

FEB 15 2018

PUBLIC SERVICE
COMMISSION

**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)	
FOR ISSUANCE OF A CERTIFICATE OF PUBLIC)	CASE NO.: 2018-00060
CONVENIENCE AND NECESSITY TO CONSTRUCT)	
A WIRELESS COMMUNICATIONS FACILITY)	
IN THE COMMONWEALTH OF KENTUCKY)	
IN THE COUNTY OF POWELL)	

SITE NAME: HARDWICK CREEK

* * * * *

**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 ("Applicant"), by counsel, pursuant to (i) KRS §§ 278.020, 278.040, 278.650, 278.665, and other statutory authority, and the rules and regulations applicable thereto, and (ii) the Telecommunications Act of 1996, respectfully submits this Application requesting issuance of a Certificate of Public Convenience and Necessity ("CPCN") from the Kentucky Public Service Commission ("PSC") to construct, maintain, and operate a Wireless Communications Facility ("WCF") to serve the customers of the Applicant with wireless communications services.

In support of this Application, Applicant respectfully provides and states the following information:

1. The complete name and address of the Applicant: New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility, having a local address of Meidinger Tower, 462 S. 4th Street, Suite 2400, Louisville, Kentucky 40202.

2. Applicant proposes construction of an antenna tower for communications services, which is to be located in an area outside the jurisdiction of a planning commission, and Applicant submits 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. The Certificate of Authority filed with the Kentucky Secretary of State for the Applicant entity was attached to a prior application and is part of the case record for PSC case number 2011-00473 and is hereby incorporated by reference.

4. The Applicant operates on frequencies licensed by the Federal Communications Commission ("FCC") pursuant to applicable FCC requirements. A copy of the Applicant'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.

5. The public convenience and necessity require the construction of the proposed WCF. The construction of the WCF will bring or improve the Applicant's services to an area currently not served or not adequately served by the Applicant 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 the Applicant'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 the Applicant's network design that must be in place to provide adequate coverage to the service area.

6. To address the above-described service needs, Applicant proposes to construct a WCF at 315 Hilltop Road, Clay City, Kentucky (37°48'22.80" North latitude, 83°54'55.65" 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 Jennifer Shepherd, pursuant to a Deed recorded at Deed Book 187, Page 505 in the office of the County Clerk. The proposed WCF will consist of a 195-foot tall tower, with an approximately 4-foot tall lightning arrestor attached at the top, for a total height of 199-feet. The WCF will also include concrete foundations and a shelter or cabinets to accommodate the placement of the Applicant's radio electronics equipment and appurtenant equipment. The Applicant's equipment cabinet or shelter will be approved for use in the Commonwealth of Kentucky by the relevant building inspector. The WCF compound will be fenced and all access gate(s) will be secured. A description of the manner in which the proposed WCF will be constructed is attached as **Exhibit B** and **Exhibit C**.

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

8. The site development plan and a vertical profile sketch of the WCF signed and sealed by a professional engineer registered in Kentucky depicting the tower height, as well as a proposed configuration for the antennas of the Applicant has also been included

as part of **Exhibit B**.

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

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

11. A copy of documentation demonstrating that Federal Aviation Administration ("FAA") review is not required is attached as **Exhibit E**.

12. A copy of documentation demonstrating that Kentucky Airport Zoning Commission ("KAZC") review is not required is attached as **Exhibit F**.

13. 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.

14. 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.

15. Applicant, pursuant to a written agreement, has acquired the right to use the WCF site and associated property rights. A copy of the agreement or an abbreviated agreement recorded with the County Clerk is attached as **Exhibit I**.

16. Personnel directly responsible for the design and construction of the proposed WCF are well qualified and experienced. The tower and foundation drawings for the proposed tower submitted as part of **Exhibit 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.

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

18. 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.

19. **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**.

20. Applicant has 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.

21. Applicant has 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**.

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

23. The general area where the proposed facility is to be located is rural.

24. The process that was used by the Applicant'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. Applicant'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 Applicant when searching for sites for its antennas that would provide the coverage deemed necessary by the Applicant. A map of the area in which the tower is proposed to be located which is drawn to scale and clearly depicts the necessary search area within which the site should be located pursuant to radio frequency requirements is attached as **Exhibit N**.

25. The tower must be located at the proposed location and proposed height to provide necessary service to wireless communications users in the subject area. In addition to expanding and improving voice and data service for AT&T mobile customers, this site will also support deployment of wireless local loop ("WLL") technology in the subject area. As a participant in the FCC's Connect America Fund Phase II (CAF II) program, AT&T is aggressively deploying WLL service infrastructure to bring expanded internet access to residential and business customers in rural and other underserved areas. WLL will support internet access at the high speeds required to use and enjoy the most current business, education and entertainment technologies. Broadband service via

WLL will be delivered from the tower to a dedicated antenna located at the home or business receiving service and will support downloads at 10 Mbps and uploads at 1 Mbps.

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

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

Respectfully submitted,



David A. Pike
Pike Legal Group, PLLC
1578 Highway 44 East, Suite 6
P. O. Box 369
Shepherdsville, KY 40165-0369
Telephone: (502) 955-4400
Telefax: (502) 543-4410
Email: dpike@pikelegal.com
Attorney for New Cingular Wireless PCS, LLC
d/b/a AT&T Mobility

LIST OF EXHIBITS

- A - FCC License Documentation
- B - Site Development Plan:
 - 500' Vicinity Map
 - Legal Descriptions
 - Flood Plain Certification
 - Site Plan
 - Vertical Tower Profile
- C - Tower and Foundation Design
- D - Competing Utilities, Corporations, or Persons List
- E - FAA
- F - Kentucky Airport Zoning Commission
- G - Geotechnical Report
- H - Directions to WCF Site
- I - Copy of Real Estate Agreement
- J - Notification Listing
- K - Copy of Property Owner Notification
- L - Copy of County Judge/Executive Notice
- M - Copy of Posted Notices
- N - Copy of Radio Frequency Design Search Area

EXHIBIT A
FCC LICENSE DOCUMENTATION

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 KNLF251	File Number
Radio Service CW - PCS Broadband	

FCC Registration Number (FRN): 0003291192

Grant Date 06-02-2015	Effective Date 06-13-2017	Expiration Date 06-23-2025	Print Date
Market Number MTA026	Channel Block A	Sub-Market Designator 15	
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.

License renewal granted on a conditional basis, subject to the outcome of FCC proceeding WT Docket No. 10-112 (see FCC 10-86, paras. 113 and 126).

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: KNLF251

File Number:

Print Date:

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.

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 # 0001918512.

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).

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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 KNLH398	File Number
Radio Service CW - PCS Broadband	

FCC Registration Number (FRN): 0003291192

Grant Date 04-14-2017	Effective Date 06-14-2017	Expiration Date 04-28-2027	Print Date
Market Number BTA252	Channel Block D	Sub-Market Designator 0	
Market Name Lexington, KY			
1st Build-out Date 04-28-2002	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.

License renewal granted on a conditional basis, subject to the outcome of FCC proceeding WT Docket No. 10-112 (see FCC 10-86, paras. 113 and 126).

Conditions:

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

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**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 KNKN841	File Number
Radio Service CL - Cellular	
Market Numer CMA452	Channel Block A
Sub-Market Designator 0	

FCC Registration Number (FRN): 0003291192

Market Name Kentucky 10 - Powell
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Grant Date 08-30-2011	Effective Date 06-13-2017	Expiration Date 10-01-2021	Five Yr Build-Out Date	Print Date
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Site Information:

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
5	37-04-39.7 N	082-48-27.8 W	856.5	95.4	1061533

Address: 103 TOWER HILL ROAD (76337)

City: WHITESBURG County: LETCHER State: KY Construction Deadline:

Antenna	Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)		469.200	417.400	315.300	222.000	132.100	356.800	457.700	492.500
Transmitting ERP (watts)		12.022	8.233	13.016	5.482	3.813	0.108	1.481	5.717
Antenna: 2 Azimuth (from true north)		0	45	90	135	180	225	270	315
Antenna Height AAT (meters)		469.200	417.400	315.300	222.000	132.100	356.800	457.700	492.500
Transmitting ERP (watts)		0.497	0.110	0.136	2.162	18.537	40.538	17.478	2.020
Antenna: 3 Azimuth (from true north)		0	45	90	135	180	225	270	315
Antenna Height AAT (meters)		469.200	417.400	315.300	222.000	132.100	356.800	457.700	492.500
Transmitting ERP (watts)		51.423	16.329	8.850	0.158	2.803	14.815	46.596	45.493

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: KNKN841

File Number:

Print Date:

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
7	37-48-18.3 N	083-50-24.1 W	403.3	106.4	1043803

Address: 3690 Furnace Road (76341)

City: STANTON County: POWELL State: KY Construction Deadline:

Antenna: 1 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	239.600	224.300	179.900	162.000	195.500	176.800	262.600	283.200
Transmitting ERP (watts)	13.906	21.652	8.665	5.943	0.123	2.628	9.451	19.854
Antenna: 2 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	239.600	224.300	179.900	162.000	195.500	176.800	262.600	283.200
Transmitting ERP (watts)	0.562	11.483	60.345	87.582	20.025	2.235	0.703	0.268
Antenna: 3 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	239.600	224.300	179.900	162.000	195.500	176.800	262.600	283.200
Transmitting ERP (watts)	1.261	0.189	0.376	1.717	22.517	83.071	60.872	9.440

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
8	37-25-58.7 N	084-00-12.8 W	422.1	96.6	1043802

Address: 1 MILE NW OF MCKEE (76343)

City: MCKEE County: JACKSON State: KY Construction Deadline:

Antenna: 1 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	139.700	155.200	150.500	131.100	145.400	147.600	127.600	123.400
Transmitting ERP (watts)	26.126	93.835	72.381	11.143	1.397	0.214	0.430	1.977
Antenna: 2 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	139.700	155.200	150.500	131.100	145.400	147.600	127.600	123.400
Transmitting ERP (watts)	0.119	1.588	5.852	12.166	8.174	13.032	5.144	3.553
Antenna: 3 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	139.700	155.200	150.500	131.100	145.400	147.600	127.600	123.400
Transmitting ERP (watts)	17.060	5.344	6.326	3.080	2.938	13.608	19.087	18.277

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKN841

File Number:

Print Date:

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
11	37-43-36.1 N	083-56-30.1 W	428.5	105.2	1041588

Address: 1850 Chestnut Stand Road (76344)

City: IRVINE County: ESTILL State: KY Construction Deadline:

Antenna: 1 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	268.100	191.200	185.400	224.200	235.300	293.800	271.800	266.500
Transmitting ERP (watts)	21.827	35.355	13.530	9.226	0.129	4.117	15.601	31.961
Antenna: 2 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	268.100	191.200	185.400	224.200	235.300	293.800	271.800	266.500
Transmitting ERP (watts)	0.672	14.167	72.140	103.407	24.559	2.608	0.888	0.327
Antenna: 3 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	268.100	191.200	185.400	224.200	235.300	293.800	271.800	266.500
Transmitting ERP (watts)	1.492	0.235	0.449	2.041	27.595	98.921	76.583	11.514

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
12	37-22-08.0 N	083-00-10.8 W	529.7	108.2	1043800

Address: 792 AMON FINLEY ROAD (76338)

City: HINDMAN County: KNOTT State: KY Construction Deadline:

Antenna: 1 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	231.800	219.900	201.700	233.100	202.300	239.000	278.600	245.800
Transmitting ERP (watts)	345.918	142.771	15.858	3.731	0.807	1.018	16.311	138.097
Antenna: 2 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	231.800	219.900	201.700	233.100	202.300	239.000	278.600	245.800
Transmitting ERP (watts)	1.551	31.288	164.802	238.390	59.476	6.231	2.030	0.777
Antenna: 3 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	231.800	219.900	201.700	233.100	202.300	239.000	278.600	245.800
Transmitting ERP (watts)	4.316	0.653	1.244	5.580	75.771	271.432	209.105	33.455

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKN841

File Number:

Print Date:

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
13	37-44-34.1 N	083-32-43.4 W	360.0	86.6	1043799

Address: 1726 KY 746 (76340)

City: CAMPTON County: WOLFE State: KY Construction Deadline:

Antenna: 1 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	105.200	129.700	112.600	121.800	158.600	129.600	97.300	142.500
Transmitting ERP (watts)	113.535	44.045	5.001	1.193	0.243	0.337	5.446	43.123
Antenna: 2 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	105.200	129.700	112.600	121.800	158.600	129.600	97.300	142.500
Transmitting ERP (watts)	0.641	12.645	67.380	97.109	22.543	2.584	0.854	0.294
Antenna: 3 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	105.200	129.700	112.600	121.800	158.600	129.600	97.300	142.500
Transmitting ERP (watts)	0.787	0.112	0.226	1.022	13.467	50.517	39.258	5.570

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
14	37-45-19.1 N	083-20-19.6 W	362.7	93.9	1058724

Address: 929 LEE CITY ROAD (76347)

City: LEE CITY County: WOLFE State: KY Construction Deadline:

Antenna: 1 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	160.500	126.900	136.400	100.600	123.400	127.200	118.400	134.900
Transmitting ERP (watts)	105.412	44.973	4.744	1.221	0.238	0.320	5.172	42.213
Antenna: 2 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	160.500	126.900	136.400	100.600	123.400	127.200	118.400	134.900
Transmitting ERP (watts)	0.595	12.504	63.904	97.920	22.073	2.452	0.810	0.293
Antenna: 3 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	160.500	126.900	136.400	100.600	123.400	127.200	118.400	134.900
Transmitting ERP (watts)	1.345	0.215	0.399	1.899	24.230	89.305	69.406	10.402

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKN841

File Number:

Print Date:

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
15	37-11-21.8 N	083-10-57.4 W	577.6	156.1	1204858

Address: 2620 FOURSEAM BUFFALO ROAD (76349)

City: Hazard County: PERRY State: KY Construction Deadline:

Antenna: 1 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	361.100	304.700	308.200	300.700	255.900	299.100	341.500	375.800
Transmitting ERP (watts)	120.607	50.344	5.408	1.326	0.280	0.356	5.726	47.544
Antenna: 2 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	361.100	304.700	308.200	300.700	255.900	299.100	341.500	375.800
Transmitting ERP (watts)	1.079	22.080	114.046	169.090	41.240	4.315	1.412	0.525
Antenna: 3 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	361.100	304.700	308.200	300.700	255.900	299.100	341.500	375.800
Transmitting ERP (watts)	1.561	0.241	0.451	2.076	27.836	99.507	76.454	11.774

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
16	37-12-40.4 N	082-36-36.9 W	716.0	128.0	1222747

Address: 699 LINRAN DRIVE (76350)

City: JENKINS County: LETCHER State: KY Construction Deadline:

Antenna: 1 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	449.600	258.900	252.200	271.800	242.200	295.700	300.600	326.500
Transmitting ERP (watts)	0.562	0.658	0.841	0.365	0.110	0.096	0.097	0.214
Antenna: 2 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	449.600	258.900	252.200	271.800	242.200	295.700	300.600	326.500
Transmitting ERP (watts)	0.390	0.116	0.125	0.832	9.565	30.462	19.683	2.648
Antenna: 3 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	449.600	258.900	252.200	271.800	242.200	295.700	300.600	326.500
Transmitting ERP (watts)	48.868	7.353	1.008	0.183	0.318	2.103	23.291	76.831

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKN841

File Number:

Print Date:

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
17	37-25-28.5 N	082-56-07.1 W	514.8	93.0	1246019

Address: 6068 EAST HIGHWAY 80 (80850)

City: Hindman County: KNOTT State: KY Construction Deadline:

Antenna: 1 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	232.300	300.300	246.700	186.200	173.800	220.100	214.400	203.300
Transmitting ERP (watts)	93.499	72.680	16.930	6.754	0.249	1.848	15.549	67.492
Antenna: 2 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	232.300	300.300	246.700	186.200	173.800	220.100	214.400	203.300
Transmitting ERP (watts)	2.853	28.250	86.426	109.267	48.855	9.880	5.119	1.857
Antenna: 3 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	232.300	300.300	246.700	186.200	173.800	220.100	214.400	203.300
Transmitting ERP (watts)	6.962	1.659	2.458	7.317	48.522	94.690	98.650	28.609

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
18	37-24-06.7 N	083-54-56.1 W	400.2	93.0	1252879

Address: 664 STATE ROAD 1071 (86076)

City: MCKEE County: JACKSON State: KY Construction Deadline:

Antenna: 1 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	182.900	174.200	158.700	146.400	115.600	116.900	95.600	99.100
Transmitting ERP (watts)	59.149	48.638	10.534	4.195	0.155	1.251	10.442	44.296
Antenna: 2 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	182.900	174.200	158.700	146.400	115.600	116.900	95.600	99.100
Transmitting ERP (watts)	2.874	30.589	89.034	109.683	50.425	10.217	5.307	1.868
Antenna: 3 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	182.900	174.200	158.700	146.400	115.600	116.900	95.600	99.100
Transmitting ERP (watts)	4.331	3.245	3.900	5.785	17.854	17.299	21.960	12.442

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKN841

File Number:

Print Date:

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
19	37-39-54.7 N	083-57-20.9 W	415.1	62.2	1272311

Address: 698 Little Doe Creek Road (109702)

City: Estill County: ESTILL State: KY Construction Deadline:

Antenna: 1 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	189.600	137.300	216.800	140.600	175.000	209.200	242.000	246.700
Transmitting ERP (watts)	147.672	98.700	12.008	4.052	0.328	0.354	9.692	72.782
Antenna: 2 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	189.600	137.300	216.800	140.600	175.000	209.200	242.000	246.700
Transmitting ERP (watts)	0.502	21.583	90.846	147.900	51.365	5.484	1.333	0.318
Antenna: 3 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	189.600	137.300	216.800	140.600	175.000	209.200	242.000	246.700
Transmitting ERP (watts)	8.223	1.146	0.387	4.798	55.608	132.151	134.692	33.348

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
20	37-54-33.3 N	083-55-30.3 W	431.9	78.6	1245218

Address: 2271B BLACK CREEK ROAD (76353)

City: CLAY County: POWELL State: KY Construction Deadline:

Antenna: 1 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	225.200	233.700	158.700	270.200	295.200	285.300	261.400	231.600
Transmitting ERP (watts)	0.138	2.791	14.890	20.205	4.916	0.538	0.179	0.103

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
21	37-14-49.4 N	083-19-33.9 W	432.8	93.6	1272180

Address: Dogwood Ln (106520)

City: Busy County: PERRY State: KY Construction Deadline:

Antenna: 1 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	172.100	163.400	158.200	101.100	131.500	140.000	142.300	199.400
Transmitting ERP (watts)	155.239	65.080	4.886	0.516	0.312	0.310	9.765	73.998
Antenna: 2 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	172.100	163.400	158.200	101.100	131.500	140.000	142.300	199.400
Transmitting ERP (watts)	1.558	22.222	110.717	145.006	30.764	1.939	0.302	0.269

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKN841

File Number:

Print Date:

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
21	37-14-49.4 N	083-19-33.9 W	432.8	93.6	1272180

Address: Dogwood Ln (106520)

City: Busy County: PERRY State: KY Construction Deadline:

Antenna: 3 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	172.100	163.400	158.200	101.100	131.500	140.000	142.300	199.400
Transmitting ERP (watts)	1.049	0.313	0.291	4.476	43.772	139.964	106.333	12.797

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
22	37-10-34.0 N	082-53-47.0 W	576.1	123.4	1252950

Address: 1125 ARTHURS LOOP(85581)

City: Isom County: LETCHER State: KY Construction Deadline:

Antenna: 1 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	235.200	224.500	218.400	188.600	210.000	292.300	197.500	250.000
Transmitting ERP (watts)	197.029	81.390	8.984	2.219	0.445	0.571	9.626	76.319
Antenna: 2 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	235.200	224.500	218.400	188.600	210.000	292.300	197.500	250.000
Transmitting ERP (watts)	0.557	11.226	58.900	88.634	20.717	2.200	0.784	0.268
Antenna: 3 Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	235.200	224.500	218.400	188.600	210.000	292.300	197.500	250.000
Transmitting ERP (watts)	2.584	0.390	0.738	3.418	44.259	159.691	132.673	19.036

Control Points:

Control Pt. No. 1

Address: 1650 Lyndon Farms Court

City: LOUISVILLE County: State: KY Telephone Number: (502)329-4700

Waivers/Conditions:

License renewal granted on a conditional basis, subject to the outcome of FCC proceeding WT Docket No. 10-112 (see FCC 10-86, paras. 113 and 126).

WE MAKE NO FINDING IN THESE CASES CONCERNING THE ISSUES RAISED IN FOOTNOTE 3 OF LA STAR CELLULAR TELEPHONE COMPANY, 7 FCC Rcd 3762 (1992). THEREFORE, THESE GRANTS OF TRANSFERS/ASSIGNMENTS ARE CONDITIONED ON ANY SUBSEQUENT ACTION THE COMMISSION MAY TAKE C

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKN841

File Number:

Print Date:

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).

Reference Copy

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 WPOI255	File Number
Radio Service CW - PCS Broadband	

FCC Registration Number (FRN): 0003291192

Grant Date 05-27-2015	Effective Date 06-14-2017	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.

License renewal granted on a conditional basis, subject to the outcome of FCC proceeding WT Docket No. 10-112 (see FCC 10-86, paras. 113 and 126).

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 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.

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).



Federal Communications Commission
Wireless Telecommunications Bureau

Spectrum Leasing Arrangement

ATTN: REGINALD YOUNGBLOOD
NEW CINGULAR WIRELESS PCS LLC
3300 E RENNER ROAD, B3132
RICHARDSON, TX 75082

Date: 02/09/2018
Reference Number:

This approval allows the Lessee to lease spectrum from the Licensee pursuant to the provisions and requirements of Subpart X of Part 1 of the Commission's Rules, 47 C.F.R. Part 1, and as described in the associated spectrum leasing application or notification.

Type of Lease Arrangement	Lease Term	Lease Identifier
Spectrum Manager Lease	Short Term	L000019467

Lease Grant/Accepted Date	Lease Commencement Date	Lease Expiration Date
06/01/2016	03/30/2016	03/30/2017

Call Sign	Radio Service
WQD1527	CW - PCS Broadband

Lessee Information

0003291192
NEW CINGULAR WIRELESS PCS LLC
Attn: REGINALD YOUNGBLOOD
3300 E RENNER ROAD, B3132
RICHARDSON, TX 75082

Licensee Information

0003290673
CELLCO PARTNERSHIP
Attn: REGULATORY
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

Geographically-Licensed Services		
Market Number	Market Name	Channel Block
BTA252	Lexington, KY	C

Condition:
 This lease may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum associated with this leasing agreement, 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.

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.

EXHIBIT B

SITE DEVELOPMENT PLAN:

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

PROPOSED LEASE AREA

ALL THAT TRACT OR PARCEL OF LAND LYING IN THE COUNTY OF POWELL, STATE OF KENTUCKY, CONSISTING OF A 80 FEET BY 80 FEET LEASE AREA, COMMENCING AT A FOUND IRON PIPE, THAT IS 1,480 FEET SOUTHWESTERLY OF THE INTERSECTION OF (KY1057) HARDWICKS CREEK ROAD AND HILLTOP ROAD, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THENCE NORTH 35 DEGREES 46 MINUTES 14 SECONDS WEST, A DISTANCE OF 164.39 FEET TO THE POINT OF BEGINNING;
 THENCE NORTH 81 DEGREES 06 MINUTES 35 SECONDS WEST, A DISTANCE OF 80.00 FEET;
 THENCE NORTH 08 DEGREES 53 MINUTES 25 SECONDS EAST, A DISTANCE OF 80.00 FEET;
 THENCE SOUTH 81 DEGREES 06 MINUTES 35 SECONDS EAST, A DISTANCE OF 80.00 FEET;
 THENCE SOUTH 08 DEGREES 53 MINUTES 25 SECONDS WEST, A DISTANCE OF 80.00 FEET TO THE POINT OF BEGINNING.

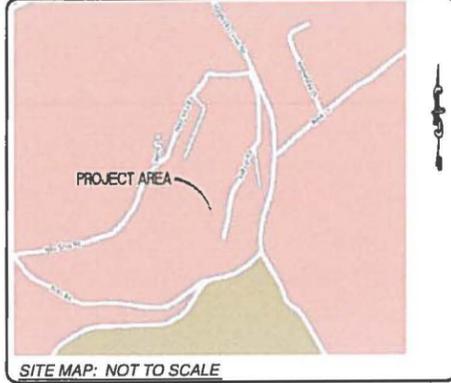
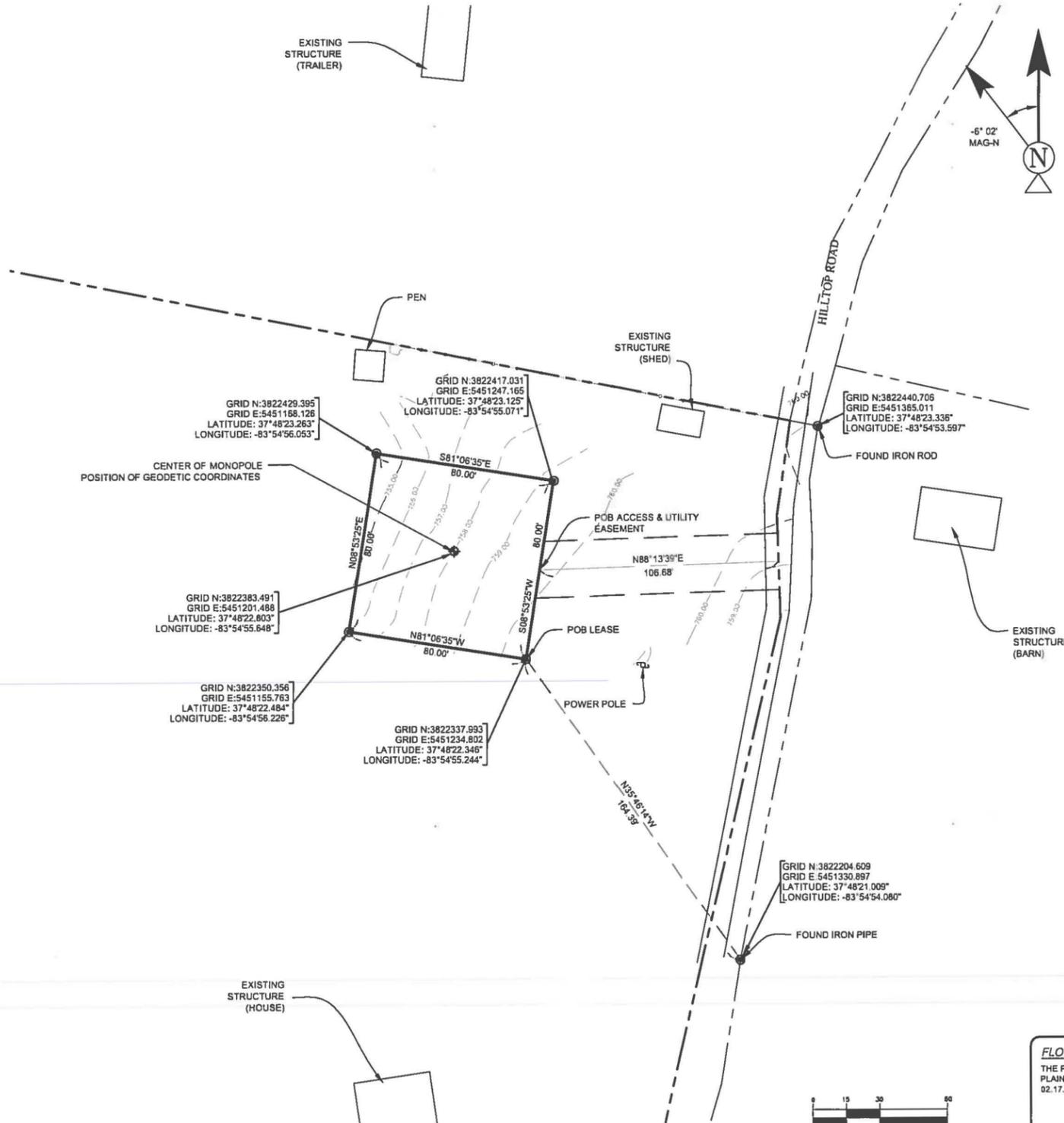
6,400 SQUARE FEET OR 0.1469 ACRES, MORE OR LESS

PROPOSED ACCESS & UTILITY EASEMENT

ALL THAT TRACT OR PARCEL OF LAND LYING IN THE COUNTY OF POWELL, STATE OF KENTUCKY, CONSISTING OF A 25 FEET WIDE ACCESS AND UTILITY EASEMENT COMMENCING AT A FOUND IRON PIPE, THAT IS 1,480 FEET SOUTHWESTERLY OF THE INTERSECTION OF (KY1057) HARDWICKS CREEK ROAD AND HILLTOP ROAD, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THENCE NORTH 35 DEGREES 46 MINUTES 14 SECONDS WEST, A DISTANCE OF 164.39 FEET TO THE POINT OF BEGINNING OF A 25 FEET WIDE ACCESS AND UTILITY EASEMENT LYING 12.50 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE;

THENCE NORTH 88 DEGREES 13 MINUTES 39 SECONDS EAST, A DISTANCE OF 106.68 FEET TO THE POINT OF TERMINUS.



BENCHMARK
 ELEVATION ESTABLISHED FROM GPS OBSERVATIONS CONSTRAINED TO OPUS SOLUTIONS, APPLYING GEOID 12A SEPARATIONS NAVD88 DATUM.

BASIS OF BEARINGS
 BEARINGS SHOWN HEREON ARE BASED UPON U.S. STATE PLANE NAD83 COORDINATE SYSTEM KENTUCKY SINGLE ZONE US FOOT, DETERMINED BY GPS OBSERVATIONS, COMPLETED ON 3.9.17

UTILITY NOTES
 SURVEYOR DOES NOT GUARANTEE THAT ALL UTILITIES ARE SHOWN OR THEIR LOCATIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND DEVELOPER TO CONTACT LOCAL 811 AND ANY OTHER INVOLVED AGENCIES TO LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION. REMOVAL, RELOCATION AND/OR REPLACEMENT IS THE RESPONSIBILITY OF THE CONTRACTOR.

SURVEYOR NOTES
 NO SEARCH OF PUBLIC RECORDS HAS BEEN COMPLETED TO DETERMINE ANY DEFECTS AND/OR AMBIGUITIES IN THE TITLE OF THE PARENT PARCEL.

THIS SURVEY IS FOR THE PROPOSED LEASE AREA AND THE PROPOSED ACCESS AND UTILITY EASEMENT ONLY, AND ONLY A PARTIAL BOUNDARY SURVEY OF THE PARENT TRACT HAS BEEN PERFORMED.

THIS PROPERTY IS SUBJECT TO ANY RECORD EASEMENTS AND/OR RIGHT OF WAY SHOWN HEREON OR NOT.

THIS SURVEY IS NOT INTENDED FOR LAND TRANSFER.

SURVEYOR HAS NOT PERFORMED A SEARCH OF PUBLIC RECORDS TO DETERMINE ANY DEFECT IN TITLE ISSUED. THE BOUNDARY SHOWN HEREON IS PLOTTED FROM RECORD INFORMATION AND DOES NOT CONSTITUTE A BOUNDARY SURVEY OF THE PROPERTY.

THIS SURVEY PLAN WAS PERFORMED UNDER THE AUTHORITY OF KENTUCKY REVISED STATUTES (201 KAR 18, 150), AND IS NOT TO BE CONSIDERED A GENERAL PROPERTY BOUNDARY SURVEY AS DEFINED WITH KENTUCKY REVISED STATUTES. DIMENSIONS (IF SHOWN) ALONG THE PERIMETER OF THE LANDOWNER'S PROPERTY ARE PROVIDED UNDER THIS SURVEYOR'S SCOPE OF SERVICES WITH AT&T AND ARE TO BE CONSIDERED FOR REFERENCE ONLY. THE EXACT LOCATION OF THE LANDOWNER'S PROPERTY MAY DIFFER UPON THE PREPARATION OF A FULL BOUNDARY SURVEY IN ACCORDANCE WITH THE REQUIREMENTS ESTABLISHED BY THE STATE OF KENTUCKY.

THIS SURVEY WAS PERFORMED WITH A TRIMBLE R8 DUAL FREQUENCY, REAL TIME KINEMATIC GLOBAL POSITIONING SYSTEM ROVER AND BASE STATION 4531154139 & 4624117200 SERIAL NUMBERS. REDUNDANT AND REPETITIVE MEASUREMENTS WERE TAKEN TO INSURE CORRECT POSITIONS OF ALL DATA POINTS. A TOLERANCE OF 0.04' FOR POSITIONAL ACCURACY.



DRAWN BY: MD
 CHECKED BY: JC/ACR

REV	DATE	DESCRIPTION
A	3.31.17	REVIEW



FA # 13800706
 SITE # KYL06090
 SITE NAME: HARDWICK CREEK
 SITE ADDRESS: 315 HILLTOP ROAD, CLAY CITY, KY, POWELL COUNTY

SHEET TITLE: TOPOGRAPHIC SITE SURVEY

SHEET NUMBER: B-1

SITE INFO
 TAX PARCEL NO: 016-00-00-019.10
 PROPERTY OWNER: JENNIFER SHEPHERD
 SOURCE OF TITLE: 187/505

LAND SURVEYOR'S CERTIFICATE
 I, A. CLAY ROBINSON, HEREBY CERTIFY THAT I AM A LICENSED PROFESSIONAL LAND SURVEYOR LICENSED IN COMPLIANCE WITH THE LAWS OF THE COMMONWEALTH OF KENTUCKY. I FURTHER CERTIFY THAT THIS PLAN AND THE SURVEY ON THE GROUND WERE PERFORMED BY PERSONS UNDER MY DIRECT SUPERVISION, AND THAT THE DIRECTIONAL AND LINEAR MEASUREMENTS BEING WITNESSED BY MONUMENTS SHOWN HEREON ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE. THE "RURAL" SURVEY, AND THE PLAT ON WHICH IT IS BASED, MEETS ALL SPECIFICATION AS STATES IN KAR 201-18-150.

A. Clay Robinson
 DATE: 4.26.17

TITLE REPORT INFO
 REFERENCE IS MADE TO THE TITLE REPORT ORDER #55329-KY1609-5034, ISSUED BY US TITLE SOLUTIONS INSURANCE COMPANY, DATED 09.13.2016. ALL EASEMENTS CONTAINED WITHIN SAID TITLE REPORT AFFECTING THE IMMEDIATE AREA SURROUNDING THE LEASE HAVE BEEN PLOTTED (EXCEPT FOR ROOFTOPS).

SCHEDULE B ITEMS:
 NONE WITHIN PERIOD SEARCHED

FAA COORDINATE POINT (NAD83)
 CENTER OF MONOPOLE
 LATITUDE 37° 48' 22.80" NORTH
 LONGITUDE 83° 54' 55.65" WEST
 ELEVATION 758.0' (NAVD88)

1-A ACCURACY CERTIFICATION
 THE HORIZONTAL ACCURACY OF THE LATITUDE AND LONGITUDE OF THE GEODETIC COORDINATES FALL WITHIN TWENTY (20) FEET. THE ELEVATIONS (NAVD88) OF THE GROUND AND FIXTURES FALL WITHIN THREE (3) FEET.

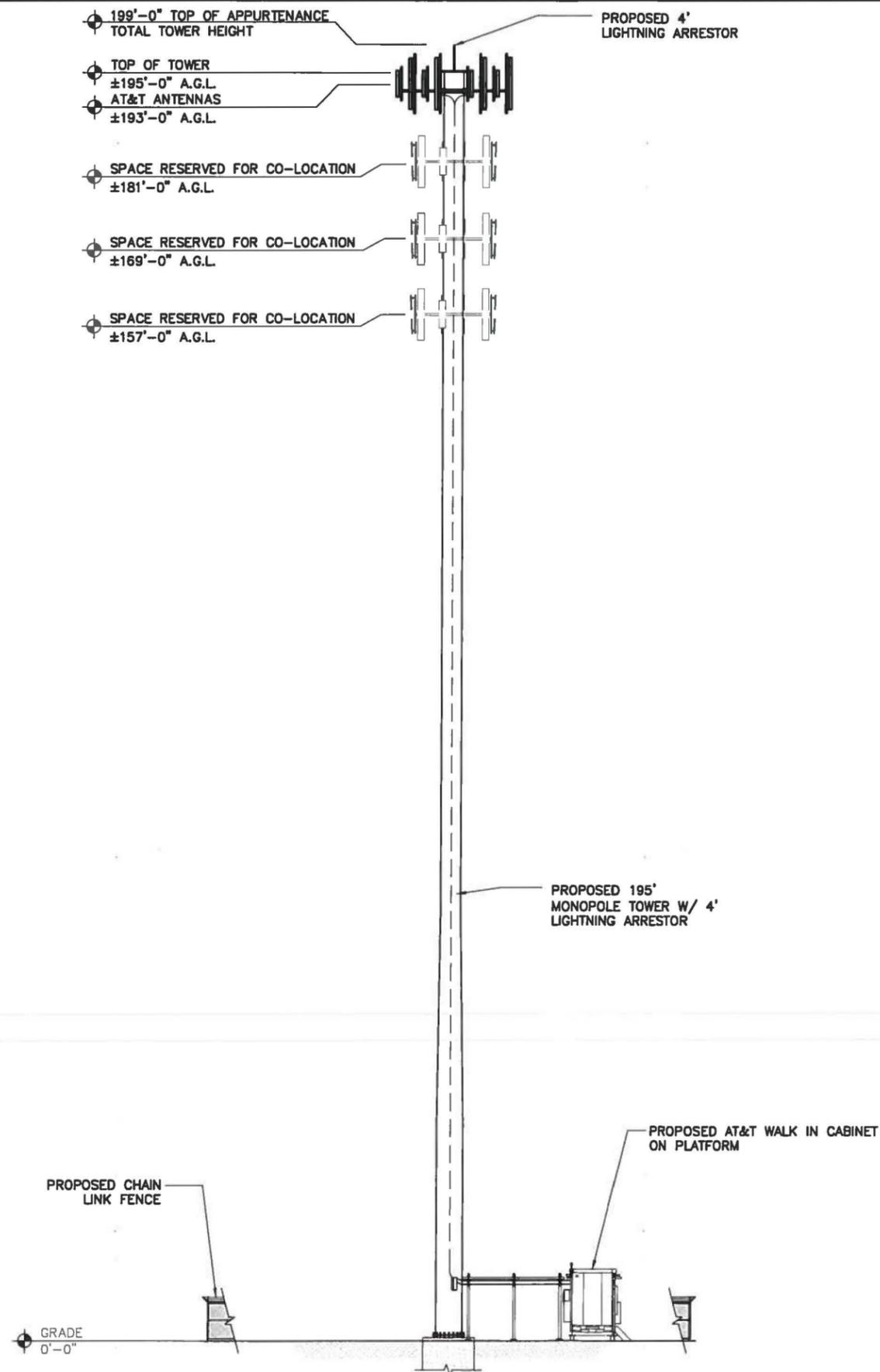


FLOOD INFORMATION
 THE PROPOSED LEASE AREA SHOWN HEREON IS NOT LOCATED IN A 100-YEAR FLOOD PLAIN PER FLOOD HAZARD BOUNDARY MAP, COMMUNITY-PANEL NO. 21197C0150D, DATED 02.17.2010. THE PROPOSED LEASE AREA IS LOCATED IN ZONE 'X'.

LEGEND

POB	POINT OF BEGINNING	SPOT ELEVATION
POT	POINT OF TERMINUS	POSITION OF GEODETIC COORDINATES
PUE	PUBLIC UTILITY EASEMENT	WATER CONTROL VALVE
ROW	RIGHT OF WAY	FIRE HYDRANT
DW	DRIVEWAY	POWER POLE
SW	SIDEWALK	ELECTRIC MANHOLE
⊙	SET 1/2"x24" IR CAPPED: #3219 OR FOUND AS NOTED	TELCO MANHOLE

— OHE — OVERHEAD ELECTRIC
 - - - - - PROPERTY LINE
 ——— BARBED WIRE FENCE



MasTec



IRISH TOWER

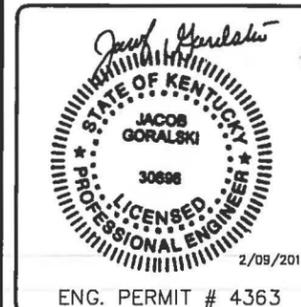
GENERAL CONSTRUCTION | ENGINEERING | PROJECT MANAGEMENT
4603 Bermuda Drive, Sugar Land, TX 77479
Voice: (281) 796-2651 | Fax: (866) 598-3136
irishtower.com

ZONING DRAWINGS
NOT FOR CONSTRUCTION

DRAWN BY: DL

CHECKED BY: JRG

REV	DATE	DESCRIPTION
0	05/10/17	ISSUED FOR ZONING
1	01/30/18	ISSUED FOR ZONING-TD _s
2	02/09/18	ISSUED FOR ZONING-B2



FA #
13800706
SITE #
KYL06090
SITE NAME:
HARDWICK CREEK
SITE ADDRESS:
315 HILLTOP ROAD
CLAY CITY, KY 40312

SHEET TITLE
TOWER ELEVATION

SHEET NUMBER
C-2

EXHIBIT C
TOWER AND FOUNDATION DESIGN



Structural Design Report

195' Monopole

Site: Hardwick Creek, KY

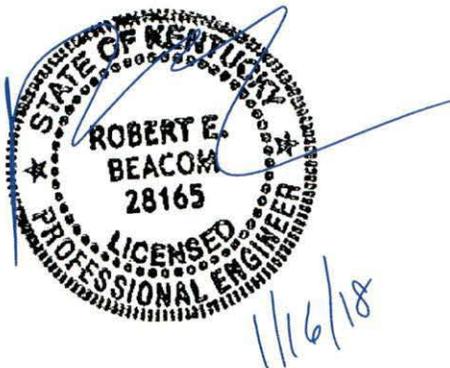
Site Number: KYL06090

Prepared for: AT&T
by: Sabre Towers & Poles™

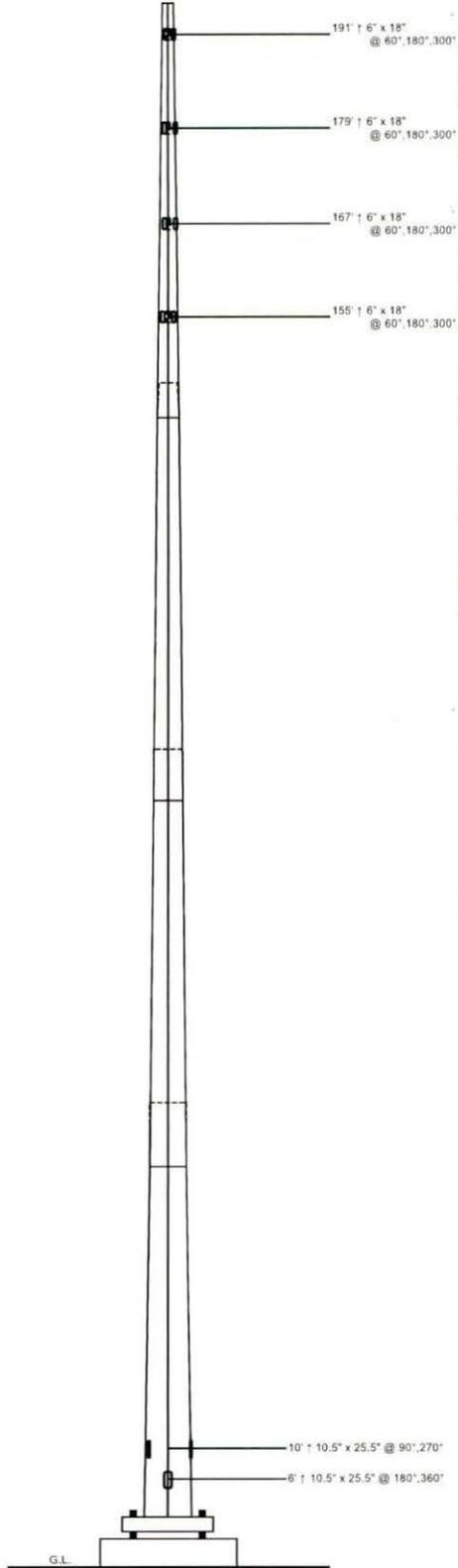
Job Number: 400710

January 16, 2018

Monopole Profile.....	1
Foundation Design Summary (Option 1).....	2
Foundation Design Summary (Option 2).....	3
Pole Calculations.....	4-13
Foundation Calculations.....	14-21



Length (ft)	53'-3"	53'-6"	53'-5"	53'-0"
Number Of Slides	18			
Thickness (in)	1/2"			3/8"
Lap Splice (ft)	8' - 3"			A
Top Diameter (in)	55.46"	43.46"	30.95"	17.75"
Bottom Diameter (in)	70.79"	58.85"	46.33"	32.99"
Taper (in/ft)			0.28759	
Grade		A572-65		
Weight (lbs)	21440	15505	11672	6191
Overall Steel Height (ft)	194			



Designed Appurtenance Loading

Elev	Description	Tx-Line
193	(1) 278 sq. ft. EPA 6000# (no ice)	(18) 1 5/8"
181	(1) 208 sq. ft. EPA 4000# (no ice)	(18) 1 5/8"
169	(1) 208 sq. ft. EPA 4000# (no ice)	(18) 1 5/8"
157	(1) 208 sq. ft. EPA 4000# (no ice)	(18) 1 5/8"

Load Case Reactions

Description	Axial (kips)	Shear (kips)	Moment (ft-k)	Deflection (ft)	Sway (deg)
3s Gusted Wind	95.93	71.07	10615.4	19.49	12.13
3s Gusted Wind 0.9 Dead	71.96	71.03	10395.68	18.96	11.76
3s Gusted Wind&Ice	148.2	11.59	1931.95	3.8	2.32
Service Loads	80.07	18.08	2697.32	5.11	3.13

Base Plate Dimensions

Shape	Diameter	Thickness	Bolt Circle	Bolt Qty	Bolt Diameter
Round	84"	2.5"	78.25"	26	2.25"

Anchor Bolt Dimensions

Length	Diameter	Hole Diameter	Weight	Type	Finish
84"	2.25"	2.625"	3148.6	A615-75	Galv

Material List

Display	Value
A	4' - 6"

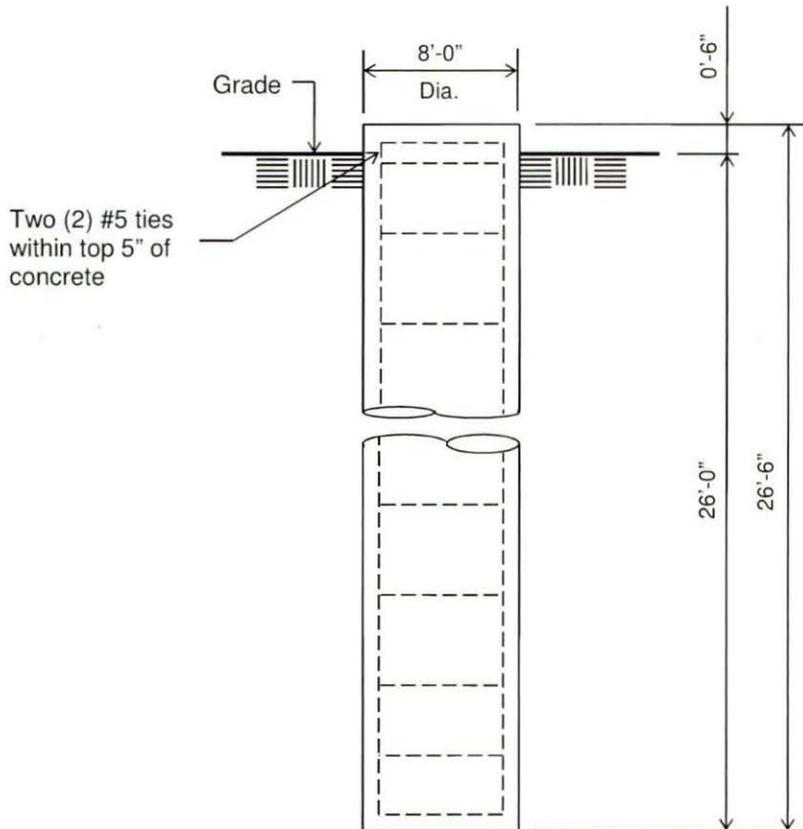
Notes

- 1) Antenna Feed Lines Run Inside Pole
- 2) All dimensions are above ground level, unless otherwise specified.
- 3) Weights shown are estimates. Final weights may vary.
- 4) The Monopole was designed for a basic wind speed of 89 mph with 0" of radial ice, and 30 mph with 3/4" of radial ice, in accordance with ANSI/TIA-222-G, Structure Class II, Exposure Category C, Topographic Category 3, with a Crest Height of 110'.
- 5) The tower design meets the requirements for an Ultimate Wind Speed of 115 mph (Risk Category II), in accordance with the 2012 International Building Code.
- 6) Full Height Step Bolts
- 7) Tower Rating: 99.9%

	Sabre Communications Corporation 7101 Southbridge Drive P.O. Box 658 Sioux City, IA 51102-0658 Phone: (712) 258-6690 Fax: (712) 279-0814	Job: 400710 Customer: AT&T Site Name: Hardwick Creek, KY KYL06090 Description: 195' Monopole Date: 1/16/2018 By: MH
	<small>Information contained herein is the sole property of Sabre Communications Corporation, constitutes a trade secret as defined by Iowa Code Ch. 550 and shall not be reproduced, copied or used in whole or part for any purpose whatsoever without the prior written consent of Sabre Communications Corporation.</small>	

Customer: AT&T
Site: Hardwick Creek, KY KYL06090

195' Monopole at
89 mph Wind with no ice and 30 mph Wind with 0.75 in. Ice per ANSI/TIA-222-G.
Antenna Loading per Page 1



Notes:

- 1) Concrete shall have a minimum 28-day compressive strength of 4,500 psi, in accordance with ACI 318-11.
- 2) Rebar to conform to ASTM specification A615 Grade 60.
- 3) All rebar to have a minimum of 3" concrete cover.
- 4) All exposed concrete corners to be chamfered 3/4".
- 5) The foundation design is based on the geotechnical report by ECS Project No. 26:3125-T1, dated: 12/29/2017
- 6) See the geotechnical report for drilled pier installation requirements, if specified.
- 7) The foundation is based on the following factored loads:
Moment (kip-ft) = 10615.40
Axial (kips) = 95.93
Shear (kips) = 71.07

ELEVATION VIEW

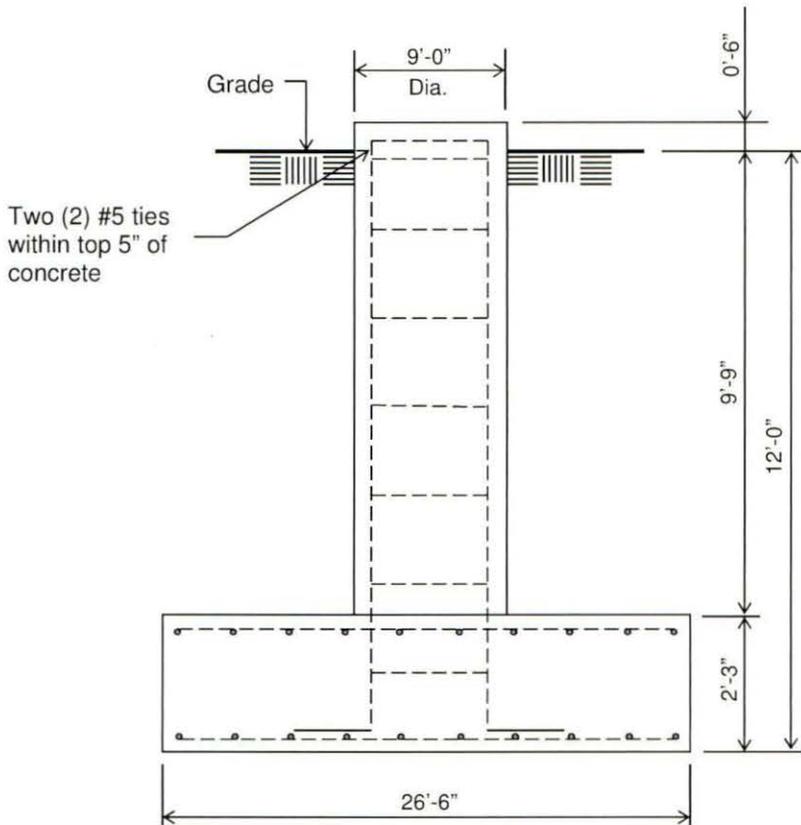
(49.33 Cu. Yds.)

(1 REQUIRED; NOT TO SCALE)

Rebar Schedule for Pier	
Pier	(46) #11 vertical rebar w/ #5 ties, two within top 5" of pier, then 7" C/C

Customer: AT&T
Site: Hardwick Creek, KY KYL06090

195' Monopole at
89 mph Wind with no ice and 30 mph Wind with 0.75 in. Ice per ANSI/TIA-222-G.
Antenna Loading per Page 1



ELEVATION VIEW
(82.67 Cu. Yds.)
(1 REQUIRED; NOT TO SCALE)

Notes:

- 1) Concrete shall have a minimum 28-day compressive strength of 4,500 psi, in accordance with ACI 318-11.
- 2) Rebar to conform to ASTM specification A615 Grade 60.
- 3) All rebar to have a minimum of 3" concrete cover.
- 4) All exposed concrete corners to be chamfered 3/4".
- 5) The foundation design is based on the geotechnical report by ECS Project No. 26:3125-T1, dated: 12/29/2017
- 6) See the geotechnical report for compaction requirements, if specified.
- 7) 9.75 ft of soil cover is required over the entire area of the foundation slab.
- 8) The foundation is based on the following factored loads:
Moment (kip-ft) = 10615.40
Axial (kips) = 95.93
Shear (kips) = 71.07

Rebar Schedule for Pad and Pier	
Pier	(54) #9 vertical rebar w/ hooks at bottom w/ #5 ties, two within top 5" of pier, then 12" C/C
Pad	(61) #9 horizontal rebar evenly spaced each way top and bottom (244 total)

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400710

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 (USA 222-G) - Monopole Spatial Analysis (c)2015 Guymast Inc.
 Tel:(416)736-7453 Fax:(416)736-4372 Web:www.guymast.com

Processed under license at:

Sabre Towers and Poles on: 12 Jan 2018 at: 13:53:05
 =====

195' Monopole / Hardwick Creek, KY

* All pole diameters shown on the following pages are across corners.
 See profile drawing for widths across flats.

POLE GEOMETRY
 =====

ELEV	SECTION	No.	OUTSIDE	THICK	RESISTANCES	SPLICE	..OVERLAP..	w/t
ft	NAME	SIDE	DIAM	-NESS	◆*Pn ◆*Mn	TYPE	LENGTH RATIO	
			in	in	kip ft-kip		ft	
194.0	A	18	18.02	0.375	1536.5 542.0			6.6
			32.18	0.375	2768.9 1776.2			
145.5	A/B	18	32.18	0.375	2768.9 1776.2	SLIP	4.50 1.67	
			32.75	0.500	3743.9 2426.8			
141.0	B	18	32.75	0.500	3743.9 2426.8			9.6
			45.14	0.500	5181.9 4668.5			
98.5	B/C	18	45.14	0.500	5181.9 4668.5	SLIP	6.50 1.72	
			46.05	0.500	5288.0 4862.7			
92.0	C	18	46.05	0.500	5288.0 4862.7			14.2
			57.33	0.500	6398.8 7358.0			
53.2	C/D	18	57.33	0.500	6398.8 7358.0	SLIP	8.25 1.71	
			58.76	0.500	6511.6 7677.0			
45.0	D	18	58.76	0.500	6511.6 7677.0			18.6
			71.88	0.500	7440.510765.7			
0.0								

POLE ASSEMBLY
 =====

SECTION	BASE	BOLTS	AT	BASE	OF SECTION	CALC
NAME	ELEV	NUMBER	TYPE	DIAM	STRENGTH	BASE
	ft			in	ksi	ELEV
						ft
A	141.000	0	A325	0.00	92.0	141.000
B	92.000	0	A325	0.00	92.0	92.000
C	45.000	0	A325	0.00	92.0	45.000
D	0.000	0	A325	0.00	92.0	0.000

POLE SECTIONS
 =====

SECTION	No. of	LENGTH	OUTSIDE	DIAMETER	THICK-	MAT-	FLANGE	FLANGE	WELD
NAME	SIDES	ft	BOT	TOP	NESS	ERIAL	BOT	TOP	..GROUP.ID..
			* in	* in	in	ID			BOT TOP
A	18	53.00	33.50	18.02	0.375	1	0	0	0 0
B	18	53.50	47.05	31.43	0.500	2	0	0	0 0
C	18	53.50	59.76	44.14	0.500	3	0	0	0 0
D	18	53.25	71.88	56.33	0.500	4	0	0	0 0

* - Diameter of circumscribed circle

MATERIAL TYPES
 =====

TYPE OF	TYPE	NO OF	ORIENT	HEIGHT	WIDTH	.THICKNESS.	IRREGULARITY
SHAPE	NO	ELEM.	& deg	in	in	WEB FLANGE	PROJECTION
						in in	% OF ORIENT
							AREA
							deg

400710

PL	1	1	0.0	33.50	0.38	0.375	0.375	0.00	0.0
PL	2	1	0.0	47.05	0.50	0.500	0.500	0.00	0.0
PL	3	1	0.0	59.76	0.50	0.500	0.500	0.00	0.0
PL	4	1	0.0	71.88	0.50	0.500	0.500	0.00	0.0

& - with respect to vertical

MATERIAL PROPERTIES

=====

MATERIAL TYPE NO.	ELASTIC MODULUS ksi	UNIT WEIGHT pcf	.. STRENGTH .. Fu ksi Fy ksi		THERMAL COEFFICIENT /deg
1	29000.0	490.0	80.0	65.0	0.00001170
2	29000.0	490.0	80.0	65.0	0.00001170
3	29000.0	490.0	80.0	65.0	0.00001170
4	29000.0	490.0	80.0	65.0	0.00001170

* Only 3 condition(s) shown in full

* Some concentrated wind loads may have been derived from full-scale wind tunnel testing

LOADING CONDITION A

89 mph wind with no ice. Wind Azimuth: 0°

LOADS ON POLE

=====

LOAD TYPE	ELEV ft	APPLY...RADIUS ft	LOAD..AT AZI	LOAD AZIFORCES.....	MOMENTS.....	
					HORIZ kip	DOWN kip	VERTICAL ft-kip	TORSNAL ft-kip
C	192.000	0.00	0.0	0.0	0.0000	4.3131	0.0000	0.0000
C	192.000	0.00	0.0	0.0	14.1380	7.2000	0.0000	0.0000
C	180.000	0.00	0.0	0.0	0.0000	4.0435	0.0000	0.0000
C	180.000	0.00	0.0	0.0	10.5157	4.8000	0.0000	0.0000
C	168.000	0.00	0.0	0.0	0.0000	3.7740	0.0000	0.0000
C	168.000	0.00	0.0	0.0	10.4629	4.8000	0.0000	0.0000
C	156.000	0.00	0.0	0.0	0.0000	3.5044	0.0000	0.0000
C	156.000	0.00	0.0	0.0	10.4226	4.8000	0.0000	0.0000
D	194.000	0.00	180.0	0.0	0.0560	0.0961	0.0000	0.0000
D	177.833	0.00	180.0	0.0	0.0560	0.0961	0.0000	0.0000
D	177.833	0.00	180.0	0.0	0.0685	0.1184	0.0000	0.0000
D	161.667	0.00	180.0	0.0	0.0685	0.1184	0.0000	0.0000
D	161.667	0.00	180.0	0.0	0.0809	0.1407	0.0000	0.0000
D	145.500	0.00	180.0	0.0	0.0809	0.1407	0.0000	0.0000
D	145.500	0.00	180.0	0.0	0.0889	0.3570	0.0000	0.0000
D	141.000	0.00	180.0	0.0	0.0889	0.3570	0.0000	0.0000
D	141.000	0.00	180.0	0.0	0.0942	0.2193	0.0000	0.0000
D	126.833	0.00	180.0	0.0	0.0942	0.2193	0.0000	0.0000
D	126.833	0.00	180.0	0.0	0.1056	0.2454	0.0000	0.0000
D	112.667	0.00	180.0	0.0	0.1056	0.2454	0.0000	0.0000
D	112.667	0.00	180.0	0.0	0.1176	0.2714	0.0000	0.0000
D	98.500	0.00	180.0	0.0	0.1176	0.2714	0.0000	0.0000
D	98.500	0.00	180.0	0.0	0.1268	0.5754	0.0000	0.0000
D	92.000	0.00	180.0	0.0	0.1268	0.5754	0.0000	0.0000
D	92.000	0.00	180.0	0.0	0.1331	0.3029	0.0000	0.0000
D	79.083	0.00	180.0	0.0	0.1331	0.3029	0.0000	0.0000
D	79.083	0.00	180.0	0.0	0.1461	0.3267	0.0000	0.0000
D	66.167	0.00	180.0	0.0	0.1461	0.3267	0.0000	0.0000
D	66.167	0.00	180.0	0.0	0.1604	0.3505	0.0000	0.0000
D	53.250	0.00	180.0	0.0	0.1604	0.3505	0.0000	0.0000
D	53.250	0.00	180.0	0.0	0.1732	0.7344	0.0000	0.0000
D	45.000	0.00	180.0	0.0	0.1732	0.7344	0.0000	0.0000
D	45.000	0.00	180.0	0.0	0.1825	0.3824	0.0000	0.0000
D	33.750	0.00	180.0	0.0	0.1825	0.3824	0.0000	0.0000
D	33.750	0.00	180.0	0.0	0.1965	0.4032	0.0000	0.0000
D	22.500	0.00	180.0	0.0	0.1965	0.4032	0.0000	0.0000
D	22.500	0.00	180.0	0.0	0.2071	0.4240	0.0000	0.0000
D	11.250	0.00	180.0	0.0	0.2071	0.4240	0.0000	0.0000
D	11.250	0.00	180.0	0.0	0.2369	0.4448	0.0000	0.0000
D	0.000	0.00	180.0	0.0	0.2369	0.4448	0.0000	0.0000

LOADING CONDITION M

89 mph wind with no ice. Wind Azimuth: 0°

LOADS ON POLE

400710

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=====
LOAD TYPE      ELEV  APPLY..LOAD..AT  LOAD  .....FORCES.....  .....MOMENTS.....
                ft    RADIUS  AZI    AZI    HORIZ    DOWN    VERTICAL  TORSNAL
                ft    ft      AZI    AZI    kip      kip     ft-kip   ft-kip
C      192.000    0.00    0.0    0.0    0.0000   3.2348   0.0000   0.0000
C      192.000    0.00    0.0    0.0    14.1380  5.4000   0.0000   0.0000
C      180.000    0.00    0.0    0.0    0.0000   3.0326   0.0000   0.0000
C      180.000    0.00    0.0    0.0    10.5157  3.6000   0.0000   0.0000
C      168.000    0.00    0.0    0.0    0.0000   2.8305   0.0000   0.0000
C      168.000    0.00    0.0    0.0    10.4629  3.6000   0.0000   0.0000
C      156.000    0.00    0.0    0.0    0.0000   2.6283   0.0000   0.0000
C      156.000    0.00    0.0    0.0    10.4226  3.6000   0.0000   0.0000

D      194.000    0.00   180.0  0.0    0.0560   0.0721   0.0000   0.0000
D      177.833    0.00   180.0  0.0    0.0560   0.0721   0.0000   0.0000
D      177.833    0.00   180.0  0.0    0.0685   0.0888   0.0000   0.0000
D      161.667    0.00   180.0  0.0    0.0685   0.0888   0.0000   0.0000
D      161.667    0.00   180.0  0.0    0.0809   0.1055   0.0000   0.0000
D      145.500    0.00   180.0  0.0    0.0809   0.1055   0.0000   0.0000
D      145.500    0.00   180.0  0.0    0.0889   0.2678   0.0000   0.0000
D      141.000    0.00   180.0  0.0    0.0889   0.2678   0.0000   0.0000
D      141.000    0.00   180.0  0.0    0.0942   0.1645   0.0000   0.0000
D      126.833    0.00   180.0  0.0    0.0942   0.1645   0.0000   0.0000
D      126.833    0.00   180.0  0.0    0.1056   0.1840   0.0000   0.0000
D      112.667    0.00   180.0  0.0    0.1056   0.1840   0.0000   0.0000
D      112.667    0.00   180.0  0.0    0.1176   0.2036   0.0000   0.0000
D      98.500     0.00   180.0  0.0    0.1176   0.2036   0.0000   0.0000
D      98.500     0.00   180.0  0.0    0.1268   0.4315   0.0000   0.0000
D      92.000     0.00   180.0  0.0    0.1268   0.4315   0.0000   0.0000
D      92.000     0.00   180.0  0.0    0.1331   0.2271   0.0000   0.0000
D      79.083     0.00   180.0  0.0    0.1331   0.2271   0.0000   0.0000
D      79.083     0.00   180.0  0.0    0.1461   0.2450   0.0000   0.0000
D      66.167     0.00   180.0  0.0    0.1461   0.2450   0.0000   0.0000
D      66.167     0.00   180.0  0.0    0.1604   0.2629   0.0000   0.0000
D      53.250     0.00   180.0  0.0    0.1604   0.2629   0.0000   0.0000
D      53.250     0.00   180.0  0.0    0.1732   0.5508   0.0000   0.0000
D      45.000     0.00   180.0  0.0    0.1732   0.5508   0.0000   0.0000
D      45.000     0.00   180.0  0.0    0.1825   0.2868   0.0000   0.0000
D      33.750     0.00   180.0  0.0    0.1825   0.2868   0.0000   0.0000
D      33.750     0.00   180.0  0.0    0.1965   0.3024   0.0000   0.0000
D      22.500     0.00   180.0  0.0    0.1965   0.3024   0.0000   0.0000
D      22.500     0.00   180.0  0.0    0.2071   0.3180   0.0000   0.0000
D      11.250     0.00   180.0  0.0    0.2071   0.3180   0.0000   0.0000
D      11.250     0.00   180.0  0.0    0.2369   0.3336   0.0000   0.0000
D      0.000      0.00   180.0  0.0    0.2369   0.3336   0.0000   0.0000
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LOADING CONDITION Y

30 mph wind with 0.75 ice. wind Azimuth: 0°

LOADS ON POLE

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LOAD TYPE      ELEV  APPLY..LOAD..AT  LOAD  .....FORCES.....  .....MOMENTS.....
                ft    RADIUS  AZI    AZI    HORIZ    DOWN    VERTICAL  TORSNAL
                ft    ft      AZI    AZI    kip      kip     ft-kip   ft-kip
C      192.000    0.00    0.0    0.0    0.0000   4.3131   0.0000   0.0000
C      192.000    0.00    0.0    0.0    1.7359  18.0575  0.0000   0.0000
C      180.000    0.00    0.0    0.0    0.0000   4.0435   0.0000   0.0000
C      180.000    0.00    0.0    0.0    2.0930  12.0112  0.0000   0.0000
C      168.000    0.00    0.0    0.0    0.0000   3.7740   0.0000   0.0000
C      168.000    0.00    0.0    0.0    2.0777  11.9855  0.0000   0.0000
C      156.000    0.00    0.0    0.0    0.0000   3.5044   0.0000   0.0000
C      156.000    0.00    0.0    0.0    2.0654  11.9619  0.0000   0.0000

D      194.000    0.00   180.0  0.0    0.0086   0.1451   0.0000   0.0000
D      177.833    0.00   180.0  0.0    0.0086   0.1451   0.0000   0.0000
D      177.833    0.00   180.0  0.0    0.0103   0.1775   0.0000   0.0000
D      161.667    0.00   180.0  0.0    0.0103   0.1775   0.0000   0.0000
D      161.667    0.00   180.0  0.0    0.0119   0.2098   0.0000   0.0000
D      145.500    0.00   180.0  0.0    0.0119   0.2098   0.0000   0.0000
D      145.500    0.00   180.0  0.0    0.0129   0.4326   0.0000   0.0000
D      141.000    0.00   180.0  0.0    0.0129   0.4326   0.0000   0.0000
D      141.000    0.00   180.0  0.0    0.0136   0.2989   0.0000   0.0000
D      126.833    0.00   180.0  0.0    0.0136   0.2989   0.0000   0.0000
D      126.833    0.00   180.0  0.0    0.0151   0.3338   0.0000   0.0000
D      112.667    0.00   180.0  0.0    0.0151   0.3338   0.0000   0.0000
D      112.667    0.00   180.0  0.0    0.0167   0.3687   0.0000   0.0000
D      98.500     0.00   180.0  0.0    0.0167   0.3687   0.0000   0.0000
D      98.500     0.00   180.0  0.0    0.0179   0.6792   0.0000   0.0000
D      92.000     0.00   180.0  0.0    0.0179   0.6792   0.0000   0.0000
D      92.000     0.00   180.0  0.0    0.0187   0.4107   0.0000   0.0000
D      79.083     0.00   180.0  0.0    0.0187   0.4107   0.0000   0.0000
D      79.083     0.00   180.0  0.0    0.0205   0.4430   0.0000   0.0000
D      66.167     0.00   180.0  0.0    0.0205   0.4430   0.0000   0.0000
=====

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D	66.167	0.00	180.0	0.0	0.0224	0.4754	0.0000	0.0000
D	53.250	0.00	180.0	0.0	0.0224	0.4754	0.0000	0.0000
D	53.250	0.00	180.0	0.0	0.0241	0.8664	0.0000	0.0000
D	45.000	0.00	180.0	0.0	0.0241	0.8664	0.0000	0.0000
D	45.000	0.00	180.0	0.0	0.0253	0.5186	0.0000	0.0000
D	33.750	0.00	180.0	0.0	0.0253	0.5186	0.0000	0.0000
D	33.750	0.00	180.0	0.0	0.0268	0.5476	0.0000	0.0000
D	0.000	0.00	180.0	0.0	0.0321	0.5929	0.0000	0.0000

=====
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=====
 195' Monopole / Hardwick Creek, KY

=====
 MAXIMUM POLE DEFORMATIONS CALCULATED(w.r.t. wind direction)
 =====

MAST ELEV ft	DEFLECTIONS (ft)			ROTATIONS (deg)		
	HORIZONTAL ALONG	ACROSS	DOWN	TILT ALONG	ACROSS	TWIST
194.0	19.49D	0.02U	2.84D	12.13D	0.01U	0.00X
177.8	16.24D	0.02U	2.16D	11.78D	0.01U	0.00X
161.7	13.17D	0.02U	1.55D	10.75D	0.01U	0.00X
145.5	10.42D	0.02U	1.07D	9.31D	0.01U	0.00B
141.0	9.72D	0.01U	0.96D	8.97D	0.01U	0.00B
126.8	7.69D	0.01U	0.66D	7.81D	0.01U	0.00B
112.7	5.93D	0.01U	0.44D	6.69D	0.01U	0.00B
98.5	4.42D	0.01U	0.28D	5.65D	0.01U	0.00B
92.0	3.81D	0.01U	0.22D	5.20D	0.01U	0.00B
79.1	2.75D	0.00U	0.13D	4.29D	0.01U	0.00B
66.2	1.88D	0.00U	0.07D	3.46D	0.01U	0.00B
53.2	1.19D	0.00Q	0.04D	2.69D	0.00U	0.00B
45.0	0.84D	0.00Q	0.02D	2.24D	0.00U	0.00B
33.7	0.46D	0.00Q	0.01D	1.62D	0.00Q	0.00B
22.5	0.20D	0.00Q	0.00D	1.04D	0.00Q	0.00B
11.2	0.05D	0.00Q	0.00A	0.50D	0.00Q	0.00B
0.0	0.00A	0.00A	0.00A	0.00A	0.00A	0.00A

=====
 MAXIMUM POLE FORCES CALCULATED(w.r.t. to wind direction)
 =====

MAST ELEV ft	TOTAL AXIAL kip	SHEAR.w.r.t.WIND.DIR ALONG kip	WIND.DIR ACROSS kip	MOMENT.w.r.t.WIND.DIR ALONG ft-kip	WIND.DIR ACROSS ft-kip	TORSION ft-kip
	194.0	0.02 C	0.00 D	0.00 R	0.01 D	-0.01 R
177.8	40.77 AC	25.54 D	0.00 R	-259.61 L	-0.04 X	-0.06 X
	40.77 AD	25.55 B	-0.01 U	-259.60 A	-0.05 X	-0.06 X
161.7	59.40 AD	37.10 N	-0.01 U	-809.56 A	-0.17 X	-0.20 X
	59.40 AC	37.10 P	0.01 F	-809.55 A	-0.17 X	-0.20 X
145.5	78.25 AC	48.81 P	0.01 F	-1614.30 A	-0.36 X	-0.39 X
	78.25 AJ	49.09 F	-0.19 C	-1614.29 L	-0.48 R	-0.39 X
	80.20 AJ	49.49 F	-0.19 C	-1859.99 E	0.79 C	-0.50 X

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141.0	80.21 AI	49.38 D	-0.15 B	-1859.88 E	-0.79 B	-0.51 X
	84.44 AI	50.70 D	-0.15 B	-2646.32 E	2.24 C	-0.83 X
126.8	84.44 AI	50.76 W	-0.15 N	-2646.26 E	2.26 C	-0.83 X
	89.17 AI	52.24 W	-0.15 N	-3449.35 E	2.71 C	-1.08 X
112.7	89.17 AI	52.22 W	-0.16 T	-3449.30 E	2.70 C	-1.07 X
	94.39 AI	53.88 W	-0.16 T	-4270.65 E	4.62 T	-1.32 X
98.5	94.39 AI	53.94 D	-0.19 N	-4270.71 E	4.50 T	-1.30 X
	98.81 AI	54.76 D	-0.19 N	-4654.47 D	5.68 N	-1.43 X
92.0	98.81 AI	54.83 D	-0.18 B	-4654.32 E	5.62 T	-1.43 X
	104.11 AI	56.54 D	-0.18 B	-5432.49 D	7.16 N	-1.66 B
79.1	104.11 AI	56.44 D	-0.21 Q	-5432.59 D	7.22 N	-1.66 B
	109.83 AI	58.32 D	-0.21 Q	-6226.20 D	-9.35 U	-1.90 B
66.2	109.83 AI	58.34 D	-0.20 Q	-6226.22 D	-9.36 U	-1.90 B
	115.97 AI	60.41 D	-0.20 Q	-7038.27 D	-11.79 U	-2.10 B
53.2	115.97 AI	60.42 D	-0.20 Q	-7038.31 D	-11.78 U	-2.10 B
	123.12 AI	61.84 D	-0.20 Q	-7567.79 D	-13.41 U	-2.21 B
45.0	123.12 AI	61.85 D	-0.17 Q	-7567.88 D	-13.41 U	-2.21 B
	128.95 AI	63.90 D	-0.17 Q	-8304.20 D	-15.13 U	-2.32 B
33.7	128.95 AI	63.88 D	-0.20 B	-8304.21 D	-15.12 U	-2.32 B
	135.20 AI	66.09 D	-0.20 B	-9056.62 D	16.92 Q	-2.40 B
22.5	135.20 AI	66.08 D	-0.19 B	-9056.62 D	16.90 Q	-2.40 B
	141.61 AI	68.41 D	-0.19 B	-9826.31 D	18.82 Q	-2.45 B
11.2	141.61 AI	68.41 D	-0.18 B	-9826.30 D	18.82 Q	-2.45 B
	148.20 AI	71.07 D	-0.18 B	-10615.40 D	20.65 Q	-2.47 B

base	148.20 AI	-71.07 D	0.18 B	10615.40 D	-20.65 Q	2.47 B
reaction						

COMPLIANCE WITH 4.8.2 & 4.5.4
=====

ELEV	AXIAL	BENDING	SHEAR + TORSIONAL	TOTAL	SATISFIED	D/t(w/t)	MAX ALLOWED
ft							
194.00	0.00C	0.00F	0.00D	0.00F	YES	6.58A	45.2
	0.02AC	0.30L	0.03D	0.31L	YES	8.77A	45.2
177.83	0.02AD	0.30A	0.03B	0.31A	YES	8.77A	45.2
	0.03AD	0.63A	0.03B	0.64A	YES	10.96A	45.2
161.67	0.03AC	0.63A	0.03P	0.64A	YES	10.96A	45.2
	0.03AC	0.91A	0.04W	0.92A	YES	13.14A	45.2
145.50	0.02AJ	0.69L	0.03F	0.70L	YES	9.42A	45.2
	0.02AJ	0.73E	0.03F	0.74E	YES	9.87A	45.2
141.00	0.02AI	0.77E	0.03D	0.78E	YES	9.61A	45.2
	0.02AI	0.86E	0.02D	0.87E	YES	11.04A	45.2
126.83	0.02AI	0.86E	0.02W	0.87E	YES	11.04A	45.2
	0.02AI	0.90E	0.02W	0.91E	YES	12.48A	45.2
112.67	0.02AI	0.90E	0.02W	0.91E	YES	12.48A	45.2
	0.02AI	0.91E	0.02W	0.93E	YES	13.92A	45.2
98.50	0.02AI	0.91E	0.02D	0.93E	YES	13.92A	45.2

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92.00	0.02AI	0.92D	0.02D	0.93D	YES	14.58A	45.2
	0.02AI	0.96E	0.02D	0.97E	YES	14.22A	45.2
79.08	0.02AI	0.95D	0.02D	0.96D	YES	15.53A	45.2
	0.02AI	0.95D	0.02W	0.96D	YES	15.53A	45.2
66.17	0.02AI	0.95D	0.02W	0.96D	YES	16.84A	45.2
	0.02AI	0.95D	0.02W	0.96D	YES	16.84A	45.2
53.25	0.02AI	0.96D	0.02W	0.97D	YES	18.15A	45.2
	0.02AI	0.96D	0.02W	0.97D	YES	18.15A	45.2
45.00	0.02AI	0.96D	0.02W	0.97D	YES	18.99A	45.2
	0.02AI	0.99D	0.02W	1.00D	YES	18.64A	45.2
33.75	0.02AI	0.99D	0.02W	1.00D	YES	19.78A	45.2
	0.02AI	0.99D	0.02W	1.00D	YES	19.78A	45.2
22.50	0.02AI	0.99D	0.02W	1.00D	YES	20.92A	45.2
	0.02AI	0.99D	0.02W	1.00D	YES	20.92A	45.2
11.25	0.02AI	0.99D	0.02W	1.00D	YES	22.06A	45.2
	0.02AI	0.99D	0.02B	1.00D	YES	22.06A	45.2
0.00	0.02AI	0.99D	0.02B	1.00D	YES	23.20A	45.2

MAXIMUM LOADS ONTO FOUNDATION(w.r.t. wind direction)

DOWN	SHEAR.w.r.t.WIND.DIR	WIND.DIR	MOMENT.w.r.t.WIND.DIR	WIND.DIR	TORSION
kip	ALONG	ACROSS	ALONG	ACROSS	ft-kip
	kip	kip	ft-kip	ft-kip	
148.20	71.07	-0.18	-10615.40	20.65	-2.47
AI	D	B	D	Q	B

=====
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 =====
 195' Monopole / Hardwick Creek, KY

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

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

LOADING CONDITION A =====
 60 mph wind with no ice. Wind Azimuth: 0°

LOADS ON POLE

LOAD TYPE	ELEV	APPLY..LOAD..AT	LOADFORCES.....MOMENTS.....
	ft	RADIUS	AZI	HORIZ	VERTICAL
		ft		kip	ft-kip
				DOWN	TORSNAL
				kip	ft-kip
C	192.000	0.00	0.0	0.0000	0.0000
C	192.000	0.00	0.0	3.5932	0.0000
C	180.000	0.00	0.0	0.0000	0.0000
C	180.000	0.00	0.0	3.3696	0.0000
C	180.000	0.00	0.0	2.6726	0.0000
C	168.000	0.00	0.0	4.0000	0.0000
C	168.000	0.00	0.0	0.0000	0.0000
C	168.000	0.00	0.0	3.1450	0.0000
C	168.000	0.00	0.0	2.6592	0.0000
C	156.000	0.00	0.0	4.0000	0.0000
				2.9203	0.0000

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C	156.000	0.00	0.0	0.0	2.6490	4.0000	0.0000	0.0000
D	194.000	0.00	180.0	0.0	0.0142	0.0801	0.0000	0.0000
D	177.833	0.00	180.0	0.0	0.0142	0.0801	0.0000	0.0000
D	177.833	0.00	180.0	0.0	0.0174	0.0987	0.0000	0.0000
D	161.667	0.00	180.0	0.0	0.0174	0.0987	0.0000	0.0000
D	161.667	0.00	180.0	0.0	0.0206	0.1172	0.0000	0.0000
D	145.500	0.00	180.0	0.0	0.0206	0.1172	0.0000	0.0000
D	145.500	0.00	180.0	0.0	0.0226	0.2975	0.0000	0.0000
D	141.000	0.00	180.0	0.0	0.0226	0.2975	0.0000	0.0000
D	141.000	0.00	180.0	0.0	0.0239	0.1828	0.0000	0.0000
D	126.833	0.00	180.0	0.0	0.0239	0.1828	0.0000	0.0000
D	126.833	0.00	180.0	0.0	0.0268	0.2045	0.0000	0.0000
D	112.667	0.00	180.0	0.0	0.0268	0.2045	0.0000	0.0000
D	112.667	0.00	180.0	0.0	0.0299	0.2262	0.0000	0.0000
D	98.500	0.00	180.0	0.0	0.0299	0.2262	0.0000	0.0000
D	98.500	0.00	180.0	0.0	0.0322	0.4795	0.0000	0.0000
D	92.000	0.00	180.0	0.0	0.0322	0.4795	0.0000	0.0000
D	92.000	0.00	180.0	0.0	0.0338	0.2524	0.0000	0.0000
D	79.083	0.00	180.0	0.0	0.0338	0.2524	0.0000	0.0000
D	79.083	0.00	180.0	0.0	0.0371	0.2722	0.0000	0.0000
D	66.167	0.00	180.0	0.0	0.0371	0.2722	0.0000	0.0000
D	66.167	0.00	180.0	0.0	0.0408	0.2921	0.0000	0.0000
D	53.250	0.00	180.0	0.0	0.0408	0.2921	0.0000	0.0000
D	53.250	0.00	180.0	0.0	0.0440	0.6120	0.0000	0.0000
D	45.000	0.00	180.0	0.0	0.0440	0.6120	0.0000	0.0000
D	45.000	0.00	180.0	0.0	0.0464	0.3186	0.0000	0.0000
D	33.750	0.00	180.0	0.0	0.0464	0.3186	0.0000	0.0000
D	33.750	0.00	180.0	0.0	0.0499	0.3360	0.0000	0.0000
D	22.500	0.00	180.0	0.0	0.0499	0.3360	0.0000	0.0000
D	22.500	0.00	180.0	0.0	0.0526	0.3533	0.0000	0.0000
D	0.000	0.00	180.0	0.0	0.0602	0.3706	0.0000	0.0000

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MAXIMUM POLE DEFORMATIONS CALCULATED(w.r.t. wind direction)

=====

MAST ELEV ft	DEFLECTIONS (ft).....			ROTATIONS (deg).....		
	HORIZONTAL ALONG	ACROSS	DOWN	TILT ALONG	ACROSS	TWIST
194.0	5.11K	-0.01B	0.20K	3.13K	0.00B	0.00K
177.8	4.23K	-0.01B	0.15K	3.03K	0.00B	0.00K
161.7	3.42K	-0.01B	0.11K	2.76K	0.00B	0.00I
145.5	2.69K	-0.01B	0.07K	2.39K	0.00B	0.00I
141.0	2.51K	0.00B	0.07K	2.30K	0.00B	0.00I
126.8	1.98K	0.00B	0.05K	2.00K	0.00B	0.00I
112.7	1.52K	0.00B	0.03K	1.71K	0.00B	0.00I
98.5	1.13K	0.00B	0.02K	1.44K	0.00B	0.00I
92.0	0.97K	0.00B	0.02K	1.32K	0.00B	0.00I
79.1	0.70K	0.00B	0.01K	1.09K	0.00B	0.00I
66.2	0.48K	0.00B	0.01K	0.88K	0.00B	0.00I
53.2	0.30K	0.00B	0.00K	0.68K	0.00B	0.00I
45.0	0.21K	0.00B	0.00K	0.57K	0.00B	0.00I
33.7	0.12K	0.00B	0.00K	0.41K	0.00B	0.00I
22.5	0.05K	0.00B	0.00K	0.26K	0.00B	0.00I
11.2	0.01K	0.00B	0.00A	0.13K	0.00B	0.00I
0.0	0.00A	0.00A	0.00A	0.00A	0.00A	0.00A

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MAXIMUM POLE FORCES CALCULATED(w.r.t. to wind direction)

=====

MAST ELEV ft	TOTAL AXIAL kip	SHEAR.w.r.t.WIND.DIR		MOMENT.w.r.t.WIND.DIR		TORSION
		ALONG kip	ACROSS kip	ALONG ft-kip	ACROSS ft-kip	ft-kip
194.0	0.00 D	0.00 D	0.00 H	0.00 D	0.00 K	0.00 H
177.8	18.26 D	6.50 B	0.00 H	-67.12 K	-0.01 K	0.00 K
	18.26 F	6.50 C	0.00 I	-67.12 K	0.01 H	0.00 K

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161.7	27.00 F	9.44 C	0.00 I	-208.79 K	-0.04 K	-0.01 K
	27.00 E	9.44 A	0.00 I	-208.79 K	-0.04 K	-0.01 K
145.5	35.81 E	12.42 A	0.00 I	-415.01 A	-0.09 I	-0.03 K
	35.81 A	12.45 I	-0.06 C	-415.10 H	-0.19 I	-0.03 K
141.0	37.15 A	12.55 I	-0.06 C	-477.81 I	0.19 C	-0.03 K
	37.16 A	12.57 K	-0.04 F	-477.75 L	0.22 B	-0.04 K
126.8	39.74 A	12.91 K	-0.04 F	-678.26 K	0.72 B	-0.05 K
	39.75 A	12.91 K	0.04 C	-678.26 K	0.72 B	-0.05 K
112.7	42.64 A	13.29 K	0.04 C	-882.43 K	1.27 B	-0.06 I
	42.64 A	13.29 K	0.04 C	-882.43 K	1.28 B	-0.06 I
98.5	45.84 A	13.71 K	0.04 C	-1090.72 K	1.79 B	-0.08 I
	45.85 A	13.72 K	-0.06 B	-1090.75 K	1.78 B	-0.08 I
92.0	48.96 A	13.92 K	-0.06 B	-1187.89 K	2.15 B	-0.09 I
	48.96 A	13.94 K	-0.04 E	-1187.88 K	2.19 B	-0.09 I
79.1	52.22 A	14.37 K	-0.04 E	-1384.35 K	2.67 B	-0.10 I
	52.22 A	14.39 K	-0.04 E	-1384.34 K	2.66 B	-0.10 I
66.2	55.74 A	14.87 K	-0.04 E	-1585.15 K	3.14 B	-0.11 I
	55.74 A	14.86 K	-0.04 E	-1585.15 K	3.15 B	-0.11 I
53.2	59.51 A	15.39 K	-0.04 E	-1790.60 K	3.60 B	-0.12 I
	59.51 A	15.38 K	-0.04 E	-1790.60 K	3.60 B	-0.12 I
45.0	64.56 A	15.74 K	-0.04 E	-1924.51 K	3.90 B	-0.12 I
	64.56 A	15.74 K	-0.05 E	-1924.51 K	3.90 B	-0.12 I
33.7	68.14 A	16.26 K	-0.05 E	-2110.81 K	4.27 B	-0.13 I
	68.14 A	16.25 K	-0.05 E	-2110.79 K	4.26 B	-0.13 I
22.5	71.92 A	16.81 K	-0.05 E	-2301.40 K	4.66 B	-0.13 I
	71.92 A	16.81 K	-0.05 E	-2301.40 K	4.65 B	-0.13 I
11.2	75.95 A	17.42 K	-0.05 E	-2496.72 K	5.01 B	-0.13 I
	75.95 A	17.42 K	-0.05 E	-2496.72 K	5.01 B	-0.13 I
	80.07 A	18.08 K	-0.05 E	-2697.32 K	5.41 E	-0.13 I
base reaction	80.07 A	-18.08 K	0.05 E	2697.32 K	-5.41 E	0.13 I

COMPLIANCE WITH 4.8.2 & 4.5.4

ELEV ft	AXIAL	BENDING	SHEAR + TORSIONAL	TOTAL SATISFIED	D/t(w/t)	MAX ALLOWED
194.00	0.00D	0.00D	0.00D	0.00D	YES	6.58A
177.83	0.01D	0.08K	0.01B	0.09K	YES	8.77A
	0.01F	0.08K	0.01C	0.09K	YES	8.77A
161.67	0.01F	0.16K	0.01C	0.17K	YES	10.96A
	0.01E	0.16K	0.01A	0.17K	YES	10.96A
145.50	0.01E	0.23A	0.01A	0.25A	YES	13.14A
	0.01A	0.18H	0.01I	0.19H	YES	9.42A
141.00	0.01A	0.19I	0.01I	0.20I	YES	9.87A
	0.01A	0.20L	0.01K	0.21L	YES	9.61A
126.83	0.01A	0.22K	0.01K	0.23K	YES	11.04A

	0.01A	0.22K	0.01K	0.23K	YES	400710 11.04A	45.2
112.67	0.01A	0.23K	0.01K	0.24K	YES	12.48A	45.2
	0.01A	0.23K	0.01K	0.24K	YES	12.48A	45.2
98.50	0.01A	0.23K	0.01K	0.24K	YES	13.92A	45.2
	0.01A	0.23K	0.01K	0.24K	YES	13.92A	45.2
92.00	0.01A	0.23K	0.01K	0.24K	YES	14.58A	45.2
	0.01A	0.24K	0.01K	0.25K	YES	14.22A	45.2
79.08	0.01A	0.24K	0.01K	0.25K	YES	15.53A	45.2
	0.01A	0.24K	0.01K	0.25K	YES	15.53A	45.2
66.17	0.01A	0.24K	0.00K	0.25K	YES	16.84A	45.2
	0.01A	0.24K	0.00K	0.25K	YES	16.84A	45.2
53.25	0.01A	0.24K	0.00K	0.25K	YES	18.15A	45.2
	0.01A	0.24K	0.00K	0.25K	YES	18.15A	45.2
45.00	0.01A	0.24K	0.00K	0.25K	YES	18.99A	45.2
	0.01A	0.25K	0.00K	0.26K	YES	18.64A	45.2
33.75	0.01A	0.25K	0.00K	0.26K	YES	19.78A	45.2
	0.01A	0.25K	0.00K	0.26K	YES	19.78A	45.2
22.50	0.01A	0.25K	0.00K	0.26K	YES	20.92A	45.2
	0.01A	0.25K	0.00K	0.26K	YES	20.92A	45.2
11.25	0.01A	0.25K	0.00K	0.26K	YES	22.06A	45.2
	0.01A	0.25K	0.00K	0.26K	YES	22.06A	45.2
0.00	0.01A	0.25K	0.00K	0.26K	YES	23.20A	45.2

MAXIMUM LOADS ONTO FOUNDATION(w.r.t. wind direction)

DOWN	SHEAR.w.r.t.WIND.DIR	MOMENT.w.r.t.WIND.DIR	TORSION		
kip	ALONG	ALONG	ft-kip		
	ACROSS	ACROSS			
	kip	ft-kip			
80.07	18.08	-0.05	-2697.32	5.41	-0.13
A	K	E	K	E	I

Round Base Plate and Anchor Rods, per ANSI/TIA 222-G

Pole Data

Diameter: 70.790 in (flat to flat)
Thickness: 0.5 in
Yield (Fy): 65 ksi
of Sides: 18 "0" IF Round
Strength (Fu): 80 ksi

Reactions

Moment, Mu: 10615.4 ft-kips
Axial, Pu: 95.93 kips
Shear, Vu: 71.07 kips

Anchor Rod Data

Quantity: 26
Diameter: 2.25 in
Rod Material: A615
Strength (Fu): 100 ksi
Yield (Fy): 75 ksi
BC Diam. (in): 78.25 BC Override:

Anchor Rod Results

Maximum Rod (Pu+ Vu/η): 259.6 Kips
Allowable Φ *Rnt: 260.0 Kips (per 4.9.9)
Anchor Rod Interaction Ratio: **99.8% Pass**

Plate Data

Diameter (in): 84 Dia. Override:
Thickness: 2.5 in
Yield (Fy): 50 ksi
Eff Width/Rod: 8.64 in
Drain Hole: 2.625 in. diameter
Drain Location: 33.25 in. center of pole to center of drain hole
Center Hole: 58.5 in. diameter

Base Plate Results

Base Plate (Mu/Z): 44.2 ksi
Allowable Φ *Fy: 45.0 ksi (per AISC)
Base Plate Interaction Ratio: **98.2% Pass**

400710

=====
Lpile for Windows, Version 2016-09.009
Analysis of Individual Piles and Drilled Shafts
Subjected to Lateral Loading Using the p-y Method
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=====

This copy of Lpile is being used by:

Matthew Higgins
Sabre Communications Corporation

Serial Number of Security Device: 227886552

This copy of Lpile is licensed for exclusive use by:

Sabre Communications Corporation

Use of this program by any entity other than Sabre Communications Corporation
is a violation of the software license agreement.

Files Used for Analysis

Path to file locations:
\Program Files (x86)\Ensoft\Lpile2016\files\

Name of input data file:
400710.lp9d

Name of output report file:
400710.lp9o

Name of plot output file:
400710.lp9p

Name of runtime message file:
400710.lp9r

Date and Time of Analysis

Date: January 12, 2018 Time: 14:02:19

Problem Title

Site : Hardwick Creek, KY

Tower : 195' Monopole

Prepared for : AT&T

Job Number : 400710

Engineer : MH

Program Options and Settings

Computational Options:
- Use unfactored loads in computations (conventional analysis)
Engineering Units Used for Data Input and Computations:
- US Customary System Units (pounds, feet, inches)

Analysis Control Options:
- Maximum number of iterations allowed = 999
- Deflection tolerance for convergence = 1.0000E-05 in
- Maximum allowable deflection = 100.0000 in
- Number of pile increments = 100

Loading Type and Number of Cycles of Loading:

400710

- Static loading specified
- Use of p-y modification factors for p-y curves not selected
- No distributed lateral loads are entered
- Loading by lateral soil movements acting on pile not selected
- Input of shear resistance at the pile tip not selected
- Computation of pile-head foundation stiffness matrix not selected
- Push-over analysis of pile not selected
- Buckling analysis of pile not selected

Output Options:

- Output files use decimal points to denote decimal symbols.
- Report only summary tables of pile-head deflection, maximum bending moment, and maximum shear force in output report file.
- No p-y curves to be computed and reported for user-specified depths
- Print using wide report formats

 Pile Structural Properties and Geometry

Number of pile sections defined = 1
 Total length of pile = 26.500 ft
 Depth of ground surface below top of pile = 0.5000 ft

Pile diameters used for p-y curve computations are defined using 2 points.

p-y curves are computed using pile diameter values interpolated with depth over the length of the pile. A summary of values of pile diameter vs. depth follows.

Point No.	Depth Below Pile Head feet	Pile Diameter inches
1	0.000	96.0000
2	26.500	96.0000

 Input Structural Properties for Pile Sections:

Pile Section No. 1:

Section 1 is a round drilled shaft, bored pile, or CIDH pile
 Length of section = 26.500000 ft
 Shaft Diameter = 96.000000 in
 Shear capacity of section = 0.0000 lbs

 Ground Slope and Pile Batter Angles

Ground Slope Angle = 0.000 degrees
 = 0.000 radians
 Pile Batter Angle = 0.000 degrees
 = 0.000 radians

 Soil and Rock Layering Information

The soil profile is modelled using 2 layers

Layer 1 is stiff clay without free water

Distance from top of pile to top of layer = 0.500000 ft
 Distance from top of pile to bottom of layer = 12.500000 ft
 Effective unit weight at top of layer = 115.000000 pcf
 Effective unit weight at bottom of layer = 115.000000 pcf
 Undrained cohesion at top of layer = 2000. psf
 Undrained cohesion at bottom of layer = 2000. psf
 Epsilon-50 at top of layer = 0.005000
 Epsilon-50 at bottom of layer = 0.005000

Layer 2 is stiff clay without free water

Distance from top of pile to top of layer = 12.500000 ft
 Distance from top of pile to bottom of layer = 50.500000 ft
 Effective unit weight at top of layer = 135.000000 pcf
 Effective unit weight at bottom of layer = 135.000000 pcf
 Undrained cohesion at top of layer = 5000. psf
 Undrained cohesion at bottom of layer = 5000. psf
 Epsilon-50 at top of layer = 0.0010000

Epsilon-50 at bottom of layer = $\frac{400710}{0.0010000}$

(Depth of the lowest soil layer extends 24.000 ft below the pile tip)

 Summary of Input Soil Properties

Layer Num.	Soil Type Name (p-y Curve Type)	Layer Depth ft	Effective Unit wt. pcf	Undrained Cohesion psf	E50 or krm
1	Stiff Clay	0.5000	115.0000	2000.	0.00500
	w/o Free Water	12.5000	115.0000	2000.	0.00500
2	Stiff Clay	12.5000	135.0000	5000.	0.00100
	w/o Free Water	50.5000	135.0000	5000.	0.00100

 Static Loading Type

Static loading criteria were used when computing p-y curves for all analyses.

 Pile-head Loading and Pile-head Fixity Conditions

Number of loads specified = 2

Load No.	Load Type	Condition 1	Condition 2	Axial Thrust Force, lbs	Compute Top y vs. Pile Length
1	1	V = 94760. lbs	M = 169846400. in-lbs	127907.	No
2	1	V = 18080. lbs	M = 32367840. in-lbs	80070.	No

V = shear force applied normal to pile axis
 M = bending moment applied to pile head
 y = lateral deflection normal to pile axis
 s = pile slope relative to original pile batter angle
 R = rotational stiffness applied to pile head
 Values of top y vs. pile lengths can be computed only for load types with specified shear loading (Load Types 1, 2, and 3).
 Thrust force is assumed to be acting axially for all pile batter angles.

 Computations of Nominal Moment Capacity and Nonlinear Bending Stiffness

Axial thrust force values were determined from pile-head loading conditions

Number of Pile Sections Analyzed = 1

Pile Section No. 1:

Dimensions and Properties of Drilled Shaft (Bored Pile):

Length of Section	=	26.500000	ft
Shaft Diameter	=	96.000000	in
Concrete Cover Thickness	=	3.625000	in
Number of Reinforcing Bars	=	46	bars
Yield Stress of Reinforcing Bars	=	60000.	psi
Modulus of Elasticity of Reinforcing Bars	=	29000000.	psi
Gross Area of Shaft	=	7238.	sq. in.
Total Area of Reinforcing Steel	=	71.760000	sq. in.
Area Ratio of Steel Reinforcement	=	0.99	percent
Edge-to-Edge Bar Spacing	=	4.550292	in
Maximum Concrete Aggregate Size	=	0.750000	in
Ratio of Bar Spacing to Aggregate Size	=	6.07	
Offset of Center of Rebar Cage from Center of Pile	=	0.0000	in

Axial Structural Capacities:

Nom. Axial Structural Capacity = $0.85 F_c A_c + F_y A_s$	=	31717.346	kips
Tensile Load for Cracking of Concrete	=	-3395.185	kips
Nominal Axial Tensile Capacity	=	-4305.600	kips

Reinforcing Bar Dimensions and Positions Used in Computations:

Bar Number	Bar Diam. inches	Bar Area sq. in.	X inches	Y inches
------------	------------------	------------------	----------	----------

400710

1	1.410000	1.560000	43.670000	0.00000
2	1.410000	1.560000	43.263255	5.946398
3	1.410000	1.560000	42.050598	11.782025
4	1.410000	1.560000	40.054618	17.398176
5	1.410000	1.560000	37.312495	22.690231
6	1.410000	1.560000	33.875312	27.559611
7	1.410000	1.560000	29.807096	31.915607
8	1.410000	1.560000	25.183630	35.677075
9	1.410000	1.560000	20.091040	38.773947
10	1.410000	1.560000	14.624193	41.148534
11	1.410000	1.560000	8.884924	42.756602
12	1.410000	1.560000	2.980146	43.568195
13	1.410000	1.560000	-2.980146	43.568195
14	1.410000	1.560000	-8.884924	42.756602
15	1.410000	1.560000	-14.624193	41.148534
16	1.410000	1.560000	-20.091040	38.773947
17	1.410000	1.560000	-25.183630	35.677075
18	1.410000	1.560000	-29.807096	31.915607
19	1.410000	1.560000	-33.875312	27.559611
20	1.410000	1.560000	-37.312495	22.690231
21	1.410000	1.560000	-40.054618	17.398176
22	1.410000	1.560000	-42.050598	11.782025
23	1.410000	1.560000	-43.263255	5.946398
24	1.410000	1.560000	-43.670000	0.00000
25	1.410000	1.560000	-43.263255	-5.946398
26	1.410000	1.560000	-42.050598	-11.782025
27	1.410000	1.560000	-40.054618	-17.398176
28	1.410000	1.560000	-37.312495	-22.690231
29	1.410000	1.560000	-33.875312	-27.559611
30	1.410000	1.560000	-29.807096	-31.915607
31	1.410000	1.560000	-25.183630	-35.677075
32	1.410000	1.560000	-20.091040	-38.773947
33	1.410000	1.560000	-14.624193	-41.148534
34	1.410000	1.560000	-8.884924	-42.756602
35	1.410000	1.560000	-2.980146	-43.568195
36	1.410000	1.560000	2.980146	-43.568195
37	1.410000	1.560000	8.884924	-42.756602
38	1.410000	1.560000	14.624193	-41.148534
39	1.410000	1.560000	20.091040	-38.773947
40	1.410000	1.560000	25.183630	-35.677075
41	1.410000	1.560000	29.807096	-31.915607
42	1.410000	1.560000	33.875312	-27.559611
43	1.410000	1.560000	37.312495	-22.690231
44	1.410000	1.560000	40.054618	-17.398176
45	1.410000	1.560000	42.050598	-11.782025
46	1.410000	1.560000	43.263255	-5.946398

NOTE: The positions of the above rebars were computed by LPile

Minimum spacing between any two bars not equal to zero = 4.550 inches
between bars 31 and 32.

Ratio of bar spacing to maximum aggregate size = 6.07

Concrete Properties:

Compressive Strength of Concrete	=	4500. psi
Modulus of Elasticity of Concrete	=	3823676. psi
Modulus of Rupture of Concrete	=	-503.115295 psi
Compression Strain at Peak Stress	=	0.002001
Tensile Strain at Fracture of Concrete	=	-0.0001152
Maximum Coarse Aggregate Size	=	0.750000 in

Number of Axial Thrust Force Values Determined from Pile-head Loadings = 2

Number	Axial Thrust Force kips
1	80.070
2	127.907

Summary of Results for Nominal (Unfactored) Moment Capacity for Section 1

Moment values interpolated at maximum compressive strain = 0.003
or maximum developed moment if pile fails at smaller strains.

Load No.	Axial Thrust kips	Nominal Mom. Cap. in-kip	Max. Comp. Strain
1	80.070	173583.567	0.00300000
2	127.907	175184.380	0.00300000

Note that the values of moment capacity in the table above are not factored by a strength reduction factor (phi-factor).

In ACI 318, the value of the strength reduction factor depends on whether the transverse reinforcing steel bars are tied hoops (0.65) or spirals (0.70).

The above values should be multiplied by the appropriate strength reduction factor to compute ultimate moment capacity according to ACI 318, Section 9.3.2.2 or the value required by the design standard being followed.

The following table presents factored moment capacities and corresponding bending stiffnesses computed for common resistance factor values used for reinforced concrete sections.

Axial Load No.	Resist. Factor for Moment	Nominal Moment Cap in-kips	Ult. (Fac) Ax. Thrust kips	Ult. (Fac) Moment Cap in-kips	Bend. Stiff. at Ult Mom kip-in ²
1	0.65	173584.	52.045500	112829.	4.0050E+09
2	0.65	175184.	83.139333	113870.	4.0459E+09
1	0.70	173584.	56.049000	121508.	3.9906E+09
2	0.70	175184.	89.534667	122629.	4.0287E+09
1	0.75	173584.	60.052500	130188.	3.8657E+09
2	0.75	175184.	95.930000	131388.	3.9063E+09

Layering Correction Equivalent Depths of Soil & Rock Layers

Layer No.	Top of Layer Below Pile Head ft	Equivalent Top Depth Below Grnd Surf ft	Same Layer Type As Layer Above	Layer is Rock or is Below Rock Layer	F0 Integral for Layer lbs	F1 Integral for Layer lbs
1	0.5000	0.00	N.A.	No	0.00	716040.
2	12.5000	12.0000	Yes	No	716040.	N.A.

Notes: The F0 integral of Layer n+1 equals the sum of the F0 and F1 integrals for Layer n. Layering correction equivalent depths are computed only for soil types with both shallow-depth and deep-depth expressions for peak lateral load transfer. These soil types are soft and stiff clays, non-liquefied sands, and cemented c-phi soil.

Summary of Pile-head Responses for Conventional Analyses

Definitions of Pile-head Loading Conditions:

Load Type 1: Load 1 = Shear, V, lbs, and Load 2 = Moment, M, in-lbs
 Load Type 2: Load 1 = Shear, V, lbs, and Load 2 = Slope, S, radians
 Load Type 3: Load 1 = Shear, V, lbs, and Load 2 = Rot. Stiffness, R, in-lbs/rad.
 Load Type 4: Load 1 = Top Deflection, y, inches, and Load 2 = Moment, M, in-lbs
 Load Type 5: Load 1 = Top Deflection, y, inches, and Load 2 = Slope, S, radians

Load Case No.	Load Type 1	Pile-head Load 1	Load Type 2	Pile-head Load 2	Axial Loading lbs	Pile-head Deflection inches	Pile-head Rotation radians	Max Shear in Pile lbs	Max Moment in Pile in-lbs
1	V, lb	94760.	M, in-lb	1.70E+08	127907.	16.1195	-0.08253	-1369350.	1.72E+08
2	V, lb	18080.	M, in-lb	3.24E+07	80070.	0.04154	-3.56E-04	-226704.	3.26E+07

Maximum pile-head deflection = 16.1194964241 inches
 Maximum pile-head rotation = -0.0825276786 radians = -4.728488 deg.

The analysis ended normally.

1807.3.2.1 (2009 IBC, 2012 IBC, & 2015 IBC)

Moment (ft-k)	10,615.40	
Shear (k)	71.07	
Caisson diameter (ft)	8	
Caisson height above ground (ft)	0.5	
Caisson height below ground (ft)	25	
Lateral soil pressure (lb/ft ²)	768.00	
Ground to application of force, h (ft)	149.87	
Applied lateral force, P (lb)	71,070	
Lateral soil bearing pressure, S ₁ (lb/ft)	6,400.00	
Diameter, b (ft)	8	
A	3.25	$= (2.34P)/(S_1 b)$
Minimum depth of embedment, d (ft)	24.72	$= 0.5A [1 + (1 + (4.36h / A))^{1/2}]$

MAT FOUNDATION DESIGN BY SABRE TOWERS & POLES
 195' Monopole AT&T Hardwick Creek, KY (400710) 1-16-18 MH

Overall Loads:

Factored Moment (ft-kips)	10615.4
Factored Axial (kips)	95.93
Factored Shear (kips)	71.07
Bearing Design Strength (ksf)	15
Water Table Below Grade (ft)	999
Width of Mat (ft)	26.5
Thickness of Mat (ft)	2.25
Depth to Bottom of Slab (ft)	12
Quantity of Bolts in Bolt Circle	26
Bolt Circle Diameter (in)	78.25
Top of Concrete to Top of Bottom Threads (in)	60
Diameter of Pier (ft)	9
Ht. of Pier Above Ground (ft)	0.5
Ht. of Pier Below Ground (ft)	9.75
Quantity of Bars in Mat	61
Bar Diameter in Mat (in)	1.128
Area of Bars in Mat (in ²)	60.96
Spacing of Bars in Mat (in)	5.18
Quantity of Bars Pier	54
Bar Diameter in Pier (in)	1.128
Tie Bar Diameter in Pier (in)	0.625
Spacing of Ties (in)	12
Area of Bars in Pier (in ²)	53.96
Spacing of Bars in Pier (in)	5.80
f'c (ksi)	4.5
fy (ksi)	60
Unit Wt. of Soil (kcf)	0.11
Unit Wt. of Concrete (kcf)	0.15

Max. Net Bearing Press. (ksf)	12.27
Allowable Bearing Pressure (ksf)	10.00
Safety Factor	2.00
Ultimate Bearing Pressure (ksf)	20.00
Bearing Φ_s	0.75

Minimum Pier Diameter (ft)	7.85
Equivalent Square b (ft)	7.98
Square Pier? (Y/N)	N

Recommended Spacing (in)	5 to 12
--------------------------	---------

Minimum Pier A _s (in ²)	45.80
Recommended Spacing (in)	5 to 12

Volume of Concrete (yd³) 82.67

Two-Way Shear Action:

Average d (in)	22.872
ϕV_c (ksi)	0.228
$\phi V_c = \phi(2 + 4/\beta_c)f'_c$	0.342
$\phi V_c = \phi(\alpha_s d/b_o + 2)f'_c$	0.241
$\phi V_c = \phi 4f'_c$	0.228
Shear perimeter, b _o (in)	411.15
β_c	1

v _u (ksi)	0.185
----------------------	-------

One-Way Shear:

ϕV_c (kips)	829.4
-------------------	-------

V _u (kips)	735.0
-----------------------	-------

Stability:

Overtuning Design Strength (ft-k)	13113.9
-----------------------------------	---------

Total Applied M (ft-k)	11503.8
------------------------	---------

Pier Design:

ϕV_n (kips)	1069.7	V_u (kips)	71.1
$\phi V_c = \phi 2(1 + N_u / (2000 A_g)) f'_c{}^{1/2} b_w d$	1069.7		
V_s (kips)	0.0	*** $V_s \text{ max} = 4 f'_c{}^{1/2} b_w d$ (kips)	2503.8
Maximum Spacing (in)	6.78	(Only if Shear Ties are Required)	
Actual Hook Development (in)	21.74	Req'd Hook Development l_{dh} (in)	13.26

*** Ref. To Spacing Requirements ACI 11.5.4.3

Flexure in Slab:

ϕM_n (ft-kips)	5861.7	M_u (ft-kips)	5851.0
a (in)	3.01		
Steel Ratio	0.00838		
β_1	0.825		
Maximum Steel Ratio (ρ_t)	0.0197		
Minimum Steel Ratio	0.0018		
Rebar Development in Pad (in)	108.14	Required Development in Pad (in)	32.84

Condition	1 is OK, 0 Fails
Maximum Soil Bearing Pressure	1
Pier Area of Steel	1
Pier Shear	1
Interaction Diagram Visual Check	1
Two-Way Shear Action	1
One-Way Shear Action	1
Overturning	1
Flexure	1
Steel Ratio	1
Length of Development in Pad	1
Hook Development	1



January 24, 2018
Kentucky Public Service Commission
211 Sower Blvd.
P.O. Box 615
Frankfort, KY 40602-0615

RE: Site Name – Hardwick Creek
Proposed Cell Tower
37 48'22.803" North Latitude, 83 54'55.648" West Longitude

Dear Commissioners:

The Project / Construction Manager for the proposed new communications facility will be Don Murdock. His contact information is (615) 207-8280 or Don.Murdock@mastec.com

Don has been in the industry completing civil construction and constructing towers since 2009. He has worked at Mastec Network Solutions since 2009 completing project and construction management on new site build projects.

Thank you,

A handwritten signature in black ink, appearing to read "Don Murdock".

Don Murdock, Sr. Project Manager – Tennessee/Kentucky Market
MasTec Network Solutions
(615) 207-8280

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
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Active ▾
<input type="button" value="Search"/>				

	Utility ID	Utility Name	Utility Type	Class	City	State
<input type="button" value="View"/>	4107900	365 Wireless, LLC	Cellular	D	Atlanta	GA
<input type="button" value="View"/>	4109300	Access Point, Inc.	Cellular	D	Cary	NC
<input type="button" value="View"/>	4108300	Air Voice Wireless, LLC	Cellular	A	Bloomfield Hill	MI
<input type="button" value="View"/>	4110650	Alliant Technologies of KY, L.L.C.	Cellular	C	Morristown	NJ
<input type="button" value="View"/>	44451184	Alltel Communications, LLC	Cellular	A	Basking Ridge	NJ
<input type="button" value="View"/>	4107800	American Broadband and Telecommunications Company	Cellular	C	Toledo	OH
<input type="button" value="View"/>	4108650	AmeriMex Communications Corp.	Cellular	D	Dunedin	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"/>	4110700	Andrew David Balholm dba Norcell	Cellular	C	Clayton	WA
<input type="button" value="View"/>	4107400	Bandwidth.com, Inc.	Cellular	A	Raleigh	NC
<input type="button" value="View"/>	4108600	BCN Telecom, Inc.	Cellular	D	Morristown	NJ
<input type="button" value="View"/>	4110550	Blue Casa Mobile, LLC	Cellular	D	Santa Barbara	CA
<input type="button" value="View"/>	4108750	Blue Jay Wireless, LLC	Cellular	C	Carrollton	TX
<input type="button" value="View"/>	4202300	Bluegrass Wireless, LLC	Cellular	A	Elizabethtown	KY
<input type="button" value="View"/>	4107600	Boomerang Wireless, LLC	Cellular	B	Hiawatha	IA
<input type="button" value="View"/>	4105500	BullsEye Telecom, Inc.	Cellular	D	Southfield	MI
<input type="button" value="View"/>	4110050	CampusSims, Inc.	Cellular	D	Boston	MA

View	4100700	Cellco Partnership dba Verizon Wireless	Cellular	A	Basking Ridge	NJ
View	4106600	Cintex Wireless, LLC	Cellular	D	Rockville	MD
View	4101900	Consumer Cellular, Incorporated	Cellular	A	Portland	OR
View	4106400	Credo Mobile, Inc.	Cellular	A	San Francisco	CA
View	4108850	Cricket Wireless, LLC	Cellular	A	San Antonio	TX
View	4001900	CTC Communications Corp. d/b/a EarthLink Business I	Cellular	D	Grand Rapids	MI
View	10640	Cumberland Cellular Partnership	Cellular	A	Elizabethtown	KY
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	4105900	Flash Wireless, LLC	Cellular	C	Concord	NC
View	4104800	France Telecom Corporate Solutions L.L.C.	Cellular	D	Oak Hill	VA
View	4109350	Global Connection Inc. of America	Cellular	D	Norcross	GA
View	4102200	Globalstar USA, LLC	Cellular	B	Covington	LA
View	4109600	Google North America Inc.	Cellular	B	Mountain View	CA
View	33350363	Granite Telecommunications, LLC	Cellular	D	Quincy	MA
View	4106000	GreatCall, Inc. d/b/a Jitterbug	Cellular	A	San Diego	CA
View	10630	GTE Wireless of the Midwest dba Verizon Wireless	Cellular	A	Basking Ridge	NJ
View	4110600	Horizon River Technologies, LLC	Cellular	C	Atlanta	GA
View	4103100	i-Wireless, LLC	Cellular	A	Newport	KY
View	4109800	IM Telecom, LLC d/b/a Infiniti Mobile	Cellular	D	Tulsa	OK
View	22215360	KDDI America, Inc.	Cellular	D	New York	NY
View	10872	Kentucky RSA #1 Partnership	Cellular	A	Basking Ridge	NJ
View	10680	Kentucky RSA #3 Cellular General	Cellular	A	Elizabethtown	KY
View	10681	Kentucky RSA #4 Cellular General	Cellular	A	Elizabethtown	KY
View	4109750	Konatel, Inc. dba telecom.mobi	Cellular	D	Johnstown	PA
View	4107300	Lycamobile USA, Inc.	Cellular	D	Newark	NJ
View	4108800	MetroPCS Michigan, LLC	Cellular	A	Bellevue	WA
View	4109650	Mitel Cloud Services, Inc.	Cellular	D	Mesa	AZ
View	4202400	New Cingular Wireless PCS, LLC dba AT&T Mobility, PCS	Cellular	A	San Antonio	TX

View	10900	New Par dba Verizon Wireless	Cellular	A	Basking Ridge	NJ
View	4000800	Nextel West Corporation	Cellular	D	Overland Park	KS
View	4001300	NPCR, Inc. dba Nextel Partners	Cellular	D	Overland Park	KS
View	4001800	OnStar, LLC	Cellular	A	Detroit	MI
View	4110750	Onvoy Spectrum, LLC	Cellular	C	Plymouth	MN
View	4109050	Patriot Mobile LLC	Cellular	D	Southlake	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	4202100	Powertel/Memphis, Inc. dba T-Mobile	Cellular	A	Bellevue	WA
View	4107700	Puretalk Holdings, LLC	Cellular	A	Covington	GA
View	4106700	Q Link Wireless, LLC	Cellular	A	Dania	FL
View	4108700	Ready Wireless, LLC	Cellular	B	Hiawatha	IA
View	4110350	Regional Strategic Partners LLC	Cellular	D	Buford	GA
View	4110500	Republic Wireless, Inc.	Cellular	D	Raleigh	NC
View	4106200	Rural Cellular Corporation	Cellular	A	Basking Ridge	NJ
View	4108550	Sage Telecom Communications, LLC dba TruConnect	Cellular	D	Los Angeles	CA
View	4109150	SelecTel, Inc. d/b/a SelecTel Wireless	Cellular	D	Freemont	NE
View	4106300	SI Wireless, LLC	Cellular	A	Carbondale	IL
View	4110150	Spectrotel, Inc. d/b/a Touch Base Communications	Cellular	D	Neptune	NJ
View	4200100	Sprint Spectrum, L.P.	Cellular	A	Atlanta	GA
View	4200500	SprintCom, Inc.	Cellular	A	Atlanta	GA
View	4109550	Stream Communications, LLC	Cellular	D	Dallas	TX
View	4110200	T C Telephone LLC d/b/a Horizon Cellular	Cellular	D	Red Bluff	CA
View	4202200	T-Mobile Central, LLC dba T-Mobile	Cellular	A	Bellevue	WA
View	4002500	TAG Mobile, LLC	Cellular	D	Carrollton	TX
View	4109700	Telecom Management, Inc. dba Pioneer Telephone	Cellular	D	South Portland	ME
View	4107200	Telefonica USA, Inc.	Cellular	D	Miami	FL
View	4108900	Telrite Corporation dba Life Wireless	Cellular	D	Covington	GA
View	4108450	Tempo Telecom, LLC	Cellular	D	Kansas City	MO
View	4109950	The People's Operator USA, LLC	Cellular	D	New York	NY
View	4109000	Ting, Inc.	Cellular	A	Toronto	ON
View	4110400	Torch Wireless Corp.	Cellular	D	Jacksonville	FL
View	4103300	Touchtone Communications, Inc.	Cellular	D	Whippany	NJ

View	4104200	TracFone Wireless, Inc.	Cellular	D	Miami	FL
View	4002000	Truphone, Inc.	Cellular	D	Durham	NC
View	4110300	UVNV, Inc.	Cellular	D	Costa Mesa	CA
View	4105700	Virgin Mobile USA, L.P.	Cellular	A	Atlanta	GA
View	4110800	Visible Service LLC	Cellular	C	Lone Tree	CO
View	4200600	West Virginia PCS Alliance, L.C.	Cellular	A	Waynesboro	VA
View	4106500	WiMacTel, Inc.	Cellular	D	Palo Alto	CA
View	4110100	Windward Wireless LLC	Cellular	D	Suwanee	GA
View	4109900	Wireless Telecom Cooperative, Inc. dba theWirelessFreeway	Cellular	D	Louisville	KY

EXHIBIT E
FAA

* Federal Airways & Airspace *
* Summary Report: New Construction *
* Antenna Structure *

Airspace User: David Duncan

File: HARDWICK-CREEK

Location: Clay City, KY

Latitude: 37°-48'-22.80" Longitude: 83°-54'-55.65"

SITE ELEVATION AMSL.....758 ft.
STRUCTURE HEIGHT.....199 ft.
OVERALL HEIGHT AMSL.....957 ft.
SURVEY HEIGHT AMSL.....957 ft.

NOTICE CRITERIA

- FAR 77.9(a): NNR (DNE 200 ft AGL)
- FAR 77.9(b): NNR (DNE Notice Slope)
- FAR 77.9(c): NNR (Not a Traverse Way)
- FAR 77.9: NNR FAR 77.9 IFR Straight-In Notice Criteria for I50
- FAR 77.9: NNR FAR 77.9 IFR Straight-In Notice Criteria for 00B1
- FAR 77.9(d): NNR (Off Airport Construction)

NR = Notice Required

NNR = Notice Not Required

PNR = Possible Notice Required (depends upon actual IFR procedure)

For new construction review Air Navigation Facilities at bottom
of this report.

Notice to the FAA is not required at the analyzed location and height for slope, height or Straight-In procedures. Please review the 'Air Navigation' section for notice requirements for offset IFR procedures and EMI.

OBSTRUCTION STANDARDS

- FAR 77.17(a) (1): DNE 499 ft AGL
- FAR 77.17(a) (2): DNE - Airport Surface
- FAR 77.19(a): DNE - Horizontal Surface
- FAR 77.19(b): DNE - Conical Surface
- FAR 77.19(c): DNE - Primary Surface
- FAR 77.19(d): DNE - Approach Surface
- FAR 77.19(e): DNE - Approach Transitional Surface
- FAR 77.19(e): DNE - Abeam Transitional Surface

VFR TRAFFIC PATTERN AIRSPACE FOR: I50: STANTON

Type: A RD: 24085.51 RE: 649

- FAR 77.17(a) (1): DNE
- FAR 77.17(a) (2): Does Not Apply.
- VFR Horizontal Surface: DNE
- VFR Conical Surface: DNE
- VFR Primary Surface: DNE
- VFR Approach Surface: DNE
- VFR Transitional Surface: DNE

VFR TRAFFIC PATTERN AIRSPACE FOR: 00B1: PROPOSED 00B1

Type: A RD: 52658.07 RE: 860

- FAR 77.17(a) (1): DNE
- FAR 77.17(a) (2): DNE - Greater Than 5.99 NM.

VFR Horizontal Surface: DNE
 VFR Conical Surface: DNE
 VFR Primary Surface: DNE
 VFR Approach Surface: DNE
 VFR Transitional Surface: DNE

TERPS DEPARTURE PROCEDURE (FAA Order 8260.3, Volume 4)
 FAR 77.17(a) (3) Departure Surface Criteria (40:1)
 DNE Departure Surface

MINIMUM OBSTACLE CLEARANCE ALTITUDE (MOCA)
 FAR 77.17(a) (4) MOCA Altitude Enroute Criteria
 The Maximum Height Permitted is 2400 ft AMSL

PRIVATE LANDING FACILITIES
 No Private Landing Facilities Are Within 6 NM

AIR NAVIGATION ELECTRONIC FACILITIES

FAC IDNT	TYPE	ST AT	FREQ	VECTOR	DIST (ft)	DELTA ELEVA	ST	LOCATION	GRND ANGLE	APCH BEAR
XYC	NDB	I	39	242.00	37554	+177	KY	SECO	.27	
HYK	VOR/DME	I	112.6	290.09	171001	-78	KY	LEXINGTON	-.03	
KJKL	RADAR WXL	Y		114.43	191167	-495	KY	JACKSON	-.15	
LEX	RADAR	ON	2750.	292.49	215177	-103	KY	BLUE GRASS	-.03	

CFR Title 47, §1.30000-§1.30004
 AM STUDY NOT REQUIRED: Structure is not near a FCC licensed AM station.
 Movement Method Proof as specified in §73.151(c) is not required.
 Please review 'AM Station Report' for details.

Nearest AM Station: WBFC @ 8975 meters.

Airspace® Summary Version 17.9.479

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11-30-2017
 17:15:45

EXHIBIT F
KENTUCKY AIRPORT ZONING COMMISSION

Roy Johnson

From: Houlihan, John F (KYTC)
Sent: Friday, December 01, 2017 8:55 AM
To: Roy Johnson
Subject: RE: AT&T proposed tower - Hardwick Creek

No permit is required from the KAZC. Thank you.

Kentucky Airport Zoning Commission (KAZC)
John Houlihan, Administrator
Department of Highways, District Six
421 Buttermilk Pike
Covington, KY 41017
Office 859-341-2700, Desk 859-341-2707 Ext. 292, Cell 502-330-3955

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

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From: Roy Johnson [<mailto:rjohnson@johnsonpm.com>]
Sent: Friday, December 01, 2017 6:13 AM
To: Houlihan, John F (KYTC) <John.Houlihan@ky.gov>
Cc: Marie Glasgow <Marie.Glasgow@mastec.com>; Steven.Milana@mastec.com; Joseph "Matt" Hill <Joseph.Hill2@mastec.com>
Subject: AT&T proposed tower - Hardwick Creek

John,
Please confirm if KAZC filing is required for the proposed cell tower project outlined below.

Project Name: Hardwick Creek
Latitude: 37 48 22.80 N
Longitude: 83 54 55.65 W
Ground Elevation: 758'
Tower height including lightning arrestor: 199'
Overall Height: 957'

Roy Johnson
Johnson Project Management
3605 Mattingly Road
Buckner, KY 40010
Mobile: (502) 445-2475

EXHIBIT G
GEOTECHNICAL REPORT



December 29, 2017

Mr. Jacob Goralski, P.E.
Irish Tower, LLC
4603 Bermuda Drive,
Sugar Land, TX 77479

ECS Project No. 26:3125-T1

Reference: Report of Subsurface Exploration and Geotechnical Engineering Services
Hardwick Creek Tower
315 Hilltop Road
Clay City, KY

Dear Mr. Goralski:

ECS Southeast, LLP (ECS) has completed the subsurface exploration for the proposed construction of a monopole tower located at 315 Hilltop Road, in Clay City, Kentucky, approximately 1,300 feet southwest of the intersection with Neal Silva Street. The purpose of these services was to explore the subsurface soil and groundwater conditions at the site, and to develop geotechnical recommendations pertaining to foundation support of the structure. This report explains our understanding of the project, documents our findings, and presents our conclusions and geotechnical engineering recommendations to serve as an aid during the design and construction of the project.

PROJECT INFORMATION AND PROPOSED CONSTRUCTION

The project will consist of the construction of a new 195+/-foot tall monopole tower with a 4-foot lightning arrestor and fenced equipment compound. The proposed tower site is located in a grassy area surrounded by trees. See the attached Site Location Diagram (Figure 1) and Boring Location Diagram (Figure 2). We have received preliminary site plans showing the site boundaries and proposed tower location. No loading information was provided for the tower. Based on information provided from the client, the current ground surface elevation at the center of the tower is approximately 758 feet MSL. To achieve the proposed grading at the tower site, we anticipate that less than 3 feet of cut and fill will be required. We do not anticipate that any significant stormwater management (SWM) facilities or site retaining walls will be required for this project.

EXPLORATION PROCEDURES

The site subsurface conditions were explored on December 20, 2017, completing one Standard Penetration Test (SPT) boring drilled at the staked center of the tower location. The boring was drilled to the depth of 12 feet (depth of auger refusal). The approximate boring location is shown on the attached Boring Location diagram (Figure 2). The boring location was based on a survey stake-out that was performed by others. Prior to drilling, underground utilities were cleared through the Kentucky 811 system.

A CME 45 truck-mounted drill rig was utilized to complete the SPT boring. The drill rig utilized 3-1/4 inch hollow stem augers to advance the boreholes. Representative soil samples were secured by means of conventional split-barrel sampling procedures (ASTM D1586). In this procedure, a 2-inch O.D., split-barrel sampler is driven into the soil a distance of 18 inches by a

140-pound hammer falling 30 inches. The number of blows required to drive the sampler through the final 12-inch interval, after initial setting of 6 inches, is termed the Standard Penetration Test (SPT) value or N-value, and is indicated for each sample on the attached boring log.

The SPT values can be used as a qualitative indication of the in-place relative density of cohesionless soils, and as a relative indication of consistency in cohesive soils. This indication is qualitative, since many factors can affect the standard penetration resistance value and prevent a direct correlation between drill crews, drill rigs, drilling procedures, and hammer-rod-sampler assemblies. The drill rig utilized an automatic hammer to drive the sampler.

A field log of the soil encountered at the boring location was maintained by the drilling crew. After recovery, each soil sample was removed from the sampler and visually classified by the driller. Representative portions of each soil sample were then sealed in plastic bags and transported to our laboratory in Nashville (Franklin), Tennessee, for further visual observation and classification. Observations for groundwater were made during sampling and upon completion of the drilling operations. After completion of the drilling operations, the borehole was backfilled with auger cuttings and excess soil was mounded at the surface.

CLASSIFICATION AND LABORATORY TESTING PROCEDURES

A geotechnical engineer classified each soil sample on the basis of texture and plasticity in accordance with the Unified Soil Classification System (ASTM D 2487). The group symbols for each soil type are indicated in parentheses following the soil descriptions on the boring log. A brief explanation of the Unified Soil Classification System (USCS) is included with this report. The engineer grouped the various soil types into the major zones noted on the boring log. The stratification lines designating the interfaces between materials on the exploration records are approximate; in situ, the transitions may be gradual.

The soil samples will be retained in our laboratory for a period of 60 days, after which, they will be discarded unless other instructions are received as to their disposition.

SITE GEOLOGY

The USGS Geologic Map of the Clay City Quadrangle (1967) indicates this particular site is underlain by the Borden Formation, Nancy Member. This formation is typically comprised of light-olive-gray to olive-gray, poorly evenly laminated, aphanitic to fine-grained shale and medium-gray to medium-light gray, calcareous siltstone.



Figure 1 - USGS Geologic Map of the Clay City Quadrangle (approximate site location highlighted)

SUBSURFACE CONDITIONS

The subsurface conditions discussed in the following paragraphs, and those shown on the boring log, represent an estimate of the subsurface conditions based on interpretation of the exploration data using normally accepted geotechnical engineering judgments. It should be noted that the transition between different soil strata is often less distinct than what is shown on the exploration records.

In general, the exploration revealed an approximate 12-inch thick layer of topsoil underlain by lean clay extending to a depth of auger refusal (approximately 12 feet). SPT N-values for the clay materials varied from 8 to 47 blows per foot (bpf). The encountered conditions are shown on the attached boring log.

Groundwater was not encountered at the time of our exploration. It should be noted that groundwater can vary on a seasonal basis due to precipitation, evaporation, surface run-off, area stream levels and other factors not immediately apparent at the time of this exploration. It is also possible for groundwater to exist in a perched condition within the soil overburden or at the soil/rock interface.

ANALYSIS AND RECOMMENDATIONS

General

The following recommendations have been developed on the basis of the previously described project information and subsurface conditions identified during this study. If there are any changes to the project characteristics, or if differing subsurface conditions are encountered during construction, ECS should be consulted so that the recommendations of this report can be reviewed and revised, as necessary.

Subgrade Preparation

Vegetation, and all other soft, unsuitable, or deleterious material should be removed from the existing ground surface at the foundation areas. These operations should extend at least 5 feet beyond the edge of planned structures, where practical. After examining the exposed soils, loose and yielding areas should be identified by proofrolling with an approved piece of equipment, such as a loaded dump truck, having an axle weight of at least 10 tons. Unsuitable or unstable subgrade materials may require moisture conditioning, in-place densification, or removal and replacement with new engineered fill.

It should also be emphasized that based on the relatively shallow depth of shale bedrock encountered and the existing site grades, depending on the grading plan, it is possible that excavation or cuts into the shale may occur. Excavation of the shale bedrock may require special excavation techniques, such as hoe-ramming.

Engineered Fill

The first layer of fill should be placed in a relatively uniform horizontal lift and be adequately keyed into the stripped and scarified subgrade soils. Fill materials should be free of organics, wet/frozen materials, or other deleterious materials. Engineered fill materials should consist of low to moderately plastic clays and silts, or coarse grained material such as sand and gravel. Engineered fill should have a maximum Liquid Limit no greater than 50, and a maximum Plasticity Index no greater than 30. In general, we recommend material to be used as engineered fill have a Standard Proctor maximum dry density of at least 90 pcf. Engineered soil fill should be placed in maximum loose lifts of 8 inches and compacted to at least 95 percent of

the Standard Proctor (ASTM D698) maximum dry density. Soil engineered fill should be compacted within 3 percentage points of the optimum moisture content determined by the Standard Proctor method. Soil fill should not contain rock material greater than 4 inches in diameter.

Fill operations should be observed on a full-time basis by an experienced engineering technician to check that the required degree of compaction is being achieved. We recommend a minimum of one compaction test per 2,500 square-foot area be performed for each lift of engineered fill for structural areas, and that at least one test per lift per 100 linear feet of utility trench backfill.

Equipment Shelter Foundation

Based upon our findings, the equipment shelter may be supported by a turned-down monolithic slab-on-grade with foundation elements bearing on the undisturbed natural soils or properly-compacted engineered fill. These foundations can be designed for a maximum net allowable soil bearing pressure of up to 2,500 psf. For footings constructed in accordance with the requirements outlined in this report, maximum total settlement is expected to be less than 1 inch (plus any consolidation settlement from new fill loads). Maximum differential settlement is expected to be half the total settlement. Shallow foundations should be designed to bear at least 36 inches below the final exterior grades. The slab-on-grade may be designed using a modulus of subgrade reaction of 100 pounds per cubic inch (pci). A layer of free draining gravel may be used underlying the slab to serve as a leveling pad and provide a capillary break. All slab and foundation subgrades should be evaluated immediately prior to concrete placement by ECS to verify that the exposed subgrades are capable of satisfactorily supporting the design loads.

Monopole Tower Foundation

The proposed tower can be supported on a drilled shaft (caisson) foundation. Based on previous experience with monopole structures, we anticipate that wind loading, associated uplift resistance, and lateral loading may control the sizing and depth of the pole foundation. We have provided estimated soil parameters at various depths to aid in drilled shaft foundation design in the attached [Geotechnical Data Form](#).

Uplift forces can be resisted by the factored weight of the shaft and the side shear along the circumference of the shaft (skin friction). The compression forces can be resisted by the side shear along the circumference of the shaft and the end bearing capacity. In determining the dimensions of the drilled shafts, we recommend that a minimum factor of safety of 1.25 with regard to the weight of the concrete should be used in conjunction with the presented allowable side shear values. For uplift and compression, we recommend no contribution to resisting loads be considered from side shear within 5 feet of the ground surface, soft clay or from potentially liquefiable zones.

The installation contractor should be prepared to case the excavation, if needed, depending on the condition of the soils and the ground water elevation at the time of construction. Once the bearing level is reached, all loose materials and any accumulated water seepage should be removed prior to placement of pier reinforcing cage and concrete. Up to 1 inch of water standing in the base of the pier is acceptable at the time of concrete placement and an inflow rate of 1 inch per 5 minutes is also acceptable. Higher inflow rates, which could occur, may require additional control such as temporary casing or that drilled shaft concrete be placed by tremie method. The drilled shaft contractor should be prepared to handle such a condition and to ensure suitable end bearing conditions.

The drilled shaft concrete should be placed in intimate contact with undisturbed natural soil/rock. To reduce the potential for arching, we recommend the drilled shaft concrete mix be designed for a slump of 5 to 7 inches. Provided water seepage is minimal, our experience and current research in the field indicates that the drilled shafts can be constructed by "free fall" placement of concrete without affecting the strength and quality of concrete. The concrete should "free fall" without hitting the sides of the casing or reinforcing steel. The use of a hopper or other suitable device is recommended to control concrete placement and direct it toward the center of the shaft. The placement of concrete in the cased shaft should proceed until the concrete level is above the external fluid level and should be maintained above this level throughout casing removal, if necessary. However, if significant seepage is present within the excavation or if slurry is used, it will be necessary to place the concrete by tremie method, and we recommend a concrete slump of 7 to 9 inches for this method of concrete placement.

Pad and Pier Recommendations: Based on the relatively shallow depth to bedrock, a pad and pier foundation approach would also be reasonable. We recommend that the foundation be excavated down to bedrock and can be designed for a net allowable bearing capacity of 10,000 psf.

The foundation design and construction procedures should be reviewed with the foundation contractor prior to the start of construction. If you desire, we would be pleased to review the plans and specifications for the project once they are completed so we may have the opportunity to comment on the impact of the soil/rock and groundwater conditions on the final design.

Seismic Site Classification

Based on our interpretation of the International Building Code (IBC) 2012, it is our opinion that a Seismic Site Class "C" is appropriate for this site. In accordance with IBC 2012 and United States Geological Survey's (USGS) Seismic Hazard Curves and Uniform Hazard Response Spectra program, the following parameters may be used in design:

- Latitude: 37.80664, Longitude: - 83.91582
- $S_s = 0.200$, $S_1 = 0.090$
- $S_{MS} = 0.240$, $S_{M1} = 0.153$
- $S_{DS} = 0.160$, $S_{D1} = 0.102$

*Spectral accelerations were determined from USGS National Seismic Hazard Maps

General Construction Considerations

Positive site drainage should be maintained during earthwork operations, which should help maintain the integrity of the soil. Placement of fill on the near surface soils which have become wet may be difficult. When wet, these soils will degrade quickly with disturbance from contractor operations and will be difficult to stabilize for fill placement.

The surficial soils are considered moderately erodible. All erosion and sedimentation shall be controlled in accordance with Best Management Practices and current County requirements. At the appropriate time, we would be pleased to provide a proposal for NPDES monitoring and construction materials testing related services.

CLOSING

Our professional services have been performed, our findings obtained, and our recommendations prepared in accordance with generally accepted geotechnical engineering principles and practices. ECS is not responsible for the conclusions, opinions, or recommendations made by others based on these data. No third party is given the right to rely on this report without express written permission.

The scope of services for this study does not include environmental assessment or investigation for the presence or absence of wetlands, hazardous or toxic materials in the soil or groundwater within or beyond the site studied. Any statements in this report regarding odors, staining of soils, or other unusual conditions observed are strictly for the information of our client.

We appreciate this opportunity to be of service to you during the design phase of this project. If you have any questions with regard to the information and recommendations presented in this report, please do not hesitate to contact us.

Respectfully,

ECS SOUTHEAST, LLP



Eric M. Gasiiecki
Geotechnical Department Manager



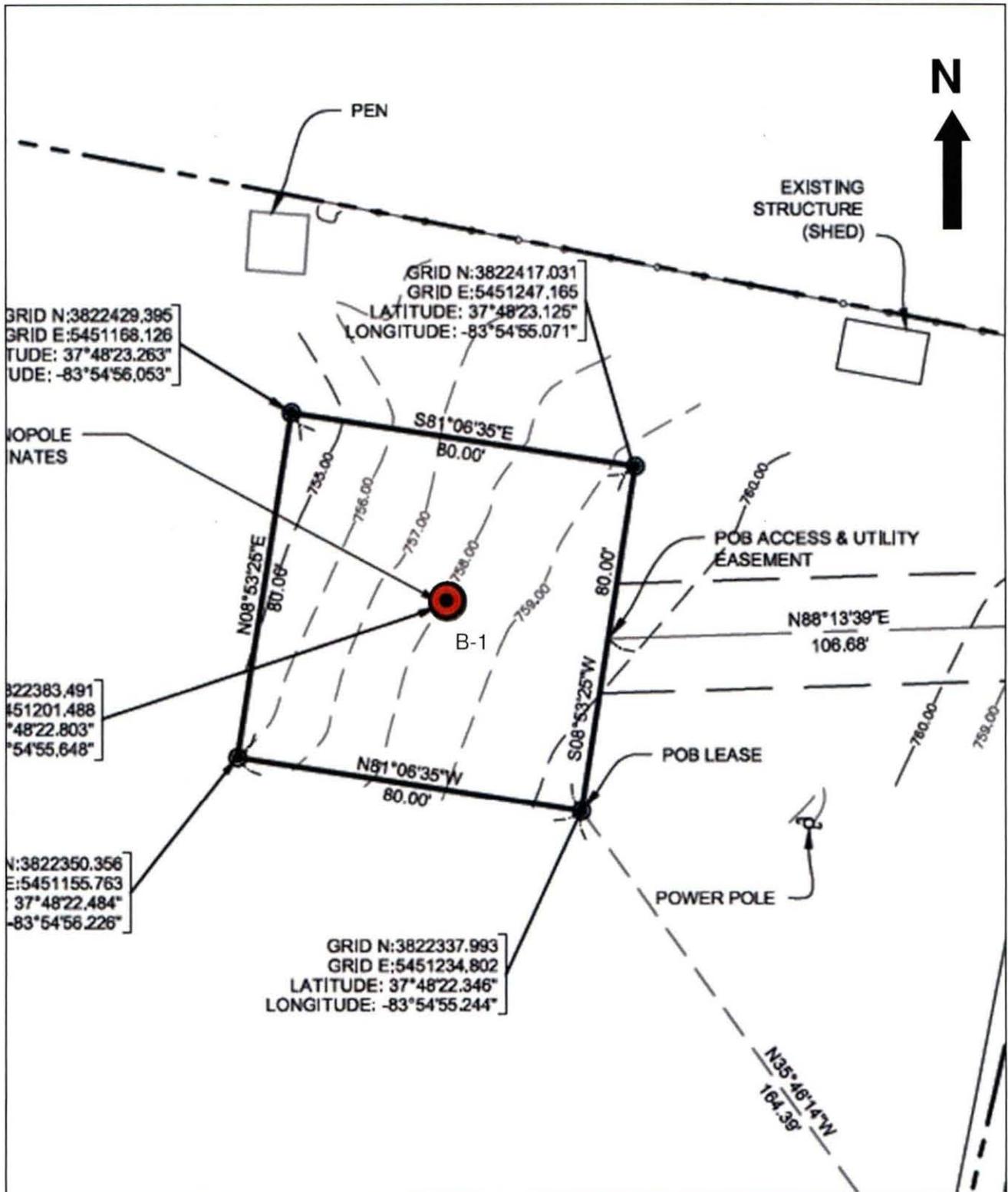
For

Dan Franklin
Principal Reviewer



Mark D. Luskin, P.E.
Engineering Manager

Attachments: Figure 1: Site Location Map
Figure 2: Boring Location Diagrams
Geotechnical Data Form
SPT Boring Log (B-1)
Reference Notes for Boring Logs
USGS Summary Report



Irish Tower – Hardwick Creek

315 Hilltop Road
 Clay City, KY
 ECS Project No. 26:3125-T1



Figure 2: Boring Location Diagram



Approximate Boring Location

GEOTECHNICAL DATA FORM

Background Information

Client: Irish Tower, LLC
 Project: Hardwick Creek Tower
 Location: 315 Hilltop Road, Clay City, Kentucky

ECS Project No.: 26:3125-T1
 Type: Monopole
 Height: 195' +/-



Subsurface Conditions

Depth (feet)	Soil Behavior Type	Average N (spt)	Relative Density/Consistency	USCS Classification
0 - 12	Lean Clay	24	Very Stiff	CL
12+	Shale Bedrock	50/0	-	-

Estimated Soil Parameters for LPILE

Depth (feet)	LPILE Soil Type	γ (pcf)	S_u (psf)	ϕ' (°)	K^* (pci)	E_{50}^*
0 - 12	Very Stiff Clay	115	2000	-	110	0.005
12+	Shale Bedrock	135	5000+	-	2000	0.001

γ = In-situ Soil Density
 S_u = Undrained Shear Strength
 ϕ' = Effective Friction Angle
 K = Horizontal Subgrade Reaction

*Parameters estimated from values suggested in LPILE user manual.

Foundation Recommendations

For Drilled Shaft Foundations**

Depth (ft)	Allowable End Bearing (KSF)
0 - 3	2.5
3 - 12	3
12+	10

Depth Interval	Allowable Average Side Friction (PSF)
0 - 5	-
5 - 12	750
12+	2,000

**Ignore in top 5 feet in design, minimum embedment depth of 10% tower height applies.
 *Parameters were increased with embedment depth due to anticipated increase in bedrock quality

Construction Criteria

- 1) Proofroll site prior to construction to detect unsuitable soil near the surface.
- 2) Compact building pads/roadway subgrade and each 8 inch lift of approved fill to 95% maximum dry density in accordance with ASTM D698 standard proctor.
- 3) Approved fill materials are soils with less than 3% organics, less than 50 liquid limit and less than 30 plastic index.
- 4) Foundation construction should be observed by Geotechnical Engineer.
- 5) Drilled shaft foundations should be installed in accordance with the requirements of the Deep Foundation Institute and monitored by the Geotechnical Engineer.

CLIENT Irish Tower, LLC	Job #: 26:3125-T1	BORING # B-1	SHEET 1 OF 1	
PROJECT NAME Hardwick Creek Tower	ARCHITECT-ENGINEER Irish Tower, LLC			

SITE LOCATION
315 Hilltop Road, Clay City, Powell, KY

NORTHING _____ EASTING _____ STATION _____

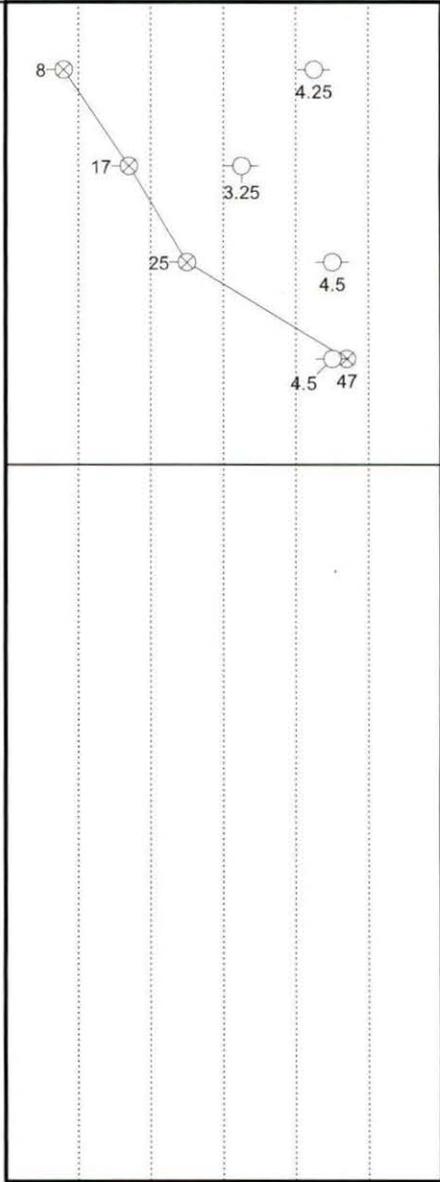
○ CALIBRATED PENETROMETER TONS/FT²

ROCK QUALITY DESIGNATION & RECOVERY
RQD% - - - - REC% _____

PLASTIC LIMIT% WATER CONTENT% LIQUID LIMIT%

⊗ STANDARD PENETRATION BLOWS/FT

DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	DESCRIPTION OF MATERIAL	ENGLISH UNITS	WATER LEVELS ELEVATION (FT)	BLOWS/6"
					BOTTOM OF CASING	LOSS OF CIRCULATION		
0					Topsoil Depth [12"]			
4	S-1	SS	18	18	(CL) LEAN CLAY, trace sand, light grayish brown, moist, firm to very stiff			8
5								4.25
8	S-2	SS	18	18				17
9								3.25
16	S-3	SS	18	18	(CL) LEAN CLAY, trace sand, light grayish brown, dry, very stiff to hard			25
16								4.5
27	S-4	SS	18	18				4.5
27								47
12	AUGER REFUSAL @ 12'							



THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL TYPES. IN-SITU THE TRANSITION MAY BE GRADUAL.

WL DRY	WS <input type="checkbox"/>	WD <input checked="" type="checkbox"/>	BORING STARTED	12/20/17	CAVE IN DEPTH	NA
WL(SHW)	WL(ACR)		BORING COMPLETED	12/20/17	HAMMER TYPE	Auto
WL	DRY UPON COMPLETION		RIG	Truck	FOREMAN	B. Kurpis
					DRILLING METHOD	SPT



REFERENCE NOTES FOR BORING LOGS

MATERIAL ^{1,2}	
	ASPHALT
	CONCRETE
	GRAVEL
	TOPSOIL
	VOID
	BRICK
	AGGREGATE BASE COURSE
	FILL³ MAN-PLACED SOILS
	GW WELL-GRADED GRAVEL gravel-sand mixtures, little or no fines
	GP POORLY-GRADED GRAVEL gravel-sand mixtures, little or no fines
	GM SILTY GRAVEL gravel-sand-silt mixtures
	GC CLAYEY GRAVEL gravel-sand-clay mixtures
	SW WELL-GRADED SAND gravelly sand, little or no fines
	SP POORLY-GRADED SAND gravelly sand, little or no fines
	SM SILTY SAND sand-silt mixtures
	SC CLAYEY SAND sand-clay mixtures
	ML SILT non-plastic to medium plasticity
	MH ELASTIC SILT high plasticity
	CL LEAN CLAY low to medium plasticity
	CH FAT CLAY high plasticity
	OL ORGANIC SILT or CLAY non-plastic to low plasticity
	OH ORGANIC SILT or CLAY high plasticity
	PT PEAT highly organic soils

DRILLING SAMPLING SYMBOLS & ABBREVIATIONS		
SS	Split Spoon Sampler	PM Pressuremeter Test
ST	Shelby Tube Sampler	RD Rock Bit Drilling
WS	Wash Sample	RC Rock Core, NX, BX, AX
BS	Bulk Sample of Cuttings	REC Rock Sample Recovery %
PA	Power Auger (no sample)	RQD Rock Quality Designation %
HSA	Hollow Stem Auger	

PARTICLE SIZE IDENTIFICATION	
DESIGNATION	PARTICLE SIZES
Boulders	12 inches (300 mm) or larger
Cobbles	3 inches to 12 inches (75 mm to 300 mm)
Gravel: Coarse	¾ inch to 3 inches (19 mm to 75 mm)
Fine	4.75 mm to 19 mm (No. 4 sieve to ¾ inch)
Sand: Coarse	2.00 mm to 4.75 mm (No. 10 to No. 4 sieve)
Medium	0.425 mm to 2.00 mm (No. 40 to No. 10 sieve)
Fine	0.074 mm to 0.425 mm (No. 200 to No. 40 sieve)
Silt & Clay ("Fines")	<0.074 mm (smaller than a No. 200 sieve)

COHESIVE SILTS & CLAYS		
UNCONFINED COMPRESSIVE STRENGTH, Q _p ⁴	SPT ⁵ (BPF)	CONSISTENCY ⁷ (COHESIVE)
<0.25	<3	Very Soft
0.25 - <0.50	3 - 4	Soft
0.50 - <1.00	5 - 8	Medium Stiff
1.00 - <2.00	9 - 15	Stiff
2.00 - <4.00	16 - 30	Very Stiff
4.00 - 8.00	31 - 50	Hard
>8.00	>50	Very Hard

RELATIVE AMOUNT ⁷	COARSE GRAINED (%) ⁸	FINE GRAINED (%) ⁸
Trace	≤5	≤5
Dual Symbol (ex: SW-SM)	10	10
With	15 - 20	15 - 25
Adjective (ex: "Silty")	≥25	≥30

GRAVELS, SANDS & NON-COHESIVE SILTS	
SPT ⁵	DENSITY
<5	Very Loose
5 - 10	Loose
11 - 30	Medium Dense
31 - 50	Dense
>50	Very Dense

WATER LEVELS ⁶		
	WL	Water Level (WS)(WD) (WS) While Sampling (WD) While Drilling
	SHW	Seasonal High WT
	ACR	After Casing Removal
	SWT	Stabilized Water Table
	DCI	Dry Cave-In
	WCI	Wet Cave-In

¹Classifications and symbols per ASTM D 2488-09 (Visual-Manual Procedure) unless noted otherwise.

²To be consistent with general practice, "POORLY GRADED" has been removed from GP, GP-GM, GP-GC, SP, SP-SM, SP-SC soil types on the boring logs.

³Non-ASTM designations are included in soil descriptions and symbols along with ASTM symbol [Ex: (SM-FILL)].

⁴Typically estimated via pocket penetrometer or Torvane shear test and expressed in tons per square foot (tsf).

⁵Standard Penetration Test (SPT) refers to the number of hammer blows (blow count) of a 140 lb. hammer falling 30 inches on a 2 inch OD split spoon sampler required to drive the sampler 12 inches (ASTM D 1586). "N-value" is another term for "blow count" and is expressed in blows per foot (bpf).

⁶The water levels are those levels actually measured in the borehole at the times indicated by the symbol. The measurements are relatively reliable when augering, without adding fluids, in granular soils. In clay and cohesive silts, the determination of water levels may require several days for the water level to stabilize. In such cases, additional methods of measurement are generally employed.

⁷Minor deviation from ASTM D 2488-09 Note 16.

⁸Percentages are estimated to the nearest 5% per ASTM D 2488-09.

USGS Design Maps Summary Report

User-Specified Input

Building Code Reference Document 2012/2015 International Building Code
(which utilizes USGS hazard data available in 2008)

Site Coordinates 37.80664°N, 83.91582°W

Site Soil Classification Site Class C - "Very Dense Soil and Soft Rock"

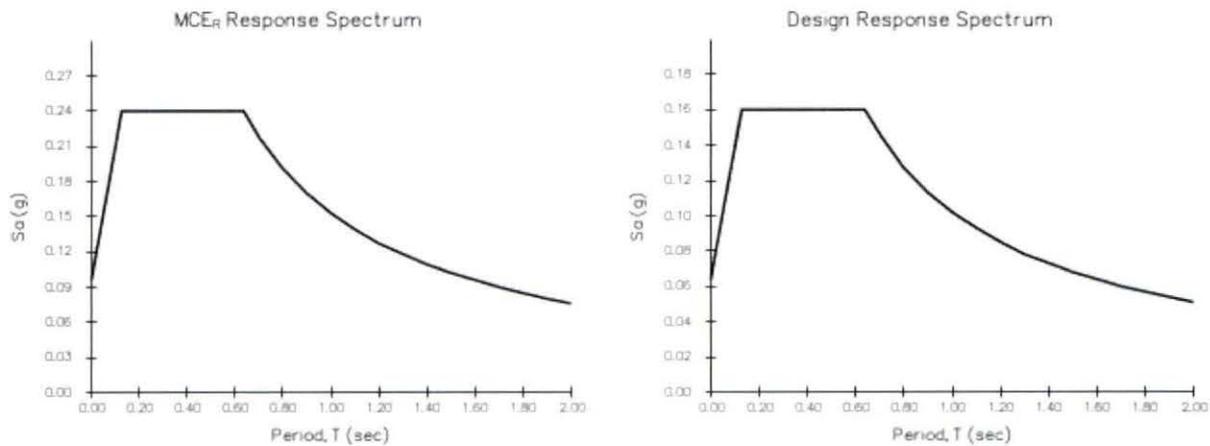
Risk Category I/II/III



USGS-Provided Output

$S_s = 0.200 \text{ g}$	$S_{M5} = 0.240 \text{ g}$	$S_{D5} = 0.160 \text{ g}$
$S_1 = 0.090 \text{ g}$	$S_{M1} = 0.153 \text{ g}$	$S_{D1} = 0.102 \text{ g}$

For information on how the S_s and S_1 values above have been calculated from probabilistic (risk-targeted) and deterministic ground motions in the direction of maximum horizontal response, please return to the application and select the "2009 NEHRP" building code reference document.

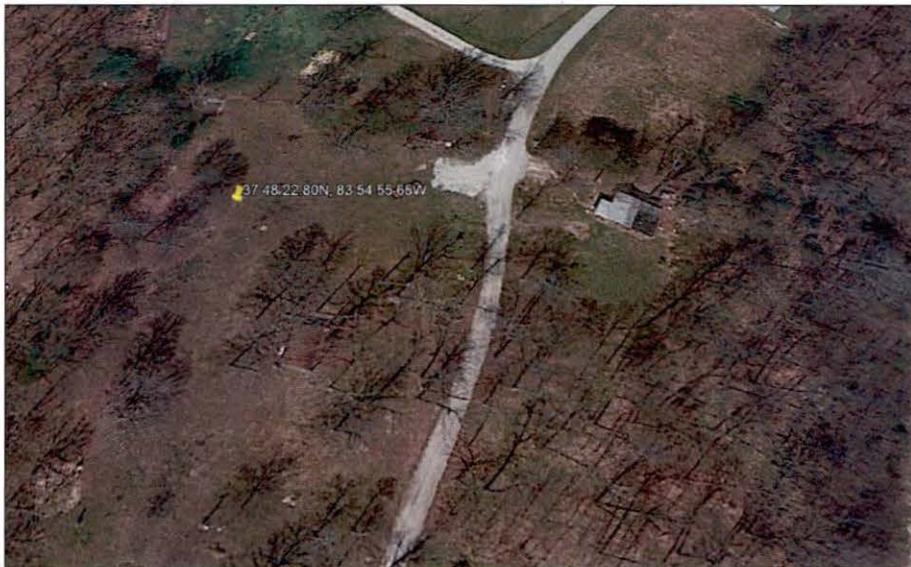


Although this information is a product of the U.S. Geological Survey, we provide no warranty, expressed or implied, as to the accuracy of the data contained therein. This tool is not a substitute for technical subject-matter knowledge.

EXHIBIT H
DIRECTIONS TO WCF SITE

Driving Directions to Proposed Tower Site
Site Name: Hardwick Creek

1. Beginning at the offices of the County Judge Executive located at 525 Washington Street, Stanton, Kentucky start out going north on Washington St/KY-2486 toward Court St/KY-2476.
2. Turn right onto Court St/KY-2476.
3. Turn right onto Ky-213/N Main Street.
4. Take Bert T. Combs Mountain Parkway west.
5. Take Exit 18, KY-1057/Hardwick Creek Road toward Clay City.
6. Turn right onto Neal Silva Road.
7. Turn left onto Hilltop Road.
8. Arrive at 315 Hilltop Road on the right.
9. The coordinates for the site are 37°48'22.80" North latitude, 83°54'55.65" West longitude.



Prepared by:
Robert W. Grant
Pike Legal Group PLLC
1578 Highway 44 East, Suite 6
P.O. Box 369
Shepherdsville, KY 40165-3069
Telephone: 502-955-4400 or 800-516-4293

EXHIBIT I
COPY OF REAL ESTATE AGREEMENT

Market: Lexington
Cell Site Number: KYL06090
Cell Site Name: Hardwick Creek
Fixed Asset Number: 13800706

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 Jennifer Shepherd, single, having a mailing address of P.O. Box 177, Clay City, KY 40312 ("**Landlord**") and New Cingular Wireless PCS, LLC, a Delaware limited liability company, having a mailing address of 575 Morosgo Drive NE, Atlanta, GA 30324 ("**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 315 Hilltop Road, Clay City, in the County of Powell, State of Kentucky (collectively, the "**Property**"). Tenant desires to use a portion of the Property in connection with its federally licensed communications business. 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 option (the "**Option**") to lease a certain portion of the Property containing approximately 6,400 square feet including the air space above such ground space, as described on attached **Exhibit 1** (the "**Premises**"), for the placement of Tenant's Communication Facility.

(b) During the Option Term, and during the term of this Agreement, 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 forty five (45) business days of the Effective Date. The Option will be for an initial term of one (1) year commencing on the Effective Date (the "**Initial Option Term**") and 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 to an Affiliate (as that term is hereinafter defined) of Tenant or to any third party agreeing to be subject to the terms hereof. Otherwise, the Option may not be sold, assigned or transferred without the written consent of Landlord, such consent not to

be unreasonably withheld, conditioned or delayed. From and after the date the Option has been sold, assigned or transferred by Tenant to an Affiliate or a third party agreeing to be subject to the terms hereof, 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 of this Agreement 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 foreclosure, Landlord shall immediately notify Tenant in writing. Landlord agrees that during the Option Term, or during the Term of this Agreement 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 its communications fixtures and related equipment, cables, accessories and improvements, which may include a suitable support 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 Landlord's contiguous, adjoining or Surrounding Property as described on **Exhibit 1** 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, 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 and undertake any other appropriate means to secure the Premises at Tenant's expense. Tenant has the right to modify, supplement, replace, upgrade, expand the equipment, increase the number of antennas or relocate the Communication Facility within the Premises at any time during the term of this Agreement. Tenant will be allowed to make such alterations to the Property in order to ensure that Tenant's 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 four (4) additional five (5) year term(s) (each five (5) year term shall be defined as an "**Extension Term**"), upon the same terms and conditions 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, then upon the expiration 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 written notice of its intention to so terminate at least six (6) months prior to the end of any such Annual Term. Monthly rental during such Annual Terms shall be equal to the Rent paid for the last month of the final Extension Term. 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 (the "**Term**").

4. RENT.

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

(b) In year one (1) of each Extension Term, the monthly Rent will increase by [REDACTED] over the Rent paid during the previous five (5) year term.

(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 Tenant's 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 Tenant's Permitted Use under this Agreement 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 equal to three (3) months' Rent, at the then-current rate, 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: 5 Approvals, 6(a) Termination, 6(b) Termination, 6(c) Termination, 6(d) Termination, 11(d) Environmental, 18 Condemnation, or 19 Casualty.

7. INSURANCE.

(a) During the Term, Tenant will carry, at its own cost and expense, the following insurance: (i) workers' compensation insurance as required by law; and (ii) commercial general liability (CGL) insurance with respect to its activities on the Property, such insurance to afford protection of up to [REDACTED] per occurrence and [REDACTED] general aggregate, based on Insurance Services Office (ISO) Form CG 00 01 or a substitute form providing substantially equivalent coverage. Tenant's CGL insurance shall contain a provision including Landlord as an additional insured. Such additional insured coverage:

(i) shall be limited to bodily injury, property damage or personal and advertising injury caused, in whole or in part, by Tenant, its employees, agents or independent contractors;

(ii) shall not extend to claims for punitive or exemplary damages arising out of the acts or omissions of Landlord, its employees, agents or independent contractors or where such coverage is prohibited by law or to claims arising out of the gross negligence of Landlord, its employees, agents or independent contractors; and

(iii) shall not exceed Tenant's indemnification obligation under this Agreement, if any.

(b) Notwithstanding the foregoing, Tenant shall have the right to self-insure the coverages required in subsection (a). In the event Tenant elects to self-insure its obligation to include Landlord as an additional insured, the following provisions shall apply (in addition to those set forth in subsection (a)):

(i) Landlord shall promptly and no later than thirty (30) days after notice thereof provide Tenant with written notice of any claim, demand, lawsuit, or the like for which it seeks coverage pursuant to this Section and provide Tenant with copies of any demands, notices, summonses, or legal papers received in connection with such claim, demand, lawsuit, or the like;

(ii) Landlord shall not settle any such claim, demand, lawsuit, or the like without the prior written consent of Tenant; and

(iii) Landlord shall fully cooperate with Tenant in the defense of the claim, demand, lawsuit, or the like.

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 those 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 date of this Agreement, 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 (or any claims in respect of the foregoing), costs or expenses (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, 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 (or any claims in respect of the foregoing), costs or expenses (including reasonable attorneys' fees and court costs) arising directly from the actions or failure to act of Landlord, its employees or agents, 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) Tenant and Landlord each acknowledge and represent that it is duly organized, validly existing and in good standing and has the right, power and authority to enter into this Agreement and bind itself hereto through the party 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.

11. ENVIRONMENTAL.

(a) Landlord represents and warrants that, except as may be identified in **Exhibit 11** attached to this Agreement, (i) the Property, as of the date of this Agreement, 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 of this Agreement 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 indemnifications of 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 substances on the Property, or any environmental, health or safety condition or matter relating to the Property, that, in Tenant's sole determination, renders the condition of the Premises or Property unsuitable for Tenant's use, or if Tenant believes that the leasing or continued leasing of the Premises would expose Tenant to undue risks of liability to a government agency or other third party, Tenant will have the right, in addition to any other rights it may have at law or in equity, to terminate this Agreement upon written notice to Landlord.

12. ACCESS. At all times throughout the Term of this Agreement, and at no additional charge to Tenant, Tenant and its employees, agents, and subcontractors, will have twenty-four (24) hour per day, seven (7) day per week pedestrian and vehicular access ("**Access**") to and over the Property, from an open and improved public road to the Premises, for the installation, maintenance and operation of the Communication Facility and any utilities serving the Premises. As may be described more fully in **Exhibit 1**, Landlord grants to Tenant an easement for such Access and Landlord agrees to provide to Tenant such codes, keys and other instruments necessary for such Access at no additional cost to Tenant. Upon Tenant's request, Landlord will execute a separate recordable easement evidencing this right. Landlord shall execute a letter granting Tenant Access to the Property substantially in the form attached as **Exhibit 12**; upon Tenant's request, Landlord shall execute additional letters during the Term. Landlord acknowledges that in the event Tenant cannot obtain Access to the

Premises, Tenant shall incur significant damage. If Landlord fails to provide the Access granted by this Section 12, such failure shall be a default under this Agreement. In connection with such default, in addition to any other rights or remedies available to Tenant under this Agreement or at law or equity, Landlord shall pay Tenant, as liquidated damages and not as a penalty, \$500.00 per day in consideration of Tenant's damages until Landlord cures such default. Landlord and Tenant agree that Tenant's damages in the event of a denial of Access are difficult, if not impossible, to ascertain, and the liquidated damages set forth above are a reasonable approximation of such damages.

13. REMOVAL/RESTORATION. All portions of the Communication Facility brought onto the Property by Tenant will be and remain Tenant's personal property and, at Tenant's option, may be removed by Tenant at any time during or after the Term. Landlord covenants and agrees that no part of the Communication Facility constructed, erected or placed on the Premises by Tenant will become, or be considered as being affixed to or a part of, the Property, it being the specific intention of Landlord that all improvements of every kind and nature constructed, erected or placed by Tenant on the Premises will be and remain the property of Tenant and may be removed by Tenant at any time during or after the Term. Tenant will repair any damage to the Property resulting from Tenant's removal activities. Any portions of the Communication Facility that Tenant does not remove within one hundred twenty (120) days after the later of the end of the Term and cessation of Tenant's operations at the Premises shall be deemed abandoned and owned by Landlord. However, to the extent required by law, Tenant will remove the above-ground portions of the Communications Facility within such one hundred twenty (120) day period. 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 tenable 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 submeter from Landlord. When submetering is required under this Agreement, Landlord will read the meter and provide Tenant with an invoice and usage data on a monthly basis. Landlord agrees that it will not include a markup on the utility charges. 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 forty-five (45) days of receipt of the usage data and required forms. 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.

(c) Landlord hereby grants to any company providing utility or similar services, including electric power and telecommunications, to Tenant an easement over the Property, from an open and improved public road to the Premises, and upon the Premises, for the purpose of constructing, operating and maintaining such lines, wires, circuits, and conduits, associated equipment cabinets and such appurtenances thereto, as such companies may from time to time require in order to provide such services to the Premises. Upon Tenant's or the 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 of this Agreement 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 of this Agreement 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: New Cingular Wireless PCS, LLC
Attn: Network Real Estate Administration
Re: Cell Site #: KYL06090; Cell Site Name: Hardwick Creek (KY)
Fixed Asset No.: 13800706
575 Morosgo Drive NE
Atlanta, GA 30324

With a copy to: New Cingular Wireless PCS, LLC
Attn.: Legal Department
Re: Cell Site #: KYL06090; Cell Site Name: Hardwick Creek (KY)
Fixed Asset No.: 13800706
208 S. Akard Street
Dallas, TX 75202-4206

The copy sent to the Legal Department is an administrative step which alone does not constitute legal notice.

If to Landlord: Jennifer Shepherd
P.O. Box 177
Clay City, KY 40312

Either party hereto may change the place for the giving of notice to it by thirty (30) days' prior written notice to the other 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 forty-eight (48) 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 prorata basis.

19. **CASUALTY.** Landlord will provide notice to Tenant of any casualty or other harm affecting the Property within forty-eight (48) 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 prorata 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 the 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 timely payment of all taxes and assessments levied upon the lands, improvements and other property of Landlord, including any such taxes that may be calculated by the taxing authority using any method, including the income method. Tenant shall be responsible for 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. 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 within such time period, 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 Tenant may deem appropriate. This right shall include the ability to institute any legal, regulatory or informal action in the name of Landlord, Tenant, or both, with respect to the valuation of the Premises. Landlord shall cooperate with respect to the commencement and prosecution of any such proceedings and will execute any documents required therefor. The expense of any such proceedings shall be borne by Tenant and any refunds or rebates secured as a result of Tenant's action shall belong to Tenant, to the extent the amounts were originally paid by Tenant. In the event Tenant notifies Landlord by the due date for assessment of Tenant's intent to contest the assessment, Landlord shall not pay the assessment pending conclusion of the contest, unless required by applicable law.

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

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

(f) Any tax-related notices shall be sent to Tenant in the manner set forth in Section 17 and, in addition, of a copy of any such notices shall be sent to the following address. Promptly after the Effective Date of this Agreement, Landlord shall provide the following address 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 addresses changes by notice to Landlord, Landlord shall be required to provide Tenant's new tax address to the taxing authority or authorities.

New Cingular Wireless PCS, LLC
Attn: Network Real Estate Administration -- Taxes
Re: Cell Site #: KYL06090; Cell Site Name: Hardwick Creek (KY)
Fixed Asset No: 13800706
575 Morosgo Drive NE
Atlanta, GA 30324

(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 shall not be prohibited from the selling, leasing or use of any of the Property or the Surrounding Property except as provided below.

(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 subsection (b) to Tenant. Until Tenant receives all such documents, 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.

- 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 AT&T 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 communications 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 communications 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. **RENTAL STREAM OFFER.** If at any time after the date of this Agreement, Landlord receives a bona fide written offer from a third party seeking an assignment or transfer of Rent payments associated with this Agreement ("**Rental Stream Offer**"), Landlord shall immediately furnish Tenant with a copy of the Rental Stream Offer. Tenant shall have the right within twenty (20) days after it receives such copy to match the Rental Stream Offer and agree in writing to match the terms of the Rental Stream Offer. Such writing shall be in the form of a contract substantially similar to the Rental Stream Offer. If Tenant chooses not to exercise this right or fails to provide written notice to Landlord within the twenty (20) day period, Landlord may assign the right to receive Rent payments pursuant to the Rental Stream Offer, subject to the terms of this Agreement. If Landlord attempts to assign or transfer Rent payments without complying with this Section, the 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.

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/Short Form Lease.** Contemporaneously with the execution of this Agreement, the parties will execute a recordable Memorandum or Short Form of Lease substantially in the form attached as

Exhibit 24b. Either party may record this Memorandum or Short Form of Lease at any time during the Term, in its absolute discretion. Thereafter during the Term of this Agreement, 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 or Short Form 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 this 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 New Cingular Wireless PCS, 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 without limitation, 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.

[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"

Jennifer Shepherd

By: Jennifer Shepherd

Print Name: Jennifer Shepherd

Its: Owner

Date: 2/2/2017

LANDLORD ACKNOWLEDGMENT

STATE OF KENTUCKY)

) ss:

COUNTY OF POWELL)

On the 2nd day of Feb, 2017 before me, personally appeared Jennifer Shepherd, who acknowledged under oath, that he/she/they is/are the person/officer named in the within instrument, and that he/she/they executed the same in his/her/their stated capacity as the voluntary act and deed of the Landlord for the purposes therein contained.

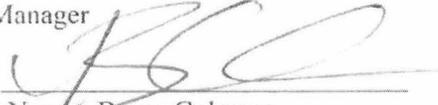
Conchita German
Notary Public: Powell Ky
My Commission Expires: 8/5/2020

"TENANT"

New Cingular Wireless PCS, LLC,
a Delaware limited liability company

By: AT&T Mobility Corporation

Its: Manager

By: 

Print Name: Bryan Coleman

Its: Area Manager Network Engineering
Gulf States/TNKY Site Acquisition

Date: 5/25/2017

TENANT ACKNOWLEDGMENT

STATE OF ALABAMA)

) ss:

COUNTY OF JEFFERSON)

On the 25th day of May, 2017, before me personally appeared Bryan Coleman and acknowledged under oath that he is the Area Manager Network Engineering – Gulf States/TNKY Site Acquisition of AT&T Mobility Corporation, the Manager of New Cingular Wireless PCS, LLC, the Tenant named in the attached instrument, and as such was authorized to execute this instrument on behalf of the Tenant.

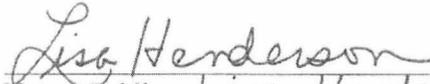

Notary Public: Lisa Henderson
My Commission Expires: 7/9/2018

EXHIBIT 1

DESCRIPTION OF PREMISES

Page 1 of 2

to the Option and Lease Agreement dated May 25, 2017, by and between Jennifer Shepherd, single, as Landlord, and New Cingular Wireless PCS, LLC, a Delaware limited liability company, as Tenant.

The Property is legally described as follows: DB 187, PG 505

A certain tract or parcel of land located on Hardwicks Creek Road, Powell County, Kentucky, more particularly described as follows:

Beginning at center of Public Pass way Road/Profitt Road in a westerly direction approximately 475 feet along wire fence and bounded by Richard and Mildred Silva to a stake; thence in a southerly direction along wire fence and bounded by Richard and Mildred Silva line approximately 450 feet to a stake, corner Tracy G. And Pearlle Profitt to a stake; thence along Profitt line in an easterly direction approximately 354 feet to center of Profitt Road, thence in northerly direction along center of said road approximately 450 feet to point of beginning

It is understood by and between the parties hereto that Grantees herein, Strange shall have the right to use Profitt Road for access to and from Route 1057, Hardwicks Creek Road.

Being the same property conveyed to John D. Strange and Wilda J. Strange, husband and wife, from Tracy G. Profitt and Pearlle B. Profitt, husband and wife, by deed of record in Deed Book 101, Page 139, records of the Powell County Clerk's Office. See also Deed from John Strange and Wilda Strange to John Strange, single, of record in Deed Book 140, Page 9, records of the Powell County Clerk's Office

Pursuant to KRS 362.135, as amended effective August 1, 2008, the property tax bill for the year 2015 shall be mailed to and in the care of Grantee herein at the address set forth above. Grantee herein shall contact the appropriate Property Valuation Administrator office to ensure said property tax bill is mailed accordingly

EXHIBIT 11

ENVIRONMENTAL DISCLOSURE

Landlord represents and warrants that the Property, as of the date of this Agreement, is free of hazardous substances except as follows:

1. NONE.

EXHIBIT 12

STANDARD ACCESS LETTER

[FOLLOWS ON NEXT PAGE]

[Landlord Letterhead]

DATE

Building Staff / Security Staff
Landlord, Lessee, Licensee
Street Address
City, State, Zip

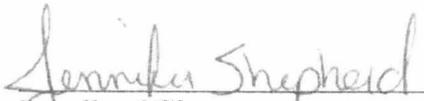
Re: Authorized Access granted to AT&T

Dear Building and Security Staff,

Please be advised that we have signed a lease with AT&T permitting AT&T to install, operate and maintain telecommunications equipment at the property. The terms of the lease grant AT&T and its representatives, employees, agents and subcontractors (“representatives”) 24 hour per day, 7 day per week access to the leased area.

To avoid impact on telephone service during the day, AT&T representatives may be seeking access to the property outside of normal business hours. AT&T representatives have been instructed to keep noise levels at a minimum during their visit.

Please grant the bearer of a copy of this letter access to the property and to leased area. Thank you for your assistance.


Landlord Signature

MEMORANDUM OF LEASE

Prepared by:

Integrisite, Inc.
Name: Cody Knox
214 Expo Circle, Suite 4
West Monroe, LA 71292

Return to:

New Cingular Wireless PCS, LLC
Attn: Network Real Estate Administration
575 Morosgo Drive NE
Atlanta, GA 30324

Re: Cell Site #KYL06090; Cell Site Name: Hardwick Creek
Fixed Asset #13800706
State: Kentucky
County: Powell

MEMORANDUM OF LEASE

This Memorandum of Lease is entered into on this 25th day of May, 2017, by and between Jennifer Shepherd, single, having a mailing address of P.O. Box 177, Clay City, KY 40312 (hereinafter referred to as "**Landlord**") and New Cingular Wireless PCS, LLC, a Delaware limited liability company, having a mailing address of 575 Morosgo Drive NE, Atlanta, GA 30324 (hereinafter referred to as "**Tenant**").

1. Landlord and Tenant entered into a certain Option and Lease Agreement ("**Agreement**") on the 25th day of May, 2017, for the purpose of installing, operating and maintaining a communications facility and other improvements. All of the foregoing is set forth in the Agreement.
2. The initial lease term will be five (5) years commencing on the effective date of written notification by Tenant to Landlord of Tenant's exercise of its option, with four (4) successive five (5) year options to renew.
3. The portion of the land being leased to Tenant and associated easements are described in **Exhibit 1** annexed hereto.
4. This Memorandum of Lease is not intended to amend or modify, and shall not be deemed or construed as amending or modifying, any of the terms, conditions or provisions of the Agreement, all of which are hereby ratified and affirmed. In the event of a conflict between the provisions of this Memorandum of Lease and the provisions of the Agreement, the provisions of the Agreement shall control. The Agreement shall be binding upon and inure to the benefit of the parties and their respective heirs, successors, and assigns, subject to the provisions of the Agreement.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Lease as of the day and year first above written.

"LANDLORD"

Jennifer Shepherd

By: Jennifer Shepherd

Print Name: Jennifer Shepherd

Its: Owner

Date: 2/2/2017

LANDLORD ACKNOWLEDGMENT

STATE OF KENTUCKY)

) ss:

COUNTY OF POWELL)

On the 2nd day of Feb, 2017 before me, personally appeared Jennifer Shepherd, who acknowledged under oath, that he/she is the person/officer named in the within instrument, and that he/she executed the same in his/her stated capacity as the voluntary act and deed of Landlord for the purposes therein contained.

Conchita Leeman
Notary Public: Powell Ky

My Commission Expires: 8/5/2020

"TENANT"

New Cingular Wireless PCS, LLC,
a Delaware limited liability company

By: AT&T Mobility Corporation

Its: Manager

By: _____

Print Name: Bryan Coleman

Its: Area Manager Network Engineering
Gulf States/TNKY Site Acquisition

Date: 5/25/2017

TENANT ACKNOWLEDGMENT

STATE OF ALABAMA)

) ss:

COUNTY OF JEFFERSON)

On the 25th day of May, 2017, before me personally appeared Bryan Coleman and acknowledged under oath that he is the Area Manager Network Engineering – Gulf States/TNKY Site Acquisition of AT&T Mobility Corporation, the Manager of New Cingular Wireless PCS, LLC, the Tenant named in the attached instrument, and as such was authorized to execute this instrument on behalf of the Tenant.



Lisa Henderson
Notary Public: Lisa Henderson
My Commission Expires: 7/9/2018

EXHIBIT 1

DESCRIPTION OF PREMISES

Page 1 of 2

to the Memorandum of Lease dated May 25, 2017, by and between Jennifer Shepherd, single, as Landlord, and New Cingular Wireless PCS, LLC, a Delaware limited liability company, as Tenant.

The Property is legally described as follows: DB 187, PG 505

A certain tract or parcel of land located on Hardwicks Creek Road, Powell County, Kentucky, more particularly described as follows:

Beginning at center of Public Pass way Road/Profitt Road in a westerly direction approximately 478 feet along wire fence and bounded by Richard and Mildred Silva to a stake; thence in a southerly direction along wire fence and bounded by Richard and Mildred Silva line approximately 450 feet to a stake, corner Tracy G. And Pearlie Profitt to a stake; thence along Profitt line in an easterly direction approximately 364 feet to center of Profitt Road; thence in northerly direction along center of said road approximately 450 feet to point of beginning.

It is understood by and between the parties hereto that Grantees herein, Strange shall have the right to use Profitt Road for access to and from Route 1057, Hardwicks Creek Road.

Being the same property conveyed to John D. Strange and Wilda J. Strange, husband and wife, from Tracy G. Profitt and Pearlie B. Profitt, husband and wife, by deed of record in Deed Book 101, Page 139, records of the Powell County Clerk's Office. See also Deed from John Strange and Wilda Strange to John Strange, single, of record in Deed Book 149, Page 9, records of the Powell County Clerk's Office.

Pursuant to KRS 382.135, as amended effective August 1, 2008, the property tax bill for the year 2015 shall be mailed to and in the care of Grantee herein at the address set forth above. Grantee herein shall contact the appropriate Property Valuation Administrator office to ensure said property tax bill is mailed accordingly.

EXHIBIT J
NOTIFICATION LISTING

NOTIFICATION LISTING
SITE NAME: HARDWICK CREEK

SHEPHERD JENNIFER
PO BOX 177
CLAY CITY KY, 40312

DAUGHERTY ANTHONY LEE WAYNE
7930 WINCHESTER ROAD
CLAY CITY KY, 40312

HOLLIFIELD STANLEY & DEBRA
198 HILLTOP ROAD
CLAY CITY KY, 40312

KENNON DEBORAH
2985 HARDWICKS CREEK
CLAY CITY KY, 40312

KENNON DEBORAH
2985 HARDWICKS CREEK ROAD
CLAY CITY KY, 40312

TERRY MICHAEL E & TERRISA L
108 MARCUM ROAD
CLAY CITY KY, 40312

REFFITT KRISTINA & COLONEL J
332 HILLTOP ROAD
CLAY CITY KY, 40312

SILVA MILDRED N
C/O MICHAEL NEAL
2207 OAKWOOD PL
CHARLESTON IL, 61920-3700

MULLINS RAYMOND E
396 NEAL SILVA ROAD
CLAY CITY, KY 40312

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: Hardwick Creek**

Dear Landowner:

New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility has filed an application with the Kentucky Public Service Commission ("PSC") to construct a new wireless communications facility on a site located at 315 Hilltop Road, Clay City, Kentucky (37°48'22.80" North latitude, 83°54'55.65" West longitude). The proposed facility will include a 195-foot tall antenna tower, plus a 4-foot lightning arrester and related ground facilities. This facility is needed to provide improved coverage for wireless communications in the area.

This notice is being sent to you because the County Property Valuation Administrator's records indicate that you may own property that is within a 500' radius of the proposed tower site or contiguous to the property on which the tower is to be constructed. You have a right to submit testimony to the Kentucky Public Service Commission ("PSC"), either in writing or to request intervention in the PSC's proceedings on the application. You may contact the PSC for additional information concerning this matter at: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to docket number 2018-00060 in any correspondence sent in connection with this matter.

In addition to expanding and improving voice and data service for AT&T mobile customers, this site will also provide wireless local loop ("WLL") broadband internet service to homes and businesses in the area. WLL will support internet access at the high speeds required to use and enjoy the most current business, education and entertainment technologies.

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 Applicant

enclosures

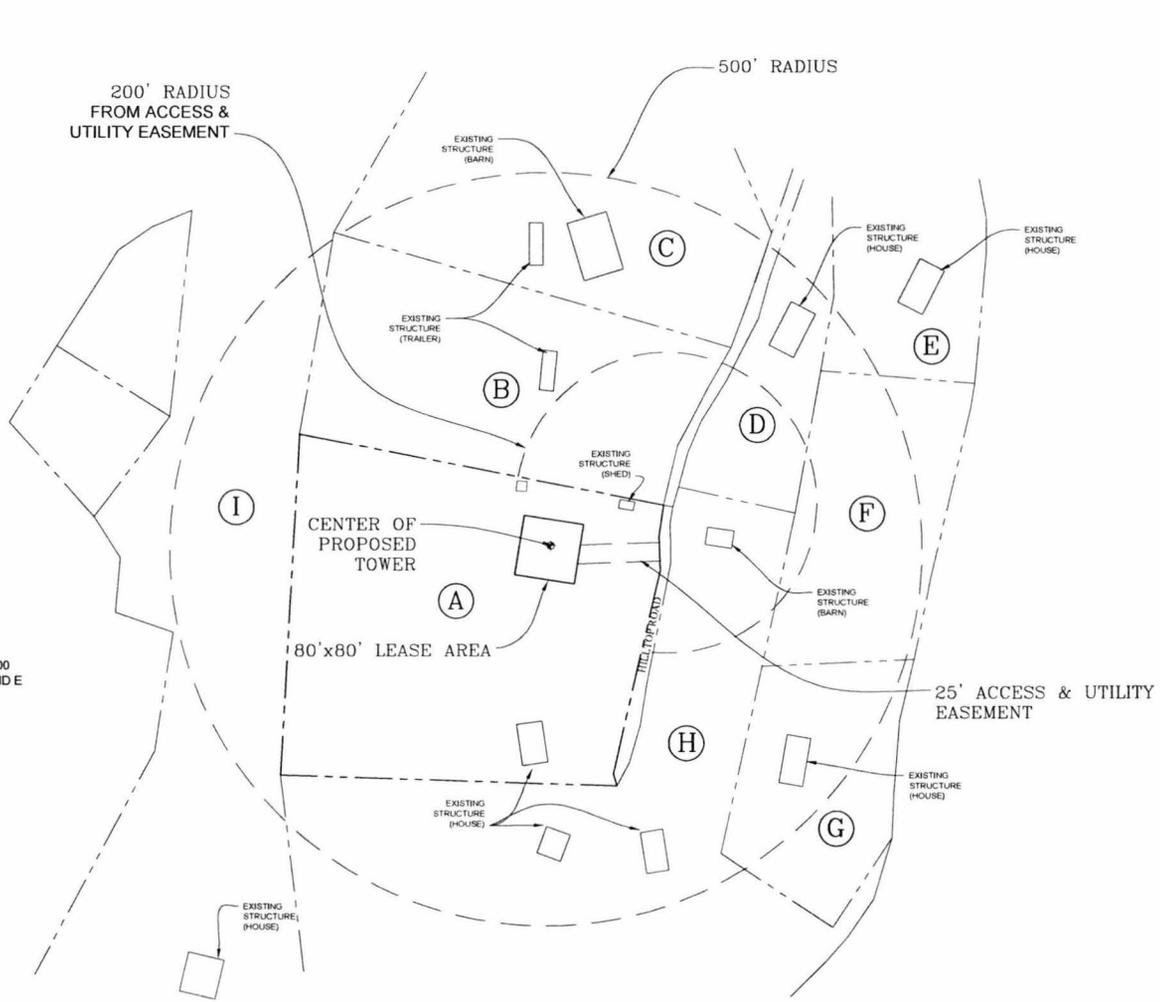
Driving Directions to Proposed Tower Site
Site Name: Hardwick Creek

1. Beginning at the offices of the County Judge Executive located at 525 Washington Street, Stanton, Kentucky start out going north on Washington St/KY-2486 toward Court St/KY-2476.
2. Turn right onto Court St/KY-2476.
3. Turn right onto Ky-213/N Main Street.
4. Take Bert T. Combs Mountain Parkway west.
5. Take Exit 18, KY-1057/Hardwick Creek Road toward Clay City.
6. Turn right onto Neal Silva Road.
7. Turn left onto Hilltop Road.
8. Arrive at 315 Hilltop Road on the right.
9. The coordinates for the site are 37°48'22.80" North latitude, 83°54'55.65" West longitude.



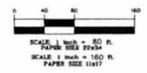
Prepared by:
Robert W. Grant
Pike Legal Group PLLC
1578 Highway 44 East, Suite 6
P.O. Box 369
Shepherdsville, KY 40165-3069
Telephone: 502-955-4400 or 800-516-4293

- (A) PARCEL ID: 016-00-00-019.10
OWNER: SHEPHERD JENNIFER
PO BOX 177
CLAY CITY KY, 40312
DB 187/505
- (B) PARCEL ID: 016-00-00-019.20
OWNER: DAUGHERTY ANTHONY LEE WAYNE
7930 WINCHESTER ROAD
CLAY CITY KY, 40312
DB 186/793
- (C) PARCEL ID: 016-00-00-019.08
OWNER: DAUGHERTY ANTHONY LEE WAYNE
7930 WINCHESTER ROAD
CLAY CITY KY, 40312
DB 186/793
- (D) PARCEL ID: 016-00-00-019.27
OWNER: HOLLIFIELD STANLEY & DEBRA
198 HILLTOP ROAD
CLAY CITY KY, 40312
DB 191/86
- (E) PARCEL ID: 016-00-00-019.11
OWNER: KENNON DEBORAH
2985 HARDWICKS CREEK
CLAY CITY KY, 40312
DB 187/283
- (F) PARCEL ID: 016-00-00-019.11
OWNER: KENNON DEBORAH
2985 HARDWICKS CREEK ROAD
CLAY CITY KY, 40312
DB 187/283
- (G) PARCEL ID: 016-00-00-019.13
OWNER: TERRY MICHAEL E & TERRISA L
108 MARCUM ROAD
CLAY CITY KY, 40312
DB 186/74
- (H) PARCEL ID: 016-00-00-019.06
OWNER: REFFITT KRISTINA & COLONEL J
332 HILLTOP ROAD
CLAY CITY KY, 40312
DB 187/540
- (I) PARCEL ID: 016-00-00-019.00
OWNER: SILVA MILDRED N
C/O MICHAEL NEAL
2207 OAKWOOD PL
CHARLESTON IL, 61920-3700
DB 85/723
- PARCEL ID: 016-00-00-019.00
OWNER: MULLINS RAYMOND E
396 NEAL SILVA ROAD
CLAY CITY, KY 40312
DB N/A



SURVEYOR NOTES

1. ALL INFORMATION SHOWN HEREON WAS OBTAINED 2.9.18 FROM POWELL COUNTY PROPERTY VALUATION OFFICE. RECORDS MAY NOT REFLECT THE CURRENT OWNERS AND ADDRESSES DUE TO THE INACCURACIES AND THE TIME LAPSE IN UPDATING FILES.
2. THIS MAP IS FOR GENERAL INFORMATION PURPOSES ONLY AND DOES CONSTITUTE A BOUNDARY SURVEY.
3. THIS MAP IS NOT FOR RECORDING OR PROPERTY TRANSFER.



SITE INFO
TAX PARCEL NO: 016-00-00-019.10
PROPERTY OWNER: JENNIFER SHEPHERD
SOURCE OF TITLE: 187/505



DRAWN BY: MD
CHECKED BY: JC/ACR

REV	DATE	DESCRIPTION
A	3.31.17	REVIEW



FA #
13800706
SITE #
KYL06090
SITE NAME
HARDWICK CREEK
SITE ADDRESS
315 HILLTOP ROAD
CLAY CITY, KY
POWELL COUNTY

SHEET TITLE
**500' RADIUS
&
ABUTTER'S MAP**

SHEET NUMBER
B-2

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. James D. Anderson Jr.
County Judge Executive
525 Washington St # 102
P.O. Box 506
Stanton, KY 40380

RE: Notice of Proposal to Construct Wireless Communications Facility
Kentucky Public Service Commission Docket No. 2018-00060
Site Name: Hardwick Creek

Dear Judge Anderson:

New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility has filed an application with the Kentucky Public Service Commission ("PSC") to construct a new wireless communications facility on a site located at 315 Hilltop Road, Clay City, Kentucky (37°48'22.80" North latitude, 83°54'55.65" West longitude). The proposed facility will include a 195-foot tall antenna tower, plus a 4-foot lightning arrestor and related ground facilities. This facility is needed to provide improved coverage for wireless communications in the area.

You have a right to submit comments to the PSC or to request intervention in the PSC's proceedings on the application. You may contact the PSC at: Executive Director, Public Service Commission, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to docket number 2018-00060 in any correspondence sent in connection with this matter.

In addition to expanding and improving voice and data service for AT&T mobile customers, this site will also provide wireless local loop ("WLL") broadband internet service to homes and businesses in the area. WLL will support internet access at the high speeds required to use and enjoy the most current business, education and entertainment technologies.

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 Applicant
enclosures

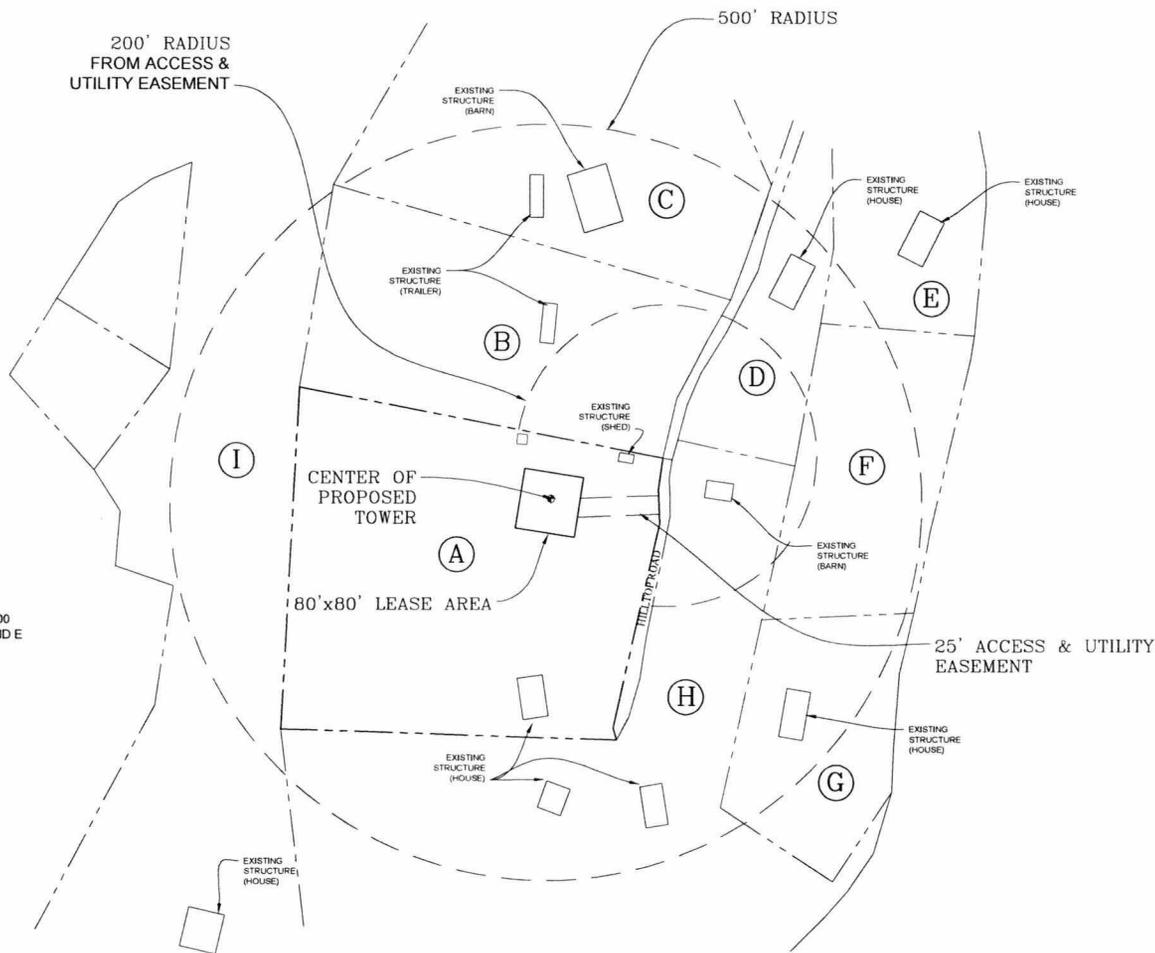
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Site Name: Hardwick Creek

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5. Take Exit 18, KY-1057/Hardwick Creek Road toward Clay City.
6. Turn right onto Neal Silva Road.
7. Turn left onto Hilltop Road.
8. Arrive at 315 Hilltop Road on the right.
9. The coordinates for the site are 37°48'22.80" North latitude, 83°54'55.65" West longitude.



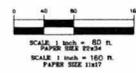
Prepared by:
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OWNER: MULLINS RAYMOND E
396 NEAL SILVA ROAD
CLAY CITY, KY 40312
DB N/A



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SITE INFO
TAX PARCEL NO: 016-00-00-019.10
PROPERTY OWNER: JENNIFER SHEPHERD
SOURCE OF TITLE: 187/505

GENERAL CONSTRUCTION ENGINEERING PROJECT MANAGEMENT
8403 Blumhardt Drive, Sugar Land, TX 77478
Phone: (281) 796-6033 Fax: (281) 796-6030
info@irishtower.com

DRAWN BY: MD
CHECKED BY: JC/ACR

REV	DATE	DESCRIPTION
A	3.31.17	REVIEW

FA # 13800706
SITE # KYL06090
SITE NAME: HARDWICK CREEK
SITE ADDRESS: 315 HILLTOP ROAD
CLAY CITY, KY
POWELL COUNTY

SHEET TITLE
500' RADIUS & ABUTTER'S MAP

SHEET NUMBER
B-2

EXHIBIT M
COPY OF POSTED NOTICES

SITE NAME: HARDWICK CREEK
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 proposes 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 2018-00060 in your correspondence.

New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility proposes 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 2018-00060 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 TELEFAX: 606-663-6397

The Clay City Times
Attn: Public Notice Ad Placement
4477 Main Street
PO Box 668
Clay City, KY 40312

RE: Legal Notice Advertisement
Site Name: Hardwick Creek

Dear Clay City Times:

Please publish the following legal notice advertisement in the next edition of *The Clay City Times*:

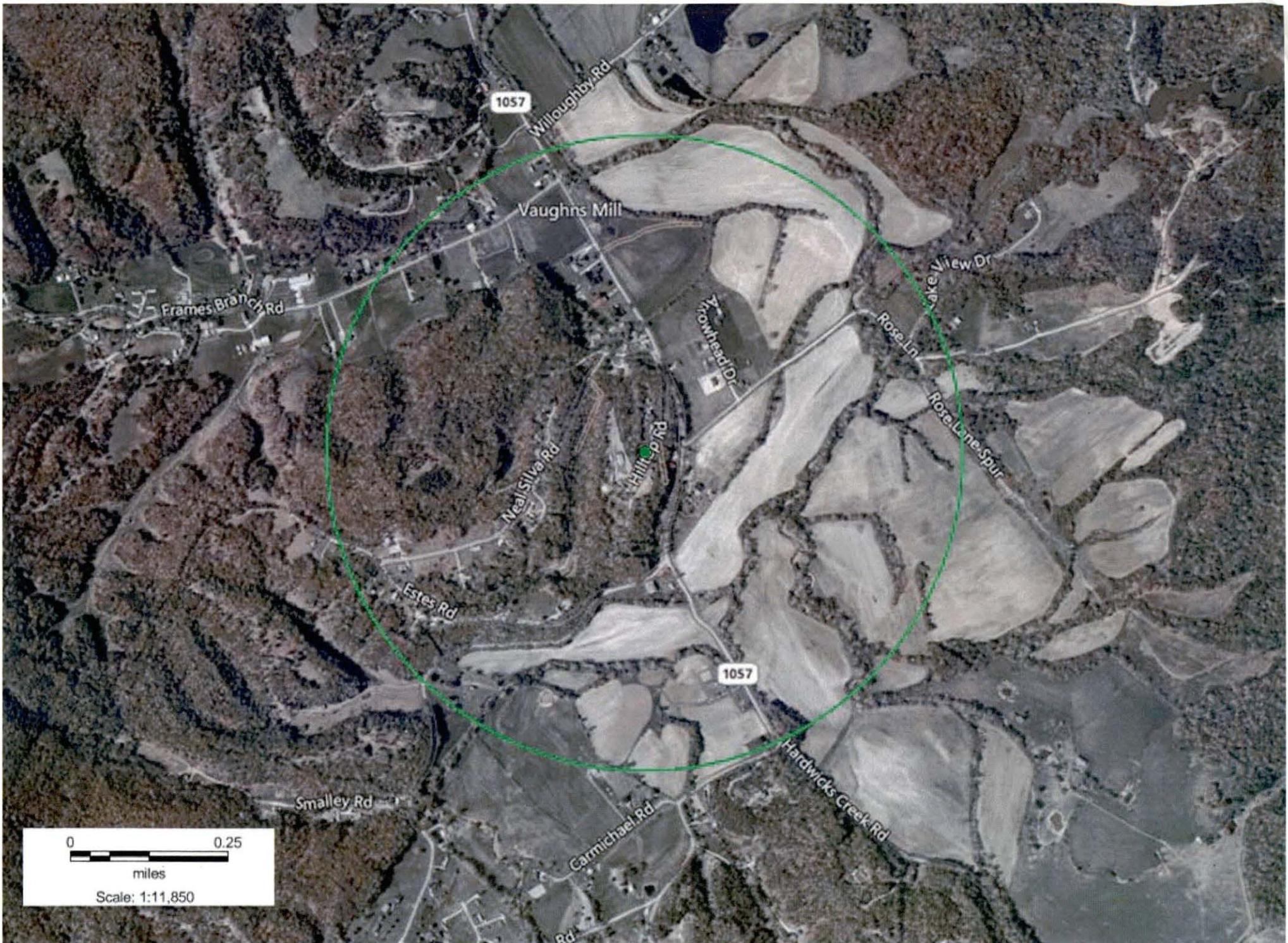
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After this advertisement has been published, please forward a tearsheet copy, affidavit of publication, and invoice to Pike Legal Group, PLLC, P. O. Box 369, Shepherdsville, KY 40165. Please call me at (800) 516-4293 if you have any questions. Thank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

Sincerely,
Robert W. Grant
Pike Legal Group, PLLC

EXHIBIT N
COPY OF RADIO FREQUENCY DESIGN SEARCH AREA



Lat: 37.807562
Lon: -83.914544

Hardwick Creek Search Area