

**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.: 2022-00211
CONVENIENCE AND NECESSITY TO CONSTRUCT)	
A WIRELESS COMMUNICATIONS FACILITY)	
IN THE COMMONWEALTH OF KENTUCKY)	
IN THE COUNTY OF CLINTON)	

SITE NAME: SEMINARY / SNOW RELO

**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 ("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 11101 Anderson Drive, Suite 200, Little Rock, Arkansas 72212.

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 attached as part of **Exhibit A**). 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 near 3723 N US Hwy 127, Albany, KY 42602 (E-911) / 3723 N US Hwy 127, Albany, KY 42602 (PARCEL) (36° 44' 26.30" North latitude, 85° 08' 17.45" 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 Danny F. Craft and Christell Craft pursuant to a deed recorded at Deed Book 152, Page 776 in the office of the County Clerk. The proposed WCF will consist of a 255-foot tall tower, with an approximately 5-foot tall lightning arrestor attached at the top, for a total height of 260-feet,

plus related ground facilities. 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 application to the Kentucky Airport Zoning Commission ("KAZC") for approval for the proposed construction 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. 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 Marshall Corbin 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. Copies of the certified green card receipts for each of the landowners who were provided

notice are also included as part of **Exhibit J**.

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

David A. Pike and

F. Keith Brown

F. Keith Brown
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
Attorneys 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 & Certified Green Card Receipts
- 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 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 388 the undersigned hereby applies for authority to transact business in Kentucky on behalf of the entity named below and, for that purpose, submits the following statements:

1. The entity is a:
- | | | |
|--|---|---|
| <input type="checkbox"/> profit corporation (KRS 271B) | <input type="checkbox"/> nonprofit corporation (KRS 273) | <input type="checkbox"/> professional service corporation (KRS 274) |
| <input type="checkbox"/> business trust (KRS 388) | <input checked="" type="checkbox"/> limited liability company (KRS 275) | <input type="checkbox"/> professional limited liability company (KRS 275) |
| <input type="checkbox"/> 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
10802 Executive Center Drive, Benton Building, Suite 300 Little Rock AR 72211
Street Address City State Zip Code

7. The street address of the entity's registered office in Kentucky is
308 West Main Street - Suite 512 Frankfort KY 40601
Street Address (No P.O. Box Numbers) City State Zip Code

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

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

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

(09/15)

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:
- | | |
|---|---|
| <input type="checkbox"/> profit corporation (KRS 271B) | <input type="checkbox"/> nonprofit corporation (KRS 273). |
| <input type="checkbox"/> professional service corporation (KRS 274). | <input type="checkbox"/> business trust (KRS 386). |
| <input checked="" type="checkbox"/> limited liability company (KRS 275). | <input type="checkbox"/> limited partnership (KRS 362). |
| <input type="checkbox"/> professional limited liability company (KRS 275) | <input type="checkbox"/> statutory trust (KRS 386) |
| <input type="checkbox"/> limited cooperative association | <input type="checkbox"/> non-profit LLC (KRS 275). |
| <input type="checkbox"/> cooperative association | |

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:		Please indicate whether any of the following make up more than fifty percent (50%) of your business ownership:		
<input type="checkbox"/> Small (Fewer than 50 employees)	<input checked="" type="checkbox"/> Large (50 or more employees)	<input type="checkbox"/> Women-Owned	<input type="checkbox"/> Veteran Owned	<input type="checkbox"/> Minority Owned
Please indicate which of the following best describes your business:				
<input type="checkbox"/> Agriculture	<input type="checkbox"/> Mining	<input type="checkbox"/> Services	<input type="checkbox"/> Construction	
<input type="checkbox"/> Wholesale Trade	<input type="checkbox"/> Retail Trade	<input type="checkbox"/> Manufacturing	<input type="checkbox"/> Finance, Insurance, Real Estate	
<input type="checkbox"/> Public Administration	<input checked="" type="checkbox"/> Transportation, Communications, Electric, Gas, Sanitary Services			
<input type="checkbox"/> Other				

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

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

Delaware

The First State

Page 1

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

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

A handwritten signature in black ink, appearing to read "JBULLOCK", written over a horizontal line. Below the line, the text "Jeffrey W. Bullock, Secretary of State" is printed in a small font.

Authentication: 202491953
Date: 02-11-21

REFERENCE COPY

This is not an official FCC license. It is a record of public information contained in the FCC's licensing database on the date that this reference copy was generated. In cases where FCC rules require the presentation, posting, or display of an FCC license, this document may not be used in place of an official FCC license.



Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

ATTN: FCC GROUP
 NEW CINGULAR WIRELESS PCS, LLC
 208 S AKARD ST., RM 2100
 DALLAS, TX 75202

Call Sign KNKN666	File Number 0009619100
Radio Service CL - Cellular	
Market Numer CMA447	Channel Block A
Sub-Market Designator 0	

FCC Registration Number (FRN): 0003291192

Market Name Kentucky 5 - Barren

Grant Date 09-08-2021	Effective Date 09-08-2021	Expiration Date 10-01-2031	Five Yr Build-Out Date	Print Date 09-08-2021
--------------------------	------------------------------	-------------------------------	------------------------	--------------------------

Site Information:

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
7	37-10-00.0 N	085-18-37.0 W	282.5	291.4	1062332

Address: 1210 Cane Valley Road (94238)

City: Columbia County: ADAIR State: KY Construction Deadline:

Antenna: 1

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	180.300	151.200	132.800	140.500	155.800	172.800	186.200	183.500
Transmitting ERP (watts)	250.037	98.154	10.266	2.559	0.527	0.738	12.510	102.333

Antenna: 2

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	180.300	151.200	132.800	140.500	155.800	172.800	186.200	183.500
Transmitting ERP (watts)	1.408	30.262	153.476	217.337	49.025	5.207	1.772	0.660

Antenna: 3

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	180.300	151.200	132.800	140.500	155.800	172.800	186.200	183.500
Transmitting ERP (watts)	2.948	0.454	0.942	4.366	59.310	210.546	155.347	22.706

Conditions:

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

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKN666

File Number: 0009619100

Print Date: 09-08-2021

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
8	36-43-12.0 N	084-28-13.0 W	409.3	91.1	1042231

Address: 100 Manor Circle (94260)

City: Whitley City County: MCCREARY State: KY Construction Deadline:

Antenna: 1

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	123.400	147.100	135.800	109.800	103.700	143.600	127.300	165.300
Transmitting ERP (watts)	244.175	220.925	36.790	4.400	1.072	1.113	3.637	56.485

Antenna: 2

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	123.400	147.100	135.800	109.800	103.700	143.600	127.300	165.300
Transmitting ERP (watts)	2.526	8.109	37.053	64.172	73.466	23.019	4.143	0.935

Antenna: 3

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	123.400	147.100	135.800	109.800	103.700	143.600	127.300	165.300
Transmitting ERP (watts)	13.438	3.125	0.649	0.912	15.291	122.113	297.793	117.856

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
17	36-56-36.9 N	086-00-52.2 W	218.8	91.1	1063506

Address: 638 GRAHAM ROAD (87368)

City: GLASGOW County: BARREN State: KY Construction Deadline:

Antenna: 1

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	76.900	78.700	69.100	74.800	91.600	116.000	101.800	89.500
Transmitting ERP (watts)	138.618	59.574	7.477	1.200	0.283	0.661	10.185	66.521

Antenna: 2

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	76.900	78.700	69.100	74.800	91.600	116.000	101.800	89.500
Transmitting ERP (watts)	2.142	19.146	94.547	124.562	33.322	3.559	0.817	0.257

Antenna: 3

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	76.900	78.700	69.100	74.800	91.600	116.000	101.800	89.500
Transmitting ERP (watts)	2.434	0.360	0.244	4.119	40.205	121.384	90.927	17.264

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKN666

File Number: 0009619100

Print Date: 09-08-2021

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
18	36-48-31.1 N	084-50-43.5 W	466.6	61.0	1004214

Address: 6565 MORRIS HILL ROAD (87856)
City: MONTICELLO County: WAYNE State: KY Construction Deadline:

Antenna: 1

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	216.900	160.100	180.400	174.000	158.000	164.800	204.700	214.300
Transmitting ERP (watts)	159.083	70.430	5.874	0.769	0.334	0.371	9.558	76.538
Antenna: 2								
Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	216.900	160.100	180.400	174.000	158.000	164.800	204.700	214.300
Transmitting ERP (watts)	1.547	33.128	166.094	241.154	55.397	5.855	1.952	0.731
Antenna: 3								
Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	216.900	160.100	180.400	174.000	158.000	164.800	204.700	214.300
Transmitting ERP (watts)	1.611	0.321	0.293	4.972	42.968	145.725	111.912	13.218

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
19	36-53-52.1 N	084-47-02.5 W	353.6	94.2	1238700

Address: ROUTE 5, BOX 9516 (87058)
City: Monticello County: WAYNE State: KY Construction Deadline:

Antenna: 1

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	153.300	160.500	119.100	104.500	62.300	124.200	155.000	148.700
Transmitting ERP (watts)	151.264	65.591	5.815	0.740	0.328	0.344	9.075	72.988
Antenna: 2								
Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	153.300	160.500	119.100	104.500	62.300	124.200	155.000	148.700
Transmitting ERP (watts)	2.029	20.018	108.704	142.806	33.266	2.825	0.395	0.478
Antenna: 3								
Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	153.300	160.500	119.100	104.500	62.300	124.200	155.000	148.700
Transmitting ERP (watts)	1.536	0.299	0.287	4.752	41.633	135.419	106.546	12.709

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKN666

File Number: 0009619100

Print Date: 09-08-2021

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
20	37-05-19.7 N	084-54-47.3 W	331.6	106.4	1232264

Address: 1101 PINE TOP ROAD (86918)
City: RUSSELL SPRINGS County: RUSSELL State: KY Construction Deadline:

Antenna: 1

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	118.700	77.600	105.400	136.900	148.600	127.700	120.400	134.300
Transmitting ERP (watts)	106.145	47.603	4.827	0.278	0.215	0.233	6.909	51.527

Antenna: 2

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	118.700	77.600	105.400	136.900	148.600	127.700	120.400	134.300
Transmitting ERP (watts)	2.313	23.146	119.606	157.272	35.853	3.353	0.454	0.536

Antenna: 3

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	118.700	77.600	105.400	136.900	148.600	127.700	120.400	134.300
Transmitting ERP (watts)	1.748	0.347	0.313	5.295	45.951	158.160	122.299	14.137

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
22	36-45-21.5 N	085-03-35.7 W	353.6	78.6	1258266

Address: RR BOX 200 STATE ROUTE 90 (97275)
City: Albany County: CLINTON State: KY Construction Deadline:

Antenna: 1

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	159.200	140.400	108.000	36.100	88.900	81.600	132.000	170.300
Transmitting ERP (watts)	61.485	218.225	164.915	26.293	2.922	0.471	0.954	4.500

Antenna: 2

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	159.200	140.400	108.000	36.100	88.900	81.600	132.000	170.300
Transmitting ERP (watts)	1.000	4.591	60.220	229.906	159.544	23.590	2.912	0.466

Antenna: 3

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	159.200	140.400	108.000	36.100	88.900	81.600	132.000	170.300
Transmitting ERP (watts)	7.041	2.307	0.511	1.072	23.419	142.307	232.641	64.969

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKN666

File Number: 0009619100

Print Date: 09-08-2021

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
23	36-44-36.2 N	085-08-34.1 W	350.5	78.0	1258265

Address: 127 North Cross (Route 6 Box 991) (94257)

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

Antenna: 1

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	181.800	142.800	72.800	100.300	157.000	167.400	157.200	193.400
Transmitting ERP (watts)	31.597	145.107	168.768	30.884	3.418	1.072	0.669	1.670

Antenna: 2

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	181.800	142.800	72.800	100.300	157.000	167.400	157.200	193.400
Transmitting ERP (watts)	1.105	1.668	14.838	36.641	44.724	30.421	5.045	2.474

Antenna: 3

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	181.800	142.800	72.800	100.300	157.000	167.400	157.200	193.400
Transmitting ERP (watts)	40.424	4.384	1.518	0.529	1.123	24.617	125.244	176.237

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
26	37-18-17.2 N	085-55-38.3 W	285.3	99.1	1200030

Address: 824 I CHILDRESS ROAD (37618)

City: Munfordville County: HART State: KY Construction Deadline:

Antenna: 1

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	137.000	120.900	185.100	176.500	166.200	156.000	134.000	170.100
Transmitting ERP (watts)	87.882	116.157	30.423	3.076	0.288	0.394	1.136	15.107

Antenna: 2

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	137.000	120.900	185.100	176.500	166.200	156.000	134.000	170.100
Transmitting ERP (watts)	0.236	4.016	34.037	111.204	87.767	11.936	0.954	0.231

Antenna: 3

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	137.000	120.900	185.100	176.500	166.200	156.000	134.000	170.100
Transmitting ERP (watts)	0.893	0.228	0.217	2.143	29.130	110.300	94.526	17.072

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKN666

File Number: 0009619100

Print Date: 09-08-2021

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
27	36-41-54.0 N	085-41-07.0 W	286.5	90.2	1065560

Address: 403 MARTIN SUBDIVISION (87881)
City: TOMPKINSVILLE County: MONROE State: KY Construction Deadline:

Antenna: 1

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	69.700	75.300	146.800	80.100	75.200	103.200	86.800	75.200
Transmitting ERP (watts)	271.841	109.386	7.417	0.800	0.553	0.537	18.630	138.505

Antenna: 2

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	69.700	75.300	146.800	80.100	75.200	103.200	86.800	75.200
Transmitting ERP (watts)	1.721	17.109	89.000	121.386	26.164	2.348	0.328	0.400

Antenna: 3

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	69.700	75.300	146.800	80.100	75.200	103.200	86.800	75.200
Transmitting ERP (watts)	1.247	0.244	0.229	4.118	34.693	116.367	90.021	10.295

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
28	37-21-17.2 N	085-52-24.7 W	352.0	83.8	1220496

Address: 2830 Frenchman's Knob Road (94236)
City: Bonnieville County: HART State: KY Construction Deadline:

Antenna: 1

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	193.700	191.000	195.200	238.600	217.000	184.800	226.800	216.700
Transmitting ERP (watts)	184.924	99.849	11.423	0.450	0.602	0.510	8.026	87.512

Antenna: 2

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	193.700	191.000	195.200	238.600	217.000	184.800	226.800	216.700
Transmitting ERP (watts)	2.115	37.767	246.087	328.098	100.148	5.709	0.676	0.788

Antenna: 3

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	193.700	191.000	195.200	238.600	217.000	184.800	226.800	216.700
Transmitting ERP (watts)	1.310	0.350	0.339	3.061	46.385	170.557	144.024	26.849

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKN666

File Number: 0009619100

Print Date: 09-08-2021

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
32	37-04-19.5 N	084-59-59.4 W	317.0	78.0	1257488

Address: 227 Horn Rd (94247)

City: Russell Springs County: RUSSELL State: KY Construction Deadline:

Antenna: 1

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	149.200	77.200	79.700	105.800	146.300	99.500	80.900	89.500
Transmitting ERP (watts)	221.223	212.121	177.242	71.356	77.801	28.148	33.937	155.008

Antenna: 2

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	149.200	77.200	79.700	105.800	146.300	99.500	80.900	89.500
Transmitting ERP (watts)	18.208	41.435	173.839	236.936	272.788	110.954	36.898	14.156

Antenna: 3

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	149.200	77.200	79.700	105.800	146.300	99.500	80.900	89.500
Transmitting ERP (watts)	68.660	39.848	0.532	12.732	74.296	228.506	206.369	227.920

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
33	36-50-28.6 N	086-02-47.1 W	225.9	60.7	

Address: Austin Tracy Rd (115120)

City: Lucas County: BARREN State: KY Construction Deadline:

Antenna: 1

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	91.800	79.300	63.800	43.400	95.100	66.500	80.300	112.900
Transmitting ERP (watts)	79.481	128.527	48.267	34.537	0.275	16.613	58.629	118.330

Antenna: 2

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	91.800	79.300	63.800	43.400	95.100	66.500	80.300	112.900
Transmitting ERP (watts)	16.424	105.957	212.448	227.867	141.232	41.336	29.497	11.208

Antenna: 3

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	91.800	79.300	63.800	43.400	95.100	66.500	80.300	112.900
Transmitting ERP (watts)	3.736	0.847	2.276	7.728	35.347	59.316	65.492	20.964

Antenna: 4

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	91.800	79.300	63.700	43.400	95.100	66.500	80.300	112.900
Transmitting ERP (watts)	80.215	129.717	48.867	34.856	0.278	16.767	59.174	119.427

Antenna: 5

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	91.800	79.300	63.700	43.400	95.100	66.500	80.300	112.900
Transmitting ERP (watts)	16.576	106.934	215.086	229.984	142.541	41.717	29.770	11.312

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKN666

File Number: 0009619100

Print Date: 09-08-2021

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
33	36-50-28.6 N	086-02-47.1 W	225.9	60.7	

Address: Austin Tracy Rd (115120)
City: Lucas County: BARREN State: KY Construction Deadline:

Antenna: 6

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	91.800	79.300	63.700	43.400	95.100	66.500	80.300	112.900
Transmitting ERP (watts)	3.770	0.854	2.304	7.800	35.674	59.863	66.098	21.158

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
34	36-46-44.5 N	084-56-33.7 W	396.2	78.0	1258267

Address: 9096 W. Hwy 90 (94262)
City: Monticello County: WAYNE State: KY Construction Deadline:

Antenna: 1

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	194.500	173.000	138.200	103.300	102.200	140.500	166.900	201.300
Transmitting ERP (watts)	147.841	143.877	130.052	39.637	24.482	1.946	8.038	54.683

Antenna: 2

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	194.500	173.000	138.200	103.300	102.200	140.500	166.900	201.300
Transmitting ERP (watts)	0.742	5.202	57.406	186.618	115.460	13.939	2.131	0.396

Antenna: 3

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	194.500	173.000	138.200	103.300	102.200	140.500	166.900	201.300
Transmitting ERP (watts)	27.223	19.327	10.778	15.109	86.367	155.385	168.892	88.819

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
35	36-39-45.3 N	084-26-36.2 W	428.2	79.9	1275397

Address: 6135 Hwy 1651 (115765)
City: Pine Knot County: MCCREARY State: KY Construction Deadline:

Antenna: 1

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	132.500	143.700	119.600	95.500	88.700	114.200	161.300	166.800
Transmitting ERP (watts)	69.450	261.545	232.470	44.008	2.017	0.559	0.530	4.304

Antenna: 2

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	132.500	143.700	119.600	95.500	88.700	114.200	161.300	166.800
Transmitting ERP (watts)	0.210	0.184	2.662	25.143	50.189	30.009	3.791	0.206

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKN666

File Number: 0009619100

Print Date: 09-08-2021

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
35	36-39-45.3 N	084-26-36.2 W	428.2	79.9	1275397

Address: 6135 Hwy 1651 (115765)

City: Pine Knot County: MCCREARY State: KY Construction Deadline:

Antenna: 3

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	132.500	143.700	119.600	95.500	88.700	114.200	161.300	166.800
Transmitting ERP (watts)	113.680	6.615	0.792	0.868	2.269	39.368	258.605	358.864

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
36	36-50-27.1 N	084-28-44.2 W	425.5	79.6	1233359

Address: 165 HWY 90 (114139)

City: Parkers Lake County: MCCREARY State: KY Construction Deadline:

Antenna: 1

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	185.500	163.600	170.800	152.900	106.200	178.000	165.700	183.000
Transmitting ERP (watts)	23.185	14.817	1.670	0.153	0.104	0.150	1.655	13.513

Antenna: 2

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	185.500	163.600	170.800	152.900	106.200	178.000	165.700	183.000
Transmitting ERP (watts)	2.683	26.605	140.903	189.301	44.170	3.813	0.542	0.629

Antenna: 3

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	185.500	163.600	170.800	152.900	106.200	178.000	165.700	183.000
Transmitting ERP (watts)	2.063	0.405	0.373	6.243	54.676	179.706	144.196	16.857

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
37	36-41-51.7 N	085-07-19.1 W	303.9	78.0	1273817

Address: 399 Daylton Road (112920)

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

Antenna: 1

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	103.500	53.600	30.000	64.200	100.300	112.300	94.400	76.300
Transmitting ERP (watts)	255.895	112.531	6.303	1.065	0.524	0.886	15.778	134.111

Antenna: 2

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	103.500	53.600	30.000	64.200	100.300	112.300	94.400	76.300
Transmitting ERP (watts)	1.151	13.278	68.092	80.326	20.259	1.984	0.205	0.284

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKN666

File Number: 0009619100

Print Date: 09-08-2021

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
37	36-41-51.7 N	085-07-19.1 W	303.9	78.0	1273817

Address: 399 Daylton Road (112920)

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

Antenna: 3

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	103.500	53.600	30.000	64.200	100.300	112.300	94.400	76.300
Transmitting ERP (watts)	0.327	0.106	0.101	1.174	12.741	41.443	34.130	5.644

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
38	36-44-13.0 N	085-42-10.0 W	309.7	91.1	1042225

Address: 3151 EDMONTON ROAD (94259)

City: TOMPKINSVILLE County: MONROE State: KY Construction Deadline:

Antenna: 1

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	111.100	109.700	147.100	108.800	126.000	145.900	125.000	125.900
Transmitting ERP (watts)	189.524	72.806	7.444	1.950	0.393	0.557	9.583	77.626

Antenna: 2

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	111.100	109.700	147.100	108.800	126.000	145.900	125.000	125.900
Transmitting ERP (watts)	1.067	23.007	114.837	166.790	36.523	3.864	1.339	0.493

Antenna: 3

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	111.100	109.700	147.100	108.800	126.000	145.900	125.000	125.900
Transmitting ERP (watts)	2.199	0.335	0.702	3.359	45.136	159.373	117.688	16.866

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
39	36-38-51.6 N	085-17-33.1 W	317.0	60.7	

Address: 5163 State Park (117828)

City: Cumberland County: CUMBERLAND State: KY Construction Deadline:

Antenna: 1

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	100.500	86.500	93.600	115.600	123.000	167.100	133.100	121.800
Transmitting ERP (watts)	24.683	224.514	184.090	16.413	0.520	0.462	0.466	0.469

Antenna: 2

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	100.500	86.500	93.600	115.600	123.000	167.100	133.100	121.800
Transmitting ERP (watts)	46.321	0.611	0.527	0.529	0.541	7.711	140.237	265.546

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKN666

File Number: 0009619100

Print Date: 09-08-2021

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
40	37-11-42.5 N	085-57-13.0 W	267.6	99.1	1224165

Address: 1515 FISHER RIDGE ROAD (37620)
City: Horse Cave County: HART State: KY Construction Deadline:

Antenna: 1

Maximum Transmitting ERP in Watts:	140.820	45	90	135	180	225	270	315
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	148.700	170.000	148.400	148.400	138.900	116.100	137.500	147.400
Transmitting ERP (watts)	96.574	101.465	19.855	1.861	0.214	0.322	2.056	21.126

Antenna: 2

Maximum Transmitting ERP in Watts:	140.820	45	90	135	180	225	270	315
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	148.700	170.000	148.400	148.400	138.900	116.100	137.500	147.400
Transmitting ERP (watts)	8.514	101.153	307.468	229.726	25.253	1.925	0.630	0.630

Antenna: 3

Maximum Transmitting ERP in Watts:	140.820	45	90	135	180	225	270	315
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	148.700	170.000	148.400	148.400	138.900	116.100	137.500	147.400
Transmitting ERP (watts)	0.226	0.222	3.795	33.295	109.116	83.424	11.320	0.928

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
41	37-01-03.9 N	085-54-42.3 W	254.8	68.6	1230168

Address: 170 Robert Bishop Lane (94244)
City: Glasgow County: BARREN State: KY Construction Deadline:

Antenna: 1

Maximum Transmitting ERP in Watts:	140.820	45	90	135	180	225	270	315
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	93.000	83.300	56.400	66.300	91.100	106.300	92.700	90.500
Transmitting ERP (watts)	104.518	139.218	43.033	2.862	0.290	0.325	1.008	15.797

Antenna: 2

Maximum Transmitting ERP in Watts:	140.820	45	90	135	180	225	270	315
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	93.000	83.300	56.400	66.300	91.100	106.300	92.700	90.500
Transmitting ERP (watts)	0.395	3.203	50.041	189.424	165.261	28.863	1.290	0.398

Antenna: 3

Maximum Transmitting ERP in Watts:	140.820	45	90	135	180	225	270	315
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	93.000	83.300	56.400	66.300	91.100	106.300	92.700	90.500
Transmitting ERP (watts)	11.785	0.490	0.619	0.543	8.652	98.226	207.121	111.304

Control Points:

Control Pt. No. 1

Address: 124 South Keeneland Drive (Suite 103)
City: RICHMOND County: MADISON State: KY Telephone Number: (859)544-4804

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKN666

File Number: 0009619100

Print Date: 09-08-2021

Waivers/Conditions:

NONE

Reference.com

REFERENCE COPY

This is not an official FCC license. It is a record of public information contained in the FCC's licensing database on the date that this reference copy was generated. In cases where FCC rules require the presentation, posting, or display of an FCC license, this document may not be used in place of an official FCC license.



**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 KNLG909	File Number
Radio Service CW - PCS Broadband	

FCC Registration Number (FRN): 0003291192

Grant Date 07-25-2017	Effective Date 08-31-2018	Expiration Date 08-21-2027	Print Date
Market Number BTA052	Channel Block F	Sub-Market Designator 0	
Market Name Bowling Green-Glasgow, KY			
1st Build-out Date 08-21-2002	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 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 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: 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
--------	-------------	-------------------	-----------------------	--------

REFERENCE COPY

This is not an official FCC license. It is a record of public information contained in the FCC's licensing database on the date that this reference copy was generated. In cases where FCC rules require the presentation, posting, or display of an FCC license, this document may not be used in place of an official FCC license.



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 WPO1255	File Number
Radio Service CW - PCS Broadband	

FCC Registration Number (FRN): 0003291192

Grant Date 05-27-2015	Effective Date 03-12-2020	Expiration Date 06-23-2025	Print Date
Market Number MTA026	Channel Block A	Sub-Market Designator 19	
Market Name Louisville-Lexington-Evansville			
1st Build-out Date 06-23-2000	2nd Build-out Date 06-23-2005	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 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: 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: WPO1255

File Number:

Print Date:

700 MHz Relicensed Area Information:

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

REFERENCE COPY

This is not an official FCC license. It is a record of public information contained in the FCC's licensing database on the date that this reference copy was generated. In cases where FCC rules require the presentation, posting, or display of an FCC license, this document may not be used in place of an official FCC license.



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 WQFA871	File Number
Radio Service CW - PCS Broadband	

FCC Registration Number (FRN): 0003291192

Grant Date 04-13-2017	Effective Date 08-31-2018	Expiration Date 04-28-2027	Print Date
Market Number BTA052	Channel Block E	Sub-Market Designator 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 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: WQFA871

File Number:

Print Date:

700 MHz Relicensed Area Information:

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

REFERENCE COPY

This is not an official FCC license. It is a record of public information contained in the FCC's licensing database on the date that this reference copy was generated. In cases where FCC rules require the presentation, posting, or display of an FCC license, this document may not be used in place of an official FCC license.



**Federal Communications Commission
Wireless Telecommunications Bureau**

RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

ATTN: FCC GROUP
NEW CINGULAR WIRELESS PCS, LLC
208 S AKARD ST., RM 2100
DALLAS, TX 75202

Call Sign WQGA818	File Number 0009696747
Radio Service AW - AWS (1710-1755 MHz and 2110-2155 MHz)	

FCC Registration Number (FRN): 0003291192

Grant Date 11-16-2021	Effective Date 11-16-2021	Expiration Date 11-29-2036	Print Date 11-17-2021
Market Number CMA447	Channel Block A	Sub-Market Designator 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 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: WQGA818

File Number: 0009696747

Print Date: 11-17-2021

700 MHz Relicensed Area Information:

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

REFERENCE COPY

This is not an official FCC license. It is a record of public information contained in the FCC's licensing database on the date that this reference copy was generated. In cases where FCC rules require the presentation, posting, or display of an FCC license, this document may not be used in place of an official FCC license.



**Federal Communications Commission
Wireless Telecommunications Bureau**

RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

ATTN: FCC GROUP
NEW CINGULAR WIRELESS PCS, LLC
208 S AKARD ST., RM 2100
DALLAS, TX 75202

Call Sign WQGD755	File Number 0009778271
Radio Service AW - AWS (1710-1755 MHz and 2110-2155 MHz)	

FCC Registration Number (FRN): 0003291192

Grant Date 01-10-2022	Effective Date 01-10-2022	Expiration Date 12-18-2036	Print Date 01-11-2022
Market Number BEA047	Channel Block C	Sub-Market Designator 9	
Market Name Lexington, KY-TN-VA-WV			
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.

Special Condition for AU/name change (6/4/2016): 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: WQGD755

File Number: 0009778271

Print Date: 01-11-2022

700 MHz Relicensed Area Information:

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

REFERENCE COPY

This is not an official FCC license. It is a record of public information contained in the FCC's licensing database on the date that this reference copy was generated. In cases where FCC rules require the presentation, posting, or display of an FCC license, this document may not be used in place of an official FCC license.



**Federal Communications Commission
Wireless Telecommunications Bureau
RADIO STATION AUTHORIZATION**

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

ATTN: FCC GROUP
NEW CINGULAR WIRELESS PCS, LLC
208 S AKARD ST. RM 2100
DALLAS, TX 75202

Call Sign WQGD758	File Number 0009724700
Radio Service AW - AWS (1710-1755 MHz and 2110-2155 MHz)	

FCC Registration Number (FRN): 0003291192

Grant Date 12-22-2021	Effective Date 12-22-2021	Expiration Date 12-18-2036	Print Date 12-23-2021
Market Number BEA071	Channel Block C	Sub-Market Designator 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.

Special Condition for AU/name change (6/4/2016): 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: 0009724700

Print Date: 12-23-2021

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:15435110/ 10124681 SITE ID: KYLEX2057

PACE #: MRTNK052246

PROJECT TRACKING #: 2457A0XDC2

SITE NAME: SEMINARY

LEGACY SITE NAME: SNOW RELO

PROPERTY ADDRESS:

3723 N US HWY 127
ALBANY, KY 42602
CLINTON COUNTY

E911 ADDRESS:

NEAR 3723 N US HWY 127
ALBANY, KY 42602
CLINTON COUNTY

PROPOSED 255' SELF-SUPPORT TOWER



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:	DESCRIPTION
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.

ZONING DRAWINGS

PROJECT SUMMARY

SITE NAME: SEMINARY
 SITE NUMBER: KYLEX2057
 TAX MAP PROPERTY ID: 027-00-00-030.00
 SITE ADDRESS: 3723 N US HWY 127
 ALBANY, KY 42602
 E911 ADDRESS: NEAR 3723 N US HWY 127
 ALBANY, KY 42602
 JURISDICTION: KENTUCKY PUBLIC SERVICE COMMISSION
 TOWER OWNER: HARMONI TOWERS
 11101 ANDERSON DRIVE, SUITE 200
 LITTLE ROCK, AR 72212
 NAD83
 LATITUDE: 36.740639° N
 LONGITUDE: -85.138181° W
 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



DRAWING INDEX

SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
1-3	SURVEY
C-1.0	500' RADIUS & ADJOINER'S DRAWING
C-1.1	OVERALL ADJOINER'S DRAWING
C-2	OVERALL SITE LAYOUT
C-2.2	OVERALL SITE LAYOUT
C-3	ENLARGED COMPOUND LAYOUT
C-4	TOWER ELEVATION

HARMONI TOWERS
 SEMINARY/
 SNOW RELO
 FA# 15435110/10124681
 PACE# MRTNK052246
 PT# 2457A0XDC2
 (PROPERTY) 3723 N
 US HWY 127
 ALBANY, KY 42602
 CLINTON COUNTY
 PROPOSED 255' SELF-SUPPORT TOWER

PROJECT NO: G0144564.006.01
 CHECKED BY: MAS

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION
0	02/21/22	MAS	FINAL
1	03/30/22	DLS	FINAL
2	05/25/22	DLS	FINAL

B&T ENGINEERING, INC.
 4011
 Expires 12/31/22



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.

DESIGN INFORMATION

A&E FIRM: B+T GROUP
 1717 S. BOULDER,
 SUITE 300
 TULSA, OK 74119
 MIKE A. SPEEDIE, PE
 (918) 587-4630
 SURVEYOR: POINT TO POINT
 100 GOVERNORS TRACE, STE #103
 PEACHTREE CITY, GA 30269
 PH. (678) 565-4440
 ELECTRIC PROVIDER: KENTUCKY UTILITIES
 PROVIDER: 800-981-0600
 TELCO PROVIDER: WINDSTREAM
 PROVIDER: XXX-XXX-XXXX

DRIVING DIRECTIONS

- DEPART JUDGE/EXECUTIVE OFFICE, 100 CROSS ST, ALBANY, KY 42602 [100 CROSS ST, ALBANY, KY 42602] ON US-127 [CROSS ST] (SOUTH) 174 YDS
- TURN LEFT (EAST) ONTO US-127 [WATER ST] 76 YDS
- TURN LEFT (NORTH) ONTO US-127 [WASHINGTON ST] 3.6 MI
- TURN LEFT (WEST) ONTO MAPLE MOUNTAIN 0.2 MI
- TURN LEFT (SOUTH) ONTO LOCAL ROAD(S) 54 YDS
- ARRIVE 36.74060°N 85.13869°W, 3723 N. HIGHWAY NO. 127

CODE COMPLIANCE

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

CODE TYPE	CODE
BUILDING/DWELLING	IBC 2015
STRUCTURAL	IBC 2015
MECHANICAL	IMC 2015
ELECTRICAL	NEC 2017

PROJECT DESCRIPTION

- THE PROPOSED PROJECT INCLUDES:
- CONSTRUCT (1) NEW 255' SELF-SUPPORT TOWER
 - CONSTRUCT FENCED GRAVEL UTILITY COMPOUND WITH LOCKING ACCESS GATE, 80' x 80' WITHIN 100' x 100' LEASE AREA.
 - INSTALL (1) H-FRAME W/ UTILITY EQUIPMENT.
 - INSTALL NEW POWER & TELCO UTILITY SERVICES.
 - CONSTRUCT 12' WIDE GRAVEL ACCESS ROAD

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.



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

TITLE SHEET

SHEET NUMBER:

T-1



PARENT PARCEL

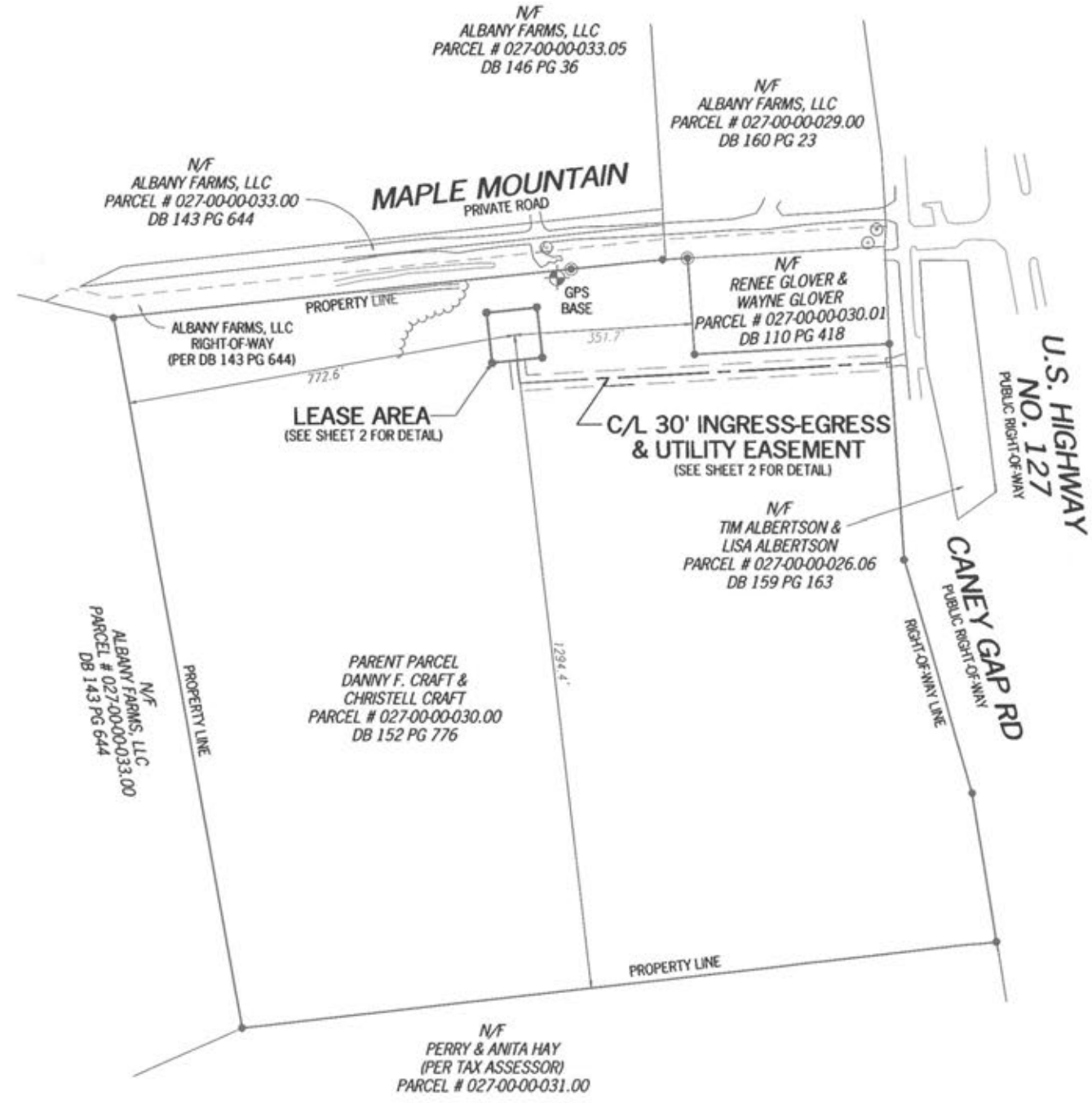
OWNER: DANNY F. CRAFT & CHRISTELL CRAFT
 SITE ADDRESS: 3723 N HIGHWAY NO. 127, ALBANY, KENTUCKY 42602
 PARCEL ID: 027-00-00-030.00
 AREA: 45.9 ACRES (PER TAX ASSESSOR)
 ALL ZONING INFORMATION SHOULD BE VERIFIED WITH THE PROPER ZONING OFFICIALS
 REFERENCE: DEED BOOK 152 PAGE 776

GPS NOTES

THE FOLLOWING GPS STATISTICS UPON WHICH THIS SURVEY IS BASED HAVE BEEN PRODUCED AT THE 95% CONFIDENCE LEVEL:
 POSITIONAL ACCURACY: 0.01 FEET (HORZ) 0.21 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: 02/22/2021 & 06/08/2021
 DATUM / EPOCH: NAD_83(2011)EPOCH:2010.00001
 PUBLISHED / FIXED CONTROL USE: N/A
 GEOID MODEL: 18
 COMBINED GRID FACTOR(S): 1.00005125 CENTERED ON THE GPS BASE POINT AS SHOWN HEREON.
 CONVERGENCE ANGLE: 0.37581389"
 BENCHMARKS USED: DL6169, DK7555, DH7217



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 HARMONI TOWERS 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.

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

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: 06/09/2021)

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. : 21053C0110C DATED: 07/22/2010

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.

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

NO.	DATE	REVISION
1	06/14/2021	REVISED LAYOUT - AJT
2	11/22/2021	REVISED LAYOUT - AJT
3	2/10/2022	SITE ADDRESS
4	4/27/2022	ING/EGR ESMT.

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



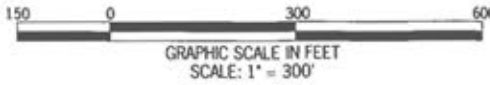
SPECIFIC PURPOSE SURVEY PREPARED FOR
 HARMONI
 10801 EXECUTIVE CENTER DRIVE
 SHANNON BLDG., STE 100
 LITTLE ROCK, AR 72211

SEMINARY
 SITE NO. 15435110
 CLINTON COUNTY, KENTUCKY

DRAWN BY: AJT
 CHECKED BY: JKL
 APPROVED: D. MILLER
 DATE: MARCH 5, 2021
 P2P JOB #: 210140KY

SHEET: 1 OF 3

- LEGEND**
- POB POINT OF BEGINNING
 - POC POINT OF COMMENCEMENT
 - RF IRON PIN FOUND
 - RB REBAR
 - N/F NOW OR FORMERLY
 - C/L CENTERLINE
 - UP UTILITY POLE
 - OU OVERHEAD UTILITY
 - TR TRANSFORMER
 - CAW CRY WIRE ANCHOR
 - TYP TYPICAL
 - BWF BARBED WIRE FENCE
 - FH FIRE HYDRANT
 - MH MANHOLE
 - WM WATER METER
 - MB MAILBOX
 - CMP CORRUGATED METAL PIPE
 - E INVERT ELEVATION
 - EP EDGE OF PAVEMENT
 - DI DROP INLET
 - TBM TEMPORARY BENCHMARK



SURVEYOR'S CERTIFICATE

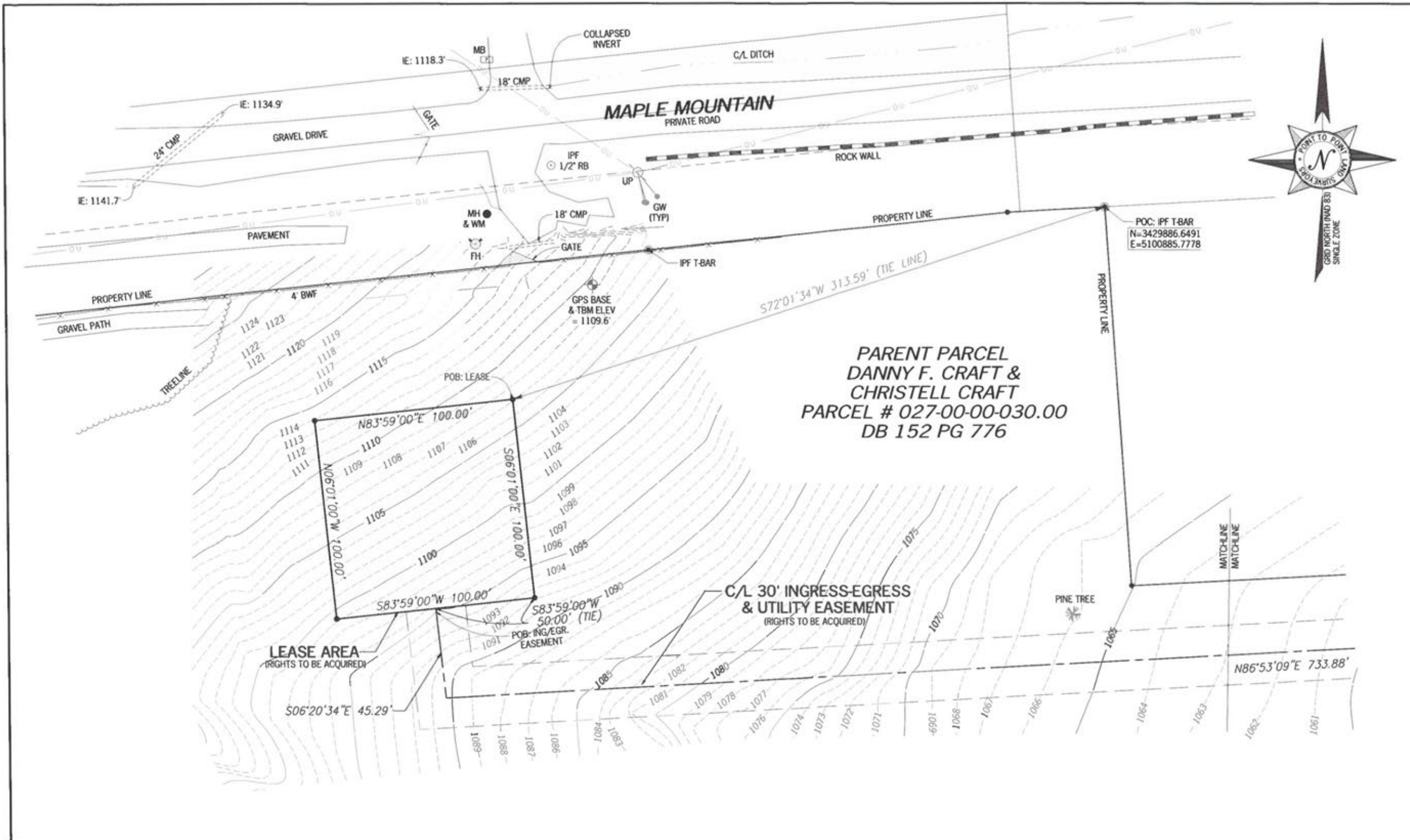
I, G. DARRELL TAYLOR, A KENTUCKY PROFESSIONAL LAND SURVEYOR, CERTIFY THAT THE INFORMATION SHOWN HEREON WAS COMPILED USING DATA FROM AN ACTUAL FIELD SURVEY MADE UNDER MY DIRECT SUPERVISION BY METHOD OF RANDOM TRAVERSE WITH SIDE SHOTS. THE UNADJUSTED PRECISION RATIO OF THE TRAVERSE EXCEEDED 1:10,000 AND 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
 G. DARRELL TAYLOR, PLS 4179
 11/22/2021
 DATE



Know what's below.
 Call before you dig.

E:\topobox (Point To Point)2021\01-0201-Seminary\210140KY.dwg



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

NO.	DATE	REVISION
1	06/14/2021	REVISED LAYOUT - AJT
2	11/22/2021	REVISED LAYOUT - AJT
3	2/10/2022	SITE ADDRESS
4	4/27/2022	ING/EGR ESMT.

* 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) pointtosurvey.com



SPECIFIC PURPOSE SURVEY PREPARED FOR:

HARMONI
 10801 EXECUTIVE CENTER DRIVE
 SHANNON BLDG., STE 100
 LITTLE ROCK, AR 72211

SEMINARY
 SITE NO. 15435110
 CLINTON COUNTY, KENTUCKY

DRAWN BY: AJT
 CHECKED BY: JKL
 APPROVED: D. MILLER
 DATE: MARCH 5, 2021
 P2P JOB #: 210140KY

SHEET:
2
 OF 3

PARENT PARCEL
 DANNY F. CRAFT &
 CHRISTELL CRAFT
 PARCEL # 027-00-00-030.00
 DB 152 PG 776

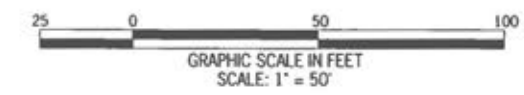
C/L 30' INGRESS-EGRESS & UTILITY EASEMENT
 (RIGHTS TO BE ACQUIRED)

LEASE AREA
 (RIGHTS TO BE ACQUIRED)

SITE INFORMATION

LEASE AREA = 10,000 SQUARE FEET (0.2296 ACRES)
 LATITUDE = 36°44'26.30" (NAD 83) (36.740639°)
 LONGITUDE = -85°08'17.45" (NAD 83) (-85.138181°)
 AT CENTER LEASE AREA
 ELEVATION AT CENTER OF LEASE AREA = 1103.5' A.M.S.L.

- LEGEND**
- POB POINT OF BEGINNING
 - POC POINT OF COMMENCEMENT
 - IPF IRON PIN FOUND
 - RB REBAR
 - N/F NOW OR FORMERLY
 - C/L CENTERLINE
 - UP UTILITY POLE
 - OU OVERHEAD UTILITY
 - TR TRANSFORMER
 - DW CITY WIRE ANCHOR
 - TYP TYPICAL
 - BWF BARBED WIRE FENCE
 - FH FIRE HYDRANT
 - MH MANHOLE
 - WM WATER METER
 - MB MAIL BOX
 - CMP CORRUGATED METAL PIPE
 - IE INVERT ELEVATION
 - EP EDGE OF PAVEMENT
 - DI DROP INLET
 - TBM TEMPORARY BENCHMARK



SURVEY NOT VALID WITHOUT SHEETS 1 & 3 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 CLINTON COUNTY KENTUCKY, AND BEING A PORTION OF THE LANDS OF DANNY F. CRAFT AND CHRISTELL CRAFT, AS RECORDED IN DEED BOOK 152, PAGE 776, CLINTON COUNTY RECORDS, AND BEING MORE PARTICULARLY DESCRIBED BY THE FOLLOWING CENTERLINE DATA:

TO FIND THE POINT OF BEGINNING, COMMENCE, AT A T-BAR FOUND AT THE NORTHWEST PROPERTY CORNER OF THE LANDS OF RENEE GLOVER AND WAYNE GLOVER, AS RECORDED IN DEED BOOK 110, PAGE 418, CLINTON COUNTY RECORDS, SAID T-BAR HAVING A KENTUCKY GRID NORTH, NAD 83, SINGLE ZONE VALUE OF N: 3429886.6491 E: 5100885.7778; THENCE RUNNING ALONG A TIE-LINE, SOUTH 72°01'34" WEST 313.59 FEET TO A POINT LOCATED ON THE LEASE AREA; THENCE RUNNING WITH SAID LEASE AREA, SOUTH 06°01'00" EAST, 100.00 FEET TO A POINT; THENCE, SOUTH 83°59'00" WEST, 50.00 FEET TO A POINT AND THE TRUE POINT OF BEGINNING; THENCE SOUTH 06°20'34" EAST, 45.29 FEET TO A POINT; THENCE, NORTH 86°53'09" EAST, 733.88 FEET TO THE ENDING AT A POINT ON THE WESTERN RIGHT-OF-WAY LINE OF CANEY GAP ROAD.

BEARINGS BASED ON KENTUCKY GRID NORTH, NAD 83, SINGLE ZONE.

LEASE AREA

ALL THAT TRACT OR PARCEL OF LAND, LYING AND BEING IN CLINTON COUNTY KENTUCKY, AND BEING A PORTION OF THE LANDS OF DANNY F. CRAFT AND CHRISTELL CRAFT, AS RECORDED IN DEED BOOK 152, PAGE 776, CLINTON COUNTY RECORDS, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

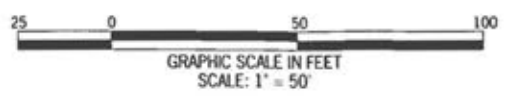
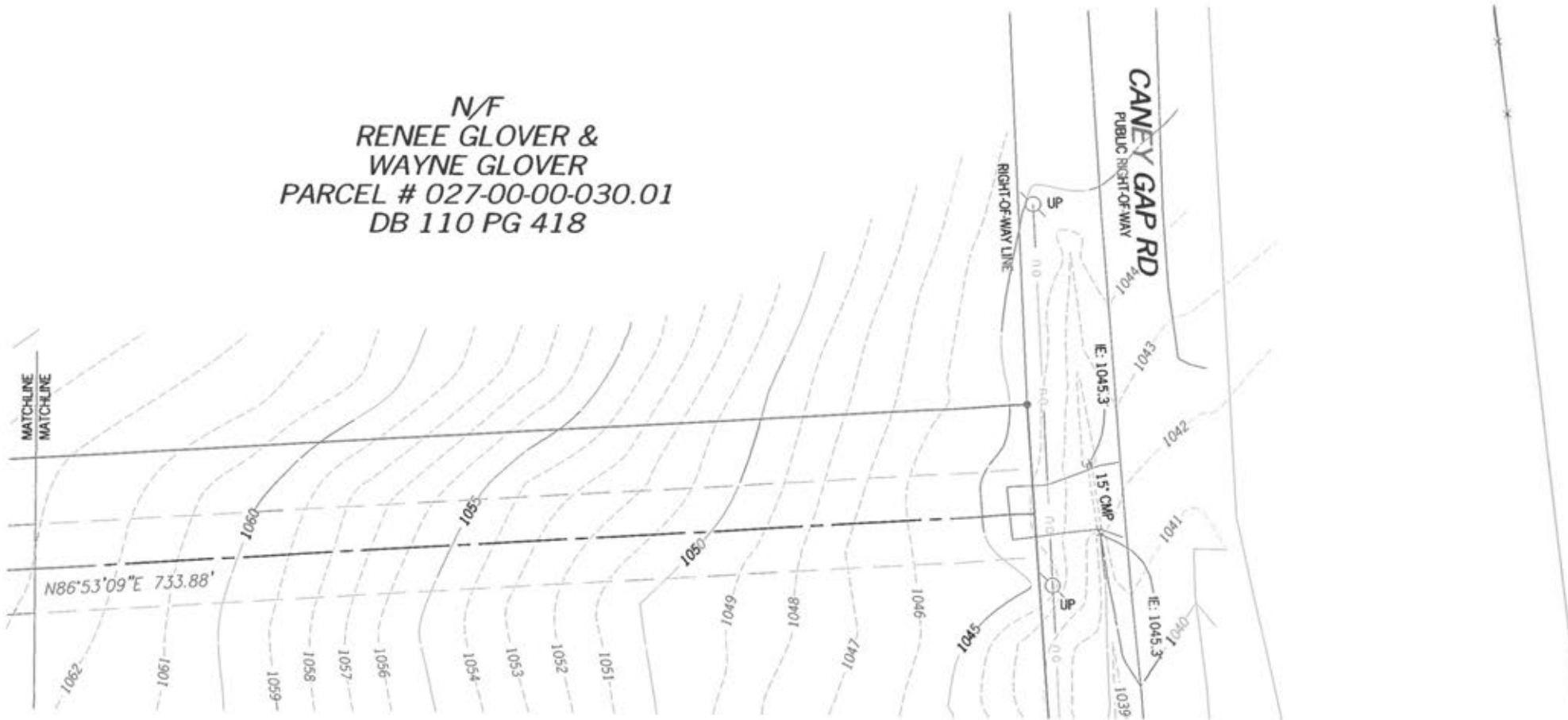
TO FIND THE POINT OF BEGINNING, COMMENCE, AT A T-BAR FOUND AT THE NORTHWEST PROPERTY CORNER OF THE LANDS OF RENEE GLOVER AND WAYNE GLOVER, AS RECORDED IN DEED BOOK 110, PAGE 418, CLINTON COUNTY RECORDS, SAID T-BAR HAVING A KENTUCKY GRID NORTH, NAD 83, SINGLE ZONE VALUE OF N: 3429886.6491 E: 5100885.7778; THENCE RUNNING ALONG A TIE-LINE, SOUTH 72°01'34" WEST 313.59 FEET TO A POINT AND THE TRUE POINT OF BEGINNING; THENCE, SOUTH 06°01'00" EAST, 100.00 FEET TO A POINT; THENCE, SOUTH 83°59'00" WEST, 100.00 FEET TO A POINT; THENCE, NORTH 06°01'00" WEST, 100.00 FEET TO A POINT; THENCE, NORTH 83°59'00" EAST, 100.00 FEET TO A POINT AND THE POINT OF BEGINNING

BEARINGS BASED ON KENTUCKY GRID NORTH, NAD 83, SINGLE ZONE.

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



N/F
RENEE GLOVER &
WAYNE GLOVER
PARCEL # 027-00-00-030.01
DB 110 PG 418

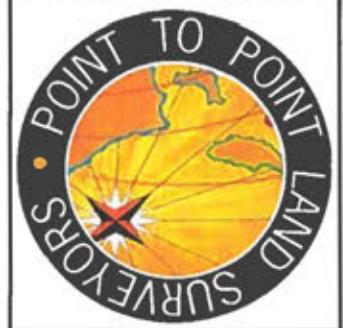


- LEGEND**
- POB POINT OF BEGINNING
 - POC POINT OF COMMENCEMENT
 - RF IRON PIN FOUND
 - RB REBAR
 - N/F NOW OR FORMERLY
 - C/L CENTERLINE
 - UP UTILITY POLE
 - OU OVERHEAD UTILITY
 - TR TRANSFORMER
 - GW GUY WIRE ANCHOR
 - TYP TYPICAL
 - BWF BARBED WIRE FENCE
 - FH FIRE HYDRANT
 - MH MANHOLE
 - WM WATER METER
 - MB MAILBOX
 - CMP CORRUGATED METAL PIPE
 - E INVERT ELEVATION
 - EP EDGE OF PAVEMENT
 - DI DROP INLET
 - TBM TEMPORARY BENCHMARK

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

NO.	DATE	REVISION
1	06/14/2021	REVISED LAYOUT - AJT
2	11/22/2021	REVISED LAYOUT - AJT
3	2/10/2022	SITE ADDRESS
4	4/27/2022	ING/EGR ESMT.

* 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) pointtopointsurveyors.com



SPECIFIC PURPOSE SURVEY PREPARED FOR:

HARMONI
10801 EXECUTIVE CENTER DRIVE
SHANNON BLDG., STE 100
LITTLE ROCK, AR 72211

SEMINARY
SITE NO.
15435110
CLINTON COUNTY,
KENTUCKY

DRAWN BY: AJT
CHECKED BY: JKL
APPROVED: D. MILLER
DATE: MARCH 5, 2021
P2P JOB #: 210140KY

SHEET:
3
OF 3

SURVEY NOT VALID WITHOUT SHEETS 1 & 2 OF 3

L:\workspace\Point To Point\2021\01\0001\Seminary\210140KY.dwg

144564_XTEL07087_Seminary_20's (2).dwg - Street-C-1.0 - User: dmsimon - May 25, 2022 - 7:58am



#	OWNER	ADDRESS	PID	REF
1	CRAFT DANNY F & CHRISTELL	379 CANEY GAP RD ALBANY, KY 42602	027-00 00 030.00	DB 152 PG 776
2	ALBANY FARMS, LLC	9788 CEMETERY RD BOWLING GREEN, KY 42103	027-00 00 033.00	DB 143 PG 644
3	ALBANY FARMS, LLC	9788 CEMETERY RD BOWLING GREEN, KY 42103	027-00 00 033.00	DB 143 PG 644
4	ALBANY FARMS, LLC	9788 CEMETERY RD BOWLING GREEN, KY 42103	027-00 00 033.05	DB 146 PG 36
5	ALBANY FARMS, LLC	9788 CEMETERY RD BOWLING GREEN, KY 42103	027-00 00 029.00	DB 160 PG 23
6	GLOVER WAYNE & RENEE	583 CANEY GAP RD ALBANY, KY 42602	027-00 00 030.01	DB 110 PG 418
7	ALBERTSON TIM & LISA	101 POPLAR DR ALBANY, KY 42602	027-00 00 026.06	DG 159 PG 163
8	HAY PERRY & ANITA	27 CANEY GAP RD ALBANY, KY 42602	027-00 00 031.00	-
9	GLOVER WAYNE & ROBIN RENEE	583 CANEY GAP RD ALBANY, KY 42602	035-00 00 005.02	-

- NOTE:
1. PVA INFORMATION WAS OBTAINED ON 3/28/2022 FROM THE OFFICIAL RECORDS OF THE COUNTY'S PROPERTY VALUATION ADMINISTRATOR.
 2. THIS MAP IS FOR GENERAL INFORMATION PURPOSES ONLY AND IS NOT A BOUNDARY SURVEY.
 3. NOT FOR RECORDING OR PROPERTY TRANSFER.

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



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



HARMONI TOWERS
 SEMINARY/
 SNOW RELO
 FA# 15435110/10124681
 PACE# MRTNK052246
 PT# 2457A0XDC2
 (PROPERTY) 3723 N
 US HWY 127
 ALBANY, KY 42602
 CLINTON COUNTY
 PROPOSED 255' SELF-SUPPORT TOWER

PROJECT NO: G0144564.006.01
 CHECKED BY: MAS

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION
0	02/21/22	MAS	FINAL
1	03/30/22	DLS	FINAL
2	05/25/22	DLS	FINAL

B&T ENGINEERING, INC.
 4011
 Expires 12/31/22

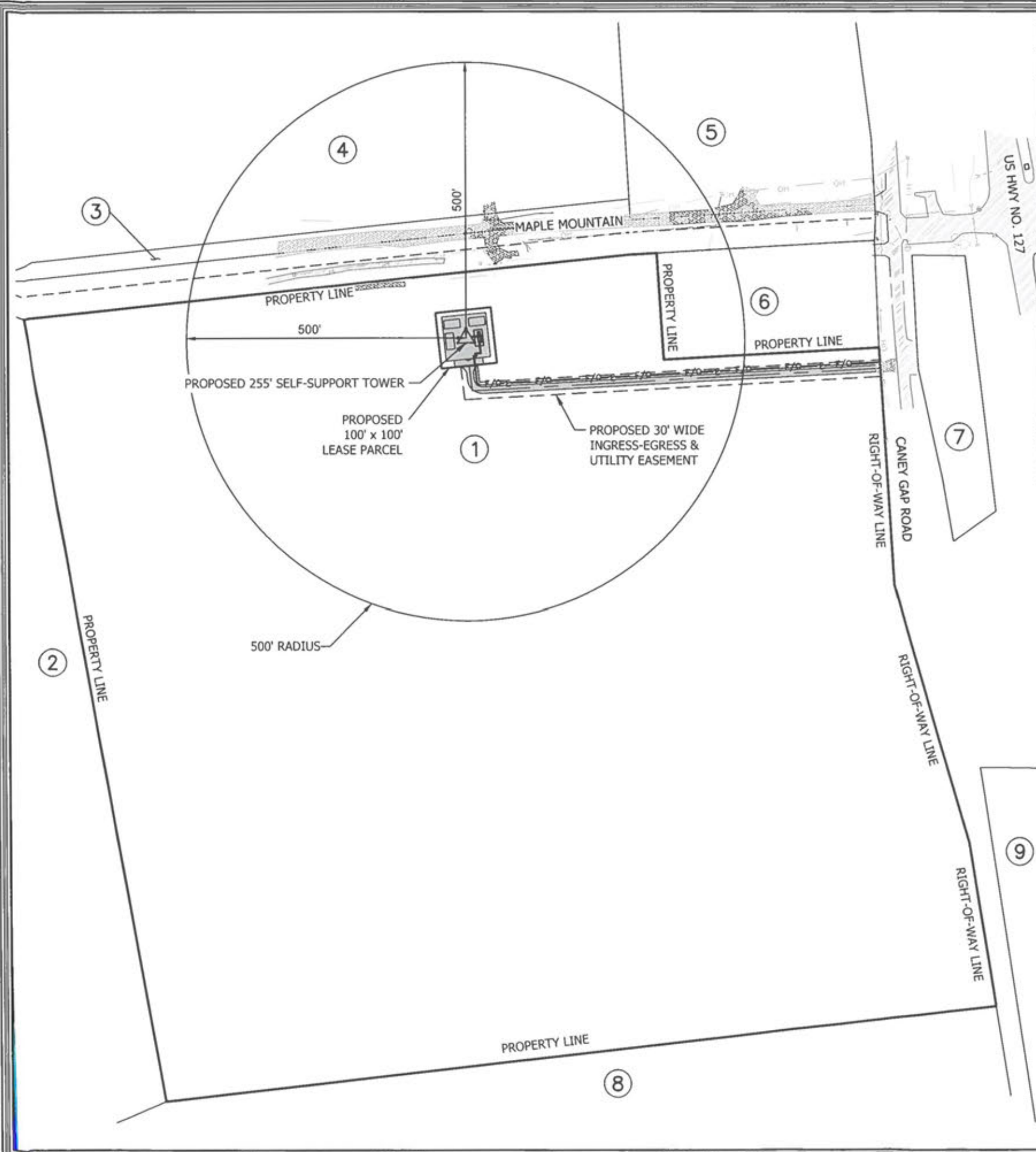


IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

500' RADIUS & ADJOINER'S DRAWING

SHEET NUMBER:
C-1.0

144564_KVLEK02022_Seminary_20's [2].dwg - User: dastolen - May 25, 2022 - 7:59am



#	OWNER	ADDRESS	PID	REF
1	CRAFT DANNY F & CHRISTELL	379 CANEY GAP RD ALBANY, KY 42602	027-00 00 030.00	DB 152 PG 776
2	ALBANY FARMS, LLC	9788 CEMETERY RD BOWLING GREEN, KY 42103	027-00 00 033.00	DB 143 PG 644
3	ALBANY FARMS, LLC	9788 CEMETERY RD BOWLING GREEN, KY 42103	027-00 00 033.00	DB 143 PG 644
4	ALBANY FARMS, LLC	9788 CEMETERY RD BOWLING GREEN, KY 42103	027-00 00 033.05	DB 146 PG 36
5	ALBANY FARMS, LLC	9788 CEMETERY RD BOWLING GREEN, KY 42103	027-00 00 029.00	DB 160 PG 23
6	GLOVER WAYNE & RENEE	583 CANEY GAP RD ALBANY, KY 42602	027-00 00 030.01	DB 110 PG 418
7	ALBERTSON TIM & LISA	101 POPLAR DR ALBANY, KY 42602	027-00 00 026.06	DG 159 PG 163
8	HAY PERRY & ANITA	27 CANEY GAP RD ALBANY, KY 42602	027-00 00 031.00	-
9	GLOVER WAYNE & ROBIN RENEE	583 CANEY GAP RD ALBANY, KY 42602	035-00 00 005.02	-

- NOTE:
1. PVA INFORMATION WAS OBTAINED ON 3/28/2022 FROM THE OFFICIAL RECORDS OF THE COUNTY'S PROPERTY VALUATION ADMINISTRATOR.
 2. THIS MAP IS FOR GENERAL INFORMATION PURPOSES ONLY AND IS NOT A BOUNDARY SURVEY.
 3. NOT FOR RECORDING OR PROPERTY TRANSFER.



HARMONI TOWERS
SEMINARY /
SNOW RELO
FA# 15435110/10124681
PACE# MRTNK052246
PT# 2457A0XDC2
(PROPERTY) 3723 N
US HWY 127
ALBANY, KY 42602
CLINTON COUNTY
PROPOSED 255' SELF-SUPPORT TOWER

PROJECT NO: G0144564.006.01
CHECKED BY: MAS

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION
0	02/21/22	MAS	FINAL
1	03/30/22	DLS	FINAL
2	05/25/22	DLS	FINAL

B&T ENGINEERING, INC.
4011
Expires 12/31/22



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-1.1

1 OVERALL ADJOINER'S DRAWING
SCALE: 1" = 200'
0' 100' 200' 300' 400'



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





HARMONI TOWERS
SEMINARY /
SNOW RELO
FA# 15435110/10124681
PACE# MRTNKK052246
PT# 2457A0XDC2
(PROPERTY) 3723 N
US HWY 127
ALBANY, KY 42602
CLINTON COUNTY
PROPOSED 255' SELF-SUPPORT TOWER

PROJECT NO: G0144564.006.01
CHECKED BY: MAS

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION
0	02/21/22	MAS	FINAL
1	03/30/22	DLS	FINAL
2	05/25/22	DLS	FINAL

B&T ENGINEERING, INC.
4011
Expires 12/31/22



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 SITE LAYOUT

SHEET NUMBER:
C-2

NOTES:

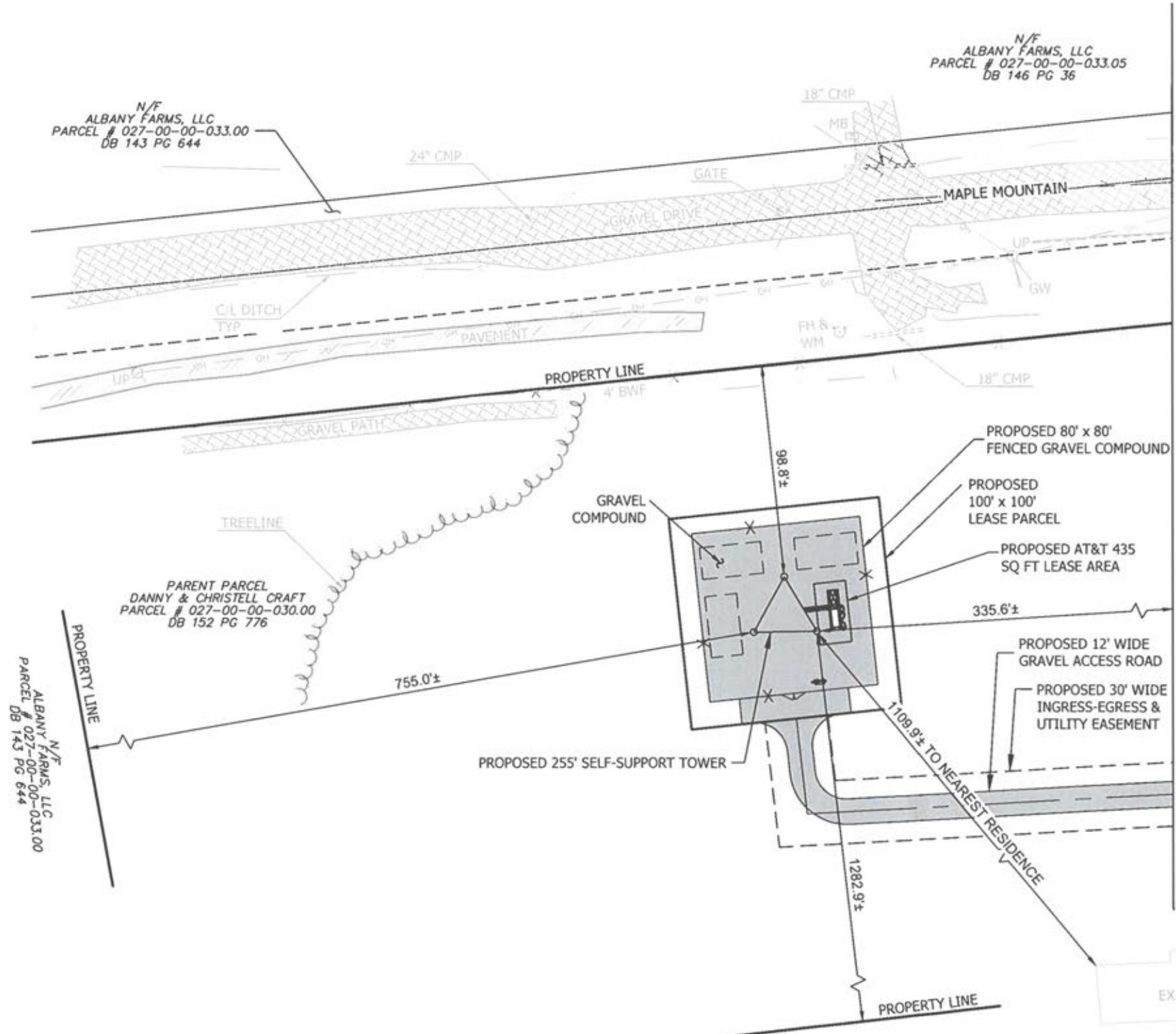
1. TOWER LATITUDE, LONGITUDE & ELEVATION MEET FAA"1-A" ACCURACY REQUIREMENTS.

2. CENTER OF TOWER:

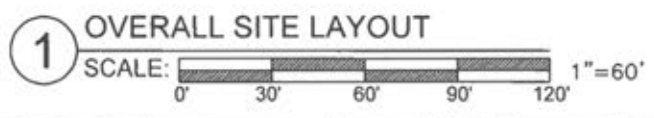
LATITUDE: NORTH 36°44'26.30" (36.740639°) NAD 83
LONGITUDE: WEST -85°08'17.45" (-85.138181°) NAD 83
GROUND ELEVATION @ 1103.5' A.M.S.L. NAVD 88

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

NORTHEAST: 355.6'±
SOUTHWEST: 755.0'±
SOUTHEAST: 1282.9'±
NORTHWEST: 98.8'±



MATCH LINE SEE SHT. C-2.2



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



144564_PLOT0008_Seminary_20's (2).dwg - User: dstolow - May 25, 2022 - 7:55am



HARMONI TOWERS
 SEMINARY /
 SNOW RELO
 FA# 15435110/10124681
 PAGE# MRTNKO52246
 PT# 2457A0XDC2
 (PROPERTY) 3723 N
 US HWY 127
 ALBANY, KY 42602
 CLINTON COUNTY
 PROPOSED 255' SELF-SUPPORT TOWER

PROJECT NO: G0144564.006.01
 CHECKED BY: MAS

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION
0	02/21/22	MAS	FINAL
1	03/30/22	DLS	FINAL
2	05/25/22	DLS	FINAL

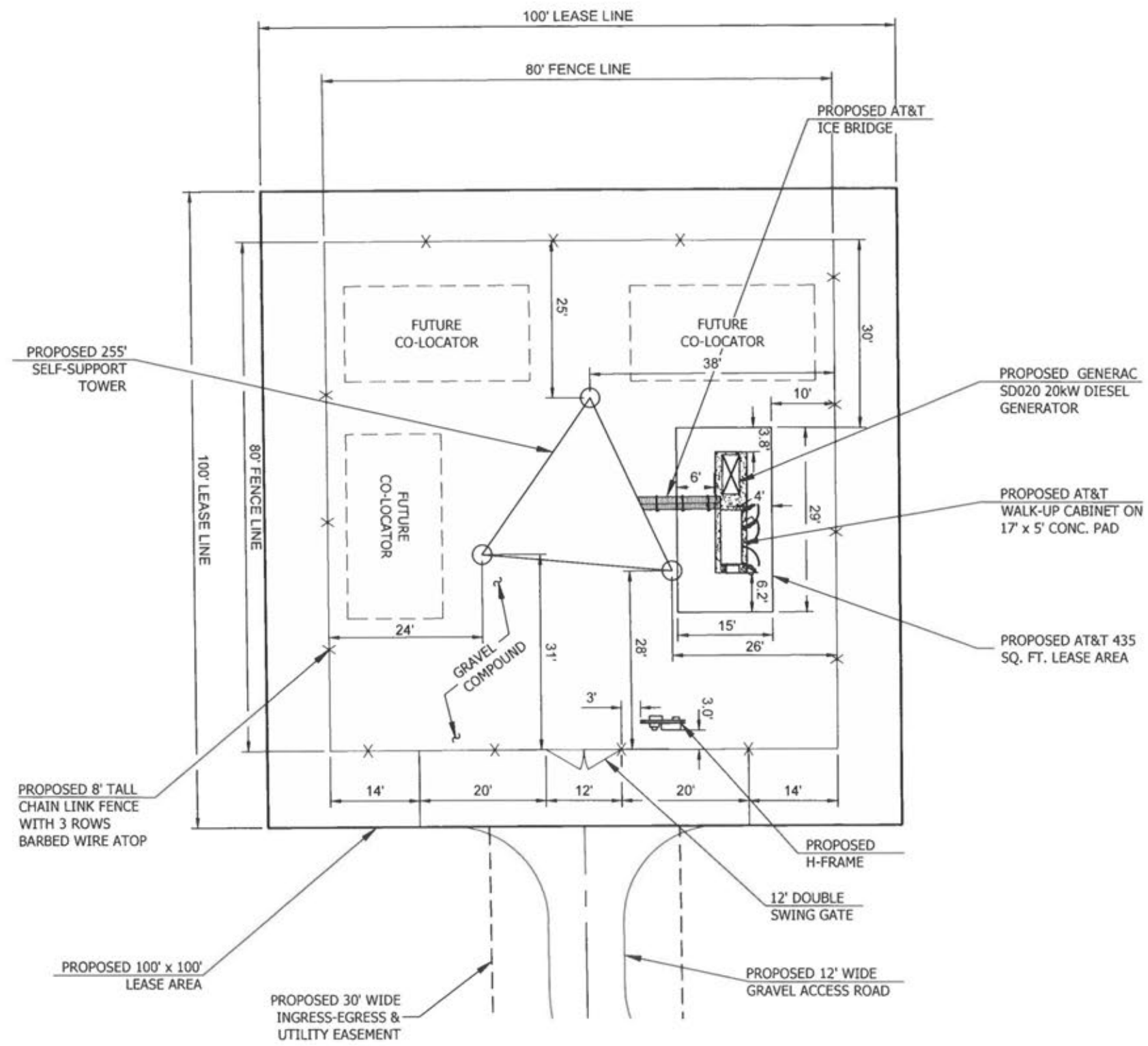
B&T ENGINEERING, INC.
 4011
 Expires 12/31/22



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.

ENLARGED
 COMPOUND
 LAYOUT

SHEET NUMBER:
C-3



1 ENLARGED COMPOUND LAYOUT
 SCALE: 1" = 20'

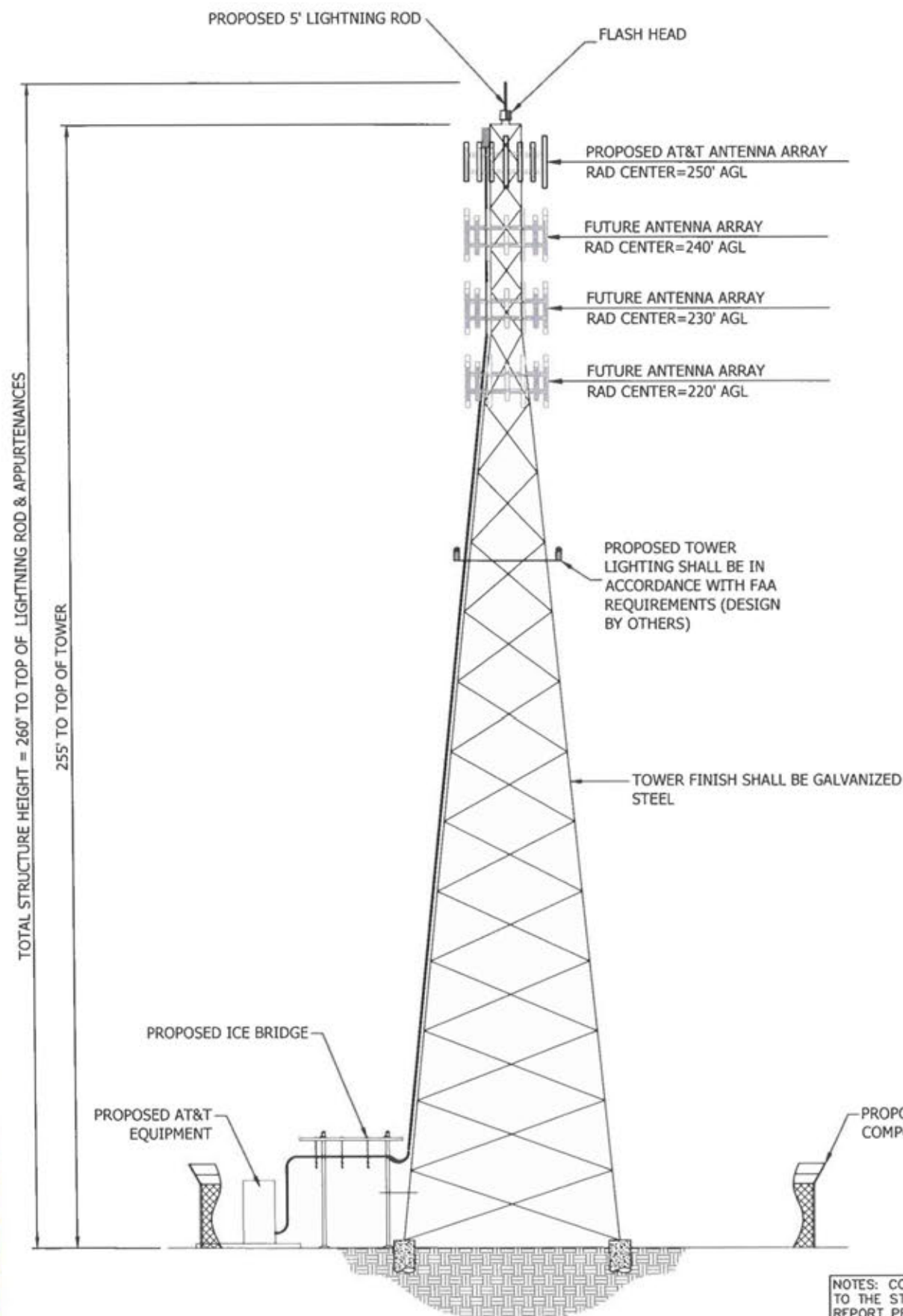


CALL KENTUCKY ONE CALL
 (800) 752-6007
 CALL 3 WORKING DAYS
 BEFORE YOU DIG!



I:\4584_P\KDC\20057_Seminary_20's (2).dwg - Sheet C-3 - User: bstation - May 25, 2022 - 7:58am

144564_P\PLC\2022_Seminary_20's (2).dwg - Sheet C-4 - User: daniel - May 25, 2022 - 3:56pm



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.

NOTES: CONTRACTOR TO REFER TO THE STRUCTURAL DESIGN REPORT PREPARED FOR HARMONI TOWERS PRIOR TO CONSTRUCTION.

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



HARMONI TOWERS
SEMINARY /
SNOW RELO
FA# 15435110/10124681
PACE# MRTNK052246
PT# 2457A0XDC2
(PROPERTY) 3723 N
US HWY 127
ALBANY, KY 42602
CLINTON COUNTY
PROPOSED 255' SELF-SUPPORT TOWER

PROJECT NO: G0144564.006.01
CHECKED BY: MAS

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION
0	02/21/22	MAS	FINAL
1	03/30/22	DLS	FINAL
2	05/25/22	DLS	FINAL

B&T ENGINEERING, INC.
4011
Expires 12/31/22



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.

TOWER ELEVATION

SHEET NUMBER:
C-4

EXHIBIT C
TOWER AND FOUNDATION DESIGN



March 30, 2022

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

RE: Site Name – Snow Relo/Seminary
Proposed Cell Tower
36.740639 North Latitude, -85.138181 West Longitude

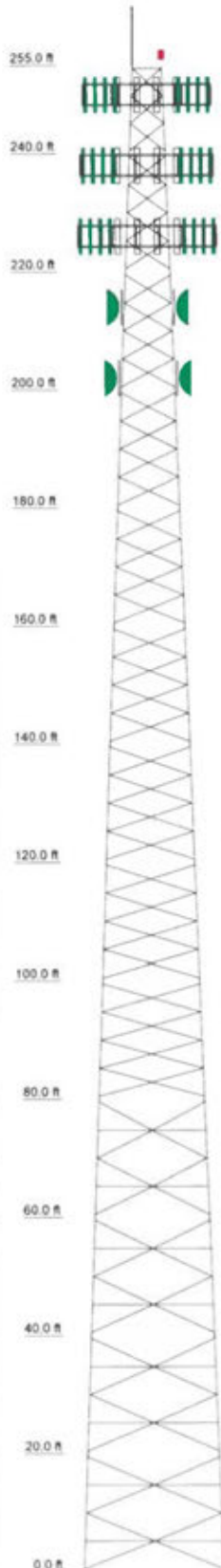
Dear Commissioners:

The Construction Manager for the proposed new communications facility will be Marshall Corbin. His contact information is (540) 287-8142 or Marshall Corbin@harmonitowers.com. Marshall has been in the industry completing civil construction and constructing towers since 1996. He has worked at Harmoni Towers LLC since 2021 completing project and construction management on new site build projects.

Thank you,
Marshall Corbin

Marshall Corbin
Construction Manager – Tennessee/Kentucky Market
Harmoni Towers LLC

Section	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14	T15	T16	T17	T18	T19	T20	T21	T22	T23	T24	T25	T26	T27	T28	T29	T30	
Legs																															
Leg Grade																															
Diagonals																															
Top Girts																															
Horizontals																															
Inner Bracing																															
Face Width (ft)	2																														
# Panels @ (ft)																															
Weight (K)	45.0																														



TYPE	ELEVATION	TYPE	ELEVATION
Lightning Rod 1"x10"	255	Sector1(CaAa=10000 Sq.in)No Ice (Carrier 3)	226
Top Beacon	255	Sector2(CaAa=10000 Sq.in)No Ice (Carrier 3)	226
Sector1(CaAa=13333.33 Sq.in)No Ice (Carrier 1)	250	Sector3(CaAa=10000 Sq.in)No Ice (Carrier 3)	226
Sector2(CaAa=13333.33 Sq.in)No Ice (Carrier 1)	250	4 1/2" OD Dish Mount (Carrier 4)	214
Sector3(CaAa=13333.33 Sq.in)No Ice (Carrier 1)	250	4 1/2" OD Dish Mount (Carrier 4)	214
Sector1(CaAa=10000 Sq.in)No Ice (Carrier 2)	238	6" MW Dish (Carrier 4)	214
Sector2(CaAa=10000 Sq.in)No Ice (Carrier 2)	238	6" MW Dish (Carrier 4)	214
Sector3(CaAa=10000 Sq.in)No Ice (Carrier 2)	238	4 1/2" OD Dish Mount (Carrier 5)	202
		4 1/2" OD Dish Mount (Carrier 5)	202
		6" MW Dish (Carrier 5)	202
		6" MW Dish (Carrier 5)	202

SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	L1 3/4x1 3/4x3/16	C	2L2 1/2x2 1/2x3/16x3/8
B	2L1 3/4x1 3/4x3/16x3/8		

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A529-50	50 ksi	65 ksi	A36M-50	50 ksi	65 ksi

TOWER DESIGN NOTES

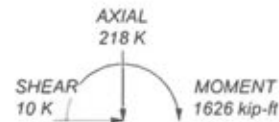
1. Tower is located in Clinton County, Kentucky.
2. Tower designed for Exposure C to the TIA-222-H Standard.
3. Tower designed for a 105 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 30 mph basic wind with 1.50 in ice. Ice is considered to increase in thickness 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

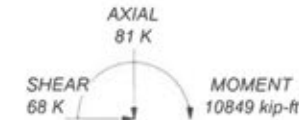
MAX. CORNER REACTIONS AT BASE:

DOWN: 549 K
SHEAR: 41 K

UPLIFT: -479 K
SHEAR: 37 K



TORQUE 3 kip-ft
30 mph WIND - 1.500 in ICE



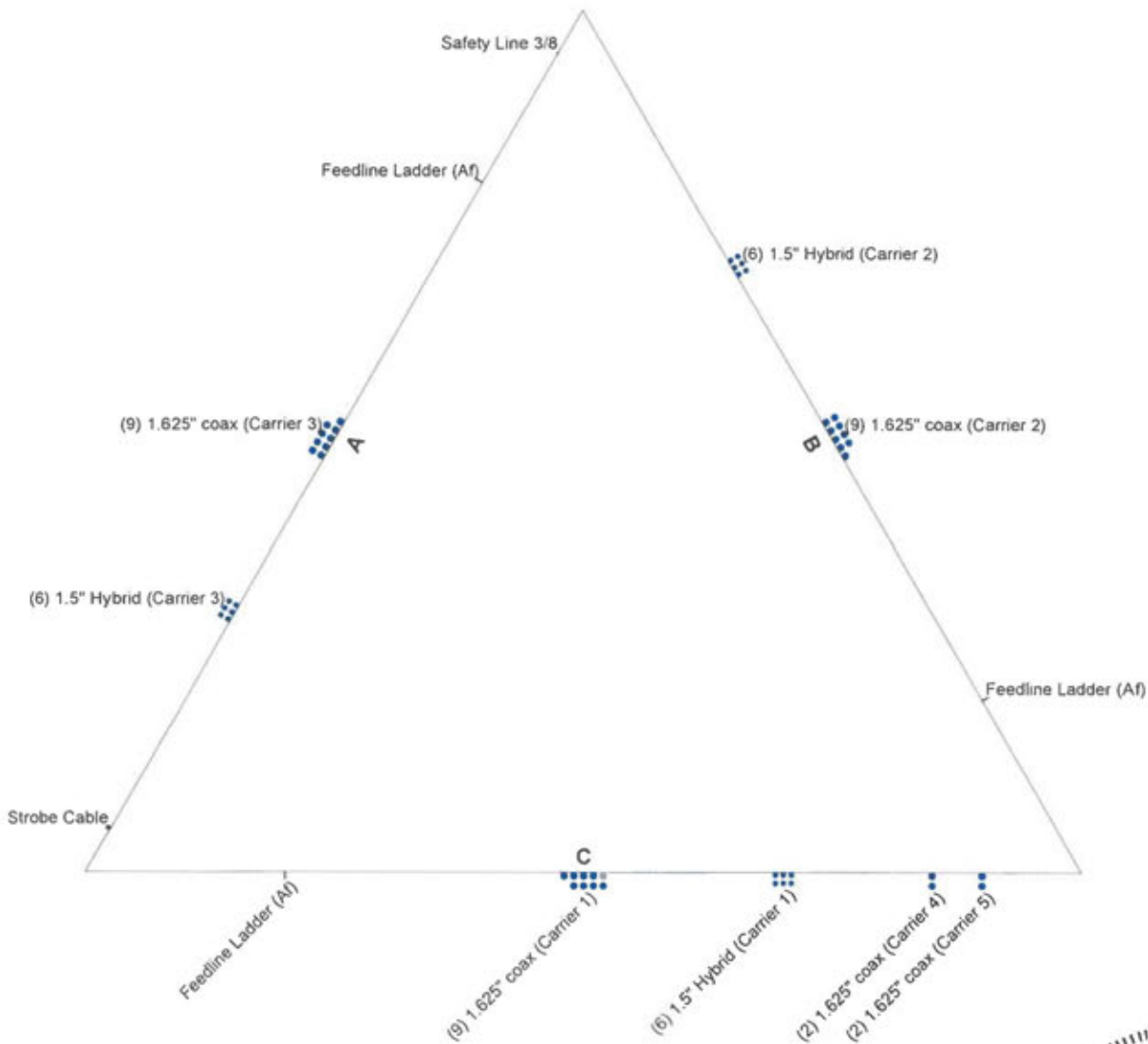
TORQUE 33 kip-ft
REACTIONS - 105 mph WIND




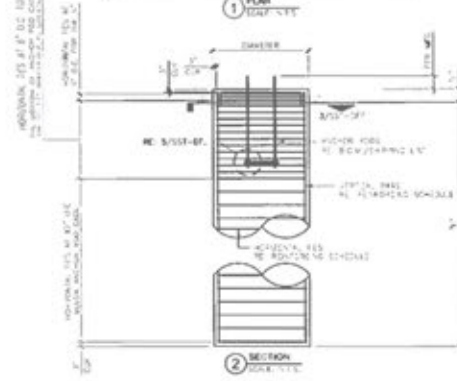
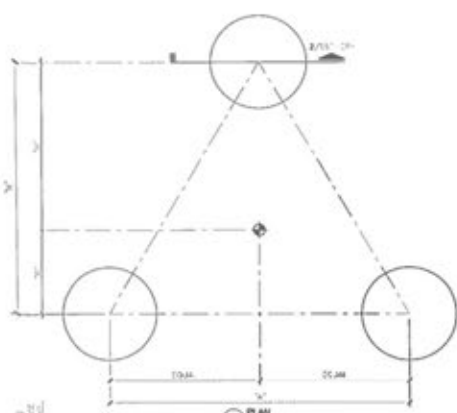
B+T Group
1717 S Boulder Ave, Suite 300
Tulsa, OK 74119
Phone: (918) 587-4630
FAX: (918) 295-0265

Job	ATS #9469 - Seminary (Site# KYLEX2057)		
Project	255' SST/36.740639, -85.138181		
Client	Harmoni Towers	Drawn by	isaac.fulton
Code	TIA-222-H	Date	07/07/22
Path		App'd	Scale NTS
		Dwg No.	E-

Feed Line Plan



 B+T Group 1717 S Boulder Ave, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job: ATS #9469 - Seminary (Site# KYLEX2057) Project: 255' SST/36.740639, -85.138181 Client: Harmoni Towers Code: TIA-222-H Path:
	Drawn by: isaac.fulton Date: 07/07/22 App'd: _____ Scale: NTS Dag No: E-



NOTES:

- REINFORCEMENT STEEL SHALL COMPLY TO THE REQUIREMENT OF ASTM A 615 (GRADE 60) EXCEPT THAT TIES MAY BE ASTM A 108 (GRADE 40) WITH A MINIMUM CLEAR COVER.
- REINFORCEMENT STEEL SHALL BE DELIVERED FABRICATED, BENT, AND PLACED IN ACCORDANCE WITH THE CURRENT EDITION OF STANDARD PRACTICE AND THE AIA 103 (LATEST EDITION).
- THE CONTRACTOR SHALL PROVIDE A REPORT TO THE GEOTECH REPORT FOR THIS PROJECT AND PROVIDE THE RECOMMENDATIONS IN THAT REPORT. UNLESS OTHERWISE SPECIFIED, THE RECOMMENDATIONS SHALL BE IN ACCORDANCE WITH THE AIA 103 (LATEST EDITION).
- THE FOUNDATION HAS BEEN DESIGNED IN ACCORDANCE WITH THE 10-222 W/S (AS PER SPECIFICATIONS FOR THE TOWER AND SOIL CONDITIONS REFERENCED ABOVE). IF ANYTHING DIFFERS THIS DESIGN SHALL BE CONSIDERED VOID AND MUST BE REDESIGNED PRIOR TO CONSTRUCTION.
- TOTAL CONCRETE VOLUME FOR ALL PILES PER CONCRETE BATCH: 22.00
- ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 1000 PSI AT 28 DAYS.
- CONCRETE PILES SHALL MEET BARRETT'S REQUIREMENTS OF CHAPTER 310 OF THE AIA 103. 311
- ALL CONCRETE PILING SHALL BE IN ACCORDANCE WITH AND PERFORM TO THE DESIGN OF 228 W/S (AS PER 10-222 W/S) CONCRETE PILING PER ADDITIONAL FOUNDATIONS AND A MINIMUM OF 100 W/S (AS PER 10-222 W/S) CONCRETE PILING PER BATCH REQUIRED.
- CONCRETE SHALL BE PLACED IN ACCORDANCE WITH THE AIA 103. THE ALLOWABLE CONCRETE STRENGTH SHALL BE 4000 PSI (UNLESS OTHERWISE SPECIFIED). ADJUSTIVE SHALL BE IN ACCORDANCE WITH AIA 103 (LATEST EDITION) TABLE A. B. C. D OR E. THE ENGINEER SHALL PREPARE APPROPRIATE NOTES AND NOTES FOR USE OF CONTRACTOR'S FIELD SUPERVISOR. AIR ENTRAINMENT ADJUSTIVE SHALL CONFORM TO AIA 103. 311.
- BACKFILL MATERIAL SHALL BE COMPACTED TO A MINIMUM UNIT WEIGHT SPECIFIED IN GEOTECH REPORT. THE SOIL SHALL BE INSTALLED IN A 10.0 FT LAND COVERED "MORPHOLOGY" TO ACHIEVE APPROXIMATE 50% RELATIVE HUMIDITY. UNLESS OTHERWISE SPECIFIED, OTHER CONSTRUCTION REQUIREMENTS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

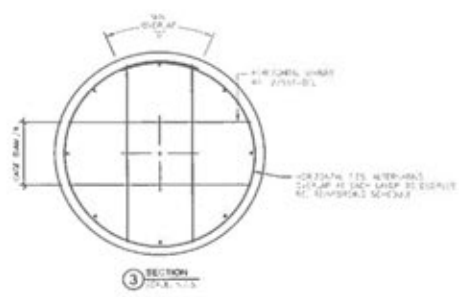
VERIFICATION OF DESIGN:

- THIS DRAWING WAS SPECIFICALLY DESIGNED FOR USE BY THE CUSTOMER ON THIS DRAWING AT THE SPECIFIC LOCATION. USE OF THIS DRAWING FOR PURPOSES OF A PROJECT OR ANOTHER PROJECT REQUIRES THE SERVICES OF A PROFESSIONAL ENGINEER.

DIMENSIONING	SCHEDULE	SIZE	TOTAL QTY
REINFORCING SCHEDULE			
NO. OF BARS			
NO. OF STIRRUPS			
NO. OF TIES			
NO. OF BARS			
NO. OF STIRRUPS			
NO. OF TIES			
NO. OF BARS			
NO. OF STIRRUPS			
NO. OF TIES			

REINFORCING SCHEDULE	SIZE	TOTAL QTY
NO. OF BARS		
NO. OF STIRRUPS		
NO. OF TIES		
NO. OF BARS		
NO. OF STIRRUPS		
NO. OF TIES		

BASE REACTIONS (FACTORED LOADS)		
STEEL REACTIONS		
AXIAL	10	KIPS
MOMENT	10	KIP-FT
CONCRETE REACTIONS		
AXIAL	10	KIPS
MOMENT	10	KIP-FT
ROTATION	10	DEG





B+T GRP

1717 S BOLLINGER AVE, WACO, TX 76798
817.547.1000

ARCOSA
1410001-010-0000

1020 W. BLUE HILLS RD., OK 73109

ISSUED FOR	
NO.	DESCRIPTION
1	ISSUED FOR PROJECT
2	ISSUED FOR PROJECT
3	ISSUED FOR PROJECT
4	ISSUED FOR PROJECT
5	ISSUED FOR PROJECT
6	ISSUED FOR PROJECT
7	ISSUED FOR PROJECT
8	ISSUED FOR PROJECT
9	ISSUED FOR PROJECT
10	ISSUED FOR PROJECT

COR. CA 1500 PSI
EXPIRES: 10/30/2025



BRAD J. SMITH
STATE OF KENTUCKY
PROFESSIONAL ENGINEER
71722

PROJECT INFORMATION

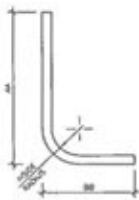
PROJECT NO. 15242 DELC1
SITE NAME: 15242 DELC1
CLIENT NAME: ARCOSSA "ELC" LLC
DRAWN BY: JF
CHECKED BY: JF

SHEET NO. 01
DRILLED PIER FOUNDATION

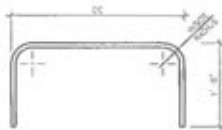
SHEET NUMBER	REVISION
SST-DPF	0

DIMENSIONING SCHEDULE	
1/4"	1/8"
1/2"	1/4"
3/4"	3/8"
1"	1/2"
1 1/2"	3/4"
2"	1"

*NOTE: CONTRACTOR TO VERIFY DIMENSIONS PRIOR TO FABRICATION



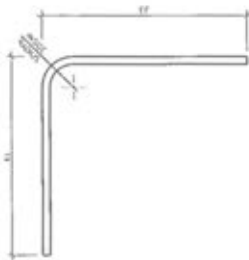
1 L-BAR
SCALE 1/4"=1'



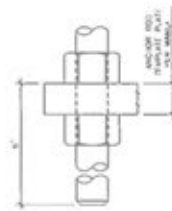
2 HORIZONTAL U-BAR
SCALE 1/4"=1'



3 VERTICAL U-BAR
SCALE 1/4"=1'



4 CORNER BAR
SCALE 1/4"=1'



5 ANCHOR ROD DETAIL
SCALE 1/4"=1'



1117 S. BOLLER AVE. #102, WEAVER, OH 44122
440.527.4330

ARCOSA

TELECOM STRUCTURE

SCALE: AS SHOWN UNLESS OTHERWISE NOTED

ISSUED FOR	
NO.	DATE
1	06/20/2022

CDR: DA 1130.PE

ENR: PLS - 4/10/2022



1117 S. BOLLER AVE. #102, WEAVER, OH 44122
440.527.4330

PROJECT INFORMATION
 PROJECT NO: 23142-001-01
 SITE NAME: BOLLER
 SITE NO: 1117
 CLIENT NAME: ARCOSA TELECOM STRUCTURE
 DRAWN BY: PLS
 CHECKED BY: PLS

SHEET TITLE
 DIMENSIONING DETAIL

SHEET NUMBER: SST-DTL
 REVISION: 0

Drilled Pier Foundation

BU #:	162652.001.01
Site Name:	Seminary
Order Number:	9469
TIA-222 Revision:	H
Tower Type:	Self Support

Applied Loads		
	Comp.	Uplift
Moment (kip-ft)		
Axial Force (kips)	549	479
Shear Force (kips)	41	37

Material Properties	
Concrete Strength, f_c	4 ksi
Rebar Strength, F_y	60 ksi
Tie Yield Strength, F_{yt}	40 ksi

Pier Design Data	
Depth	16 ft
Ext. Above Grade	0.5 ft
Pier Section 1	
<i>From 0.5' above grade to 16' below grade</i>	
Pier Diameter	4 ft
Rebar Quantity	14
Rebar Size	8
Clear Cover to Ties	3 in
Tie Size	4
Tie Spacing	12 in

Rebar & Pier Options
 Embedded Pier Inputs
 Bolted Pier Inputs

Analysis Results		
Soil Lateral Check		
	Compression	Uplift
D_{red} (ft from TOC)	9.24	9.24
Soil Safety Factor	17.06	18.91
Max Moment (kip-ft)	198.10	178.77
Rating	7.8%	7.0%
Soil Vertical Check		
	Compression	Uplift
Skin Friction (kips)	584.34	584.34
End Bearing (kips)	66.97	-
Weight of Concrete (kips)	37.32	27.99
Total Capacity (kips)	651.31	612.33
Axial (kips)	586.32	479.00
Rating	90.0%	78.2%
Reinforced Concrete Flexure		
	Compression	Uplift
Critical Depth (ft from TOC)	9.19	8.90
Critical Moment (kip-ft)	198.09	178.53
Critical Moment Capacity	1641.09	323.42
Rating	12.1%	55.2%
Reinforced Concrete Shear		
	Compression	Uplift
Critical Depth (ft from TOC)	13.27	13.27
Critical Shear (kip)	60.65	54.73
Critical Shear Capacity	338.19	146.88
Rating	17.9%	37.3%
Structural Foundation Rating		
	55.2%	
Soil Interaction Rating		
	90.0%	

Check Limitation	
Apply TIA-222-H Section 15.5:	<input type="checkbox"/>
N/A	<input type="checkbox"/>
Additional Longitudinal Rebar	
Input Effective Depths (else Actual):	<input type="checkbox"/>
Shear Design Options:	<input type="checkbox"/>
Check Shear along Depth of Pier:	<input checked="" type="checkbox"/>
Utilize Shear-Friction Methodology:	<input type="checkbox"/>
Override Critical Depth:	<input type="checkbox"/>

[Go to Soil Calculations](#)

Soil Profile														
Groundwater Depth		N/A		# of Layers		3								
Layer	Top (ft)	Bottom (ft)	Thickness (ft)	γ_{sat} (pcf)	$\gamma_{concrete}$ (pcf)	Cohesion (ksf)	Angle of Friction (degrees)	Calculated Ultimate Skin Friction Comp (ksf)	Calculated Ultimate Skin Friction Uplift (ksf)	Ultimate Skin Friction Comp Override (ksf)	Ultimate Skin Friction Uplift Override (ksf)	Ult. Net Bearing Capacity (ksf)	SPT Blow Count	Soil Type
1	0	9.8	9.8	120	150	2.5	0	1.375	1.375	0.00	0.00			Cohesive
2	9.8	14	4.2	150	150	10	0	4.500	4.500	10.00	10.00			Cohesive
3	14	16	2	150	150	10	0	4.500	4.500	10.00	10.00		5	Cohesive

SST Unit Base Foundation

Project #: 162662.001.01
 Site Name: Seminary
 Site #: 9469

TIA-222 Revision: H

Top & Bot. Pad Rein. Different?:	<input type="checkbox"/>
Tower Centroid Offset?:	<input checked="" type="checkbox"/>
Block Foundation?:	<input type="checkbox"/>
Rectangular Pad?:	<input type="checkbox"/>

Superstructure Analysis Reactions		
Global Moment, M :	10849	ft-kips
Global Axial, P :	81	kips
Global Shear, V :	68	kips
Leg Compression, P_{comp} :	549	kips
Leg Comp. Shear, V_{u,comp} :	41	kips
Leg Uplift, P_{uplift} :	479	kips
Leg Uplift. Shear, V_{u,uplift} :	37	kips
Tower Height, H :	255	ft
Base Face Width, BW :	24	ft
BP Dist. Above Fdn, bp_{dist} :	3	in

Foundation Analysis Checks				
	Capacity	Demand	Rating	Check
Lateral (Sliding) (kips)	2651.54	68.00	2.6%	Pass
Bearing Pressure (ksf)	10.62	2.67	25.2%	Pass
Overturning (kip*ft)	15509.55	11579.19	74.7%	Pass
Pier Flexure (Comp.) (kip*ft)	1382.19	184.50	13.3%	Pass
Pier Flexure (Tension) (kip*ft)	318.06	166.50	52.3%	Pass
Pier Compression (kip)	6123.66	556.79	9.1%	Pass
Pad Flexure (kip*ft)	2419.14	1977.85	81.8%	Pass
Pad Shear - 1-way (kips)	776.97	343.92	44.3%	Pass
Pad Shear - Comp 2-way (ksi)	0.190	0.151	79.8%	Pass
Flexural 2-way (Comp) (kip*ft)	1298.87	110.70	8.5%	Pass
Pad Shear - Tension 2-way (ksi)	0.190	0.129	68.2%	Pass
Flexural 2-way (Tension) (kip*ft)	1298.87	99.90	7.7%	Pass

Pier Properties		
Pier Shape:	Circular	
Pier Diameter, dpier :	3.5	ft
Ext. Above Grade, E :	0.50	ft
Pier Rebar Size, Sc :	8	
Pier Rebar Quantity, mc :	15	
Pier Tie/Spiral Size, St :	4	
Pier Tie/Spiral Quantity, mt :	18	
Pier Reinforcement Type:	Tie	
Pier Clear Cover, cc_{pier} :	3	in

Structural Rating:	81.8%
Soil Rating:	74.7%

Pad Properties		
Depth, D :	6.00	ft
Pad Width, W_f :	35.00	ft
Pad Thickness, T :	2.00	ft
Pad Rebar Size (Bottom dir. 2), Sp₂ :	8	
Pad Rebar Quantity (Bottom dir. 2), mp₂ :	36	
Pad Clear Cover, cc_{pad} :	3	in

Material Properties		
Rebar Grade, Fy :	60	ksi
Concrete Compressive Strength, F'_c :	4	ksi
Dry Concrete Density, δc :	150	pcf

Soil Properties		
Total Soil Unit Weight, γ :	110	pcf
Ultimate Net Bearing, Q_{net} :	13.500	ksf
Cohesion, Cu :	2.500	ksf
Friction Angle, φ :		degrees
SPT Blow Count, N_{blows} :		
Base Friction, μ :		
Neglected Depth, N :	2.5	ft
Foundation Bearing on Rock?	No	
Groundwater Depth, gw :	N/A	ft

← Toggle between Gross and Net

tnxTower B+T Group 1717 S Boulder Ave, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job ATS #9469 - Seminary (Site# KYLEX2057)	Page 1 of 34
	Project 255' SST/36.740639, -85.138181	Date 17:23:12 03/22/22
	Client Harmoni Towers	Designed by isaac.fulton

Tower Input Data

The main tower is a 3x free standing tower with an overall height of 255.000 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 4.875 ft at the top and 24.000 ft at the base.

This tower is designed using the TIA-222-H standard.

The following design criteria apply:

Tower is located in Clinton County, Kentucky.

Tower base elevation above sea level: 1097.000 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..

Design is preliminary and subject to change..

A non-linear (P-delta) analysis was used.

Pressures are calculated at each section.

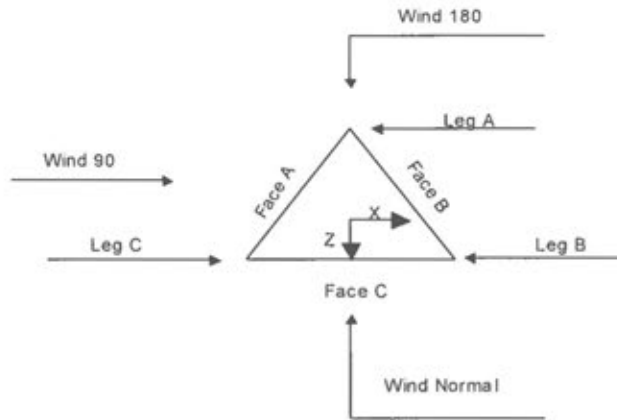
Stress ratio used in tower member design is 1.

Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

- | | | |
|--|---|--|
| <ul style="list-style-type: none"> Consider Moments - Legs Consider Moments - Horizontals Consider Moments - Diagonals Use Moment Magnification ✓ Use Code Stress Ratios ✓ Use Code Safety Factors - Guys Escalate Ice Always Use Max Kz Use Special Wind Profile ✓ Include Bolts In Member Capacity ✓ Leg Bolts Are At Top Of Section ✓ Secondary Horizontal Braces Leg Use Diamond Inner Bracing (4 Sided) SR Members Have Cut Ends SR Members Are Concentric | <ul style="list-style-type: none"> Distribute Leg Loads As Uniform Assume Legs Pinned ✓ Assume Rigid Index Plate ✓ Use Clear Spans For Wind Area ✓ Use Clear Spans For KL/r Retension Guys To Initial Tension ✓ Bypass Mast Stability Checks ✓ Use Azimuth Dish Coefficients ✓ Project Wind Area of Appurt Autocalc Torque Arm Areas Add IBC 6D+W Combination ✓ Sort Capacity Reports By Component Triangulate Diamond Inner Bracing Treat Feed Line Bundles As Cylinder Ignore KL/ry For 60 Deg. Angle Legs | <ul style="list-style-type: none"> Use ASCE 10 X-Brace Ly Rules ✓ Calculate Redundant Bracing Forces Ignore Redundant Members in FEA ✓ SR Leg Bolts Resist Compression All Leg Panels Have Same Allowable Offset Girt At Foundation ✓ Consider Feed Line Torque ✓ Include Angle Block Shear Check Use TIA-222-H Bracing Resist Exemption Use TIA-222-H Tension Splice Exemption <li style="text-align: center;">Poles Include Shear-Torsion Interaction Always Use Sub-Critical Flow Use Top Mounted Sockets Pole Without Linear Attachments Pole With Shroud Or No Appurtenances Outside and Inside Corner Radii Are Known |
|--|---|--|

tnxTower B+T Group 1717 S Boulder Ave, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job ATS #9469 - Seminary (Site# KYLEX2057)	Page 2 of 34
	Project 255' SST/36.740639, -85.138181	Date 17:23:12 03/22/22
	Client Harmoni Towers	Designed by isaac.fulton



Triangular Tower

Tower Section Geometry

Tower Section	Tower Elevation	Assembly Database	Description	Section Width	Number of Sections	Section Length
	ft			ft		ft
T1	255 000-240 000			4 875	1	15 000
T2	240 000-220 000			6 000	1	20 000
T3	220 000-200 000			7 500	1	20 000
T4	200 000-180 000			9 000	1	20 000
T5	180 000-160 000			10 500	1	20 000
T6	160 000-140 000			12 000	1	20 000
T7	140 000-120 000			13 500	1	20 000
T8	120 000-100 000			15 000	1	20 000
T9	100 000-80 000			16 500	1	20 000
T10	80 000-60 000			18 000	1	20 000
T11	60 000-40 000			19 500	1	20 000
T12	40 000-20 000			21 000	1	20 000
T13	20 000-0 000			22 500	1	20 000

Tower Section Geometry (cont'd)

Tower Section	Tower Elevation	Diagonal Spacing	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset	Bottom Girt Offset
	ft	ft				in	in
T1	255 000-240 000	4 667	X Brace	No	No	6 000	6 000
T2	240 000-220 000	4 750	X Brace	No	No	6 000	6 000

tnxTower B+T Group 1717 S Boulder Ave, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job ATS #9469 - Seminary (Site# KYLEX2057)	Page 3 of 34
	Project 255' SST/36.740639, -85.138181	Date 17:23:12 03/22/22
	Client Harmoni Towers	Designed by isaac.fulton

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
T3	220 000-200 000	4 750	X Brace	No	No	6 000	6 000
T4	200 000-180 000	4 750	X Brace	No	No	6 000	6 000
T5	180 000-160 000	4 750	X Brace	No	No	6 000	6 000
T6	160 000-140 000	4 750	X Brace	No	No	6 000	6 000
T7	140 000-120 000	4 750	X Brace	No	No	6 000	6 000
T8	120 000-100 000	4 750	X Brace	No	No	6 000	6 000
T9	100 000-80 000	4 750	X Brace	No	No	6 000	6 000
T10	80 000-60 000	4 750	Double K	No	Yes	6 000	6 000
T11	60 000-40 000	4 750	Double K	No	Yes	6 000	6 000
T12	40 000-20 000	4 750	Double K	No	Yes	6 000	6 000
T13	20 000-0 000	4 750	Double K	No	Yes	6 000	6 000

Tower Section Geometry (cont'd)

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
255 000-240 000	T1 Solid Round	1 3/4	A529-50 (50 ksi)	Equal Angle	L1 3/4x1 3/4x3/16	A36M-50 (50 ksi)
240 000-220 000	T2 Solid Round	2 1/4	A529-50 (50 ksi)	Equal Angle	L1 3/4x1 3/4x3/16	A36M-50 (50 ksi)
220 000-200 000	T3 Solid Round	2 3/4	A529-50 (50 ksi)	Equal Angle	L2x2x3/16	A36M-50 (50 ksi)
200 000-180 000	T4 Solid Round	3	A529-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x3/16	A36M-50 (50 ksi)
180 000-160 000	T5 Solid Round	3 1/4	A529-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x3/16	A36M-50 (50 ksi)
160 000-140 000	T6 Solid Round	3 1/4	A529-50 (50 ksi)	Equal Angle	L3x3x3/16	A36M-50 (50 ksi)
140 000-120 000	T7 Solid Round	3 1/2	A529-50 (50 ksi)	Equal Angle	L3x3x3/16	A36M-50 (50 ksi)
120 000-100 000	T8 Solid Round	3 3/4	A529-50 (50 ksi)	Equal Angle	L3x3x3/16	A36M-50 (50 ksi)
100 000-80 000	T9 Solid Round	4	A529-50 (50 ksi)	Equal Angle	L3x3x1/4	A36M-50 (50 ksi)
80 000-60 000	T10 Solid Round	4	A529-50 (50 ksi)	Double Angle	2L2 1/2x2 1/2x3/16x3/8	A36M-50 (50 ksi)
60 000-40 000	T11 Solid Round	4 1/4	A529-50 (50 ksi)	Double Angle	2L2 1/2x2 1/2x3/16x3/8	A36M-50 (50 ksi)
40 000-20 000	T12 Solid Round	4 1/4	A529-50 (50 ksi)	Double Angle	2L2 1/2x2 1/2x3/16x3/8	A36M-50 (50 ksi)
20 000-0 000	T13 Solid Round	4 1/2	A529-50 (50 ksi)	Double Angle	2L3x3x3/16x3/8	A36M-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
255 000-240 000	T1 Equal Angle	L1 3/4x1 3/4x3/16	A36M-50 (50 ksi)	Solid Round		A36M-50 (50 ksi)

tnxTower B+T Group 1717 S Boulder Ave, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job ATS #9469 - Seminary (Site# KYLEX2057)	Page 4 of 34
	Project 255' SST/36.740639, -85.138181	Date 17:23:12 03/22/22
	Client Harmoni Towers	Designed by isaac.fulton

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
80 000-60 000	None	Flat Bar		A36 (36 ksi)	Double Angle	2L1 3/4x1 3/4x3/16x3/8	A36M-50 (50 ksi)
60 000-40 000	None	Flat Bar		A36 (36 ksi)	Double Angle	2L2x2x3/16x3/8	A36M-50 (50 ksi)
40 000-20 000	None	Flat Bar		A36 (36 ksi)	Double Angle	2L2x2x3/16x3/8	A36M-50 (50 ksi)
T13 20 000-0 000	None	Flat Bar		A36 (36 ksi)	Double Angle	2L2 1/2x2 1/2x3/16x3/8	A36M-50 (50 ksi)

Tower Section Geometry (cont'd)

Tower Elevation ft	Secondary Horizontal Type	Secondary Horizontal Size	Secondary Horizontal Grade	Inner Bracing Type	Inner Bracing Size	Inner Bracing Grade
80 000-60 000	Solid Round		A36M-50 (50 ksi)	Single Angle	L1 3/4x1 3/4x3/16	A36M-50 (50 ksi)
60 000-40 000	Solid Round		A36M-50 (50 ksi)	Single Angle	L1 3/4x1 3/4x3/16	A36M-50 (50 ksi)
40 000-20 000	Solid Round		A36M-50 (50 ksi)	Single Angle	L1 3/4x1 3/4x3/16	A36M-50 (50 ksi)
T13 20 000-0 000	Solid Round		A36M-50 (50 ksi)	Single Angle	L1 3/4x1 3/4x3/16	A36M-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 _t	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
155 000-240 000	0.000	0.375	A36M-50 (50 ksi)	1	1	1	36 000	36 000	36 000
140 000-220 000	0.000	0.375	A36M-50 (50 ksi)	1	1	1	36 000	36 000	36 000
120 000-200 000	0.000	0.375	A36M-50 (50 ksi)	1	1	1	36 000	36 000	36 000
100 000-180 000	0.000	0.375	A36M-50 (50 ksi)	1	1	1	36 000	36 000	36 000

tnxTower B+T Group 1717 S Boulder Ave, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job ATS #9469 - Seminary (Site# KYLEX2057)	Page 7 of 34
	Project 255' SST/36.740639, -85.138181	Date 17:23:12 03/22/22
	Client Harmoni Towers	Designed by isaac.fulton

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
T11 60 000-40 000	0.000	1	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 40 000-20 000	0.000	1	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 20 000-0 000	0.000	1	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
T1 255 000-240 000	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 240 000-220 000	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 220 000-200 000	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 200 000-180 000	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 180 000-160 000	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 160 000-140 000	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 140 000-120 000	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
T8 120 000-100 000	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 100 000-80 000	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 80 000-60 000	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 60 000-40 000	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 40 000-20 000	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 20 000-0 000	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)

tnxTower B+T Group 1717 S Boulder Ave, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job ATS #9469 - Seminary (Site# KYLEX2057)	Page 8 of 34
	Project 255' SST/36.740639, -85.138181	Date 17:23:12 03/22/22
	Client Harmoni Towers	Designed by isaac.fulton

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.
255 000-240 000	T1 Flange	0 000 A325N	0	0 625 A325X	1	0 625 A325X	1	0 000 A325X	0	0 625 A325N	0	0 000 A325X	0	0 625 A325N	0
240 000-220 000	T2 Flange	0 750 A325N	6	0 625 A325X	1	0 000 A325X	0	0 000 A325X	0	0 625 A325N	0	0 000 A325X	0	0 625 A325N	0
220 000-200 000	T3 Flange	0 750 A325N	6	0 625 A325X	1	0 000 A325X	0	0 000 A325X	0	0 625 A325N	0	0 000 A325X	0	0 625 A325N	0
200 000-180 000	T4 Flange	1 000 A325N	6	0 625 A325X	1	0 000 A325X	0	0 000 A325X	0	0 625 A325N	0	0 000 A325X	0	0 625 A325N	0
180 000-160 000	T5 Flange	1 000 A325N	6	0 625 A325X	1	0 000 A325X	0	0 000 A325X	0	0 625 A325N	0	0 000 A325X	0	0 625 A325N	0
160 000-140 000	T6 Flange	1 000 A325N	6	0 625 A325X	1	0 000 A325X	0	0 000 A325X	0	0 625 A325N	0	0 000 A325X	0	0 625 A325N	0
140 000-120 000	T7 Flange	1 000 A325N	6	0 625 A325X	1	0 000 A325X	0	0 000 A325X	0	0 625 A325N	0	0 000 A325X	0	0 625 A325N	0
120 000-100 000	T8 Flange	1 250 A325N	6	0 625 A325X	1	0 000 A325X	0	0 000 A325X	0	0 625 A325N	0	0 000 A325X	0	0 625 A325N	0
100 000-80 000	T9 Flange	1 250 A325N	6	0 625 A325X	1	0 000 A325X	0	0 000 A325X	0	0 625 A325N	0	0 000 A325X	0	0 625 A325N	0
80 000-60 000	T10 Flange	1 250 A325N	6	0 625 A325X	1	0 000 A325X	0	0 000 A325X	0	0 625 A325N	0	0 625 A325X	1	0 625 A325N	0
60 000-40 000	T11 Flange	1 250 A325N	6	0 625 A325X	1	0 000 A325X	0	0 000 A325X	0	0 625 A325N	0	0 625 A325X	1	0 625 A325N	0
40 000-20 000	T12 Flange	1 250 A325N	6	0 625 A325X	1	0 000 A325X	0	0 000 A325X	0	0 625 A325N	0	0 625 A325X	1	0 625 A325N	0
20 000-0 000	T13 Flange	1 500 A325N	6	0 625 A325X	1	0 000 A325X	0	0 000 A325X	0	0 625 A325N	0	0 625 A325X	1	0 625 A325N	0

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
1 625" coax (Carrier 1)	C	No	No	Ar (CaAa)	250 000 - 10 000	0 000	0	9	5	0 750	1 980		0 001
1 5" Hybrid (Carrier 1)	C	No	No	Ar (CaAa)	250 000 - 10 000	0 000	-0 2	6	3	0 750	1 500		0 001
1 625" coax (Carrier 2)	B	No	No	Ar (CaAa)	238 000 - 10 000	0 000	0	9	5	0 750	1 980		0 001
1 5" Hybrid (Carrier 2)	B	No	No	Ar (CaAa)	238 000 - 10 000	0 000	-0 2	6	3	0 750	1 500		0 001
1 625" coax	A	No	No	Ar (CaAa)	226 000 -	0 000	0	9	5	0 750	1 980		0 001

tnxTower B+T Group 1717 S Boulder Ave, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job ATS #9469 - Seminary (Site# KYLEX2057)	Page 9 of 34
	Project 255' SST/36.740639, -85.138181	Date 17:23:12 03/22/22
	Client Harmoni Towers	Designed by isaac.fulton

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
(Carrier 3) 1.5" Hybrid (Carrier 3) **	A	No	No	Ar (CaAa)	10 000 226 000 - 10 000	0 000	-0.2	6	3	0.750	1.500		0.001
1.625" coax (Carrier 4) **	C	No	No	Ar (CaAa)	214 000 - 10 000	0 000	-0.35	2	1	0.750	1.980		0.001
1.625" coax (Carrier 5) **	C	No	No	Ar (CaAa)	202 000 - 10 000	0 000	-0.4	2	1	0.750	1.980		0.001
Safety Line 3/8	A	No	No	Ar (CaAa)	255 000 - 10 000	0 000	0.45	1	1	0.375	0.375		0.000
Strobe Cable **	A	No	No	Ar (CaAa)	255 000 - 10 000	0 000	-0.45	1	1	1.250	1.250		0.001
Feedline Ladder (Af) **	C	No	No	Af (CaAa)	250 000 - 10 000	0 000	0.3	1	1	3.000	0.250		0.008
Feedline Ladder (Af)	B	No	No	Af (CaAa)	238 000 - 10 000	0 000	0.3	1	1	3.000	0.250		0.008
Feedline Ladder (Af)	A	No	No	Af (CaAa)	226 000 - 10 000	0 000	0.3	1	1	3.000	0.250		0.008

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	C ₁ A ₁ ft ² /ft	Weight klf
**								

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A _B ft ²	A _F ft ²	C ₁ A ₁ In Face ft ²	C ₁ A ₁ Out Face ft ²	Weight K
T1	255 000-240 000	A	0.000	0.000	2.438	0.000	0.014
		B	0.000	0.000	0.000	0.000	0.000
		C	0.000	0.000	27.237	0.000	0.214
T2	240 000-220 000	A	0.000	0.000	19.592	0.000	0.147
		B	0.000	0.000	49.026	0.000	0.386
		C	0.000	0.000	54.473	0.000	0.428
T3	220 000-200 000	A	0.000	0.000	57.723	0.000	0.447
		B	0.000	0.000	54.473	0.000	0.428
		C	0.000	0.000	60.809	0.000	0.455
T4	200 000-180 000	A	0.000	0.000	57.723	0.000	0.447
		B	0.000	0.000	54.473	0.000	0.428
		C	0.000	0.000	70.313	0.000	0.494
T5	180 000-160 000	A	0.000	0.000	57.723	0.000	0.447
		B	0.000	0.000	54.473	0.000	0.428

tnxTower B+T Group 1717 S Boulder Ave. Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job ATS #9469 - Seminary (Site# KYLEX2057)	Page 10 of 34
	Project 255' SST/36.740639, -85.138181	Date 17:23:12 03/22/22
	Client Harmoni Towers	Designed by isaac.fulton

Tower Section	Tower Elevation ft	Face	A_R ft ²	A_I ft ²	C_{iA_1} In Face ft ²	C_{oA_1} Out Face ft ²	Weight K
T6	160.000-140.000	C	0.000	0.000	70.313	0.000	0.494
		A	0.000	0.000	57.723	0.000	0.447
		B	0.000	0.000	54.473	0.000	0.428
T7	140.000-120.000	C	0.000	0.000	70.313	0.000	0.494
		A	0.000	0.000	57.723	0.000	0.447
		B	0.000	0.000	54.473	0.000	0.428
T8	120.000-100.000	C	0.000	0.000	70.313	0.000	0.494
		A	0.000	0.000	57.723	0.000	0.447
		B	0.000	0.000	54.473	0.000	0.428
T9	100.000-80.000	C	0.000	0.000	70.313	0.000	0.494
		A	0.000	0.000	57.723	0.000	0.447
		B	0.000	0.000	54.473	0.000	0.428
T10	80.000-60.000	C	0.000	0.000	70.313	0.000	0.494
		A	0.000	0.000	57.723	0.000	0.447
		B	0.000	0.000	54.473	0.000	0.428
T11	60.000-40.000	C	0.000	0.000	70.313	0.000	0.494
		A	0.000	0.000	57.723	0.000	0.447
		B	0.000	0.000	54.473	0.000	0.428
T12	40.000-20.000	C	0.000	0.000	70.313	0.000	0.494
		A	0.000	0.000	57.723	0.000	0.447
		B	0.000	0.000	54.473	0.000	0.428
T13	20.000-0.000	C	0.000	0.000	70.313	0.000	0.494
		A	0.000	0.000	28.862	0.000	0.223
		B	0.000	0.000	27.237	0.000	0.214
		C	0.000	0.000	35.157	0.000	0.247

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft ²	A_I ft ²	C_{iA_1} In Face ft ²	C_{oA_1} Out Face ft ²	Weight K
T1	255.000-240.000	A	1.835	0.000	0.000	13.447	0.000	0.192
		B		0.000	0.000	0.000	0.000	0.000
		C		0.000	0.000	42.532	0.000	0.881
T2	240.000-220.000	A	1.821	0.000	0.000	43.269	0.000	0.779
		B		0.000	0.000	76.343	0.000	1.578
		C		0.000	0.000	84.826	0.000	1.753
T3	220.000-200.000	A	1.805	0.000	0.000	102.223	0.000	1.990
		B		0.000	0.000	84.533	0.000	1.741
		C		0.000	0.000	104.580	0.000	2.035
T4	200.000-180.000	A	1.787	0.000	0.000	101.761	0.000	1.974
		B		0.000	0.000	84.215	0.000	1.728
		C		0.000	0.000	134.082	0.000	2.452
T5	180.000-160.000	A	1.767	0.000	0.000	101.252	0.000	1.956
		B		0.000	0.000	83.865	0.000	1.714
		C		0.000	0.000	133.458	0.000	2.427
T6	160.000-140.000	A	1.745	0.000	0.000	100.687	0.000	1.936
		B		0.000	0.000	83.475	0.000	1.699
		C		0.000	0.000	132.763	0.000	2.400
T7	140.000-120.000	A	1.720	0.000	0.000	100.049	0.000	1.913
		B		0.000	0.000	83.036	0.000	1.682
		C		0.000	0.000	131.980	0.000	2.370
T8	120.000-100.000	A	1.692	0.000	0.000	99.316	0.000	1.887
		B		0.000	0.000	82.531	0.000	1.662
		C		0.000	0.000	131.080	0.000	2.335
T9	100.000-80.000	A	1.658	0.000	0.000	98.452	0.000	1.857
		B		0.000	0.000	81.936	0.000	1.639
		C		0.000	0.000	130.019	0.000	2.294

tnxTower B+T Group 1717 S Boulder Ave, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job ATS #9469 - Seminary (Site# KYLEX2057)	Page 11 of 34
	Project 255' SST/36.740639, -85.138181	Date 17:23:12 03/22/22
	Client Harmoni Towers	Designed by isaac.fulton

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_k ft ²	A_f ft ²	C_{fA_1} In Face ft ²	C_{fA_1} Out Face ft ²	Weight K
T10	80 000-60 000	A	1 617	0 000	0 000	97 395	0 000	1 821
		B		0 000	0 000	81 207	0 000	1 610
		C		0 000	0 000	128 721	0 000	2 245
T11	60 000-40 000	A	1 564	0 000	0 000	96 020	0 000	1 774
		B		0 000	0 000	80 261	0 000	1 574
		C		0 000	0 000	127 033	0 000	2 181
T12	40 000-20 000	A	1 486	0 000	0 000	94 020	0 000	1 707
		B		0 000	0 000	78 884	0 000	1 522
		C		0 000	0 000	124 579	0 000	2 091
T13	20 000-0 000	A	1 331	0 000	0 000	45 026	0 000	0 790
		B		0 000	0 000	38 076	0 000	0 711
		C		0 000	0 000	59 857	0 000	0 959

Feed Line Center of Pressure

Section	Elevation ft	CP_x in	CP_z in	CP_x Ice in	CP_z Ice in
T1	255 000-240 000	0 496	4 712	-1 209	3 502
T2	240 000-220 000	2 680	-1 335	1 485	-0 342
T3	220 000-200 000	0 580	-2 012	0 023	-0 741
T4	200 000-180 000	1 750	-0 492	1 884	1 419
T5	180 000-160 000	1 907	-0 534	2 071	1 542
T6	160 000-140 000	1 923	-0 542	2 176	1 614
T7	140 000-120 000	2 032	-0 572	2 318	1 707
T8	120 000-100 000	2 128	-0 599	2 445	1 789
T9	100 000-80 000	2 215	-0 623	2 559	1 860
T10	80 000-60 000	2 860	-0 786	3 063	2 178
T11	60 000-40 000	2 936	-0 809	3 173	2 238
T12	40 000-20 000	3 058	-0 843	3 296	2 298
T13	20 000-0 000	1 739	-0 497	1 992	1 398

Shielding Factor Ka

Tower Section	Feed Line Record No	Description	Feed Line Segment Elev.	K_{no} No Ice	K_{ice} Ice
T1	1	1 625" coax	240 00 - 250 00	0 6000	0 6000
T1	2	1 5" Hybrid	240 00 - 250 00	0 6000	0 6000
T1	14	Safety Line 3/8	240 00 - 255 00	0 6000	0 6000
T1	15	Strobe Cable	240 00 - 255 00	0 6000	0 6000
T1	17	Feedline Ladder (Af)	240 00 - 250 00	0 6000	0 6000
T2	1	1 625" coax	220 00 - 240 00	0 6000	0 6000
T2	2	1 5" Hybrid	220 00 - 240 00	0 6000	0 6000
T2	4	1 625" coax	220 00 -	0 6000	0 6000

tnxTower B+T Group 1717 S Boulder Ave, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job ATS #9469 - Seminary (Site# KYLEX2057)	Page 12 of 34
	Project 255' SST/36.740639, -85.138181	Date 17:23:12 03/22/22
	Client Harmoni Towers	Designed by isaac.fulton

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev	K _a No Ice	K _a Ice
T2	5	1 5" Hybrid	238 00	0 6000	0 6000
T2	7	1 625" coax	220 00 - 238 00	0 6000	0 6000
T2	8	1 5" Hybrid	220 00 - 226 00	0 6000	0 6000
T2	14	Safety Line 3/8	220 00 - 240 00	0 6000	0 6000
T2	15	Strobe Cable	220 00 - 240 00	0 6000	0 6000
T2	17	Feedline Ladder (Af)	220 00 - 240 00	0 6000	0 6000
T2	18	Feedline Ladder (Af)	220 00 - 238 00	0 6000	0 6000
T2	19	Feedline Ladder (Af)	220 00 - 226 00	0 6000	0 6000
T3	1	1 625" coax	200 00 - 220 00	0 6000	0 6000
T3	2	1 5" Hybrid	200 00 - 220 00	0 6000	0 6000
T3	4	1 625" coax	200 00 - 220 00	0 6000	0 6000
T3	5	1 5" Hybrid	200 00 - 220 00	0 6000	0 6000
T3	7	1 625" coax	200 00 - 220 00	0 6000	0 6000
T3	8	1 5" Hybrid	200 00 - 220 00	0 6000	0 6000
T3	10	1 625" coax	200 00 - 214 00	0 6000	0 6000
T3	12	1 625" coax	200 00 - 202 00	0 6000	0 6000
T3	14	Safety Line 3/8	200 00 - 220 00	0 6000	0 6000
T3	15	Strobe Cable	200 00 - 220 00	0 6000	0 6000
T3	17	Feedline Ladder (Af)	200 00 - 220 00	0 6000	0 6000
T3	18	Feedline Ladder (Af)	200 00 - 220 00	0 6000	0 6000
T3	19	Feedline Ladder (Af)	200 00 - 220 00	0 6000	0 6000
T4	1	1 625" coax	180 00 - 200 00	0 6000	0 6000
T4	2	1 5" Hybrid	180 00 - 200 00	0 6000	0 6000
T4	4	1 625" coax	180 00 - 200 00	0 6000	0 6000
T4	5	1 5" Hybrid	180 00 - 200 00	0 6000	0 6000
T4	7	1 625" coax	180 00 - 200 00	0 6000	0 6000
T4	8	1 5" Hybrid	180 00 - 200 00	0 6000	0 6000
T4	10	1 625" coax	180 00 - 200 00	0 6000	0 6000
T4	12	1 625" coax	180 00 - 200 00	0 6000	0 6000
T4	14	Safety Line 3/8	180 00 - 200 00	0 6000	0 6000
T4	15	Strobe Cable	180 00 -	0 6000	0 6000

tnxTower

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

Job	ATS #9469 - Seminary (Site# KYLEX2057)	Page	13 of 34
Project	255' SST/36.740639, -85.138181	Date	17:23:12 03/22/22
Client	Harmoni Towers	Designed by	isaac.fulton

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T4	17	Feedline Ladder (Af)	200 00 180 00 -	0 6000	0 6000
T4	18	Feedline Ladder (Af)	200 00 180 00 -	0 6000	0 6000
T4	19	Feedline Ladder (Af)	200 00 180 00 -	0 6000	0 6000
T5	1	1 625" coax	200 00 160 00 -	0 6000	0 6000
T5	2	1 5" Hybrid	180 00 160 00 -	0 6000	0 6000
T5	4	1 625" coax	180 00 160 00 -	0 6000	0 6000
T5	5	1 5" Hybrid	180 00 160 00 -	0 6000	0 6000
T5	7	1 625" coax	180 00 160 00 -	0 6000	0 6000
T5	8	1 5" Hybrid	180 00 160 00 -	0 6000	0 6000
T5	10	1 625" coax	180 00 160 00 -	0 6000	0 6000
T5	12	1 625" coax	180 00 160 00 -	0 6000	0 6000
T5	14	Safety Line 3/8	180 00 160 00 -	0 6000	0 6000
T5	15	Strobe Cable	180 00 160 00 -	0 6000	0 6000
T5	17	Feedline Ladder (Af)	180 00 160 00 -	0 6000	0 6000
T5	18	Feedline Ladder (Af)	180 00 160 00 -	0 6000	0 6000
T5	19	Feedline Ladder (Af)	180 00 160 00 -	0 6000	0 6000
T6	1	1 625" coax	160 00 140 00 -	0 6000	0 6000
T6	2	1 5" Hybrid	160 00 140 00 -	0 6000	0 6000
T6	4	1 625" coax	160 00 140 00 -	0 6000	0 6000
T6	5	1 5" Hybrid	160 00 140 00 -	0 6000	0 6000
T6	7	1 625" coax	160 00 140 00 -	0 6000	0 6000
T6	8	1 5" Hybrid	160 00 140 00 -	0 6000	0 6000
T6	10	1 625" coax	160 00 140 00 -	0 6000	0 6000
T6	12	1 625" coax	160 00 140 00 -	0 6000	0 6000
T6	14	Safety Line 3/8	160 00 140 00 -	0 6000	0 6000
T6	15	Strobe Cable	160 00 140 00 -	0 6000	0 6000
T6	17	Feedline Ladder (Af)	160 00 140 00 -	0 6000	0 6000
T6	18	Feedline Ladder (Af)	160 00 140 00 -	0 6000	0 6000
T6	19	Feedline Ladder (Af)	160 00 140 00 -	0 6000	0 6000
T7	1	1 625" coax	140 00 120 00 -	0 6000	0 6000
T7	2	1 5" Hybrid	140 00 -	0 6000	0 6000

tnxTower B+T Group 1717 S Boulder Ave, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job ATS #9469 - Seminary (Site# KYLEX2057)	Page 14 of 34
	Project 255' SST/36.740639, -85.138181	Date 17:23:12 03/22/22
	Client Harmoni Towers	Designed by isaac.fulton

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _o No Ice	K _o Ice
T7	4	1 625" coax	140 00 - 120 00	0 6000	0 6000
T7	5	1 5" Hybrid	140 00 - 120 00	0 6000	0 6000
T7	7	1 625" coax	140 00 - 120 00	0 6000	0 6000
T7	8	1 5" Hybrid	140 00 - 120 00	0 6000	0 6000
T7	10	1 625" coax	140 00 - 120 00	0 6000	0 6000
T7	12	1 625" coax	140 00 - 120 00	0 6000	0 6000
T7	14	Safety Line 3/8	140 00 - 120 00	0 6000	0 6000
T7	15	Strobe Cable	140 00 - 120 00	0 6000	0 6000
T7	17	Feedline Ladder (Af)	140 00 - 120 00	0 6000	0 6000
T7	18	Feedline Ladder (Af)	140 00 - 120 00	0 6000	0 6000
T7	19	Feedline Ladder (Af)	140 00 - 120 00	0 6000	0 6000
T8	1	1 625" coax	120 00 - 100 00	0 6000	0 6000
T8	2	1 5" Hybrid	120 00 - 100 00	0 6000	0 6000
T8	4	1 625" coax	120 00 - 100 00	0 6000	0 6000
T8	5	1 5" Hybrid	120 00 - 100 00	0 6000	0 6000
T8	7	1 625" coax	120 00 - 100 00	0 6000	0 6000
T8	8	1 5" Hybrid	120 00 - 100 00	0 6000	0 6000
T8	10	1 625" coax	120 00 - 100 00	0 6000	0 6000
T8	12	1 625" coax	120 00 - 100 00	0 6000	0 6000
T8	14	Safety Line 3/8	120 00 - 100 00	0 6000	0 6000
T8	15	Strobe Cable	120 00 - 100 00	0 6000	0 6000
T8	17	Feedline Ladder (Af)	120 00 - 100 00	0 6000	0 6000
T8	18	Feedline Ladder (Af)	120 00 - 100 00	0 6000	0 6000
T8	19	Feedline Ladder (Af)	120 00 - 100 00	0 6000	0 6000
T9	1	1 625" coax	80 00 - 100 00	0 6000	0 6000
T9	2	1 5" Hybrid	80 00 - 100 00	0 6000	0 6000
T9	4	1 625" coax	80 00 - 100 00	0 6000	0 6000
T9	5	1 5" Hybrid	80 00 - 100 00	0 6000	0 6000
T9	7	1 625" coax	80 00 - 100 00	0 6000	0 6000
T9	8	1 5" Hybrid	80 00 - 100 00	0 6000	0 6000
T9	10	1 625" coax	80 00 - 100 00	0 6000	0 6000
T9	12	1 625" coax	80 00 - 100 00	0 6000	0 6000
T9	14	Safety Line 3/8	80 00 - 100 00	0 6000	0 6000
T9	15	Strobe Cable	80 00 - 100 00	0 6000	0 6000
T9	17	Feedline Ladder (Af)	80 00 - 100 00	0 6000	0 6000
T9	18	Feedline Ladder (Af)	80 00 - 100 00	0 6000	0 6000
T9	19	Feedline Ladder (Af)	80 00 - 100 00	0 6000	0 6000

tnxTower B+T Group 1717 S Boulder Ave, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job ATS #9469 - Seminary (Site# KYLEX2057)	Page 15 of 34
	Project 255' SST/36.740639, -85.138181	Date 17:23:12 03/22/22
	Client Harmoni Towers	Designed by isaac.fulton

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _s No Ice	K _s Ice
T10	1	1.625" coax	60.00 - 80.00	0.6000	0.6000
T10	2	1.5" Hybrid	60.00 - 80.00	0.6000	0.6000
T10	4	1.625" coax	60.00 - 80.00	0.6000	0.6000
T10	5	1.5" Hybrid	60.00 - 80.00	0.6000	0.6000
T10	7	1.625" coax	60.00 - 80.00	0.6000	0.6000
T10	8	1.5" Hybrid	60.00 - 80.00	0.6000	0.6000
T10	10	1.625" coax	60.00 - 80.00	0.6000	0.6000
T10	12	1.625" coax	60.00 - 80.00	0.6000	0.6000
T10	14	Safety Line 3/8	60.00 - 80.00	0.6000	0.6000
T10	15	Strobe Cable	60.00 - 80.00	0.6000	0.6000
T10	17	Feedline Ladder (Af)	60.00 - 80.00	0.6000	0.6000
T10	18	Feedline Ladder (Af)	60.00 - 80.00	0.6000	0.6000
T10	19	Feedline Ladder (Af)	60.00 - 80.00	0.6000	0.6000
T11	1	1.625" coax	40.00 - 60.00	0.6000	0.6000
T11	2	1.5" Hybrid	40.00 - 60.00	0.6000	0.6000
T11	4	1.625" coax	40.00 - 60.00	0.6000	0.6000
T11	5	1.5" Hybrid	40.00 - 60.00	0.6000	0.6000
T11	7	1.625" coax	40.00 - 60.00	0.6000	0.6000
T11	8	1.5" Hybrid	40.00 - 60.00	0.6000	0.6000
T11	10	1.625" coax	40.00 - 60.00	0.6000	0.6000
T11	12	1.625" coax	40.00 - 60.00	0.6000	0.6000
T11	14	Safety Line 3/8	40.00 - 60.00	0.6000	0.6000
T11	15	Strobe Cable	40.00 - 60.00	0.6000	0.6000
T11	17	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T11	18	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T11	19	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T12	1	1.625" coax	20.00 - 40.00	0.6000	0.6000
T12	2	1.5" Hybrid	20.00 - 40.00	0.6000	0.6000
T12	4	1.625" coax	20.00 - 40.00	0.6000	0.6000
T12	5	1.5" Hybrid	20.00 - 40.00	0.6000	0.6000
T12	7	1.625" coax	20.00 - 40.00	0.6000	0.6000
T12	8	1.5" Hybrid	20.00 - 40.00	0.6000	0.6000
T12	10	1.625" coax	20.00 - 40.00	0.6000	0.6000
T12	12	1.625" coax	20.00 - 40.00	0.6000	0.6000
T12	14	Safety Line 3/8	20.00 - 40.00	0.6000	0.6000
T12	15	Strobe Cable	20.00 - 40.00	0.6000	0.6000
T12	17	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T12	18	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T12	19	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T13	1	1.625" coax	10.00 - 20.00	0.6000	0.6000
T13	2	1.5" Hybrid	10.00 - 20.00	0.6000	0.6000
T13	4	1.625" coax	10.00 - 20.00	0.6000	0.6000
T13	5	1.5" Hybrid	10.00 - 20.00	0.6000	0.6000
T13	7	1.625" coax	10.00 - 20.00	0.6000	0.6000
T13	8	1.5" Hybrid	10.00 - 20.00	0.6000	0.6000
T13	10	1.625" coax	10.00 - 20.00	0.6000	0.6000
T13	12	1.625" coax	10.00 - 20.00	0.6000	0.6000
T13	14	Safety Line 3/8	10.00 - 20.00	0.6000	0.6000
T13	15	Strobe Cable	10.00 - 20.00	0.6000	0.6000
T13	17	Feedline Ladder (Af)	10.00 - 20.00	0.6000	0.6000
T13	18	Feedline Ladder (Af)	10.00 - 20.00	0.6000	0.6000
T13	19	Feedline Ladder (Af)	10.00 - 20.00	0.6000	0.6000

Discrete Tower Loads

tnxTower B+T Group 1717 S Boulder Ave, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job ATS #9469 - Seminary (Site# KYLEX2057)	Page 16 of 34
	Project 255' SST/36.740639, -85.138181	Date 17:23:12 03/22/22
	Client Harmoni Towers	Designed by isaac.fulton

Description	Face or Leg	Offset Type	Offsets: Horiz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C _v A ₁ Front ft ²	C _v A ₁ Side ft ²	Weight K	
Lightning Rod 1"x10'	C	From Leg	0 000	0 000	255 000	No Ice	1 000	1 000	0 040
			0 000			1/2" Ice	2 017	2 017	0 049
			5 000			1" Ice	3 050	3 050	0 065
						2" Ice	5 148	5 148	0 116
Top Beacon	B	From Leg	0 000	0 000	255 000	No Ice	2 700	2 700	0 050
			0 000			1/2" Ice	3 100	3 100	0 070
			1 000			1" Ice	3 500	3 500	0 090
						2" Ice	4 300	4 300	0 130
**									
Sector1(CaAa=13333 33 Sq in)No Ice (Carrier 1)	A	From Leg	4 000	0 000	250 000	No Ice	92 592	62 037	0 700
			0 000			1/2" Ice	115 740	77 546	1 400
			0 000			1" Ice	138 888	93 055	2 100
						2" Ice	185 184	124 073	3 500
Sector2(CaAa=13333 33 Sq in)No Ice (Carrier 1)	B	From Leg	4 000	0 000	250 000	No Ice	92 592	62 037	0 700
			0 000			1/2" Ice	115 740	77 546	1 400
			0 000			1" Ice	138 888	93 055	2 100
						2" Ice	185 184	124 073	3 500
Sector3(CaAa=13333 33 Sq in)No Ice (Carrier 1)	C	From Leg	4 000	0 000	250 000	No Ice	92 592	62 037	0 700
			0 000			1/2" Ice	115 740	77 546	1 400
			0 000			1" Ice	138 888	93 055	2 100
						2" Ice	185 184	124 073	3 500
**									
Sector1(CaAa=10000 Sq in)No Ice (Carrier 2)	A	From Leg	4 000	0 000	238 000	No Ice	69 440	46 525	0 700
			0 000			1/2" Ice	86 800	58 156	1 400
			0 000			1" Ice	104 160	69 787	2 100
						2" Ice	138 880	93 050	3 500
Sector2(CaAa=10000 Sq in)No Ice (Carrier 2)	B	From Leg	4 000	0 000	238 000	No Ice	69 440	46 525	0 700
			0 000			1/2" Ice	86 800	58 156	1 400
			0 000			1" Ice	104 160	69 787	2 100
						2" Ice	138 880	93 050	3 500
Sector3(CaAa=10000 Sq in)No Ice (Carrier 2)	C	From Leg	4 000	0 000	238 000	No Ice	69 440	46 525	0 700
			0 000			1/2" Ice	86 800	58 156	1 400
			0 000			1" Ice	104 160	69 787	2 100
						2" Ice	138 880	93 050	3 500
**									
Sector1(CaAa=10000 Sq in)No Ice (Carrier 3)	A	From Leg	4 000	0 000	226 000	No Ice	69 440	46 525	0 700
			0 000			1/2" Ice	86 800	58 156	1 400
			0 000			1" Ice	104 160	69 787	2 100
						2" Ice	138 880	93 050	3 500
Sector2(CaAa=10000 Sq in)No Ice (Carrier 3)	B	From Leg	4 000	0 000	226 000	No Ice	69 440	46 525	0 700
			0 000			1/2" Ice	86 800	58 156	1 400
			0 000			1" Ice	104 160	69 787	2 100
						2" Ice	138 880	93 050	3 500
Sector3(CaAa=10000 Sq in)No Ice (Carrier 3)	C	From Leg	4 000	0 000	226 000	No Ice	69 440	46 525	0 700
			0 000			1/2" Ice	86 800	58 156	1 400
			0 000			1" Ice	104 160	69 787	2 100
						2" Ice	138 880	93 050	3 500
**									
4 1/2" OD Dish Mount (Carrier 4)	C	From Leg	0 500	0 000	214 000	No Ice	1 881	1 650	0 057
			0 000			1/2" Ice	2 207	2 207	0 074
			0 000			1" Ice	2 543	2 543	0 094
						2" Ice	3 241	3 241	0 148
4 1/2" OD Dish Mount (Carrier 4)	B	From Leg	0 500	0 000	214 000	No Ice	1 881	1 650	0 057
			0 000			1/2" Ice	2 207	2 207	0 074
			0 000			1" Ice	2 543	2 543	0 094
						2" Ice	3 241	3 241	0 148
**									

tnxTower B+T Group 1717 S Boulder Ave, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job ATS #9469 - Seminary (Site# KYLEX2057)	Page 17 of 34
	Project 255' SST/36.740639, -85.138181	Date 17:23:12 03/22/22
	Client Harmoni Towers	Designed by isaac.fulton

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C _{3A1} Front ft ²	C _{3A1} Side ft ²	Weight K	
4 1/2" OD Dish Mount (Carrier 5)	C	From Leg	0.500	0.000	202.000	No Ice	1.881	1.650	0.057
			0.000			1/2" Ice	2.207	2.207	0.074
			0.000			1" Ice	2.543	2.543	0.094
						2" Ice	3.241	3.241	0.148
4 1/2" OD Dish Mount (Carrier 5)	B	From Leg	0.500	0.000	202.000	No Ice	1.881	1.650	0.057
			0.000			1/2" Ice	2.207	2.207	0.074
			0.000			1" Ice	2.543	2.543	0.094
						2" Ice	3.241	3.241	0.148
**									
**									

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft	Aperture Area ft ²	Weight K	
6' MW Dish (Carrier 4)	C	Paraboloid w/o Radome	From Leg	1.000	0.000		214.000	6.000	No Ice	28.270	0.143
				0.000					1/2" Ice	29.050	0.292
				0.000					1" Ice	29.831	0.441
									2" Ice	31.392	0.740
6' MW Dish (Carrier 4)	B	Paraboloid w/o Radome	From Leg	1.000	0.000		214.000	6.000	No Ice	28.270	0.143
				0.000					1/2" Ice	29.050	0.292
				0.000					1" Ice	29.831	0.441
									2" Ice	31.392	0.740
**											
6' MW Dish (Carrier 5)	C	Paraboloid w/o Radome	From Leg	1.000	0.000		202.000	6.000	No Ice	28.270	0.143
				0.000					1/2" Ice	29.050	0.292
				0.000					1" Ice	29.831	0.441
									2" Ice	31.392	0.740
6' MW Dish (Carrier 5)	B	Paraboloid w/o Radome	From Leg	1.000	0.000		202.000	6.000	No Ice	28.270	0.143
				0.000					1/2" Ice	29.050	0.292
				0.000					1" Ice	29.831	0.441
									2" Ice	31.392	0.740
**											

Load Combinations

Comb No	Description
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice
3	0.9 Dead+1.0 Wind 0 deg - No Ice
4	1.2 Dead+1.0 Wind 30 deg - No Ice
5	0.9 Dead+1.0 Wind 30 deg - No Ice
6	1.2 Dead+1.0 Wind 60 deg - No Ice
7	0.9 Dead+1.0 Wind 60 deg - No Ice

tnxTower B+T Group 1717 S Boulder Ave, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job ATS #9469 - Seminary (Site# KYLEX2057)	Page 18 of 34
	Project 255' SST/36.740639, -85.138181	Date 17:23:12 03/22/22
	Client Harmoni Towers	Designed by isaac.fulton

Comb. No.	Description
8	1 2 Dead+1 0 Wind 90 deg - No Ice
9	0 9 Dead+1 0 Wind 90 deg - No Ice
10	1 2 Dead+1 0 Wind 120 deg - No Ice
11	0 9 Dead+1 0 Wind 120 deg - No Ice
12	1 2 Dead+1 0 Wind 150 deg - No Ice
13	0 9 Dead+1 0 Wind 150 deg - No Ice
14	1 2 Dead+1 0 Wind 180 deg - No Ice
15	0 9 Dead+1 0 Wind 180 deg - No Ice
16	1 2 Dead+1 0 Wind 210 deg - No Ice
17	0 9 Dead+1 0 Wind 210 deg - No Ice
18	1 2 Dead+1 0 Wind 240 deg - No Ice
19	0 9 Dead+1 0 Wind 240 deg - No Ice
20	1 2 Dead+1 0 Wind 270 deg - No Ice
21	0 9 Dead+1 0 Wind 270 deg - No Ice
22	1 2 Dead+1 0 Wind 300 deg - No Ice
23	0 9 Dead+1 0 Wind 300 deg - No Ice
24	1 2 Dead+1 0 Wind 330 deg - No Ice
25	0 9 Dead+1 0 Wind 330 deg - No Ice
26	1 2 Dead+1 0 Ice+1 0 Temp
27	1 2 Dead+1 0 Wind 0 deg+1 0 Ice+1 0 Temp
28	1 2 Dead+1 0 Wind 30 deg+1 0 Ice+1 0 Temp
29	1 2 Dead+1 0 Wind 60 deg+1 0 Ice+1 0 Temp
30	1 2 Dead+1 0 Wind 90 deg+1 0 Ice+1 0 Temp
31	1 2 Dead+1 0 Wind 120 deg+1 0 Ice+1 0 Temp
32	1 2 Dead+1 0 Wind 150 deg+1 0 Ice+1 0 Temp
33	1 2 Dead+1 0 Wind 180 deg+1 0 Ice+1 0 Temp
34	1 2 Dead+1 0 Wind 210 deg+1 0 Ice+1 0 Temp
35	1 2 Dead+1 0 Wind 240 deg+1 0 Ice+1 0 Temp
36	1 2 Dead+1 0 Wind 270 deg+1 0 Ice+1 0 Temp
37	1 2 Dead+1 0 Wind 300 deg+1 0 Ice+1 0 Temp
38	1 2 Dead+1 0 Wind 330 deg+1 0 Ice+1 0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

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	255 - 240	Leg	Max Tension	15	14 519	0 594	-0 004
			Max Compression	2	-16 484	0 884	-0 005
			Max Mx	2	-16 484	0 884	-0 005
			Max My	4	-1 268	-0 029	-0 693
			Max Vy	2	-3 066	0 884	-0 005
			Max Vx	24	-2 313	-0 005	0 171
		Diagonal	Max Tension	2	3 542	0 000	0 000
			Max Compression	2	-3 620	0 000	0 000
			Max Mx	37	0 493	0 018	-0 001
			Max My	8	-3 190	-0 001	-0 006

tnxTower B+T Group 1717 S Boulder Ave, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job ATS #9469 - Seminary (Site# KYLEX2057)	Page 19 of 34
	Project 255' SST/36.740639, -85.138181	Date 17:23:12 03/22/22
	Client Harmoni Towers	Designed by isaac.fulton

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft	
T2	240 - 220	Top Girt	Max Vy	32	0.023	0.018	0.002	
			Max Vx	8	0.002	0.000	0.000	
			Max Tension	23	0.407	0.000	0.000	
			Max Compression	11	-0.461	0.000	0.000	
			Max Mx	26	-0.014	-0.037	0.000	
			Max My	28	-0.018	0.000	0.001	
		Leg	Max Vy	26	0.030	0.000	0.000	
			Max Vx	28	0.001	0.000	0.000	
			Max Tension	15	58.761	2.699	-0.014	
			Max Compression	2	-65.358	1.269	-0.014	
			Max Mx	2	-65.352	-3.224	0.022	
			Max My	4	-1.283	-0.064	-1.679	
			Diagonal	Max Vy	2	-8.980	1.269	-0.014
				Max Vx	4	3.613	-0.051	-0.706
Max Tension	12	7.849		0.000	0.000			
Max Compression	20	-7.406		0.000	0.000			
T3	220 - 200	Leg	Max Mx	2	-0.696	0.034	0.002	
			Max My	20	-7.379	-0.005	0.033	
			Max Vy	35	0.029	0.027	-0.003	
			Max Vx	20	-0.008	0.000	0.000	
			Max Tension	15	108.840	3.329	-0.020	
			Max Compression	2	-119.993	1.094	-0.007	
		Diagonal	Max Mx	2	-65.379	5.732	-0.050	
			Max My	4	-4.034	-0.072	-2.515	
			Max Vy	2	-10.952	1.094	-0.007	
			Max Vx	4	4.656	0.088	-0.720	
			Max Tension	20	8.882	0.000	0.000	
			Max Compression	20	-8.172	0.000	0.000	
			Max Mx	28	0.513	0.038	0.004	
			Max My	20	-8.128	-0.004	0.017	
T4	200 - 180	Leg	Max Vy	28	0.037	0.038	0.004	
			Max Vx	20	-0.004	0.000	0.000	
			Max Tension	7	157.697	3.853	0.191	
			Max Compression	2	-172.554	0.884	-0.008	
			Max Mx	2	-120.013	6.541	-0.044	
			Max My	4	-7.240	0.361	-3.050	
		Diagonal	Max Vy	18	-11.383	0.883	0.041	
			Max Vx	4	4.733	0.024	-0.417	
			Max Tension	20	9.260	0.000	0.000	
			Max Compression	20	-9.799	0.000	0.000	
			Max Mx	30	1.470	0.058	0.004	
			Max My	20	-9.738	-0.006	0.022	
			Max Vy	34	0.050	0.058	-0.006	
			Max Vx	20	-0.005	0.000	0.000	
T5	180 - 160	Leg	Max Tension	7	201.359	4.612	0.208	
			Max Compression	2	-220.183	0.173	-0.003	
			Max Mx	2	-172.574	6.555	-0.058	
			Max My	4	-11.565	0.243	-2.787	
			Max Vy	18	-12.193	0.172	0.014	
			Max Vx	4	4.907	-0.002	-0.214	
		Diagonal	Max Tension	20	9.541	0.000	0.000	
			Max Compression	20	-9.606	0.000	0.000	
			Max Mx	34	0.450	0.073	-0.007	
			Max My	20	-9.530	-0.002	0.017	
			Max Vy	34	0.057	0.073	-0.007	
			Max Vx	20	-0.003	0.000	0.000	
			Leg	Max Tension	7	241.522	4.305	0.185
				Max Compression	2	-264.716	0.986	-0.010
Max Mx	18	-219.888		6.267	0.338			
Max My	4	-15.260		0.188	-2.672			
Max Vy	18	-13.308		0.991	0.044			

tnxTower B+T Group 1717 S Boulder Ave. Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job	ATS #9469 - Seminary (Site# KYLEX2057)	Page	20 of 34
	Project	255' SST/36.740639, -85.138181	Date	17:23:12 03/22/22
	Client	Harmoni Towers	Designed by	isaac.fulton

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft		
T7	140 - 120	Diagonal	Max Vx	4	5.164	0.021	-0.462		
			Max Tension	20	9.864	0.000	0.000		
			Max Compression	20	-9.798	0.000	0.000		
			Max Mx	30	1.658	0.103	0.008		
			Max My	20	-9.687	-0.008	0.018		
			Max Vy	34	0.072	0.103	-0.010		
		Leg	Max Vx	20	-0.003	0.000	0.000		
			Max Tension	7	279.740	4.715	0.189		
			Max Compression	18	-308.175	1.021	0.041		
			Max Mx	18	-264.699	7.619	0.361		
			Max My	4	-18.598	0.193	-3.047		
			Max Vy	18	-14.352	1.021	0.041		
		Diagonal	Max Vx	4	5.383	0.022	-0.471		
			Max Tension	20	10.333	0.000	0.000		
Max Compression	20		-10.349	0.000	0.000				
Max Mx	34		0.451	0.123	-0.012				
Max My	6		-8.865	0.021	-0.017				
Max Vy	34		0.079	0.123	-0.012				
T8	120 - 100	Leg	Max Vx	28	-0.003	0.000	0.000		
			Max Tension	7	316.464	4.986	0.180		
			Max Compression	18	-350.746	1.245	0.066		
			Max Mx	18	-308.201	8.174	0.347		
			Max My	4	-21.744	0.191	-3.166		
			Max Vy	18	-15.363	1.245	0.066		
		Diagonal	Max Vx	4	5.692	0.031	-0.724		
			Max Tension	20	10.810	0.000	0.000		
			Max Compression	20	-10.838	0.000	0.000		
			Max Mx	34	0.471	0.145	-0.014		
			Max My	6	-9.351	0.028	-0.016		
			Max Vy	34	0.086	0.145	-0.014		
		T9	100 - 80	Leg	Max Vx	28	-0.003	0.000	0.000
					Max Tension	7	352.060	6.093	0.197
Max Compression	18				-393.063	0.062	0.061		
Max Mx	18				-350.775	8.899	0.364		
Max My	4				-24.792	0.204	-3.573		
Max Vy	18				-16.081	0.062	0.061		
Diagonal	Max Vx			4	6.477	-0.019	-0.832		
	Max Tension			20	11.628	0.000	0.000		
	Max Compression			20	-11.554	0.000	0.000		
	Max Mx			34	0.638	0.183	0.017		
	Max My			6	-10.616	0.058	-0.022		
	Max Vy			34	0.099	0.175	-0.016		
T10	80 - 60			Leg	Max Vx	28	-0.004	0.000	0.000
					Max Tension	7	386.319	6.320	0.199
		Max Compression	18		-434.157	0.278	0.057		
		Max Mx	18		-434.131	-8.136	-0.247		
		Max My	4		-28.053	0.171	-4.073		
		Max Vy	18		-16.815	0.278	0.057		
		Diagonal	Max Vx	4	6.547	-0.011	-0.805		
			Max Tension	21	12.816	0.000	0.000		
			Max Compression	18	-13.119	0.000	0.000		
			Max Mx	30	1.777	0.279	0.000		
			Max My	35	-0.140	0.000	0.007		
			Max Vy	30	-0.103	0.000	0.000		
		Horizontal	Max Vx	35	0.003	0.000	0.000		
			Max Tension	18	1.725	-0.059	0.001		
Max Compression	20		-1.814	0.000	0.000				
Max Mx	33		0.164	-0.179	0.003				
Max My	6		0.775	-0.049	0.005				
Max Vy	33		0.095	-0.179	0.003				
			Max Vx	31	-0.002	-0.179	0.004		

tnxTower B+T Group 1717 S Boulder Ave, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job	ATS #9469 - Seminary (Site# KYLEX2057)	Page	21 of 34
	Project	255' SST/36.740639, -85.138181	Date	17:23:12 03/22/22
	Client	Harmoni Towers	Designed by	isaac.fulton

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft	
T11	60 - 40	Inner Bracing	Max Tension	1	0.000	0.000	0.000	
			Max Compression	29	-0.010	0.000	0.000	
			Max Mx	26	-0.009	-0.121	0.000	
			Max My	18	-0.005	0.000	-0.000	
			Max Vy	26	-0.051	0.000	0.000	
			Max Vx	18	0.000	0.000	0.000	
		Leg	Max Tension	7	419.075	7.318	0.222	
			Max Compression	18	-474.120	-0.627	0.026	
			Max Mx	18	-474.091	-9.480	-0.277	
			Max My	4	-31.235	0.148	-4.081	
			Max Vy	18	-17.692	-0.627	0.026	
			Max Vx	4	6.605	-0.020	-0.505	
			Diagonal	Max Tension	21	13.168	0.000	0.000
				Max Compression	19	-13.193	0.000	0.000
				Max Mx	30	1.893	0.311	0.000
				Max My	35	-0.022	0.000	0.007
				Max Vy	30	-0.108	0.000	0.000
				Max Vx	35	-0.003	0.000	0.000
			Horizontal	Max Tension	18	2.031	-0.078	0.001
				Max Compression	7	-1.911	-0.058	0.002
				Max Mx	27	0.005	-0.220	0.005
Max My	6	0.737		-0.067	0.006			
Max Vy	27	-0.110		-0.220	0.005			
Max Vx	35	-0.002		-0.220	0.005			
T12	40 - 20	Inner Bracing	Max Tension	1	0.000	0.000	0.000	
			Max Compression	29	-0.011	0.000	0.000	
			Max Mx	26	-0.010	-0.136	0.000	
			Max My	18	-0.005	0.000	-0.000	
			Max Vy	26	0.053	0.000	0.000	
			Max Vx	18	0.000	0.000	0.000	
		Leg	Max Tension	7	450.252	6.793	0.195	
			Max Compression	18	-512.586	0.402	0.059	
			Max Mx	18	-512.557	-8.841	-0.239	
			Max My	4	-34.508	0.143	-3.811	
			Max Vy	18	-18.471	0.402	0.059	
			Max Vx	4	6.609	0.143	-3.811	
			Diagonal	Max Tension	21	13.181	0.000	0.000
				Max Compression	20	-13.280	0.000	0.000
				Max Mx	30	2.075	0.339	0.000
				Max My	35	0.230	0.000	0.008
				Max Vy	30	0.111	0.000	0.000
				Max Vx	35	0.003	0.000	0.000
			Horizontal	Max Tension	18	1.885	-0.090	0.001
				Max Compression	7	-1.814	-0.066	0.002
				Max Mx	27	-0.050	-0.244	0.005
Max My	37	0.119		-0.243	0.006			
Max Vy	33	-0.113		-0.240	0.004			
Max Vx	35	-0.002		-0.240	0.005			
Inner Bracing	Max Tension	1	0.000	0.000	0.000			
	Max Compression	29	-0.011	0.000	0.000			
	Max Mx	26	-0.010	-0.149	0.000			
	Max My	18	-0.005	0.000	-0.000			
	Max Vy	26	0.054	0.000	0.000			
	Max Vx	18	0.000	0.000	0.000			
T13	20 - 0	Leg	Max Tension	7	479.874	7.399	0.225	
			Max Compression	18	-549.810	0.000	0.000	
			Max Mx	18	-512.619	9.646	0.356	
			Max My	4	-37.747	0.152	-4.171	
			Max Vy	18	-19.050	0.000	0.000	
			Max Vx	4	6.610	0.152	-4.171	
		Diagonal	Max Tension	21	13.327	0.000	0.000	

tnxTower B+T Group 1717 S Boulder Ave, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job ATS #9469 - Seminary (Site# KYLEX2057)	Page 22 of 34
	Project 255' SST/36.740639, -85.138181	Date 17:23:12 03/22/22
	Client Harmoni Towers	Designed by isaac.fulton

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
		Horizontal	Max Compression	20	-13 569	0 000	0 000
			Max Mx	35	2 495	0 414	0 000
			Max My	35	0 889	0 000	0 010
			Max Vy	35	-0 128	0 000	0 000
			Max Vx	35	0 003	0 000	0 000
			Max Tension	18	2 082	-0 131	0 002
			Max Compression	20	-1 987	0 000	0 000
			Max Mx	31	-0 125	-0 326	0 007
			Max My	37	0 079	-0 324	0 009
			Max Vy	31	0 133	-0 326	0 007
			Max Vx	37	0 003	-0 324	0 009
			Max Tension	1	0 000	0 000	0 000
			Max Compression	37	-0 012	0 000	0 000
			Max Mx	35	-0 011	-0 152	0 000
		Max My	31	-0 011	0 000	-0 000	
		Max Vy	35	0 051	0 000	0 000	
		Max Vx	31	0 000	0 000	0 000	

Maximum Reactions

Location	Condition	Gov. Load Comb	Vertical K	Horizontal, X K	Horizontal, Z K
Leg C	Max Vert	18	548 642	35 369	-19 889
	Max H _x	18	548 642	35 369	-19 889
	Max H _y	7	-478 641	-32 407	18 108
	Min Vert	7	-478 641	-32 407	18 108
	Min H _x	7	-478 641	-32 407	18 108
	Min H _y	18	548 642	35 369	-19 889
Leg B	Max Vert	10	546 644	-35 189	-19 961
	Max H _x	23	-476 120	32 204	18 186
	Max H _y	23	-476 120	32 204	18 186
	Min Vert	23	-476 120	32 204	18 186
	Min H _x	10	546 644	-35 189	-19 961
	Min H _y	10	546 644	-35 189	-19 961
Leg A	Max Vert	2	545 376	0 189	40 213
	Max H _x	21	32 483	5 380	1 598
	Max H _y	2	545 376	0 189	40 213
	Min Vert	15	-461 190	-0 210	-35 796
	Min H _x	9	32 483	-5 377	1 598
	Min H _y	15	-461 190	-0 210	-35 796

Tower Mast Reaction Summary

Load Combination	Vertical K	Shear ₁ K	Shear ₂ K	Overturning Moment, M ₁ kip-ft	Overturning Moment, M ₂ kip-ft	Torque kip-ft
Dead Only	67 707	0 000	0 000	6 502	-3 005	0 000
1/2 Dead+1.0 Wind 0 deg - No Ice	81 248	-0 000	-67 676	-10772 512	-3 678	8 323
1/9 Dead+1.0 Wind 0 deg - No Ice	60 936	-0 000	-67 674	-10753 792	-2 764	8 314
1/2 Dead+1.0 Wind 30 deg - No Ice	81 248	33 400	-55 168	-8814 118	-5422 108	32 703

tnxTower B+T Group 1717 S Boulder Ave. Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job	ATS #9469 - Seminary (Site# KYLEX2057)	Page	23 of 34
	Project	255' SST/36.740639, -85.138181	Date	17:23:12 03/22/22
	Client	Harmoni Towers	Designed by	isaac.fulton

Load Combination	Vertical K	Shear _x K	Shear _y K	Overturning Moment, M _x kip-ft	Overturning Moment, M _y kip-ft	Torque kip-ft
Ice						
0 9 Dead+1 0 Wind 30 deg - No Ice	60 936	33 401	-55 169	-8799 678	-5411 076	32 681
1 2 Dead+1 0 Wind 60 deg - No Ice	81 248	55 907	-31 955	-5136 471	-9031 469	20 061
0 9 Dead+1 0 Wind 60 deg - No Ice	60 936	55 908	-31 956	-5128 869	-9013 715	20 032
1 2 Dead+1 0 Wind 90 deg - No Ice	81 248	65 288	-1 237	-251 485	-10476 689	2 540
0 9 Dead+1 0 Wind 90 deg - No Ice	60 936	65 290	-1 237	-252 967	-10456 310	2 505
1 2 Dead+1 0 Wind 120 deg - No Ice	81 248	60 108	32 229	5014 662	-9574 260	9 051
0 9 Dead+1 0 Wind 120 deg - No Ice	60 936	60 106	32 228	5003 145	-9555 005	9 029
1 2 Dead+1 0 Wind 150 deg - No Ice	81 248	31 810	54 966	8783 683	-5086 073	11 651
0 9 Dead+1 0 Wind 150 deg - No Ice	60 936	31 811	54 967	8765 383	-5075 697	11 644
1 2 Dead+1 0 Wind 180 deg - No Ice	81 248	-0 000	62 214	10028 523	-3 667	-8 322
0 9 Dead+1 0 Wind 180 deg - No Ice	60 936	-0 000	62 215	10007 830	-2 756	-8 314
1 2 Dead+1 0 Wind 210 deg - No Ice	81 248	-31 914	55 146	8825 561	5102 907	-27 187
0 9 Dead+1 0 Wind 210 deg - No Ice	60 936	-31 915	55 147	8807 171	5094 302	-27 166
1 2 Dead+1 0 Wind 240 deg - No Ice	81 248	-60 286	32 332	5038 594	9608 377	-15 759
0 9 Dead+1 0 Wind 240 deg - No Ice	60 936	-60 284	32 331	5027 023	9590 854	-15 728
1 2 Dead+1 0 Wind 270 deg - No Ice	81 248	-65 288	-1 237	-251 483	10469 429	-2 538
0 9 Dead+1 0 Wind 270 deg - No Ice	60 936	-65 290	-1 237	-252 967	10450 874	-2 503
1 2 Dead+1 0 Wind 300 deg - No Ice	81 248	-55 729	-31 852	-5112 598	8982 800	-13 352
0 9 Dead+1 0 Wind 300 deg - No Ice	60 936	-55 730	-31 853	-5105 049	8966 960	-13 331
1 2 Dead+1 0 Wind 330 deg - No Ice	81 248	-33 296	-54 988	-8772 317	5390 622	-17 168
0 9 Dead+1 0 Wind 330 deg - No Ice	60 936	-33 296	-54 989	-8757 969	5381 467	-17 160
1 2 Dead+1 0 Ice+1 0 Temp	217 568	-0 001	-0 003	42 183	-29 188	0 001
1 2 Dead+1 0 Wind 0 deg+1 0 Ice+1 0 Temp	217 568	-0 000	-9 428	-1528 197	-29 684	1 160
1 2 Dead+1 0 Wind 30 deg+1 0 Ice+1 0 Temp	217 568	4 704	-7 908	-1277 375	-821 623	3 491
1 2 Dead+1 0 Wind 60 deg+1 0 Ice+1 0 Temp	217 568	8 038	-4 613	-728 631	-1376 900	2 895
1 2 Dead+1 0 Wind 90 deg+1 0 Ice+1 0 Temp	217 568	9 364	-0 111	19 430	-1591 681	1 355
1 2 Dead+1 0 Wind 120 deg+1 0 Ice+1 0 Temp	217 568	8 340	4 593	796 773	-1416 954	1 155
1 2 Dead+1 0 Wind 150 deg+1 0 Ice+1 0 Temp	217 568	4 562	7 892	1359 851	-791 227	0 875
1 2 Dead+1 0 Wind 180 deg+1 0 Ice+1 0 Temp	217 568	-0 000	9 027	1556 562	-29 680	-1 159
1 2 Dead+1 0 Wind 210 deg+1 0 Ice+1 0 Temp	217 568	-4 571	7 906	1363 203	733 799	-2 995
1 2 Dead+1 0 Wind 240 deg+1 0 Ice+1 0 Temp	217 568	-8 354	4 602	798 789	1361 071	-2 509

tnxTower B+T Group 1717 S Boulder Ave, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job ATS #9469 - Seminary (Site# KYLEX2057)	Page 24 of 34
	Project 255' SST/36.740639, -85.138181	Date 17:23:12 03/22/22
	Client Harmoni Towers	Designed by isaac.fulton

Load Combination	Vertical K	Shear ₁ K	Shear ₂ K	Overturning Moment, M ₁ kip-ft	Overturning Moment, M ₂ kip-ft	Torque kip-ft
deg+1 0 Ice+1 0 Temp						
1 2 Dead+1 0 Wind 270	217 568	-9 364	-0 111	19 433	1532 317	-1 354
deg+1 0 Ice+1 0 Temp						
1 2 Dead+1 0 Wind 300	217 568	-8 024	-4 604	-726 616	1314 050	-1 541
deg+1 0 Ice+1 0 Temp						
1 2 Dead+1 0 Wind 330	217 568	-4 695	-7 893	-1273 887	760 244	-1 371
deg+1 0 Ice+1 0 Temp						
Dead+Wind 0 deg - Service	67 707	-0 000	-22 097	-3509 237	-3 028	2 716
Dead+Wind 30 deg - Service	67 707	10 906	-18 014	-2870 754	-1770 151	10 694
Dead+Wind 60 deg - Service	67 707	18 256	-10 435	-1671 284	-2947 379	6 545
Dead+Wind 90 deg - Service	67 707	21 319	-0 404	-78 015	-3418 780	0 803
Dead+Wind 120 deg - Service	67 707	19 626	10 523	1639 403	-3124 297	2 948
Dead+Wind 150 deg - Service	67 707	10 387	17 948	2868 723	-1660 686	3 821
Dead+Wind 180 deg - Service	67 707	-0 000	20 315	3274 718	-3 026	-2 716
Dead+Wind 210 deg - Service	67 707	-10 421	18 007	2882 370	1662 515	-8 889
Dead+Wind 240 deg - Service	67 707	-19 685	10 557	1647 200	3131 751	-5 136
Dead+Wind 270 deg - Service	67 707	-21 319	-0 404	-78 014	3412 735	-0 802
Dead+Wind 300 deg - Service	67 707	-18 197	-10 401	-1663 491	2927 834	-4 356
Dead+Wind 330 deg - Service	67 707	-10 872	-17 955	-2857 112	1756 221	-5 622

Solution Summary

Load Comb	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
1	0 000	-67 707	0 000	-0 000	67 707	-0 000	0 000%
2	0 000	-81 248	-67 678	0 000	81 248	67 676	0 002%
3	0 000	-60 936	-67 678	0 000	60 936	67 674	0 005%
4	33 402	-81 248	-55 173	-33 400	81 248	55 168	0 005%
5	33 402	-60 936	-55 173	-33 401	60 936	55 169	0 004%
6	55 912	-81 248	-31 958	-55 907	81 248	31 955	0 005%
7	55 912	-60 936	-31 958	-55 908	60 936	31 956	0 004%
8	65 294	-81 248	-1 237	-65 288	81 248	1 237	0 005%
9	65 294	-60 936	-1 237	-65 290	60 936	1 237	0 005%
10	60 110	-81 248	32 230	-60 108	81 248	-32 229	0 002%
11	60 110	-60 936	32 230	-60 106	60 936	-32 228	0 005%
12	31 813	-81 248	54 970	-31 810	81 248	-54 966	0 005%
13	31 813	-60 936	54 970	-31 811	60 936	-54 967	0 004%
14	0 000	-81 248	62 218	0 000	81 248	-62 214	0 005%
15	0 000	-60 936	62 218	0 000	60 936	-62 215	0 004%
16	-31 917	-81 248	55 151	31 914	81 248	-55 146	0 005%
17	-31 917	-60 936	55 151	31 915	60 936	-55 147	0 004%
18	-60 288	-81 248	32 333	60 286	81 248	-32 332	0 002%
19	-60 288	-60 936	32 333	60 284	60 936	-32 331	0 005%
20	-65 294	-81 248	-1 237	65 288	81 248	1 237	0 005%
21	-65 294	-60 936	-1 237	65 290	60 936	1 237	0 005%
22	-55 733	-81 248	-31 855	55 729	81 248	31 852	0 005%
23	-55 733	-60 936	-31 855	55 730	60 936	31 853	0 004%
24	-33 298	-81 248	-54 992	33 296	81 248	54 988	0 005%
25	-33 298	-60 936	-54 992	33 296	60 936	54 989	0 004%
26	0 000	-217 568	0 000	0 001	217 568	0 003	0 001%
27	0 000	-217 568	-9 429	0 000	217 568	9 428	0 001%
28	4 705	-217 568	-7 909	-4 704	217 568	7 908	0 001%
29	8 039	-217 568	-4 613	-8 038	217 568	-4 613	0 001%
30	9 365	-217 568	-0 111	-9 364	217 568	0 111	0 001%
31	8 340	-217 568	4 594	-8 340	217 568	-4 593	0 000%
32	4 563	-217 568	7 892	-4 562	217 568	-7 892	0 000%
33	0 000	-217 568	9 028	0 000	217 568	-9 027	0 001%

tnxTower B+T Group 1717 S Boulder Ave, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job	ATS #9469 - Seminary (Site# KYLEX2057)	Page	25 of 34
	Project	255' SST/36.740639, -85.138181	Date	17:23:12 03/22/22
	Client	Harmoni Towers	Designed by	isaac.fulton

Load Comb	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
34	-4 571	-217 568	7 907	4 571	217 568	-7 906	0 001%
35	-8 355	-217 568	4 602	8 354	217 568	-4 602	0 000%
36	-9 365	-217 568	-0 111	9 364	217 568	0 111	0 001%
37	-8 025	-217 568	-4 605	8 024	217 568	4 604	0 001%
38	-4 696	-217 568	-7 894	4 695	217 568	7 893	0 001%
39	0 000	-67 707	-22 099	0 000	67 707	22 097	0 002%
40	10 907	-67 707	-18 016	-10 906	67 707	18 014	0 002%
41	18 257	-67 707	-10 435	-18 256	67 707	10 435	0 002%
42	21 320	-67 707	-0 404	-21 319	67 707	0 404	0 002%
43	19 628	-67 707	10 524	-19 626	67 707	-10 523	0 002%
44	10 388	-67 707	17 949	-10 387	67 707	-17 948	0 002%
45	0 000	-67 707	20 316	0 000	67 707	-20 315	0 002%
46	-10 422	-67 707	18 008	10 421	67 707	-18 007	0 002%
47	-19 686	-67 707	10 558	19 685	67 707	-10 557	0 002%
48	-21 320	-67 707	-0 404	21 319	67 707	0 404	0 002%
49	-18 199	-67 707	-10 402	18 197	67 707	10 401	0 002%
50	-10 873	-67 707	-17 957	10 872	67 707	17 955	0 002%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	6	0 00000001	0 00000001
2	Yes	13	0 00002899	0 00006804
3	Yes	12	0 00005207	0 00011677
4	Yes	12	0 00006439	0 00014416
5	Yes	12	0 00004780	0 00010749
6	Yes	12	0 00006067	0 00013612
7	Yes	12	0 00004418	0 00009955
8	Yes	12	0 00006446	0 00014424
9	Yes	12	0 00004787	0 00010759
10	Yes	13	0 00002895	0 00006791
11	Yes	12	0 00005200	0 00011653
12	Yes	12	0 00006471	0 00014482
13	Yes	12	0 00004811	0 00010814
14	Yes	12	0 00006077	0 00013641
15	Yes	12	0 00004427	0 00009981
16	Yes	12	0 00006473	0 00014488
17	Yes	12	0 00004813	0 00010819
18	Yes	13	0 00002897	0 00006797
19	Yes	12	0 00005204	0 00011665
20	Yes	12	0 00006446	0 00014424
21	Yes	12	0 00004787	0 00010759
22	Yes	12	0 00006066	0 00013609
23	Yes	12	0 00004417	0 00009953
24	Yes	12	0 00006437	0 00014409
25	Yes	12	0 00004779	0 00010743
26	Yes	7	0 00000001	0 00014954
27	Yes	13	0 00000001	0 00014580
28	Yes	13	0 00000001	0 00014516
29	Yes	13	0 00000001	0 00014734
30	Yes	13	0 00000001	0 00014989
31	Yes	14	0 00000001	0 00006627
32	Yes	14	0 00000001	0 00006524
33	Yes	13	0 00000001	0 00014922
34	Yes	13	0 00000001	0 00014881

tnxTower B+T Group 1717 S Boulder Ave. Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job	ATS #9469 - Seminary (Site# KYLEX2057)	Page	26 of 34
	Project	255' SST/36.740639, -85.138181	Date	17:23:12 03/22/22
	Client	Harmoni Towers	Designed by	isaac.fulton

35	Yes	14	0.00000001	0.00006525
36	Yes	13	0.00000001	0.00014669
37	Yes	13	0.00000001	0.00014411
38	Yes	13	0.00000001	0.00014302
39	Yes	12	0.00000001	0.00011968
40	Yes	12	0.00000001	0.00011674
41	Yes	12	0.00000001	0.00011431
42	Yes	12	0.00000001	0.00011672
43	Yes	12	0.00000001	0.00011951
44	Yes	12	0.00000001	0.00011689
45	Yes	12	0.00000001	0.00011443
46	Yes	12	0.00000001	0.00011696
47	Yes	12	0.00000001	0.00011960
48	Yes	12	0.00000001	0.00011673
49	Yes	12	0.00000001	0.00011427
50	Yes	12	0.00000001	0.00011668

Maximum Tower Deflections - Service Wind

Section No	Elevation ft	Horz. Deflection in	Gov. Load Comb	Tilt °	Twist °
T1	255 - 240	13.280	47	0.443	0.076
T2	240 - 220	11.866	47	0.438	0.074
T3	220 - 200	9.981	47	0.413	0.070
T4	200 - 180	8.208	47	0.378	0.062
T5	180 - 160	6.612	47	0.336	0.051
T6	160 - 140	5.192	47	0.294	0.042
T7	140 - 120	3.965	47	0.247	0.034
T8	120 - 100	2.918	47	0.205	0.026
T9	100 - 80	2.031	47	0.166	0.018
T10	80 - 60	1.310	47	0.132	0.012
T11	60 - 40	0.772	47	0.095	0.009
T12	40 - 20	0.378	47	0.063	0.006
T13	20 - 0	0.119	47	0.030	0.003

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb	Deflection in	Tilt °	Twist °	Radius of Curvature ft
255.000	Lightning Rod 1"x10'	47	13.280	0.443	0.076	340074
250.000	Sector1(CaAa=13333.33 Sq in)No Ice	47	12.810	0.442	0.076	340074
238.000	Sector1(CaAa=10000 Sq in)No Ice	47	11.677	0.436	0.074	211945
226.000	Sector1(CaAa=10000 Sq in)No Ice	47	10.540	0.422	0.072	55953
214.000	6' MW Dish	47	9.433	0.403	0.068	30924
202.000	6' MW Dish	47	8.378	0.382	0.063	25644

Maximum Tower Deflections - Design Wind

tnxTower B+T Group 1717 S Boulder Ave, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job ATS #9469 - Seminary (Site# KYLEX2057)	Page 27 of 34
	Project 255' SST/36.740639, -85.138181	Date 17:23:12 03/22/22
	Client Harmoni Towers	Designed by isaac.fulton

Section No	Elevation ft	Horz. Deflection in	Gov. Load Comb	Tilt °	Twist °
T1	255 - 240	40.736	18	1.357	0.233
T2	240 - 220	36.404	18	1.342	0.227
T3	220 - 200	30.621	18	1.265	0.214
T4	200 - 180	25.184	18	1.158	0.189
T5	180 - 160	20.286	18	1.030	0.157
T6	160 - 140	15.931	18	0.901	0.128
T7	140 - 120	12.166	18	0.758	0.104
T8	120 - 100	8.953	18	0.628	0.080
T9	100 - 80	6.233	18	0.511	0.056
T10	80 - 60	4.022	18	0.404	0.038
T11	60 - 40	2.371	18	0.292	0.028
T12	40 - 20	1.160	18	0.192	0.018
T13	20 - 0	0.366	18	0.091	0.008

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb	Deflection in	Tilt °	Twist °	Radius of Curvature ft
255.000	Lightning Rod 1"x10'	18	40.736	1.357	0.233	112251
250.000	Sector1(CaAa=13333.33 Sq in)No Ice	18	39.296	1.355	0.231	112251
238.000	Sector1(CaAa=10000 Sq in)No Ice	18	35.822	1.337	0.226	70739
226.000	Sector1(CaAa=10000 Sq in)No Ice	18	32.338	1.293	0.219	18390
214.000	6' MW Dish	18	28.940	1.235	0.208	10143
202.000	6' MW Dish	18	25.704	1.170	0.192	8408

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	
T1	255	Diagonal	A325X	0.625	1	3.542	9.598	0.369	✓	1	Member Block Shear
		Top Girt	A325X	0.625	1	0.407	9.598	0.042	✓	1	Member Block Shear
T2	240	Leg	A325N	0.750	6	2.419	30.101	0.080	✓	1	Bolt Tension
		Diagonal	A325X	0.625	1	7.849	9.598	0.818	✓	1	Member Block Shear
T3	220	Leg	A325N	0.750	6	9.792	30.101	0.325	✓	1	Bolt Tension
		Diagonal	A325X	0.625	1	8.882	10.740	0.827	✓	1	Member Block Shear
T4	200	Leg	A325N	1.000	6	18.138	54.517	0.333	✓	1	Bolt Tension
		Diagonal	A325X	0.625	1	9.260	13.025	0.711	✓	1	Member Block Shear
T5	180	Leg	A325N	1.000	6	26.281	54.517	0.482	✓	1	Bolt Tension
		Diagonal	A325X	0.625	1	9.541	13.025	0.732	✓	1	Member Block Shear
T6	160	Leg	A325N	1.000	6	33.558	54.517	0.616	✓	1	Bolt Tension

tnxTower B+T Group 1717 S Boulder Ave. Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job ATS #9469 - Seminary (Site# KYLEX2057)	Page 28 of 34
	Project 255' SST/36.740639, -85.138181	Date 17:23:12 03/22/22
	Client Harmoni Towers	Designed by isaac.fulton

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	
T7	140	Diagonal	A325X	0.625	1	9.864	14.168	0.696	✓	1	Member Block Shear
		Leg	A325N	1.000	6	40.251	54.517	0.738	✓	1	Bolt Tension
T8	120	Diagonal	A325X	0.625	1	10.333	14.168	0.729	✓	1	Member Block Shear
		Leg	A325N	1.250	6	46.621	87.220	0.535	✓	1	Bolt Tension
T9	100	Diagonal	A325X	0.625	1	10.810	14.168	0.763	✓	1	Member Block Shear
		Leg	A325N	1.250	6	52.741	87.220	0.605	✓	1	Bolt Tension
T10	80	Diagonal	A325X	0.625	1	11.628	17.257	0.674	✓	1	Bolt Shear
		Leg	A325N	1.250	6	58.674	87.220	0.673	✓	1	Bolt Tension
T11	60	Diagonal	A325X	0.625	1	12.816	26.051	0.492	✓	1	Member Block Shear
		Horizontal	A325X	0.625	1	7.525	19.195	0.392	✓	1	Member Block Shear
		Leg	A325N	1.250	6	64.383	87.220	0.738	✓	1	Bolt Tension
		Diagonal	A325X	0.625	1	13.168	26.051	0.505	✓	1	Member Block Shear
T12	40	Horizontal	A325X	0.625	1	8.218	21.480	0.383	✓	1	Member Block Shear
		Leg	A325N	1.250	6	69.843	87.220	0.801	✓	1	Bolt Tension
		Diagonal	A325X	0.625	1	13.181	26.051	0.506	✓	1	Member Block Shear
T13	20	Horizontal	A325X	0.625	1	8.884	21.480	0.414	✓	1	Member Block Shear
		Leg	A325N	1.500	6	75.038	126.472	0.593	✓	1	Bolt Tension
		Diagonal	A325X	0.625	1	13.327	28.336	0.470	✓	1	Member Block Shear
		Horizontal	A325X	0.625	1	9.530	26.051	0.366	✓	1	Member Block Shear

Compression Checks

Leg Design Data (Compression)

Section No	Elevation ft	Size	L ft	L _s ft	Kl/r	A in ²	P _c K	φP _c K	Ratio P _c /φP _c
T1	255 - 240	1 3/4	15.014	4.671	128.1 K=1.00	2.405	-13.480	33.103	0.407 ¹ ✓
T2	240 - 220	2 1/4	20.019	4.754	101.4 K=1.00	3.976	-58.329	84.331	0.692 ¹ ✓
T3	220 - 200	2 3/4	20.019	4.754	83.0 K=1.00	5.940	-113.158	161.540	0.700 ¹ ✓
T4	200 - 180	3	20.019	4.754	76.1 K=1.00	7.069	-166.126	208.347	0.797 ¹ ✓
T5	180 - 160	3 1/4	20.019	4.754	70.2	8.296	-214.089	260.312	0.822 ¹ ✓

tnxTower B+T Group 1717 S Boulder Ave, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job ATS #9469 - Seminary (Site# KYLEX2057)	Page 29 of 34
	Project 255' SST/36.740639, -85.138181	Date 17:23:12 03/22/22
	Client Harmoni Towers	Designed by isaac.fulton

Section No.	Elevation ft	Size	L ft	L _w ft	Kl/r	A in ²	P _u K	φP _u K	Ratio P _u / φP _u
T6	160 - 140	3 1/4	20.019	4.754	K=1.00 70.2	8.296	-258.909	260.312	0.995 ¹
T7	140 - 120	3 1/2	20.019	4.754	K=1.00 65.2	9.621	-302.324	317.273	0.953 ¹
T8	120 - 100	3 3/4	20.019	4.754	K=1.00 60.9	11.045	-344.882	379.106	0.910 ¹
T9	100 - 80	4	20.019	4.754	K=1.00 57.1	12.566	-387.263	445.717	0.869 ¹
T10	80 - 60	4	20.019	4.754	K=1.00 57.1	12.566	-423.538	445.717	0.950 ¹
T11	60 - 40	4 1/4	20.019	4.754	K=1.00 53.7	14.186	-463.493	517.034	0.896 ¹
T12	40 - 20	4 1/4	20.019	4.754	K=1.00 53.7	14.186	-502.262	517.034	0.971 ¹
T13	20 - 0	4 1/2	20.019	4.754	K=1.00 50.7	15.904	-539.602	593.004	0.910 ¹

¹ P_u / φP_u controls

Diagonal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _w ft	Kl/r	A in ²	P _u K	φP _u K	Ratio P _u / φP _u
T1	255 - 240	L1 3/4x1 3/4x3/16	7.166	3.605	K=1.00 125.9	0.621	-3.620	11.206	0.323 ¹
T2	240 - 220	L1 3/4x1 3/4x3/16	8.697	4.343	K=1.00 151.7	0.621	-7.406	7.721	0.959 ¹
T3	220 - 200	L2x2x3/16	9.987	4.964	K=1.00 151.2	0.715	-8.172	8.951	0.913 ¹
T4	200 - 180	L2 1/2x2 1/2x3/16	11.329	5.625	K=1.00 136.4	0.902	-8.836	13.885	0.636 ¹
T5	180 - 160	L2 1/2x2 1/2x3/16	12.706	6.303	K=1.00 152.8	0.902	-9.108	11.057	0.824 ¹
T6	160 - 140	L3x3x3/16	14.108	7.005	K=1.00 141.0	1.090	-9.365	15.683	0.597 ¹
T7	140 - 120	L3x3x3/16	15.529	7.705	K=1.00 155.1	1.090	-9.961	12.964	0.768 ¹
T8	120 - 100	L3x3x3/16	16.963	8.412	K=1.00 169.4	1.090	-10.600	10.877	0.975 ¹
T9	100 - 80	L3x3x1/4	18.408	9.124	K=1.00 184.9	1.440	-11.396	12.050	0.946 ¹
T10	80 - 60	2L2 1/2x2 1/2x3/16x3/8	10.829	10.644	K=1.00 168.4	1.800	-12.648	17.598	0.719 ¹
T11	60 - 40	2L 'a' > 60 948 in - 245 2L2 1/2x2 1/2x3/16x3/8	11.508	11.313	K=1.00 179.0	1.800	-13.161	15.641	0.841 ¹
T12	40 - 20	2L 'a' > 64 783 in - 284 2L2 1/2x2 1/2x3/16x3/8	12.195	12.003	K=1.00 189.9	1.800	-13.280	13.944	0.952 ¹

tnxTower B+T Group 1717 S Boulder Ave, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job ATS #9469 - Seminary (Site# KYLEX2057)	Page 30 of 34
	Project 255' SST/36.740639, -85.138181	Date 17:23:12 03/22/22
	Client Harmoni Towers	Designed by isaac.fulton

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _u K	Ratio $\frac{P_u}{\phi P_u}$
					K=1.00				✓
T13	20 - 0	2L 'a' > 68 729 in - 323 2L3x3x3/16x3/8	12 889	12 687	168.8 K=1.00	2 180	-13 569	20 849	0.651 ¹ ✓
		2L 'a' > 72 475 in - 362							✓

¹ P_u / φP_u controls

Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _u K	Ratio $\frac{P_u}{\phi P_u}$
T10	80 - 60	2L1 3/4x1 3/4x3/16x3/8	19 106	9 386	209.8 K=1.00	1 242	-7 525	8 079	0.931 ¹ ✓
T11	60 - 40	2L 'a' > 54 035 in - 250 2L2x2x3/16x3/8	20 606	10 126	198.1 K=1.00	1 430	-8 218	10 289	0.799 ¹ ✓
T12	40 - 20	2L 'a' > 58 196 in - 289 2L2x2x3/16x3/8	22 106	10 876	212.8 K=1.00	1 430	-8 884	8 936	0.994 ¹ ✓
T13	20 - 0	2L 'a' > 62 506 in - 328 2L2 1/2x2 1/2x3/16x3/8	23 606	11 616	183.8 K=1.00	1 800	-9 530	14 861	0.641 ¹ ✓
		2L 'a' > 66 514 in - 367							✓

¹ P_u / φP_u controls

Top Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _u K	Ratio $\frac{P_u}{\phi P_u}$
T1	255 - 240	L1 3/4x1 3/4x3/16	4 913	4 767	166.5 K=1.00	0 621	-0 461	6 409	0.072 ¹ ✓

¹ P_u / φP_u controls

Inner Bracing Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _u K	Ratio $\frac{P_u}{\phi P_u}$
T10	80 - 60	L1 3/4x1 3/4x3/16	9 553	9 553	333.8	0 621	-0 010	1 596	0.006 ¹

tnxTower B+T Group 1717 S Boulder Ave, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job ATS #9469 - Seminary (Site# KYLEX2057)	Page 31 of 34
	Project 255' SST/36.740639, -85.138181	Date 17:23:12 03/22/22
	Client Harmoni Towers	Designed by isaac.fulton

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _u K	Ratio $\frac{P_u}{\phi P_u}$
					K=1.00				✓
T11	60 - 40	KL/R > 250 (C) - 255 L1 3/4x1 3/4x3/16	10.303	10.303	360.0 K=1.00	0.621	-0.011	1.372	0.008 ¹ ✓
T12	40 - 20	KL/R > 250 (C) - 294 L1 3/4x1 3/4x3/16	11.053	11.053	386.2 K=1.00	0.621	-0.011	1.192	0.009 ¹ ✓
T13	20 - 0	KL/R > 250 (C) - 333 L1 3/4x1 3/4x3/16	11.803	11.803	412.4 K=1.00	0.621	-0.012	1.045	0.011 ¹ ✓
		KL/R > 250 (C) - 370							✓

¹ P_u / φP_u controls

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 _u K	Ratio $\frac{P_u}{\phi P_u}$
T1	255 - 240	1 3/4	15.014	0.500	13.7	2.405	14.519	108.238	0.134 ¹ ✓
T2	240 - 220	2 1/4	20.019	0.500	10.7	3.976	58.761	178.924	0.328 ¹ ✓
T3	220 - 200	2 3/4	20.019	0.500	8.7	5.940	108.840	267.281	0.407 ¹ ✓
T4	200 - 180	3	20.019	0.500	8.0	7.069	157.697	318.086	0.496 ¹ ✓
T5	180 - 160	3 1/4	20.019	0.500	7.4	8.296	201.359	373.310	0.539 ¹ ✓
T6	160 - 140	3 1/4	20.019	0.500	7.4	8.296	241.522	373.310	0.647 ¹ ✓
T7	140 - 120	3 1/2	20.019	0.500	6.9	9.621	279.740	432.951	0.646 ¹ ✓
T8	120 - 100	3 3/4	20.019	0.500	6.4	11.045	316.464	497.010	0.637 ¹ ✓
T9	100 - 80	4	20.019	0.500	6.0	12.566	352.060	565.487	0.623 ¹ ✓
T10	80 - 60	4	20.019	0.500	6.0	12.566	386.319	565.487	0.683 ¹ ✓
T11	60 - 40	4 1/4	20.019	0.500	5.7	14.186	419.075	638.381	0.656 ¹ ✓
T12	40 - 20	4 1/4	20.019	0.500	5.7	14.186	450.252	638.381	0.705 ¹ ✓
T13	20 - 0	4 1/2	20.019	0.500	5.3	15.904	479.874	715.694	0.671 ¹ ✓

tnxTower B+T Group 1717 S Boulder Ave, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job ATS #9469 - Seminary (Site# KYLEX2057)	Page 32 of 34
	Project 255' SST/36.740639, -85.138181	Date 17:23:12 03/22/22
	Client Harmoni Towers	Designed by isaac.fulton

¹ $P_u / \phi P_n$ controls

Diagonal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in ²	P_n K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	255 - 240	L1 3/4x1 3/4x3/16	7.435	3.736	83.5	0.360	3.542	17.567	0.202 ¹ ✓
T2	240 - 220	L1 3/4x1 3/4x3/16	8.697	4.343	97.1	0.360	7.849	17.567	0.447 ¹ ✓
T3	220 - 200	L2x2x3/16	9.987	4.964	96.6	0.431	8.882	21.001	0.423 ¹ ✓
T4	200 - 180	L2 1/2x2 1/2x3/16	11.329	5.625	86.8	0.571	9.260	27.838	0.333 ¹ ✓
T5	180 - 160	L2 1/2x2 1/2x3/16	12.706	6.303	97.2	0.571	9.541	27.838	0.343 ¹ ✓
T6	160 - 140	L3x3x3/16	14.108	7.005	89.5	0.712	9.864	34.712	0.284 ¹ ✓
T7	140 - 120	L3x3x3/16	15.529	7.705	98.5	0.712	10.333	34.712	0.298 ¹ ✓
T8	120 - 100	L3x3x3/16	16.963	8.412	107.5	0.712	10.810	34.712	0.311 ¹ ✓
T9	100 - 80	L3x3x1/4	18.408	9.124	117.7	0.939	11.628	45.794	0.254 ¹ ✓
T10	80 - 60	2L2 1/2x2 1/2x3/16x3/8	10.829	10.644	164.2	1.139	12.816	55.529	0.231 ¹ ✓
T11	60 - 40	2L 'a' > 60.948 in - 246 2L2 1/2x2 1/2x3/16x3/8	11.508	11.313	174.5	1.139	13.168	55.529	0.237 ¹ ✓
T12	40 - 20	2L 'a' > 64.783 in - 285 2L2 1/2x2 1/2x3/16x3/8	12.195	12.003	185.1	1.139	13.181	55.529	0.237 ¹ ✓
T13	20 - 0	2L 'a' > 68.729 in - 324 2L3x3x3/16x3/8 2L 'a' > 72.475 in - 363	12.889	12.687	162.1	1.424	13.327	69.423	0.192 ¹ ✓

¹ $P_u / \phi P_n$ controls

Horizontal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in ²	P_n K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T10	80 - 60	2L1 3/4x1 3/4x3/16x3/8	19.106	9.386	209.8	0.721	7.525	35.134	0.214 ¹ ✓
T11	60 - 40	2L 'a' > 54.035 in - 250 2L2x2x3/16x3/8	20.606	10.126	196.9	0.862	8.218	42.001	0.196 ¹ ✓

tnxTower B+T Group 1717 S Boulder Ave, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job	ATS #9469 - Seminary (Site# KYLEX2057)	Page	33 of 34
	Project	255' SST/36.740639, -85.138181	Date	17:23:12 03/22/22
	Client	Harmoni Towers	Designed by	isaac.fulton

Section No.	Elevation ft	Size	L ft	L _u ft	KI/r	A in ²	P _u K	φP _u K	Ratio $\frac{P_u}{\phi P_u}$
T12	40 - 20	2L 'a' > 58 196 in - 289 2L2x2x3/16x3/8	22 106	10 876	211 5	0 862	8 884	42 001	0 212 ¹ ✓
T13	20 - 0	2L 'a' > 62 506 in - 328 2L2 1/2x2 1/2x3/16x3/8 2L 'a' > 64 474 in - 385	22 894	11 259	173 7	1 139	9 530	55 529	0 172 ¹ ✓

¹ P_u / φP_u controls

Top Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	KI/r	A in ²	P _u K	φP _u K	Ratio $\frac{P_u}{\phi P_u}$
T1	255 - 240	L1 3/4x1 3/4x3/16	4 913	4 767	106 5	0 360	0 407	17 567	0 023 ¹ ✓

¹ P_u / φP_u controls

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	oP _{allow} K	% Capacity	Pass Fail
T1	255 - 240	Leg	1 3/4	1	-13 480	33 103	40 7	Pass
T2	240 - 220	Leg	2 1/4	27	-58 329	84 331	69 2	Pass
T3	220 - 200	Leg	2 3/4	54	-113 158	161 540	70 0	Pass
T4	200 - 180	Leg	3	81	-166 126	208 347	79 7	Pass
T5	180 - 160	Leg	3 1/4	108	-214 089	260 312	82 2	Pass
T6	160 - 140	Leg	3 1/4	135	-258 909	260 312	99 5	Pass
T7	140 - 120	Leg	3 1/2	160	-302 324	317 273	95 3	Pass
T8	120 - 100	Leg	3 3/4	187	-344 882	379 106	91 0	Pass
T9	100 - 80	Leg	4	214	-387 263	445 717	86 9	Pass
T10	80 - 60	Leg	4	241	-423 538	445 717	95 0	Pass
T11	60 - 40	Leg	4 1/4	280	-463 493	517 034	89 6	Pass
T12	40 - 20	Leg	4 1/4	319	-502 262	517 034	97 1	Pass
T13	20 - 0	Leg	4 1/2	358	-539 602	593 004	91 0	Pass
T1	255 - 240	Diagonal	L1 3/4x1 3/4x3/16	16	-3 620	11 206	32 3	Pass
							36 9 (b)	
T2	240 - 220	Diagonal	L1 3/4x1 3/4x3/16	28	-7 406	7 721	95 9	Pass
T3	220 - 200	Diagonal	L2x2x3/16	55	-8 172	8 951	91 3	Pass
T4	200 - 180	Diagonal	L2 1/2x2 1/2x3/16	82	-8 836	13 885	63 6	Pass
							71 1 (b)	
T5	180 - 160	Diagonal	L2 1/2x2 1/2x3/16	109	-9 108	11 057	82 4	Pass
T6	160 - 140	Diagonal	L3x3x3/16	136	-9 365	15 683	59 7	Pass
							69 6 (b)	
T7	140 - 120	Diagonal	L3x3x3/16	163	-9 961	12 964	76 8	Pass
T8	120 - 100	Diagonal	L3x3x3/16	190	-10 600	10 877	97 5	Pass
T9	100 - 80	Diagonal	L3x3x1/4	217	-11 396	12 050	94 6	Pass
T10	80 - 60	Diagonal	2L2 1/2x2 1/2x3/16x3/8	245	-12 648	17 598	71 9	Pass

tnxTower B+T Group 1717 S Boulder Ave, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job	ATS #9469 - Seminary (Site# KYLEX2057)	Page	34 of 34
	Project	255' SST/36.740639, -85.138181	Date	17:23:12 03/22/22
	Client	Harmoni Towers	Designed by	isaac.fulton

Section No	Elevation ft	Component Type	Size	Critical Element	P K	σP_{allow} K	% Capacity	Pass Fail
T11	60 - 40	Diagonal	2L2 1/2x2 1/2x3/16x3/8	284	-13 161	15 641	84.1	Pass
T12	40 - 20	Diagonal	2L2 1/2x2 1/2x3/16x3/8	323	-13 280	13 944	95.2	Pass
T13	20 - 0	Diagonal	2L3x3x3/16x3/8	362	-13 569	20 849	65.1	Pass
T10	80 - 60	Horizontal	2L1 3/4x1 3/4x3/16x3/8	250	-7 525	8 079	93.1	Pass
T11	60 - 40	Horizontal	2L2x2x3/16x3/8	289	-8 218	10 289	79.9	Pass
T12	40 - 20	Horizontal	2L2x2x3/16x3/8	328	-8 884	8 936	99.4	Pass
T13	20 - 0	Horizontal	2L2 1/2x2 1/2x3/16x3/8	367	-9 530	14 861	64.1	Pass
T1	255 - 240	Top Girt	L1 3/4x1 3/4x3/16	6	-0 461	6 409	7.2	Pass
T10	80 - 60	Inner Bracing	L1 3/4x1 3/4x3/16	255	-0 010	1 596	0.6	Pass
T11	60 - 40	Inner Bracing	L1 3/4x1 3/4x3/16	294	-0 011	1 372	0.8	Pass
T12	40 - 20	Inner Bracing	L1 3/4x1 3/4x3/16	333	-0 011	1 192	0.9	Pass
T13	20 - 0	Inner Bracing	L1 3/4x1 3/4x3/16	370	-0 012	1 045	1.1	Pass
Summary								
						Leg (T6)	99.5	Pass
						Diagonal (T8)	97.5	Pass
						Horizontal (T12)	99.4	Pass
						Top Girt (T1)	7.2	Pass
						Inner Bracing (T13)	1.1	Pass
						Bolt Checks	82.7	Pass
						RATING =	99.5	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 ▼

	Utility ID	Utility Name	Utility Type	Class	City	State
<input type="button" value="View"/>	4111300	2600Hz, Inc. dba ZSWITCH	Cellular	D	San Francisco	CA
<input type="button" value="View"/>	4108300	Air Voice Wireless, LLC	Cellular	B	Houston	TX
<input type="button" value="View"/>	4110650	Alliant Technologies of KY, L.L.C.	Cellular	D	Morristown	NJ
<input type="button" value="View"/>	4111900	ALLNETAIR, INC.	Cellular	D	West Palm Beach	FL
<input type="button" value="View"/>	44451184	Alltel Corporation d/b/a Verizon Wireless	Cellular	A	Lisle	IL
<input type="button" value="View"/>	4110850	AltaWorx, LLC	Cellular	D	Fairhope	AL
<input type="button" value="View"/>	4107800	American Broadband and Telecommunications Company	Cellular	D	Toledo	OH
<input type="button" value="View"/>	4108650	AmeriMex Communications Corp.	Cellular	A	Safety Harbor	FL
<input type="button" value="View"/>	4105100	AmeriVision Communications, Inc. d/b/a Affinity 4	Cellular	D	Virginia Beach	VA
<input type="button" value="View"/>	4105700	Assurance Wireless USA, L.P.	Cellular	A	Atlanta	GA
<input type="button" value="View"/>	4108600	BCN Telecom, Inc.	Cellular	D	Morristown	NJ
<input type="button" value="View"/>	4106000	Best Buy Health, Inc. d/b/a GreatCall d/b/a Jitterbug	Cellular	A	San Diego	CA
<input type="button" value="View"/>	4111050	BlueBird Communications, LLC	Cellular	D	New York	NY
<input type="button" value="View"/>	4202300	Bluegrass Wireless, LLC	Cellular	A	Elizabethtown	KY
<input type="button" value="View"/>	4107600	Boomerang Wireless, LLC	Cellular	C	Hiawatha	IA
<input type="button" value="View"/>	4105500	BullsEye Telecom, Inc.	Cellular	D	Southfield	MI
<input type="button" value="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	4112700	Cox Wireless, LLC	Cellular	C	Atlanta	GA
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	D	Beverly Hills	CA
View	4105900	Flash Wireless, LLC	Cellular	D	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	C	Covington	LA
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	4112550	IDT Domestic Telecom, Inc.	Cellular	C	Newark	NJ
View	4109800	IM Telecom, LLC d/b/a Infiniti Mobile	Cellular	D	Plano	TX
View	4112650	Insight Mobile, Inc.	Cellular	C	Los Angeles	CA
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 General	Cellular	A	Elizabethtown	KY
View	10681	Kentucky RSA #4 Cellular General	Cellular	A	Elizabethtown	KY
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	4112500	Marconi Wireless Holdings, LLC	Cellular	C	Westlake Village	CA
View	4108800	MetroPCS Michigan, LLC	Cellular	A	Bellevue	WA
View	4111700	Mint Mobile, LLC	Cellular	C	Costa Mesa	CA
View	4111850	Mobi, Inc.	Cellular	D	Honolulu	HI
View	4109400	NetZero Wireless, Inc. dba magicJack Wireless	Cellular	D	West Palm Beach	FL
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	D	Houston	TX
View	4000800	Nextel West Corporation	Cellular	D	Overland Park	KS
View	4110700	Norcell, LLC	Cellular	D	Buford	GA
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	A	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, LLC	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	Saco	ME
View	4107200	Telefonica USA, Inc.	Cellular	D	Miami	FL
View	4112100	Tello LLC	Cellular	C	Atlanta	GA
	4108900	Telrite Corporation	Cellular	D	Covington	GA

View						
View	4108450	Tempo Telecom, LLC	Cellular	D	Dallas	TX
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	D	Lehi	UT
View	4002000	Truphone, Inc.	Cellular	D	Durham	NC
View	4112600	Tube Incorporated dba Reach Mobile	Cellular	D	Chelmsford	MA
View	4112750	Unity Wireless, Inc.	Cellular	C	Pembroke Pines	FL
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	Calgary, AB	CA
View	4110950	Wing Tel Inc.	Cellular	D	New York	NY
View	4112150	Zefcom, LLC	Cellular	C	Wichita Falls	TX

EXHIBIT E
FAA DETERMINATION OF NO HAZARD TO AIR NAVIGATION



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

Aeronautical Study No.
 2022-ASO-2366-OE
 Prior Study No.
 2021-ASO-37307-OE

Issued Date: 06/07/2022

Andrew Smith
 RESCOM Environmental Corp
 PO Box 361
 Petoskey, MI 49770

**** 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 Seminary 2
 Location: Albany, KY
 Latitude: 36-44-26.30N NAD 83
 Longitude: 85-08-17.50W
 Heights: 1104 feet site elevation (SE)
 267 feet above ground level (AGL)
 1371 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)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

This determination expires on 12/07/2023 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.

This determination cancels and supersedes prior determinations issued for this structure.

If we can be of further assistance, please contact our office at (817) 222-5928, or chris.smith@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2022-ASO-2366-OE.

Signature Control No: 508410716-535751035

(DNE)

Chris Smith
Specialist

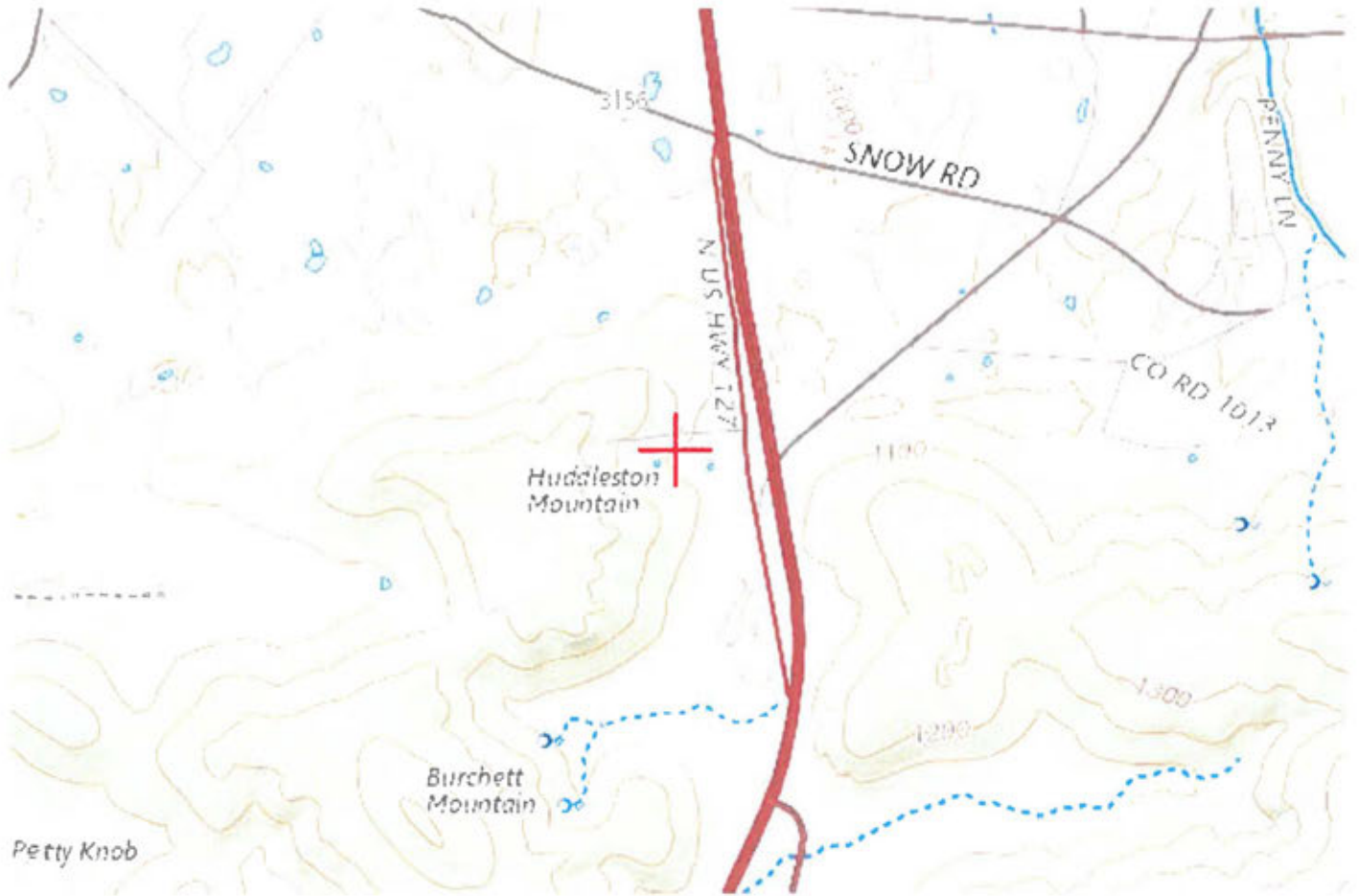
Attachment(s)
Frequency Data
Map(s)

cc:FCC

Frequency Data for ASN 2022-ASO-2366-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

TOPO Map for ASN 2022-ASO-2366-OE



Sectional Map for ASN 2022-ASO-2366-OE



EXHIBIT F
KENTUCKY AIRPORT ZONING COMMISSION
APPLICATION FOR APPROVAL TO CONSTRUCT



KENTUCKY TRANSPORTATION CABINET
KENTUCKY AIRPORT ZONING COMMISSION

TC 55-2
Rev. 05/2017
Page 2 of 2

APPLICATION FOR PERMIT TO CONSTRUCT OR ALTER A STRUCTURE

APPLICANT (name) HArmoni Towers LLC		PHONE 501-621-0521	FAX	KY AERONAUTICAL STUDY #	
ADDRESS (street) 11101 Anderson Dr Ste 200		CITY Little Rock		STATE AR	ZIP 72212
APPLICANT'S REPRESENTATIVE (name) Patricia Parr		PHONE 501-232-7860	FAX		
ADDRESS (street) 1717 S Boulder Ave Ste 300		CITY Tulsa		STATE OK	ZIP 74119
APPLICATION FOR <input checked="" type="checkbox"/> New Construction <input type="checkbox"/> Alteration <input type="checkbox"/> Existing			WORK SCHEDULE		
DURATION <input checked="" type="checkbox"/> Permanent <input type="checkbox"/> Temporary (months days)			Start End		
TYPE <input type="checkbox"/> Crane <input type="checkbox"/> Building <input checked="" type="checkbox"/> Antenna Tower <input type="checkbox"/> Power Line <input type="checkbox"/> Water Tank <input type="checkbox"/> Landfill <input type="checkbox"/> Other		MARKING/PAINTING/LIGHTING PREFERRED <input type="checkbox"/> Red Lights & Paint <input type="checkbox"/> White- medium intensity <input type="checkbox"/> White- high intensity <input checked="" type="checkbox"/> Dual- red & medium intensity white <input type="checkbox"/> Dual- red & high intensity white <input type="checkbox"/> Other			
LATITUDE 36 ° 44 ' 26.30 "		LONGITUDE 85 ° 08 ' 17.50 "		DATUM <input checked="" type="checkbox"/> NAD83 <input type="checkbox"/> NAD27 <input type="checkbox"/> Other	
NEAREST KENTUCKY City Albany County Clinton		NEAREST KENTUCKY PUBLIC USE OR MILITARY AIRPORT 5KY7			
SITE ELEVATION (AMSL, feet) 1104		TOTAL STRUCTURE HEIGHT (AGL, feet) 267		CURRENT (FAA aeronautical study #) 2022-ASO-2366-OE	
OVERALL HEIGHT (site elevation plus total structure height, feet) 1371			PREVIOUS (FAA aeronautical study #)		
DISTANCE (from nearest Kentucky public use or Military airport to structure) 12 miles			PREVIOUS (KY aeronautical study #)		
DIRECTION (from nearest Kentucky public use or Military airport to structure) South					
DESCRIPTION OF LOCATION (Attach USGS 7.5 minute quadrangle map or an airport layout drawing with the precise site marked and any certified survey.)					
DESCRIPTION OF PROPOSAL Harmoni Towers LLC proposed to construct a 267' antenna tower for the purpose of enhancing the coverage of their tenants' subscribers.					
FAA Form 7460-1 (Has the "Notice of Construction or Alteration" been filed with the Federal Aviation Administration?) <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes, when? 1/19/2022					
CERTIFICATION (I hereby certify that all the above entries, made by me, are true, complete, and correct to the best of my knowledge and belief.)					
PENALTIES (Persons failing to comply with KRS 183.861 to 183.990 and 602 KAR 050 are liable for fines and/or imprisonment as set forth in KRS 183.990(3). Noncompliance with FAA regulations may result in further penalties.)					
NAME Patricia Parr	TITLE Project Manager	SIGNATURE Patricia Parr <small>Patricia Parr 2022.05.25 10:39:13 -05'00'</small>		DATE 05/25/2022	
COMMISSION ACTION		<input type="checkbox"/> Chairperson, KAZC <input type="checkbox"/> Administrator, KAZC			
<input type="checkbox"/> Approved	SIGNATURE			DATE	
<input type="checkbox"/> Disapproved					

Close Print



**EXHIBIT G
GEOTECHNICAL REPORT**



ENVIRONMENTAL CORPORATION OF AMERICA

ENVIRONMENTAL | GEOTECHNICAL | WETLANDS | ECOLOGY | CULTURAL RESOURCES

Geotechnical Investigation

**Seminary
(KYLEX2057 / 15435110)**

**Near 3723 N. Highway 127
Albany, Clinton County, Kentucky**

ECA Project No. 22-001989



SUBMITTED TO:

B+T Group
1717 S. Boulder Suite 300
Tulsa, OK 74119

PREPARED BY:

Environmental Corporation of America
1375 Union Hill Industrial Court, Suite A
Alpharetta, GA 30004



ENVIRONMENTAL CORPORATION OF AMERICA

ENVIRONMENTAL | GEOTECHNICAL | WETLANDS | ECOLOGY | CULTURAL RESOURCES

June 28, 2022

B+T Group
1717 S. Boulder Suite 300
Tulsa, OK 74119

Attention: Ms. Patricia Parr, Project Manager II

**Subject: Geotechnical Investigation Report
Seminary (KYLEX2057 / 15435110)
Near 3723 N. Highway 127
Albany, Clinton County, Kentucky
ECA Project No. 22-001989**


Dear Ms. Parr:

Environmental Corporation of America (ECA) is pleased to submit this report of our geotechnical investigation for the proposed project. Our services were provided as authorized by B+T Group via a purchase order approval dated June 13th, 2022.

This report presents a review of the information provided to us, a description of the site and subsurface conditions, and our recommendations. The appendices contain a Site Location Map, a Boring Location Plan, and a Boring Log.

We will be happy to discuss our recommendations with you and look forward to providing the additional studies or services necessary to complete this project. We appreciate the opportunity to be of service. Please call us with any questions at (770) 667-2040.

Sincerely,
Environmental Corporation of America


Héctor A. Acosta, M.S.C.E., P.E.
Principal Geotechnical Engineer
State of Kentucky P.E. #31144



Geotechnical Investigation

Purpose and Scope of Work

The purpose of this investigation was to obtain specific subsurface data at the site and to provide geotechnical related parameters for the design and construction of the foundations for a self-supported tower.

Our scope of work included the following:

- One (1) soil test boring was drilled to a depth of 20 feet below the ground surface (bgs).
- Figure 1 shows the Site Location Map. Figure 2 shows the Boring Location Plan.
- Standard penetration tests (SPTs) were conducted to obtain soil samples and SPT N-values, in accordance with ASTM D-1586. Rock core drilling and sampling of rock was made in accordance with ASTM D-2113.
- The depth to groundwater, if any, was measured in the boring after drilling was completed.
- Natural moisture content (W_{CN}) tests were performed on a selected number of soil samples in accordance with ASTM D-2216.
- Unconfined compressive strength (q_u) index tests were performed using the pocket penetrometer test or the spring tester test (whenever possible).
- The soil samples were visually classified in accordance with ASTM D-2488 and a boring log was prepared.
- The soil conditions were evaluated by a registered professional engineer and this geotechnical report was prepared with our recommendations.

We have recommended design parameters and settlements based on the SPT N-values, an examination of the soil samples, and our experience with similar soil conditions and structures.

Project Information

We were provided with a set of construction drawings prepared by Point to Point Land Surveyors and dated March 5, 2021. The proposed tower would be located near 3723 North Highway 127, in Albany, Clinton County, in Kentucky.

We understand that plans include constructing a 255-foot tall self-supported tower, approximately as shown on Figure 2 in Appendix A. We assume that the equipment building/cabinet will be a prefabricated structure supported on a perimeter grade beam, spread footing or turndown slab. The project also includes the construction of a 30-foot wide ingress/egress and utility easement.

Field Drilling Work

The field drilling work was conducted on June 16th, 2022. Information obtained from the boring log was used to help us evaluate the subsurface conditions and to assist in formulating our recommendations. The site was staked at the time of our field visit.

Subsurface Soil Conditions (Boring B-1)

In general, soils encountered at the site consisted of very stiff to hard plastic silty Clay (CH) to an approximate depth of 10 feet, underlain by hard to very hard Limestone Rock to the full depth drilled of 20 feet. Auger refusal was reported at a depth of 10 feet.

The following table presents a summary of the existing soil conditions.

Soil Profile Depth (ft)		Type of Soils (Soil Manual Classification)	*Soil Symbols	SPT N-Values bpf (blows per foot)
0	10	Very stiff to hard plastic silty Clay	CH	16 to 22, and 50/0''
10	15			
15	20	Hard to very hard Limestone Rock	Limestone Rock	**RQD=79%
				**RQD=77%

*Soil symbols are based in the Unified Soil Classification System (USCS) and the Soil and Rock Logging, Classification, and Presentation Manual (Caltrans 2010 ed.).

**RQD=Rock quality designation.

Unconfined compressive strength (q_u) of clay soil samples using the pocket penetrometer test was reported between 3.5 and 4.5 tsf (tons per square foot) at a depth between the ground level and 8.5 feet bgs. Natural moisture content of selected soil samples was reported at 29.2%.

In Boring B-1, an NQ rock core was obtained from approximately 10 and 20 feet bgs. The encountered rock was described as sedimentary, light grey, fine-grained, moderately to slightly weathered, hard to very hard, and intensely to moderately fractured.

The Percent Recovery (Rec.) and Rock Quality Designation (RQD) Index obtained during rock coring are described in the following table.

Boring No.	Core Length Run Depth (feet)	Percent Recovery (Rec.) (inches / %)	Rock Quality Designation (RQD) Index (inches / %)
B-1	10 to 15	51'' / 85%	47.25'' / 79%
	15 to 20	60'' / 100%	46.125'' / 77%

All core barrel runs were 5 feet long.

Based in the RQD index values obtained, the encountered weathered sandstone rock at the site is considered very poor rock quality. A final boring log is shown in Appendix B. Please refer to Appendix-C for the Rock Quality Designation (RQD) Index table.

Groundwater Level Conditions

At time of drilling (ATD), a groundwater level was not encountered between the depths drilled. It should be noted that groundwater level observations made within mostly cohesive soils during drilling could be misleading. It should be anticipated that the groundwater level will fluctuate due to seasonal climatic changes during the year. To determine actual groundwater level measurements, groundwater levels should be measured using observation wells installed for prolonged periods.

Foundation Construction Recommendations

The subsurface conditions are suitable for the support of the proposed tower using either a shallow foundation system or a deep foundation system.

Shallow Foundation System

For the case of a pad and pier or a mat foundation the soils are capable of a maximum net allowable soil bearing pressure (q_{ALL}) of 3,000 psf (pounds per square foot) at a minimum depth of foundation (D_f) of 5 feet below existing grade elevation. Total and differential settlement should be less than 1-inch and 1/2-inch, respectively.

A safety factor of 3 and a wet soil unit weight (γ_{wet}) of 120 pcf (pounds per cubic foot) were considered for soil bearing computations. The provided soil bearing pressure assumes the bottom of excavation would be dry and stable. The bottom of excavation should be proof rolled, observed, and inspected prior to placing any concrete. For more details, please refer to our Fill Placement section.

Deep Foundation System

Based on our review of the subsurface soil conditions encountered in the boring, we offer the following average soil parameters for the design of a proposed drilled shaft.

Boring Depth (feet)		*Unit Weight γ_{wet} / γ_b (pcf)	Friction Angle ϕ (deg)	Soil Cohesion C_u (psf)	K_p	Allowable Skin Friction f_s (psf)	Allowable Bearing Pressure q_{ALL} (psf)	Soil Modulus K_{II} (pci)
0	10	120	0	2,200	1.00	524	-	165
10	15	155	0	20,000	1.00	3,000	20,000	830
15	20	155	0	25,000	1.00	3,750	25,000	1,000

Notes: A safety factor of 2 is used for allowable skin friction (f_s). A safety factor of 5 is used for allowable soil bearing pressure (q_{ALL}). *Below the groundwater level designer should consider the buoyant unit weight (γ_b) = $\gamma_{wet} - \gamma_{water}$.
Active earth pressure coefficient $K_A = \tan^2(45 - \phi/2) = 1/K_P$.
At rest earth pressure coefficient $K_O = 1 - \sin(\phi)$.

Estimated settlements for the proposed drilled shaft foundation should be considered negligible if bottom of foundation is placed between 10 and 20 feet bgs. Final shaft diameter (D) and embedment length (L) will depend upon final tower loading conditions. For these foundations ECA recommends a minimum concrete strength (f_c) of 4,000 psi (pounds per square inch).

Based on the existing soil conditions already described, project designer may consider using a single drilled piers on each tower leg for foundation support. The following table presents the relationship between the allowable drilled pier load capacity, pier diameter (Diam.), and pier length (L).

Pier Length (L) (feet)	Allowable Drilled Pier Capacity in Kips (Tons)		
	Pier Diameter-feet (inches)		
	3 feet (36-in.)	4 feet (48-in.)	5 feet (60-in.)
20	495 (247)	738 (369)	1,021 (511)

Notes: A safety factor of 2 is used for allowable skin friction (f_s). A safety factor of 5 is used for allowable soil bearing pressure (q_{ALL}).

Building Foundations

The proposed equipment building can be supported on a perimeter grade beam, spread footing or turndown slab foundation. For the design of the building foundation the soils are capable of a maximum net allowable soil bearing pressure (q_{ALL}) of 2,000 psf. A minimum depth of foundation (D_f) of 1.5 feet below existing grades elevations should be considered. Total and differential settlements should be less than 1/2-inch and 1/4-inch, respectively.

For ground floor slabs may be designed as conventional slabs on grade over the existing soils or on engineered compacted fill using a Modulus of Subgrade Reaction (K_s) of 85 pci (pounds per cubic inch). The bearing pad should be prepared and compacted prior to placing any concrete. Contractors should verify the Fill Placement section of this report.

Soil Site Class

Based on our site evaluation and the information provided by the International Building Code (IBC 2012 / ASCE 7-10), to perform a dynamic analysis the clients design engineer should consider that the soils at the site fall under a **Rock Profile and Site Class B**.

Foundation Excavations

A groundwater level was not encountered during foundation drilling, therefore prospective contractor *would not need to consider* excavation dewatering. **A hard to very hard limestone rock was encountered at the site in Boring B-1 at a depth of 10 feet bgs. The prospective contractor should consider specialized equipment for rock excavation and caisson drilling.**

To avoid softening of the shallow soils exposed at the foundation bearing level, excavations should not be left open for extended periods prior to placing reinforcing steel and concrete. If rain or freezing weather is expected, excavations should not be completed. Leaving the excavations at least 1-foot above final grade should protect the bearing soils from deterioration.

If the excavation must remain open overnight or if rainfall becomes imminent while the bearing soils are exposed, we recommend that a 2 to 4-inch thick "mud-mat" of "lean" (2,000 psi) concrete be placed on the bearing soils before the placement of reinforcing steel. If the bearing soils are softened by surface water intrusion or exposure, the softened soils must be removed from the foundation excavation bottom immediately prior to placement of concrete.

Fill Placement

If required, borrow materials for fill, unless otherwise specified, should consist of essentially granular material (GW, GM, GP, GC, SW, SM or SP Unified Soil Classification System); A-2-4 or better, AASHTO Classification, as approved by the Project Geotechnical Engineer. These should be free from vegetation and should not contain rocks greater than 6 inches in size.

The amount of fill required for this project depends on the planned final grades. Any fill or backfill required to attain finished grade should be placed in layers not exceeding 8 to 10-inch thick lifts and compacted to not less than 95% of the Standard Proctor Maximum dry density, as determined by method (ASTM D-698). The soil moisture content should be close to the optimum moisture content. All required fills should meet the specified compaction criteria.

ECA does not know the capability of the surficial soil to support pavements. However, we suggest that the upper soils be replaced by granular fill in areas of heavy traffic to improve the subgrade support capabilities and moisture sensitivity.

Field density tests should be conducted at routine intervals as the fill is being placed to verify that adequate compaction is achieved. Prior to placing any new fill, any soft or loose near surface soils should be removed and the area Proof-Rolled with a heavy vehicle or a heavy compaction vibratory roller to confirm that any unsuitable soil conditions have been discovered.

Basis for Recommendations

The subsurface conditions encountered at the boring location is shown on the Boring Log in Appendix B. The Boring Log represents our interpretation of the subsurface conditions based on the field logs and visual examination of field samples by an engineer. The lines designating the interface between various strata on the Boring Log represents the approximate interface locations. In addition, the transition between strata may be gradual. The water level shown on the Boring Log, if any, represents the condition only at the time of our exploration.

The recommendations contained herein are based in part on project information provided to us and only apply to the specific project and site discussed in this report. If the project information section in this report contains incorrect information or if additional information is available, please let us know so that we may review the validity of our recommendations.

Regardless of the thoroughness of a geotechnical investigation, there is always a possibility that conditions between borings will be different from those at specific boring locations and that conditions will not be as anticipated by the designers or contractors. In addition, the construction process may itself alter soil conditions. Therefore, experienced geotechnical personnel should observe and document the construction procedures used and the conditions encountered.

Unanticipated conditions and inadequate procedures should be reported to the design team along with timely recommendations to solve the problems created. ECA is best qualified to provide this service based on our familiarity with the project, the subsurface conditions, and the intent of the recommendations and design.

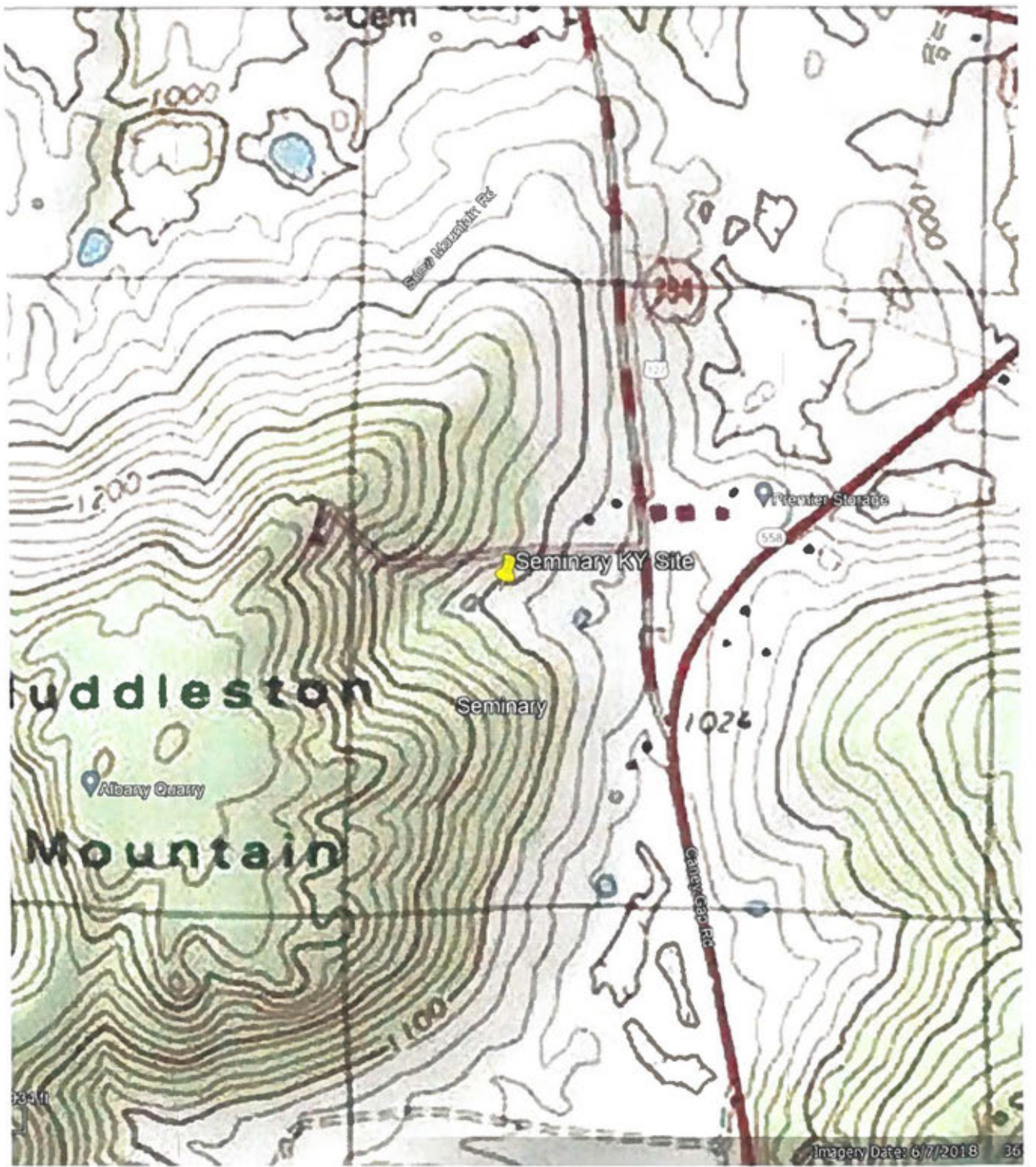
We wish to remind you that we will store the soil samples for 30 days. The samples will then be discarded unless you request otherwise.

APPENDICES

- Appendix A Figures
- Appendix B Boring Logs
- Appendix C Rock Quality Designation (RQD) Index

APPENDIX A

Figures



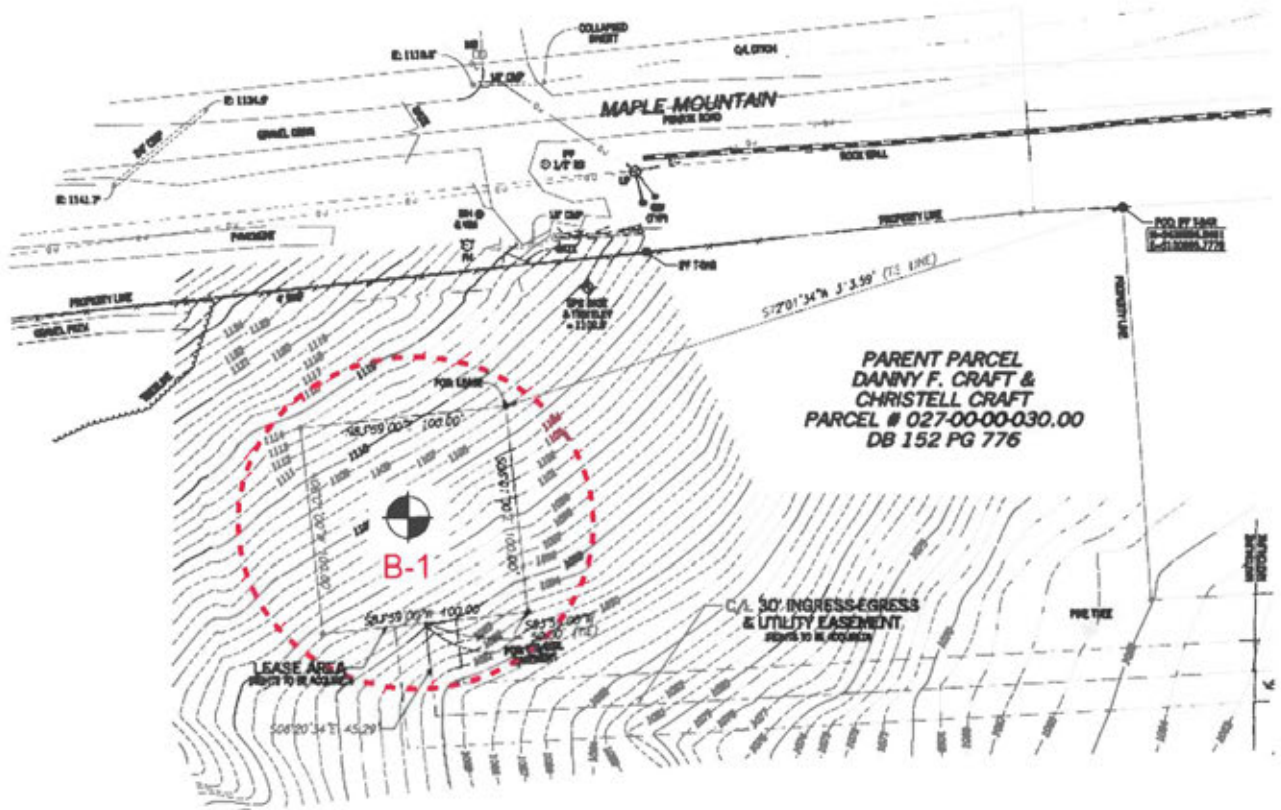
Source: USGS Topographic Maps, Cumberland City-KY, Wolf Creek Dam-KY, Albany-KY, and Savage-KY.



Seminary (KYLEX2057 / 15435110)
 Near 3723 N. Highway 127
 Albany, Clinton County, Kentucky
 Figure 1: Site Location Map



ECA Project #22-001989




Legend: Soil Boring Location

Source: Project site survey was prepared by P2PLS and dated March 5, 2021.



Seminary (KYLEX2057 / 15435110)
 Near 3723 N. Highway 127
 Albany, Clinton County, Kentucky
 Figure 2: Boring Location Plan



ECA Project #22-001989

APPENDIX B

Boring Log

Project: KYLEX2057 Project Location: Albany, KY Project Number: 22-001989	Environmental Corp of America 1375 Union Hill Industrial Ct. Suite A Alpharetta, GA 30004 (770) 667-2040	Log of Boring B-1 Sheet 1 of 1
--	--	---

Date(s) Drilled: 06/16/2022	Logged By: H. Acosta	Checked By: H. Acosta
Drilling Method: HSA / CB	Drill Bit Size/Type: 2.25 inches	Total Depth of Borehole: 20 feet bgs
Drill Rig Type: Truck	Drilling Contractor: South Drilling	Approximate Surface Elevation: 1,104 feet AMSL
Groundwater Level and Date Measured: Not Encountered	Sampling Method(s): SPT / CB	Hammer Data: 140 Lbs hammer, rope and cathead
Borehole Backfill: Cuttings	Location: Albany, Clinton County, Kentucky	

Depth (feet)	Sample Number	Sample Type	Sampling Resistance, blows/ft	SPT N-Values	Rec. (%) / RQD(%)	MATERIAL DESCRIPTION	Material Type	USCS Symbol	Water Content (%)	qu (tsf)	LL(%)	Pl(%)
0	1		6-8-8	16		Red, very stiff plastic silty Clay, damp (Topsoil 4 inches)	CH		-	4.5		
2	2		8-10-12	22		Same as above, very stiff, damp	CH		29.2	3.5		
3	3		10-10-12	22		Same as above, very stiff, damp	CH		-	4.5		
4	4		50/0"	50/0"		Same as above, hard (No recovery). Auger Refusal at 10 feet bgs.	CH		-	-		
5	5		-	-	85/79	Limestone Rock (Sedimentary), light grey, fine-grained, moderately to slightly weathered, hard to very hard, and intensely to moderately fractured.	Limestone		-	-		
6	6		-	-	100/77	Limestone Rock (Sedimentary), light grey, fine-grained, moderately to slightly weathered, hard to very hard, and intensely to moderately fractured.	Limestone		-	-		
20						End of Boring at 20 feet.						

F:\PROJECT\2022proj\22-001975 - 22-002000\22-001989\Boring B-1_Seminary_22-001989_bgd\ECA_Template.tpl



Project: **KYLEX2057**
 Project Location: **Albany, KY**
 Project Number: **22-001989**

Environmental Corp of America
 1375 Union Hill Industrial Ct. Suite A
 Alpharetta, GA 30004
 (770) 667-2040

Key to Log of Boring
Sheet 1 of 1

Depth (feet)	Sample Number	Sample Type	Sampling Resistance, blows/ft	SPT N-Values	Rec. (%) / RQD(%)	MATERIAL DESCRIPTION	Material Type	USCS Symbol	Water Content (%)	qu (tsf)	LL(%)	PI(%)
1	2	3	4	5	6	7	8	9	10	11	12	13

COLUMN DESCRIPTIONS

- | | |
|---|--|
| <p>1 Depth (feet): Depth in feet below the ground surface.</p> <p>2 Sample Number: Sample identification number.</p> <p>3 Sample Type: Type of soil sample collected at the depth interval shown.</p> <p>4 Sampling Resistance, blows/ft: Number of blows to advance driven sampler one foot (or distance shown) beyond seating interval using the hammer identified on the boring log.</p> <p>5 SPT N-Values: The number of blows required to penetrate the last 12 inches.</p> <p>6 Rec. (%) / RQD(%): Core recovery (%) and RQD (%).</p> <p>7 MATERIAL DESCRIPTION: Description of material encountered. May include consistency, moisture, color, and other descriptive text.</p> <p>8 Material Type: Type of material encountered.</p> | <p>9 USCS Symbol: Graphic depiction of the subsurface material encountered.</p> <p>10 Water Content (%): Water content of the soil sample, expressed as percentage of dry weight of sample.</p> <p>11 qu (tsf): Unconfined compressive strength, in kips per square foot.</p> <p>12 LL(%): Liquid Limit, expressed as a water content.</p> <p>13 PI(%): Plasticity Index, expressed as a water content.</p> |
|---|--|










FIELD AND LABORATORY TEST ABBREVIATIONS

- | | |
|---|--|
| <p>CHEM: Chemical tests to assess corrosivity</p> <p>COMP: Compaction test</p> <p>CONS: One-dimensional consolidation test</p> <p>LL: Liquid Limit, percent</p> | <p>PI: Plasticity Index, percent</p> <p>SA: Sieve analysis (percent passing No. 200 Sieve)</p> <p>UC: Unconfined compressive strength test, Qu, in ksf</p> <p>WA: Wash sieve (percent passing No. 200 Sieve)</p> |
|---|--|






MATERIAL GRAPHIC SYMBOLS

- | | |
|--|---|
|  Fat CLAY, CLAY w/SAND, SANDY CLAY (CH) |  Limestone |
|--|---|

TYPICAL SAMPLER GRAPHIC SYMBOLS

- | | | |
|---|---|---|
|  Auger sampler |  CME Sampler |  Pitcher Sample |
|  Bulk Sample |  Grab Sample |  2-inch-OD unlined split spoon (SPT) |
|  3-inch-OD California w/ brass rings |  2.5-inch-OD Modified California w/ brass liners |  Shelby Tube (Thin-walled, fixed head) |

OTHER GRAPHIC SYMBOLS

- | |
|--|
|  Water level (at time of drilling, ATD) |
|  Water level (after waiting) |
|  Minor change in material properties within a stratum |
|  Inferred/gradational contact between strata |
|  Queried contact between strata |

GENERAL NOTES

- Soil classifications are based on the Unified Soil Classification System. Descriptions and stratum lines are interpretive, and actual lithologic changes may be gradual. Field descriptions may have been modified to reflect results of lab tests.
- Descriptions on these logs apply only at the specific boring locations and at the time the borings were advanced. They are not warranted to be representative of subsurface conditions at other locations or times.

E:\PROJ\CT\2022\env\22-001989\Boring B-1_Seminary_22-001989\Boring B-1_Seminary_22-001989.eca_Template.rvt



APPENDIX C

Rock Quality Designation (RQD) Index

APPENDIX C
Rock Quality Designation (RQD) Index
Environmental Corporation of America (ECA)

ECA Project Name: Seminary (KYLEX2057)

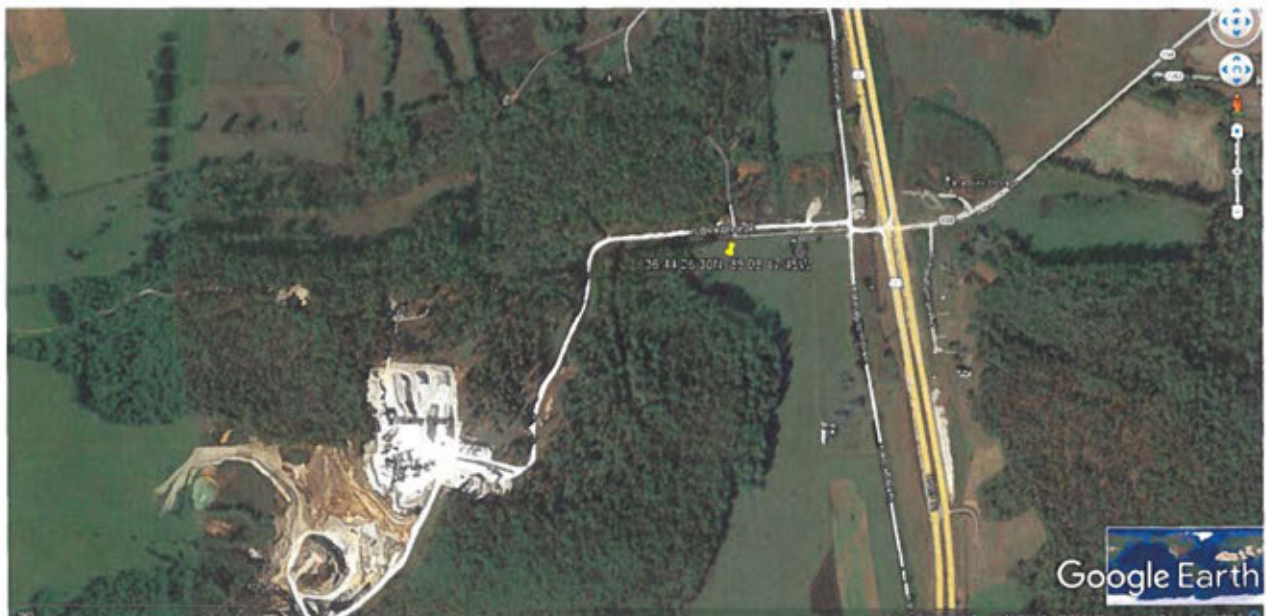
ECA Project No. 22-001989

Rock Quality Designation, RQD (%)	*Description of Rock Quality
0-25	Very Poor
25-50	Poor
50-75	Fair
75-90	Good
90-100	Excellent
*Per ASTM D-6032.	

**EXHIBIT H
DIRECTIONS TO WCF SITE**

Driving Directions to Proposed Tower Site:

1. Beginning at Clinton County Courthouse located at 100 South Cross Street, Albany, Kentucky head south on N Cross St toward W Jefferson St. and travel approximately 423 ft.
2. Continue onto N Cross St as it turns left and becomes Water St. and travel approximately 223 ft.
3. Turn left onto US-127 BUS / N Cross Street / S Washington Street and travel approximately 2.9 miles.
4. Turn right onto US-127 N and travel approximately 0.8 miles.
5. Turn left onto Maple Mountain and travel approximately 292 ft.
6. Turn left onto Caney Gap Road and travel approximately 266 ft.
7. The site is located at on the right. The site address is: 3723 N US Hwy 127, Albany, KY 42602. The site coordinates are: 36° 44' 26.30" North latitude, 85° 08' 17.45" West longitude.



Prepared by:
Robert W. Grant
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

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 Danny F. Craft and Christell Craft, husband and wife, ("**Landlord**") having a mailing address of 379 Caney Gap Road, Albany, Kentucky 42602, and Harmoni Towers LLC, a Delaware limited liability company having a mailing address of 10801 Executive Center Drive, Shannon Building, Suite 100, 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 3723 North US Highway 127, in the City/Town of Albany, County of Clinton, 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]

[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 the first year of an Extension Term, the monthly Rent will increase by [REDACTED] over the Rent paid during the previous five (5) year term, 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] [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. If Tenant elects to utilize an Unmanned Aircraft System ("UAS") in connection with its installation, construction, monitoring, site audits, inspections, maintenance, repair, modification, or alteration activities at the Property, Landlord hereby grants Tenant, or any UAS operator acting on Tenant's behalf, express permission to fly over the applicable Property and Premises, and consents to the use of audio and video navigation and recording in connection with the use of the UAS. 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] 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 on the Property and the Premises, at Tenant's expense, and to improve present utilities on the Property and the Premises; by way of example, such utilities shall include overhead and underground electric, water, data transmission, and other necessary utility facilities (including guys, wires, poles, and other appurtenant equipment). Landlord hereby grants to Tenant and any service company providing utility or similar services, including electric power and telecommunications, 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, guys, wires, poles, circuits, conduits, associated equipment cabinets, and appurtenances thereto, as may from time to time be required. 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: Harmoni Towers LLC
 Attn: Real Estate
 10801 Executive Center Drive
 Shannon Building, Suite 100
 Little Rock AR 72211
 REAdmin@harmonitowers.com

cc:

Harmoni Towers LLC
c/o Symphony Wireless
Attn: Legal
44 South Broadway, Suite 601
White Plains, NY 10601

For Emergencies: NOC@harmonitowers.com

If to Landlord: Danny F. Craft and Christell Craft
 379 Cancy Gap Road
 Albany, Kentucky 42602
 Telephone: [REDACTED]

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(c) 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 Offer and agree in writing (the "Exercise Notice") to match the financial terms of the Offer. For the avoidance of doubt, to exercise its rights under this Section 23. Tenant shall not be required to match any compensation due to parties unrelated Landlord, including but not limited to broker compensation. The Exercise Notice shall be in the form of a contract substantially similar to the Offer (matching the financial terms as set forth herein); provided, however, that Landlord and Tenant acknowledge and agree that the Exercise Notice is intended to be a letter of intent or similar, and the parties shall thereafter negotiate in good faith the documents reasonably required to consummate Tenant's exercise of its rights under this Section 23. Tenant may assign its rights under this Section 23. 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 Harmoni 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"

Danny F. Craft

Danny F. Craft

By: _____

Print Name: Danny F. Craft

Its: _____

Date: 4-16-21

Christell Craft

Christell Craft

By: _____

Print Name: Christell Craft

Its: _____

Date: 4-16-21

"TENANT"

Harmoni Towers LLC

By: Ginger Majors

Print Name: Ginger Majors

Its: VP-Real Estate

Date: 10/28/2021

[ACKNOWLEDGMENTS APPEAR ON NEXT PAGE]

TENANT ACKNOWLEDGMENT

STATE OF ARKANSAS

COUNTY OF PULASKI

On the 28th day of June, 2021 before me personally appeared Ginger Wray VP RLS Estate who acknowledged under oath that he/ she is the of Harmoni Towers LLC, the Tenant named in the attached instrument, and as such was authorized to execute this instrument on behalf of the Tenant.



[Signature]
Notary Public: Constance F. Helmich
My Commission Expires: 7-2-2029

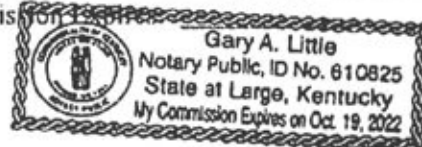
LANDLORD ACKNOWLEDGMENT

STATE OF Kentucky

COUNTY OF Clinton

BE IT REMEMBERED, that on this 16th day of April, 2021 before me, the subscriber, a person authorized to take oaths in the State of Kentucky, personally appeared Danny F. Craft 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.

[Signature]
Notary Public:
My Commission Expires:

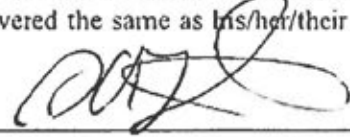


LANDLORD ACKNOWLEDGMENT

STATE OF Kentucky

COUNTY OF Clinton

BE IT REMEMBERED, that on this 16th day of April, 2021 before me, the subscriber, a person authorized to take oaths in the State of Kentucky, personally appeared Christell Craft 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: _____
My Commission Expires _____

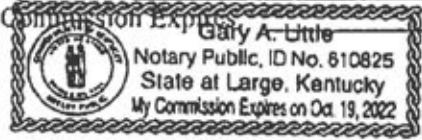


EXHIBIT 1

DESCRIPTION OF PREMISES

Page 1 of 4

to the Memorandum of Lease dated June 25, 2021, by and between Danny F. Craft and Christell Craft, husband and wife, as Landlord, and Harmoni Towers LLC, a Delaware limited liability company, as Tenant.

The Property is legally described as follows:

FIRST TRACT:

Lot Nos. One (1) to Seven (7) inclusive in Tract No. 6 of the Killis Huddleston Farm Subdivision as shown by the plat of same of record in Plat Book No. 1, Page No. 123, erroneously referred to as Plat Book No. 1, Page No. 125, Clerk's Office, Clinton County, Kentucky.

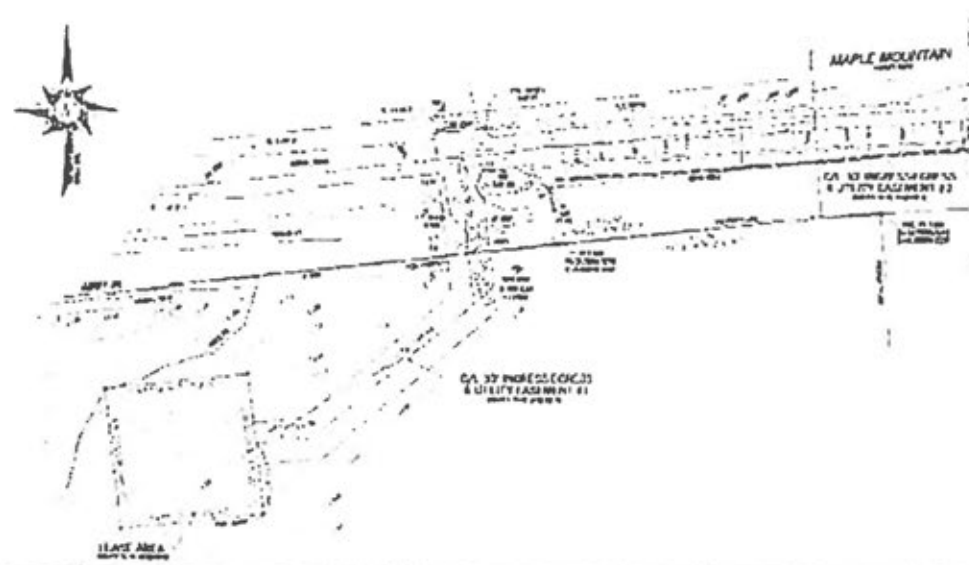
SECOND TRACT:

Tract No. 1 of the Killis Huddleston Farm Subdivision, as shown on the plat of same of record in Plat Book No. 1, Page No. 123, erroneously referred to as Plat Book No. 1, Page No. 125, Clerk's Office, Clinton County, Kentucky Court.

AND BEING the same property conveyed to Danny F. Craft from Wilma Craft and Clenn Craft by Deed of Conveyance dated March 18, 1972 and recorded December 7, 1972 in Deed Book 54, Page 278; AND FURTHER CONVEYED to Danny F. Craft and Christell Craft from Danny F. Craft and Christell Craft by Deed of Conveyance dated August 25, 2014 and recorded September 15, 2014 in Deed Book 152, Page 776.

Tax Parcel No. 027-00-00-030 00

The Premises are described and/or depicted as follows:





LEASE AREA
HARMONI TOWERS
SEMINARY
15435110

All that tract or parcel of land, lying and being in Clinton County Kentucky, and being a portion of the lands of Danny F. Craft and Christell Craft, as recorded in Deed Book 152, Page 776, Clinton County records, and being more particularly described as follows:

To find the point of beginning, COMMENCE, at a T-bar found at the Northwest property corner of the lands of Renee Glover and Wayne Glover, as recorded in Deed Book 110, Page 418, Clinton County records, said T-bar having a Kentucky Grid North, NAD 83, Single zone value of N: 3429886.6491 E: 5100885.7778; thence running along a tie-line, South 84°36'06" West, 230.86 feet to a T-bar found on the northern property line of said Craft lands, having a Kentucky Grid North, NAD 83, Single zone value of N: 3429864.9296 E: 5100655.9420; thence running along said property line, South 84°02'04" West, 62.55 feet to a point; thence leaving said property line and running, South 06°01'00" East, 35.00 feet to a point; thence, South 50°12'35" West, 148.44 feet to a point; thence, South 83°59'00" West, 40.00 feet to a point; thence, South 06°01'00" East, 50.00 feet to a point and the true POINT OF BEGINNING; Thence, South 83°59'00" West, 100.00 feet to a point; Thence, North 06°01'00" West, 100.00 feet to a point; Thence, North 83°59'00" East, 100.00 feet to a point; Thence, South 06°01'00" East, 100.00 feet to a point and the POINT OF BEGINNING.

Bearings based on Kentucky Grid North, NAD 83, Single zone.

Said tract contains 0.2296 acres (10,000 square feet), more or less, as shown in a survey prepared for Harmoni Towers by POINT TO POINT LAND SURVEYORS, INC. dated March 5, 2021, and last revised June 14, 2021.

**30' INGRESS-EGRESS & UTILITY EASEMENT #1
HARMONI TOWERS
SEMINARY
15435110**

Together with a 30-foot wide Ingress-Egress and Utility Easement (lying 15 feet each side of centerline), lying and being in Clinton County Kentucky, and being a portion of the lands of Danny F. Craft and Christell Craft, as recorded in Deed Book 152, Page 776, Clinton County records, and being more particularly described by the following centerline data:

To find the point of beginning, COMMENCE, at a T-bar found at the Northwest property corner of the lands of Renee Glover and Wayne Glover, as recorded in Deed Book 110, Page 418, Clinton County records, said T-bar having a Kentucky Grid North, NAD 83, Single zone value of N: 3429886.6491 E: 5100885.7778; thence running along a tie-line, South 84°36'06" West, 230.86 feet to a T-bar found on the northern property line of said Craft lands, having a Kentucky Grid North, NAD 83, Single zone value of N: 3429864.9296 E: 5100655.9420; thence running along said property line, South 84°02'04" West, 62.55 feet to a point and the true POINT OF BEGINNING; Thence leaving said property line and running, South 06°01'00" East, 35.00 feet to a point; Thence, South 50°12'35" West, 148.44 feet to a point; Thence, South 83°59'00" West, 40.00 feet to the ENDING at a point on the Lease Area.

Bearings based on Kentucky Grid North, NAD 83, Single zone.

As shown in a survey prepared for Harmoni Towers by POINT TO POINT LAND SURVEYORS, INC. dated March 5, 2021, and last revised June 14, 2021.

**30' INGRESS-EGRESS & UTILITY EASEMENT #2
HARMONI TOWERS
SEMINARY
15435110**

Together with a 30-foot wide Ingress-Egress and Utility Easement (lying 15 feet each side of centerline), lying and being in Clinton County Kentucky, and being located inside the private right-of-way of Maple Mountain Road, and being more particularly described by the following centerline data:

To find the point of beginning, COMMENCE, at a T-bar found at the Northwest property corner of the lands of Renee Glover and Wayne Glover, as recorded in Deed Book 110, Page 418, Clinton County records, said T-bar having a Kentucky Grid North, NAD 83, Single zone value of N: 3429886.6491 E: 5100885.7778; thence running along a tie-line, South 84°36'06" West, 230.86 feet to a T-bar found on the northern property line of the lands of Danny F. Craft and Christell Craft, as recorded in Deed Book 152, Page 776, Clinton County records, having a Kentucky Grid North, NAD 83, Single zone value of N: 3429864.9296 E: 5100655.9420; thence running along said property line, South 84°02'04" West, 62.55 feet to a point and the true POINT OF BEGINNING; Thence leaving said property line and running, North 06°01'00" West, 72.08 feet to a point; Thence, North 86°22'41" East, 691.99 feet to the ENDING at a point on the western right-of-way line of Caney Gap Road.

Bearings based on Kentucky Grid North, NAD 83, Single zone.

As shown in a survey prepared for Harmoni Towers by POINT TO POINT LAND SURVEYORS, INC. dated March 5, 2021, and last revised June 14, 2021.

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.

Market: TN/KY
Cell Site Number: KYLEX2057
Cell Site Name: Seminary
Fixed Asset Number: 15435110
County: Clinton
State: Kentucky

FIRST AMENDMENT TO OPTION AND LEASE AGREEMENT

This FIRST AMENDMENT TO OPTION AND LEASE AGREEMENT (this "First Amendment") is dated as of the latter of the signature dates below, is by and between Danny F. Craft and Christell Craft, husband and wife, having a mailing address of 379 Caney Gap Road, Albany, Kentucky 42602 ("**Landlord**") and Harmoni Towers L.L.C., a Delaware limited liability company, having a mailing address of 11101 Anderson Drive, Suite 200, Little Rock, Arkansas 72212 ("**Tenant**").

WITNESSETH:

WHEREAS, Landlord and Tenant entered into that certain Option and Lease Agreement dated June 28, 2021 (the "Lease"), regarding a certain portion of real property located at 3723 North US Highway 127, Albany, Kentucky, in Clinton County, ("Property") and

WHEREAS, Landlord and Tenant now desire to amend certain provisions of the Lease as provided herein below.

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby agree as follows:

1. Premises and Easements. Landlord and Tenant hereby agree to amend the defined area of the "Premises and Easements" and to replace Exhibit 1 of the Lease with Exhibit 1, attached hereto.
2. Deletion and Replacement of Section 4 (a) of the Agreement. Section 4 (a) of the Agreement is hereby deleted and replaced with the following:

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.

2. Memorandum of Lease. Landlord and Tenant will execute, acknowledge and deliver to the other a recordable Amended and Restated Memorandum of Lease substantially in the form of Exhibit 2. Tenant will be responsible for recording this memorandum.

3. Definitions. Unless otherwise defined in this First Amendment each term used in this First Amendment that has been defined in the Lease shall have the same meaning herein as given to such term in the Lease.

4. Ratification. Except as here in modified and amended, the terms and conditions of the Lease are hereby ratified and affirmed and shall remain in full force and effect.

5. Counterparts; Signatures. This First Amendment may be executed in two or more counterparts and/or counterparts signature pages, each of which shall be deemed an original, and all of which shall constitute one and the same instrument. In addition, the parties may execute this First Amendment by electronic signatures, which shall be deemed for all purposes original signatures.

[SIGNATURES APPEAR ON THE NEXT PAGE]

IN WITNESS WHEREOF, the parties hereto have executed this First Amendment effective as of the date first set forth above.

LANDLORD:

Danny F. Craft and Christell Craft
Husband and wife

By: *Danny F. Craft*
Print Name: Danny F. Craft

Its: Owner

Date: 5-12-22

By: *Christell Craft*

Print Name: Christell Craft

Its: Owner

Date: 5-12-22

TENANT:

HARMONI TOWERS LLC
A Delaware limited liability company

By: *[Signature]*

Print Name: Solomon Hu
VP-Operations and Engineering

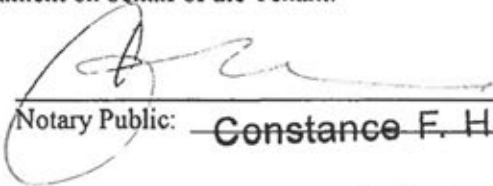
Its: _____

Date: May 20, 2022

TENANT ACKNOWLEDGMENT

STATE OF ARKANSAS)
) ss:
COUNTY OF PULASKI)

On the 20th day of May, 2022, before me personally appeared Solomon Iteu, who acknowledged under oath that he is the SR. Vice President of Harmoni Towers LLC, the Tenant named in the attached instrument, and as such was authorized to execute this instrument on behalf of the Tenant.

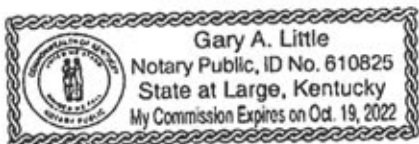

Notary Public: Constance F. Helmich
My Commission Expires: 7-2-2029



LANDLORD ACKNOWLEDGMENT

STATE OF Ky)
COUNTY OF Clinton) ss:

BE IT REMEMBERED, that on this 12th day of May, 2022 before me, the subscriber, a person authorized to take oaths in the State of Ky, personally appeared DANNY F. CRAFT 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.



[Signature]
Notary Public: Gary A. Little

My Commission Expires:
10-19-22

LANDLORD ACKNOWLEDGMENT

STATE OF Ky)
COUNTY OF Clinton) ss:

BE IT REMEMBERED, that on this 12th day of May, 2022 before me, the subscriber, a person authorized to take oaths in the State of Ky, personally appeared CHRISTELL CRAFT 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.



[Signature]
Notary Public: Gary A. Little

Exhibit I

Description of Premises and Easements

Page 1 of 5

PARENT TRACT (PER TITLE)

An interest in land, said interest being over a portion of the following described parent parcel:

FIRST TRACT:

Lot Nos. One (1) to Seven (7) inclusive in Tract No. 6 of the Killis Huddleston Farm Subdivision as shown by the plat of same of record in Plat Book No. 1, Page No. 123, erroneously referred to as Plat Book No. 1, Page No. 125, Clerk's Office, Clinton County, Kentucky.

SECOND TRACT:

Tract No. 1 of the Killis Huddleston Farm Subdivision, as shown on the plat of record in Plat Book No. 1, Page No. 123, erroneously referred to as Plat Book No. 1, Page No. 125, Clerk's Office, Clinton County, Kentucky Court.

AND BEING the same property conveyed to Danny F. Craft from Wilma Craft and Clenn Craft by Deed of Conveyance dated March 18, 1972 and recorded December 7, 1972 in Deed Book 54, Page 178; AND FURTHER CONVEYED to Danny F. Craft and Christell Craft from Danny F. Craft and Christell Craft by Deed of Conveyance dated August 25, 2014 and recorded September 15, 2014 in Deed Book 152, Page 776.

Tax Parcel No. 027-00-00-030.00

LEASE AREA (AS-SURVEYED)

All that tract or parcel of land, lying and being in Clinton County Kentucky, and being a portion of the lands of Danny F. Craft and Christell Craft, as recorded in Deed Book 152, Page 776, Clinton County records, and being more particularly described as follows:

To find the point of beginning, COMMENCE, at a T-bar found at the Northwest property corner of the lands of Renee Glover and Wayne Glover, as recorded in Deed Book 110, Page 418, Clinton County records, said T-bar having a Kentucky Grid North, NAD 83, Single zone value of N: 3429886.6491 E: 5100885.7778; thence running along a tie-line, South 72°01'34" West 313.59 feet to a point and the true POINT OF BEGINNING; Thence, South 06°01'00" East, 100.00 feet to a point; Thence, South 83°59'00" West, 100.00 feet to a point; Thence, North 06°01'00" West, 100.00 feet to a point; Thence, North 83°59'00" East, 100.00 feet to a point and the POINT OF BEGINNING.

Bearings based on Kentucky Grid North, NAD 83, Single zone.

Said tract contains 0.2296 acres (10,000 square feet), more or less

ACCESS & UTILITY EASEMENT (AS-SURVEYED)

Together with a 30-foot wide Ingress-Egress and Utility Easement (lying 15 feet each side of centerline), lying and being in Clinton County Kentucky, and being a portion of the lands of Danny F. Craft and Christell Craft, as recorded in Deed Book 152, Page 776, Clinton County records, and being more particularly described by the following centerline data:

To find the point of beginning, COMMENCE, at a T-bar found at the Northwest property corner of the lands of Renee Glover and Wayne Glover, as recorded in Deed Book 110, Page 418, Clinton County records, said T-bar having a Kentucky Grid North, NAD 83, Single zone value of N: 3429886.6491 E: 5100885.7778; thence running along a tie-line, South 72°01'34" West 313.59 feet to a point located on the Lease Area; thence running with said Lease Area, South 06°01'00" East, 100.00 feet to a point; Thence, South 83°59'00" West, 50.00 feet to a point and the true POINT OF BEGINNING; Thence South 06°20'34" East, 45.29 feet to a point; Thence, North 86°53'09" East, 733.88 feet to the ENDING at a point on the western right-of-way line of Caney Gap Road.

Bearings based on Kentucky Grid North, NAD 83, Single zone.

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.

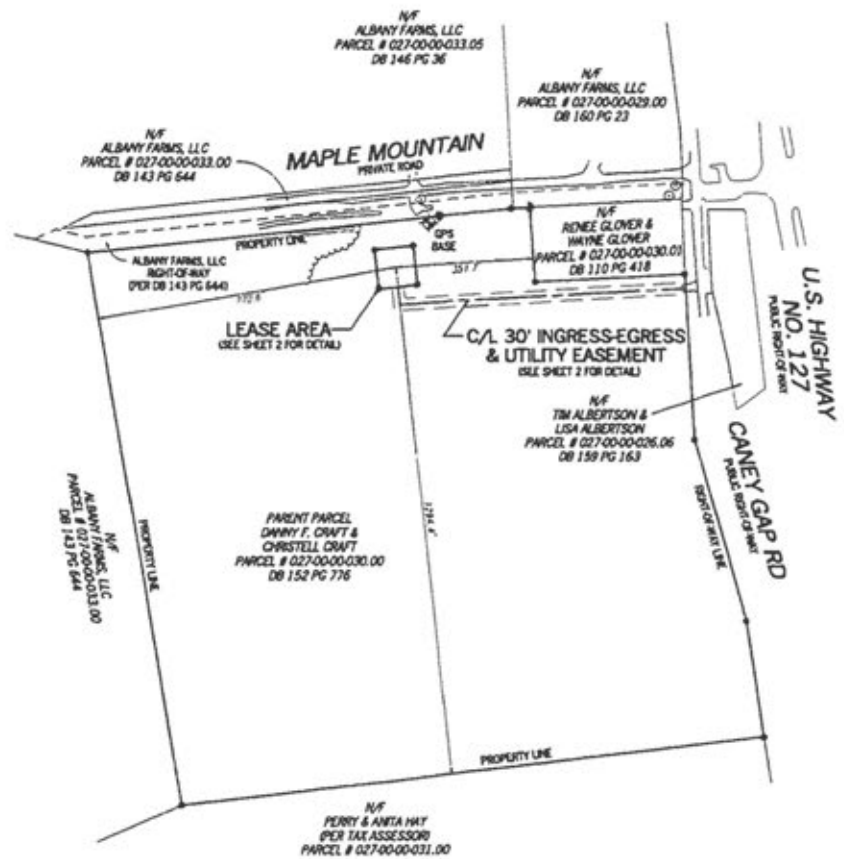


PARENT PARCEL

OWNER: DANNY F. CRAFT & CHRISTELL CRAFT
 SITE ADDRESS: 3723 N HOWARD RD. 127, ALBANY, KENTUCKY 40602
 PARCEL ID: 027-00-00-038.00
 AREA: 41.8 ACRES PER TAX ASSESSOR
 ALL ZONING INFORMATION SHOULD BE VERIFIED WITH THE PROPER ZONING OFFICIALS
 REFERENCE: DEED BOOK 152 PAGE 776

GPS NOTES

THE FOLLOWING GPS STATISTICS UPON WHICH THIS SURVEY IS BASED WERE NOT PRODUCED AT THE 95% CONFIDENCE LEVEL:
 POSITIONAL ACCURACY: 0.5M FEET HORIZONTAL (2.31 FEET VERT)
 TYPE OF EQUIPMENT: GEOMAX ZENTHOX PRO-BASE AND ROVER, DUAL FREQUENCY
 TYPE OF GPS FIELD PROCEDURE: ONLINE POSITION USER INTERFACE
 DATE(S) OF SURVEY: 10/20/2021 & 06/06/2022
 DATUM / EPOCH: NAD 83(2011) / EP00C0215.0000
 PUBLISHED / FIELD CONTROL USE: N/A
 DESIGN MODEL: 18
 COMBINED GRID FACTORS: 1.0000125 CENTERED ON THE GPS BASE POINT AS SHOWN HEREON.
 CORRECTION VALUE: 0.37881397
 BENCHMARKS USED: 054169, 047055, 047217



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 HARMON SURVEYORS AND IS NOT TO BE USED FOR THE TRANSFER OF THE LEASED PREMISES AND THE RIGHTS OF EASEMENT SHOWN HEREON AND SHALL NOT BE USED AS AN INSTRUMENT OR EVIDENCE IN THE REAL PROPERTY RECORDS OF THE COUNTY OF CLINTON, KENTUCKY, NOR AS AN INSTRUMENT OR EVIDENCE IN THE REAL PROPERTY RECORDS OF ANY OTHER COUNTY OR STATE. 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.
 THIS SPECIFIC PURPOSE SURVEY WAS PREPARED WITHOUT BENEFIT OF A TITLE REPORT WHICH MAY REVEAL ADDITIONAL COMMITMENTS, EASEMENTS, OR RIGHTS-OF-WAY NOT SHOWN HEREON.
 THE FIELD DATA UPON WHICH THIS SPECIFIC PURPOSE SURVEY IS BASED HAS A CLOSURE PRECISION OF ONE FOOT IN 1,000,000 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 1300 ROTARY & GOMAX ZENTHOX PRO (DATE OF LAST FIELD USE: 06/06/2022)
 THE 1" CONTOURS AND SPOT ELEVATIONS SHOWN ON THIS SPECIFIC PURPOSE SURVEY ARE ADJUSTED TO GRID BY DATUM COMPUTATION USING GDA08 AND HAVE A VERTICAL ACCURACY OF +/- 0.5" CONTIGUOUS OUTSIDE THE IMMEDIATE SITE AREA-WERE APPROXIMATE.
 BEARINGS SHOWN ON THIS SPECIFIC PURPOSE SURVEY ARE BASED ON GRID NORTH AND 8.8 DEGREES NORTH SINGLE ZONE.
 FOR THE FLOOD PLANNING MAPS, THE SITE IS LOCATED IN AN AREA DESIGNATED AS FLOOD HAZARD AREA OF ANIMAL FLOOD HAZARD. COMMUNITY PANEL NO. 1: 250000110C. DATE: 01/25/2016
 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 GUARANTEE THAT ANY UNDERGROUND UTILITIES SHOWN COMPREHEND ALL SUCH UTILITIES IN THE AREA, OTHER INSURANCE OR ADVISORS. 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.

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

NO.	DATE	REVISION
1	06/14/2022	REVISED LAYOUT - A-E
2	11/22/2021	REVISED LAYOUT - A-E
3	2/19/2022	SITE ADDRESS
4	4/27/2022	PLG FOR LSMT

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:
 HARMONI
 10801 EXECUTIVE CENTER DRIVE
 SHANNON BLDG., STE 100
 LITTLE ROCK, AR 72211

SEMINARY
 SITE NO.
 15435110
 CLINTON COUNTY,
 KENTUCKY

DRAWN BY: JLT
 CHECKED BY: JLC
 APPROVED: D. MILLER
 DATE: MARCH 5, 2023
 PDP JOB #: 21014097

SHEET:
1
 OF 3

LEGEND

PSB	POINT OF BEGINNING
PC	POINT OF COMMENCEMENT
PP	POINT OF BEGINNING FOUND
RSW	RIGHT-OF-WAY
RF	RIGHT-OF-WAY ADJACENT
CA	CONTIGUOUS
LU	UTILITY POLE
UL	UNDERGROUND UTILITY
TS	TRANSVERSE
EW	EXISTING WIRE AND/OR FENCE
FP	FENCED WIRE FENCE
PI	PINE OR OTHER
MB	MAKER METE
MS	MAKER METE
MR	MAKER METE
CS	CONCRETE SETTING METAL PIPE
CP	CONCRETE SETTING METAL PIPE
CE	LINE OF EASEMENT
CD	DRAWN BY
SM	TEMPORARY BOUNDARY MARK



SURVEYOR'S CERTIFICATE

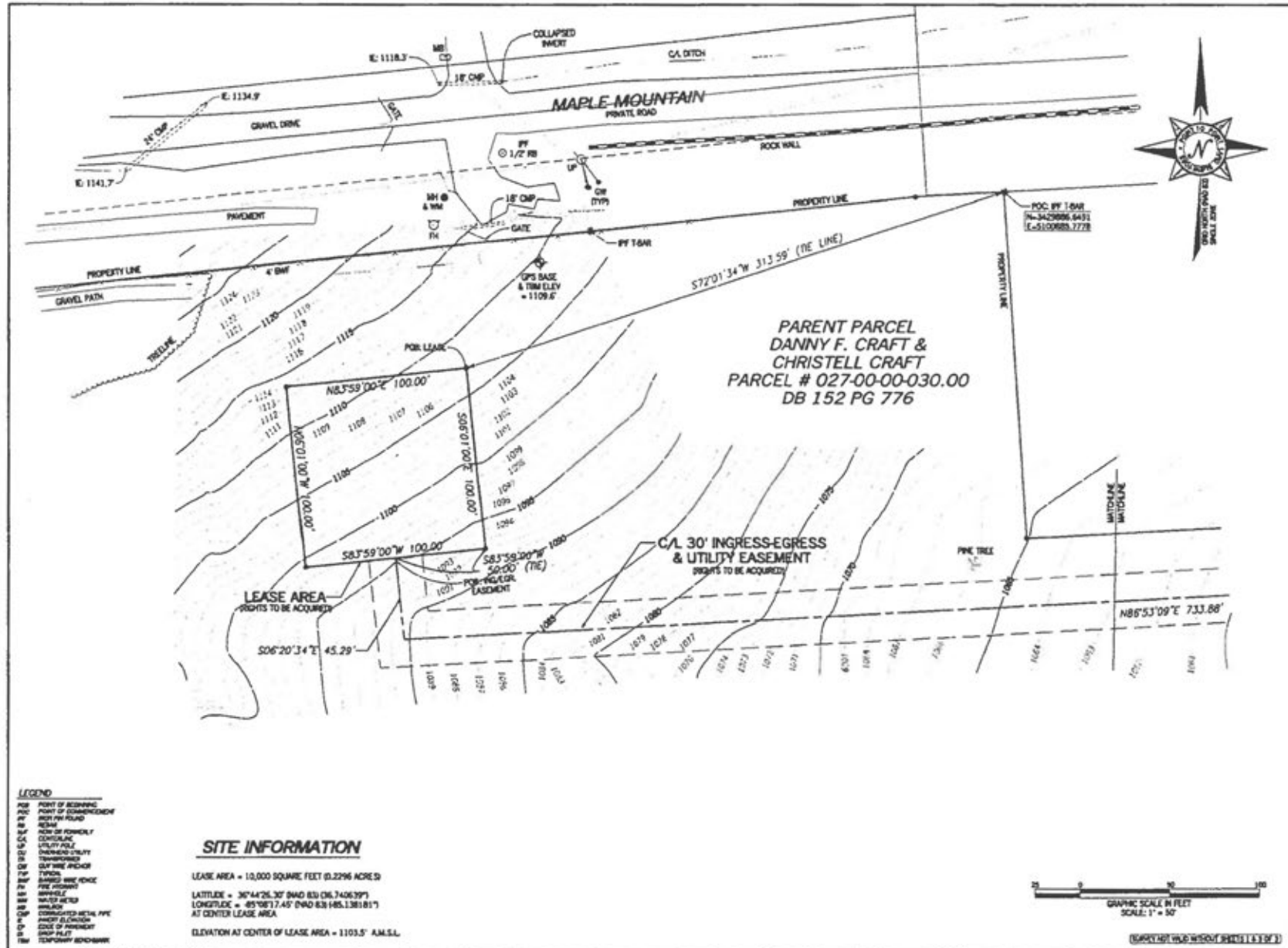
I, G. DARRELL TAYLOR, A KENTUCKY PROFESSIONAL LAND SURVEYOR, CERTIFY THAT THE INFORMATION SHOWN HEREON WAS COMPILED USING DATA FROM AN ACTUAL FIELD SURVEY MADE UNDER MY DIRECT SUPERVISION BY METHOD OF RANDOM TRANSVERSE WITH SEE SHEETS. THE UNADJUSTED PRECISION RATIO OF THE TRANSVERSE EXCEEDED 1:1,000,000 AND WAS NOT ADJUSTED FOR CLOSURE. THIS SURVEY SHEET DOES NOT EXCEED THE STANDARD ESTABLISHED FOR AN ALIEN SURVEY AS ESTABLISHED BY THE STATE OF KENTUCKY, FOR 2021 AND I MADE AND IN DIRECT ON THE DATE OF THIS SURVEY.

(Signature)
 G. DARRELL TAYLOR, PLS 4179
 11/21/2021
 DATE



Know what's below.
 Call before you dig!

CLINTON COUNTY, KENTUCKY, 2023-03-05 10:00 AM



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

NO.	DATE	REVISION
1	06/14/2021	REVISED LAYOUT - AIT
2	11/22/2021	REVISED LAYOUT - AIT
3	3/10/2022	SITE ADDRESS
4	4/27/2022	PG. JOB E-SHT

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:

HARVONI
 10801 DELORME CENTER DRIVE
 SHANNON BLDG., STE 100
 LITTLE ROCK, AR 72211

SEMINARY
 SITE NO.
15435110
 CLINTON COUNTY, KENTUCKY

DRAWN BY: AJT
 CHECKED BY: JL
 APPROVED: G. MILLER
 DATE: MARCH 5, 2021
 PFP JOB #: 2301407

SHEET:
2
 OF 3

SITE INFORMATION
 LEASE AREA = 10,000 SQUARE FEET (0.2296 ACRES)
 LATITUDE = 36°44'26.30" NAD 83 (61.740639°)
 LONGITUDE = 85°08'17.45" NAD 83 (485.138181°)
 AT CENTER LEASE AREA
 ELEVATION AT CENTER OF LEASE AREA = 1103.5' A.M.S.L.



- LEGEND**
- PCB POINT OF BEGINNING
 - POB POINT OF BEGINNING
 - PF POINT FOUND
 - RF 1/2\"/>

**EXHIBIT J
NOTIFICATION LISTING
CERTIFIED GREEN CARD RECEIPTS**

Seminary / Snow Relo – Notice List

CRAFT DANNY F & CHRISTELL
379 CANEY GAP RD
ALBANY, KY 42602

ALBANY FARMS LLC
9788 CEMETERY RD
BOWLING GREEN, KY 42103

GLOVER WAYNE & RENEE
583 CANEY GAP RD
ALBANY, KY 42602

ALBERTSON TIM & LISA
101 POPLAR DR
ALBANY, KY 42602

HAY PERRY & ANITA
27 CANEY GAP RD
ALBANY, KY 42602

GLOVER WAYNE & ROBIN RENEE
583 CANEY GAP RD
ALBANY, KY 42602

AARON JERRY & TERRY
84 KY HWY 558
ALBANY, KY 42602

FLOWERS DEVONDA
LOGSDON MARILYN B
691 LAKEWOOD WAY
ALBANY, KY 42602

PARRIGIN RURAL & JANICE F
37 CLIFTON PARRIGIN RD
ALBANY, KY 42602

PYLES JEWELL & MELINDA
CHRISTINE PARRIGIN
154 KY HWY 558
ALBANY, KY 42602

7021 2720 0001 6149 4475

CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

Certified Mail Fee

Extra Services & Fees (check one)

Return Receipt (hardcopy)

Return Receipt (electronic)

Certified Mail Restricted Delivery

Adult Signature Required

Adult Signature Restricted Delivery

Postage

Hon. Ricky L. Craig
County Judge Executive
100 South Cross Street
Suite 115
Albany, KY 42602

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions



7021 2720 0001 6149 4468

CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

Certified Mail Fee

Extra Services & Fees (check one)

Return Receipt (hardcopy)

Return Receipt (electronic)

Certified Mail Restricted Delivery

Adult Signature Required

Adult Signature Restricted Delivery

Postage

CRAFT DANNY F & CHRISTELL
379 CANEY GAP RD
ALBANY, KY 42602

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions



7021 2720 0001 6149 4499

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

Certified Mail Fee

Extra Services & Fees (check one)

Return Receipt (hardcopy)

Return Receipt (electronic)

Certified Mail Restricted Delivery

Adult Signature Required

Adult Signature Restricted Delivery

Postage

GLOVER WAYNE & RENEE
583 CANEY GAP RD
ALBANY, KY 42602

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions



7021 2720 0001 6149 4482

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

Certified Mail Fee

Extra Services & Fees (check one)

Return Receipt (hardcopy)

Return Receipt (electronic)

Certified Mail Restricted Delivery

Adult Signature Required

Adult Signature Restricted Delivery

Postage

ALBANY FARMS LLC
9788 CEMETERY RD
BOWLING GREEN, KY 42103

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions



7021 2720 0001 6149 4512

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

Certified Mail Fee

Extra Services & Fees (check one)

Return Receipt (hardcopy)

Return Receipt (electronic)

Certified Mail Restricted Delivery

Adult Signature Required

Adult Signature Restricted Delivery

Postage

HAY PERRY & ANITA
27 CANEY GAP RD
ALBANY, KY 42602

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions



7021 2720 0001 6149 4505

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

Certified Mail Fee

Extra Services & Fees (check one)

Return Receipt (hardcopy)

Return Receipt (electronic)

Certified Mail Restricted Delivery

Adult Signature Required

Adult Signature Restricted Delivery

Postage

ALBERTSON TIM & LISA
101 POPLAR DR
ALBANY, KY 42602

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions



7021 2720 0001 6149 4536

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT**
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

Certified Mail Fee

- Extra Services & Fees (check box, add fee if appropriate)
- Return Receipt (hard copy) \$
 - Return Receipt (electronic) \$
 - Certified Mail Restricted Delivery \$
 - Adult Signature Required \$
 - Adult Signature Restricted Delivery \$
- Postage



AARON JERRY & TERRY
84 KY HWY 558
ALBANY, KY 42602

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7021 2720 0001 6149 4529

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT**
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

Certified Mail Fee

- Extra Services & Fees (check box, add fee if appropriate)
- Return Receipt (hard copy) \$
 - Return Receipt (electronic) \$
 - Certified Mail Restricted Delivery \$
 - Adult Signature Required \$
 - Adult Signature Restricted Delivery \$
- Postage



GLOVER WAYNE & ROBIN RENEE
583 CANEY GAP RD
ALBANY, KY 42602

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7021 2720 0001 6149 4543

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT**
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

Certified Mail Fee

- Extra Services & Fees (check box, add fee if appropriate)
- Return Receipt (hard copy) \$
 - Return Receipt (electronic) \$
 - Certified Mail Restricted Delivery \$
 - Adult Signature Required \$
 - Adult Signature Restricted Delivery \$
- Postage



PARRIGIN RURAL & JANICE F
37 CLIFTON PARRIGIN RD
ALBANY, KY 42602

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7021 2720 0001 6149 4550

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT**
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

Certified Mail Fee

- Extra Services & Fees (check box, add fee if appropriate)
- Return Receipt (hard copy) \$
 - Return Receipt (electronic) \$
 - Certified Mail Restricted Delivery \$
 - Adult Signature Required \$
 - Adult Signature Restricted Delivery \$
- Postage



FLOWERS DEVONDA
LOGSDON MARILYN B
691 LAKEWOOD WAY
ALBANY, KY 42602

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7017 0190 0000 9587 5713

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT**
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

Certified Mail Fee

- Extra Services & Fees (check box, add fee if appropriate)
- Return Receipt (hard copy) \$
 - Return Receipt (electronic) \$
 - Certified Mail Restricted Delivery \$
 - Adult Signature Required \$
 - Adult Signature Restricted Delivery \$
- Postage



PYLES JEWELL & MELINDA
CHRISTINE PARRIGIN
154 KY HWY 558
ALBANY, KY 42602

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

EXHIBIT K
COPY OF PROPERTY OWNER NOTIFICATION



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: Seminary / Snow Relo**

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 near 3723 N US Hwy 127, Albany, KY 42602 (E-911) / 3723 N US Hwy 127, Albany, KY 42602 (PARCEL) (36° 44' 26.30" North latitude, 85° 08' 17.45" West longitude). The proposed WCF will consist of a 255-foot tall tower, with an approximately 5-foot tall lightning arrester attached at the top, for a total height of 260-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 2022-00211 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

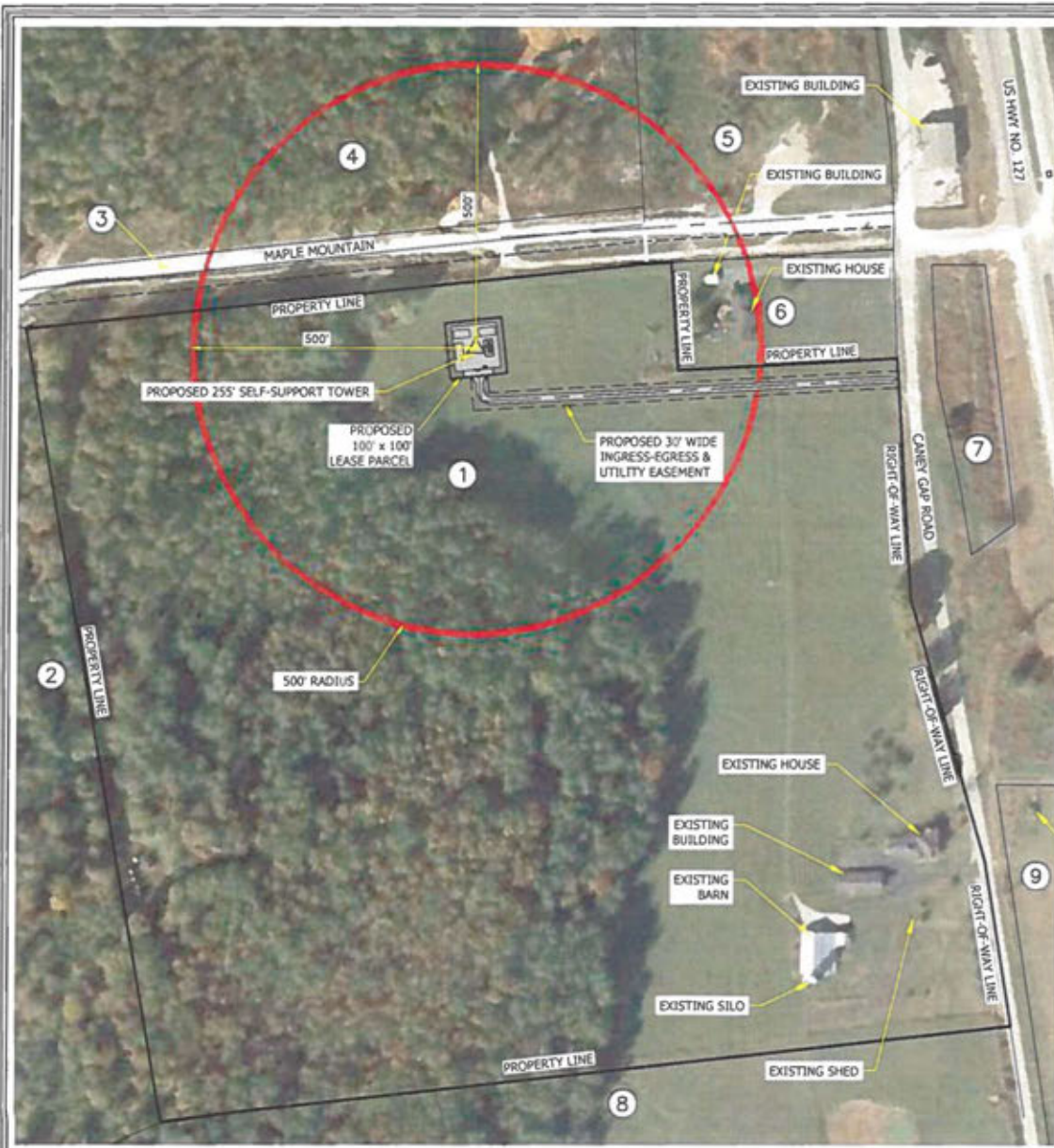
enclosures

Driving Directions to Proposed Tower Site:

1. Beginning at Clinton County Courthouse located at 100 South Cross Street, Albany, Kentucky head south on N Cross St toward W Jefferson St. and travel approximately 423 ft.
2. Continue onto N Cross St as it turns left and becomes Water St. and travel approximately 223 ft.
3. Turn left onto US-127 BUS / N Cross Street / S Washington Street and travel approximately 2.9 miles.
4. Turn right onto US-127 N and travel approximately 0.8 miles.
5. Turn left onto Maple Mountain and travel approximately 292 ft.
6. Turn left onto Caney Gap Road and travel approximately 266 ft.
7. The site is located at on the right. The site address is: 3723 N US Hwy 127, Albany, KY 42602. The site coordinates are: 36° 44' 26.30" North latitude, 85° 08' 17.45" West longitude.



Prepared by:
Robert W. Grant
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	CRAFT DANNY F & CHRISTELL	379 CANEY GAP RD ALBANY, KY 42602	027-00 00 030.00	DB 152 PG 776
2	ALBANY FARMS, LLC	9788 CEMETERY RD BOWLING GREEN, KY 42103	027-00 00 033.00	DB 143 PG 644
3	ALBANY FARMS, LLC	9788 CEMETERY RD BOWLING GREEN, KY 42103	027-00 00 033.00	DB 143 PG 644
4	ALBANY FARMS, LLC	9788 CEMETERY RD BOWLING GREEN, KY 42103	027-00 00 033.05	DB 146 PG 36
5	ALBANY FARMS, LLC	9788 CEMETERY RD BOWLING GREEN, KY 42103	027-00 00 029.00	DB 160 PG 23
6	GLOVER WAYNE & RENEE	583 CANEY GAP RD ALBANY, KY 42602	027-00 00 030.01	DB 110 PG 418
7	ALBERTSON TIM & LISA	101 POPLAR DR ALBANY, KY 42602	027-00 00 026.06	DG 159 PG 163
8	HAY PERRY & ANITA	27 CANEY GAP RD ALBANY, KY 42602	027-00 00 031.00	-
9	GLOVER WAYNE & ROBIN RENEE	583 CANEY GAP RD ALBANY, KY 42602	035-00 00 005.02	-

- NOTE:
1. PVA INFORMATION WAS OBTAINED ON 3/28/2022 FROM THE OFFICIAL RECORDS OF THE COUNTY'S PROPERTY VALUATION ADMINISTRATOR.
 2. THIS MAP IS FOR GENERAL INFORMATION PURPOSES ONLY AND IS NOT A BOUNDARY SURVEY.
 3. NOT FOR RECORDING OR PROPERTY TRANSFER.



HARMONI TOWERS
SEMINARY/
SNOW RELO
FA# 1543511010124681
PAC# # MRTNS052246
PTH 2457A0XDC2
(PROPERTY) 3723 N
US HWY 127
ALBANY, KY 42602
CLINTON COUNTY
PROPOSED 255 SELF-SUPPORT TOWER

PROJECT NO. C-1.0
CHECKED BY: MAN

ISSUED FOR:

REV	DATE	DRN	DESCRIPTION
0	02/21/22	MS	FINAL
1	03/20/22	DS	FINAL
2	05/25/22	DS	FINAL

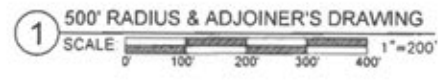
B&T ENGINEERING, INC.
4011
Expires 12/31/22



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.

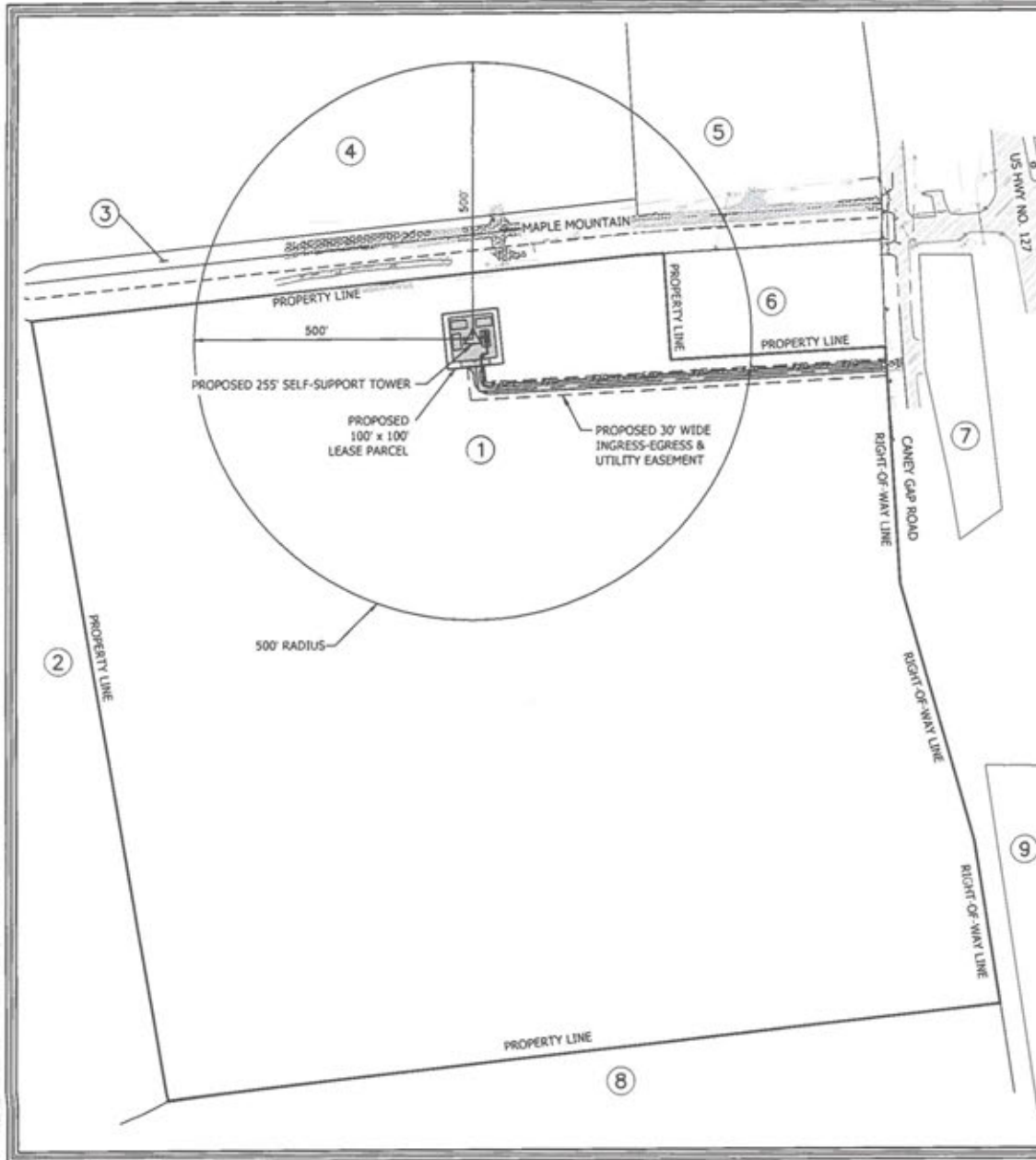
500' RADIUS &
ADJOINER'S
DRAWING

SHEET NUMBER:
C-1.0



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





#	OWNER	ADDRESS	PID	REF
1	CRAFT DANNY F & CHRISTELL	379 CANEY GAP RD ALBANY, KY 42602	027-00 00 030.00	DB 152 PG 776
2	ALBANY FARMS, LLC	9788 CEMETERY RD BOWLING GREEN, KY 42103	027-00 00 033.00	DB 143 PG 644
3	ALBANY FARMS, LLC	9788 CEMETERY RD BOWLING GREEN, KY 42103	027-00 00 033.00	DB 143 PG 644
4	ALBANY FARMS, LLC	9788 CEMETERY RD BOWLING GREEN, KY 42103	027-00 00 033.05	DB 146 PG 36
5	ALBANY FARMS, LLC	9788 CEMETERY RD BOWLING GREEN, KY 42103	027-00 00 029.00	DB 160 PG 23
6	GLOVER WAYNE & RENEE	583 CANEY GAP RD ALBANY, KY 42602	027-00 00 030.01	DB 110 PG 418
7	ALBERTSON TIM & LISA	101 POPLAR DR ALBANY, KY 42602	027-00 00 026.06	DG 159 PG 163
8	HAY PERRY & ANETA	27 CANEY GAP RD ALBANY, KY 42602	027-00 00 031.00	-
9	GLOVER WAYNE & ROBIN RENEE	583 CANEY GAP RD ALBANY, KY 42602	035-00 00 005.02	-

NOTE:

1. PVA INFORMATION WAS OBTAINED ON 3/28/2022 FROM THE OFFICIAL RECORDS OF THE COUNTY'S PROPERTY VALUATION ADMINISTRATOR.
2. THIS MAP IS FOR GENERAL INFORMATION PURPOSES ONLY AND IS NOT A BOUNDARY SURVEY.
3. NOT FOR RECORDING OR PROPERTY TRANSFER.



HARMONI TOWERS
SEMINARY /
SNOW RELO
FAR 15033110/10124681
PACH# AIR FN#K052246
PT# 2457A0XDC2
(PROPERTY) 3723 N
U.S. HWY. 127
ALBANY, KY 42602
CLINTON COUNTY
PROPOSED 255' SELF-SUPPORT TOWER

PROJECT NO: C202445-1-196.HJ
CHECKED BY: MAF

REV	DATE	BY	DESCRIPTION
0	02/21/22	MAF	FINAL
1	03/26/22	MAF	FINAL
2	04/25/22	MAF	FINAL

B&T ENGINEERING, INC.
4011
Expires 12/31/22



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

OVERALL
ADJOINER'S
DRAWING

SHEET NUMBER:
C-1.1

1 OVERALL ADJOINER'S DRAWING
SCALE 0 100 200 300 400 1"=200'



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



EXHIBIT L
COPY OF COUNTY JUDGE/EXECUTIVE NOTICE



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

Hon. Ricky L. Craig
County Judge Executive
100 South Cross Street
Suite 115
Albany, KY 42602

RE: Notice of Proposal to Construct Wireless Communications Facility
Kentucky Public Service Commission Docket No. 2022-00211
Site Name: Seminary / Snow Relo

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 near 3723 N US Hwy 127, Albany, KY 42602 (E-911) / 3723 N US Hwy 127, Albany, KY 42602 (PARCEL) (36° 44' 26.30" North latitude, 85° 08' 17.45" West longitude). The proposed WCF will consist of a 255-foot tall tower, with an approximately 5-foot tall lightning arrestor attached at the top, for a total height of 260-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 2022-00211 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 Clinton County Courthouse located at 100 South Cross Street, Albany, Kentucky head south on N Cross St toward W Jefferson St. and travel approximately 423 ft.
2. Continue onto N Cross St as it turns left and becomes Water St. and travel approximately 223 ft.
3. Turn left onto US-127 BUS / N Cross Street / S Washington Street and travel approximately 2.9 miles.
4. Turn right onto US-127 N and travel approximately 0.8 miles.
5. Turn left onto Maple Mountain and travel approximately 292 ft.
6. Turn left onto Caney Gap Road and travel approximately 266 ft.
7. The site is located at on the right. The site address is: 3723 N US Hwy 127, Albany, KY 42602. The site coordinates are: 36° 44' 26.30" North latitude, 85° 08' 17.45" West longitude.



Prepared by:
Robert W. Grant
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	CRAFT DANNY F & CHRISTELL	379 CANEY GAP RD ALBANY, KY 42602	027-00 00 030.00	DB 152 PG 776
2	ALBANY FARMS, LLC	9788 CEMETERY RD BOWLING GREEN, KY 42103	027-00 00 033.00	DB 143 PG 644
3	ALBANY FARMS, LLC	9788 CEMETERY RD BOWLING GREEN, KY 42103	027-00 00 033.00	DB 143 PG 644
4	ALBANY FARMS, LLC	9788 CEMETERY RD BOWLING GREEN, KY 42103	027-00 00 033.05	DB 146 PG 36
5	ALBANY FARMS, LLC	9788 CEMETERY RD BOWLING GREEN, KY 42103	027-00 00 029.00	DB 160 PG 23
6	GLOVER WAYNE & RENEE	583 CANEY GAP RD ALBANY, KY 42602	027-00 00 030.01	DB 110 PG 418
7	ALBERTSON TJM & LISA	101 POPLAR DR ALBANY, KY 42602	027-00 00 026.06	DG 159 PG 163
8	HAY PERRY & ANITA	27 CANEY GAP RD ALBANY, KY 42602	027-00 00 031.00	-
9	GLOVER WAYNE & ROBIN RENEE	583 CANEY GAP RD ALBANY, KY 42602	035-00 00 005.02	-

- NOTE:
1. PVA INFORMATION WAS OBTAINED ON 3/28/2022 FROM THE OFFICIAL RECORDS OF THE COUNTY'S PROPERTY VALUATION ADMINISTRATOR.
 2. THIS MAP IS FOR GENERAL INFORMATION PURPOSES ONLY AND IS NOT A BOUNDARY SURVEY.
 3. NOT FOR RECORDING OR PROPERTY TRANSFER.



HARMONI TOWERS
SEMINARY /
SNOW RELO
FA# 15435110/10124681
PACH# MRTNK052216
PT# 2457A/INDC2
(PROPERTY) 3723 N
US HWY 127
ALBANY, KY 42602
CLANTON COUNTY
PROPOSED 255 SELF-SUPPORT TOWER

PROJECT NO. C-1.0
CHECKED BY: MAX

REV	DATE	DRN	DESCRIPTION
0	02/21/22	MS	Final
1	03/20/22	DS	Final
2	05/25/22	DS	Final

B&T ENGINEERING, INC
4011
Expires 12/31/22



THIS IS A REVISION OF THE ORIGINAL DESIGN AND SHALL BE UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER. TO ALTER THE DOCUMENT.

500' RADIUS &
ADJOINER'S
DRAWING

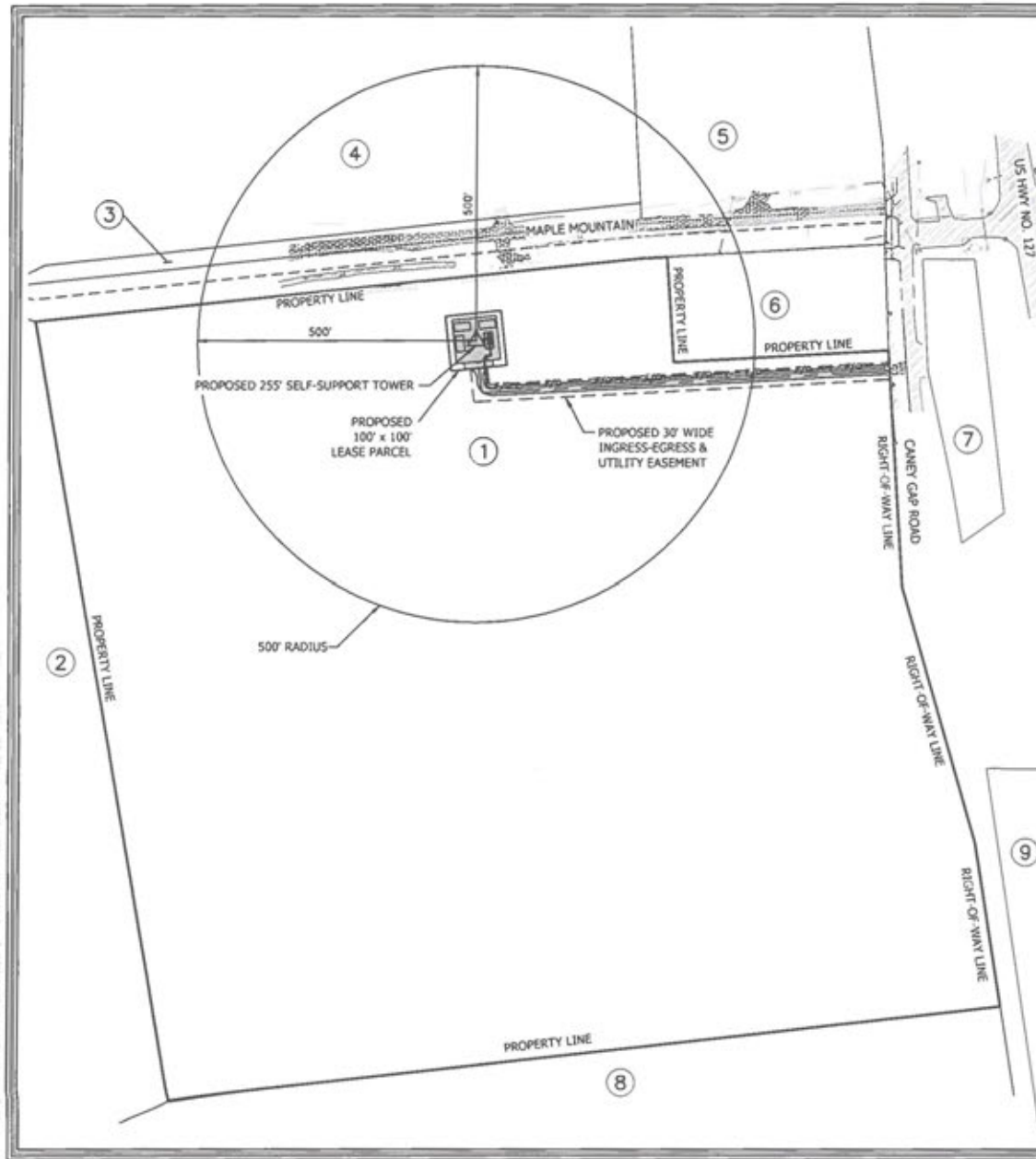
SHEET NUMBER
C-1.0

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



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





#	OWNER	ADDRESS	PID	REF
1	CRAFT DANNY F & CHRISTELL	375 CANEY GAP RD ALBANY, KY 42602	027-00 00 030.00	DB 152 PG 776
2	ALBANY FARMS, LLC	9788 CEMETERY RD BOWLING GREEN, KY 42103	027-00 00 033.00	DB 143 PG 644
3	ALBANY FARMS, LLC	9788 CEMETERY RD BOWLING GREEN, KY 42103	027-00 00 033.00	DB 143 PG 644
4	ALBANY FARMS, LLC	9788 CEMETERY RD BOWLING GREEN, KY 42103	027-00 00 033.00	DB 146 PG 36
5	ALBANY FARMS, LLC	9788 CEMETERY RD BOWLING GREEN, KY 42103	027-00 00 029.00	DB 160 PG 23
6	GLOVER WAYNE & RENEE	583 CANEY GAP RD ALBANY, KY 42602	027-00 00 030.01	DB 110 PG 418
7	ALBERTSON TIM & LISA	101 POPLAR DR ALBANY, KY 42602	027-00 00 026.06	DG 159 PG 163
8	HAY PERRY & ANITA	27 CANEY GAP RD ALBANY, KY 42602	027-00 00 031.00	-
9	GLOVER WAYNE & ROBIN RENEE	583 CANEY GAP RD ALBANY, KY 42602	035-00 00 005.02	-

NOTE:

1. PVA INFORMATION WAS OBTAINED ON 3/28/2022 FROM THE OFFICIAL RECORDS OF THE COUNTY'S PROPERTY VALUATION ADMINISTRATOR.
2. THIS MAP IS FOR GENERAL INFORMATION PURPOSES ONLY AND IS NOT A BOUNDARY SURVEY.
3. NOT FOR RECORDING OR PROPERTY TRANSFER.



HARMONI

HARMONI TOWERS / SEMINARY / SNOW RELO
 FAW 15435110/10124681
 PACT# MRTNK052246
 PTH 2457A0ND0C2
 (PROPERTY) 3723 N
 US HWY 127
 ALBANY, KY 42602
 CLANTON COUNTY
 PROPOSED 255' SELF-SUPPORT TOWER

PROJECT NO: C-1.1-16-16-16-16
 CHECKED BY: MAS

REV	DATE	BY	DESCRIPTION
0	02/21/22	MAS	FINAL
1	03/20/22	DLS	FINAL
2	05/23/22	DLS	FINAL

B&T ENGINEERING, INC.
 4011
 Expires 12/31/22



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-1.1

1 OVERALL ADJOINER'S DRAWING
 SCALE: 1" = 200'



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



C:\Users\mas\AppData\Local\Temp\10124681\10124681.dwg - 10124681.dwg - 05/23/2022 10:00:00 AM - 10124681.dwg

**EXHIBIT M
COPY OF POSTED NOTICES
AND NEWSPAPER NOTICE ADVERTISEMENT**

SITE NAME: SEMINARY / SNOW RELO
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 2022-00211 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 2022-00211 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: (606) 387-5144
VIA FAX (606) 387-7949
VIA EMAIL: gpcompany@kih.net

The Clinton County News
116 Washington Street
PO Box 360
Albany, KY 46202-1302

RE: Legal Notice Advertisement
Site Name: Seminary / Snow Relo

Dear Staff:

Please publish the following legal notice advertisement in the next edition of *The Clinton County 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 near 3723 N US Hwy 127, Albany, KY 42602 (E-911) / 3723 N US Hwy 127, Albany, KY 42602 (PARCEL) (36° 44' 26.30" North latitude, 85° 08' 17.45" 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 2022-00211 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,
Robert W. Grant
Pike Legal Group, PLLC

EXHIBIT N
COPY OF RADIO FREQUENCY DESIGN SEARCH AREA

