COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF	)	
NEW CINGULAR WIRELESS PCS, LLC,	)	
A DELAWARE LIMITED LIABILITY COMPANY,	)	
D/B/A AT&T MOBILITY	)	
AND HARMONI TOWERS LLC, A DELAWARE	)	
LIMITED LIABILITY COMPANY	)	
FOR ISSUANCE OF A CERTIFICATE OF PUBLIC	)	CASE NO.: 2021-00327
CONVENIENCE AND NECESSITY TO CONSTRUCT	)	
A WIRELESS COMMUNICATIONS FACILITY	)	
IN THE COMMONWEALTH OF KENTUCKY	)	
IN THE COUNTY OF METCALFE	)	

SITE NAME: SPARKS RELO / WILLIAM JUDD ROAD

* * * * * * *

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

New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility and Harmoni Towers LLC, a Delaware limited liability company (formerly known as Uniti Towers LLC) ("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 Applicants with wireless communications services.

In support of this Application, Applicants respectfully provide and state the following

information:

1. The complete names and addresses of the Applicants are: New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility, having an address of Meidinger Tower, 462 S. 4th Street, Suite 2400, Louisville, Kentucky 40202 and Harmoni Towers LLC, a Delaware limited liability company having an address of 10802 Executive Center Drive, Benton Building, Suite 300, Little Rock, Arkansas 72211.

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

3. AT&T Mobility is a limited liability company organized in the State of Delaware on October 20, 1994. Harmoni Towers is a limited liability company organized in the State of Delaware on December 2, 2015.

4. Applicants attest that they are in good standing in the state in which they are organized and further state that they are authorized to transact business in Kentucky.

5. The Certificates of Authority filed with the Kentucky Secretary of State for both Applicants are attached as part of **Exhibit A** pursuant to 807 KAR 5:001: Section 14(3). Note that Harmoni Towers LLC was formerly organized as Uniti Towers LLC (see an Amended Certificate of Authority to change entity name dated March 22, 2021). The Certificates of Authority for Uniti Towers LLC along with the Amended Certificate of Authority for Harmoni Towers LLC is attached as part of **Exhibit A.**

6. AT&T Mobility operates on frequencies licensed by the Federal Communications Commission ("FCC") pursuant to applicable FCC requirements. Copies of AT&T Mobility's FCC licenses to provide wireless services are attached to this Application or described as part of **Exhibit A**, and the facility will be constructed and operated in accordance with applicable FCC regulations.

7. The public convenience and necessity require the construction of the proposed WCF. The construction of the WCF will bring or improve AT&T Mobility's services to an area currently not served or not adequately served by AT&T Mobility by increasing coverage or capacity and thereby enhancing the public's access to innovative and competitive wireless communications services. The WCF will provide a necessary link in AT&T Mobility's communications network that is designed to meet the increasing demands for wireless services in Kentucky's wireless communications service area. The WCF is an integral link in AT&T Mobility's network design that must be in place to provide adequate coverage to the service area.

8. To address the above-described service needs, Applicants propose to construct a WCF at 1135 Billy Sparks Road, Edmonton, KY 42129 (37° 00' 56.44" North latitude, 85° 31' 05.28" West longitude), on a parcel of land located entirely within the county referenced in the caption of this application. The property on which the WCF will be located is owned by Daniel U. Miller and Katie B Miller, as an undivided two-thirds (2/3 interest and David J. Miller and Mary Ann Miller, as an undivided one-third (1/3) interest pursuant to a deed recorded at Deed Book 166, Page 507 in the office of the County Clerk. The proposed WCF will consist of a 305-foot tall tower, with an approximately 12-foot tall

lightning arrestor attached at the top, for a total height of 317-feet. The WCF will also include concrete foundations and a shelter or cabinets to accommodate the placement of AT&T Mobility's radio electronics equipment and appurtenant equipment. The Applicants' equipment cabinet or shelter will be approved for use in the Commonwealth of Kentucky by the relevant building inspector. The WCF compound will be fenced and all access gate(s) will be secured. A description of the manner in which the proposed WCF will be constructed is attached as **Exhibit B** and **Exhibit C**.

9. A list of utilities, corporations, or persons with whom the proposed WCF is likely to compete is attached as **Exhibit D**.

10. The site development plan and a vertical profile sketch of the WCF signed and sealed by a professional engineer registered in Kentucky depicting the tower height, as well as a proposed configuration for AT&T Mobility's antennas has also been included as part of **Exhibit B**.

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

12. Applicants have considered the likely effects of the installation of the proposed WCF on nearby land uses and values and have concluded that there is no more suitable location reasonably available from which adequate services can be provided, and that there are no reasonably available opportunities to co-locate AT&T Mobility's antennas on an existing structure. When suitable towers or structures exist, AT&T Mobility attempts to co-locate on existing structures such as communications towers or other structures

capable of supporting AT&T Mobility's facilities; however, no other suitable or available co-location site was found to be located in the vicinity of the site.

13. A copy of the Determination of No Hazard to Air Navigation issued by the Federal Aviation Administration ("FAA") is attached as **Exhibit E**.

14. A copy of the approval issued by the Kentucky Airport Zoning Commission ("KAZC") is attached as **Exhibit F**.

15. A geotechnical engineering firm has performed soil boring(s) and subsequent geotechnical engineering studies at the WCF site. A copy of the geotechnical engineering report, signed and sealed by a professional engineer registered in the Commonwealth of Kentucky, is attached as **Exhibit G**. The name and address of the geotechnical engineering firm and the professional engineer registered in the Commonwealth of Kentucky who supervised the examination of this WCF site are included as part of this exhibit.

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

17. Uniti Towers LLC (now Harmoni Towers LLC), pursuant to a written agreement, has acquired the right to use the WCF site and associated property rights. A copy of the agreements or abbreviated agreements recorded with the County Clerk are attached as **Exhibit I**.

18. Personnel directly responsible for the design and construction of the proposed WCF are well qualified and experienced. The tower and foundation drawings for

the proposed tower submitted as part of **Exhibit C** bear the signature and stamp of a professional engineer registered in the Commonwealth of Kentucky. All tower designs meet or exceed the minimum requirements of applicable laws and regulations.

19. The Construction Manager for the proposed facility is Jeremy Culpepper and the identity and qualifications of each person directly responsible for design and construction of the proposed tower are contained in **Exhibits B & C**.

20. As noted on the Survey attached as part of **Exhibit B**, the surveyor has determined that the site is not within any flood hazard area.

21. **Exhibit B** includes a map drawn to an appropriate scale that shows the location of the proposed tower and identifies every owner of real estate within 500 feet of the proposed tower (according to the records maintained by the County Property Valuation Administrator). Every structure and every easement within 500 feet of the proposed tower or within 200 feet of the access road including intersection with the public street system is illustrated in **Exhibit B**.

22. Applicants have notified 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 has been informed of his or her right to request intervention. A list of the notified property owners and a copy of the form of the notice sent by certified mail to each landowner are attached as **Exhibit J** and **Exhibit K**, respectively.

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

24. Notice signs meeting the requirements prescribed by 807 KAR 5:063, Section 1(2) that measure at least 2 feet in height and 4 feet in width and that contain all required language in letters of required height, have been posted, one in a visible location on the proposed site and on the nearest public road. Such signs shall remain posted for at least two weeks after filing of the Application, and a copy of the posted text is attached as **Exhibit M**. A legal notice advertisement regarding the location of the proposed facility has been published in a newspaper of general circulation in the county in which the WCF is proposed to be located. A copy of the newspaper legal notice advertisement is attached as part of **Exhibit M**.

25. The general area where the proposed facility is to be located is rural in character.

26. The process that was used by AT&T Mobility's radio frequency engineers in selecting the site for the proposed WCF was consistent with the general process used for selecting all other existing and proposed WCF facilities within the proposed network design area. AT&T Mobility's radio frequency engineers have conducted studies and tests in order to develop a highly efficient network that is designed to handle voice and data traffic in the service area. The engineers determined an optimum area for the placement of the

proposed facility in terms of elevation and location to provide the best quality service to customers in the service area. A radio frequency design search area prepared in reference to these radio frequency studies was considered by the Applicants when searching for sites for its antennas that would provide the coverage deemed necessary by AT&T Mobility. A map of the area in which the tower is proposed to be located which is drawn to scale and clearly depicts the necessary search area within which the site should be located pursuant to radio frequency requirements is attached as **Exhibit N**.

27. The tower must be located at the proposed location and proposed height to provide necessary service to wireless communications users in the subject area.

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

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

David A. Pike
Pike Legal Group, PLLC
1578 Highway 44 East, Suite 6
P. O. Box 369
Shepherdsville, KY 40165-0369
Telephone: (502) 955-4400
Telefax: (502) 543-4410
Email: dpike@pikelegal.com

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

Respectfully submitted,

David A. Pike
Pike Legal Group, PLLC
1578 Highway 44 East, Suite 6
P. O. Box 369
Shepherdsville, KY 40165-0369
Telephone: (502) 955-4400
Telefax: (502) 543-4410
Email: dpike@pikelegal.com
Attorney for Applicants

LIST OF EXHIBITS

A - Certificate of Authority & FCC License Documentation

B - Site Development Plan:

- 500' Vicinity Map
- Legal Descriptions
- Flood Plain Certification
- Site Plan
- Vertical Tower Profile

C - Tower and Foundation Design

D - Competing Utilities, Corporations, or Persons List

E - FAA

F - Kentucky Airport Zoning Commission

G - Geotechnical Report

H - Directions to WCF Site

I - Copy of Real Estate Agreement

J - Notification Listing

K - Copy of Property Owner Notification

L - Copy of County Judge/Executive Notice

M - Copy of Posted Notices and Newspaper Notice Advertisement

N - Copy of Radio Frequency Design Search Area

EXHIBIT A
CERTIFICATE OF AUTHORITY & FCC LICENSE DOCUMENTATION

Commonwealth of Kentucky
Alison Lundergan Grimes, Secretary of State

Alison Lundergan Grimes
Secretary of State
P. O. Box 718
Frankfort, KY 40602-0718
(502) 564-3490
http://www.sos.ky.gov

Certificate of Authorization

Authentication number: 216299
Visit https://app.sos.ky.gov/ftshow/certvalidate.aspx to authenticate this certificate.

I, Alison Lundergan Grimes, Secretary of State of the Commonwealth of Kentucky, do hereby certify that according to the records in the Office of the Secretary of State,

NEW CINGULAR WIRELESS PCS, LLC

, a limited liability company authorized under the laws of the state of Delaware, is authorized to transact business in the Commonwealth of Kentucky, and received the authority to transact business in Kentucky on October 14, 1999.

I further certify that all fees and penalties owed to the Secretary of State have been paid; that an application for certificate of withdrawal has not been filed; and that the most recent annual report required by KRS 14A.6-010 has been delivered to the Secretary of State.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal at Frankfort, Kentucky, this 28th day of May, 2019, in the 227th year of the Commonwealth.

Alison Lundergan Grimes
Secretary of State
Commonwealth of Kentucky
216299/0481848

0972004.06	vmiller AMD
Michael G. Adams **Kentucky Secretary of State** Received and Filed: 3/22/2021 12:28 PM Fee Receipt: $40.00	

COMMONWEALTH OF KENTUCKY
MICHAEL ADAMS, SECRETARY OF STATE

Division of Business Filings P.O. Box 718 Frankfort, KY 40602 (502) 564-3490 www.sos.ky.gov	**Amended Certificate of Authority** **(Foreign Business Entity)**	**FCA**

Pursuant to the provisions of KRS Chapter KRS 14A and 271B, 273, 274, 275, 362 or 386 the undersigned hereby applies for an amended certificate of authority on behalf of the entity named below and, for that purpose, submits the following statements:

1. The business entity is:
- ☐ profit corporation (KRS 271B)
- ☐ professional service corporation (KRS 274).
- ☒ limited liability company (KRS 275).
- ☐ professional limited liability company (KRS 275
- ☐ limited cooperative association
- ☐ cooperative association
- ☐ nonprofit corporation (KRS 273).
- ☐ business trust (KRS 386).
- ☐ limited partnership (KRS 362).
- ☐ statutory trust (KRS 386)
- ☐ non-profit LLC (KRS 275).

2. The name of the company is: Uniti Towers LLC.
(The name must be identical to the name on record with the Secretary of State.)

3. It is an entity organized and existing under the laws of the state or country of Delaware.

4. The entity received authority to transact business in Kentucky on 1/3/2017.

5. The entity has changed its **(check all that apply)**

- ☑ Domicile name to Harmoni Towers LLC
- ☑ Name to be used in Kentucky to Harmoni Towers LLC
- ☐ Jurisdiction of organization to
- ☐ Period of duration
- ☐ Form of organization
- ☐ Management type: ☒ Member managed ☐ Manager managed

6. This application will be effective upon filing, unless a delayed effective date and/or time is provided. The effective date or the delayed effective date cannot be prior to the date the application is filed. The effective date is .

Please indicate the county in which your business operates:
County: Franklin.

To complete the following, please shade the box completely.

Please indicate the size of your business:
- ☐ Small (Fewer than 50 employees)
- ☑ Large (50 or more employees)

Please indicate whether any of the following make up more than fifty percent (50%) of your business ownership:
- ☐ Women-Owned
- ☐ Veteran Owned
- ☐ Minority Owned

Please indicate which of the following best describes your business:
- ☐ Agriculture
- ☐ Mining
- ☐ Services
- ☐ Construction
- ☐ Wholesale Trade
- ☐ Retail Trade
- ☐ Manufacturing
- ☐ Finance, Insurance, Real Estate
- ☐ Public Administration
- ☑ Transportation, Communications, Electric, Gas, Sanitary Services
- ☐ Other

I declare under penalty of perjury under the laws of the state of Kentucky that the foregoing is true and correct.

Signature of Authorized Representative	Dara Hoey **Printed Name**	In-House Counsel **Title**	2/25/21 **Date**

(1/20)

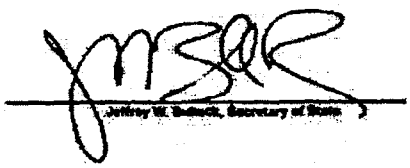
Delaware

The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THAT THE SAID "UNITI TOWERS LLC", FILED A CERTIFICATE OF AMENDMENT, CHANGING ITS NAME TO "HARMONI TOWERS LLC" ON THE EIGHTEENTH DAY OF SEPTEMBER, A.D. 2020, AT 5:13 O`CLOCK P.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE AFORESAID LIMITED LIABILITY COMPANY IS DULY FORMED UNDER THE LAWS OF THE STATE OF DELAWARE AND IS IN GOOD STANDING AND HAS A LEGAL EXISTENCE NOT HAVING BEEN CANCELLED OR REVOKED SO FAR AS THE RECORDS OF THIS OFFICE SHOW AND IS DULY AUTHORIZED TO TRANSACT BUSINESS.

AND I DO HEREBY FURTHER CERTIFY THAT THE SAID "HARMONI TOWERS LLC" WAS FORMED ON THE SECOND DAY OF DECEMBER, A.D. 2015.



5896640 8320
SR# 20210417869

Authentication: 202491953
Date: 02-11-21

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

0972004.06	mstratton ADD
Alison Lundergan Grimes **Kentucky Secretary of State** Received and Filed: 1/3/2017 3:10 PM Fee Receipt: $90.00	

COMMONWEALTH OF KENTUCKY
ALISON LUNDERGAN GRIMES, SECRETARY OF STATE

Division of Business Filings Business Filings PO Box 718 Frankfort, KY 40602 (502) 564-3490 www.sos.ky.gov	Certificate of Authority (Foreign Business Entity)	FBE

Pursuant to the provisions of KRS 14A and KRS 271B, 273, 274,275, 362 and 386 the undersigned hereby applies for authority to transact business in Kentucky on behalf of the entity named below and, for that purpose, submits the following statements:

1. The entity is a : ☐ profit corporation (KRS 271B). ☐ nonprofit corporation (KRS 273). ☐ professional service corporation (KRS 274). ☐ business trust (KRS 386). ☑ limited liability company (KRS 275). ☐ professional limited liability company (KRS 275). ☐ limited partnership (KRS 362).

2. The name of the entity is Uniti Towers LLC
(The name must be identical to the name on record with the Secretary of State.)

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

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

5. The date of organization is 12/2/2015 and the period of duration is _____
(If left blank, the period of duration is considered perpetual.)

6. The mailing address of the entity's principal office is

Street Address	City	State	Zip Code
10802 Executive Center Drive, Benton Building, Suite 300	Little Rock	AR	72211

7. The street address of the entity's registered office in Kentucky is

Street Address (No P.O. Box Numbers)	City	State	Zip Code
306 West Main Street - Suite 512	Frankfort	KY	40601

and the name of the registered agent at that office is C T Corporation System

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

Name	Street or P.O. Box	City	State	Zip Code
Daniel L. Heard	10802 Executive Center Drive, Benton Building, Suite 300	Little Rock	AR	72211
Kenneth Gunderman	10802 Executive Center Drive, Benton Building, Suite 300	Little Rock	AR	72211
Mark A. Wallace	10802 Executive Center Drive, Benton Building, Suite 300	Little Rock	AR	72211

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

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

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

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

13. This application will be effective upon filing, unless a delayed effective date and/or time is provided.
The effective date or the delayed effective date cannot be prior to the date the application is filed. The date and/or time is _____
(Delayed effective date and/or time)

Signature of Authorized Representative	Printed Name & Title	Date
	Keith Harvey, VP - Deputy General Counsel	12/30/2016

I, C T Corporation System, consent to serve as the registered agent on behalf of the business entity.
Type/Print Name of Registered Agent

Signature of Registered Agent	Printed Name	Title	Date
	Tristan Emrich	Assistant Secretary	12/30/2016

(09/15)

Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

ATTN: CECIL J MATHEW
NEW CINGULAR WIRELESS PCS, LLC
208 S AKARD ST., RM 1015
DALLAS, TX 75202

Call Sign	File Number
KNLG909	
Radio Service CW - PCS Broadband	

FCC Registration Number (FRN): 0003291192

Grant Date	Effective Date	Expiration Date	Print Date
07-25-2017	08-31-2018	08-21-2027	

Market Number	Channel Block	Sub-Market Designator
BTA052	F	0

Market Name
Bowling Green-Glasgow, KY

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date
08-21-2002			

Waivers/Conditions:

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

This authorization is conditioned upon the full and timely payment of all monies due pursuant to Sections 1.2110 and 24.716 of the Commission's Rules and the terms of the Commission's installment plan as set forth in the Note and Security Agreement executed by the licensee. Failure to comply with this condition will result in the automatic cancellation of this authorization.

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

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

FCC 601-MB
October 2017

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNLG909 **File Number:** **Print Date:**

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

Commission approval of this application and the licenses contained therein are subject to the conditions set forth in the Memorandum Opinion and Order, adopted on December 29, 2006 and released on March 26, 2007, and revised in the Order on Reconsideration, adopted and released on March 26, 2007. See AT&T Inc. and BellSouth Corporation Application for Transfer of Control, WC Docket No. 06-74, Memorandum Opinion and Order, FCC 06-189 (rel. Mar. 26, 2007); AT&T Inc. and BellSouth Corporation, WC Docket No. 06-74, Order on Reconsideration, FCC 07-44 (rel. Mar. 26, 2007).

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNLG909 **File Number:** **Print Date:**

700 MHz Relicensed Area Information:

Market	Market Name	Buildout Deadline	Buildout Notification	Status

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

ATTN: CECIL J MATHEW
NEW CINGULAR WIRELESS PCS, LLC
208 S AKARD ST., RM 1015
DALLAS, TX 75202

Call Sign	File Number
WPOI255	
Radio Service CW - PCS Broadband	

FCC Registration Number (FRN): 0003291192

Grant Date	Effective Date	Expiration Date	Print Date
05-27-2015	03-12-2020	06-23-2025	

Market Number	Channel Block	Sub-Market Designator
MTA026	A	19

Market Name
Louisville-Lexington-Evansvill

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date
06-23-2000	06-23-2005		

Waivers/Conditions:

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

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

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

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

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: WPOI255 **File Number:** **Print Date:**

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

Spectrum Lease Associated with this License. See Spectrum Leasing Arrangement Letter dated 12/06/2004 and File # 0001918558.

The Spectrum Leasing Arrangement, which became effective upon approval of application file number 0001918558, was terminated on 04/14/2005. See file number 0002135370.

Commission approval of this application and the licenses contained therein are subject to the conditions set forth in the Memorandum Opinion and Order, adopted on December 29, 2006 and released on March 26, 2007, and revised in the Order on Reconsideration, adopted and released on March 26, 2007. See AT&T Inc. and BellSouth Corporation Application for Transfer of Control, WC Docket No. 06-74, Memorandum Opinion and Order, FCC 06-189 (rel. Mar. 26, 2007); AT&T Inc. and BellSouth Corporation, WC Docket No. 06-74, Order on Reconsideration, FCC 07-44 (rel. Mar. 26, 2007).

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: WPOI255 **File Number:** **Print Date:**

700 MHz Relicensed Area Information:

Market	Market Name	Buildout Deadline	Buildout Notification	Status

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

ATTN: CECIL MATHEW
NEW CINGULAR WIRELESS PCS, LLC
208 S AKARD ST., 21ST FL
DALLAS, TX 75202

Call Sign	File Number
WQDI528	
Radio Service CW - PCS Broadband	

FCC Registration Number (FRN): 0003291192

Grant Date	Effective Date	Expiration Date	Print Date
08-17-2015	05-27-2021	09-06-2025	

Market Number	Channel Block	Sub-Market Designator
BTA263	C	7

Market Name
Louisville, KY

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date
09-06-2010			

Waivers/Conditions:
NONE

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

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

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: WQDI528 **File Number:** **Print Date:**

700 MHz Relicensed Area Information:

Market	Market Name	Buildout Deadline	Buildout Notification	Status

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

ATTN: LESLIE WILSON
NEW CINGULAR WIRELESS PCS, LLC
208 S AKARD ST., RM 1016
DALLAS, TX 75202

Call Sign	File Number
WQFA871	
Radio Service CW - PCS Broadband	

FCC Registration Number (FRN): 0003291192

Grant Date	Effective Date	Expiration Date	Print Date
04-13-2017	08-31-2018	04-28-2027	

Market Number	Channel Block	Sub-Market Designator
BTA052	E	4

Market Name
Bowling Green-Glasgow, KY

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date

Waivers/Conditions:

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

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

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

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

FCC 601-MB
October 2017

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: WQFA871 **File Number:** **Print Date:**

700 MHz Relicensed Area Information:

Market	Market Name	Buildout Deadline	Buildout Notification	Status

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

ATTN: CECIL J MATHEW
NEW CINGULAR WIRELESS PCS, LLC
208 S AKARD ST., RM 1015
DALLAS, TX 75202

Call Sign	File Number
WQGA818	
Radio Service AW - AWS (1710-1755 MHz and 2110-2155 MHz)	

FCC Registration Number (FRN): 0003291192

Grant Date	Effective Date	Expiration Date	Print Date
11-29-2006	08-31-2018	11-29-2021	

Market Number	Channel Block	Sub-Market Designator
CMA447	A	0

Market Name
Kentucky 5 - Barren

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date

Waivers/Conditions:

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

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

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

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: WQGA818 **File Number:** **Print Date:**

700 MHz Relicensed Area Information:

Market	Market Name	Buildout Deadline	Buildout Notification	Status

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

ATTN: CECIL J MATHEW
NEW CINGULAR WIRELESS PCS, LLC
208 S AKARD ST. RM 1015
DALLAS, TX 75202

Call Sign	File Number
WQGD758	
Radio Service AW - AWS (1710-1755 MHz and 2110-2155 MHz)	

FCC Registration Number (FRN): 0003291192

Grant Date	Effective Date	Expiration Date	Print Date
12-18-2006	02-20-2019	12-18-2021	

Market Number	Channel Block	Sub-Market Designator
BEA071	C	5

Market Name
Nashville, TN-KY

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date

Waivers/Conditions:

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

Grant of the request to update licensee name is conditioned on it not reflecting an assignment or transfer of control (see Rule 1.948); if an assignment or transfer occurred without proper notification or FCC approval, the grant is void and the station is licensed under the prior name.

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

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

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: WQGD758 **File Number:** **Print Date:**

700 MHz Relicensed Area Information:

Market	Market Name	Buildout Deadline	Buildout Notification	Status

EXHIBIT B

SITE DEVELOPMENT PLAN:

500' VICINITY MAP
LEGAL DESCRIPTIONS
FLOOD PLAIN CERTIFICATION
SITE PLAN
VERTICAL TOWER PROFILE

FA NUMBER: 15147581 / SITE ID: KYBGN 2021
PACE #: MRTNK047959
PROJECT TRACKING #: 10124680
SITE NAME: WILLIAM JUDD RD.

1135 BILLY SPARKS ROAD
EDMONTON, KY 42129
METCALFE COUNTY

PROPOSED 305' GUYED TOWER

ZONING DRAWINGS

HARMONI TOWERS

at&t mobility corp.

A/E DOCUMENT REVIEW STATUS

TITLE	SIGNATURE	DATE
HARMONI TOWERS PROP:		
HARMONI TOWERS CONST. MGR.:		
INTERCONNECT:		
HARMONI TOWERS SITE DEV. MGR.:		
PROPERTY OWNER:		

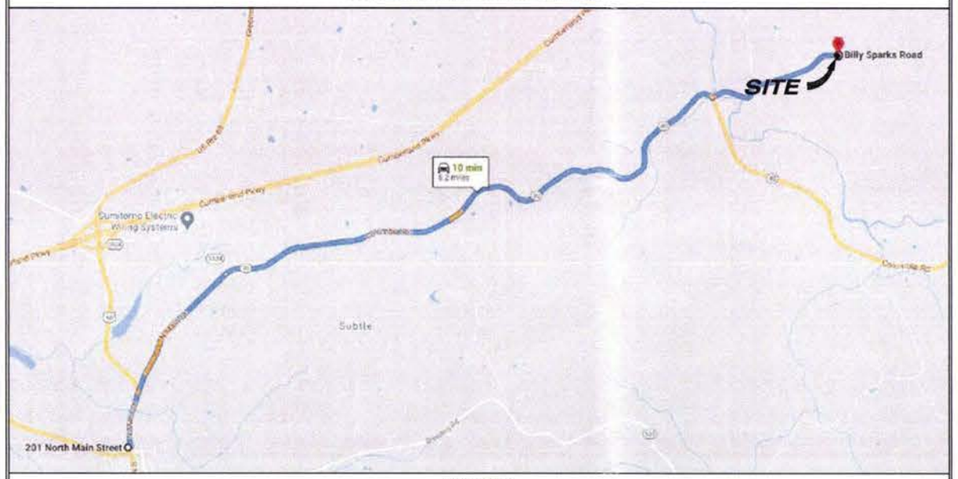
STATUS CODE:	
1	ACCEPTED: WITH OR NO COMMENTS, CONSTRUCTION MAY PROCEED
2	NOT ACCEPTED: RESOLVE COMMENTS AND RESUBMIT

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND MAY IMPOSE CHANGES OR MODIFICATIONS.

PROJECT SUMMARY

SITE NAME:	WILLIAM JUDD RD.
SITE NUMBER:	FA15147581 (10124680)
TAX MAP PROPERTY ID:	075-00-00-006.12
SITE ADDRESS:	1135 BILLY SPARKS ROAD EDMONTON, KY 42129
JURISDICTION:	METCALFE COUNTY
TOWER OWNER:	HARMONI TOWERS 10802 EXECUTIVE CENTER DRIVE LITTLE ROCK, AR 72211
NAD83	
LATITUDE:	37°00'56.44" NORTH (37.015678) NAD83
LONGITUDE:	-85°31'05.28" WEST (-85.518133) NAD83
APPLICANT:	NEW CINGULAR WIRELESS, PCS, LLC, A DELAWARE LIMITED LIABILITY COMPANY d/b/a AT&T MOBILITY MEIDINGER TOWER 462 S/ 4th STREET, SUITE 2400 LOUISVILLE, KY 40202
CO-APPLICANT:	N/A
OCCUPANCY TYPE:	UNMANNED
A.D.A. COMPLIANCE:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION

LOCATION MAP



NO SCALE

DRIVING DIRECTIONS

DEPART 201 N MAIN ST
HEAD NORTH ON MAIN ST TOWARD EAST ST 1.4 MI
CONTINUE ONTO KY-80 E/COLUMBIA RD 3.9 MI
TURN LEFT ONTO JACK SPARKS RD 0.3 MI
TURN RIGHT ONTO BILLY SPARKS RD 0.6M
ARRIVE AT SITE ACCESS DRIVE

DESIGN INFORMATION

A&E FIRM:	B+T GROUP 1717 S. BOULDER SUITE 300 TULSA, OK 74119 MIKE SPEEDIE (918) 587-4630	ELECTRIC PROVIDER:	TRI COUNFARMER'S RURAL ELECTRIC COOPERATIVE (270) 651-2191
SURVEYOR:	POINT TO POINT LAND SURVEYORS 100 GOVERNORS TRACE STE #103 PEACHTREE CITY, GA 30269 PH. (678) 565-4440	TELCO PROVIDER:	AT&T (XXX) XXX-XXXX

PROJECT DESCRIPTION

THE PROPOSED PROJECT INCLUDES:
- CONSTRUCT (1) NEW 305' GUYED TOWER.
- CONSTRUCT FENCED GRAVEL UTILITY COMPOUND WITH LOCKING ACCESS GATE, 50' x 50' WITHIN 100' x 100' LEASE AREA.
- INSTALL CONCRETE PAD AND EQUIPMENT CABINET.
- INSTALL (1) H-FRAME W/ UTILITY EQUIPMENT.
- INSTALL NEW POWER & TELCO UTILITY SERVICES.
- CONSTRUCT 12' WIDE GRAVEL ACCESS ROAD.
- CONSTRUCT (3) FENCED GUY TIE AREAS.

CODE COMPLIANCE

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

CODE TYPE	CODE
BUILDING/DWELLING	IBC 2018
STRUCTURAL	IBC 2018
MECHANICAL	IMC 2018
ELECTRICAL	NEC 2017

DO NOT SCALE DRAWINGS

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 11X17.
CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

DRAWING INDEX

CALL KENTUCKY ONE CALL
(800) 752-6007
CALL 3 WORKING DAYS
BEFORE YOU DIG!

811

B+T GRP

at&t mobility corp.

HARMONI TOWERS

HARMONI TOWERS
WILLIAM JUDD RD.
FA# 15147581
PACE# MRTNK047959
PT# 10124680
1135 BILLY SPARKS ROAD
EDMONTON, KY 42129
METCALFE COUNTY
PROPOSED 305' GUYED TOWER

PROJECT NO:	137335
CHECKED BY:	DLS

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION
B	01/11/21	DLS	ZONING DRAWINGS
C	02/12/21	MAS	ZONING DRAWINGS
D	02/22/21	MAS	ZONING DRAWINGS

B&T ENGINEERING, INC.
4011
Expires 12/31/21

STATE OF KENTUCKY
BRAD P. MILANOWSKI
25311
LICENSED PROFESSIONAL ENGINEER
2/22/21

TITLE SHEET

SHEET NUMBER:
T-1

PARENT PARCEL

OWNER: DANIEL U. MILLER AND KATIE B. MILLER, AS TO AN UNDIVIDED TWO-THIRDS (2/3) INTEREST AND DAVID J. MILLER AND MARY ANN MILLER, AS TO AN UNDIVIDED ONE-THIRD (1/3) INTEREST

SITE ADDRESS: 1135 BILLY SPARKS RD., EDMONTON, KY 42129

PARCEL ID: 075-00-00-006.12

AREA: 154.69 ACRES (PER TAX ASSESSOR)

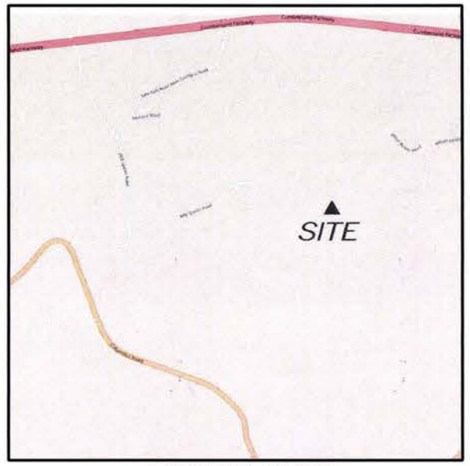
ALL ZONING INFORMATION SHOULD BE VERIFIED WITH THE PROPER ZONING OFFICIALS

REFERENCE: DEED BOOK 166 PAGE 507

GPS NOTES

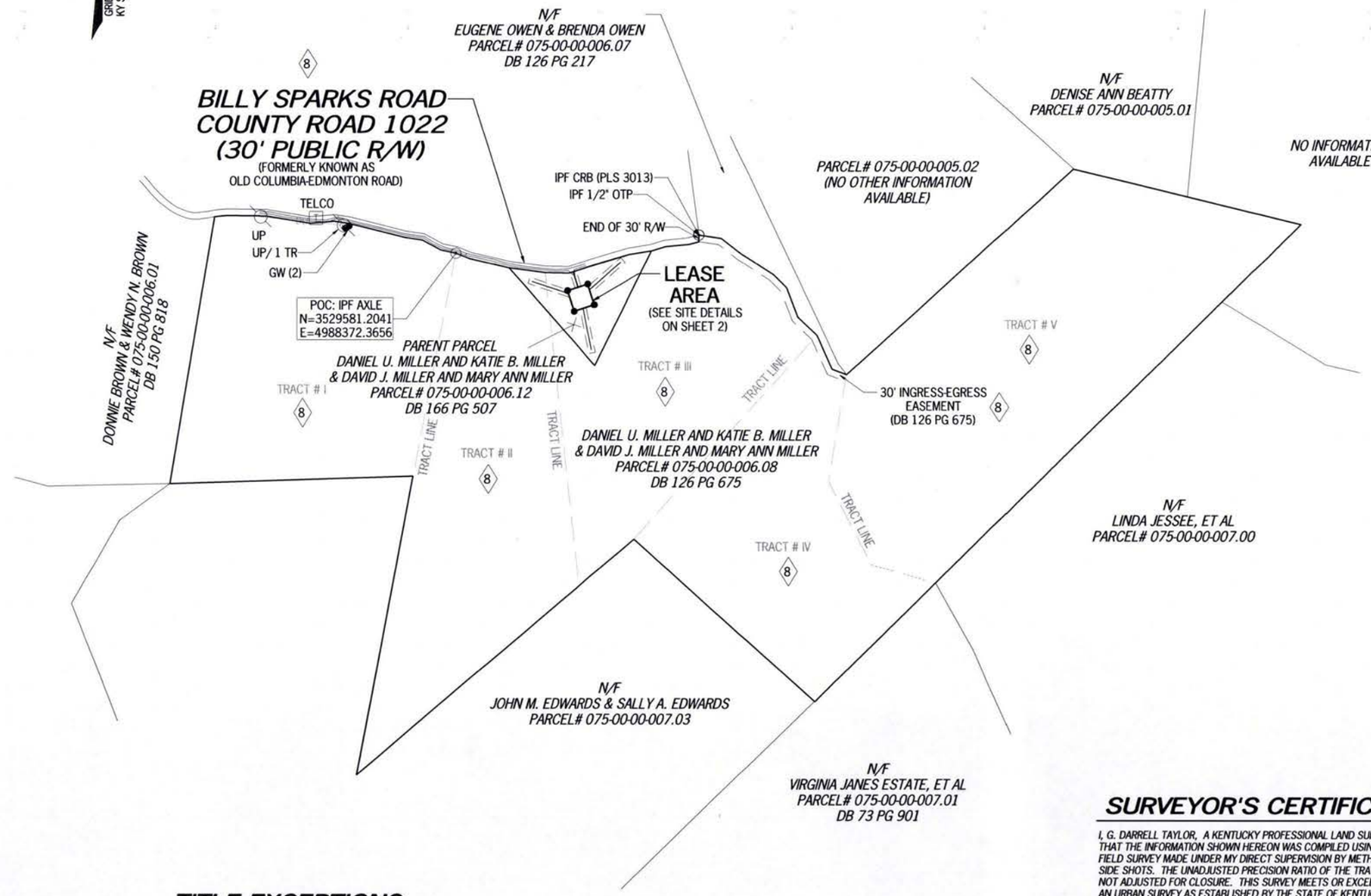
THE FOLLOWING GPS STATISTICS UPON WHICH THIS SURVEY IS BASED HAVE BEEN PRODUCED AT THE 95% CONFIDENCE LEVEL:

POSITIONAL ACCURACY: 0.03 FEET (HORZ) 0.13 FEET (VERT)
TYPE OF EQUIPMENT: GEOMAX ZENITH35 PRO BASE AND ROVER, DUAL FREQUENCY
TYPE OF GPS FIELD PROCEDURE: ONLINE POSITION USER INTERFACE
DATES OF SURVEY: 04/21/2020
DATUM / EPOCH: NAD_83(2011)(EPOCH:2010.0000)
PUBLISHED / FIXED CONTROL USE: N/A
GEOID MODEL: 18
COMBINED GRID FACTOR(S): 0.99997727 CENTERED ON THE GPS BASE POINT AS SHOWN HEREON.
CONVERGENCE ANGLE: 0°8'29.1912"
BENCHMARKS USED: DK3326, DL6173, DK3318, DK4051, DK3324, DJ9546, DJ9552, DK7559, & DK3330



VICINITY MAP

NOT TO SCALE



GENERAL NOTES

* THIS SPECIFIC PURPOSE SURVEY IS FOR THE LEASED PREMISES AND EASEMENTS ONLY. THIS SPECIFIC PURPOSE SURVEY WAS PREPARED FOR THE EXCLUSIVE USE OF UNITI TOWERS, LLC AND EXCLUSIVELY FOR THE TRANSFERRAL OF THE LEASED PREMISES AND THE RIGHTS OF EASEMENT SHOWN HEREON AND SHALL NOT BE USED AS AN EXHIBIT OR EVIDENCE IN THE FEE SIMPLE TRANSFERRAL OF THE PARENT PARCEL NOR ANY PORTION OR PORTIONS THEREOF. BOUNDARY INFORMATION SHOWN HEREON HAS BEEN COMPILED FROM TAX MAPS AND DEED DESCRIPTIONS ONLY. NO BOUNDARY SURVEY OF THE PARENT PARCEL WAS PERFORMED.

THIS DRAWING DOES NOT REPRESENT A BOUNDARY SURVEY.

THE FIELD DATA UPON WHICH THIS SPECIFIC PURPOSE SURVEY IS BASED HAS A CLOSURE PRECISION OF ONE FOOT IN 10,000+ FEET AND AN ANGULAR ERROR OF 5.0" PER ANGLE POINT AND WAS NOT ADJUSTED FOR CLOSURE.

EQUIPMENT USED FOR ANGULAR & LINEAR MEASUREMENTS: LEICA TPS 1200 ROBOTIC & GEOMAX ZENITH 35. [DATE OF LAST FIELD VISIT: 04/21/2020]

THE 1' CONTOURS AND SPOT ELEVATIONS SHOWN ON THIS SPECIFIC PURPOSE SURVEY ARE ADJUSTED TO NAVD 88 DATUM (COMPUTED USING GEOID18) AND HAVE A VERTICAL ACCURACY OF ±0.5'. CONTOURS OUTSIDE THE IMMEDIATE SITE AREA ARE APPROXIMATE.

BEARINGS SHOWN ON THIS SPECIFIC PURPOSE SURVEY ARE BASED ON GRID NORTH (NAD 83) KENTUCKY SINGLE ZONE.

PER THE FEMA FLOODPLAIN MAPS, THE SITE IS LOCATED IN AN AREA DESIGNATED AS ZONE X (AREA OF MINIMAL FLOOD HAZARD). COMMUNITY PANEL NO.: 21169C0125C DATED: 5/3/2010

NO WETLAND AREAS HAVE BEEN INVESTIGATED BY THIS SPECIFIC PURPOSE SURVEY.

ALL ZONING INFORMATION SHOULD BE VERIFIED WITH THE PROPER ZONING OFFICIALS.

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

LEGEND

POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
IPF	IRON PIN FOUND
CRB	CAPPED REBAR
OTP	REBAR
RB	REBAR
UP	UTILITY POLE
OU	OVERHEAD UTILITY
GW	GUY WIRE ANCHOR
TR	TRANSFORMER
N/F	NOW OR FORMERLY
R/W	RIGHT-OF-WAY

TITLE EXCEPTIONS

THIS SURVEY WAS COMPLETED WITH THE AID OF TITLE WORK PREPARED BY FIDELITY NATIONAL TITLE INSURANCE COMPANY, COMMITMENT DATE OF AUGUST 27, 2020, BEING COMMITMENT NO. 32548090, FOR THE PARENT PARCEL, TO DETERMINE THE IMPACTS OF EXISTING TITLE EXCEPTIONS.

8. MATTERS AS SHOWN AND NOTED ON PLAT RECORDED IN SLIDE A 1207.

[THIS ITEM IS APPLICABLE TO THE PARENT PARCEL. PLOTTABLE ITEMS SHOWN HEREON].

300 0 600 1200
GRAPHIC SCALE IN FEET
SCALE: 1" = 600'

SURVEYOR'S CERTIFICATE

I, G. DARRELL TAYLOR, A KENTUCKY PROFESSIONAL LAND SURVEYOR, CERTIFY THAT THE INFORMATION SHOWN HEREON WAS COMPILED USING DATA FROM AN ACTUAL FIELD SURVEY MADE UNDER MY DIRECT SUPERVISION BY METHOD OF RANDOM TRAVERSE WITH SIDE SHOTS. THE UNADJUSTED PRECISION RATIO OF THE TRAVERSE EXCEEDED 1:10,000 AND WAS NOT ADJUSTED FOR CLOSURE. THIS SURVEY MEETS OR EXCEEDS THE MINIMUM STANDARDS FOR AN URBAN SURVEY AS ESTABLISHED BY THE STATE OF KENTUCKY, PER 201 KAR 18:150 AND IN EFFECT ON THE DATE OF THIS SURVEY.

09/12/2020
G. DARRELL TAYLOR, PLS 4179 — DATE

SURVEY NOT VALID WITHOUT SHEETS 2 & 3

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

STATE of KENTUCKY
G. DARRELL TAYLOR
4179
LICENSED PROFESSIONAL LAND SURVEYOR

NO.	DATE	REVISION
1	09/12/2020	ADDED TITLE - NRW
2	1/7/2021	CLIENT COMMENTS

* SPECIFIC PURPOSE SURVEY PREPARED BY:

POINT TO POINT LAND SURVEYORS
100 Governors Trace, Ste. 103
Peachtree City, GA 30269
(p) 678.565.4440 (f) 678.565.4497
(w) pointtopointsurvey.com

SPECIFIC PURPOSE SURVEY PREPARED FOR:

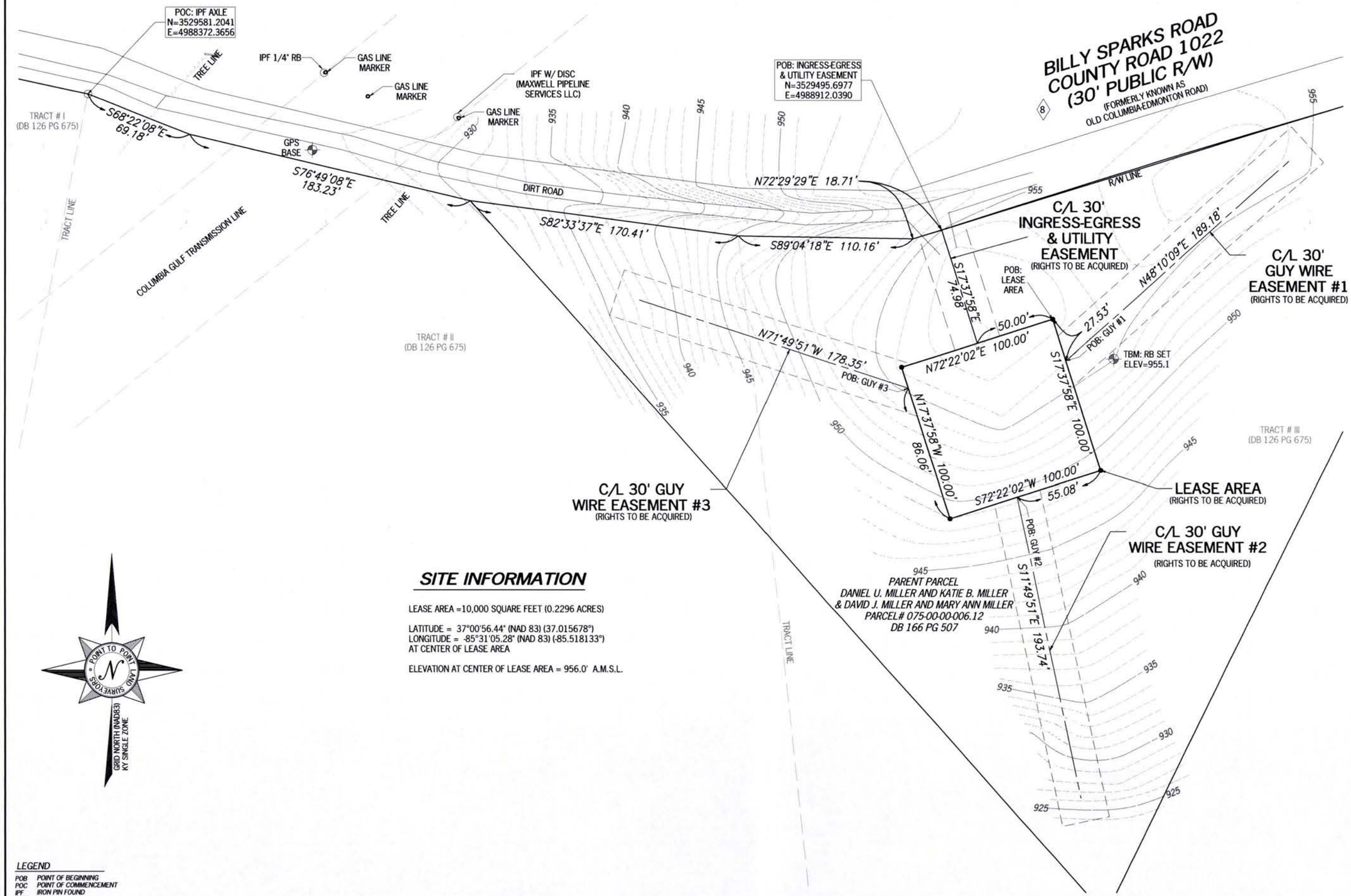
Uniti Towers

WILLIAM JUDD RD.

SITE NO.
KYBGN2021
METCALFE COUNTY
KENTUCKY

DRAWN BY: NRW	SHEET:
CHECKED BY: JKL	1
APPROVED: D. MILLER	
DATE: APRIL 24, 2020	OF 3
P2P JOB #: 200696KY	

E:\Dropbox (Point To Point)\P2P Current Jobs\2020\200696KY\KYBGN2021 William Judd Rd KY\200696KY.pro



SITE INFORMATION

LEASE AREA =10,000 SQUARE FEET (0.2296 ACRES)

LATITUDE = 37°00'56.44" (NAD 83) (37.015678°)
LONGITUDE = -85°31'05.28" (NAD 83) (-85.518133°)
AT CENTER OF LEASE AREA

ELEVATION AT CENTER OF LEASE AREA = 956.0' A.M.S.L.

GRID NORTH (NAD83)
KY SINGLE ZONE

30 0 60 120
GRAPHIC SCALE IN FEET
SCALE: 1" = 60'

LEGEND

POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
IPF	IRON PIN FOUND
CRB	CAPPED REBAR
RB	REBAR
UP	UTILITY POLE
OU	OVERHEAD UTILITY
GW	GUY WIRE ANCHOR
TR	TRANSFORMER
N/F	NOW OR FORMERLY
R/W	RIGHT-OF-WAY

SURVEY NOT VALID WITHOUT SHEETS 1 & 3

STATE of KENTUCKY
G. DARRELL TAYLOR
4179
LICENSED PROFESSIONAL LAND SURVEYOR

NO.	DATE	REVISION
1	09/12/2020	ADDED TITLE - NRW
2	1/7/2021	CLIENT COMMENTS

* SPECIFIC PURPOSE SURVEY PREPARED BY:
POINT TO POINT LAND SURVEYORS
100 Governors Trace, Ste. 103
Peachtree City, GA 30269
(p) 678.565.4440 (f) 678.565.4497
(w) pointtopointsurvey.com

SPECIFIC PURPOSE SURVEY PREPARED FOR:

Uniti Towers

WILLIAM JUDD RD.

SITE NO.
KYBGN2021
METCALFE COUNTY
KENTUCKY

DRAWN BY: NRW	SHEET: 2 OF 3
CHECKED BY: JKL	
APPROVED: D. MILLER	
DATE: APRIL 24, 2020	
P2P JOB #: 200696KY	

E:\Dropbox (Point To Point)\P2P Current Jobs\2020\200696KY\KYBGN2021 William Judd Rd KY\200696KY.pro

30' INGRESS-EGRESS & UTILITY EASEMENT

TOGETHER WITH A 30-FOOT WIDE INGRESS-EGRESS AND UTILITY EASEMENT (LYING 15 FEET EACH SIDE OF CENTERLINE) LYING AND BEING IN METCALFE COUNTY, KENTUCKY, BEING A PORTION OF THE LANDS OF DANIEL U. MILLER AND WIFE, KATIE B. MILLER AND DAVID J. MILLER AND WIFE, MARY ANN MILLER, AS RECORDED IN DEED BOOK 126 PAGE 675, METCALFE COUNTY RECORDS, BEING DESCRIBED BY THE FOLLOWING CENTERLINE DATA:

TO FIND THE POINT OF BEGINNING, COMMENCE AT AN AXLE FOUND ON THE SOUTHERLY RIGHT-OF-WAY LINE OF BILLY SPARKS ROAD (ALSO KNOWN AS COUNTY ROAD 1022 AND HAVING A 30-FOOT RIGHT-OF-WAY), SAID AXLE MARKING THE NORTHEAST CORNER OF TRACT NO. 1 OF SAID LANDS RECORDED IN DEED BOOK 126 PAGE 675, SAID AXLE HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N=3529581.2041 E=4988372.3656; THENCE ALONG SAID SOUTHERLY RIGHT-OF-WAY LINE OF BILLY SPARKS ROAD, SOUTH 68°22'08" EAST, 69.18 FEET TO A POINT; THENCE, SOUTH 76°49'08" EAST, 183.23 FEET TO A POINT; THENCE, SOUTH 82°33'37" EAST, 170.41 FEET TO A POINT; THENCE, SOUTH 89°04'18" EAST, 110.16 FEET TO A POINT; THENCE, NORTH 72°29'29" EAST, 18.71 FEET TO A POINT HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N=3529495.6977 E=4988912.0390 AND THE TRUE POINT OF BEGINNING; THENCE LEAVING SAID SOUTHERLY RIGHT-OF-WAY LINE OF BILLY SPARKS ROAD AND RUNNING, SOUTH 17°37'58" EAST, 74.98 FEET TO THE ENDING AT A POINT ON THE NORTH LINE OF THE LEASE AREA.

LEASE AREA

ALL THAT TRACT OR PARCEL OF LAND LYING AND BEING IN METCALFE COUNTY, KENTUCKY, BEING A PORTION OF THE LANDS OF DANIEL U. MILLER AND WIFE, KATIE B. MILLER AND DAVID J. MILLER AND WIFE, MARY ANN MILLER, AS RECORDED IN DEED BOOK 126 PAGE 675, METCALFE COUNTY RECORDS, BEING DESCRIBED BY THE FOLLOWING CENTERLINE DATA:

TO FIND THE POINT OF BEGINNING, COMMENCE AT AN AXLE FOUND ON THE SOUTHERLY RIGHT-OF-WAY LINE OF BILLY SPARKS ROAD (ALSO KNOWN AS COUNTY ROAD 1022 AND HAVING A 30-FOOT RIGHT-OF-WAY), SAID AXLE MARKING THE NORTHEAST CORNER OF TRACT NO. 1 OF SAID LANDS RECORDED IN DEED BOOK 126 PAGE 675, SAID AXLE HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N=3529581.2041 E=4988372.3656; THENCE ALONG SAID SOUTHERLY RIGHT-OF-WAY LINE OF BILLY SPARKS ROAD, SOUTH 68°22'08" EAST, 69.18 FEET TO A POINT; THENCE, SOUTH 76°49'08" EAST, 183.23 FEET TO A POINT; THENCE, SOUTH 82°33'37" EAST, 170.41 FEET TO A POINT; THENCE, SOUTH 89°04'18" EAST, 110.16 FEET TO A POINT; THENCE, NORTH 72°29'29" EAST, 18.71 FEET TO A POINT HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N=3529495.6977 E=4988912.0390; THENCE LEAVING SAID SOUTHERLY RIGHT-OF-WAY LINE OF BILLY SPARKS ROAD AND RUNNING, SOUTH 17°37'58" EAST, 74.98 FEET TO A POINT ON THE NORTH LINE OF THE LEASE AREA; THENCE ALONG SAID LEASE AREA, NORTH 72°22'02" EAST, 50.00 FEET TO A POINT AND THE TRUE POINT OF BEGINNING; THENCE RUNNING, SOUTH 17°37'58" EAST, 100.00 FEET TO A POINT; THENCE, SOUTH 72°22'02" WEST, 100.00 FEET TO A POINT; THENCE, NORTH 17°37'58" WEST, 100.00 FEET TO A POINT; THENCE, NORTH 72°22'02" EAST, 100.00 FEET TO A POINT AND THE POINT OF BEGINNING.

SAID TRACT CONTAINS 0.2296 ACRES (10,000 SQUARE FEET), MORE OR LESS.

PARENT PARCEL

(AS PROVIDED IN TITLE REPORT COMMITMENT NO. 32548090)

AN INTEREST IN LAND, SAID INTEREST BEING OVER A PORTION OF THE FOLLOWING DESCRIBED PARENT PARCEL:

A PORTION OF THE PROPERTY OF DANIEL U. MILLER ET AL (DEED BOOK 126, PAGE 675 AND A PLAT IN SLIDE A 1207 - A PORTION OF TRACTS #2 AND #3 RECORDED IN THE OFFICE OF THE METCALFE COUNTY COURT CLERK) LOCATED IN METCALFE COUNTY, KENTUCKY AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

UNLESS OTHERWISE SPECIFIED, ANY MONUMENT REFERRED TO HEREIN AS A SET IRON PIN IS A 1/2" X 18" REBAR WITH A YELLOW PLASTIC SURVEYORS CAP STAMPED JD NANCE RLS 3014. ALL BEARINGS STATED HEREIN ARC BASED ON GEODETIC NORTH AS OBSERVED APRIL 24TH 2020.

BEGINNING AT A SET IRON PIN ON THE R\W OF THE BILLY SPARKS ROAD (30 FT. R/W) A NEW CORNER TO DANIEL U. MILLER ET AL (DEED BOOK 126, PAGE 675 AND A PLAT MIN SLIDE A 1207 - A PORTION OF TRACT #2); THEME WITH THE R/W S 82 DEG. 33 MIN. 38 SEC. E 170.41 FT.; THENCE S 89 DEG. 04 MIN. 28 SEC. E 110.16 FT.; THENCE N 72 DEG. 29 MIN. 28 SEC. E 161.89 FT.; THENCE N 73 DEG. 22 MIN. 53 SEC. E 127.01 FT.; THENCE N 80 DEG. 47 MIN. 16 SEC. E 106.27 FT. TO A SET IRON PIN ON THE R\W (REFERENCED S 71 DEG. 20 MIN. 17 SEC. W 232.44 FT. FROM AN EXISTING IRON PIN WITH CAP #3013 AT A 24" WHITE OAK ON THE NORTH SIDE OF THE ROAD, A CORNER TO TRACTS #3 AND #6 AND BROWN) A NEW CORNER TO DANIEL U. MILLER ET AL (DEED BOOK 126, PAGE 675 AND A PLAT MIN SLIDE A 1207 - A PORTION OF TRACT #3); THENCE SEVERING THE LAND OF MILER WITH TWO NEW LINES S 26 DEG. 13 MIN. 05 SEC. W 588.26 FL. TO A SET IRON PIN; THENCE N 41 DEG. 40 MIN. 43 SEC. W 601.89 FT. TO THE BEGINNING CONTAINING 3.36 ACRES, MORE OR LESS.

AND BEING A PORTION OF THE SAME PROPERTY CONVEYED TO DANIEL U. MILLER AND KATIE B. MILLER AND DAVID J. MILLER AND MARY ANN MILLER FROM T & L INVESTMENTS, INC., A KENTUCKY CORPORATION BY DEED OF CONVEYANCE DATED JANUARY 26, 2005 AND RECORDED FEBRUARY 9, 2005 IN DEED BOOK 126, PAGE 675; AND FURTHER CONVEYED TO DANIEL U. MILLER AND KATIE B. MILLER, AS TO AN UNDIVIDED TWO-THIRDS (2/3) INTEREST AND DAVID J. MILLER AND MARY ANN MILLER, AS TO AN UNDIVIDED ONE-THIRD (1/3) INTEREST FROM DANIEL U. MILLER, KATIE B. MILLER, DAVID J. MILLER AND MARY ANN MILLER BY DEED OF CONVEYANCE DATED JUNE 28, 2020 AND RECORDED AUGUST 3, 2020 IN DEED BOOK 166, PAGE 507.

TAX PARCEL NO. 075-00-00-006.08

[THIS DESCRIPTION IS PLOTTED HEREON. SEE SHEET 1 OF SURVEY].

30' GUY WIRE EASEMENT #1

TOGETHER WITH A 30-FOOT WIDE GUY WIRE EASEMENT (LYING 15 FEET EACH SIDE OF CENTERLINE AND EXTENDING 15 FEET PAST TERMINATION OF CENTERLINE) LYING AND BEING IN METCALFE COUNTY, KENTUCKY, BEING A PORTION OF THE LANDS OF DANIEL U. MILLER AND WIFE, KATIE B. MILLER AND DAVID J. MILLER AND WIFE, MARY ANN MILLER, AS RECORDED IN DEED BOOK 126 PAGE 675, METCALFE COUNTY RECORDS, BEING DESCRIBED BY THE FOLLOWING CENTERLINE DATA:

TO FIND THE POINT OF BEGINNING, COMMENCE AT AN AXLE FOUND ON THE SOUTHERLY RIGHT-OF-WAY LINE OF BILLY SPARKS ROAD (ALSO KNOWN AS COUNTY ROAD 1022 AND HAVING A 30-FOOT RIGHT-OF-WAY), SAID AXLE MARKING THE NORTHEAST CORNER OF TRACT NO. 1 OF SAID LANDS RECORDED IN DEED BOOK 126 PAGE 675, SAID AXLE HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N=3529581.2041 E=4988372.3656; THENCE ALONG SAID SOUTHERLY RIGHT-OF-WAY LINE OF BILLY SPARKS ROAD, SOUTH 68°22'08" EAST, 69.18 FEET TO A POINT; THENCE, SOUTH 76°49'08" EAST, 183.23 FEET TO A POINT; THENCE, SOUTH 82°33'37" EAST, 170.41 FEET TO A POINT; THENCE, SOUTH 89°04'18" EAST, 110.16 FEET TO A POINT; THENCE, NORTH 72°29'29" EAST, 18.71 FEET TO A POINT HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N=3529495.6977 E=4988912.0390; THENCE LEAVING SAID SOUTHERLY RIGHT-OF-WAY LINE OF BILLY SPARKS ROAD AND RUNNING, SOUTH 17°37'58" EAST, 74.98 FEET TO A POINT ON THE NORTH LINE OF THE LEASE AREA; THENCE ALONG SAID LEASE AREA, NORTH 72°22'02" EAST, 50.00 FEET TO A POINT; THENCE, SOUTH 17°37'58" EAST, 27.53 FEET TO A POINT AND THE TRUE POINT OF BEGINNING; THENCE LEAVING SAID LEASE AREA AND RUNNING, NORTH 48°10'09" EAST, 189.18 FEET TO THE ENDING AT A POINT.

30' GUY WIRE EASEMENT #2

TOGETHER WITH A 30-FOOT WIDE GUY WIRE EASEMENT (LYING 15 FEET EACH SIDE OF CENTERLINE AND EXTENDING 15 FEET PAST TERMINATION OF CENTERLINE) LYING AND BEING IN METCALFE COUNTY, KENTUCKY, BEING A PORTION OF THE LANDS OF DANIEL U. MILLER AND WIFE, KATIE B. MILLER AND DAVID J. MILLER AND WIFE, MARY ANN MILLER, AS RECORDED IN DEED BOOK 126 PAGE 675, METCALFE COUNTY RECORDS, BEING DESCRIBED BY THE FOLLOWING CENTERLINE DATA:

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30' GUY WIRE EASEMENT #3

TOGETHER WITH A 30-FOOT WIDE GUY WIRE EASEMENT (LYING 15 FEET EACH SIDE OF CENTERLINE AND EXTENDING 15 FEET PAST TERMINATION OF CENTERLINE) LYING AND BEING IN METCALFE COUNTY, KENTUCKY, BEING A PORTION OF THE LANDS OF DANIEL U. MILLER AND WIFE, KATIE B. MILLER AND DAVID J. MILLER AND WIFE, MARY ANN MILLER, AS RECORDED IN DEED BOOK 126 PAGE 675, METCALFE COUNTY RECORDS, BEING DESCRIBED BY THE FOLLOWING CENTERLINE DATA:

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SURVEY NOT VALID WITHOUT SHEETS 1 & 2

STATE of KENTUCKY
G. DARRELL TAYLOR
4179
LICENSED PROFESSIONAL LAND SURVEYOR

NO.	DATE	REVISION
1	09/12/2020	ADDED TITLE - NRW
2	1/7/2021	CLIENT COMMENTS

* SPECIFIC PURPOSE SURVEY PREPARED BY:
POINT TO POINT LAND SURVEYORS
100 Governors Trace, Ste. 103
Peachtree City, GA 30269
(p) 678.565.4440 (f) 678.565.4497
(w) pointtopointsurvey.com

SPECIFIC PURPOSE SURVEY PREPARED FOR:

Uniti Towers

WILLIAM JUDD RD.

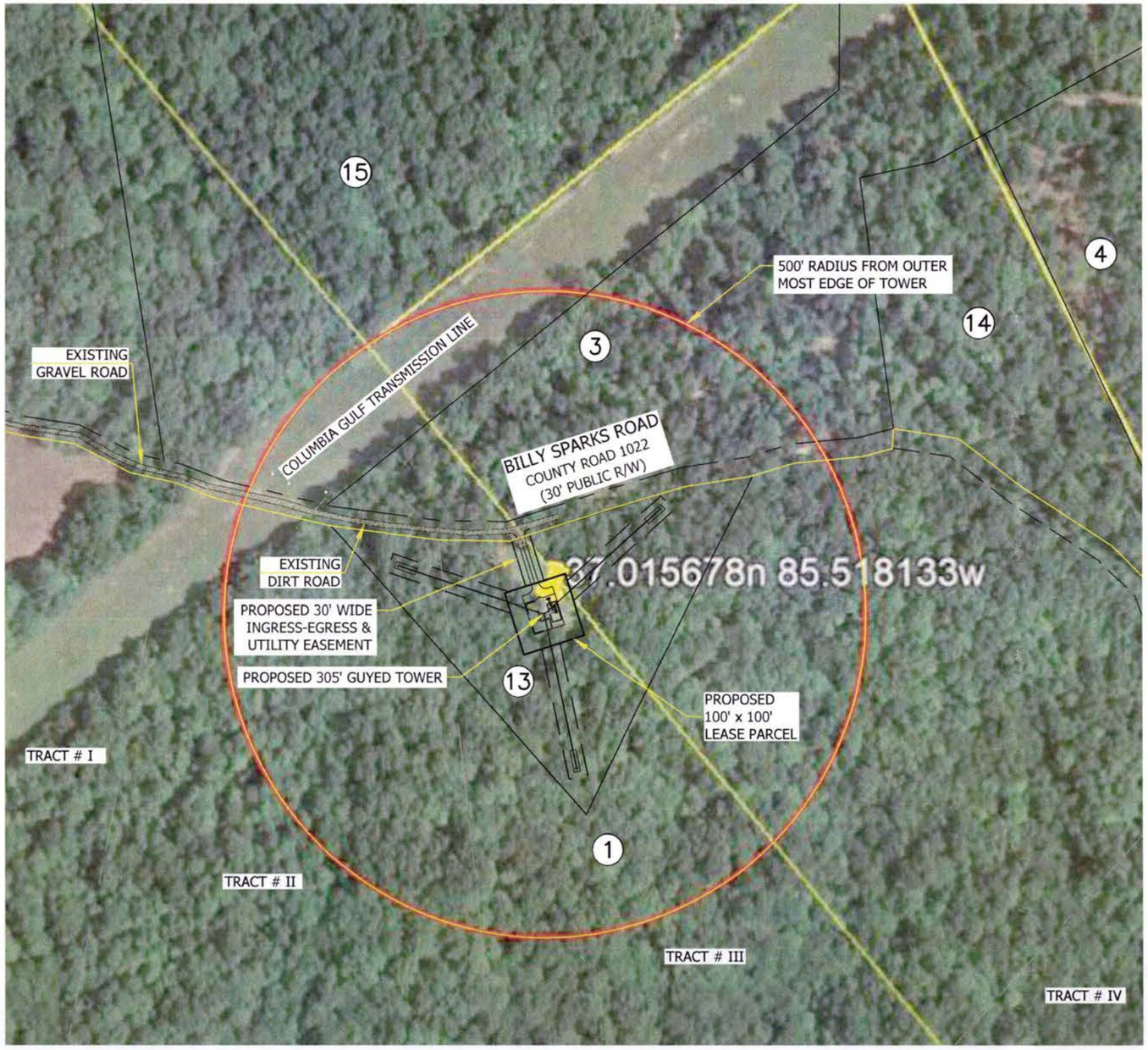
SITE NO.
KYBGN2021

METCALFE COUNTY
KENTUCKY

DRAWN BY: NRW
CHECKED BY: JKL
APPROVED: D. MILLER
DATE: APRIL 24, 2020
P2P JOB #: 200696KY

SHEET: 3 OF 3

E:\Dropbox (Point To Point)\P2P Current Jobs\2020\200696KY\KYBGN2021 William Judd Rd KY\200696KY.pro



#	OWNER	ADDRESS	PID	REF
1	DANIEL U. MILLER & KATIE MILLER DAVID J. MILLER & MARY ANN MILLER	532 WALKER-STEWART RD HORSE CAVE, KY 42749	075-00-00-006.08	DB 126 PG 675
3	BROWN LEIGH ESTATES % ELIZABETH CROMPTON	7601 W. LAKE DRIVE W PALM BEACH, FL 33406	075-00-00-005.03	DB 126 PG 217
4	BILLY & CHARLOTTE DAVIS ATTN.: TAX DEPARTMENT	8051 CONGRESS AVE BOCA RATON, FL 33487	075-00-00-005.02 D01	-
4	MIKELL & CLARE DAVIS	1441 WILLIAM JUDD ROAD EDMONTON, KY 42129	075-00-00-005.02 DO2	-
13	DANIEL U. MILLER & KATIE MILLER DAVID J. MILLER & MARY ANN MILLER	532 WALKER-STEWART RD HORSE CAVE, KY 42749	075-00-00-006.12	DB 166 PG 507
14	EUGENE OWEN	103 DAVIS STREET GLASGOW, KY 42141	075-00-00-006.07	DB 126 PG 217
15	MILTON & DONNA CRAWFORD	1149 RED POND ROAD BOWLING GREEN, KY 42103	075-00-00-006.09	-

NOTE:

1. SEE SHEET C-1.2 FOR INFORMATION ON PROPERTIES #2 & #5 - #12, #16 - #17.
2. PVA INFORMATION WAS OBTAINED ON 12/14/2020 FROM THE OFFICIAL RECORDS OF THE COUNTY'S PROPERTY VALUATION ADMINISTRATOR.
3. THIS MAP IS FOR GENERAL INFORMATION PURPOSES ONLY AND IS NOT A BOUNDARY SURVEY.
4. NOT FOR RECORDING OR PROPERTY TRANSFER.

1 500' RADIUS & ADJOINER'S DRAWING
SCALE: 0' 100' 200' 300' 400' 1"=200'

N

CALL KENTUCKY ONE CALL
(800) 752-6007
CALL 3 WORKING DAYS
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B+T GRP

at&t mobility corp.

HARMONI TOWERS

HARMONI TOWERS
WILLIAM JUDD RD.
FA# 15147581
PACE# MRTNK047959
PT# 10124680
1135 BILLY SPARKS ROAD
EDMONTON, KY 42129
METCALFE COUNTY
PROPOSED 305' GUYED TOWER

PROJECT NO:	137335
CHECKED BY:	DLS

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION
B	01/11/21	DLS	ZONING DRAWINGS
C	02/12/21	MAS	ZONING DRAWINGS
D	02/22/21	MAS	ZONING DRAWINGS

B&T ENGINEERING, INC.
4011
Expires 12/31/21

STATE OF KENTUCKY
BRADLEY D. MILANOWSKI
25311
LICENSED PROFESSIONAL ENGINEER
2/22/21

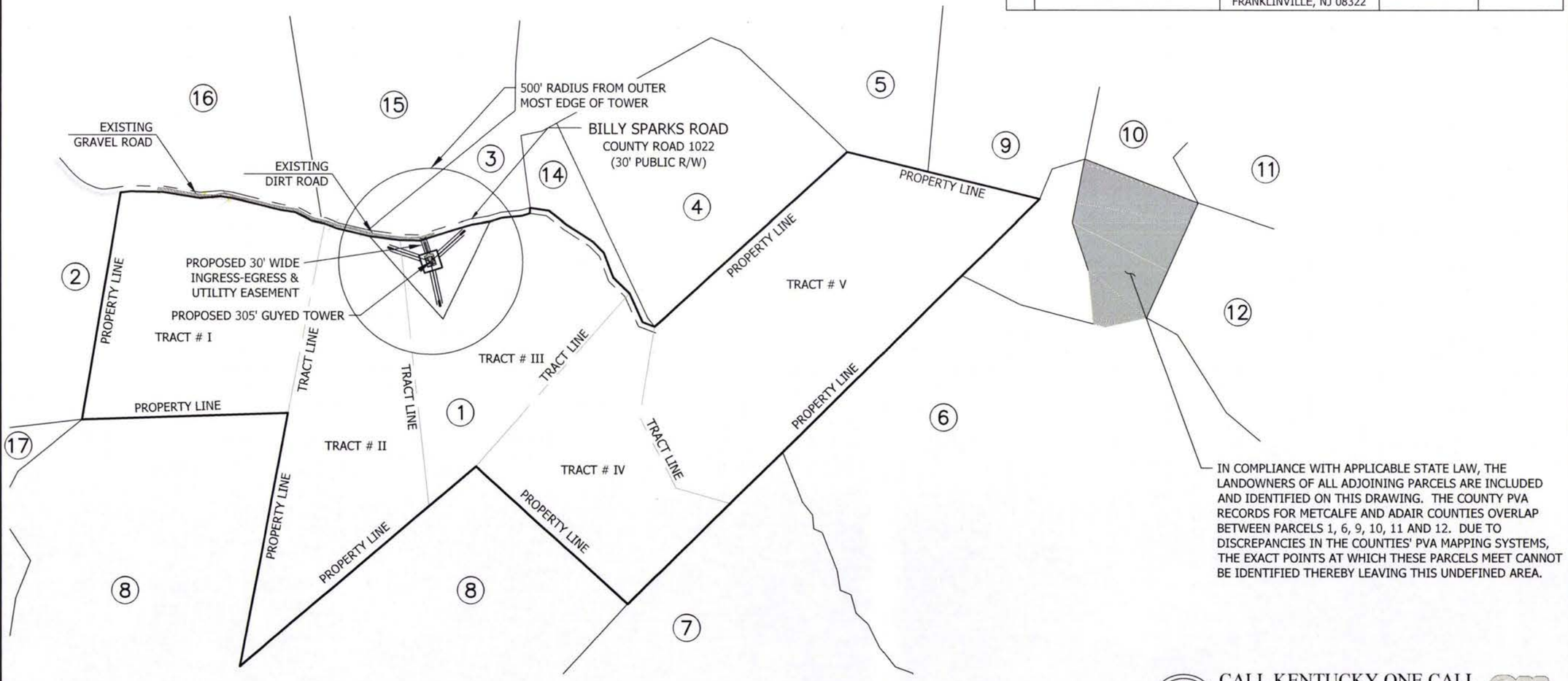
500' RADIUS & ADJOINER'S DRAWING

SHEET NUMBER:
C-1.1

NOTE:

1. SEE SHEET C-1.1 FOR INFORMATION ON PROPERTIES #1 & #3 - #4, #14 - #15.
2. PVA INFORMATION WAS OBTAINED ON 12/14/2020 FROM THE OFFICIAL RECORDS OF THE COUNTY'S PROPERTY VALUATION ADMINISTRATOR.
3. THIS MAP IS FOR GENERAL INFORMATION PURPOSES ONLY AND IS NOT A BOUNDARY SURVEY.
4. NOT FOR RECORDING OR PROPERTY TRANSFER.

#	OWNER	ADDRESS	PID	REF
2	STEVEN & MARGARET MORGAN	473 BILLY SPARKS ROAD EDMONTON, KY 42129	075-00-00-006.01	-
5	BEATTY DENISE ANN SHIRLEY CHRISSTELLA CLEARWATER EST.	1091 WILLIAM JUDD ROAD EDMONTON, KY 42129	075-00-00-005.01	-
6	JESSEE LINDA CARY HOOD & MICHAEL PATRICK	7009 GRAYMOOR ROAD LOUISVILLE, KY 40222	075-00-00-007.00	-
7	JANES VIRGINIA ESTATE AL % KAYE HOPE & PAM GRUBBS	3360 MT. MORIAH ROAD SUMMER SHADE, KY 42166	075-00-00-007.01	DB 73 PG 901
8	JOHN M. EDWARDS & SALLY A. EDWARDS	1567 HUNT CLUB BLVD. GALLATIN, TN 37066	075-00-00-007.03	-
9	MICHAEL & BELINDA HALL	3440 HIGHWAY 18 MOLENA, GA 30258	004-00-00-008.07	-
10	NEIL & PATTY BENJAMIN	597 WILLIAM JUDD ROAD EDMONTON, KY 42129	004-00-00-008.08	-
11	CALVIN BENJAMIN	705 WILLIAM JUDD ROAD EDMONTON, KY 42129	004-00-00-008.00	-
12	DOUGLAS & BARBARA SMITH	P.O. BOX 237 PIPER CITY, IL 60959	008-00-00-043.03	-
16	PAUL & JAN MARIE SLATER	830 BILLY SPARKS ROAD EDMONTON, KY 42129	075-00-00-006.10	-
17	GREGORY ROSSI	891 WILLIAMSTOWN ROAD FRANKLINVILLE, NJ 08322	068-00-00-005.04	-



1 OVERALL ADJOINER'S DRAWING
SCALE: 0' 300' 600' 900' 1200' 1"=600'

N

IN COMPLIANCE WITH APPLICABLE STATE LAW, THE LANDOWNERS OF ALL ADJOINING PARCELS ARE INCLUDED AND IDENTIFIED ON THIS DRAWING. THE COUNTY PVA RECORDS FOR METCALFE AND ADAIR COUNTIES OVERLAP BETWEEN PARCELS 1, 6, 9, 10, 11 AND 12. DUE TO DISCREPANCIES IN THE COUNTIES' PVA MAPPING SYSTEMS, THE EXACT POINTS AT WHICH THESE PARCELS MEET CANNOT BE IDENTIFIED THEREBY LEAVING THIS UNDEFINED AREA.

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(800) 752-6007
CALL 3 WORKING DAYS
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at&t mobility corp.

HARMONI TOWERS

HARMONI TOWERS
WILLIAM JUDD RD.
FA# 15147581
PACE# MRTNK047959
PT# 10124680
1135 BILLY SPARKS ROAD
EDMONTON, KY 42129
METCALFE COUNTY
PROPOSED 305' GUYED TOWER

PROJECT NO:	137335
CHECKED BY:	DLS

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION
B	01/11/21	DLS	ZONING DRAWINGS
C	02/12/21	MAS	ZONING DRAWINGS
D	02/22/21	MAS	ZONING DRAWINGS

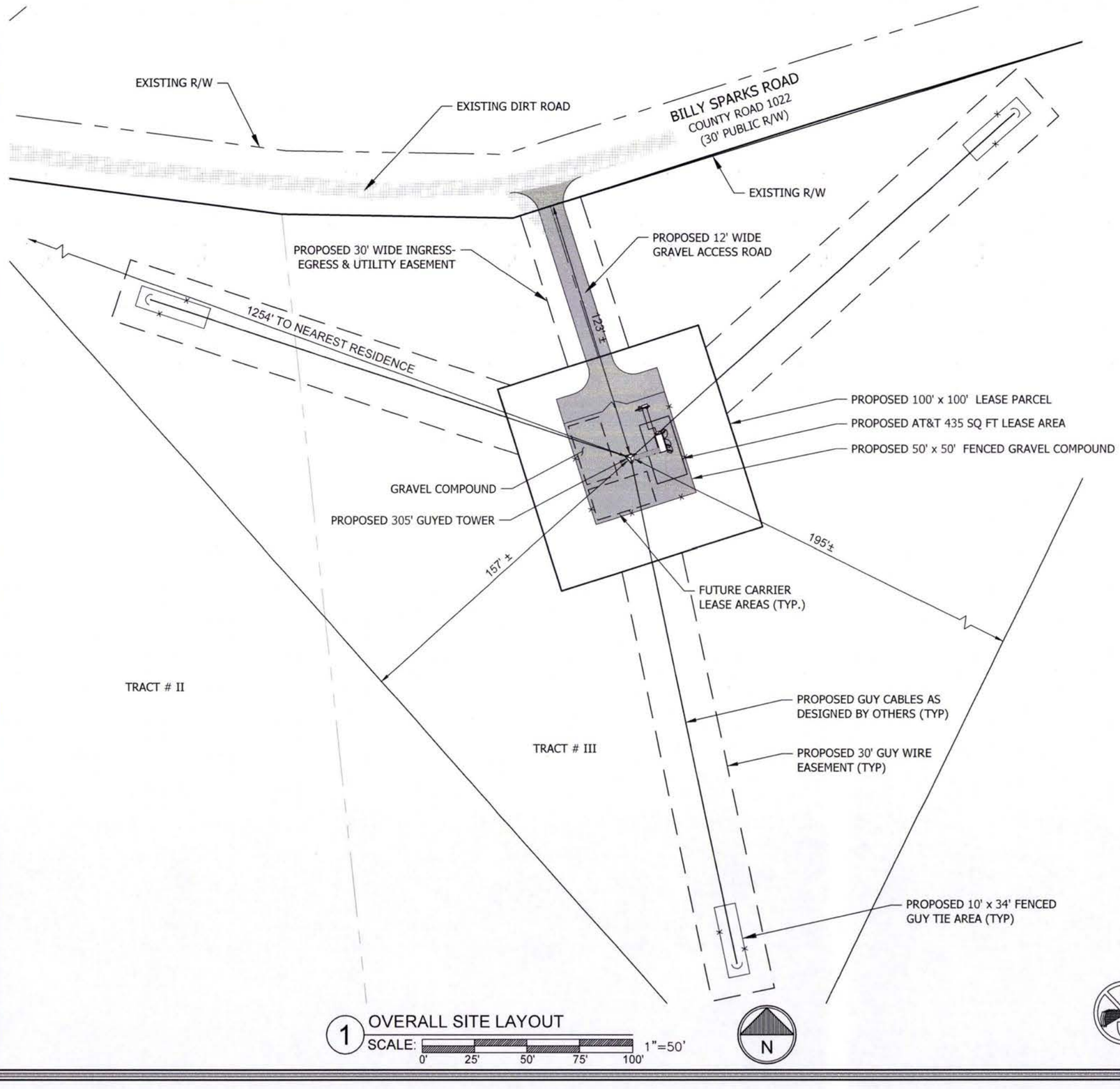
B&T ENGINEERING, INC.
4011
Expires 12/31/21

STATE OF KENTUCKY
BRAD P. MILANOWSKI
25311
LICENSED PROFESSIONAL ENGINEER
2/22/21

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

OVERALL ADJOINER'S DRAWING

SHEET NUMBER:
C-1.2



1 OVERALL SITE LAYOUT
SCALE: 0' 25' 50' 75' 100' 1"=50'

NOTES:

1. TOWER LATITUDE, LONGITUDE & ELEVATION MEET FAA"1-A" ACCURACY REQUIREMENTS.

2. PROPOSED GUYED TOWER.

CENTER OF TOWER:

LATITUDE: NORTH 37°00'56.44" (37.015678) NAD 83
LONGITUDE: WEST -85°31'05.28" (-85.518133) NAD 83
GROUND ELEVATION @ 956.0' (A.M.S.L.)

3. THE APPROXIMATE PERPENDICULAR DISTANCES FROM THE OUTER EDGE OF THE PROPOSED TOWER TO PARENT TRACT NEAREST PROPERTY LINE ARE AS FOLLOWS:

NORTHWEST:	123'±
SOUTHWEST:	157'±
SOUTHEAST:	195'±

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(800) 752-6007
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METCALFE COUNTY
PROPOSED 305' GUYED TOWER

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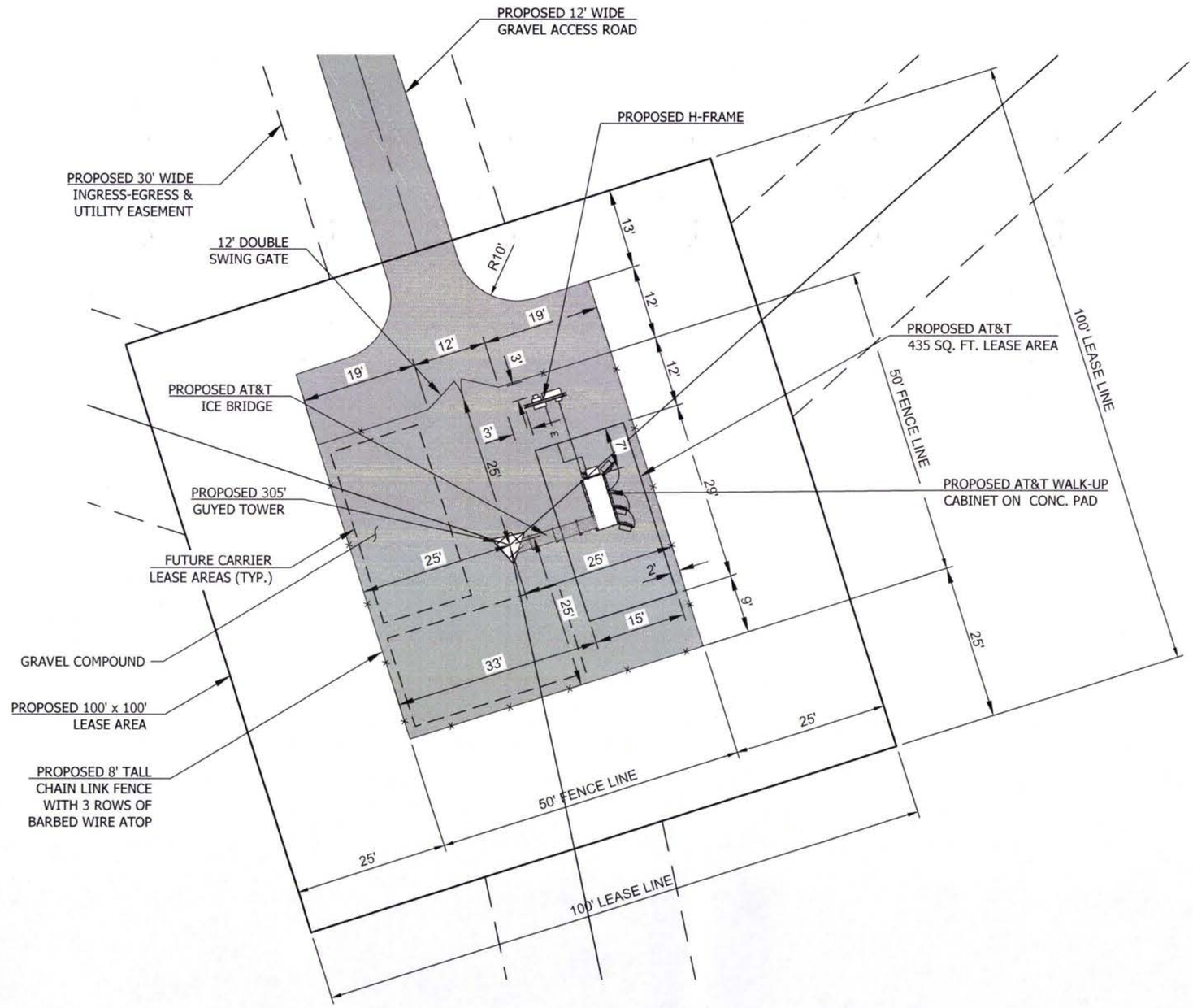
B&T ENGINEERING, INC.
4011
Expires 12/31/21

STATE OF KENTUCKY
BRAD P. MILANOWSKI
25311
LICENSED PROFESSIONAL ENGINEER
2/22/21

OVERALL SITE LAYOUT

SHEET NUMBER:
C-2



1 ENLARGED COMPOUND LAYOUT
SCALE: 0' 10' 20' 30' 40' 1"=20'

N

CALL KENTUCKY ONE CALL
(800) 752-6007
CALL 3 WORKING DAYS
BEFORE YOU DIG!

811

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at&t mobility corp.

HARMONI TOWERS

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1135 BILLY SPARKS ROAD
EDMONTON, KY 42129
METCALFE COUNTY
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PROJECT NO:	137335
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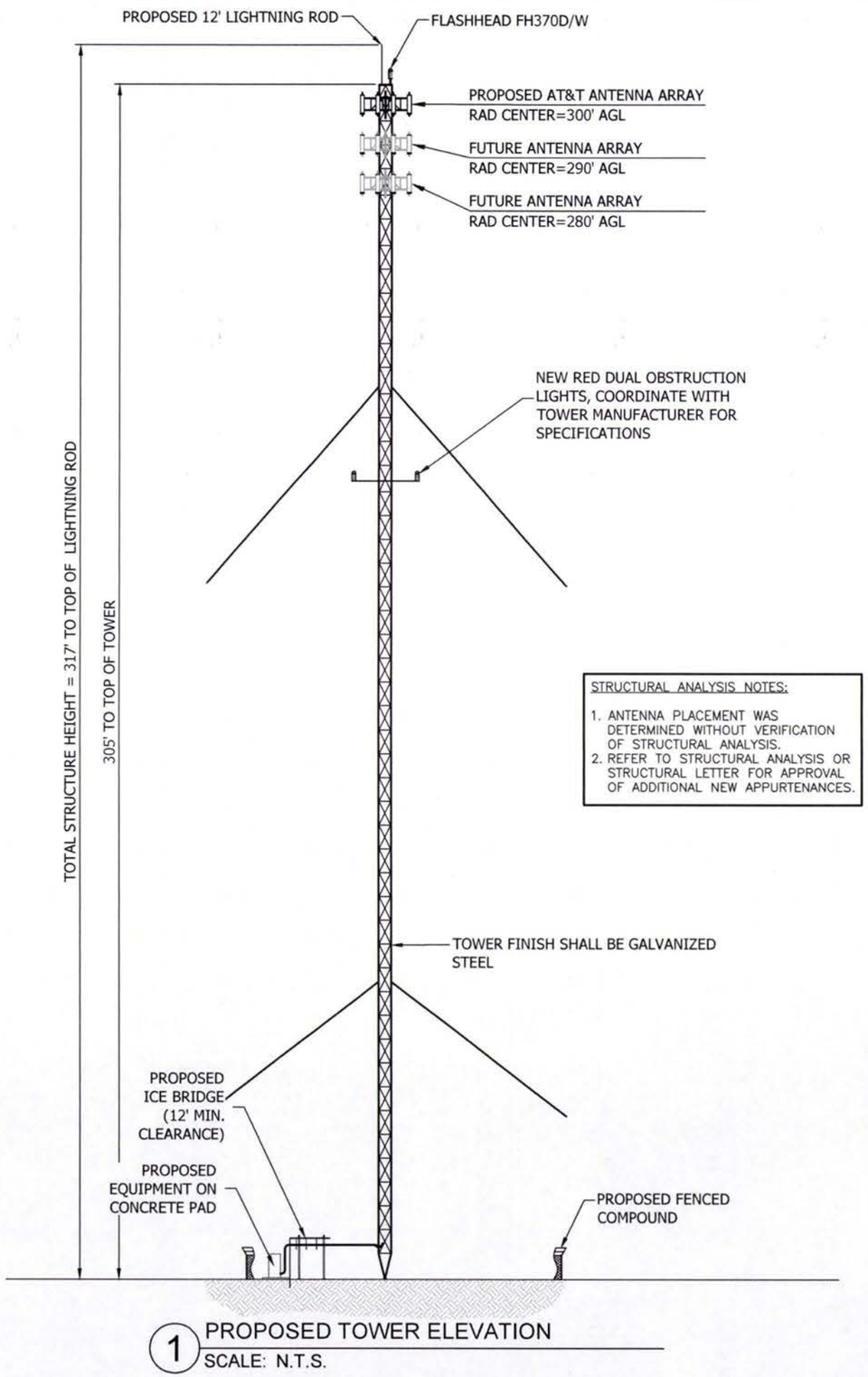
B&T ENGINEERING, INC.
4011
Expires 12/31/21

STATE OF KENTUCKY
BRADLEY D. MILANOWSKI
25311
LICENSED PROFESSIONAL ENGINEER
2/22/21

ENLARGED COMPOUND LAYOUT

SHEET NUMBER:
C-3



1 PROPOSED TOWER ELEVATION
SCALE: N.T.S.

STRUCTURAL ANALYSIS NOTES:

1. ANTENNA PLACEMENT WAS DETERMINED WITHOUT VERIFICATION OF STRUCTURAL ANALYSIS.
2. REFER TO STRUCTURAL ANALYSIS OR STRUCTURAL LETTER FOR APPROVAL OF ADDITIONAL NEW APPURTENANCES.

B+T GRP

at&t mobility corp.

HARMONI TOWERS

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C	02/12/21	MAS	ZONING DRAWINGS
0	02/22/21	MAS	ZONING DRAWINGS

B&T ENGINEERING, INC.
4011
Expires 12/31/21

STATE OF KENTUCKY
BRAD P. MILANOWSKI
25311
LICENSED PROFESSIONAL ENGINEER
2/22/21

TOWER ELEVATION

SHEET NUMBER:
C-4

EXHIBIT C
TOWER AND FOUNDATION DESIGN

Uniti Group Corporate Headquarters
10802 Executive Center Drive
Benton Building, Ste. 300
Little Rock, AR 72211
501.850.0820 | uniti.com

July 16,2020

Kentucky Public Service Commission
211 Sower Blvd.
P.O. Box 615
Frankfort, KY 40602-0615

RE: Site Name – Sparks Relo
Proposed Cell Tower
37.0156780 North Latitude, 85.5181330 West Longitude

Dear Commissioners:
The Construction Manager for the proposed new communications facility will be Jeremy Culpepper. His contact information is (985) 707-6175 or Jeremy.Culpepper@uniti.com.
Jeremy has been in the industry completing civil construction and constructing towers since 1998. He has worked at Uniti Towers LLC since 2018 completing project and construction management on new site build projects.

Thank you,

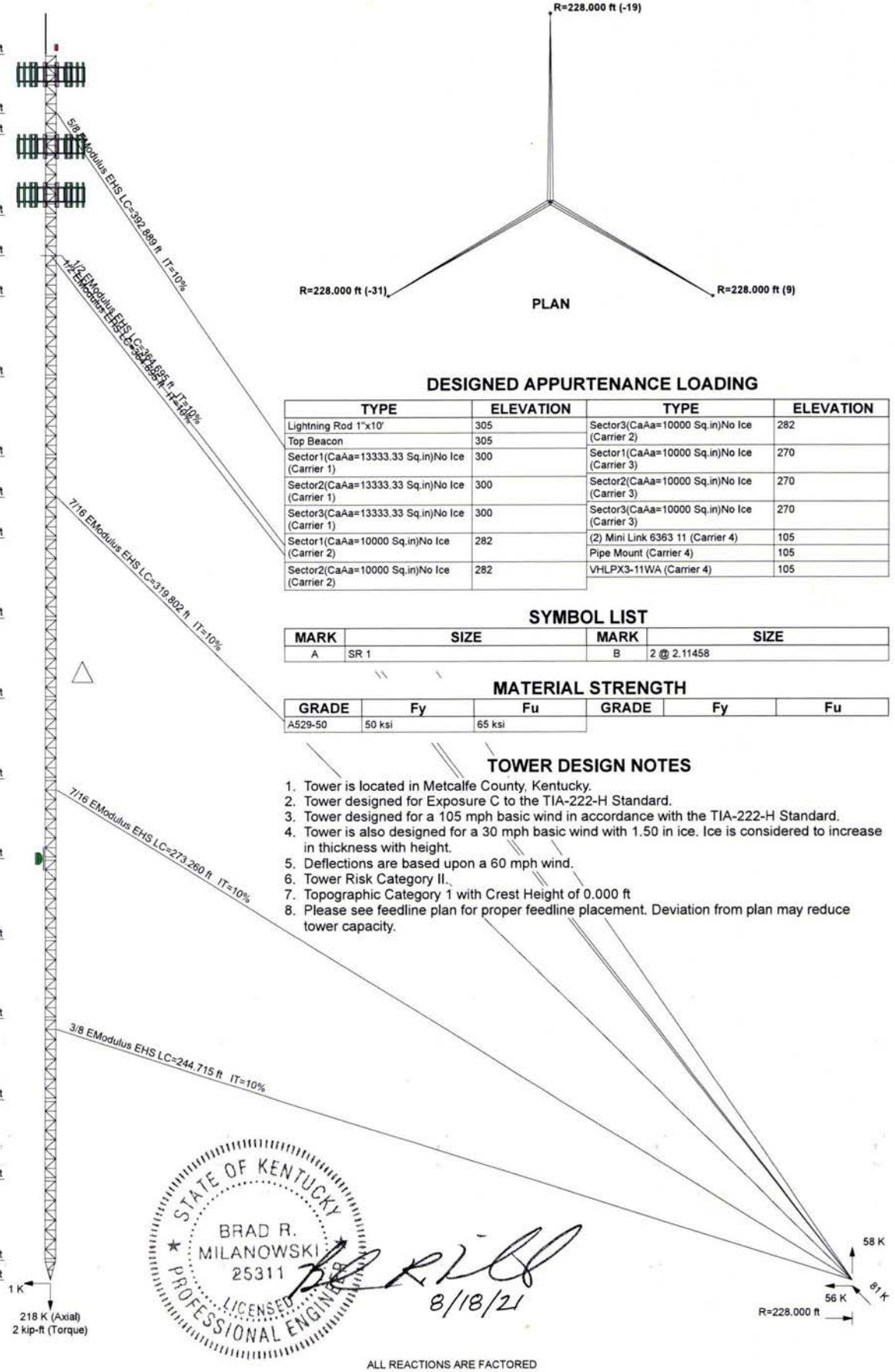
Jeremy Culpepper Digitally signed by Jeremy Culpepper
Date: 2020.07.16 09:25:17 -05'00'

Jeremy Culpeper
Construction Manager – Tennessee/Kentucky Market
Uniti Towers LLC
(985) 707-6175

Uniti Fiber Division Headquarters
107 St. Francis Street, Ste. 1800
Mobile, AL 36602
251.662.1170 | unitifiber.com
New Orleans | Birmingham | Jackson | St. Petersburg | Dallas | Monroe

Uniti Towers Division Headquarters
10801 Executive Center Drive, Shannon Bldg., Ste. 100
Little Rock, AR 72211
501.850.0820| unititowers.com
Domestic | International

Section	T16	T15	T14	T13	T12	T11	T10	T9	T8	T7	T6	T5	T4	T3	T2	T1
Legs									SR 1 3/4							
Leg Grade									A529-50							
Diagonals	A			SR .75			SR .875			SR .75			SR .875	SR 1		SR .875
Diagonal Grade									A529-50							
Top Girts									SR 3/4							
Bottom Girts									SR 3/4							
Horizontals									SR 3/4							
Top Guy Pull-Offs		N.A.		4x5/8		N.A.	4x5/8		N.A.	4x5/8		N.A.		4x5/8	N.A.	4x5/8
Face Width (ft)																3
# Panels @ (ft)	B								120 @ 2.40365							
Weight (K)	12.6	0.2	0.8	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.8	0.8	0.8	1.3	0.9	0.9



PLAN

DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
Lightning Rod 1"x10'	305	Sector3(CaAa=10000 Sq.in)No Ice (Carrier 2)	282
Top Beacon	305	Sector1(CaAa=10000 Sq.in)No Ice (Carrier 3)	270
Sector1(CaAa=13333.33 Sq.in)No Ice (Carrier 1)	300	Sector2(CaAa=10000 Sq.in)No Ice (Carrier 3)	270
Sector2(CaAa=13333.33 Sq.in)No Ice (Carrier 1)	300	Sector3(CaAa=10000 Sq.in)No Ice (Carrier 3)	270
Sector3(CaAa=13333.33 Sq.in)No Ice (Carrier 1)	300	(2) Mini Link 6363 11 (Carrier 4)	105
Sector1(CaAa=10000 Sq.in)No Ice (Carrier 2)	282	Pipe Mount (Carrier 4)	105
Sector2(CaAa=10000 Sq.in)No Ice (Carrier 2)	282	VHLPX3-11WA (Carrier 4)	105

SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	SR 1	B	2 @ 2.11458

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A529-50	50 ksi	65 ksi			

TOWER DESIGN NOTES

1. Tower is located in Metcalfe County, Kentucky.
2. Tower designed for Exposure C to the TIA-222-H Standard.
3. Tower designed for a 105 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 30 mph basic wind with 1.50 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.000 ft
8. Please see feedline plan for proper feedline placement. Deviation from plan may reduce tower capacity.

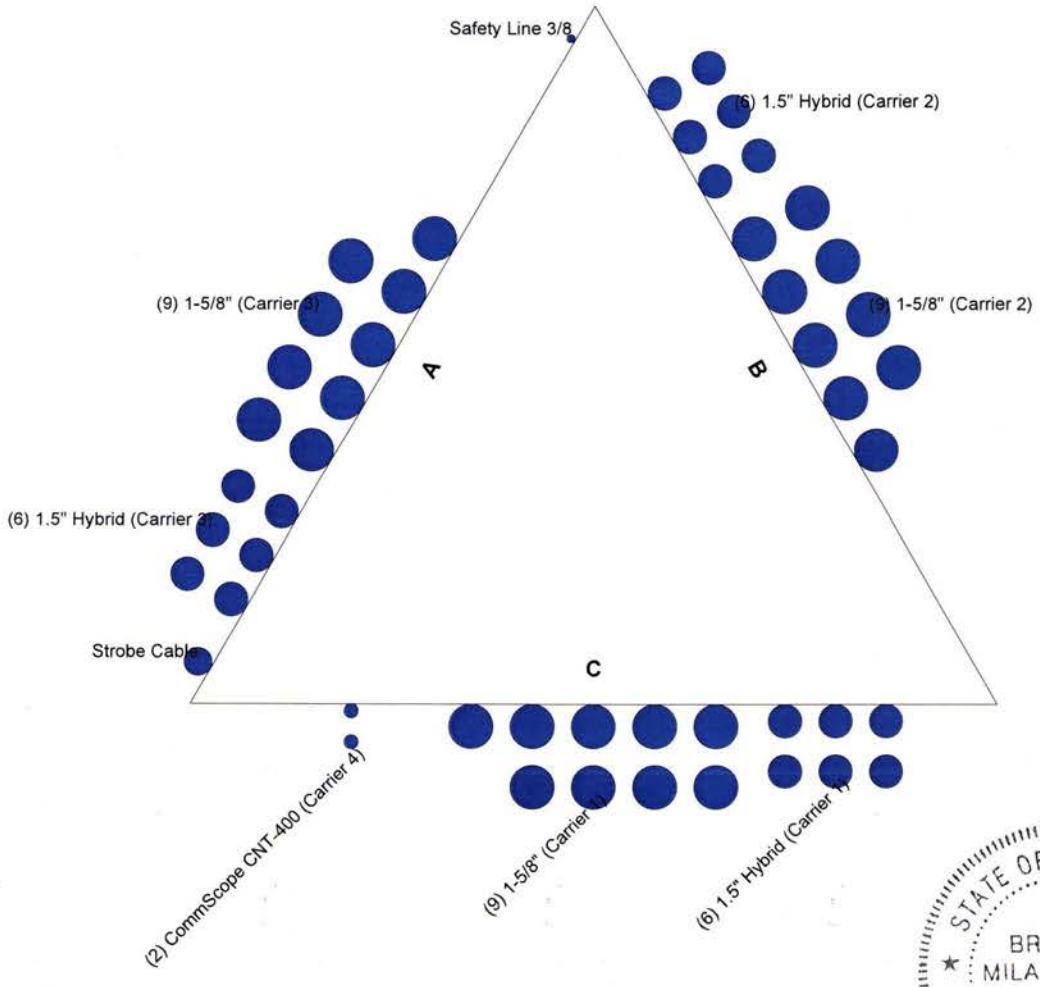
ALL REACTIONS ARE FACTORED

ARCOSA
TELECOM STRUCTURES

B+T Group
1717 S Boulder Ave, Suite 300
Tulsa, OK 74119
Phone: (918) 587-4630
FAX: (918) 295-0265

Job: ATS #9082 - William Judd			
Project: 305' 36G/37.015678, -85.518133			
Client: Harmoni (UNITI) Towers	Drawn by: JLandon	App'd:	
Code: TIA-222-H	Date: 08/18/21	Scale: NTS	
Path:		Dwg No. E-1	

Feed Line Plan



STATE OF KENTUCKY
BRAD R. MILANOWSKI
25311
LICENSED PROFESSIONAL ENGINEER

8/18/21

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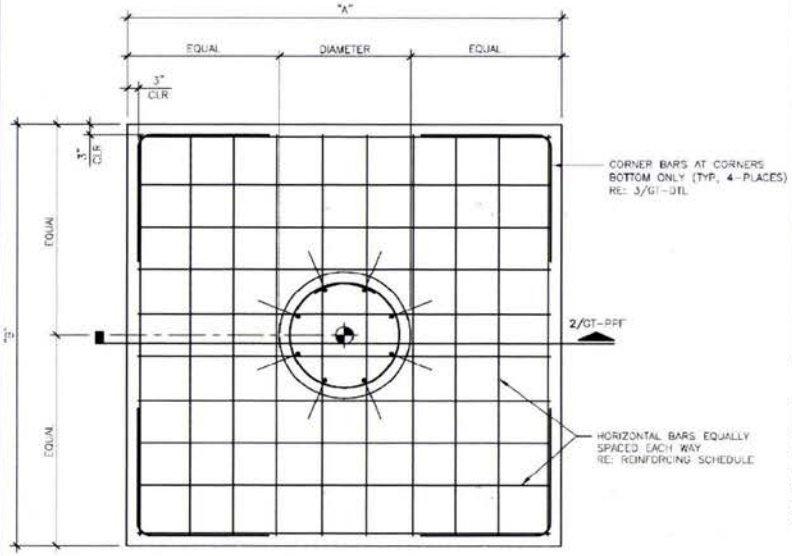
Path:		Dwg No. E-7	



1 PLAN
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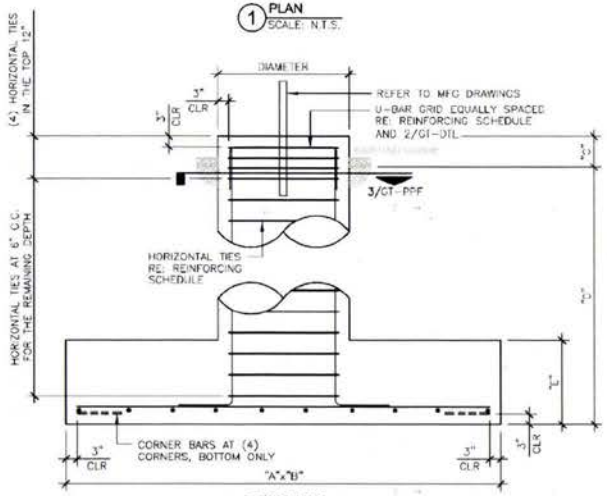
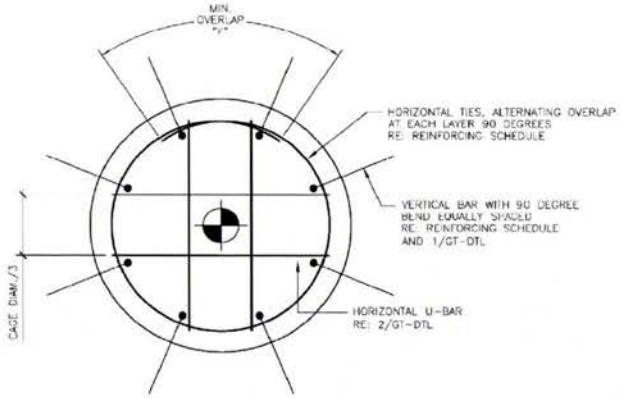


2 SECTION
SCALE: N.T.S.



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   GEOTECHNICAL PROPERTIES BY: DELTA OAKS GROUP
   PROJECT NUMBER: GEO21-10297-08
   DATE: AUGUST 02, 2021
4. THIS FOUNDATION HAS BEEN DESIGNED, IN ACCORDANCE WITH THE TIA 222-H STANDARD, SPECIFICALLY FOR THE TOWER AND SOIL CONDITION REFERENCED ABOVE. IF ANYTHING DIFFERS THIS DESIGN SHALL BE CONSIDERED INVALID AND MUST BE REDESIGNED PRIOR TO CONSTRUCTION.
5. CONCRETE VOLUME IN CUBIC YARDS: 3.3
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11. VERIFY ALL DIMENSIONS AGAINST MANUFACTURER'S DRAWINGS.

STIPULATION FOR REUSE:

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DIMENSIONING SCHEDULE	
A	6'-0"
B	6'-0"
C	0'-6"
D	5'-0"
E	2'-0"
MIN. OVERLAP "F"	2'-3"
DIAMETER	3'-6"

REINFORCING SCHEDULE	SIZE	TOTAL QTY
VERTICAL BARS	#6	9
HORIZONTAL TIES	#4	12
U-BAR HORIZONTAL (PEDESTAL)	#4	4
BOTTOM HORIZONTAL BARS	#6	20
CORNER BARS	#4	4

BASE REACTIONS: (FACTORED LOADS)		
VERTICAL	218	KIPS
HORIZONTAL	1	KIPS

B+T GRP
1717 S BOULDER AVE #300, TULSA, OK 74119
(918) 587-4630

ARCOSA
TELECOM STRUCTURES

4020 TULL AVE. MUSKOGEE, OK 74403

ISSUED FOR:

REV	DATE	DESCRIPTION
0	08/18/21	ISSUED FOR CONSTRUCTION

COA: 4011

EXPIRES: 12/31/2021

STATE OF KENTUCKY
BRAD R. MILANOWSKI
25311
LICENSED PROFESSIONAL ENGINEER

8/18/21

PROJECT INFORMATION:

PROJECT NO: 154466.001.01
SITE NAME: WILLIAM JUDD
SITE NO: 9082
CLIENT NAME: ARCOSA TELECOM STRUCTURES

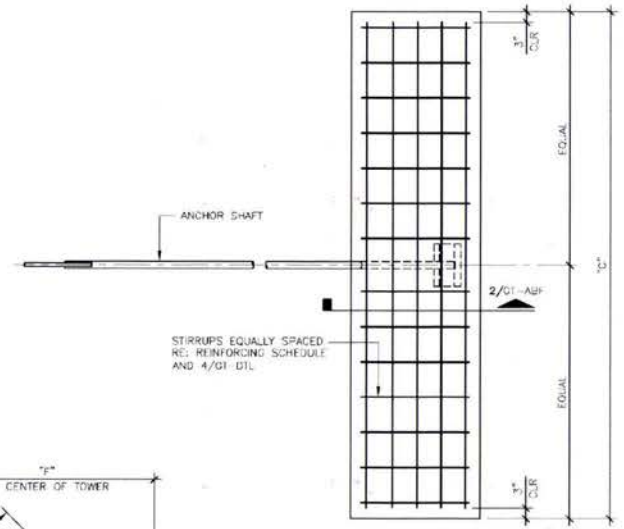
DRAWN BY: JOHN LANDON
CHECKED BY:

SHEET TITLE:

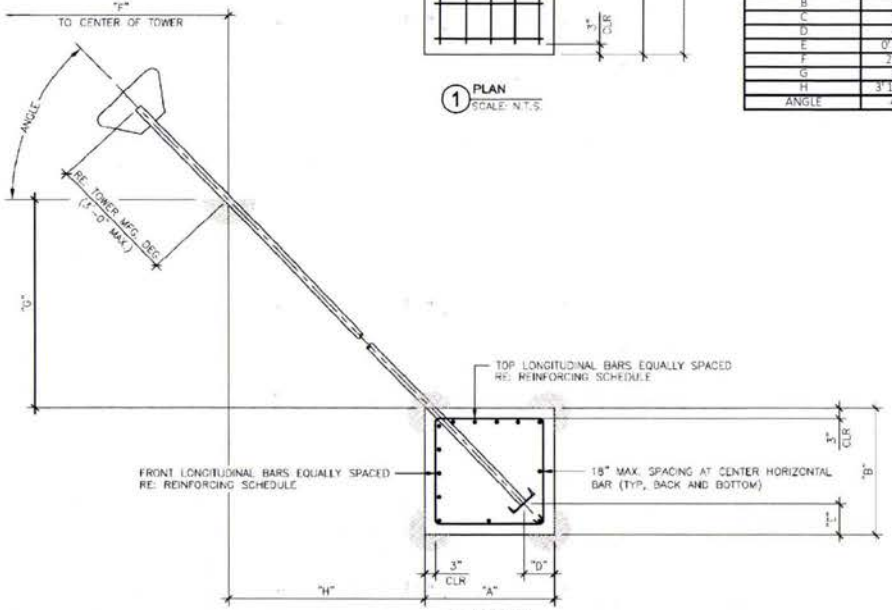
PIER AND PAD FOUNDATION

SHEET NUMBER: GT-PPF

REVISION: 0



1 PLAN
SCALE: N.T.S.



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   PROJECT NUMBER: GEO21-10297-08
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12. ANCHOR SHAFT: BY TOWER MANUFACTURER

STIPULATION FOR REUSE:

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DIMENSIONING SCHEDULE	
A	2' 0"
B	1' 6"
C	8' 0"
D	0' 6"
E	0' 4-1/2"
F	228' 0"
G	4' 6"
H	3' 11-3/16"
ANGLE	46.0°

REINFORCING SCHEDULE	SIZE	TOTAL QTY
STIRRUPS	#4	10
LONGITUDINAL BARS TOP	#6	3
LONGITUDINAL BARS FRONT	#6	3
LONGITUDINAL BARS BACK	#6	1
LONGITUDINAL BARS BOTTOM	#6	1

BASE REACTIONS: (FACTORED LOADS)		
VERTICAL	58	KIPS
HORIZONTAL	56	KIPS

B+T GRP
1717 S BOULDER AVE #300, TULSA, OK 74119
(918) 587-4630

ARCOSA
TELECOM STRUCTURES

4020 TULL AVE, MUSKOGEE, OK 74403

ISSUED FOR:

REV.	DATE	DESCRIPTION
0	08/18/21	ISSUED FOR CONSTRUCTION

COA: 4011

EXPIRES: 12/31/2021

STATE OF KENTUCKY
BRAD R. MILANOWSKI
25311
LICENSED PROFESSIONAL ENGINEER

8/18/21

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SITE NAME: WILLIAM JUDD
SITE NO: 9082
CLIENT NAME: ARCOSA TELECOM STRUCTURES

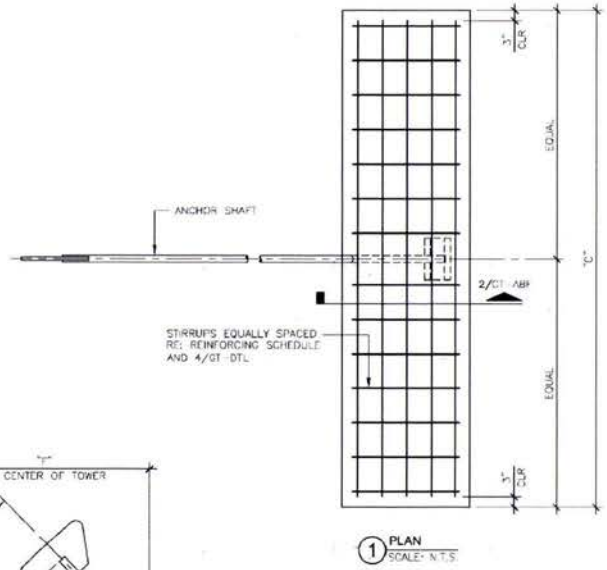
DRAWN BY: JOHN LANDON
CHECKED BY:

SHEET TITLE:

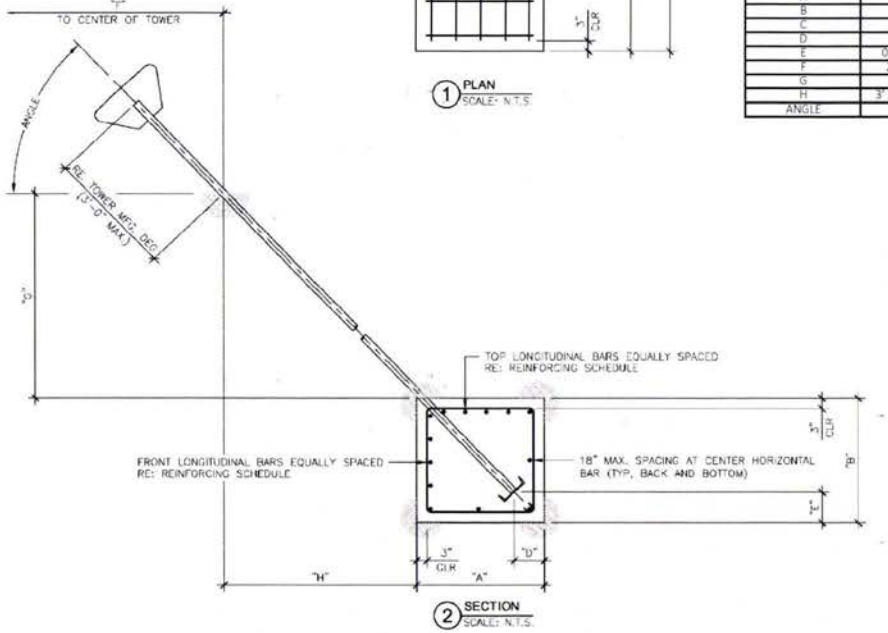
B1 ANCHOR BLOCK FOUNDATION

SHEET NUMBER: GT-ABF

REVISION: 0



1 PLAN
SCALE: N.T.S.



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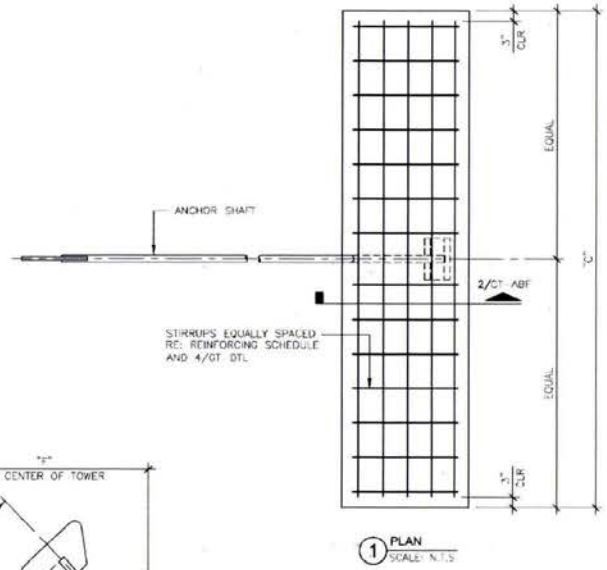
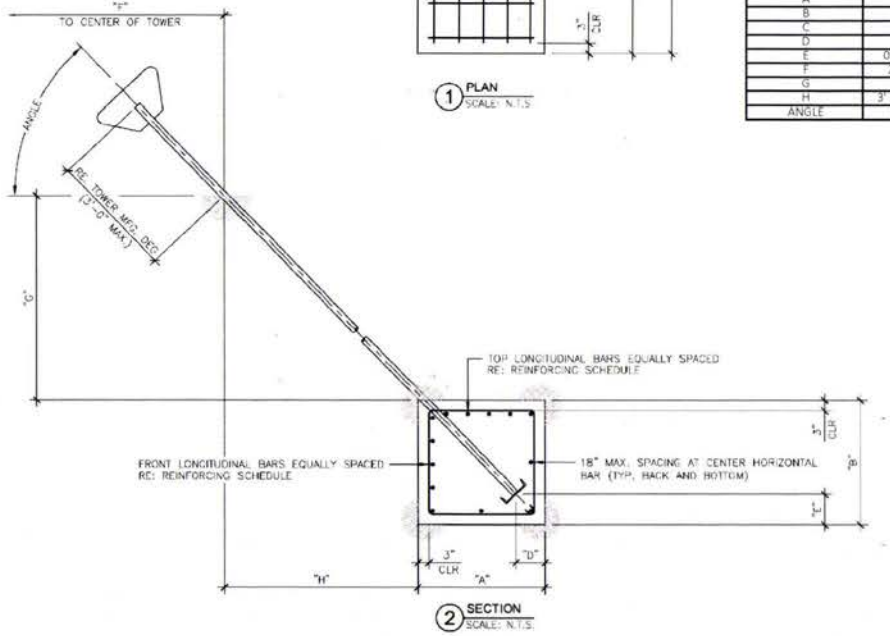


1 PLAN
SCALE: N.T.S.



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G	4' 6"
H	3' 11-3/16"
ANGLE	46.0°

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LONGITUDINAL BARS TOP	#6	3
LONGITUDINAL BARS FRONT	#6	3
LONGITUDINAL BARS BACK	#6	1
LONGITUDINAL BARS BOTTOM	#6	1

BASE REACTIONS: (FACTORED LOADS)		
VERTICAL	58	KIPS
HORIZONTAL	56	KIPS

B+T GRP
1717 S BOULDER AVE #300, TULSA, OK 74119
(918) 587-4630

ARCOSA
TELECOM STRUCTURES

4020 TULL AVE, MUSKOGEE, OK 74403

ISSUED FOR:

REV.	DATE	DESCRIPTION
0	08/18/21	ISSUED FOR CONSTRUCTION

COA: 4011

EXPIRES: 12/31/2021

STATE OF KENTUCKY
BRAD R. MILANOWSKI
25311
LICENSED PROFESSIONAL ENGINEER

8/18/21

PROJECT INFORMATION:

PROJECT NO: 154466.001.01
SITE NAME: WILLIAM JUDD
SITE NO: 9082
CLIENT NAME: ARCOSA TELECOM STRUCTURES

DRAWN BY: JOHN LANDON
CHECKED BY:

SHEET TITLE:

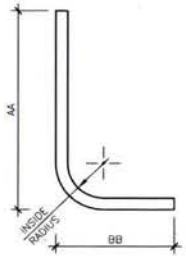
B3 ANCHOR BLOCK FOUNDATION

SHEET NUMBER:	REVISION:
GT-ABF	0

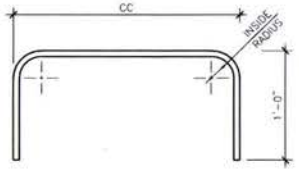
DIMENSIONING SCHEDULE	
AA*	4' 10-1/2"
BB	1' 0"
CC*	1' 10-5/8"
DD	3' 0"

	B1 ANCHOR	B2 ANCHOR	B3 ANCHOR
EE*	1' 0"	1' 0"	1' 0"
FF*	1' 6"	1' 6"	1' 6"
GG	0' 3"	0' 3"	0' 3"

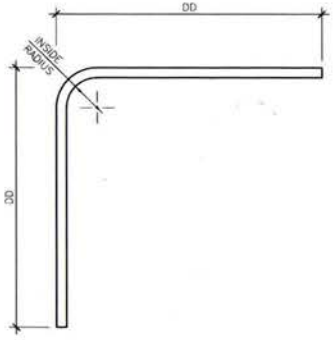
*NOTE: CONTRACTOR TO VERIFY DIMENSIONS PRIOR TO FABRICATION



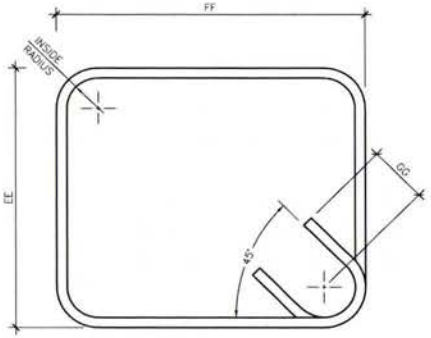
1 L-BAR
SCALE: N.T.S.



2 HORIZONTAL U-BAR
SCALE: N.T.S.



3 CORNER BAR
SCALE: N.T.S.



4 STIRRUP
SCALE: N.T.S.

B+T GRP
1717 S BOULDER AVE #300, TULSA, OK 74119
(918) 587-4630

ARCOSA
TELECOM STRUCTURES
4020 TULL AVE. MUSKOGEE, OK 74403

ISSUED FOR:

REV	DATE	DESCRIPTION
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COA: 4011

EXPIRES: 12/31/2021

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PROJECT INFORMATION:

PROJECT NO: 154466.001.01
SITE NAME: WILLIAM JUDD
SITE NO: 9082
CLIENT NAME: ARCOSA TELECOM STRUCTURES

DRAWN BY: JOHN LANDON
CHECKED BY:

SHEET TITLE:

DIMENSIONING DETAIL

SHEET NUMBER:	REVISION:
DTL	0

Pier and Pad Foundation

Project #:	154466.001.01
Site Name:	William Judd
Site #:	9082

TIA-222 Revision:	H
Tower Type:	Guyed

Top & Bot. Pad Rein. Different?:	☐
Block Foundation?:	☐
Rectangular Pad?:	☐

Superstructure Analysis Reactions		
Compression, P_{comp}:	218	kips
Base Shear, Vu_comp:	1	kips
Moment, M_u:	0	ft-kips
Tower Height, **H**:	305	ft
BP Dist. Above Fdn, bp_{dist}:	0	in
Bolt Circle / Bearing Plate Width, **BC**:	12	in

Pier Properties		
Pier Shape:	Circular	
Pier Diameter, **dpier**:	2.5	ft
Ext. Above Grade, **E**:	0.5	ft
Pier Rebar Size, **Sc**:	6	
Pier Rebar Quantity, **mc**:	9	
Pier Tie/Spiral Size, **St**:	4	
Pier Tie/Spiral Quantity, **mt**:		
Pier Reinforcement Type:	Tie	
Pier Clear Cover, cc_{pier}:	3	in

Pad Properties		
Depth, **D**:	5	ft
Pad Width, W_1:	6	ft
Pad Thickness, **T**:	2	ft
Pad Rebar Size (Bottom dir. 2), Sp_2:	6	
Pad Rebar Quantity (Bottom dir. 2), mp_2:	10	
Pad Clear Cover, cc_{pad}:	3	in

Material Properties		
Rebar Grade, **Fy**:	60	ksi
Concrete Compressive Strength, **F'c**:	4	ksi
Dry Concrete Density, δ**c**:	150	pcf

Soil Properties		
Total Soil Unit Weight, γ:	115	pcf
Ultimate Net Bearing, Qnet:	13.570	ksf
Cohesion, **Cu**:	2.000	ksf
Friction Angle, φ:		degrees
SPT Blow Count, N_{blows}:		
Base Friction, μ:	0.3	
Neglected Depth, **N**:	1.70	ft
Foundation Bearing on Rock?	No	
Groundwater Depth, **gw**:	N/A	ft

<--Toggle between Gross and Net

Foundation Analysis Checks				
	Capacity	**Demand**	**Rating**	**Check**
Lateral (Sliding) (kips)	73.77	1.00	**1.4%**	**Pass**
Bearing Pressure (ksf)	8.49	6.94	**81.7%**	**Pass**
*Overturning (kip*ft)*	171.77	5.50	**3.2%**	**Pass**
*Pier Flexure (Comp.) (kip*ft)*	371.44	3.50	**0.9%**	**Pass**
Pier Compression (kip)	3124.31	221.09	**7.1%**	**Pass**
*Pad Flexure (kip*ft)*	382.85	57.04	**14.9%**	**Pass**
Pad Shear - 1-way (kips)	135.76	3.51	**2.6%**	**Pass**
Pad Shear - 2-way (Comp) (ksi)	0.190	0.017	**8.7%**	**Pass**
*Flexural 2-way (Comp) (kip*ft)*	765.70	2.10	**0.3%**	**Pass**

Structural Rating:	**14.9%**
Soil Rating:	**81.7%**

Guyed Anchor Block Foundation

Checks capacity of anchor blocks for a guyed tower.

Project #:	154466.001.01
Site Name:	William Judd
Site #:	9082
Location:	*B1*

TIA-222 Revision: H

Design Reactions		
Shear, **S**:	56.00	kips
Uplift, **Ua**:	58.00	kips
Resultant Force, **Rf**:	80.62	kips
Tower Height, **H**:	305.00	ft
Guy Anchor Radius, **R**:	228.00	ft
Resultant Angle to Horizontal, **θ**:	46.0	deg

Guy Anchor Properties		
Depth to Bottom of Deadman, **Da**:	6	ft
Anchor Width, **Wa**:	2	ft
Anchor Thickness, **Ta**:	1.5	ft
Anchor Length, **La**:	8	ft
Concrete Volume, **Vc**:	0.9	yd^3
Toe Width, **toe**:		ft
Guyed Anchor Top Rebar Size, **Sat**:	6	
No. of Bars in Top of Block:	3	
Guyed Anchor Front Rebar Size, **Saf**:	6	
No. of Bars in Front of Block:	3	
Stirrup Size:	4	

Material Properties		
Rebar Grade, **Fy**:	60	ksi
Concrete Strength, **F'c**:	4	ksi
Wt. Avg.Concrete Density, **δx**:	0.150	kcf
Clear Cover, **cc**:	3	in

Design Checks				
	Capacity	**Demand**	**Rating**	**Check**
Lateral Capacity (kips):	57.98	56.00	**96.6%**	**Pass**
Uplift Capacity (kips):	61.70	58.00	**94.0%**	**Pass**
*Lateral Flexural Capacity (ft*kips):*	115.70	56.00	**48.4%**	**Pass**
*Uplift Flexural Capacity (ft*kips):*	81.02	58.00	**71.6%**	**Pass**

Anchor Shaft Rating:	**N/A**
Structural Rating:	**71.6%**
Soil Rating:	**96.6%**

Neglect Depth, **Neg**:	1.7	ft
Groundwater Level, **gw**:	N/A	ft

Soil Properties:		**No. of Soil Layers:**		4		
Layer	**φ, deg**	**cu, ksf**	**δ, pcf**		**Ultimate fs (ksf)**	**N (blows/ft)**
1		0.000	105	0.50		
2		1.500	110	1.50		
3		1.750	115	4.00		
4		2.000	115	6.00		

*key: *φ = Internal Angle of Friction*
cu = Cohesion / Undrained Shear Strength
δ = Buoyant Soil Unit Weight
d = Depth to Bottom of Layer
Ultimate fs = Geotechnical Report-provided skin friction / adhesion
N = SPT Blow Count

Version 4.0.0

Guyed Anchor Block Foundation

Checks capacity of anchor blocks for a guyed tower.

Project #:	154466.001.01	
Site Name:	William Judd	
Site #:	9082	
Location:		*B2*

TIA-222 Revision:	H

Design Reactions		
Shear, **S**:	56.00	kips
Uplift, **Ua**:	58.00	kips
Resultant Force, **Rf**:	80.62	kips
Tower Height, **H**:	305.00	ft
Guy Anchor Radius, **R**:	228.00	ft
Resultant Angle to Horizontal, **θ**:	46.0	deg

Guy Anchor Properties		
Depth to Bottom of Deadman, **Da**:	6	ft
Anchor Width, **Wa**:	2	ft
Anchor Thickness, **Ta**:	1.5	ft
Anchor Length, **La**:	5	ft
Concrete Volume, **Vc**:	0.6	yd^3
Toe Width, **toe**:		ft
Guyed Anchor Top Rebar Size, **Sat**:	6	
No. of Bars in Top of Block:	3	
Guyed Anchor Front Rebar Size, **Saf**:	6	
No. of Bars in Front of Block:	3	
Stirrup Size:	4	

Material Properties		
Rebar Grade, **Fy**:	60	ksi
Concrete Strength, **F'c**:	4	ksi
Wt. Avg.Concrete Density, **δx**:	0.150	kcf
Clear Cover, **cc**:	3	in

Design Checks				
	Capacity	**Demand**	**Rating**	**Check**
Lateral Capacity (kips):	70.21	56.00	**79.8%**	**Pass**
Uplift Capacity (kips):	68.60	58.00	**84.5%**	**Pass**
*Lateral Flexural Capacity (ft*kips):*	115.70	35.00	**30.3%**	**Pass**
*Uplift Flexural Capacity (ft*kips):*	81.02	36.25	**44.7%**	**Pass**

Anchor Shaft Rating:	**N/A**
Structural Rating:	**44.7%**
Soil Rating:	**84.5%**

Neglect Depth, **Neg**:	1.7	ft
Groundwater Level, **gw**:	N/A	ft

Soil Properties:		**No. of Soil Layers:**		4		
Layer	**φ, deg**	**cu, ksf**	**δ, pcf**		**Ultimate fs (ksf)**	**N (blows/ft)**
1		0.000	105	0.50		
2		1.750	115	1.50		
3		2.750	120	4.00		
4		4.000	120	6.00		

*key: *φ = Internal Angle of Friction*
cu = Cohesion / Undrained Shear Strength
δ = Buoyant Soil Unit Weight
d = Depth to Bottom of Layer
Ultimate fs = Geotechnical Report-provided skin friction / adhesion
N = SPT Blow Count

Version 4.0.0

Guyed Anchor Block Foundation

Checks capacity of anchor blocks for a guyed tower.

Project #:	154466.001.01
Site Name:	William Judd
Site #:	9082
Location:	*B3*

TIA-222 Revision: H

Design Reactions		
Shear, **S**:	56.00	kips
Uplift, **Ua**:	58.00	kips
Resultant Force, **Rf**:	80.62	kips
Tower Height, **H**:	305.00	ft
Guy Anchor Radius, **R**:	228.00	ft
Resultant Angle to Horizontal, **θ**:	46.0	deg

Guy Anchor Properties		
Depth to Bottom of Deadman, **Da**:	6	ft
Anchor Width, **Wa**:	2	ft
Anchor Thickness, **Ta**:	1.5	ft
Anchor Length, **La**:	8	ft
Concrete Volume, **Vc**:	0.9	yd^3
Toe Width, **toe**:		ft
Guyed Anchor Top Rebar Size, **Sat**:	6	
No. of Bars in Top of Block:	3	
Guyed Anchor Front Rebar Size, **Saf**:	6	
No. of Bars in Front of Block:	3	
Stirrup Size:	4	

Material Properties		
Rebar Grade, **Fy**:	60	ksi
Concrete Strength, **F'c**:	4	ksi
Wt. Avg.Concrete Density, **δx**:	0.150	kcf
Clear Cover, **cc**:	3	in

Design Checks	Capacity	Demand	Rating	Check
Lateral Capacity (kips):	57.98	56.00	**96.6%**	**Pass**
Uplift Capacity (kips):	61.70	58.00	**94.0%**	**Pass**
*Lateral Flexural Capacity (ft*kips):*	115.70	56.00	**48.4%**	**Pass**
*Uplift Flexural Capacity (ft*kips):*	81.02	58.00	**71.6%**	**Pass**

Anchor Shaft Rating:	**N/A**
Structural Rating:	**71.6%**
Soil Rating:	**96.6%**

Neglect Depth, **Neg**:	1.7	ft
Groundwater Level, **gw**:	N/A	ft

Soil Properties:		No. of Soil Layers:		4		
Layer	**φ, deg**	**cu, ksf**	**δ, pcf**		**Ultimate fs (ksf)**	**N (blows/ft)**
1		0.000	105	0.50		
2		1.500	110	1.50		
3		1.750	115	4.00		
4		2.000	115	6.00		

*key: *φ = Internal Angle of Friction*
cu = Cohesion / Undrained Shear Strength
δ = Buoyant Soil Unit Weight
d = Depth to Bottom of Layer
Ultimate fs = Geotechnical Report-provided skin friction / adhesion
N = SPT Blow Count

Version 4.0.0

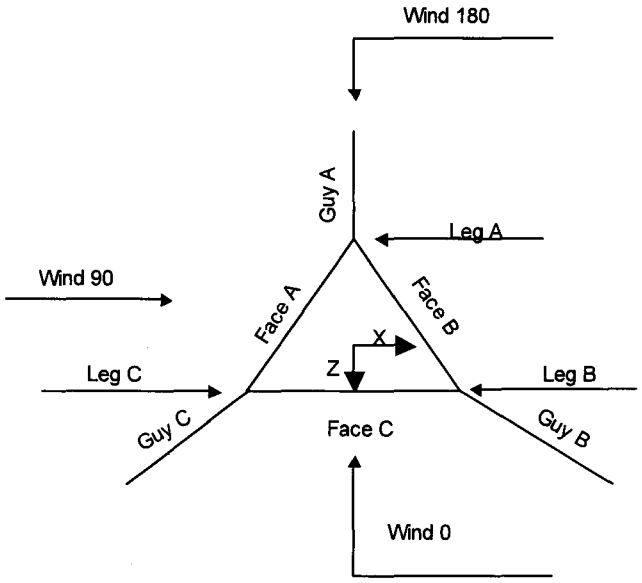
Tower Input Data

The main tower is a 3x guyed tower with an overall height of 305.000 ft above the ground line.
The base of the tower is set at an elevation of 0.000 ft above the ground line.
The face width of the tower is 3.000 ft at the top and tapered at the base.
This tower is designed using the TIA-222-H standard.
The following design criteria apply:

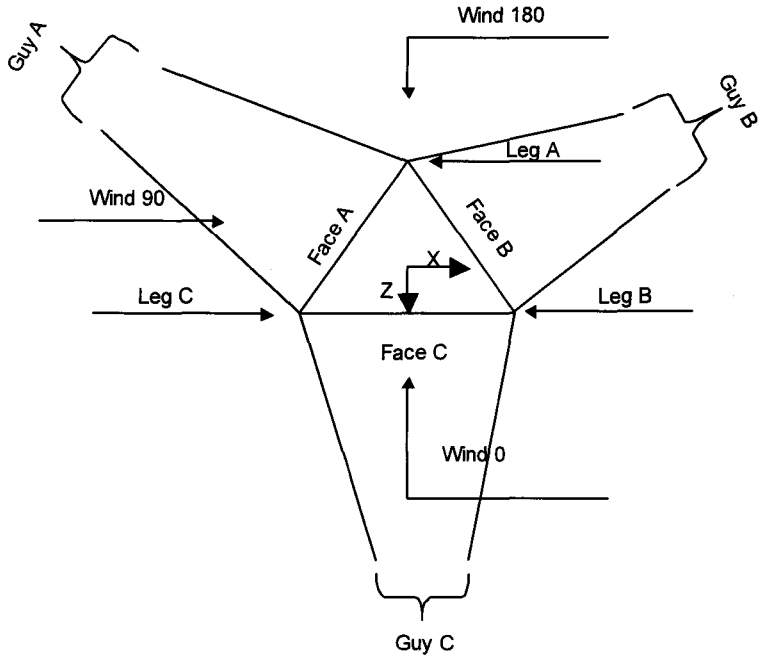
Tower is located in Metcalfe County, Kentucky.
Tower base elevation above sea level: 960.000 ft.
Basic wind speed of 105 mph.
Risk Category II.
Exposure Category C.
Simplified Topographic Factor Procedure for wind speed-up calculations is used.
Topographic Category: 1.
Crest Height: 0.000 ft.
Nominal ice thickness of 1.500 in.
Ice thickness is considered to increase with height.
Ice density of 56.000 pcf.
A wind speed of 30 mph is used in combination with ice.
Temperature drop of 50.000 °F.
Deflections calculated using a wind speed of 60 mph.
Please see feedline plan for proper feedline placement. Deviation from plan may reduce tower capacity..
Pressures are calculated at each section.
Stress ratio used in tower member design is 1.
Safety factor used in guy design is 1.
Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

Consider Moments - Legs	Distribute Leg Loads As Uniform	Use ASCE 10 X-Brace Ly Rules
Consider Moments - Horizontals	Assume Legs Pinned	√ Calculate Redundant Bracing Forces
Consider Moments - Diagonals	√ Assume Rigid Index Plate	Ignore Redundant Members in FEA
Use Moment Magnification	√ Use Clear Spans For Wind Area	√ SR Leg Bolts Resist Compression
√ Use Code Stress Ratios	√ Use Clear Spans For KL/r	All Leg Panels Have Same Allowable
√ Use Code Safety Factors - Guys	√ Retension Guys To Initial Tension	Offset Girt At Foundation
Escalate Ice	√ Bypass Mast Stability Checks	√ Consider Feed Line Torque
Always Use Max Kz	√ Use Azimuth Dish Coefficients	√ Include Angle Block Shear Check
Use Special Wind Profile	√ Project Wind Area of Appurt	Use TIA-222-H Bracing Resist. Exemption
√ Include Bolts In Member Capacity	√ Autocalc Torque Arm Areas	Use TIA-222-H Tension Splice Exemption
√ Leg Bolts Are At Top Of Section	Add IBC .6D+W Combination	**Poles**
√ Secondary Horizontal Braces Leg	√ Sort Capacity Reports By Component	Include Shear-Torsion Interaction
Use Diamond Inner Bracing (4 Sided)	Triangulate Diamond Inner Bracing	Always Use Sub-Critical Flow
SR Members Have Cut Ends	Treat Feed Line Bundles As Cylinder	Use Top Mounted Sockets
SR Members Are Concentric	Ignore KL/ry For 60 Deg. Angle Legs	Pole Without Linear Attachments
		Pole With Shroud Or No Appurtenances
		Outside and Inside Corner Radii Are Known



Corner & Starmount Guyed Tower



Face Guyed

Tower Section Geometry

Tower Section	Tower Elevation	Assembly Database	Description	Section Width	Number of Sections	Section Length
	ft			ft		ft
T1	305.000-285.000			3.000	1	20.000
T2	285.000-265.000			3.000	1	20.000
T3	265.000-245.000			3.000	1	20.000
T4	245.000-225.000			3.000	1	20.000
T5	225.000-205.000			3.000	1	20.000
T6	205.000-185.000			3.000	1	20.000
T7	185.000-165.000			3.000	1	20.000
T8	165.000-145.000			3.000	1	20.000
T9	145.000-125.000			3.000	1	20.000
T10	125.000-105.000			3.000	1	20.000
T11	105.000-85.000			3.000	1	20.000
T12	85.000-65.000			3.000	1	20.000
T13	65.000-45.000			3.000	1	20.000
T14	45.000-25.000			3.000	1	20.000
T15	25.000-5.000			3.000	1	20.000
T16	5.000-0.000			3.000	1	5.000

Tower Section Geometry *(cont'd)*

Tower Section	Tower Elevation ft	Diagonal Spacing ft	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset in	Bottom Girt Offset in
T1	305.000-285.000	2.404	K Brace Right	No	Yes	4.625	4.625
T2	285.000-265.000	2.404	K Brace Right	No	Yes	4.625	4.625
T3	265.000-245.000	2.404	K Brace Right	No	Yes	4.625	4.625
T4	245.000-225.000	2.404	K Brace Right	No	Yes	4.625	4.625
T5	225.000-205.000	2.404	K Brace Right	No	Yes	4.625	4.625
T6	205.000-185.000	2.404	K Brace Right	No	Yes	4.625	4.625
T7	185.000-165.000	2.404	K Brace Right	No	Yes	4.625	4.625
T8	165.000-145.000	2.404	K Brace Right	No	Yes	4.625	4.625
T9	145.000-125.000	2.404	K Brace Right	No	Yes	4.625	4.625
T10	125.000-105.000	2.404	K Brace Right	No	Yes	4.625	4.625
T11	105.000-85.000	2.404	K Brace Right	No	Yes	4.625	4.625
T12	85.000-65.000	2.404	K Brace Right	No	Yes	4.625	4.625
T13	65.000-45.000	2.404	K Brace Right	No	Yes	4.625	4.625
T14	45.000-25.000	2.404	K Brace Right	No	Yes	4.625	4.625
T15	25.000-5.000	2.404	K Brace Right	No	Yes	4.625	4.625
T16	5.000-0.000	2.115	K Brace Right	No	Yes	4.625	4.625

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T1 305.000-285.000	Solid Round	1 3/4	A529-50 (50 ksi)	Solid Round	.875	A529-50 (50 ksi)
T2 285.000-265.000	Solid Round	1 3/4	A529-50 (50 ksi)	Solid Round	1	A529-50 (50 ksi)
T3 265.000-245.000	Solid Round	1 3/4	A529-50 (50 ksi)	Solid Round	1	A529-50 (50 ksi)
T4 245.000-225.000	Solid Round	1 3/4	A529-50 (50 ksi)	Solid Round	.875	A529-50 (50 ksi)
T5 225.000-205.000	Solid Round	1 3/4	A529-50 (50 ksi)	Solid Round	.75	A529-50 (50 ksi)
T6 205.000-185.000	Solid Round	1 3/4	A529-50 (50 ksi)	Solid Round	.75	A529-50 (50 ksi)
T7 185.000-165.000	Solid Round	1 3/4	A529-50 (50 ksi)	Solid Round	.75	A529-50 (50 ksi)
T8 165.000-145.000	Solid Round	1 3/4	A529-50 (50 ksi)	Solid Round	.75	A529-50 (50 ksi)
T9 145.000-125.000	Solid Round	1 3/4	A529-50 (50 ksi)	Solid Round	.875	A529-50 (50 ksi)
T10 125.000-105.000	Solid Round	1 3/4	A529-50 (50 ksi)	Solid Round	.875	A529-50 (50 ksi)
T11 105.000-85.000	Solid Round	1 3/4	A529-50 (50 ksi)	Solid Round	.75	A529-50 (50 ksi)
T12 85.000-65.000	Solid Round	1 3/4	A529-50 (50 ksi)	Solid Round	.75	A529-50 (50 ksi)
T13 65.000-45.000	Solid Round	1 3/4	A529-50 (50 ksi)	Solid Round	.75	A529-50 (50 ksi)
T14 45.000-25.000	Solid Round	1 3/4	A529-50 (50 ksi)	Solid Round	.75	A529-50 (50 ksi)

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T15 25.000-5.000	Solid Round	1 3/4	A529-50 (50 ksi)	Solid Round	.75	A529-50 (50 ksi)
T16 5.000-0.000	Solid Round	1 3/4	A529-50 (50 ksi)	Solid Round	1	A529-50 (50 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
T1 305.000-285.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T2 285.000-265.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T3 265.000-245.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T4 245.000-225.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T5 225.000-205.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T6 205.000-185.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T7 185.000-165.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T8 165.000-145.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T9 145.000-125.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T10 125.000-105.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T11 105.000-85.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T12 85.000-65.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T13 65.000-45.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T14 45.000-25.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T15 25.000-5.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T16 5.000-0.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	No. of Mid Girts	Mid Girt Type	Mid Girt Size	Mid Girt Grade	Horizontal Type	Horizontal Size	Horizontal Grade
T1 305.000-285.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)

Tower Elevation ft	No. of Mid Girts	Mid Girt Type	Mid Girt Size	Mid Girt Grade	Horizontal Type	Horizontal Size	Horizontal Grade
T2 285.000-265.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T3 265.000-245.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T4 245.000-225.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T5 225.000-205.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T6 205.000-185.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T7 185.000-165.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T8 165.000-145.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T9 145.000-125.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T10 125.000-105.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T11 105.000-85.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T12 85.000-65.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T13 65.000-45.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T14 45.000-25.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T15 25.000-5.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T16 5.000-0.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
T1 305.000-285.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T2 285.000-265.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T3 265.000-245.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T4 245.000-225.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T5 225.000-205.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T6 205.000-185.0	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000

Tower Elevation ft	Gusset Area (per face) ft²	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
00									
T7 185.000-165.0 00	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T8 165.000-145.0 00	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T9 145.000-125.0 00	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T10 125.000-105.0 00	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T11 105.000-85.00 0	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T12 85.000-65.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T13 65.000-45.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T14 45.000-25.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T15 25.000-5.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T16 5.000-0.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	K Factors[1] Legs	X Brace Diags X Y	K Brace Diags X Y	Single Diags X Y	Girts X Y	Horiz. X Y	Sec. Horiz. X Y	Inner Brace X Y
T1	No	Yes	1	1	1	1	1	1	1	1
305.000-285.0 00				1	1	1	1	1	1	1
T2	No	Yes	1	1	1	1	1	1	1	1
285.000-265.0 00				1	1	1	1	1	1	1
T3	No	Yes	1	1	1	1	1	1	1	1
265.000-245.0 00				1	1	1	1	1	1	1
T4	No	Yes	1	1	1	1	1	1	1	1
245.000-225.0 00				1	1	1	1	1	1	1
T5	No	Yes	1	1	1	1	1	1	1	1
225.000-205.0 00				1	1	1	1	1	1	1
T6	No	Yes	1	1	1	1	1	1	1	1
205.000-185.0 00				1	1	1	1	1	1	1
T7	No	Yes	1	1	1	1	1	1	1	1
185.000-165.0				1	1	1	1	1	1	1

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	K Factors[1] Legs	X Brace Diags X Y	K Brace Diags X Y	Single Diags X Y	Girts X Y	Horiz. X Y	Sec. Horiz. X Y	Inner Brace X Y
T8 165.000-145.000	No	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T9 145.000-125.000	No	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T10 125.000-105.000	No	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T11 105.000-85.000	No	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T12 85.000-65.000	No	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T13 65.000-45.000	No	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T14 45.000-25.000	No	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T15 25.000-5.000	No	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T16 5.000-0.000	No	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1

[1]*Note: K factors are applied to member segment lengths. K-braces without inner supporting members will have the K factor in the out-of-plane direction applied to the overall length.*

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Net Width Deduct in	U	Diagonal Net Width Deduct in	U	Top Girt Net Width Deduct in	U	Bottom Girt Net Width Deduct in	U	Mid Girt Net Width Deduct in	U	Long Horizontal Net Width Deduct in	U	Short Horizontal Net Width Deduct in	U
T1 305.000-285.000	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75
T2 285.000-265.000	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75
T3 265.000-245.000	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75
T4 245.000-225.000	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75
T5 225.000-205.000	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75
T6 205.000-185.000	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75

Tower Elevation ft	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T7 185.000-165.000	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75
T8 165.000-145.000	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75
T9 145.000-125.000	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75
T10 125.000-105.000	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75
T11 105.000-85.000	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75
T12 85.000-65.000	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75
T13 65.000-45.000	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75
T14 45.000-25.000	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75
T15 25.000-5.000	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75
T16 5.000-0.000	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75

Tower Elevation ft	Redundant Horizontal		Redundant Diagonal		Redundant Sub-Diagonal		Redundant Sub-Horizontal		Redundant Vertical		Redundant Hip		Redundant Hip Diagonal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T1 305.000-285.000	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T2 285.000-265.000	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T3 265.000-245.000	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T4 245.000-225.000	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T5 225.000-205.000	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T6 205.000-185.000	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T7 185.000-165.000	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75

Tower Elevation ft	Redundant Horizontal		Redundant Diagonal		Redundant Sub-Diagonal		Redundant Sub-Horizontal		Redundant Vertical		Redundant Hip		Redundant Hip Diagonal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T8 165.000-145.000	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T9 145.000-125.000	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T10 125.000-105.000	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T11 105.000-85.000	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T12 85.000-65.000	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T13 65.000-45.000	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T14 45.000-25.000	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T15 25.000-5.000	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T16 5.000-0.000	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T1 305.000-285.000	Flange	0.750 A325N	0	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0
T2 285.000-265.000	Flange	0.750 A325N	3	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0
T3 265.000-245.000	Flange	0.750 A325N	3	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0
T4 245.000-225.000	Flange	0.750 A325N	3	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0
T5 225.000-205.000	Flange	0.750 A325N	3	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0
T6 205.000-185.000	Flange	0.750 A325N	3	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0
T7 185.000-165.000	Flange	0.750 A325N	3	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0

Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T8 165.000-145.000	Flange	0.750 A325N	3	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0
T9 145.000-125.000	Flange	0.750 A325N	3	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0
T10 125.000-105.000	Flange	0.750 A325N	3	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0
T11 105.000-85.000	Flange	0.750 A325N	3	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0
T12 85.000-65.000	Flange	0.750 A325N	3	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0
T13 65.000-45.000	Flange	0.750 A325N	3	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0
T14 45.000-25.000	Flange	0.750 A325N	3	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0
T15 25.000-5.000	Flange	0.750 A325N	3	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0
T16 5.000-0.000	Flange	0.750 A325N	3	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0

Guy Data

Guy Elevation ft	Guy Grade		Guy Size	Initial Tension K	%	Guy Modulus ksi	Guy Weight plf	L_u ft	Anchor Radius ft	Anchor Azimuth Adj. °	Anchor Elevation ft	End Fitting Efficiency %
62.2109	EHS	A	3/8 EModulus	1.540	10%	21000.000	0.273	240.192	228.000	0.000	-19.000	100%
		B	3/8 EModulus	1.540	10%	21000.000	0.273	232.240	228.000	0.000	9.000	100%
		C	3/8 EModulus	1.540	10%	21000.000	0.273	244.503	228.000	0.000	-31.000	100%
122.211	EHS	A	7/16 EModulus	2.080	10%	21000.000	0.399	266.505	228.000	0.000	-19.000	100%
		B	7/16 EModulus	2.080	10%	21000.000	0.399	252.810	228.000	0.000	9.000	100%
		C	7/16 EModulus	2.080	10%	21000.000	0.399	273.043	228.000	0.000	-31.000	100%
195	EHS	A	7/16 EModulus	2.080	10%	21000.000	0.399	311.188	228.000	0.000	-19.000	100%
		B	7/16 EModulus	2.080	10%	21000.000	0.399	292.672	228.000	0.000	9.000	100%
		C	7/16 EModulus	2.080	10%	21000.000	0.399	319.546	228.000	0.000	-31.000	100%
255	EHS	A	1/2 EModulus	2.690	10%	21000.000	0.517	355.077	228.000	0.000	-19.000	100%
		B	1/2 EModulus	2.690	10%	21000.000	0.517	333.981	228.000	0.000	9.000	100%
		C	1/2 EModulus	2.690	10%	21000.000	0.517	364.401	228.000	0.000	-31.000	100%

290.193	EHS	A	5/8	4.240	10%	21000.000	0.813	382.832	228.000	0.000	-19.000	100%
		B	EModulus	4.240	10%	21000.000	0.813	360.634	228.000	0.000	9.000	100%
		C	5/8 EModulus 5/8 EModulus	4.240	10%	21000.000	0.813	392.571	228.000	0.000	-31.000	100%

Guy Data(cont'd)

Guy Elevation ft	Mount Type	Torque-Arm Spread ft	Torque-Arm Leg Angle °	Torque-Arm Style	Torque-Arm Grade	Torque-Arm Type	Torque-Arm Size
62.2109	Corner						
122.211	Corner						
195	Corner						
255	Torque Arm	6.000	0.000	Channel	A529-50 (50 ksi)	Channel	C12x20.7
290.193	Corner						

Guy Data (cont'd)

Guy Elevation ft	Diagonal Grade	Diagonal Type	Upper Diagonal Size	Lower Diagonal Size	Is Strap.	Pull-Off Grade	Pull-Off Type	Pull-Off Size
62.211	A572-50 (50 ksi)	Solid Round			Yes	A529-50 (50 ksi)	Flat Bar	4x5/8
122.211	A572-50 (50 ksi)	Solid Round			Yes	A529-50 (50 ksi)	Flat Bar	4x5/8
195.000	A572-50 (50 ksi)	Solid Round			Yes	A529-50 (50 ksi)	Flat Bar	4x5/8
255.000	A572-50 (50 ksi)	Solid Round			Yes	A529-50 (50 ksi)	Flat Bar	4x5/8
290.193	A572-50 (50 ksi)	Solid Round			Yes	A529-50 (50 ksi)	Flat Bar	4x5/8

Guy Data (cont'd)

Guy Elevation ft	Cable Weight A K	Cable Weight B K	Cable Weight C K	Cable Weight D K	Tower Intercept A ft	Tower Intercept B ft	Tower Intercept C ft	Tower Intercept D ft
62.2109	0.066	0.063	0.067		5.083 3.9 sec/pulse	4.763 3.8 sec/pulse	5.261 4.0 sec/pulse	
122.211	0.106	0.101	0.109		6.728 4.5 sec/pulse	6.071 4.3 sec/pulse	7.054 4.6 sec/pulse	
195	0.124	0.117	0.127		9.111 5.2 sec/pulse	8.080 4.9 sec/pulse	9.596 5.3 sec/pulse	
255	0.184	0.173	0.188		11.817 5.9 sec/pulse	10.482 5.6 sec/pulse	12.432 6.1 sec/pulse	

Guy Elevation ft	Cable Weight A K	Cable Weight B K	Cable Weight C K	Cable Weight D K	Tower Intercept A ft	Tower Intercept B ft	Tower Intercept C ft	Tower Intercept D ft
290.193	0.311	0.293	0.319		13.661 6.4 sec/pulse	12.154 6.0 sec/pulse	14.349 6.5 sec/pulse	

Guy Data (cont'd)

Guy Elevation ft	Calc K Single Angles	Calc K Solid Rounds	Torque Arm K_x	Torque Arm K_y	Pull Off K_x	Pull Off K_y	Diagonal K_x	Diagonal K_y
62.2109	No	No			0.8	0.8	1	1
122.211	No	No			0.8	0.8	1	1
195	No	No			0.8	0.8	1	1
255	No	No	1	1	0.8	0.8	1	1
290.193	No	No			0.8	0.8	1	1

Guy Data (cont'd)

Guy Elevation ft	Torque-Arm Bolt Size in	Torque-Arm Number	Torque-Arm Net Width Deduct in	Torque-Arm U	Pull Off Bolt Size in	Pull Off Number	Pull Off Net Width Deduct in	Pull Off U	Diagonal Bolt Size in	Diagonal Number	Diagonal Net Width Deduct in	Diagonal U
62.2109	0.625 A325N	0	0.000	0.75	0.625 A325N	0	0.000	1	0.625 A325N	0	0.000	1
122.211	0.625 A325N	0	0.000	0.75	0.625 A325N	0	0.000	1	0.625 A325N	0	0.000	1
195	0.000 A325N	0	0.000	0.75	0.625 A325N	0	0.000	1	0.625 A325N	0	0.000	1
255	0.000 A325N	0	0.000	0.75	0.625 A325N	0	0.000	1	0.625 A325N	0	0.000	1
290.193	0.000 A325N	0	0.000	0.75	0.625 A325N	0	0.000	1	0.625 A325N	0	0.000	1

Guy Pressures

Guy Elevation ft	Guy Location	z ft	q_z ksf	q_z Ice ksf	Ice Thickness in
62.2109	A	21.605	0.021	0.002	1.438
	B	35.605	0.024	0.002	1.511
	C	15.605	0.020	0.002	1.392
122.211	A	51.605	0.026	0.002	1.569
	B	65.605	0.027	0.002	1.607
	C	45.605	0.025	0.002	1.549
195	A	88.000	0.029	0.002	1.655
	B	102.000	0.029	0.002	1.679
	C	82.000	0.028	0.002	1.643
255	A	118.000	0.030	0.002	1.704
	B	132.000	0.031	0.003	1.723

Guy Elevation ft	Guy Location	z ft	q_z ksf	q_z Ice ksf	Ice Thickness in
	C	112.000	0.030	0.002	1.695
290.193	A	135.596	0.031	0.003	1.728
	B	149.596	0.032	0.003	1.745
	C	129.596	0.031	0.003	1.720

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight klf
1-5/8" (Carrier 1)	C	No	No	Ar (CaAa)	300.000 - 10.000	0.000	0	9	5	0.750	1.980		0.001
1.5" Hybrid (Carrier 1) **	C	No	No	Ar (CaAa)	300.000 - 10.000	0.000	-0.3	6	3	0.750	1.500		0.001
1-5/8" (Carrier 2)	B	No	No	Ar (CaAa)	282.000 - 10.000	0.000	0	9	5	0.750	1.980		0.001
1.5" Hybrid (Carrier 2) **	B	No	No	Ar (CaAa)	282.000 - 10.000	0.000	-0.3	6	3	0.750	1.500		0.001
1-5/8" (Carrier 3)	A	No	No	Ar (CaAa)	270.000 - 10.000	0.000	0	9	5	0.750	1.980		0.001
1.5" Hybrid (Carrier 3) **	A	No	No	Ar (CaAa)	270.000 - 10.000	0.000	-0.3	6	3	0.750	1.500		0.001
CommScope CNT-400 (Carrier 4) **	C	No	No	Ar (CaAa)	105.000 - 10.000	0.000	0.3	2	1	0.750	0.630		0.000
Safety Line 3/8	A	No	No	Ar (CaAa)	305.000 - 10.000	0.000	0.45	1	1	0.375	0.375		0.000
Strobe Cable	A	No	No	Ar (CaAa)	305.000 - 10.000	0.000	-0.45	1	1	1.250	1.250		0.001

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft²	A_F ft²	C_AA_A In Face ft²	C_AA_A Out Face ft²	Weight K
T1	305.000-285.000	A	0.000	0.000	3.250	0.000	0.018
		B	0.000	0.000	0.000	0.000	0.000
		C	0.000	0.000	40.230	0.000	0.182
T2	285.000-265.000	A	0.000	0.000	16.660	0.000	0.079
		B	0.000	0.000	45.594	0.000	0.206
		C	0.000	0.000	53.640	0.000	0.242
T3	265.000-245.000	A	0.000	0.000	56.890	0.000	0.261
		B	0.000	0.000	53.640	0.000	0.242
		C	0.000	0.000	53.640	0.000	0.242
T4	245.000-225.000	A	0.000	0.000	56.890	0.000	0.261
		B	0.000	0.000	53.640	0.000	0.242
		C	0.000	0.000	53.640	0.000	0.242
T5	225.000-205.000	A	0.000	0.000	56.890	0.000	0.261
		B	0.000	0.000	53.640	0.000	0.242

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
		C	0.000	0.000	53.640	0.000	0.242
T6	205.000-185.000	A	0.000	0.000	56.890	0.000	0.261
		B	0.000	0.000	53.640	0.000	0.242
		C	0.000	0.000	53.640	0.000	0.242
T7	185.000-165.000	A	0.000	0.000	56.890	0.000	0.261
		B	0.000	0.000	53.640	0.000	0.242
		C	0.000	0.000	53.640	0.000	0.242
T8	165.000-145.000	A	0.000	0.000	56.890	0.000	0.261
		B	0.000	0.000	53.640	0.000	0.242
		C	0.000	0.000	53.640	0.000	0.242
T9	145.000-125.000	A	0.000	0.000	56.890	0.000	0.261
		B	0.000	0.000	53.640	0.000	0.242
		C	0.000	0.000	53.640	0.000	0.242
T10	125.000-105.000	A	0.000	0.000	56.890	0.000	0.261
		B	0.000	0.000	53.640	0.000	0.242
		C	0.000	0.000	53.640	0.000	0.242
T11	105.000-85.000	A	0.000	0.000	56.890	0.000	0.261
		B	0.000	0.000	53.640	0.000	0.242
		C	0.000	0.000	56.160	0.000	0.248
T12	85.000-65.000	A	0.000	0.000	56.890	0.000	0.261
		B	0.000	0.000	53.640	0.000	0.242
		C	0.000	0.000	56.160	0.000	0.248
T13	65.000-45.000	A	0.000	0.000	56.890	0.000	0.261
		B	0.000	0.000	53.640	0.000	0.242
		C	0.000	0.000	56.160	0.000	0.248
T14	45.000-25.000	A	0.000	0.000	56.890	0.000	0.261
		B	0.000	0.000	53.640	0.000	0.242
		C	0.000	0.000	56.160	0.000	0.248
T15	25.000-5.000	A	0.000	0.000	42.667	0.000	0.196
		B	0.000	0.000	40.230	0.000	0.182
		C	0.000	0.000	42.120	0.000	0.186
T16	5.000-0.000	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000	0.000

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
T1	305.000-285.000	A	1.867	0.000	0.000	18.189	0.000	0.263
		B		0.000	0.000	0.000	0.000	0.000
		C		0.000	0.000	58.003	0.000	1.074
T2	285.000-265.000	A	1.854	0.000	0.000	37.374	0.000	0.616
		B		0.000	0.000	65.584	0.000	1.211
		C		0.000	0.000	77.158	0.000	1.424
T3	265.000-245.000	A	1.840	0.000	0.000	94.939	0.000	1.673
		B		0.000	0.000	76.966	0.000	1.416
		C		0.000	0.000	76.966	0.000	1.416
T4	245.000-225.000	A	1.825	0.000	0.000	94.613	0.000	1.661
		B		0.000	0.000	76.761	0.000	1.408
		C		0.000	0.000	76.761	0.000	1.408
T5	225.000-205.000	A	1.809	0.000	0.000	94.262	0.000	1.649
		B		0.000	0.000	76.539	0.000	1.399
		C		0.000	0.000	76.539	0.000	1.399
T6	205.000-185.000	A	1.792	0.000	0.000	93.880	0.000	1.635
		B		0.000	0.000	76.298	0.000	1.389
		C		0.000	0.000	76.298	0.000	1.389

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
T7	185.000-165.000	A	1.772	0.000	0.000	93.462	0.000	1.620
		B		0.000	0.000	76.033	0.000	1.378
		C		0.000	0.000	76.033	0.000	1.378
T8	165.000-145.000	A	1.751	0.000	0.000	92.997	0.000	1.603
		B		0.000	0.000	75.740	0.000	1.366
		C		0.000	0.000	75.740	0.000	1.366
T9	145.000-125.000	A	1.727	0.000	0.000	92.476	0.000	1.585
		B		0.000	0.000	75.410	0.000	1.352
		C		0.000	0.000	75.410	0.000	1.352
T10	125.000-105.000	A	1.699	0.000	0.000	91.879	0.000	1.564
		B		0.000	0.000	75.033	0.000	1.337
		C		0.000	0.000	75.033	0.000	1.337
T11	105.000-85.000	A	1.667	0.000	0.000	91.181	0.000	1.539
		B		0.000	0.000	74.593	0.000	1.319
		C		0.000	0.000	91.229	0.000	1.512
T12	85.000-65.000	A	1.628	0.000	0.000	90.336	0.000	1.510
		B		0.000	0.000	74.059	0.000	1.297
		C		0.000	0.000	90.423	0.000	1.483
T13	65.000-45.000	A	1.579	0.000	0.000	89.257	0.000	1.473
		B		0.000	0.000	73.378	0.000	1.270
		C		0.000	0.000	89.394	0.000	1.446
T14	45.000-25.000	A	1.509	0.000	0.000	87.744	0.000	1.421
		B		0.000	0.000	72.423	0.000	1.232
		C		0.000	0.000	87.952	0.000	1.395
T15	25.000-5.000	A	1.386	0.000	0.000	63.815	0.000	1.000
		B		0.000	0.000	53.060	0.000	0.874
		C		0.000	0.000	64.065	0.000	0.981
T16	5.000-0.000	A	1.159	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	0.000	0.000	0.000
		C		0.000	0.000	0.000	0.000	0.000

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
T1	305.000-285.000	1.133	4.341	0.062	1.641
T2	285.000-265.000	2.191	-0.910	1.023	-0.470
T3	265.000-245.000	0.005	-1.786	-0.442	-1.034
T4	245.000-225.000	0.005	-1.839	-0.469	-1.103
T5	225.000-205.000	0.005	-1.848	-0.472	-1.118
T6	205.000-185.000	0.005	-1.803	-0.449	-1.073
T7	185.000-165.000	0.005	-1.848	-0.471	-1.133
T8	165.000-145.000	0.005	-1.848	-0.470	-1.141
T9	145.000-125.000	0.005	-1.839	-0.466	-1.142
T10	125.000-105.000	0.005	-1.795	-0.443	-1.103
T11	105.000-85.000	-0.124	-1.597	-0.837	-0.574
T12	85.000-65.000	-0.124	-1.597	-0.834	-0.586
T13	65.000-45.000	-0.120	-1.559	-0.796	-0.580
T14	45.000-25.000	-0.124	-1.597	-0.822	-0.626
T15	25.000-5.000	-0.117	-1.505	-0.728	-0.606
T16	5.000-0.000	0.000	0.000	0.000	0.000

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T1	1	1-5/8"	285.00 - 300.00	0.6000	0.4076
T1	2	1.5" Hybrid	285.00 - 300.00	0.6000	0.4076
T1	12	Safety Line 3/8	285.00 - 305.00	0.6000	0.4076
T1	13	Strobe Cable	285.00 - 305.00	0.6000	0.4076
T2	1	1-5/8"	265.00 - 285.00	0.6000	0.4324
T2	2	1.5" Hybrid	265.00 - 285.00	0.6000	0.4324
T2	4	1-5/8"	265.00 - 282.00	0.6000	0.4324
T2	5	1.5" Hybrid	265.00 - 282.00	0.6000	0.4324
T2	7	1-5/8"	265.00 - 270.00	0.6000	0.4324
T2	8	1.5" Hybrid	265.00 - 270.00	0.6000	0.4324
T2	12	Safety Line 3/8	265.00 - 285.00	0.6000	0.4324
T2	13	Strobe Cable	265.00 - 285.00	0.6000	0.4324
T3	1	1-5/8"	245.00 - 265.00	0.6000	0.4088
T3	2	1.5" Hybrid	245.00 - 265.00	0.6000	0.4088
T3	4	1-5/8"	245.00 - 265.00	0.6000	0.4088
T3	5	1.5" Hybrid	245.00 - 265.00	0.6000	0.4088
T3	7	1-5/8"	245.00 - 265.00	0.6000	0.4088
T3	8	1.5" Hybrid	245.00 - 265.00	0.6000	0.4088
T3	12	Safety Line 3/8	245.00 - 265.00	0.6000	0.4088
T3	13	Strobe Cable	245.00 - 265.00	0.6000	0.4088
T4	1	1-5/8"	225.00 - 245.00	0.6000	0.4427
T4	2	1.5" Hybrid	225.00 - 245.00	0.6000	0.4427
T4	4	1-5/8"	225.00 - 245.00	0.6000	0.4427
T4	5	1.5" Hybrid	225.00 - 245.00	0.6000	0.4427
T4	7	1-5/8"	225.00 - 245.00	0.6000	0.4427
T4	8	1.5" Hybrid	225.00 - 245.00	0.6000	0.4427
T4	12	Safety Line 3/8	225.00 - 245.00	0.6000	0.4427
T4	13	Strobe Cable	225.00 - 245.00	0.6000	0.4427
T5	1	1-5/8"	205.00 -	0.6000	0.4504

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T5	2	1.5" Hybrid	205.00 - 225.00	0.6000	0.4504
T5	4	1-5/8"	205.00 - 225.00	0.6000	0.4504
T5	5	1.5" Hybrid	205.00 - 225.00	0.6000	0.4504
T5	7	1-5/8"	205.00 - 225.00	0.6000	0.4504
T5	8	1.5" Hybrid	205.00 - 225.00	0.6000	0.4504
T5	12	Safety Line 3/8	205.00 - 225.00	0.6000	0.4504
T5	13	Strobe Cable	205.00 - 225.00	0.6000	0.4504
T6	1	1-5/8"	185.00 - 205.00	0.6000	0.4277
T6	2	1.5" Hybrid	185.00 - 205.00	0.6000	0.4277
T6	4	1-5/8"	185.00 - 205.00	0.6000	0.4277
T6	5	1.5" Hybrid	185.00 - 205.00	0.6000	0.4277
T6	7	1-5/8"	185.00 - 205.00	0.6000	0.4277
T6	8	1.5" Hybrid	185.00 - 205.00	0.6000	0.4277
T6	12	Safety Line 3/8	185.00 - 205.00	0.6000	0.4277
T6	13	Strobe Cable	185.00 - 205.00	0.6000	0.4277
T7	1	1-5/8"	165.00 - 185.00	0.6000	0.4578
T7	2	1.5" Hybrid	165.00 - 185.00	0.6000	0.4578
T7	4	1-5/8"	165.00 - 185.00	0.6000	0.4578
T7	5	1.5" Hybrid	165.00 - 185.00	0.6000	0.4578
T7	7	1-5/8"	165.00 - 185.00	0.6000	0.4578
T7	8	1.5" Hybrid	165.00 - 185.00	0.6000	0.4578
T7	12	Safety Line 3/8	165.00 - 185.00	0.6000	0.4578
T7	13	Strobe Cable	165.00 - 185.00	0.6000	0.4578
T8	1	1-5/8"	145.00 - 165.00	0.6000	0.4622
T8	2	1.5" Hybrid	145.00 - 165.00	0.6000	0.4622
T8	4	1-5/8"	145.00 - 165.00	0.6000	0.4622
T8	5	1.5" Hybrid	145.00 - 165.00	0.6000	0.4622
T8	7	1-5/8"	145.00 - 165.00	0.6000	0.4622
T8	8	1.5" Hybrid	145.00 - 165.00	0.6000	0.4622
T8	12	Safety Line 3/8	145.00 - 165.00	0.6000	0.4622
T8	13	Strobe Cable	145.00 -	0.6000	0.4622

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T9	1	1-5/8"	125.00 - 145.00	0.6000	0.4627
T9	2	1.5" Hybrid	125.00 - 145.00	0.6000	0.4627
T9	4	1-5/8"	125.00 - 145.00	0.6000	0.4627
T9	5	1.5" Hybrid	125.00 - 145.00	0.6000	0.4627
T9	7	1-5/8"	125.00 - 145.00	0.6000	0.4627
T9	8	1.5" Hybrid	125.00 - 145.00	0.6000	0.4627
T9	12	Safety Line 3/8	125.00 - 145.00	0.6000	0.4627
T9	13	Strobe Cable	125.00 - 145.00	0.6000	0.4627
T10	1	1-5/8"	105.00 - 125.00	0.6000	0.4426
T10	2	1.5" Hybrid	105.00 - 125.00	0.6000	0.4426
T10	4	1-5/8"	105.00 - 125.00	0.6000	0.4426
T10	5	1.5" Hybrid	105.00 - 125.00	0.6000	0.4426
T10	7	1-5/8"	105.00 - 125.00	0.6000	0.4426
T10	8	1.5" Hybrid	105.00 - 125.00	0.6000	0.4426
T10	12	Safety Line 3/8	105.00 - 125.00	0.6000	0.4426
T10	13	Strobe Cable	105.00 - 125.00	0.6000	0.4426
T11	1	1-5/8"	85.00 - 105.00	0.6000	0.4793
T11	2	1.5" Hybrid	85.00 - 105.00	0.6000	0.4793
T11	4	1-5/8"	85.00 - 105.00	0.6000	0.4793
T11	5	1.5" Hybrid	85.00 - 105.00	0.6000	0.4793
T11	7	1-5/8"	85.00 - 105.00	0.6000	0.4793
T11	8	1.5" Hybrid	85.00 - 105.00	0.6000	0.4793
T11	10	CommScope CNT-400	85.00 - 105.00	0.6000	0.4793
T11	12	Safety Line 3/8	85.00 - 105.00	0.6000	0.4793
T11	13	Strobe Cable	85.00 - 105.00	0.6000	0.4793
T12	1	1-5/8"	65.00 - 85.00	0.6000	0.4874
T12	2	1.5" Hybrid	65.00 - 85.00	0.6000	0.4874
T12	4	1-5/8"	65.00 - 85.00	0.6000	0.4874
T12	5	1.5" Hybrid	65.00 - 85.00	0.6000	0.4874
T12	7	1-5/8"	65.00 - 85.00	0.6000	0.4874
T12	8	1.5" Hybrid	65.00 - 85.00	0.6000	0.4874
T12	10	CommScope CNT-400	65.00 - 85.00	0.6000	0.4874
T12	12	Safety Line 3/8	65.00 - 85.00	0.6000	0.4874
T12	13	Strobe Cable	65.00 - 85.00	0.6000	0.4874
T13	1	1-5/8"	45.00 - 65.00	0.6000	0.4727
T13	2	1.5" Hybrid	45.00 - 65.00	0.6000	0.4727
T13	4	1-5/8"	45.00 - 65.00	0.6000	0.4727
T13	5	1.5" Hybrid	45.00 - 65.00	0.6000	0.4727
T13	7	1-5/8"	45.00 - 65.00	0.6000	0.4727
T13	8	1.5" Hybrid	45.00 - 65.00	0.6000	0.4727
T13	10	CommScope CNT-400	45.00 - 65.00	0.6000	0.4727
T13	12	Safety Line 3/8	45.00 - 65.00	0.6000	0.4727
T13	13	Strobe Cable	45.00 - 65.00	0.6000	0.4727
T14	1	1-5/8"	25.00 - 45.00	0.6000	0.5122
T14	2	1.5" Hybrid	25.00 - 45.00	0.6000	0.5122

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T14	4	1-5/8"	25.00 - 45.00	0.6000	0.5122
T14	5	1.5" Hybrid	25.00 - 45.00	0.6000	0.5122
T14	7	1-5/8"	25.00 - 45.00	0.6000	0.5122
T14	8	1.5" Hybrid	25.00 - 45.00	0.6000	0.5122
T14	10	CommScope CNT-400	25.00 - 45.00	0.6000	0.5122
T14	12	Safety Line 3/8	25.00 - 45.00	0.6000	0.5122
T14	13	Strobe Cable	25.00 - 45.00	0.6000	0.5122
T15	1	1-5/8"	10.00 - 25.00	0.6000	0.5380
T15	2	1.5" Hybrid	10.00 - 25.00	0.6000	0.5380
T15	4	1-5/8"	10.00 - 25.00	0.6000	0.5380
T15	5	1.5" Hybrid	10.00 - 25.00	0.6000	0.5380
T15	7	1-5/8"	10.00 - 25.00	0.6000	0.5380
T15	8	1.5" Hybrid	10.00 - 25.00	0.6000	0.5380
T15	10	CommScope CNT-400	10.00 - 25.00	0.6000	0.5380
T15	12	Safety Line 3/8	10.00 - 25.00	0.6000	0.5380
T15	13	Strobe Cable	10.00 - 25.00	0.6000	0.5380

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
Lightning Rod 1"x10'	C	From Leg	0.000 0.000 5.000	0.000	305.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.000 2.017 3.050 5.148	1.000 2.017 3.050 5.148	0.040 0.049 0.065 0.116
Top Beacon	B	From Leg	0.000 0.000 1.000	0.000	305.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.700 3.100 3.500 4.300	2.700 3.100 3.500 4.300	0.050 0.070 0.090 0.130
**									
Sector1(CaAa=13333.33 Sq.in)No Ice (Carrier 1)	A	From Leg	4.000 0.000 0.000	0.000	300.000	No Ice 1/2" Ice 1" Ice 2" Ice	92.592 115.740 138.888 185.184	62.037 77.546 93.055 124.073	0.700 1.400 2.100 3.500
Sector2(CaAa=13333.33 Sq.in)No Ice (Carrier 1)	B	From Leg	4.000 0.000 0.000	0.000	300.000	No Ice 1/2" Ice 1" Ice 2" Ice	92.592 115.740 138.888 185.184	62.037 77.546 93.055 124.073	0.700 1.400 2.100 3.500
Sector3(CaAa=13333.33 Sq.in)No Ice (Carrier 1)	C	From Leg	4.000 0.000 0.000	0.000	300.000	No Ice 1/2" Ice 1" Ice 2" Ice	92.592 115.740 138.888 185.184	62.037 77.546 93.055 124.073	0.700 1.400 2.100 3.500
**									
Sector1(CaAa=10000 Sq.in)No Ice (Carrier 2)	A	From Leg	4.000 0.000 0.000	0.000	282.000	No Ice 1/2" Ice 1" Ice 2" Ice	69.444 86.805 104.166 138.888	46.527 58.159 69.791 93.055	0.700 1.400 2.100 3.500
Sector2(CaAa=10000 Sq.in)No Ice (Carrier 2)	B	From Leg	4.000 0.000 0.000	0.000	282.000	No Ice 1/2" Ice 1" Ice	69.444 86.805 104.166	46.527 58.159 69.791	0.700 1.400 2.100

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
						2" Ice	138.888	93.055	3.500
Sector3(CaAa=10000 Sq.in)No Ice (Carrier 2)	C	From Leg	4.000 0.000 0.000	0.000	282.000	No Ice 1/2" Ice 1" Ice 2" Ice	69.444 86.805 104.166 138.888	46.527 58.159 69.791 93.055	0.700 1.400 2.100 3.500
**									
Sector1(CaAa=10000 Sq.in)No Ice (Carrier 3)	A	From Leg	4.000 0.000 0.000	0.000	270.000	No Ice 1/2" Ice 1" Ice 2" Ice	69.444 86.805 104.166 138.888	46.527 58.159 69.791 93.055	0.700 1.400 2.100 3.500
Sector2(CaAa=10000 Sq.in)No Ice (Carrier 3)	B	From Leg	4.000 0.000 0.000	0.000	270.000	No Ice 1/2" Ice 1" Ice 2" Ice	69.444 86.805 104.166 138.888	46.527 58.159 69.791 93.055	0.700 1.400 2.100 3.500
Sector3(CaAa=10000 Sq.in)No Ice (Carrier 3)	C	From Leg	4.000 0.000 0.000	0.000	270.000	No Ice 1/2" Ice 1" Ice 2" Ice	69.444 86.805 104.166 138.888	46.527 58.159 69.791 93.055	0.700 1.400 2.100 3.500
**									
(2) Mini Link 6363 11 (Carrier 4)	C	From Leg	1.000 0.000 0.000	0.000	105.000	No Ice 1/2" Ice 1" Ice 2" Ice	0.455 0.587 0.719 0.983	0.181 0.273 0.365 0.549	0.006 0.010 0.014 0.022
Pipe Mount (Carrier 4)	C	From Leg	0.500 0.000 0.000	0.000	105.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.650 2.207 2.543 3.241	1.650 2.207 2.543 3.241	0.057 0.074 0.094 0.148

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral ft / Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft		Aperture Area ft^2	Weight K
VHLPX3-11WA (Carrier 4)	C	Paraboloid w/Shroud (HP)	From Leg	1.000 0.000 0.000	0.000		105.000	3.000	No Ice 1/2" Ice 1" Ice 2" Ice	7.069 7.467 7.865 8.661	0.062 0.100 0.139 0.215

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice+1.0 Guy
3	1.2 Dead+1.0 Wind 30 deg - No Ice+1.0 Guy
4	1.2 Dead+1.0 Wind 60 deg - No Ice+1.0 Guy

Comb. No.	Description
5	1.2 Dead+1.0 Wind 90 deg - No Ice+1.0 Guy
6	1.2 Dead+1.0 Wind 120 deg - No Ice+1.0 Guy
7	1.2 Dead+1.0 Wind 150 deg - No Ice+1.0 Guy
8	1.2 Dead+1.0 Wind 180 deg - No Ice+1.0 Guy
9	1.2 Dead+1.0 Wind 210 deg - No Ice+1.0 Guy
10	1.2 Dead+1.0 Wind 240 deg - No Ice+1.0 Guy
11	1.2 Dead+1.0 Wind 270 deg - No Ice+1.0 Guy
12	1.2 Dead+1.0 Wind 300 deg - No Ice+1.0 Guy
13	1.2 Dead+1.0 Wind 330 deg - No Ice+1.0 Guy
14	1.2 Dead+1.0 Ice+1.0 Temp+Guy
15	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp+1.0 Guy
16	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp+1.0 Guy
17	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp+1.0 Guy
18	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp+1.0 Guy
19	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp+1.0 Guy
20	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp+1.0 Guy
21	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp+1.0 Guy
22	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp+1.0 Guy
23	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp+1.0 Guy
24	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp+1.0 Guy
25	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp+1.0 Guy
26	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp+1.0 Guy
27	Dead+Wind 0 deg - Service+Guy
28	Dead+Wind 30 deg - Service+Guy
29	Dead+Wind 60 deg - Service+Guy
30	Dead+Wind 90 deg - Service+Guy
31	Dead+Wind 120 deg - Service+Guy
32	Dead+Wind 150 deg - Service+Guy
33	Dead+Wind 180 deg - Service+Guy
34	Dead+Wind 210 deg - Service+Guy
35	Dead+Wind 240 deg - Service+Guy
36	Dead+Wind 270 deg - Service+Guy
37	Dead+Wind 300 deg - Service+Guy
38	Dead+Wind 330 deg - Service+Guy

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T1	305 - 285	Leg	Max Tension	8	21.304	-0.020	0.016
			Max. Compression	2	-25.773	0.044	-0.111
			Max. Mx	11	-3.482	0.494	0.063
			Max. My	8	0.517	-0.067	-0.498
			Max. Vy	11	-1.844	0.134	0.001
			Max. Vx	2	-1.839	-0.023	0.123
		Diagonal	Max Tension	5	5.735	0.000	0.000
			Max. Compression	11	-5.744	0.000	0.000
			Max. Mx	22	0.906	0.013	0.000
			Max. My	7	2.887	0.000	-0.000
			Max. Vy	22	-0.013	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000
		Horizontal	Max Tension	8	2.197	0.000	0.000
			Max. Compression	2	-2.196	0.000	0.000
			Max. Mx	23	0.028	0.009	0.000
			Max. My	7	-0.182	0.000	-0.000
			Max. Vy	23	-0.012	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000
		Top Girt	Max Tension	9	0.074	0.000	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Compression	3	-0.073	0.000	0.000
			Max. Mx	23	0.011	0.009	0.000
			Max. My	7	0.044	0.000	-0.000
			Max. Vy	23	-0.012	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000
		Bottom Girt	Max Tension	4	1.546	0.000	0.000
			Max. Compression	10	-1.359	0.000	0.000
			Max. Mx	23	0.115	0.009	0.000
			Max. My	7	1.163	0.000	-0.000
			Max. Vy	23	-0.012	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000
		Guy A	Bottom Tension	9	23.451		
			Top Tension	9	23.697		
			Top Cable Vert	9	19.211		
			Top Cable Norm	9	13.873		
			Top Cable Tan	9	0.014		
			Bot Cable Vert	9	-18.675		
			Bot Cable Norm	9	14.181		
			Bot Cable Tan	9	0.287		
		Guy B	Bottom Tension	13	22.068		
			Top Tension	13	22.293		
			Top Cable Vert	13	17.467		
			Top Cable Norm	13	13.852		
			Top Cable Tan	13	0.024		
			Bot Cable Vert	13	-16.956		
			Bot Cable Norm	13	14.122		
			Bot Cable Tan	13	0.280		
		Guy C	Bottom Tension	3	23.863		
			Top Tension	3	24.119		
			Top Cable Vert	3	19.802		
			Top Cable Norm	3	13.770		
			Top Cable Tan	3	0.016		
			Bot Cable Vert	3	-19.254		
			Bot Cable Norm	3	14.094		
			Bot Cable Tan	3	0.296		
		Top Guy Pull-Off	Max Tension	3	6.923	0.000	0.000
			Max. Compression	1	0.000	0.000	0.000
			Max. Mx	23	2.971	0.027	0.000
			Max. My	7	0.606	0.000	-0.000
			Max. Vy	23	-0.036	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000
T2	285 - 265	Leg	Max Tension	8	13.587	0.117	1.002
			Max. Compression	2	-44.769	-0.068	0.017
			Max. Mx	5	-37.908	1.171	-0.053
			Max. My	2	-40.302	-0.216	-1.114
			Max. Vy	5	3.017	0.008	-0.061
			Max. Vx	2	-2.936	-0.068	0.017
		Diagonal	Max Tension	7	7.596	0.000	0.000
			Max. Compression	5	-7.943	0.000	0.000
			Max. Mx	22	0.183	0.014	0.000
			Max. My	13	0.075	0.000	0.000
			Max. Vy	22	-0.015	0.000	0.000
			Max. Vx	13	-0.000	0.000	0.000
		Horizontal	Max Tension	12	2.102	0.000	0.000
			Max. Compression	10	-1.911	0.000	0.000
			Max. Mx	23	0.242	0.009	0.000
			Max. My	7	0.233	0.000	-0.000
			Max. Vy	23	-0.012	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000
		Top Girt	Max Tension	10	1.415	0.000	0.000
			Max. Compression	4	-1.495	0.000	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Mx	23	-0.044	0.009	0.000
			Max. My	7	-1.095	0.000	-0.000
			Max. Vy	23	-0.012	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000
		Bottom Girt	Max Tension	2	3.367	0.000	0.000
			Max. Compression	8	-2.787	0.000	0.000
			Max. Mx	23	-0.211	0.009	0.000
			Max. My	7	-2.334	0.000	-0.000
			Max. Vy	23	-0.012	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000
T3	265 - 245	Leg	Max Tension	8	38.870	0.005	-0.006
			Max. Compression	2	-75.440	0.181	0.009
			Max. Mx	5	-37.917	-1.155	-0.065
			Max. My	2	-49.244	0.084	1.148
			Max. Vy	5	3.019	-1.155	-0.065
			Max. Vx	2	-2.935	0.084	1.148
		Diagonal	Max Tension	5	7.883	0.000	0.000
			Max. Compression	7	-7.901	0.000	0.000
			Max. Mx	22	1.186	0.014	0.000
			Max. My	7	3.513	0.000	-0.000
			Max. Vy	22	-0.014	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000
		Horizontal	Max Tension	3	1.375	0.000	0.000
			Max. Compression	9	-1.343	0.000	0.000
			Max. Mx	23	0.177	0.009	0.000
			Max. My	13	-0.581	0.000	-0.000
			Max. Vy	23	-0.011	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Top Girt	Max Tension	8	2.903	0.000	0.000
			Max. Compression	2	-3.356	0.000	0.000
			Max. Mx	23	0.320	0.009	0.000
			Max. My	7	2.440	0.000	-0.000
			Max. Vy	23	-0.011	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000
		Bottom Girt	Max Tension	13	1.705	0.000	0.000
			Max. Compression	7	-1.529	0.000	0.000
			Max. Mx	23	0.181	0.009	0.000
			Max. My	7	0.726	0.000	-0.000
			Max. Vy	23	-0.011	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000
		Guy A	Bottom Tension	9	14.032		
			Top Tension	9	14.170		
			Top Cable Vert	9	11.002		
			Top Cable Norm	9	8.930		
			Top Cable Tan	9	0.020		
			Bot Cable Vert	9	-10.657		
			Bot Cable Norm	9	9.126		
			Bot Cable Tan	9	0.176		
		Guy B	Bottom Tension	13	13.060		
			Top Tension	13	13.185		
			Top Cable Vert	13	9.786		
			Top Cable Norm	13	8.836		
			Top Cable Tan	13	0.013		
			Bot Cable Vert	13	-9.459		
			Bot Cable Norm	13	9.003		
			Bot Cable Tan	13	0.171		
		Guy C	Bottom Tension	3	14.359		
			Top Tension	3	14.503		
			Top Cable Vert	3	11.448		
			Top Cable Norm	3	8.905		
			Top Cable Tan	3	0.019		

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Bot Cable Vert	3	-11.095		
			Bot Cable Norm	3	9.112		
			Bot Cable Tan	3	0.183		
		Top Guy Pull-Off	Max Tension	3	7.782	0.000	0.000
			Max. Compression	9	-7.599	0.000	0.000
			Max. Mx	23	-0.821	0.026	0.000
			Max. My	7	-3.101	0.000	-0.000
			Max. Vy	23	-0.035	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000
		Torque Arm Top	Max Tension	3	9.490	0.000	0.000
			Max. Compression	5	-4.200	0.000	0.000
			Max. Mx	3	-0.085	-33.647	-0.000
			Max. My	7	-2.058	-18.641	0.000
			Max. Vy	3	11.253	-33.647	-0.000
			Max. Vx	7	0.000	-18.641	0.000
T4	245 - 225	Leg	Max Tension	8	7.179	-0.041	-0.026
			Max. Compression	2	-63.755	-0.150	-0.448
			Max. Mx	11	-19.656	-0.576	-0.028
			Max. My	7	-20.896	0.284	0.549
			Max. Vy	5	-1.424	-0.108	-0.030
			Max. Vx	13	1.447	0.027	0.110
		Diagonal	Max Tension	12	3.169	0.000	0.000
			Max. Compression	6	-3.160	0.000	0.000
			Max. Mx	22	-0.432	0.012	0.000
			Max. My	13	-1.894	0.000	0.000
			Max. Vy	22	0.013	0.000	0.000
			Max. Vx	13	-0.000	0.000	0.000
		Horizontal	Max Tension	7	0.599	0.000	0.000
			Max. Compression	13	-0.334	0.000	0.000
			Max. Mx	23	0.195	0.008	0.000
			Max. My	13	0.417	0.000	-0.000
			Max. Vy	23	0.011	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Top Girt	Max Tension	7	1.581	0.000	0.000
			Max. Compression	13	-1.507	0.000	0.000
			Max. Mx	23	-0.013	0.008	0.000
			Max. My	7	-0.563	0.000	-0.000
			Max. Vy	23	0.011	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000
		Bottom Girt	Max Tension	13	0.895	0.000	0.000
			Max. Compression	7	-0.708	0.000	0.000
			Max. Mx	23	0.144	0.008	0.000
			Max. My	7	0.160	0.000	-0.000
			Max. Vy	23	0.011	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000
T5	225 - 205	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	2	-47.926	-0.104	0.016
			Max. Mx	11	-21.029	-0.287	-0.008
			Max. My	7	-22.086	0.153	0.285
			Max. Vy	5	-0.646	-0.094	-0.017
			Max. Vx	13	0.709	0.032	0.090
		Diagonal	Max Tension	13	1.455	0.000	0.000
			Max. Compression	13	-1.924	0.000	0.000
			Max. Mx	22	-0.208	0.011	0.000
			Max. My	13	-0.446	0.000	0.000
			Max. Vy	22	-0.011	0.000	0.000
			Max. Vx	13	-0.000	0.000	0.000
		Horizontal	Max Tension	7	0.404	0.000	0.000
			Max. Compression	13	-0.141	0.000	0.000
			Max. Mx	23	0.210	0.008	0.000
			Max. My	7	0.236	0.000	-0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vy	23	0.011	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000
		Top Girt	Max Tension	7	0.742	0.000	0.000
			Max. Compression	13	-0.676	0.000	0.000
			Max. Mx	23	0.030	0.008	0.000
			Max. My	7	0.037	0.000	-0.000
			Max. Vy	23	0.011	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000
		Bottom Girt	Max Tension	13	0.688	0.000	0.000
			Max. Compression	7	-0.491	0.000	0.000
			Max. Mx	23	0.105	0.008	0.000
			Max. My	7	-0.491	0.000	-0.000
			Max. Vy	23	0.011	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000
T6	205 - 185	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	2	-52.698	-0.165	0.078
			Max. Mx	5	-29.778	-0.596	-0.096
			Max. My	2	-28.298	-0.007	0.635
			Max. Vy	5	-1.297	-0.596	-0.096
			Max. Vx	2	1.403	-0.007	0.635
		Diagonal	Max Tension	6	3.106	0.000	0.000
			Max. Compression	2	-3.542	0.000	0.000
			Max. Mx	22	0.019	0.011	0.000
			Max. My	13	0.096	0.000	0.000
			Max. Vy	22	-0.011	0.000	0.000
			Max. Vx	13	-0.000	0.000	0.000
		Horizontal	Max Tension	7	0.727	0.000	0.000
			Max. Compression	8	-0.090	0.000	0.000
			Max. Mx	19	0.247	0.008	0.000
			Max. My	7	0.233	0.000	-0.000
			Max. Vy	19	-0.011	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000
		Top Girt	Max Tension	7	0.690	0.000	0.000
			Max. Compression	13	-0.636	0.000	0.000
			Max. Mx	23	0.073	0.008	0.000
			Max. My	7	0.690	0.000	-0.000
			Max. Vy	23	-0.011	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000
		Bottom Girt	Max Tension	13	1.521	0.000	0.000
			Max. Compression	6	-1.423	0.000	0.000
			Max. Mx	14	0.141	0.008	0.000
			Max. My	7	0.984	0.000	-0.000
			Max. Vy	14	-0.011	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000
		Guy A	Bottom Tension	9	10.844		
			Top Tension	9	10.928		
			Top Cable Vert	9	7.567		
			Top Cable Norm	9	7.884		
			Top Cable Tan	9	0.012		
			Bot Cable Vert	9	-7.332		
			Bot Cable Norm	9	7.989		
			Bot Cable Tan	9	0.116		
		Guy B	Bottom Tension	11	10.190		
			Top Tension	11	10.263		
			Top Cable Vert	11	6.578		
			Top Cable Norm	11	7.878		
			Top Cable Tan	11	0.007		
			Bot Cable Vert	11	-6.360		
			Bot Cable Norm	11	7.961		
			Bot Cable Tan	11	0.112		
		Guy C	Bottom Tension	3	11.145		

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Top Tension	3	11.233		
			Top Cable Vert	3	7.995		
			Top Cable Norm	3	7.891		
			Top Cable Tan	3	0.011		
			Bot Cable Vert	3	-7.753		
			Bot Cable Norm	3	8.005		
			Bot Cable Tan	3	0.121		
		Top Guy Pull-Off	Max Tension	7	4.116	0.000	0.000
			Max. Compression	1	0.000	0.000	0.000
			Max. Mx	19	2.437	0.026	0.000
			Max. My	7	0.445	0.000	-0.000
			Max. Vy	19	0.034	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000
T7	185 - 165	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	23	-50.943	-0.006	0.155
			Max. Mx	11	-28.213	-0.548	-0.022
			Max. My	7	-29.443	0.279	0.533
			Max. Vy	5	-1.306	-0.096	-0.005
			Max. Vx	2	1.413	0.045	0.095
		Diagonal	Max Tension	2	2.940	0.000	0.000
			Max. Compression	6	-3.284	0.000	0.000
			Max. Mx	19	-0.016	0.010	0.000
			Max. My	13	-1.166	0.000	0.000
			Max. Vy	19	0.011	0.000	0.000
			Max. Vx	13	-0.000	0.000	0.000
		Horizontal	Max Tension	7	0.612	0.000	0.000
			Max. Compression	2	-0.333	0.000	0.000
			Max. Mx	14	0.272	0.008	0.000
			Max. My	7	0.137	0.000	-0.000
			Max. Vy	14	-0.011	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000
		Top Girt	Max Tension	6	1.469	0.000	0.000
			Max. Compression	13	-1.275	0.000	0.000
			Max. Mx	14	0.052	0.008	0.000
			Max. My	7	-0.756	0.000	-0.000
			Max. Vy	14	-0.011	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000
		Bottom Girt	Max Tension	13	0.613	0.000	0.000
			Max. Compression	7	-0.463	0.000	0.000
			Max. Mx	25	0.105	0.008	0.000
			Max. My	7	0.251	0.000	-0.000
			Max. Vy	25	-0.011	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000
T8	165 - 145	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	19	-53.081	-0.167	0.001
			Max. Mx	5	-20.906	0.326	-0.107
			Max. My	8	-22.352	0.000	0.327
			Max. Vy	5	0.705	0.055	-0.074
			Max. Vx	8	0.703	-0.091	0.003
		Diagonal	Max Tension	7	1.460	0.000	0.000
			Max. Compression	13	-2.045	0.000	0.000
			Max. Mx	19	0.096	0.010	0.000
			Max. My	13	0.386	0.000	0.000
			Max. Vy	19	0.011	0.000	0.000
			Max. Vx	13	-0.000	0.000	0.000
		Horizontal	Max Tension	12	0.466	0.000	0.000
			Max. Compression	6	-0.103	0.000	0.000
			Max. Mx	21	0.270	0.008	0.000
			Max. My	13	0.451	0.000	-0.000
			Max. Vy	21	0.011	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
		Top Girt	Max Tension	7	0.487	0.000	0.000
			Max. Compression	13	-0.344	0.000	0.000
			Max. Mx	25	0.085	0.008	0.000
			Max. My	7	-0.010	0.000	-0.000
			Max. Vy	25	0.011	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000
		Bottom Girt	Max Tension	13	0.644	0.000	0.000
			Max. Compression	8	-0.631	0.000	0.000
			Max. Mx	24	0.173	0.008	0.000
			Max. My	7	-0.548	0.000	-0.000
			Max. Vy	24	0.011	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000
T9	145 - 125	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	16	-55.587	-0.177	-0.000
			Max. Mx	5	-37.377	0.665	-0.093
			Max. My	8	-33.860	-0.017	0.645
			Max. Vy	5	1.594	0.051	-0.094
			Max. Vx	8	1.520	-0.073	-0.000
		Diagonal	Max Tension	7	3.502	0.000	0.000
			Max. Compression	13	-4.082	0.000	0.000
			Max. Mx	23	-0.109	0.011	0.000
			Max. My	13	1.822	0.000	0.000
			Max. Vy	23	-0.012	0.000	0.000
			Max. Vx	13	-0.000	0.000	0.000
		Horizontal	Max Tension	4	0.696	0.000	0.000
			Max. Compression	6	-0.327	0.000	0.000
			Max. Mx	25	0.236	0.008	0.000
			Max. My	13	0.297	0.000	-0.000
			Max. Vy	25	-0.011	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Top Girt	Max Tension	8	0.879	0.000	0.000
			Max. Compression	2	-0.600	0.000	0.000
			Max. Mx	24	0.030	0.008	0.000
			Max. My	7	0.792	0.000	-0.000
			Max. Vy	24	-0.011	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000
		Bottom Girt	Max Tension	2	1.587	0.000	0.000
			Max. Compression	8	-1.467	0.000	0.000
			Max. Mx	25	0.234	0.008	0.000
			Max. My	7	-1.199	0.000	-0.000
			Max. Vy	25	-0.011	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000
T10	125 - 105	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	18	-63.993	0.102	0.176
			Max. Mx	11	-21.135	0.627	-0.024
			Max. My	2	-28.812	-0.023	0.611
			Max. Vy	5	1.603	-0.567	-0.088
			Max. Vx	8	1.521	-0.140	-0.586
		Diagonal	Max Tension	13	3.814	0.000	0.000
			Max. Compression	7	-4.013	0.000	0.000
			Max. Mx	23	0.256	0.011	0.000
			Max. My	13	-1.948	0.000	0.000
			Max. Vy	23	-0.012	0.000	0.000
			Max. Vx	13	-0.000	0.000	0.000
		Horizontal	Max Tension	5	0.929	0.000	0.000
			Max. Compression	1	0.000	0.000	0.000
			Max. Mx	22	0.241	0.008	0.000
			Max. My	13	0.004	0.000	-0.000
			Max. Vy	22	0.010	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Top Girt	Max Tension	8	1.654	0.000	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Compression	2	-1.479	0.000	0.000
			Max. Mx	25	-0.026	0.008	0.000
			Max. My	7	1.390	0.000	-0.000
			Max. Vy	25	0.010	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000
		Bottom Girt	Max Tension	12	1.154	0.000	0.000
			Max. Compression	6	-1.018	0.000	0.000
			Max. Mx	25	0.148	0.008	0.000
			Max. My	7	0.994	0.000	-0.000
			Max. Vy	25	0.010	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000
		Guy A	Bottom Tension	9	11.500		
			Top Tension	9	11.555		
			Top Cable Vert	9	6.163		
			Top Cable Norm	9	9.775		
			Top Cable Tan	9	0.007		
			Bot Cable Vert	9	-5.990		
			Bot Cable Norm	9	9.816		
			Bot Cable Tan	9	0.093		
		Guy B	Bottom Tension	11	10.992		
			Top Tension	11	11.036		
			Top Cable Vert	11	4.985		
			Top Cable Norm	11	9.846		
			Top Cable Tan	11	0.011		
			Bot Cable Vert	11	-4.829		
			Bot Cable Norm	11	9.874		
			Bot Cable Tan	11	0.091		
		Guy C	Bottom Tension	5	11.938		
			Top Tension	5	11.998		
			Top Cable Vert	5	6.769		
			Top Cable Norm	5	9.906		
			Top Cable Tan	5	0.015		
			Bot Cable Vert	5	-6.590		
			Bot Cable Norm	5	9.954		
			Bot Cable Tan	5	0.103		
		Top Guy Pull-Off	Max Tension	5	5.257	0.000	0.000
			Max. Compression	1	0.000	0.000	0.000
			Max. Mx	25	2.291	0.025	0.000
			Max. My	13	0.020	0.000	-0.000
			Max. Vy	25	-0.033	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
T11	105 - 85	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	17	-69.564	0.108	0.180
			Max. Mx	5	-24.774	0.429	-0.055
			Max. My	2	-45.133	0.040	-0.406
			Max. Vy	11	1.087	0.031	-0.092
			Max. Vx	2	1.161	0.075	0.084
		Diagonal	Max Tension	7	2.237	0.000	0.000
			Max. Compression	13	-2.349	0.000	0.000
			Max. Mx	18	-0.410	0.010	0.000
			Max. My	13	-0.114	0.000	0.000
			Max. Vy	18	-0.010	0.000	0.000
			Max. Vx	13	-0.000	0.000	0.000
		Horizontal	Max Tension	7	0.511	0.000	0.000
			Max. Compression	2	-0.243	0.000	0.000
			Max. Mx	23	0.283	0.008	0.000
			Max. My	13	0.253	0.000	-0.000
			Max. Vy	23	0.010	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Top Girt	Max Tension	2	0.939	0.000	0.000
			Max. Compression	7	-0.770	0.000	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Mx	25	0.065	0.008	0.000
			Max. My	7	-0.770	0.000	-0.000
			Max. Vy	25	0.010	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000
		Bottom Girt	Max Tension	20	0.276	0.000	0.000
			Max. Compression	13	-0.013	0.000	0.000
			Max. Mx	24	0.219	0.008	0.000
			Max. My	13	-0.013	0.000	-0.000
			Max. Vy	24	0.010	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
T12	85 - 65	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	18	-70.925	0.111	0.190
			Max. Mx	11	-39.008	-0.503	-0.028
			Max. My	7	-41.826	0.247	0.509
			Max. Vy	6	1.023	0.073	-0.088
			Max. Vx	7	1.018	0.066	0.117
		Diagonal	Max Tension	12	1.834	0.000	0.000
			Max. Compression	6	-2.757	0.000	0.000
			Max. Mx	18	0.024	0.009	0.000
			Max. My	26	-0.307	0.000	0.000
			Max. Vy	18	-0.010	0.000	0.000
			Max. Vx	26	-0.000	0.000	0.000
		Horizontal	Max Tension	7	0.602	0.000	0.000
			Max. Compression	2	-0.203	0.000	0.000
			Max. Mx	16	0.224	0.007	0.000
			Max. My	13	0.466	0.000	-0.000
			Max. Vy	16	0.010	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Top Girt	Max Tension	5	0.224	0.000	0.000
			Max. Compression	7	-0.188	0.000	0.000
			Max. Mx	24	-0.004	0.007	0.000
			Max. My	13	0.066	0.000	-0.000
			Max. Vy	24	0.010	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Bottom Girt	Max Tension	6	1.149	0.000	0.000
			Max. Compression	13	-0.824	0.000	0.000
			Max. Mx	16	0.340	0.007	0.000
			Max. My	13	0.681	0.000	-0.000
			Max. Vy	16	0.010	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
T13	65 - 45	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	17	-76.958	0.120	0.201
			Max. Mx	5	-42.173	-0.471	-0.035
			Max. My	2	-47.082	0.010	0.449
			Max. Vy	6	1.033	-0.325	-0.204
			Max. Vx	7	1.040	-0.119	-0.283
		Diagonal	Max Tension	6	2.481	0.000	0.000
			Max. Compression	7	-3.016	0.000	0.000
			Max. Mx	18	-0.245	0.009	0.000
			Max. My	26	-0.773	0.000	0.000
			Max. Vy	18	-0.009	0.000	0.000
			Max. Vx	26	-0.000	0.000	0.000
		Horizontal	Max Tension	5	0.631	0.000	0.000
			Max. Compression	1	0.000	0.000	0.000
			Max. Mx	24	0.312	0.007	0.000
			Max. My	13	0.138	0.000	-0.000
			Max. Vy	24	-0.009	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Top Girt	Max Tension	13	1.068	0.000	0.000
			Max. Compression	6	-1.072	0.000	0.000
			Max. Mx	24	0.006	0.007	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. My	13	-0.581	0.000	-0.000
			Max. Vy	24	-0.009	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Bottom Girt	Max Tension	7	0.778	0.000	0.000
			Max. Compression	13	-0.361	0.000	0.000
			Max. Mx	24	0.270	0.007	0.000
			Max. My	13	-0.361	0.000	-0.000
			Max. Vy	24	-0.009	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Guy A	Bottom Tension	7	6.849		
			Top Tension	7	6.871		
			Top Cable Vert	7	2.355		
			Top Cable Norm	7	6.454		
			Top Cable Tan	7	0.000		
			Bot Cable Vert	7	-2.263		
			Bot Cable Norm	7	6.464		
			Bot Cable Tan	7	0.047		
		Guy B	Bottom Tension	11	6.520		
			Top Tension	11	6.534		
			Top Cable Vert	11	1.530		
			Top Cable Norm	11	6.352		
			Top Cable Tan	11	0.002		
			Bot Cable Vert	11	-1.448		
			Bot Cable Norm	11	6.357		
			Bot Cable Tan	11	0.045		
		Guy C	Bottom Tension	5	7.105		
			Top Tension	5	7.130		
			Top Cable Vert	5	2.749		
			Top Cable Norm	5	6.579		
			Top Cable Tan	5	0.001		
			Bot Cable Vert	5	-2.654		
			Bot Cable Norm	5	6.591		
			Bot Cable Tan	5	0.047		
		Top Guy Pull-Off	Max Tension	5	3.569	0.000	0.000
			Max. Compression	1	0.000	0.000	0.000
			Max. Mx	24	2.236	0.024	0.000
			Max. My	13	0.191	0.000	-0.000
			Max. Vy	24	0.032	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
T14	45 - 25	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	17	-77.702	-0.157	-0.293
			Max. Mx	11	-39.819	-0.375	-0.022
			Max. My	7	-42.466	0.200	0.391
			Max. Vy	6	0.656	0.073	-0.091
			Max. Vx	7	0.678	0.061	0.130
		Diagonal	Max Tension	7	1.360	0.000	0.000
			Max. Compression	6	-1.924	0.000	0.000
			Max. Mx	18	0.220	0.009	0.000
			Max. My	18	-0.392	0.000	0.000
			Max. Vy	18	-0.009	0.000	0.000
			Max. Vx	18	-0.000	0.000	0.000
		Horizontal	Max Tension	7	0.510	0.000	0.000
			Max. Compression	13	-0.085	0.000	0.000
			Max. Mx	24	0.256	0.007	0.000
			Max. My	13	0.335	0.000	-0.000
			Max. Vy	24	-0.009	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Top Girt	Max Tension	13	0.423	0.000	0.000
			Max. Compression	7	-0.520	0.000	0.000
			Max. Mx	24	-0.051	0.007	0.000
			Max. My	13	0.423	0.000	-0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vy	24	-0.009	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Bottom Girt	Max Tension	7	0.819	0.000	0.000
			Max. Compression	13	-0.437	0.000	0.000
			Max. Mx	22	0.320	0.007	0.000
			Max. My	13	0.263	0.000	-0.000
			Max. Vy	22	-0.009	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
T15	25 - 5	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	17	-77.405	0.006	0.167
			Max. Mx	18	-73.980	-3.660	2.121
			Max. My	20	-73.533	-0.052	-4.199
			Max. Vy	18	11.656	-3.660	2.121
			Max. Vx	20	13.183	-0.052	-4.199
		Diagonal	Max Tension	13	2.091	0.000	0.000
			Max. Compression	6	-3.063	0.000	0.000
			Max. Mx	18	0.704	0.008	0.000
			Max. My	18	-0.054	0.000	0.000
			Max. Vy	18	-0.008	0.000	0.000
			Max. Vx	18	0.000	0.000	0.000
		Horizontal	Max Tension	20	0.373	0.000	0.000
			Max. Compression	13	-0.403	0.000	0.000
			Max. Mx	26	-0.137	0.006	0.000
			Max. My	13	-0.047	0.000	-0.000
			Max. Vy	26	-0.008	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Top Girt	Max Tension	13	0.707	0.000	0.000
			Max. Compression	7	-0.751	0.000	0.000
			Max. Mx	22	-0.098	0.006	0.000
			Max. My	13	-0.185	0.000	-0.000
			Max. Vy	22	-0.008	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Bottom Girt	Max Tension	19	8.019	0.000	0.000
			Max. Compression	1	0.000	0.000	0.000
			Max. Mx	26	7.559	0.006	0.000
			Max. My	13	4.591	0.000	-0.000
			Max. Vy	26	-0.008	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
T16	5 - 0	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	18	-78.691	0.184	0.450
			Max. Mx	18	-74.123	4.230	-0.007
			Max. My	7	-47.463	-0.191	1.549
			Max. Vy	19	12.481	-0.872	0.134
			Max. Vx	20	-3.990	-0.307	0.735
		Diagonal	Max Tension	7	1.370	0.000	0.000
			Max. Compression	20	-12.918	0.000	0.000
			Max. Mx	19	0.360	0.005	0.000
			Max. My	13	-1.345	0.000	0.000
			Max. Vy	19	-0.007	0.000	0.000
			Max. Vx	13	-0.000	0.000	0.000
		Horizontal	Max Tension	13	0.563	0.000	0.000
			Max. Compression	7	-0.272	0.000	0.000
			Max. Mx	26	0.168	0.001	0.000
			Max. My	13	0.400	0.000	-0.000
			Max. Vy	26	-0.003	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Top Girt	Max Tension	19	7.796	0.000	0.000
			Max. Compression	1	0.000	0.000	0.000
			Max. Mx	26	7.698	0.004	0.000
			Max. My	13	4.436	0.000	-0.000
			Max. Vy	26	0.006	0.000	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
		Bottom Girt	Max. Vx	13	0.000	0.000	0.000
			Max Tension	20	3.905	0.000	0.000
			Max. Compression	1	0.000	0.000	0.000
			Max. Mx	22	3.632	0.000	0.000
			Max. Vy	22	-0.001	0.000	0.000
			Max. Vx	7	0.000	0.000	0.000

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Mast	Max. Vert	19	218.438	0.534	0.216
	Max. H_x	12	98.463	0.717	0.440
	Max. H_z	5	124.864	0.274	0.455
	Max. M_x	1	0.000	0.001	0.001
	Max. M_z	1	0.000	0.001	0.001
	Max. Torsion	13	1.036	0.486	-0.075
	Min. Vert	1	62.985	0.001	0.001
	Min. H_x	4	104.042	-0.497	0.275
	Min. H_z	8	102.702	-0.042	-0.656
	Min. M_x	1	0.000	0.001	0.001
	Min. M_z	1	0.000	0.001	0.001
	Min. Torsion	7	-1.691	0.493	-0.129
Guy C @ 228 ft Elev -31 ft Azimuth 240 deg	Max. Vert	10	-1.501	-0.743	0.428
	Max. H_x	10	-1.501	-0.743	0.428
	Max. H_z	3	-57.952	-48.389	28.988
	Min. Vert	3	-57.952	-48.389	28.988
	Min. H_x	5	-56.823	-48.631	27.005
	Min. H_z	10	-1.501	-0.743	0.428
Guy B @ 228 ft Elev 9 ft Azimuth 120 deg	Max. Vert	6	-0.857	0.566	0.327
	Max. H_x	11	-47.603	48.488	27.030
	Max. H_z	13	-47.900	47.776	28.567
	Min. Vert	13	-47.900	47.776	28.567
	Min. H_x	6	-0.857	0.566	0.327
	Min. H_z	6	-0.857	0.566	0.327
Guy A @ 228 ft Elev -19 ft Azimuth 0 deg	Max. Vert	2	-1.277	-0.001	-0.780
	Max. H_x	11	-28.568	1.423	-28.925
	Max. H_z	2	-1.277	-0.001	-0.780
	Min. Vert	9	-55.132	0.878	-56.323
	Min. H_x	6	-46.150	-1.490	-47.398
	Min. H_z	9	-55.132	0.878	-56.323

Tower Mast Reaction Summary

Load Combination	Vertical	$Shear_x$	$Shear_z$	Overturning Moment, M_x	Overturning Moment, M_z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
Dead Only	62.985	-0.001	-0.001	0.000	0.000	0.145
1.2 Dead+1.0 Wind 0 deg - No Ice+1.0 Guy	130.602	-0.158	0.460	0.000	0.000	0.249
1.2 Dead+1.0 Wind 30 deg - No Ice+1.0 Guy	123.565	0.222	0.332	0.000	0.000	1.135
1.2 Dead+1.0 Wind 60 deg - No Ice+1.0 Guy	104.042	0.497	-0.275	0.000	0.000	0.069
1.2 Dead+1.0 Wind 90 deg - No Ice+1.0 Guy	124.864	-0.274	-0.455	0.000	0.000	-0.485
1.2 Dead+1.0 Wind 120 deg - No Ice+1.0 Guy	134.231	-0.692	-0.318	0.000	0.000	0.803
1.2 Dead+1.0 Wind 150 deg - No Ice+1.0 Guy	124.155	-0.493	0.129	0.000	0.000	1.691
1.2 Dead+1.0 Wind 180 deg - No Ice+1.0 Guy	102.702	0.042	0.656	0.000	0.000	0.377
1.2 Dead+1.0 Wind 210 deg - No Ice+1.0 Guy	121.181	0.324	0.162	0.000	0.000	-0.472
1.2 Dead+1.0 Wind 240 deg - No Ice+1.0 Guy	127.741	0.239	-0.252	0.000	0.000	0.532
1.2 Dead+1.0 Wind 270 deg - No Ice+1.0 Guy	116.950	-0.198	-0.436	0.000	0.000	1.146
1.2 Dead+1.0 Wind 300 deg - No Ice+1.0 Guy	98.463	-0.717	-0.440	0.000	0.000	-0.280
1.2 Dead+1.0 Wind 330 deg - No Ice+1.0 Guy	118.516	-0.486	0.075	0.000	0.000	-1.036
1.2 Dead+1.0 Ice+1.0 Temp+Guy	216.255	-0.240	-0.052	0.000	0.000	0.594
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp+1.0 Guy	217.440	-0.237	0.230	0.000	0.000	0.547
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp+1.0 Guy	217.314	-0.359	0.168	0.000	0.000	0.647
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp+1.0 Guy	217.204	-0.461	0.053	0.000	0.000	0.563
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp+1.0 Guy	217.901	-0.528	-0.087	0.000	0.000	0.512
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp+1.0 Guy	218.438	-0.534	-0.216	0.000	0.000	0.657
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp+1.0 Guy	217.735	-0.414	-0.279	0.000	0.000	0.765
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp+1.0 Guy	216.900	-0.262	-0.293	0.000	0.000	0.651
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp+1.0 Guy	216.928	-0.117	-0.259	0.000	0.000	0.548
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp+1.0 Guy	217.064	-0.004	-0.182	0.000	0.000	0.631
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp+1.0 Guy	216.465	0.015	-0.054	0.000	0.000	0.682
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp+1.0 Guy	216.061	-0.022	0.075	0.000	0.000	0.536
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp+1.0 Guy	216.687	-0.114	0.177	0.000	0.000	0.431
Dead+Wind 0 deg - Service+Guy	65.727	-0.014	-0.370	0.000	0.000	0.120
Dead+Wind 30 deg - Service+Guy	66.397	0.186	-0.312	0.000	0.000	0.512
Dead+Wind 60 deg - Service+Guy	66.278	0.325	-0.182	0.000	0.000	0.083
Dead+Wind 90 deg - Service+Guy	66.755	0.358	-0.007	0.000	0.000	-0.203
Dead+Wind 120 deg - Service+Guy	67.092	0.298	0.179	0.000	0.000	0.345

Load Combination	Vertical	$Shear_x$	$Shear_z$	Overturning Moment, M_x	Overturning Moment, M_z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
Dead+Wind 150 deg - Service+Guy	66.719	0.176	0.325	0.000	0.000	0.728
Dead+Wind 180 deg - Service+Guy	66.248	0.008	0.379	0.000	0.000	0.196
Dead+Wind 210 deg - Service+Guy	66.160	-0.178	0.326	0.000	0.000	-0.195
Dead+Wind 240 deg - Service+Guy	65.156	-0.332	0.181	0.000	0.000	0.221
Dead+Wind 270 deg - Service+Guy	65.786	-0.390	-0.019	0.000	0.000	0.495
Dead+Wind 300 deg - Service+Guy	65.912	-0.346	-0.205	0.000	0.000	-0.041
Dead+Wind 330 deg - Service+Guy	65.941	-0.209	-0.333	0.000	0.000	-0.405

Solution Summary

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX	PY	PZ	PX	PY	PZ	% Error
	K	K	K	K	K	K	
1	0.000	-32.314	0.000	0.001	32.314	0.000	0.004%
2	0.177	-38.416	-49.248	-0.176	38.416	49.239	0.014%
3	24.745	-38.217	-42.684	-24.745	38.216	42.677	0.011%
4	42.442	-38.014	-24.550	-42.439	38.014	24.554	0.009%
5	48.705	-38.271	-0.107	-48.699	38.270	0.111	0.012%
6	42.241	-38.514	24.229	-42.234	38.513	-24.226	0.013%
7	24.407	-38.253	42.353	-24.401	38.252	-42.349	0.012%
8	-0.134	-37.982	49.167	0.141	37.982	-49.167	0.010%
9	-24.711	-38.181	42.653	24.704	38.181	-42.648	0.014%
10	-42.466	-38.383	24.563	42.459	38.383	-24.559	0.013%
11	-48.661	-38.127	0.094	48.655	38.127	-0.089	0.013%
12	-42.149	-37.884	-24.225	42.152	37.884	24.223	0.006%
13	-24.441	-38.145	-42.333	24.442	38.145	42.325	0.013%
14	-0.000	-157.310	0.000	0.005	157.310	0.001	0.004%
15	0.057	-157.451	-9.221	-0.057	157.451	9.220	0.001%
16	4.649	-157.319	-8.021	-4.648	157.319	8.020	0.001%
17	7.990	-157.186	-4.649	-7.989	157.186	4.650	0.001%
18	9.179	-157.349	-0.032	-9.177	157.349	0.033	0.001%
19	7.937	-157.506	4.552	-7.935	157.506	-4.551	0.001%
20	4.556	-157.340	7.927	-4.554	157.340	-7.926	0.001%
21	-0.053	-157.170	9.216	0.054	157.170	-9.216	0.001%
22	-4.646	-157.302	8.018	4.647	157.302	-8.017	0.001%
23	-7.990	-157.435	4.649	7.989	157.435	-4.648	0.000%
24	-9.175	-157.272	0.031	9.174	157.272	-0.031	0.000%
25	-7.930	-157.115	-4.554	7.932	157.115	4.549	0.003%
26	-4.559	-157.281	-7.925	4.559	157.281	7.924	0.001%
27	0.058	-32.385	-16.081	-0.058	32.385	16.079	0.005%
28	8.080	-32.320	-13.938	-8.080	32.320	13.936	0.005%
29	13.859	-32.254	-8.016	-13.857	32.254	8.017	0.006%
30	15.904	-32.338	-0.035	-15.902	32.338	0.036	0.006%
31	13.793	-32.417	7.912	-13.791	32.417	-7.911	0.006%
32	7.970	-32.332	13.829	-7.968	32.332	-13.829	0.005%
33	-0.044	-32.244	16.055	0.046	32.244	-16.054	0.005%
34	-8.069	-32.309	13.927	8.068	32.309	-13.927	0.004%
35	-13.866	-32.375	8.021	13.865	32.375	-8.020	0.005%
36	-15.889	-32.291	0.031	15.888	32.291	-0.030	0.004%
37	-13.763	-32.212	-7.910	13.764	32.212	7.909	0.006%
38	-7.981	-32.297	-13.823	7.981	32.297	13.821	0.005%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	12	0.00000001	0.00006023
2	Yes	32	0.00011941	0.00014620
3	Yes	32	0.00009967	0.00011919
4	Yes	35	0.00013863	0.00010327
5	Yes	34	0.00010597	0.00012517
6	Yes	35	0.00009840	0.00012169
7	Yes	34	0.00010403	0.00011991
8	Yes	29	0.00014721	0.00009295
9	Yes	30	0.00012511	0.00014584
10	Yes	31	0.00011269	0.00013584
11	Yes	30	0.00012588	0.00013696
12	Yes	18	0.00014564	0.00012481
13	Yes	31	0.00012985	0.00014120
14	Yes	21	0.00015000	0.00005609
15	Yes	28	0.00012562	0.00003527
16	Yes	25	0.00013453	0.00005123
17	Yes	27	0.00013276	0.00002500
18	Yes	30	0.00012813	0.00002872
19	Yes	31	0.00013266	0.00003083
20	Yes	30	0.00014040	0.00002869
21	Yes	28	0.00014478	0.00002286
22	Yes	26	0.00013768	0.00003621
23	Yes	27	0.00000001	0.00003788
24	Yes	26	0.00000001	0.00003476
25	Yes	20	0.00015000	0.00011137
26	Yes	28	0.00000001	0.00002498
27	Yes	23	0.00012260	0.00005945
28	Yes	22	0.00010391	0.00005741
29	Yes	16	0.00010968	0.00006796
30	Yes	23	0.00013805	0.00007210
31	Yes	25	0.00013683	0.00006747
32	Yes	23	0.00012017	0.00006068
33	Yes	16	0.00010905	0.00006104
34	Yes	21	0.00010254	0.00005483
35	Yes	22	0.00011824	0.00005533
36	Yes	21	0.00000001	0.00004380
37	Yes	13	0.00013939	0.00010572
38	Yes	21	0.00012662	0.00005936

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	305 - 285	9.124	28	0.298	0.400
T2	285 - 265	7.906	28	0.271	0.399
T3	265 - 245	6.794	28	0.242	0.398
T4	245 - 225	6.006	28	0.127	0.436
T5	225 - 205	5.631	28	0.077	0.524
T6	205 - 185	5.510	31	0.057	0.618

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T7	185 - 165	5.581	31	0.033	0.699
T8	165 - 145	5.632	31	0.062	0.767
T9	145 - 125	5.433	31	0.103	0.816
T10	125 - 105	5.034	31	0.100	0.841
T11	105 - 85	4.671	31	0.098	0.861
T12	85 - 65	4.169	31	0.148	0.857
T13	65 - 45	3.429	31	0.188	0.835
T14	45 - 25	2.599	31	0.219	0.806
T15	25 - 5	1.569	31	0.272	0.765
T16	5 - 0	0.324	31	0.306	0.712

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
305.000	Lightning Rod 1"x10'	28	9.124	0.298	0.400	201242
300.000	Sector1(CaAa=13333.33 Sq.in)No Ice	28	8.817	0.290	0.400	201242
290.193	Guy	28	8.218	0.276	0.400	67954
282.000	Sector1(CaAa=10000 Sq.in)No Ice	28	7.728	0.269	0.398	36227
270.000	Sector1(CaAa=10000 Sq.in)No Ice	28	7.051	0.257	0.396	15798
255.000	Guy	28	6.346	0.187	0.410	10059
195.000	Guy	31	5.534	0.042	0.660	38421
122.211	Guy	31	4.981	0.097	0.844	22354
105.000	VHLPX3-11WA	31	4.671	0.098	0.861	29402
62.211	Guy	31	3.318	0.192	0.838	143647

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	305 - 285	55.931	6	1.559	0.858
T2	285 - 265	49.805	6	1.469	0.864
T3	265 - 245	44.071	6	1.344	0.884
T4	245 - 225	39.538	6	0.923	0.991
T5	225 - 205	36.554	6	0.670	1.204
T6	205 - 185	34.254	6	0.498	1.416
T7	185 - 165	32.693	6	0.333	1.605
T8	165 - 145	31.367	6	0.386	1.769
T9	145 - 125	29.452	6	0.522	1.877
T10	125 - 105	27.030	6	0.557	1.918
T11	105 - 85	24.784	6	0.586	1.977
T12	85 - 65	21.981	6	0.795	1.970
T13	65 - 45	18.128	6	1.000	1.901
T14	45 - 25	13.619	6	1.188	1.835
T15	25 - 5	8.112	6	1.431	1.738
T16	5 - 0	1.666	6	1.575	1.592

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
305.000	Lightning Rod 1"x10'	6	55.931	1.559	0.858	67047
300.000	Sector1(CaAa=13333.33 Sq.in)No Ice	6	54.389	1.534	0.860	67047
290.193	Guy	6	51.380	1.488	0.862	22640
282.000	Sector1(CaAa=10000 Sq.in)No Ice	6	48.903	1.461	0.865	11127
270.000	Sector1(CaAa=10000 Sq.in)No Ice	6	45.425	1.403	0.874	4712
255.000	Guy	6	41.605	1.145	0.923	2928
195.000	Guy	6	33.394	0.401	1.513	6783
122.211	Guy	6	26.709	0.555	1.925	7036
105.000	VHLPX3-11WA	6	24.784	0.586	1.977	7599
62.211	Guy	6	17.538	1.037	1.907	9939

Bolt Design Data

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load per Bolt K	Ratio Load / Allowable	Allowable Ratio	Criteria
T2	285	Leg	A325N	0.750	3	2.343	30.101	0.078 ✔	1	Bolt Tension
T3	265	Leg	A325N	0.750	3	4.975	30.101	0.165 ✔	1	Bolt Tension
T4	245	Leg	A325N	0.750	3	7.084	30.101	0.235 ✔	1	Bolt Tension
T5	225	Leg	A325N	0.750	3	5.322	30.101	0.177 ✔	1	Bolt Tension
T6	205	Leg	A325N	0.750	3	5.325	30.101	0.177 ✔	1	Bolt Tension
T7	185	Leg	A325N	0.750	3	5.660	30.101	0.188 ✔	1	Bolt Tension
T8	165	Leg	A325N	0.750	3	5.628	30.101	0.187 ✔	1	Bolt Tension
T9	145	Leg	A325N	0.750	3	5.899	30.101	0.196 ✔	1	Bolt Tension
T10	125	Leg	A325N	0.750	3	6.177	30.101	0.205 ✔	1	Bolt Tension
T11	105	Leg	A325N	0.750	3	7.168	30.101	0.238 ✔	1	Bolt Tension
T12	85	Leg	A325N	0.750	3	7.730	30.101	0.257 ✔	1	Bolt Tension
T13	65	Leg	A325N	0.750	3	7.882	30.101	0.262 ✔	1	Bolt Tension
T14	45	Leg	A325N	0.750	3	8.552	30.101	0.284 ✔	1	Bolt Tension
T15	25	Leg	A325N	0.750	3	8.601	30.101	0.286 ✔	1	Bolt Tension
T16	5	Leg	A325N	0.750	3	8.236	30.101	0.274 ✔	1	Bolt Tension

Guy Design Data

Section No.	Elevation ft	Size	Initial Tension K	Breaking Load K	Actual T_u K	Allowable ϕT_n K	Required S.F.	Actual S.F.
T1	290.193 (A)	5/8	4.240	42.400	23.697	25.440	1.000	1.074 ✔

Section No.	Elevation ft	Size	Initial Tension K	Breaking Load K	Actual T_u K	Allowable ϕT_n K	Required S.F.	Actual S.F.
	(867)	EModulus EHS						
	290.193 (B) (866)	5/8 EModulus EHS	4.240	42.400	22.293	25.440	1.000	1.141 ✔
	290.193 (C) (862)	5/8 EModulus EHS	4.240	42.400	24.119	25.440	1.000	1.055 ✔
T3	255.000 (A) (858)	1/2 EModulus EHS	2.690	26.900	14.170	16.140	1.000	1.139 ✔
	255.000 (A) (859)	1/2 EModulus EHS	2.690	26.900	13.961	16.140	1.000	1.156 ✔
	255.000 (B) (854)	1/2 EModulus EHS	2.690	26.900	13.185	16.140	1.000	1.224 ✔
	255.000 (B) (855)	1/2 EModulus EHS	2.690	26.900	12.970	16.140	1.000	1.244 ✔
	255.000 (C) (847)	1/2 EModulus EHS	2.690	26.900	14.113	16.140	1.000	1.144 ✔
	255.000 (C) (848)	1/2 EModulus EHS	2.690	26.900	14.503	16.140	1.000	1.113 ✔
T6	195.000 (A) (846)	7/16 EModulus EHS	2.080	20.800	10.928	12.480	1.000	1.142 ✔
	195.000 (B) (845)	7/16 EModulus EHS	2.080	20.800	10.263	12.480	1.000	1.216 ✔
	195.000 (C) (841)	7/16 EModulus EHS	2.080	20.800	11.233	12.480	1.000	1.111 ✔
T10	122.211 (A) (840)	7/16 EModulus EHS	2.080	20.800	11.555	12.480	1.000	1.080 ✔
	122.211 (B) (839)	7/16 EModulus EHS	2.080	20.800	11.036	12.480	1.000	1.131 ✔
	122.211 (C) (835)	7/16 EModulus EHS	2.080	20.800	11.998	12.480	1.000	1.040 ✔
T13	62.211 (A) (834)	3/8 EModulus EHS	1.540	15.400	6.871	9.240	1.000	1.345 ✔
	62.211 (B) (833)	3/8 EModulus EHS	1.540	15.400	6.534	9.240	1.000	1.414 ✔
	62.211 (C) (829)	3/8 EModulus EHS	1.540	15.400	7.130	9.240	1.000	1.296 ✔

Compression Checks

Leg Design Data (Compression)

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T1	305 - 285	1 3/4	20.000	2.404	65.9 K=1.00	2.405	-25.773	78.769	0.327 [1] ✔
T2	285 - 265	1 3/4	20.000	2.404	65.9 K=1.00	2.405	-40.302	78.769	0.512 [1] ✔
T3	265 - 245	1 3/4	20.000	2.404	65.9 K=1.00	2.405	-75.440	78.769	0.958 [1] ✔
T4	245 - 225	1 3/4	20.000	2.404	65.9 K=1.00	2.405	-62.078	78.769	0.788 [1] ✔
T5	225 - 205	1 3/4	20.000	2.404	65.9 K=1.00	2.405	-47.359	78.769	0.601 [1] ✔
T6	205 - 185	1 3/4	20.000	2.404	65.9 K=1.00	2.405	-52.699	78.769	0.669 [1] ✔
T7	185 - 165	1 3/4	20.000	2.404	65.9 K=1.00	2.405	-50.763	78.769	0.644 [1] ✔
T8	165 - 145	1 3/4	20.000	2.404	65.9 K=1.00	2.405	-52.730	78.769	0.669 [1] ✔
T9	145 - 125	1 3/4	20.000	2.404	65.9 K=1.00	2.405	-55.094	78.769	0.699 [1] ✔
T10	125 - 105	1 3/4	20.000	2.404	65.9 K=1.00	2.405	-63.334	78.769	0.804 [1] ✔
T11	105 - 85	1 3/4	20.000	2.404	65.9 K=1.00	2.405	-69.027	78.769	0.876 [1] ✔
T12	85 - 65	1 3/4	20.000	2.404	65.9 K=1.00	2.405	-70.897	78.769	0.900 [1] ✔
T13	65 - 45	1 3/4	20.000	2.404	65.9 K=1.00	2.405	-76.344	78.769	0.969 [1] ✔
T14	45 - 25	1 3/4	20.000	2.404	65.9 K=1.00	2.405	-77.702	78.769	0.986 [1] ✔
T15	25 - 5	1 3/4	20.000	2.404	65.9 K=1.00	2.405	-77.351	78.769	0.982 [1] ✔
T16	5 - 0	1 3/4	5.292	2.238	61.4 K=1.00	2.405	-78.691	82.175	0.958 [1] ✔

[1] $P_u / \phi P_n$ controls

Diagonal Design Data (Compression)

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T1	305 - 285	.875	3.844	3.657	140.4 K=0.70	0.601	-5.744	6.888	0.834 [1] ✔
T2	285 - 265	1	3.844	3.657	122.9 K=0.70	0.785	-7.943	11.750	0.676 [1] ✔
T3	265 - 245	1	3.844	3.657	122.9	0.785	-7.901	11.750	0.672 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
					K=0.70				✔
T4	245 - 225	.875	3.844	3.657	140.4	0.601	-3.160	6.888	0.459 [1]
					K=0.70				✔
T5	225 - 205	.75	3.844	3.657	163.8	0.442	-1.924	3.718	0.517 [1]
					K=0.70				✔
T6	205 - 185	.75	3.844	3.657	163.8	0.442	-3.542	3.718	0.953 [1]
					K=0.70				✔
T7	185 - 165	.75	3.844	3.657	163.8	0.442	-3.284	3.718	0.883 [1]
					K=0.70				✔
T8	165 - 145	.75	3.844	3.657	163.8	0.442	-2.045	3.718	0.550 [1]
					K=0.70				✔
T9	145 - 125	.875	3.844	3.657	140.4	0.601	-4.082	6.888	0.593 [1]
					K=0.70				✔
T10	125 - 105	.875	3.844	3.657	140.4	0.601	-4.013	6.888	0.583 [1]
					K=0.70				✔
T11	105 - 85	.75	3.844	3.657	163.8	0.442	-2.349	3.718	0.632 [1]
					K=0.70				✔
T12	85 - 65	.75	3.844	3.657	163.8	0.442	-2.757	3.718	0.742 [1]
					K=0.70				✔
T13	65 - 45	.75	3.844	3.657	163.8	0.442	-3.016	3.718	0.811 [1]
					K=0.70				✔
T14	45 - 25	.75	3.844	3.657	163.8	0.442	-1.924	3.718	0.517 [1]
					K=0.70				✔
T15	25 - 5	.75	3.844	3.657	163.8	0.442	-3.063	3.718	0.824 [1]
					K=0.70				✔
T16	5 - 0	1	2.314	1.955	90.2	0.785	-12.918	19.487	0.663 [1]
					K=0.96				✔

[1] P_u / ϕP_n controls

Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	305 - 285	3/4	3.000	2.854	127.9	0.442	-2.196	6.104	0.360 [1]
					K=0.70				✔
T2	285 - 265	3/4	3.000	2.854	127.9	0.442	-1.911	6.104	0.313 [1]
					K=0.70				✔
T3	265 - 245	3/4	3.000	2.854	127.9	0.442	-1.393	6.104	0.228 [1]
					K=0.70				✔
T4	245 - 225	3/4	3.000	2.854	127.9	0.442	-1.177	6.104	0.193 [1]
					K=0.70				✔
T5	225 - 205	3/4	3.000	2.854	127.9	0.442	-0.885	6.104	0.145 [1]
					K=0.70				✔
T6	205 - 185	3/4	3.000	2.854	127.9	0.442	-0.973	6.104	0.159 [1]
					K=0.70				✔
T7	185 - 165	3/4	3.000	2.854	127.9	0.442	-0.940	6.104	0.154 [1]
					K=0.70				✔

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T8	165 - 145	3/4	3.000	2.854	127.9 K=0.70	0.442	-0.980	6.104	0.161 [1] ✔
T9	145 - 125	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.026	6.104	0.168 [1] ✔
T10	125 - 105	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.181	6.104	0.194 [1] ✔
T11	105 - 85	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.284	6.104	0.210 [1] ✔
T12	85 - 65	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.309	6.104	0.215 [1] ✔
T13	65 - 45	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.421	6.104	0.233 [1] ✔
T14	45 - 25	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.434	6.104	0.235 [1] ✔
T15	25 - 5	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.429	6.104	0.234 [1] ✔
T16	5 - 0	3/4	1.500	1.354	89.6 K=1.03	0.442	-1.443	11.060	0.130 [1] ✔

[1] $P_u / \phi P_n$ controls

Top Girt Design Data (Compression)

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T1	305 - 285	3/4	3.000	2.854	127.9 K=0.70	0.442	-0.073	6.104	0.012 [1] ✔
T2	285 - 265	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.495	6.104	0.245 [1] ✔
T3	265 - 245	3/4	3.000	2.854	127.9 K=0.70	0.442	-3.356	6.104	0.550 [1] ✔
T4	245 - 225	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.507	6.104	0.247 [1] ✔
T5	225 - 205	3/4	3.000	2.854	127.9 K=0.70	0.442	-0.885	6.104	0.145 [1] ✔
T6	205 - 185	3/4	3.000	2.854	127.9 K=0.70	0.442	-0.973	6.104	0.159 [1] ✔
T7	185 - 165	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.275	6.104	0.209 [1] ✔
T8	165 - 145	3/4	3.000	2.854	127.9 K=0.70	0.442	-0.980	6.104	0.161 [1] ✔
T9	145 - 125	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.026	6.104	0.168 [1] ✔
T10	125 - 105	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.479	6.104	0.242 [1] ✔
T11	105 - 85	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.284	6.104	0.210 [1] ✔
T12	85 - 65	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.309	6.104	0.215 [1]

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T13	65 - 45	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.421	6.104	0.233 [1]
T14	45 - 25	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.434	6.104	0.235 [1]
T15	25 - 5	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.429	6.104	0.234 [1]
T16	5 - 0	3/4	2.769	2.623	117.5 K=0.70	0.442	-1.443	7.228	0.200 [1]

[1] $P_u / \phi P_n$ controls

Bottom Girt Design Data (Compression)

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T1	305 - 285	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.359	6.104	0.223 [1]
T2	285 - 265	3/4	3.000	2.854	127.9 K=0.70	0.442	-2.787	6.104	0.457 [1]
T3	265 - 245	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.529	6.104	0.250 [1]
T4	245 - 225	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.177	6.104	0.193 [1]
T5	225 - 205	3/4	3.000	2.854	127.9 K=0.70	0.442	-0.885	6.104	0.145 [1]
T6	205 - 185	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.423	6.104	0.233 [1]
T7	185 - 165	3/4	3.000	2.854	127.9 K=0.70	0.442	-0.940	6.104	0.154 [1]
T8	165 - 145	3/4	3.000	2.854	127.9 K=0.70	0.442	-0.980	6.104	0.161 [1]
T9	145 - 125	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.467	6.104	0.240 [1]
T10	125 - 105	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.181	6.104	0.194 [1]
T11	105 - 85	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.284	6.104	0.210 [1]
T12	85 - 65	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.309	6.104	0.215 [1]
T13	65 - 45	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.421	6.104	0.233 [1]
T14	45 - 25	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.434	6.104	0.235 [1]
T15	25 - 5	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.429	6.104	0.234 [1]

[1] P_u / ϕP_n controls

Top Guy Pull-Off Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T3	265 - 245	4x5/8	3.000	2.854	151.9 K=0.80	2.500	-7.599	24.488	0.310 [1] ✔

[1] P_u / ϕP_n controls

Torque-Arm Top Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T3	265 - 245 (849)	C12x20.7	3.000	2.927	44.0 K=1.00	6.090	-4.140	237.937	0.017
T3	265 - 245 (850)	C12x20.7	3.000	2.927	44.0 K=1.00	6.090	-4.197	237.937	0.018
T3	265 - 245 (856)	C12x20.7	3.000	2.927	44.0 K=1.00	6.090	-4.084	237.937	0.017
T3	265 - 245 (857)	C12x20.7	3.000	2.927	44.0 K=1.00	6.090	-0.085	237.937	0.000
T3	265 - 245 (860)	C12x20.7	3.000	2.927	44.0 K=1.00	6.090	-4.040	237.937	0.017
T3	265 - 245 (861)	C12x20.7	3.000	2.927	44.0 K=1.00	6.090	-4.153	237.937	0.017

Torque-Arm Top Bending Design Data

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
T3	265 - 245 (849)	C12x20.7	-32.103	94.709	0.339	-0.000	9.731	0.000
T3	265 - 245 (850)	C12x20.7	-33.548	94.709	0.354	0.000	9.731	0.000
T3	265 - 245 (856)	C12x20.7	-28.350	94.709	0.299	0.000	9.731	0.000
T3	265 - 245 (857)	C12x20.7	-33.647	94.709	0.355	-0.000	9.731	0.000
T3	265 - 245 (860)	C12x20.7	-28.337	94.709	0.299	-0.000	9.731	0.000
T3	265 - 245 (861)	C12x20.7	-31.598	94.709	0.334	0.000	9.731	0.000

Torque-Arm Top Interaction Design Data

Section No.	Elevation ft	Size	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria

Section No.	Elevation ft	Size	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
T3	265 - 245 (849)	C12x20.7	0.017	0.339	0.000	0.348 ✔	1.000	4.8.1 ✔
T3	265 - 245 (850)	C12x20.7	0.018	0.354	0.000	0.363 ✔	1.000	4.8.1 ✔
T3	265 - 245 (856)	C12x20.7	0.017	0.299	0.000	0.308 ✔	1.000	4.8.1 ✔
T3	265 - 245 (857)	C12x20.7	0.000	0.355	0.000	0.355 ✔	1.000	4.8.1 ✔
T3	265 - 245 (860)	C12x20.7	0.017	0.299	0.000	0.308 ✔	1.000	4.8.1 ✔
T3	265 - 245 (861)	C12x20.7	0.017	0.334	0.000	0.342 ✔	1.000	4.8.1 ✔

Tension Checks

Leg Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	305 - 285	1 3/4	20.000	2.404	65.9	2.405	21.304	108.238	0.197 [1] ✔
T2	285 - 265	1 3/4	20.000	0.385	10.6	2.405	13.587	108.238	0.126 [1] ✔
T3	265 - 245	1 3/4	20.000	2.404	65.9	2.405	38.870	108.238	0.359 [1] ✔
T4	245 - 225	1 3/4	20.000	0.385	10.6	2.405	7.179	108.238	0.066 [1] ✔

[1] P_u / ϕP_n controls

Diagonal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	305 - 285	.875	3.844	3.657	200.6	0.601	5.735	27.059	0.212 [1] ✔
T2	285 - 265	1	3.844	3.657	175.6	0.785	7.596	35.343	0.215 [1] ✔
T3	265 - 245	1	3.844	3.657	175.6	0.785	7.883	35.343	0.223 [1] ✔
T4	245 - 225	.875	3.844	3.657	200.6	0.601	3.169	27.059	0.117 [1] ✔
T5	225 - 205	.75	3.844	3.657	234.1	0.442	1.455	19.880	0.073 [1]

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T6	205 - 185	.75	3.844	3.657	234.1	0.442	3.106	19.880	0.156 [1]
T7	185 - 165	.75	3.844	3.657	234.1	0.442	2.940	19.880	0.148 [1]
T8	165 - 145	.75	3.844	3.657	234.1	0.442	1.460	19.880	0.073 [1]
T9	145 - 125	.875	3.844	3.657	200.6	0.601	3.502	27.059	0.129 [1]
T10	125 - 105	.875	3.844	3.657	200.6	0.601	3.814	27.059	0.141 [1]
T11	105 - 85	.75	3.844	3.657	234.1	0.442	2.237	19.880	0.113 [1]
T12	85 - 65	.75	3.844	3.657	234.1	0.442	1.834	19.880	0.092 [1]
T13	65 - 45	.75	3.844	3.657	234.1	0.442	2.481	19.880	0.125 [1]
T14	45 - 25	.75	3.844	3.657	234.1	0.442	1.360	19.880	0.068 [1]
T15	25 - 5	.75	3.844	3.657	234.1	0.442	2.091	19.880	0.105 [1]
T16	5 - 0	1	3.027	2.668	128.1	0.785	1.370	35.343	0.039 [1]

[1] $P_u / \phi P_n$ controls

Horizontal Design Data (Tension)

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T1	305 - 285	3/4	3.000	2.854	182.7	0.442	2.197	19.880	0.111 [1]
T2	285 - 265	3/4	3.000	2.854	182.7	0.442	2.102	19.880	0.106 [1]
T3	265 - 245	3/4	3.000	2.854	182.7	0.442	1.393	19.880	0.070 [1]
T4	245 - 225	3/4	3.000	2.854	182.7	0.442	1.177	19.880	0.059 [1]
T5	225 - 205	3/4	3.000	2.854	182.7	0.442	0.885	19.880	0.045 [1]
T6	205 - 185	3/4	3.000	2.854	182.7	0.442	0.973	19.880	0.049 [1]
T7	185 - 165	3/4	3.000	2.854	182.7	0.442	0.940	19.880	0.047 [1]
T8	165 - 145	3/4	3.000	2.854	182.7	0.442	0.980	19.880	0.049 [1]
T9	145 - 125	3/4	3.000	2.854	182.7	0.442	1.026	19.880	0.052 [1]

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T10	125 - 105	3/4	3.000	2.854	182.7	0.442	1.181	19.880	0.059 [1] ✔
T11	105 - 85	3/4	3.000	2.854	182.7	0.442	1.284	19.880	0.065 [1] ✔
T12	85 - 65	3/4	3.000	2.854	182.7	0.442	1.309	19.880	0.066 [1] ✔
T13	65 - 45	3/4	3.000	2.854	182.7	0.442	1.421	19.880	0.071 [1] ✔
T14	45 - 25	3/4	3.000	2.854	182.7	0.442	1.434	19.880	0.072 [1] ✔
T15	25 - 5	3/4	3.000	2.854	182.7	0.442	1.429	19.880	0.072 [1] ✔
T16	5 - 0	3/4	1.500	1.354	86.7	0.442	1.443	19.880	0.073 [1] ✔

[1] $P_u / \phi P_n$ controls

Top Girt Design Data (Tension)

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T1	305 - 285	3/4	3.000	2.854	182.7	0.442	0.074	19.880	0.004 [1] ✔
T2	285 - 265	3/4	3.000	2.854	182.7	0.442	1.415	19.880	0.071 [1] ✔
T3	265 - 245	3/4	3.000	2.854	182.7	0.442	2.903	19.880	0.146 [1] ✔
T4	245 - 225	3/4	3.000	2.854	182.7	0.442	1.581	19.880	0.080 [1] ✔
T5	225 - 205	3/4	3.000	2.854	182.7	0.442	0.885	19.880	0.045 [1] ✔
T6	205 - 185	3/4	3.000	2.854	182.7	0.442	0.973	19.880	0.049 [1] ✔
T7	185 - 165	3/4	3.000	2.854	182.7	0.442	1.469	19.880	0.074 [1] ✔
T8	165 - 145	3/4	3.000	2.854	182.7	0.442	0.980	19.880	0.049 [1] ✔
T9	145 - 125	3/4	3.000	2.854	182.7	0.442	1.026	19.880	0.052 [1] ✔
T10	125 - 105	3/4	3.000	2.854	182.7	0.442	1.654	19.880	0.083 [1] ✔
T11	105 - 85	3/4	3.000	2.854	182.7	0.442	1.284	19.880	0.065 [1] ✔
T12	85 - 65	3/4	3.000	2.854	182.7	0.442	1.309	19.880	0.066 [1] ✔
T13	65 - 45	3/4	3.000	2.854	182.7	0.442	1.421	19.880	0.071 [1] ✔
T14	45 - 25	3/4	3.000	2.854	182.7	0.442	1.434	19.880	0.072 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T15	25 - 5	3/4	3.000	2.854	182.7	0.442	1.429	19.880	0.072 [1]
T16	5 - 0	3/4	2.769	2.623	167.9	0.442	7.796	19.880	0.392 [1]

[1] P_u / ϕP_n controls

Bottom Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	305 - 285	3/4	3.000	2.854	182.7	0.442	1.546	19.880	0.078 [1]
T2	285 - 265	3/4	3.000	2.854	182.7	0.442	3.367	19.880	0.169 [1]
T3	265 - 245	3/4	3.000	2.854	182.7	0.442	1.705	19.880	0.086 [1]
T4	245 - 225	3/4	3.000	2.854	182.7	0.442	1.177	19.880	0.059 [1]
T5	225 - 205	3/4	3.000	2.854	182.7	0.442	0.885	19.880	0.045 [1]
T6	205 - 185	3/4	3.000	2.854	182.7	0.442	1.521	19.880	0.077 [1]
T7	185 - 165	3/4	3.000	2.854	182.7	0.442	0.940	19.880	0.047 [1]
T8	165 - 145	3/4	3.000	2.854	182.7	0.442	0.980	19.880	0.049 [1]
T9	145 - 125	3/4	3.000	2.854	182.7	0.442	1.587	19.880	0.080 [1]
T10	125 - 105	3/4	3.000	2.854	182.7	0.442	1.181	19.880	0.059 [1]
T11	105 - 85	3/4	3.000	2.854	182.7	0.442	1.284	19.880	0.065 [1]
T12	85 - 65	3/4	3.000	2.854	182.7	0.442	1.309	19.880	0.066 [1]
T13	65 - 45	3/4	3.000	2.854	182.7	0.442	1.421	19.880	0.071 [1]
T14	45 - 25	3/4	3.000	2.854	182.7	0.442	1.434	19.880	0.072 [1]
T15	25 - 5	3/4	3.000	2.854	182.7	0.442	8.019	19.880	0.403 [1]
T16	5 - 0	3/4	0.231	0.085	5.5	0.442	3.905	19.880	0.196 [1]

[1] P_u / ϕP_n controls

Top Guy Pull-Off Design Data (Tension)

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T1	305 - 285	4x5/8	3.000	2.854	189.8	2.500	6.923	112.500	0.062 [1] ✔
T3	265 - 245	4x5/8	3.000	2.854	189.8	2.500	7.782	112.500	0.069 [1] ✔
T6	205 - 185	4x5/8	3.000	2.854	189.8	2.500	4.116	112.500	0.037 [1] ✔
T10	125 - 105	4x5/8	3.000	2.854	189.8	2.500	5.257	112.500	0.047 [1] ✔
T13	65 - 45	4x5/8	3.000	2.854	189.8	2.500	3.569	112.500	0.032 [1] ✔

[1] $P_u / \phi P_n$ controls

Torque-Arm Top Design Data

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T3	265 - 245 (849)	C12x20.7	3.000	2.927	44.0	4.568	3.866	222.666	0.017
T3	265 - 245 (850)	C12x20.7	3.000	2.927	44.0	4.568	4.044	222.666	0.018
T3	265 - 245 (856)	C12x20.7	3.000	2.927	44.0	4.568	4.132	222.666	0.019
T3	265 - 245 (857)	C12x20.7	3.000	2.927	44.0	4.568	3.987	222.666	0.018
T3	265 - 245 (860)	C12x20.7	3.000	2.927	44.0	4.568	0.113	222.666	0.001
T3	265 - 245 (861)	C12x20.7	3.000	2.927	44.0	4.568	3.973	222.666	0.018

Torque-Arm Top Bending Design Data

Section No.	Elevation	Size	M_{ux}	ϕM_{nx}	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy}	ϕM_{ny}	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
	ft		kip-ft	kip-ft		kip-ft	kip-ft	
T3	265 - 245 (849)	C12x20.7	-27.440	94.709	0.290	-0.000	9.731	0.000
T3	265 - 245 (850)	C12x20.7	-29.046	94.709	0.307	-0.000	9.731	0.000
T3	265 - 245 (856)	C12x20.7	-25.559	94.709	0.270	0.000	9.731	0.000
T3	265 - 245 (857)	C12x20.7	-29.579	94.709	0.312	0.000	9.731	0.000
T3	265 - 245 (860)	C12x20.7	-28.488	94.709	0.301	-0.000	9.731	0.000
T3	265 - 245 (861)	C12x20.7	-28.130	94.709	0.297	0.000	9.731	0.000

Torque-Arm Top Interaction Design Data

Section No.	Elevation	Size	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
	ft							

Section No.	Elevation ft	Size	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
T3	265 - 245 (849)	C12x20.7	0.017	0.290	0.000	0.298 ✔	1.000	4.8.1 ✔
T3	265 - 245 (850)	C12x20.7	0.018	0.307	0.000	0.316 ✔	1.000	4.8.1 ✔
T3	265 - 245 (856)	C12x20.7	0.019	0.270	0.000	0.279 ✔	1.000	4.8.1 ✔
T3	265 - 245 (857)	C12x20.7	0.018	0.312	0.000	0.321 ✔	1.000	4.8.1 ✔
T3	265 - 245 (860)	C12x20.7	0.001	0.301	0.000	0.301 ✔	1.000	4.8.1 ✔
T3	265 - 245 (861)	C12x20.7	0.018	0.297	0.000	0.306 ✔	1.000	4.8.1 ✔

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
T1	305 - 285	Leg	1 3/4	3	-25.773	78.769	32.7	Pass
T2	285 - 265	Leg	1 3/4	57	-40.302	78.769	51.2	Pass
T3	265 - 245	Leg	1 3/4	111	-75.440	78.769	95.8	Pass
T4	245 - 225	Leg	1 3/4	165	-62.078	78.769	78.8	Pass
T5	225 - 205	Leg	1 3/4	219	-47.359	78.769	60.1	Pass
T6	205 - 185	Leg	1 3/4	273	-52.699	78.769	66.9	Pass
T7	185 - 165	Leg	1 3/4	325	-50.763	78.769	64.4	Pass
T8	165 - 145	Leg	1 3/4	381	-52.730	78.769	66.9	Pass
T9	145 - 125	Leg	1 3/4	435	-55.094	78.769	69.9	Pass
T10	125 - 105	Leg	1 3/4	487	-63.334	78.769	80.4	Pass
T11	105 - 85	Leg	1 3/4	541	-69.027	78.769	87.6	Pass
T12	85 - 65	Leg	1 3/4	595	-70.897	78.769	90.0	Pass
T13	65 - 45	Leg	1 3/4	649	-76.344	78.769	96.9	Pass
T14	45 - 25	Leg	1 3/4	703	-77.702	78.769	98.6	Pass
T15	25 - 5	Leg	1 3/4	757	-77.351	78.769	98.2	Pass
T16	5 - 0	Leg	1 3/4	811	-78.691	82.175	95.8	Pass
T1	305 - 285	Diagonal	.875	28	-5.744	6.888	83.4	Pass
T2	285 - 265	Diagonal	1	64	-7.943	11.750	67.6	Pass
T3	265 - 245	Diagonal	1	161	-7.901	11.750	67.2	Pass
T4	245 - 225	Diagonal	.875	214	-3.160	6.888	45.9	Pass
T5	225 - 205	Diagonal	.75	227	-1.924	3.718	51.7	Pass
T6	205 - 185	Diagonal	.75	282	-3.542	3.718	95.3	Pass
T7	185 - 165	Diagonal	.75	376	-3.284	3.718	88.3	Pass
T8	165 - 145	Diagonal	.75	389	-2.045	3.718	55.0	Pass
T9	145 - 125	Diagonal	.875	443	-4.082	6.888	59.3	Pass
T10	125 - 105	Diagonal	.875	539	-4.013	6.888	58.3	Pass
T11	105 - 85	Diagonal	.75	593	-2.349	3.718	63.2	Pass
T12	85 - 65	Diagonal	.75	604	-2.757	3.718	74.2	Pass
T13	65 - 45	Diagonal	.75	695	-3.016	3.718	81.1	Pass
T14	45 - 25	Diagonal	.75	712	-1.924	3.718	51.7	Pass
T15	25 - 5	Diagonal	.75	766	-3.063	3.718	82.4	Pass
T16	5 - 0	Diagonal	1	822	-12.918	19.487	66.3	Pass
T1	305 - 285	Horizontal	3/4	44	-2.196	6.104	36.0	Pass
T2	285 - 265	Horizontal	3/4	103	-1.911	6.104	31.3	Pass
T3	265 - 245	Horizontal	3/4	134	-1.393	6.104	22.8	Pass
T4	245 - 225	Horizontal	3/4	176	-1.177	6.104	19.3	Pass
T5	225 - 205	Horizontal	3/4	230	-0.885	6.104	14.5	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
T6	205 - 185	Horizontal	3/4	296	-0.973	6.104	15.9	Pass
T7	185 - 165	Horizontal	3/4	351	-0.940	6.104	15.4	Pass
T8	165 - 145	Horizontal	3/4	398	-0.980	6.104	16.1	Pass
T9	145 - 125	Horizontal	3/4	446	-1.026	6.104	16.8	Pass
T10	125 - 105	Horizontal	3/4	507	-1.181	6.104	19.4	Pass
T11	105 - 85	Horizontal	3/4	567	-1.284	6.104	21.0	Pass
T12	85 - 65	Horizontal	3/4	609	-1.309	6.104	21.5	Pass
T13	65 - 45	Horizontal	3/4	663	-1.421	6.104	23.3	Pass
T14	45 - 25	Horizontal	3/4	717	-1.434	6.104	23.5	Pass
T15	25 - 5	Horizontal	3/4	771	-1.429	6.104	23.4	Pass
T16	5 - 0	Horizontal	3/4	825	-1.443	11.060	13.0	Pass
T1	305 - 285	Top Girt	3/4	5	-0.073	6.104	1.2	Pass
T2	285 - 265	Top Girt	3/4	60	-1.495	6.104	24.5	Pass
T3	265 - 245	Top Girt	3/4	113	-3.356	6.104	55.0	Pass
T4	245 - 225	Top Girt	3/4	166	-1.507	6.104	24.7	Pass
T5	225 - 205	Top Girt	3/4	221	-0.885	6.104	14.5	Pass
T6	205 - 185	Top Girt	3/4	275	-0.973	6.104	15.9	Pass
T7	185 - 165	Top Girt	3/4	328	-1.275	6.104	20.9	Pass
T8	165 - 145	Top Girt	3/4	383	-0.980	6.104	16.1	Pass
T9	145 - 125	Top Girt	3/4	437	-1.026	6.104	16.8	Pass
T10	125 - 105	Top Girt	3/4	491	-1.479	6.104	24.2	Pass
T11	105 - 85	Top Girt	3/4	546	-1.284	6.104	21.0	Pass
T12	85 - 65	Top Girt	3/4	600	-1.309	6.104	21.5	Pass
T13	65 - 45	Top Girt	3/4	654	-1.421	6.104	23.3	Pass
T14	45 - 25	Top Girt	3/4	708	-1.434	6.104	23.5	Pass
T15	25 - 5	Top Girt	3/4	762	-1.429	6.104	23.4	Pass
T16	5 - 0	Top Girt	3/4	816	7.796	19.880	39.2	Pass
T1	305 - 285	Bottom Girt	3/4	9	-1.359	6.104	22.3	Pass
T2	285 - 265	Bottom Girt	3/4	62	-2.787	6.104	45.7	Pass
T3	265 - 245	Bottom Girt	3/4	115	-1.529	6.104	25.0	Pass
T4	245 - 225	Bottom Girt	3/4	170	-1.177	6.104	19.3	Pass
T5	225 - 205	Bottom Girt	3/4	224	-0.885	6.104	14.5	Pass
T6	205 - 185	Bottom Girt	3/4	277	-1.423	6.104	23.3	Pass
T7	185 - 165	Bottom Girt	3/4	333	-0.940	6.104	15.4	Pass
T8	165 - 145	Bottom Girt	3/4	386	-0.980	6.104	16.1	Pass
T9	145 - 125	Bottom Girt	3/4	440	-1.467	6.104	24.0	Pass
T10	125 - 105	Bottom Girt	3/4	495	-1.181	6.104	19.4	Pass
T11	105 - 85	Bottom Girt	3/4	549	-1.284	6.104	21.0	Pass
T12	85 - 65	Bottom Girt	3/4	603	-1.309	6.104	21.5	Pass
T13	65 - 45	Bottom Girt	3/4	657	-1.421	6.104	23.3	Pass
T14	45 - 25	Bottom Girt	3/4	711	-1.434	6.104	23.5	Pass
T15	25 - 5	Bottom Girt	3/4	763	8.019	19.880	40.3	Pass
T16	5 - 0	Bottom Girt	3/4	817	3.905	19.880	19.6	Pass
T1	305 - 285	Guy A@290.193	5/8 EModulus	867	23.697	25.440	93.1	Pass
T3	265 - 245	Guy A@255	1/2 EModulus	858	14.170	16.140	87.8	Pass
T6	205 - 185	Guy A@195	7/16 EModulus	846	10.928	12.480	87.6	Pass
T10	125 - 105	Guy A@122.211	7/16 EModulus	840	11.555	12.480	92.6	Pass
T13	65 - 45	Guy A@62.2109	3/8 EModulus	834	6.871	9.240	74.4	Pass
T1	305 - 285	Guy B@290.193	5/8 EModulus	866	22.293	25.440	87.6	Pass
T3	265 - 245	Guy B@255	1/2 EModulus	854	13.185	16.140	81.7	Pass
T6	205 - 185	Guy B@195	7/16 EModulus	845	10.263	12.480	82.2	Pass
T10	125 - 105	Guy B@122.211	7/16 EModulus	839	11.036	12.480	88.4	Pass
T13	65 - 45	Guy B@62.2109	3/8 EModulus	833	6.534	9.240	70.7	Pass
T1	305 - 285	Guy C@290.193	5/8 EModulus	862	24.119	25.440	94.8	Pass
T3	265 - 245	Guy C@255	1/2 EModulus	848	14.503	16.140	89.9	Pass
T6	205 - 185	Guy C@195	7/16 EModulus	841	11.233	12.480	90.0	Pass
T10	125 - 105	Guy C@122.211	7/16 EModulus	835	11.998	12.480	96.1	Pass
T13	65 - 45	Guy C@62.2109	3/8 EModulus	829	7.130	9.240	77.2	Pass
T1	305 - 285	Top Guy Pull-Off@290.193	4x5/8	863	6.923	112.500	6.2	Pass
T3	265 - 245	Top Guy	4x5/8	852	-7.599	24.488	31.0	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
T6	205 - 185	Pull-Off@255 Top Guy Pull-Off@195	4x5/8	844	4.116	112.500	3.7	Pass
T10	125 - 105	Top Guy Pull-Off@122.211	4x5/8	838	5.257	112.500	4.7	Pass
T13	65 - 45	Top Guy Pull-Off@62.2109	4x5/8	832	3.569	112.500	3.2	Pass
T3	265 - 245	Torque Arm Top@255	C12x20.7	850	4.044	222.666	36.3	Pass
							Summary	
						Leg (T14)	98.6	Pass
						Diagonal (T6)	95.3	Pass
						Horizontal (T1)	36.0	Pass
						Top Girt (T3)	55.0	Pass
						Bottom Girt (T2)	45.7	Pass
						Guy A (T1)	93.1	Pass
						Guy B (T10)	88.4	Pass
						Guy C (T10)	96.1	Pass
						Top Guy Pull-Off (T3)	31.0	Pass
						Torque Arm Top (T3)	36.3	Pass
						Bolt Checks	28.6	Pass
						RATING =	**98.6**	**Pass**

EXHIBIT D
COMPETING UTILITIES, CORPORATIONS, OR PERSONS LIST

KY Public Service Commission

Master Utility Search

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

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

Active

Search

	Utility ID	Utility Name	Utility Type	Class	City	State
View	4111300	2600Hz, Inc. dba ZSWITCH	Cellular	D	San Francisco	CA
View	4108300	Air Voice Wireless, LLC	Cellular	B	Bloomfield Hill	MI
View	4110650	Alliant Technologies of KY, L.L.C.	Cellular	D	Morristown	NJ
View	4111900	ALLNETAIR, INC.	Cellular	D	West Palm Beach	FL
View	44451184	Alltel Corporation d/b/a Verizon Wireless	Cellular	A	Lisle	IL
View	4110850	AltaWorx, LLC	Cellular	D	Fairhope	AL
View	4107800	American Broadband and Telecommunications Company	Cellular	D	Toledo	OH
View	4108650	AmeriMex Communications Corp.	Cellular	A	Dunedin	FL
View	4105100	AmeriVision Communications, Inc. d/b/a Affinity 4	Cellular	D	Virginia Beach	VA
View	4110700	Andrew David Balholm dba Norcell	Cellular	D	Buford	GA
View	4105700	Assurance Wireless USA, L.P.	Cellular	A	Atlanta	GA
View	4108600	BCN Telecom, Inc.	Cellular	D	Morristown	NJ
View	4106000	Best Buy Health, Inc. d/b/a GreatCall d/b/a Jitterbug	Cellular	A	San Diego	CA
View	4110550	Blue Casa Mobile, LLC	Cellular	D	Santa Barbara	CA
View	4111050	BlueBird Communications, LLC	Cellular	D	New York	NY
View	4202300	Bluegrass Wireless, LLC	Cellular	A	Elizabethtown	KY

View	4107600	Boomerang Wireless, LLC	Cellular	C	Hiawatha	IA
View	4105500	BullsEye Telecom, Inc.	Cellular	D	Southfield	MI
View	4100700	Cellco Partnership dba Verizon Wireless	Cellular	A	Basking Ridge	NJ
View	4106600	Cintex Wireless, LLC	Cellular	D	Houston	TX
View	4111150	Comcast OTR1, LLC	Cellular	B	Phoeniexville	PA
View	4101900	Consumer Cellular, Incorporated	Cellular	A	Portland	OR
View	4106400	Credo Mobile, Inc.	Cellular	A	San Francisco	CA
View	4108850	Cricket Wireless, LLC	Cellular	A	San Antonio	TX
View	4111500	CSC Wireless, LLC d/b/a Altice Wireless	Cellular	D	Long Island City	NY
View	10640	Cumberland Cellular Partnership	Cellular	A	Elizabethtown	KY
View	4111650	DataBytes, Inc.	Cellular	D	Rogers	AR
View	4112000	DISH Wireless L.L.C.	Cellular	A	Englewood	CO
View	4111200	Dynalink Communications, Inc.	Cellular	C	Brooklyn	NY
View	4111800	Earthlink, LLC	Cellular	D	Atlanta	GA
View	4101000	East Kentucky Network, LLC dba Appalachian Wireless	Cellular	A	Ivel	KY
View	4002300	Easy Telephone Service Company dba Easy Wireless	Cellular	D	Ocala	FL
View	4109500	Enhanced Communications Group, LLC	Cellular	D	Bartlesville	OK
View	4110450	Excellus Communications, LLC	Cellular	D	Chattanooga	TN
View	4112400	Excess Telecom Inc.	Cellular	C	Beverly Hills	CA
View	4105900	Flash Wireless, LLC	Cellular	C	Concord	NC
View	4104800	France Telecom Corporate Solutions L.L.C.	Cellular	D	Herndon	VA
View	4111750	Gabb Wireless, Inc.	Cellular	D	Provo	UT
View	4112300	Gen Mobile Inc.	Cellular	C	Redondo Beach	CA
View	4109350	Global Connection Inc. of America	Cellular	D	Newport	KY
View	4102200	Globalstar USA, LLC	Cellular	B	Covington	LA
View	4112050	GLOTELL US, Corp.	Cellular	D	Hallandale	FL
View	4109600	Google North America Inc.	Cellular	A	Mountain View	CA
View	33350363	Granite Telecommunications, LLC	Cellular	D	Quincy	MA
View	4111350	HELLO MOBILE TELECOM LLC	Cellular	D	Dania Beach	FL
View	4103100	i-Wireless, LLC	Cellular	B	Newport	KY
View	4109800	IM Telecom, LLC d/b/a Infiniti Mobile	Cellular	D	Plano	TX
View	4111950	J Rhodes Enterprises LLC	Cellular	D	Gulf Breeze	FL
View	22215360	KDDI America, Inc.	Cellular	D	Staten Island	NY
View	10872	Kentucky RSA #1 Partnership	Cellular	A	Basking Ridge	NJ
View	10680	Kentucky RSA #3 Cellular	Cellular	A	Elizabethtown	KY

		General				
View	10681	Kentucky RSA #4 Cellular General	Cellular	A	Elizabethtown	KY
View	4109550	Kynect Communications, LLC	Cellular	D	Dallas	TX
View	4112200	Lexvor Inc.	Cellular	D	Irvine	CA
View	4111250	Liberty Mobile Wireless, LLC	Cellular	A	Sunny Isles Beach	FL
View	4111400	Locus Telecommunications, LLC	Cellular	A	Fort Lee	NJ
View	4107300	Lycamobile USA, Inc.	Cellular	D	Newark	NJ
View	4112450	Matrix Telecom, LLC dba Excel Telecommunications	Cellular	C	Irving	TX
View	4108800	MetroPCS Michigan, LLC	Cellular	A	Bellevue	WA
View	4111700	Mint Mobile, LLC	Cellular	D	Costa Mesa	CA
View	4109650	Mitel Cloud Services, Inc.	Cellular	D	Mesa	AZ
View	4111850	Mobi, Inc.	Cellular	D	Honolulu	HI
View	4202400	New Cingular Wireless PCS, LLC dba AT&T Mobility, PCS	Cellular	A	San Antonio	TX
View	4112350	NewPhone Wireless, L.L.C.	Cellular	C	Houston	TX
View	4000800	Nextel West Corporation	Cellular	D	Overland Park	KS
View	4001300	NPCR, Inc. dba Nextel Partners	Cellular	D	Overland Park	KS
View	4001800	OnStar, LLC	Cellular	A	Detroit	MI
View	4110750	Onvoy Spectrum, LLC	Cellular	D	Chicago	IL
View	4109050	Patriot Mobile LLC	Cellular	D	Irving	TX
View	4110250	Plintron Technologies USA LLC	Cellular	D	Bellevue	WA
View	33351182	PNG Telecommunications, Inc. dba PowerNet Global Communications	Cellular	D	Cincinnati	OH
View	4107700	Puretalk Holdings, Inc.	Cellular	A	Covington	GA
View	4106700	Q Link Wireless, LLC	Cellular	A	Dania	FL
View	4108700	Ready Wireless, LLC	Cellular	C	Hiawatha	IA
View	4110500	Republic Wireless, Inc.	Cellular	A	Raleigh	NC
View	4106200	Rural Cellular Corporation	Cellular	A	Basking Ridge	NJ
View	4108550	Sage Telecom Communications, LLC dba TruConnect	Cellular	B	Los Angeles	CA
View	4109150	SelecTel, Inc. d/b/a SelecTel Wireless	Cellular	D	Fremont	NE
View	4110150	Spectrotel of the South LLC dba Touch Base Communications	Cellular	D	Neptune	NJ
View	4111450	Spectrum Mobile, LLC	Cellular	A	St. Louis	MO
View	4200100	Sprint Spectrum, L.P.	Cellular	A	Atlanta	GA
View	4200500	SprintCom, Inc.	Cellular	A	Atlanta	GA
View	4111600	STX Group LLC dba Twigby	Cellular	D	Murfreesboro	TN
View	4202200	T-Mobile Central, LLC dba T-Mobile	Cellular	A	Bellevue	WA
View	4002500	TAG Mobile, LLC	Cellular	D	Plano	TX

View	4109700	Telecom Management, Inc. dba Pioneer Telephone	Cellular	D	Portland	ME
View	4107200	Telefonica USA, Inc.	Cellular	D	Miami	FL
View	4112100	Tello LLC	Cellular	D	Atlanta	GA
View	4108900	Telrite Corporation	Cellular	D	Covington	GA
View	4108450	Tempo Telecom, LLC	Cellular	C	Atlanta	GA
View	4109000	Ting, Inc.	Cellular	B	Toronto	ON
View	4110400	Torch Wireless Corp.	Cellular	D	Jacksonville	FL
View	4103300	Touchtone Communications, Inc.	Cellular	D	Cedar Knolls	NJ
View	4104200	TracFone Wireless, Inc.	Cellular	D	Miami	FL
View	4112250	TROOMI WIRELESS, Inc.	Cellular	C	Lehi	UT
View	4002000	Truphone, Inc.	Cellular	D	Durham	NC
View	4110300	UVNV, Inc. d/b/a Mint Mobile	Cellular	D	Costa Mesa	CA
View	10630	Verizon Americas LLC dba Verizon Wireless	Cellular	A	Basking Ridge	NJ
View	4110800	Visible Service LLC	Cellular	D	Basking Ridge	NJ
View	4106500	WiMacTel, Inc.	Cellular	D	Palo Alto	CA
View	4110950	Wing Tel Inc.	Cellular	D	New York	NY
View	4112150	Zefcom, LLC	Cellular	C	Wichita Falls	TX

EXHIBIT E
FAA

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

Aeronautical Study No.
2020-ASO-35607-OE

Issued Date: 12/03/2020

Kristy Hurst
B+T Group Holdings, Inc.
1717 S. Boulder Ave.
Suite 300
Tulsa, OK 74119

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

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

Structure:	Antenna Tower KYBGN2021
Location:	Edmonton, KY
Latitude:	37-00-56.44N NAD 83
Longitude:	85-31-05.28W
Heights:	956 feet site elevation (SE)
	317 feet above ground level (AGL)
	1273 feet above mean sea level (AMSL)

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

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

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

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

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

This determination expires on 06/03/2022 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.

(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

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

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.This determination includes all previously filed frequencies and power for this structure.

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

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

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

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

If we can be of further assistance, please contact our office at (718) 553-2611, or angelique.eersteling@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-ASO-35607-OE.

Signature Control No: 456430497-458377647 (DNE)
Angelique Eersteling
Technician

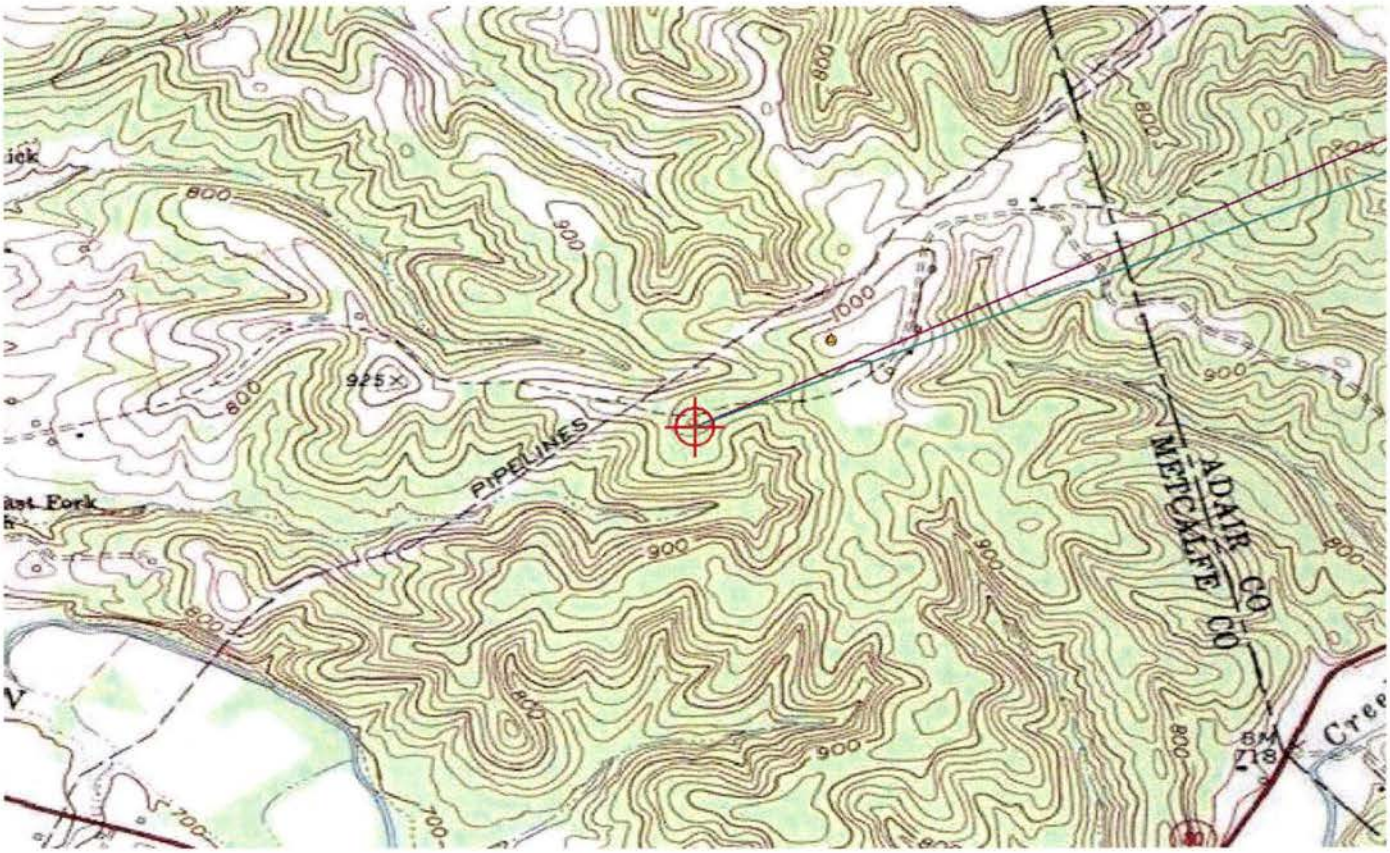
Attachment(s)
Case Description
Frequency Data
Map(s)

cc: FCC

Proposed 317-foot tall guyed-type telecommunications structure

Frequency Data for ASN 2020-ASO-35607-OE

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


PIPELINES
ADAIR CO
METCALFE CO
925
800
900
1000
700

TOPO Map for ASN 2020-ASO-35607-OE

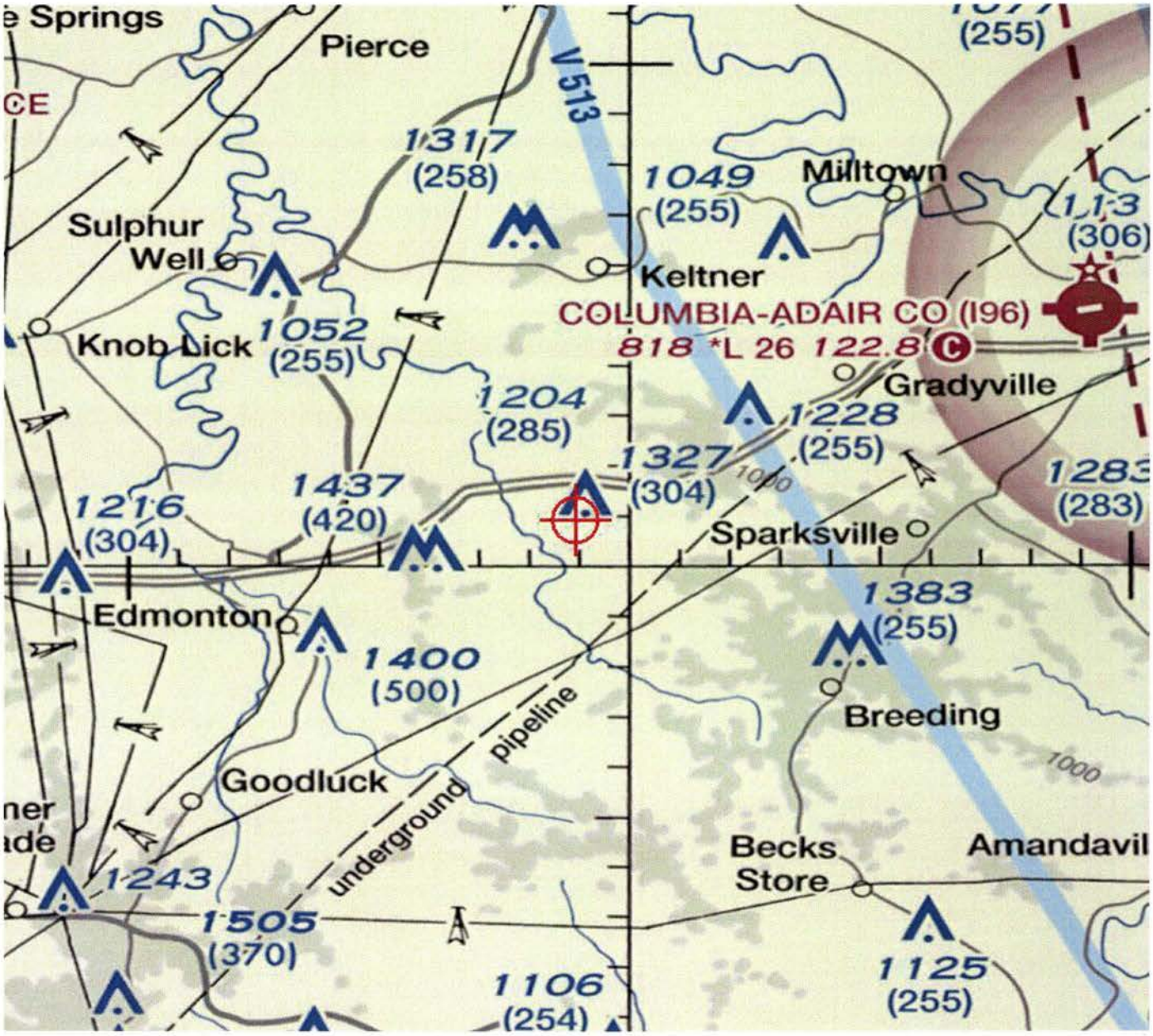

Springs
Pierce
CE
V 513
1317
(258)
1049
(255)
Milltown
1113
(306)
Sulphur
Well
Keltner
COLUMBIA-ADAIR CO (I96)
818 *L 26 122.8 C
Knob Lick
1052
(255)
Gradyville
1204
(285)
1228
(255)
1327
(304)
1283
(283)
1437
(420)
1216
(304)
Sparksville
1383
(255)
Edmonton
1400
(500)
Breeding
pipeline
underground
Goodluck
1000
Becks
Store
Amandavil
1243
1505
(370)
1125
(255)
1106
(254)

EXHIBIT F
KENTUCKY AIRPORT ZONING COMMISSION

KENTUCKY AIRPORT ZONING COMMISSION

ANDY BESHEAR
Governor

Office of Audits, 200 Mero Street, 4th floor
Frankfort, KY 40622
www.transportation.ky.gov
502-782-4043

JIM GRAY
Secretary

APPROVAL OF APPLICATION

February 17, 2021

APPLICANT
Uniti Towers LLC
B&T Group - Patricia Parr
10802 Executive Center Dr. Ste 300
Little Rock, AR 72211

SUBJECT: AS-METCALFE-I96-2021-011

STRUCTURE:	Antenna Tower
LOCATION:	Edmonton, KY
COORDINATES:	37° 0' 56.44" N / 85° 31' 5.28" W
HEIGHT:	317' AGL/1273' AMSL

The Kentucky Airport Zoning Commission has approved your application for a permit to construct 317' AGL/1273' AMSL Antenna Tower near Edmonton, KY 37° 0' 56.44" N / 85° 31' 5.28" W.

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

Medium Dual Obstruction Lighting Required.

Randall S. Royer

Randall S. Royer, Executive Director
Office of Audits
Acting Administrator
Randall.Royer@ky.gov
Jason.Salazar-Munoz@ky.gov

Kentucky UNBRIDLED SPIRIT

An Equal Opportunity Employer M/F/D

EXHIBIT G
GEOTECHNICAL REPORT

GEOTECHNICAL INVESTIGATION REPORT

August 2, 2021

Prepared For:

B+T Group

William Judd Road
KYBGN2021
Proposed 317-Foot Guyed Tower
Billy Sparks Road, Edmonton (Metcalfe County), Kentucky 42129
Latitude N 37° 00' 56.4" Longitude W 85° 31' 05.3"

Delta Oaks Group Project GEO21-10297-08
Revision 0
geotech@deltaoaksgroup.com

Performed By:

Justin Brosseau, E.I.

Reviewed By:

Joseph V. Borrelli, Jr., P.E.

COMMONWEALTH OF KENTUCKY
JOSEPH V. BORRELLI
30809
LICENSED PROFESSIONAL ENGINEER
8/2/21

INTRODUCTION

This geotechnical investigation report has been completed for the proposed 317-foot, single ring, guyed tower located near Billy Sparks Road in Edmonton (Metcalfe County), Kentucky 42129. The purpose of this investigation was to provide engineering recommendations and subsurface condition data at the proposed tower location. A geotechnical engineering interpretation of the collected information was completed and utilized to suggest design parameters regarding the adequacy of the structure's proposed foundation capacity under various loading conditions. This report provides the scope of the geotechnical investigation; geologic material identification; results of the geotechnical laboratory testing; and design parameter recommendations for use in the design of the telecommunication facility's foundation and site development.

SITE CONDITION SUMMARY

The proposed tower and compound are located on a heavily forested hill exhibiting a gradually sloping topography from the south to north across the tower compound and subject property.

REFERENCES

- TIA Standard (TIA-222-G), dated August 2005

SUBSURFACE FIELD INVESTIGATION SUMMARY

The subsurface field investigation was conducted through the advancement of four mechanical soil test borings to the auger refusal depths of 6.0, 8.1, 12.0, and 11.7 feet bgs in borings B-1 through B-4, respectively. Samples were obtained at selected intervals in accordance with ASTM D 1586. The sampling was conducted at the staked centerline of the proposed tower mast and guy anchors. Upon encountering auger refusal 5.0 feet of rock coring was conducted in accordance with ASTM D 2113. Soil and rock samples were transported to our laboratory and classified by a geotechnical engineer in accordance with ASTM D 2487. A detailed breakdown of the material encountered in our subsurface field investigation can be found in the boring logs presented in the Appendix of this report.

Additional testing was performed on selected samples in accordance with ASTM D 7012 (Unconfined Compressive Strength – Rock). Laboratory data can be found in the Appendix of this report.

A boring plan portraying the spatial location of the borings in relation to the proposed tower, guy anchors, tower compound and immediate surrounding area can be found in the Appendix.

SUBSURFACE CONDITION SUMMARY

The following provides a general overview of the site's subsurface conditions based on the data obtained during our field investigation.

FILL

Topsoil was encountered during the subsurface field investigation from the existing ground surface to a depth of 0.5 feet bgs.

SOIL

The residual soil encountered in the subsurface field investigation began at a depth of 0.5 feet bgs in the borings and consisted of silty clay. The materials ranged from a stiff to very hard cohesion.

Auger advancement refusal was encountered during the subsurface field investigation at depths of 11.7, 6.0, 8.1, and 12.0 feet bgs in borings B-1 through B-4, respectively.

ROCK

Rock was encountered during the subsurface investigation at a depth of 11.7 feet bgs in boring B-4. The rock can be described as moderately to slightly fractured, slightly weathered, very hard limestone.

SUBSURFACE WATER

At the time of drilling, subsurface water was not encountered during the subsurface investigation. However, subsurface water elevations can fluctuate throughout the year due to variations in climate, hydraulic parameters, nearby construction activity and other factors.

FROST PENETRATION

The frost penetration depth for Metcalfe County, Kentucky is 20 inches (1.7 feet).

CORROSIVITY

Soil resistivity was performed in accordance with ASTM G187 with a test result of 14,000 ohms-cm for the tower base.

FOUNDATION DESIGN SUMMARY

In consideration of the provided tower parameters and the determined soil characteristics, Delta Oaks Group recommends utilizing a shallow foundation and/or drilled shaft foundation for the proposed tower mast structure and concrete blocks for the guy anchors. The strength parameters presented in the following sections can be utilized for design of the foundation.

GENERAL SUBSURFACE STRENGTH PARAMETERS

Boring	Depth (bgs)	USCS	Moist/Buoyant Unit Weight (pcf)	Phi Angle (degrees)	Cohesion (psf)
B-1	0.0 – 0.5	TOPSOIL	105	0	0
	0.5 – 1.5	CL - ML	110	0	1,500
	1.5 – 4.0	CL - ML	115	0	1,750
	4.0 – 6.0	CL - ML	115	0	2,000

Boring	Depth (bgs)	USCS	Moist/Buoyant Unit Weight (pcf)	Phi Angle (degrees)	Cohesion (psf)
B-2	0.0 – 0.5	TOPSOIL	105	0	0
	0.5 – 1.5	CL - ML	115	0	1,750
	1.5 – 4.0	CL - ML	120	0	2,750
	4.0 – 6.5	CL - ML	120	0	4,000
	6.5 – 8.1	CL - ML	130	0	6,000

Boring	Depth (bgs)	USCS	Moist/Buoyant Unit Weight (pcf)	Phi Angle (degrees)	Cohesion (psf)
B-3	0.0 – 0.5	TOPSOIL	105	0	0
	0.5 – 1.5	CL - ML	110	0	1,500
	1.5 – 4.0	CL - ML	115	0	1,750
	4.0 – 6.5	CL - ML	115	0	2,000
	6.5 – 9.0	CL - ML	120	0	2,500
	9.0 – 12.0	CL - ML	120	0	4,000

Boring	Depth (bgs)	USCS	Moist/Buoyant Unit Weight (pcf)	Phi Angle (degrees)	Cohesion (psf)
B-4	0.0 – 0.5	TOPSOIL	105	0	0
	0.5 – 1.5	CL - ML	110	0	1,500
	1.5 – 4.0	CL - ML	115	0	1,750
	4.0 – 6.5	CL - ML	115	0	2,000
	6.5 – 9.0	CL - ML	115	0	2,250
	9.0 – 11.7	CL - ML	120	0	3,250
	11.7 – 16.7	LIMESTONE	140	0	12,000

- The unit weight provided assumes overburden soil was compacted to a minimum of 95% of the maximum dry density as obtained by the standard Proctor method (ASTM D 698) and maintained a moisture content within 3 percent of optimum
- The values provided for phi angle and cohesion should be considered ultimate.

SUBSURFACE STRENGTH PARAMETERS – SHALLOW TOWER FOUNDATION

Boring	Dimensions (feet)	Depth (feet bgs)	Net Ultimate Bearing Capacity (psf)
B-4	5.0 x 5.0	3.0	12,090
		4.0	14,310
		5.0	14,800
		6.0	15,300
	10.0 x 10.0	3.0	11,440
		4.0	13,320
		5.0	13,570
		6.0	13,820
	15.0 x 15.0	3.0	11,230
		4.0	12,990
		5.0	13,160
		6.0	13,320
	20.0 x 20.0	3.0	11,120
		4.0	12,830
		5.0	12,950
		6.0	13,080
	25.0 x 25.0	3.0	11,050
		4.0	12,730
		5.0	12,830
		6.0	12,930

- Delta Oaks Group recommends the foundation bear a minimum of 3.0 feet bgs.
- A sliding friction factor of 0.30 can be utilized along the base of the proposed tower mast foundation.
- Ultimate Passive Pressure Tables, for the tower mast and guy anchors, with a reduction due to frost penetration to a depth of 1.7 feet bgs are presented on the following pages.
- Delta Oaks Group recommends an appropriate factor of safety be utilized for the design of the foundation.

ULTIMATE PASSIVE PRESSURE VS. DEPTH - TOWER FOUNDATION

Soil Layers (feet)		Moist Unit Weight	Phi Angle	Cohesion	PV	KP	Ph
Top	0.0	105	0	0	0.00	1.00	0.00
Bottom	0.5	105	0	0	52.50	1.00	26.25
Top	0.5	110	0	1,500	52.50	1.00	1,526.25
Bottom	1.5	110	0	1,500	162.50	1.00	1,581.25
Top	1.5	110	0	1,500	162.50	1.00	1,581.25
Bottom	1.7	110	0	1,500	184.50	1.00	1,592.25
Top	1.7	110	0	1,500	184.50	1.00	3,184.50
Bottom	4.0	110	0	1,500	437.50	1.00	3,437.50
Top	4.0	115	0	2,000	437.50	1.00	4,437.50
Bottom	6.5	115	0	2,000	725.00	1.00	4,725.00
Top	6.5	115	0	2,250	725.00	1.00	5,225.00
Bottom	9.0	115	0	2,250	1,012.50	1.00	5,512.50
Top	9.0	120	0	3,250	1,012.50	1.00	7,512.50
Bottom	10.0	120	0	3,250	1,132.50	1.00	7,632.50

ULTIMATE PASSIVE PRESSURE VS. DEPTH – NORTHWEST GUY ANCHOR

Soil Layers (feet)		Moist Unit Weight	Phi Angle	Cohesion	PV	KP	Ph
Top	0.0	105	0	0	0.00	1.00	0.00
Bottom	0.5	105	0	0	52.50	1.00	26.25
Top	0.5	110	0	1,500	52.50	1.00	1,526.25
Bottom	1.5	110	0	1,500	162.50	1.00	1,581.25
Top	1.5	110	0	1,500	162.50	1.00	1,581.25
Bottom	1.7	110	0	1,500	184.50	1.00	1,592.25
Top	1.7	115	0	1,750	184.50	1.00	3,684.50
Bottom	4.0	115	0	1,750	449.00	1.00	3,949.00
Top	4.0	115	0	2,000	449.00	1.00	4,449.00
Bottom	6.0	115	0	2,000	679.00	1.00	4,679.00

ULTIMATE PASSIVE PRESSURE VS. DEPTH – NORTHEAST GUY ANCHOR

Soil Layers (feet)		Moist Unit Weight	Phi Angle	Cohesion	PV	KP	Ph
Top	0.0	105	0	0	0.00	1.00	0.00
Bottom	0.5	105	0	0	52.50	1.00	26.25
Top	0.5	115	0	1,750	52.50	1.00	1,776.25
Bottom	1.5	115	0	1,750	167.50	1.00	1,833.75
Top	1.5	120	0	2,750	167.50	1.00	2,833.75
Bottom	1.7	120	0	2,750	191.50	1.00	2,845.75
Top	1.7	120	0	2,750	191.50	1.00	5,691.50
Bottom	4.0	120	0	2,750	467.50	1.00	5,967.50
Top	4.0	120	0	4,000	467.50	1.00	8,467.50
Bottom	6.5	120	0	4,000	767.50	1.00	8,767.50
Top	6.5	130	0	6,000	767.50	1.00	12,767.50
Bottom	8.1	130	0	6,000	975.50	1.00	12,975.50

ULTIMATE PASSIVE PRESSURE VS. DEPTH – SOUTHWEST GUY ANCHOR

Soil Layers (feet)		Moist Unit Weight	Phi Angle	Cohesion	PV	KP	Ph
Top	0.0	105	0	0	0.00	1.00	0.00
Bottom	0.5	105	0	0	52.50	1.00	26.25
Top	0.5	110	0	1,500	52.50	1.00	1,526.25
Bottom	1.5	110	0	1,500	162.50	1.00	1,581.25
Top	1.5	115	0	1,750	162.50	1.00	1,831.25
Bottom	1.7	115	0	1,750	185.50	1.00	1,842.75
Top	1.7	115	0	1,750	185.50	1.00	3,685.50
Bottom	4.0	115	0	1,750	450.00	1.00	3,950.00
Top	4.0	115	0	2,000	450.00	1.00	4,450.00
Bottom	6.5	115	0	2,000	737.50	1.00	4,737.50
Top	6.5	120	0	2,500	737.50	1.00	5,737.50
Bottom	9.0	120	0	2,500	1,037.50	1.00	6,037.50
Top	9.0	120	0	4,000	1,037.50	1.00	9,037.50
Bottom	10.0	120	0	4,000	1,157.50	1.00	9,157.50

SUBSURFACE STRENGTH PARAMETERS - DRILLED SHAFT FOUNDATION

Boring	Depth (bgs)	Net Ultimate Bearing Capacity (psf)	Ultimate Skin Friction – Compression (psf)
B-1	0.0 – 3.0	–	–
	3.0 – 4.0	21,220	960
	4.0 – 7.0	23,920	1,100
	7.0 – 9.0	52,040	1,230
	9.0 – 14.0	75,050	1,770
	14.0 – 16.7	79,550	4,800

- The top 3.0 feet of soil should be ignored due to the potential soil disturbance during construction.
- The values presented assume the concrete is cast-in-place against earth walls and any casing utilized during construction of the foundation was removed.
- Delta Oaks Group recommends an appropriate factor of safety be utilized for the design of the foundation.

SUBSURFACE STRENGTH PARAMETERS – SUPPORT STRUCTURE FOUNDATION

Boring	Depth (bgs)	Net Ultimate Bearing Capacity (psf)	Minimum Design Footing Width (ft)	Modulus of Subgrade Reaction (pci)
B-4	2.0	10,900	2.0	350
	3.0	11,810		400
	4.0	14,530		
	5.0	15,000		

- Delta Oaks Group recommends utilizing a slab on grade in conjunction with continuous perimeter footings that bear on residual soil or properly compacted structural fill placed in accordance with the recommendations provided in the *CONSTRUCTION* section of this report.
- The slab on grade should be properly reinforced to prevent concrete cracking and shrinkage.
- The foundation should bear a minimum of 2.0 feet bgs.
- A sliding friction factor of 0.30 can be utilized along the base of the proposed foundation.
- An Ultimate Passive Pressure Table is presented on the following page. An appropriate reduction should be considered in accordance with local building code frost penetration depth.
- Delta Oaks Group recommends an appropriate factor of safety be utilized for the design of the foundation.

ULTIMATE PASSIVE PRESSURE VS. DEPTH – SUPPORT STRUCTURE FOUNDATION

Soil Layers (feet)		Moist Unit Weight	Phi Angle	Cohesion	PV	KP	Ph
Top	0.0	105	0	0	0.00	1.00	0.00
Bottom	0.5	105	0	0	52.50	1.00	26.25
Top	0.5	110	0	1,500	52.50	1.00	1,526.25
Bottom	1.5	110	0	1,500	162.50	1.00	1,581.25
Top	1.5	110	0	1,500	162.50	1.00	1,581.25
Bottom	1.7	110	0	1,500	184.50	1.00	1,592.25
Top	1.7	110	0	1,500	184.50	1.00	3,184.50
Bottom	4.0	110	0	1,500	437.50	1.00	3,437.50
Top	4.0	115	0	2,000	437.50	1.00	4,437.50
Bottom	6.5	115	0	2,000	725.00	1.00	4,725.00
Top	6.5	115	0	2,250	725.00	1.00	5,225.00
Bottom	9.0	115	0	2,250	1,012.50	1.00	5,512.50
Top	9.0	120	0	3,250	1,012.50	1.00	7,512.50
Bottom	10.0	120	0	3,250	1,132.50	1.00	7,632.50

CONSTRUCTION

SITE DEVELOPMENT

The proposed access road and tower compound should be evaluated by a Geotechnical Engineer, or their representative, after the removal or "cutting" of the areas to design elevation but prior to the placement of any structural fill material to verify the presence of unsuitable or weak material. Unsuitable or weak materials should be undercut to a suitable base material as determined by a Geotechnical Engineer, or their representative. Backfill of any undercut area(s) should be conducted in accordance with the recommendations provided in the *STRUCTURAL FILL PLACEMENT* section of this report.

Excavations should be sloped or shored in accordance and compliance with OSHA 29 CFR Part 1926, Excavation Trench Safety Standards as well as any additional local, state and federal regulations.

STRUCTURAL FILL PLACEMENT

Structural fill materials should be verified, prior to utilization, to have a minimum unit weight of 110 pcf (pounds per cubic foot) when compacted to a minimum of 95% of its maximum dry density and within plus or minus 3 percentage points of optimum moisture. Materials utilized should not contain more than 5 percent by weight of organic matter, waste, debris or any otherwise deleterious materials. The Liquid Limit should be no greater than 40 with a Plasticity Index no greater than 20. Structural fill material should contain a maximum particle size of 4 inches with 20 percent or less of the material having a particle size between 2 and 4 inches. Backfill should be placed in thin horizontal lifts not to exceed 8 inches (loose) in large grading areas and 4 inches (loose) where small handheld or walk-behind compaction equipment will be utilized. The potential suitability of on-site materials to be utilized as fill should be evaluated by a Geotechnical Engineer, or their representative just prior to construction.

During construction structural fill placement should be monitored and tested. This should include at minimum, visual observation as well as a sufficient amount of in-place field density tests by a Geotechnical Engineer, or their representative. Materials should be compacted to a minimum of 95% of the maximum dry density as determined by ASTM D 698 (standard Proctor method). Moisture contents should be maintained to within plus or minus 3 percentage points of the optimum moisture content.

SHALLOW FOUNDATIONS

Foundation excavation(s) should be evaluated by a Geotechnical Engineer, or their representative, prior to reinforcing steel and concrete placement. This evaluation should include visual observation to verify a level bearing surface; vertical side-walls with no protrusions, sloughing or caving; and the exposed bearing surface is free of deleterious material, loose soil and standing water. Excavation dimensions should be verified and testing performed on the exposed bearing surface to verify compliance with design recommendations. Bearing testing should be conducted in accordance with ASTM STP399 (Dynamic Cone Penetrometer). A 6-inch layer of compacted crushed stone should be installed prior to reinforcing steel and concrete placement. If subsurface water is encountered during excavation dewatering methods such as sump pumps or well points may be required.

DRILLED SHAFT FOUNDATIONS

Drilled shaft foundations (caissons) are typically installed utilizing an earth auger to reach the design depth of the foundation. Specialized roller bits or core bits can be utilized to penetrate boulders or rock. The equipment utilized should have cutting teeth to result in an excavation with little or no soil smeared or caked on the excavation sides with spiral-like corrugated walls. The drilled shaft design diameter should be maintained throughout the excavation with a plumbness tolerance of 2 percent of the length and an eccentricity tolerance of 3 inches from plan location. A removable steel casing can be installed in the shaft to prevent caving of the excavation sides due to soil relaxation. Upon completion of the drilling and casing placement, loose soils and subsurface water greater than 3-inches in depth should be removed from the bottom of the excavation for the "dry" installation method. The drilled shaft installation should be evaluated by a Geotechnical Engineer, or their representative, to verify suitable end bearing conditions, design diameter and bottom cleanliness. The evaluation should be conducted immediately prior to as well as during concrete placement operations.

The drilled shaft should be concreted as soon as reasonably practical after excavation to reduce the deterioration of the supporting soils to prevent potential caving and water intrusion. A concrete mix design with a slump of 6 to 8 inches employed in conjunction with the design concrete compressive strength should be utilized for placement. Super plasticizer may be required to obtain the recommended slump range. During placement, the concrete may fall freely through the open area in the reinforcing steel cage provided it does not strike the reinforcing steel and/or the casing prior to reaching the bottom of the excavation. The removable steel casing should be extracted as concrete is placed. During steel casing removal a head of concrete should be maintained above the bottom of the casing to prevent soil and water intrusion into the concrete below the bottom of the casing.

If subsurface water is anticipated and/or weak soil layers are encountered drilled shafts are typically installed utilizing the "wet" method by excavating beneath a drilling mud slurry. The drilling mud slurry is added to the drilled shaft excavation after groundwater has been encountered and/or the sides of the excavation are observed to be caving or sloughing. Additional inspection by a Geotechnical Engineer, or their representative, during the "wet" method should consist of verifying maintenance of sufficient slurry head, monitoring the specific gravity, pH and sand content of the drilling slurry, and monitoring any changes in the depth of the excavation between initial approval and just prior to concreting.

Concrete placement utilizing the "wet" method is conducted through a tremie pipe at the bottom of the excavation with the drilling mud slurry level maintained at a minimum of 5 feet or one shaft diameter, whichever is greater, above the ground water elevation. The bottom of the tremie should be set one tremie pipe diameter above the excavation. A closure flap at the bottom of the tremie or a sliding plug introduced into the tremie before the concrete is recommended to reduce the potential contamination of the concrete by the drilling mud slurry. The bottom of the tremie must be maintained in the concrete during placement. Additional concrete should be placed through the tremie causing the slurry to overflow from the excavation in order to reduce the potential for the development of "slurry pockets" remaining in the drilled shaft.

QUALIFICATIONS

The design parameters and conclusions provided in this report have been determined in accordance with generally accepted geotechnical engineering practices and are considered applicable to a rational degree of engineering certainty based on the data available at the time of report preparation and our practice in this geographic region. All recommendations and supporting calculations were prepared based on the data available at the time of report preparation and knowledge of typical geotechnical parameters in the applicable geographic region.

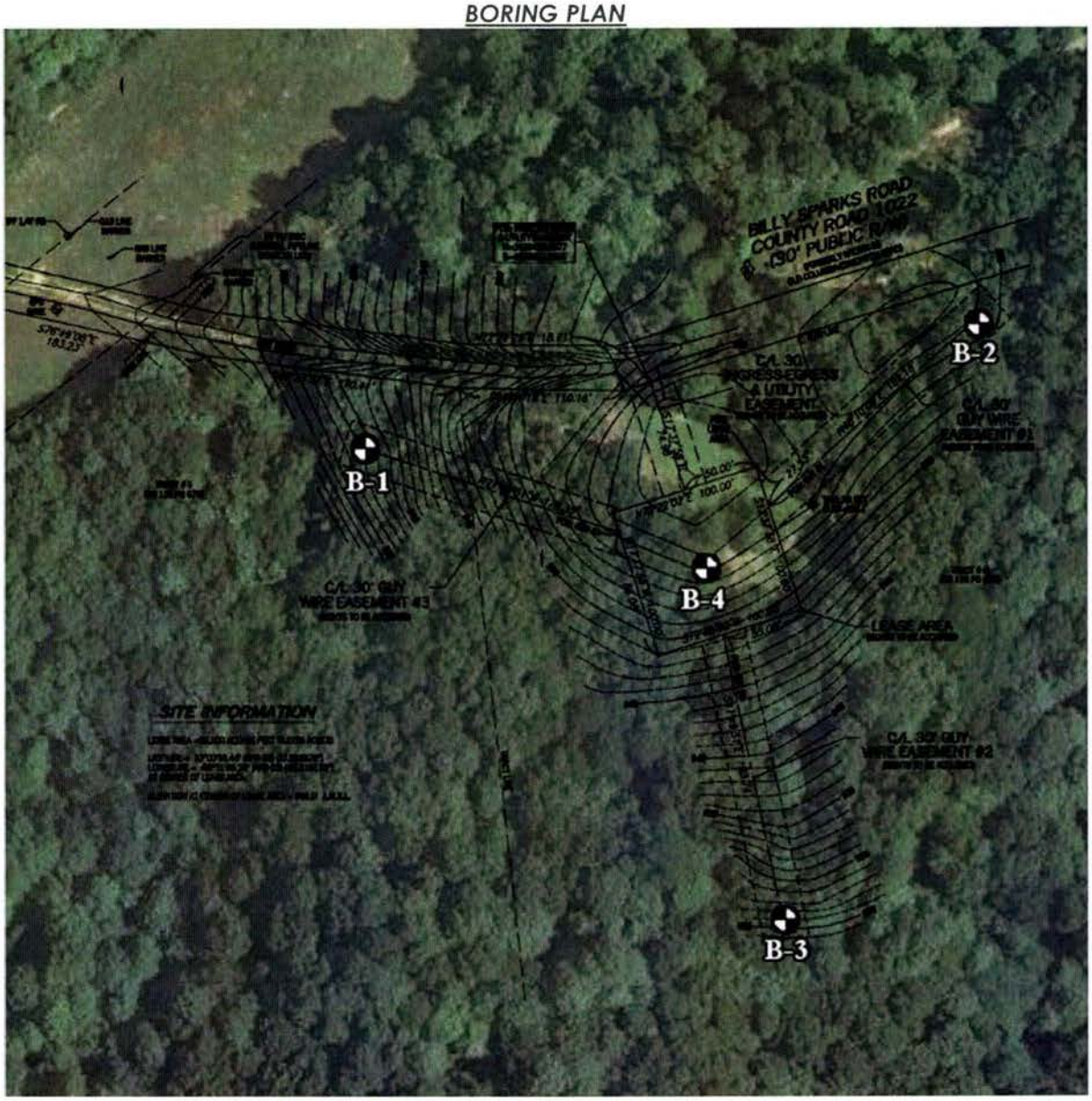
The subsurface conditions used in the determination of the design recommendations contained in this report are based on interpretation of subsurface data obtained at specific boring locations. Irrespective of the thoroughness of the subsurface investigation, the potential exists that conditions between borings will differ from those at the specific boring locations, that conditions are not as anticipated during the original analysis, or that the construction process has altered the soil conditions. That potential is significantly increased in locations where existing fill materials are encountered. Additionally, the nature and extent of these variations may not be evident until the commencement of construction. Therefore, a geotechnical engineer, or their representative, should observe construction practices to confirm that the site conditions do not differ from those conditions anticipated in design. If such variations are encountered, Delta Oaks Group should be contacted immediately in order to provide revisions and/or additional site exploration, as necessary.

Samples obtained during our subsurface field investigation will be retained by Delta Oaks Group for a period of 30 days unless otherwise instructed by B+T Group. No warranty, expressed or implied, is presented.

Delta Oaks Group appreciates the opportunity to be of service for this Geotechnical Investigation Report. Please do not hesitate to contact Delta Oaks Group with any questions or should you require additional service on this project.

APPENDIX

BORING PLAN


BILLY SPARKS ROAD
COUNTY ROAD 1022
(30' PUBLIC R/W)
B-1
B-2
B-3
B-4
C/L 30' INGRESS-EGRESS & UTILITY EASEMENT
C/L 30' GUY WIRE EASEMENT #3
C/L 30' GUY WIRE EASEMENT #2
LEASE AREA
SITE INFORMATION

PROJECT NAME William Judd Rd

CLIENT B+T Group

PROJECT NUMBER GEO21-10803-06

Boring No.: B-1

PROJECT LOCATION Billy Sparks Road, Edmonton (Metcalfe County), Kentucky 42129

DATE DRILLED : 7/26/2021

DRILLING METHOD : Hollow Stem Auger

GROUND ELEVATION : 972

BORING DEPTH (ft) : 6

GROUND WATER LEVELS:

AT TIME OF DRILLING : — Not Encountered

AT END OF DRILLING : — Not Measured

AFTER DRILLING : — Not Measured

DEPTH (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE	MATERIAL CLASSIFICATION	Pocket Penetrometer (tsf)	BLOWS 1st	BLOWS 2nd	BLOWS 3rd	N VALUE
0	TOPSOIL							
	SILTY CLAY (CL - ML), stiff, brown, with sand, moist		CL-ML		4	5	7	13
					8	9	11	14
5					8	11	18	15
	Refusal at 6.0 feet. Bottom of borehole at 6.0 feet.							
10								
15								
20								

▲ SPT N VALUE ▲

10 20 30 40 50 60 70 80 90

PROJECT NAME William Judd Rd

CLIENT B+T Group

PROJECT NUMBER GEO21-10803-06

Boring No.: B-2

PROJECT LOCATION Billy Sparks Road, Edmonton (Metcalfe County), Kentucky 42129

DATE DRILLED : 7/26/2021

DRILLING METHOD : Hollow Stem Auger

GROUND ELEVATION : 972

BORING DEPTH (ft) : 8.1

GROUND WATER LEVELS:

AT TIME OF DRILLING : — Not Encountered

AT END OF DRILLING : — Not Measured

AFTER DRILLING : — Not Measured

DEPTH (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE	MATERIAL CLASSIFICATION	Pocket Penetrometer (tsf)	BLOWS 1st	BLOWS 2nd	BLOWS 3rd	N VALUE
0	TOPSOIL							
	SILTY CLAY (CL - ML), stiff, brown, with sand, moist		CL-ML		4	6	8	14
	-- Very stiff				8	10	12	22
5					8	12	18	30
	-- Very hard				12	50/4"		100
	Refusal at 8.1 feet. Bottom of borehole at 8.1 feet.							
10								
15								
20								

▲ SPT N VALUE ▲

10 20 30 40 50 60 70 80 90

PROJECT NAME William Judd Rd

CLIENT B+T Group

PROJECT NUMBER GEO21-10803-06

Boring No.: B-3 PAGE 1 OF 1

PROJECT LOCATION Billy Sparks Road, Edmonton (Metcalfe County), Kentucky 42129

DATE DRILLED : 7/26/2021

DRILLING METHOD : Hollow Stem Auger

GROUND ELEVATION : 972

BORING DEPTH (ft) : 12

GROUND WATER LEVELS:

AT TIME OF DRILLING : — Not Encountered

AT END OF DRILLING : — Not Measured

AFTER DRILLING : — Not Measured

DEPTH (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE	MATERIAL CLASSIFICATION	Pocket Penetrometer (tsf)	BLOWS 1st	BLOWS 2nd	BLOWS 3rd	N VALUE
0	TOPSOIL							
	SILTY CLAY (CL - ML), stiff, brown, with sand, moist		CL-ML		7	6	6	12
					7	7	7	14
5					6	6	9	15
	-- Very stiff				8	9	10	19
	-- Hard							
10					12	14	18	32
	Refusal at 12.0 feet. Bottom of borehole at 12.0 feet.							
15								
20								

▲ SPT N VALUE ▲

10 20 30 40 50 60 70 80 90

PROJECT NAME William Judd Rd

CLIENT B+T Group

PROJECT NUMBER GEO21-10803-06

Boring No.: B-4

PROJECT LOCATION Billy Sparks Road, Edmonton (Metcalfe County), Kentucky 42129

DATE DRILLED : 7/26/2021

DRILLING METHOD : Hollow Stem Auger & Rock Coring

GROUND ELEVATION : 972

BORING DEPTH (ft) : 16.7

GROUND WATER LEVELS:

AT TIME OF DRILLING : — Not Encountered

AT END OF DRILLING : — Not Measured

AFTER DRILLING : — Not Measured

DEPTH (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE	MATERIAL CLASSIFICATION	Pocket Penetrometer (tsf)	BLOWS 1st	BLOWS 2nd	BLOWS 3rd	N VALUE
0	TOPSOIL							
	SILTY CLAY (CL - ML), stiff, brown, with sand, moist		CL-ML		6	7	6	13
					6	7	7	14
5					6	7	8	15
	-- Very stiff				8	8	10	18
10	-- Hard				13	16	19	25
	LIMESTONE, slightly to moderately fractured, lightly weathered, very hard				REC = 95%	RQD = 78%		
15								
	Refusal at 11.7 feet. Bottom of borehole at 16.7 feet.							
20								

▲ SPT N VALUE ▲

10 20 30 40 50 60 70 80 90

EXHIBIT H
DIRECTIONS TO WCF SITE

Driving Directions to Proposed Tower Site

1. Beginning at the Metcalfe County Judge Executive's Office, located at 201 N. Main Street, Edmonton, KY 42129, head north on N Main Street toward East Street and travel approximately 1.4 miles.
2. Continue onto KY-80 E / Columbia Road and travel approximately 3.9 miles.
3. Turn left onto Jack Sparks Road and travel approximately 0.3 miles.
4. Turn right onto Billy Sparks Road and travel approximately 0.9 miles.
5. The site is located straight ahead at 1135 Billy Sparks Road, Edmonton, KY 42129.
6. The site coordinates are:
    a. North 37 deg 00 min 56.44 sec
    b. West 85 deg 31 min 05.28 sec

Prepared by:
Chris Shouse
Pike Legal Group
1578 Highway 44 East, Suite 6
P.O. Box 396
Shepherdsville, KY 40165-3069
Telephone: 502-955-4400 or 800-516-4293

EXHIBIT I
COPY OF REAL ESTATE AGREEMENT

UNITI Site ID: KYBGN2021
Uniti Site Name: William Judd Rd
FA No.: 15147581

OPTION AND LEASE AGREEMENT

THIS OPTION AND LEASE AGREEMENT ("**Agreement**"), dated as of the latter of the signature dates below (the "**Effective Date**"), is entered into by Daniel U. Miller and Katie B. Miller, as to an undivided two-thirds (2/3) interest and David J. Miller and Mary Ann Miller, as to an undivided one-third (1/3) interest ("**Landlord**") having a mailing address of 532 Walker Stewart Rd. Horse Cave, KY 42749, and Uniti Towers LLC, a Delaware limited liability company having a mailing address of 10802 Executive Center Drive, Benton Building, Suite 300, Little Rock AR 72211 ("**Tenant**").

BACKGROUND

Landlord owns or controls that certain plot, parcel or tract of land, as described on **Exhibit 1,** together with all rights and privileges arising in connection therewith, located at 1370 William Judd Rd, in the City/Town of Edmonton, County of Metcalfe, State of Kentucky (collectively, the "**Property**"). Landlord desires to grant to Tenant the right to use a portion of the Property in accordance with this Agreement.

The parties agree as follows:

1. OPTION TO LEASE.

(a) Landlord grants to Tenant an exclusive option (the "**Option**") to lease a certain portion of the Property containing approximately 10,000 square feet including the air space above such ground space, as described on attached **Exhibit 1**, (the "**Premises**"), for the placement of a Communication Facility.

(b) During the Option Term, and during the Term, Tenant and its agents, engineers, surveyors and other representatives will have the right to enter upon the Property to inspect, examine, conduct soil borings, drainage testing, material sampling, radio frequency testing and other geological or engineering tests or studies of the Property (collectively, the "**Tests**"), to apply for and obtain licenses, permits, approvals, or other relief required of or deemed necessary or appropriate at Tenant's sole discretion for its use of the Premises and include, without limitation, applications for zoning variances, zoning ordinances, amendments, special use permits, and construction permits (collectively, the "**Government Approvals**"), initiate the ordering and/or scheduling of necessary utilities, and otherwise to do those things on or off the Property that, in the opinion of Tenant, are necessary in Tenant's sole discretion to determine the physical condition of the Property, the environmental history of the Property, Landlord's title to the Property and the feasibility or suitability of the Property for Tenant's Permitted Use, all at Tenant's expense. Tenant will not be liable to Landlord or any third party on account of any pre-existing defect or condition on or with respect to the Property, whether or not such defect or condition is disclosed by Tenant's inspection. Tenant will restore the Property to its condition as it existed at the commencement of the Option Term, reasonable wear and tear and loss by casualty or other causes beyond Tenant's control excepted.

(c) In consideration of Landlord granting Tenant the Option, Tenant agrees to pay Landlord the sum of [redacted] within thirty (30) business days after the Effective Date. The Option may be exercised during an initial term of one (1) year commencing on the Effective Date (the "**Initial Option Term**") which term may be renewed by Tenant for an additional one (1) year (the "**Renewal Option Term**") upon written notification to Landlord and the payment of an additional [redacted] no later than five (5) days prior to the expiration date of the Initial Option Term. The Initial Option Term and any Renewal Option Term are collectively referred to as the "**Option Term.**"

(d) The Option may be sold, assigned or transferred at any time by Tenant without the written consent of Landlord. Upon notification to Landlord of such sale, assignment, or transfer, Tenant shall immediately be released from any and all liability under this Agreement, including the payment of any rental or other sums due, without any further action.

(e) During the Option Term, Tenant may exercise the Option by notifying Landlord in writing. If Tenant exercises the Option, then Landlord leases the Premises to Tenant subject to the terms and conditions of this Agreement. If Tenant does not exercise the Option during the Initial Option Term or any extension thereof, this Agreement will terminate, and the parties will have no further liability to each other.

(f) If during the Option Term, or during the Term if the Option is exercised, Landlord decides to subdivide, sell, or change the status of the zoning of the Premises, Property or any of Landlord's contiguous, adjoining or surrounding property (the **"Surrounding Property,"**) or in the event of a threatened foreclosure, Landlord shall immediately notify Tenant in writing. Landlord agrees that during the Option Term, or during the Term if the Option is exercised, Landlord shall not initiate or consent to any change in the zoning of the Premises, Property or Surrounding Property or impose or consent to any other use or restriction that would prevent or limit Tenant from using the Premises for the Permitted Use. Any and all terms and conditions of this Agreement that by their sense and context are intended to be applicable during the Option Term shall be so applicable.

2. PERMITTED USE. Tenant may use the Premises for the transmission and reception of communications signals and the installation, construction, maintenance, operation, repair, replacement and upgrade of communications fixtures and related equipment, cables, accessories and improvements, which may include a suitable support structure (**"Structure"**), associated antennas, equipment shelters or cabinets and fencing and any other items necessary to the successful and secure use of the Premises (collectively, the **"Communication Facility"**), as well as the right to test, survey and review title on the Property; Tenant further has the right but not the obligation to add, modify and/or replace equipment in order to be in compliance with any current or future federal, state or local mandated application, including, but not limited to, emergency 911 communication services, at no additional cost to Tenant or Landlord (collectively, the **"Permitted Use"**). Landlord and Tenant agree that any portion of the Communication Facility that may be conceptually described on **Exhibit 1** will not be deemed to limit Tenant's Permitted Use. If **Exhibit 1** includes drawings of the initial installation of the Communication Facility, Landlord's execution of this Agreement will signify Landlord's approval of **Exhibit 1**. For a period of ninety (90) days following the start of construction, Landlord grants Tenant, its subtenants, licensees and sublicensees, the right to use such portions of the **Surrounding Property** as may reasonably be required during construction and installation of the Communication Facility. Tenant has the right to install and operate transmission cables from the equipment shelter or cabinet to the antennas, electric lines from the main feed to the equipment shelter or cabinet and communication lines from the Property's main entry point to the equipment shelter or cabinet, install a generator and to make other improvements, alterations, upgrades or additions appropriate for Tenant's Permitted Use including the right to construct a fence around the Premises or equipment, install warning signs to make individuals aware of risks, install protective barriers, install any other control measures reasonably required by Tenant's safety procedures or applicable law, and undertake any other appropriate means to secure the Premises or equipment at Tenant's expense. Tenant has the right to modify, supplement, replace, upgrade, expand the Communication Facility (including, for example, increasing the number of antennas or adding microwave dishes) or relocate the Communication Facility within the Premises at any time during the Term. Tenant will be allowed to make such alterations to the Property in order to ensure that the Communication Facility complies with all applicable federal, state or local laws, rules or regulations. In the event Tenant desires to modify or upgrade the Communication Facility, in a manner that requires an additional portion of the Property (the **"Additional Premises"**) for such modification or upgrade, Landlord agrees to lease to Tenant the Additional Premises, upon the same terms and conditions set forth herein, except that the Rent shall increase, in conjunction with the lease of the Additional Premises by the amount equivalent to the then-current per square foot rental rate charged by Landlord to Tenant times the square footage of the Additional Premises. Landlord agrees to take such actions and enter into and deliver to Tenant such documents as Tenant reasonably requests in order to effect and memorialize the lease of the Additional Premises to Tenant.

3. TERM.

(a) The initial lease term will be five (5) years (the **"Initial Term"**), commencing on the effective date of written notification by Tenant to Landlord of Tenant's exercise of the Option (the **"Term**

Commencement Date"). The Initial Term will terminate on the fifth (5th) anniversary of the Term Commencement Date.

(b) This Agreement will automatically renew for seventeen (17) additional five (5) year term(s) (each additional five (5) year term shall be defined as an "**Extension Term**"), upon the same terms and conditions set forth herein unless Tenant notifies Landlord in writing of Tenant's intention not to renew this Agreement at least sixty (60) days prior to the expiration of the Initial Term or then-existing Extension Term.

(c) Unless (i) Landlord or Tenant notifies the other in writing of its intention to terminate this Agreement at least six (6) months prior to the expiration of the final Extension Term, or (ii) the Agreement is terminated as otherwise permitted by this Agreement prior to the end of the final Extension Term, this Agreement shall continue in force upon the same covenants, terms and conditions for a further term of one (1) year, and for annual terms thereafter ("**Annual Term**") until terminated by either party by giving to the other party written notice of its intention to so terminate at least six (6) months prior to the end of any such Annual Term. Monthly rent during such Annual Terms shall be [redacted] If Tenant remains in possession of the Premises after the termination of this Agreement, then Tenant will be deemed to be occupying the Premises on a month-to-month basis (the "**Holdover Term**"), subject to the terms and conditions of this Agreement.

(d) The Initial Term, any Extension Terms, any Annual Terms and any Holdover Term are collectively referred to as the "**Term**".

4. **RENT.**

(a) Commencing on the first day of the month following the date that Tenant commences construction (the "**Rent Commencement Date**"), Tenant will pay Landlord on or before the fifth (5th) day of each calendar month in advance, [redacted] (the "**Rent**"), at the address set forth above. In any partial month occurring after the Rent Commencement Date, Rent will be prorated. The initial Rent payment will be forwarded by Tenant to Landlord within forty-five (45) days after the Rent Commencement Date.

(b) In year two (2) of the Initial Term, and each year thereafter, including throughout any Extension Terms exercised, the monthly Rent will increase by [redacted] over the Rent paid during the previous year, effective the first day of the month in which the anniversary of the Term Commencement Date occurs

(c) All charges payable under this Agreement such as utilities and taxes shall be billed by Landlord within one (1) year from the end of the calendar year in which the charges were incurred; any charges beyond such period shall not be billed by Landlord, and shall not be payable by Tenant. The foregoing shall not apply to monthly Rent which is due and payable without a requirement that it be billed by Landlord. The provisions of this subsection shall survive the termination or expiration of this Agreement.

5. **APPROVALS.**

(a) Landlord agrees that Tenant's ability to use the Premises is contingent upon the suitability of the Premises and Property for the Permitted Use and Tenant's ability to obtain and maintain all Government Approvals. Landlord authorizes Tenant to prepare, execute and file all required applications to obtain Government Approvals for the Permitted Use and agrees to reasonably assist Tenant with such applications and with obtaining and maintaining the Government Approvals.

(b) Tenant has the right to obtain a title report or commitment for a leasehold title policy from a title insurance company of its choice and to have the Property surveyed by a surveyor of its choice.

(c) Tenant may also perform and obtain, at Tenant's sole cost and expense, soil borings, percolation tests, engineering procedures, environmental investigation or other tests or reports on, over, and under the Property, necessary to determine if Tenant's use of the Premises will be compatible with Tenant's engineering specifications, system, design, operations or Government Approvals.

6. **TERMINATION.** This Agreement may be terminated, without penalty or further liability, as follows:

(a) by either party on thirty (30) days prior written notice, if the other party remains in default under Section 15 of this Agreement after the applicable cure periods.

(b) by Tenant upon written notice to Landlord, if Tenant is unable to obtain, or maintain, any required approval(s) or the issuance of a license or permit by any agency, board, court or other governmental authority necessary for the construction or operation of the Communication Facility as now or hereafter intended by Tenant; or if Tenant determines, in its sole discretion that the cost of or delay in obtaining or retaining the same is commercially unreasonable;

(c) by Tenant, upon written notice to Landlord, if Tenant determines, in its sole discretion, due to the title report results or survey results, that the condition of the Premises is unsatisfactory for its intended uses;

(d) by Tenant upon written notice to Landlord for any reason or no reason, at any time prior to commencement of construction by Tenant; or

(e) by Tenant upon sixty (60) days' prior written notice to Landlord for any reason or no reason, so long as Tenant pays Landlord a termination fee [redacted], provided, however, that no such termination fee will be payable on account of the termination of this Agreement by Tenant under any termination provision contained in any other Section of this Agreement, including the following: Section 5 Approvals, Section 6(a) Termination, Section 6(b) Termination, Section 6(c) Termination, Section 6(d) Termination, Section 11(d) Environmental, Section 18 Condemnation or Section 19 Casualty.

7. **INSURANCE.** During the Option Term and throughout the Term, Tenant will purchase and maintain in full force and effect such general liability policy as Tenant may deem necessary. Said policy of general liability insurance will at a minimum provide a combined single limit of [redacted] Notwithstanding the foregoing, Tenant shall have the right to self-insure such general liability coverage.

8. **INTERFERENCE.**

(a) Prior to or concurrent with the execution of this Agreement, Landlord has provided or will provide Tenant with a list of radio frequency user(s) and frequencies used on the Property as of the Effective Date. Tenant warrants that its use of the Premises will not interfere with those existing radio frequency uses on the Property, as long as the existing radio frequency user(s) operate and continue to operate within their respective frequencies and in accordance with all applicable laws and regulations.

(b) Landlord will not grant, after the Effective Date, a lease, license or any other right to any third party, if the exercise of such grant may in any way adversely affect or interfere with the Communication Facility, the operations of Tenant or the rights of Tenant under this Agreement. Landlord will notify Tenant in writing prior to granting any third party the right to install and operate communications equipment on the Property.

(c) Landlord will not, nor will Landlord permit its employees, tenants, licensees, invitees, agents or independent contractors to interfere in any way with the Communication Facility, the operations of Tenant or the rights of Tenant under this Agreement. Landlord will cause such interference to cease within twenty-four (24) hours after receipt of notice of interference from Tenant. In the event any such interference does not cease within the aforementioned cure period, Landlord shall cease all operations which are suspected of causing interference (except for intermittent testing to determine the cause of such interference) until the interference has been corrected.

(d) For the purposes of this Agreement, "interference" may include, but is not limited to, any use on the Property or Surrounding Property that causes electronic or physical obstruction with, or degradation of, the communications signals from the Communication Facility.

9. **INDEMNIFICATION.**

(a) Tenant agrees to indemnify, defend and hold Landlord harmless from and against any and all injury, loss, damage or liability , costs or expenses in connection with a third party claim (including reasonable attorneys' fees and court costs) arising directly from the installation, use, maintenance, repair or removal of the Communication Facility or Tenant's breach of any provision of this Agreement, except to the extent attributable to the negligent or intentional act or omission of Landlord, its employees, invitees, agents or independent contractors.

(b) Landlord agrees to indemnify, defend and hold Tenant harmless from and against any and all injury, loss, damage or liability , costs or expenses in connection with a third party claim (including reasonable

attorneys' fees and court costs) arising directly from the actions or failure to act of Landlord, its employees, invitees agents or independent contractors, or Landlord's breach of any provision of this Agreement, except to the extent attributable to the negligent or intentional act or omission of Tenant, its employees, agents or independent contractors.

(c) The indemnified party: (i) shall promptly provide the indemnifying party with written notice of any claim, demand, lawsuit, or the like for which it seeks indemnification pursuant to this Section and provide the indemnifying party with copies of any demands, notices, summonses, or legal papers received in connection with such claim, demand, lawsuit, or the like; (ii) shall not settle any such claim, demand, lawsuit, or the like without the prior written consent of the indemnifying party; and (iii) shall fully cooperate with the indemnifying party in the defense of the claim, demand, lawsuit, or the like. A delay in notice shall not relieve the indemnifying party of its indemnity obligation, except (1) to the extent the indemnifying party can show it was prejudiced by the delay; and (2) the indemnifying party shall not be liable for any settlement or litigation expenses incurred before the time when notice is given.

10. WARRANTIES.

(a) Each of Tenant and Landlord (to the extent not a natural person) acknowledge and represent that it is duly organized, validly existing and in good standing and has the right, power and authority or capacity, as applicable, to enter into this Agreement and bind itself hereto through the party or individual set forth as signatory for the party below.

(b) Landlord represents, warrants and agrees that: (i) Landlord solely owns the Property as a legal lot in fee simple, or controls the Property by lease or license; (ii) the Property is not and will not be encumbered by any liens, restrictions, mortgages, covenants, conditions, easements, leases, or any other agreements of record or not of record, which would adversely affect Tenant's Permitted Use and enjoyment of the Premises under this Agreement; (iii) as long as Tenant is not in default then Landlord grants to Tenant sole, actual, quiet and peaceful use, enjoyment and possession of the Premises without hindrance or ejection by any persons lawfully claiming under Landlord ; (iv) Landlord's execution and performance of this Agreement will not violate any laws, ordinances, covenants or the provisions of any mortgage, lease or other agreement binding on Landlord; and (v) if the Property is or becomes encumbered by a deed to secure a debt, mortgage or other security interest, Landlord will provide promptly to Tenant a mutually agreeable subordination, non-disturbance and attornment agreement executed by Landlord and the holder of such security interest in the form attached hereto as **Exhibit 10(b)**.

11. ENVIRONMENTAL.

(a) Landlord represents and warrants, except as may be identified in **Exhibit 11** attached to this Agreement, (i) the Property, as of the Effective Date, is free of hazardous substances, including asbestos-containing materials and lead paint, and (ii) the Property has never been subject to any contamination or hazardous conditions resulting in any environmental investigation, inquiry or remediation. Landlord and Tenant agree that each will be responsible for compliance with any and all applicable governmental laws, rules, statutes, regulations, codes, ordinances, or principles of common law regulating or imposing standards of liability or standards of conduct with regard to protection of the environment or worker health and safety, as may now or at any time hereafter be in effect, to the extent such apply to that party's activity conducted in or on the Property.

(b) Landlord and Tenant agree to hold harmless and indemnify the other from, and to assume all duties, responsibilities and liabilities at the sole cost and expense of the indemnifying party for, payment of penalties, sanctions, forfeitures, losses, costs or damages, and for responding to any action, notice, claim, order, summons, citation, directive, litigation, investigation or proceeding ("**Claims**"), to the extent arising from that party's breach of its obligations or representations under Section 11(a). Landlord agrees to hold harmless and indemnify Tenant from, and to assume all duties, responsibilities and liabilities at the sole cost and expense of Landlord for, payment of penalties, sanctions, forfeitures, losses, costs or damages, and for responding to any Claims, to the extent arising from subsurface or other contamination of the Property with hazardous substances prior to the Effective Date or from such contamination caused by the acts or omissions of Landlord during the Term. Tenant agrees to hold harmless and indemnify Landlord from, and to assume all duties, responsibilities and liabilities at the sole cost and expense of Tenant for, payment of penalties, sanctions, forfeitures, losses, costs

or damages, and for responding to any Claims, to the extent arising from hazardous substances brought onto the Property by Tenant.

(c) The indemnification provisions contained in this Section 11 specifically include reasonable costs, expenses and fees incurred in connection with any investigation of Property conditions or any clean-up, remediation, removal or restoration work required by any governmental authority. The provisions of this Section 11 will survive the expiration or termination of this Agreement.

(d) In the event Tenant becomes aware of any hazardous materials on the Property, or any environmental, health or safety condition or matter relating to the Property, that, in Tenant's sole determination, renders the condition of the Premises or Property unsuitable for Tenant's use, or if Tenant believes that the leasing or continued leasing of the Premises would expose Tenant to undue risks of liability to a government agency or other third party, Tenant will have the right, in addition to any other rights it may have at law or in equity, to terminate this Agreement upon written notice to Landlord.

12. **ACCESS.** At all times throughout the Term of this Agreement, and at no additional charge to Tenant, Tenant and its employees, agents, and subcontractors, will have twenty-four (24) hour per day, seven (7) day per week pedestrian and vehicular access ("**Access**") to and over the Property, from an open and improved public road to the Premises, for the installation, maintenance and operation of the Communication Facility and any utilities serving the Premises. As may be described more fully in **Exhibit 1**, Landlord grants to Tenant an easement for such Access and Landlord agrees to provide to Tenant such codes, keys and other instruments necessary for such Access at no additional cost to Tenant. Upon Tenant's request, Landlord will execute a separate recordable easement evidencing this right. Landlord shall execute a letter granting Tenant Access to the Property substantially in the form attached as **Exhibit 12**; upon Tenant's request, Landlord shall execute additional letters during the Term. Landlord acknowledges that in the event Tenant cannot obtain Access to the Premises, Tenant shall incur significant damage. If Landlord fails to provide the Access granted by this Section 12, such failure shall be a default under this Agreement. In connection with such default, in addition to any other rights or remedies available to Tenant under this Agreement or at law or equity, Landlord shall pay Tenant, as liquidated damages and not as a penalty, [redacted] per day in consideration of Tenant's damages until Landlord cures such default. Landlord and Tenant agree that Tenant's damages in the event of a denial of Access are difficult, if not impossible, to ascertain, and the liquidated damages set forth above are a reasonable approximation of such damages.

13. **REMOVAL/RESTORATION.** All portions of the Communication Facility brought onto the Property by Tenant will be and remain Tenant's personal property and, at Tenant's option, may be removed by Tenant at any time during or after the Term. Landlord covenants and agrees that no part of the Communication Facility constructed, erected or placed on the Premises by Tenant will become, or be considered as being affixed to or a part of, the Property, it being the specific intention of Landlord that all improvements of every kind and nature constructed, erected or placed by Tenant on the Premises will be and remain the property of Tenant and may be removed by Tenant at any time during or after the Term. Tenant will repair any damage to the Property resulting from Tenant's removal activities. Any portions of the Communication Facility that Tenant does not remove within one hundred twenty (120) days after the later of the end of the Term and cessation of Tenant's operations at the Premises shall be deemed abandoned and owned by Landlord. Notwithstanding the foregoing, Tenant will not be responsible for the replacement of any trees, shrubs or other vegetation.

14. **MAINTENANCE/UTILITIES.**

(a) Tenant will keep and maintain the Premises in good condition, reasonable wear and tear and damage from the elements excepted. Landlord will maintain and repair the Property and access thereto and all areas of the Premises where Tenant does not have exclusive control, in good and tenantable condition, subject to reasonable wear and tear and damage from the elements. Landlord will be responsible for maintenance of landscaping on the Property, including any landscaping installed by Tenant as a condition of this Agreement or any required permit.

(b) Tenant will be responsible for paying on a monthly or quarterly basis all utilities charges for electricity, telephone service or any other utility used or consumed by Tenant on the Premises. In the event

Tenant cannot secure its own metered electrical supply, Tenant will have the right, at its own cost and expense, to sub-meter from Landlord. When sub-metering is required under this Agreement, Landlord will read the meter and provide Tenant with an invoice and usage data on a monthly basis. Tenant shall reimburse Landlord for such utility usage at the same rate charged to Landlord by the utility service provider. Landlord further agrees to provide the usage data and invoice on forms provided by Tenant and to send such forms to such address and/or agent designated by Tenant. Tenant will remit payment within sixty (60) days of receipt of the usage data and required forms. Landlord shall maintain accurate and detailed records of all utility expenses, invoices and payments applicable to Tenant's reimbursement obligations hereunder. Within fifteen (15) days after a request from Tenant, Landlord shall provide copies of such utility billing records to the Tenant in the form of copies of invoices, contracts and cancelled checks. If the utility billing records reflect an overpayment by Tenant, Tenant shall have the right to deduct the amount of such overpayment from any monies due to Landlord from Tenant.

(c) As noted in Section 4(c) above, any utility fee recovery by Landlord is limited to a twelve (12) month period. If Tenant submeters electricity from Landlord, Landlord agrees to give Tenant at least twenty-four (24) hours advance notice of any planned interruptions of said electricity. Landlord acknowledges that Tenant provides a communication service which requires electrical power to operate and must operate twenty-four (24) hours per day, seven (7) days per week. If the interruption is for an extended period of time, in Tenant's reasonable determination, Landlord agrees to allow Tenant the right to bring in a temporary source of power for the duration of the interruption. Landlord will not be responsible for interference with, interruption of or failure, beyond the reasonable control of Landlord, of such services to be furnished or supplied by Landlord.

(d) Tenant will have the right to install utilities, at Tenant's expense, and to improve present utilities on the Property and the Premises. Landlord hereby grants to any service company providing utility or similar services, including electric power and telecommunications, to Tenant an easement over the Property, from an open and improved public road to the Premises, and upon the Premises, for the purpose of constructing, operating and maintaining such lines, wires, circuits, and conduits, associated equipment cabinets and such appurtenances thereto, as such service companies may from time to time require in order to provide such services to the Premises. Upon Tenant's or service company's request, Landlord will execute a separate recordable easement evidencing this grant, at no cost to Tenant or the service company.

15. DEFAULT AND RIGHT TO CURE.

(a) The following will be deemed a default by Tenant and a breach of this Agreement: (i) non-payment of Rent if such Rent remains unpaid for more than thirty (30) days after written notice from Landlord of such failure to pay; or (ii) Tenant's failure to perform any other term or condition under this Agreement within forty-five (45) days after written notice from Landlord specifying the failure. No such failure, however, will be deemed to exist if Tenant has commenced to cure such default within such period and provided that such efforts are prosecuted to completion with reasonable diligence. Delay in curing a default will be excused if due to causes beyond the reasonable control of Tenant. If Tenant remains in default beyond any applicable cure period, Landlord will have the right to exercise any and all rights and remedies available to it under law and equity.

(b) The following will be deemed a default by Landlord and a breach of this Agreement: (i) Landlord's failure to provide Access to the Premises as required by Section 12 within twenty-four (24) hours after written notice of such failure; (ii) Landlord's failure to cure an interference problem as required by Section 8 within twenty-four (24) hours after written notice of such failure; or (iii) Landlord's failure to perform any term, condition or breach of any warranty or covenant under this Agreement within forty-five (45) days after written notice from Tenant specifying the failure. No such failure, however, will be deemed to exist if Landlord has commenced to cure the default within such period and provided such efforts are prosecuted to completion with reasonable diligence. Delay in curing a default will be excused if due to causes beyond the reasonable control of Landlord. If Landlord remains in default beyond any applicable cure period, Tenant will have: (i) the right to cure Landlord's default and to deduct the costs of such cure from any monies due to Landlord from Tenant, and (ii) any and all other rights available to it under law and equity.

16. ASSIGNMENT/SUBLEASE. Tenant will have the right to assign this Agreement or sublease the Premises and its rights herein, in whole or in part, without Landlord's consent. Upon notification to Landlord of

such assignment, Tenant will be relieved of all future performance, liabilities and obligations under this Agreement to the extent of such assignment.

17. NOTICES. All notices, requests and demands hereunder will be given by first class certified or registered mail, return receipt requested, or by a nationally recognized overnight courier, postage prepaid, to be effective when properly sent and received, refused or returned undelivered. Notices will be addressed to the parties as follows:

If to Tenant:
Uniti Towers LLC
Attn: Real Estate
10801 Executive Center Drive
Shannon Building, Suite 100
Little Rock AR 72211
501.458.4724

CC:

Uniti Towers LLC
c/o Communications Infrastructure Services Co.
Attn: Legal
44 South Broadway, Suite 601
White Plains, NY 10601

For Emergencies: NOC 1-844-398-9716

If to Landlord:
Daniel U. Miller and Katie B. Miller, as to an undivided two-thirds (2/3) interest and
David J. Miller and Mary Ann Miller, as to an undivided one-third (1/3) interest
532 Walker Stewart Rd.
Horse Cave, KY 42129
Telephone: (270) 786-1260

Either party hereto may change the place for the giving of notice to it by thirty (30) days' prior written notice to the other party as provided herein.

18. CONDEMNATION. In the event Landlord receives notification of any condemnation proceedings affecting the Property, Landlord will provide notice of the proceeding to Tenant within twenty-four (24) hours. If a condemning authority takes all of the Property, or a portion sufficient, in Tenant's sole determination, to render the Premises unsuitable for Tenant, this Agreement will terminate as of the date the title vests in the condemning authority. The parties will each be entitled to pursue their own separate awards in the condemnation proceeds, which for Tenant will include, where applicable, the value of its Communication Facility, moving expenses, prepaid Rent, and business dislocation expenses. Tenant will be entitled to reimbursement for any prepaid Rent on a *pro rata* basis.

19. CASUALTY. Landlord will provide notice to Tenant of any casualty or other harm affecting the Property within twenty-four (24) hours of the casualty or other harm. If any part of the Communication Facility or Property is damaged by casualty or other harm as to render the Premises unsuitable, in Tenant's sole determination, then Tenant may terminate this Agreement by providing written notice to Landlord, which termination will be effective as of the date of such casualty or other harm. Upon such termination, Tenant will be entitled to collect all insurance proceeds payable to Tenant on account thereof and to be reimbursed for any prepaid Rent on a *pro rata* basis. Landlord agrees to permit Tenant to place temporary transmission and reception facilities on the Property, but only until such time as Tenant is able to activate a replacement transmission facility at another location; notwithstanding the termination of this Agreement, such temporary facilities will be

governed by all of the terms and conditions of this Agreement, including Rent. If Landlord or Tenant undertakes to rebuild or restore the Premises and/or the Communication Facility, as applicable, Landlord agrees to permit Tenant to place temporary transmission and reception facilities on the Property at no additional Rent until the reconstruction of the Premises and/or the Communication Facility is completed. If Landlord determines not to rebuild or restore the Property, Landlord will notify Tenant of such determination within thirty (30) days after the casualty or other harm. If Landlord does not so notify Tenant and Tenant decides not to terminate under this Section, then Landlord will promptly rebuild or restore any portion of the Property interfering with or required for Tenant's Permitted Use of the Premises to substantially the same condition as existed before the casualty or other harm. Landlord agrees that the Rent shall be abated until the Property and/or the Premises are rebuilt or restored, unless Tenant places temporary transmission and reception facilities on the Property.

20. WAIVER OF LANDLORD'S LIENS. Landlord waives any and all lien rights it may have, statutory or otherwise, concerning the Communication Facility or any portion thereof. The Communication Facility shall be deemed personal property for purposes of this Agreement, regardless of whether any portion is deemed real or personal property under applicable law; Landlord consents to Tenant's right to remove all or any portion of the Communication Facility from time to time in Tenant's sole discretion and without Landlord's consent.

21. TAXES (a) Landlord shall be responsible for (i) all taxes and assessments levied upon the lands, improvements and other property of Landlord including any such taxes that may be calculated by a taxing authority using any method, including the income method (ii) all sales, use, license, value added, documentary, stamp, gross receipts, registration, real estate transfer, conveyance, excise, recording, and other similar taxes and fees imposed in connection with this Agreement and (iii) all sales, use, license, value added, documentary, stamp, gross receipts, registration, real estate transfer, conveyance, excise, recording, and other similar taxes and fees imposed in connection with a sale of the Property or assignment of Rent payments by Landlord. Tenant shall be responsible for (y) any taxes and assessments attributable to and levied upon Tenant's leasehold improvements on the Premises if and as set forth in this Section 21 and (z) all sales, use, license, value added, documentary, stamp, gross receipts, registration, real estate transfer, conveyance, excise, recording, and other similar taxes and fees imposed in connection with an assignment of this Agreement or sublease by Tenant. Nothing herein shall require Tenant to pay any inheritance, franchise, income, payroll, excise, privilege, rent, capital stock, stamp, documentary, estate or profit tax, or any tax of similar nature, that is or may be imposed upon Landlord.

(b) In the event Landlord receives a notice of assessment with respect to which taxes or assessments are imposed on Tenant's leasehold improvements on the Premises, Landlord shall provide Tenant with copies of each such notice immediately upon receipt, but in no event later than thirty (30) days after the date of such notice of assessment. If Landlord does not provide such notice or notices to Tenant in a timely manner and Tenant's rights with respect to such taxes are prejudiced by the delay, Landlord shall reimburse Tenant for any increased costs directly resulting from the delay and Landlord shall be responsible for payment of the tax or assessment set forth in the notice, and Landlord shall not have the right to reimbursement of such amount from Tenant. If Landlord provides a notice of assessment to Tenant within such time period and requests reimbursement from Tenant as set forth below, then Tenant shall reimburse Landlord for the tax or assessments identified on the notice of assessment on Tenant's leasehold improvements, which has been paid by Landlord. If Landlord seeks reimbursement from Tenant, Landlord shall, no later than thirty (30) days after Landlord's payment of the taxes or assessments for the assessed tax year, provide Tenant with written notice including evidence that Landlord has timely paid same, and Landlord shall provide to Tenant any other documentation reasonably requested by Tenant to allow Tenant to evaluate the payment and to reimburse Landlord.

(c) For any tax amount for which Tenant is responsible under this Agreement, Tenant shall have the right to contest, in good faith, the validity or the amount thereof using such administrative, appellate or other proceedings as may be appropriate in the jurisdiction, and may defer payment of such obligations, pay same under protest, or take such other steps as permitted by law. This right shall include the ability to institute any legal, regulatory or informal action in the name of Landlord, Tenant, or both, with respect to the valuation of the Premises. Landlord shall cooperate with respect to the commencement and prosecution of any such proceedings and will execute any documents required therefor. The expense of any such proceedings shall be borne by Tenant and any refunds or rebates secured as a result of Tenant's action shall belong to Tenant, to the extent the amounts

were originally paid by Tenant. In the event Tenant notifies Landlord by the due date for assessment of Tenant's intent to contest the assessment, Landlord shall not pay the assessment pending conclusion of the contest, unless required by applicable law.

(d) Landlord shall not split or cause the tax parcel on which the Premises are located to be split, bifurcated, separated or divided without the prior written consent of Tenant.

(e) Tenant shall have the right but not the obligation to pay any taxes due by Landlord hereunder if Landlord fails to timely do so, in addition to any other rights or remedies of Tenant. In the event that Tenant exercises its rights under this Section 21(e) due to such Landlord default, Tenant shall have the right to deduct such tax amounts paid from any monies due to Landlord from Tenant as provided in Section 15(b), provided that Tenant may exercise such right without having provided to Landlord notice and the opportunity to cure per Section 15(b).

(f) Any tax-related notices shall be sent to Tenant in the manner set forth in Section 17. Promptly after the Effective Date of this Agreement, Landlord shall provide the Notice address set forth in Section 17 to the taxing authority for the authority's use in the event the authority needs to communicate with Tenant. In the event that Tenant's tax address changes by notice to Landlord, Landlord shall be required to provide Tenant's new tax address to the taxing authority or authorities.

(g) Notwithstanding anything to the contrary contained in this Section 21, Tenant shall have no obligation to reimburse any tax or assessment for which the Landlord is reimbursed or rebated by a third party.

22. SALE OF PROPERTY.

(a) Landlord may sell the Property or a portion thereof to a third party, provided: (i) the sale is made subject to the terms of this Agreement; and (ii) if the sale does not include the assignment of Landlord's full interest in this Agreement, the purchaser must agree to perform, without requiring compensation from Tenant or any subtenant, any obligation of Landlord under this Agreement, including Landlord's obligation to cooperate with Tenant as provided hereunder.

(b) If Landlord, at any time during the Term of this Agreement, decides to rezone or sell, subdivide or otherwise transfer all or any part of the Premises, or all or any part of the Property or Surrounding Property, to a purchaser other than Tenant, Landlord shall promptly notify Tenant in writing, and such rezoning, sale, subdivision or transfer shall be subject to this Agreement and Tenant's rights hereunder. In the event of a change in ownership, transfer or sale of the Property, within ten (10) days of such transfer, Landlord or its successor shall send the documents listed below in this Section 22(b) to Tenant. Until Tenant receives all such documents, Tenant's failure to make payments under this Agreement shall not be an event of default and Tenant reserves the right to hold payments due under this Agreement.

i. Old deed to Property
ii. New deed to Property
iii. Bill of Sale or Transfer
iv. Copy of current Tax Bill
v. New IRS Form W-9
vi. Completed and Signed Tenant Payment Direction Form
vii. Full contact information for new Landlord including phone number(s)

(c) Landlord agrees not to sell, lease or use any areas of the Property or Surrounding Property for the installation, operation or maintenance of other wireless communication facilities if such installation, operation or maintenance would interfere with Tenant's Permitted Use or communications equipment as determined by radio propagation tests performed by Tenant in its sole discretion. Landlord or Landlord's prospective purchaser shall reimburse Tenant for any costs and expenses of such testing. If the radio frequency propagation tests demonstrate levels of interference unacceptable to Tenant, Landlord shall be prohibited from selling, leasing or using any areas of the Property or the Surrounding Property for purposes of any installation, operation or maintenance of any other wireless communication facility or equipment.

(d) The provisions of this Section shall in no way limit or impair the obligations of Landlord under this Agreement, including interference and access obligations.

23. **RIGHT OF FIRST REFUSAL**. Notwithstanding the provisions contained in Section 22, if at any time after the Effective Date, Landlord receives a bona fide written offer from a third party seeking any sale, conveyance, assignment or transfer, whether in whole or in part, of any property interest in or related to the Premises, including without limitation any offer seeking an assignment or transfer of the Rent payments associated with this Agreement or an offer to purchase an easement with respect to the Premises ("**Offer**"), Landlord shall immediately furnish Tenant with a copy of the Offer. Tenant shall have the right within ninety (90) days after it receives such copy to match the financial terms of the Offer and agree in writing to match such terms of the Offer. Such writing shall be in the form of a contract substantially similar to the Offer, but Tenant may assign its rights to a third party. If Tenant chooses not to exercise this right or fails to provide written notice to Landlord within the ninety (90) day period, Landlord may sell, convey, assign or transfer such property interest in or related to the Premises pursuant to the Offer, subject to the terms of this Agreement. If Landlord attempts to sell, convey, assign or transfer such property interest in or related to the Premises without complying with this Section 23, the sale, conveyance, assignment or transfer shall be void. Tenant shall not be responsible for any failure to make payments under this Agreement and reserves the right to hold payments due under this Agreement until Landlord complies with this Section 23. Tenant's failure to exercise the right of first refusal shall not be deemed a waiver of the rights contained in this Section 23 with respect to any future proposed conveyances as described herein.

24. **MISCELLANEOUS.**

(a) **Amendment/Waiver.** This Agreement cannot be amended, modified or revised unless done in writing and signed by Landlord and Tenant. No provision may be waived except in a writing signed by both parties. The failure by a party to enforce any provision of this Agreement or to require performance by the other party will not be construed to be a waiver, or in any way affect the right of either party to enforce such provision thereafter.

(b) **Memorandum.** Contemporaneously with the execution of this Agreement, the parties will execute a recordable Memorandum of Lease substantially in the form attached as **Exhibit 24b**. Either party may record this Memorandum of Lease at any time during the Term, in its absolute discretion. Thereafter during the Term, either party will, at any time upon fifteen (15) business days' prior written notice from the other, execute, acknowledge and deliver to the other a recordable Memorandum of Lease.

(c) **Limitation of Liability**. Except for the indemnity obligations set forth in this Agreement, and otherwise notwithstanding anything to the contrary in this Agreement, Tenant and Landlord each waives any claims that each may have against the other with respect to consequential, incidental or special damages, however caused, based on any theory of liability.

(d) **Compliance with Law**. Tenant agrees to comply with all federal, state and local laws, orders, rules and regulations ("**Laws**") applicable to Tenant's use of the Communication Facility on the Property. Landlord agrees to comply with all Laws relating to Landlord's ownership and use of the Property and any improvements on the Property.

(e) **Bind and Benefit.** The terms and conditions contained in this Agreement will run with the Property and bind and inure to the benefit of the parties, their respective heirs, executors, administrators, successors and assigns.

(f) **Entire Agreement.** This Agreement and the exhibits attached hereto, all being a part hereof, constitute the entire agreement of the parties hereto and will supersede all prior offers, negotiations and agreements with respect to the subject matter of this Agreement. Exhibits are numbered to correspond to the Section wherein they are first referenced. Except as otherwise stated in this Agreement, each party shall bear its own fees and expenses (including the fees and expenses of its agents, brokers, representatives, attorneys, and accountants) incurred in connection with the negotiation, drafting, execution and performance of this Agreement and the transactions it contemplates.

(g) **Governing Law.** This Agreement will be governed by the laws of the state in which the Premises are located, without regard to conflicts of law.

(h) **Interpretation.** Unless otherwise specified, the following rules of construction and interpretation apply: (i) captions are for convenience and reference only and in no way define or limit the

construction of the terms and conditions hereof; (ii) use of the term "including" will be interpreted to mean "including but not limited to"; (iii) whenever a party's consent is required under this Agreement, except as otherwise stated in the Agreement or as same may be duplicative, such consent will not be unreasonably withheld, conditioned or delayed; (iv) exhibits are an integral part of this Agreement and are incorporated by reference into this Agreement; (v) use of the terms "termination" or "expiration" are interchangeable; (vi) reference to a default will take into consideration any applicable notice, grace and cure periods; (vii) to the extent there is any issue with respect to any alleged, perceived or actual ambiguity in this Agreement, the ambiguity shall not be resolved on the basis of who drafted the Agreement; (viii) the singular use of words includes the plural where appropriate and (ix) if any provision of this Agreement is held invalid, illegal or unenforceable, the remaining provisions of this Agreement shall remain in full force if the overall purpose of the Agreement is not rendered impossible and the original purpose, intent or consideration is not materially impaired.

(i) **Affiliates.** All references to "Tenant" shall be deemed to include any Affiliate of Uniti Towers LLC using the Premises for any Permitted Use or otherwise exercising the rights of Tenant pursuant to this Agreement. "Affiliate" means with respect to a party to this Agreement, any person or entity that (directly or indirectly) controls, is controlled by, or under common control with, that party. "Control" of a person or entity means the power (directly or indirectly) to direct the management or policies of that person or entity, whether through the ownership of voting securities, by contract, by agency or otherwise.

(j) **Survival.** Any provisions of this Agreement relating to indemnification shall survive the termination or expiration hereof. In addition, any terms and conditions contained in this Agreement that by their sense and context are intended to survive the termination or expiration of this Agreement shall so survive.

(k) **W-9.** As a condition precedent to payment, Landlord agrees to provide Tenant with a completed IRS Form W-9, or its equivalent, upon execution of this Agreement and at such other times as may be reasonably requested by Tenant, including any change in Landlord's name or address.

(l) **Execution/No Option.** The submission of this Agreement to any party for examination or consideration does not constitute an offer, reservation of or option for the Premises based on the terms set forth herein. This Agreement will become effective as a binding Agreement only upon the handwritten legal execution, acknowledgment and delivery hereof by Landlord and Tenant. This Agreement may be executed in two (2) or more counterparts, all of which shall be considered one and the same agreement and shall become effective when one or more counterparts have been signed by each of the parties. All parties need not sign the same counterpart.

(m) **Attorneys' Fees.** In the event that any dispute between the parties related to this Agreement should result in litigation, the prevailing party in such litigation shall be entitled to recover from the other party all reasonable fees and expenses of enforcing any right of the prevailing party, including reasonable attorneys' fees and expenses. Prevailing party means the party determined by the court to have most nearly prevailed even if such party did not prevail in all matters. This provision will not be construed to entitle any party other than Landlord, Tenant and their respective Affiliates to recover their fees and expenses.

(n) **WAIVER OF JURY TRIAL.** EACH PARTY, TO THE EXTENT PERMITTED BY LAW, KNOWINGLY, VOLUNTARILY AND INTENTIONALLY WAIVES ITS RIGHT TO A TRIAL BY JURY IN ANY ACTION OR PROCEEDING UNDER ANY THEORY OF LIABILITY ARISING OUT OF OR IN ANY WAY CONNECTED WITH THIS AGREEMENT OR THE TRANSACTIONS IT CONTEMPLATES.

(o) **Incidental Fees.** Unless specified in this Agreement, no unilateral fees or additional costs or expenses are to be applied by either party to the other party, including review of plans, structural analyses, consents, provision of documents or other communications between the parties.

(p) **Further Acts.** Upon request, Landlord will cause to be promptly and duly taken, executed, acknowledged and delivered all such further acts, documents, and assurances as Tenant may request from time to time in order to effectuate, carry out and perform all of the terms, provisions and conditions of this Agreement and all transactions and permitted use contemplated by this Agreement.

(q) **Force Majeure.** No party shall be liable or responsible to the other party, nor be deemed to have defaulted under or breached this Agreement, for any failure or delay in fulfilling or performing any term of this Agreement, when and to the extent such failure or delay is caused by or results from acts beyond the affected party's reasonable control, including, without limitation: (a) acts of God; (b) flood, fire, earthquake, or explosion; (c) war, invasion, hostilities (whether war is declared or not), terrorist threats or acts, riot, or other civil unrest;

(d) government order or law; (e) embargoes, or blockades in effect on or after the date of this Agreement; (f) action by any governmental authority; (g) national or regional emergency; and (h) strikes, labor stoppages or slowdowns, or other industrial disturbances. The party suffering a force majeure event shall give written notice to the other party, stating the period of time the occurrence is expected to continue and shall use diligent efforts to end the failure or delay and ensure the effects of such force majeure event are minimized.

[SIGNATURES APPEAR ON NEXT PAGE]

IN WITNESS WHEREOF, the parties have caused this Agreement to be effective as of the last date written below.

"LANDLORD"

Daniel U. Miller and Katie B. Miller, as to an undivided two-thirds (2/3) interest and David J. Miller and Mary Ann Miller, as to an undivided one-third (1/3) interest

By: _____
Print Name: Daniel U. Miller
Date: 10-21-2020

By: Katie B Miller
Print Name: Katie B. Miller
Date: 10-21-20

By: _____
Print Name: David J. Miller
Date: 10-22-20

By: Mary Ann Miller
Print Name: Mary Ann Miller
Date: 10-22-20

"TENANT"

Uniti Towers LLC

By: _____
Print Name: _____
Its: _____
Date: 11/4/2020

[ACKNOWLEDGMENTS APPEAR ON NEXT PAGE]

TENANT ACKNOWLEDGMENT

STATE OF ARKANSAS

COUNTY OF PULASKI

On the 4 day of November, 2020, before me personally appeared Ginger Majors, who acknowledged under oath that he/ (she) is the VP-Real Estate of Uniti Towers LLC, the Tenant named in the attached instrument, and as such was authorized to execute this instrument on behalf of the Tenant.

WARD
...ty
...704184
Notary Public - Arkansas
My Commission Expires April 30, 2028

Sam Howard
Notary Public: Sam Howard
My Commission Expires: 4-30-2028

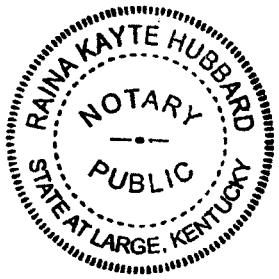
SAM HOWARD
Saline County
Commission Number 12704184
Notary Public - Arkansas
My Commission Expires April 30, 2028

LANDLORD ACKNOWLEDGMENT

STATE OF KY

COUNTY OF Hart

BE IT REMEMBERED, that on this 21st day of October, 2020 before me, the subscriber, a person authorized to take oaths in the State of Kentucky, personally appeared **Daniel U. Miller** who, being duly sworn on his/her/their oath, deposed and made proof to my satisfaction that he/she/they is/are the person(s) named in the within instrument; and I, having first made known to him/her/them the contents thereof, he/she/they did acknowledge that he/she/they signed, sealed and delivered the same as his/her/their voluntary act and deed for the purposes therein contained.



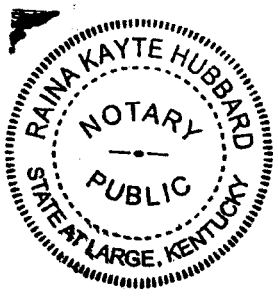
Notary Public: Raina Kayte Hubbard ID#635956
My Commission Expires: 6/3/2023

LANDLORD ACKNOWLEDGMENT

STATE OF KY

COUNTY OF Hart

BE IT REMEMBERED, that on this 21st day of October, 2020 before me, the subscriber, a person authorized to take oaths in the State of Kentucky, personally appeared **Katie B. Miller** who, being duly sworn on his/her/their oath, deposed and made proof to my satisfaction that he/she/they is/are the person(s) named in the within instrument; and I, having first made known to him/her/them the contents thereof, he/she/they did acknowledge that he/she/they signed, sealed and delivered the same as his/her/their voluntary act and deed for the purposes therein contained.



Notary Public: Raina Kayte Hubbard ID#635956
My Commission Expires: 6/3/2023

LANDLORD ACKNOWLEDGMENT

STATE OF Kentucky

COUNTY OF Hart

BE IT REMEMBERED, that on this 22 day of October, 20 20 before me, the subscriber, a person authorized to take oaths in the State of Kentucky, personally appeared **David J. Miller** who, being duly sworn on his/her/their oath, deposed and made proof to my satisfaction that he/she/they is/are the person(s) named in the within instrument; and I, having first made known to him/her/them the contents thereof, he/she/they did acknowledge that he/she/they signed, sealed and delivered the same as his/her/their voluntary act and deed for the purposes therein contained.

Sharon Williams

Notary Public: 577993

My Commission Expires: 4/21/24

LANDLORD ACKNOWLEDGMENT

STATE OF Kentucky

COUNTY OF Hart

BE IT REMEMBERED, that on this 22 day of October, 20 20 before me, the subscriber, a person authorized to take oaths in the State of Kentucky, personally appeared **Mary Ann Miller** who, being duly sworn on his/her/their oath, deposed and made proof to my satisfaction that he/she/they is/are the person(s) named in the within instrument; and I, having first made known to him/her/them the contents thereof, he/she/they did acknowledge that he/she/they signed, sealed and delivered the same as his/her/their voluntary act and deed for the purposes therein contained.

Sharon Williams

Notary Public: 577993

My Commission Expires: 4/21/24

EXHIBIT 1

DESCRIPTION OF PREMISES

to the Option and Lease Agreement dated November 4, 2020, by and between Daniel U. Miller and Katie B. Miller, as to an undivided two-thirds (2/3) interest and David J. Miller and Mary Ann Miller, as to an undivided one-third (1/3) interest, as Landlord, and Uniti Towers LLC, a Delaware limited liability company, as Tenant.

The Property is legally described as follows:
A portion of the property of Daniel U. Miller et al (Deed Book 126, Page 675 and a Plat in Slide A 1207 - a portion of Tracts #2 and #3 recorded in the office of the Metcalfe County Court Clerk) located in Metcalfe County, Kentucky and being more particularly described as follows:
Unless otherwise specified, any monument referred to herein as a set iron pin is a 1/2" x 18" rebar with a yellow plastic surveyors cap stamped JD Nance RLS 3014. All bearings stated herein are based on geodetic north as observed April 24th, 2020.
Beginning at a set iron pin on the r\w of the Billy Sparks Road (30 ft. r/w) a new corner to Daniel U. Miller et al (Deed Book 126, Page 675 and a Plat min Slide A 1207 - a portion of Tract #2); theme with the r/w S 82 deg. 33 min. 38 sec. E 170.41 ft.; thence S 89 deg. 04 min. 28 sec. E 110.16 ft.; thence N 72 deg. 29 min. 28 sec. E 161.89 ft.; thence N 73 deg. 22 min. 53 sec. E 127.01 ft.; thence N 80 deg. 47 min. 16 sec. E 106.27 ft. to a set iron pin on the r\w (referenced S 71 deg. 20 min. 17 sec. W 232.44 ft. from an existing iron pin with cap #3013 at a 24" white oak on the north side of the road, a corner to Tracts #3 and #6 and Brown) a new corner to Daniel U. Miller et al (Deed Book 126, Page 675 and a Plat min Slide A 1207 - a portion of Tract #3); thence severing the land of Miler with two new lines S 26 deg. 13 min. 05 sec. W 588.26 fl. To a set iron pin; thence N 41 deg. 40 min. 43 sec. W 601.89 ft. to the beginning containing 3.36 acres, more or less.
AND BEING a portion of the same property conveyed to Daniel U. Miller and Katie B. Miller and David J. Miller and Mary Ann Miller from T & L Investments, Inc., a Kentucky corporation by Deed of Conveyance dated January 26, 2005 and recorded February 9, 2005 in Deed Book 126, Page 675; AND FURTHER CONVEYED to Daniel U. Miller and Katie B. Miller, as to an undivided two-thirds (2/3) interest and David J. Miller and Mary Ann Miller, as to an undivided one-third (1/3) interest from Daniel U. Miller, Katie B. Miller, David J. Miller and Mary Ann Miller by Deed of Conveyance dated June
28, 2020 and recorded August 3, 2020 in Deed Book 166, Page 507.
Tax Parcel No. 075-00-00-006.08

The Premises are described and/or depicted as follows:
LEASE AREA
All that tract or parcel of land lying and being in Metcalfe County, Kentucky, being a portion of the lands of Daniel U. Miller and wife, Katie B. Miller and David J. Miller and wife, Mary Ann Miller, as recorded in Deed Book 126 Page 675, Metcalfe County records, being described by the following centerline data:

To find the point of beginning, commence at an axle found on the southerly right-of-way line of Billy Sparks Road (also known as County Road 1022 and having a 30-foot right-of-way), said axle marking the northeast corner of Tract No. 1 of said lands recorded in Deed Book 126 Page 675, said axle having a Kentucky Grid North, NAD83, Single Zone Value of N=3529581.2041 E=4988372.3656; thence along said southerly right-of-way line of Billy Sparks Road, South 68°22'08" East, 69.18 feet to a point; thence, South 76°49'08" East, 183.23 feet to a point; thence, South 82°33'37" East, 170.41 feet to a point; thence, South 89°04'18" East, 110.16 feet to a point; thence, North 72°29'29" East, 18.71 feet to a point having a Kentucky Grid North, NAD83, Single Zone Value of N=3529495.6977 E=4988912.0390; thence leaving said southerly right-of-way line of Billy Sparks Road and running, South 17°37'58" East, 74.98 feet to a point on the north line of the Lease Area; thence along said Lease Area, North 72°22'02" East, 50.00 feet to a point and the true POINT OF BEGINNING; Thence

running, South 17°37'58" East, 100.00 feet to a point; Thence, South 72°22'02" West, 100.00 feet to a point; Thence, North 17°37'58" West, 100.00 feet to a point; Thence, North 72°22'02" East, 100.00 feet to a point and the POINT OF BEGINNING. Said tract contains 0.2296 acres (10,000 square feet), more or less, as shown in a survey prepared for Uniti Towers, LLC by POINT TO POINT LAND SURVEYORS, INC. dated April 24, 2020.

30' INGRESS-EGRESS & UTILITY EASEMENT

Together with a 30-foot wide ingress-egress and utility easement (lying 15 feet each side of centerline) lying and being in Metcalfe County, Kentucky, being a portion of the lands of Daniel U. Miller and wife, Katie B. Miller and David J. Miller and wife, Mary Ann Miller, as recorded in Deed Book 126 Page 675, Metcalfe County records, being described by the following centerline data:

To find the point of beginning, commence at an axle found on the southerly right-of-way line of Billy Sparks Road (also known as County Road 1022 and having a 30-foot right-of-way), said axle marking the northeast corner of Tract No. 1 of said lands recorded in Deed Book 126 Page 675, said axle having a Kentucky Grid North, NAD83, Single Zone Value of N=3529581.2041 E=4988372.3656; thence along said southerly right-of-way line of Billy Sparks Road, South 68°22'08" East, 69.18 feet to a point; thence, South 76°49'08" East, 183.23 feet to a point; thence, South 82°33'37" East, 170.41 feet to a point; thence, South 89°04'18" East, 110.16 feet to a point; thence, North 72°29'29" East, 18.71 feet to a point having a Kentucky Grid North, NAD83, Single Zone Value of N=3529495.6977 E=4988912.0390 and the true POINT OF BEGINNING; Thence leaving said southerly right-of-way line of Billy Sparks Road and running, South 17°37'58" East, 74.98 feet to the ENDING at a point on the north line of the Lease Area.
As shown in a survey prepared for Uniti Towers, LLC by POINT TO POINT LAND SURVEYORS, INC. dated April 24, 2020.

30' GUY WIRE EASEMENT #1

Together with a 30-foot wide guy wire easement (lying 15 feet each side of centerline and extending 15 feet past termination of centerline) lying and being in Metcalfe County, Kentucky, being a portion of the lands of Daniel U. Miller and wife, Katie B. Miller and David J. Miller and wife, Mary Ann Miller, as recorded in Deed Book 126 Page 675, Metcalfe County records, being described by the following centerline data:

To find the point of beginning, commence at an axle found on the southerly right-of-way line of Billy Sparks Road (also known as County Road 1022 and having a 30-foot right-of-way), said axle marking the northeast corner of Tract No. 1 of said lands recorded in Deed Book 126 Page 675, said axle having a Kentucky Grid North, NAD83, Single Zone Value of N=3529581.2041 E=4988372.3656; thence along said southerly right-of-way line of Billy Sparks Road, South 68°22'08" East, 69.18 feet to a point; thence, South 76°49'08" East, 183.23 feet to a point; thence, South 82°33'37" East, 170.41 feet to a point; thence, South 89°04'18" East, 110.16 feet to a point; thence, North 72°29'29" East, 18.71 feet to a point having a Kentucky Grid North, NAD83, Single Zone Value of N=3529495.6977 E=4988912.0390; thence leaving said southerly right-of-way line of Billy Sparks Road and running, South 17°37'58" East, 74.98 feet to a point on the north line of the Lease Area; thence along said Lease Area, North 72°22'02" East, 50.00 feet to a point; thence, South 17°37'58" East, 27.53 feet to a point and the true POINT OF BEGINNING; Thence leaving said Lease Area and running, North 48°10'09" East, 189.18 feet to the ENDING at a point.
As shown in a survey prepared for Uniti Towers, LLC by POINT TO POINT LAND SURVEYORS, INC. dated April 24, 2020.

30' GUY WIRE EASEMENT #2

Together with a 30-foot wide guy wire easement (lying 15 feet each side of centerline and extending 15 feet past termination of centerline) lying and being in Metcalfe County, Kentucky, being a portion of the lands of Daniel U. Miller and wife, Katie B. Miller and David J. Miller and wife, Mary Ann Miller, as recorded in Deed Book 126 Page 675, Metcalfe County records, being described by the following centerline data:

To find the point of beginning, commence at an axle found on the southerly right-of-way line of Billy Sparks Road (also known as County Road 1022 and having a 30-foot right-of-way), said axle marking the northeast corner of Tract No. 1 of said lands recorded in Deed Book 126 Page 675, said axle having a Kentucky Grid North, NAD83, Single Zone Value of N=3529581.2041 E=4988372.3656; thence along said southerly right-of-way line of Billy Sparks Road, South 68°22'08" East, 69.18 feet to a point; thence, South 76°49'08" East, 183.23 feet to a point; thence, South 82°33'37" East, 170.41 feet to a point; thence, South 89°04'18" East, 110.16 feet to a point; thence, North 72°29'29" East, 18.71 feet to a point having a Kentucky Grid North, NAD83, Single Zone Value of N=3529495.6977 E=4988912.0390; thence leaving said southerly right-of-way line of Billy Sparks Road and running, South 17°37'58" East, 74.98 feet to a point on the north line of the Lease Area;

thence along said Lease Area, North 72°22'02" East, 50.00 feet to a point; thence, South 17°37'58" East, 100.00 feet to a point; thence, South 72°22'02" West, 55.08 feet to a point and the true POINT OF BEGINNING; Thence leaving said Lease Area and running, South 11°49'51" East, 193.74 feet to the ENDING at a point.
As shown in a survey prepared for Uniti Towers, LLC by POINT TO POINT LAND SURVEYORS, INC. dated April 24, 2020.

30' GUY WIRE EASEMENT #3
Together with a 30-foot wide guy wire easement (lying 15 feet each side of centerline and extending 15 feet past termination of centerline) lying and being in Metcalfe County, Kentucky, being a portion of the lands of Daniel U. Miller and wife, Katie B. Miller and David J. Miller and wife, Mary Ann Miller, as recorded in Deed Book 126 Page 675, Metcalfe County records, being described by the following centerline data:

To find the point of beginning, commence at an axle found on the southerly right-of-way line of Billy Sparks Road (also known as County Road 1022 and having a 30-foot right-of-way), said axle marking the northeast corner of Tract No. 1 of said lands recorded in Deed Book 126 Page 675, said axle having a Kentucky Grid North, NAD83, Single Zone Value of N=3529581.2041 E=4988372.3656; thence along said southerly right-of-way line of Billy Sparks Road, South 68°22'08" East, 69.18 feet to a point; thence, South 76°49'08" East, 183.23 feet to a point; thence, South 82°33'37" East, 170.41 feet to a point; thence, South 89°04'18" East, 110.16 feet to a point; thence, North 72°29'29" East, 18.71 feet to a point having a Kentucky Grid North, NAD83, Single Zone Value of N=3529495.6977 E=4988912.0390; thence leaving said southerly right-of-way line of Billy Sparks Road and running, South 17°37'58" East, 74.98 feet to a point on the north line of the Lease Area; thence along said Lease Area, North 72°22'02" East, 50.00 feet to a point; thence, South 17°37'58" East, 100.00 feet to a point; thence, South 72°22'02" West, 100.00 feet to a point; thence, North 17°37'58" West, 86.06 feet to a point and the true POINT OF BEGINNING; Thence leaving said Lease Area and running, North 71°49'51" West, 178.35 feet to the ENDING at a point.
As shown in a survey prepared for Uniti Towers, LLC by POINT TO POINT LAND SURVEYORS, INC. dated April 24, 2020.

Notes:

1. THIS EXHIBIT MAY BE REPLACED BY A LAND SURVEY AND/OR CONSTRUCTION DRAWINGS OF THE PREMISES ONCE RECEIVED BY TENANT.
2. ANY SETBACK OF THE PREMISES FROM THE PROPERTY'S BOUNDARIES SHALL BE THE DISTANCE REQUIRED BY THE APPLICABLE GOVERNMENT AUTHORITIES.
3. WIDTH OF ACCESS ROAD SHALL BE THE WIDTH REQUIRED BY THE APPLICABLE GOVERNMENT AUTHORITIES, INCLUDING POLICE AND FIRE DEPARTMENTS.
4. THE TYPE, NUMBER AND MOUNTING POSITIONS AND LOCATIONS OF ANTENNAS AND TRANSMISSION LINES ARE ILLUSTRATIVE ONLY. ACTUAL TYPES, NUMBERS AND MOUNTING POSITIONS MAY VARY FROM WHAT IS SHOWN ABOVE.

PARENT PARCEL

OWNER: DANIEL U. MILLER AND KATIE B. MILLER, AS TO AN UNDIVIDED TWO-THIRDS (2/3) INTEREST AND DAVID J. MILLER AND MARY ANN MILLER, AS TO AN UNDIVIDED ONE-THIRD (1/3) INTEREST

SITE ADDRESS: BILLY SPARKS RD., EDMONTON, KY 42129

PARCEL ID: 075-00-00-006.08

AREA: 154.69 ACRES (PER TAX ASSESSOR)

ALL ZONING INFORMATION SHOULD BE VERIFIED WITH THE PROPER ZONING OFFICIALS

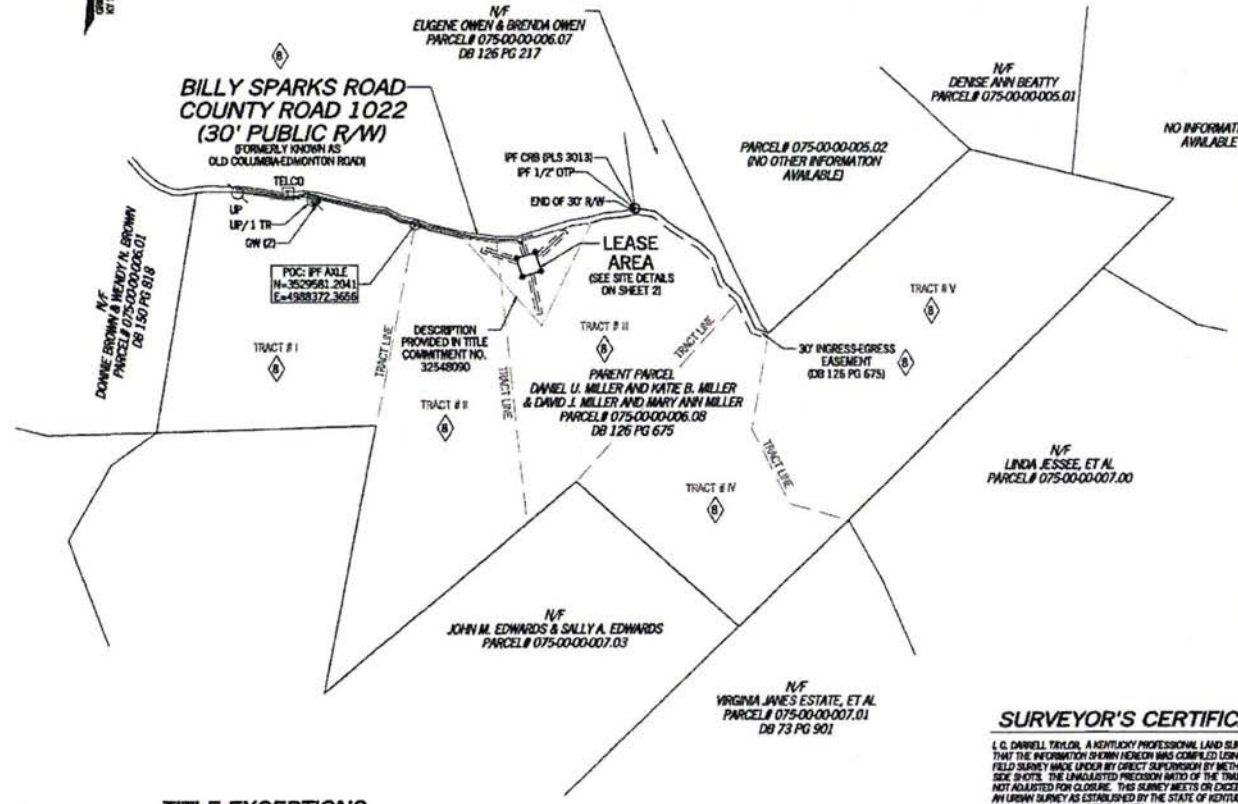
REFERENCE: DEED BOOK 126 PAGE 675

GPS NOTES

THE FOLLOWING GPS STATISTICS UPON WHICH THIS SURVEY IS BASED HAVE BEEN PRODUCED AT THE 95% CONFIDENCE LEVEL:

POSITIONAL ACCURACY: 0.03 FEET (HORZ) 0.13 FEET (VERT)
TYPE OF EQUIPMENT: GEOMAX ZENITH35 PRO BASE AND ROVER, DUAL FREQUENCY
TYPE OF GPS FIELD PROCEDURE: ONLINE POSITION USER INTERFACE
DATES OF SURVEY: 04/21/2020
DATUM / EPOCH: NAD_83(2011)EPOCH:2010.00000
PUBLISHED / FIXED CONTROL USE: N/A
GEOID MODEL: 18
COMBINED GRID FACTOR(S): 0.99997727 CENTERED ON THE GPS BASE POINT AS SHOWN HEREON.
CONVERGENCE ANGLE: 0°8'29.1912"
BENCHMARKS USED: DK3326, DL6173, DK3318, DK4051, DK3324, DJ9546, DJ9562, DK7569, & DK3330

VICINITY MAP
NOT TO SCALE



GENERAL NOTES

* THIS SPECIFIC PURPOSE SURVEY IS FOR THE LEASED PREMISES AND EASEMENTS ONLY. THIS SPECIFIC PURPOSE SURVEY WAS PREPARED FOR THE EXCLUSIVE USE OF UNITI TOWERS, LLC AND EXCLUSIVELY FOR THE TRANSFERAL OF THE LEASED PREMISES AND THE RIGHTS OF EASEMENT SHOWN HEREON AND SHALL NOT BE USED AS AN EXHIBIT OR EVIDENCE IN THE FEE SIMPLE TRANSFERAL OF THE PARENT PARCEL NOR ANY PORTION OR PORTIONS THEREOF. BOUNDARY INFORMATION SHOWN HEREON HAS BEEN COMPILED FROM TAX MAPS AND DEED DESCRIPTIONS ONLY. NO BOUNDARY SURVEY OF THE PARENT PARCEL WAS PERFORMED.

THIS DRAWING DOES NOT REPRESENT A BOUNDARY SURVEY.

THE FIELD DATA UPON WHICH THIS SPECIFIC PURPOSE SURVEY IS BASED HAS A CLOSURE PRECISION OF ONE FOOT IN 10,000+ FEET AND AN ANGULAR ERROR OF 5.0" PER ANGLE POINT AND WAS NOT ADJUSTED FOR CLOSURE.

EQUIPMENT USED FOR ANGULAR & LINEAR MEASUREMENTS: LEICA TPS 1200 ROBOTIC & GEOMAX ZENITH 35. (DATE OF LAST FIELD VISIT: 04/21/2020)

THE 1' CONTOURS AND SPOT ELEVATIONS SHOWN ON THIS SPECIFIC PURPOSE SURVEY ARE ADJUSTED TO NAVD 88 DATUM (COMPUTED USING GEOID18) AND HAVE A VERTICAL ACCURACY OF ±0.5'. CONTOURS OUTSIDE THE IMMEDIATE SITE AREA ARE APPROXIMATE.

BEARINGS SHOWN ON THIS SPECIFIC PURPOSE SURVEY ARE BASED ON GRID NORTH (NAD 83) KENTUCKY SINGLE ZONE.

PER THE FEMA FLOODPLAIN MAPS, THE SITE IS LOCATED IN AN AREA DESIGNATED AS ZONE X (AREA OF MINIMAL FLOOD HAZARD). COMMUNITY PANEL NO.: 21169C0125C DATED: 5/3/2010

NO WETLAND AREAS HAVE BEEN INVESTIGATED BY THIS SPECIFIC PURPOSE SURVEY.

ALL ZONING INFORMATION SHOULD BE VERIFIED WITH THE PROPER ZONING OFFICIALS.

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

LEGEND

POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
IPF	IRON PIN FOUND
CRB	CAPPED REBAR
RBF	REBAR
RBS	REBAR
UP	UTILITY POLE
UG	UNDERGROUND UTILITY
GW	GUY WIRE ANCHOR
TR	TRANSFORMER
N/F	NOW OR FORMERLY
R/W	RIGHT-OF-WAY

TITLE EXCEPTIONS

THIS SURVEY WAS COMPLETED WITH THE AID OF TITLE WORK PREPARED BY FIDELITY NATIONAL TITLE INSURANCE COMPANY, COMMITMENT DATE OF AUGUST 27, 2020, BEING COMMITMENT NO. 32548090, FOR THE PARENT PARCEL, TO DETERMINE THE IMPACTS OF EXISTING TITLE EXCEPTIONS.

B. MATTERS AS SHOWN AND NOTED ON PLAT RECORDED IN SLIDE A 1207.

(THIS ITEM IS APPLICABLE TO THE PARENT PARCEL. PLOTTABLE ITEMS SHOWN HEREON).

300 0 600 1200
GRAPHIC SCALE IN FEET
SCALE: 1" = 600'

SURVEYOR'S CERTIFICATE

I, G. DARRELL TAYLOR, A KENTUCKY PROFESSIONAL LAND SURVEYOR, CERTIFY THAT THE INFORMATION SHOWN HEREON WAS COMPILED USING DATA FROM AN ACTUAL FIELD SURVEY MADE UNDER MY DIRECT SUPERVISION BY METHOD OF RANDOM TRAVERSE WITH SIDE SHOTS. THE UNADJUSTED PRECISION RATIO OF THE TRAVERSE EXCEEDED 1:10,000 AND WAS NOT ADJUSTED FOR CLOSURE. THIS SURVEY MEETS OR EXCEEDS THE MINIMUM STANDARDS FOR AN URBAN SURVEY AS ESTABLISHED BY THE STATE OF KENTUCKY, PER 201 KAR 18:150 AND IN EFFECT ON THE DATE OF THIS SURVEY.

G. DARRELL TAYLOR, PLS 4179 — DATE 09/12/2020

SURVEY NOT VALID WITHOUT SHEETS 2 & 3

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

STATE of KENTUCKY
G. DARRELL TAYLOR
4179
LICENSED PROFESSIONAL LAND SURVEYOR

NO.	DATE	REVISION
1	09/12/2020	ADDED TITLE - NRW

* SPECIFIC PURPOSE SURVEY PREPARED BY:

POINT TO POINT LAND SURVEYORS
100 Governors Trace, Ste. 103
Peachtree City, GA 30269
(p) 678.565.4440 (f) 678.565.4497
(w) pointtopointsurvey.com

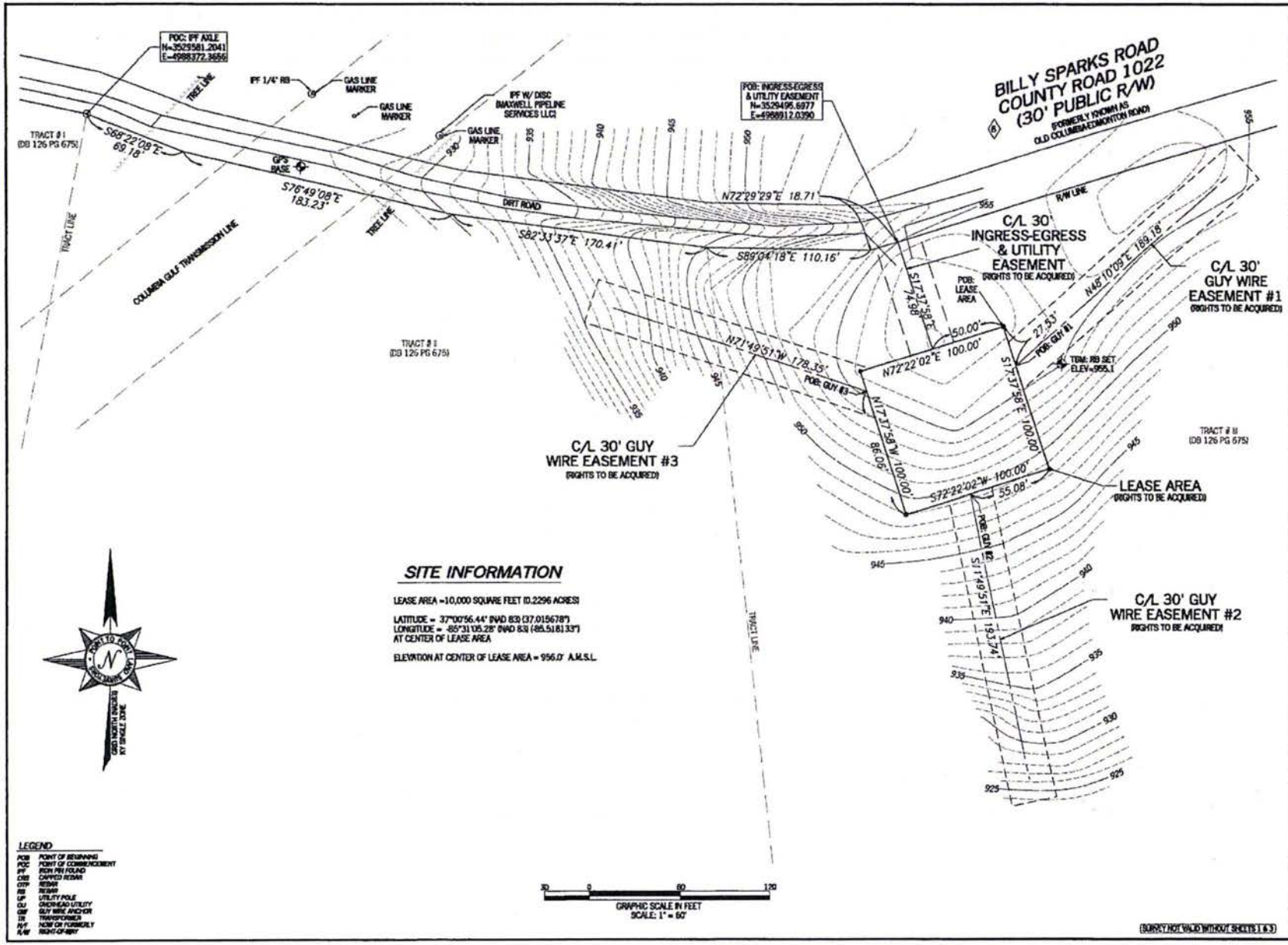
SPECIFIC PURPOSE SURVEY PREPARED FOR:

Uniti Towers

WILLIAM JUDD RD.
SITE NO.
KYBGN2021
METCALFE COUNTY
KENTUCKY

DRAWN BY: NRW
CHECKED BY: JKL
APPROVED: D. MILLER
DATE: APRIL 24, 2020
P2P JOB #: 20059KY

SHEET: 1 OF 3



STATE of KENTUCKY
G. DARRELL TAYLOR
4179
LICENSED PROFESSIONAL LAND SURVEYOR

NO.	DATE	REVISION
1	09/12/2020	ADDED TITLE - NRW

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SPECIFIC PURPOSE SURVEY PREPARED FOR:

Uniti Towers

WILLIAM JUDD RD.
SITE NO.
KYBGN2021
METCALFE COUNTY
KENTUCKY

DRAWN BY: NRW
CHECKED BY: JKL
APPROVED: D. MILLER
DATE: APRIL 24, 2020
P2P JOB #: 200599KY

SHEET: 2 OF 3

30' INGRESS-EGRESS & UTILITY EASEMENT

TOGETHER WITH A 30-FOOT WIDE INGRESS-EGRESS AND UTILITY EASEMENT (LYING 15 FEET EACH SIDE OF CENTERLINE) LYING AND BEING IN METCALFE COUNTY, KENTUCKY, BEING A PORTION OF THE LANDS OF DANIEL U. MILLER AND WIFE, KATIE B. MILLER AND DAVID J. MILLER AND WIFE, MARY ANN MILLER, AS RECORDED IN DEED BOOK 126 PAGE 675, METCALFE COUNTY RECORDS, BEING DESCRIBED BY THE FOLLOWING CENTERLINE DATA:

TO FIND THE POINT OF BEGINNING, COMMENCE AT AN AXLE FOUND ON THE SOUTHERLY RIGHT-OF-WAY LINE OF BILLY SPARKS ROAD (ALSO KNOWN AS COUNTY ROAD 1022 AND HAVING A 30-FOOT RIGHT-OF-WAY), SAID AXLE MARKING THE NORTHEAST CORNER OF TRACT NO. 1 OF SAID LANDS RECORDED IN DEED BOOK 126 PAGE 675, SAID AXLE HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N=3529581.2041 E=4988372.3656; THENCE ALONG SAID SOUTHERLY RIGHT-OF-WAY LINE OF BILLY SPARKS ROAD, SOUTH 68°22'08" EAST, 69.18 FEET TO A POINT; THENCE, SOUTH 76°49'08" EAST, 183.23 FEET TO A POINT; THENCE, SOUTH 82°33'37" EAST, 170.41 FEET TO A POINT; THENCE, SOUTH 89°04'18" EAST, 110.16 FEET TO A POINT; THENCE, NORTH 72°29'29" EAST, 18.71 FEET TO A POINT HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N=3529495.6977 E=4988912.0390 AND THE TRUE POINT OF BEGINNING; THENCE LEAVING SAID SOUTHERLY RIGHT-OF-WAY LINE OF BILLY SPARKS ROAD AND RUNNING, SOUTH 17°37'58" EAST, 74.98 FEET TO THE ENDING AT A POINT ON THE NORTH LINE OF THE LEASE AREA.

LEASE AREA

ALL THAT TRACT OR PARCEL OF LAND LYING AND BEING IN METCALFE COUNTY, KENTUCKY, BEING A PORTION OF THE LANDS OF DANIEL U. MILLER AND WIFE, KATIE B. MILLER AND DAVID J. MILLER AND WIFE, MARY ANN MILLER, AS RECORDED IN DEED BOOK 126 PAGE 675, METCALFE COUNTY RECORDS, BEING DESCRIBED BY THE FOLLOWING CENTERLINE DATA:

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SAID TRACT CONTAINS 0.2296 ACRES (10,000 SQUARE FEET), MORE OR LESS.

PARENT PARCEL

(AS PROVIDED IN TITLE REPORT COMMITMENT NO. 32548090)

AN INTEREST IN LAND, SAID INTEREST BEING OVER A PORTION OF THE FOLLOWING DESCRIBED PARENT PARCEL:

A PORTION OF THE PROPERTY OF DANIEL U. MILLER ET AL (DEED BOOK 126, PAGE 675 AND A PLAT IN SLIDE A 1207 - A PORTION OF TRACTS #2 AND #3 RECORDED IN THE OFFICE OF THE METCALFE COUNTY COURT CLERK) LOCATED IN METCALFE COUNTY, KENTUCKY AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

UNLESS OTHERWISE SPECIFIED, ANY MONUMENT REFERRED TO HEREIN AS A SET IRON PIN IS A 1/2" X 18" REBAR WITH A YELLOW PLASTIC SURVEYORS CAP STAMPED JD NANCE RLS 3014. ALL BEARINGS STATED HEREIN ARE BASED ON GEODETIC NORTH AS OBSERVED APRIL 24TH 2020.

BEGINNING AT A SET IRON PIN ON THE RW OF THE BILLY SPARKS ROAD (30 FT. R/W) A NEW CORNER TO DANIEL U. MILLER ET AL (DEED BOOK 126, PAGE 675 AND A PLAT MIN SLIDE A 1207 - A PORTION OF TRACT #2); THEME WITH THE R/W S 82 DEG. 33 MIN. 38 SEC. E 170.41 FT.; THENCE S 89 DEG. 04 MIN. 28 SEC. E 110.16 FT.; THENCE N 72 DEG. 29 MIN. 28 SEC. E 161.89 FT.; THENCE N 73 DEG. 22 MIN. 53 SEC. E 127.01 FT.; THENCE N 80 DEG. 47 MIN. 16 SEC. E 106.27 FT. TO A SET IRON PIN ON THE RW (REFERENCED S 71 DEG. 20 MIN. 17 SEC. W 232.44 FT. FROM AN EXISTING IRON PIN WITH CAP #3013 AT A 24" WHITE OAK ON THE NORTH SIDE OF THE ROAD, A CORNER TO TRACTS #3 AND #6 AND BROWN) A NEW CORNER TO DANIEL U. MILLER ET AL (DEED BOOK 126, PAGE 675 AND A PLAT MIN SLIDE A 1207 - A PORTION OF TRACT #3); THENCE SEVERING THE LAND OF MILER WITH TWO NEW LINES S 26 DEG. 13 MIN. 05 SEC. W 588.26 FL. TO A SET IRON PIN; THENCE N 41 DEG. 40 MIN. 43 SEC. W 601.89 FT. TO THE BEGINNING CONTAINING 3.36 ACRES, MORE OR LESS.

AND BEING A PORTION OF THE SAME PROPERTY CONVEYED TO DANIEL U. MILLER AND KATIE B. MILLER AND DAVID J. MILLER AND MARY ANN MILLER FROM T & L INVESTMENTS, INC., A KENTUCKY CORPORATION BY DEED OF CONVEYANCE DATED JANUARY 26, 2005 AND RECORDED FEBRUARY 9, 2005 IN DEED BOOK 126, PAGE 675; AND FURTHER CONVEYED TO DANIEL U. MILLER AND KATIE B. MILLER, AS TO AN UNDIVIDED TWO-THIRDS (2/3) INTEREST AND DAVID J. MILLER AND MARY ANN MILLER, AS TO AN UNDIVIDED ONE-THIRD (1/3) INTEREST FROM DANIEL U. MILLER, KATIE B. MILLER, DAVID J. MILLER AND MARY ANN MILLER BY DEED OF CONVEYANCE DATED JUNE 28, 2020 AND RECORDED AUGUST 3, 2020 IN DEED BOOK 166, PAGE 507.

TAX PARCEL NO. 075-00-00-006.08

(THIS DESCRIPTION IS PLOTTED HEREON. SEE SHEET 1 OF SURVEY).

30' GUY WIRE EASEMENT #1

TOGETHER WITH A 30-FOOT WIDE GUY WIRE EASEMENT (LYING 15 FEET EACH SIDE OF CENTERLINE AND EXTENDING 15 FEET PAST TERMINATION OF CENTERLINE) LYING AND BEING IN METCALFE COUNTY, KENTUCKY, BEING A PORTION OF THE LANDS OF DANIEL U. MILLER AND WIFE, KATIE B. MILLER AND DAVID J. MILLER AND WIFE, MARY ANN MILLER, AS RECORDED IN DEED BOOK 126 PAGE 675, METCALFE COUNTY RECORDS, BEING DESCRIBED BY THE FOLLOWING CENTERLINE DATA:

TO FIND THE POINT OF BEGINNING, COMMENCE AT AN AXLE FOUND ON THE SOUTHERLY RIGHT-OF-WAY LINE OF BILLY SPARKS ROAD (ALSO KNOWN AS COUNTY ROAD 1022 AND HAVING A 30-FOOT RIGHT-OF-WAY), SAID AXLE MARKING THE NORTHEAST CORNER OF TRACT NO. 1 OF SAID LANDS RECORDED IN DEED BOOK 126 PAGE 675, SAID AXLE HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N=3529581.2041 E=4988372.3656; THENCE ALONG SAID SOUTHERLY RIGHT-OF-WAY LINE OF BILLY SPARKS ROAD, SOUTH 68°22'08" EAST, 69.18 FEET TO A POINT; THENCE, SOUTH 76°49'08" EAST, 183.23 FEET TO A POINT; THENCE, SOUTH 82°33'37" EAST, 170.41 FEET TO A POINT; THENCE, SOUTH 89°04'18" EAST, 110.16 FEET TO A POINT; THENCE, NORTH 72°29'29" EAST, 18.71 FEET TO A POINT HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N=3529496.6977 E=4988912.0390; THENCE LEAVING SAID SOUTHERLY RIGHT-OF-WAY LINE OF BILLY SPARKS ROAD AND RUNNING, SOUTH 17°37'58" EAST, 74.98 FEET TO A POINT ON THE NORTH LINE OF THE LEASE AREA; THENCE ALONG SAID LEASE AREA, NORTH 72°22'02" EAST, 50.00 FEET TO A POINT; THENCE, SOUTH 17°37'58" EAST, 27.53 FEET TO A POINT AND THE TRUE POINT OF BEGINNING; THENCE LEAVING SAID LEASE AREA AND RUNNING, NORTH 48°10'09" EAST, 189.18 FEET TO THE ENDING AT A POINT.

30' GUY WIRE EASEMENT #2

TOGETHER WITH A 30-FOOT WIDE GUY WIRE EASEMENT (LYING 15 FEET EACH SIDE OF CENTERLINE AND EXTENDING 15 FEET PAST TERMINATION OF CENTERLINE) LYING AND BEING IN METCALFE COUNTY, KENTUCKY, BEING A PORTION OF THE LANDS OF DANIEL U. MILLER AND WIFE, KATIE B. MILLER AND DAVID J. MILLER AND WIFE, MARY ANN MILLER, AS RECORDED IN DEED BOOK 126 PAGE 675, METCALFE COUNTY RECORDS, BEING DESCRIBED BY THE FOLLOWING CENTERLINE DATA:

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30' GUY WIRE EASEMENT #3

TOGETHER WITH A 30-FOOT WIDE GUY WIRE EASEMENT (LYING 15 FEET EACH SIDE OF CENTERLINE AND EXTENDING 15 FEET PAST TERMINATION OF CENTERLINE) LYING AND BEING IN METCALFE COUNTY, KENTUCKY, BEING A PORTION OF THE LANDS OF DANIEL U. MILLER AND WIFE, KATIE B. MILLER AND DAVID J. MILLER AND WIFE, MARY ANN MILLER, AS RECORDED IN DEED BOOK 126 PAGE 675, METCALFE COUNTY RECORDS, BEING DESCRIBED BY THE FOLLOWING CENTERLINE DATA:

TO FIND THE POINT OF BEGINNING, COMMENCE AT AN AXLE FOUND ON THE SOUTHERLY RIGHT-OF-WAY LINE OF BILLY SPARKS ROAD (ALSO KNOWN AS COUNTY ROAD 1022 AND HAVING A 30-FOOT RIGHT-OF-WAY), SAID AXLE MARKING THE NORTHEAST CORNER OF TRACT NO. 1 OF SAID LANDS RECORDED IN DEED BOOK 126 PAGE 675, SAID AXLE HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N=3529581.2041 E=4988372.3656; THENCE ALONG SAID SOUTHERLY RIGHT-OF-WAY LINE OF BILLY SPARKS ROAD, SOUTH 68°22'08" EAST, 69.18 FEET TO A POINT; THENCE, SOUTH 76°49'08" EAST, 183.23 FEET TO A POINT; THENCE, SOUTH 82°33'37" EAST, 170.41 FEET TO A POINT; THENCE, SOUTH 89°04'18" EAST, 110.16 FEET TO A POINT; THENCE, NORTH 72°29'29" EAST, 18.71 FEET TO A POINT HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N=3529495.6977 E=4988912.0390; THENCE LEAVING SAID SOUTHERLY RIGHT-OF-WAY LINE OF BILLY SPARKS ROAD AND RUNNING, SOUTH 17°37'58" EAST, 74.98 FEET TO A POINT ON THE NORTH LINE OF THE LEASE AREA; THENCE ALONG SAID LEASE AREA, NORTH 72°22'02" EAST, 50.00 FEET TO A POINT; THENCE, SOUTH 17°37'58" EAST, 100.00 FEET TO A POINT; THENCE, NORTH 17°37'58" WEST, 86.05 FEET TO A POINT AND THE TRUE POINT OF BEGINNING; THENCE LEAVING SAID LEASE AREA AND RUNNING, NORTH 71°49'51" WEST, 178.35 FEET TO THE ENDING AT A POINT.

SURVEY NOT VALID WITHOUT SHEETS 1 & 2

STATE of KENTUCKY
G. DARRELL TAYLOR
4179
LICENSED PROFESSIONAL LAND SURVEYOR

NO.	DATE	REVISION
1	09/12/2020	ADDED TITLE - NRW

* SPECIFIC PURPOSE SURVEY PREPARED BY:
POINT TO POINT LAND SURVEYORS
100 Governors Trace, Ste. 103
Peachtree City, GA 30269
(p) 678.565.4440 (f) 678.565.4497
(w) pointtopointsurvey.com

SPECIFIC PURPOSE SURVEY PREPARED FOR:

Uniti Towers

WILLIAM JUDD RD.

SITE NO.
KYBGN2021
METCALFE COUNTY
KENTUCKY

DRAWN BY: NRW
CHECKED BY: JGL
APPROVED: D. MILLER
DATE: APRIL 24, 2020
P2P JOB #: 200599AY

SHEET: 3 OF 3

E:\Projects\Point To Point\P2P Current Jobs\2020\200599AY\KYBGN2021 Judd Rd KY\200599AY.prj

EXHIBIT J
NOTIFICATION LISTING

Sparks Relo / William Judd Road – Notice List

MILLER DANIEL U & KATIE B MILLER DAVID J & MARY ANN
532 WALKER-STEWART RD
HORSE CAVE, KY 42749

MORGAN STEVEN R & MARGARET N
473 BILLY SPARKS RD
EDMONTON, KY 42129

BROWN LEIGH ESTATE % ELIZABETH CROMPTON
7601 W LAKE DR
WEST PALM BEACH, FL 33406

DAVIS BILLY W & CHARLOTTE A ATTN: TAX DEPARTMENT
8051 CONGRESS AVE
BOCA RATON, FL 33487

DAVIS MIKELL L & CLARE M
1441 WILLIAM JUDD RD
EDMONTON, KY 42129

BEATTY DENISE ANN SHIRLEY CHRISSTELLA CLEARWATER ESTATE
1091 WILLIAM JUDD RD
EDMONTON, KY 42129

JESSEE LINDA CARY HOOD & MICHAEL PATRICK
7009 GRAYMOOR RD
LOUISVILLE, KY 40222

JANES VIRGINIA ESTATE ET AL % KAYE HOPE & PAM GRUBBS
3360 MT MORIAH RD
SUMMER SHADE, KY 42166

EDWARDS JOHN M & SALLY A
1567 HUNT CLUB BLVD
GALLATIN, TN 37066

HALL MICHAEL W & BELINDA
3440 HIGHWAY 18
MOLENA, GA 30258

BENJAMIN NEIL & PATTY
597 WILLIAM JUDD RD
EDMONTON KY., 42129

BENJAMIN CALVIN
705 WILLIAM JUDD RD
EDMONTON, KY 42129

SMITH DOUGLAS D & BARBARA
PO BOX 237
PIPER CITY, IL 60959

MILLER DANIEL U & KATIE B DAVID J & MARY ANN MILLER
532 WALKER STEWART RD
HORSE CAVE, KY 42749

OWEN EUGENE
103 DAVIS ST
GLASGOW, KY 42141

CRAWFORD MILTON & DONNA
1149 RED POND RD
BOWLING GREEN, KY 42103

SLATER PAUL E & JAN MARIE
830 BILLY SPARKS RD
EDMONTON, KY 42129

ROSSI GREGORY
285 EAST FORK CHURCH RD
EDMONTON, KY 42129

EXHIBIT K
COPY OF PROPERTY OWNER NOTIFICATION

PIKE LEGAL

1578 Highway 44 East, Suite 6
P.O. Box 369
Shepherdsville, KY 40165-0369
Phone (502) 955-4400 or (800) 516-4293
Fax (502) 543-4410 or (800) 541-4410

Notice of Proposed Construction of Wireless Communications Facility Site Name: Sparks Relo / William Judd Road

Dear Landowner:

New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility and Harmoni Towers LLC, a Delaware limited liability company have filed an application with the Kentucky Public Service Commission ("PSC") to construct a new wireless communications facility on a site located at 1135 Billy Sparks Road, Edmonton, KY 42129 (37° 00' 56.44" North latitude, 85° 31' 05.28" West longitude). The proposed facility will include a 305-foot tall tower, with an approximately 12-foot tall lightning arrestor attached at the top, for a total height of 317-feet, plus related ground facilities. This facility is needed to provide improved coverage for wireless communications in the area.

This notice is being sent to you because the County Property Valuation Administrator's records indicate that you may own property that is within a 500' radius of the proposed tower site or contiguous to the property on which the tower is to be constructed. You have a right to submit testimony to the Kentucky Public Service Commission ("PSC"), either in writing or to request intervention in the PSC's proceedings on the application. You may contact the PSC for additional information concerning this matter at: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to docket number 2021-00327 in any correspondence sent in connection with this matter.

We have attached a map showing the site location for the proposed tower. AT&T Mobility'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 toll free at (800) 516-4293 if you have any comments or questions about this proposal.

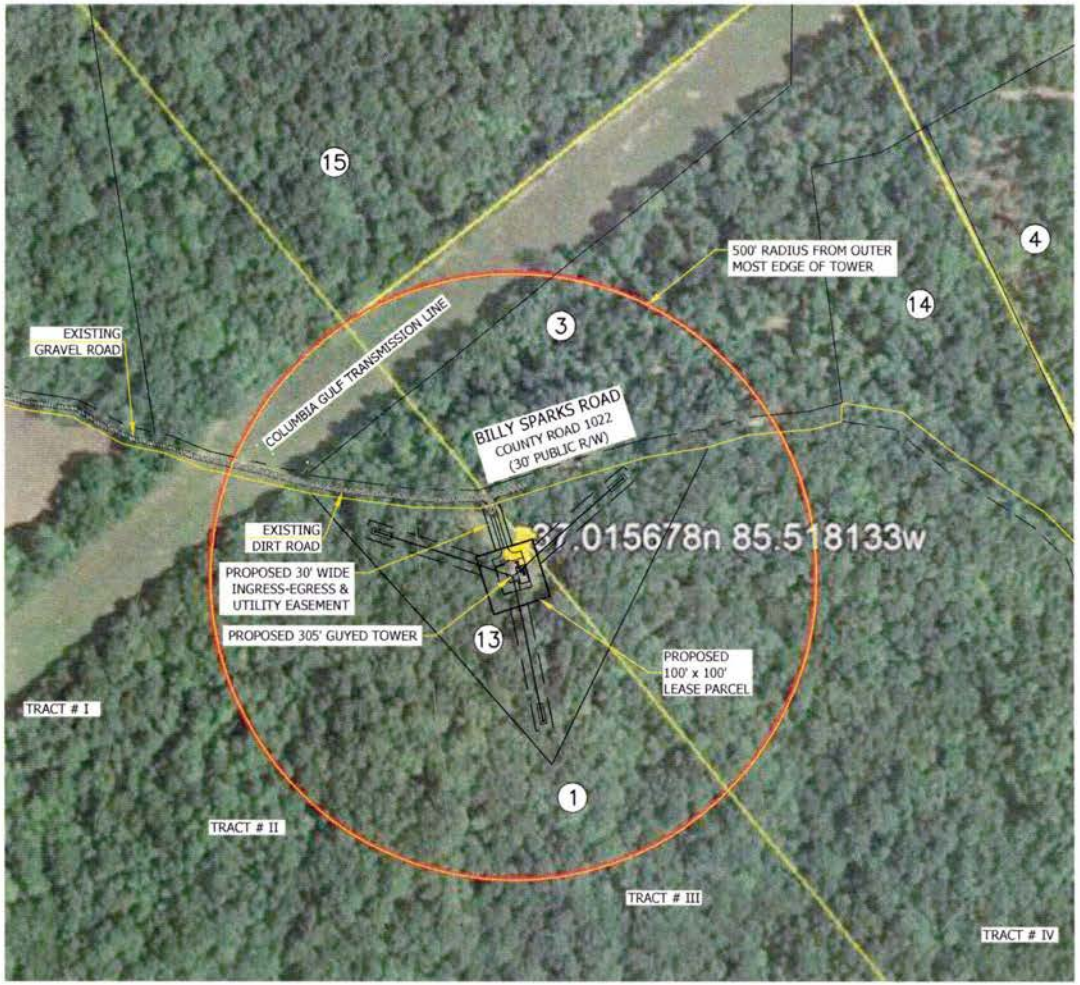
Sincerely,
David A. Pike
Attorney for Applicants

enclosures

Driving Directions to Proposed Tower Site

1. Beginning at the Metcalfe County Judge Executive's Office, located at 201 N. Main Street, Edmonton, KY 42129, head north on N Main Street toward East Street and travel approximately 1.4 miles.
2. Continue onto KY-80 E / Columbia Road and travel approximately 3.9 miles.
3. Turn left onto Jack Sparks Road and travel approximately 0.3 miles.
4. Turn right onto Billy Sparks Road and travel approximately 0.9 miles.
5. The site is located straight ahead at 1135 Billy Sparks Road, Edmonton, KY 42129.
6. The site coordinates are:
    a. North 37 deg 00 min 56.44 sec
    b. West 85 deg 31 min 05.28 sec

Prepared by:
Chris Shouse
Pike Legal Group
1578 Highway 44 East, Suite 6
P.O. Box 396
Shepherdsville, KY 40165-3069
Telephone: 502-955-4400 or 800-516-4293



#	OWNER	ADDRESS	PID	REF
1	DANIEL U. MILLER & KATIE MILLER DAVID J. MILLER & MARY ANN MILLER	532 WALKER-STEWART RD HORSE CAVE, KY 42749	075-00-00-006.08	DB 126 PG 675
3	BROWN LEIGH ESTATES % ELIZABETH CROMPTON	7601 W. LAKE DRIVE W PALM BEACH, FL 33406	075-00-00-005.03	DB 126 PG 217
4	BILLY & CHARLOTTE DAVIS ATTN.: TAX DEPARTMENT	8051 CONGRESS AVE BOCA RATON, FL 33487	075-00-00-005.02 D01	-
4	MIKELL & CLARE DAVIS	1441 WILLIAM JUDD ROAD EDMONTON, KY 42129	075-00-00-005.02 D02	-
13	DANIEL U. MILLER & KATIE MILLER DAVID J. MILLER & MARY ANN MILLER	532 WALKER-STEWART RD HORSE CAVE, KY 42749	075-00-00-006.12	DB 166 PG 507
14	EUGENE OWEN	103 DAVIS STREET GLASGOW, KY 42141	075-00-00-006.07	DB 126 PG 217
15	MILTON & DONNA CRAWFORD	1149 RED POND ROAD BOWLING GREEN, KY 42103	075-00-00-006.09	-

NOTE:

1. SEE SHEET C-1.2 FOR INFORMATION ON PROPERTIES #2 & #5 - #12, #16 - #17.
2. PVA INFORMATION WAS OBTAINED ON 12/14/2020 FROM THE OFFICIAL RECORDS OF THE COUNTY'S PROPERTY VALUATION ADMINISTRATOR.
3. THIS MAP IS FOR GENERAL INFORMATION PURPOSES ONLY AND IS NOT A BOUNDARY SURVEY.
4. NOT FOR RECORDING OR PROPERTY TRANSFER.

1 500' RADIUS & ADJOINER'S DRAWING
SCALE: 1"=200'
0' 100' 200' 300' 400'

N

CALL KENTUCKY ONE CALL
(800) 752-6007
CALL 3 WORKING DAYS
BEFORE YOU DIG!

B+T GRP

at&t mobility corp.

HARMONI TOWERS

HARMONI TOWERS
WILLIAM JUDD RD.
FA# 15147581
PACE# MRTNK047959
PT# 10124680
1135 BILLY SPARKS ROAD
EDMONTON, KY 42129
METCALFE COUNTY
PROPOSED 305' GUYED TOWER

PROJECT NO:	17335
CHECKED BY:	DLS

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION
B	01/11/21	DLS	ZONING DRAWINGS
C	02/12/21	MAS	ZONING DRAWINGS
D	02/22/21	MAS	ZONING DRAWINGS

B&T ENGINEERING, INC.
4011
Expires 12/31/21

STATE OF KENTUCKY
BRAD P. MILANOWSKI
25311
LICENSED PROFESSIONAL ENGINEER
2/22/21

500' RADIUS & ADJOINER'S DRAWING

SHEET NUMBER:
C-1.1

NOTE:

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5	BEATTY DENISE ANN SHIRLEY CHRISSTELLA CLEARWATER EST.	1091 WILLIAM JUDD ROAD EDMONTON, KY 42129	075-00-00-005.01	-
6	JESSEE LINDA CARY HOOD & MICHAEL PATRICK	7009 GRAYMOOR ROAD LOUISVILLE, KY 40222	075-00-00-007.00	-
7	JANES VIRGINIA ESTATE AL % KAYE HOPE & PAM GRUBBS	3360 MT. MORIAH ROAD SUMMER SHADE, KY 42166	075-00-00-007.01	DB 73 PG 901
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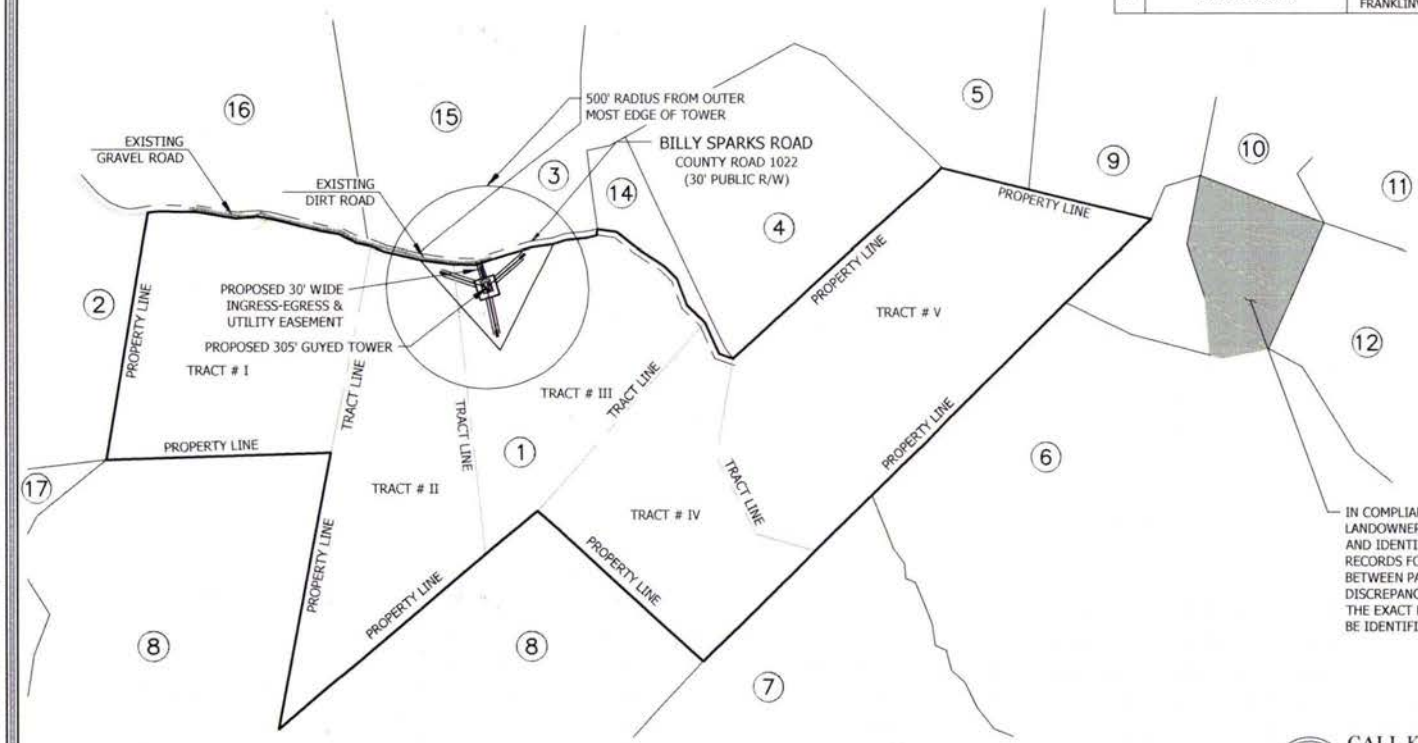
9	MICHAEL & BELINDA HALL	3440 HIGHWAY 18 MOLENA, GA 30258	004-00-00-008.07	-
10	NEIL & PATTY BENJAMIN	597 WILLIAM JUDD ROAD EDMONTON, KY 42129	004-00-00-008.08	-
11	CALVIN BENJAMIN	705 WILLIAM JUDD ROAD EDMONTON, KY 42129	004-00-00-008.00	-
12	DOUGLAS & BARBARA SMITH	P.O. BOX 237 PIPER CITY, IL 60959	008-00-00-043.03	-
16	PAUL & JAN MARIE SLATER	830 BILLY SPARKS ROAD EDMONTON, KY 42129	075-00-00-006.10	-
17	GREGORY ROSSI	891 WILLIAMSTOWN ROAD FRANKLINVILLE, NJ 08322	068-00-00-005.04	-



IN COMPLIANCE WITH APPLICABLE STATE LAW, THE LANDOWNERS OF ALL ADJOINING PARCELS ARE INCLUDED AND IDENTIFIED ON THIS DRAWING. THE COUNTY PVA RECORDS FOR METCALFE AND ADAIR COUNTIES OVERLAP BETWEEN PARCELS 1, 6, 9, 10, 11 AND 12. DUE TO DISCREPANCIES IN THE COUNTIES' PVA MAPPING SYSTEMS, THE EXACT POINTS AT WHICH THESE PARCELS MEET CANNOT BE IDENTIFIED THEREBY LEAVING THIS UNDEFINED AREA.

1 OVERALL ADJOINER'S DRAWING
SCALE: 0' 300' 600' 900' 1200' 1"=600'

N

CALL KENTUCKY ONE CALL
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811

B+T GRP

at&t mobility corp

HARMONI TOWERS

HARMONI TOWERS
WILLIAM JUDD RD.
FA# 15147581
PACE# MRTNK047959
PT# 10124680
1135 BILLY SPARKS ROAD
EDMONTON, KY 42129
METCALFE COUNTY
PROPOSED 305' GUYED TOWER

PROJECT NO:	137335
CHECKED BY:	DLS

ISSUED FOR

REV	DATE	DRWN	DESCRIPTION
B	01/11/21	DLS	ZONING DRAWINGS
C	02/12/21	MAS	ZONING DRAWINGS
D	02/22/21	MAS	ZONING DRAWINGS

B&T ENGINEERING, INC.
4011
Expires 12/31/21

STATE OF KENTUCKY
BRAD P. KILANOWSKI
25311
LICENSED PROFESSIONAL ENGINEER
2/22/21

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

OVERALL ADJOINER'S DRAWING

SHEET NUMBER:
C-1.2

EXHIBIT L
COPY OF COUNTY JUDGE/EXECUTIVE NOTICE

PIKE LEGAL

1578 Highway 44 East, Suite 6
P.O. Box 369
Shepherdsville, KY 40165-0369
Phone (502) 955-4400 or (800) 516-4293
Fax (502) 543-4410 or (800) 541-4410

VIA CERTIFIED MAIL

Harold D. Stilts
County Judge Executive
P. O. Box 149
201 N. Main Street
Edmonton, KY 42129

RE: Notice of Proposal to Construct Wireless Communications Facility
Kentucky Public Service Commission Docket No. 2021-00327
Site Name: Sparks Relo / William Judd Road

Dear Judge/Executive:

New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility and Harmoni Towers LLC, a Delaware limited liability company have filed an application with the Kentucky Public Service Commission ("PSC") to construct a new wireless communications facility on a site located at 1135 Billy Sparks Road, Edmonton, KY 42129 (37° 00' 56.44" North latitude, 85° 31' 05.28" West longitude). The proposed facility will include a 305-foot tall tower, with an approximately 12-foot tall lightning arrestor attached at the top, for a total height of 317-feet, plus related ground facilities. This facility is needed to provide improved coverage for wireless communications in the area.

You have a right to submit comments to the PSC or to request intervention in the PSC's proceedings on the application. You may contact the PSC at: Executive Director, Public Service Commission, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to docket number 2021-00327 in any correspondence sent in connection with this matter.

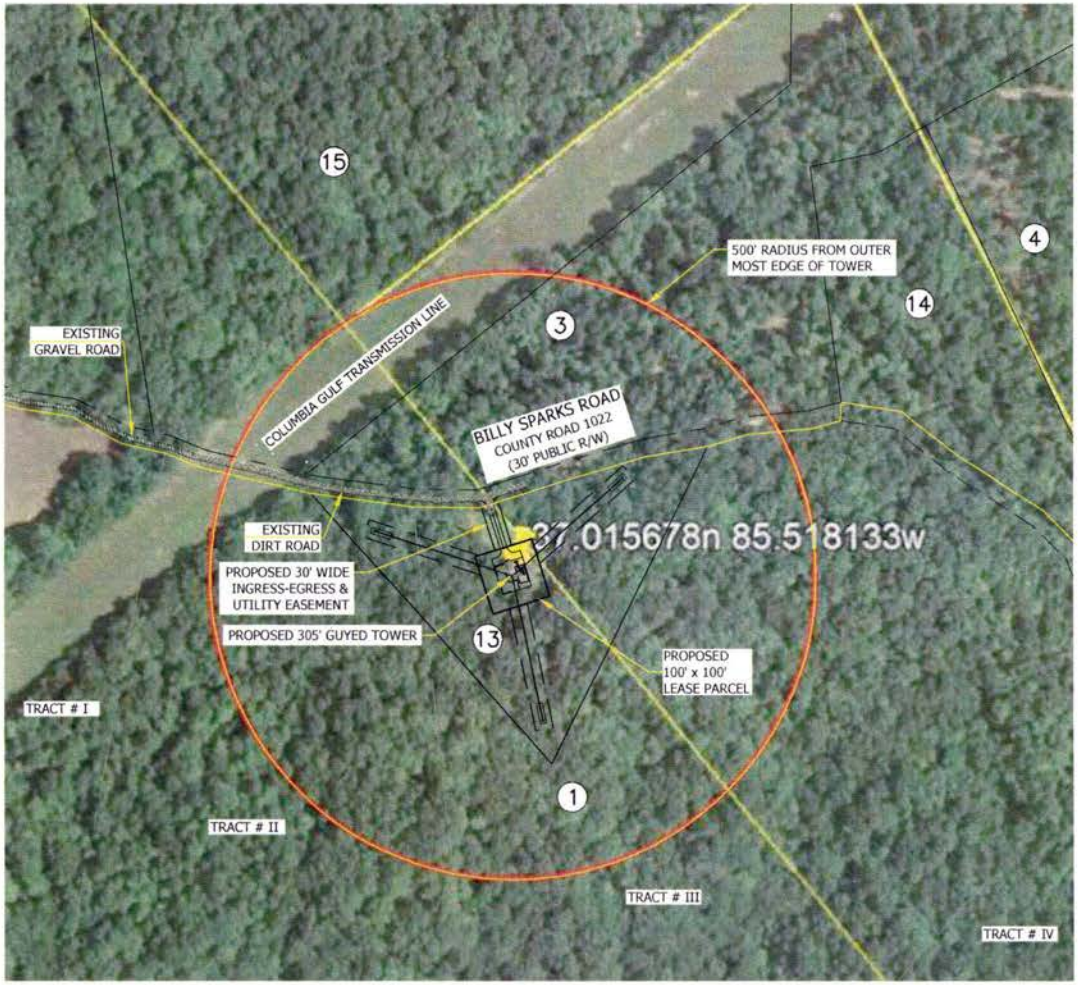
We have attached a map showing the site location for the proposed tower. AT&T Mobility's radio frequency engineers assisted in selecting the proposed site for the facility, and they have determined it is the proper location and elevation needed to provide quality service to wireless customers in the area. Please feel free to contact us with any comments or questions you may have.

Sincerely,
David A. Pike
Attorney for Applicants
enclosures

Driving Directions to Proposed Tower Site

1. Beginning at the Metcalfe County Judge Executive's Office, located at 201 N. Main Street, Edmonton, KY 42129, head north on N Main Street toward East Street and travel approximately 1.4 miles.
2. Continue onto KY-80 E / Columbia Road and travel approximately 3.9 miles.
3. Turn left onto Jack Sparks Road and travel approximately 0.3 miles.
4. Turn right onto Billy Sparks Road and travel approximately 0.9 miles.
5. The site is located straight ahead at 1135 Billy Sparks Road, Edmonton, KY 42129.
6. The site coordinates are:
    a. North 37 deg 00 min 56.44 sec
    b. West 85 deg 31 min 05.28 sec

Prepared by:
Chris Shouse
Pike Legal Group
1578 Highway 44 East, Suite 6
P.O. Box 396
Shepherdsville, KY 40165-3069
Telephone: 502-955-4400 or 800-516-4293



#	OWNER	ADDRESS	PID	REF
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1 500' RADIUS & ADJOINER'S DRAWING
SCALE: 0' 100' 200' 300' 400' 1"=200'

N

CALL KENTUCKY ONE CALL
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at&t mobility corp.

HARMONI TOWERS

HARMONI TOWERS
WILLIAM JUDD RD.
FA# 15147581
PACE# MRTNK047959
PT# 10124680
1135 BILLY SPARKS ROAD
EDMONTON, KY 42129
METCALFE COUNTY
PROPOSED 305' GUYED TOWER

PROJECT NO:	137335
CHECKED BY:	DLS

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION
B	01/11/21	DLS	ZONING DRAWINGS
C	02/12/21	MAS	ZONING DRAWINGS
D	02/22/21	MAS	ZONING DRAWINGS

B&T ENGINEERING, INC.
4011
Expires 12/31/21

STATE OF KENTUCKY
BRAD P. MILANOWSKI
25311
LICENSED PROFESSIONAL ENGINEER
2/22/21

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500' RADIUS & ADJOINER'S DRAWING

SHEET NUMBER:
C-1.1

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11	CALVIN BENJAMIN	705 WILLIAM JUDD ROAD EDMONTON, KY 42129	004-00-00-008.00	-
12	DOUGLAS & BARBARA SMITH	P.O. BOX 237 PIPER CITY, IL 60959	008-00-00-043.03	-
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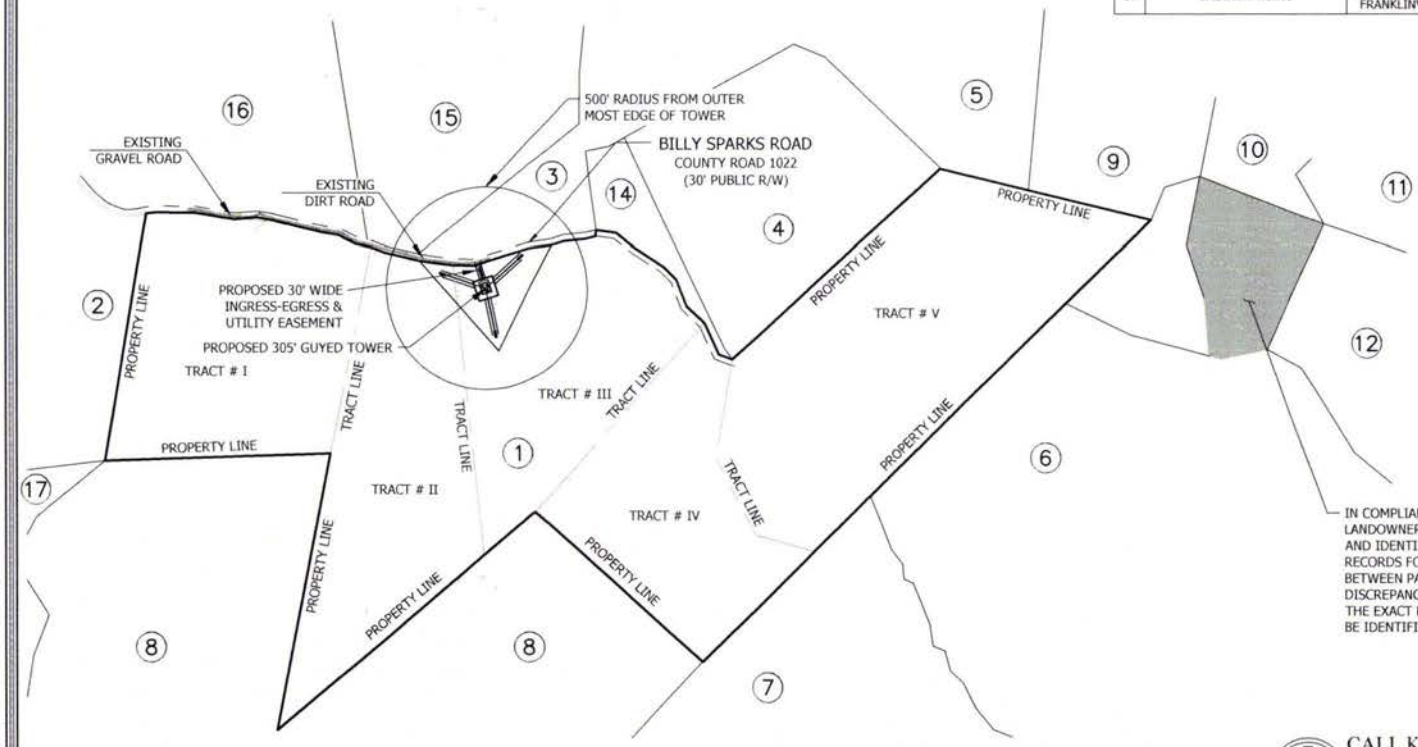

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0' 300' 600' 900' 1200'

N

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B+T GRP

at&t mobility corp.

HARMONI TOWERS

HARMONI TOWERS
WILLIAM JUDD RD.
FA# 15147581
PACE# MRTNK047959
PT# 10124680
1135 BILLY SPARKS ROAD
EDMONTON, KY 42129
METCALFE COUNTY
PROPOSED 305' GUYED TOWER

PROJECT NO: 13733S
CHECKED BY: DLS

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION
B	01/11/21	DLS	ZONING DRAWINGS
C	02/12/21	MAS	ZONING DRAWINGS
D	02/22/21	MAS	ZONING DRAWINGS

B&T ENGINEERING, INC.
4011
Expires 12/31/21

STATE OF KENTUCKY
BRAD P. KWILASKOWSKI
25311
LICENSED PROFESSIONAL ENGINEER
2/22/21

OVERALL ADJOINER'S DRAWING

SHEET NUMBER:
C-1.2

EXHIBIT M
COPY OF POSTED NOTICES
AND NEWSPAPER NOTICE ADVERTISEMENT

SITE NAME: SPARKS RELO / WILLIAM JUDD ROAD NOTICE SIGNS

The signs are at least (2) feet by four (4) feet in size, of durable material, with the text printed in black letters at least one (1) inch in height against a white background, except for the word "**tower**," which is at least four (4) inches in height.

New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility and Harmoni Towers LLC, a Delaware limited liability company propose to construct a telecommunications **tower** on this site. If you have questions, please contact Pike Legal Group, PLLC, P.O. Box 369, Shepherdsville, KY 40165; telephone: (800) 516-4293, or the Executive Director, Public Service Commission, 211 Sower Boulevard, PO Box 615, Frankfort, Kentucky 40602. Please refer to docket number 2021-00327 in your correspondence.

New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility and Harmoni Towers LLC, a Delaware limited liability company propose to construct a telecommunications **tower** near this site. If you have questions, please contact Pike Legal Group, PLLC, P.O. Box 369, Shepherdsville, KY 40165; telephone: (800) 516-4293, or the Executive Director, Public Service Commission, 211 Sower Boulevard, PO Box 615, Frankfort, Kentucky 40602. Please refer to docket number 2021-00327 in your correspondence.

1578 Highway 44 East, Suite 6
P.O. Box 369
Shepherdsville, KY 40165-0369
Phone (502) 955-4400 or (800) 516-4293
Fax (502) 543-4410 or (800) 541-4410

VIA TELEPHONE: (270) 670-9233
VIA EMAIL: jupitermoonsong@yahoo.com

Edmonton Herald-News
116 S Main Street
P. O. Box 87
Edmonton, KY

RE: Legal Notice Advertisement
Site Name: Sparks Relo / William Judd Road

Dear Edmonton Herald-News:

Please publish the following legal notice advertisement in the next edition of *The Edmonton Herald-News*

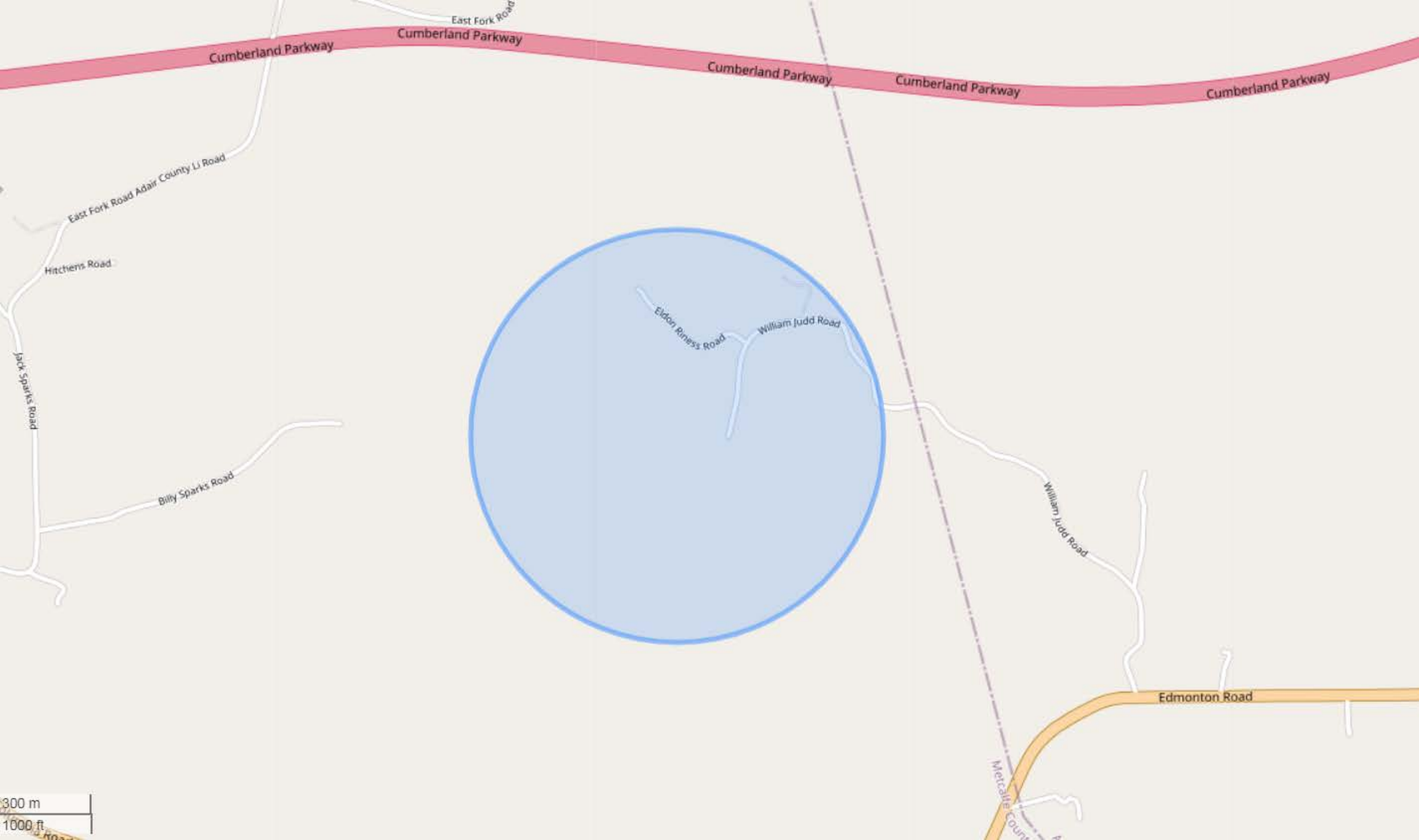
NOTICE

New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility and Harmoni Towers LLC, a Delaware limited liability company have filed an application with the Kentucky Public Service Commission ("PSC") to construct a new wireless communications facility on a site located on 1135 Billy Sparks Road, Edmonton, KY 42129 (37° 00' 56.44" North latitude, 85° 31' 05.28" West longitude). 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 2021-00327 in any correspondence sent in connection with this matter.

After this advertisement has been published, please forward a tearsheet copy, affidavit of publication, and invoice to Pike Legal Group, PLLC, P. O. Box 369, Shepherdsville, KY 40165. Please call me at (800) 516-4293 if you have any questions. Thank you for your assistance.

Sincerely,
Chris Shouse
Pike Legal Group, PLLC

EXHIBIT N
COPY OF RADIO FREQUENCY DESIGN SEARCH AREA


Cumberland Parkway
Cumberland Parkway
Cumberland Parkway
Cumberland Parkway
Cumberland Parkway
East Fork Road
East Fork Road Adair County Li Road
Hitchens Road
Jack Sparks Road
Billy Sparks Road
Eldon Riness Road
William Judd Road
William Judd Road
Edmonton Road
300 m
1000 ft