COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS AND HORVATH TOWERS VI, LLC FOR ISSUANCE OF A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT A WIRELESS COMMUNICATIONS FACILITY IN THE COMMONWEALTH OF KENTUCKY IN THE COUNTY OF FLEMING	))))))))	CASE NO. 2024-00132

SITE NAME: TILTON

* * * * * * *

RESPONSE TO STAFF'S FIRST REQUEST FOR INFORMATION FOR CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR CONSTRUCTION OF A WIRELESS COMMUNICATIONS FACILITY

Cellco Partnership, d/b/a Verizon Wireless and Horvath Towers VI, LLC ("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 submit 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-Applicant with wireless communications services.

In response to the Request for Information, Co-Applicants respectfully provide and state the following information:

1. Refer to the Application for Construction of Wireless Communication Facility pages 4 and 5. Verizon Wireless stated it was unable to provide a tower and foundation design and a geotechnical engineering report due to a potential federal endangered plant species on the property. Now that the required reports have been

provided, provide a copy of the survey that was conducted during flowering season as well as any correspondence and approval from U.S. Fish and Wildlife Service.

Answer: Please see **Exhibit 1** for the Biological Assessment Report from EBI Consulting which includes all mapping, site research, site reconnaissance, correspondence from U.S. Fish and Wildlife and resumes of the persons involved in the report.

2. Refer to pages 21 and 39 of the Supplemental Information Post Order that was filed on November 11, 2024. The customer listed on the reports is Horvath Towers V, LLC; however, Horvath Towers VI, LLC is the customer's name listed on the application.

Answer: Please See **Exhibit 2** for corrected Tower and Foundation Design indicating Horvath Towers VI, LLC as customer's name, to replace the previous Exhibit 2 in the supplemental filing.

3. Provide the status of the two outstanding certified green cards for the property owners within 500 feet of the proposed tower.

Answer: 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. Thirteen (13) notices were sent to surrounding property owners; to date, eleven (11) notice green cards have been returned. USPS tracking indicates that one (1) notice was delivered on May 4, 2024 and one notice envelope was returned. Copies of the mailed envelopes, returned green cards and USPS tracking are included in **Exhibit 3**. There are no unaccountable notices.

4. Provide the resumes for the names listed on page 44 of the Supplemental Information Post Order filed November 11, 2024.

Answer: The Engineers' responsible for design of the proposed tower are identified in **Exhibit 4** and within that information it specifies each as licensed with the Commonwealth of Kentucky as Professional Engineers which verifies them as qualified engineers. The Surveyor is identified in **Exhibit 4** and within that information it specifies he is licensed with the Commonwealth of Kentucky as a Professional Surveyor which verifies him as a qualified surveyor. The Construction Manager identified in **Exhibit 4** has experience in their companies and field of practice, as detailed in the letter included in **Exhibit 5**. Information regarding the Radio Frequency Engineer's relevant experience shall be supplemented to the file upon receipt.

5. Attached hereto as **Exhibit 6** please find an Affidavit of Certification for all information contained in this application.

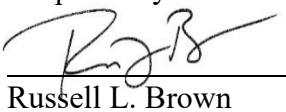
6. All Exhibits to this Application are hereby incorporated by reference as if fully set out as part of the Application.

7. 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

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 conditional Certificate of Public Convenience and Necessity to construct and operate the WCF at the location set forth herein.

Respectfully submitted,



Russell L. Brown
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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

1	Biological Assessment Report
2	Tower and Foundation Design
3	Property Owner Notice
4	List of Qualified Professionals
5	Letter of Experienced Professionals
6	Affidavit of Certification

Biological Assessment

HV 1611 / Tilton

6196 Mount Sterling Road
Flemingsburg, Kentucky 41041

EBI Project No. 6123007108

August 28, 2024

Prepared for:

Horvath Communications
2307 Edison Road
South Bend, Indiana 46615

Prepared by:

EBI Consulting
environmental | engineering | due diligence

Contents

Executive Summary

EBI Consulting (EBI) has prepared this Biological Assessment (BA) for Short's goldenrod (*Solidago shortii*) at the request of Horvath Towers, LLC, in support of their regulatory compliance efforts for the proposed actions described in Section 1.3 below. This report describes the scope of services and methodology followed to perform this evaluation and summarizes the findings. This report does not represent regulatory compliance or clearance to proceed with the proposed actions. The purpose of this evaluation is to provide a professional opinion with regard to the potential impacts of the proposed actions on this species which may occur at the Subject Property.

Based on the results of the survey, which was conducted during the blooming season for this species, EBI has determined that Short's goldenrod is not present within or immediately adjacent to the Project Site and will not be impacted as a result of construction. No recommendations are proposed for this project.

1.0 Purpose & Scope

1.1 Purpose

EBI Consulting (EBI) has prepared this Biological Assessment (BA) in support of their regulatory compliance efforts for the proposed actions described in Section 2.2 below.

The scope of services, methodology followed to perform this evaluation and findings are summarized in this report. This report does not represent regulatory compliance or clearance to proceed with the proposed actions. The purpose of this evaluation is to provide a professional opinion on the potential impacts of the proposed actions on federal- and state-protected species.

1.2 Scope of Services

This BA was conducted utilizing a standard of good commercial and customary practice consistent with the definitions and requirements of applicable federal, state, and local laws. Section 6.0 summarizes the references utilized in this report. Any significant scope-of-work additions, deletions or deviations are noted below or in the corresponding sections of this report. The scope-of-work for this BA included the following:

- An assessment of the current conditions at the location of the proposed action, including a site reconnaissance, a review of reference literature, and on-line research of data relative to the potential presence or absence of known biological resources in that location.
- An evaluation of the physical characteristics of the general area through a review of referenced sources for topographic, geologic, soils and hydrologic data.
- A review of species occurrence and habitat data relevant for the project location, including Endangered Species Act (ESA) listed, proposed, and candidate species data maintained by the United States Fish and Wildlife Service (USFWS), and state-protected species and habitat data maintained by relevant state wildlife agencies, as referenced in Section 3.0.
- The review of the USFWS "Revised List of Migratory Birds" (50 CFR 10.13; August 24, 2006) as defined and protected by the Migratory Bird Treaty Act (MBTA).

2.0 Project Overview

2.1 Property Location

The Subject Property is located at 6196 Mount Sterling Road, Flemingsburg, Kentucky 41041, at approximately 38° 20′ 33.2″ North and 83° 46′ 10.46″ West.

2.2 Project Description

According to details provided to EBI, the proposed action consists of the construction of a new 270-foot tall (overall height) self-support lattice tower with associated support equipment in a 75-foot by 75-foot fenced-in compound within a 100-foot by 100-foot lease area, as well as a 12-foot-wide gravel access drive within a 30-foot-wide access/utility easement. Utilities will be routed overhead on existing utility poles.

For the purposes of this BA, the area of proposed action, including areas with a potential for both direct and indirect impacts, will herein be referred to as the "Project Site".

3.0 Methodology

3.1 Research

Prior to the survey, EBI reviewed online information available from the USFWS Information for Planning and Consultation[1] (IPaC) online project review tool and the online Critical Habitat Portal[2] mapping tool to determine if designated critical habitat is present at or in the immediate vicinity of the Project Site. Please refer to the attachments for a copy of this documentation. EBI also reviewed species occurrence data and/or associated habitat descriptions maintained by the Kentucky Department of Fish and Wildlife Resources to further evaluate the likelihood of protected species being present at or within the vicinity of the Project Site.

The IPaC report indicated the potential presence of Short's goldenrod within the Project Site. Please refer to the attachments for a copy of this documentation. Short's goldenrod grows in relatively dry, rocky, open habitats, including limestone cedar glades, limestone ledges of river scour, cedar thickets, and edges of oak-hickory forests. It can also be found in modified areas such as pastures, old fields, powerline rights-of-way, and rock ledges along highways. It requires glade-like habitats where droughty soils prevent the establishment of trees and shrubs. Short's goldenrod flowers from mid-August to late October.

3.2 Site Reconnaissance

Mr. Bill Gowacki of EBI conducted the site reconnaissance on August 21, 2024, between approximately 1000 hours and 1030 hours. At the time of the survey the weather was clear and sunny, and the temperature was approximately 68º Fahrenheit. Ground surfaces were observed to be dry.

The site reconnaissance included visual and/or physical observations of the proposed Project Site. Areas covered with vegetation were given careful inspection and consideration. EBI's site reconnaissance consisted of walking the entirety of the Project Site, as well as a perimeter buffer of approximately 50 feet from the edge of the Project Site in safely accessible areas.

4.0 Findings

The Project Site and the general vicinity consist of regularly grazed pasture containing grasses and low-growing herbaceous vegetation. This pasture was being actively grazed by cattle at the time of the survey. The survey was performed during the blooming season for Shorts goldenrod so, if present, it would have been easily observed. However, no Short's goldenrod was found to be present within or in the vicinity of the Project Site.

5.0 Conclusions & Recommendations

5.1 Conclusions

Based on the results of the survey, EBI has determined that Short's goldenrod is not present within or immediately adjacent to the Project Site and will not be impacted as a result of construction.

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[1] http://ecos.fws.gov/ipac
[2] http://criticalhabitat.fws.gov

5.2 Recommendations

No recommendations are proposed for this project.

6.0 References

Kentucky Department of Fish and Wildlife Resources. 2024. Federal and State Listed Species – Sherburne. https://app.fw.ky.gov/speciesinfo/QuadListSpecies.asp. (Accessed 2024)

NatureServe. 2024. NatureServe Web Service. Arlington, VA, U.S.A. Available online at https://explorer.natureserve.org/Taxon/ELEMENT_GLOBAL.2.140598/Solidago_shortii (Accessed 2024)

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at http://websoilsurvey.nrcs.usda.gov/. (Accessed 2024)

United States Fish and Wildlife Service (USFWS). 2024. Critical Habitat for Threatened and Endangered Species. https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77. (Accessed 2024)

USFWS. Environmental Conservation Online System (ECOS) website. https://ecos.fws.gov/ecp/. (Accessed 2024)

USFWS. 2024. Information, Planning, and Conservation (IPAC) online screening tool. https://ipac.ecosphere.fws.gov/. (Accessed 2024)

FIGURES

PROJECT SUMMARY

SITE NAME:	TILTON
SITE ADDRESS:	TBD MOUNT STERLING ROAD FLEMINGSBURG, KY 41041
COUNTY:	FLEMING COUNTY
SITE COORDINATES:	
LATITUDE:	38° 20' 33.20" N (NAD83)
LATITUDE:	38.342557°
LONGITUDE:	83° 46' 10.46" W (NAD83)
LONGITUDE:	-83.769573°
GROUND ELEVATION:	934.2'
HORVATH SITE ID:	HV1611
TOWER OWNER:	HORVATH COMMUNICATIONS 2307 EDISON RD SOUTH BEND, IN 46615 CONTACT: ERIN HORVATH PHONE: (574) 237-0464
STRUCTURE TYPE:	SELF SUPPORT
TOWER HEIGHT:	260'-0"
OVERALL TOWER HEIGHT:	270'-0"
ENVIRONMENTAL REQ. :	N/A
PROPERTY OWNER:	JAMES MATHEW WATSON (502)-402-9664

BUILDING 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.

2014 KENTUCKY BUILDING CODE TIA/EIA-222G OR LATEST EDITION
(COMPRISED OF 2012 1BC AND 675 IAC 13-2.6)
2014 KENTUCKY MECHANICAL CODE
(COMPRISED OF 2012 1MC AND 675 IAC 18-1.6)
2009 KENTUCKY ELECTRICAL CODE
(COMPRISED OF 2008 NFPA 70 AND 675 IAC 17-1.8)

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

STRUCTURAL REVIEW

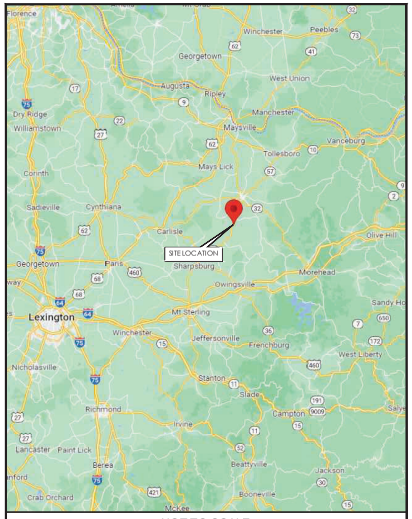
MOUNT ANALYSIS PERFORMED BY OTHERS.

verizon
(HERE IN AFTER REFEREED TO AS LESSEE)

HORVATH COMMUNICATIONS

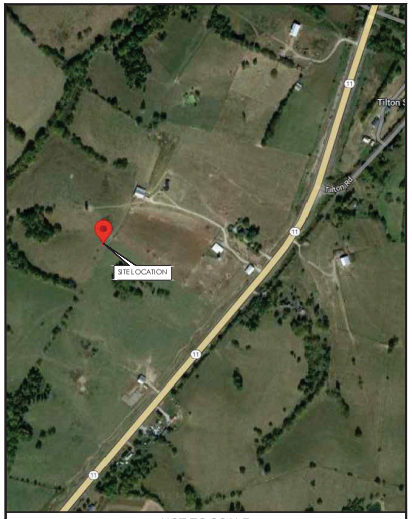
HORVATH SITE ID: HV161
VERIZON SITE NAME: TILTON
TBD MOUNT STERLING ROAD
FLEMINGSBURG, KY 41041

VICINITY MAP



NOT TO SCALE

LOCATION MAP



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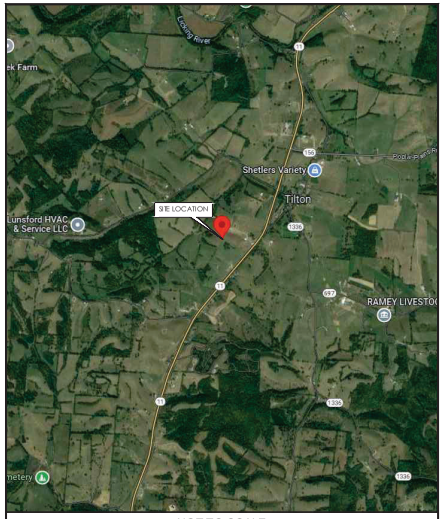
AERIAL MAP



NOT TO SCALE

SHEET SCALE FACTOR:

PLOT SIZE:
11" x 17": TO SCALE

DIRECTIONS FROM LOUISVILLE MUHAMMAD ALI INTERNATIONAL AIRPORT: HEAD WEST ON CRITTENDEN DR TOWARD GRADE LN (0.2 MI), TURN RIGHT TOWARD STRAWBERRY LN (0.3 MI), TURN LEFT ONTO STRAWBERRY LN (0.7 MI), ROAD NAME CHANGES TO LOUISVILLE AVE (0.5 MI), TURN LEFT ONTO E SOUTHERN HEIGHTS AVE (0.3 MI), ROAD NAME CHANGES TO W SOUTHERN HEIGHTS AVE (472 FT), TAKE THE RAMP ON THE RIGHT AND FOLLOW SIGNS FOR I-264 EAST / US-60 BYP EAST (8.3 MI), AT EXIT 19A, HEAD RIGHT ON THE RAMP FOR I-64 EAST TOWARD LEXINGTON (68.9 MI), TAKE THE RAMP ON THE LEFT FOR I-64 EAST AND HEAD TOWARD ASHLAND / WINCHESTER (28.3 MI), AT EXIT 110, HEAD RIGHT ON THE RAMP FOR US-460 W / KY-11 / MAYSVILLE RD TOWARD FLEMINGSBURG (0.3 MI), TURN LEFT ONTO US-460 W / KY-11 / MAYSVILLE RD TOWARD FLEMINGSBURG (4.6 MI), TURN RIGHT TO STAY ON KY-11 / MAYSVILLE RD (18.9 MI). ARRIVE AT KY-11 / MT STERLING RD ON THE LEFT. THE LAST INTERSECTION BEFORE YOUR DESTINATION IS PLANCK RD. IF YOU REACH TILTON RD, YOU'VE GONE TOO FAR.

SHEET INDEX

NO.	DESCRIPTION
LE1	TITLE SHEET
LE2	LEASE EXHIBIT
LE3	LEASE EXHIBIT
LE4	LEASE EXHIBIT

SCOPE OF WORK

- INSTALL A NEW 260'-0" SELF SUPPORT TOWER WITH 10'-0" LIGHTNING ROD (OVERALL 270'-0")
- INSTALL A NEW 75' X 75' WOODEN FENCED COMPOUND WITHIN A 100' X 100' LEASE AREA
- INSTALL A NEW UTILITY H-FRAME WITHIN THE NEW FENCED COMPOUND
- INSTALL A NEW TOWER, COMPOUND AND EQUIPMENT GROUNDING SYSTEM
- INSTALL NEW ANTENNAS, LINES, COAX, GPS AND RADIO EQUIPMENT
- INSTALL NEW UNDERGROUND POWER AND FIBER CONDUITS WITHIN THE DESIGNATED UTILITY EASEMENT TO NEW UTILITY H-FRAME

TeleCAD Wireless
1961 NORTHPOINT BLVD.
SUITE 130
HIXSON, TN 37343
PH : 423-843-9500
FAX : 423-843-9509

HORVATH COMMUNICATIONS

DRAWN BY	MJB
CHECKED BY	DLS

REVISIONS

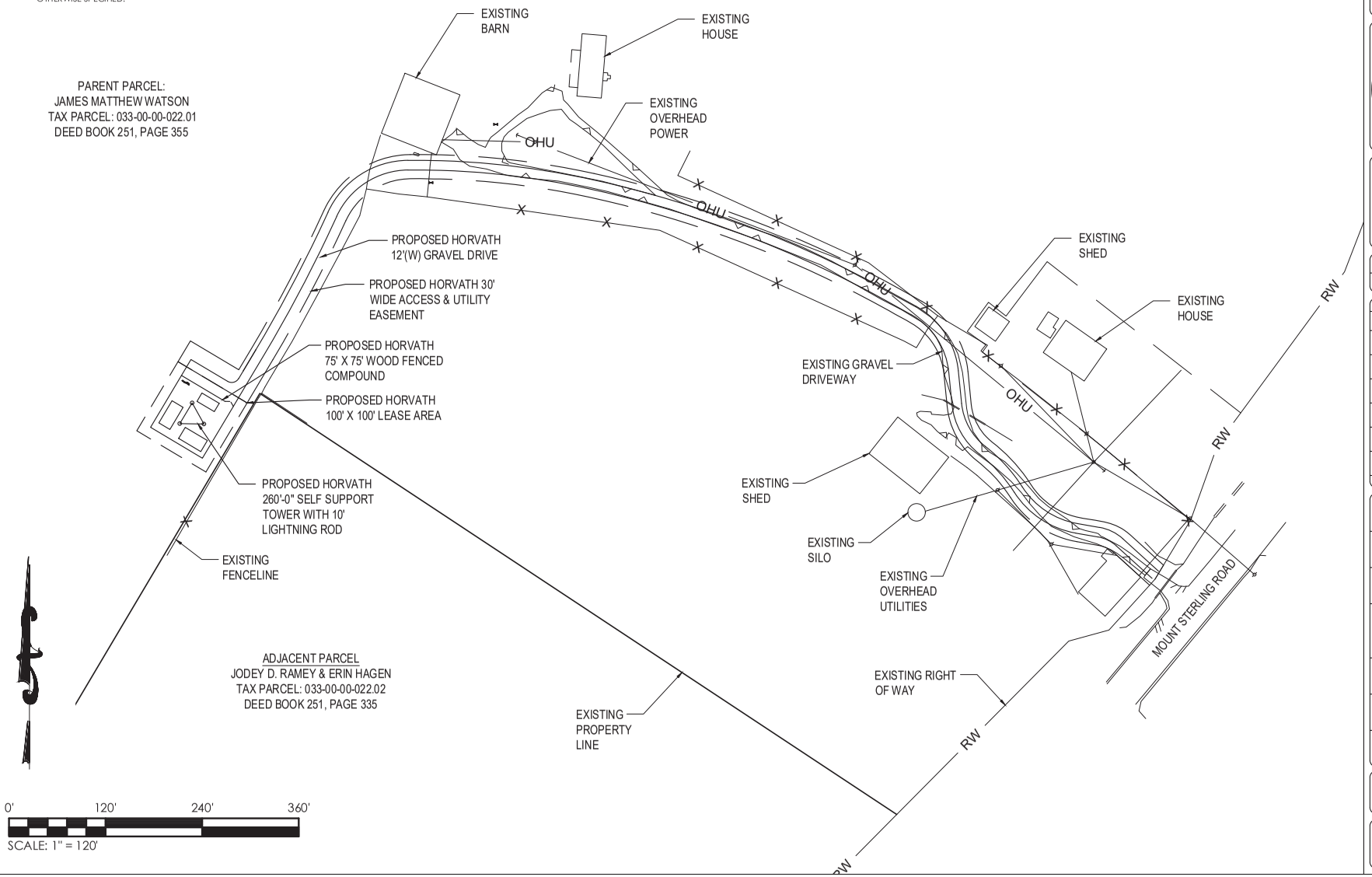
#	DATE	BY	DESCRIPTION
B	09/18/23	MJB	LEASE EXHIBIT
A	09/11/23	MJB	LEASE EXHIBIT

HORVATH SITE ID :	HV1611
SITE NAME :	LV TILTON
SITE # / LOCATION CODE :	TBD
SITE ADDRESS :	TBD MOUNT STERLING ROAD FLEMINGSBURG, KY 41041
SITE TYPE :	RAWLAND
LATITUDE :	38° 20' 33.20" N (NAD83)
LONGITUDE :	83° 46' 10.46" W (NAD83)
SHEET TITLE :	TITLE SHEET

DRAWING # :	REVISION :
LE1	B

NOTES:

1. THIS DRAWING IS BASED ON A SITE SURVEY BY THE LAND CONSULTANTS, DATED 07/07/23.
2. THE PROPOSED USE DOES NOT REQUIRE FULL OR PART TIME EMPLOYEES AT THE SITE.
3. ALL NORTH ARROWS ON SITE PLANS ARE TRUE NORTH, UNLESS OTHERWISE SPECIFIED.



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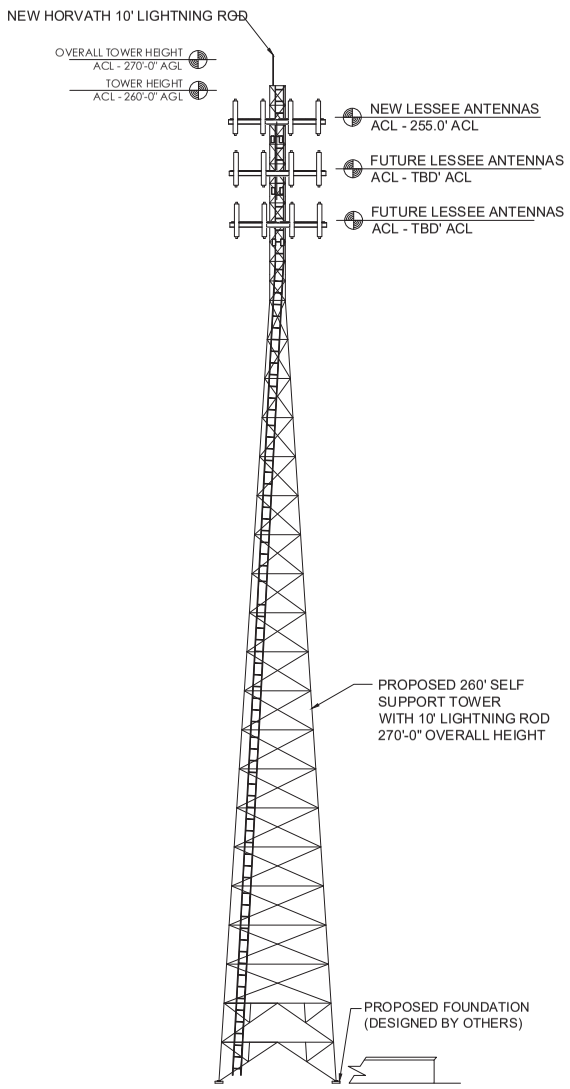
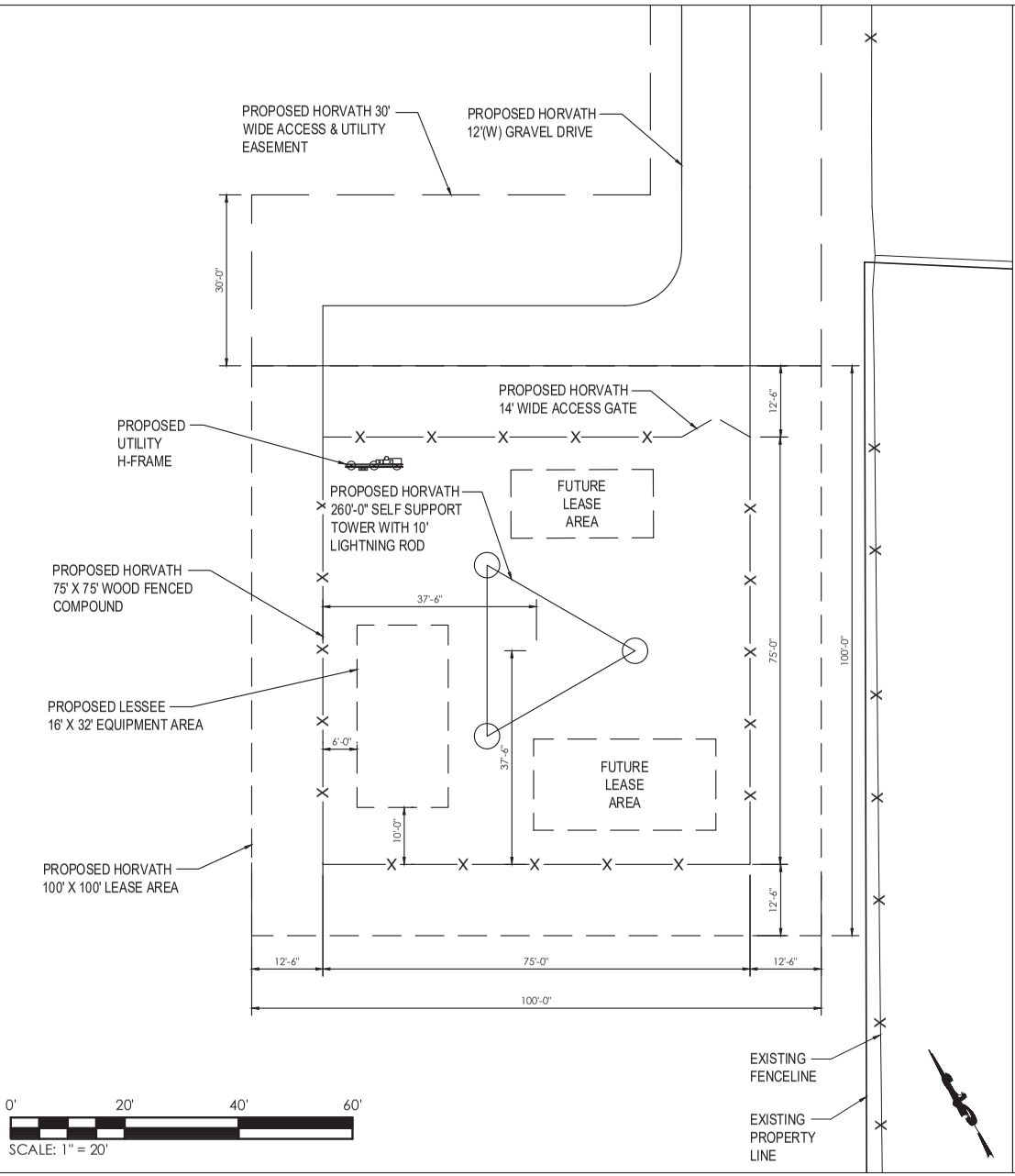
SHEET TITLE :	LEASE EXHIBIT

DRAWING # :	REVISION :
LE2	B



TOWER ELEVATION
NTS



TeleCAD Wireless
1961 NORTHPOINT BLVD.
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HIXSON, TN 37343
PH : 423-843-9500
FAX : 423-843-9509

HORVATH COMMUNICATIONS

DRAWN BY	MJB
CHECKED BY	DLS

REVISIONS

#	DATE	BY	DESCRIPTION
B	09/18/23	MJB	LEASE EXHIBIT
A	09/11/23	MJB	LEASE EXHIBIT

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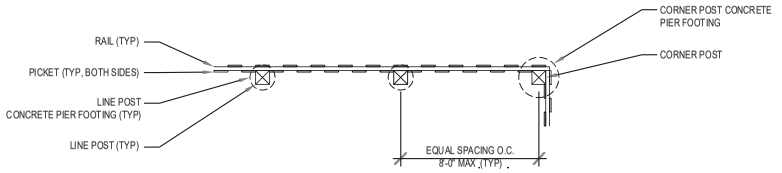
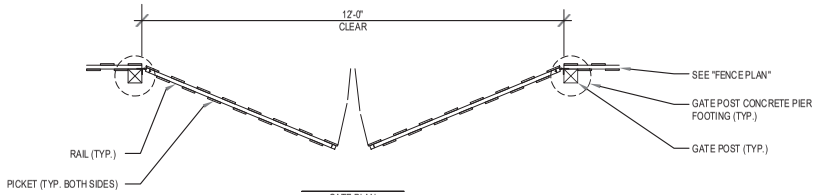
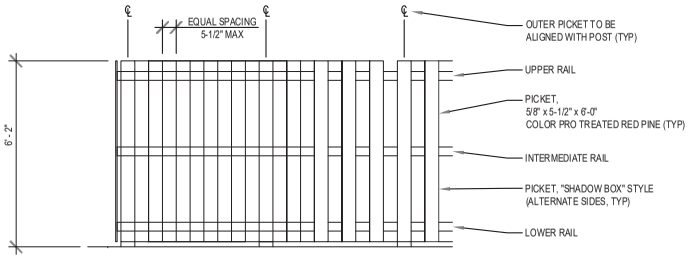
SHEET TITLE :	LEASE EXHIBIT
DRAWING # :	LE3
REVISION :	B



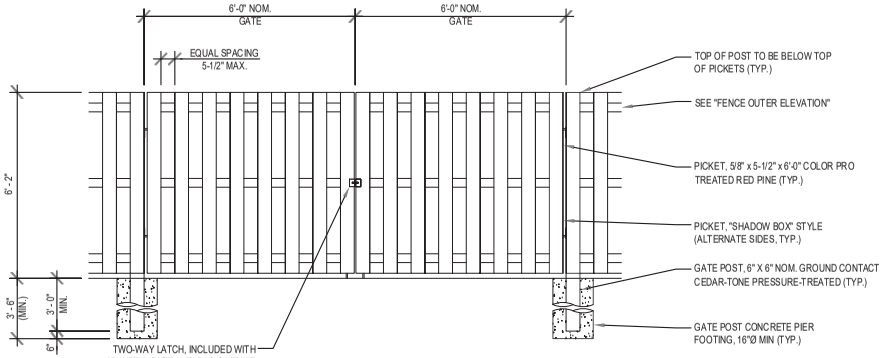
FENCE PLAN



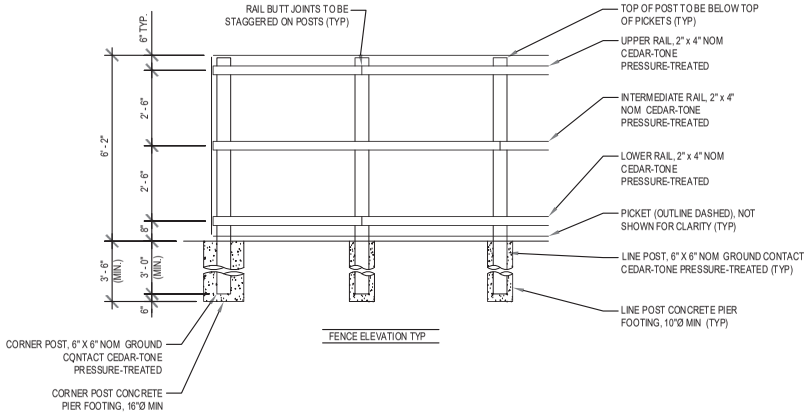
GATE PLAN



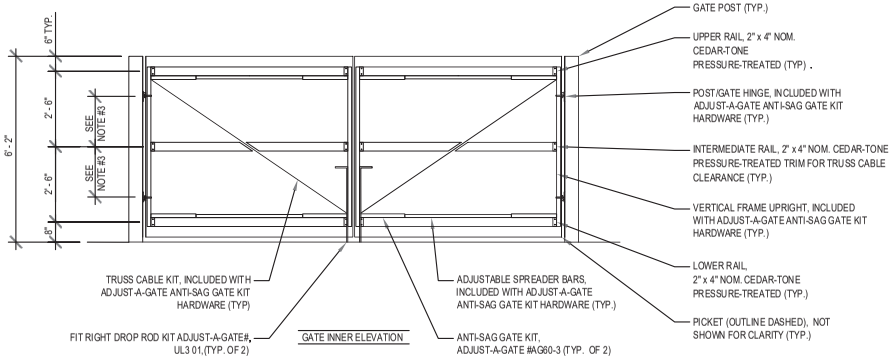
FENCE OUTER ELEVATION



GATE OUTER ELEVATION



FENCE ELEVATION TYP



GATE INNER ELEVATION

TeleCAD Wireless
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SUITE 130
HIXSON, TN 37343
PH : 423-843-9500
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HORVATH COMMUNICATIONS

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CHECKED BY	DLS

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SITE TYPE :
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83° 46' 10.46" W (NAD83)

SHEET TITLE :
LEASE EXHIBIT

DRAWING # :	REVISION :
LE4	B

Critical Habitat for Threatened & Endangered Species [USFWS]

Final Polygon Features

Final Linear Features

Proposed Polygon Features

Proposed Linear Features

A specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection.

PHOTOGRAPHS

1. View facing southwest towards the Project Site.

2. View facing northwest towards the Project Site.

3. View facing northeast towards the Project Site.

4. View facing southeast towards the Project Site.

5. View facing northeast from the Project Site along the proposed access/utility easement.

6. View facing southwest towards the Project Site along the proposed access/utility easement.

7. View facing east from the access gate towards the existing utility pole along the proposed access/utility easement.

SUPPORTING DOCUMENTATION

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Kentucky Ecological Services Field Office
J C Watts Federal Building, Room 265
330 West Broadway
Frankfort, KY 40601-8670
Phone: (502) 695-0467 Fax: (502) 695-1024
Email Address: kentuckyes@fws.gov

In Reply Refer To: 08/23/2024 17:01:59 UTC
Project Code: 2024-0134613
Project Name: 6123007108 Biological Assessment

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the

human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do..

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of

this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Kentucky Ecological Services Field Office
J C Watts Federal Building, Room 265
330 West Broadway
Frankfort, KY 40601-8670
(502) 695-0467

PROJECT SUMMARY

Project Code: 2024-0134613
Project Name: 6123007108 Biological Assessment
Project Type: Communication Tower New Construction
Project Description: Construction of a new 260 foo self-support communications tower and associated support equipment within a 75 foot by 75 foot fenced-in compound and a 12 foot wide gravel access drive.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@38.343103549999995,-83.76902748373163,14z

Counties: Fleming County, Kentucky

ENDANGERED SPECIES ACT SPECIES

There is a total of 9 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 5 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME STATUS

Gray Bat *Myotis grisescens* Endangered

No critical habitat has been designated for this species.
This species only needs to be considered under the following conditions:

- The project area includes potential gray bat habitat.

Species profile: https://ecos.fws.gov/ecp/species/6329
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/BJDDC2WZKVBFHLFQ2NXRZ3ROFA/documents/generated/6422.pdf

Indiana Bat *Myotis sodalis* Endangered

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
This species only needs to be considered under the following conditions:

- The project area includes 'potential' habitat. All activities in this location should consider possible effects to this species.

Species profile: https://ecos.fws.gov/ecp/species/5949
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/BJDDC2WZKVBFHLFQ2NXRZ3ROFA/documents/generated/6422.pdf

CLAMS

NAME STATUS

Clubshell *Pleurobema clava* Endangered

Population: Wherever found; Except where listed as Experimental Populations
No critical habitat has been designated for this species.
This species only needs to be considered under the following conditions:

- The species may be affected by projects that significantly impact the Licking River and/or its tributary, the South Fork Licking River.

Species profile: https://ecos.fws.gov/ecp/species/3789
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/BJDDC2WZKVBFHLFQ2NXRZ3ROFA/documents/generated/5639.pdf

Fanshell *Cyprogenia stegaria* Endangered

No critical habitat has been designated for this species.
This species only needs to be considered under the following conditions:

- The species may be affected by projects that significantly impact the Licking River and/or its tributary, the South Fork Licking River.

Species profile: https://ecos.fws.gov/ecp/species/4822
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/BJDDC2WZKVBFHLFQ2NXRZ3ROFA/documents/generated/5639.pdf

Northern Riffleshell *Epioblasma rangiana* Endangered

No critical habitat has been designated for this species.
This species only needs to be considered under the following conditions:

- The species may be affected by projects that significantly impact, directly or indirectly, the following rivers: Green, Licking, or Ohio.

NAME	STATUS
Species profile: https://ecos.fws.gov/ecp/species/527 General project design guidelines: https://ipac.ecosphere.fws.gov/project/BJDDC2WZKVBFHLFQ2NXRZ3ROFA/documents/generated/5639.pdf	
Pink Mucket (pearlymussel) *Lampsilis abrupta* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7829 General project design guidelines: https://ipac.ecosphere.fws.gov/project/BJDDC2WZKVBFHLFQ2NXRZ3ROFA/documents/generated/5639.pdf	Endangered
Salamander Mussel *Simpsonaias ambigua* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6208	Proposed Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Short's Goldenrod *Solidago shortii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5367	Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: EBI
Name: William Gowacki
Address: 21 B Street
City: Burlington
State: MA
Zip: 01803
Email wgowacki@ebiconsulting.com
Phone: 7272159470

Species Information

State Threatened, Endangered, and Special Concern Species observations for selected quads

Linked life history provided courtesy of NatureServe Explorer .
Records may include both recent and historical observations.
US Status Definitions Kentucky Status Definitions

List State Threatened, Endangered, and Special Concern Species observations in 1 selected quad.
Selected quad is: Sherburne.

Scientific Name and Life History	Common Name and Pictures	Class	Quad	US Status	KY Status	WAP	Reference
Botaurus lentiginosus	American Bittern	Aves	Sherburne	N	H	Yes	Reference
Ligumia recta	Black Sandshell	Bivalvia	Sherburne	N	S	Yes	Reference
Spatula discors	Blue-winged Teal	Aves	Sherburne	N	T		Reference
Cryptobranchus alleganiensis alleganiensis	Eastern Hellbender	Amphibia	Sherburne	N	S	Yes	Reference
Elliptio crassidens	Elephantear	Bivalvia	Sherburne	N	S	Yes	Reference
Alasmidonta marginata	Elktoe	Bivalvia	Sherburne	N	T	Yes	Reference
Cyprogenia stegaria	Fanshell	Bivalvia	Sherburne	E	E	Yes	Reference
Lanius ludovicianus	Loggerhead Shrike	Aves	Sherburne	N	S	Yes	Reference
Fusconaia subrotunda	Longsolid	Bivalvia	Sherburne	T	T	Yes	Reference
Noturus stigmosus	Northern Madtom	Actinopterygii	Sherburne	N	S	Yes	Reference
Epioblasma rangiana	Northern Riffleshell	Bivalvia	Sherburne	E	E	Yes	Reference
Pandion haliaetus	Osprey	Aves	Sherburne	N	S	Yes	Reference
Pleurobema rubrum	Pyramid Pigtoe	Bivalvia	Sherburne	PT	E	Yes	Reference
Obovaria subrotunda	Round Hickorynut	Bivalvia	Sherburne	T	T	Yes	Reference

Accipiter striatus	Sharp-shinned Hawk	Aves	Sherburne	N	S	Yes	Reference
Plethobasus cyphyus	Sheepnose	Bivalvia	Sherburne	E	E	Yes	Reference
Alasmidonta viridis	Slippershell Mussel	Bivalvia	Sherburne	N	S	Yes	Reference
Epioblasma triquetra	Snuffbox	Bivalvia	Sherburne	E	E	Yes	Reference
Actitis macularius	Spotted Sandpiper	Aves	Sherburne	N	E	Yes	Reference

19 species are listed.

QUALIFICATIONS

21 B Street
Burlington, MA 01803

BILL GOWACKI

Biologist I

Experience:	Employed at EBI since 2024, in the industry since 2019
Education:	M.S., Biology: Ecology & Evolution, University of South Florida B.S., Biology: Marine Biology, University of South Florida

Bill Gowacki has over four years of experience in the environmental consulting field. His background includes Environmental Impact Assessments, biological and natural resource assessments, and government agency coordination at local, state, and federal levels. At EBI, Bill serves as a Biologist I within the Telecom Environmental Practice. His primary responsibilities include conducting Biological and Natural Resource Assessments for broadband and FCC National Environmental Policy Act (NEPA) Compliance Reviews

RELEVANT PROJECT EXPERIENCE:

Broadband and FCC National Environmental Policy Act (NEPA) Compliance Reviews

Bill conducts Biological and Natural Assessments for broadband and FCC NEPA Compliance Reviews. These reviews include an analysis of wetlands, endangered species and habitats, floodplain management, and other areas of environmental concern for proposed broadband and telecommunications installations.

Environmental Site Reviews

Bill has conducted field reviews and assessments of infrastructure and development projects throughout the state of Florida. These responsibilities included generalized and specialized field surveys concerning land use identification, wetland delineation and quality assessments, and protected species surveys. These field surveys were performed in accordance with guidelines established by the Florida Department of Transportation (FDOT), the Florida Department of Environmental Protection (FDEP), the Florida Fish and Wildlife Conservation Commission (FFWC), the US Army Corps of Engineers (USACE), and other local and municipal agencies.

Environmental Resources Evaluation and Permitting

Bill has contributed to Environmental Impact Assessments and permitting efforts for projects ranging in scope from culvert replacements to 26-mile highway widening projects. His primary functions in these efforts included assessing potential presence of and impacts to protected species within proposed project areas, wetlands and other surface waters impacts and mitigation, and agency permit applications. Bill was directly responsible in the collection, analysis, and presentation of such data in order to progress critical project pathways from development to permitting to implementation.

BUILDING VALUE SUSTAINABLY

21 B Street
Burlington, MA 01803

PATRICIA REES

Biologist III

Experience:	Employed at EBI since 2022, in the industry since 2017
Education:	MS Biology, University of West Florida
	BS Environmental Science: Biology emphasis, Northern Arizona University
Professional Credentials:	38-hour Army Corps of Engineers Wetland Delineation Training Program
	Burrowing Owl Surveyor, Arizona Burrowing Owl Working Group
	Cultural Sensitivity Certified, Salt River Pima-Maricopa Indian Community

Patricia has extensive experience performing natural resource reviews, species surveys, habitat assessments, and avian nest surveys across the country. Notable species that Patricia has experience with are western burrowing owls, kit fox, and Kuenzler's hedgehog cactus. Monitoring experience includes work with California red-legged frog and San Francisco garter snake. Additional experience includes training in wetland delineations and Waters of the United States (WOTUS) determinations.

Other NEPA review experience includes analysis of historical properties, floodplain management, and other areas of environmental concern for buildings, recreational areas, transportation projects, and proposed telecommunications installations.

RELEVANT PROJECT EXPERIENCE:

Trileaf, Chandler, Arizona

Patricia conducted and completed various natural resource surveys, biological assessments, specialized species surveys, and avian nesting surveys throughout the United States.

EBI Consulting, Remote Office, Arizona

Patricia continues to build off of her previous NEPA and biological experience by performing avian nest surveys, natural resource assessments, and biological assessments across the country. She also oversees avian nest removal and wetlands permitting.

Arizona Game and Fish Department, Various locations throughout Arizona

Patricia volunteers with AZGFD doing surveys for invasive apple snails and native tallussnails.

Species Information

State Threatened, Endangered, and Special Concern Species observations for selected quads

Linked life history provided courtesy of NatureServe Explorer .
Records may include both recent and historical observations.
US Status Definitions Kentucky Status Definitions

List State Threatened, Endangered, and Special Concern Species observations in 1 selected quad.
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Pandion haliaetus	Osprey	Aves	Sherburne	N	S	Yes	Reference
Pleurobema rubrum	Pyramid Pigtoe	Bivalvia	Sherburne	PT	E	Yes	Reference
Obovaria subrotunda	Round Hickorynut	Bivalvia	Sherburne	T	T	Yes	Reference

Accipiter striatus	Sharp-shinned Hawk	Aves	Sherburne	N	S	Yes	Reference
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Alasmidonta viridis	Slippershell Mussel	Bivalvia	Sherburne	N	S	Yes	Reference
Epioblasma triquetra	Snuffbox	Bivalvia	Sherburne	E	E	Yes	Reference
Actitis macularius	Spotted Sandpiper	Aves	Sherburne	N	E	Yes	Reference

19 species are listed.

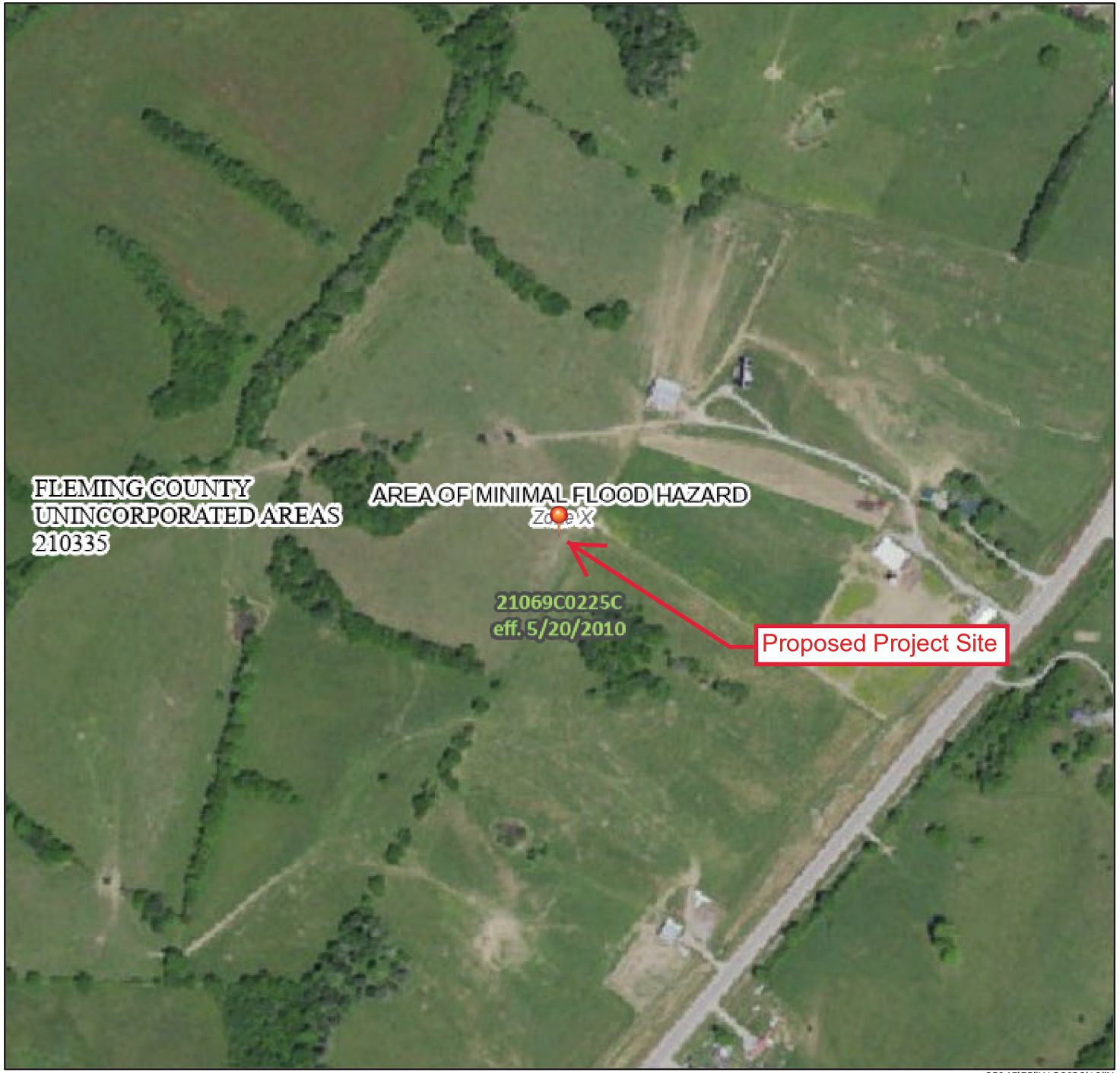
Appendix D

Supporting Documentation

National Flood Hazard Layer FIRMette

FEMA

83°46'29"W 38°20'47"N



83°45'52"W 38°20'19"N

Feet

0 250 500 1,000 1,500 2,000

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/12/2024 at 1:52 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

U.S. Fish and Wildlife Service

National Wetlands Inventory

6123007108 NWI Map

September 12, 2024

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Fleming County, Kentucky

August 23, 2024

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:1,130 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 15 30 60 90

Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Fleming County, Kentucky
Survey Area Data: Version 21, Sep 10, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 1, 2021—Jun 17, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CyC2	Cynthiana-Faywood complex, 6 to 12 percent slopes, eroded	0.6	85.1%
CyE2	Cynthiana-Faywood complex, very rocky, 12 to 35 percent slopes, eroded	0.1	14.9%
Totals for Area of Interest		**0.7**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the

development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Fleming County, Kentucky

CyC2—Cynthiana-Faywood complex, 6 to 12 percent slopes, eroded

Map Unit Setting

National map unit symbol: lk45
Elevation: 600 to 1,430 feet
Mean annual precipitation: 36 to 48 inches
Mean annual air temperature: 43 to 65 degrees F
Frost-free period: 147 to 188 days
Farmland classification: Not prime farmland

Map Unit Composition

Cynthiana and similar soils: 65 percent
Faywood and similar soils: 25 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cynthiana

Setting

Landform: Ridges
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Clayey residuum weathered from limestone

Typical profile

H1 - 0 to 2 inches: silty clay loam
H2 - 2 to 18 inches: flaggy silty clay
R - 18 to 28 inches: unweathered bedrock

Properties and qualities

Slope: 6 to 12 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: D
Ecological site: F121XY001KY - Shallow Limestone Residuum Backslopes
Hydric soil rating: No

Description of Faywood

Setting

Landform: Ridges
Landform position (three-dimensional): Crest

Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Clayey residuum weathered from limestone

Typical profile
H1 - 0 to 5 inches: silt loam
H2 - 5 to 34 inches: clay
R - 34 to 44 inches: unweathered bedrock

Properties and qualities
Slope: 6 to 12 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.3 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: F121XY002KY - Moderately Deep Interbedded Limestone-Shale Backslopes
Hydric soil rating: No

Minor Components

Other soils
Percent of map unit: 4 percent
Hydric soil rating: No

Beasley
Percent of map unit: 3 percent
Hydric soil rating: No

Lowell
Percent of map unit: 3 percent
Hydric soil rating: No

CyE2—Cynthiana-Faywood complex, very rocky, 12 to 35 percent slopes, eroded

Map Unit Setting
National map unit symbol: lk46
Elevation: 600 to 1,430 feet
Mean annual precipitation: 36 to 48 inches

Mean annual air temperature: 43 to 65 degrees F
Frost-free period: 147 to 188 days
Farmland classification: Not prime farmland

Map Unit Composition

Cynthiana and similar soils: 60 percent
Faywood and similar soils: 30 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cynthiana

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Clayey residuum weathered from limestone

Typical profile

H1 - 0 to 2 inches: silty clay loam
H2 - 2 to 18 inches: flaggy silty clay
R - 18 to 28 inches: unweathered bedrock

Properties and qualities

Slope: 12 to 35 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: F121XY001KY - Shallow Limestone Residuum Backslopes
Hydric soil rating: No

Description of Faywood

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Clayey residuum weathered from limestone

Typical profile

H1 - 0 to 5 inches: silt loam
H2 - 5 to 34 inches: clay

R - 34 to 44 inches: unweathered bedrock

Properties and qualities

Slope: 12 to 35 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: F121XY002KY - Moderately Deep Interbedded Limestone-Shale Backslopes
Hydric soil rating: No

Minor Components

Fairmount

Percent of map unit: 2 percent
Hydric soil rating: No

Beasley

Percent of map unit: 2 percent
Hydric soil rating: No

Other soils

Percent of map unit: 2 percent
Hydric soil rating: No

Woolper

Percent of map unit: 2 percent
Hydric soil rating: No

Shrouts

Percent of map unit: 2 percent
Hydric soil rating: No

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Appendix E

Resumes

21 B Street
Burlington, MA 01803

BILL GOWACKI

Biologist I

Experience:	Employed at EBI since 2024, in the industry since 2019
Education:	M.S., Biology: Ecology & Evolution, University of South Florida B.S., Biology: Marine Biology, University of South Florida

Bill Gowacki has over four years of experience in the environmental consulting field. His background includes Environmental Impact Assessments, biological and natural resource assessments, and government agency coordination at local, state, and federal levels. At EBI, Bill serves as a Biologist I within the Telecom Environmental Practice. His primary responsibilities include conducting Biological and Natural Resource Assessments for broadband and FCC National Environmental Policy Act (NEPA) Compliance Reviews

RELEVANT PROJECT EXPERIENCE:

Broadband and FCC National Environmental Policy Act (NEPA) Compliance Reviews

Bill conducts Biological and Natural Assessments for broadband and FCC NEPA Compliance Reviews. These reviews include an analysis of wetlands, endangered species and habitats, floodplain management, and other areas of environmental concern for proposed broadband and telecommunications installations.

Environmental Site Reviews

Bill has conducted field reviews and assessments of infrastructure and development projects throughout the state of Florida. These responsibilities included generalized and specialized field surveys concerning land use identification, wetland delineation and quality assessments, and protected species surveys. These field surveys were performed in accordance with guidelines established by the Florida Department of Transportation (FDOT), the Florida Department of Environmental Protection (FDEP), the Florida Fish and Wildlife Conservation Commission (FFWC), the US Army Corps of Engineers (USACE), and other local and municipal agencies.

Environmental Resources Evaluation and Permitting

Bill has contributed to Environmental Impact Assessments and permitting efforts for projects ranging in scope from culvert replacements to 26-mile highway widening projects. His primary functions in these efforts included assessing potential presence of and impacts to protected species within proposed project areas, wetlands and other surface waters impacts and mitigation, and agency permit applications. Bill was directly responsible in the collection, analysis, and presentation of such data in order to progress critical project pathways from development to permitting to implementation.

BUILDING VALUE SUSTAINABLY

21 B Street
Burlington, MA 01803

AIDAN STONE

Scientist I

Experience:	Employed at EBI since 2022, in the industry since 2018
Education:	MS Environmental Science, Drexel University, Philadelphia, PA
	BS Biology, Ecology, Evolution and Conservation, University of Washington, Seattle, WA
Professional Credentials:	OSHA 40-Hour Hazardous Waste Operator
	State of Washington Certified Asbestos Inspector

Aidan Stone, scientist I, has extensive experience in the biological and environmental sciences, specializing in habitat data collection, invasive species monitoring, and regulating Department of Defense (DOD) Formerly Used Defense Site (FUDS) Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) clean-up activities. At EBI Consulting, he serves as a Scientist I within the west telecom environmental practice. His primary responsibilities in this role include conducting Phase I ESAs and FCC NEPA Compliance Reviews.

RELEVANT PROJECT EXPERIENCE:

Phase I Environmental Site Assessments and NEPA Review, Various Projects, Nationwide

Aidan prepares Phase I ESA reports and NEPA reviews for a wide range of properties and clients. Phase I ESA reports focus on evaluating site conditions, potential off-site liabilities, and environmental control systems in order to advise prospective buyers, operators, and owners of potential and existing environmental concerns. NEPA reviews include an analysis of historical properties, wetlands, endangered species and habitats, floodplain management, and other areas of environmental concern for buildings, recreational areas, transportation projects, and proposed telecommunications installations. In addition to environmental assessments, he has reviewed and approved most steps in the CERCLA process from site investigations to long-term management plans. He has also conducted field surveys and data collection for avian nests, habitat monitoring, biological studies, and emergency response activities to chemical contamination.

Bill Gowacki

From: Bill Gowacki
Sent: Wednesday, October 2, 2024 8:33 AM
To: Lawson, Emily M (FW)
Cc: Natural Resources
Subject: Request for Review - 6123007108 Natural Resources Review
Attachments: 6123007108 Flemingsburg Kentucky NR Review with KDFWR Letter.pdf

Good morning Ms. Lawson,

We would like to request a KDFWR review of the attached Natural Resources Review for the above-mentioned communications project. Please let me know if you require any additional information to complete your review.

We appreciate your assistance,

EBI
BUILDING VALUE SUSTAINABLY

Bill Gowacki
Biologist I
Telecom Environmental

Email: wgowacki@ebiconsulting.com
Mobile: 727-215-9470

21 B Street | Burlington, MA | 01803
www.ebiconsulting.com

Bill Gowacki

From: Bill Gowacki
Sent: Wednesday, October 2, 2024 8:31 AM
To: KentuckyES, FW4
Cc: Natural Resources
Subject: Request for Review - 6123007108 Natural Resources Review
Attachments: 6123007108 Flemingsburg Kentucky NR Review with USFWS Letter.pdf

Good morning,

We would like to request a USFWS review of the attached Natural Resources Review for the above-mentioned communications project. Please let me know if you require any additional information to complete your review.

We appreciate your assistance,

EBI
BUILDING VALUE SUSTAINABLY

Bill Gowacki
Biologist I
Telecom Environmental

Email: wgowacki@ebiconsulting.com
Mobile: 727-215-9470

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1 Fairholm Avenue
Peoria, IL 61603 USA
Phone: (309)-566-3000
Fax: (309)-566-3079

DATE: FEBRUARY 24, 2025

PURCHASER: HORVATH TOWERS VI, LLC

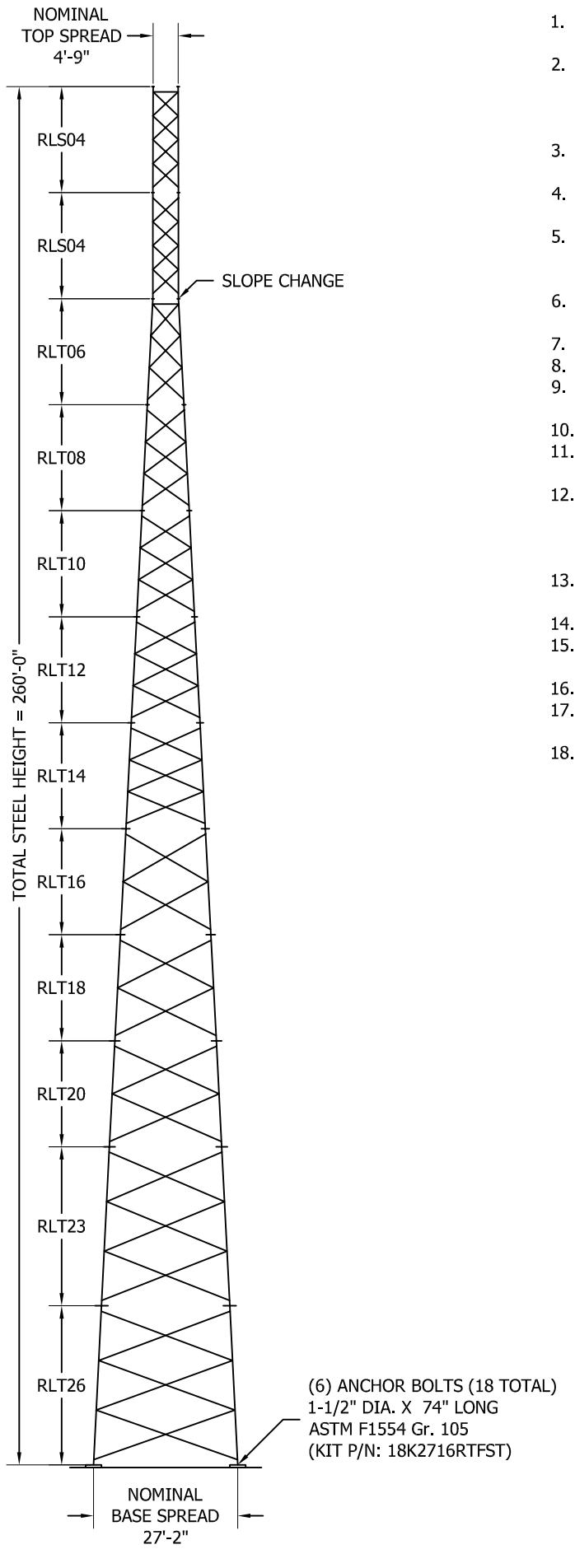
PROJECT: 260FT RTL SELF SUPPORT TOWER
HV1611 TILTON, KY

FILE NUMBER: 247704

I CERTIFY THAT THE ATTACHED DRAWINGS WERE PREPARED UNDER MY SUPERVISION IN ACCORDANCE WITH THE DESIGN AND LOADING CRITERIA SPECIFIED BY THE PURCHASER AND THAT I AM A REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF KENTUCKY.

02/24/2025

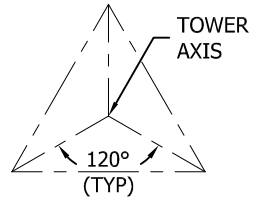
STATE OF KENTUCKY
ALLEN
SCHNEIDER
37506
LICENSED
PROFESSIONAL ENGINEER



GENERAL NOTES

1. ROHN PRODUCTS, LLC TOWER DESIGNS CONFORM TO ANSI/TIA-222-H UNLESS OTHERWISE SPECIFIED UNDER TOWER DESIGN LOADING.
2. THE DESIGN LOADING CRITERIA INDICATED HAS BEEN PROVIDED TO ROHN. THE DESIGN LOADING CRITERIA HAS BEEN ASSUMED TO BE BASED ON SITE-SPECIFIC DATA IN ACCORDANCE WITH ANSI/TIA-222-H AND MUST BE VERIFIED BY OTHERS PRIOR TO INSTALLATION.
3. ANTENNAS AND LINES LISTED IN TOWER DESIGN LOADING TABLE ARE PROVIDED BY OTHERS UNLESS OTHERWISE SPECIFIED.
4. STEP BOLTS WITH SAFETY CLIMB SYSTEM ARE PROVIDED AS A CLIMBING FACILITY FOR THE INSTALLATION OF THE STRUCTURE.
5. TOWER MEMBER DESIGN DOES NOT INCLUDE STRESSES DUE TO ERECTION SINCE ERECTION EQUIPMENT AND CONDITIONS ARE UNKNOWN. DESIGN ASSUMES COMPETENT AND QUALIFIED PERSONNEL WILL ERECT THE TOWER.
6. WORK SHALL BE IN ACCORDANCE WITH ANSI/TIA-222-H, "STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES".
7. THE MINIMUM YIELD STRENGTH OF STRUCTURAL STEEL MEMBERS SHALL BE 50 KSI.
8. FIELD CONNECTIONS SHALL BE BOLTED. NO FIELD WELDS SHALL BE ALLOWED.
9. STRUCTURAL BOLTS SHALL CONFORM TO GRADE A325 PER ASTM F3125, EXCEPT WHERE NOTED.
10. A NUT LOCKING DEVICE IS PROVIDED FOR ALL TOWER BOLTS.
11. STRUCTURAL STEEL AND CONNECTION BOLTS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION, IN ACCORDANCE WITH ANSI/TIA-222-H.
12. ALL HIGH STRENGTH BOLTS, UNLESS OTHERWISE NOTED FOR DOUBLE ANGLE MEMBERS, ARE TO BE TIGHTENED TO A "SNUG TIGHT" CONDITION AS DEFINED IN THE RCSC "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS". NO OTHER MINIMUM BOLT TENSION OR TORQUE VALUES ARE REQUIRED.
13. PURCHASER SHALL VERIFY THE INSTALLATION IS IN CONFORMANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS FOR OBSTRUCTION MARKING AND LIGHTING.
14. TOLERANCE ON TOWER STEEL HEIGHT IS EQUAL TO PLUS 1% OR MINUS 1/2%.
15. DESIGN ASSUMES THAT, AS A MINIMUM, MAINTENANCE AND INSPECTION WILL BE PERFORMED OVER THE LIFE OF THE STRUCTURE IN ACCORDANCE WITH ANSI/TIA-222-H.
16. DESIGN ASSUMES LEVEL GRADE AT TOWER SITE.
17. DESIGN ASSUMES ALL ANTENNAS ARE MOUNTED SYMMETRICALLY TO MINIMIZE TORQUE, IF APPLICABLE.
18. FOUNDATIONS SHALL BE DESIGNED TO SUPPORT THE REACTIONS SHOWN FOR THE CONDITIONS EXISTING AT THE SITE.

MAXIMUM FACTORED REACTIONS			
COMPRESSION PER LEG	=	406.3	KIPS
TENSION PER LEG	=	348.5	KIPS
SHEAR PER LEG	=	35.9	KIPS
TOTAL SHEAR	=	58.5	KIPS
TOTAL O.T.M	=	8,984.6	FT-KIPS



TOWER CONFIGURATION
N.T.S.

TOWER DESIGN LOADING

DESIGN WIND LOAD PER ANSI/TIA-222-H USING THE FOLLOWING DESIGN CRITERIA:
RISK CATEGORY: II
BASIC WIND SPEED (NO ICE): 106 MPH PER ASCE 7-16
BASIC WIND SPEED (W/ICE): 30 MPH PER ASCE 7-16
DESIGN ICE THICKNESS: 1.50 INCHES PER ASCE 7-16
GROUND ELEVATION, Z_S: 934 FT
EXPOSURE CATEGORY: C
TOPOGRAPHIC METHOD: 1 , CATEGORY: 1
SEISMIC DESIGN PARAMETERS , S_S: 0.188, S_1: 0.080, T_L: 12, SITE CLASS: D

THIS STRUCTURE HAS BEEN DESIGNED TO SUPPORT THE FOLLOWING LOADS:

ELEVATION (FT)	ANTENNA LOADING	LINE SIZE (NOM)
TOP	BEACON & LIGHTNING ROD	(1) 0-3/4" CONDUIT
255	208 SQFT MAX EPA	(12) 1-5/8"
245	130 SQFT MAX EPA	(12) 1-5/8"
235	130 SQFT MAX EPA	(12) 1-5/8"

SECTION MAIN MEMBER SCHEDULE

SECTION	LEGS	DIAGONALS	HORIZONTALS
RLS04	PIPE 2.875x0.203	L1 3/4x1 3/4x1/8 (4)	L1 3/4x1 3/4x3/16 (1)
RLS04	PIPE 3.500x0.300	L1 3/4x1 3/4x3/16 (4)	N/A
RLT06	PIPE 4.500x0.337	L1 3/4x1 3/4x1/8 (3)	L1 3/4x1 3/4x3/16 (1)
RLT08	PIPE 5.563x0.375	L1 3/4x1 3/4x3/16 (3)	N/A
RLT10	PIPE 5.563x0.375	L2x2x1/8 (3)	N/A
RLT12	PIPE 5.563x0.375	L2 1/2x2 1/2x3/16 (3)	N/A
RLT14	PIPE 6.625x0.340	L2 1/2x2 1/2x3/16 (3)	N/A
RLT16	PIPE 6.625x0.432	L3x3x3/16 (2)	N/A
RLT18	PIPE 6.625x0.432	L3x3x3/16 (2)	N/A
RLT20	PIPE 8.625x0.375	L3x3x3/16 (2)	N/A
RLT23	PIPE 8.625x0.375	L3 1/2x3 1/2x1/4 (3)	N/A
RLT26	PIPE 8.625x0.500	L4x4x1/4 (3)	N/A

NOTE:
SECTION NUMBERS ARE FOR REFERENCE ONLY.
FOR NOMINAL FACE WIDTH DIMENSIONS, REFER TO THE STRESS ANALYSIS.
THE NUMBERS SHOWN IN PARENTHESES INDICATE THE NUMBER OF BAYS FROM TOP TO BOTTOM.

FILE NO.
247704

REVISIONS

REV.	DESCRIPTION	DWN	CHK	APP
1	REVISED CUSTOMER NAME DATE: 02/24/2025	AS		AS

ROHN® PRODUCTS LLC
PO BOX 5999
PEORIA, IL 61601-5999
TOLL FREE 800-727-ROHN

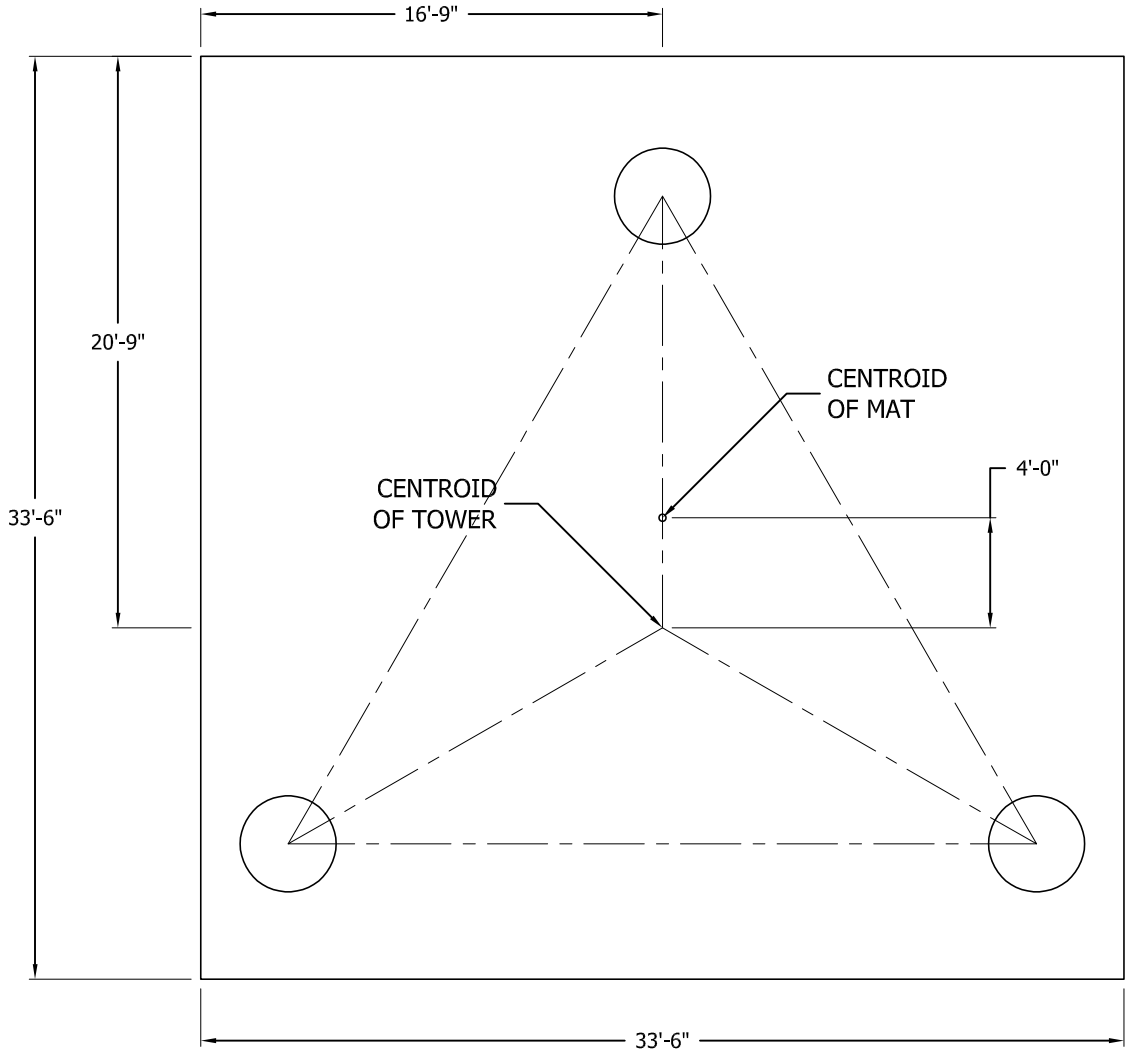
HORVATH TOWERS VI, LLC
DESIGN PROFILE
260 FT RTL TOWER
HV1611 TILTON, KY

DWN:	CHK'D:	DATE:
AS	SY	11/13/2024

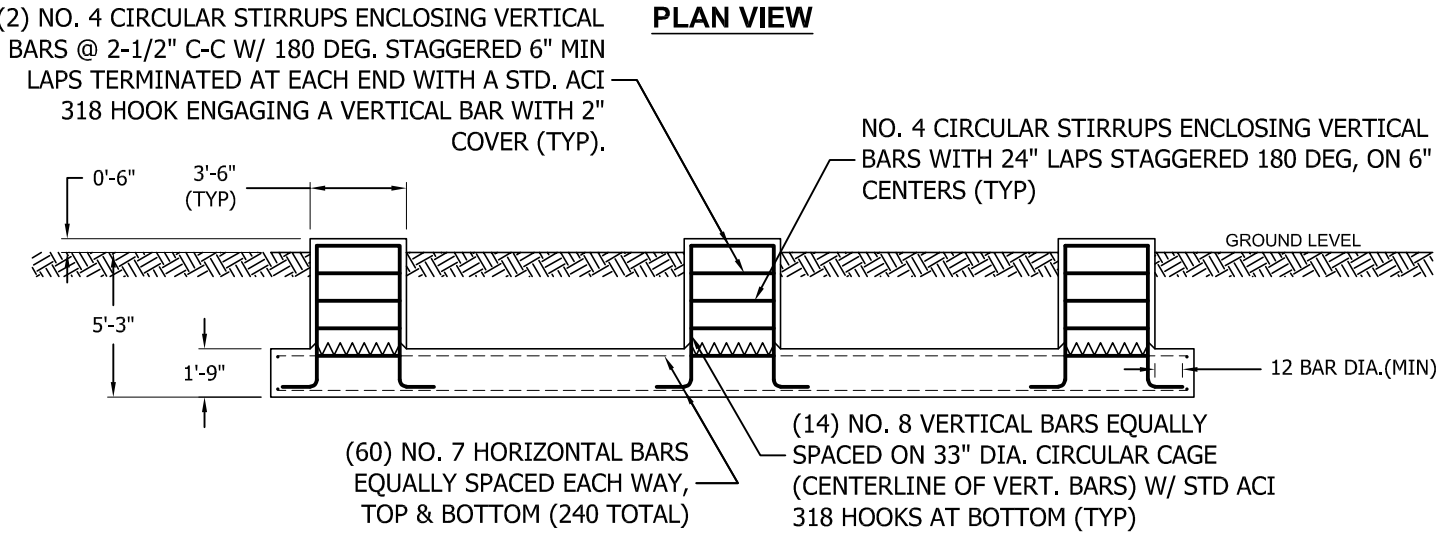
ENG'R:	SHEET #:
AS	1 OF 1

PRJ. ENG'R:	PRJ. MANG'R:
AS	

DRAWING NO:	REV:
247704-01-D1	1



PLAN VIEW



ELEVATION VIEW

FACTORED REACTIONS

Maximum O.T.M =	8,984.6 FT-K
Total Tower Wt =	60.9 KIPS
Total Shear =	58.5 KIPS
Max. Shear/Leg =	35.9 KIPS
Max. Ten./Leg =	348.5 KIPS
Max. Comp./Leg =	406.3 KIPS

CONCRETE VOLUME

ROUND PIERS	4.3	CU.YDS
PAD	72.7	CU.YDS
TOTAL	77.0	CU.YDS

GENERAL NOTES

1 FOUNDATION DESIGN HAS BEEN DEVELOPED IN ACCORDANCE WITH GENERALLY ACCEPTED PROFESSIONAL ENGINEERING PRINCIPLES AND PRACTICES WITHIN THE LIMITS OF THE SUBSURFACE DATA PROVIDED. FOUNDATION DESIGN MODIFICATIONS MAY BE REQUIRED IN THE EVENT THE FOLLOWING DESIGN PARAMETERS ARE NOT APPLICABLE FOR THE SUBSURFACE CONDITIONS ENCOUNTERED.
   A) ULTIMATE SOIL BEARING PRESSURE AT 5.25 FT DEPTH = 12,190 PSF.
   B) GROUND WATER TABLE IS AT OR BELOW FOUNDATION DEPTH.
   C) MAXIMUM FROST PENETRATION DEPTH LESS THAN FOUNDATION DEPTH.

2 WORK SHALL BE IN ACCORDANCE WITH THE PROJECT CONSTRUCTION DOCUMENTS, LOCAL CODES, SAFETY REGULATIONS AND UNLESS OTHERWISE NOTED, THE LATEST REVISION OF ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE". PROCEDURES FOR THE PROTECTION OF EXCAVATIONS, EXISTING CONSTRUCTION AND UTILITIES SHALL BE ESTABLISHED PRIOR TO FOUNDATION INSTALLATION.

3 CONCRETE MATERIALS SHALL CONFORM TO THE APPROPRIATE STATE REQUIREMENTS FOR EXPOSED STRUCTURAL CONCRETE.

4 PROPORTIONS OF CONCRETE MATERIALS SHALL BE SUITABLE FOR THE INSTALLATION METHOD UTILIZED AND SHALL RESULT IN DURABLE CONCRETE FOR RESISTANCE TO LOCAL ANTICIPATED AGGRESSIVE ACTIONS. THE DURABILITY REQUIREMENTS OF ACI 318 SHALL BE SATISFIED BASED ON THE CONDITIONS EXPECTED AT THE SITE. AS A MINIMUM, CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI IN 28 DAYS.

5 MAXIMUM SIZE OF AGGREGATE SHALL NOT EXCEED SIZE SUITABLE FOR INSTALLATION METHOD UTILIZED OR 3/4 CLEAR DISTANCE BEHIND OR BETWEEN REINFORCING. WORKABILITY AND METHODS OF CONSOLIDATION SUCH AS VIBRATING SHALL BE UTILIZED TO PREVENT HONEYCOMBS OR VOIDS.

6 REINFORCEMENT SHALL BE DEFORMED AND CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60 UNLESS OTHERWISE NOTED. SPLICES IN REINFORCEMENT SHALL NOT BE ALLOWED UNLESS OTHERWISE INDICATED.

7 WELDING IS PROHIBITED ON REINFORCING STEEL AND EMBEDMENTS.

8 MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE 3 INCHES UNLESS OTHERWISE NOTED. APPROVED SPACERS SHALL BE USED TO INSURE A 3 INCH MINIMUM COVER ON REINFORCEMENT.

9 CONCRETE COVER FROM TOP OF FOUNDATION TO ENDS OF VERTICAL REINFORCEMENT SHALL NOT EXCEED 3 INCHES NOR BE LESS THAN 2 INCHES.

10 FOUNDATION DESIGN ASSUMES STRUCTURAL BACKFILL TO BE COMPACTED IN 8 INCH MAXIMUM LAYERS TO 95% OF MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D1557. ADDITIONALLY, STRUCTURAL BACKFILL MUST HAVE A MINIMUM COMPACTED UNIT WEIGHT OF 110 POUNDS PER CUBIC FOOT.

11 FOUNDATION DESIGN HAS BEEN BASED ON GEOTECHNICAL REPORT NO. **GEO24-23017-08** DATED **10/11/2024** BY **DELTA OAKS GROUP**.

12 FOUNDATION DEPTH INDICATED IS BASED ON THE GRADE LINE DESCRIBED IN THE REFERENCED GEOTECHNICAL REPORT. FOUNDATION MODIFICATION MAY BE REQUIRED IN THE EVENT CUT OR FILL OPERATIONS HAVE TAKEN PLACE SUBSEQUENT TO THE GEOTECHNICAL INVESTIGATION.

13 FOUNDATION DESIGN ASSUMES THE RECOMMENDATIONS IN THE REFERENCED GEOTECHNICAL REPORT CONCERNING VERIFICATION OF SUBSURFACE CONDITIONS ARE IMPLEMENTED PRIOR TO PLACEMENT OF CONCRETE.

14 FOUNDATION INSTALLATION SHALL BE SUPERVISED BY PERSONNEL KNOWLEDGEABLE AND EXPERIENCED WITH THE PROPOSED FOUNDATION TYPE. CONSTRUCTION SHALL BE IN ACCORDANCE WITH GENERALLY ACCEPTED INSTALLATION PRACTICES.

15 ALL CONSTRUCTION AND SAFETY EQUIPMENT AND TEMPORARY SUPPORTS REQUIRED FOR CONSTRUCTION SHALL BE DETERMINED, FURNISHED AND INSTALLED BY THE CONTRACTOR BASED ON THE MEANS AND METHODS CHOSEN BY THE CONTRACTOR. ALL CONSTRUCTION ACTIVITIES SHALL BE PERFORMED BY COMPETENT, QUALIFIED AND TRAINED PERSONNEL.

16 FOUNDATION DESIGN ASSUMES INSTALLATION PROCEDURES WILL INCORPORATE THE PROCEDURES RECOMMENDED IN THE REFERENCED GEOTECHNICAL REPORT.

17 FOUNDATION DESIGN ASSUMES FIELD INSPECTIONS WILL BE PERFORMED TO VERIFY THAT CONSTRUCTION MATERIALS, INSTALLATION METHODS AND ASSUMED DESIGN PARAMETERS ARE ACCEPTABLE BASED ON CONDITIONS EXISTING AT THE SITE.

18 FOR FOUNDATION AND ANCHOR TOLERANCES SEE ANCHOR ROD LAYOUT DRAWING.

19 LOOSE MATERIAL SHALL BE REMOVED FROM BOTTOM OF EXCAVATION PRIOR TO CONCRETE PLACEMENT. SIDES OF EXCAVATION SHALL BE ROUGH AND FREE OF LOOSE CUTTINGS.

20 CONCRETE SHALL BE PLACED IN A MANNER THAT WILL PREVENT SEGREGATION OF CONCRETE MATERIALS, INFILTRATION OF WATER OR SOIL AND OTHER OCCURRENCES WHICH MAY DECREASE THE STRENGTH OR DURABILITY OF THE FOUNDATION.

21 CONCRETE PREFERABLY SHALL BE PLACED AGAINST UNDISTURBED SOIL. WHEN FORMS ARE NECESSARY, THEY SHALL BE REMOVED PRIOR TO PLACING STRUCTURAL BACKFILL.

22 CONSTRUCTION JOINTS, IF REQUIRED AT THE BASE OF THE PIERS, SHALL BE INTENTIONALLY ROUGHENED TO A FULL AMPLITUDE OF 1/4 INCH. FOUNDATION DESIGN ASSUMES NO OTHER CONSTRUCTION JOINTS.

23 TOP OF FOUNDATION SHALL BE SLOPED TO DRAIN WITH A FLOATED FINISH.

24 EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4" X 3/4" MINIMUM.

FILE NO.
247704

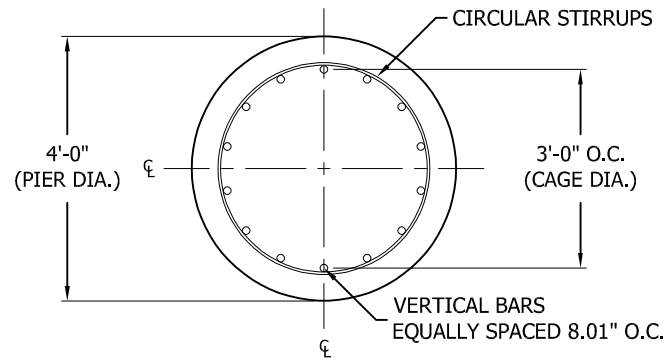
REVISIONS

REV.	DESCRIPTION	DWN	CHK	APP
1	REVISED CUSTOMER NAME DATE: 02/24/2025	AS		AS

ROHN® PRODUCTS LLC
PO BOX 5999
PEORIA, IL 61601-5999
TOLL FREE 800-727-ROHN

HORVATH TOWERS VI, LLC
MAT W/RAISED PIERS
FOUNDATION DESIGN
HV1611 TILTON, KY

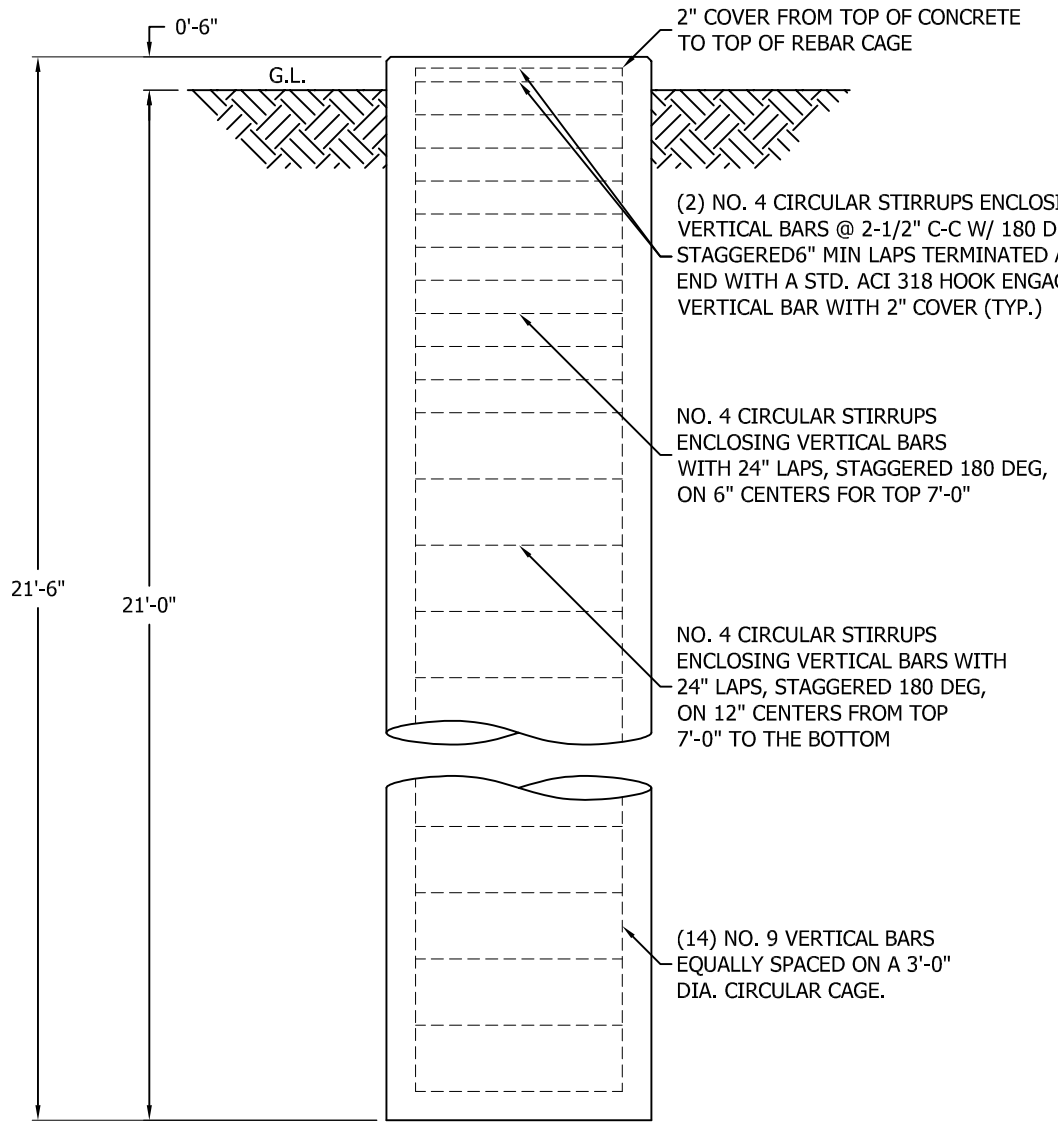
DWN:	CHK'D:	DATE:
AS	SY	11/13/2024
ENG'R: AS	SHEET #: 1 OF 1	
PRJ. ENG'R: AS	PRJ. MANG'R:	
DRAWING NO: 247704-01-F1		REV: 1



NOTE:
CAGE DIA. FROM CENTERLINE OF VERTICAL BARS.

PLAN VIEW

N.T.S.



ELEVATION VIEW

N.T.S.

FACTORED REACTIONS/LEG

DOWNLOAD =	406.3	KIPS
UPLIFT =	348.5	KIPS
SHEAR =	35.9	KIPS

VOLUME OF CONCRETE

(1) FOUNDATION	10	CU. YDS
(3) FOUNDATIONS	30	CU. YDS

GENERAL NOTES:

1. FOUNDATION DESIGN HAS BEEN DEVELOPED IN ACCORDANCE WITH GENERALLY ACCEPTED PROFESSIONAL ENGINEERING PRINCIPLES AND PRACTICES WITHIN THE LIMITS OF THE SUBSURFACE DATA PROVIDED. FOUNDATION DESIGN MODIFICATIONS MAY BE REQUIRED IN THE EVENT THE FOLLOWING DESIGN PARAMETERS ARE NOT APPLICABLE FOR THE SUBSURFACE CONDITIONS ENCOUNTERED.
   A) DEPTH NEGLECTED FOR SKIN FRICTION = TOP 3.0 FT
   B) AVERAGE ULTIMATE SKIN SHEAR FOR UPLIFT: 3.0 FT TO 6.0 FT DEPTH = 1040 PSF, AND 6.0 FT TO 8.0 FT DEPTH = 2040 PSF, AND 8.0 FT TO 11.8 FT DEPTH = 1870 PSF, AND 11.8 FT TO 16.2 FT DEPTH = 2040 PSF, AND 16.2 FT TO 21.0 FT DEPTH = 2400 PSF.
   C) AVERAGE ULTIMATE SKIN SHEAR FOR DOWNLOAD: 3.0 FT TO 6.0 FT DEPTH = 1040 PSF, AND 6.0 FT TO 8.0 FT DEPTH = 2040 PSF, AND 8.0 FT TO 11.8 FT DEPTH = 1870 PSF, AND 11.8 FT TO 16.2 FT DEPTH = 2040 PSF, AND 16.2 FT TO 21.0 FT DEPTH = 2400 PSF.
   D) ULTIMATE NET END BEARING AT 21.0 FT = 53.64 KSF.
   E) GROUNDWATER TABLE BELOW FOUNDATION DEPTH.
2. WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES, SAFETY REGULATIONS AND UNLESS OTHERWISE NOTED, THE LATEST REVISION OF ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE". PROCEDURES FOR THE PROTECTION OF EXCAVATIONS, EXISTING CONSTRUCTION AND UTILITIES SHALL BE ESTABLISHED PRIOR TO FOUNDATION INSTALLATION.
3. CONCRETE MATERIALS SHALL CONFORM TO THE APPROPRIATE STATE REQUIREMENTS FOR EXPOSED STRUCTURAL CONCRETE.
4. PROPORTIONS OF CONCRETE MATERIALS SHALL BE SUITABLE FOR THE INSTALLATION METHOD UTILIZED AND SHALL RESULT IN DURABLE CONCRETE FOR RESISTANCE TO LOCAL ANTICIPATED AGGRESSIVE ACTIONS. THE DURABILITY REQUIREMENTS OF ACI 318 CHAPTER 4 SHALL BE SATISFIED BASED ON THE CONDITIONS EXPECTED AT THE SITE. AS A MINIMUM, CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI (31.0 MPA) IN 28 DAYS.
5. MAXIMUM SIZE OF AGGREGATE SHALL NOT EXCEED SIZE SUITABLE FOR INSTALLATION METHOD UTILIZED OR 1/3 CLEAR DISTANCE BEHIND OR BETWEEN REINFORCING. MAXIMUM SIZE MAY BE INCREASED TO 2/3 CLEAR DISTANCE PROVIDED WORKABILITY AND METHODS OF CONSOLIDATION SUCH AS VIBRATING WILL PREVENT HONEYCOMBS OR VOIDS.
6. REINFORCEMENT SHALL BE DEFORMED AND CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60 UNLESS OTHERWISE NOTED. SPLICES IN REINFORCEMENT SHALL NOT BE ALLOWED UNLESS OTHERWISE INDICATED.
7. REINFORCING CAGES SHALL BE BRACED TO RETAIN PROPER DIMENSIONS DURING HANDLING AND THROUGHOUT PLACEMENT OF CONCRETE. WHEN TEMPORARY CASING IS UTILIZED, BRACING SHALL BE ADEQUATE TO RESIST FORCES OCCURRING FROM FLOWING CONCRETE DURING CASING EXTRACTION.
8. WELDING IS PROHIBITED ON REINFORCING STEEL AND EMBEDMENTS.
9. MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE 3 INCHES (76 MM) UNLESS OTHERWISE NOTED. APPROVED SPACERS SHALL BE USED TO INSURE A 3 INCH (76 MM) MINIMUM COVER ON REINFORCEMENT.
10. SPACERS SHALL BE ATTACHED INTERMITTENTLY THROUGHOUT THE ENTIRE LENGTH OF VERTICAL REINFORCING CAGES TO INSURE CONCENTRIC PLACEMENT OF CAGES IN EXCAVATIONS.
11. FOUNDATION DESIGN HAS BEEN BASED ON GEOTECHNICAL REPORT NO. **GEO24-23017-08** DATED **10/11/2024** BY **DELTA OAKS GROUP**.
12. FOUNDATION DEPTH INDICATED IS BASED ON THE GRADE LINE DESCRIBED IN THE REFERENCED GEOTECHNICAL REPORT. FOUNDATION MODIFICATION MAY BE REQUIRED IN THE EVENT CUT OR FILL OPERATIONS HAVE TAKEN PLACE SUBSEQUENT TO THE GEOTECHNICAL INVESTIGATION.
13. FOUNDATION DESIGN ASSUMES THE RECOMMENDATIONS IN THE REFERENCED GEOTECHNICAL REPORT CONCERNING VERIFICATION OF SUBSURFACE CONDITIONS ARE IMPLEMENTED PRIOR TO PLACEMENT OF CONCRETE.
14. FOUNDATION INSTALLATION SHALL BE SUPERVISED BY PERSONNEL KNOWLEDGEABLE AND EXPERIENCED WITH THE PROPOSED FOUNDATION TYPE. CONSTRUCTION SHALL BE IN ACCORDANCE WITH GENERALLY ACCEPTED INSTALLATION PRACTICES.
15. FOUNDATION DESIGN ASSUMES INSTALLATION PROCEDURES WILL INCORPORATE THE PROCEDURES RECOMMENDED IN THE REFERENCED GEOTECHNICAL REPORT.
16. FOUNDATION DESIGN ASSUMES FIELD INSPECTIONS WILL BE PERFORMED TO VERIFY THAT CONSTRUCTION MATERIALS, INSTALLATION METHODS AND ASSUMED DESIGN PARAMETERS ARE ACCEPTABLE BASED ON CONDITIONS EXISTING AT THE SITE.
17. FOR FOUNDATION INSTALLATION TOLERANCES SEE STRUCTURE ASSEMBLY DRAWING.
18. LOOSE MATERIAL SHALL BE REMOVED FROM BOTTOM OF EXCAVATION PRIOR TO CONCRETE PLACEMENT. SIDES OF EXCAVATION SHALL BE ROUGH AND FREE OF LOOSE CUTTINGS.
19. CONCRETE SHALL BE PLACED IN A MANNER THAT WILL PREVENT SEGREGATION OF CONCRETE MATERIALS, INFILTRATION OF WATER OR SOIL AND OTHER OCCURRENCES WHICH MAY DECREASE THE STRENGTH OR DURABILITY OF THE FOUNDATION.
20. FREE FALL CONCRETE MAY BE USED PROVIDED FALL IS VERTICAL DOWN WITHOUT HITTING SIDES OF EXCAVATION, FORMWORK, REINFORCING BARS, FORM TIES, CAGE BRACING OR OTHER OBSTRUCTIONS. UNDER NO CIRCUMSTANCES SHALL CONCRETE FALL THROUGH WATER.
21. TOP OF FOUNDATION OUTSIDE LIMITS OF ANCHOR BOLTS SHALL BE SLOPED TO DRAIN WITH A FLOATED FINISH. AREA INSIDE LIMITS OF ANCHOR BOLTS SHALL BE LEVEL WITH A SCRATCHED FINISH.
22. EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4" X 3/4" (19MM X 19MM) MINIMUM.
23. FOUNDATION DESIGN ASSUMES CASING, IF USED, WILL NOT BE LEFT IN PLACE. EQUIPMENT, PROCEDURES, AND PROPORTIONS OF CONCRETE MATERIALS SHALL INSURE CONCRETE WILL NOT BE ADVERSELY DISTURBED UPON CASING REMOVAL.

FILE NO.
247704

REVISIONS

REV.	DESCRIPTION	DWN	CHK	APP
1	REVISED CUSTOMER NAME DATE: 02/24/2025	AS		AS

ROHN® PRODUCTS LLC
PO BOX 5999
PEORIA, IL 61601-5999
TOLL FREE 800-727-ROHN

HORVATH TOWERS VI, LLC
DRILLED PIER
FOUNDATION DETAILS
HV1611 TILTON, KY

DWN:	CHK'D:	DATE:
AS	SY	11/13/2024

ENG'R:	SHEET #:
AS	1 OF 1

PRJ. ENG'R:	PRJ. MANG'R:
AS	

DRAWING NO:	REV:
247704-01-F2	1

Section A: PROJECT DATA

Project Title:	260 FT RTL TOWER
Customer Name:	HORVATH TOWERS VI- LLC
Site:	HV1611 TILTON- KY
Contract No.:	247704
Revision:	0
Engineer:	AS
Date:	Nov 13 2024
Time:	02:01:05 PM
Design Standard:	ANSI/TIA-222-H-2017

GENERAL DESIGN CONDITIONS

Start wind direction:	0.00 (Deg)
End wind direction:	330.00 (Deg)
Increment wind direction:	30.00 (Deg)
Elevation above ground:	0.00 (ft)
Mean elevation of base of structure above sea level Zs:	934.00 (ft)
Rooftop wind speed-up factor Ks:	1.00
Gust Response Factor Gh:	0.85
Risk category:	II
Exposure category:	C
Topographic category:	1
Material Density:	490.1(lbs/ft^3)
Young's Modulus:	29000.0(ksi)
Poisson Ratio:	0.30
Weight Multiplier:	1.25

Minimum Bracing Resistance as per 4.4.1

WIND ONLY CONDITIONS:

Basic Wind Speed (No Ice):	106.00(mph)
Directionality Factor Kd:	0.85
Importance Factor I:	1.00
Wind Load Factor:	1.00
Dead Load Factor:	1.20
Dead Load Factor for Uplift:	0.90

WIND AND ICE CONDITIONS:

Basic Wind Speed (With Ice):	30.00(mph)
Directionality Factor Kd:	0.85
Wind Load Importance Factor Iw:	1.00
Ice Thickness Importance Factor Ii:	1.00
Ice Thickness:	1.50 (in)
Ice Density:	56.19(lbs/ft^3)
Wind Load Factor:	1.00
Dead Load Factor:	1.20
Ice Load Factor:	1.00

WIND ONLY SERVICEABILITY CONDITIONS:

Serviceability Wind Speed:	60.00(mph)
Directionality Factor Kd:	0.85
Importance Factor I:	1.00
Wind Load Factor:	1.00
Dead Load Factor:	1.00

EARTHQUAKE CONDITIONS:

Site class definition:	D
Spectral response acceleration Ss:	0.188
Spectral response acceleration S1:	0.080
Long-period transition period TL:	12.000

Accelaration-based site coefficient Fa:	1.600
Velocity-based site coefficient Fv:	2.400
Design spectral response acceleration Sds:	0.201
Design spectral response acceleration Sd1:	0.128
Seismic analysis method:	1
Fundamental frequency of structure f1:	0.634
Total seismic shear Vs (Kips) :	1.83

Analysis performed using: TowerSoft Finite Element Analysis Program

File: J:\2024\247704\ENGINEERING\247704.out
Contract: 247704
Project: 260 FT RTL TOWER
Date and Time: 11/13/2024 2:10:17 PM

Revision: 0
Site: HV1611 TILTON- KY
Engineer: AS

Section B: STRUCTURE GEOMETRY

TOWER GEOMETRY

Cross-Section	Height (ft)	Tot Height (ft)	# of Section	Bot Width (in)	Top Width (in)
Triangular	260.00	280.00	12	325.97	56.99

SECTION GEOMETRY

Sec #	Sec. Name	Elevation Bottom (ft)	Elevation Top (ft)	Widths Bottom (in)	Widths Top (in)	Masses Legs (lbs)	Masses Brcg. (lbs)	Masses Sec.Brc (lbs)	Masses Int.Brc (lbs)	Masses Sect. (lbs)	Masses Database (lbs)	Brcg. Clear. (in)
12	RLS04	240.00	260.00	58	57	438	334	0	0	773	0	0.787
11	RLS04	220.00	240.00	58	58	775	440	0	0	1215	0	0.787
10	RLT06	200.00	220.00	83	58	1131	326	0	0	1456	0	0.787
9	RLT08	180.00	200.00	107	83	1565	493	0	0	2058	0	0.787
8	RLT10	160.00	180.00	131	107	1565	440	0	0	2005	0	0.787
7	RLT12	140.00	160.00	156	131	1565	946	0	0	2511	0	0.787
6	RLT14	120.00	140.00	180	156	1717	1070	0	0	2788	0	0.787
5	RLT16	100.00	120.00	204	180	2152	1051	0	0	3203	0	0.787
4	RLT18	80.00	100.00	230	204	2153	1150	0	0	3303	0	0.787
3	RLT20	60.00	80.00	254	230	2484	1252	0	0	3736	0	0.787
2	RLT23	30.00	60.00	290	254	3726	3207	0	0	6932	0	0.787
1	RLT26	0.00	30.00	326	290	4896	4094	0	0	8990	0	0.787
Total Mass:						24169	14803	0	0	38972	0	

PANEL GEOMETRY

Sec#	Pnl#	Type	SecBrcg	Mid. Horiz Continuous	Horiz	Height (ft)	Bottom Width (in)	Top Width (in)	Plan Bracing	Hip Bracing	Gusset Plate Area (ft^2)	Gusset Plate Weight (lbs)
12	4	X	(None)		Yes	5.0	57.1	57.0	(None)	(None)	0.300	0.30
12	3	X	(None)		None	5.0	57.3	57.1	(None)	(None)	0.300	0.30
12	2	X	(None)		None	5.0	57.4	57.3	(None)	(None)	0.300	0.30
12	1	X	(None)		None	5.0	57.5	57.4	(None)	(None)	0.300	0.30
11	4	X	(None)		None	5.0	57.7	57.5	(None)	(None)	0.300	0.30
11	3	X	(None)		None	5.0	58.0	57.7	(None)	(None)	0.300	0.30
11	2	X	(None)		None	5.0	58.2	58.0	(None)	(None)	0.300	0.30
11	1	X	(None)		None	5.0	58.4	58.2	(None)	(None)	0.300	0.30
10	3	X	(None)		Yes	6.7	66.7	58.4	(None)	(None)	0.300	0.30
10	2	X	(None)		None	6.7	75.0	66.7	(None)	(None)	0.300	0.30
10	1	X	(None)		None	6.7	83.3	75.0	(None)	(None)	0.300	0.30
9	3	X	(None)		None	6.7	91.3	83.3	(None)	(None)	0.300	0.30
9	2	X	(None)		None	6.7	99.3	91.3	(None)	(None)	0.300	0.30
9	1	X	(None)		None	6.7	107.3	99.3	(None)	(None)	0.300	0.30
8	3	X	(None)		None	6.7	115.3	107.3	(None)	(None)	0.300	0.30
8	2	X	(None)		None	6.7	123.3	115.3	(None)	(None)	0.300	0.30
8	1	X	(None)		None	6.7	131.3	123.3	(None)	(None)	0.300	0.30
7	3	X	(None)		None	6.7	139.6	131.3	(None)	(None)	0.300	0.30
7	2	X	(None)		None	6.7	147.9	139.6	(None)	(None)	0.300	0.30
7	1	X	(None)		None	6.7	156.2	147.9	(None)	(None)	0.300	0.30
6	3	X	(None)		None	6.7	164.2	156.2	(None)	(None)	0.300	0.30
6	2	X	(None)		None	6.7	172.2	164.2	(None)	(None)	0.300	0.30
6	1	X	(None)		None	6.7	180.2	172.2	(None)	(None)	0.300	0.30
5	2	X	(None)		None	10.0	192.2	180.2	(None)	(None)	0.300	0.30
5	1	X	(None)		None	10.0	204.2	192.2	(None)	(None)	0.300	0.30
4	2	X	(None)		None	10.0	217.1	204.2	(None)	(None)	0.300	0.30
4	1	X	(None)		None	10.0	230.0	217.1	(None)	(None)	0.300	0.30
3	2	X	(None)		None	10.0	242.0	230.0	(None)	(None)	0.300	0.30
3	1	X	(None)		None	10.0	254.0	242.0	(None)	(None)	0.300	0.30
2	3	X	(None)		None	10.0	266.0	254.0	(None)	(None)	0.300	0.30
2	2	X	(None)		None	10.0	278.0	266.0	(None)	(None)	0.300	0.30

2	1	X	(None)	None	10.0	290.0	278.0	(None)	(None)	0.300	0.30
1	3	X	(None)	None	10.0	302.0	290.0	(None)	(None)	0.300	0.30
1	2	X	(None)	None	10.0	314.0	302.0	(None)	(None)	0.300	0.30
1	1	X	(None)	None	10.0	326.0	314.0	(None)	(None)	0.300	0.30

MEMBER PROPERTIES

Sec/ Pnl	Type	Description	Steel Grade	Conn. Type	Bolt #-Size	Bolt Grade	End Dist.	Edge Dist.	Gusset Thick.	Gusset Grade	Bolt Space	Dble Mem. Spacing	Stitch Bolt (ft)
					(in)		(in)	(in)	(in)		(in)	(in)	
12/4	Leg	PIPE 2.875x0.203	A500 gr.C	STension	4-0.750	A325X							
12/4	Diag	L1 3/4x1 3/4x1/8	A529 gr.50	Bolted	1-0.625	A325X	1.500	0.875	0.250	A572 gr.50		2.000	
12/4	Horiz	L1 3/4x1 3/4x3/16	A529 gr.50	Bolted	1-0.625	A325X	1.500	0.875	0.250	A572 gr.50		2.000	
12/3	Leg	PIPE 2.875x0.203	A500 gr.C	STension	4-0.750	A325X							
12/3	Diag	L1 3/4x1 3/4x1/8	A529 gr.50	Bolted	1-0.625	A325X	1.500	0.875	0.250	A572 gr.50		2.000	
12/2	Leg	PIPE 2.875x0.203	A500 gr.C	STension	4-0.750	A325X							
12/2	Diag	L1 3/4x1 3/4x1/8	A529 gr.50	Bolted	1-0.625	A325X	1.500	0.875	0.250	A572 gr.50		2.000	
12/1	Leg	PIPE 2.875x0.203	A500 gr.C	STension	4-0.750	A325X							
12/1	Diag	L1 3/4x1 3/4x1/8	A529 gr.50	Bolted	1-0.625	A325X	1.500	0.875	0.250	A572 gr.50		2.000	
11/4	Leg	PIPE 3.500x0.300	A500 gr.C	STension	5-0.875	A325X							
11/4	Diag	L1 3/4x1 3/4x3/16	A529 gr.50	Bolted	1-0.625	A325X	1.500	0.875	0.250	A572 gr.50		2.000	
11/3	Leg	PIPE 3.500x0.300	A500 gr.C	STension	5-0.875	A325X							
11/3	Diag	L1 3/4x1 3/4x3/16	A529 gr.50	Bolted	1-0.625	A325X	1.500	0.875	0.250	A572 gr.50		2.000	
11/2	Leg	PIPE 3.500x0.300	A500 gr.C	STension	5-0.875	A325X							
11/2	Diag	L1 3/4x1 3/4x3/16	A529 gr.50	Bolted	1-0.625	A325X	1.500	0.875	0.250	A572 gr.50		2.000	
11/1	Leg	PIPE 3.500x0.300	A500 gr.C	STension	5-0.875	A325X							
11/1	Diag	L1 3/4x1 3/4x3/16	A529 gr.50	Bolted	1-0.625	A325X	1.500	0.875	0.250	A572 gr.50		2.000	
10/3	Leg	PIPE 4.500x0.337	A500 gr.C	STension	5-1.000	A325X							
10/3	Diag	L1 3/4x1 3/4x1/8	A529 gr.50	Bolted	1-0.625	A325X	1.500	0.875	0.250	A572 gr.50		2.000	
10/3	Horiz	L1 3/4x1 3/4x3/16	A529 gr.50	Bolted	1-0.625	A325X	1.500	0.875	0.250	A572 gr.50		2.000	
10/2	Leg	PIPE 4.500x0.337	A500 gr.C	STension	5-1.000	A325X							
10/2	Diag	L1 3/4x1 3/4x1/8	A529 gr.50	Bolted	1-0.625	A325X	1.500	0.875	0.250	A572 gr.50		2.000	
10/1	Leg	PIPE 4.500x0.337	A500 gr.C	STension	5-1.000	A325X							
10/1	Diag	L1 3/4x1 3/4x1/8	A529 gr.50	Bolted	1-0.625	A325X	1.500	0.875	0.250	A572 gr.50		2.000	
9/3	Leg	PIPE 5.563x0.375	A500 gr.C	STension	5-1.000	A325X							
9/3	Diag	L1 3/4x1 3/4x3/16	A529 gr.50	Bolted	1-0.625	A325X	1.500	0.875	0.250	A572 gr.50		2.000	
9/2	Leg	PIPE 5.563x0.375	A500 gr.C	STension	5-1.000	A325X							
9/2	Diag	L1 3/4x1 3/4x3/16	A529 gr.50	Bolted	1-0.625	A325X	1.500	0.875	0.250	A572 gr.50		2.000	
9/1	Leg	PIPE 5.563x0.375	A500 gr.C	STension	5-1.000	A325X							

9/1	Diag	L1 3/4x1 3/4x3/16	A529 gr.50Bolted	1-0.625	A325X	1.500	0.875	0.250	A572 gr.50	2.000
8/3	Leg	PIPE 5.563x0.375	A500 gr.CSTension	5-1.000	A325X					
8/3	Diag	L2x2x1/8	A529 gr.50Bolted	1-0.625	A325X	1.500	1.000	0.250	A572 gr.50	2.000
8/2	Leg	PIPE 5.563x0.375	A500 gr.CSTension	5-1.000	A325X					
8/2	Diag	L2x2x1/8	A529 gr.50Bolted	1-0.625	A325X	1.500	1.000	0.250	A572 gr.50	2.000
8/1	Leg	PIPE 5.563x0.375	A500 gr.CSTension	5-1.000	A325X					
8/1	Diag	L2x2x1/8	A529 gr.50Bolted	1-0.625	A325X	1.500	1.000	0.250	A572 gr.50	2.000
7/3	Leg	PIPE 5.563x0.375	A500 gr.CSTension	6-1.000	A325X					
7/3	Diag	L2 1/2x2 1/2x3/16	A529 gr.50Bolted	1-0.625	A325X	1.125	1.250	0.250	A572 gr.50	2.000
7/2	Leg	PIPE 5.563x0.375	A500 gr.CSTension	6-1.000	A325X					
7/2	Diag	L2 1/2x2 1/2x3/16	A529 gr.50Bolted	1-0.625	A325X	1.125	1.250	0.250	A572 gr.50	2.000
7/1	Leg	PIPE 5.563x0.375	A500 gr.CSTension	6-1.000	A325X					
7/1	Diag	L2 1/2x2 1/2x3/16	A529 gr.50Bolted	1-0.625	A325X	1.125	1.250	0.250	A572 gr.50	2.000
6/3	Leg	PIPE 6.625x0.340	A500 gr.CSTension	6-1.000	A325X					
6/3	Diag	L2 1/2x2 1/2x3/16	A529 gr.50Bolted	1-0.625	A325X	1.500	1.250	0.250	A572 gr.50	2.000
6/2	Leg	PIPE 6.625x0.340	A500 gr.CSTension	6-1.000	A325X					
6/2	Diag	L2 1/2x2 1/2x3/16	A529 gr.50Bolted	1-0.625	A325X	1.500	1.250	0.250	A572 gr.50	2.000
6/1	Leg	PIPE 6.625x0.340	A500 gr.CSTension	6-1.000	A325X					
6/1	Diag	L2 1/2x2 1/2x3/16	A529 gr.50Bolted	1-0.625	A325X	1.500	1.250	0.250	A572 gr.50	2.000
5/2	Leg	PIPE 6.625x0.432	A500 gr.CSTension	6-1.000	A325X					
5/2	Diag	L3x3x3/16	A529 gr.50Bolted	1-0.625	A325X	1.500	1.500	0.250	A572 gr.50	2.000
5/1	Leg	PIPE 6.625x0.432	A500 gr.CSTension	6-1.000	A325X					
5/1	Diag	L3x3x3/16	A529 gr.50Bolted	1-0.625	A325X	1.500	1.500	0.250	A572 gr.50	2.000
4/2	Leg	PIPE 6.625x0.432	A500 gr.CSTension	6-1.500	A325X					
4/2	Diag	L3x3x3/16	A529 gr.50Bolted	2-0.625	A325X	1.125	1.500	0.375	A572 gr.50	2.000
4/1	Leg	PIPE 6.625x0.432	A500 gr.CSTension	6-1.500	A325X					
4/1	Diag	L3x3x3/16	A529 gr.50Bolted	2-0.625	A325X	1.125	1.500	0.375	A572 gr.50	2.000
3/2	Leg	PIPE 8.625x0.375	A500 gr.CSTension	6-1.500	A325X					
3/2	Diag	L3x3x3/16	A529 gr.50Bolted	2-0.625	A325X	1.125	1.500	0.375	A572 gr.50	2.000
3/1	Leg	PIPE 8.625x0.375	A500 gr.CSTension	6-1.500	A325X					
3/1	Diag	L3x3x3/16	A529 gr.50Bolted	2-0.625	A325X	1.125	1.500	0.375	A572 gr.50	2.000
2/3	Leg	PIPE 8.625x0.375	A500 gr.CSTension	6-1.500	A325X					
2/3	Diag	L3 1/2x3 1/2x1/4	A529 gr.50Bolted	2-0.625	A325X	1.125	1.750	0.375	A572 gr.50	2.000
2/2	Leg	PIPE 8.625x0.375	A500 gr.CSTension	6-1.500	A325X					
2/2	Diag	L3 1/2x3 1/2x1/4	A529 gr.50Bolted	2-0.625	A325X	1.125	1.750	0.375	A572 gr.50	2.000
2/1	Leg	PIPE 8.625x0.375	A500 gr.CSTension	6-1.500	A325X					
2/1	Diag	L3 1/2x3 1/2x1/4	A529 gr.50Bolted	2-0.625	A325X	1.125	1.750	0.375	A572 gr.50	2.000
1/3	Leg	PIPE 8.625x0.500	A500 gr.CSTension	6-1.500	A325X					

1/3	Diag	L4x4x1/4	A529 gr.50Bolted	2-0.625	A325X	1.125	2.000	0.375	A572 gr.50	2.000
1/2	Leg	PIPE 8.625x0.500	A500 gr.CSTension	6-1.500	A325X					
1/2	Diag	L4x4x1/4	A529 gr.50Bolted	2-0.625	A325X	1.125	2.000	0.375	A572 gr.50	2.000
1/1	Leg	PIPE 8.625x0.500	A500 gr.CSTension	6-1.500	A325X					
1/1	Diag	L4x4x1/4	A529 gr.50Bolted	2-0.625	A325X	1.125	2.000	0.375	A572 gr.50	2.000

Section D: TRANSMISSION LINE DATA

Transmission Lines Position

No.	Bot El (ft)	Top El (ft)	Desc.	Radius (ft)	Az.	Orient.	No.	No. of Rows	Vert.	Antenna	User Ka
1	0.00	260.00	3/8 CABLE	17.00	0.00	0.00	1	1	No		
2	0.00	260.00	RC0.75-Cnd	13.67	60.00	5.00	1	1	No		
3	0.00	255.00	TX Ladder	9.05	60.00	30.00	1	1	No		
4	0.00	255.00	LDF7P-50A	9.05	60.00	30.00	12	2	No		
5	0.00	245.00	TX Ladder	9.05	180.00	150.00	1	1	No		
6	0.00	245.00	LDF7P-50A	9.05	180.00	150.00	12	2	No		
7	0.00	235.00	TX Ladder	9.05	300.00	270.00	1	1	No		
8	0.00	235.00	LDF7P-50A	9.05	300.00	270.00	12	2	No		

Transmission Lines Details

No.	Desc.	Width (in)	Depth (in)	Unit Mass (lb/ft)	Line Spacing (in)	Row Spacing (in)
1	3/8 CABLE	0.38	0.38	1.00	2.750	2.750
2	RC0.75-Cnd	1.05	1.05	1.09	2.750	2.750
3	TX Ladder	4.70	1.50	4.00	2.750	2.750
4	LDF7P-50A	2.01	2.01	0.92	2.250	2.750
5	TX Ladder	4.70	1.50	4.00	2.750	2.750
6	LDF7P-50A	2.01	2.01	0.92	2.250	2.750
7	TX Ladder	4.70	1.50	4.00	2.750	2.750
8	LDF7P-50A	2.01	2.01	0.92	2.250	2.750

Section F: POINT LOAD DATA

Structure Azimuth from North:0.00

POINT LOADS

No.	Description	Elev. (ft)	Radius (ft)	Azim. (Deg)	Orient. (Deg)	Vertical Offset (ft)	Tx Line	Comments
1	BEACON & LR	260.00	1.00	0.0	0.0	0.00		
2	208 SQ FT MAX EPA	255.00	0.00	0.0	0.0	0.00		
3	130 SQFT MAX EPA	245.00	0.00	0.0	0.0	0.00		
4	130 SQFT MAX EPA	235.00	0.00	0.0	0.0	0.00		

POINT LOADS WIND AREAS AND WEIGHTS

No.	Description	Frontal Bare Area (ft^2)	Lateral Bare Area (ft^2)	Frontal Iced Area (ft^2)	Lateral Iced Area (ft^2)	Weight Bare (Kips)	Weight Iced (Kips)	Gh
1	BEACON & LR	5.00	5.00	10.00	10.00	0.25	0.50	0.85
2	208 SQ FT MAX EPA	208.00	208.00	416.00	416.00	4.00	12.00	0.85
3	130 SQFT MAX EPA	130.00	130.00	260.00	260.00	3.00	9.00	0.85
4	130 SQFT MAX EPA	130.00	130.00	260.00	260.00	3.00	9.00	0.85

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Contract: 247704
Project: 260 FT RTL TOWER
Date and Time: 11/13/2024 2:10:17 PM

Revision: 0
Site: HV1611 TILTON- KY
Engineer: AS

Section H: STRUCTURE DISPLACEMENT DATA

Load Combination Wind Only - Serviceability

Wind Direction Maximum displacements

Node	Elev. (ft)	N-S Disp (in)	W-E Disp (in)	Vert.Disp (in)	N-S Rot (Deg)	W-E Rot (Deg)	Twist (Deg)
108	260.0	15.9	15.6	-0.1	0.70	0.68	-0.01
105	255.0	15.2	14.9	-0.1	0.72	0.71	0.02
102	250.0	14.4	14.1	-0.1	0.69	0.68	0.02
99	245.0	13.7	13.4	-0.1	0.71	0.70	0.02
96	240.0	13.0	12.7	-0.1	0.67	0.66	-0.02
93	235.0	12.3	12.0	-0.1	0.67	0.66	0.01
90	230.0	11.6	11.3	-0.1	0.64	0.63	-0.01
87	225.0	10.9	10.7	-0.1	0.60	0.59	0.01
84	220.0	10.3	10.1	-0.1	0.57	0.56	0.01
81	213.3	9.5	9.3	-0.1	0.52	0.51	0.02
78	206.7	8.8	8.6	-0.1	0.49	0.48	0.01
75	200.0	8.1	7.9	-0.1	0.45	0.44	-0.02
72	193.3	7.4	7.3	-0.1	0.43	0.43	0.00
69	186.7	6.8	6.7	-0.1	0.40	0.40	-0.01
66	180.0	6.3	6.1	-0.1	0.39	0.38	0.00
63	173.3	5.7	5.6	-0.1	0.36	0.36	-0.01
60	166.7	5.2	5.1	-0.1	0.34	0.34	0.00
57	160.0	4.7	4.6	-0.1	0.32	0.31	0.00
54	153.3	4.3	4.2	-0.1	0.29	0.29	0.01
51	146.7	3.9	3.8	-0.1	0.28	0.27	0.00
48	140.0	3.5	3.4	-0.1	0.26	0.25	0.00
45	133.3	3.1	3.1	-0.1	0.24	0.23	0.00
42	126.7	2.8	2.7	-0.1	0.22	0.21	0.00
39	120.0	2.5	2.4	-0.1	0.20	0.20	0.00
36	110.0	2.1	2.0	-0.1	0.18	0.17	0.01
33	100.0	1.7	1.7	-0.1	0.16	0.16	0.00
30	90.0	1.4	1.3	-0.1	0.14	0.13	0.01
27	80.0	1.1	1.0	0.0	0.12	0.12	0.00
24	70.0	0.8	0.8	0.0	0.11	0.10	0.00
21	60.0	0.6	0.6	0.0	0.09	0.08	0.00
18	50.0	0.4	0.4	0.0	0.07	0.07	0.00
15	40.0	0.3	0.3	0.0	0.05	0.05	0.00
12	30.0	0.2	0.2	0.0	0.04	0.04	0.00
9	20.0	0.1	0.1	0.0	0.03	0.03	0.00
6	10.0	0.0	0.0	0.0	0.01	-0.01	0.00
3	0.0	0.0	0.0	0.0	0.00	0.00	0.00

Section L: STRENGTH ASSESSMENT SORTED DATA

Load Combination Max Envelope
Wind Direction Maximum

Sec	Pnl	Elev. (ft)	MType	Desc.	Len (ft)	kl/r	Gov. comp. cap. (Kips)	Gov. tens. cap. (Kips)	Max Compr. (Kips)	Max Tens. (Kips)	Asses. Ratio
12	4	255.00	Leg	PIPE 2.875x0.203	5.00	63.4	57.1	76.5	1.7	1.2	0.03
12	3	250.00	Leg	PIPE 2.875x0.203	5.00	63.4	57.1	76.5	6.7	3.6	0.12
12	2	245.00	Leg	PIPE 2.875x0.203	5.00	63.4	57.1	76.5	15.5	11.9	0.27
12	1	240.00	Leg	PIPE 2.875x0.203	5.00	63.4	57.1	76.5	28.3	22.5	0.50
11	4	235.00	Leg	PIPE 3.500x0.300	5.00	52.6	111.0	135.9	44.9	38.4	0.41
11	3	230.00	Leg	PIPE 3.500x0.300	5.00	52.6	111.0	135.9	62.3	53.4	0.56
11	2	225.00	Leg	PIPE 3.500x0.300	5.00	52.6	111.0	135.9	86.8	76.9	0.78
11	1	220.00	Leg	PIPE 3.500x0.300	5.00	52.6	111.0	135.9	106.1	95.9	0.96
10	3	213.33	Leg	PIPE 4.500x0.337	6.68	54.2	160.1	198.4	125.5	114.5	0.78
10	2	206.67	Leg	PIPE 4.500x0.337	6.68	54.2	160.1	198.4	139.6	127.5	0.87
10	1	200.00	Leg	PIPE 4.500x0.337	6.68	54.2	160.1	198.4	150.5	137.8	0.94
9	3	193.33	Leg	PIPE 5.563x0.375	6.68	43.6	239.4	275.0	162.1	148.2	0.68
9	2	186.67	Leg	PIPE 5.563x0.375	6.68	43.6	239.4	275.0	171.8	157.2	0.72
9	1	180.00	Leg	PIPE 5.563x0.375	6.68	43.6	239.4	275.0	182.2	166.4	0.76
8	3	173.33	Leg	PIPE 5.563x0.375	6.68	43.6	239.4	275.0	191.1	174.4	0.80
8	2	166.67	Leg	PIPE 5.563x0.375	6.68	43.6	239.4	275.0	200.5	182.7	0.84
8	1	160.00	Leg	PIPE 5.563x0.375	6.68	43.6	239.4	275.0	208.8	190.2	0.87
7	3	153.33	Leg	PIPE 5.563x0.375	6.68	43.6	239.3	275.0	217.4	197.6	0.91
7	2	146.67	Leg	PIPE 5.563x0.375	6.68	43.6	239.3	275.0	225.3	204.4	0.94
7	1	140.00	Leg	PIPE 5.563x0.375	6.68	43.6	239.3	275.0	233.3	211.3	0.97
6	3	133.33	Leg	PIPE 6.625x0.340	6.68	36.0	274.8	302.1	241.4	218.1	0.88
6	2	126.67	Leg	PIPE 6.625x0.340	6.68	36.0	274.8	302.1	249.6	225.1	0.91
6	1	120.00	Leg	PIPE 6.625x0.340	6.68	36.0	274.8	302.1	258.0	232.1	0.94
5	2	110.00	Leg	PIPE 6.625x0.432	10.02	54.6	304.3	330.3	268.1	240.6	0.88
5	1	100.00	Leg	PIPE 6.625x0.432	10.02	54.6	304.3	330.3	280.5	250.8	0.92
4	2	90.00	Leg	PIPE 6.625x0.432	10.02	54.6	304.2	378.5	291.9	260.2	0.96
4	1	80.00	Leg	PIPE 6.625x0.432	10.02	54.6	304.2	378.5	303.4	269.4	1.00
3	2	70.00	Leg	PIPE 8.625x0.375	10.02	41.2	386.4	437.4	314.6	278.5	0.81
3	1	60.00	Leg	PIPE 8.625x0.375	10.02	41.2	386.4	437.4	326.8	288.2	0.85
2	3	50.00	Leg	PIPE 8.625x0.375	10.02	41.2	386.4	437.4	339.0	297.9	0.88
2	2	40.00	Leg	PIPE 8.625x0.375	10.02	41.2	386.4	437.4	351.2	307.5	0.91
2	1	30.00	Leg	PIPE 8.625x0.375	10.02	41.2	386.4	437.4	363.5	317.0	0.94
1	3	20.00	Leg	PIPE 8.625x0.500	10.02	41.7	505.5	574.2	375.9	326.3	0.74
1	2	10.00	Leg	PIPE 8.625x0.500	10.02	41.7	505.5	574.2	388.3	335.5	0.77
1	1	0.00	Leg	PIPE 8.625x0.500	10.02	41.7	505.5	574.2	400.7	344.6	0.79
12	4	255.00	Diag	L1 3/4x1 3/4x1/8	6.90	106.7	10.5	7.1	2.1	2.2	0.31
12	3	250.00	Diag	L1 3/4x1 3/4x1/8	6.91	106.8	10.5	7.1	3.5	3.4	0.48
12	2	245.00	Diag	L1 3/4x1 3/4x1/8	6.92	106.9	10.5	7.1	3.6	3.7	0.53
12	1	240.00	Diag	L1 3/4x1 3/4x1/8	6.92	107.0	10.5	7.1	5.9	5.8	0.82
11	4	235.00	Diag	L1 3/4x1 3/4x3/16	6.93	108.5	15.1	10.7	6.1	6.2	0.58
11	3	230.00	Diag	L1 3/4x1 3/4x3/16	6.95	108.7	15.0	10.7	8.4	8.3	0.77
11	2	225.00	Diag	L1 3/4x1 3/4x3/16	6.96	108.9	15.0	10.7	8.6	8.7	0.81
11	1	220.00	Diag	L1 3/4x1 3/4x3/16	6.97	109.1	14.9	10.7	9.0	8.9	0.83
10	3	213.33	Diag	L1 3/4x1 3/4x1/8	8.47	131.8	6.9	7.1	5.0	4.9	0.72
10	2	206.67	Diag	L1 3/4x1 3/4x1/8	8.91	140.3	6.1	7.1	4.5	4.6	0.74
10	1	200.00	Diag	L1 3/4x1 3/4x1/8	9.38	149.1	5.4	7.1	4.3	4.2	0.80
9	3	193.33	Diag	L1 3/4x1 3/4x3/16	9.87	160.2	6.9	10.7	4.3	4.3	0.62
9	2	186.67	Diag	L1 3/4x1 3/4x3/16	10.37	169.6	6.2	10.7	4.3	4.2	0.69
9	1	180.00	Diag	L1 3/4x1 3/4x3/16	10.89	179.2	5.5	10.7	4.2	4.2	0.75
8	3	173.33	Diag	L2x2x1/8	11.43	160.4	5.3	7.9	4.2	4.2	0.79
8	2	166.67	Diag	L2x2x1/8	11.97	168.9	4.8	7.9	4.2	4.3	0.88
8	1	160.00	Diag	L2x2x1/8	12.53	177.5	4.4	7.9	4.3	4.3	0.99
7	3	153.33	Diag	L2 1/2x2 1/2x3/16	13.11	152.8	11.0	11.0	4.1	4.1	0.38
7	2	146.67	Diag	L2 1/2x2 1/2x3/16	13.71	160.3	10.0	11.0	4.3	4.3	0.43

7	1	140.00	Diag	L2 1/2x2 1/2x3/16	14.32	167.9	9.1	11.0	4.4	4.4	0.48
6	3	133.33	Diag	L2 1/2x2 1/2x3/16	14.93	173.2	8.6	14.1	4.8	4.8	0.56
6	2	126.67	Diag	L2 1/2x2 1/2x3/16	15.53	180.7	7.9	14.1	5.0	5.0	0.63
6	1	120.00	Diag	L2 1/2x2 1/2x3/16	16.13	188.2	7.3	14.1	5.2	5.1	0.71
5	2	110.00	Diag	L3x3x3/16	18.46	180.9	9.5	14.7	5.9	5.8	0.62
5	1	100.00	Diag	L3x3x3/16	19.31	189.7	8.7	14.7	6.0	6.0	0.70
4	2	90.00	Diag	L3x3x3/16	20.21	179.7	9.7	21.1	5.7	5.5	0.58
4	1	80.00	Diag	L3x3x3/16	21.14	187.1	8.9	21.1	5.8	5.9	0.65
3	2	70.00	Diag	L3x3x3/16	22.06	192.5	8.4	21.1	6.8	6.7	0.80
3	1	60.00	Diag	L3x3x3/16	22.96	199.5	7.8	21.1	7.0	7.0	0.90
2	3	50.00	Diag	L3 1/2x3 1/2x1/4	23.86	180.6	14.8	31.1	7.3	7.2	0.49
2	2	40.00	Diag	L3 1/2x3 1/2x1/4	24.77	186.8	13.9	31.1	7.6	7.5	0.54
2	1	30.00	Diag	L3 1/2x3 1/2x1/4	25.69	192.9	13.0	31.1	7.8	7.8	0.60
1	3	20.00	Diag	L4x4x1/4	26.62	175.5	18.0	34.1	8.0	8.0	0.45
1	2	10.00	Diag	L4x4x1/4	27.55	180.9	17.0	34.1	8.2	8.2	0.49
1	1	0.00	Diag	L4x4x1/4	28.48	186.3	16.0	34.1	8.4	8.4	0.53
12	4	255.00	Horiz	L1 3/4x1 3/4x3/16	4.75	145.7	8.4	10.7	1.4	1.4	0.17
10	3	213.33	Horiz	L1 3/4x1 3/4x3/16	4.87	145.1	8.4	10.7	0.3	0.1	0.04

Section M: SECTION PROPERTIES DATA

Sec	Pan	Memb. Type	Steel Grade	Conn. Type	Bolts Bolts	Bolt Size (in)	Bolt Grade	End Dist. (in)	Gusset Thick. (in)	kl/r	Comp Cap. (Kips)	Tens Cap. (Kips)	Bolt Cap. (Kips)	Bear. Cap. (Kips)	Block Shear (Kips)
12	4	Leg	A500 gr.CS	Tension	4	0.750	A325X	1.800	N/A	63.4	57.1	76.5	121.7T	N/A	N/A
12	4	Diag	A529 gr.50	Bolted	1	0.625	A325X	1.500	0.250	106.7	10.5	11.9	17.2S	9.8	7.1
12	4	Horiz	A529 gr.50	Bolted	1	0.625	A325X	1.500	0.250	145.7	8.4	17.4	17.2S	14.7	10.7
12	3	Leg	A500 gr.CS	Tension	4	0.750	A325X	1.800	N/A	63.4	57.1	76.5	121.7T	N/A	N/A
12	3	Diag	A529 gr.50	Bolted	1	0.625	A325X	1.500	0.250	106.8	10.5	11.9	17.2S	9.8	7.1
12	2	Leg	A500 gr.CS	Tension	4	0.750	A325X	1.800	N/A	63.4	57.1	76.5	121.7T	N/A	N/A
12	2	Diag	A529 gr.50	Bolted	1	0.625	A325X	1.500	0.250	106.9	10.5	11.9	17.2S	9.8	7.1
12	1	Leg	A500 gr.CS	Tension	4	0.750	A325X	1.800	N/A	63.4	57.1	76.5	121.7T	N/A	N/A
12	1	Diag	A529 gr.50	Bolted	1	0.625	A325X	1.500	0.250	107.0	10.5	11.9	17.2S	9.8	7.1
11	4	Leg	A500 gr.CS	Tension	5	0.875	A325X	2.100	N/A	52.6	111.0	135.9	209.9T	N/A	N/A
11	4	Diag	A529 gr.50	Bolted	1	0.625	A325X	1.500	0.250	108.5	15.1	17.4	17.2S	14.7	10.7
11	3	Leg	A500 gr.CS	Tension	5	0.875	A325X	2.100	N/A	52.6	111.0	135.9	209.9T	N/A	N/A
11	3	Diag	A529 gr.50	Bolted	1	0.625	A325X	1.500	0.250	108.7	15.0	17.4	17.2S	14.7	10.7
11	2	Leg	A500 gr.CS	Tension	5	0.875	A325X	2.100	N/A	52.6	111.0	135.9	209.9T	N/A	N/A
11	2	Diag	A529 gr.50	Bolted	1	0.625	A325X	1.500	0.250	108.9	15.0	17.4	17.2S	14.7	10.7
11	1	Leg	A500 gr.CS	Tension	5	0.875	A325X	2.100	N/A	52.6	111.0	135.9	209.9T	N/A	N/A
11	1	Diag	A529 gr.50	Bolted	1	0.625	A325X	1.500	0.250	109.1	14.9	17.4	17.2S	14.7	10.7
10	3	Leg	A500 gr.CS	Tension	5	1.000	A325X	2.400	N/A	54.2	160.1	198.4	275.3T	N/A	N/A
10	3	Diag	A529 gr.50	Bolted	1	0.625	A325X	1.500	0.250	131.8	6.9	11.9	17.2S	9.8	7.1
10	3	Horiz	A529 gr.50	Bolted	1	0.625	A325X	1.500	0.250	145.1	8.4	17.4	17.2S	14.7	10.7
10	2	Leg	A500 gr.CS	Tension	5	1.000	A325X	2.400	N/A	54.2	160.1	198.4	275.3T	N/A	N/A
10	2	Diag	A529 gr.50	Bolted	1	0.625	A325X	1.500	0.250	140.3	6.1	11.9	17.2S	9.8	7.1
10	1	Leg	A500 gr.CS	Tension	5	1.000	A325X	2.400	N/A	54.2	160.1	198.4	275.3T	N/A	N/A
10	1	Diag	A529 gr.50	Bolted	1	0.625	A325X	1.500	0.250	149.1	5.4	11.9	17.2S	9.8	7.1
9	3	Leg	A500 gr.CS	Tension	5	1.000	A325X	2.400	N/A	43.6	239.4	275.0	275.3T	N/A	N/A
9	3	Diag	A529 gr.50	Bolted	1	0.625	A325X	1.500	0.250	160.2	6.9	17.4	17.2S	14.7	10.7
9	2	Leg	A500 gr.CS	Tension	5	1.000	A325X	2.400	N/A	43.6	239.4	275.0	275.3T	N/A	N/A
9	2	Diag	A529 gr.50	Bolted	1	0.625	A325X	1.500	0.250	169.6	6.2	17.4	17.2S	14.7	10.7
9	1	Leg	A500 gr.CS	Tension	5	1.000	A325X	2.400	N/A	43.6	239.4	275.0	275.3T	N/A	N/A
9	1	Diag	A529 gr.50	Bolted	1	0.625	A325X	1.500	0.250	179.2	5.5	17.4	17.2S	14.7	10.7
8	3	Leg	A500 gr.CS	Tension	5	1.000	A325X	2.400	N/A	43.6	239.4	275.0	275.3T	N/A	N/A
8	3	Diag	A529 gr.50	Bolted	1	0.625	A325X	1.500	0.250	160.4	5.3	14.1	17.2S	9.8	7.9
8	2	Leg	A500 gr.CS	Tension	5	1.000	A325X	2.400	N/A	43.6	239.4	275.0	275.3T	N/A	N/A
8	2	Diag	A529 gr.50	Bolted	1	0.625	A325X	1.500	0.250	168.9	4.8	14.1	17.2S	9.8	7.9
8	1	Leg	A500 gr.CS	Tension	5	1.000	A325X	2.400	N/A	43.6	239.4	275.0	275.3T	N/A	N/A
8	1	Diag	A529 gr.50	Bolted	1	0.625	A325X	1.500	0.250	177.5	4.4	14.1	17.2S	9.8	7.9
7	3	Leg	A500 gr.CS	Tension	6	1.000	A325X	2.400	N/A	43.6	239.3	275.0	330.3T	N/A	N/A
7	3	Diag	A529 gr.50	Bolted	1	0.625	A325X	1.125	0.250	152.8	11.0	27.7	17.2S	11.0	12.0
7	2	Leg	A500 gr.CS	Tension	6	1.000	A325X	2.400	N/A	43.6	239.3	275.0	330.3T	N/A	N/A
7	2	Diag	A529 gr.50	Bolted	1	0.625	A325X	1.125	0.250	160.3	10.0	27.7	17.2S	11.0	12.0
7	1	Leg	A500 gr.CS	Tension	6	1.000	A325X	2.400	N/A	43.6	239.3	275.0	330.3T	N/A	N/A
7	1	Diag	A529 gr.50	Bolted	1	0.625	A325X	1.125	0.250	167.9	9.1	27.7	17.2S	11.0	12.0
6	3	Leg	A500 gr.CS	Tension	6	1.000	A325X	2.400	N/A	36.0	274.8	302.1	330.3T	N/A	N/A
6	3	Diag	A529 gr.50	Bolted	1	0.625	A325X	1.500	0.250	173.2	8.6	27.7	17.2S	14.7	14.1
6	2	Leg	A500 gr.CS	Tension	6	1.000	A325X	2.400	N/A	36.0	274.8	302.1	330.3T	N/A	N/A
6	2	Diag	A529 gr.50	Bolted	1	0.625	A325X	1.500	0.250	180.7	7.9	27.7	17.2S	14.7	14.1
6	1	Leg	A500 gr.CS	Tension	6	1.000	A325X	2.400	N/A	36.0	274.8	302.1	330.3T	N/A	N/A
6	1	Diag	A529 gr.50	Bolted	1	0.625	A325X	1.500	0.250	188.2	7.3	27.7	17.2S	14.7	14.1
5	2	Leg	A500 gr.CS	Tension	6	1.000	A325X	2.400	N/A	54.6	304.3	378.5	330.3T	N/A	N/A
5	2	Diag	A529 gr.50	Bolted	1	0.625	A325X	1.500	0.250	180.9	9.5	34.6	17.2S	14.7	16.4
5	1	Leg	A500 gr.CS	Tension	6	1.000	A325X	2.400	N/A	54.6	304.3	378.5	330.3T	N/A	N/A

5	1	Diag	A529 gr.50	Bolted	1	0.625	A325X	1.500	0.250	189.7	8.7	34.6	17.2S	14.7	16.4
4	2	Leg	A500 gr.CS	Tension	6	1.500	A325X	3.600	N/A	54.6	304.2	378.5	765.3T	N/A	N/A
4	2	Diag	A529 gr.50	Bolted	2	0.625	A325X	1.125	0.375	179.7	9.7	34.6	34.5S	25.7	21.1
4	1	Leg	A500 gr.CS	Tension	6	1.500	A325X	3.600	N/A	54.6	304.2	378.5	765.3T	N/A	N/A
4	1	Diag	A529 gr.50	Bolted	2	0.625	A325X	1.125	0.375	187.1	8.9	34.6	34.5S	25.7	21.1
3	2	Leg	A500 gr.CS	Tension	6	1.500	A325X	3.600	N/A	41.2	386.4	437.4	765.3T	N/A	N/A
3	2	Diag	A529 gr.50	Bolted	2	0.625	A325X	1.125	0.375	192.5	8.4	34.6	34.5S	25.7	21.1
3	1	Leg	A500 gr.CS	Tension	6	1.500	A325X	3.600	N/A	41.2	386.4	437.4	765.3T	N/A	N/A
3	1	Diag	A529 gr.50	Bolted	2	0.625	A325X	1.125	0.375	199.5	7.8	34.6	34.5S	25.7	21.1
2	3	Leg	A500 gr.CS	Tension	6	1.500	A325X	3.600	N/A	41.2	386.4	437.4	765.3T	N/A	N/A
2	3	Diag	A529 gr.50	Bolted	2	0.625	A325X	1.125	0.375	180.6	14.8	54.8	34.5S	34.1	31.1
2	2	Leg	A500 gr.CS	Tension	6	1.500	A325X	3.600	N/A	41.2	386.4	437.4	765.3T	N/A	N/A
2	2	Diag	A529 gr.50	Bolted	2	0.625	A325X	1.125	0.375	186.8	13.9	54.8	34.5S	34.1	31.1
2	1	Leg	A500 gr.CS	Tension	6	1.500	A325X	3.600	N/A	41.2	386.4	437.4	765.3T	N/A	N/A
2	1	Diag	A529 gr.50	Bolted	2	0.625	A325X	1.125	0.375	192.9	13.0	54.8	34.5S	34.1	31.1
1	3	Leg	A500 gr.CS	Tension	6	1.500	A325X	3.600	N/A	41.7	505.5	574.2	765.3T	N/A	N/A
1	3	Diag	A529 gr.50	Bolted	2	0.625	A325X	1.125	0.375	175.5	18.0	63.9	34.5S	34.1	34.2
1	2	Leg	A500 gr.CS	Tension	6	1.500	A325X	3.600	N/A	41.7	505.5	574.2	765.3T	N/A	N/A
1	2	Diag	A529 gr.50	Bolted	2	0.625	A325X	1.125	0.375	180.9	17.0	63.9	34.5S	34.1	34.2
1	1	Leg	A500 gr.CS	Tension	6	1.500	A325X	3.600	N/A	41.7	505.5	574.2	765.3T	N/A	N/A
1	1	Diag	A529 gr.50	Bolted	2	0.625	A325X	1.125	0.375	186.3	16.0	63.9	34.5S	34.1	34.2

Section N: LEG REACTION DATA

Load Combination Max Envelope
Wind Direction Maximum

Force-Y Download (Kips)	Force-Y Uplift (Kips)	Shear-X (Kips)	Shear-Z (Kips)	Max Shear (Kips)
406.26	348.52			35.89

Section O: TOWER FOUNDATION DATA

Load Combination Max Envelope
Wind Direction Maximum

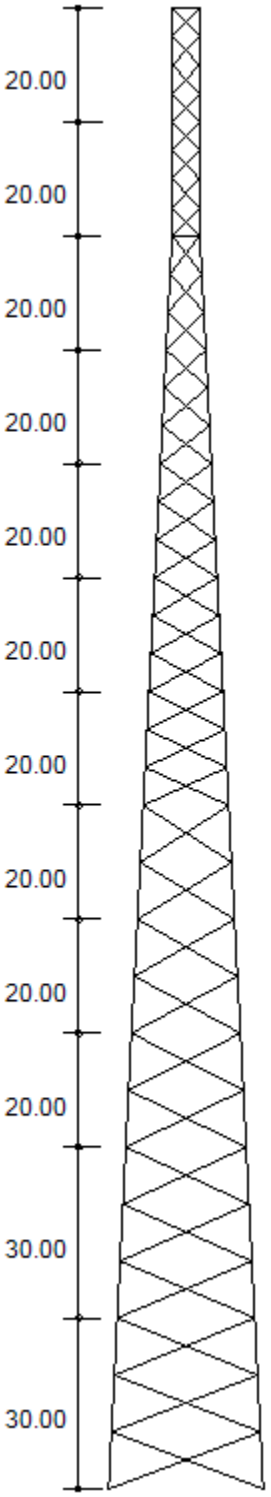
Axial Load (Kips)	Shear Load-X (Kips)	Shear Load-Z (Kips)	Total Shear (Kips)	Moment-X (Kipsft)	Moment-Y (Kipsft)	Moment-Z (Kipsft)	Total Moment (Kipsft)
54.80	29.25	50.67	58.50	7781.27	-1.95	-4491.73	8984.64
54.80	29.25	50.67	58.50	7781.27	-1.95	-4491.73	8984.64

File: J:\2024\247704\ENGINEERING\247704.out
Contract: 247704
Project: 260 FT RTL TOWER
Date and Time: 11/13/2024 2:10:17 PM

Revision: 0
Site: HV1611 TILTON- KY
Engineer: AS

DESIGN SPECIFICATION

Sct.	Length (ft)	Top W. (in)	Bot Width (in)
1	30.00	289.97	325.97
2	30.00	253.97	289.97
3	20.00	229.97	253.97
4	20.00	204.24	229.97
5	20.00	180.24	204.24
6	20.00	156.24	180.24
7	20.00	131.32	156.24
8	20.00	107.32	131.32
9	20.00	83.32	107.32
10	20.00	58.40	83.32
11	20.00	57.53	58.40
12	20.00	56.99	57.53



MAXIMUM BASE REACTIONS

Download (Kips)	406.3
Uplift (Kips)	348.5
Shear (Kips)	35.9

Customer: HORVATH TOWERS VI, LLC
Project: 260 FT RTL TOWER
Site: HV1611 TILTON, KY
Engr. File: 247704
Build Code: ANSI/TIA-222-H-2016

Mat Foundation

ver.3.0.9

Design Parameters

	Load Case					
Description	**1**	**2**	**3**	**4**	**5**	**Service**
Total Moment, ft-kips	8,984.48	8,984.64	1,267.43	360.00	359.73	2,951.37
Total Shear, kips	58.49	58.50	7.81	1.82	1.82	19.45
Total Tower Wt, kips	73.05	54.80	207.41	73.01	54.76	60.85
Max. Uplift, kips	342.44	348.52	.00	.00	.00	100.36
Shear, kips	31.79	32.15	32.15	9.79	9.79	9.79
Max Download, kips	406.26	400.19	123.01	39.64	33.54	145.74
Shear	35.89	35.54	8.68	2.54	2.19	12.68
Soil L.F.	1.20	0.90	1.20	1.20	0.90	1.00
Concrete L.F.	1.20	0.90	1.20	1.20	0.90	1.00

Foundation	
Ht. AGL, ft	0.50
Depth, ft.	5.25
Tower	
Face Width, ft	27.16
Offset, in	48.00
Soil	N/A
Blow Count	N/A
Inplace Unit Wt, pcf	110.00
Submerged Unit Wt, pcf	60.00
Friction Angle, ϕ, deg.	.00
Cohesion, ksf	N/A
Uplift Angle, deg.	.00
Water Depth, ft	None
Ult Bearing Capacity, ksf	12.19

Mat	
Thickness, ft	1.75
Width, ft	33.50
EA, in	15.00
Batter, in/ft	0.00

Anchor Bolts	
Diameter, in	1.5000
No.	6
Length, in	74.00
Bolt Circle, in	20.00
Projection, in	9.00
Concrete	
28 Day Strength, ksi	4.50
Dry Unit Wt, pcf	150.00
Wet Unit Wt, pcf	88.00

Pier	
Height, ft	4.00
Diameter, ft	3.50
No. Piers	3
Shape	Round

Pocket	
Diameter, in	N/A
Thickness, ft	N/A

Rebar Fy	
Vertical, ksi	60.00
Circular, ksi	60.00
Horizontal, ksi	60.00

Results

ϕM_N – Parallel Axis	10,769.22	ft-kips
ϕM_N – Diagonal Axis	11,876.97	ft-kips
Moment – Interaction Ratio	0.888	
ϕV_N – Lateral Load	187.52	kips
Lateral Load – Interaction Ratio	0.312	

Final Mat Dimension : 33.50 x 33.50 x 1.75 ft. thick w/ (3) 3.50 ft. Dia. Piers

Final Pocket Dimension : Pockets not required

Total Volume of Concrete : 77.0 yd^3

Designed By: AS
Date: 13 November, 2024 @ 02:16 PM

Customer: HORVATH TOWERS VI, LLC
Project: 260 FT RTL TOWER
Site: HV1611 TILTON, KY
Engr. File: 247704
Build Code: ANSI/TIA-222-H-2016

Mat Foundation

ver.3.0.9

OTM Capacity

Controlling Load Case: 2 [Wind w/Min. Dead Load]
Foundation Width = 33.50 ft
M_U = 9,565.0 ft-kips

	ϕM_N, ft-kips	x, ft	N	σ_{ur}
Parallel	10,769.2	3.350	0.100	8.49
Diagonal	11,877.0	10.594	0.224	8.49

ϕM_N= 10,769.22 ft-kips IRatio = 0.888
ϕV_N = 187.52 kips IRatio = 0.312

Mat Design

γ_e = 123.33 pcf

						Moment, ft-kips/ft		Shear, kips/ft	
Exterior Slab	**x, ft**	**N**	**σ_R, ksf**	**P_s kips**	**P_{su} kips**	**DownLoad Side**	**Uplift Side**	**Download Side**	**Uplift Side**
Parallel	6.721	0.201	3.17	0.00	0.00	14.27	4.28	8.60	2.58
Diagonal	15.448	0.326	2.99	0.00	0.00	84.95	29.17	18.62	6.93

Interior Slab	**Moment, ft-kips/ft**		**Shear, kips/ft**		
	DownLoad Side	**Uplift Side**	**Download Side**	**Uplift Side**	**Soil Pressure Termination**
	21.45	63.75	5.55	7.48	5.93

Punching Shear	**Download**			**Uplift**			**Description**
	Interior	**Edge**	**Corner**	**Interior**	**Edge**	**Corner**	
b_o, ft	17.74	15.21	12.51	15.08	13.88	11.85	2-Way Shear
Vsu, psi	132.46	162.11	206.99	132.27	150.04	186.37	
ϕVc, psi	228.08	228.08	228.08	228.08	228.08	228.08	
IR	0.58	0.71	0.91	0.58	0.66	0.82	
M_{ut}, ft-kips	86.1			77.2			Moment transfer to slab
B_e, ft	7.5			7.2			
M_u, ft-kips/ft	11.4			10.8			
Edge Distances: a = 5.07 ft. b = 3.17 ft. c = 4.91 ft.							

Summary	**Max. Value**	**Utilization**
Slab Moment, ft-kips/ft	84.95	0.983
Slab Shear, kips/ft	18.62	0.850
Punching Shear, psi	206.99	0.908
Soil Bearing Required, σ_{UR}, ksf	4.23	0.347

Mat Reinforcement	
Min. Steel Area (Strength)	1.052 in^2/ft.
Min. Steel Area (Temperature)	.227 in^2/ft.
Steel Strain Actual	0.012
Minimum Steel Strain Required	0.005

60 - #7 Horizontal bars equally spaced @6.71 in., each way, top and bottom, total of 240, A_s = 1.077 in^2/ft

Designed By: AS
Date: 13 November, 2024 @ 02:16 PM

Mat Foundation

Pier Design

Controlling Load Case: 2 [Wind w/Min. Dead Load]

C = 400.19 kips	Vc = 35.54 kips	Mc = 142.16 ft-kips
T = 348.52 kips	Vt = 32.15 kips	Mt = 128.60 ft-kips
Fy = 60.00 ksi	Fyt = 60.00 ksi	L.F. = 1.00
H = 42.00 in.	Ds = 33.00 in.	F'c = 4.50 ksi
U = 1.00	Irs = Round	

*** **NOTE**: Pier cross section is Round ***

SUMMARY OF ANALYSIS

Minimum area of steel required	= 10.962 in^2	(Rhomin = 0.0079)
Area of steel provided.	= 10.996 in^2	(Rhoactual= 0.0079)
Maximum steel area limit	= 110.836 in^2	(Rhomax = 0.0800)

(14) #8 Vertical Bars equally spaced w/ #4 Circular Ties @ 6” on center.

CIRCULAR TIE DATA

Vu < 0.85*Vc/2, shear reinforcement is not required

Use maximum tie spacing specified in ACI 318,
Section 7.10.5 for compression reinforcement.

DEVELOPMENT LENGTH MODIFIERS FOR BAR DEVELOPMENT

Modifier for tension development = 1.000
Modifier for compression development = 0.167
REQUIRED Ld = MODIFIER * BASIC Ld * ACI 318 MODIFIERS, (12 in. min.)

Designed By: AS
Date: 13 November, 2024 @ 02:16 PM

File no : 247704 Customer: **HORVATH TOWERS VI, LL** Date 02/24/25
By: AS Description: **260 FT RTL TOWER** Page 1
Chk: _____ _____ **HV1611 TILTON, KY** Ver. 07/08/2024

FACTORED REACTIONS / LEG Tower Type: RT

COMPRESSION = 406.26 k
UPLIFT = 348.52 k (8) - 1.5 " dia 74 " A.B. per leg
SHEAR = 35.89 k f'_c= 4,500 psi
UPLIFT FROM SOIL HEAVE = 0.00 k f_y= 60,000 psi

SOIL PARAMETERS

A) Depth neglected for skin friction = Top 3.0 ft
B) Average ultimate skin shear for uplift:
3.0 ft to 6.0 ft depth = 1040 psf, and 6.0 ft to 8.0 ft depth = 2040 psf, and 8.0 ft to 11.8 ft depth = 1870 psf, and 11.8 ft to 16.2 ft depth = 2040 psf, and 16.2 ft to 21.0 ft depth = 2400 psf.

C) Average ultimate skin shear for download:
3.0 ft to 6.0 ft depth = 1040 psf, and 6.0 ft to 8.0 ft depth = 2040 psf, and 8.0 ft to 11.8 ft depth = 1870 psf, and 11.8 ft to 16.2 ft depth = 2040 psf, and 16.2 ft to 21.0 ft depth = 2400 psf.

D) Ultimate net end bearing at 21.0 ft = 53.64 ksf.
E) Groundwater table below foundation depth.

USE 4'- 0" DIAMETER AND 21'- 0" DEEP DRILLED PIER WITH 0'- 6" CAP

Perimeter = 12.57 ft Area = 12.57 ft^2

Total Download = 406.26 + [1.2 x 0.15 - 0.75 x 0.120] x 21 x 12.57 = 430.6 k

Tension Capacity = 12.57 x (21.5 x 0.15 + 0.0 x 0.09) x 0.90 + 12.57 x
(1.040 x 3.0 + 2.040 x 2.0 + 1.870 x 3.8 + 2.040 x 4.4 + 2.400 x 4.8) x 0.75 =

36.5 + 328.1 = 364.6 k
364.6 >= 348.52 **OK**

Comp. Capacity = 12.57 x 53.64 x 0.75 +12.57 x
(1.040 x 3.0 + 2.040 x 2.0 + 1.870 x 3.8 + 2.040 x 4.4 + 2.400 x 4.8) x 0.75 =

505.7 + 328.1 = 833.8 k
833.8 >= 430.6 **OK**

LATERAL - SEE ATTACHED CALCULATIONS USING WIGGINS METHOD

Max M = 273.23 ft-k Max V = 40.20 k

REINFORCEMENT - SEE ATTACHED SHAFT PROGRAM

USE 14 - # 9 BARS VERTICAL WITH
4 TIES AT 6" IN TOP 7.0 FT AND AT
12 " IN REST OF PIER
STEEL AREA = 13.99 in^2 **OK**
{36.0 in Cage Diameter}

CONCRETE VOL. = 12.57 x 21.5 / 27 = 10.0 cu yds / pier

```
                    ********************
                    ** WIGGINS METHOD **
                ***********************************************
                **  DETERMINE MAXIMUM LATERAL SOIL PRESSURE  **
                **    AND MAXIMUM MOMENT IN THE SHAFT FOR    **
                **         A DRILLED PIER FOUNDATION         **
                *********** Mon Feb 24 13:43:02 2025 **********
                Ver. 2.3 NT
FILE NO.- 247704
   ENGR.- AS
  DESCR.- HORVATH TOWERS VI, LLC 260 FT
```

FORMULAS USED

$$S1 = \frac{6*P*(1+N)}{D*L*(1-N)*(1-N)}$$

$$S2 = \frac{(N+3)*(N+3)*S1}{8*(N+1)*(N+2)}$$

$$K = \frac{1-(N*N)}{2*(2+N)}$$

$$Y = \frac{L*(1-K)-NL}{2}$$

$$M = P*(NL+5/8*Y)$$

V = S1*D*K*L / 2. or
P whichever is greater

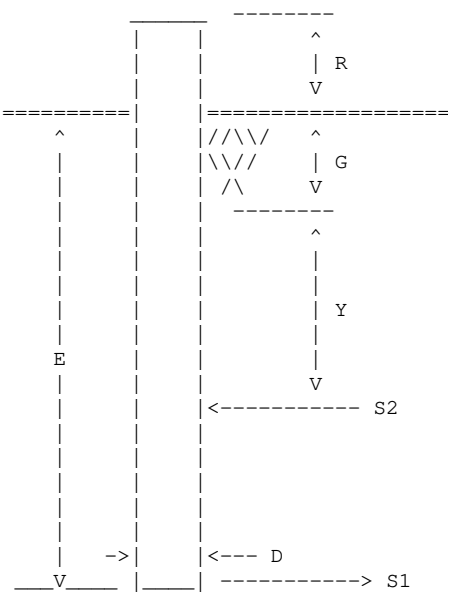
$$L = (MA/P)+R+E$$

$$NL = (MA/P)+R+G$$

$$N = NL / L$$

$$SP1 = S1 / E$$

$$SP2 = S2 / (Y+G)$$



Diameter of Pier = D =	4.00 ft	Equivalent Length of Pier = L =	21.50 ft
Projection Above Grade = R =	.50 ft	Length for NO Soil Resistance = NL =	3.50 ft
Embedment Depth = E =	21.00 ft	Applied Moment at Top of Pier = MA =	.00 ft-k
Depth of Soil Ignored = G =	3.00 ft	Shear at Top of Pier = P =	35.89 kips

MAXIMUM LATERAL SOIL PRESSURES				MAXIMUM VALUES IN SHAFT	
K = .2251	S1 = 4.154 ksf	SP1 = 198 psf/ft		M =	273.23 ft-k
Y = 6.58 ft	S2 = 2.065 ksf	SP2 = 216 psf/ft		V =	40.20 kips

```
*****************************
**                         **
**     COMPARISION DATA    **
**                         **
*****************************

BROMS ----->          SAND                                  CLAY
               PHI =   30.0  degrees                   C =    1.00 ksf
           DENSITY =  100.00 pcf
                 E =   16.63 ft                        E =   15.73 ft
            Max. M =  276.71 ft-k                 Max. M =  269.07 ft-k
            Max. V =  102.20 kips                 Max. V =   69.59 kips
                Ls =  12.387 ft



EIA REV. E NORMAL SOIL --------------------> E =   11.46 ft


EIA REV. F NORMAL SOIL --------------------> E =   14.46 ft
```

SHAFT REINFORCING PROGRAM VER. 91.7

DESIGNED BY: AS
ENG. FILE NO.: 247704
DATE: 02/24/25

CUSTOMER: HORVATH TOWERS VI, LLC
DESCRIPTION: 260 FT RTL TOWERHV1611 TILTON, KY

INPUT DATA

C =	406.26 Kips	Vc =	40.20 Kips	Mc =	273.23 Ft-K
T =	348.52 Kips	Vt =	40.20 Kips	Mt =	273.23 Ft-K
Fy =	60.00 Ksi	Fyt =	60.00 Ksi	L.F. =	1.00
H =	48.00 In.	Ds =	36.00 In.	F'c =	4.50 Ksi
U =	1.00	Irs =	1		

*** SHAFT CROSS SECTION IS ROUND ***

SUMMARY OF ANALYSIS

Minimum area of steel req'd. = 12.98 sq.in. (Rhomin = 0.0072)

Maximum steel area limit = 144.76 sq.in. (Rhomax = 0.0800)

CIRCULAR TIE DATA

Vu <.85*Vc/2, shear reinforcement is not required.

Use maximum tie spacing specified in A.C.I. 318-83,
Section 7.10.5 for compression reinforcement.

DEVELOPMENT LENGTH MODIFIERS FOR TENSION AND COMPRESSION BAR DEVELOPMENT

DLMT = MODIFIER FOR TENSION DEVELOPMENT = 1.000

DLMC = MODIFIER FOR COMPRESSION DEVELOPMENT = .313

REQUIRED Ld = MODIFIER * BASIC Ld * ACI 318 MODIFIERS (12 in. min.)

DLMT = MODIFIER FOR TENSION DEVELOPMENT = 1.000

DLMC = MODIFIER FOR COMPRESSION DEVELOPMENT = .339

REQUIRED Ld = MODIFIER * BASIC Ld * ACI 318 MODIFIERS (12 in. min.)

1 Fairholm Avenue
Peoria, IL 61603 USA
Phone 309-566-3000
FAX 309-566-3079
Toll Free 800-727-ROHN

February 24, 2025

Horvath Towers VI, LLC
2307 Edison Rd
Suite 2
South Bend, IN 46615

Attn: Jeff Delauder

Reference: 260 FT RTL Tower
HV1611 Tilton, KY
File # 247704

To Whom It May Concern,

ROHN is designing and manufacturing a 260' self-supporting RTL tower for the above referenced site. The tower is designed in accordance with TIA-222-H using an ASCE 7-16 wind speed of 106 mph, 1.50" radial ice at 30 mph, Structure Class II, Exposure Category C, Topographic Category 1 to support the following antenna loading at 255':

- (6) MC06FRO860-02
- (3) AIR6419
- (3) RRU 4408
- (3) RRU 4490
- (3) RRU 4890
- (1) RAYCAP RVZDC-6627-PF-48
- (3) C10857007C-4108-27 SECTOR FRAMES W/ (3) 91900314-03 MOUNTS
- (2) HYBRID CABLES

The above proposed antenna loading that will be installed initially on the tower is 92 ft^2 (13,248 in^2). The tower and foundation are adequate to support the overall proposed design loading up to 208 ft^2 (29,952 in^2) at 255' for future loading considerations. If you have any questions, please let me know.

Sincerely,

Allen Schneider
02/24/2025

STATE OF KENTUCKY
ALLEN SCHNEIDER
37506
LICENSED PROFESSIONAL ENGINEER

Allen Schneider, P.E.
Senior Design Engineer

ClarkQuinn

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

April 30, 2024

Notice of Proposed Construction of
Wireless Communications Facility
Site Name: Tilton

Cellco Partnership, d/b/a Verizon Wireless and Horvath Communications are filing an application with the Kentucky Public Service Commission ("PSC") to construct a new wireless communications facility on a site located on the north side of KY-11 / Mount Sterling Road near the intersection with Old KY 11 / Tilton Road, Flemingsburg, KY 41041 (North Latitude: (38° 20' 33.20", West Longitude 83° 46' 10.46"). The proposed facility will include a 260-foot tall antenna tower, plus a 10-foot lightning arrestor and related ground facilities. Site name is Tilton. 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 2024-00132 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

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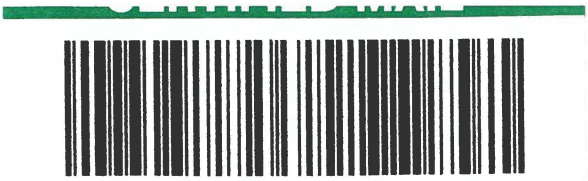

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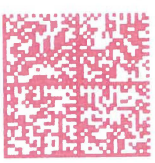

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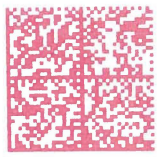

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HAZELRIGG JOHN MICHAEL & JONI K
6227 MT STERLING ROAD
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RAMEY JODEY D & ERIN HAGEN
207 MUDSOCK RD
HILLSBORO RD, KY 41049

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rk, Quinn, Moses, Scott & Grahn, LLP

MILLER JOHN J & SUSAN J
1066 TILTON RD
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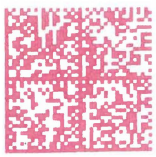

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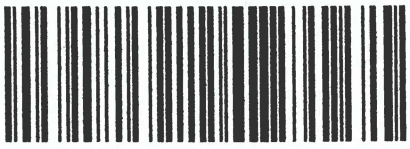

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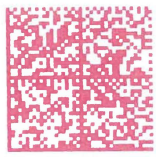

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A. Signature
x M Watson ☐ Agent ☐ Addressee

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x J Miller ☐ Agent ☐ Addressee

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☐ Collect on Delivery Restricted Delivery
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1. Article Addressed to:

CUTTER JAMES D & DEBRA L &
JAMES D CUTTER JR
1194 PECKS RIDGE TILTON RD
FLEMINGSBURG, KY 41041

9590 9402 8749 3310 9191 98

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x J Cutter ☐ Agent ☐ Addressee

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☐ Collect on Delivery Restricted Delivery
☐ Insured Mail
☐ Insured Mail Restricted Delivery (over $500)
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt

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:

HAZELRIGG JOHN MICHAEL & JONI K
6227 MT STERLING ROAD
FLEMINGSBURG, KY 41041

9590 9402 8749 3310 9191 43

2. Article Number *(Transfer from service label)*

7012 0470 0001 8048 4095

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X J Hazelrigg ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* C. Date of Delivery 5/03/24

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
☐ Mail
☐ Mail Restricted Delivery
00)
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricte Delivery
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt

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:

SHETLER EMANUEL E
5900 MT STERLING RD
FLEMINGSBURG, KY 41041

9590 9402 8749 3310 9191 74

2. Article Number *(Transfer from service label)*

9589 0710 5270 2002 9177 10

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X E Shetler ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* C. Date of Delivery 5/03/24

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
☐ Mail
☐ Mail Restricted Delivery
00)
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricte Delivery
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt

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:

SPENCER GARNET
1189 TILTON RD
FLEMINGSBURG, KY 41041

9590 9402 8749 3310 9191 12

2. Article Number *(Transfer from service label)*

7012 0470 0001 8048 4125

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X G Spencer ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* C. Date of Delivery 5/03/24

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
☐ Mail
☐ Mail Restricted Delivery
(Over $500)
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restrict Delivery
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receip

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:

HAZELRIGG INVESTMENTS INC
% MIKE HAZELRIGG
6227 MT STERLING RD
FLEMINGSBURG, KY 41041

9590 9402 8749 3310 9191 50

2. Article Number *(Transfer from service label)*

7012 0470 0001 8048 4088

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X J Hazelrigg ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* C. Date of Delivery 5/03/24

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
☐ Mail Restricted Delivery
00)
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricte Delivery
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

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:

MILLER JOHN J & SUSAN J
1066 TILTON RD
FLEMINGSBURG, KY 41041

9590 9402 8749 3310 9190 82

2. Article Number *(Transfer from service label)*

7012 0470 0001 8048 4156

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X J Miller ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* C. Date of Delivery 5-03-24

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
☐ Mail Restricted Delivery
00)
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricte Delivery
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

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:

SCHULER DENNIS & VICKI
1041 TILTON RD
FLEMINGSBURG, KY 41041

9590 9402 8749 3310 9190 99

2. Article Number *(Transfer from service label)*

7012 0470 0001 8048 4149

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X DSchuler ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* C. Date of Delivery 5-03-24

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
☐ Mail Restricted Delivery
00)
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricte Delivery
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

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:

WATSON JAMES MATTHEW
1161 TILTON ROAD
FLEMINGSBURG, KY 41041

9590 9402 8749 3310 9192 04

2. Article Number *(Transfer from service label)*

9589 0710 5270 2002 9176 80

COMPLETE THIS SECTION ON DELIVERY

A. Signature

x M Watson ☐ Agent ☐ Addressee

B. Received by *(Printed Name)*

C. Date of Delivery 5/03/24

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
- ☐ Mail
- ☐ Mail Restricted Delivery
- 00)
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricte Delivery
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt

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:

RAMEY JODEY D & ERIN HAGEN
207 MUDSOCK RD
HILLSBORO RD, KY 41049

9590 9402 8749 3310 9191 36

2. Article Number *(Transfer from service label)*

7012 0470 0001 8048 4101

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X Jody Ramey ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* Jody Ramey

C. Date of Delivery 3/14/24

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
- ☐ Insured Mail Restricted Delivery (over $500)
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt

ClarkQuinn
Clark, Quinn, Moses, Scott & Grahn, LLP

CERTIFIED MAIL™

7012 0470 0001 8048 4071

INDIANAPOLIS IN 460
30 APR 2024 PM 2 L

FIRST-CLASS
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APR 30 2024

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%DEMAREE DILLON
4204 BELLVIEW AVE
CHATTANOOGA, T

NIXIE 146 CE 1 2207/29/24
RETURN TO SENDER
NOT DELIVERABLE AS ADDRESSED
UNABLE TO FORWARD
MANUAL PROC REQ *1812-00221-30-38

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ALERT: SEVERE WEATHER IN THE SOUTH, SOUTHEAST, CENTRAL, NORTHERN MID-ATLANTI...

USPS Tracking®

FAQs >

Remove ×

Tracking Number:

9589071052702002917703

Copy Add to Informed Delivery (https://informeddelivery.usps.com/)

Latest Update

Your item was delivered to an individual at the address at 2:00 pm on May 4, 2024 in FLEMINGSBURG, KY 41041.

Get More Out of USPS Tracking:

USPS Tracking Plus®

Feedback

Delivered

Delivered, Left with Individual

FLEMINGSBURG, KY 41041
May 4, 2024, 2:00 pm

See All Tracking History

What Do USPS Tracking Statuses Mean? (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

Exhibit S
List and Identity and Qualifications of Professionals

Stephen E. Hont
Professional Engineer
Kentucky License 25003
TeleCad Communications
1961 Northpoint Blvd. Suite 130
Hixson, TX, 37343

Travis L. Sheilds
Professional Land Surveyor
Kentucky License 4246
The Land Consultants, LLC
5449 Highway 41
Jasper, TN 37347

Joseph V. Borrelli, Jr.
Professional Engineer
Delta Oaks Group
4904 Professional Court, Second Floor
Raleigh, NC 27609

Allen Schneider
Professional Engineer
Rohn Products, LLC
1 Fairholm Avenue
Peoria, IL 61603

Trena Prewitt
Construction Manager
2307 Edison Rd.
South Bend, IN. 46615

Zachary Parsons
RF Engineer
Verizon Wireless
2421 Holloway Road
Louisville, KY 40299

Feb. 27, 2025

Trena Prewitt has worked for Horvath Towers VI, LLC for two (2) years in many jurisdictions throughout the State of Kentucky and this area of the country.

Sincerely,

Trena Prewitt

Trena Prewitt
Horvath Communications

2307 Edison Rd. Suite #2 South Bend, IN 46615 | Phone: 574.237.0464

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 and Horvath Towers VI, LLC 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
And Horvath Towers VI, LLC

STATE OF INDIANA,
COUNTY OF MARION, SS:
Subscribed and sworn to before me this 3rd day of March, 2025.

Notary Public
Printed Name of Notary: Megan N. Webb
My commission expires: 5/24/28
My County of Residence: Marion
Commission #: NP0634690

MEGAN N. WEBB
Notary Public, State of Indiana
Marion County
Commission Number NP0634690
My Commission Expires
May 24, 2028