIT |
|--------------------------|---------------------------|---------------------------|------------|---------------------|
| 6 | 7 | GHz | 55 | dBW |
| 6 | 7 | GHz | 42 | dBW |
| 10 | 11.7 | GHz | 55 | dBW |
| 10 | 11.7 | GHz | 42 | dBW |
| 17.7 | 19.7 | GHz | 55 | dBW |
| 17.7 | 19.7 | GHz | 42 | dBW |
| 21.2 | 23.6 | GHz | 55 | dBW |
| 21.2 | 23.6 | GHz | 42 | dBW |
| 614 | 698 | MHz | 2000 | W |
| 614 | 698 | MHz | 1000 | W |
| 698 | 806 | MHz | 1000 | W |
| 806 | 901 | MHz | 500 | W |
| 806 | 824 | MHz | 500 | W |
| 824 | 849 | MHz | 500 | W |
| 851 | 866 | MHz | 500 | W |
| 869 | 894 | MHz | 500 | W |
| 896 | 901 | MHz | 500 | W |
| 901 | 902 | MHz | 7 | W |
| 929 | 932 | MHz | 3500 | W |
| 930 | 931 | MHz | 3500 | W |
| 931 | 932 | MHz | 3500 | W |
| 932 | 932.5 | MHz | 17 | dBW |
| 935 | 940 | MHz | 1000 | W |
| 940 | 941 | MHz | 3500 | W |
| 1670 | 1675 | MHz | 500 | W |
| 1710 | 1755 | MHz | 500 | W |
| 1850 | 1910 | MHz | 1640 | W |
| 1850 | 1990 | MHz | 1640 | W |
| 1930 | 1990 | MHz | 1640 | W |
| 1990 | 2025 | MHz | 500 | W |
| 2110 | 2200 | MHz | 500 | W |
| 2305 | 2360 | MHz | 2000 | W |
| 2305 | 2310 | MHz | 2000 | W |
| 2345 | 2360 | MHz | 2000 | W |
| 2496 | 2690 | MHz | 500 | W |
| 3700 | 3980 | MHz | 3280 | W |





GEOTECHNICAL ENGINEERING REPORT

EV OAK LEVEL

Proposed 300-ft Self-Support Tower

6165 Symsonia Highway
Symsonia, KY 42082
Marshall County

Latitude/Longitude: 36.899408, -88.464747

WMG Project No. 2024-603
March 27, 2024

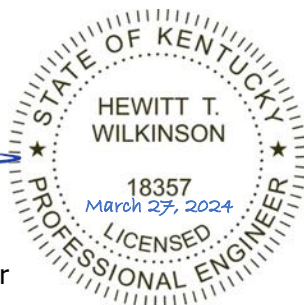
Wilkinson Management Group is pleased to submit this **Geotechnical Report** for the proposed tower site at the Latitude/Longitude coordinates provided above. The purpose of the following report is to summarize the soil/rock conditions encountered during the subsurface exploration at this site and provide geotechnical engineering parameters for structural design of the proposed tower foundation system.

We at Wilkinson Management Group appreciate the opportunity to provide continuing professional services to you. Please feel free to contact us with any questions or if you need additional assistance.

Respectfully Submitted,



Chip Wilkinson, P.E.
Principal Geotechnical Engineer



Attachments:

- Site Location Map*
- Aerial Photograph*
- Boring Location Plan*
- USGS Topographic Map*
- Boring Log*
- USDA Soil Survey Map*
- USGS Geologic Map*
- USGS Geologic Map Unit Descriptions*
- USDA Soil Survey Map Unit Descriptions*
- Hydrologic Soil Group Classifications*
- Unified Soil Classification System Charts*
- General Notes*
- General Notes – Sedimentary Rock Classification*
- Average Frost Depth Map – United States*

INTRODUCTION

WMG is pleased to submit this Geotechnical Report for the afore-mentioned project. The purpose of this study was to obtain information on the subsurface conditions at the proposed project site; and, based on this information, to provide geotechnical recommendations regarding the design and construction of the tower foundation system for the proposed tower. One sample boring was drilled to explore and define the soil/rock conditions at the proposed tower center. The boring log along with a Boring Location Plan showing the location of the boring are attached to this report.

SITE DESCRIPTION

The site for the proposed tower is currently a slightly to moderately sloping overgrown agricultural field located at 6145 Symsonia Highway in Symsonia (Marshall County), Kentucky. Surface water drainage is considered fair to good, and the water infiltration rate is considered low. A Site Location Map, Aerial Photograph, USGS Topographic Map, USDA Soil Survey Map and USGS Geologic Map associated with this site are attached to this report.

SUBSURFACE EXPLORATION

The subsurface exploration consisted of drilling and sampling one boring at the proposed tower center at the Latitude/Longitude coordinates provided by Bowman Consultants to a depth of 50 feet below existing grade. The ground surface elevation at the tower center is reportedly 493 feet AMSL based on survey data provided by Bowman and USGS topographic mapping. The location and elevation of the boring should be considered accurate only to the degree implied by the means and methods used to define them.

The boring was drilled with a D-25 track-mounted rotary drill rig using hollow stem augers to advance the borehole. Representative soil samples were obtained by the split-barrel sampling procedure in general accordance with the appropriate ASTM standards. In the split-barrel sampling procedure, the number of blows required to advance a standard 2inch O.D. split-barrel sampler the last 12 inches of the typical total 18-inch penetration by means of a 140-pound hammer with a free fall of 30 inches, is the standard penetration resistance value (N-Value). This value is used to estimate the in-situ relative density of cohesion-less soils and the consistency of cohesive soils. The sampling depths and penetration distance, plus the standard penetration resistance values, are shown on the boring log. The samples were sealed and shipped to our office for observation and classification by a Licensed Geotechnical Engineer.

An automatic SPT hammer was used to advance the split-barrel sampler in the boring performed at this site. A significantly greater efficiency is achieved with the automatic hammer compared to the conventional safety hammer operated with a cathead and rope. This higher efficiency has an appreciable effect on the standard penetration resistance blow count (N) values. The effect of the automatic hammer's efficiency has been considered in the interpretation and analysis of the subsurface information for this report.

A field log of the sample boring was prepared by the drill crew. This log included visual classifications of the materials encountered during drilling as well as the driller's interpretation of the subsurface conditions between samples. The final boring log (B-1) included with this report represents an interpretation of the field log and includes modifications based on observations made by a licensed Geotechnical Engineer.

SOIL CLASSIFICATION

The soil samples were classified based on visual observation, texture and plasticity. Information from these observations was used in conjunction with field penetration test data to evaluate soil strength in-situ, volume change potential, and soil classification.

The descriptions of the soils indicated on the boring log are in accordance with the enclosed General Notes and the Unified Soil Classification System. Estimated group symbols according to the Unified Soil Classification System are given on the boring logs. A brief description of this classification system is attached to this report.

SUBSURFACE CONDITIONS

The sample boring (B-1) was drilled in an open overgrown agricultural field at the proposed tower center as discussed in this report. The boring location is shown on the attached Boring Location Plan. As shown on the attached sample boring log (B-1), the boring encountered about 8 to 12 inches of grass, topsoil, and silty clay/clayey silt. The topsoil and silt/clay stratum is underlain by stiff mottled tan, reddish tan, and light gray SILTY CLAY/CLAYEY SILT (CL/ML) with trace to some organics extending to a depth of 3 feet. Stiff mottled tan and gray SILTY CLAY (CL) with trace organics was then encountered to a depth of 6 feet. Below the silty clay, the boring encountered very stiff mottle reddish brown and reddish tan LEAN CLAY (CL) with trace to little fine to coarse gravel to a depth of 8 feet underlain by LEAN CLAY (CL) with fine to coarse gravel to a depth of 16.5 feet. Very dense reddish tan CLAYEY FINE SAND (SC) with fine to coarse rounded gravel was encountered below the lean clay to a depth of 28 feet. At 28 feet, the boring encountered the groundwater table and wet dense reddish tan CLAYEY FINE SAND (SC) with fine to coarse rounded gravel extending to a depth of 32 feet. Medium stiff tan and gray FINE SANDY SILT (ML) with fine to coarse rounded gravel was encountered below the clayey fine sand extending to the completion depth of the boring at 50 feet below the ground surface.

GROUNDWATER CONDITIONS

Groundwater was observed in the sample boring (B-1) at a depth of 28 feet below the ground surface during and immediately after completion of the soil drilling operations. It is important to note that fluctuations in the groundwater level can occur in the silty/sandy soil strata encountered at this site, especially during the wetter winter and spring seasons and following periods of heavy or prolonged precipitation. **When and where groundwater is present, the silty/sandy soils at this site possess a very high potential for caving during excavation operations.** With this said, we strongly recommend utilizing temporary steel casing during drilled pier excavation operations or shoring during shallow pad and pedestal foundation excavation operations to maintain an open and dry excavation during the placement of steel reinforcement and concrete. Long term monitoring in cased holes or piezometers would be necessary to accurately evaluate the potential range of groundwater conditions on the site.

ENGINEERING RECOMMENDATIONS

The following engineering recommendations are based on information provided to WMG regarding the Geotechnical design requirements for the proposed tower, the field testing performed on the soil/rock encountered at this site, and other information discussed in this report. This report does not reflect variations that may occur across the site, or due to the modifying effects of weather. The nature and extent of such variations may not become evident until during or after construction. If variations appear, we should be immediately notified so that further evaluation and supplemental recommendations can be provided.

Site Preparation

As part of this project, all vegetation, topsoil, tree roots, organic-containing soils, and any soft or otherwise unsuitable materials should be removed from the site. It is important to note that the site is located in an agricultural field with a relatively deep topsoil/organic layer. It should also be noted that **the silty soils at this site are highly sensitive to moisture and disturbance from construction equipment, especially rubber-tired equipment. We strongly recommend the use of track-mounted equipment at this site.**

Based on our boring, we estimate a stripping depth on the order of about 8 to 12 inches should be expected. This stripping depth may not remove all dark colored soil but would remove the material containing the highest organic content. We recommend the actual stripping depth required be determined by a representative of WMG or other qualified personnel during construction.

Fill Material

Fill material (if any) should consist of approved materials, free of organics and debris. Structural fill, either imported or on-site, should be a low plasticity cohesive soil with a liquid limit less than 45% and a plasticity index less than 25%, or a granular material with a maximum size of 3 inches.

All fill materials (if required) should be placed in loose lifts not exceeding 9 inches in thickness (loose measure) and thoroughly compacted. All fill should be compacted to at least 98% of the material's standard Proctor maximum dry density (ASTM D698). The soil's water content at the time of compaction should be at $\pm 3\%$ of the soil's optimum moisture value as determined by the standard Proctor test.

Compaction equipment and techniques will be dependent on the type of material being used as fill. A sheepfoot roller should provide adequate compaction for cohesive (clayey) soils. A vibratory-type compactor such as a smooth drum roller will be required for any non-cohesive (sandy) soils and/or gravel.

GEOTECHNICAL RECOMMENDATIONS

Based on the results of this study, we recommend supporting the proposed 300-ft Self-Support tower on either drilled cast-in-place-concrete piers founded at a maximum depth of about 25 feet (above the water table) with a minimum diameter of 4 feet; individual pad and pedestal foundations bearing at least 7 feet below the ground surface; or, a shallow monolithic mat founded at a minimum depth of 7 feet.

The following Ultimate Design Parameters may be utilized for foundation design. A frost depth of 1.5 ft should be taken into consideration for the design of foundation elements. An appropriate factor of safety should be applied to these ultimate values to determine allowable design parameters. We suggest using FS=2 for skin friction and passive pressure and FS=3 for bearing capacity.

The cohesion, internal angle of friction and unit weight parameters given in the following table are based on the results of the sample boring, published values and our experience with similar soil/rock types. These values should, therefore, be considered approximate.

Geotechnical Ultimate Design Parameters

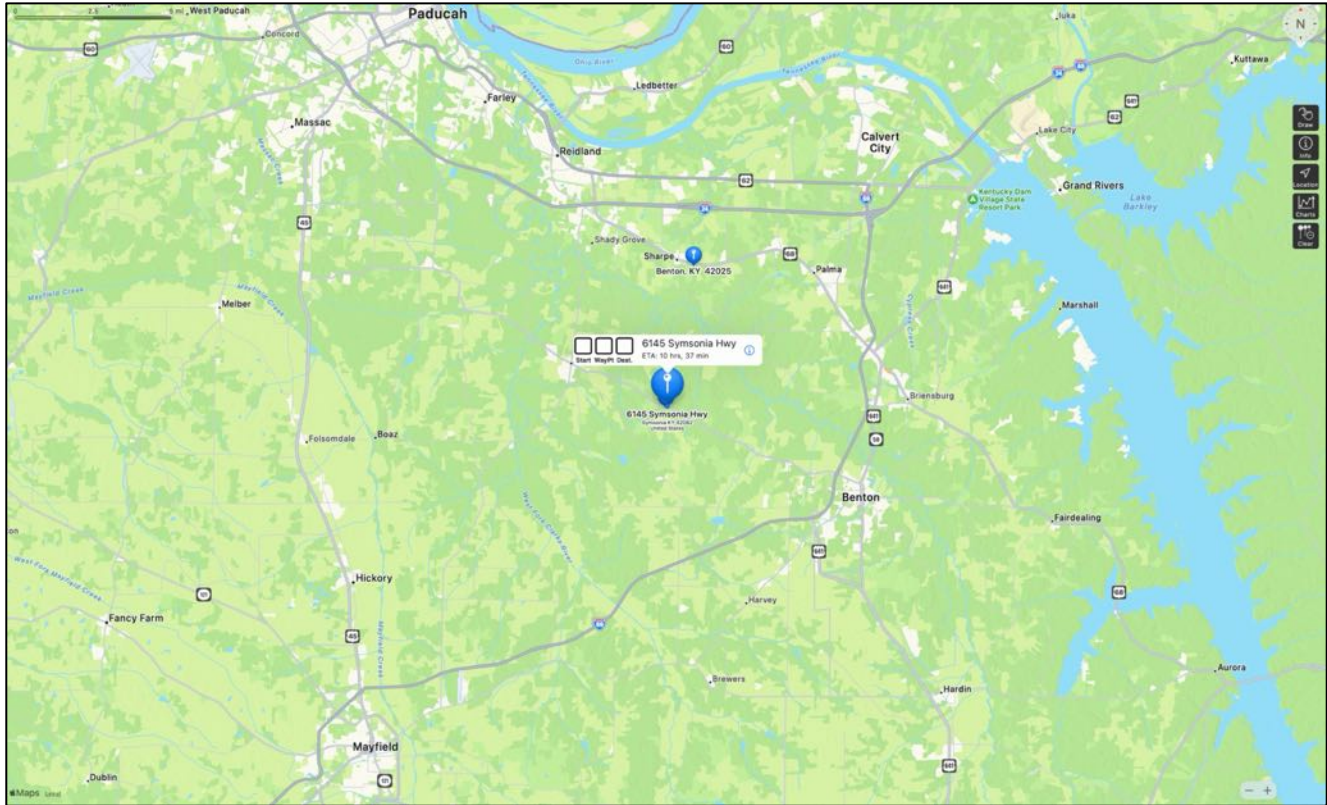
| Depth (feet) | Soil/Rock Description | Unit Weight (pcf) | Average N-Value (bpf) | Ultimate Skin Friction (Tension) (psf) | Ultimate Skin Friction (Compression) (psf) | Sliding Friction Coefficient @ Base | Ultimate Passive Pressure (psf) | Ultimate Bearing Capacity (psf) | Internal Angle of Friction (Degrees) | Cohesive Strength (psf) |
|--------------|--|-------------------|-----------------------|--|--|-------------------------------------|---------------------------------|---------------------------------|--------------------------------------|-------------------------|
| 0 – 1.5 | Grass, topsoil, and silty clay/clayey silt (Agricultural Field) | 100 | - | Ignore | Ignore | Ignore | Ignore | Ignore | - | - |
| 1.5 – 3 | Stiff SILTY CLAY/CLAYEY SILT with trace to some organics (CL/ML) | 115 | 11 | 275 | 375 | 0.35 | 1,500 | Ignore | 0 | 750 |
| 3 – 6 | Stiff SILTY CLAY with trace organics (CL) | 120 | 17 | 550 | 750 | 0.35 | 3,000 | Ignore | 0 | 1,500 |
| 6 – 8 | Very stiff LEAN CLAY with trace to little fine to coarse gravel (CL) | 120 | 31 | 1,200 | 1,500 | 0.35 | 6,000 | 12,000 | 0 | 3,000 |
| 8 – 16.5 | Very stiff LEAN CLAY with fine to coarse gravel (CL) | 125 | 18-50/5" | 1,200 | 1,500 | 0.35 | 6,000 | 15,000 | 0 | 3,000 |
| 16.5 – 28 | Very dense CLAYEY FINE SAND with fine to coarse rounded gravel (SC) | 125 | 23-50/3" | 1,500 | 2,000 | 0.35 | 7,500 | 18,000 | 34 | 0 |
| 28 – 32 | Dense CLAYEY FINE SAND with fine to coarse rounded gravel (SC) | 65 | 45 | 1,300 | 1,700 | 0.35 | 7,500 | 18,000 | 32 | 0 |
| 32 – 50 | Medium stiff FINE SANDY SILT with fine to coarse rounded gravel (ML) | 65 | 21 | 1,300 | 1,700 | 0.35 | 9,000 | 21,000 | 30 | 0 |

QUALIFICATIONS

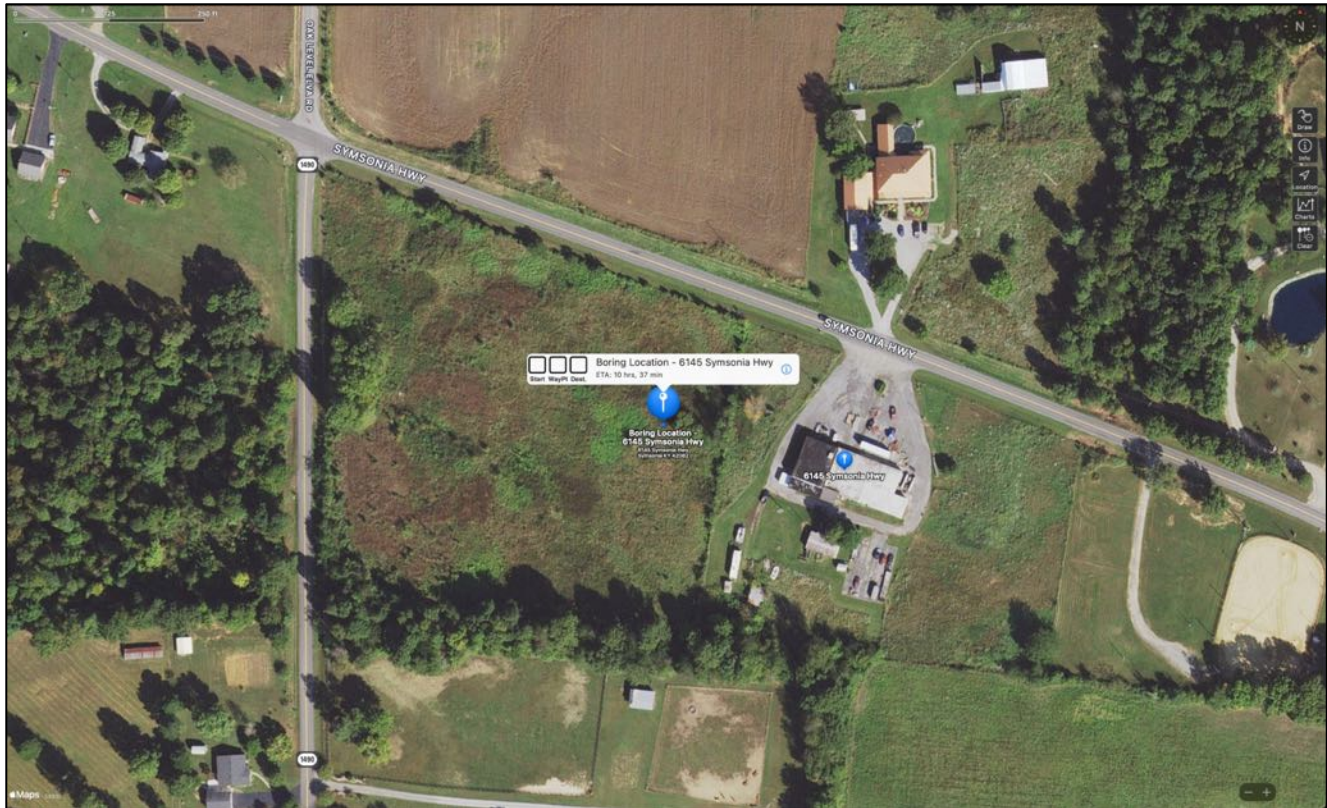
The analysis and recommendations presented in this report are based upon the data obtained from the boring performed at this site and from other information discussed in this report. This report does not reflect variations that may occur across the site or due to the modifying effects of weather.

This report has been prepared for the exclusive use of **BOWMAN** for specific application to the project discussed herein and has been prepared in accordance with generally accepted geotechnical engineering practices. No warranties, either expressed or implied, are intended or made.

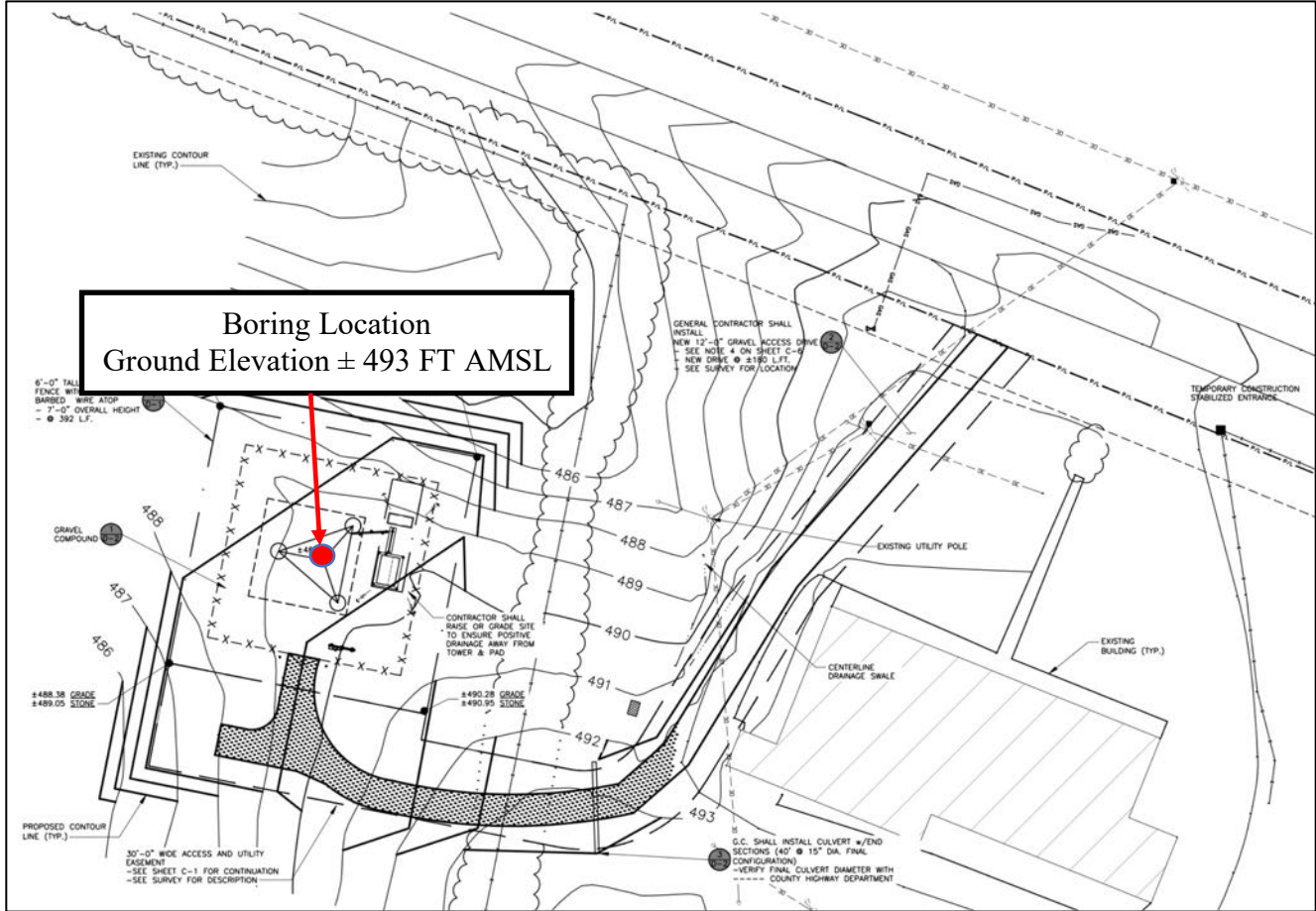
In the event changes in the nature or design as outlined in this report are planned, the conclusions and recommendations contained in this report shall not be considered valid unless **Wilkinson Management Group** reviews the changes and either verifies or modifies the conclusions of this report in writing. The scope of services for this project does not include either specifically or by implication any environmental assessment of the site or identification of contaminated or hazardous materials or conditions. If the owner is concerned about the potential for such contamination, other studies should be undertaken.



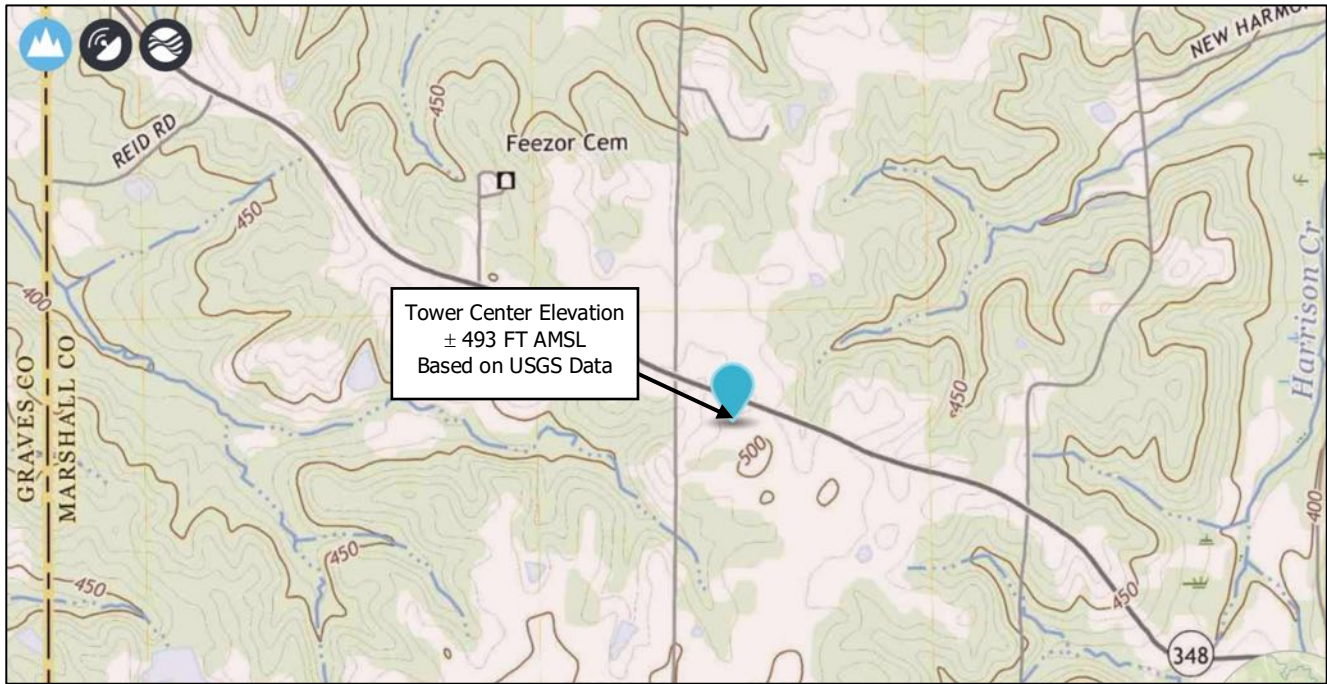
Site Location Map



Aerial Photograph



Boring Location Plan



USGS Topographic Map – Scale 1:24000

WMG (Wilkinson Management Group, PLLC)
 2203 Lowell Avenue
 Louisville, Kentucky 40205
 502-773-0181 (mobile)

BORING # 1 (Page 1 of 2)

Project Name/Site ID: **EV OAK LEVEL - Symsonia, KY**

Date of Boring: 03/16/2024

Groundwater Level During Drilling (feet): 28

Groundwater Level @ Drilling Completion (feet): 28

Ground Surface Elevation (feet): 493 FT AMSL

| Depth (ft) | Elevation | Sample Type | Sample Number | N-value | RQD (%) | Recovery | Cohesive Strength (psf) | Water Content | USCS | Graphic Log | Material Description |
|------------|-----------|-------------|---------------|----------|---------|----------|-------------------------|----------------|-------|-------------|--|
| | | | | | | | | | | | Grass, Topsoil and Silty Clay/Clayey Silt (Agricultural Field) |
| 2.5 | | SS | 1 | 11 | N/A | 18 | 750 | Dry | CL/ML | | Stiff mottled tan, reddish tan and light gray SILTY CLAY/CLAYEY SILT with trace to some organics (Highly Moisture Sensitive) |
| 5 | | SS | 2 | 17 | N/A | 18 | 1,500 | Dry | CL | | Stiff mottled tan and gray SILTY CLAY with trace organics |
| 7.5 | | SS | 3 | 31 | N/A | 15 | 3,000 | Moist | CL | | Very stiff mottled reddish brown and reddish tan LEAN CLAY with trace to little fine to coarse gravel |
| 10 | | SS | 4 | 16-50/5" | N/A | 9 | 3,000 | Moist | CL | | Very stiff mottled reddish brown and reddish tan LEAN CLAY with fine to coarse gravel |
| 12.5 | | | | | | | | | | | |
| 15 | | SS | 5 | 20-50/5" | N/A | 10 | 3,000 | Moist | CL | | |
| 17.5 | | | | | | | | | | | Very dense reddish tan CLAYEY FINE SAND with fine to coarse rounded gravel |
| 20 | | SS | 6 | 29-50/1" | N/A | 6 | 0 | Slightly Moist | SC | | |
| 22.5 | | | | | | | | | | | |
| 25 | | SS | 7 | 16-50/4" | N/A | 8 | 0 | Slightly Moist | SC | | |

Continued Next Page

WMG (Wilkinson Management Group, PLLC)
 2203 Lowell Avenue
 Louisville, Kentucky 40205
 502-773-0181 (mobile)

BORING # 1 (Page 2 of 2)

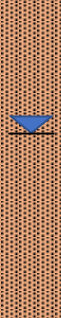









Project Name/Site ID: **EV OAK LEVEL - Symsonia, KY**

Date of Boring: 03/16/2024

Groundwater Level During Drilling: 28 feet

Groundwater Level @ Drilling Completion: 28 feet

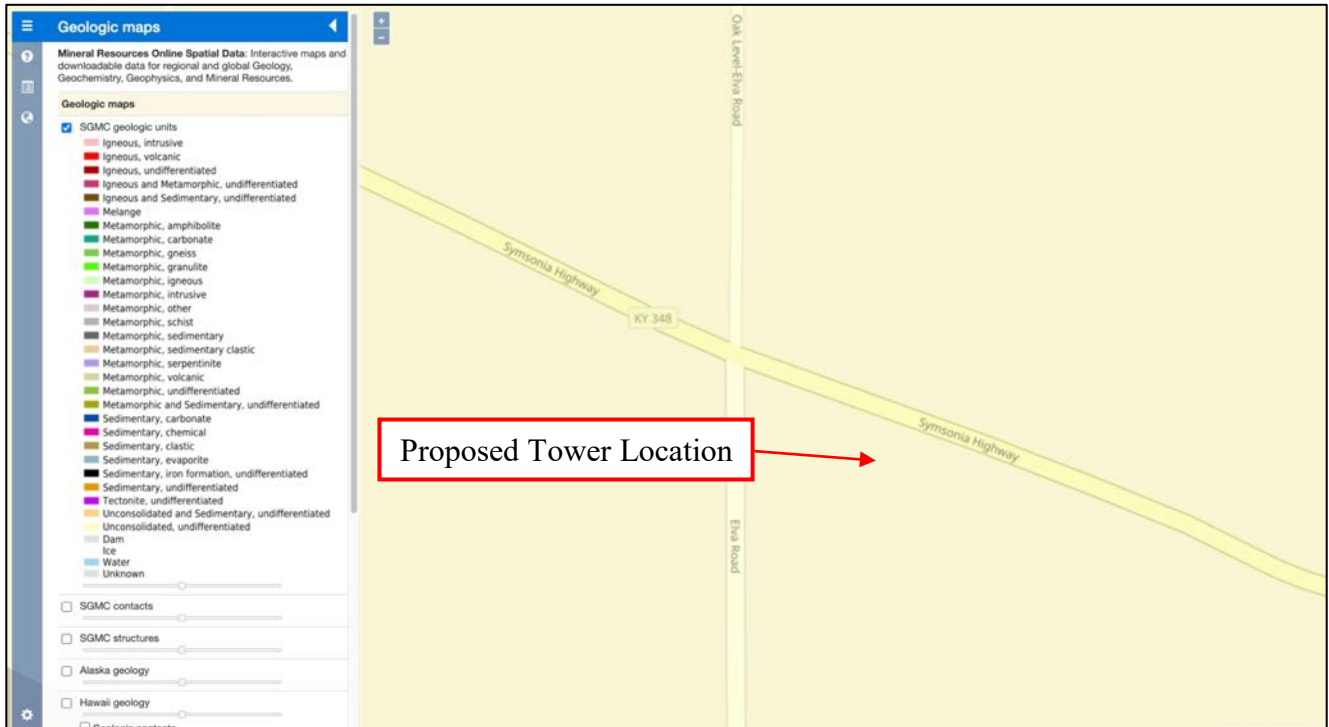
Ground Surface Elevation (feet): 493 FT AMSL

| Depth (ft) | Elevation | Sample Type | Sample Number | N-value | RQD (%) | Recovery | Cohesive Strength (psf) | Water Content | USCS | Graphic Log | Material Description |
|------------|-----------|-------------|---------------|---------|---------|----------|-------------------------|---------------|------|--|--|
| | | | | | | | | | |  | Dense reddish tan CLAYEY FINE SAND with fine to coarse rounded gravel |
| 27.5 | | | | | | | | | | | |
| | | | | | | | | | |  | - Groundwater @ 28 feet |
| 30 | | SS | 8 | 45 | N/A | 16 | 0 | Wet | SC | | |
| | | | | | | | | | |  | Medium stiff tan and gray FINE SANDY SILT with fine to coarse rounded gravel (Highly Moisture Sensitive) |
| 32.5 | | | | | | | | | | | |
| | | | | | | | | | |  | |
| 35 | | SS | 9 | 30 | N/A | 18 | 0 | Wet | ML | | |
| | | | | | | | | | |  | |
| 37.5 | | | | | | | | | | | |
| | | | | | | | | | |  | |
| 40 | | SS | 10 | 23 | N/A | 18 | 0 | Wet | ML | | |
| | | | | | | | | | |  | |
| 42.5 | | | | | | | | | | | |
| | | | | | | | | | |  | |
| 45 | | SS | 11 | 19 | N/A | 14 | 0 | Wet | ML | | |
| | | | | | | | | | |  | |
| 47.5 | | | | | | | | | | | |
| | | | | | | | | | |  | |
| 50 | | SS | 12 | 12 | N/A | 14 | 0 | Wet | ML | | |

Terminated Boring @ 50 feet



USDA Soil Survey Map



USGS Geologic Map

Porters Creek Clay

Porters Creek Clay

| | |
|--------------------------------|--|
| State | Kentucky |
| Name | Porters Creek Clay |
| Geologic age | Paleocene |
| Lithologic constituents | Major Unconsolidated > Fine-detrital > Clay <i>lithologies and lithology percentages estimated from stratigraphic column on paper source map; unit is 100% clay or clay shale</i> |
| Comments | in Jackson Purchase, thickness is 20-70 m |
| References | Noger, M.C., compiler, 1988, Geologic map of Kentucky: sesquicentennial edition of the Kentucky Geological Survey: U.S. Geological Survey and the Kentucky Geological Survey, scale 1:500,000. |
| NGMDB product | NGMDB product page for 16355 |
| Counties | Calloway - Garrard - Graves - Jessamine - McCracken - Marshall |

Continental deposits and loess, undifferentiated

Continental deposits and loess, undifferentiated; West of the Tennessee River

| | |
|--------------------------------|---|
| State | Kentucky |
| Name | Continental deposits and loess, undifferentiated |
| Geologic age | Tertiary to Quaternary |
| Lithologic constituents | Major Unconsolidated > Fine-detrital (Eolian-loess) <i>lithologies and lithology percentages estimated from stratigraphic column on paper source map; about 50% loess, 25 % gravel and 25% sand</i> Minor Unconsolidated > Coarse-detrital > Sand <i>lithologies and lithology percentages estimated from stratigraphic column on paper source map; about 50% loess, 25 % gravel and 25% sand</i> Unconsolidated > Coarse-detrital > Gravel <i>lithologies and lithology percentages estimated from stratigraphic column on paper source map; about 50% loess, 25 % gravel and 25% sand</i> |
| References | Noger, M.C., compiler, 1988, Geologic map of Kentucky: sesquicentennial edition of the Kentucky Geological Survey: U.S. Geological Survey and the Kentucky Geological Survey, scale 1:500,000. |
| NGMDB product | NGMDB product page for 16355 |
| Counties | Ballard - Calloway - Carlisle - Fulton - Graves - Hickman - McCracken - Marshall |

Jackson and Claiborne Formations, undivided

Jackson and Claiborne Formations, undivided; includes some rocks of Oligocene age

| | |
|--------------------------------|---|
| State | Kentucky |
| Name | Jackson and Claiborne Formations, undivided |
| Geologic age | Tertiary |
| Lithologic constituents | Major Sedimentary > Clastic > Sandstone <i>lithologies and lithology percentages estimated from stratigraphic column on paper source map; combined units estimated at about 45% sandstone, 40 % siltstone, and 15% shale</i> Sedimentary > Clastic > Siltstone <i>lithologies and lithology percentages estimated from stratigraphic column on paper source map; combined units estimated at about 45% sandstone, 40 % siltstone, and 15% shale</i> Minor Sedimentary > Clastic > Mudstone > Shale <i>lithologies and lithology percentages estimated from stratigraphic column on paper source map; combined units estimated at about 45% sandstone, 40 % siltstone, and 15% shale</i> |
| Comments | in Jackson Purchase; combined thickness ranges from 22-165 m |
| References | Noger, M.C., compiler, 1988, Geologic map of Kentucky: sesquicentennial edition of the Kentucky Geological Survey: U.S. Geological Survey and the Kentucky Geological Survey, scale 1:500,000. |
| NGMDB product | NGMDB product page for 16355 |
| Counties | Ballard - Calloway - Carlisle - Fulton - Graves - Hickman - McCracken - Marshall |

USGS Geologic Map Unit Descriptions



Calloway and Marshall Counties, Kentucky

GrB2—Grenada silt loam, 2 to 6 percent slopes, eroded

Map Unit Setting

National map unit symbol: 2wn5t

Elevation: 310 to 640 feet

Mean annual precipitation: 52 to 62 inches

Mean annual air temperature: 48 to 69 degrees F

Frost-free period: 175 to 244 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Grenada, eroded, and similar soils: 90 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Grenada, Eroded

Setting

Landform: Ridges

Landform position (two-dimensional): Shoulder

Landform position (three-dimensional): Nose slope

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Fine-silty noncalcareous loess

Typical profile

Ap - 0 to 5 inches: silt loam

Bw - 5 to 21 inches: silt loam

E - 21 to 28 inches: silt loam

Btx/E - 28 to 38 inches: silt loam

Btx - 38 to 80 inches: silt loam

Properties and qualities

Slope: 2 to 6 percent

Depth to restrictive feature: 17 to 36 inches to fragipan

Drainage class: Moderately well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat):

Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 18 to 32 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Moderate (about 6.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: C

Ecological site: F134XY012AL - Northern Loess Fragipan Upland -
PROVISIONAL

Hydric soil rating: No



Calloway and Marshall Counties, Kentucky

GrB3—Grenada silt loam, 4 to 6 percent slopes, severely eroded

Map Unit Setting

National map unit symbol: 2dxzm

Elevation: 340 to 640 feet

Mean annual precipitation: 52 to 62 inches

Mean annual air temperature: 48 to 69 degrees F

Frost-free period: 182 to 210 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Grenada, severely eroded, and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Grenada, Severely Eroded

Setting

Landform: Ridges

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Thick fine-silty noncalcareous loess

Typical profile

Ap - 0 to 4 inches: silt loam

Bw - 4 to 18 inches: silt loam

E - 18 to 22 inches: silt loam

Btx/E - 22 to 32 inches: silt loam

Btx - 32 to 80 inches: silt loam

Properties and qualities

Slope: 4 to 6 percent

Depth to restrictive feature: 18 to 23 inches to fragipan

Drainage class: Moderately well drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat):

Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 18 to 24 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 3.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: D

Ecological site: F134XY012AL - Northern Loess Fragipan Upland - PROVISIONAL

Hydric soil rating: No

Hydrologic Soil Groups

Soils are classified by the Natural Resource Conservation Service into four Hydrologic Soil Groups based on the soil's runoff potential. The four Hydrologic Soils Groups are A, B, C and D. Where A's generally have the smallest runoff potential and Ds the greatest.

Details of this classification can be found in 'Urban Hydrology for Small Watersheds' published by the Engineering Division of the Natural Resource Conservation Service, United States Department of Agriculture, Technical Release-55.











Group A is sand, loamy sand or sandy loam types of soils. It has low runoff potential and high infiltration rates even when thoroughly wetted. They consist chiefly of deep, well to excessively drained sands or gravels and have a high rate of water transmission.

Group B is silt loam or loam. It has a moderate infiltration rate when thoroughly wetted and consists chiefly or moderately deep to deep, moderately well to well drained soils with moderately fine to moderately coarse textures.

Group C soils are sandy clay loam. They have low infiltration rates when thoroughly wetted and consist chiefly of soils with a layer that impedes downward movement of water and soils with moderately fine to fine structure.

Group D soils are clay loam, silty clay loam, sandy clay, silty clay or clay. This HSG has the highest runoff potential. They have very low infiltration rates when thoroughly wetted and consist chiefly of clay soils with a high swelling potential, soils with a permanent high water table, soils with a claypan or clay layer at or near the surface and shallow soils over nearly impervious material.

Unified Soil Classification System

| Major Divisions | | | Letter | Symbol | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--------------------|--|---|--|------------|----|----|-------|--------|--------|--------------|---------|---------|-------|---------|---------|------------|-----|-----|--|--|--|--|------------|------------|-----------|----|----|------|-------|-------|------|--------|-------|-------|---------|--------|------------|---------|---------|------|-----|-----|
| Coarse-grained Soils More than 1/2 retained on the No. 200 Sieve | Gravels More than 1/2 coarse fraction retained on the No. 4 sieve | Clean Gravels | GW | | Well-graded gravels and gravel-sand mixtures, little or no fines. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Gravels With Fines | GP | | Poorly-graded gravels and gravel-sand mixtures, little or no fines. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Gravels With Fines | GM |  | Silty gravels, gravel-sand-silt mixtures. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Gravels With Fines | GC |  | Clayey gravels, gravel-sand-clay mixtures. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Sands More than 1/2 passing through the No. 200 sieve | Clean Sands | SW | | Well-graded sands and gravelly sands, little or no fines. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Clean Sands | SP | | Poorly-graded sands and gravelly sands, little or no fines. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Sands With Fines | SM |  | Silty sands, sand-silt mixtures | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Sands With Fines | SC |  | Clayey sands, sandy-clay mixtures. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fine-grained Soils More than 1/2 passing through the No. 200 Sieve | Silts and Clays Liquid Limit less than 50% | | ML |  | Inorganic silts, very fine sands, rock flour, silty or clayey fine sands. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Silts and Clays Liquid Limit less than 50% | | CL |  | Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Silts and Clays Liquid Limit less than 50% | | OL |  | Organic clays of medium to high plasticity. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Silts and Clays Liquid Limit greater than 50% | | MH |  | Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Silts and Clays Liquid Limit greater than 50% | | CH |  | Inorganic clays of high plasticity, fat clays. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Silts and Clays Liquid Limit greater than 50% | | OH |  | Organic clays of medium to high plasticity. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Highly Organic Soils | | | PT | | Peat, muck, and other highly organic soils. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Consistency Classification | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Granular Soils | | | Cohesive Soils | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Description - Blows Per Foot (Corrected) | | | Description - Blows Per Foot (Corrected) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;"><u>MCS</u></th> <th style="text-align: center;"><u>SPT</u></th> </tr> </thead> <tbody> <tr> <td>Very loose</td> <td style="text-align: center;"><5</td> <td style="text-align: center;"><4</td> </tr> <tr> <td>Loose</td> <td style="text-align: center;">5 - 15</td> <td style="text-align: center;">4 - 10</td> </tr> <tr> <td>Medium dense</td> <td style="text-align: center;">16 - 40</td> <td style="text-align: center;">11 - 30</td> </tr> <tr> <td>Dense</td> <td style="text-align: center;">41 - 65</td> <td style="text-align: center;">31 - 50</td> </tr> <tr> <td>Very dense</td> <td style="text-align: center;">>65</td> <td style="text-align: center;">>50</td> </tr> </tbody> </table> | | | | <u>MCS</u> | <u>SPT</u> | Very loose | <5 | <4 | Loose | 5 - 15 | 4 - 10 | Medium dense | 16 - 40 | 11 - 30 | Dense | 41 - 65 | 31 - 50 | Very dense | >65 | >50 | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;"><u>MCS</u></th> <th style="text-align: center;"><u>SPT</u></th> </tr> </thead> <tbody> <tr> <td>Very soft</td> <td style="text-align: center;"><3</td> <td style="text-align: center;"><2</td> </tr> <tr> <td>Soft</td> <td style="text-align: center;">3 - 5</td> <td style="text-align: center;">2 - 4</td> </tr> <tr> <td>Firm</td> <td style="text-align: center;">6 - 10</td> <td style="text-align: center;">5 - 8</td> </tr> <tr> <td>Stiff</td> <td style="text-align: center;">11 - 20</td> <td style="text-align: center;">9 - 15</td> </tr> <tr> <td>Very Stiff</td> <td style="text-align: center;">21 - 40</td> <td style="text-align: center;">16 - 30</td> </tr> <tr> <td>Hard</td> <td style="text-align: center;">>40</td> <td style="text-align: center;">>30</td> </tr> </tbody> </table> | | | | <u>MCS</u> | <u>SPT</u> | Very soft | <3 | <2 | Soft | 3 - 5 | 2 - 4 | Firm | 6 - 10 | 5 - 8 | Stiff | 11 - 20 | 9 - 15 | Very Stiff | 21 - 40 | 16 - 30 | Hard | >40 | >30 |
| | <u>MCS</u> | <u>SPT</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Very loose | <5 | <4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Loose | 5 - 15 | 4 - 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Medium dense | 16 - 40 | 11 - 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dense | 41 - 65 | 31 - 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Very dense | >65 | >50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <u>MCS</u> | <u>SPT</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Very soft | <3 | <2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Soft | 3 - 5 | 2 - 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Firm | 6 - 10 | 5 - 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stiff | 11 - 20 | 9 - 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Very Stiff | 21 - 40 | 16 - 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hard | >40 | >30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MCS = Modified California Sampler | | | SPT = Standard Penetration Test Sampler | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

UNIFIED SOIL CLASSIFICATION SYSTEM

| Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests ^A | | | | Soil Classification | | |
|--|---|--|---|---------------------|-----------------------------------|--|
| | | | | Group Symbol | Group Name ^B | |
| Coarse-Grained Soils More than 50% retained on No. 200 sieve | Gravels More than 50% of coarse fraction retained on No. 4 sieve | Clean Gravels Less than 5% fines ^C | $C_u \geq 4$ and $1 \leq C_c \leq 3^E$ | GW | Well-graded gravel ^F | |
| | | | $C_u < 4$ and/or $1 > C_c > 3^E$ | GP | Poorly graded gravel ^F | |
| | | Gravels with Fines More than 12% fines ^C | Fines classify as ML or MH | GM | Silty gravel ^{F, G, H} | |
| | Sands 50% or more of coarse fraction passes No. 4 sieve | Clean Sands Less than 5% fines ^E | $C_u \geq 6$ and $1 \leq C_c \leq 3^E$ | SW | Well-graded sand ^I | |
| | | | $C_u < 6$ and/or $1 > C_c > 3^E$ | SP | Poorly graded sand ^I | |
| | | Sands with Fines More than 12% fines ^D | Fines classify as CL or CH | SC | Clayey sand ^{G, H, I} | |
| Fine-Grained Soils 50% or more passes the No. 200 sieve | Silt and Clays Liquid limit less than 50 | inorganic | $PI > 7$ and plots on or above "A" line ^J | CL | Lean clay ^{K, L, M} | |
| | | | $PI < 4$ or plots below "A" line ^J | ML | Silt ^{K, L, M} | |
| | | organic | Liquid limit — oven dried Liquid limit — not dried | < 0.75 | OL | Organic clay ^{K, L, M, N} Organic silt ^{K, L, M, O} |
| | | | | | | |
| | Silt and Clays Liquid limit 50 or more | inorganic | PI plots on or above "A" line | CH | Fat clay ^{K, L, M} | |
| | | | PI plots below "A" line | MH | Elastic silt ^{K, L, M} | |
| | | organic | Liquid limit — oven dried Liquid limit — not dried | < 0.75 | OH | Organic clay ^{K, L, M, P} Organic silt ^{K, L, M, O} |
| | | | | | | |
| Highly organic soils | Primarily organic matter, dark in color, and organic odor | | | PT | Peat | |

^ABased on the material passing the 3-in. (75-mm) sieve.

^BIf field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.

^CGravels with 5 to 12% fines require dual symbols:
GW-GM well-graded gravel with silt
GW-GC well-graded gravel with clay
GP-GM poorly graded gravel with silt
GP-GC poorly graded gravel with clay

^DSands with 5 to 12% fines require dual symbols:
SW-SM well-graded sand with silt
SW-SC well-graded sand with clay
SP-SM poorly graded sand with silt
SP-SC poorly graded sand with clay

$$C_u = D_{60}/D_{10} \quad C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$$

^EIf soil contains $\geq 15\%$ sand, add "with sand" to group name.

^GIf fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

^HIf fines are organic, add "with organic fines" to group name.

^IIf soil contains $\geq 15\%$ gravel, add "with gravel" to group name.

^JIf Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.

^KIf soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel", whichever is predominant.

^LIf soil contains $\geq 30\%$ plus No. 200 predominantly sand, add "sandy" to group name.

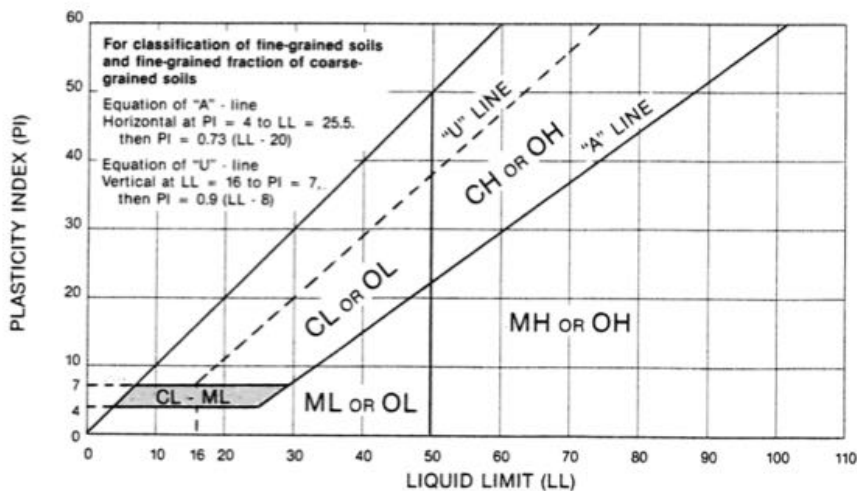
^MIf soil contains $\geq 30\%$ plus No. 200, predominantly gravel, add "gravelly" to group name.

^N $PI \geq 4$ and plots on or above "A" line.

^O $PI < 4$ or plots below "A" line.

^P PI plots on or above "A" line.

^Q PI plots below "A" line.



GENERAL NOTES

SAMPLE IDENTIFICATION

The Unified Soil Classification System (USCS), AASHTO 1988 and ASTM designations D2487 and D-2488 are used to identify the encountered materials unless otherwise noted. Coarse-grained soils are defined as having more than 50% of their dry weight retained on a #200 sieve (0.075mm); they are described as: boulders, cobbles, gravel or sand. Fine-grained soils have less than 50% of their dry weight retained on a #200 sieve; they are defined as silts or clay depending on their Atterberg Limit attributes. Major constituents may be added as modifiers and minor constituents may be added according to the relative proportions based on grain size.

DRILLING AND SAMPLING SYMBOLS

| | |
|--|--|
| SFA: Solid Flight Auger - typically 4" diameter flights, except where noted. | SS: Split-Spoon - 1 3/8" I.D., 2" O.D., except where noted. |
| HSA: Hollow Stem Auger - typically 3 1/4" or 4 1/4" I.D. openings, except where noted. | ST: Shelby Tube - 3" O.D., except where noted. |
| M.R.: Mud Rotary - Uses a rotary head with Bentonite or Polymer Slurry | BS: Bulk Sample |
| R.C.: Diamond Bit Core Sampler | PM: Pressuremeter |
| H.A.: Hand Auger | CPT-U: Cone Penetrometer Testing with Pore-Pressure Readings |
| P.A.: Power Auger - Handheld motorized auger | |

SOIL PROPERTY SYMBOLS

N: Standard "N" penetration: Blows per foot of a 140 pound hammer falling 30 inches on a 2-inch O.D. Split-Spoon.
 N_{60} : A "N" penetration value corrected to an equivalent 60% hammer energy transfer efficiency (ETR)
 Q_u : Unconfined compressive strength, TSF
 Q_p : Pocket penetrometer value, unconfined compressive strength, TSF
 $w\%$: Moisture/water content, %
 LL: Liquid Limit, %
 PL: Plastic Limit, %
 PI: Plasticity Index = (LL-PL), %
 DD: Dry unit weight, pcf
 ∇, ∇, ∇ : Apparent groundwater level at time noted

RELATIVE DENSITY OF COARSE-GRAINED SOILS

ANGULARITY OF COARSE-GRAINED PARTICLES

| Relative Density | N - Blows/foot |
|------------------|----------------|
| Very Loose | 0 - 4 |
| Loose | 4 - 10 |
| Medium Dense | 10 - 30 |
| Dense | 30 - 50 |
| Very Dense | 50 - 80 |
| Extremely Dense | 80+ |

| Description | Criteria |
|-------------|--|
| Angular: | Particles have sharp edges and relatively plane sides with unpolished surfaces |
| Subangular: | Particles are similar to angular description, but have rounded edges |
| Subrounded: | Particles have nearly plane sides, but have well-rounded corners and edges |
| Rounded: | Particles have smoothly curved sides and no edges |

GRAIN-SIZE TERMINOLOGY

| Component | Size Range |
|------------------------|--|
| Boulders: | Over 300 mm (>12 in.) |
| Cobbles: | 75 mm to 300 mm (3 in. to 12 in.) |
| Coarse-Grained Gravel: | 19 mm to 75 mm (3/4 in. to 3 in.) |
| Fine-Grained Gravel: | 4.75 mm to 19 mm (No.4 to 3/4 in.) |
| Coarse-Grained Sand: | 2 mm to 4.75 mm (No.10 to No.4) |
| Medium-Grained Sand: | 0.42 mm to 2 mm (No.40 to No.10) |
| Fine-Grained Sand: | 0.075 mm to 0.42 mm (No. 200 to No.40) |
| Silt: | 0.005 mm to 0.075 mm |
| Clay: | <0.005 mm |

PARTICLE SHAPE

| Description | Criteria |
|-------------------|---|
| Flat: | Particles with width/thickness ratio > 3 |
| Elongated: | Particles with length/width ratio > 3 |
| Flat & Elongated: | Particles meet criteria for both flat and elongated |

RELATIVE PROPORTIONS OF FINES

| Descriptive Term | % Dry Weight |
|------------------|--------------|
| Trace: | < 5% |
| With: | 5% to 12% |
| Modifier: | >12% |

GENERAL NOTES

(Continued)

CONSISTENCY OF FINE-GRAINED SOILS

| <u>Q_u - TSF</u> | <u>N - Blows/foot</u> | <u>Consistency</u> |
|----------------------------|-----------------------|---------------------|
| 0 - 0.25 | 0 - 2 | Very Soft |
| 0.25 - 0.50 | 2 - 4 | Soft |
| 0.50 - 1.00 | 4 - 8 | Firm (Medium Stiff) |
| 1.00 - 2.00 | 8 - 15 | Stiff |
| 2.00 - 4.00 | 15 - 30 | Very Stiff |
| 4.00 - 8.00 | 30 - 50 | Hard |
| 8.00+ | 50+ | Very Hard |

MOISTURE CONDITION DESCRIPTION

| <u>Description</u> | <u>Criteria</u> |
|--------------------|---|
| Dry: | Absence of moisture, dusty, dry to the touch |
| Moist: | Damp but no visible water |
| Wet: | Visible free water, usually soil is below water table |

RELATIVE PROPORTIONS OF SAND AND GRAVEL

| <u>Descriptive Term</u> | <u>% Dry Weight</u> |
|-------------------------|---------------------|
| Trace: | < 15% |
| With: | 15% to 30% |
| Modifier: | >30% |

STRUCTURE DESCRIPTION

| <u>Description</u> | <u>Criteria</u> | <u>Description</u> | <u>Criteria</u> |
|--------------------|---|--------------------|---|
| Stratified: | Alternating layers of varying material or color with layers at least 1/4-inch (6 mm) thick | Blocky: | Cohesive soil that can be broken down into small angular lumps which resist further breakdown |
| Laminated: | Alternating layers of varying material or color with layers less than 1/4-inch (6 mm) thick | Lensed: | Inclusion of small pockets of different soils |
| Fissured: | Breaks along definite planes of fracture with little resistance to fracturing | Layer: | Inclusion greater than 3 inches thick (75 mm) |
| Slickensided: | Fracture planes appear polished or glossy, sometimes striated | Seam: | Inclusion 1/8-inch to 3 inches (3 to 75 mm) thick extending through the sample |
| | | Parting: | Inclusion less than 1/8-inch (3 mm) thick |

SCALE OF RELATIVE ROCK HARDNESS

| <u>Q_u - TSF</u> | <u>Consistency</u> |
|----------------------------|--------------------|
| 2.5 - 10 | Extremely Soft |
| 10 - 50 | Very Soft |
| 50 - 250 | Soft |
| 250 - 525 | Medium Hard |
| 525 - 1,050 | Moderately Hard |
| 1,050 - 2,600 | Hard |
| >2,600 | Very Hard |

ROCK BEDDING THICKNESSES

| <u>Description</u> | <u>Criteria</u> |
|--------------------|---------------------------------------|
| Very Thick Bedded | Greater than 3-foot (>1.0 m) |
| Thick Bedded | 1-foot to 3-foot (0.3 m to 1.0 m) |
| Medium Bedded | 4-inch to 1-foot (0.1 m to 0.3 m) |
| Thin Bedded | 1/4-inch to 4-inch (30 mm to 100 mm) |
| Very Thin Bedded | 1/8-inch to 1/4-inch (10 mm to 30 mm) |
| Thickly Laminated | 1/8-inch to 1/2-inch (3 mm to 10 mm) |
| Thinly Laminated | 1/8-inch or less "paper thin" (<3 mm) |

ROCK VOIDS

| <u>Voids</u> | <u>Void Diameter</u> |
|--------------|---------------------------------|
| Pit | <6 mm (<0.25 in) |
| Vug | 6 mm to 50 mm (0.25 in to 2 in) |
| Cavity | 50 mm to 600 mm (2 in to 24 in) |
| Cave | >600 mm (>24 in) |

GRAIN-SIZED TERMINOLOGY

| <u>(Typically Sedimentary Rock)</u> | |
|-------------------------------------|--------------------|
| <u>Component</u> | <u>Size Range</u> |
| Very Coarse Grained | >4.76 mm |
| Coarse Grained | 2.0 mm - 4.76 mm |
| Medium Grained | 0.42 mm - 2.0 mm |
| Fine Grained | 0.075 mm - 0.42 mm |
| Very Fine Grained | <0.075 mm |

ROCK QUALITY DESCRIPTION

| <u>Rock Mass Description</u> | <u>RQD Value</u> |
|------------------------------|------------------|
| Excellent | 90 - 100 |
| Good | 75 - 90 |
| Fair | 50 - 75 |
| Poor | 25 - 50 |
| Very Poor | Less than 25 |

DEGREE OF WEATHERING

| | |
|---------------------|---|
| Slightly Weathered: | Rock generally fresh, joints stained and discoloration extends into rock up to 25 mm (1 in), open joints may contain clay, core rings under hammer impact. |
| Weathered: | Rock mass is decomposed 50% or less, significant portions of the rock show discoloration and weathering effects, cores cannot be broken by hand or scraped by knife. |
| Highly Weathered: | Rock mass is more than 50% decomposed, complete discoloration of rock fabric, core may be extremely broken and gives clunk sound when struck by hammer, may be shaved with a knife. |

GENERAL NOTES

Sedimentary Rock Classification

DESCRIPTIVE ROCK CLASSIFICATION:

Sedimentary rocks are composed of cemented clay, silt and sand sized particles. The most common minerals are clay, quartz and calcite. Rock composed primarily of calcite is called limestone; rock of sand size grains is called sandstone, and rock of clay and silt size grains is called mudstone or claystone, siltstone, or shale. Modifiers such as shaly, sandy, dolomitic, calcareous, carbonaceous, etc. are used to describe various constituents. Examples: sandy shale; calcareous sandstone.

| | |
|--------------|---|
| LIMESTONE | Light to dark colored, crystalline to fine-grained texture, composed of CaCO ₃ , reacts readily with HCl. |
| DOLOMITE | Light to dark colored, crystalline to fine-grained texture, composed of CaMg(CO ₃) ₂ , harder than limestone, reacts with HCl when powdered. |
| CHERT | Light to dark colored, very fine-grained texture, composed of micro-crystalline quartz (SiO ₂), brittle, breaks into angular fragments, will scratch glass. |
| SHALE | Very fine-grained texture, composed of consolidated silt or clay, bedded in thin layers. The unlaminated equivalent is frequently referred to as siltstone, claystone or mudstone. |
| SANDSTONE | Usually light colored, coarse to fine texture, composed of cemented sand size grains of quartz, feldspar, etc. Cement usually is silica but may be such minerals as calcite, iron-oxide, or some other carbonate. |
| CONGLOMERATE | Rounded rock fragments of variable mineralogy varying in size from near sand to boulder size but usually pebble to cobble size (½ inch to 6 inches). Cemented together with various cementing agents. Breccia is similar but composed of angular, fractured rock particles cemented together. |

PHYSICAL PROPERTIES:

DEGREE OF WEATHERING

| | |
|----------|---|
| Slight | Slight decomposition of parent material on joints. May be color change. |
| Moderate | Some decomposition and color change throughout. |
| High | Rock highly decomposed, may be extremely broken. |

HARDNESS AND DEGREE OF CEMENTATION

Limestone and Dolomite:

| | |
|-----------------|--|
| Hard | Difficult to scratch with knife. |
| Moderately Hard | Can be scratched easily with knife, cannot be scratched with fingernail. |
| Soft | Can be scratched with fingernail. |

Shale, Siltstone and Claystone

| | |
|-----------------|--|
| Hard | Can be scratched easily with knife, cannot be scratched with fingernail. |
| Moderately Hard | Can be scratched with fingernail. |
| Soft | Can be easily dented but not molded with fingers. |

Sandstone and Conglomerate

| | |
|-----------------|--|
| Well Cemented | Capable of scratching a knife blade. |
| Cemented | Can be scratched with knife. |
| Poorly Cemented | Can be broken apart easily with fingers. |

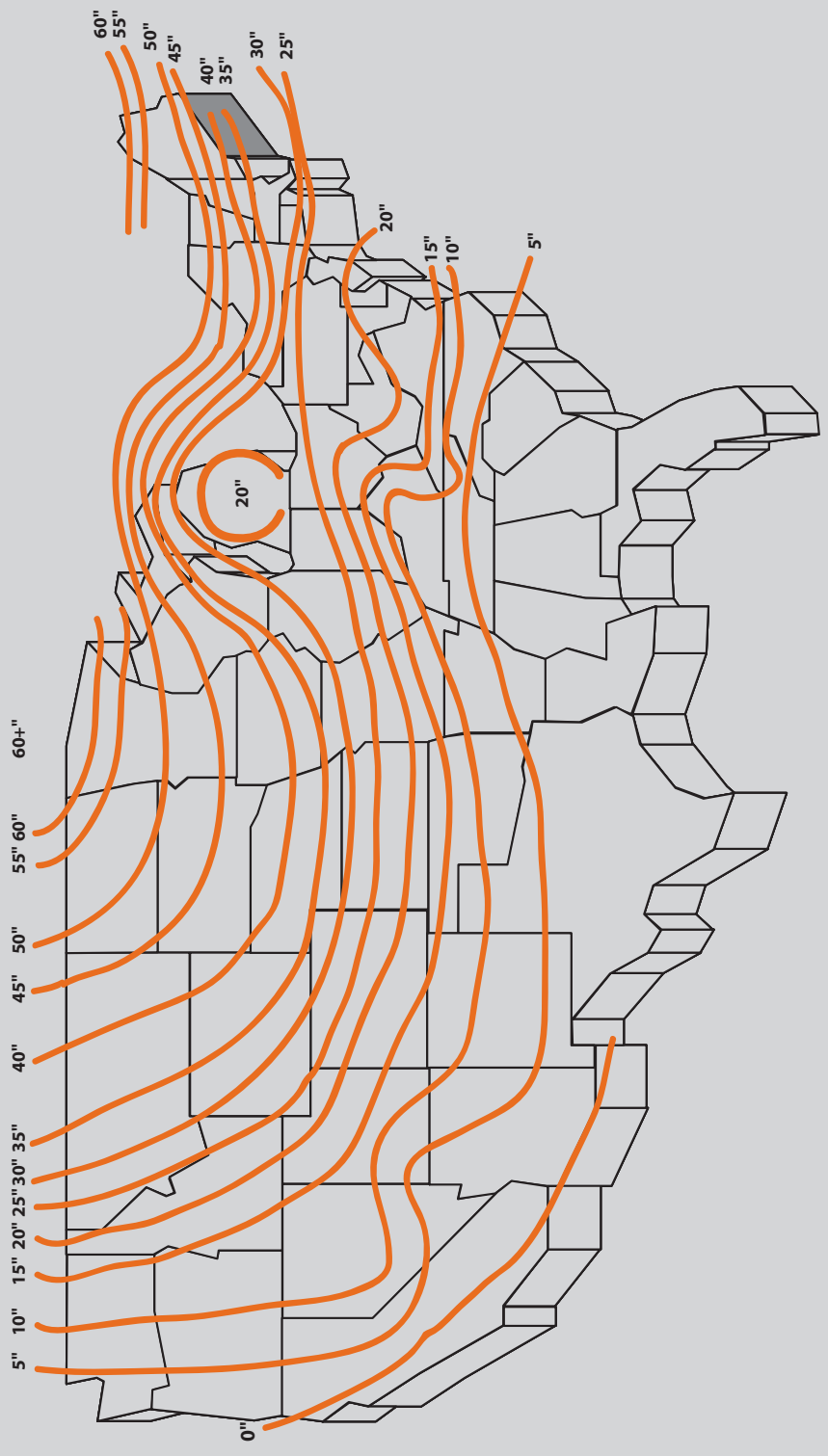
BEDDING AND JOINT CHARACTERISTICS

| Bed Thickness | Joint Spacing | Dimensions |
|---------------|---|------------|
| Very Thick | Very Wide | > 10' |
| Thick | Wide | 3' - 10' |
| Medium | Moderately Close | 1' - 3' |
| Thin | Close | 2" - 1' |
| Very Thin | Very Close | .4" - 2" |
| Laminated | — | .1" - .4" |
| Bedding Plane | A plane dividing sedimentary rocks of the same or different lithology. | |
| Joint | Fracture in rock, generally more or less vertical or transverse to bedding, along which no appreciable movement has occurred. | |
| Seam | Generally applies to bedding plane with an unspecified degree of weathering. | |

SOLUTION AND VOID CONDITIONS

| | |
|----------------|--|
| Solid | Contains no voids. |
| Vuggy (Pitted) | Rock having small solution pits or cavities up to ½ inch diameter, frequently with a mineral lining. |
| Porous | Containing numerous voids, pores, or other openings, which may or may not interconnect. |
| Cavernous | Containing cavities or caverns, sometimes quite large. |

AVERAGE FROST DEPTH (Inches)



DIRECTIONS TO THE SITE

FROM MARSHALL COUNTY COURT HOUSE: 80 JUDICIAL DR, BENTON, KY 42025: HEAD N ON
POPLAR ST (0.5 MI) TURN LEFT ONTO KY-348 W (0.7 MI). SITE WILL BE ON THE LEFT.

PREPARED BY: BOMAN CONSULTING ENGINEERS, TEL: 502-459-8402

Landlord:
Tobby J. Haines and
Stacey M. Haines
6154 Symsonia Hwy
Symsonia, KY 42082

Tenant:
The Towers, LLC
750 Park of Commerce Drive, Suite 200
Boca Raton, Florida 33487
Site #: US-KY-5183
Site Name: Oak Level

OPTION AND LEASE AGREEMENT

THIS OPTION AND LEASE AGREEMENT (this "**Agreement**") is made this 2nd day of October, 2023 (the "**Effective Date**") by and between **Tobby J. Haines and wife, Stacey M. Haines**, jointly and equally, with title vest in survivor of this union ("**Landlord**"), whose address is 6154 Symsonia Hwy, Symsonia, KY 42082, and **The Towers, LLC**, a Delaware limited liability company ("**Tenant**"), whose address is 750 Park of Commerce Drive, Suite 200, Boca Raton, Florida 33487.

WHEREAS, Landlord owns certain real property located in the County of Marshall, in the State or Commonwealth of Kentucky, that is more particularly described and/or depicted in **Exhibit 1** attached hereto (the "**Property**"); and,

WHEREAS, Tenant desires to lease from Landlord a certain portion of the Property measuring approximately 100' x 100' (approximately 10,000 square feet) and to obtain easements for landscape buffer, utilities and access (collectively, the "**Premises**"), which Premises is more particularly described and/or depicted in **Exhibit 2** attached hereto, for the placement of Communications Facilities (defined below).

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree:

1. **OPTION TO LEASE.**

(a) As of the Effective Date, Landlord grants to Tenant the exclusive option to lease the Premises (the "**Option**") during the Option Period (defined below). At any time during the Option Period and Term (defined below), Tenant and its agents, engineers, surveyors and other representatives will have the right to enter upon the Property to inspect, examine, conduct soil borings, drainage testing, material sampling, and other geological or engineering tests or studies of the Property (collectively, the "**Tests**"), to apply for and obtain licenses, permits, approvals, or other relief required of or deemed necessary or appropriate at Tenant's sole discretion for its use of the Premises including, without limitation, applications for zoning variances, zoning ordinances, amendments, special use permits, construction permits and any other permits and approvals deemed necessary by Tenant (collectively, the "**Government Approvals**"), initiate the ordering and/or scheduling of necessary utilities, obtain a title report with respect to the Property, and otherwise to do those things on or off the Property that, in the opinion of Tenant, are necessary in Tenant's sole discretion to determine the physical condition of the Property, the environmental history of the Property, and the feasibility or suitability of the Property for Tenant's permitted use under this Agreement, all at Tenant's expense. Tenant shall be authorized to apply for the Government Approvals on behalf of Landlord and Landlord agrees to reasonably cooperate with such applications. Tenant will not be liable to Landlord or any third party on account of any pre-existing defect or condition on or with respect to the Property, whether or not such defect or condition is disclosed by Tenant's Tests. Tenant will restore the Property to its condition as it existed prior to conducting any Tests, reasonable wear and tear and

casualty not caused by Tenant excepted. In addition, Tenant shall indemnify, defend and hold Landlord harmless from and against any and all injury, loss, damage or claims arising directly out of Tenant's Tests.

(b) In consideration of Landlord granting Tenant the Option, Tenant agrees to pay Landlord the sum of [REDACTED] within thirty (30) days after the full execution of this Agreement. The Option Period will be for an term of two (2) years from the Effective Date (the "**Option Period**").

(c) Tenant may exercise the Option at any time during the Option Period by delivery of written notice to Landlord (the "**Notice of Exercise of Option**"). The Notice of Exercise of Option shall set forth the commencement date (the "**Commencement Date**") of the Initial Term (defined below). If Tenant does not provide a Notice of Exercise of Option during the Option Period, this Agreement will terminate, and the parties will have no further liability to each other.

(d) During the Option Period or the Term, Landlord shall not take any action to change the zoning status or land use of the Property which would diminish, impair, or adversely affect the use of the Premises by Tenant for its permitted uses hereunder.

2. TERM.

(a) Effective as of the Commencement Date, Landlord leases the Premises to Tenant subject to the terms and conditions of this Agreement for an initial term of five (5) years (the "**Initial Term**").

(b) Tenant shall have the option to extend the Initial Term for nine (9) successive terms of five (5) years each (each a "**Renewal Term**"). Each Renewal Term shall commence automatically, unless Tenant delivers notice to Landlord, not less than thirty (30) days prior to the end of the then-current Initial Term or Renewal Term, as applicable, of Tenant's intent not to renew. For purposes of this Agreement, "**Term**" shall mean the Initial Term and any applicable Renewal Term(s).

3. RENT. Beginning on the first (1st) day of the third (3rd) month after the Commencement Date ("**Rent Commencement Date**"). Tenant shall pay to Landlord a monthly rent payment of [REDACTED] at the address set forth in Section 29 below on or before the fifth (5th) day of each calendar month in advance. The initial payment of Rent will be forwarded by Tenant to Landlord within thirty (30) days after the Rent Commencement Date.

4. TAXES. Tenant shall pay any personal property taxes assessed on, or any portion of such taxes attributable to, the Communications Facilities located on the Premises. Landlord shall pay when due all real property taxes and all other fees and assessments attributable to the Property and the Premises. Tenant shall pay as additional rent any increase in real property taxes levied against the Premises, which are directly attributable to Tenant's use of the Premises (but not, however, taxes attributable to periods prior to the Commencement Date such as roll-back or greenbelt assessments) if Landlord furnishes proof of such increase to Tenant (such increase, the "**Landlord Tax Reimbursement**"). In the event that Landlord fails to pay when due any taxes affecting the Premises or any easement relating to the Premises, Tenant shall have the right, but not the obligation, to pay such taxes and any applicable interest, penalties or similar charges, and deduct the full amount of the taxes and such charges paid by Tenant on Landlord's behalf from future installments of Rent. Notwithstanding the foregoing, Tenant shall not have the obligation to pay any tax, assessment, or charge that Tenant is disputing in good faith in appropriate proceedings prior to a final determination that such tax is properly assessed, provided that no lien attaches to the Property. In addition, Tenant shall not have the obligation to pay or reimburse Landlord for the Landlord Tax Reimbursement if

Landlord has not provided proof of such amount and demand therefor within one (1) year of the date such amount is due and payable by Landlord.

5. USE. The Premises are being leased for the purpose of erecting, installing, operating, maintaining, repairing and replacing radio or communications towers, transmitting and receiving equipment, antennas, dishes, satellite dishes, mounting structures, equipment shelters and buildings, solar energy conversion and electrical power generation system, fencing and other supporting structures and related equipment (collectively, the “**Communications Facilities**”), and to alter, supplement and/or modify same. Tenant may, subject to the foregoing, make any improvements, alterations or modifications to the Premises as are deemed appropriate by Tenant for the permitted use herein. Tenant shall have the right to clear the Premises of any trees, vegetation, or undergrowth which interferes with the use of the Premises for the intended purposes by Tenant and/or its subtenants and licensees, as applicable. Tenant shall have the exclusive right to install and operate the Communications Facilities upon the Premises.

6. ACCESS AND UTILITIES. During the Term, Tenant and its guests, agents, employees, customers, invitees, subtenants, licensees and assigns shall have the unrestricted, exclusive right to use, and shall have free and unfettered access to, the Premises seven (7) days a week, twenty-four (24) hours a day. Landlord for itself, its successors and assigns, hereby grants and conveys unto Tenant, its customers, employees, agents, invitees, subtenants, licensees, successors and assigns a non-exclusive easement throughout the Term to a public right of way (a) for ingress and egress, and (b) for the construction, installation, operation, maintenance, repair and replacement of overhead and underground electric and other utility facilities (including fiber, backhaul, wires, poles, cables, conduits and appurtenant equipment), with the right to reconstruct, improve, add to, enlarge, change and remove such facilities, over, across and through any easement for the benefit of and access to the Premises, subject to the terms and conditions herein set forth. Landlord agrees to coordinate, cooperate and assist Tenant with obtaining the required access and utility easements to the Premises from a public right of way up to and including negotiating and obtaining such access and utility rights from any applicable neighbor parcel. If there are utilities already existing on the Premises which serve the Premises, Tenant may utilize such utilities and services. The rights granted to Tenant herein shall also include the right to partially assign its rights hereunder to any public or private utility company or authority to facilitate the uses contemplated herein, and all other rights and privileges reasonably necessary for Tenant’s safe and efficient use and enjoyment of the easements for the purposes described above. Upon Tenant’s request, Landlord shall execute and deliver to Tenant requisite recordable documents evidencing the easements contemplated hereunder within fifteen (15) days of Tenant’s request, and Landlord shall obtain the consent and joinder of Landlord’s mortgagee to any such grant, if applicable.

7. EQUIPMENT, FIXTURES AND REMOVAL. The Communications Facilities shall at all times be the personal property of Tenant and/or its subtenants and licensees, as applicable. Tenant or its customers, subtenants or licensees shall have the right to erect, install, maintain, repair, replace and operate on the Premises such equipment, structures, fixtures, signs, and personal property as Tenant, its customers, subtenants or licensees may deem necessary or appropriate, and such property, including the equipment, structures, fixtures, signs, and personal property currently on the Premises, shall not be deemed to be part of the Premises, but shall remain the property of Tenant or its customers, subtenants or licensees. Within ninety (90) days after the expiration or earlier termination of this Agreement (the “**Removal Period**”), Tenant, customers, subtenants or licensees shall remove its improvements and personal property and restore the Premises to grade and perform all obligations under this Agreement during the Removal Period, including, without limitation, the payment of Rent at the rate in effect upon the expiration or termination of this Agreement.

8. ASSIGNMENT AND SUBLEASE. Tenant may transfer or assign this Agreement to Tenant's Lender (defined below), principal, affiliates, subsidiaries, subsidiaries of its principal or to any entity which acquires all of or substantially all of Tenant's assets or ownership interests by reasons of merger, acquisition or other business reorganization without Landlord's consent (a "**Permitted Assignment**"). As to transfers or assignments which do not constitute a Permitted Assignment, Tenant is required to obtain Landlord's written consent prior to effecting such transfer or assignment, which consent shall not be unreasonably withheld, conditioned or delayed. Upon such assignment, including a Permitted Assignment, Tenant will be relieved and released of all obligations and liabilities hereunder. Tenant shall have the exclusive right to sublease or grant licenses without Landlord's consent to use all or part of the Premises and/or the Communications Facilities, but no such sublease or license shall relieve or release Tenant from its obligations under this Agreement. Landlord may assign this Agreement only in its entirety and only to any person or entity who or which acquires fee title to the Property, subject to Section 15. Landlord may subdivide the Property without Tenant's prior written consent provided the resulting parcels from such subdivision are required to afford Tenant the protections set forth in Section 14 hereof.

9. COVENANTS, WARRANTIES AND REPRESENTATIONS.

(a) Landlord warrants and represents that it is the owner in fee simple of the Property, free and clear of all liens and encumbrances except as to those which may have been disclosed to Tenant in writing prior to the execution hereof, and that it alone has full right to lease the Premises for the Term.

(b) Landlord shall pay promptly, when due, any other amounts or sums due and owing with respect to its ownership and operation of the Property, including, without limitation, judgments, taxes, liens, mortgage payments and other similar encumbrances. If Landlord fails to make any payments required under this Agreement, or breaches any other obligation or covenant under this Agreement, Tenant may (without obligation), after providing ten (10) days written notice to Landlord, make such payment or perform such obligation on behalf of Landlord and offset such payment (including any reasonable attorneys' fees incurred in connection with Tenant performing such obligation) against payments of Rent.

(c) Landlord shall not do or knowingly permit anything that will interfere with or negate any special use permit or approval pertaining to the Premises or cause Tenant's use of the Premises to be in nonconformance with applicable local, state, or federal laws. Landlord shall cooperate with Tenant in any effort by Tenant to obtain certificates, permits, licenses and other approvals that may be required by any governmental authorities. Landlord agrees to execute any necessary applications, consents or other documents as may be reasonably necessary for Tenant to apply for and obtain the Government Approvals required to use and maintain the Premises and the Communications Facilities.

(d) To the best of Landlord's knowledge, Landlord has complied and shall comply with all laws with respect to the Property. No asbestos-containing thermal insulation or products containing PCB, formaldehyde, chlordane, or heptachlor or other hazardous materials have been placed on or in the Property by Landlord or, to the knowledge of Landlord, by any prior owner or user of the Property. There has been no release of or contamination by hazardous materials on the Property by Landlord, or to the knowledge of Landlord, any prior owner or user of the Property.

(e) Tenant shall have access to all utilities required for the operation of Tenant's improvements on the Premises that are existing on the Property.

(f) Landlord warrants and represents that there currently exist no licenses, sublicenses, or other agreements, written or oral, granting to any party or parties the right of use or occupancy of any portion of the Property; there are no outstanding options or rights of first refusal to purchase the Property or any

portion thereof or interest therein, or any equity or interest in Landlord if Landlord is an entity; and there are no parties (other than Landlord) in possession of the Property except as to those that may have been disclosed to Tenant in writing prior to the execution hereof.

10. HOLD OVER TENANCY. Should Tenant or any assignee, sublessee or licensee of Tenant hold over the Premises or any part thereof after the expiration of this Agreement, such holdover shall constitute and be construed as a tenancy from month-to-month only, but otherwise upon the same terms and conditions.

11. INDEMNITIES. Each party agrees to indemnify, defend and hold harmless the other party, its parent company or other affiliates, successors, assigns, officers, directors, shareholders, managers, members, agents and employees (collectively, "**Indemnified Persons**") from and against all claims, actions, judgments, damages, liabilities, losses, expenses and costs (including, without limitation, reasonable attorneys' fees and court costs) (collectively, "**Losses**") caused by or arising out of (a) such party's breach of any of its obligations, covenants, representations or warranties contained herein, or (b) such party's acts or omissions with regard to this Agreement; provided, however, in no event shall a party indemnify the other party for any such Losses to the extent arising from the gross negligence or willful misconduct of the party seeking indemnification. However, in the event of an Indemnified Person's contributory negligence or other fault, the Indemnified Person shall not be indemnified hereunder to the extent that the Indemnified Person's negligence or other fault caused such Losses. Tenant will indemnify Landlord from and against any mechanic's liens or liens of contractors and subcontractors engaged by or through Tenant.

12. WAIVERS.

(a) Landlord hereby waives any and all lien rights it may have, statutory or otherwise, in and to the Communications Facilities or any portion thereof, regardless of whether or not such is deemed real or personal property under applicable laws. Landlord will not assert any claim whatsoever against Tenant for loss of anticipatory profits or any other indirect, special, incidental or consequential damages incurred by Landlord as a result of the construction, maintenance, operation or use of the Premises by Tenant.

(b) EACH PARTY HERETO WAIVES ANY AND ALL CLAIMS AGAINST THE OTHER FOR ANY LOSS, COST, DAMAGE, EXPENSE, INJURY OR OTHER LIABILITY WHICH IS IN THE NATURE OF INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES WHICH ARE SUFFERED OR INCURRED AS THE RESULT OF, ARISE OUT OF, OR ARE IN ANY WAY CONNECTED TO THE PERFORMANCE OF THE OBLIGATIONS UNDER THIS AGREEMENT.

13. INSURANCE. Tenant shall insure against property damage and bodily injury arising by reason of occurrences on or about the Premises in the amount of not less than \$1,000,000. The insurance coverage provided for herein may be maintained pursuant to master policies of insurance covering other communications facilities of Tenant and its corporate affiliates. All insurance policies required to be maintained by Tenant hereunder shall be with responsible insurance companies, authorized to do business in the State or Commonwealth where the Premises are located if required by law, and shall provide for cancellation only upon ten (10) days' prior written notice to Landlord. Tenant shall evidence such insurance coverage by delivering to Landlord, if requested, a copy of a certificate of insurance of such policies issued by the insurance companies underwriting such risks.

14. INTERFERENCE. During the Option Period and the Term, Landlord, its successors and assigns, will not grant any ground lease, license, or easement with respect to the Property (outside of the Premises) and any property adjacent or contiguous to the Property or in the immediate vicinity of the Property that is fee owned by Landlord: (a) for any of the uses contemplated in Section 5 herein; or (b) if such lease, license, or easement would detrimentally impact the Communications Facilities or Tenant's economic

opportunities at the Premises, or the use thereof. Landlord shall not cause or permit the construction of communications or broadcast towers or structures, fiber optic backhaul facilities, or satellite facilities on the Property or on any other property of Landlord adjacent or contiguous to or in the immediate vicinity of the Property, except for the Communications Facilities constructed by Tenant. Landlord and Tenant intend by this Agreement for Tenant (and persons deriving rights by, through, or under Tenant) to be the sole parties to market, use, or sublease any portion of the Property for Communications Facilities during the Option Period and the Term. Landlord agrees that this restriction on the use of the Property is commercially reasonable, not an undue burden on Landlord, not injurious to the public interest, and shall be specifically enforceable by Tenant (and persons deriving rights by, through or under Tenant) in a court of competent jurisdiction. The foregoing restriction shall run with the land and be binding on the successors and assigns of Landlord.

15. RIGHT OF FIRST REFUSAL. In the event Landlord determines to sell, transfer, license or otherwise convey any interest, whether fee simple interest, easement interest, leasehold, or otherwise, and whether direct or indirect by way of transfer of ownership interests in Landlord if Landlord is an entity, which interest underlies or affects any or all of the Premises (the "**ROFR Property**") to any third party that is a Third Party Competitor (as defined below), Landlord shall offer Tenant a right of first refusal to purchase the Premises (or such larger portion of the Property that encompasses the Premises, if applicable). For purposes herein, a "**Third Party Competitor**" is any person or entity directly or indirectly engaged in the business of owning, acquiring, operating, managing, investing in or leasing communications infrastructure or any person or entity directly or indirectly engaged in the business of owning, acquiring, or investing in real property leases or easements underlying communications infrastructure. In such event, Landlord shall send a written notice to Tenant in accordance with Section 29 below that shall contain an offer to Tenant of a right of first refusal to purchase the ROFR Property, together with a copy of any offer to purchase, or any executed purchase agreement or letter of intent (each, an "**Offer**"), which copy shall include, at a minimum, the purchase price or acquisition price, proposed closing date, and financing terms (collectively, the "**Minimum Terms**"). Within thirty (30) days of receipt of such Offer, Tenant shall provide written notice to Landlord of Tenant's election to purchase the ROFR Property on the same Minimum Terms, provided: (a) the closing date shall be no sooner than sixty (60) days after Tenant's purchase election notice; (b) given Landlord's direct relationship and access to Tenant, Tenant shall not be responsible for payment of any broker fees associated with an exercise of Tenant's rights to acquire the ROFR Property; and, (c) Tenant shall not be required to match any components of the purchase price which are speculative or incalculable at the time of the Offer. In such event, Landlord agrees to sell the ROFR Property to Tenant subject to Tenant's payment of the purchase price and compliance with a purchase and sale agreement to be negotiated in good faith between Landlord and Tenant. If Tenant provides written notice that it does not elect to exercise its right of first refusal to purchase the ROFR Property, or if Tenant does not provide notice of its election within the thirty (30) day period, Tenant shall be deemed to have waived such right of first refusal only with respect to the specific Offer presented (and any subsequent Offers shall again be subject to Tenant's continuing right of first refusal hereunder), and Landlord shall be permitted to consummate the sale of the ROFR Property in accordance with the strict terms of the Offer ("**Permitted Sale**"). If Landlord does not consummate the Permitted Sale within ninety (90) days of the date of Tenant's waiver of its right of first refusal, including if the Minimum Terms are modified between Landlord and the Third Party Competitor, Landlord shall be required to reissue a New Offer to Tenant.

16. SECURITY. The parties recognize and agree that Tenant shall have the right to safeguard and protect its improvements located upon or within the Premises. Consequently, Tenant may elect, at its expense, to construct such enclosures and/or fences as Tenant reasonably determines to be necessary to secure the Communications Facilities. Tenant may also undertake any other appropriate means to restrict access to the Communications Facilities including, without limitation, if applicable, installing security systems, locks and posting signs for security purposes and as may otherwise be required by law.

17. FORCE MAJEURE. The time for performance by Landlord or Tenant of any term, provision, or covenant of this Agreement shall be deemed extended by time lost due to delays resulting from acts of God, strikes, civil riots, floods, pandemics, material or labor restrictions by governmental authority, government shutdowns, quarantines, and/or other disease control measures and any other cause not within the control of Landlord or Tenant, as the case may be.

18. CONDEMNATION; CASUALTY.

(a) In the event Landlord receives any notice of any condemnation proceedings, or other proceedings in the nature of eminent domain related to the Property or the Premises, it will forthwith send a copy of such notice to Tenant. If all or any part of the Premises is taken by eminent domain, Tenant may, upon written notice to Landlord, elect to terminate this Agreement, whereupon neither party shall have any further liability or obligation hereunder. Notwithstanding any provision of this Agreement to the contrary, in the event of condemnation of all or any part of the Premises, Landlord and Tenant shall be entitled to separate awards with respect to the Premises, in the amount determined by the court conducting such condemnation proceedings based upon Landlord's and Tenant's respective interests in the Premises. If a separate condemnation award is not determined by such court, Landlord shall permit Tenant to participate in the allocation and distribution of the award. In no event shall the condemnation award to Landlord exceed the unimproved value of the Premises, without taking into account the improvements located thereon.

(b) In case of damage to the Premises or the Communications Facilities by fire or other casualty, Landlord shall, at its expense, cause any damage to the Property (excluding the Communications Facilities) to be repaired to a condition as nearly as practicable to that existing prior to the damage, with reasonable speed and diligence, subject to delays which may arise by reason of adjustment of loss under insurance policies, governmental regulations, and for delays beyond the control of Landlord, including a force majeure. Landlord shall coordinate with Tenant as to the completion of Landlord's work to restore the Property so as not to adversely impact Tenant's use of the Premises and the Communications Facilities. Landlord shall not be liable for any inconvenience or annoyance to Tenant, or injury to Tenant's business or for any consequential damages resulting in any way from such damage or the repair thereof, except to the extent and for the time that the Communications Facilities or the Premises are thereby rendered unusable for Tenant's intended purpose the Rent shall proportionately abate. In the event the damage shall be so extensive that Tenant shall decide, in its sole discretion, not to repair or rebuild the Communications Facilities, or if the casualty shall not be of a type insured against under standard fire policies with extended type coverage, or if the holder of any mortgage, deed of trust or similar security interest covering the Communications Facilities shall not permit the application of adequate insurance proceeds for repair or restoration, this Agreement shall, at the sole option of Tenant, exercisable by written notice to Landlord, be terminated as of the date of such casualty, and the obligation to pay Rent (taking into account any abatement as aforesaid) shall cease as of the termination date and Tenant shall thereupon promptly vacate the Premises.

19. DEFAULT. The failure of Tenant or Landlord to perform any of the covenants of this Agreement shall constitute a default. The non-defaulting party shall give the other written notice of such default, and the defaulting party shall cure such default within thirty (30) days after receipt of such notice. In the event any such default cannot reasonably be cured within such thirty (30) day period, if the defaulting party shall proceed promptly after the receipt of such notice to cure such default, and shall pursue curing such default with due diligence, the time for curing shall be extended for such period of time as may be necessary to complete such curing, however, in no event shall this extension of time be in excess of sixty (60) days, unless agreed upon by the non-defaulting party.

20. REMEDIES. Should the defaulting party fail to cure a default under this Agreement, the other party shall have all remedies available either at law or in equity, and the right to terminate this Agreement. In the event Landlord elects to terminate this Agreement due to a default by Tenant (which remains uncured

by Lender), Landlord shall continue to honor all sublease and license commitments made by Tenant through the expiration of the term of any such commitment and shall be entitled to collect and retain the rents or license fees associated with such subleases or license commitments, it being intended hereby that each such commitment shall survive the early termination of this Agreement.

21. ATTORNEYS' FEES. If there is any legal proceeding between Landlord and Tenant arising from or based on this Agreement, each Party shall bear their own costs and expenses, including, without limitation, attorneys' fees and disbursements in such action or proceeding and in any appeal in connection therewith.

22. ADDITIONAL TERMINATION RIGHT. If at any time during the Term, Tenant determines, in Tenant's sole and absolute discretion, with or without cause, that the Premises is no longer suitable or desirable for Tenant's intended use and/or purposes, Tenant shall have the right to terminate this Agreement upon sixty (60) days prior written notice to Landlord.

23. PRIOR AGREEMENTS. The parties hereby covenant, recognize and agree that the terms and provisions of this Agreement shall constitute the sole embodiment of the arrangement between the parties with regard to the Premises, and that all other written or unwritten agreements, contracts, or leases by and between the parties with regard to the Premises are hereby terminated, superseded and replaced by the terms hereof.

24. SUBORDINATION, NON-DISTURBANCE AND ATTORNMENT. In the event the Property is encumbered by a mortgage or deed of trust or other security instrument of any kind (a "**Landlord Mortgage**"), Landlord, within fifteen (15) days following Tenant's request or immediately prior to the creation of any encumbrance created after the date this Agreement is fully executed, will obtain from the holder of each such Landlord Mortgage a fully-executed subordination, non-disturbance and attornment agreement (an "**SNDA**") in recordable form, which shall be prepared or approved by Tenant. The holder of every such Landlord Mortgage shall, in the SNDA, agree that in the event of a foreclosure, or conveyance in lieu of foreclosure of Landlord's interest in the Premises, such Landlord Mortgage holder shall recognize and confirm the validity and existence of this Agreement, not disturb the tenancy of Tenant (and its customers, subtenants, and licensees) and Tenant (and its customers, subtenants, and licensees) shall have the right to continue its use and occupancy of the Premises in accordance with the provisions of this Agreement, provided Tenant is not in default of this Agreement beyond applicable notice and cure periods.

25. LENDER'S RIGHTS.

(a) Landlord agrees to recognize the subleases and licenses of all subtenants and licensees and will permit each of them to remain in occupancy of its premises notwithstanding any default hereunder by Tenant so long as each such respective subtenant or licensee is not in default under the lease/license covering its premises. Landlord agrees to execute such documents as any such subtenant and/or licensee might reasonably require, including customary subordination, non-disturbance and attornment agreements and/or Landlord recognition agreements, to further memorialize the foregoing, and further agrees to use Landlord's best efforts to also cause its lenders to similarly acknowledge, in writing, subtenant's and licensee's right to continue to occupy its premises as provided above.

(b) Landlord consents to the granting by Tenant of a lien and security interest in Tenant's interest in this Agreement and/or leasehold estate of the Premises and all of Tenant's personal property and fixtures attached to the real property described herein, and furthermore consents to the exercise by Lender of its rights of foreclosure with respect to its lien and security interest. Landlord agrees to recognize Lender as Tenant hereunder upon any such exercise by Lender of its rights of foreclosure.

(c) Landlord hereby agrees to give Lender written notice of any breach or default of Tenant of the terms of this Agreement within fifteen (15) days after the occurrence thereof at the address set forth in

Section 29. Landlord further agrees that no default under this Agreement by Tenant shall be deemed to have occurred unless such notice to Lender is also given and that, in the event of any such breach or default under the terms of this Agreement, Lender shall have the right, to the same extent, for the same period and with the same effect, as Tenant, plus an additional ninety (90) days after any applicable grace period to cure or correct any such default.

(d) Landlord acknowledges that nothing contained herein shall be deemed or construed to obligate Lender to take any action hereunder, or to perform or discharge any obligation, duty or liability of Tenant under this Agreement. Lender shall not become liable under the provisions of this Agreement or any lease executed pursuant to Section 26 hereof unless and until such time as it becomes, and then only for as long as it remains, the owner of the leasehold estate created hereby or thereby.

(e) Tenant shall have the right from time to time to mortgage or otherwise encumber Tenant's interest in this Agreement and/or leasehold estate in the Premises; provided, however, in no event shall there be more than one such mortgage or encumbrance outstanding at any one time. If Tenant shall so mortgage (each a "**Tenant Mortgage**") Tenant's interest in this Agreement and/or leasehold interest in the Premises to Lender, Tenant or Lender shall give Landlord prompt notice of such Tenant Mortgage and furnish Landlord with a complete and correct copy of such Tenant Mortgage, certified as such by Tenant or Lender, together with the name and address of Lender if it is different from the information set forth in Section 29 hereof. The term "**Lender**" as used in this Agreement shall mean the lender identified in Section 29 hereof and its successors, assigns, designees or nominees.

(f) This Agreement shall not be amended or modified without the consent of Lender. In the event that Lender shall become the owner of such leasehold estate, Lender shall not be bound by any modification or amendment of this Agreement made subsequent to the date of a Tenant Mortgage unless Lender shall have consented to such modification or amendment at the time it was made.

26. RIGHT TO NEW LEASE.

(a) In the case of termination of this Agreement for any reason, or in the event this Agreement is rejected or disaffirmed pursuant to any bankruptcy, insolvency or other law affecting creditor's rights, Landlord shall give prompt notice thereof to Lender at the address set forth in Section 29 or as may be provided to Landlord by Tenant following the Commencement Date. Thereafter, Landlord, upon written request of Lender, and within thirty (30) days after the receipt of such request, shall promptly execute and deliver a new lease of the Premises and assignment of all subleases and licenses to Lender or its designee or nominee, for the remainder of the Term upon all the covenants, conditions, limitations and agreements contained herein (including, without limitation, options to extend the Term) except for such provisions which must be modified to reflect such termination, rejection or disaffirmance and the passage of time, provided that Lender (i) shall pay to Landlord, simultaneously with the delivery of such new lease, all unpaid rent due under this Agreement up to and including the date of the commencement of the term of such new lease and all reasonable expenses, including, without limitation, reasonable attorneys' fees and disbursements and court costs, incurred by Landlord in connection with the default by Tenant, the termination of this Agreement and the preparation of the new lease, and (ii) shall cure all defaults existing under this Agreement which are susceptible to being cured by Lender promptly and with due diligence after the delivery of such new lease. Notwithstanding anything to the contrary contained herein, provided Lender shall have otherwise complied with the provisions of this Section, Lender shall have no obligation to cure any defaults which are not susceptible to being cured by Lender (for example, the bankruptcy of Tenant).

(b) For so long as Lender shall have the right to enter into a new lease with Landlord pursuant to this Section, Landlord shall not enter into a new lease of the Premises with any person or entity other than Lender, without the prior written consent of Lender.

27. ADDITIONAL PROVISIONS.

(a) The parties hereto agree that (i) Tenant is in possession of the Premises notwithstanding the fact that Tenant has subleased or licensed, or may in the future sublease or license, certain of the improvements thereon or portions of the Premises to third parties, and (ii) the requirements of Section 365(h) of Title 11 of the United States Code (the Bankruptcy Code) with respect to Tenant's possession of the leasehold under this Agreement are satisfied. Accordingly, the right of Tenant to remain in possession of the leasehold under this Agreement shall continue notwithstanding any rejection of this Agreement in any bankruptcy proceeding involving Landlord, or any other actions by any party in such a proceeding. This provision, while included in this Agreement, has been separately negotiated and shall constitute a separate contract between the parties as well as a part of this Agreement. The provisions of this Section are for the benefit of Tenant and its assigns, including, without limitation, Lender. The parties hereto also agree that Lender is a party in interest and shall have the right to appear as a party in any proceeding brought under any bankruptcy law or under any other law which may affect this Agreement.

(b) The provisions of Section 25 and Section 26 hereof shall survive the termination, rejection or disaffirmance of this Agreement and shall continue in full force and effect thereafter to the same extent as if such Sections were a separate and independent contract made by Landlord, Tenant and Lender and, from the effective date of such termination, rejection or disaffirmance of this Agreement to the date of execution and delivery of such new lease, Lender may use and enjoy the leasehold estate created by this Agreement without hindrance by Landlord. The aforesaid agreement of Landlord to enter into a new lease with Lender shall be deemed a separate agreement between Landlord and Lender, separate and apart from this Agreement as well as a part of this Agreement, and shall be unaffected by the rejection of this Agreement in any bankruptcy proceeding by any party.

(c) Landlord shall have no right, and expressly waives any right arising under applicable law, in and to the rentals or other fees payable to Tenant, if any, under any sublease or license of the Premises by Tenant, which rentals or fees may be assigned by Tenant to Lender.

(d) If a Tenant Mortgage is in effect, this Agreement shall not be modified or amended by the parties hereto, or terminated or surrendered by Tenant, nor shall Landlord accept any such termination or surrender of this Agreement by Tenant, without the prior written consent of Lender.

(e) The provisions of Section 25 and Section 26 hereof are for the benefit of Lender and may be relied upon and shall be enforceable by Lender as if Lender were a party to this Agreement.

(f) Landlord shall, within ten (10) days of the request of Tenant or any Lender or prospective Lender, provide an estoppel certificate as to any matters reasonably requested by Tenant or Lender.

(g) The right to extend or renew this Agreement and any right of first refusal to purchase the Premises may be exercisable by the holder of a Tenant Mortgage and, before the expiration of any periods to exercise such a right, Landlord must provide to Lender at least thirty (30) days prior written notice before the expiration of the right to so extend or renew in order to extinguish Lender's right to so extend, renew or purchase.

(h) Under no circumstances shall the fee estate of Landlord and the leasehold estate created hereby merge, even though owned by the same party, without the written consent of the holder of a Tenant Mortgage.

28. QUIET ENJOYMENT. So long as Tenant is not in default under this Agreement beyond the applicable notice and cure period, Landlord covenants and agrees that Tenant shall peaceably and quietly hold and enjoy the Premises throughout the Term, without any hindrance, molestation or ejection by Landlord, its successors or assigns or by those claiming by, through or under them.

29. NOTICES. All notices, requests, claims, demands, and other communications hereunder shall be in writing and may be hand delivered (provided the deliverer provides proof of delivery) or sent by nationally established overnight courier that provides proof of delivery, or certified or registered mail (postage prepaid, return receipt requested). Notice shall be deemed received on the date of delivery as demonstrated by the receipt of delivery. Notices shall be delivered to a party at the party's respective address below, or to such other address that a party below may provide from time to time:

If to Landlord:
Tobby J. Haines and
Stacey M. Haines
6154 Symsonia Hwy
Symsonia, KY 42082

If to Tenant:
The Towers, LLC
750 Park of Commerce Drive, Suite 200
Boca Raton, Florida 33487

Ref: US-KY-5183
Attn: VP Asset Management

If to Lender:
Barclays Bank PLC,
as Administrative Agent
745 Seventh Avenue, 5th Floor
New York, NY 10019
Attn: Karen Ngai

With a copy to: General Counsel

30. MISCELLANEOUS.

(a) Each party hereto warrants and represents that it has the necessary power and authority to enter into and perform its respective obligations under this Agreement.

(b) If any term of this Agreement is found to be void or invalid, such invalidity shall not affect the remaining terms of this Agreement, which shall continue in full force and effect.

(c) All attached exhibits are hereby incorporated by this reference as if fully set forth herein.

(d) Failure of a party to insist on strict performance of any of the conditions or provisions of this Agreement, or failure to exercise any of a party's rights hereunder, shall not waive such rights.

(e) This Agreement shall be governed by and construed in accordance with the laws of the State or Commonwealth in which the Premises are located.

(f) This Agreement constitutes the entire agreement and understanding of the parties and supersedes all offers, negotiations, other leases and/or agreements with regard to the Premises. There are no representations or understandings of any kind not set forth herein. Any amendment to this Agreement must be in writing and executed by both parties.

(g) This Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective heirs, legal representatives, successors and assigns.

(h) A short-form Memorandum of Option to Lease (and a short-form Memorandum of Lease in the event Tenant exercises its option to lease the Premises) may be recorded at Landlord's or Tenant's option in the form as depicted in **Exhibit 3** and **Exhibit 4**, respectively, attached hereto. In addition, Tenant's subtenants and licensees shall have the right to record a memorandum of its sublease or license with Tenant.

(i) Landlord shall keep the terms of this Agreement confidential and shall not disclose any terms contained within this Agreement to any third party other than such terms as are set forth in the Memorandum of Option to Lease or Memorandum of Lease.

[SIGNATURES BEGIN ON NEXT PAGE]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the Effective Date (date last signed by a party hereto).

WITNESSES:

LANDLORD:

Shelly Thompson
Name: Shelly Thompson

Denise Bodd
Name: Denise Bodd

Tobby J Haines
Tobby J. Haines

Date: 9.5.23

Stacey M Haines
Stacey M. Haines

Date: 9.5.23

STATE OF Kentucky

COUNTY OF Marshall

The foregoing instrument was acknowledged before me this September 05
20 23 by Tobby J. Haines and wife, Stacey M. Haines.

Kandice J Wannack
Notary Public

Print Name: Kandice J Wannack

My Commission Expires: 6/18/25



(Tenant signature page to Option and Lease Agreement)

WITNESSES:

TENANT:

The Towers, LLC
a Delaware limited liability company

Edward Davis
Name: Edward Davis

Christopher Artoun
Name: Christopher Artoun

Ariel Rubin
By: _____
Name: Ariel Rubin
Title: Vice President of Tower Development
Date: 10/02/2023

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STATE OF FLORIDA

COUNTY OF PALM BEACH

The foregoing instrument was acknowledged before me this October 2nd, 20 23 by Ariel Rubin (name of signatory), VP Tower Dev (title of signatory) of The Towers, LLC, a Delaware limited liability company, on behalf of the company.

Jeanne M Bruning
Notary Public

Print Name: Jeanne M Bruning

My Commission Expires: 4/20/24



EXHIBIT 1

Legal Description of the Property (Parent Parcel)

(may be updated by Tenant upon receipt of final legal description from title)

The following land lying in Marshall County, Kentucky, to-wit:

A tract of land located on the South side of the Benton-Symsonia Road and more particularly described as beginning at a concrete marker in the Southern right-of-way which is the Northwest corner of the West Marshall Riding Club property and the Northeast corner of the tract herein conveyed; thence, North 73 degrees 10' West approximately 310 feet along the Southern edge of the Benton-Symsonia Road to an iron pipe; thence continuing along the Southern right-of-way a distance approximately 205 feet to an existing fence; thence, South with the fence a distance of approximately 350 feet to a fence located in the South boundary of the parent tract; thence, South 88 degrees 39' East a distance of approximately 500 feet to a point which is the Southwest corner of the West Marshall Riding Club property; thence, in a Northerly direction marking an interior angle of 90 degrees 312 feet to the concrete marker which is the point of beginning;

Parcel ID: 04-00-00-087. (Account#: 801440)

This being the same property conveyed to Toby J. Haines and wife, Stacey M. Haines, jointly and equally, with title vest in survivor of this union from Home Care Management, Inc in a deed dated November 7, 2006 and recorded November 21, 2006 in Book 371 and Page 299.

EXHIBIT 2

Premises

(below may be replaced with a final survey and legal description of the Premises)



EXHIBIT 3

Memorandum of Option to Lease

(Attached)

(Above 3" Space for Recorder's Use Only)

Upon Recording Return to:

The Towers, LLC
750 Park of Commerce Drive, Suite 200
Boca Raton, Florida 33487
Attn: Daniel Marinberg

Site Name: Oak Level
Site Number: US-KY-5183
Commitment #: _____

MEMORANDUM OF OPTION TO LEASE

This Memorandum of Option to Lease ("**Memorandum**") evidences an Option and Lease Agreement (the "**Agreement**") between **Tobby J. Haines and wife, Stacey M. Haines**, jointly and equally, with title vest in survivor of this union ("**Landlord**"), whose address is 6154 Symsonia Hwy, Symsonia, KY 42082, and **The Towers, LLC**, a Delaware limited liability company, whose mailing address is 750 Park of Commerce Drive, Suite 200, Boca Raton, Florida 33487 ("**Tenant**"), dated October 2nd, 2023 (the "**Effective Date**"), for a portion (the "**Premises**") of the real property (the "**Property**") described in Exhibit A attached hereto.

Pursuant to the Agreement, Landlord has granted Tenant an exclusive option to lease the Premises (the "**Option**"). The Option commenced as of the Effective Date and shall continue in effect for a period of two (2) years from the Effective Date.

Landlord ratifies, restates and confirms the Agreement and, upon exercise of the Option, shall lease to Tenant the Premises, subject to the terms and conditions of the Agreement. The Agreement provides for the lease by Landlord to Tenant of the Premises for an initial term of five (5) years with nine (9) renewal option(s) of an additional five (5) years each, and further provides:

1. Landlord may assign the Agreement only in its entirety and only to a purchaser of the fee interest of the Property;
2. Under certain circumstances, Tenant has a right of first refusal to acquire the Premises or the Property from Landlord;

3. Under certain circumstances, Landlord may not subdivide the Property without Tenant's prior written consent; and

4. The Agreement restricts Landlord's ability to utilize, or allow the utilization of the Property or real property owned by Landlord which is adjacent or contiguous to the Property for the construction, operation and/or maintenance of the Communications Facilities (as defined in the Agreement).

This Memorandum is not intended to amend or modify, and shall not be deemed or construed as amending or modifying, any of the terms, conditions or provisions of the Agreement. In the event of a conflict between the provisions of this Memorandum and the provisions of the Agreement, the provisions of the Agreement shall control. The Agreement shall be binding upon and inure to the benefit of Landlord and Tenant and shall inure to the benefit of their respective heirs, successors, and assigns, subject to the provisions of the Agreement.

[THE REMAINDER OF THIS PAGE IS INTENTIONALLY LEFT BLANK, SIGNATURES
BEGIN ON NEXT PAGE]

IN WITNESS WHEREOF, the parties hereto have executed this MEMORANDUM OF OPTION TO LEASE effective as of the date last signed by a party hereto.

WITNESSES:

Shelly Thompson
Name: Shelly Thompson

Denise Boddy
Name: Denise Boddy

LANDLORD:

Toby J. Haines
Toby J. Haines

Date: 9.5.23

Stacey M. Haines
Stacey M. Haines

Date: 9.5.23

STATE OF Kentucky

COUNTY OF Marshall

The foregoing instrument was acknowledged before me this September 05 20 23 by Toby J. Haines and wife, Stacey M. Haines.

Kandice J. Wommack
Notary Public

Print Name: Kandice J Wommack

My Commission Expires: 6/18/25



(Tenant's Signature Page to Memorandum of Option to Lease)

WITNESSES:

Edward Davis
Name: Edward Davis
Christopher Antoun
Name: Christopher Antoun

TENANT:

The Towers, LLC
a Delaware limited liability company

By: [Signature]
Name: Ariel Rubin
Title: Vice President of Tower Development
Date: 10/02/2023

Leasing Ops ^{DS} 29

STATE OF FLORIDA

COUNTY OF PALM BEACH

The foregoing instrument was acknowledged before me this October 2nd, 20 23 by Ariel Rubin (name of signatory), VP TOWERS LLC (title of signatory) of The Towers, LLC, a Delaware limited liability company, on behalf of the company.

Jeanne M Bruning
Notary Public

Print Name: Jeanne M Bruning

My Commission Expires: 4/20/24



EXHIBIT A
(TO MEMORANDUM OF OPTION TO LEASE)

The Property

(may be updated by Tenant upon receipt of final legal description from title)

The following land lying in Marshall County, Kentucky, to-wit:

A tract of land located on the South side of the Benton-Symsonia Road and more particularly described as beginning at a concrete marker in the Southern right-of-way which is the Northwest corner of the West Marshall Riding Club property and the Northeast corner of the tract herein conveyed; thence, North 73 degrees 10' West approximately 310 feet along the Southern edge of the Benton-Symsonia Road to an iron pipe; thence continuing along the Southern right-of-way a distance approximately 205 feet to an existing fence; thence, South with the fence a distance of approximately 350 feet to a fence located in the South boundary of the parent tract; thence, South 88 degrees 39' East a distance of approximately 500 feet to a point which is the Southwest corner of the West Marshall Riding Club property; thence, in a Northerly direction marking an interior angle of 90 degrees 312 feet to the concrete marker which is the point of beginning;

Parcel ID: 04-00-00-087. (Account#: 801440)

This being the same property conveyed to Toby J. Haines and wife, Stacey M. Haines, jointly and equally, with title vest in survivor of this union from Home Care Management, Inc in a deed dated November 7, 2006 and recorded November 21, 2006 in Book 371 and Page 299.

Access and utilities serving the Premises (as defined in the Agreement) includes all easements of record as well as that portion of the Property designated by Landlord and Tenant for Tenant (and Tenant's guests, agents, customers, subtenants, licensees and assigns) ingress, egress, and utility purposes to and from a public right-of-way.

EXHIBIT 4

Memorandum of Lease

(Attached)

(Above 3" Space for Recorder's Use Only)

Upon Recording Return to:

The Towers, LLC
750 Park of Commerce Drive, Suite 200
Boca Raton, Florida 33487
Attn: Daniel Marinberg

Site Name: Oak Level

Site Number: US-KY-5183

Commitment #: _____

MEMORANDUM OF LEASE

This Memorandum of Lease (this "**Memorandum**") evidences a Lease Agreement (the "**Lease**") between **Tobby J. Haines and wife, Stacey M. Haines**, jointly and equally, with title vest in survivor of this union ("**Landlord**"), whose address is 6154 Symsonia Hwy, Symsonia, KY 42082, and **The Towers, LLC**, a Delaware limited liability company, whose mailing address is 750 Park of Commerce Drive, Suite 200, Boca Raton, Florida 33487 ("**Tenant**"), dated the 2nd day of October, 2023 (the "**Effective Date**"), for a portion (the "**Premises**") of the real property (the "**Property**") described in Exhibit A attached hereto.

Landlord hereby ratifies, restates and confirms the Lease and leases to Tenant the Premises, subject to the terms and conditions of the Lease. The Commencement Date of the Lease is _____. The Lease provides for the lease by Landlord to Tenant of the Premises for an initial term of five (5) years with nine (9) renewal option(s) of an additional five (5) years each, and further provides:

1. Landlord will attorn to any mortgagee of Tenant, subordinate any Landlord's lien to the Lease and to liens of Tenant's mortgagees, and not disturb the tenancy of Tenant;
2. The Lease restricts Landlord's ability to utilize, or allow the utilization of the Property or real property owned by Landlord which is adjacent or contiguous to the Property for the construction, operation and/or maintenance of Communications Facilities (as defined in the Lease);
3. Tenant (and persons deriving rights by, through, or under Tenant) are the sole parties to market, use, or sublease any portion of the Property for Communications Facilities during the term of the Lease (such restriction shall run with the land and be binding on the successors and assigns of Landlord);

4. The Premises may be used exclusively by Tenant for all legal purposes, including, without limitation, erecting, installing, operating and maintaining Communications Facilities;

5. Tenant is entitled to sublease and/or license the Premises, including any Communications Facilities located thereon;

6. Under certain circumstances, Tenant has a right of first refusal to acquire the Premises from Landlord;

7. Landlord may assign the Lease only in its entirety and only to a purchaser of the fee interest of the Property; and

8. Under certain circumstances, Landlord may not subdivide the Property without Tenant's prior written consent.

This Memorandum is not intended to amend or modify, and shall not be deemed or construed as amending or modifying, any of the terms, conditions or provisions of the Lease. In the event of a conflict between the provisions of this Memorandum and the provisions of the Lease, the provisions of the Lease shall control. The Lease shall be binding upon and inure to the benefit of Landlord and Tenant and shall inure to the benefit of their respective heirs, successors, and assigns, subject to the provisions of the Lease.

[THE REMAINDER OF THIS PAGE IS INTENTIONALLY LEFT BLANK, SIGNATURES
BEGIN ON NEXT PAGE]

IN WITNESS WHEREOF, the parties hereto have executed this MEMORANDUM OF LEASE as of the date last signed by a party hereto.

WITNESSES:

Shelly Thompson
Name: Shelly Thompson

Denise Bowdy
Name: Denise Bowdy

LANDLORD:

Toby J Haines
Tobby J. Haines

Date: 9.5.23

Stacey M Haines
Stacey M. Haines

Date: 9.5.23

STATE OF Kentucky

COUNTY OF Marshall

The foregoing instrument was acknowledged before me this September 05
20 23 by Tobby J. Haines and wife, Stacey M. Haines.

Kandice J Wommack
Notary Public

Print Name: Kandice J Wommack

My Commission Expires: 4/18/25



(Tenant's Signature Page to Memorandum of Lease)

WITNESSES:

Edward Davis
Name: Edward Davis
Christopher Antoun
Name: Christopher Antoun

TENANT:

The Towers, LLC
a Delaware limited liability company
By: Ariel Rubin
Name: Ariel Rubin
Title: Vice President of Tower Development
Date: 10/02/2023

Leasing Ops ^{DS} LG

STATE OF FLORIDA

COUNTY OF PALM BEACH

The foregoing instrument was acknowledged before me this October 2nd, 2023 by Ariel Rubin (name of signatory), VP Tower Dev (title of signatory) of The Towers, LLC, a Delaware limited liability company, on behalf of the company.

Jeanne M Bruning
Notary Public

Print Name: Jeanne M Bruning

My Commission Expires: 4/20/24



EXHIBIT A
(TO MEMORANDUM OF LEASE)

The Property

(may be updated by Tenant upon receipt of final legal description from title)

The following land lying in Marshall County, Kentucky, to-wit:

A tract of land located on the South side of the Benton-Symsonia Road and more particularly described as beginning at a concrete marker in the Southern right-of-way which is the Northwest corner of the West Marshall Riding Club property and the Northeast corner of the tract herein conveyed; thence, North 73 degrees 10' West approximately 310 feet along the Southern edge of the Benton-Symsonia Road to an iron pipe; thence continuing along the Southern right-of-way a distance approximately 205 feet to an existing fence; thence, South with the fence a distance of approximately 350 feet to a fence located in the South boundary of the parent tract; thence, South 88 degrees 39' East a distance of approximately 500 feet to a point which is the Southwest corner of the West Marshall Riding Club property; thence, in a Northerly direction marking an interior angle of 90 degrees 312 feet to the concrete marker which is the point of beginning;

Parcel ID: 04-00-00-087. (Account#: 801440)

This being the same property conveyed to Toby J. Haines and wife, Stacey M. Haines, jointly and equally, with title vest in survivor of this union from Home Care Management, Inc in a deed dated November 7, 2006 and recorded November 21, 2006 in Book 371 and Page 299.

Access and utilities serving the Premises (as defined in the Lease) includes all easements of record as well as that portion of the Property designated by Landlord and Tenant for Tenant (and Tenant's guests, agents, customers, subtenants, licensees and assigns) ingress, egress, and utility purposes to and from a public right-of-way.

Said interest being over land more particularly described by the following description:

Insert metes and bounds description of area

Notification Listing with PVA Verification

Parcel # 04-00-00-087
 HAINES TOBBY AND STACEY
 6154 SYMSONIA HWY
 SYMSONIA, KY 42082

MARSHALL COUNTY OFFICE OF
PROPERTY VALUATION

HOME CALCULATOR FAQ EXEMPTIONS ASSESSMENTS APPEALS CALENDAR FORMS WEB PASS MEMBERS

WELCOME CLARK, QUINN, MOSES, SCOTT | ACCOUNT

NEW SEARCH SEARCH RESULTS MAP SEARCH PROPERTY CARD

TAX YEAR 2025

MAP NUMBER 04 00 00 087
 ACCOUNT NUMBER 001440

LAND VALUE \$30,000
 IMPROVEMENT FCV \$86,000
TOTAL FCV \$126,000

EXEMPTION AMOUNT \$0 EXEMPTION CODE NONE
 AG EXEMPTION \$0 AG VALUE \$0
TOTAL TAXABLE \$126,000

OWNERSHIP
 100 JOINTLY WITH SURVIVORSHIP HAINES, STACEY M
 HAINES, TOBBY J

MAIL NAME HAINES TOBBY AND STACEY
 MAILING ADDRESS 6154 SYMSONIA HWY
 SYMSONIA, KY 42082

DEED BOOK / PAGE 374/299 DATE RECORDED 11/22/2006
 SALE PRICE \$114,000 SALE DATE 11/07/2006
 TAX DISTRICT 014 ACREAGE 10.88

SUBDIVISION NONE
 PROPERTY CODE COMMERCIAL PROPERTY

PROPERTIES ON THIS ACCOUNT 1

| MAP NUMBER | PROPERTY CODE | LAND VALUE | IMPROVEMENT VALUE | FAIR CASH VALUE | TOTAL TAXABLE |
|---|---------------|------------|-------------------|-----------------|------------------|
| 04-00-00-087 | COMMERCIAL | \$30,000 | \$96,000 | \$126,000 | \$126,000 |
| TOTAL TAXABLE ON ACCOUNT | | | | | \$126,000 |
| ESTIMATED TAX DUE (BASED ON 2022 TAX RATES) | | | | | \$1,342.53 |

DEED HISTORY

| DEED BOOK | DEED PAGE | SALE DATE | SALE PRICE | STATED FCV |
|-----------|-----------|------------|------------|------------|
| 371 | 289 | 11/07/2006 | \$111,000 | NOT STATED |
| 293 | 277 | 02/18/1997 | \$145,000 | NOT STATED |

TAX BILL HISTORY

| TAX YEAR | BILL NO | # PROPERTIES | TOTAL TAXABLE | FACE VALUE | EXONERATED |
|----------|---------|--------------|---------------|------------|--------------------------|
| 2022 | 8152 | 1 | \$126,000 | \$1,342.53 | <input type="checkbox"/> |
| 2021 | 8432 | 1 | \$121,000 | \$1,302.87 | <input type="checkbox"/> |

Parcel # 04-00-00-094
 HAINES TOBBY AND STACEY
 6154 SYMSONIA HWY
 SYMSONIA, KY 42082

MARSHALL COUNTY OFFICE OF
PROPERTY VALUATION

HOME CALCULATOR FAQ EXEMPTIONS ASSESSMENTS APPEALS CALENDAR FORMS WEB PASS MEMBERS

WELCOME CLARK, QUINN, MOSES, SCOTT | ACCOUNT

NEW SEARCH SEARCH RESULTS MAP SEARCH PROPERTY CARD

TAX YEAR 2025

MAP NUMBER 04 00 00 094
 ACCOUNT NUMBER 851890

LAND VALUE \$70,000
 IMPROVEMENT FCV \$0
TOTAL FCV \$70,000

EXEMPTION AMOUNT \$0 EXEMPTION CODE NONE
 AG EXEMPTION \$59,380 AG VALUE \$10,620
TOTAL TAXABLE \$10,620

OWNERSHIP
 100 JOINTLY WITH SURVIVORSHIP HAINES, TOBBY
 HAINES, STACEY

MAIL NAME HAINES TOBBY AND STACEY
 MAILING ADDRESS 6154 SYMSONIA HWY
 SYMSONIA, KY 42082

DEED BOOK / PAGE 393/284 DATE RECORDED 10/14/2009
 SALE PRICE \$120,000 SALE DATE 10/12/2009
 TAX DISTRICT 014 ACREAGE 22.23

SUBDIVISION NONE
 PROPERTY CODE FARM PROPERTY

PROPERTIES ON THIS ACCOUNT 1

| MAP NUMBER | PROPERTY CODE | LAND VALUE | IMPROVEMENT VALUE | FAIR CASH VALUE | TOTAL TAXABLE |
|---|---------------|------------|-------------------|-----------------|-----------------|
| 04-00-00-094 | FARM | \$70,000 | \$0 | \$70,000 | \$10,620 |
| TOTAL TAXABLE ON ACCOUNT | | | | | \$10,620 |
| ESTIMATED TAX DUE (BASED ON 2022 TAX RATES) | | | | | \$113.16 |

DEED HISTORY

| DEED BOOK | DEED PAGE | SALE DATE | SALE PRICE | STATED FCV |
|-----------|-----------|------------|------------|------------|
| 393 | 384 | 10/12/2009 | \$120,000 | NOT STATED |
| 129 | 610 | 02/07/1968 | UNKNOWN | UNKNOWN |

TAX BILL HISTORY

| TAX YEAR | BILL NO | # PROPERTIES | TOTAL TAXABLE | FACE VALUE | EXONERATED |
|----------|---------|--------------|---------------|------------|--------------------------|
| 2022 | 8149 | 1 | \$10,620 | \$113.16 | <input type="checkbox"/> |
| 2021 | 8437 | 1 | \$10,620 | \$114.35 | <input type="checkbox"/> |

Parcel # 04-00-00-094.01
 HAINES TOBBY AND STACEY
 6154 SYMSONIA HWY
 SYMSONIA, KY 42082

MARSHALL COUNTY OFFICE OF
PROPERTY VALUATION

WELCOME CLARK, QUINN, MOSES, SCOTT | ACCOUNT

HOME CALCULATOR FAQ EXEMPTIONS ASSESSMENTS APPEALS CALENDAR FORMS WEB PASS MEMBERS

NEW SEARCH SEARCH RESULTS MAP SEARCH PROPERTY CARD

TAX YEAR 2025

MAP NUMBER 04-00-00-094.01
 ACCOUNT NUMBER 793210

LAND VALUE \$12,000
 IMPROVEMENT FCV \$205,000
TOTAL FCV \$217,000

EXEMPTION AMOUNT \$0 EXEMPTION CODE NONE
 AG EXEMPTION \$0 AG VALUE \$0
TOTAL TAXABLE \$217,000

OWNERSHIP
 100 JOINTLY WITH SURVIVORSHIP HAINES, TODDY HAINES, STACEY

MAIL NAME HAINES, TOBBY AND STACEY
 MAILING ADDRESS 6154 SYMSONIA HWY SYMSONIA, KY 42082

DEED BOOK / PAGE 367/530 DATE RECORDED 07/05/2006
 SALE PRICE \$65,000 SALE DATE 06/30/2009
 TAX DISTRICT 014 ACREAGE 5

SUBDIVISION NONE
 PROPERTY CODE RESIDENTIAL PROPERTY

PROPERTIES ON THIS ACCOUNT 1

| MAP NUMBER | PROPERTY CODE | LAND VALUE | IMPROVEMENT VALUE | FAIR CASH VALUE | TOTAL TAXABLE |
|---------------------------------|---------------|------------|-------------------|-----------------|------------------|
| 04-00-00-094.01 | RESIDENTIAL | \$12,000 | \$205,000 | \$217,000 | \$217,000 |
| TOTAL TAXABLE ON ACCOUNT | | | | | \$217,000 |

ESTIMATED TAX DUE (BASED ON 2022 TAX RATES) \$2,312.14

DEED HISTORY

| DEED BOOK | DEED PAGE | SALE DATE | SALE PRICE | STATED FCV |
|-----------|-----------|------------|------------|------------|
| 367 | 530 | 06/30/2006 | \$65,000 | NOT STATED |

TAX BILL HISTORY

| TAX YEAR | BILL NO | # PROPERTIES | TOTAL TAXABLE | FACE VALUE | EXONERATED |
|----------|---------|--------------|---------------|------------|--------------------------|
| 2022 | 8153 | 1 | \$217,000 | \$2,312.14 | <input type="checkbox"/> |

Parcel # 04-00-00-093
 COLLIE, KAYNE
 COLLIE, TIESHA
 PO BOX 367
 MAYFIELD, KY 42066

MARSHALL COUNTY OFFICE OF
PROPERTY VALUATION

WELCOME CLARK, QUINN, MOSES, SCOTT | ACCOUNT

HOME CALCULATOR FAQ EXEMPTIONS ASSESSMENTS APPEALS CALENDAR FORMS WEB PASS MEMBERS

NEW SEARCH SEARCH RESULTS MAP SEARCH PROPERTY CARD

TAX YEAR 2025

MAP NUMBER 04-00-00-093
 ACCOUNT NUMBER 906690

LAND VALUE \$40,000
 IMPROVEMENT FCV \$315,000
TOTAL FCV \$355,000

EXEMPTION AMOUNT \$0 EXEMPTION CODE NONE
 AG EXEMPTION \$33,876 AG VALUE \$6,124
TOTAL TAXABLE \$321,124

OWNERSHIP
 100 JOINTLY WITH SURVIVORSHIP COLLIE, KAYNE COLLIE, TIESHA

MAIL NAME COLLIE, KAYNE AND TIESHA
 IN CARE OF C/O FIRST KENTUCKY BANK
 MAILING ADDRESS PO BOX 367 MAYFIELD, KY 42066
 LABEL LABEL

DEED BOOK / PAGE 418/555 DATE RECORDED 03/04/2013
 SALE PRICE \$367,000 SALE DATE 02/26/2013
 TAX DISTRICT 014 ACREAGE 18.84

SUBDIVISION NONE
 PROPERTY CODE FARM PROPERTY

PROPERTIES ON THIS ACCOUNT 1

| MAP NUMBER | PROPERTY CODE | LAND VALUE | IMPROVEMENT VALUE | FAIR CASH VALUE | TOTAL TAXABLE |
|---------------------------------|---------------|------------|-------------------|-----------------|------------------|
| 04-00-00-093 | FARM | \$40,000 | \$315,000 | \$355,000 | \$321,124 |
| TOTAL TAXABLE ON ACCOUNT | | | | | \$321,124 |

ESTIMATED TAX DUE (BASED ON 2022 TAX RATES) \$3,421.59

DEED HISTORY

| DEED BOOK | DEED PAGE | SALE DATE | SALE PRICE | STATED FCV |
|-----------|-----------|------------|------------|------------|
| 418 | 555 | 02/26/2013 | \$367,000 | NOT STATED |
| 405 | 136 | 04/20/2011 | \$350,000 | NOT STATED |

TAX BILL HISTORY

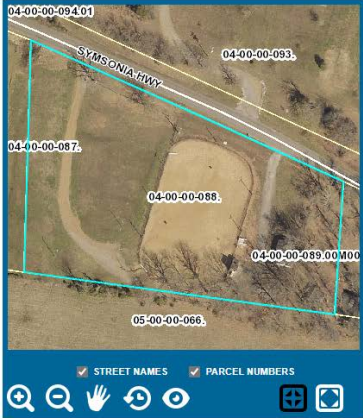
| TAX YEAR | BILL NO | # PROPERTIES | TOTAL TAXABLE | FACE VALUE | EXONERATED |
|----------|---------|--------------|---------------|------------|--------------------------|
| 2022 | 3519 | 1 | \$321,124 | \$3,421.58 | <input type="checkbox"/> |
| 2021 | 3614 | 1 | \$306,124 | \$3,285.41 | <input type="checkbox"/> |

Parcel # 04-00-00-088
 WEST MARSHALL RIDING CLUB LLC
 2671 WAYNE FREEMAN RD
 BENTON, KY 42025

MARSHALL COUNTY OFFICE OF
PROPERTY VALUATION

WELCOME CLARK, QUINN, MOSES, SCOTT | ACCOUNT

HOME CALCULATOR FAQ EXEMPTIONS ASSESSMENTS APPEALS CALENDAR FORMS WEB PASS MEMBERS
 NEW SEARCH SEARCH RESULTS MAP SEARCH PROPERTY CARD



TAX YEAR 2025
 MAP NUMBER 04-00-00-088
 ACCOUNT NUMBER 169380

LAND VALUE \$8,000
 IMPROVEMENT FCV \$2,000
TOTAL FCV \$10,000

OWNERSHIP
 100 TRUST WEST MARSHALL RIDING CLUB LLC

EXEMPTION AMOUNT \$0 EXEMPTION CODE NONE
 AG EXEMPTION \$0 AG VALUE \$0
TOTAL TAXABLE \$10,000

MAIL NAME WEST MARSHALL RIDING CLUB LLC
 IN CARE OF C/O GERALDINE BECK PRESIDENT
 MAILING ADDRESS 2671 WAYNE FREEMAN RD
 BENTON, KY 42025
 LABEL LABEL

DEED BOOK / PAGE 508/131 DATE RECORDED 07/25/2023
 SALE PRICE \$0 SALE DATE 07/25/2023
 TAX DISTRICT 014 ACREAGE 2.47

SUBDIVISION NONE
 PROPERTY CODE COMMERCIAL PROPERTY

PROPERTIES ON THIS ACCOUNT 1

| MAP NUMBER | PROPERTY CODE | LAND VALUE | IMPROVEMENT VALUE | FAIR CASH VALUE | TOTAL TAXABLE |
|---|---------------|------------|-------------------|-----------------|-----------------|
| 04-00-00-088 | COMMERCIAL | \$8,000 | \$2,000 | \$10,000 | \$10,000 |
| TOTAL TAXABLE ON ACCOUNT | | | | | \$10,000 |
| ESTIMATED TAX DUE (BASED ON 2022 TAX RATES) | | | | | \$106.55 |

DEED HISTORY

| DEED BOOK | DEED PAGE | SALE DATE | SALE PRICE | STATED FCV |
|-----------|-----------|------------|------------|------------|
| 508 | 131 | 07/25/2023 | \$0 | \$10,000 |
| 140 | 275 | 10/16/1970 | \$500 | NOT STATED |

TAX BILL HISTORY

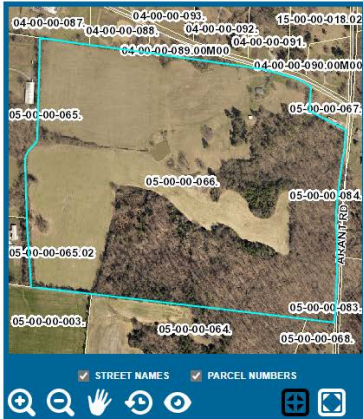
| TAX YEAR | BILL NO | # PROPERTIES | TOTAL TAXABLE | FACE VALUE | EXONERATED |
|----------|---------|--------------|---------------|------------|--------------------------|
| 2022 | 21604 | 1 | \$10,000 | \$106.55 | <input type="checkbox"/> |
| 2021 | 22435 | 1 | \$6,000 | \$64.59 | <input type="checkbox"/> |

Parcel # 05-00-00-066
 FUTRELL DANE W
 5835 SYMSONIA HWY
 SYMSONIA, KY 42082

MARSHALL COUNTY OFFICE OF
PROPERTY VALUATION

WELCOME CLARK, QUINN, MOSES, SCOTT | ACCOUNT

HOME CALCULATOR FAQ EXEMPTIONS ASSESSMENTS APPEALS CALENDAR FORMS WEB PASS MEMBERS
 NEW SEARCHSEARCH RESULTS MAP SEARCH PROPERTY CARD



TAX YEAR 2025
 MAP NUMBER 05-00-00-066
 ACCOUNT NUMBER 966290

LAND VALUE \$225,000
 IMPROVEMENT FCV \$76,000
TOTAL FCV \$301,000

OWNERSHIP
 100 FEE SIMPLE FUTRELL, DANE W

EXEMPTION AMOUNT \$0 EXEMPTION CODE NONE
 AG EXEMPTION \$188,254 AG VALUE \$36,746
TOTAL TAXABLE \$112,746

MAIL NAME FUTRELL DANE W
 MAILING ADDRESS 5835 SYMSONIA HWY
 SYMSONIA, KY 42082

DEED BOOK / PAGE 442/277 DATE RECORDED 04/12/2016
 SALE PRICE \$0 SALE DATE 04/04/2016
 TAX DISTRICT 014 ACREAGE 88.5

SUBDIVISION NONE
 PROPERTY CODE FARM PROPERTY

PROPERTIES ON THIS ACCOUNT 1

| MAP NUMBER | PROPERTY CODE | LAND VALUE | IMPROVEMENT VALUE | FAIR CASH VALUE | TOTAL TAXABLE |
|---|---------------|------------|-------------------|-----------------|------------------|
| 05-00-00-066 | FARM | \$225,000 | \$76,000 | \$301,000 | \$112,746 |
| TOTAL TAXABLE ON ACCOUNT | | | | | \$112,746 |
| ESTIMATED TAX DUE (BASED ON 2022 TAX RATES) | | | | | \$1,201.31 |

DEED HISTORY

| DEED BOOK | DEED PAGE | SALE DATE | SALE PRICE | STATED FCV |
|-----------|-----------|------------|------------|------------|
| 442 | 277 | 04/04/2016 | \$0 | \$229,000 |
| 351 | 96 | 06/10/2004 | \$170,000 | NOT STATED |

TAX BILL HISTORY


| TAX YEAR | BILL NO | # PROPERTIES | TOTAL TAXABLE | FACE VALUE | EXONERATED |
|----------|---------|--------------|---------------|------------|--------------------------|
| 2022 | 7180 | 1 | \$112,746 | \$1,201.31 | <input type="checkbox"/> |
| 2021 | 7384 | 1 | \$92,746 | \$998.41 | <input type="checkbox"/> |

Parcel # 05-00-00-065.03
 LINDSEY JOSHUA AND KALI
 157 ELVA RD
 SYMSONIA, KY 42082

MARSHALL COUNTY OFFICE OF
PROPERTY VALUATION

WELCOME CLARK, QUINN, MOSES, SCOTT | ACCOUNT

HOME CALCULATOR FAQ EXEMPTIONS ASSESSMENTS APPEALS CALENDAR FORMS WEB PASS MEMBERS
 NEW SEARCH SEARCH RESULTS MAP SEARCH PROPERTY CARD



TAX YEAR 2025
MAP NUMBER 05-00-00-065.03
ACCOUNT NUMBER 1072500

LAND VALUE \$2,000
IMPROVEMENT FCV \$0
TOTAL FCV \$2,000

OWNERSHIP
 100 JOINTLY WITH SURVIVORSHIP LINDSEY, JOSHUA
 LINDSEY, KALI

EXEMPTION AMOUNT \$0 **EXEMPTION CODE** NONE
AG EXEMPTION \$0 **AG VALUE** \$0
TOTAL TAXABLE \$2,000

MAIL NAME LINDSEY JOSHUA AND KALI
MAILING ADDRESS 157 ELVA RD
 SYMSONIA, KY 42082

DEED BOOK / PAGE 489/128 **DATE RECORDED** 08/11/2021
SALE PRICE \$1,574 **SALE DATE** 08/02/2021
TAX DISTRICT 014 **ACREAGE** 0.76

SUBDIVISION NONE
PROPERTY CODE RESIDENTIAL PROPERTY

PROPERTIES ON THIS ACCOUNT: 1

| MAP NUMBER | PROPERTY CODE | LAND VALUE | IMPROVEMENT VALUE | FAIR CASH VALUE | TOTAL TAXABLE |
|--|---------------|------------|-------------------|-----------------|----------------|
| 05-00-00-065.03 | RESIDENTIAL | \$2,000 | \$0 | \$2,000 | \$2,000 |
| TOTAL TAXABLE ON ACCOUNT | | | | | \$2,000 |
| ESTIMATED TAX DUE (BASED ON 2022 TAX RATES) | | | | | \$21.31 |

STREET NAMES PARCEL NUMBERS

DEED HISTORY

| DEED BOOK | DEED PAGE | SALE DATE | SALE PRICE | STATED FCV |
|-----------|-----------|------------|------------|------------|
| 489 | 128 | 08/02/2021 | \$1,574 | NOT STATED |
| 486 | 536 | 05/18/2021 | \$2,000 | NOT STATED |

TAX BILL HISTORY


| TAX YEAR | BILL NO | # PROPERTIES | TOTAL TAXABLE | FACE VALUE | EXONERATED |
|----------|---------|--------------|---------------|------------|--------------------------|
| 2022 | 12038 | 1 | \$2,000 | \$21.31 | <input type="checkbox"/> |

Parcel # 05-00-00-01
 JOHNSON, RALEIGH KEITH
 JOHNSON, BETTY
 154 ELVA RD
 SYMSONIA, KY 42082

MARSHALL COUNTY OFFICE OF
PROPERTY VALUATION

WELCOME CLARK, QUINN, MOSES, SCOTT | ACCOUNT

HOME CALCULATOR FAQ EXEMPTIONS ASSESSMENTS APPEALS CALENDAR FORMS WEB PASS MEMBERS
 NEW SEARCHSEARCH RESULTS MAP SEARCH PROPERTY CARD



TAX YEAR 2025
MAP NUMBER 05-00-00-001
ACCOUNT NUMBER 187300

LAND VALUE \$14,000
IMPROVEMENT FCV \$56,000
TOTAL FCV \$70,000

OWNERSHIP
 100 JOINTLY WITH SURVIVORSHIP JOHNSON, RALEIGH KEITH
 JOHNSON, BETTY

EXEMPTION AMOUNT \$48,359 **EXEMPTION CODE** HEX
AG EXEMPTION \$0 **AG VALUE** \$0
TOTAL TAXABLE \$23,650

MAIL NAME JOHNSON RALEIGH KEITH
MAILING ADDRESS 154 ELVA RD
 SYMSONIA, KY 42082

DEED BOOK / PAGE 136/261 **DATE RECORDED** 10/08/1969
SALE PRICE \$4,250 **SALE DATE** 10/04/1969
TAX DISTRICT 014 **ACREAGE** 5.68

SUBDIVISION NONE
PROPERTY CODE RESIDENTIAL PROPERTY

PROPERTIES ON THIS ACCOUNT: 1

| MAP NUMBER | PROPERTY CODE | LAND VALUE | IMPROVEMENT VALUE | FAIR CASH VALUE | TOTAL TAXABLE |
|--|---------------|------------|-------------------|-----------------|-----------------|
| 05-00-00-001 | RESIDENTIAL | \$14,000 | \$56,000 | \$70,000 | \$23,650 |
| TOTAL TAXABLE ON ACCOUNT | | | | | \$23,650 |
| ESTIMATED TAX DUE (BASED ON 2022 TAX RATES) | | | | | \$252.00 |

STREET NAMES PARCEL NUMBERS

DEED HISTORY

| DEED BOOK | DEED PAGE | SALE DATE | SALE PRICE | STATED FCV |
|-----------|-----------|------------|------------|------------|
| 136 | 261 | 10/04/1969 | \$4,250 | NOT STATED |

TAX BILL HISTORY

| TAX YEAR | BILL NO | # PROPERTIES | TOTAL TAXABLE | FACE VALUE | EXONERATED |
|----------|---------|--------------|---------------|------------|--------------------------|
| 2022 | 10606 | 1 | \$29,500 | \$314.34 | <input type="checkbox"/> |

Parcel # 04-00-00-086.01
 WARREN TIMOTHY AND TARA
 1 TIMBERVIEW DR
 CHILLICOTHE, OH 45601

MARSHALL COUNTY OFFICE OF
PROPERTY VALUATION

WELCOME CLARK, QUINN, MOSES, SCOTT | ACCOUNT

HOME CALCULATOR FAQ EXEMPTIONS ASSESSMENTS APPEALS CALENDAR FORMS WEB PASS MEMBERS

NEW SEARCH SEARCH RESULTS MAP SEARCH PROPERTY CARD

TAX YEAR 2025

MAP NUMBER 04-00-00-086.01
 ACCOUNT NUMBER 828536

OWNERSHIP
 100 JOINTLY WITH SURVIVORSHIP WARREN, TARA DAWN
 WARREN, TIMOTHY LANE

MAIL NAME WARREN TIMOTHY AND TARA
 MAILING ADDRESS 1 TIMBERVIEW DR
 CHILLICOTHE, OH 45601

LAND VALUE \$27,000
 IMPROVEMENT FCV \$0
TOTAL FCV \$27,000

EXEMPTION AMOUNT \$0 EXEMPTION CODE NONE
 AG EXEMPTION \$0 AG VALUE \$0
TOTAL TAXABLE \$27,000

DEED BOOK / PAGE 382/657 DATE RECORDED 04/22/2008
SALE PRICE \$46,000 SALE DATE 04/17/2008
 TAX DISTRICT 014 ACREAGE 3.37

SUBDIVISION NONE
 PROPERTY CODE RESIDENTIAL PROPERTY

PROPERTIES ON THIS ACCOUNT 2

| MAP NUMBER | PROPERTY CODE | LAND VALUE | IMPROVEMENT VALUE | FAIR CASH VALUE | TOTAL TAXABLE |
|---|---------------|------------|-------------------|-----------------|-----------------|
| 04-00-00-086.01 | RESIDENTIAL | \$27,000 | \$0 | \$27,000 | \$27,000 |
| 04-00-00-086.02 | RESIDENTIAL | \$28,000 | \$0 | \$28,000 | \$28,000 |
| TOTAL TAXABLE ON ACCOUNT | | | | | \$55,000 |
| ESTIMATED TAX DUE (BASED ON 2022 TAX RATES) | | | | | 5556.03 |

DEED HISTORY

| DEED BOOK | DEED PAGE | SALE DATE | SALE PRICE | STATED FCV |
|-----------|-----------|------------|------------|------------|
| 382 | 657 | 04/17/2008 | \$46,000 | NOT STATED |
| 368 | 237 | 07/24/2006 | \$7,000 | UNKNOWN |
| 376 | 36 | 06/10/2007 | \$45,000 | UNKNOWN |

TAX BILL HISTORY

| TAX YEAR | BILL NO | # PROPERTIES | TOTAL TAXABLE | FACE VALUE | EXONERATED |
|----------|---------|--------------|---------------|------------|--------------------------|
| 2022 | 21307 | 2 | \$45,000 | \$479.48 | <input type="checkbox"/> |
| 2021 | 22123 | 2 | \$45,000 | \$484.43 | <input type="checkbox"/> |

Parcel # 04-00-00-086
 WEST KENTUCKY AND TENNESSEE
 TELECOMMUNICATIONS COOPERATIVE
 CORPORATION INC
 100 WK AND T TECHNOLOGY DR
 MAYFIELD, KY 42066

MARSHALL COUNTY OFFICE OF
PROPERTY VALUATION

WELCOME CLARK, QUINN, MOSES, SCOTT | ACCOUNT

HOME CALCULATOR FAQ EXEMPTIONS ASSESSMENTS APPEALS CALENDAR FORMS WEB PASS MEMBERS

NEW SEARCH SEARCH RESULTS MAP SEARCH PROPERTY CARD

TAX YEAR 2025

MAP NUMBER 04-00-00-086.02
 ACCOUNT NUMBER 1100180

OWNERSHIP
 100 FEE SIMPLE WEST KENTUCKY AND TENNESSEE
 TELECOMMUNICATIONS COOPERATIVE CORPORATION INC

MAIL NAME WEST KENTUCKY AND TENNESSEE
 TELECOMMUNICATIONS COOPERATIVE CORPORATION INC
 MAILING ADDRESS 100 WK AND T TECHNOLOGY DR
 MAYFIELD, KY 42066

LAND VALUE \$6,000
 IMPROVEMENT FCV \$0
TOTAL FCV \$6,000

EXEMPTION AMOUNT \$0 EXEMPTION CODE NONE
 AG EXEMPTION \$0 AG VALUE \$0
TOTAL TAXABLE \$6,000

DEED BOOK / PAGE 902284 DATE RECORDED 12/06/2022
SALE PRICE \$6,000 SALE DATE 12/01/2022
 TAX DISTRICT 014 ACREAGE 0.02

SUBDIVISION NONE
 PROPERTY CODE COMMERCIAL PROPERTY

PROPERTIES ON THIS ACCOUNT 1

| MAP NUMBER | PROPERTY CODE | LAND VALUE | IMPROVEMENT VALUE | FAIR CASH VALUE | TOTAL TAXABLE |
|---|---------------|------------|-------------------|-----------------|----------------|
| 04-00-00-086.02 | COMMERCIAL | \$6,000 | \$0 | \$6,000 | \$6,000 |
| TOTAL TAXABLE ON ACCOUNT | | | | | \$6,000 |
| ESTIMATED TAX DUE (BASED ON 2022 TAX RATES) | | | | | 903.93 |

DEED HISTORY

| DEED BOOK | DEED PAGE | SALE DATE | SALE PRICE | STATED FCV |
|-----------|-----------|------------|------------|------------|
| 602 | 284 | 12/01/2022 | \$6,000 | NOT STATED |

TAX BILL HISTORY

| TAX YEAR | BILL NO | # PROPERTIES | TOTAL TAXABLE | FACE VALUE | EXONERATED |
|----------------|---------|--------------|---------------|------------|--------------------------|
| NONE AVAILABLE | | | | | <input type="checkbox"/> |

Parcel # 04-00-00-086
 COURSEY SHERRILL
 6333 SYMSONIA HWY
 SYMSONIA, KY 42082

MARSHALL COUNTY OFFICE OF
PROPERTY VALUATION

WELCOME CLARK, QUINN, MOSES, SCOTT | ACCOUNT

HOME CALCULATOR FAQ EXEMPTIONS ASSESSMENTS APPEALS CALENDAR FORMS WEB PASS MEMBERS

NEW SEARCH SEARCH RESULTS MAP SEARCH PROPERTY CARD

TAX YEAR 2025
MAP NUMBER 04-00-00-086
ACCOUNT NUMBER 166340

LAND VALUE \$8,000
IMPROVEMENT FCV \$58,000
TOTAL FCV \$66,000

OWNERSHIP
 100 FEE SIMPLE COURSEY, SHERRILL

EXEMPTION AMOUNT \$46,350 **EXEMPTION CODE** HEX
AG EXEMPTION \$0 **AG VALUE** \$0
TOTAL TAXABLE \$17,650

MAIL NAME COURSEY, SHERRILL
MAILING ADDRESS 6333 SYMSONIA HWY
 SYMSONIA, KY 42082

DEED BOOK / PAGE 160/224 **DATE RECORDED** 06/28/1975
SALE PRICE \$275 **SALE DATE** 09/04/1970
TAX DISTRICT 014 **ACREAGE** 2.40

SUBDIVISION NONE
PROPERTY CODE RESIDENTIAL PROPERTY

PROPERTIES ON THIS ACCOUNT: 1

| MAP NUMBER | PROPERTY CODE | LAND VALUE | IMPROVEMENT VALUE | FAIR CASH VALUE | TOTAL TAXABLE |
|--|---------------|------------|-------------------|-----------------|-----------------|
| 04-00-00-086 | RESIDENTIAL | \$8,000 | \$58,000 | \$66,000 | \$17,650 |
| TOTAL TAXABLE ON ACCOUNT | | | | | \$17,650 |
| ESTIMATED TAX DUE (BASED ON 2022 TAX RATES) | | | | | \$188.07 |

DEED HISTORY

| DEED BOOK | DEED PAGE | SALE DATE | SALE PRICE | STATED FCV |
|-----------|-----------|------------|------------|------------|
| 160 | 224 | 09/04/1970 | \$275 | NOT STATED |

TAX BILL HISTORY

| TAX YEAR | BILL NO | # PROPERTIES | TOTAL TAXABLE | FACE VALUE | EXONERATED |
|----------|---------|--------------|---------------|------------|--------------------------|
| 2022 | 4075 | 1 | \$23,500 | \$250.41 | <input type="checkbox"/> |

Parcel # 04-00-00-055
 COURSEY RANDALL MICHAEL
 6500 SYMSONIA HWY
 SYMSONIA, KY 42082

MARSHALL COUNTY OFFICE OF
PROPERTY VALUATION

WELCOME CLARK, QUINN, MOSES, SCOTT | ACCOUNT

HOME CALCULATOR FAQ EXEMPTIONS ASSESSMENTS APPEALS CALENDAR FORMS WEB PASS MEMBERS

NEW SEARCH SEARCH RESULTS MAP SEARCH PROPERTY CARD

TAX YEAR 2025
MAP NUMBER 04-00-00-055
ACCOUNT NUMBER 747750

LAND VALUE \$16,000
IMPROVEMENT FCV \$34,000
TOTAL FCV \$50,000

OWNERSHIP
 100 FEE SIMPLE COURSEY, RANDALL MICHAEL

EXEMPTION AMOUNT \$0 **EXEMPTION CODE** NONE
AG EXEMPTION \$34,814 **AG VALUE** \$11,196
TOTAL TAXABLE \$45,196

MAIL NAME COURSEY, RANDALL MICHAEL
MAILING ADDRESS 6500 SYMSONIA HWY
 SYMSONIA, KY 42082

DEED BOOK / PAGE 353/76 **DATE RECORDED** 10/11/2004
SALE PRICE \$91,200 **SALE DATE** 10/07/2004
TAX DISTRICT 014 **ACREAGE** 23.27

SUBDIVISION
PROPERTY CODE FARM PROPERTY

PROPERTIES ON THIS ACCOUNT: 1

| MAP NUMBER | PROPERTY CODE | LAND VALUE | IMPROVEMENT VALUE | FAIR CASH VALUE | TOTAL TAXABLE |
|--|---------------|------------|-------------------|-----------------|-----------------|
| 04-00-00-055 | FARM | \$16,000 | \$34,000 | \$50,000 | \$45,196 |
| TOTAL TAXABLE ON ACCOUNT | | | | | \$45,196 |
| ESTIMATED TAX DUE (BASED ON 2022 TAX RATES) | | | | | \$481.45 |

DEED HISTORY

| DEED BOOK | DEED PAGE | SALE DATE | SALE PRICE | STATED FCV |
|-----------|-----------|------------|------------|------------|
| 353 | 76 | 10/07/2004 | \$91,200 | NOT STATED |
| 349 | 387 | 05/13/2004 | \$91,200 | UNKNOWN |

TAX BILL HISTORY

| TAX YEAR | BILL NO | # PROPERTIES | TOTAL TAXABLE | FACE VALUE | EXONERATED |
|----------|---------|--------------|---------------|------------|--------------------------|
| 2022 | 4070 | 1 | \$45,196 | \$481.45 | <input type="checkbox"/> |
| 2021 | 4186 | 1 | \$16,196 | \$188.42 | <input type="checkbox"/> |

Russell L. Brown
Attorney at Law
rbrown@clarkquinnlaw.com

320 N. Meridian St., Ste. 1100
Indianapolis, IN 46204
(317) 637-1321 main
(317) 687-2344 fax

May 21, 2024

**Notice of Proposed Construction of
Wireless Communications Facility
Site Name: Oak Level**

Cellco Partnership, d/b/a Verizon Wireless and The Towers, LLC (Vertical Bridge) propose to construct a wireless communications facility on a site located at the southeast quadrant of the intersection of Symsonia Highway and Elva Road, Symsonia, KY 42025 (North Latitude: (36° 53' 57.87", West Longitude 88° 27' 53.09"). The proposed facility will include a 300-foot tall self-support tower, plus a 10-foot lightning arrestor and related ground facilities. This facility is needed to provide improved coverage for wireless communications in the area.

This notice is being sent to you because the County Property Valuation Administrator's records indicate that you may own property that is within a 500' radius of the proposed tower site or contiguous to the property on which the tower is to be constructed. You have a right to submit testimony to the Kentucky Public Service Commission ("PSC"), either in writing or to request intervention in the PSC's proceedings on the application. You may contact the PSC for additional information concerning this matter at: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to docket number 2024-00163 in any correspondence sent in connection with this matter.

We have attached a map showing the site location for the proposed tower. Applicant's radio frequency engineers assisted in selecting the proposed site for the facility, and they have determined it is the proper location and elevation needed to provide quality service to wireless customers in the area. Please feel free to contact us at 317-637-1321 if you have any comments or questions about this proposal.

Sincerely,
Russell L. Brown



Attorney for Applicant
RLB/mnw
enclosure

Location Map



Clark Quinn
Clark, Quinn, Moses, Scott & Grahn, LLP

CERTIFIED MAIL™



7012 0470 0001 8048 4446

HAINES TOBBY AND STACEY
6154 SYMSONIA HWY
SYMSONIA, KY 42082

FIRST-CLASS



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ZIP 46204 \$ 008.69⁰
02 7H
0006035028 MAY 21 2024

Clark Quinn
Clark, Quinn, Moses, Scott & Grahn, LLP

CERTIFIED MAIL™



7012 0470 0001 8048 4453

COLLIE, KAYNE
COLLIE, TIESHA
PO BOX 367
MAYFIELD, KY 42066

FIRST-CLASS



US POSTAGE™PITNEY BOWES

ZIP 46204 \$ 008.69⁰
02 7H
0006035028 MAY 21 2024

Clark Quinn
Clark, Quinn, Moses, Scott & Grahn, LLP

CERTIFIED MAIL™



7012 0470 0001 8048 4460

WEST MARSHALL RIDING CLUB LLC
2671 WAYNE FREEMAN RD
BENTON, KY 42025

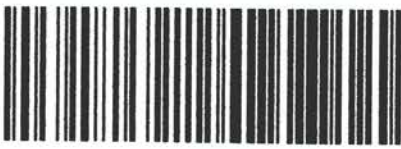
FIRST-CLASS



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ZIP 46204 \$ 008.69⁰
02 7H
0006035028 MAY 21 2024

ClarkQuinn
Clark, Quinn, Moses, Scott & Grahn, LLP



7012 0470 0001 8048 4477

FUTRELL DANE W
5835 SYMSONIA HWY
SYMSONIA, KY 42082

FIRST-CLASS



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ZIP 46204 \$ 008.69⁰
02 7H
0006035028 MAY 21 2024

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ClarkQuinn
Clark, Quinn, Moses, Scott & Grahn, LLP



7012 0470 0001 8048 4163

LINDSEY JOSHUA AND KALI
157 ELVA RD
SYMSONIA, KY 42082

FIRST-CLASS



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02 7H
0006035028 MAY 21 2024

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Clark, Quinn, Moses, Scott & Grahn, LLP



7012 0470 0001 8048 4170

JOHNSON, RALEIGH KEITH
JOHNSON, BETTY
154 ELVA RD
SYMSONIA, KY 42082

FIRST-CLASS



US POSTAGE^{IM}PITNEY BOWES

ZIP 46204 \$ 008.69⁰
02 7H
0006035028 MAY 21 2024

Clark Quinn
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7012 0470 0001 8048 4187

WARREN TIMOTHY AND TARA
1 TIMBERVIEW DR
CHILLICOTHE, OH 45601

FIRST-CLASS



US POSTAGETM PITNEY BOWES

ZIP 46204 \$ 008.69⁰
02 7H
0006035028 MAY 21 2024

CERTIFIED MAILTM

Clark Quinn
Clark, Quinn, Moses, Scott & Grahn, LLP



7012 0470 0001 8048 4194

WEST KENTUCKY AND TENNESSEE
TELECOMMUNICATIONS COOPERATIVE
CORPORATION INC
100 WK AND T TECHNOLOGY DR
MAYFIELD, KY 42066

FIRST-CLASS



US POSTAGETM PITNEY BOWES

ZIP 46204 \$ 008.69⁰
02 7H
0006035028 MAY 21 2024

CERTIFIED MAILTM

Clark Quinn
Clark, Quinn, Moses, Scott & Grahn, LLP



7012 0470 0001 8048 4200

COURSEY SHERRILL
6333 SYMSONIA HWY
SYMSONIA, KY 42082

FIRST-CLASS



US POSTAGETM PITNEY BOWES

ZIP 46204 \$ 008.69⁰
02 7H
0006035028 MAY 21 2024

CERTIFIED MAIL™

ClarkQuinn
Clark, Quinn, Moses, Scott & Grahn, LLP



7012 0470 0001 8048 4217

COURSEY RANDALL MICHAEL
6500 SYMSONIA HWY
SYMSONIA, KY 42082

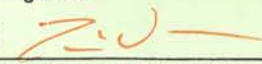

FIRST-CLASS

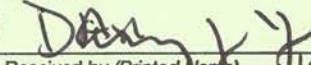


US POSTAGE™
PITNEY BOWES



ZIP 46204 \$ 008.69⁰
02 7H
0006035028 MAY 21 2024

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|--|---|
| <ul style="list-style-type: none"> ■ Complete items 1, 2, and 3. ■ Print your name and address on the reverse so that we can return the card to you. ■ Attach this card to the back of the mailpiece, or on the front if space permits. | <p>A. Signature</p> <p><input checked="" type="checkbox"/> X  <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> |
| <p>1. Article Addressed to:</p> <p>WARREN TIMOTHY AND TARA 1 TIMBERVIEW DR CHILLICOTHE, OH 45601</p>  <p>9590 9402 8236 3030 6417 21</p> | <p>B. Received by (Printed Name) <input type="checkbox"/> C. Date of Delivery</p> <p>Tim W. Green 5-9-24</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input checked="" type="checkbox"/> No</p> |
| <p>2. Article Number (Transfer from service label)</p> <p>7012 0470 0001 8048 4187</p> | <p>3. Service Type</p> <p><input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Mail Restricted Delivery (over \$500)</p> |
| <p>PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt</p> | |

| SENDER: COMPLETE THIS SECTION | COMPLETE THIS SECTION ON DELIVERY |
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| <ul style="list-style-type: none"> ■ Complete items 1, 2, and 3. ■ Print your name and address on the reverse so that we can return the card to you. ■ Attach this card to the back of the mailpiece, or on the front if space permits. | <p>A. Signature</p> <p><input checked="" type="checkbox"/> X  <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> |
| <p>1. Article Addressed to:</p> <p>COLLIE, KAYNE COLLIE, TIESHA PO BOX 367 MAYFIELD, KY 42066</p>  <p>9590 9402 8236 3030 6417 76</p> | <p>B. Received by (Printed Name) <input type="checkbox"/> C. Date of Delivery</p> <p>Danny King</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p> |
| <p>2. Article Number (Transfer from service label)</p> <p>7012 0470 0001 8048 4453</p> | <p>3. Service Type</p> <p><input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Mail Restricted Delivery (over \$500)</p> |
| <p>PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt</p> | |

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

WEST MARSHALL RIDING CLUB LLC
 2671 WAYNE FREEMAN RD
 BENTON, KY 42025



9590 9402 8236 3030 6417 69

2. Article Number (Transfer from service label)

7012 0470 0001 8048 4460

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature Agent
 Addressee
x Gerabine K Beck

B. Received by (Printed Name) C. Date of Delivery
 Gerabine K Beck 5/28/24

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type Priority Mail Express®
 Adult Signature Registered Mail™
 Adult Signature Restricted Delivery Registered Mail Restricted Delivery
 Certified Mail® Signature Confirmation™
 Certified Mail Restricted Delivery Signature Confirmation Restricted Delivery
 Collect on Delivery
 Collect on Delivery Restricted Delivery

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

HAINES TOBBY AND STACEY
 6154 SYMSONIA HWY
 SYMSONIA, KY 42082



9590 9402 8236 3030 6417 83

2. Article Number (Transfer from service label)

7012 0470 0001 8048 4446

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature Agent
 Addressee
x Stacey Haines

B. Received by (Printed Name) C. Date of Delivery
 Stacey Haines

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type Priority Mail Express®
 Adult Signature Registered Mail™
 Adult Signature Restricted Delivery Registered Mail Restricted Delivery
 Certified Mail® Signature Confirmation™
 Certified Mail Restricted Delivery Signature Confirmation Restricted Delivery
 Collect on Delivery
 Collect on Delivery Restricted Delivery

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

FUTRELL DANE W
 5835 SYMSONIA HWY
 SYMSONIA, KY 42082



9590 9402 8236 3030 6417 52

2. Article Number (Transfer from service label)

7012 0470 0001 8048 4477

PS Form 3811, July 2020 PSN 7530-02-000-9053

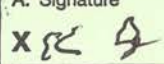


COMPLETE THIS SECTION ON DELIVERY

A. Signature Agent
 Addressee
x Dane Futrell

B. Received by (Printed Name) C. Date of Delivery

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type Priority Mail Express®
 Adult Signature Registered Mail™
 Adult Signature Restricted Delivery Registered Mail Restricted Delivery
 Certified Mail® Signature Confirmation™
 Certified Mail Restricted Delivery Signature Confirmation Restricted Delivery
 Collect on Delivery
 Collect on Delivery Restricted Delivery

| SENDER: COMPLETE THIS SECTION | COMPLETE THIS SECTION ON DELIVERY |
|--|---|
| <ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. | <p>A. Signature  <input type="checkbox"/> Agent <input checked="" type="checkbox"/> Addressee</p> |
| <p>1. Article Addressed to:</p> <p>JOHNSON, RALEIGH KEITH JOHNSON, BETTY 154 ELVA RD SYMSONIA, KY 42082</p>  9590 9402 8236 3030 6417 38 | <p>B. Received by (Printed Name) C. Date of Delivery  5/24/24</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input checked="" type="checkbox"/> No</p> |
| <p>2. Article Number (Transfer from service label)</p> <p>7012 0470 0001 8048 4170</p> | <p>3. Service Type <input type="checkbox"/> Priority Mail Express®</p> <p><input type="checkbox"/> Adult Signature <input type="checkbox"/> Registered Mail™</p> <p><input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail Restrict Delivery</p> <p><input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Signature Confirmation™</p> <p><input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery</p> <p><input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery</p> <p><input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery</p> |
| <p>PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt</p> | |

| SENDER: COMPLETE THIS SECTION | COMPLETE THIS SECTION ON DELIVERY |
|--|---|
| <ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. | <p>A. Signature  <input type="checkbox"/> Agent <input checked="" type="checkbox"/> Addressee</p> |
| <p>1. Article Addressed to:</p> <p>LINDSEY JOSHUA AND KALI 157 ELVA RD SYMSONIA, KY 42082</p>  9590 9402 8236 3030 6417 45 | <p>B. Received by (Printed Name) C. Date of Delivery  5/24/24</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input checked="" type="checkbox"/> No</p> |
| <p>2. Article Number (Transfer from service label)</p> <p>7012 0470 0001 8048 4163</p> | <p>3. Service Type <input type="checkbox"/> Priority Mail Express®</p> <p><input type="checkbox"/> Adult Signature <input type="checkbox"/> Registered Mail™</p> <p><input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail Restrict Delivery</p> <p><input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Signature Confirmation™</p> <p><input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery</p> <p><input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery</p> <p><input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery</p> |
| <p>PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt</p> | |

ALERT: FLOODING AND SEVERE WEATHER IN THE SOUTH, SOUTHEAST, AND CENTRAL U.S. ...

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Latest Update

Your item was picked up at a postal facility at 8:31 am on May 25, 2024 in SYMSONIA, KY 42082.

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USPS Tracking Plus®

Delivered

Delivered, Individual Picked Up at Postal Facility

SYMSONIA, KY 42082

May 25, 2024, 8:31 am

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Feedback

[What Do USPS Tracking Statuses Mean? \(https://faq.usps.com/s/article/Where-is-my-package\)](https://faq.usps.com/s/article/Where-is-my-package)

Text & Email Updates



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Product Information



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USPS Tracking®

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Tracking Number:

[Remove X](#)

70120470000180484200

[Copy](#)

[Add to Informed Delivery \(https://informedelivery.usps.com/\)](https://informedelivery.usps.com/)

Latest Update

Your item was picked up at a postal facility at 8:32 am on May 25, 2024 in SYMSONIA, KY 42082.

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USPS Tracking Plus®

Delivered

Delivered, Individual Picked Up at Postal Facility

SYMSONIA, KY 42082

May 25, 2024, 8:32 am

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Feedback

[What Do USPS Tracking Statuses Mean? \(https://faq.usps.com/s/article/Where-is-my-package\)](https://faq.usps.com/s/article/Where-is-my-package)

Text & Email Updates



USPS Tracking Plus®



Product Information



See Less ^

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[FAQs](#)

ALERT: FLOODING AND SEVERE WEATHER IN THE SOUTH, SOUTHEAST, AND CENTRAL U.S. ...

USPS Tracking®

[FAQs >](#)

Tracking Number:

[Remove X](#)

70120470000180484194

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Your package is moving within the USPS network and is on track to be delivered to its final destination. It is currently in transit to the next facility.

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USPS Tracking Plus®

Delivered

Out for Delivery

Preparing for Delivery

Moving Through Network

In Transit to Next Facility

May 27, 2024

Arrived at USPS Regional Facility

EVANSVILLE IN DISTRIBUTION CENTER

May 23, 2024, 11:38 am

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Feedback

[What Do USPS Tracking Statuses Mean? \(https://faq.usps.com/s/article/Where-is-my-package\)](https://faq.usps.com/s/article/Where-is-my-package)

Text & Email Updates



USPS Tracking Plus®



Product Information



See Less ^

Track Another Package

Enter tracking or barcode numbers

Need More Help?

Contact USPS Tracking support for further assistance.

FAQs



www.clarkquinnlaw.com

Russell L. Brown
Attorney at Law
rbrown@clarkquinnlaw.com

320 N. Meridian St., Ste. 1100
Indianapolis, IN 46204
(317) 637-1321 main
(317) 687-2344 fax

May 21, 2024

Via Certified Mail, Return Receipt Requested
7012 0470 0001 8048 4439

Hon. Kevin Spraggs
Marshall County Judge/Executive
1101 Main Street
Benton County, KY 42025

RE: Notice of Proposal to Construct Wireless Communications Facility
Kentucky Public Service Commission Docket No. 2024-00163
Site Name: Oak Level

Dear Judge Spraggs:

Cellco Partnership, d/b/a Verizon Wireless and The Towers, LLC (Vertical Bridge) propose to construct a wireless communications facility at the southeast quadrant of the intersection of Symsonia Highway and Elva Road, Symsonia, KY 42025 (North Latitude: (36° 53' 57.87", West Longitude 88° 27' 53.09"). The proposed facility will include a 300-foot tall self-support tower, plus a 10-foot lightning arrestor and related ground facilities. This facility is needed to provide improved coverage for wireless communications in the area.

You have a right to submit comments to the PSC or to request intervention in the PSC's proceedings on the application. You may contact the PSC at: Executive Director, Public Service Commission, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to docket number 2024-00163 in any correspondence sent in connection with this matter.

We have attached a map showing the site location for the proposed tower. Verizon Wireless' radio frequency engineers assisted in selecting the proposed site for the facility, and they have determined it is the proper location and elevation needed to provide quality service to wireless customers in the area. Please feel free to contact us with any comments or questions you may have.

Sincerely,
Russell L. Brown

A handwritten signature in black ink, appearing to read 'R. Brown', written over a horizontal line.

Attorney for Applicant

Location Map



CERTIFIED MAIL™

ClarkQuinn
Clark, Quinn, Moses, Scott & Grahn, LLP



7012 0470 0001 8048 4439

FIRST-CLASS



US POSTAGE™PITNEY BOWES



ZIP 46204 \$ 008.69⁰
02 7H
0006035028 MAY 21 2024

Hon. Kevin Spraggs
Marshall County Judge/Executive
1101 Main Street
Benton County, KY 42025

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Hon. Kevin Spraggs
Marshall County Judge/Executive
1101 Main Street
Benton County, KY 42025



9590 9402 8749 3310 9190 44

2. Article Number (Transfer from service label)

7012 0470 0001 8048 4439

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

- Agent
- Addressee

B. Received by (Printed Name)

C. Date of Delivery

5-24-20

- D. Is delivery address different from item 1? Yes
If YES, enter delivery address below: No

3. Service Type

- Adult Signature
- Adult Signature Restricted Delivery
- Certified Mail®
- Certified Mail Restricted Delivery
- Collect on Delivery
- Collect on Delivery Restricted Delivery
- Insured Mail
- Registered Mail™
- Registered Mail Restricted Delivery
- Signature Confirmation™
- Signature Confirmation Restricted Delivery
- Priority Mail Express®

SITE NAME: Oaklevel NOTICE SIGNS

The signs are at least (2) feet by four (4) feet in size, of durable material, with the text printed in black letters at least one (1) inch in height against a white background, except for the word "**tower**," which is at least four (4) inches in height.

Cellco Partnership, d/b/a Verizon Wireless and The Towers, LLC (Vertical Bridge) propose to construct a telecommunications **tower** on this site. If you have questions, please contact Clark, Quinn, Moses, Scott & Grahn, LLP, 320 N. Meridian Street, Indianapolis, IN 46204; 317-637-1321, or the Executive Director, Public Service Commission, 211 Sower Boulevard, PO Box 615, Frankfort, Kentucky 40602. Please refer to docket number 2024-00163 in your correspondence.

Cellco Partnership, d/b/a Verizon Wireless and The Towers, LLC (Vertical Bridge) propose to construct a telecommunications **tower** near this site. If you have questions, please contact Clark, Quinn, Moses, Scott & Grahn, LLP, 320 N. Meridian Street, Indianapolis, IN 46204; 317-637-1321, or the Executive Director, Public Service Commission, 211 Sower Boulevard, PO Box 615, Frankfort, Kentucky 40602. Please refer to docket number 2024-00163 in your correspondence.



Robert B. Scott
Charles R. Grahn
Frank D. Otte*
John "Bart" Herriman
William W. Gooden**
Michael P. Maxwell
Russell L. Brown**†
Jennifer F. Perry
Keith L. Beall
N. Davey Neal
Travis W. Cohron
Maggie L. Sadler
Kristin A. McIlwain
Olivia A. Hess

VIA EMAIL: ggilbert@tribunecourier.com

Land Use Consultant
Elizabeth Bentz Williams, AICP

Tribune Courier
86 Commerce Blvd.
Benton, KY 42025

*Also admitted in Montana
†Also admitted in Kentucky
**
Registered Civil Mediator

RE: Legal Notice Advertisement
Site Name: Oak Level

To Whom It May Concern,

Please publish the following legal notice advertisement in the next available edition of the Tribune Courier Publication:

NOTICE

Cellco Partnership, d/b/a Verizon Wireless and The Towers, LLC (Vertical Bridge) propose to construct a wireless communications facility on a site located at the southeast quadrant of the intersection of Symsonia Highway and Elva Road, Symsonia, KY 42025 (North Latitude: (36° 53' 57.87", West Longitude 88° 27' 53.09"). The proposed facility will include a 300-foot tall self-support tower, plus a 10-foot lightning arrestor and related ground facilities.

You have a right to submit comments to the PSC or to request intervention in the PSC's proceedings on the application. You may contact the PSC at: Executive Director, Public Service Commission, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to docket number 2024-00163 in any correspondence sent in connection with this matter.

After this advertisement has been published, please forward a tearsheet copy, affidavit of publication, and invoice to Clark, Quinn, Moses, Scott & Grahn, LLC, 320 N. Meridian Street, Indianapolis, IN 46204 or by email to ebw@clarkquinnlaw.com. Please call me on my cell with any questions at 317-902-2187 if you have any questions. Thank you for your assistance.

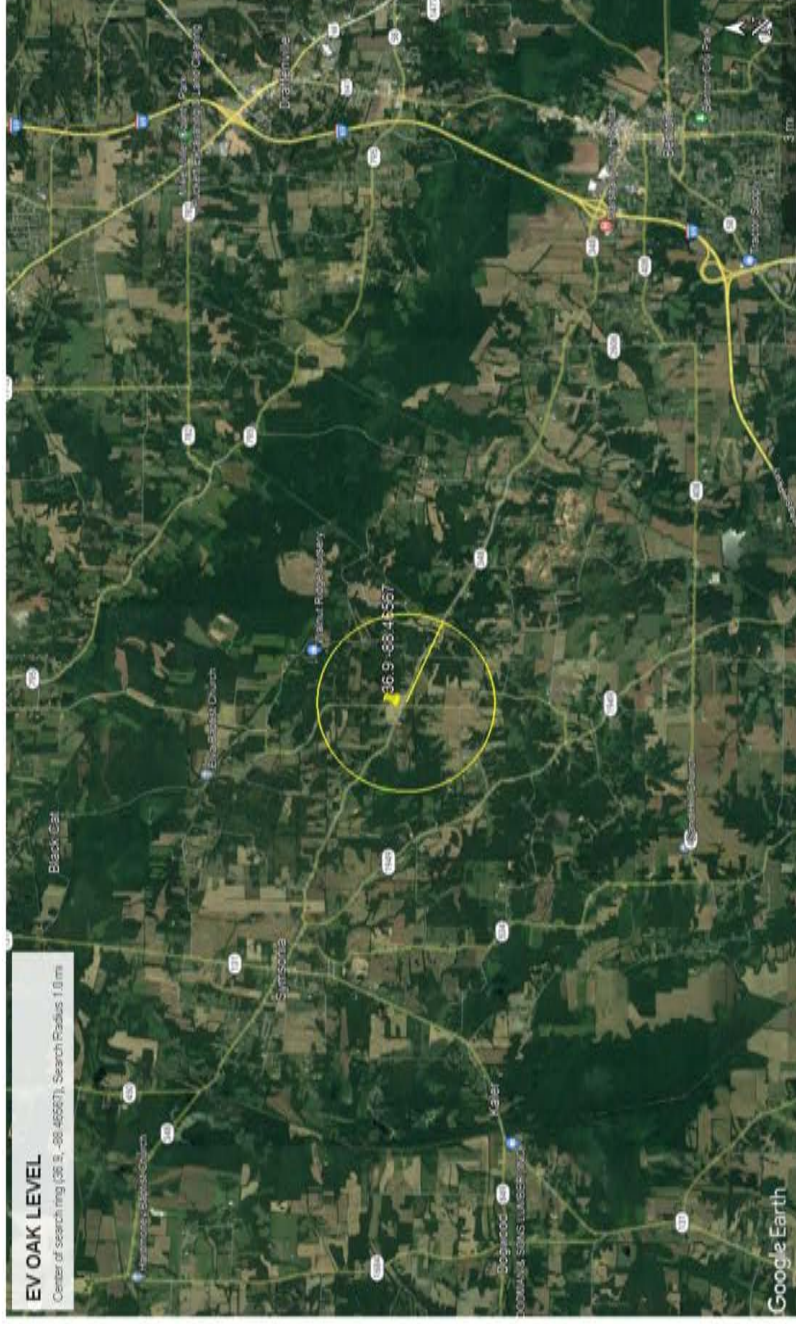
Sincerely,

A handwritten signature in cursive script that reads 'Elizabeth Bentz Williams'.

Elizabeth Bentz Williams, AICP

EV OAK LEVEL

| SARF | Details |
|------------------|-------------------|
| Atoll Market | INDIANAPOLIS |
| SR Name | EV OAK LEVEL |
| Granite Locale | INDIANA |
| Address | 6145 SYMSONIA HWY |
| City | SYMSONIA |
| State | KENTUCKY |
| County | Marshall |
| ZIP | 42082 |
| Latitude | 36.9 |
| Longitude | -88.46567 |
| Radius (mi) | 1 |
| Center Line (ft) | 295 |
| # Sectors | 3 |





March, 26th, 2024

RE: Proposed Cellco Partnership d/b/a Verizon Wireless Communications Facility

Site Name: EV Oak Level

Type of Tower: 300 ft. Self-Support

Location: 6145 Symsonia Hwy, Symsonia, KY 42025 Marshall County

To Whom It May Concern:

As a radio frequency engineer for Verizon Wireless, I am providing this letter to state the need for a Verizon Wireless site called, EV Oak Level.

The EV Oak Level site is proposed with the below objectives:

1. To improve cellular service for the residents and businesses in Marshall and Graves County between Symsonia and Benton. Also, customers living and traveling along HWY-348 & HWY-1949.
2. To offload existing traffic of existing Verizon sites in this area.

Currently the area is experiencing poor service along HWY-348, HWY-1949, and in the residential areas between Symsonia and Benton. There is high demand for wireless high-speed data in these locations. This tower is needed to provide Verizon customers in the area with the best experience on their wireless devices.

Raw Land – Design plans for a new tower would provide an overall tower height of 300 feet with a Verizon Wireless Centerline of 295'. The new structure height was decided upon to best cover HWY-348, HWY-1949, the residents in the area, and to offload traffic from the nearby existing Verizon sites. If we are limited to building a structure less than the proposed height, another tower would be needed in the vicinity in the near future. The new structure is proposed to be placed near the center of the problem area. The new tower design solves the stated objectives.

Verizon Wireless cares about the communities as well as the environment and prefers to collocate on existing structures when available. Verizon Wireless is currently collocated on many structures in the County. We prefer collocation due to reduced construction costs, faster deployment, and environment protection. However, Verizon Wireless was unable to find a suitable structure within the center of the demand area to collocate the proposed site on.



Verizon Wireless design engineers establish search area criteria in order to effectively meet coverage objectives as well as offload existing Verizon cell sites. When met, the criterion also reduces the need for a new site to cover the area in the immediate future. Each cellular site covers a limited area, depending on site configuration and the surrounding terrain. Cell sites are built in an interconnected network; which means each cell site must be located so that their respective coverage areas are contiguous. This provides uninterrupted communications throughout the coverage area.

Since collocation is generally the most cost-effective means for prompt deployment of new facilities, Verizon Wireless makes every effort to investigate the feasibility for using existing towers or other tall structures for collocation when designing a new site or system expansion. However, collocation on an existing tower or tall structure is not always feasible due to location of existing cell sites. Cell sites are placed in a way so they provide a smooth hand off to each other and are placed at some distance from each other to eliminate too much overlap. Too much overlap may result in a waste of resources and raise a system capacity overload concern.

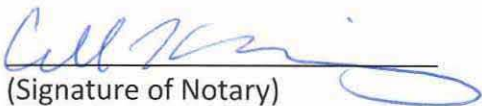
This cell site has been designed, and shall be constructed and operated in a manner that satisfies regulations and requirements of all applicable governmental agencies that have been charged with regulating tower specifications, operation, construction, and placement, including the FAA and FCC.

Sincerely,



Jared Sharp
RF Engineer
Verizon Wireless

Subscribed and sworn to before me this 20th Day of March 2024.

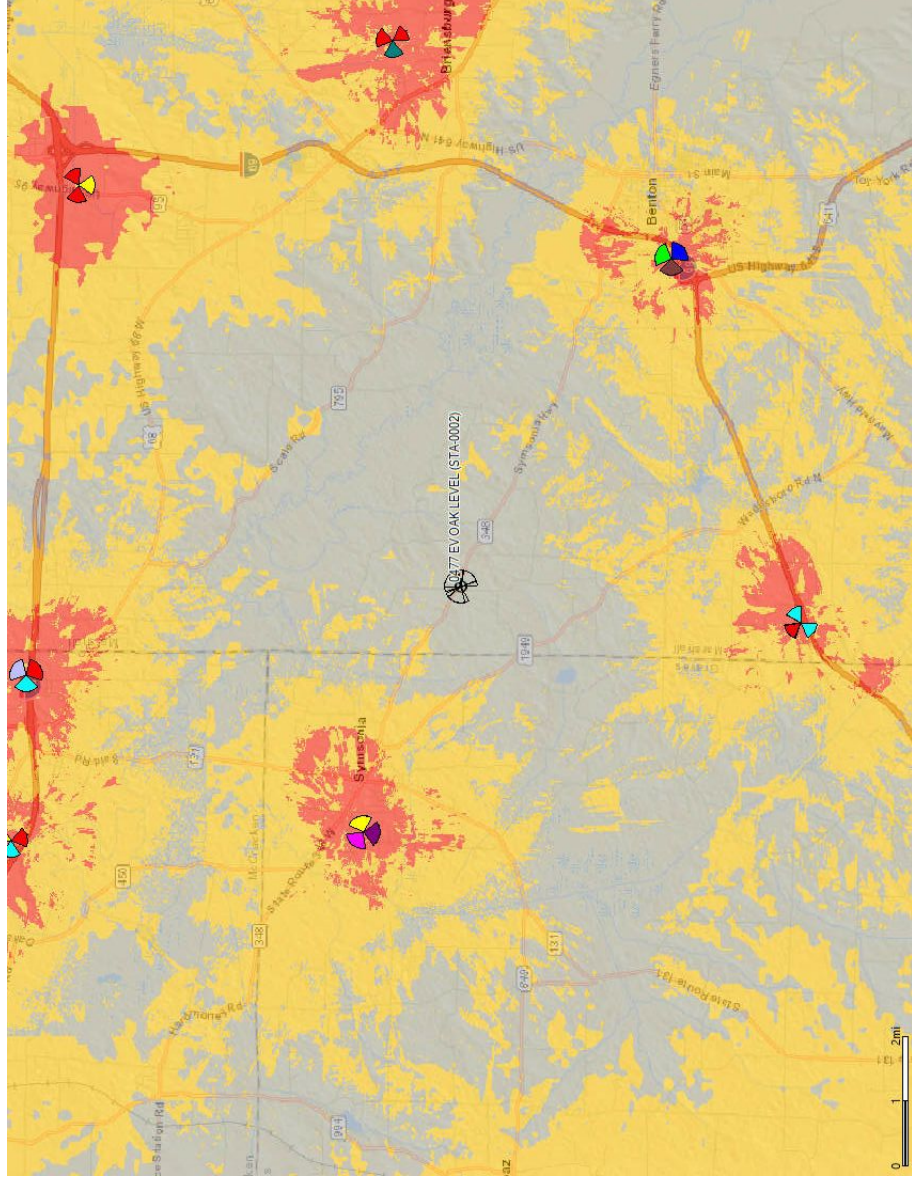

(Signature of Notary)

Caleb Knisely
(Printed Name of Notary)



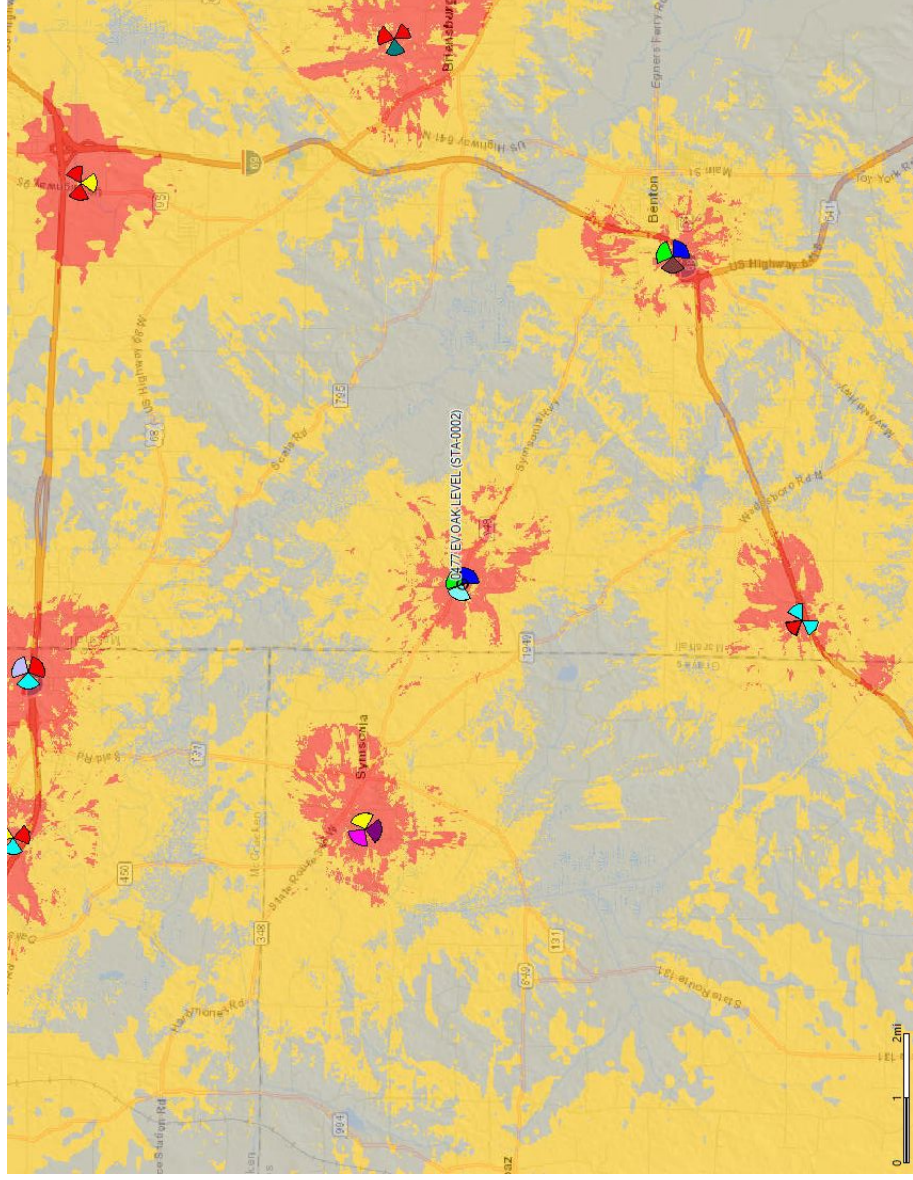
SEAL

Current Coverage - Without Proposed EV Oak Level



Confidential and proprietary materials for authorized Verizon personnel and outside agencies only. Use, disclosure or distribution of this material is not permitted to any unauthorized persons or third parties except by written agreement.

Coverage - With Proposed EV Oak Level



Confidential and proprietary materials for authorized Verizon personnel and outside agencies only. Use, disclosure or distribution of this material is not permitted to any unauthorized persons or third parties except by written agreement.

Exhibit S
List and Identity and Qualifications of Professionals

Jeffery Lashbrook
Professional Engineer
Kentucky License 35042
Bowman
3001 Taylor Springs Drive
Louisville, KY 40220

F.V. Neeley
Professional Land Surveyor
Kentucky License 3093
Sharondale Surveying, Inc.
161 Martin Road
Bon Aqua, TN 37025

Hewitt T Wilkinson
Professional Engineer
Kentucky License 18357
Wilkinson Management Group
5215 Rock Water Drive
Louisville, KY 40241

Robert E. Beacom
Professional Engineer
Kentucky License 28165
Sabre Industries
7101 Southbridge Drive
PO Box 658
Sioux City, IA 51102-0658

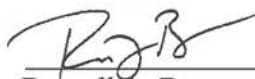
Vince Caprino
Construction Manager
Verizon Wireless
2421 Holloway Road
Louisville, KY 40299

Jared Sharp
RF Engineer
Verizon Wireless
2421 Holloway Road
Louisville, KY 40299

STATE OF INDIANA)
) SS:
COUNTY OF MARION)

**AFFIDAVIT OF CERTIFICATION
COMMONWEALTH OF KENTUCKY
PUBLIC SERVICE COMMISSION**

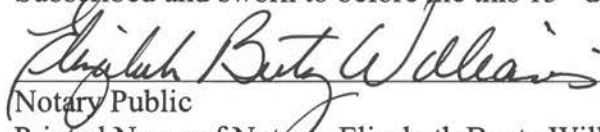
I Russell L. Brown, attorney for Cellco Partnership, d/b/a Verizon Wireless do hereby certify that as the person supervising the preparation of this application and all statements and information contained herein are true and accurate to the best of that person’s knowledge, information, and belief formed after a reasonable inquiry for all information within this application.



Russell L. Brown
Attorney, for Cellco Partnership, d/b/a Verizon Wireless

STATE OF INDIANA,
COUNTY OF MARION, SS:

Subscribed and sworn to before me this 13th day of June, 2024.



Notary Public
Printed Name of Notary: Elizabeth Bentz Williams
My commission expires: November 18, 2028
My County of Residence: Marion
Commission #: 0639620