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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.: 2018-00350
CONVENIENCE AND NECESSITY TO CONSTRUCT	)	
A WIRELESS COMMUNICATIONS FACILITY	)	
IN THE COMMONWEALTH OF KENTUCKY	)	
IN THE COUNTY OF CLAY	)	

SITE NAME: CHOP BOTTOM FN

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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 South Highway 421, Manchester, Kentucky 40962 (37°05'55.110" North latitude, 83°42'09.845" 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 Randall Wagers and Rosemary Wagers pursuant to a Deed recorded at Deed Book D291, Page 285 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. Documentation confirming that Federal Aviation Administration ("FAA") approval is not required for this site is attached as **Exhibit E**.

12. Documentation confirming that a Kentucky Airport Zoning Commission ("KAZC") permit is not required for this site is attached as **Exhibit F**.

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

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

wooded and mountainous. There are no existing residences within 500' of the proposed site.

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.

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
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
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 and Newspaper Notice Advertisement

N - Copy of Radio Frequency Design Search Area

EXHIBIT A
FCC LICENSE DOCUMENTATION

Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

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

Call Sign	File Number
KNKN673	
Radio Service CL - Cellular	
Market Numer CMA453	**Channel Block** A
Sub-Market Designator 0	

FCC Registration Number (FRN): 0003291192

Market Name
Kentucky 11 - Clay

Grant Date	Effective Date	Expiration Date	Five Yr Build-Out Date	Print Date
08-30-2011	08-31-2018	10-01-2021		

Site Information:

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
4	36-44-50.6 N	084-08-43.6 W	469.7	62.2	1043812

Address: 969 CELL TOWER ROAD (76426)
City: WILLIAMSBURG **County:** WHITLEY **State:** KY **Construction Deadline:**

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	164.200	142.000	198.300	134.200	151.500	124.900	186.500	184.500
Transmitting ERP (watts)	80.790	33.632	2.346	0.254	0.164	0.164	5.156	40.160

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	164.200	142.000	198.300	134.200	151.500	124.900	186.500	184.500
Transmitting ERP (watts)	1.159	16.802	80.666	104.784	22.590	1.407	0.209	0.204

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	164.200	142.000	198.300	134.200	151.500	124.900	186.500	184.500
Transmitting ERP (watts)	0.393	0.106	0.095	1.187	9.994	34.712	26.126	3.238

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.

FCC 601-C
March 2018

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKN673 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
7	36-38-29.0 N	083-46-24.9 W	917.4	64.9	1056643

Address: 2 MILES NORTHWEST OF NOETOWN 19 MIL (76435)
City: Middlesboro **County:** BELL **State:** KY **Construction Deadline:**

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	514.300	514.900	478.800	557.800	452.400	334.800	345.400	421.600
Transmitting ERP (watts)	41.864	12.118	1.035	0.164	0.104	0.102	0.886	11.503

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	514.300	514.900	478.800	557.800	452.400	334.800	345.400	421.600
Transmitting ERP (watts)	0.286	0.947	0.706	0.874	0.879	0.224	0.101	0.109

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
12	36-58-46.0 N	083-01-30.2 W	736.8	80.5	1010610

Address: 21834 HIGHWAY 160 (76432)
City: GORDON **County:** LETCHER **State:** KY **Construction Deadline:**

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	316.700	319.800	30.000	54.700	30.000	198.900	238.900	287.300
Transmitting ERP (watts)	112.719	46.762	8.219	1.163	0.285	0.298	5.383	44.574

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	316.700	319.800	30.000	54.700	30.000	198.900	238.900	287.300
Transmitting ERP (watts)	0.636	12.989	91.274	94.955	26.405	2.175	0.841	0.311

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	316.700	319.800	30.000	54.700	30.000	198.900	238.900	287.300
Transmitting ERP (watts)	1.458	0.224	0.588	1.866	27.246	84.787	72.123	11.074

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
13	36-40-53.1 N	084-08-46.5 W	446.2	58.8	

Address: 895 WAGON WHEEL ROAD (76433)
City: WILLIAMSBURG **County:** WHITLEY **State:** KY **Construction Deadline:**

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	159.200	160.200	107.400	125.700	101.200	58.800	107.500	145.600
Transmitting ERP (watts)	24.755	89.034	70.279	10.065	1.351	0.211	0.387	1.828

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKN673 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
13	36-40-53.1 N	084-08-46.5 W	446.2	58.8	

Address: 895 WAGON WHEEL ROAD (76433)
City: WILLIAMSBURG **County:** WHITLEY **State:** KY **Construction Deadline:**

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	159.200	160.200	107.400	125.700	101.200	58.800	107.500	145.600
Transmitting ERP (watts)	0.124	3.716	14.234	28.095	19.823	32.016	11.426	8.167

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	159.200	160.200	107.400	125.700	101.200	58.800	107.500	145.600
Transmitting ERP (watts)	21.702	2.370	0.815	0.286	0.611	12.974	63.085	92.160

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
16	36-50-41.4 N	084-09-27.9 W	410.0	97.8	1204258

Address: 4499 HIGHWAY 511 (64046)
City: Rockholds **County:** WHITLEY **State:** KY **Construction Deadline:** 02-23-2013

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	144.000	137.900	124.500	157.700	188.600	187.400	152.500	147.000
Transmitting ERP (watts)	40.926	37.139	5.069	0.465	0.105	0.099	1.028	10.105

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	144.000	137.900	124.500	157.700	188.600	187.400	152.500	147.000
Transmitting ERP (watts)	0.176	0.199	0.523	10.033	46.347	45.959	7.311	1.005

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
17	37-09-19.2 N	083-26-33.1 W	516.6	98.1	1043811

Address: 2255 DAVIDSON FORK ROAD (76424)
City: THOUSAND STICKS **County:** LESLIE **State:** KY **Construction Deadline:** 02-23-2013

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	255.100	250.600	210.300	157.900	145.900	186.400	230.000	208.500
Transmitting ERP (watts)	183.310	76.153	8.501	2.109	0.426	0.548	8.899	75.006

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	255.100	250.600	210.300	157.900	145.900	186.400	230.000	208.500
Transmitting ERP (watts)	1.243	25.877	136.672	204.174	47.594	4.976	1.640	0.627

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKN673 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
17	37-09-19.2 N	083-26-33.1 W	516.6	98.1	1043811

Address: 2255 DAVIDSON FORK ROAD (76424)
City: THOUSAND STICKS **County:** LESLIE **State:** KY **Construction Deadline:** 02-23-2013

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	255.100	250.600	210.300	157.900	145.900	186.400	230.000	208.500
Transmitting ERP (watts)	2.923	0.456	0.895	4.155	54.327	193.511	147.915	23.334

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
18	36-45-42.1 N	083-40-29.0 W	685.2	129.5	1215974

Address: RO7 PO BOX 264E BIRD BRANCH ROAD (76437)
City: PINEVILLE **County:** BELL **State:** KY **Construction Deadline:** 02-23-2013

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	314.900	270.100	337.000	312.300	338.800	334.000	355.300	387.000
Transmitting ERP (watts)	91.981	37.204	3.868	0.986	0.201	0.271	4.377	36.079

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	314.900	270.100	337.000	312.300	338.800	334.000	355.300	387.000
Transmitting ERP (watts)	2.152	13.241	26.567	29.575	18.963	5.601	3.888	1.518

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	314.900	270.100	337.000	312.300	338.800	334.000	355.300	387.000
Transmitting ERP (watts)	5.299	1.993	2.409	5.378	23.634	32.748	36.478	14.971

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
19	36-53-53.5 N	083-19-27.0 W	858.6	35.4	

Address: 3017 NORTH US HIGHWAY 421 (76355)
City: BAXTER **County:** HARLAN **State:** KY **Construction Deadline:** 02-23-2013

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	423.700	288.900	270.400	273.500	415.500	424.000	260.500	381.500
Transmitting ERP (watts)	118.281	51.051	5.389	1.305	0.258	0.357	5.945	46.435

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	423.700	288.900	270.400	273.500	415.500	424.000	260.500	381.500
Transmitting ERP (watts)	4.387	28.108	56.992	61.619	38.611	11.792	8.653	3.099

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKN673 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
19	36-53-53.5 N	083-19-27.0 W	858.6	35.4	

Address: 3017 NORTH US HIGHWAY 421 (76355)
City: BAXTER **County:** HARLAN **State:** KY **Construction Deadline:** 02-23-2013

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	423.700	288.900	270.400	273.500	415.500	424.000	260.500	381.500
Transmitting ERP (watts)	1.510	0.244	0.451	2.060	26.719	99.966	80.742	11.222

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
22	37-09-01.0 N	083-41-03.6 W	484.0	94.4	1267062

Address: Bear Creek Rd (87003)
City: Hector **County:** CLAY **State:** KY **Construction Deadline:** 02-23-2013

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	247.900	220.000	188.600	160.500	206.100	259.700	247.500	246.500
Transmitting ERP (watts)	153.770	65.269	4.896	0.487	0.313	0.307	9.959	76.610

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	247.900	220.000	188.600	160.500	206.100	259.700	247.500	246.500
Transmitting ERP (watts)	1.554	22.565	112.704	140.260	30.708	1.874	0.302	0.278

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	247.900	220.000	188.600	160.500	206.100	259.700	247.500	246.500
Transmitting ERP (watts)	1.012	0.314	0.295	4.424	44.416	139.728	106.944	13.222

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
23	37-08-58.7 N	083-45-07.4 W	452.6	96.0	1043808

Address: LUCAS ROAD ON TOP OF HILL (76428)
City: MANCHESTER **County:** CLAY **State:** KY **Construction Deadline:**

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	212.800	191.000	150.800	181.400	199.900	198.200	202.800	202.900
Transmitting ERP (watts)	111.736	45.822	5.058	1.185	0.248	0.336	5.441	44.976

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	212.800	191.000	150.800	181.400	199.900	198.200	202.800	202.900
Transmitting ERP (watts)	0.630	13.113	68.789	97.232	23.078	2.526	0.830	0.308

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKN673 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
23	37-08-58.7 N	083-45-07.4 W	452.6	96.0	1043808

Address: LUCAS ROAD ON TOP OF HILL (76428)
City: MANCHESTER **County:** CLAY **State:** KY **Construction Deadline:**

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	212.800	191.000	150.800	181.400	199.900	198.200	202.800	202.900
Transmitting ERP (watts)	4.442	3.181	3.850	5.507	16.941	16.885	21.020	12.170

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
24	36-52-13.8 N	083-24-54.2 W	835.2	80.5	1007945

Address: 3700 WATTS CREEK TOWER ROAD (76431)
City: WALLINS CREEK **County:** HARLAN **State:** KY **Construction Deadline:**

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	357.800	283.300	392.600	363.200	337.000	470.900	325.200	332.900
Transmitting ERP (watts)	116.142	48.918	4.986	1.287	0.267	0.341	5.779	46.632

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	357.800	283.300	392.600	363.200	337.000	470.900	325.200	332.900
Transmitting ERP (watts)	1.626	16.756	46.777	60.050	27.346	5.464	2.977	1.029

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	357.800	283.300	392.600	363.200	337.000	470.900	325.200	332.900
Transmitting ERP (watts)	1.479	0.233	0.427	2.031	27.025	95.886	77.822	11.442

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
25	36-36-37.5 N	083-42-49.1 W	346.5	60.3	1232693

Address: 131 AMESBURY STREET (76438)
City: MIDDLESBORO **County:** BELL **State:** KY **Construction Deadline:**

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000
Transmitting ERP (watts)	145.069	41.420	3.508	0.571	0.313	0.301	3.015	39.614

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000
Transmitting ERP (watts)	0.125	3.991	32.278	53.652	8.875	0.818	0.150	0.111

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKN673 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
25	36-36-37.5 N	083-42-49.1 W	346.5	60.3	1232693

Address: 131 AMESBURY STREET (76438)
City: MIDDLESBORO **County:** BELL **State:** KY **Construction Deadline:**

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000
Transmitting ERP (watts)	0.906	0.242	0.226	0.866	20.330	108.084	76.154	7.898

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
26	36-42-35.9 N	083-40-58.1 W	636.1	57.3	

Address: RURAL ROUTE 1 BOX 109 (76441)
City: PINEVILLE **County:** BELL **State:** KY **Construction Deadline:**

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	218.900	188.400	284.100	201.300	245.000	65.400	242.700	257.700
Transmitting ERP (watts)	15.060	36.966	29.277	42.643	20.844	12.416	3.511	5.735

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	218.900	188.400	284.100	201.300	245.000	65.400	242.700	257.700
Transmitting ERP (watts)	0.639	0.133	0.186	4.240	28.970	66.602	17.897	2.186

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 THE ISSUES RAISED IN FOOTNOTE 3 OF LA STAR CELLULAR TELEPHONE COMPANY, 7 FF Rcd 3762 (1992). THEREFORE, THESE GRANTS OF TRANSFERS/ASSIGNMENTS ARE CONDITIONED ON ANY SUBSEQUENT ACTION THE COMMISSION MAY TAKE CONCERING THE

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

RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

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

Call Sign	File Number
WPOI255	
Radio Service CW - PCS Broadband	

FCC Registration Number (FRN): 0003291192

Grant Date	Effective Date	Expiration Date	Print Date
05-27-2015	08-31-2018	06-23-2025	

Market Number	Channel Block	Sub-Market Designator
MTA026	A	19

Market Name
Louisville-Lexington-Evansvill

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

Waivers/Conditions:

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

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.

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).

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

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

700 MHz Relicensed Area Information:

Market	Market Name	Buildout Deadline	Buildout Notification	Status

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

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

Call Sign	File Number
WQGA824	
Radio Service AW - AWS (1710-1755 MHz and 2110-2155 MHz)	

FCC Registration Number (FRN): 0003291192

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

Market Number	Channel Block	Sub-Market Designator
CMA453	A	0

Market Name
Kentucky 11 - Clay

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

Waivers/Conditions:

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

Conditions:

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

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

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: WQGA824 **File Number:** **Print Date:**

700 MHz Relicensed Area Information:

Market	Market Name	Buildout Deadline	Buildout Notification	Status

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

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

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

FCC Registration Number (FRN): 0003291192

Grant Date	Effective Date	Expiration Date	Print Date
12-18-2006	08-31-2018	12-18-2021	

Market Number	Channel Block	Sub-Market Designator
BEA047	C	9

Market Name
Lexington, KY-TN-VA-WV

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

Waivers/Conditions:

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

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

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

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

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: WQGD755 **File Number:** **Print Date:**

700 MHz Relicensed Area Information:

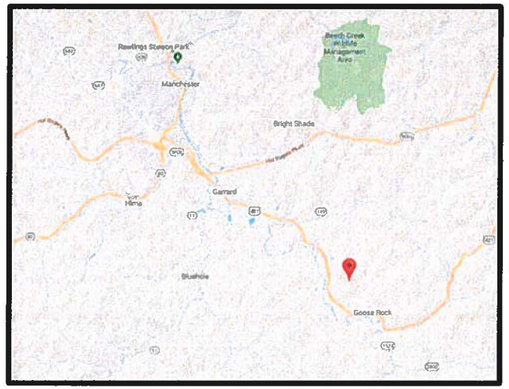
Market	Market Name	Buildout Deadline	Buildout Notification	Status

EXHIBIT B

SITE DEVELOPMENT PLAN:

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

LOCATION MAP



DRIVING DIRECTIONS

FROM 102 RICHMOND RD # 101, MANCHESTER, KY 409621:

- HEAD SOUTHEAST ON US-421 S/RICHMOND RD TOWARD STINSON HILL RD
- CONTINUE TO FOLLOW US-421 S 0.9 MI
- TURN LEFT ONTO OLD HWY 421 0.5 MI
- TURN LEFT ONTO US-421 S 4.2 MI
- THE DESTINATION WILL BE ON THE LEFT

BUILDING CODES AND STANDARDS

CONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION FOR THE LOCATION.

CONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:

- AMERICAN CONCRETE INSTITUTE 318
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION MANUAL OF STEEL CONSTRUCTION
- TELECOMMUNICATIONS INDUSTRY ASSOCIATION TIA-222
- STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWER AND SUPPORTING STRUCTURES TIA-601
- COMMERCIAL BUILDING GROUNDING AND BONDING REQUIREMENTS FOR TELECOMMUNICATIONS
- INSTITUTE FOR ELECTRICAL AND ELECTRONICS ENGINEERS IEEE-81, IEEE 1100, IEEE C62.41
- ANSI T1.311, FOR TELECOM - DC POWER SYSTEMS - TELECOM, ENVIRONMENTAL PROTECTION
- 2014 KBC
- 2014 NEC

FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN.

SITE NAME:

CHOP BOTTOM FN

FA #:

12568409

PROPOSED RAW LAND SITE WITH A 195' MONOPOLE WITH A 4' LIGHTNING ARRESTOR AND INSTALLATION OF AN 8'x8' SHELTER ON AN 8'x14' PATIO WITH A GENERATOR

PREPARED FOR:

at&t

PREPARED BY:

ENGINEERING GROUP, INC.
TOGETHER PLANNING A BETTER TOMORROW
158 BUSINESS CENTER DRIVE
BIRMINGHAM, AL 35244
TEL: 205-252-6985 FAX: 205-320-1504

KENTUCKY ONE-CALL
STATE WIDE CALL: 811
CALL BEFORE YOU DIG

PROJECT INFORMATION

SITE ADDRESS:	0 SOUTH HIGHWAY 421 MANCHESTER, KY 40962
LATITUDE (NAD 83):	N 37° 05' 55.110"
LONGITUDE (NAD 83):	W 83° 42' 09.845"
LATITUDE (NAD DECIMAL):	N 37.098642°
LONGITUDE (NAD DECIMAL):	W 83.702735°
PARCEL ID:	117-00-00-007.09
JURISDICTION:	CLAY COUNTY, KY
PROPERTY OWNER:	RANDALL & ROSEMARY WAGERS
APPLICANT:	NEW CINGULAR WIRELESS PCS, LLC A DELAWARE LIMITED LIABILITY COMPANY, D/B/A AT&T MOBILITY MEIDINGER TOWER 462 S. 4TH STREET, SUITE 2400 LOUISVILLE, KY 40202
ENGINEER:	SMW ENGINEERING 158 BUSINESS CENTER DRIVE BIRMINGHAM, AL 35244 CONTACT: JEREMY SHARIT, PE PHONE: 205-397-6781
POWER:	TO BE DETERMINED
FIBER:	FIBER COMPANY AWARDED BY AT&T AT FUTURE TIME, CONSULT CM

DRAWING INDEX

SCOPE OF WORK

ZONING DRAWINGS FOR:
CONSTRUCTION OF A NEW UNMANNED TELECOMMUNICATIONS FACILITY.

SITE WORK: NEW TOWER, UNMANNED SHELTER ON A CONCRETE PAD, GENERATOR ON A CONCRETE PAD, AND UTILITY INSTALLATIONS.

CA#: 2865

STATE OF KENTUCKY
JEREMY D. SHARIT
26823
LICENSED
PROFESSIONAL ENGINEER

01/09/19

SMW ENGINEERING GROUP, INC.
TOGETHER PLANNING A BETTER TOMORROW
SMW #: 18-1304

at&t

#	DATE	DESCRIPTION:
2	12/06/18	REISSUED FOR CLIENT REV.
3	12/17/18	REISSUED FOR CLIENT REV.
4	01/03/19	REISSUED FOR CLIENT REV.
5	01/08/19	REISSUED FOR CLIENT REV.
6	01/09/19	ISSUED FOR CONSTRUCTION

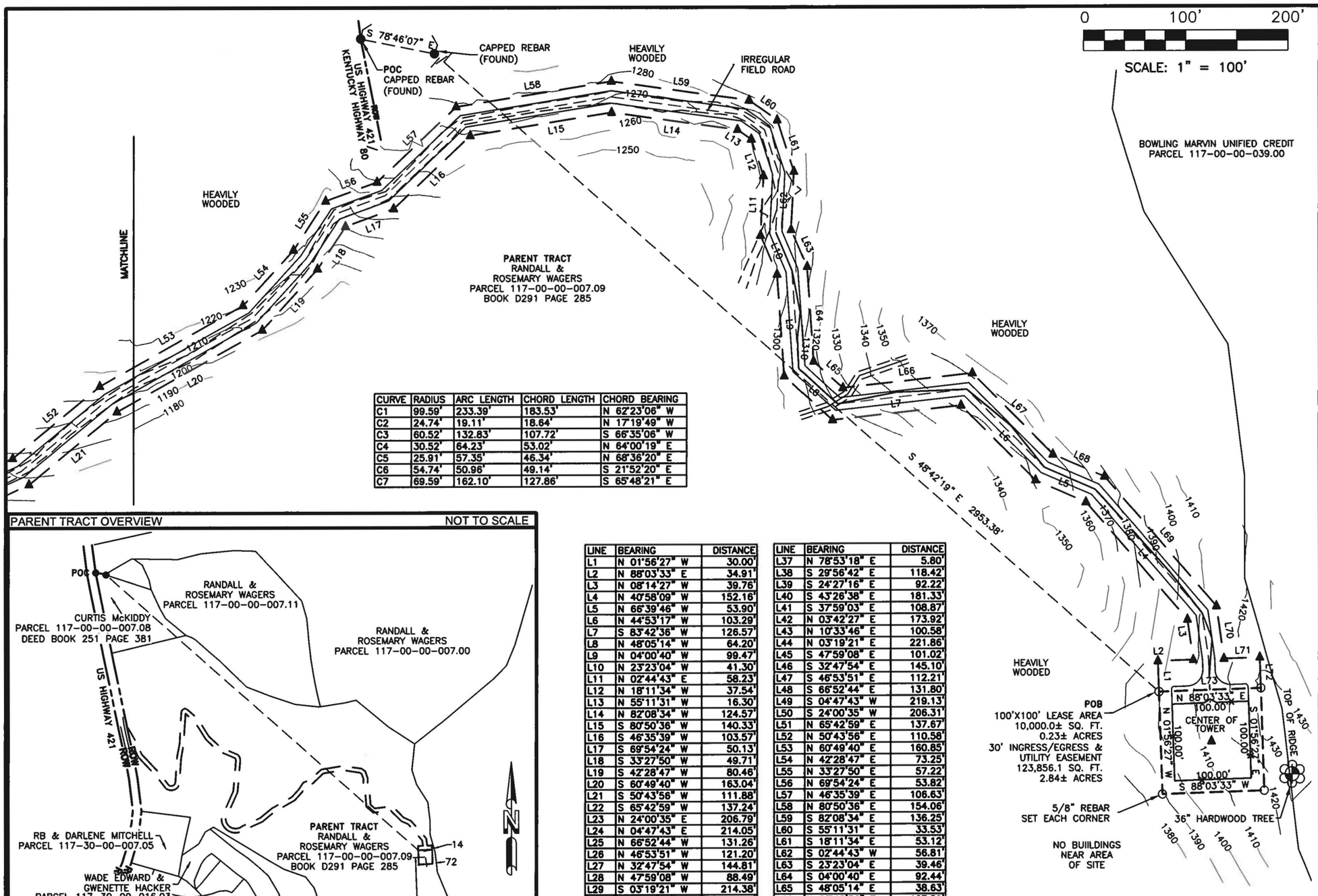
CHOP BOTTOM FN

TITLE SHEET & PROJECT INFORMATION

DESIGNED: JDS
DRAWN: BMD
CHECKED: RTB

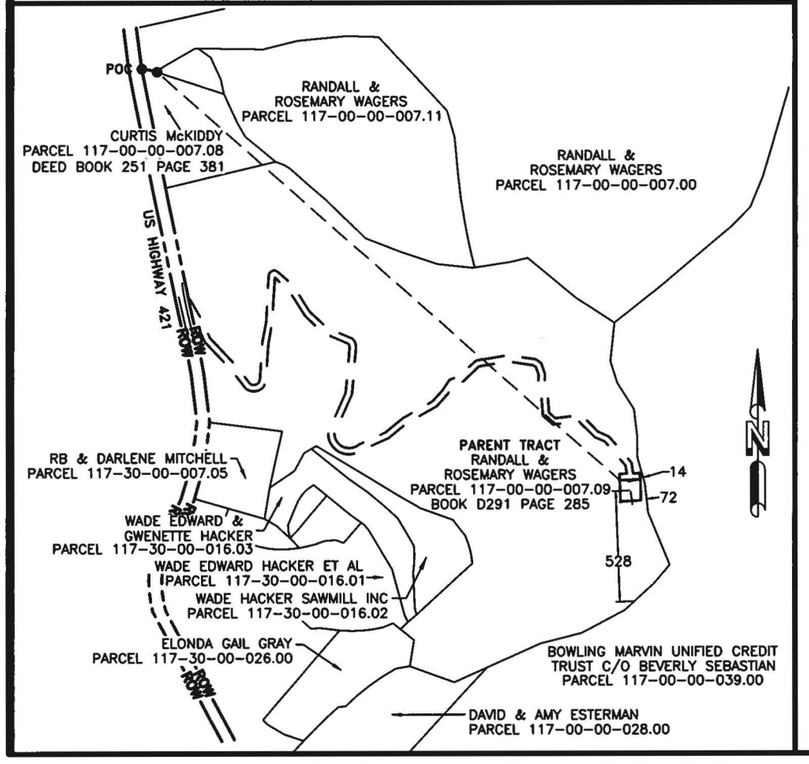
JOB #: 12568409

T-1



CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING
C1	99.59'	233.39'	183.53'	N 62°23'06" W
C2	24.74'	19.11'	18.64'	N 17°19'49" W
C3	60.52'	132.83'	107.72'	S 66°35'06" W
C4	30.52'	64.23'	53.02'	N 64°00'19" E
C5	25.91'	57.35'	46.34'	N 68°36'20" E
C6	54.74'	50.96'	49.14'	S 21°52'20" E
C7	69.59'	162.10'	127.86'	S 65°48'21" E

PARENT TRACT OVERVIEW — NOT TO SCALE



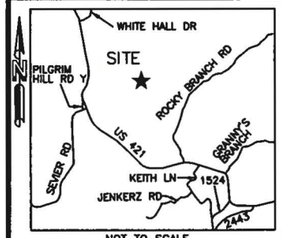
LINE	BEARING	DISTANCE
L1	N 01°56'27" W	30.00'
L2	N 88°03'33" E	34.91'
L3	N 08°14'27" W	39.76'
L4	N 40°58'09" W	152.16'
L5	N 66°39'46" W	53.90'
L6	N 44°53'17" W	103.29'
L7	S 83°42'36" W	126.57'
L8	N 48°05'14" W	64.20'
L9	N 04°00'40" W	99.47'
L10	N 23°23'04" W	41.30'
L11	N 02°44'43" E	58.23'
L12	N 18°11'34" W	37.54'
L13	N 55°11'31" W	16.30'
L14	N 82°08'34" W	124.57'
L15	S 80°50'36" W	140.33'
L16	S 46°35'39" W	103.57'
L17	S 69°54'24" W	50.13'
L18	S 33°27'50" W	49.71'
L19	S 42°28'47" W	80.46'
L20	S 60°49'40" W	163.04'
L21	S 50°43'56" W	111.88'
L22	S 65°42'59" W	137.24'
L23	N 24°00'35" E	206.79'
L24	N 04°47'43" E	214.05'
L25	N 66°52'44" W	131.26'
L26	N 46°53'51" W	121.20'
L27	N 32°47'54" W	144.81'
L28	N 47°59'08" W	88.49'
L29	S 03°19'21" W	214.38'
L30	S 10°33'46" W	100.68'
L31	S 03°42'27" W	172.13'
L32	N 37°59'03" W	111.30'
L33	N 43°26'38" W	184.92'
L34	N 24°27'16" W	95.80'
L35	N 29°56'42" W	44.35'
L36	N 11°44'17" W	78.44'

LINE	BEARING	DISTANCE
L37	N 78°53'18" E	5.80'
L38	S 29°56'42" E	118.42'
L39	S 24°27'16" E	92.22'
L40	S 43°26'38" E	181.33'
L41	S 37°59'03" E	108.87'
L42	N 03°42'27" E	173.92'
L43	N 10°33'46" E	100.58'
L44	N 03°19'21" E	221.86'
L45	S 47°59'08" E	101.02'
L46	S 32°47'54" E	145.10'
L47	S 46°53'51" E	112.21'
L48	S 66°52'44" E	131.80'
L49	S 04°47'43" W	219.13'
L50	S 24°00'35" W	206.31'
L51	N 65°42'59" E	137.67'
L52	N 50°43'56" E	110.58'
L53	N 60°49'40" E	160.85'
L54	N 42°28'47" E	73.25'
L55	N 33°27'50" E	57.22'
L56	N 69°54'24" E	53.82'
L57	N 46°35'39" E	106.63'
L58	N 80°50'36" E	154.06'
L59	S 82°08'34" E	136.25'
L60	S 55°11'31" E	33.53'
L61	S 18°11'34" E	53.12'
L62	S 02°44'43" W	56.81'
L63	S 23°23'04" E	39.46'
L64	S 04°00'40" E	92.44'
L65	S 48°05'14" E	38.63'
L66	N 83°42'36" E	127.59'
L67	S 44°53'17" E	111.95'
L68	S 66°39'46" E	54.98'
L69	S 40°58'09" E	167.81'
L70	S 08°14'27" E	51.89'
L71	N 88°03'33" E	34.91'
L72	S 01°56'27" E	30.00'
L73	S 88°03'33" W	100.00'

TOWER INFO

LATITUDE: 37°05'55.110" NORTH
LONGITUDE: 83°42'09.845" WEST
(NAD 83)
GROUND ELEVATION: 1412.9'
ABOVE MEAN SEA LEVEL (NAVD88)

VICINITY MAP



NOT TO SCALE

KENTUCKY SINGLE ZONE

GRID NORTH

GRID TO TRUE NORTH CONVERGENCE
1°15'

TRUE NORTH TO MAGNETIC DECLINATION
6°9' W

COMBINED SCALE FACTOR
0.999996372

LEGEND

- O = 5/8" REBAR SET
- ● = FOUND PROPERTY MARKER
- POB = POINT OF BEGINNING
- POC = POINT OF COMMENCEMENT
- ▲ = CALCULATED POINT
- F/L = FLOW LINE
- (M) = MEASURED
- ⌀ = POWER POLE
- ⌖ = TEMPORARY BENCHMARK NAIL IN 36" HARDWOOD ELEV. = 1439.06'

= RIGHT-OF-WAY
= OVERHEAD POWER

FLOOD NOTE

By graphic plotting only, the subject property appears to lie in Zone "X" of the Flood Insurance Rate Map Community Panel No. 21051C0275C, which bears an effective date of September 28, 2007 and IS NOT in a special flood hazard area.
Zone "X": Areas determined to be outside the 0.2% annual chance floodplain.

CHOP BOTTOM FN
CLAY COUNTY, KENTUCKY
PARCEL # 117-00-00-007.09
ADDRESS: 0 SOUTH HIGWAY 421
MANCHESTER, KY 40962
OWNER: RANDALL WAGERS AND ROSEMARY WAGERS

SMW ENGINEERING GROUP, INC.
SMW #: 18-1304

at&t

#	DATE	DESCRIPTION:
2	12/06/18	REISSUED FOR CLIENT REV.
3	12/17/18	REISSUED FOR CLIENT REV.
4	01/03/19	REISSUED FOR CLIENT REV.
5	01/08/19	REISSUED FOR CLIENT REV.
6	01/09/19	ISSUED FOR CONSTRUCTION

CHOP BOTTOM FN

SITE SURVEY

DESIGNED: JDS
DRAWN: BMD
CHECKED: RTB

JOB #: 12568409

B-1

0 100' 200'

SCALE: 1" = 100'

US HIGHWAY 421
KENTUCKY HIGHWAY 80
PUBLIC RIGHT-OF-WAY
(ASPHALT SURFACE)

ROW

SIGHT DISTANCE
1131'±
444'±

1377'± TO INTERSECTION
PILGRIM HILL RD Y

TREELINE

CENTERLINE OF DITCH

IRREGULAR
FIELD ROAD

HEAVILY
WOODED

F/L ELEV.=1102.21'

2' METAL PIPE
F/L ELEV.=1086.98'

F/L ELEV.=982.26'

1' METAL PIPE
F/L ELEV.=976.46'

PARENT TRACT
RANDALL &
ROSEMARY WAGERS
PARCEL 117-00-00-007.09
BOOK D291 PAGE 285

R B & DARLENE MITCHELL
PARCEL 117-30-00-007.05

WADE HACKER SAWMILL INC
PARCEL 117-30-00-016.02

MATCHLINE

L19 L20 L21 L22 L23 L24 L25 L26 L27 L28 L29 L30 L31 L32 L33 L34 L35 L36 L37 L38 L39 L40 L41 L42 L43 L44 L45 L46 L47 L48 L49 L50 L51 L52 L53 L54 L55

C1 C2 C3 C4 C5 C6 C7

930 940 950 960 970 980 990 1000 1010 1020 1030 1040 1050 1060 1070 1080 1090 1100 1110 1120 1180 1190 1200 1210 1220 1230

SMW ENGINEERING GROUP, INC
TRUSTED PLANNING & BETTER TOMORROWS

SMW #: 18-1304

at&t

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6	01/09/19	ISSUED FOR CONSTRUCTION

CHOP BOTTOM FN

SITE SURVEY

DESIGNED: JDS
DRAWN: BMD
CHECKED: RTB

JOB #: 12568409

B-1.1

CHOP BOTTOM FN
CLAY COUNTY, KENTUCKY
PARCEL # 117-00-00-007.09
ADDRESS: 0 SOUTH HIGWAY 421
MANCHESTER, KY 40962
OWNER: RANDALL WAGERS AND
ROSEMARY WAGERS

PARENT TRACT (BOOK D291, PAGE 285)(FROM TITLE)

A certain tract or parcel of land lying and being on the east side of U.S. Highway 421 approximately 1.25 miles southeast of its junction with Kentucky State Highway 149, in the County of Clay, State of Kentucky and bounded and described as follows to–wit:

Unless stated otherwise, any monument referred to herein as "rod and cap" is set 1/2" steel rod with a red plastic cap stamped "JQM 1387". All bearings in this description are referred to the magnetic meridian as observed on September 2, 1999.

Beginning at an existing rod and cap stamped "LS1387" in the east right of way line of U.S. Highway 421 and Kentucky State Highway 80 (30 feet from the centerline of same), a corner to Curtis McKiddy (Deed Book 251, Page 381), thence leaving said right of way and running with said McKiddy line N 85–53–59 E, 541.84 feet to an existing rod and cap stamped "LS1387", in the center of a spur ridge that runs down toward White Hall Church, a corner to the John D. Walker reserved parcel (Deed Book 227, Page 306), thence running up the center of said spur as it meanders severing the land of said Walker S 61–24–30 E, 41.79 feet, thence S 49–18–15 E, 34.79 feet, thence S 39–38–55 E, 100.34 feet, thence S 40–45–35 E, 127.08 feet, thence S 36–32–26 E, 263.56 feet, thence S 59–59–22 E, 178.72 feet, thence S 62–28–02 E, 185.92 feet, thence S 74–53–38 E, 173.32 feet, thence S 89–30–23 E, 184.80 feet to a rod and cap on a high knob, thence S 41–31–46 E, 299.11 feet, thence S 48–00–25 E, 219.27 feet to a rod and cap on a high knob at the junction of said spur with the main dividing ridge between Goose Creek and Rocky Branch of same, a corner to the Bowling heirs parcel (Deed Book 227, Page 369), thence running down the center of said dividing ridge as it meanders with said Bowling line S 15–02–59 W, 184.06 feet, thence S 08–09–51 E, 104.85 feet, thence S 23–30–23 E, 153.39 feet, thence S 01–50–31 W, 129.31 feet, thence S 09–01–20 W, 101.01 feet, thence S 06–55–42 E, 132.15 feet, thence S 02–18–08 W, 138.07 feet, thence S 13–16–54 E, 269.59 feet to a 30" white oak at the junction of a spur running down between the Wade Hacker Sawmill hollow and another hollow running into Goose Creek, thence running down the center of said spur as it meanders S 48–52–38 W, 116.34 feet, thence S 57–09–46 W, 190.58 feet, thence S 71–31–10 W, 231.05 feet, thence S 84–55–47 W, 202.19 feet to a 10" white oak in the fence, thence S 78–00–38 W, 174.51 feet to a 10" hickory in said fence, thence S 77–48–06 W, 263.31 feet to a rod and cap where said fence leaves the spur ridge, a corner to Leonard Hacker (Deed Book 114, Page 55), thence leaving said spur and running with said fence and said Hacker's line N 57–28–54 W, 217.01 feet to a rod and cap at a fence corner, thence N 22–59–41 E, 146.83 feet to a rod and cap at a fence corner, thence N 57–08–11 W, 87.14 feet to an existing rod and cap, a corner to Wade Hacker (Deed Book 221, Page 113), thence leaving said fence and running with said Wade Hacker's line N 59–05–00 E, 304.98 feet to an existing rod and cap, thence N 05–17–00 W, 225.59 feet to an existing rod and cap, thence N 38–16–00 W, 240.18 feet to an existing rod and cap, thence N 46–16–00 W, 465.38 feet to an existing rod and cap on top of a highwall, thence leaving said highwall S 64–45–00 W, 315.32 feet to an existing rod and cap on a hillside, a corner to Glen Wombles (Deed Book 238, Page 723), thence running with said Wombles line N 21–40–22 E, 277.39 feet to an existing rod and cap, thence N 73–56–38 W, 276.45 feet to an existing rod and cap in the east right of way line of the aforementioned U.S. Highway 421 and Kentucky State Highway 80 (30.00 feet from the centerline of same), thence running with said right of way, N 02–09–47 E, 233.34 feet, thence N 03–31–44 W, 127.42 feet, thence N 03–43–19 W, 157.64 feet, thence N 02–12–49 W, 619.80 feet to the Place of Beginning, and containing seventy and seventy–eight hundreds (70.78) acres, more or less, all according to a survey performed by Meredith General Surveys, Inc., conducted by James Q. Meredith, Kentucky Registered Land Surveyor Number 1387 on November 4, 1999.

100' x 100' LEASE AREA (AS–SURVEYED)

A portion of the Randall & Rosemary Wagers tract described in Deed Book 291, Page 285 as recorded in the Office of County Clerk for Clay County, Kentucky, and being more particularly described as follows;

Commencing at a capped rebar found on the easterly right–of–way of US Highway 421/Kentucky Highway 80 marking the Northwest corner of the Curtis McKiddy tract, described in Deed Book 251, Page 381; thence run S 78°46'07" E for a distance of 73.89 feet to a capped rebar found; thence run S 48°42'19" E for a distance of 2953.38 feet to a set 5/8" rebar and the Point of Beginning; thence run N 88°03'33" E for a distance of 100.00 feet to a set 5/8" rebar; thence run S 01°56'27" E for a distance of 100.00 feet to a set 5/8" rebar; thence run S 88°03'33" W for a distance of 100.00 feet to a set 5/8" rebar; thence run N 01°56'27" W for a distance of 100.00 feet to the Point of Beginning. Said lease area contains 10,000.0 square feet, or 0.23 acres, more or less.

30' INGRESS/EGRESS & UTILITY EASEMENT (AS–SURVEYED)

An easement being a portion of the Randall & Rosemary Wagers tract described in Deed Book 291, Page 285 as recorded in the Office of County Clerk for Clay County, Kentucky, and being more particularly described as follows;

Commencing at a capped rebar found on the easterly right–of–way of US Highway 421/Kentucky Highway 80 marking the Northwest corner of the Curtis McKiddy tract, described in Deed Book 251, Page 381; thence run S 78°46'07" E for a distance of 73.89 feet to a capped rebar found; thence run S 48°42'19" E for a distance of 2953.38 feet to a set 5/8" rebar and the Point of Beginning of a 30' Ingress/Egress & Utility Easement; thence run N 01°56'27" W for a distance of 30.00 feet to a point; thence run N 88°03'33" E for a distance of 34.91 feet to a point; thence run N 08°14'27" W for a distance of 39.76 feet to a point; thence run N 40°58'09" W for a distance of 152.16 feet to a point; thence run N 66°39'46" W for a distance of 53.90 feet to a point; thence run N 44°53'17" W for a distance of 103.29 feet to a point; thence run S 83°42'36" W for a distance of 126.57 feet to a point; thence run N 48°05'14" W for a distance of 64.20 feet to a point; thence run N 04°00'40" W for a distance of 99.47 feet to a point; thence run N 23°23'04" W for a distance of 41.30 feet to a point; thence run N 02°44'43" E for a distance of 58.23 feet to a point; thence run N 18°11'34" W for a distance of 37.54 feet to a point; thence run N 55°11'31" W for a distance of 16.30 feet to a point; thence run N 82°08'34" W for a distance of 124.57 feet to a point; thence run S 80°50'36" W for a distance of 140.33 feet to a point; thence run S 46°35'39" W for a distance of 103.57 feet to a point; thence run S 69°54'24" W for a distance of 50.13 feet to a point; thence run S 33°27'50" W for a distance of 49.71 feet to a point; thence run S 42°28'47" W for a distance of 80.46 feet to a point; thence run S 60°49'40" W for a distance of 163.04 feet to a point; thence run S 50°43'56" W for a distance of 111.88 feet to a point; thence run S 65°42'59" W for a distance of 137.24 feet to a point; thence with a curve turning to the right having a radius of 99.59 feet, a chord bearing and distance of N 62°23'06" W for 183.53 feet; thence run along said arc for 233.39 feet; thence run N 24°00'35" E for a distance of 206.79 feet to a point; thence run N 04°47'43" E for a distance of 214.05 feet to a point; the beginning of an arc turning to the left having a radius of 24.74 feet, a chord bearing and distance of N 17°19'49" W for 18.64 feet; thence run along said arc for 19.11 feet; thence run N 66°52'44" W for a distance of 131.26 feet to a point; thence run N 46°53'51" W for a distance of 121.20 feet to a point; thence run N 32°47'54" W for a distance of 144.81 feet to a point; thence run N 47°59'08" W for a distance of 88.49 feet to a point; thence run S 03°19'21" W for a distance of 214.38 feet to a point; thence run S 10°33'46" W for a distance of 100.68 feet to a point; thence run S 03°42'27" W for a distance of 172.13 feet to a point; the beginning of an arc turning to the right having a radius of 60.52 feet, a chord bearing and distance of S 66°35'06" W for 107.72 feet; thence run along said arc for 132.83 feet; thence run N 37°59'03" W for a distance of 111.30 feet to a point; thence run N 43°26'38" W for a distance of 184.92 feet to a point; thence run N 24°27'16" W for a distance of 95.80 feet to a point; thence run N 29°56'42" W for a distance of 44.35 feet to a point on the easterly right–of–way of US Highway 421/Kentucky Highway 80; thence run N 11°44'17" W along said right–of–way for a distance of 78.44 feet to a point; thence leaving said right–of–way run N 78°53'18" E for a distance of 5.80 feet to a point; thence run S 29°56'42" E for a distance of 118.42 feet to a point; thence run S 24°27'16" E for a distance of 92.22 feet to a point; thence run S 43°26'38" E for a distance of 181.33 feet to a point; thence run S 37°59'03" E for a distance of 108.87 feet to a point; thence with a curve turning to the left having a radius of 30.52 feet, a chord bearing and distance of N 64°00'19" E for 53.02 feet; thence run along said arc for 64.23 feet; thence run N 03°42'27" E for a distance of 173.92 feet to a point; thence run N 10°33'46" E for a distance of 100.58 feet to a point; thence run N 03°19'21" E for a distance of 221.86 feet to a point; thence with a curve turning to the right having a radius of 25.91 feet, a chord bearing and distance of N 68°36'20" E for 46.34 feet; thence run along said arc for 57.35 feet; thence run S 47°59'08" E for a distance of 101.02 feet to a point; thence run S 32°47'54" E for a distance of 145.10 feet to a point; thence run S 46°53'51" E for a distance of 112.21 feet to a point; thence run S 66°52'44" E for a distance of 131.80 feet to a point; thence with a curve turning to the right having a radius of 54.74 feet, a chord bearing and distance of S 21°52'20" E for 49.14 feet; thence run along said arc for 50.96 feet; thence run S 04°47'43" W for a distance of 219.13 feet to a point; thence run S 24°00'35" W for a distance of 206.31 feet to a point; thence with a curve turning to the left having a radius of 69.59 feet, a chord bearing and distance of S 65°48'21" E for 127.86 feet; thence run along said arc for 162.10 feet; thence run N 65°42'59" E for a distance of 137.67 feet to a point; thence run N 50°43'56" E for a distance of 110.58 feet to a point; thence run N 60°49'40" E for a distance of 160.85 feet to a point; thence run N 42°28'47" E for a distance of 73.25 feet to a point; thence run N 33°27'50" E for a distance of 57.22 feet to a point; thence run N 69°54'24" E for a distance of 53.82 feet to a point; thence run N 46°35'39" E for a distance of 106.63 feet to a point; thence run N 80°50'36" E for a distance of 154.06 feet to a point; thence run S 82°08'34" E for a distance of 136.25 feet to a point; thence run S 55°11'31" E for a distance of 33.53 feet to a point; thence run S 18°11'34" E for a distance of 53.12 feet to a point; thence run S 02°44'43" W for a distance of 56.81 feet to a point; thence run S 23°23'04" E for a distance of 39.46 feet to a point; thence run S 04°00'40" E for a distance of 92.44 feet to a point; thence run S 48°05'14" E for a distance of 38.63 feet to a point; thence run N 83°42'36" E for a distance of 127.59 feet to a point; thence run S 44°53'17" E for a distance of 111.95 feet to a point; thence run S 66°39'46" E for a distance of 54.98 feet to a point; thence run S 40°58'09" E for a distance of 167.81 feet to a point; thence run S 08°14'27" E for a distance of 51.89 feet to a point; thence run N 88°03'33" E for a distance of 34.91 feet to a point; thence run S 01°56'27" E for a distance of 30.00 feet to a point; thence run S 88°03'33" W for a distance of 100.00 feet to the Point of Beginning. Said easement contains 123,856.1 square feet, or 2.84 acres, more or less.

CHOP BOTTOM FN
CLAY COUNTY, KENTUCKY
PARCEL # 117-00-00-007.09
ADDRESS: 0 SOUTH HIGWAY 421
MANCHESTER, KY 40962
OWNER: RANDALL WAGERS AND ROSEMARY WAGERS

SMW ENGINEERING GROUP, INC.
NORTHERN PLANNING & WATER MANAGEMENT

SMW #: 18–1304

at&t

#	DATE	DESCRIPTION:
2	12/06/18	REISSUED FOR CLIENT REV.
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5	01/08/19	REISSUED FOR CLIENT REV.
6	01/09/19	ISSUED FOR CONSTRUCTION

CHOP BOTTOM FN

SITE SURVEY

DESIGNED: JDS
DRAWN: BMD
CHECKED: RTB

JOB #: 12568409

B-1.2

PLOTTABLE EXCEPTIONS

U.S. Title Solutions
U.S. Title Solutions File No. 59575-KY1803-5030
Date March 26, 2018
Schedule B

Exception No.	Instrument	Comment
	N/A	Standard exceptions. Contains no survey matters.
Judgements, Liens & UCC		
	Book ENC11 Page 281	Not a survey matter.
	Book ENC13 Page 275	Not a survey matter.
	Book ENC14 Page 136	Not a survey matter.
	Book ENC14 Page 388	Not a survey matter.
	Book STL3 Page 252	Not a survey matter.
	Book STL11 Page 405	Not a survey matter.
	Book STL2 Page 616	Not a survey matter.
	Book STL3 Page 141	Not a survey matter.
	Book ENC12 Page 515	Not a survey matter.
	Book STL3 Page 253	Not a survey matter.
	Book STL3 Page 423	Not a survey matter.
	Book ENC15 Page 738	Not a survey matter.
	Book ENC21 Page 688	Not a survey matter.
	Book ENC22 Page 518	Not a survey matter.
	Book ENC13 Page 613	Not a survey matter.
	Book STL5 Page 694	Not a survey matter.
	Book ENC13 Page 672	Not a survey matter.
	Book ENC12 Page 531	Not a survey matter.
	None within this period.	
Easements & Rights of Way		
	None within this period.	
	Book 275 page 670 Affadavit of Decent	Not a survey matter.

SURVEYOR'S NOTES

1. This is a Rawland Tower Survey, made on the ground under the supervision of a Kentucky Registered Land Surveyor. Date of field survey is June 7, 2018.
2. The following surveying instruments were used at time of field visit: Nikon NPL-352, Total Station, Reflectorless and Hiper + Legacy E RTK, GD 1HZ.
3. Bearings are based on Kentucky Single Zone State Plane Coordinates NAD 83 by GPS observation.
4. No underground utilities, underground encroachments or building foundations were measured or located as a part of this survey, unless otherwise shown. Trees and shrubs not located, unless otherwise shown.
5. Benchmark used is a GPS Continuously Operating Reference Station, PID DK3326. Onsite benchmark is as shown hereon. Elevations shown are in feet and refer to NAVD 88.
6. This survey was conducted for the purpose of a Rawland Tower Survey only, and is not intended to delineate the regulatory jurisdiction of any federal, state, regional or local agency, board, commission or other similar entity.
7. Attention is directed to the fact that this survey may have been reduced or enlarged in size due to reproduction. This should be taken into consideration when obtaining scaled data.
8. This Survey was conducted with the benefit of an Abstract Title search.
9. This survey meets or exceeds the Minimum Standards of Practice as required by the State of Kentucky for a Class A survey as defined by 201 KAR 18:150.
10. Field data upon which this map or plat is based has a closure precision of not less than one-foot in 15,000 feet (1':15,000') and an angular error that does not exceed 10 seconds times the square root of the number of angles turned. Field traverse was not adjusted.
11. This survey is not valid without the original signature and the original seal of a state licensed surveyor and mapper.
12. This survey does not constitute a boundary survey of the Parent Tract. Any parent tract property lines shown hereon are from supplied information and may not be field verified.
13. The Lease Area, and Access and Utility Easement shown hereon was provided by INTEGRISITE dated May 11, 2018 in direct correlation with existing monuments and physical evidence found through inspection and may not depict actual rights of occupancy.
14. No zoning information provided.

SURVEYOR'S CERTIFICATION

I certify that all parts of this survey and drawing have been completed in accordance with the current requirements of the Standards of Practice for Surveying in the State of Kentucky to the best of my knowledge, information, and belief.

David D. McKinney
Kentucky License No. 3964

STATE OF KENTUCKY
DAVID D. McKINNEY
3964
LICENSED PROFESSIONAL LAND SURVEYOR

CHOP BOTTOM FN
CLAY COUNTY, KENTUCKY
PARCEL # 117-00-00-007.09
ADDRESS: 0 SOUTH HIGWAY 421
MANCHESTER, KY 40962
OWNER: RANDALL WAGERS AND ROSEMARY WAGERS

SMW ENGINEERING GROUP, INC.
SMW#: 18-1304

at&t

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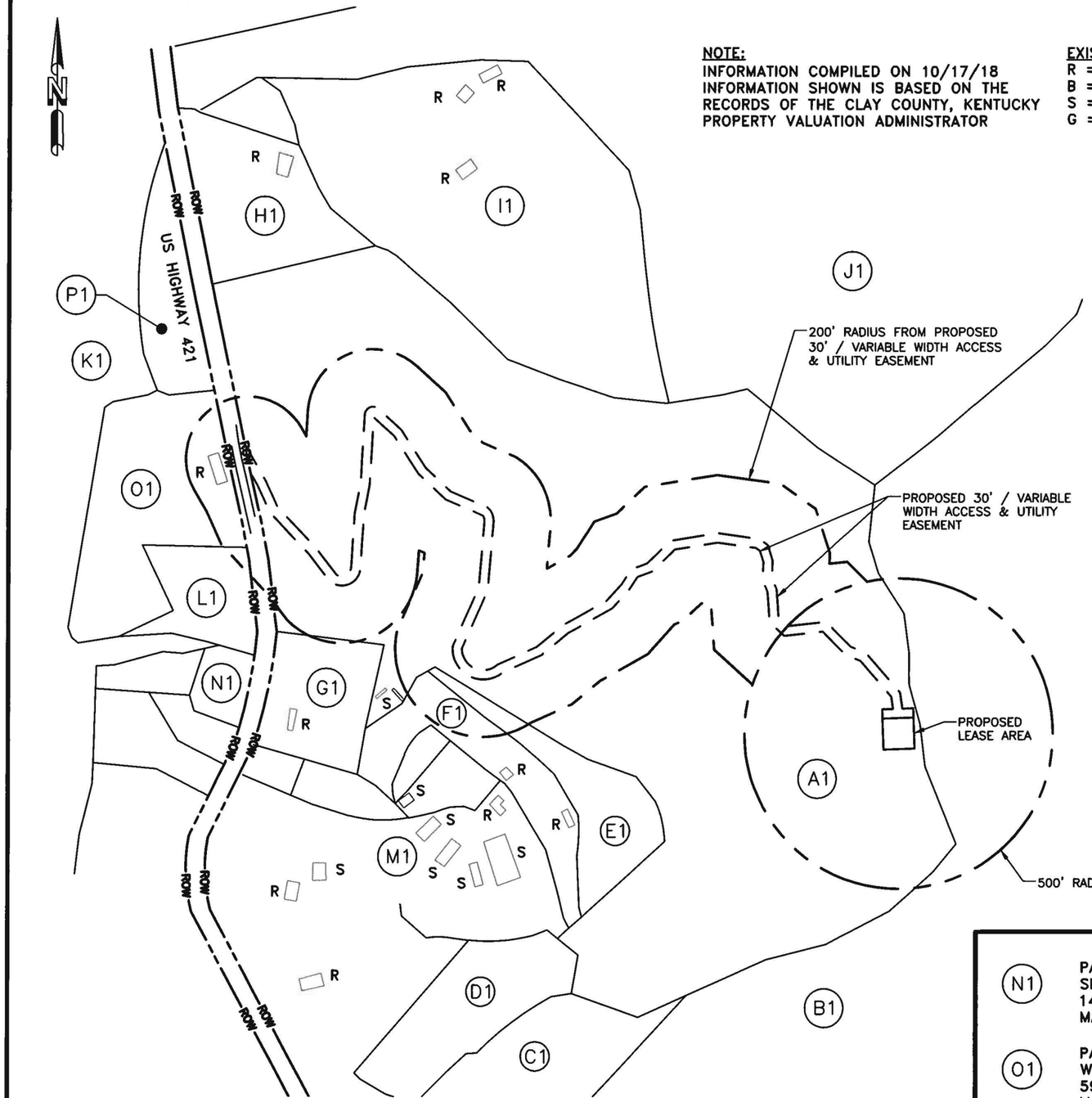
CHOP BOTTOM FN

SITE SURVEY

DESIGNED: JDS
DRAWN: BMD
CHECKED: RTB

JOB #: 12568409

B-1.3



NOTE:
INFORMATION COMPILED ON 10/17/18
INFORMATION SHOWN IS BASED ON THE RECORDS OF THE CLAY COUNTY, KENTUCKY PROPERTY VALUATION ADMINISTRATOR

EXISTING BUILDINGS
R = RESIDENCE
B = BARN
S = SHED
G = GARAGE

0' 400' 800' 1200'
1" = 400' (11"x17")

0' 200' 400' 600'
1" = 200' (24"x36")

(A1) PARCEL: 117-00-00-007.09
RANDALL & ROSEMARY WAGERS
PO BOX 466
MANCHESTER, KY 40962

(B1) PARCEL: 117-00-00-039.00
BOWLING MARVIN UNIFIED CREDIT TRUST C/O BEVERLY SEBASTIAN
8122 DEVENS DRIVE
BRENTWOOD, TN 37027

(C1) PARCEL: 117-00-00-028.00
ESTERMAN DAVID & AMY
6371 SOUTH HIGHWAY 421
MANCHESTER, KY 40962

(D1) PARCEL: 117-30-00-026.00
GRAY ELONDA GAIL
1259 HIGHWAY 1524
MANCHESTER, KY 40962

(E1) PARCEL: 117-30-00-016.02
WADE HACKER SAWMILL INC
156 HACKER ROAD
MANCHESTER, KY 40962

(F1) PARCEL: 117-30-00-016.03
WADE EDWARD & GWENETTE HACKER
135 WADE HACKER RD
MANCHESTER, KY 40962

(G1) PARCEL: 117-30-00-007.05
R B & DARLENE MITCHELL
5963 SOUTH HIGHWAY 421
MANCHESTER, KY 40962

(H1) PARCEL: 117-00-00-007.08
CURTIS McKIDDY
PO BOX 225
GOOSE ROCK, KY 40944

(I1) PARCEL: 117-00-00-007.11
RANDALL & ROSEMARY WAGERS
PO BOX 466
MANCHESTER, KY 40962

MOBILE HOME ON ADJOINER I1
SANDHILL COAL PROCESSING CO
PO BOX 229
GOOSE ROCK, KY 40944

MOBILE HOME ON ADJOINER I1
WAGERS GOLDIE
PO BOX 239
GOOSE ROCK, KY 40944

(J1) PARCEL: 117-00-00-007.00
RANDALL & ROSEMARY WAGERS
PO BOX 466
MANCHESTER, KY 40962

(K1) PARCEL: 117-00-00-007.12
RUDOLPH, LAUREN & MIRIAM
174 HIGHWAY 1524
MANCHESTER, KY 40962

(L1) PARCEL: 117-30-00-007.03
WOMBLES GLENN
5900 S HWY 421
MANCHESTER, KY 40962

(M1) PARCEL: 117-30-00-016.01
HACKER WADE EDWARD ETAL
135 WADE HACKER ROAD
MANCHESTER KY 40962

(N1) PARCEL: 117-30-00-007.01
SMITH ALANS & ELLA
1415 HIGHWAY 1524
MANCHESTER KY 40962

(O1) PARCEL: 117-30-00-007.12
WOMBLES GLENN
5900 S HWY 421
MANCHESTER, KY 40962

(P1) PARCEL: 117-00-00-008.00
GRAY PAULINE SMITH
5700 S HWY 421
MANCHESTER KY 40962

SMW ENGINEERING GROUP, INC.
SMW #: 18-1304

at&t

#	DATE	DESCRIPTION:
2	12/06/18	REISSUED FOR CLIENT REV.
3	12/17/18	REISSUED FOR CLIENT REV.
4	01/03/19	REISSUED FOR CLIENT REV.
5	01/08/19	REISSUED FOR CLIENT REV.
6	01/09/19	ISSUED FOR CONSTRUCTION

CHOP BOTTOM FN

500' RADIUS AND ABUTTERS MAP

DESIGNED: JDS
DRAWN: BMD
CHECKED: RTB

JOB #: 12568409

B-2

ROW
US HIGHWAY 421/
KENTUCKY HIGHWAY 80
ROW

CAPPED REBAR
(FOUND)

POC
CAPPED REBAR
(FOUND)

HEAVILY
WOODED

IRREGULAR
FIELD ROAD

HEAVILY
WOODED

PARENT TRACT
RANDALL &
ROSEMARY WAGERS
PARCEL 117-00-00-007.09
BOOK D291 PAGE 285

BOWLING MARVIN UNIFIED CREDIT
PARCEL 117-00-00-039.00

HEAVILY
WOODED

917' TO PROPERTY LINE 'A'

PROPOSED 75'x75'
FENCED COMPOUND

72' TO PROPERTY LINE 'B'

HEAVILY
WOODED

POB
100'X100' LEASE AREA
10,000.0± SQ. FT.
0.23± ACRES
30' INGRESS/EGRESS &
UTILITY EASEMENT
123,856.1 SQ. FT.
2.84± ACRES

1225' TO PROPERTY LINE 'D'

CENTER OF
TOWER

TOP OF RIDGE

5/8" REBAR
SET EACH CORNER

36" HARDWOOD TREE

PROPOSED 195'
MONOPOLE W/ 4'
LIGHTNING ARRESTOR

NO BUIILDINGS
NEAR AREA
OF SITE

528' TO
PROPERTY LINE 'C'

N

0 100' 200'

SCALE: 1" = 100'

CA#: 2865

STATE OF KENTUCKY
JEREMY D.
SHARIT
26823
LICENSED
PROFESSIONAL ENGINEER

01/09/19

SMW ENGINEERING GROUP, INC.
TOMORROW PLANNING & BUILDING TODAY

SMW #: 18-1304

at&t

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6	01/09/19	ISSUED FOR CONSTRUCTION

CHOP BOTTOM FN

OVERALL SITE LAYOUT

DESIGNED: JDS
DRAWN: BMD
CHECKED: RTB

JOB #: 12568409

C-1

ROW
US HIGHWAY 421/
KENTUCKY HIGHWAY 80
ROW

CAPPED REBAR
(FOUND)

POC
CAPPED REBAR
(FOUND)

HEAVILY
WOODED

IRREGULAR
FIELD ROAD

HEAVILY
WOODED

PARENT TRACT
RANDALL &
ROSEMARY WAGERS
PARCEL 117-00-00-007.09
BOOK D291 PAGE 285

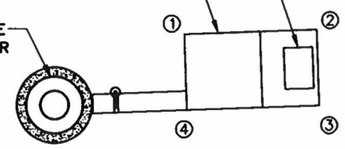
BOWLING MARVIN UNIFIED CREDIT
PARCEL 117-00-00-039.00

HEAVILY
WOODED

PROPOSED GENERATOR ON
8'x14' PATIO

PROPOSED 8'x8' SHELTER ON
8'x14' PATIO

PROPOSED 195' MONOPOLE
W/ 4' LIGHTNING ARRESTOR



PROPERTY LINE	EQUIPMENT	DISTANCE
A	1	914'±
B	2	44'±
C	3	509'±
D	4	1,240'±

ENLARGED EQUIPMENT
NOT TO SCALE

PROPOSED 75'x75'
FENCED COMPOUND

HEAVILY
WOODED

POB
100'X100' LEASE AREA
10,000.0± SQ. FT.
0.23± ACRES
30' INGRESS/EGRESS &
UTILITY EASEMENT
123,856.1 SQ. FT.
2.84± ACRES

CENTER OF
TOWER

TOP OF RIDGE

5/8" REBAR
SET EACH CORNER

36" HARDWOOD TREE

PROPOSED 195'
MONOPOLE W/ 4'
LIGHTNING ARRESTOR

NO BUIILDINGS
NEAR AREA
OF SITE

N

0 100' 200'

SCALE: 1" = 100'

CA#: 2865

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JEREMY D.
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SMW ENGINEERING GROUP, INC.
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CHOP BOTTOM FN

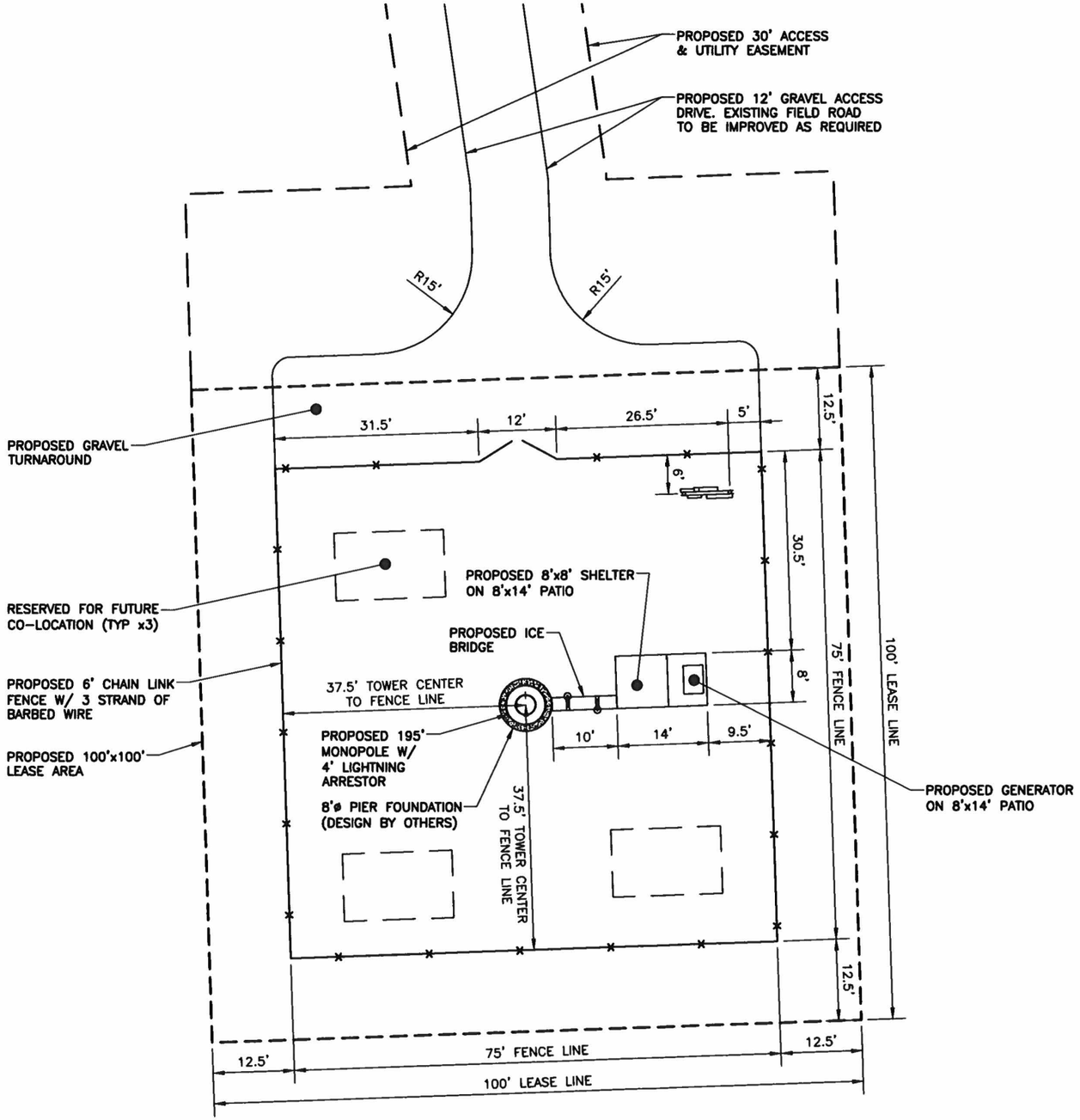
OVERALL SITE LAYOUT - CONT'D

DESIGNED: JDS
DRAWN: BMD
CHECKED: RTB

JOB #: 12568409

C-2

EXISTING TREES TO BE REMOVED WITHIN COMPOUND AND EASEMENT. CONTRACTOR TO FIELD VERIFY BEFORE CONSTRUCTION



N

0' 20' 40' 60'
1" = 20' (11"x17")

0' 10' 20' 30'
1" = 10' (24"x36")

CA#: 2865

STATE OF KENTUCKY
JEREMY D. SHARIT
26823
LICENSED PROFESSIONAL ENGINEER

01/09/19

SMW ENGINEERING GROUP, INC.
TOGETHER PLANNING & BUILDING TOMORROW

SMW #: 18-1304

at&t

#	DATE	DESCRIPTION:
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CHOP BOTTOM FN

ENLARGED COMPOUND LAYOUT

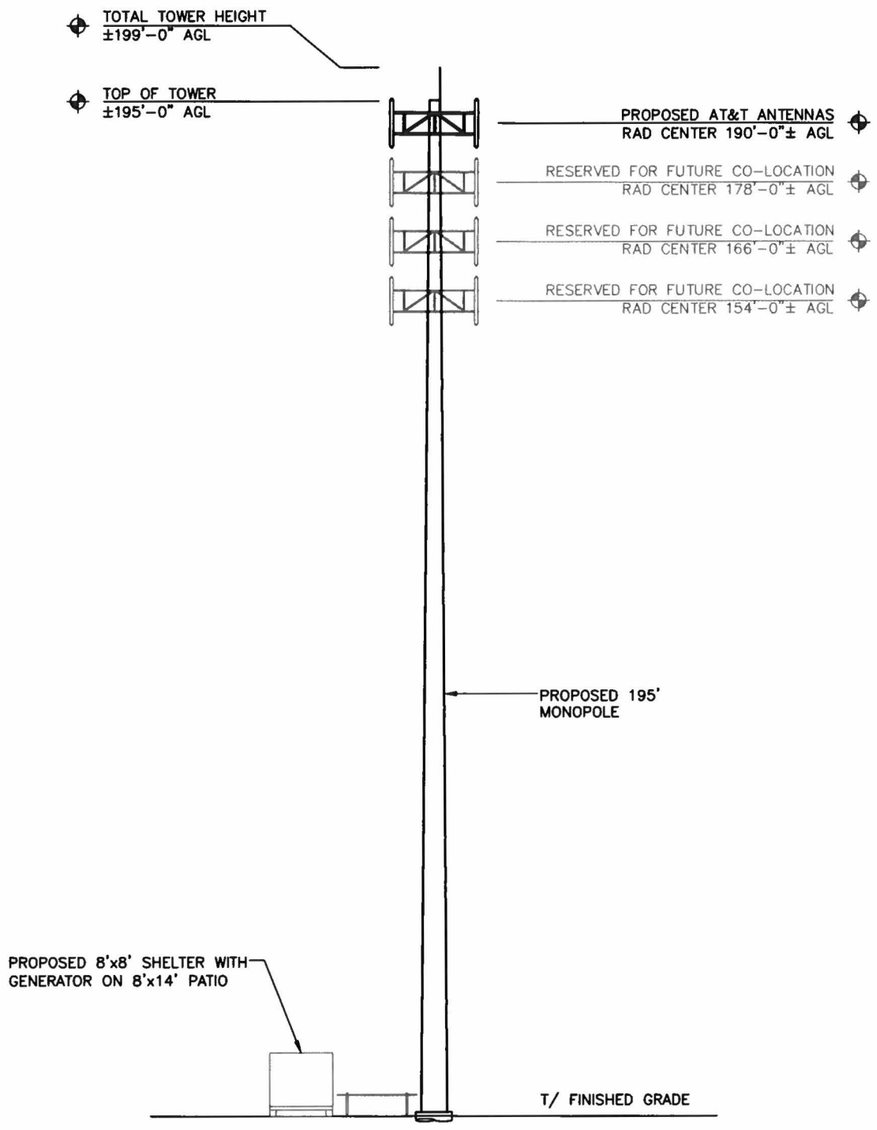
DESIGNED: JDS
DRAWN: BMD
CHECKED: RTB

JOB #: 12568409

C-3

TOWER NOTES

1. THE PROPOSED TOWER, FOUNDATION, ANTENNA MOUNTS AND ANTENNAS WERE DESIGNED BY OTHERS.
2. THE TOWER ELEVATION SHOWN IS FOR REFERENCE ONLY.
3. SEE TOWER MANUFACTURER'S DRAWINGS FOR TOWER AND FOUNDATION DETAILS & SPECIFICATIONS.
4. MANUFACTURER'S DRAWINGS SUPERSCEDE A&E DRAWINGS.



CA#: 2865

STATE OF KENTUCKY
JEREMY D. SHARIT
26823
LICENSED PROFESSIONAL ENGINEER

01/09/19

SMW ENGINEERING GROUP, INC.
TOGETHER PLANNING A BETTER TOMORROW

SMW #: 18-1304

at&t

#	DATE	DESCRIPTION:
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4	01/03/19	REISSUED FOR CLIENT REV.
5	01/08/19	REISSUED FOR CLIENT REV.
6	01/09/19	ISSUED FOR CONSTRUCTION

CHOP BOTTOM FN

TOWER ELEVATION

DESIGNED: JDS
DRAWN: BMD
CHECKED: RTB

JOB #: 12568409

C-4

EXHIBIT C
TOWER AND FOUNDATION DESIGN

MasTec
Network Solutions

October 8th, 2018
Kentucky Public Service Commission
211 Sower Blvd.
P.O. Box 615
Frankfort, KY 40602-0615

RE: Site Name – Chop Bottom FN
Proposed Cell Tower
37° 05' 55.11" North Latitude, 83° 42' 09.84" 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,

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

Sabre Industries™
Towers and Poles

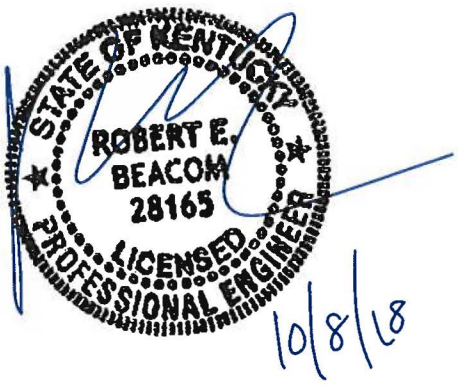
Structural Design Report

195' Monopole
Site: Chop Bottom FN, KY

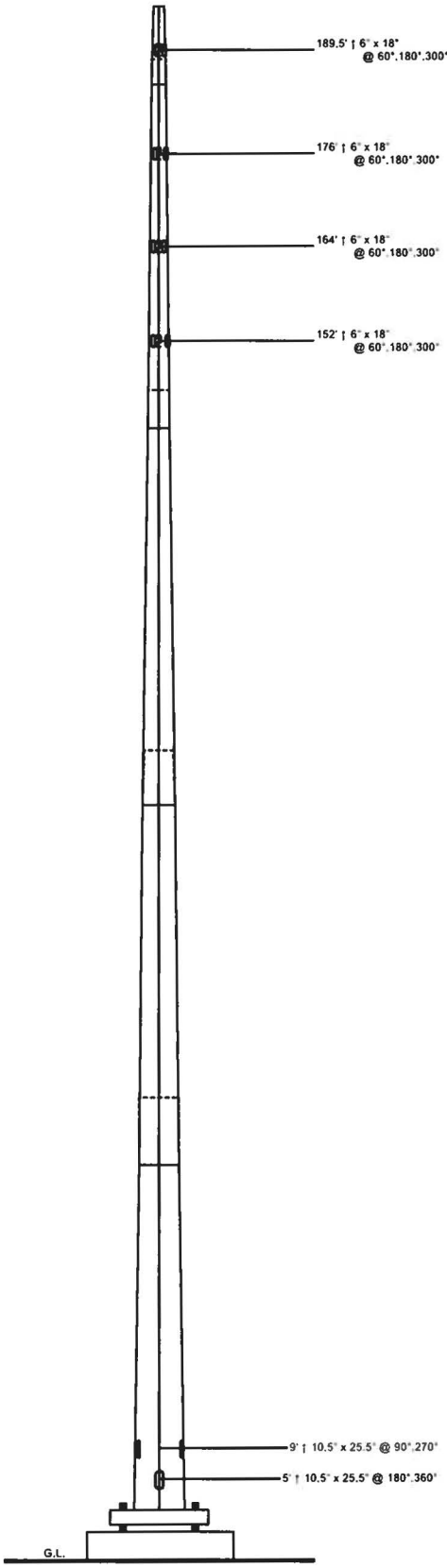
Prepared for: AT&T
by: Sabre Towers & Poles ™

Job Number: 419607

October 5, 2018



Length (ft)	10'-0"	47'-9"	53'-6"	53'-6"	53'-3"
Number Of Sides		18			
Thickness (in)	1/4"	3/8"	1/2"	9/16"	
Lap Splice (ft)	A		5' - 0"	7' - 0"	8' - 9"
Top Diameter (in)	19"	20.6"	33.18"	46.68"	59.51"
Bottom Diameter (in)	22.12"	35.49"	49.87"	63.36"	76.11"
Taper (in/ft)	0.3118				
Grade	A572-65				
Weight (lbs)	713	6052	12555	18747	25912
Overall Steel Height (ft)	194				



Designed Appurtenance Loading

Elev	Description	Tx-Line
190	(1) 278 sq. ft. EPA 6000# (no ice)	(18) 1 5/8"
178	(1) 208 sq. ft. EPA 4000# (no ice)	(18) 1 5/8"
166	(1) 173.6 sq. ft. 4000# (no ice)	(18) 1 5/8"
154	(1) 173.6 sq. ft. 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	105.59	95.05	13681.96	18.3	11.41
3s Gusted Wind 0.9 Dead	79.31	94.78	13448.4	17.88	11.12
3s Gusted Wind&Ice	145.31	13.71	2074.22	2.89	1.76
Service Loads	88.09	24.16	3479.83	4.78	2.93

Base Plate Dimensions

Shape	Width	Thickness	Bolt Circle	Bolt Qty	Bolt Diameter
Square	86.25"	2.75"	83.75"	32	2.25"

Anchor Bolt Dimensions

Length	Diameter	Hole Diameter	Weight	Type	Finish
84"	2.25"	2.625"	3875.2	A615-75	Galv

Material List

Display	Value
A	3' - 3"

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 1/2" of radial ice, in accordance with ANSI/TIA-222-G, Structure Class II, Exposure Category C, Topographic Category 3, with a Crest Height of 370'.
5) Full Height Step Bolts
6) 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.
7) Tower Rating: 100%

Sabre Industries
Towers and Poles

Sabre Communications Corporation
7101 Southbridge Drive
P.O. Box 658
Sioux City, IA 51102-0658
Phone: (712) 258-5690
Fax: (712) 279-0814

Job:	419607
Customer:	AT&T
Site Name:	Chop Bottom FN, KY
Description:	195' Monopole
Date:	10/5/2018 By: REB

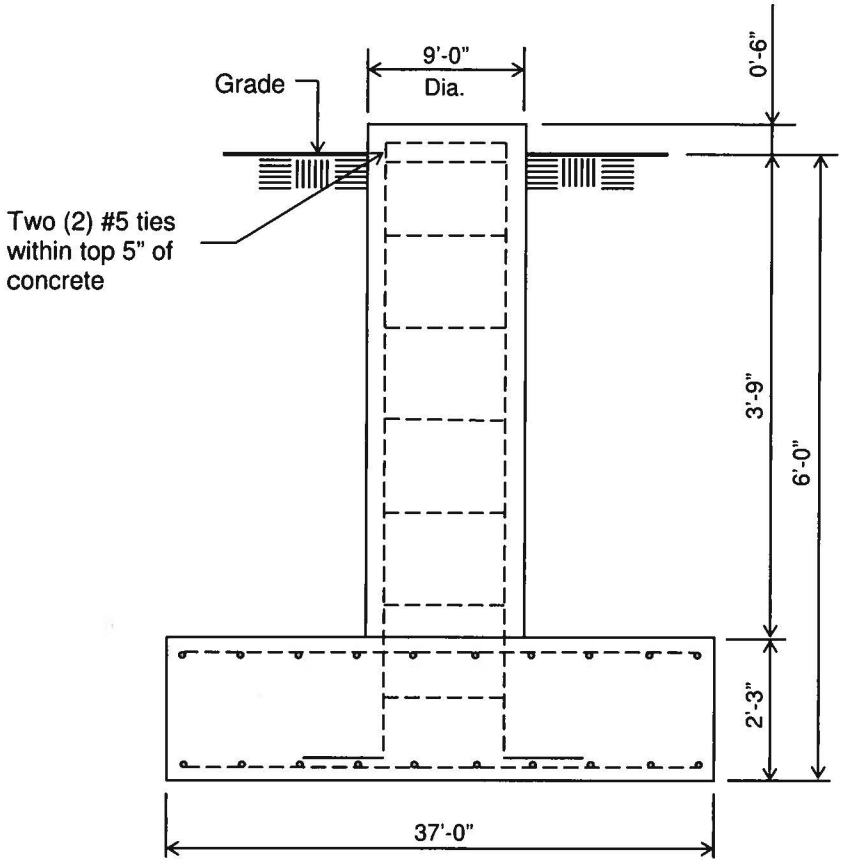
Sabre Industries™
Towers and Poles

No.: 419607

Date: 10/05/18
By: REB

Customer: AT&T
Site: Chop Bottom FN, KY
195' Monopole at
89 mph wind and 30 mph wind with 0.5" ice per ANSI/TIA-222-G.

PRELIMINARY -NOT FOR CONSTRUCTION-



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

Notes:

1) Concrete shall have a minimum 28-day compressive strength of 4,510 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 presumptive clay soil as defined in ANSI/TIA-222-G-2005. It is recommended that a soil analysis of the site be performed to verify the soil parameters used in the design.

6) 3.75 ft of soil cover is required over the entire area of the foundation slab.

7) The foundation is based on the following factored loads:
   Moment = 13,681.96 k-ft
   Axial = 105.59 k
   Shear = 95.05 k

Rebar Schedule for Pad and Pier	
Pier	(54) #10 vertical rebar w/ hooks at bottom w/ #5 ties, two within top 5" of pier, then 12" C/C
Pad	(73) #9 horizontal rebar evenly spaced each way top and bottom (292 total)

7101 Southbridge Drive - P.O. Box 658 - Sioux City, IA 51102-0658 - Phone 712.258.6690 - Fax 712.279.0814

(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: 5 oct 2018 at: 16:17:26

195' Monopole / Chop Bottom FN, KY

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

POLE GEOMETRY

ELEV ft	SECTION NAME	No. SIDE	OUTSIDE DIAM in	THICK -NESS in	RESISTANCES ♦*Pn kip	♦*Mn ft-kip	SPLICE TYPE	...OVERLAP... LENGTH ft	RATIO	w/t
194.0										
			19.29	0.250	1105.4	424.0				
	A	18								11.6
			21.42	0.250	1229.0	524.9				
187.2										
			21.42	0.250	1229.0	524.9				
	A/B	18					SLIP	3.25	1.80	
			21.96	0.375	1879.2	813.7				
184.0										
			21.96	0.375	1879.2	813.7				
	B	18								8.4
			34.45	0.375	2966.6	2040.5				
144.5										
			34.45	0.375	2966.6	2040.5				
	B/C	18					SLIP	5.00	1.73	
			35.29	0.500	4038.8	2827.3				
139.5										
			35.29	0.500	4038.8	2827.3				
	C	18								10.5
			48.40	0.500	5561.3	5381.2				
98.0										
			48.40	0.500	5561.3	5381.2				
	C/D	18					SLIP	7.00	1.72	
			49.63	0.562	6409.1	6346.5				
91.0										
			49.63	0.562	6409.1	6346.5				
	D	18								13.6
			61.55	0.562	7828.5	9656.4				
53.2										
			61.55	0.562	7828.5	9656.4				
	D/E	18					SLIP	8.75	1.69	
			63.22	0.562	7982.1	10116.8				
44.5										
			63.22	0.562	7982.1	10116.8				
	E	18								17.8
			77.29	0.562	9154.7	14232.4				
0.0										

POLE ASSEMBLY

SECTION NAME	BASE ELEV ft	BOLTS AT BASE OF SECTION NUMBER	TYPE	DIAM in	STRENGTH ksi	THREADS IN SHEAR PLANE	CALC BASE ELEV ft
A	184.000	0	A325	0.00	92.0	0	184.000
B	139.500	0	A325	0.00	92.0	0	139.500
C	91.000	0	A325	0.00	92.0	0	91.000
D	44.500	0	A325	0.00	92.0	0	44.500
E	0.000	0	A325	0.00	92.0	0	0.000

POLE SECTIONS

SECTION	No.of	LENGTH	OUTSIDE.DIAMETER	BEND	MAT-	FLANGE.ID	FLANGE.WELD

419607

NAME	SIDES		BOT *	TOP *	RAD	ERIAL ID	BOT	TOP	..GROUP.ID.. BOT	TOP
		ft	in	in	in					
A	18	10.00	22.46	19.29	0.000	1	0	0	0	0
B	18	47.75	36.04	20.92	0.000	2	0	0	0	0
C	18	53.50	50.63	33.70	0.000	3	0	0	0	0
D	18	53.50	64.34	47.40	0.000	4	0	0	0	0
E	18	53.25	77.29	60.43	0.000	5	0	0	0	0

* - Diameter of circumscribed circle

MATERIAL TYPES

TYPE OF SHAPE	TYPE NO	NO OF ELEM.	ORIENT &	deg	HEIGHT in	WIDTH in	.THICKNESS. WEB in	FLANGE in	IRREGULARITY .PROJECTION. % OF AREA	ORIENT deg
PL	1	1	0.0		22.46	0.25	0.250	0.250	0.00	0.0
PL	2	1	0.0		36.04	0.38	0.375	0.375	0.00	0.0
PL	3	1	0.0		50.63	0.50	0.500	0.500	0.00	0.0
PL	4	1	0.0		64.34	0.56	0.562	0.562	0.00	0.0
PL	5	1	0.0		77.29	0.56	0.562	0.562	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
5	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..LOAD..AT RADIUS ft	AZI	LOAD AZI	.....FORCES..... HORIZ kip	DOWN kip	.....MOMENTS..... VERTICAL ft-kip	TORSNAL ft-kip
C	189.000	0.00	0.0	0.0	0.0000	4.2457	0.0000	0.0000
C	189.000	0.00	0.0	0.0	19.3295	7.2000	0.0000	0.0000
C	177.000	0.00	0.0	0.0	0.0000	3.9761	0.0000	0.0000
C	177.000	0.00	0.0	0.0	14.5717	4.8000	0.0000	0.0000
C	165.000	0.00	0.0	0.0	0.0000	3.7066	0.0000	0.0000
C	165.000	0.00	0.0	0.0	12.3402	4.8374	0.0000	0.0000
C	153.000	0.00	0.0	0.0	0.0000	3.4370	0.0000	0.0000
C	153.000	0.00	0.0	0.0	12.4378	4.8374	0.0000	0.0000
D	194.000	0.00	180.0	0.0	0.0766	0.0642	0.0000	0.0000
D	187.250	0.00	180.0	0.0	0.0766	0.0642	0.0000	0.0000
D	187.250	0.00	180.0	0.0	0.0828	0.1704	0.0000	0.0000
D	184.000	0.00	180.0	0.0	0.0828	0.1704	0.0000	0.0000
D	184.000	0.00	180.0	0.0	0.0912	0.1135	0.0000	0.0000
D	170.833	0.00	180.0	0.0	0.0912	0.1135	0.0000	0.0000

D	170.833	0.00	180.0	0.0	0.1079	0.1332	0.0000	0.0000
D	157.667	0.00	180.0	0.0	0.1079	0.1332	0.0000	0.0000
D	157.667	0.00	180.0	0.0	0.1249	0.1529	0.0000	0.0000
D	144.500	0.00	180.0	0.0	0.1249	0.1529	0.0000	0.0000
D	144.500	0.00	180.0	0.0	0.1369	0.3840	0.0000	0.0000
D	139.500	0.00	180.0	0.0	0.1369	0.3840	0.0000	0.0000
D	139.500	0.00	180.0	0.0	0.1464	0.2363	0.0000	0.0000
D	125.667	0.00	180.0	0.0	0.1464	0.2363	0.0000	0.0000
D	125.667	0.00	180.0	0.0	0.1649	0.2639	0.0000	0.0000
D	111.833	0.00	180.0	0.0	0.1649	0.2639	0.0000	0.0000
D	111.833	0.00	180.0	0.0	0.1835	0.2915	0.0000	0.0000
D	98.000	0.00	180.0	0.0	0.1835	0.2915	0.0000	0.0000
D	98.000	0.00	180.0	0.0	0.1975	0.6571	0.0000	0.0000
D	91.000	0.00	180.0	0.0	0.1975	0.6571	0.0000	0.0000
D	91.000	0.00	180.0	0.0	0.2065	0.3668	0.0000	0.0000
D	78.417	0.00	180.0	0.0	0.2065	0.3668	0.0000	0.0000
D	78.417	0.00	180.0	0.0	0.2228	0.3951	0.0000	0.0000
D	65.833	0.00	180.0	0.0	0.2228	0.3951	0.0000	0.0000
D	65.833	0.00	180.0	0.0	0.2380	0.4234	0.0000	0.0000
D	53.250	0.00	180.0	0.0	0.2380	0.4234	0.0000	0.0000
D	53.250	0.00	180.0	0.0	0.2494	0.8876	0.0000	0.0000
D	44.500	0.00	180.0	0.0	0.2494	0.8876	0.0000	0.0000
D	44.500	0.00	180.0	0.0	0.2535	0.4626	0.0000	0.0000
D	33.375	0.00	180.0	0.0	0.2535	0.4626	0.0000	0.0000
D	33.375	0.00	180.0	0.0	0.2588	0.4876	0.0000	0.0000
D	22.250	0.00	180.0	0.0	0.2588	0.4876	0.0000	0.0000
D	22.250	0.00	180.0	0.0	0.2551	0.5127	0.0000	0.0000
D	11.125	0.00	180.0	0.0	0.2551	0.5127	0.0000	0.0000
D	11.125	0.00	180.0	0.0	0.2694	0.5378	0.0000	0.0000
D	0.000	0.00	180.0	0.0	0.2694	0.5378	0.0000	0.0000

==========

LOADING CONDITION M ==========

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

LOADS ON POLE
==========

LOAD TYPE	ELEV ft	APPLY..LOAD..AT RADIUS ft	AZI	LOAD AZI	.....FORCES..... HORIZ kip	DOWN kip	.....MOMENTS..... VERTICAL ft-kip	TORSNAL ft-kip
C	189.000	0.00	0.0	0.0	0.0000	3.1843	0.0000	0.0000
C	189.000	0.00	0.0	0.0	19.3295	5.4000	0.0000	0.0000
C	177.000	0.00	0.0	0.0	0.0000	2.9821	0.0000	0.0000
C	177.000	0.00	0.0	0.0	14.5717	3.6000	0.0000	0.0000
C	165.000	0.00	0.0	0.0	0.0000	2.7799	0.0000	0.0000
C	165.000	0.00	0.0	0.0	12.3402	3.6281	0.0000	0.0000
C	153.000	0.00	0.0	0.0	0.0000	2.5777	0.0000	0.0000
C	153.000	0.00	0.0	0.0	12.4378	3.6281	0.0000	0.0000
D	194.000	0.00	180.0	0.0	0.0766	0.0481	0.0000	0.0000
D	187.250	0.00	180.0	0.0	0.0766	0.0481	0.0000	0.0000
D	187.250	0.00	180.0	0.0	0.0828	0.1278	0.0000	0.0000
D	184.000	0.00	180.0	0.0	0.0828	0.1278	0.0000	0.0000
D	184.000	0.00	180.0	0.0	0.0912	0.0851	0.0000	0.0000
D	170.833	0.00	180.0	0.0	0.0912	0.0851	0.0000	0.0000
D	170.833	0.00	180.0	0.0	0.1079	0.0999	0.0000	0.0000
D	157.667	0.00	180.0	0.0	0.1079	0.0999	0.0000	0.0000
D	157.667	0.00	180.0	0.0	0.1249	0.1147	0.0000	0.0000
D	144.500	0.00	180.0	0.0	0.1249	0.1147	0.0000	0.0000
D	144.500	0.00	180.0	0.0	0.1369	0.2880	0.0000	0.0000
D	139.500	0.00	180.0	0.0	0.1369	0.2880	0.0000	0.0000
D	139.500	0.00	180.0	0.0	0.1464	0.1772	0.0000	0.0000
D	125.667	0.00	180.0	0.0	0.1464	0.1772	0.0000	0.0000
D	125.667	0.00	180.0	0.0	0.1649	0.1979	0.0000	0.0000
D	111.833	0.00	180.0	0.0	0.1649	0.1979	0.0000	0.0000
D	111.833	0.00	180.0	0.0	0.1835	0.2186	0.0000	0.0000
D	98.000	0.00	180.0	0.0	0.1835	0.2186	0.0000	0.0000
D	98.000	0.00	180.0	0.0	0.1975	0.4928	0.0000	0.0000
D	91.000	0.00	180.0	0.0	0.1975	0.4928	0.0000	0.0000
D	91.000	0.00	180.0	0.0	0.2065	0.2751	0.0000	0.0000
D	78.417	0.00	180.0	0.0	0.2065	0.2751	0.0000	0.0000
D	78.417	0.00	180.0	0.0	0.2228	0.2963	0.0000	0.0000
D	65.833	0.00	180.0	0.0	0.2228	0.2963	0.0000	0.0000
D	65.833	0.00	180.0	0.0	0.2380	0.3176	0.0000	0.0000

D	53.250	0.00	180.0	0.0	0.2380	0.3176	0.0000	0.0000
D	53.250	0.00	180.0	0.0	0.2494	0.6657	0.0000	0.0000
D	44.500	0.00	180.0	0.0	0.2494	0.6657	0.0000	0.0000
D	44.500	0.00	180.0	0.0	0.2535	0.3469	0.0000	0.0000
D	33.375	0.00	180.0	0.0	0.2535	0.3469	0.0000	0.0000
D	33.375	0.00	180.0	0.0	0.2588	0.3657	0.0000	0.0000
D	22.250	0.00	180.0	0.0	0.2588	0.3657	0.0000	0.0000
D	22.250	0.00	180.0	0.0	0.2551	0.3845	0.0000	0.0000
D	11.125	0.00	180.0	0.0	0.2551	0.3845	0.0000	0.0000
D	11.125	0.00	180.0	0.0	0.2694	0.4034	0.0000	0.0000
D	0.000	0.00	180.0	0.0	0.2694	0.4034	0.0000	0.0000

LOADING CONDITION Y

30 mph wind with 0.5 ice. Wind Azimuth: 0♦

LOADS ON POLE

LOAD TYPE	ELEV ft	APPLY..LOAD..AT RADIUS ft	AZI	LOAD AZI	.....FORCES..... HORIZ kip	DOWN kip	.....MOMENTS..... VERTICAL ft-kip	TORSNAL ft-kip
C	189.000	0.00	0.0	0.0	0.0000	4.2457	0.0000	0.0000
C	189.000	0.00	0.0	0.0	2.1167	15.2724	0.0000	0.0000
C	177.000	0.00	0.0	0.0	0.0000	3.9761	0.0000	0.0000
C	177.000	0.00	0.0	0.0	2.4283	10.1865	0.0000	0.0000
C	165.000	0.00	0.0	0.0	0.0000	3.7066	0.0000	0.0000
C	165.000	0.00	0.0	0.0	2.0564	10.2287	0.0000	0.0000
C	153.000	0.00	0.0	0.0	0.0000	3.4370	0.0000	0.0000
C	153.000	0.00	0.0	0.0	2.0736	10.2329	0.0000	0.0000
D	194.000	0.00	180.0	0.0	0.0114	0.0999	0.0000	0.0000
D	187.250	0.00	180.0	0.0	0.0114	0.0999	0.0000	0.0000
D	187.250	0.00	180.0	0.0	0.0122	0.2087	0.0000	0.0000
D	184.000	0.00	180.0	0.0	0.0122	0.2087	0.0000	0.0000
D	184.000	0.00	180.0	0.0	0.0133	0.1553	0.0000	0.0000
D	170.833	0.00	180.0	0.0	0.0133	0.1553	0.0000	0.0000
D	170.833	0.00	180.0	0.0	0.0155	0.1819	0.0000	0.0000
D	157.667	0.00	180.0	0.0	0.0155	0.1819	0.0000	0.0000
D	157.667	0.00	180.0	0.0	0.0177	0.2085	0.0000	0.0000
D	144.500	0.00	180.0	0.0	0.0177	0.2085	0.0000	0.0000
D	144.500	0.00	180.0	0.0	0.0193	0.4443	0.0000	0.0000
D	139.500	0.00	180.0	0.0	0.0193	0.4443	0.0000	0.0000
D	139.500	0.00	180.0	0.0	0.0206	0.3003	0.0000	0.0000
D	125.667	0.00	180.0	0.0	0.0206	0.3003	0.0000	0.0000
D	125.667	0.00	180.0	0.0	0.0230	0.3352	0.0000	0.0000
D	111.833	0.00	180.0	0.0	0.0230	0.3352	0.0000	0.0000
D	111.833	0.00	180.0	0.0	0.0255	0.3700	0.0000	0.0000
D	98.000	0.00	180.0	0.0	0.0255	0.3700	0.0000	0.0000
D	98.000	0.00	180.0	0.0	0.0273	0.7409	0.0000	0.0000
D	91.000	0.00	180.0	0.0	0.0273	0.7409	0.0000	0.0000
D	91.000	0.00	180.0	0.0	0.0285	0.4539	0.0000	0.0000
D	78.417	0.00	180.0	0.0	0.0285	0.4539	0.0000	0.0000
D	78.417	0.00	180.0	0.0	0.0306	0.4884	0.0000	0.0000
D	65.833	0.00	180.0	0.0	0.0306	0.4884	0.0000	0.0000
D	65.833	0.00	180.0	0.0	0.0326	0.5226	0.0000	0.0000
D	53.250	0.00	180.0	0.0	0.0326	0.5226	0.0000	0.0000
D	53.250	0.00	180.0	0.0	0.0341	0.9914	0.0000	0.0000
D	44.500	0.00	180.0	0.0	0.0341	0.9914	0.0000	0.0000
D	44.500	0.00	180.0	0.0	0.0343	0.5702	0.0000	0.0000
D	0.000	0.00	180.0	0.0	0.0361	0.6463	0.0000	0.0000

195' Monopole / Chop Bottom FN, KY

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

MAST ELEV ft	DEFLECTIONS (ft) HORIZONTAL ALONG	HORIZONTAL ACROSS	DOWN	ROTATIONS (deg) TILT ALONG	TILT ACROSS	TWIST
194.0	18.30A	-0.05X	2.54L	11.41A	0.04W	-0.01N
187.2	17.00A	-0.05X	2.28L	11.40A	0.04W	-0.01N
184.0	16.38A	-0.05X	2.16L	11.36A	0.04W	-0.01N
170.8	13.91A	-0.04X	1.68L	10.84A	0.03W	-0.01N
157.7	11.60A	-0.04X	1.25L	9.91A	-0.03E	-0.01N
144.5	9.51A	-0.03X	0.91L	8.73A	-0.03X	-0.01N
139.5	8.78A	-0.03X	0.80L	8.35A	-0.02X	-0.01N
125.7	6.93A	-0.02X	0.55L	7.23A	-0.02X	-0.01N
111.8	5.34A	-0.02X	0.36L	6.13A	-0.02X	0.00N
98.0	4.00H	-0.01X	0.23L	5.11A	-0.02X	0.00N
91.0	3.41H	-0.01X	0.18L	4.67A	-0.01X	0.00N
78.4	2.48H	-0.01X	0.11L	3.88L	-0.01X	0.00N
65.8	1.71H	-0.01X	0.06L	3.14H	-0.01X	0.00N
53.2	1.10H	0.00X	0.03L	2.47H	-0.01X	0.00N
44.5	0.75H	0.00X	0.02L	2.03H	-0.01X	0.00N
33.4	0.41H	0.00X	0.01L	1.47H	0.00X	0.00N
22.2	0.18H	0.00X	0.00L	0.95H	0.00X	0.00N
11.1	0.04H	0.00X	0.00L	0.46H	0.00X	0.00N
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	ACROSS kip	MOMENT.w.r.t.WIND.DIR ALONG ft-kip	ACROSS ft-kip	TORSION ft-kip
194.0	-0.04 P	-0.01 L	-0.01 N	-0.06 L	-0.03 N	0.01 N
187.2	20.19 Z	19.85 P	-0.01 N	-38.30 I	0.03 X	-0.05 N
	20.20 Y	20.07 H	-0.19 K	-38.61 A	0.33 C	-0.06 N
184.0	20.87 Y	20.34 H	-0.19 K	-108.78 H	0.51 K	0.11 C
	20.88 Y	20.51 A	0.18 W	-108.42 F	0.52 I	0.14 C
170.8	37.08 Y	36.26 A	0.18 W	-504.73 A	-2.64 W	0.53 W
	37.08 AG	36.27 A	0.26 W	-504.72 A	-2.63 W	0.53 W
157.7	53.41 AG	50.01 A	0.26 W	-1128.83 A	-5.93 W	1.20 W
	53.41 AG	50.00 A	0.17 W	-1128.84 A	-5.89 W	1.19 W
144.5	69.83 AG	64.06 A	0.17 W	-1965.45 A	-8.05 W	-1.88 N
	69.83 AG	64.13 A	-0.22 X	-1965.51 A	-8.14 W	-1.89 N

	72.05 AG	64.80 A	-0.22 X	-2312.84 A	-8.76 W	-2.17 N
139.5						
	72.05 AG	64.65 H	0.25 H	-2312.86 A	-8.79 W	-2.14 N
	76.20 AG	66.65 H	0.25 H	-3289.52 A	-10.93 W	-2.69 N
125.7						
	76.20 AG	66.71 H	-0.26 B	-3289.42 A	-10.91 W	-2.68 N
	80.84 AG	68.98 H	-0.26 B	-4292.78 A	13.03 E	-3.35 N
111.8						
	80.84 AG	68.98 H	-0.27 B	-4292.70 A	12.94 E	-3.35 N
	85.96 AG	71.51 H	-0.27 B	-5325.18 A	16.74 E	-3.93 N
98.0						
	85.96 AG	71.45 F	-0.26 B	-5325.25 A	16.71 E	-3.92 N
	91.14 AG	72.83 F	-0.26 B	-5860.06 A	18.17 E	-4.20 N
91.0						
	91.14 AG	72.85 F	-0.33 X	-5860.23 A	18.08 E	-4.19 N
	96.85 AG	75.44 F	-0.33 X	-6844.69 A	20.74 X	-4.57 N
78.4						
	96.85 AG	75.47 F	-0.34 X	-6844.57 A	20.75 X	-4.57 N
	103.00 AG	78.27 F	-0.34 X	-7858.10 A	25.20 X	-4.89 N
65.8						
	103.00 AG	78.25 F	-0.31 X	-7858.08 A	25.26 X	-4.89 N
	109.57 AG	81.24 F	-0.31 X	-8902.02 L	29.24 X	-5.16 N
53.2						
	109.57 AG	81.33 H	-0.33 X	-8902.10 L	29.19 X	-5.17 N
	118.25 AG	83.51 H	-0.33 X	-9647.50 L	32.15 X	-5.33 N
44.5						
	118.25 AG	83.50 H	-0.28 X	-9647.44 L	32.15 X	-5.33 N
	124.70 AG	86.32 H	-0.28 X	-10618.64 H	35.35 X	-5.49 N
33.4						
	124.70 AG	86.32 H	-0.29 X	-10618.65 H	35.33 X	-5.49 N
	131.36 AG	89.20 H	-0.29 X	-11615.66 H	38.59 X	-5.60 N
22.2						
	131.36 AG	89.21 H	-0.28 X	-11615.64 H	38.60 X	-5.60 N
	138.23 AG	92.05 H	-0.28 X	-12636.78 H	41.76 X	-5.67 N
11.1						
	138.23 AG	92.05 H	-0.28 X	-12636.77 H	41.76 X	-5.67 N
	145.31 AG	95.05 H	-0.28 X	-13681.96 H	44.89 X	-5.69 N
base reaction	145.31 AG	-95.05 H	0.28 X	13681.96 H	-44.89 X	5.69 N

COMPLIANCE WITH 4.8.2 & 4.5.4

ELEV ft	AXIAL	BENDING	SHEAR + TORSIONAL	TOTAL	SATISFIED	D/t(w/t)	MAX ALLOWED
194.00	0.00P	0.00L	0.00L	0.00L	YES	11.64A	45.2
	0.02Z	0.07I	0.03P	0.08I	YES	13.12A	45.2
187.25	0.01Y	0.05A	0.02H	0.06A	YES	8.16A	45.2
	0.01Y	0.13H	0.02H	0.13H	YES	8.64A	45.2
184.00	0.01Y	0.13F	0.02A	0.14F	YES	8.40A	45.2
	0.02Y	0.43A	0.03A	0.45A	YES	10.33A	45.2
170.83	0.02AG	0.43A	0.03A	0.45A	YES	10.33A	45.2
	0.02AG	0.72A	0.04A	0.73A	YES	12.26A	45.2
157.67							

	0.02AG	0.72A	0.04A	0.73A	YES	12.26A	45.2
	0.02AG	0.96A	0.04A	0.98A	YES	14.19A	45.2
144.50							
	0.02AG	0.73A	0.03A	0.74A	YES	10.20A	45.2
	0.02AG	0.78A	0.03A	0.80A	YES	10.75A	45.2
139.50							
	0.02AG	0.82A	0.03L	0.83A	YES	10.49A	45.2
	0.02AG	0.92A	0.03L	0.93A	YES	12.01A	45.2
125.67							
	0.02AG	0.92A	0.03H	0.93A	YES	12.01A	45.2
	0.02AG	0.97A	0.03H	0.98A	YES	13.53A	45.2
111.83							
	0.02AG	0.97A	0.03H	0.98A	YES	13.53A	45.2
	0.02AG	0.99A	0.03N	1.00A	YES	15.05A	45.2
98.00							
	0.01AG	0.88A	0.02F	0.89A	YES	13.18A	45.2
	0.01AG	0.89A	0.02U	0.90A	YES	13.87A	45.2
91.00							
	0.01AG	0.92A	0.02U	0.93A	YES	13.55A	45.2
	0.01AG	0.92A	0.02U	0.93A	YES	14.78A	45.2
78.42							
	0.01AG	0.92A	0.02U	0.93A	YES	14.78A	45.2
	0.01AG	0.92A	0.02U	0.93A	YES	16.01A	45.2
65.83							
	0.01AG	0.92A	0.02U	0.93A	YES	16.01A	45.2
	0.01AG	0.92L	0.02U	0.93L	YES	17.24A	45.2
53.25							
	0.01AG	0.92L	0.02U	0.93L	YES	17.24A	45.2
	0.01AG	0.92L	0.02N	0.94L	YES	18.10A	45.2
44.50							
	0.01AG	0.95L	0.02N	0.96L	YES	17.75A	45.2
	0.02AG	0.96H	0.02N	0.97H	YES	18.83A	45.2
33.37							
	0.02AG	0.96H	0.02N	0.97H	YES	18.83A	45.2
	0.02AG	0.96H	0.02N	0.97H	YES	19.92A	45.2
22.25							
	0.02AG	0.96H	0.02N	0.97H	YES	19.92A	45.2
	0.02AG	0.96H	0.02N	0.97H	YES	21.01A	45.2
11.12							
	0.02AG	0.96H	0.02N	0.97H	YES	21.01A	45.2
	0.02AG	0.96H	0.02N	0.97H	YES	22.10A	45.2
0.00							

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

DOWN	SHEAR.w.r.t.WIND.DIR		MOMENT.w.r.t.WIND.DIR		TORSION
	ALONG	ACROSS	ALONG	ACROSS	
kip	kip	kip	ft-kip	ft-kip	ft-kip
145.31	95.05	-0.28	-13681.96	44.89	-5.69
AG	H	X	H	X	N

195' Monopole / Chop Bottom FN, 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 ft	APPLY..LOAD..AT RADIUS ft	AZI	LOAD AZI	.....FORCES..... HORIZ kip	DOWN kip	.....MOMENTS..... VERTICAL ft-kip	TORSNAL ft-kip
C	189.000	0.00	0.0	0.0	0.0000	3.5381	0.0000	0.0000
C	189.000	0.00	0.0	0.0	4.9127	6.0000	0.0000	0.0000
C	177.000	0.00	0.0	0.0	0.0000	3.3134	0.0000	0.0000
C	177.000	0.00	0.0	0.0	3.7035	4.0000	0.0000	0.0000
C	165.000	0.00	0.0	0.0	0.0000	3.0888	0.0000	0.0000
C	165.000	0.00	0.0	0.0	3.1363	4.0312	0.0000	0.0000
C	153.000	0.00	0.0	0.0	0.0000	2.8642	0.0000	0.0000
C	153.000	0.00	0.0	0.0	3.1611	4.0312	0.0000	0.0000
D	194.000	0.00	180.0	0.0	0.0195	0.0535	0.0000	0.0000
D	187.250	0.00	180.0	0.0	0.0195	0.0535	0.0000	0.0000
D	187.250	0.00	180.0	0.0	0.0210	0.1420	0.0000	0.0000
D	184.000	0.00	180.0	0.0	0.0210	0.1420	0.0000	0.0000
D	184.000	0.00	180.0	0.0	0.0232	0.0946	0.0000	0.0000
D	170.833	0.00	180.0	0.0	0.0232	0.0946	0.0000	0.0000
D	170.833	0.00	180.0	0.0	0.0274	0.1110	0.0000	0.0000
D	157.667	0.00	180.0	0.0	0.0274	0.1110	0.0000	0.0000
D	157.667	0.00	180.0	0.0	0.0318	0.1274	0.0000	0.0000
D	144.500	0.00	180.0	0.0	0.0318	0.1274	0.0000	0.0000
D	144.500	0.00	180.0	0.0	0.0348	0.3200	0.0000	0.0000
D	139.500	0.00	180.0	0.0	0.0348	0.3200	0.0000	0.0000
D	139.500	0.00	180.0	0.0	0.0372	0.1969	0.0000	0.0000
D	125.667	0.00	180.0	0.0	0.0372	0.1969	0.0000	0.0000
D	125.667	0.00	180.0	0.0	0.0419	0.2199	0.0000	0.0000
D	111.833	0.00	180.0	0.0	0.0419	0.2199	0.0000	0.0000
D	111.833	0.00	180.0	0.0	0.0466	0.2429	0.0000	0.0000
D	98.000	0.00	180.0	0.0	0.0466	0.2429	0.0000	0.0000
D	98.000	0.00	180.0	0.0	0.0502	0.5476	0.0000	0.0000
D	91.000	0.00	180.0	0.0	0.0502	0.5476	0.0000	0.0000
D	91.000	0.00	180.0	0.0	0.0525	0.3057	0.0000	0.0000
D	78.417	0.00	180.0	0.0	0.0525	0.3057	0.0000	0.0000
D	78.417	0.00	180.0	0.0	0.0566	0.3293	0.0000	0.0000
D	65.833	0.00	180.0	0.0	0.0566	0.3293	0.0000	0.0000
D	65.833	0.00	180.0	0.0	0.0605	0.3529	0.0000	0.0000
D	53.250	0.00	180.0	0.0	0.0605	0.3529	0.0000	0.0000
D	53.250	0.00	180.0	0.0	0.0634	0.7397	0.0000	0.0000
D	44.500	0.00	180.0	0.0	0.0634	0.7397	0.0000	0.0000
D	44.500	0.00	180.0	0.0	0.0644	0.3855	0.0000	0.0000
D	33.375	0.00	180.0	0.0	0.0644	0.3855	0.0000	0.0000
D	33.375	0.00	180.0	0.0	0.0658	0.4064	0.0000	0.0000
D	22.250	0.00	180.0	0.0	0.0658	0.4064	0.0000	0.0000
D	22.250	0.00	180.0	0.0	0.0648	0.4273	0.0000	0.0000
D	0.000	0.00	180.0	0.0	0.0685	0.4482	0.0000	0.0000

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

MAST ELEV ft	.....DEFLECTIONS (ft)..... HORIZONTAL ..... ALONG	ACROSS	DOWN	.....ROTATIONS (deg)..... TILT ..... ALONG	ACROSS	TWIST

194.0	4.78K	0.02K	0.17K	2.93K	0.01I	0.00K
187.2	4.43K	0.01K	0.16K	2.93K	0.01I	0.00K
184.0	4.27K	0.01K	0.15K	2.92K	0.01I	0.00K
170.8	3.61K	0.01K	0.11K	2.78K	0.01I	0.00K
157.7	3.00K	0.01K	0.09K	2.54K	0.01I	0.00K
144.5	2.45K	0.01K	0.06K	2.23K	0.01K	0.00K
139.5	2.26K	0.01K	0.06K	2.14K	0.01K	0.00K
125.7	1.78K	0.01K	0.04K	1.85K	0.01K	0.00K
111.8	1.37K	0.00K	0.03K	1.57K	0.01K	0.00K
98.0	1.02K	0.00K	0.02K	1.30K	0.00K	0.00K
91.0	0.87K	0.00K	0.01K	1.19K	0.00K	0.00K
78.4	0.63K	0.00K	0.01K	0.99K	0.00K	0.00K
65.8	0.44K	0.00K	0.01K	0.80K	0.00K	0.00K
53.2	0.28K	0.00K	0.00K	0.63K	0.00K	0.00K
44.5	0.19K	0.00K	0.00K	0.52K	0.00K	0.00K
33.4	0.11K	0.00K	0.00K	0.37K	0.00K	0.00K
22.2	0.05K	0.00K	0.00K	0.24K	0.00K	0.00K
11.1	0.01K	0.00K	0.00K	0.12K	0.00K	0.00K
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	ACROSS kip	MOMENT.w.r.t.WIND.DIR ALONG ft-kip	ACROSS ft-kip	TORSION ft-kip
194.0	0.00 K	0.00 C	0.00 F	-0.02 D	0.01 F	0.00 F
	9.90 K	5.05 C	0.00 F	-9.94 A	-0.01 F	0.00 E
187.2	9.90 D	5.08 A	-0.03 C	-9.97 E	-0.05 C	0.00 C
	10.36 D	5.14 A	-0.03 C	-28.23 A	-0.06 K	0.00 K
184.0	10.39 K	5.16 B	0.04 I	-28.20 E	-0.07 E	0.00 K
	18.94 K	9.17 B	0.04 I	-130.14 B	-0.52 I	0.02 K
170.8	18.94 K	9.16 K	0.04 I	-130.14 B	-0.51 I	0.03 K
	27.52 K	12.66 K	0.04 I	-290.00 B	-1.03 I	0.06 K
157.7	27.52 K	12.64 K	0.04 I	-289.98 B	-1.03 I	0.06 K
	36.09 K	16.22 K	0.04 I	-503.64 B	-1.61 I	0.08 K
144.5	36.10 K	16.25 K	0.03 E	-503.64 B	-1.62 I	0.08 K
	37.70 K	16.42 K	0.03 E	-592.02 K	-1.79 I	0.09 K
139.5	37.69 K	16.43 D	0.09 K	-592.04 B	-1.78 I	0.09 K
	40.41 K	16.94 D	0.09 K	-840.82 K	-2.60 I	0.14 K
125.7	40.41 K	16.96 K	0.07 K	-840.85 K	-2.59 I	0.14 K
	43.45 K	17.54 K	0.07 K	-1096.51 K	-3.42 I	0.18 K

111.8						
	43.45 K	17.54 K	0.07 K	-1096.52 K	-3.41 I	0.18 K
	46.81 K	18.19 K	0.07 K	-1359.04 K	-4.18 I	0.22 K
98.0						
	46.81 K	18.17 K	0.09 K	-1359.08 K	-4.17 I	0.22 K
	50.64 K	18.53 K	0.09 K	-1494.84 K	-4.75 K	0.24 K
91.0						
	50.64 K	18.54 K	0.09 K	-1494.89 K	-4.71 K	0.24 K
	54.49 K	19.20 K	0.09 K	-1744.80 K	-5.85 K	0.26 K
78.4						
	54.49 K	19.22 K	0.09 K	-1744.76 K	-5.85 K	0.27 K
	58.63 K	19.93 K	0.09 K	-2002.09 K	-6.91 K	0.29 K
65.8						
	58.63 K	19.92 K	0.08 K	-2002.08 K	-6.91 K	0.29 K
	63.07 K	20.69 K	0.08 K	-2267.03 K	-7.92 K	0.31 K
53.2						
	63.07 K	20.68 K	0.09 K	-2267.01 K	-7.92 K	0.31 K
	69.54 K	21.24 K	0.09 K	-2456.16 K	-8.68 K	0.32 K
44.5						
	69.54 K	21.23 K	0.09 K	-2456.14 K	-8.66 K	0.32 K
	73.83 K	21.95 K	0.09 K	-2702.47 K	-9.60 K	0.33 K
33.4						
	73.83 K	21.95 K	0.08 K	-2702.46 K	-9.59 K	0.33 K
	78.35 K	22.68 K	0.08 K	-2955.21 K	-10.52 K	0.33 K
22.2						
	78.35 K	22.68 K	0.08 K	-2955.21 K	-10.52 K	0.33 K
	83.16 K	23.41 K	0.08 K	-3214.33 K	-11.44 K	0.34 K
11.1						
	83.16 K	23.40 K	0.08 K	-3214.33 K	-11.45 K	0.34 K
	88.09 K	24.16 K	0.08 K	-3479.83 K	-12.36 K	0.34 K
base reaction	88.09 K	-24.16 K	-0.08 K	3479.83 K	12.36 K	-0.34 K

COMPLIANCE WITH 4.8.2 & 4.5.4

ELEV ft	AXIAL	BENDING	SHEAR + TORSIONAL		TOTAL	SATISFIED	D/t(w/t)	MAX ALLOWED
194.00								
	0.00K	0.00D	0.00C	0.00D		YES	11.64A	45.2
	0.01K	0.02A	0.01C	0.03A		YES	13.12A	45.2
187.25								
	0.01D	0.01E	0.01A	0.02E		YES	8.16A	45.2
	0.01D	0.03A	0.01A	0.04A		YES	8.64A	45.2
184.00								
	0.01K	0.03E	0.01B	0.04E		YES	8.40A	45.2
	0.01K	0.11B	0.01B	0.12B		YES	10.33A	45.2
170.83								
	0.01K	0.11B	0.01K	0.12B		YES	10.33A	45.2
	0.01K	0.18B	0.01K	0.20B		YES	12.26A	45.2
157.67								
	0.01K	0.18B	0.01K	0.20B		YES	12.26A	45.2
	0.01K	0.25B	0.01K	0.26B		YES	14.19A	45.2
144.50								
	0.01K	0.19B	0.01K	0.20B		YES	10.20A	45.2
	0.01K	0.20K	0.01K	0.21K		YES	10.75A	45.2
139.50								
	0.01K	0.21B	0.01D	0.22B		YES	10.49A	45.2

	0.01K	0.23K	0.01D	0.24K	YES	12.01A	45.2
125.67							
	0.01K	0.23K	0.01K	0.24K	YES	12.01A	45.2
	0.01K	0.25K	0.01K	0.26K	YES	13.53A	45.2
111.83							
	0.01K	0.25K	0.01K	0.26K	YES	13.53A	45.2
	0.01K	0.25K	0.01K	0.26K	YES	15.05A	45.2
98.00							
	0.01K	0.23K	0.01K	0.23K	YES	13.18A	45.2
	0.01K	0.23K	0.01K	0.23K	YES	13.87A	45.2
91.00							
	0.01K	0.24K	0.01K	0.24K	YES	13.55A	45.2
	0.01K	0.24K	0.01K	0.24K	YES	14.78A	45.2
78.42							
	0.01K	0.24K	0.01K	0.24K	YES	14.78A	45.2
	0.01K	0.23K	0.01K	0.24K	YES	16.01A	45.2
65.83							
	0.01K	0.23K	0.01K	0.24K	YES	16.01A	45.2
	0.01K	0.23K	0.01K	0.24K	YES	17.24A	45.2
53.25							
	0.01K	0.23K	0.01K	0.24K	YES	17.24A	45.2
	0.01K	0.24K	0.01K	0.24K	YES	18.10A	45.2
44.50							
	0.01K	0.24K	0.01K	0.25K	YES	17.75A	45.2
	0.01K	0.24K	0.01K	0.25K	YES	18.83A	45.2
33.37							
	0.01K	0.24K	0.01K	0.25K	YES	18.83A	45.2
	0.01K	0.24K	0.01K	0.25K	YES	19.92A	45.2
22.25							
	0.01K	0.24K	0.01K	0.25K	YES	19.92A	45.2
	0.01K	0.24K	0.01K	0.25K	YES	21.01A	45.2
11.12							
	0.01K	0.24K	0.01K	0.25K	YES	21.01A	45.2
	0.01K	0.24K	0.01K	0.25K	YES	22.10A	45.2
0.00							

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

DOWN	SHEAR.w.r.t.WIND.DIR ALONG	ACROSS	MOMENT.w.r.t.WIND.DIR ALONG	ACROSS	TORSION
kip	kip	kip	ft-kip	ft-kip	ft-kip
88.09 K	24.16 K	0.08 K	-3479.83 K	-12.36 K	0.34 K

Sabre Industries™
Towers and Poles

SO#: 419607
Site Name: Chop Bottom FN, KY
Date: 10/5/2018

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

Pole Data

Diameter:	76.110	in (flat to flat)
Thickness:	0.5625	in
Yield (Fy):	65	ksi
# of Sides:	18	"0" IF Round
Strength (Fu):	80	ksi

Reactions

Moment, Mu:	13681.96	ft-kips
Axial, Pu:	105.59	kips
Shear, Vu:	95.05	kips

Anchor Rod Data

Quantity:	32	(multiple of 4)	
Diameter:	2.25	in	
Rod Material:	A615		
Strength (Fu):	100	ksi	
Yield (Fy):	75	ksi	
BC Diam. (in):	83.75	BC Override:	
Rod Spacing:	6	in	

Anchor Rod Results

Maximum Rod (Pu+ Vu/η):	254.3 Kips	
Allowable Φ*Rnt:	260.0 Kips	(per 4.9.9)
Anchor Rod Interaction Ratio:	**97.8%** Pass	

Plate Data

Width (in):	86.25	Width Override:	
Thickness:	2.75	in	
Yield (Fy)	50	ksi	
Eff. Width:	45.87	in	
Corner Clip	23.00	in	
Drain Hole:	2.625	in. diameter	
Drain Location:	36	in. center of pole to center of drain hole	
Center Hole:	64	in. diameter	

Base Plate Results

Base Plate (Mu/Z):	43.4 ksi	
Allowable Φ*Fy:	45 ksi	(per AISC)
Base Plate Interaction Ratio:	**96.5%** Pass	

MAT FOUNDATION DESIGN BY SABRE TOWERS & POLES
195' Monopole AT&T Chop Bottom FN, KY (419607) 10/05/18 REB

Overall Loads:			
Factored Moment (ft-kips)	13681.96		
Factored Axial (kips)	105.59		
Factored Shear (kips)	95.05		
Bearing Design Strength (ksf)	3.75	Max. Net Bearing Press. (ksf)	3.33
Water Table Below Grade (ft)	999		
Width of Mat (ft)	37	Allowable Bearing Pressure (ksf)	2.50
Thickness of Mat (ft)	2.25	Safety Factor	2.00
Depth to Bottom of Slab (ft)	6	Ultimate Bearing Pressure (ksf)	5.00
Quantity of Bolts in Bolt Circle	32	Bearing Φs	0.75
Bolt Circle Diameter (in)	83.75		
Top of Concrete to Top of Bottom Threads (in)	60		
Diameter of Pier (ft)	9	Minimum Pier Diameter (ft)	8.31
Ht. of Pier Above Ground (ft)	0.5	Equivalent Square b (ft)	7.98
Ht. of Pier Below Ground (ft)	3.75	Square Pier? (Y/N)	N
Quantity of Bars in Mat	73		
Bar Diameter in Mat (in)	1.128		
Area of Bars in Mat (in^2)	72.95		
Spacing of Bars in Mat (in)	6.07	Recommended Spacing (in)	5 to 12
Quantity of Bars Pier	54		
Bar Diameter in Pier (in)	1.27		
Tie Bar Diameter in Pier (in)	0.625		
Spacing of Ties (in)	12		
Area of Bars in Pier (in^2)	68.41	Minimum Pier A_s (in^2)	45.80
Spacing of Bars in Pier (in)	5.79	Recommended Spacing (in)	5 to 12
f'c (ksi)	4.5		
fy (ksi)	60		
Unit Wt. of Soil (kcf)	0.11		
Unit Wt. of Concrete (kcf)	0.15		
Volume of Concrete (yd^3)	124.10		
Two-Way Shear Action:			
Average d (in)	22.872		
ϕv_c (ksi)	0.228	v_u (ksi)	0.228
$\phi v_c = \phi(2 + 4/\beta_c)f'_c{}^{1/2}$	0.342		
$\phi v_c = \phi(\alpha_s d/b_o+2)f'_c{}^{1/2}$	0.241		
$\phi v_c = \phi 4f'_c{}^{1/2}$	0.228		
Shear perimeter, b_o (in)	411.15		
β_c	1		
One-Way Shear:			
ϕV_c (kips)	1159.4	V_u (kips)	691.5
Stability:			
Overturning Design Strength (ft-k)	18798.8	Total Applied M (ft-k)	14299.8

Pier Design:

ϕV_n (kips)	1071.4	V_u (kips)	95.1
$\phi V_c=\phi 2(1+N_u/(2000A_g))f'_c{}^{1/2}b_wd$	1071.4		
V_s (kips)	0.0	*** V_s max = $4\ f'_c{}^{1/2}b_wd$ (kips)	2506.6
Maximum Spacing (in)	6.77	(Only if Shear Ties are Required)	
Actual Hook Development (in)	21.74	Req'd Hook Development l_{dh} (in)	15.32
		*** Ref. To Spacing Requirements ACI 11.5.4.3	

Flexure in Slab:

ϕM_n (ft-kips)	7086.3	M_u (ft-kips)	7009.6
a (in)	2.57		
Steel Ratio	0.00718		
β_1	0.8245		
Maximum Steel Ratio (ρ_t)	0.0198		
Minimum Steel Ratio	0.0018		
Rebar Development in Pad (in)	171.14	Required Development in Pad (in)	29.84

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

EXHIBIT D
COMPETING UTILITIES, CORPORATIONS, OR PERSONS LIST

KY Public Service Commission

Master Utility Search

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

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

Active

Search

	Utility ID	Utility Name	Utility Type	Class	City	State
View	4111300	2600Hz, Inc. dba ZSWITCH	Cellular	C	San Francisco	CA
View	4107900	365 Wireless, LLC	Cellular	D	Atlanta	GA
View	4109300	Access Point, Inc.	Cellular	D	Cary	NC
View	4108300	Air Voice Wireless, LLC	Cellular	A	Bloomfield Hill	MI
View	4110650	Alliant Technologies of KY, L.L.C.	Cellular	D	Morristown	NJ
View	44451184	Alltel Communications, LLC	Cellular	A	Basking Ridge	NJ
View	4110850	AltaWorx, LLC	Cellular	D	Fairhope	AL
View	4107800	American Broadband and Telecommunications Company	Cellular	D	Toledo	OH
View	4108650	AmeriMex Communications Corp.	Cellular	D	Dunedin	FL
View	4105100	AmeriVision Communications, Inc. d/b/a Affinity 4	Cellular	D	Virginia Beach	VA
View	4110700	Andrew David Balholm dba Norcell	Cellular	D	Clayton	WA
View	4108600	BCN Telecom, Inc.	Cellular	D	Morristown	NJ
View	4110550	Blue Casa Mobile, LLC	Cellular	D	Santa Barbara	CA
View	4108750	Blue Jay Wireless, LLC	Cellular	C	Carrollton	TX
View	4111050	BlueBird Communications, LLC	Cellular	C	New York	NY
View	4202300	Bluegrass Wireless, LLC	Cellular	A	Elizabethtown	KY
View	4107600	Boomerang Wireless, LLC	Cellular	B	Hiawatha	IA

View	4105500	BullsEye Telecom, Inc.	Cellular	D	Southfield	MI
View	4100700	Cellco Partnership dba Verizon Wireless	Cellular	A	Basking Ridge	NJ
View	4106600	Cintex Wireless, LLC	Cellular	D	Rockville	MD
View	4111150	Comcast OTR1, LLC	Cellular	D	Philadelphia	PA
View	4101900	Consumer Cellular, Incorporated	Cellular	A	Portland	OR
View	4106400	Credo Mobile, Inc.	Cellular	B	San Francisco	CA
View	4108850	Cricket Wireless, LLC	Cellular	D	San Antonio	TX
View	10640	Cumberland Cellular Partnership	Cellular	A	Elizabethtown	KY
View	4111200	Dynalink Communications, Inc.	Cellular	C	Brooklyn	NY
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	A	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	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	4111250	Liberty Mobile Wireless, LLC	Cellular	C	Sunny Isles Beach	
View	4111400	Locus Telecommunications, LLC	Cellular	C	Fort Lee	NJ
View	4110900	Lunar Labs, Inc.	Cellular	D	Detroit	MI
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	D	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	4111350	Q LINK MOBILE LLC	Cellular	C	Dania Beach	FL
View	4106700	Q Link Wireless, LLC	Cellular	B	Dania	FL
View	4108700	Ready Wireless, LLC	Cellular	B	Hiawatha	IA
View	4110500	Republic Wireless, Inc.	Cellular	D	Raleigh	NC
View	4111100	ROK Mobile, Inc.	Cellular	C	Culver City	CA
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	Atlanta	GA
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. d/b/a Mint Mobile	Cellular	D	Costa Mesa	CA
View	4105700	Virgin Mobile USA, L.P.	Cellular	A	Atlanta	GA
View	4110800	Visible Service LLC	Cellular	D	Lone Tree	CO
View	4106500	WiMacTel, Inc.	Cellular	D	Palo Alto	CA
View	4110950	Wing Tel Inc.	Cellular	D	New York	NY
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: Not Identified

File: Chop Bottom

Location: Manchester, KY

Latitude: 37°-05'-55.11" Longitude: 83°-42'-09.84"

SITE ELEVATION AMSL.....1413 ft.
STRUCTURE HEIGHT.....199 ft.
OVERALL HEIGHT AMSL.....1612 ft.
SURVEY HEIGHT AMSL.....1612 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 (No Expected TERPS® impact with LOZ)
FAR 77.9: NNR (No Expected TERPS® impact I35)
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: LOZ: LONDON-CORBIN ARPT-MAGEE FIE
Type: A RD: 107032.6 RE: 1182.4
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

VFR TRAFFIC PATTERN AIRSPACE FOR: I35: TUCKER-GUTHRIE MEMORIAL
Type: A RD: 132036.8 RE: 1523.6
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 3929 ft AMSL

PRIVATE LANDING FACILITIES

FACIL IDENT	TYP	NAME	BEARING To FACIL	RANGE IN NM	DELTA ARP ELEVATION	FAA IFR
15KT	HEL	AE109	308.3	3.38	+728	
No Impact to Private Landing Facility Structure is beyond notice limit by 15537 feet.						
4KY2	HEL	MANCHESTER MEMORIAL HOSPITAL	323.43	4.77	+677	IFR
No Impact to Private Landing Facility Structure is beyond notice limit by 23983 feet.						

AIR NAVIGATION ELECTRONIC FACILITIES

FAC IDNT	TYPE	ST	FREQ	VECTOR	DIST (ft)	DELTA ELEVA	ST	LOCATION	GRND APCH ANGLE	BEAR
LOZ	CO	Y	A/G	33.8	23029	+290	KY	LONDON 2	.72	
LOZ	VOR/DME	R	116.1	258.53	121220	+367	KY	LONDON	.17	
AZQ	VOR/DME	I	111.2	50.1	166542	+369	KY	HAZARD	.13	
KJKL	RADAR WXL	Y		32.18	212002	+160	KY	JACKSON	.04	

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: WWXL @ 7881 meters.

Airspace® Summary Version 18.7.510

07-31-2018
16:31:07

EXHIBIT F
KENTUCKY AIRPORT ZONING COMMISSION

Cody Knox

From: Houlihan, John F (KYTC) <John.Houlihan@ky.gov>
Sent: Wednesday, August 15, 2018 5:17 AM
To: Cody Knox
Subject: Re: AT&T KAZC permit determination - Chop Bottom FN

No permit is required from the KAZC.

Just a reminder, any construction equipment exceeding 200 feet above ground level, will require a temporary permit from the KAZC

Thank you.

Sent from my iPhone

On Aug 14, 2018, at 5:12 PM, Cody Knox <cknox@integrisite.net> wrote:

> John,
> AT&T is proposing to construct a new tower per the specifications below. Can you confirm if a KAZC permit is required?
>
> Project Name: Chop Bottom FN
> Latitude: 37 05 55.11 N
> Longitude: 83 42 09.84 W
> GE: 1,413'
> Tower height including lightning arrestor: 199'
> Overall height: 1,612'
>
> Thank you,
>
> Cody Knox
> Integrisite, Inc.
> 214 Expo Circle, Suite 4
> West Monroe, LA 71292
> 318-355-6599

EXHIBIT G
GEOTECHNICAL REPORT

ENVIRONMENTAL CORPORATION OF AMERICA

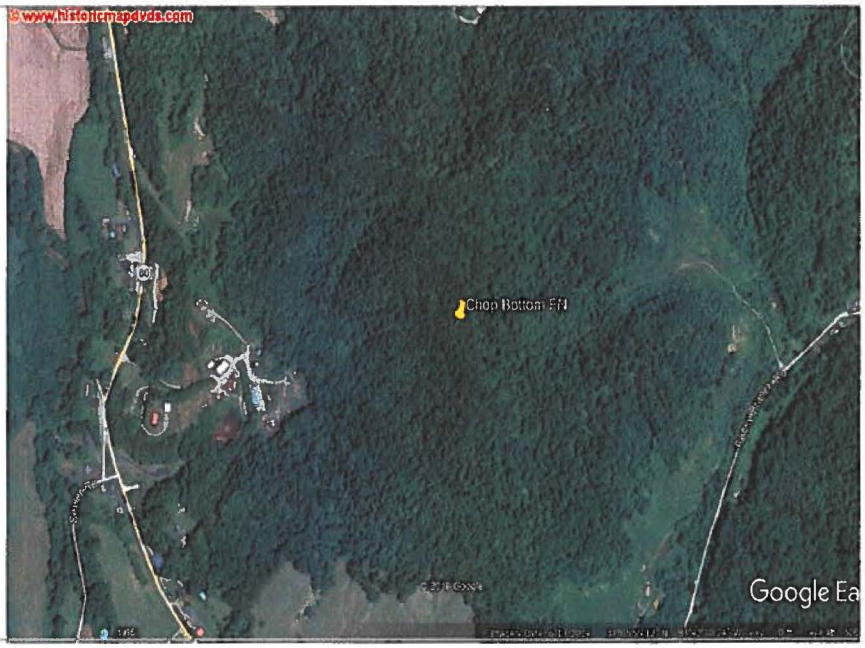
ENVIRONMENTAL | GEOTECHNICAL | WETLANDS | ECOLOGY | CULTURAL RESOURCES

Preliminary Geotechnical Investigation

Chop Bottom FN

Off US Highway 421
Manchester, Clay County, Kentucky

ECA Project No. U3006



SUBMITTED TO:

SMW Engineering Group, Inc.
158 Business Center Drive
Birmingham, AL 35244

PREPARED BY:

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

September 21, 2018

SMW Engineering Group, Inc.
158 Business Center Drive
Birmingham, AL 35244

Attention: Mr. Jeremy Sharit

Subject: **Report of Preliminary Geotechnical Investigation**
Chop Bottom FN
Off US Highway 421
Manchester, Clay County, Kentucky
ECA Project No. U3006

Dear Mr. Sharit:

Environmental Corporation of America (ECA) is pleased to submit this report of our Preliminary Geotechnical Investigation for the proposed project. Our services were provided as authorized by an email approval dated September 17, 2018.

This report presents a review of the information provided to us, a description of the site and subsurface conditions, and our recommendations. The appendices contain a USGS Topographic Map, Project Site Survey, Local Geology, USDA Web Soil Survey map and Soil Descriptions for mapped soil types.

Purpose and Scope of Work

The purpose of this effort was to evaluate the likely site conditions so that preliminary foundation design plans can be prepared. No soil borings or testing has been conducted for this report. A final Geotechnical Investigation including borings should be conducted for the proposed tower.

Project Information

We were provided with a project survey prepared by SMW Engineering Group, Inc., and dated June 25, 2018. The proposed tower would be located off US Highway 421, Manchester, Clay County, Kentucky. In general, the proposed tower compound would be located within a mountainous terrain with surface elevations ranging between 1,380 to 1,420 feet Above Mean Sea Level (AMSL) within the proposed 10,000 (100-foot by 100- foot) square foot lease area.

The ground surface within the proposed lease area is heavily wooded. We understand that plans include constructing a 199-foot tall monopole tower, approximately as shown on Figure 1 in Appendix A.

Estimated Site and Subsurface Conditions

The topography leading up to the proposed compound is mostly mountainous. The elevation at the proposed tower location is about 1,412 feet AMSL. The soil survey shows three potential soil types near the proposed tower location. The soil survey described the existing site soils as mainly silt loam. The descriptions of the soil types are attached in Appendix B. The geology of the site is best described by the Geological Map of State of Kentucky, Kentucky Geological Survey, and the U.S. Geological Survey, as being within Breathitt Formation, lower part, with the primary soil type of Siltstone and Shale. The local geology is also shown in Appendix B. In summary, the general soil profile descriptions include siltstone, shale, sandstone or conglomerate occurring at relatively shallow depth.

Groundwater will not likely be encountered in foundation excavations.

Recommendations

Based on the anticipated rocky soil conditions and relatively shallow bed rock, the tower will likely be supported on a shallow mat (pad and pier) foundation system. Assuming partially weathered rock at the tower foundation bearing level, a nominal bearing pressure of about 5,000 pounds per square foot (psf) is likely appropriate.

We appreciate the opportunity to be of service. Please call us with any questions at (770) 667-2040.

Sincerely,
Environmental Corporation of America

Héctor A. Acosta, M.S.C.E., P.E.
Principal Geotechnical Engineer
State of Kentucky Reg. No. 31144

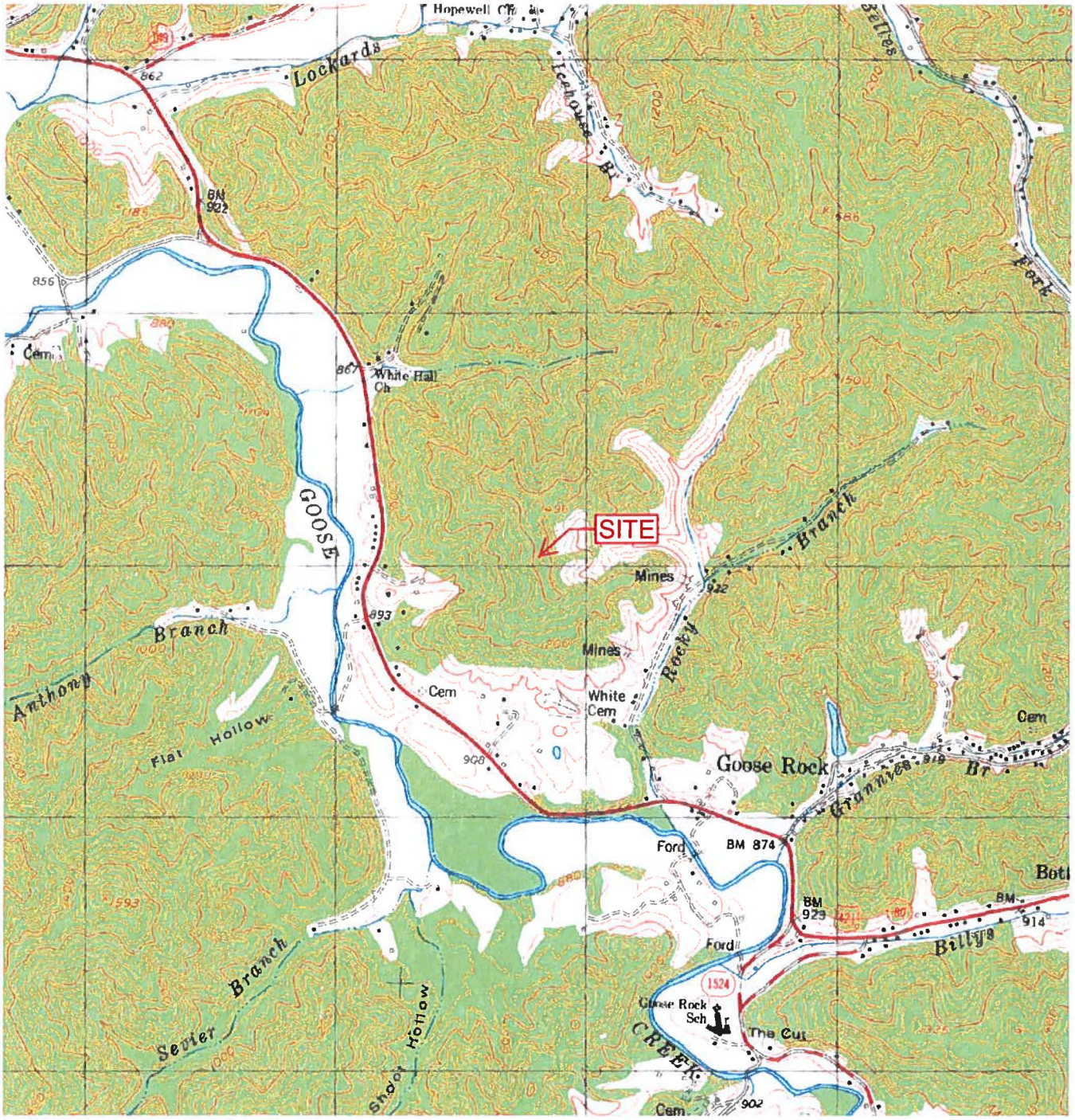
STATE OF KENTUCKY
HÉCTOR A ACOSTA
31144
LICENSED PROFESSIONAL ENGINEER
9-21-18

Athulya Balakrishnan
Project Engineer

Appendix-A Figure 1 – Topographic Map and Site Survey
Appendix-B Local Geology, Soil Survey, and Soil Description

APPENDIX A

Topographic Map and Site Survey



Source: USGS Topographic Maps, Ogle, KY (1979).

N

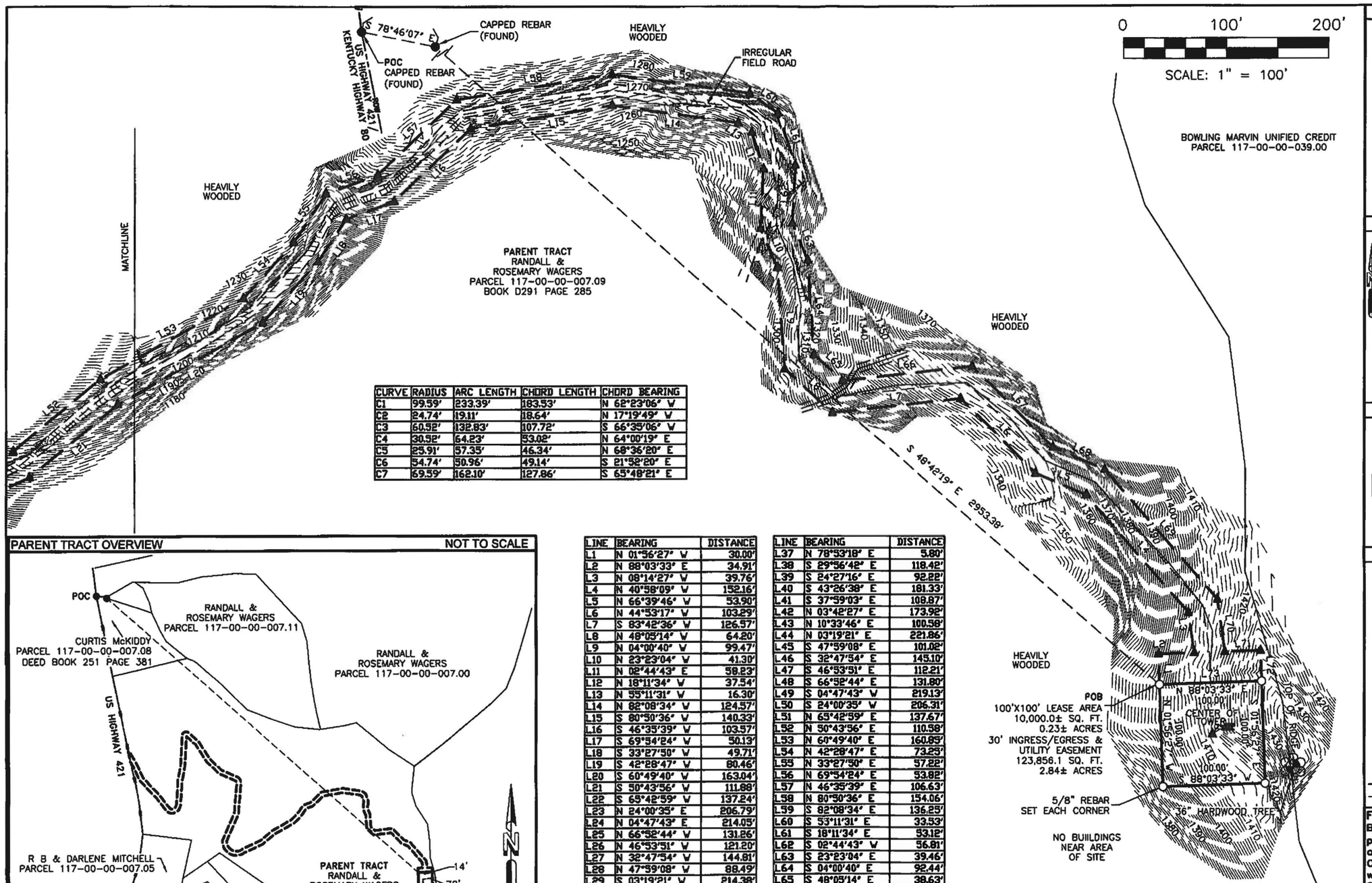
Chop Bottom FN

US Highway 421

Manchester, Clay County, Kentucky

Figure 1: Site Location Map

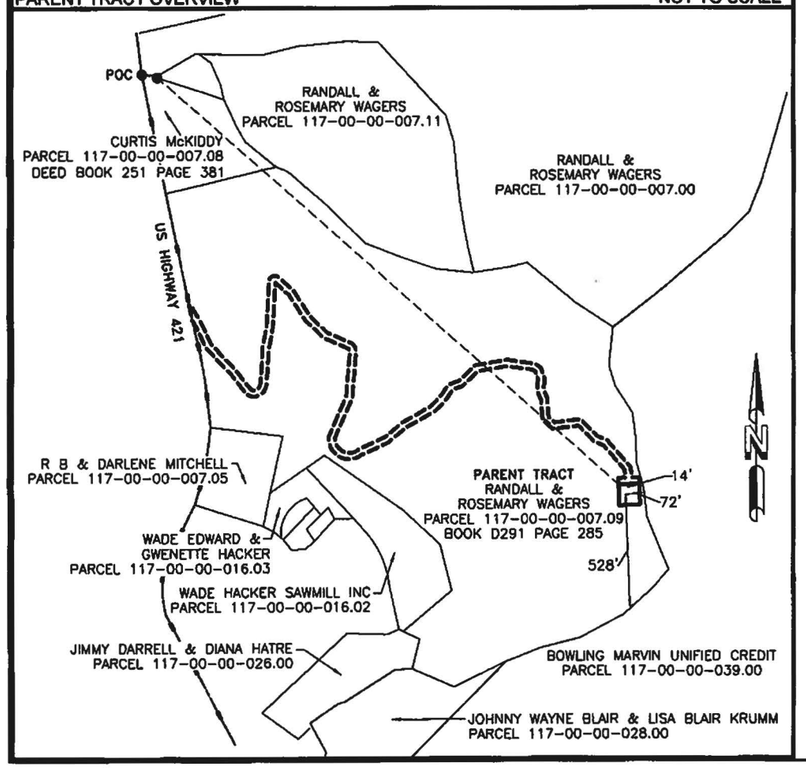
ECA Project No. U3006



CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING
C1	99.59'	233.39'	183.53'	N 62°23'06" W
C2	24.74'	19.11'	18.64'	N 17°19'49" W
C3	60.52'	132.83'	107.72'	S 66°35'06" W
C4	30.52'	64.23'	53.02'	N 64°00'19" E
C5	25.91'	57.35'	46.34'	N 68°36'20" E
C6	54.74'	50.96'	49.14'	S 21°52'20" E
C7	59.59'	162.10'	127.86'	S 65°48'21" E

PARENT TRACT OVERVIEW

NOT TO SCALE



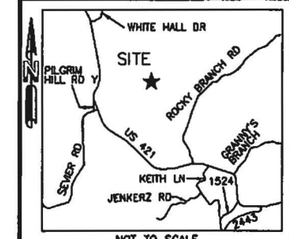
LINE	BEARING	DISTANCE
L1	N 01°36'27" W	30.00'
L2	N 88°03'33" E	34.91'
L3	N 08°14'27" W	39.76'
L4	N 40°58'09" W	152.16'
L5	N 66°39'46" W	53.90'
L6	N 44°53'17" W	103.29'
L7	S 83°42'36" W	126.57'
L8	N 48°05'14" W	64.20'
L9	N 04°00'40" W	99.47'
L10	N 23°23'04" W	41.30'
L11	N 02°44'43" E	58.23'
L12	N 18°11'34" W	37.54'
L13	N 55°11'31" W	16.30'
L14	N 82°08'34" W	124.57'
L15	S 80°50'36" W	140.33'
L16	S 46°35'39" W	103.57'
L17	S 69°54'24" W	50.13'
L18	S 33°27'50" W	49.71'
L19	S 42°28'47" W	80.46'
L20	S 60°49'40" W	163.04'
L21	S 50°43'56" W	111.88'
L22	S 65°42'59" W	137.24'
L23	N 24°00'35" E	206.79'
L24	N 04°47'43" E	214.05'
L25	N 66°52'44" W	131.26'
L26	N 46°53'51" W	121.20'
L27	N 32°47'54" W	144.81'
L28	N 47°59'08" W	88.49'
L29	S 03°19'21" W	214.38'
L30	S 10°33'46" W	100.68'
L31	S 03°42'27" W	172.13'
L32	N 37°59'03" W	111.30'
L33	N 43°26'38" W	184.92'
L34	N 24°27'16" W	95.80'
L35	N 29°56'42" W	44.35'
L36	N 11°44'17" W	78.44'

LINE	BEARING	DISTANCE
L37	N 78°53'18" E	5.80'
L38	S 29°56'42" E	118.42'
L39	S 24°27'16" E	92.22'
L40	S 43°26'38" E	181.33'
L41	S 37°59'03" E	108.87'
L42	N 03°42'27" E	173.98'
L43	N 10°33'46" E	100.58'
L44	N 03°19'21" E	221.86'
L45	S 47°59'08" E	101.02'
L46	S 32°47'54" E	145.10'
L47	S 46°53'51" E	112.21'
L48	S 66°52'44" E	131.80'
L49	S 04°47'43" W	219.13'
L50	S 24°00'35" W	206.31'
L51	N 65°42'59" E	137.67'
L52	N 50°43'56" E	110.58'
L53	N 60°49'40" E	160.85'
L54	N 42°28'47" E	73.23'
L55	N 33°27'50" E	57.22'
L56	N 69°54'24" E	53.82'
L57	N 46°35'39" E	106.63'
L58	N 80°50'36" E	154.06'
L59	S 82°08'34" E	136.25'
L60	S 53°11'31" E	33.53'
L61	S 18°11'34" E	53.12'
L62	S 02°44'43" W	56.81'
L63	S 23°23'04" E	39.46'
L64	S 04°00'40" E	92.44'
L65	S 48°05'14" E	38.63'
L66	N 83°42'36" E	127.59'
L67	S 44°53'17" E	111.95'
L68	S 66°39'46" E	54.98'
L69	S 40°58'09" E	167.81'
L70	S 08°14'27" E	51.89'
L71	N 88°03'33" E	34.91'
L72	S 01°56'27" E	30.00'
L73	S 88°03'33" W	100.00'

TOWER INFO

LATITUDE: 37°05'55.110" NORTH
LONGITUDE: 83°42'09.845" WEST
(NAD 83)
GROUND ELEVATION: 1412.9'
ABOVE MEAN SEA LEVEL (NAVD88)

VICINITY MAP



NOT TO SCALE

KENTUCKY SINGLE ZONE

GRID NORTH

GRID TO TRUE NORTH CONVERGENCE
1°15'

TRUE NORTH TO MAGNETIC DECLINATION
6°9' W

COMBINED SCALE FACTOR
0.999996372

LEGEND

- o = 5/8" REBAR SET
- ● = FOUND PROPERTY MARKER
- POB = POINT OF BEGINNING
- POC = POINT OF COMMENCEMENT
- ▲ = CALCULATED POINT
- F/L = FLOW LINE
- (M) = MEASURED
- ⊘ = POWER POLE
- ⊕ = TEMPORARY BENCHMARK NAIL IN 36" HARDWOOD ELEV. = 1439.06'
- ——— = RIGHT-OF-WAY
- —·—·— = OVERHEAD POWER

FLOOD NOTE

By graphic plotting only, the subject property appears to lie in Zone "X" of the Flood Insurance Rate Map Community Panel No. 21051C0275C, which bears an effective date of September 28, 2007 and IS NOT in a special flood hazard area.
Zone 'X': Areas determined to be outside the 0.2% annual chance floodplain.

CHOP BOTTOM FN

CLAY COUNTY, KENTUCKY
PARCEL # 117-00-00-007.09
ADDRESS: 0 SOUTH HIGWAY 421
MANCHESTER, KY 40962
OWNER: RANDALL WAGERS AND ROSEMARY WAGERS

STATE OF KENTUCKY
DAVID D. McKINNEY
3964
LICENSED PROFESSIONAL LAND SURVEYOR
6/28/18

NO.	REVISION	DATE	BY

PROJECT NO. 18-1304

DRAWN BY: KM
CHECKED BY: JR
FIELD CREW: BB
APPROVED BY: DDM
DATE: 06/25/18
SCALE: 1" = 100'
SHEET 1 OF 4

FOR: RAWLAND TOWER SURVEY

INTEGRISITE
214 EXPO CIRCLE SUITE 4
WEST MONROE, LA 71292

SMW ENGINEERING GROUP, INC.
SMW Engineering Group, Inc.
158 Business Center Drive
Birmingham, Alabama 35244
Ph: 205-252-6985
www.smweng.com

0 100' 200'

SCALE: 1" = 100'

US HIGHWAY 421
KENTUCKY HIGHWAY 80
PUBLIC RIGHT-OF-WAY
(ASPHALT SURFACE)

ROW

op

SIGHT DISTANCE 1377'± TO INTERSECTION PILGRIM HILL RD Y
1131'± 444'±

CENTERLINE OF DITCH

TREELINE

IRREGULAR FIELD ROAD

HEAVILY WOODED

F/L ELEV.=982.26'

1' METAL PIPE
F/L ELEV.=976.46'

F/L ELEV.=1102.21'

2' METAL PIPE
F/L ELEV.=1086.98'

PARENT TRACT
RANDALL & ROSEMARY WAGERS
PARCEL 117-00-00-007.09
BOOK 0291 PAGE 285

R B & DARLENE MITCHELL
PARCEL 117-00-00-007.05

WADE HACKER SAWMILL INC
PARCEL 117-00-00-016.02

MATCHLINE

STATE OF KENTUCKY
DAVID D. McKINNEY
3984
LICENSED PROFESSIONAL LAND SURVEYOR

6/28/18

NO.	REVISION	DATE	BY

PROJECT NO.
18-1304

DRAWN BY: KM
CHECKED BY: JR
FIELD CREW: BB
APPROVED BY: DDM
DATE: 06/25/18
SCALE: 1" = 100'
SHEET 2 OF 4

RAWLAND TOWER SURVEY

FOR:

INTEGRISITE
214 EXPO CIRCLE SUITE 4
WEST MONROE, LA 71292

SMW Engineering Group, Inc.
158 Business Center Drive
Birmingham, Alabama 35244
Ph: 205-252-6985
www.smweng.com
ENGINEERING GROUP, INC.

CHOP BOTTOM FN
CLAY COUNTY, KENTUCKY
PARCEL # 117-00-00-007.09
ADDRESS: 0 SOUTH HIGWAY 421
MANCHESTER, KY 40962
OWNER: RANDALL WAGERS AND ROSEMARY WAGERS

PARENT TRACT (BOOK D291, PAGE 285)(FROM TITLE)

A certain tract or parcel of land lying and being on the east side of U.S. Highway 421 approximately 1.25 miles southeast of its junction with Kentucky State Highway 149, in the County of Clay, State of Kentucky and bounded and described as follows to-wit:

Unless stated otherwise, any monument referred to herein as "rod and cap" is set 1/2" steel rod with a red plastic cap stamped "JQM 1387". All bearings in this description are referred to the magnetic meridian as observed on September 2, 1999.

Beginning at an existing rod and cap stamped "LS1387" in the east right of way line of U.S. Highway 421 and Kentucky State Highway 80 (30 feet from the centerline of same), a corner to Curtis McKiddy (Deed Book 251, Page 381), thence leaving said right of way and running with said McKiddy line N 85-53-59 E, 541.84 feet to an existing rod and cap stamped "LS1387", in the center of a spur ridge that runs down toward White Hall Church, a corner to the John D. Walker reserved parcel (Deed Book 227, Page 306), thence running up the center of said spur as it meanders severing the land of said Walker S 61-24-30 E, 41.79 feet, thence S 49-18-15 E, 34.79 feet, thence S 39-38-55 E, 100.34 feet, thence S 40-45-35 E, 127.08 feet, thence S 36-32-26 E, 263.56 feet, thence S 59-59-22 E, 178.72 feet, thence S 62-28-02 E, 185.92 feet, thence S 74-53-38 E, 173.32 feet, thence S 89-30-23 E, 184.80 feet to a rod and cap on a high knob, thence S 41-31-46 E, 299.11 feet, thence S 48-00-25 E, 219.27 feet to a rod and cap on a high knob at the junction of said spur with the main dividing ridge between Goose Creek and Rocky Branch of same, a corner to the Bowling heirs parcel (Deed Book 227, Page 369), thence running down the center of said dividing ridge as it meanders with said Bowling line S 15-02-59 W, 184.06 feet, thence S 08-09-51 E, 104.85 feet, thence S 23-30-23 E, 153.39 feet, thence S 01-50-31 W, 129.31 feet, thence S 09-01-20 W, 101.01 feet, thence S 06-55-42 E, 132.15 feet, thence S 02-18-08 W, 138.07 feet, thence S 13-16-54 E, 269.59 feet to a 30" white oak at the junction of a spur running down between the Wade Hacker Sawmill hollow and another hollow running into Goose Creek, thence running down the center of said spur as it meanders S 48-52-38 W, 116.34 feet, thence S 57-09-46 W, 190.58 feet, thence S 71-31-10 W, 231.05 feet, thence S 84-55-47 W, 202.19 feet to a 10" white oak in the fence, thence S 78-00-38 W, 174.51 feet to a 10" hickory in said fence, thence S 77-48-06 W, 263.31 feet to a rod and cap where said fence leaves the spur ridge, a corner to Leonard Hacker (Deed Book 114, Page 55), thence leaving said spur and running with said fence and said Hacker's line N 57-28-54 W, 217.01 feet to a rod and cap at a fence corner, thence N 22-59-41 E, 146.83 feet to a rod and cap at a fence corner, thence N 57-08-11 W, 87.14 feet to an existing rod and cap, a corner to Wade Hacker (Deed Book 221, Page 113), thence leaving said fence and running with said Wade Hacker's line N 59-05-00 E, 304.98 feet to an existing rod and cap, thence N 05-17-00 W, 225.59 feet to an existing rod and cap, thence N 38-16-00 W, 240.18 feet to an existing rod and cap, thence N 46-16-00 W, 465.38 feet to an existing rod and cap on top of a highwall, thence leaving said highwall S 64-45-00 W, 315.32 feet to an existing rod and cap on a hillside, a corner to Glen Wombles (Deed Book 238, Page 723), thence running with said Wombles line N 21-40-22 E, 277.39 feet to an existing rod and cap, thence N 73-56-38 W, 276.45 feet to an existing rod and cap in the east right of way line of the aforementioned U.S. Highway 421 and Kentucky State Highway 80 (30.00 feet from the centerline of same), thence running with said right of way, N 02-09-47 E, 233.34 feet, thence N 03-31-44 W, 127.42 feet, thence N 03-43-19 W, 157.64 feet, thence N 02-12-49 W, 619.80 feet to the Place of Beginning, and containing seventy and seventy-eight hundreds (70.78) acres, more or less, all according to a survey performed by Meredith General Surveys, Inc., conducted by James Q. Meredith, Kentucky Registered Land Surveyor Number 1387 on November 4, 1999.

STATE OF KENTUCKY
DAVID D. McKINNEY
3964
LICENSED PROFESSIONAL LAND SURVEYOR

6/28/18

100' x 100' LEASE AREA (AS-SURVEYED)

A portion of the Randall & Rosemary Wagers tract described in Deed Book 291, Page 285 as recorded in the Office of County Clerk for Clay County, Kentucky, and being more particularly described as follows;

Commencing at a capped rebar found on the easterly right-of-way of US Highway 421/Kentucky Highway 80 marking the Northwest corner of the Curtis McKiddy tract, described in Deed Book 251, Page 381; thence run S 78°46'07" E for a distance of 73.89 feet to a capped rebar found; thence run S 48°42'19" E for a distance of 2953.38 feet to a set 5/8" rebar and the Point of Beginning; thence run N 88°03'33" E for a distance of 100.00 feet to a set 5/8" rebar; thence run S 01°56'27" E for a distance of 100.00 feet to a set 5/8" rebar; thence run S 88°03'33" W for a distance of 100.00 feet to a set 5/8" rebar; thence run N 01°56'27" W for a distance of 100.00 feet to the Point of Beginning. Said lease area contains 10,000.0 square feet, or 0.23 acres, more or less.

30' INGRESS/EGRESS & UTILITY EASEMENT (AS-SURVEYED)

An easement being a portion of the Randall & Rosemary Wagers tract described in Deed Book 291, Page 285 as recorded in the Office of County Clerk for Clay County, Kentucky, and being more particularly described as follows;

Commencing at a capped rebar found on the easterly right-of-way of US Highway 421/Kentucky Highway 80 marking the Northwest corner of the Curtis McKiddy tract, described in Deed Book 251, Page 381; thence run S 78°46'07" E for a distance of 73.89 feet to a capped rebar found; thence run S 48°42'19" E for a distance of 2953.38 feet to a set 5/8" rebar and the Point of Beginning of a 30' Ingress/Egress & Utility Easement; thence run N 01°56'27" W for a distance of 30.00 feet to a point; thence run N 88°03'33" E for a distance of 34.91 feet to a point; thence run N 08°14'27" W for a distance of 39.76 feet to a point; thence run N 40°58'09" W for a distance of 152.16 feet to a point; thence run N 66°39'46" W for a distance of 53.90 feet to a point; thence run N 44°53'17" W for a distance of 103.29 feet to a point; thence run S 83°42'36" W for a distance of 126.57 feet to a point; thence run N 48°05'14" W for a distance of 64.20 feet to a point; thence run N 04°00'40" W for a distance of 99.47 feet to a point; thence run N 23°23'04" W for a distance of 41.30 feet to a point; thence run N 02°44'43" E for a distance of 58.23 feet to a point; thence run N 18°11'34" W for a distance of 37.54 feet to a point; thence run N 55°11'31" W for a distance of 16.30 feet to a point; thence run N 82°08'34" W for a distance of 124.57 feet to a point; thence run S 80°50'36" W for a distance of 140.33 feet to a point; thence run S 46°35'39" W for a distance of 103.57 feet to a point; thence run S 69°54'24" W for a distance of 50.13 feet to a point; thence run S 33°27'50" W for a distance of 49.71 feet to a point; thence run S 42°28'47" W for a distance of 80.46 feet to a point; thence run S 60°49'40" W for a distance of 163.04 feet to a point; thence run S 50°43'56" W for a distance of 111.88 feet to a point; thence run S 65°42'59" W for a distance of 137.24 feet to a point; thence with a curve turning to the right having a radius of 99.59 feet, a chord bearing and distance of N 62°23'06" W for 183.53 feet; thence run along said arc for 233.39 feet; thence run N 24°00'35" E for a distance of 206.79 feet to a point; thence run N 04°47'43" E for a distance of 214.05 feet to a point; the beginning of an arc turning to the left having a radius of 24.74 feet, a chord bearing and distance of N 17°19'49" W for 18.64 feet; thence run along said arc for 19.11 feet; thence run N 66°52'44" W for a distance of 131.26 feet to a point; thence run N 46°53'51" W for a distance of 121.20 feet to a point; thence run N 32°47'54" W for a distance of 144.81 feet to a point; thence run N 47°59'08" W for a distance of 88.49 feet to a point; thence run S 03°19'21" W for a distance of 214.38 feet to a point; thence run S 10°33'46" W for a distance of 100.68 feet to a point; thence run S 03°42'27" W for a distance of 172.13 feet to a point; the beginning of an arc turning to the right having a radius of 60.52 feet, a chord bearing and distance of S 66°35'06" W for 107.72 feet; thence run along said arc for 132.83 feet; thence run N 37°59'03" W for a distance of 111.30 feet to a point; thence run N 43°26'38" W for a distance of 184.92 feet to a point; thence run N 24°27'16" W for a distance of 95.80 feet to a point; thence run N 29°56'42" W for a distance of 44.35 feet to a point on the easterly right-of-way of US Highway 421/Kentucky Highway 80; thence run N 11°44'17" W along said right-of-way for a distance of 78.44 feet to a point; thence leaving said right-of-way run N 78°53'18" E for a distance of 5.80 feet to a point; thence run S 29°56'42" E for a distance of 118.42 feet to a point; thence run S 24°27'16" E for a distance of 92.22 feet to a point; thence run S 43°26'38" E for a distance of 181.33 feet to a point; thence run S 37°59'03" E for a distance of 108.87 feet to a point; thence with a curve turning to the left having a radius of 30.52 feet, a chord bearing and distance of N 64°00'19" E for 53.02 feet; thence run along said arc for 64.23 feet; thence run N 03°42'27" E for a distance of 173.92 feet to a point; thence run N 10°33'46" E for a distance of 100.58 feet to a point; thence run N 03°19'21" E for a distance of 221.86 feet to a point; thence with a curve turning to the right having a radius of 25.91 feet, a chord bearing and distance of N 68°36'20" E for 46.34 feet; thence run along said arc for 57.35 feet; thence run S 47°59'08" E for a distance of 101.02 feet to a point; thence run S 32°47'54" E for a distance of 145.10 feet to a point; thence run S 46°53'51" E for a distance of 112.21 feet to a point; thence run S 66°52'44" E for a distance of 131.80 feet to a point; thence with a curve turning to the right having a radius of 54.74 feet, a chord bearing and distance of S 21°52'20" E for 49.14 feet; thence run along said arc for 50.96 feet; thence run S 04°47'43" W for a distance of 219.13 feet to a point; thence run S 24°00'35" W for a distance of 206.31 feet to a point; thence with a curve turning to the left having a radius of 69.59 feet, a chord bearing and distance of S 65°48'21" E for 127.86 feet; thence run along said arc for 162.10 feet; thence run N 65°42'59" E for a distance of 137.67 feet to a point; thence run N 50°43'56" E for a distance of 110.58 feet to a point; thence run N 60°49'40" E for a distance of 160.85 feet to a point; thence run N 42°28'47" E for a distance of 73.25 feet to a point; thence run N 33°27'50" E for a distance of 57.22 feet to a point; thence run N 69°54'24" E for a distance of 53.82 feet to a point; thence run N 46°35'39" E for a distance of 106.63 feet to a point; thence run N 80°50'36" E for a distance of 154.06 feet to a point; thence run S 82°08'34" E for a distance of 136.25 feet to a point; thence run S 55°11'31" E for a distance of 33.53 feet to a point; thence run S 18°11'34" E for a distance of 53.12 feet to a point; thence run S 02°44'43" W for a distance of 56.81 feet to a point; thence run S 23°23'04" E for a distance of 39.46 feet to a point; thence run S 04°00'40" E for a distance of 92.44 feet to a point; thence run S 48°05'14" E for a distance of 38.63 feet to a point; thence run N 83°42'36" E for a distance of 127.59 feet to a point; thence run S 44°53'17" E for a distance of 111.95 feet to a point; thence run S 66°39'46" E for a distance of 54.98 feet to a point; thence run S 40°58'09" E for a distance of 167.81 feet to a point; thence run S 08°14'27" E for a distance of 51.89 feet to a point; thence run N 88°03'33" E for a distance of 34.91 feet to a point; thence run S 01°56'27" E for a distance of 30.00 feet to a point; thence run S 88°03'33" W for a distance of 100.00 feet to the Point of Beginning. Said easement contains 123,856.1 square feet, or 2.84 acres, more or less.

CHOP BOTTOM FN
CLAY COUNTY, KENTUCKY
PARCEL # 117-00-00-007.09
ADDRESS: 0 SOUTH HIGWAY 421
MANCHESTER, KY 40962
OWNER: RANDALL WAGERS AND ROSEMARY WAGERS

NO.	REVISION	DATE	BY

PROJECT NO. 18-1304

DRAWN BY: KM
CHECKED BY: JR
FIELD CREW: BB
APPROVED BY: DDM
DATE: 06/25/18
SCALE: N.T.S.
SHEET 3 OF 4

RAWLAND TOWER SURVEY

FOR:

INTEGRISITE
214 EXPO CIRCLE SUITE 4
WEST MONROE, LA 71292

SMW Engineering Group, Inc.
158 Business Center Drive
Birmingham, Alabama 35244
Ph: 205-252-8885
www.smweng.com
ENGINEERING GROUP, INC.

PLOTTABLE EXCEPTIONS
U.S. Title Solutions
U.S. Title Solutions File No. 59575-KY1803-5030
Date March 26, 2018
Schedule B

Exception No.	Instrument	Comment
1-4	N/A	Standard exceptions. Contains no survey matters.
Judgements, Liens & UCC		
5	Book ENC11 Page 281	Not a survey matter.
6	Book ENC13 Page 275	Not a survey matter.
7	Book ENC14 Page 136	Not a survey matter.
8	Book ENC14 Page 388	Not a survey matter.
9	Book STL3 Page 252	Not a survey matter.
10	Book STL11 Page 405	Not a survey matter.
11	Book STL2 Page 616	Not a survey matter.
12	Book STL3 Page 141	Not a survey matter.
13	Book ENC12 Page 515	Not a survey matter.
14	Book STL3 Page 253	Not a survey matter.
15	Book STL3 Page 423	Not a survey matter.
16	Book ENC15 Page 738	Not a survey matter.
17	Book ENC21 Page 688	Not a survey matter.
18	Book ENC22 Page 518	Not a survey matter.
19	Book ENC13 Page 613	Not a survey matter.
20	Book STL5 Page 694	Not a survey matter.
21	Book ENC13 Page 672	Not a survey matter.
22	Book ENC12 Page 531	Not a survey matter.
Covenants/Restrictions		
23	None within this period.	
Easements & Rights of Way		
24	None within this period.	
Other Filed Documents		
25	Book 275 page 670 Affadavit of Decent	Not a survey matter.

SURVEYOR'S NOTES

1. This is a Rawland Tower Survey, made on the ground under the supervision of a Kentucky Registered Land Surveyor. Date of field survey is June 7, 2018.
2. The following surveying instruments were used at time of field visit: Nikon NPL-352, Total Station, Reflectorless and Hiper + Legacy E RTK, GD 1HZ.
3. Bearings are based on Kentucky Single Zone State Plane Coordinates NAD 83 by GPS observation.
4. No underground utilities, underground encroachments or building foundations were measured or located as a part of this survey, unless otherwise shown. Trees and shrubs not located, unless otherwise shown.
5. Benchmark used is a GPS Continuously Operating Reference Station, PID DK3326. Onsite benchmark is as shown hereon. Elevations shown are in feet and refer to NAVD 88.
6. This survey was conducted for the purpose of a Rawland Tower Survey only, and is not intended to delineate the regulatory jurisdiction of any federal, state, regional or local agency, board, commission or other similar entity.
7. Attention is directed to the fact that this survey may have been reduced or enlarged in size due to reproduction. This should be taken into consideration when obtaining scaled data.
8. This Survey was conducted with the benefit of an Abstract Title search.
9. This survey meets or exceeds the Minimum Standards of Practice as required by the State of Kentucky for a Class A survey as defined by 201 KAR 18:150.
10. Field data upon which this map or plat is based has a closure precision of not less than one-foot in 15,000 feet (1':15,000') and an angular error that does not exceed 10 seconds times the square root of the number of angles turned. Field traverse was not adjusted.
11. This survey is not valid without the original signature and the original seal of a state licensed surveyor and mapper.
12. This survey does not constitute a boundary survey of the Parent Tract. Any parent tract property lines shown hereon are from supplied information and may not be field verified.
13. The Lease Area, and Access and Utility Easement shown hereon was provided by INTEGRISITE dated May 11, 2018 in direct correlation with existing monuments and physical evidence found through inspection and may not depict actual rights of occupancy.
14. No zoning information provided.

SURVEYOR'S CERTIFICATION

I certify that all parts of this survey and drawing have been completed in accordance with the current requirements of the Standards of Practice for Surveying in the State of Kentucky to the best of my knowledge, information, and belief.

David D. McKinney
Kentucky License No. 3964

STATE OF KENTUCKY
DAVID D. McKINNEY
3964
LICENSED PROFESSIONAL LAND SURVEYOR

6/28/18

CHOP BOTTOM FN
CLAY COUNTY, KENTUCKY
PARCEL # 117-00-00-007.09
ADDRESS: 0 SOUTH HIGWAY 421
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SHEET 4 OF 4

RAWLAND TOWER SURVEY

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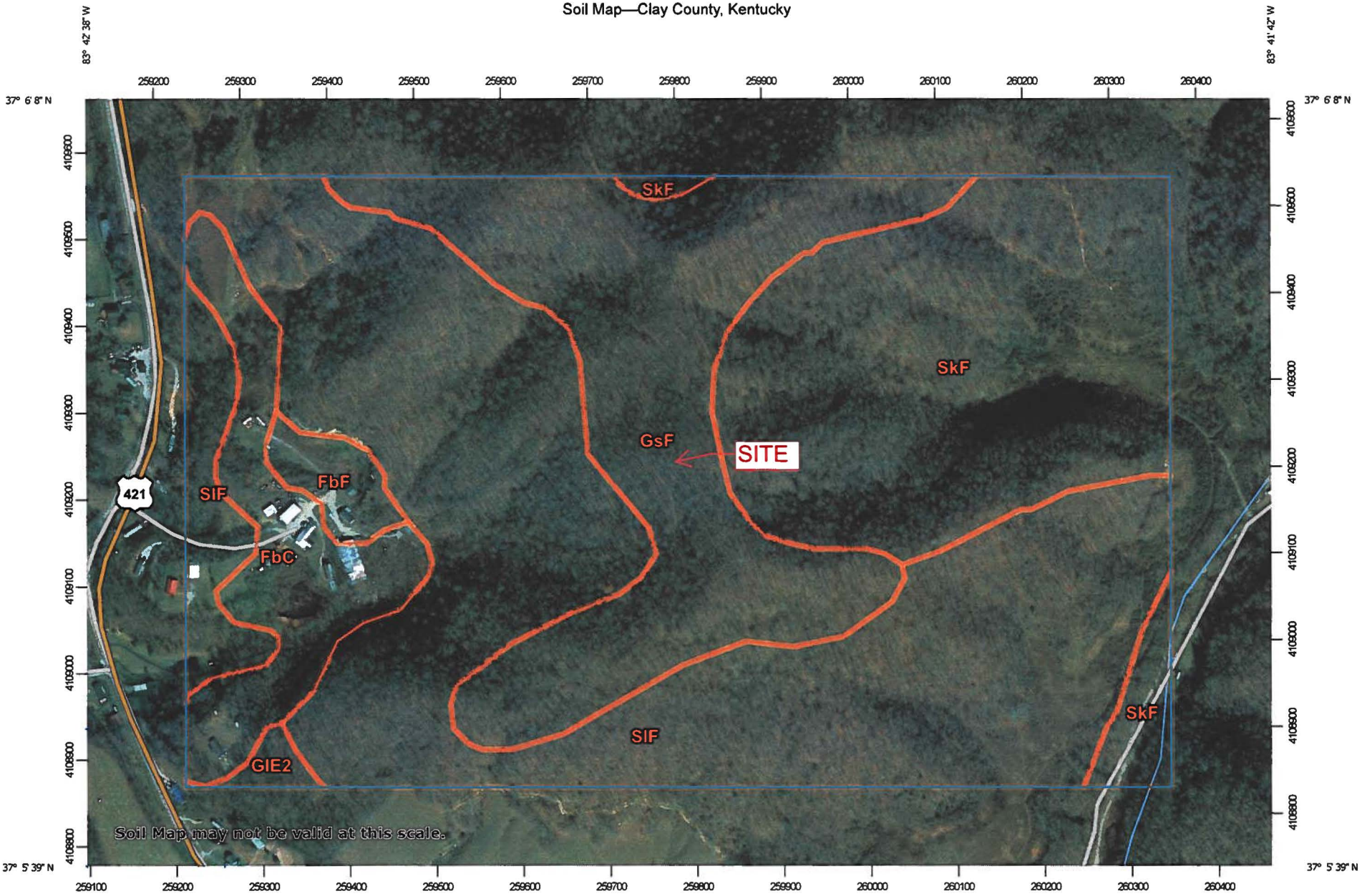
SMW Engineering Group, Inc.
158 Business Center Drive
Birmingham, Alabama 35244
Ph: 205-252-6985
www.smweng.com

SMW ENGINEERING GROUP, INC.

APPENDIX B

Local Geology, Soil Survey, and Soil Descriptions

Soil Map—Clay County, Kentucky



Map Scale: 1:6,240 if printed on A landscape (11" x 8.5") sheet.

Meters: 0 50 100 200 300

Feet: 0 300 600 1200 1800

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

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

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

Special Point Features

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

Water Features

- Streams and Canals

Transportation

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

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

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

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

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

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

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

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

Soil Survey Area: Clay County, Kentucky
Survey Area Data: Version 14, Oct 3, 2017

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

Date(s) aerial images were photographed: Oct 16, 2014—Mar 23, 2017

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
FbC	Fairpoint and Bethesda soils, 2 to 20 percent slopes	15.0	7.6%
FbF	Fairpoint and Bethesda soils, 20 to 70 percent slopes, stony	3.2	1.6%
GlE2	Gilpin-Shelocta complex, 20 to 35 percent slopes	1.1	0.6%
GsF	Gilpin-Rayne-Sequoia complex, 25 to 55 percent slopes, very stony	42.7	21.5%
SkF	Shelocta-Kimper-Cloverlick complex, 20 to 80 percent slopes, very stony	49.2	24.8%
SlF	Shelocta-Highsplint-Gilpin complex, 20 to 75 percent slopes, very stony	87.0	43.9%
Totals for Area of Interest		**198.1**	**100.0%**

Clay County, Kentucky

GsF—Gilpin-Rayne-Sequoia complex, 25 to 55 percent slopes, very stony

Map Unit Setting

National map unit symbol: 2tqhj
Elevation: 870 to 3,590 feet
Mean annual precipitation: 25 to 55 inches
Mean annual air temperature: 43 to 68 degrees F
Frost-free period: 150 to 215 days
Farmland classification: Not prime farmland

Map Unit Composition

Gilpin, very stony, and similar soils: 30 percent
Rayne, very stony, and similar soils: 25 percent
Sequoia, very stony, and similar soils: 20 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Gilpin, Very Stony

Setting

Landform: Ridges
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Mountaintop
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Fine-loamy residuum weathered from sandstone and shale

Typical profile

Oi - 0 to 1 inches: channery slightly decomposed plant material
A - 1 to 5 inches: channery silt loam
Bt1 - 5 to 11 inches: channery silt loam
Bt2 - 11 to 20 inches: channery silt loam
Bt3 - 20 to 28 inches: channery loam
R - 28 to 38 inches: bedrock

Properties and qualities

Slope: 25 to 55 percent
Percent of area covered with surface fragments: 1.0 percent
Depth to restrictive feature: 24 to 40 inches to lithic bedrock
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Very low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Rayne, Very Stony

Setting

Landform: Ridges
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Mountaintop
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Fine-loamy residuum weathered from shale and siltstone

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
A - 1 to 2 inches: silt loam
AB - 2 to 7 inches: silt loam
Bt1 - 7 to 17 inches: silt loam
Bt2 - 17 to 24 inches: loam
Bt3 - 24 to 31 inches: channery loam
BC - 31 to 44 inches: very channery loam
Cr - 44 to 54 inches: bedrock

Properties and qualities

Slope: 25 to 55 percent
Percent of area covered with surface fragments: 1.0 percent
Depth to restrictive feature: 40 to 50 inches to paralithic bedrock
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 5.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Hydric soil rating: No

Description of Sequoia, Very Stony

Setting

Landform: Ridges
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Mountaintop
Down-slope shape: Concave
Across-slope shape: Linear

Parent material: Clayey residuum weathered from shale and siltstone

Typical profile

Oi - 0 to 1 inches: channery slightly decomposed plant material
A - 1 to 5 inches: silt loam
Bt1 - 5 to 12 inches: silty clay loam
Bt2 - 12 to 20 inches: silty clay
Bt3 - 20 to 34 inches: clay
Cr - 34 to 44 inches: bedrock

Properties and qualities

Slope: 25 to 55 percent
Percent of area covered with surface fragments: 1.0 percent
Depth to restrictive feature: 24 to 40 inches to paralithic bedrock
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 4.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Matewan, very stony

Percent of map unit: 10 percent
Landform: Ridges
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Mountaintop
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Fedscreek, very stony

Percent of map unit: 7 percent
Landform: Mountain slopes
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Upper third of mountainflank
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Cloverlick, very stony

Percent of map unit: 3 percent
Landform: Mountain slopes
Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Upper third of mountainflank
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Kimper, very stony

Percent of map unit: 3 percent
Landform: Mountain slopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Upper third of mountainflank
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: No

Ramsey, very stony

Percent of map unit: 2 percent
Landform: Ridges
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Mountaintop
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Data Source Information

Soil Survey Area: Clay County, Kentucky
Survey Area Data: Version 14, Oct 3, 2017

(https://www.usgs.gov/)

Mineral Resources (https://minerals.usgs.gov/) / Online Spatial Data (/) / Geology (/geology/) / by state (/geology/state/) / Kentucky (/geology/state/state.php?state=KY)

Breathitt Formation, lower part

XML (/geology/state/xml/KYPAbl;0) JSON (/geology/state/json/KYPAbl;0)

lower part which includes Livingston Conglomerate Member of Lee Formation in eastern Rockcastle County

State Kentucky (/geology/state/state.php?state=KY)

Name Breathitt Formation, lower part

Geologic age Pennsylvanian

Lithologic constituents

Major

Sedimentary > Clastic > Siltstone *lithologies and lithology percentages estimated from stratigraphic column on paper source map; collectively these units are about 45% shale, 40% siltstone, 15% sandstone, and <5% coal and conglomerate*

Sedimentary > Clastic > Mudstone > Shale *lithologies and lithology percentages estimated from stratigraphic column on paper source map; collectively these units are about 45% shale, 40% siltstone, 15% sandstone, and <5% coal and conglomerate*

Minor

Sedimentary > Clastic > Sandstone *lithologies and lithology percentages estimated from stratigraphic column on paper source map; collectively these units are about 45% shale, 40% siltstone, 15% sandstone and <5% coal and conglomerate*

Incidental

Sedimentary > Clastic > Conglomerate *lithologies and lithology percentages estimated from stratigraphic column on paper source map; collectively these units are about 45% shale, 40% siltstone, 15% sandstone, and <5% coal and conglomerate*

Sedimentary > Coal *lithologies and lithology percentages estimated from stratigraphic column on paper source map; collectively these units are about 45% shale, 40% siltstone, 15% sandstone, and <5% coal and conglomerate*

Comments along and south of Pine Mountain; thickness is 625-800 m; in south-central Kentucky, thickness is at least 500+ m; in northeastern Kentucky, thickness is 50-300+ m; in east-central Kentucky, thickness is 225-415 m

References

Noger, M.C., compiler, 1988, Geologic map of Kentucky: sesquicenntennial edition of the Kentucky Geological Survey: U.S. Geological Survey and the Kentucky Geological Survey, scale 1:500,000.

NGMDB product NGMDB product page for 16355 (https://ngmdb.usgs.gov/Prodesc/proddesc_16355.htm)

Counties Bell (/geology/state/fips-unit.php?code=f21013) - Breathitt (/geology/state/fips-unit.php?code=f21025) - Carter (/geology/state/fips-unit.php?code=f21043) - Clay (/geology/state/fips-unit.php?code=f21051) - Clinton (/geology/state/fips-unit.php?code=f21053) - Elliott (/geology/state/fips-unit.php?code=f21063) - Estill (/geology/state/fips-unit.php?code=f21065) - Floyd (/geology/state/fips-unit.php?code=f21071) - Greenup (/geology/state/fips-unit.php?code=f21089) - Harlan (/geology/state/fips-unit.php?code=f21095) - Jackson (/geology/state/fips-unit.php?code=f21109) - Johnson (/geology/state/fips-unit.php?code=f21115) - Knott (/geology/state/fips-unit.php?code=f21119) - Knox (/geology/state/fips-unit.php?code=f21121) - Laurel (/geology/state/fips-unit.php?code=f21125) - Lawrence (/geology/state/fips-unit.php?code=f21127) - Lee (/geology/state/fips-unit.php?code=f21129) - Leslie (/geology/state/fips-unit.php?code=f21131) - Letcher (/geology/state/fips-unit.php?code=f21133) - Lewis (/geology/state/fips-unit.php?code=f21135) - McCreary (/geology/state/fips-unit.php?code=f21147) - Madison (/geology/state/fips-unit.php?code=f21151) - Magoffin (/geology/state/fips-unit.php?code=f21153) - Martin (/geology/state/fips-unit.php?code=f21159) - Menifee (/geology/state/fips-unit.php?code=f21165) - Montgomery (/geology/state/fips-unit.php?code=f21173) - Morgan (/geology/state/fips-unit.php?code=f21175) - Owsley (/geology/state/fips-unit.php?code=f21189) - Perry (/geology/state/fips-unit.php?code=f21193) - Pike (/geology/state/fips-unit.php?code=f21195) - Powell (/geology/state/fips-unit.php?code=f21197) - Pulaski (/geology/state/fips-unit.php?code=f21199) - Rockcastle (/geology/state/fips-unit.php?code=f21203) - Rowan (/geology/state/fips-unit.php?code=f21205) - Wayne (/geology/state/fips-unit.php?code=f21231) - Whitley (/geology/state/fips-unit.php?code=f21235) - Wolfe (/geology/state/fips-unit.php?code=f21237)

LOCATION GILPIN PA+GA IN KY MD NY OH TN VA WV

Established Series
SLH/Rev. MDJ
10/2014

GILPIN SERIES

TAXONOMIC CLASS: Fine-loamy, mixed, active, mesic Typic Hapludults

TYPICAL PEDON: Gilpin channery silt loam on a 3 percent northwest facing slope in cropland. (Colors are for moist soil unless otherwise indicated.)

Ap--0 to 20 cm (0 to 8 inches); dark grayish brown (10YR 4/2) channery silt loam; weak fine granular structure; friable, slightly sticky and slightly plastic; 20 percent rock fragments of subangular siltstone and shale; moderately acid; abrupt smooth boundary. (15 to 25 cm (6 to 10 inches thick)

Bt1--20 to 33 cm (8 to 13 inches); yellowish brown (10YR 5/4) channery silt loam; weak fine and medium subangular blocky structure; friable, slightly sticky and slightly plastic; few distinct clay films on faces of peds and in pores; 25 percent rock fragments of subangular siltstone and shale; moderately acid; gradual wavy boundary.

Bt2--33 to 61 cm (13 to 24 inches); yellowish brown (10YR 5/6) channery silt loam; moderate medium subangular blocky structure; friable, slightly sticky and moderately plastic; few distinct clay films on faces of peds and in pores; 30 percent rock fragments of subangular siltstone and shale; very strongly acid; clear wavy boundary. (Combined thickness of the Bt horizon is 30 to 66 cm thick (12 to 26 inches.)

C--61 to 79 cm (24 to 30 inches); brown (10YR 5/3) extremely channery loam; massive; friable, slightly sticky and slightly plastic; few faint clay films and common prominent black coatings on fragments; 60 percent rock fragments of subangular siltstone and shale; very strongly acid; clear wavy boundary. (0 to 25 cm (0 to 10 inches thick)

R--79 cm (30 inches); light olive brown (2.5Y 5/4) fractured, thin bedded, shale and siltstone with silt and clay coatings in fractures; strongly acid.

TYPE LOCATION:
County: Indiana
State: Pennsylvania
USGS Quadrangle: Marion Center
Latitude (Decimal Degrees, NAD 83): 40.8550642
Longitude (Decimal Degrees, NAD 83): -79.018367
Directions to the pedon: In North Mahoning Township about mile southeast of Marchand, on a hilltop 500 feet east of Township Road 660.

RANGE IN CHARACTERISTICS:
Depth to the top of the Argillic: 13 to 38 cm (5 to 15 inches)
Depth to the base of the Argillic: 53 to 94 cm (21 to 37 inches)
Solum Thickness: 45 to 91 cm (18 to 36 inches)
Depth to Bedrock: 51 to 102 cm (20 to 40 inches)
Depth Class: Moderately deep

Rock Fragment content: 5 to 40 percent, by volume, in the solum and 30 to 90 percent, by volume, in the C horizon. The rock fragment content is less than 35 percent, by volume, in the upper 20 inches of the argillic horizon. Rock fragments are mostly angular to subangular channers of shale, siltstone, and sandstone.
Soil Reaction: Extremely acid through strongly acid throughout, except where limed

Range of Individual Horizons:
Ap horizon:
Color--hue of 10YR or 2.5Y, value of 3 through 5, and chroma of 2 through 4
Texture (fine-earth fraction)--silt loam or loam

A horizon (if it occurs):
Color--hue of 10YR or 2.5Y, value of 2 through 4, and chroma of 1 through 3
Texture (fine-earth fraction)--silt loam or loam

E, BE, or BA horizons (if they occur):
Color--hue of 7.5YR or 10YR, value of 4 through 6, and chroma of 3 through 6
Texture (fine-earth fraction)--silt loam or loam

Bt horizon:
Color--hue of 7.5YR through 2.5Y, value of 4 through 6, and chroma of 4 through 8
Texture (fine-earth fraction)--silt loam, loam, clay loam, or silty clay loam
Clay films--occur on ped faces, pores, and on rock fragments and are few or common and faint or distinct.

BC horizon (if it occurs):
Color--hue of 7.5YR through 2.5Y, value of 3 through 6, and chroma of 2 through 6
Texture (fine-earth fraction)--silt loam, loam, or silty clay loam

C horizon:
Color--hue of 7.5YR through 2.5Y, value of 3 through 6, and chroma of 2 through 6
Texture (fine-earth fraction)--silt loam, loam, or silty clay loam

Some pedons have a Cr horizon.

The R horizon is horizontal interbedded shale, siltstone, or fine grained sandstone.

COMPETING SERIES:
Arcola soils--are weathered from Triassic and Jurassic bedrock
Bedington soils--are very deep to bedrock
Bucks soils--are deep to bedrock with a silt mantle
Collington soils--are very deep to bedrock
Edgemont soils--are deep and very deep to quartzitic bedrock
Edneytown soils--are very deep to igneous and high-grade metamorphic bedrock
Freehold soils--are very deep and form in marine sediments containing glauconite
Gladstone soils--are very deep to residual and colluvial granitic gneiss bedrock
Joanna soils--are very deep to Triassic bedrock
Leedsville soils--are very deep to Triassic and Jurassic bedrock
Millstone soils--are very deep and form in loamy alluvium
Penargyl soils--are very deep and form in till over shale residuum bedrock
Pennval soils--are very deep and form in colluvium
Pigeonroost soils--form from igneous and high-grade metamorphic bedrock
Pineville soils--are very deep and form in colluvium
Quakertown soils--are deep to bedrock
Rayne soils--are deep and very deep to bedrock
Shelocta soils--are deep and very deep and form in colluvium or colluvium and residuum

Syenite soils--form from residual granite bedrock
Wist soils--are very deep to bedrock and form from glauconite bearing fluviomarine deposits

GEOGRAPHIC SETTING:
MLRA(s) using this series: 118, 119, 120, 122, 123, 124, 125, 126, 127, 128, 130, 147
Landscape: Upland
Landform: Ridge, hill, and hillslope
Geomorphic Component: Interfluve, head slope, nose slope, or side slope
Hillslope Profile Position: Summit, shoulder, or backslope
Parent Material Origin: Nearly horizontal, interbedded gray and brown acid siltstone, shale, and sandstone
Parent Material Kind: Residuum
Slope: 0 to 70 percent
Elevation: 91 to 1097 meters (300 to 3600 feet)
Frost-free period: 120 to 180 days
Mean Annual Air Temperature: 7 to 14 degrees C. (46 to 57 degrees F.)
Mean Annual Precipitation: 914 to 1270 millimeters (36 to 50 inches)

GEOGRAPHICALLY ASSOCIATED SOILS:
Beech soils--occur on footslopes and are moderately well drained
Berks soils--occur on similar landscapes, do not have an argillic horizon, and have more coarse fragments in the solum and substratum
Cavode soils--occur on similar landscapes and are somewhat poorly drained
Clarksburg soils--occur on footslopes and are moderately well drained
Dekalb soils--occur on similar landscapes, have sandier textures, and have more coarse fragments in the solum and substratum
Ernest soils--occur on footslopes and are moderately well or somewhat poorly drained
Muskingum soils--occur on similar landscapes, do not have an argillic horizon, and are deep to bedrock
Rayne soils--occur on similar landscapes and are deeper than 102 cm to bedrock
Shelocta soils--occur on similar landscapes and are deeper than 102 cm to bedrock
Upshur soils--occur on similar landscapes, have finer textures in the solum and substratum, and are deep and very deep to bedrock
Vandalia soils--occur on footslopes, have finer textures in the solum and substratum, and are very deep to bedrock
Wellston soils--occur on similar landscapes and are deep and very deep to bedrock
Westmoreland soils--occur on similar landscapes and are deep and very deep to bedrock
Wharton soils--occur on similar landscapes, are moderately well drained, and are deep and very deep to bedrock

DRAINAGE AND SATURATED HYDRAULIC CONDUCTIVITY:
Drainage Class (Agricultural): Well drained
Index Surface Runoff: Negligible through high
Saturated Hydraulic Conductivity Class: High
Permeability Class (obsolete): Moderate
Shrink-Swell Class: Low
Flooding Frequency and Duration: None
Ponding Frequency and Duration: None

USE AND VEGETATION:
Major Uses: Hayland, pasture, cropland, and woodland
Dominant Vegetation: Where cultivated--Grass-legume hay, corn, soybeans, wheat, or oats. Where wooded--Oaks, maple, hickory, and yellow-poplar.

DISTRIBUTION AND EXTENT:
Distribution: Pennsylvania, Georgia, Indiana, Kentucky, Maryland, New York, Ohio, Tennessee, Virginia, and West Virginia

Extent: Large, over 6 million acres, at the time of this revision

MLRA SOIL SURVEY REGIONAL OFFICE (MO) RESPONSIBLE: MORGANTOWN, WEST VIRGINIA

SERIES ESTABLISHED: Indiana County, Pennsylvania, 1931.

REMARKS:
Diagnostic horizons and features recognized in this pedon are:
Ochric epipedon--the zone from 0 to 20 cm (Ap horizon)
Argillic horizon--the zone from 20 to 61 cm (Bt1 and Bt2 horizons)
Lithic contact--the zone starting at 79 cm (R horizon)
Series control section--the zone from 0 to 79 cm

ADDITIONAL DATA:
Characterization sample 61PA063056 is from the Type Location, and was used as the basis for placing this series in the active CEC class.
Characterization data is available from the Pennsylvania State Soil Characterization Laboratory for the following pedons: 75PA003001, 61PA063054, 65PA003008, S1965PA063180
Characterization data is available from The Ohio State Soil Characterization Laboratory for the following pedons: KX-043, PR-004, PR-005, ho-011, cs-019, cs-020, cs-024, mn-w15, mn-w20, at-W03, lw-s01, ws-023, ws-w08, ws-w10, ws-w34, ws-w35, As-007, Sk-025, bt-w02, AS-7, CA-W20, CA-W21, CS-W9, CS-W10, CS-W11, BT-S2, BT-W2, JF-16, MS-W1, MS-W2, MS-S4, TU-1, MN-8, MN-10, MN-26, MN-W3, MN-W9, MN-W43, SK-25, PR-4, PR-5, WS-W34, WS-W35

National Cooperative Soil Survey
U.S.A.

LOCATION RAYNE PA+KY MD NY OH VA WV

Established Series
SF/Rev. MDJ
09/2013

RAYNE SERIES

TAXONOMIC CLASS: Fine-loamy, mixed, active, mesic Typic Hapludults

TYPICAL PEDON: Rayne silt loam, 3 to 8 percent slopes on a northwest facing slope at an elevation of 503 meters (1650 feet) - idle (Colors are for moist soil unless otherwise noted.)

Ap1--0 to 10 cm (0 to 4 inches); very dark grayish brown (10YR 3/2) silt loam, light brownish gray (10YR 6/2); moderate coarse granular structure; friable; many roots; 10 percent rock fragments; very strongly acid; abrupt wavy boundary.

Ap2--10 to 20 cm (4 to 8 inches); brown (10YR 4/3) silt loam; moderate coarse granular structure, friable; many roots; 10 percent rock fragments; very strongly acid; abrupt wavy boundary. (Combined thickness of the Ap horizon is 0 to 41 cm (4 to 16 inches thick))

BE--20 to 28 cm (8 to 11 inches); reddish yellow (7.5YR 6/6) silt loam; moderate medium platy structure; friable; many roots; 10 percent rock fragments; very strongly acid; clear wavy boundary. (0 to 30 cm (0 to 12 inches thick))

Bt1--28 to 43 cm (11 to 17 inches); strong brown (7.5YR 5/8) silt loam; moderate medium subangular blocky structure; friable; slightly sticky, slightly plastic; few faint clay films on faces of peds; common roots; 10 percent rock fragments; strongly acid; clear wavy boundary.

Bt2--43 to 64 cm (17 to 25 inches); yellowish brown (10YR 5/8) silty clay loam; moderate medium and coarse subangular blocky structure; firm, slightly sticky, slightly plastic; few faint clay films on faces of peds; 10 percent rock fragments; strongly acid; abrupt wavy boundary.

Bt3--64 cm to 91 cm (25 to 36 inches); yellowish brown (10YR 5/6) channery silty clay loam; moderate medium and coarse subangular blocky structure; firm, slightly sticky, slightly plastic; few faint clay films on faces of peds; 20 percent rock fragments; strongly acid; abrupt wavy boundary. (Combined thickness of the Bt horizons is 30 to 69 cm (12 to 27 inches thick))

BC--91 to 112 cm (36 to 44 inches); strong brown (7.5YR 5/6) channery silty clay loam; few faint pale brown (10YR 6/3) mottles; moderate coarse prismatic structure parting to moderate fine and medium subangular blocky; very firm, slightly sticky, slightly plastic; few faint clay films and dark iron manganese coats; 20 percent rock fragments; very strongly acid; clear wavy boundary. (13 to 38 cm (5 to 15 inches thick))

C1--112 to 122 cm (44 to 48 inches); strong brown (7.5YR 5/8) channery silty clay loam; common

medium distinct light yellowish brown (2.5Y 6/4) mottles; coarse prismatic structure parting to moderate fine and medium subangular blocky; firm; a few dark iron manganese films on faces of prisms; 30 percent rock fragments; very strongly acid; clear wavy boundary.

C2--122 to 137 cm (48 to 54 inches); yellowish brown (10YR 5/4) very channery silt loam; 50 to 75 percent shale, sandstone and siltstone fragments, very strongly acid. (Combined thickness of C horizons is 20 to 89 cm (4 to 35 inches thick))

R--137 cm (54 inches); sandstone bedrock.

TYPE LOCATION:
County: Jefferson
State: Pennsylvania
USGS Topographic Quadrangle: Corsica
Latitude: 41 degrees, 10 minutes, 40 seconds N
Longitude: 79 degrees 11 minutes, 23 seconds W
Directions to the Pedon: Union Township, 1207 meters (3/4 mile) east of Corsica; 183 meters (600 feet) east and 67 meters (220 feet) south of intersection of US 322 and T334.

RANGE IN CHARACTERISTICS:
Depth to the top of the Argillic: 10 to 71 cm (4 to 28 inches)
Depth to the base of the Argillic horizon: 76 to 102 cm (30 to 40 inches).
Solum thickness: 97 to 152 cm (38 to 60 inches)
Depth to bedrock: 102 to 183 cm (40 to 72 inches)
Depth Class: Deep and Very Deep
Rock fragment content: 0 to 40 percent in the A, BA, and Bt horizons and 15 to 90 percent in the BC and C horizons.
Soil Reaction: strongly or very strongly acid throughout unless the soil has been limed.

Range of Individual Horizons:
Ap horizon:
Color: Hue of 10YR or 7.5YR, value of 3 to 5, and chroma of 2 to 4. Dry value is 6 or more.
Texture (fine-earth fraction): silt loam or loam.

BE horizon (where present):
Color: Hue of 7.5YR to 5Y, value of 4 to 6, and chroma of 4 to 8.
Texture (fine earth fraction): loam, silt loam, silty clay loam or clay loam.

B horizon:
Color: Hue of 7.5YR to 5Y, value of 4 to 6, and chroma of 3 to 8.
Texture (fine-earth fraction): loam, silt loam, clay loam or silty clay loam.

BC horizon:
Color: Hue of 7.5YR to 5Y, value of 4 to 6, and chroma of 3 to 8.
Texture (fine earth fraction): loam, silt loam, clay loam, or silty clay loam.

C horizon:
Color: Hue of 7.5YR to 2.5Y, value of 4 to 8 and chroma of 1 to 8.
Texture (fine-earth fraction): sandy loam to silty clay loam.

COMPETING SERIES:
Arcola soils have a paralithic contact within 102 cm (40 inches) of the soil surface.
Bedington soils have Bt horizons with hue redder than 7.5YR.
Bucks soils have Bt horizons with hue redder than 7.5YR.
Collington soils are coastal Plain soils.
Edgemont soils are developed in quartzitic residuum.
Edneytown soils have rock fragments of quartz, granite or gneiss.
Freehold soils are coastal Plain soils.
Gilpin soils have bedrock within 102 cm (40 inches) of the soil surface.
Gladstone soils weathered from granitic gneiss.
Joanna soils have Bt horizons with hue redder than 7.5YR throughout.
Leedsville soils formed in Triassic-Jurassic interbedded sandstone and conglomerate.
Millstone soils have argillic horizons that extend below 102 cm (40 inches).
Penargyl soils form in glacial till.
Pennval soils developed in colluvium.
Pigeonroost soils have paralithic contact 51 to 102 cm (20 to 40 inches) below the surface.
Pineville soils developed in colluvium.
Quakertown soils have Bt horizons with hue redder than 7.5YR.
Shelocta soils have argillic horizons that extend below 102 cm (40 inches).
Syenite soils have bedrock at depths of less than 102 cm (40 inches).
Wist soils have a water table at a depth of 107 to 183 cm (42 to 72 inches).

GEOGRAPHIC SETTING:
MLRA(s) using this series: 125, 126, 127, 128
Landscape: Hills, Plateaus
Landform: Hills
Geomorphic Component: Crest, Sideslopes
Hillslope Profile Position: Summits, Shoulders, Backslopes
Parent Material Origin: Residuum
Parent Material Kind: from interbedded shale, siltstone and some fine grained sandstone.
Slope: 0 to 60 percent, but commonly 3 to 15 percent.
Elevation: 297 to 549 meters (975 to 1800 feet)
Frost Free Days: 144 to 200 days
Mean annual air temperatures: 7 to 14 degrees C (45 to 57 degrees F).
Mean annual rainfall: 89 to 114 cm (35 to 45 inches).

GEOGRAPHICALLY ASSOCIATED SOILS:
Berks soils do not have argillic horizons.
Cavode soils have more than 35 percent clay.
Dekalb soils do not have argillic horizons.
Muskingum soils do not have argillic horizons.
Wharton soils have low chroma redoximorphic features in the upper 61 cm (24 inches) of the argillic horizon.
Gilpin soils have bedrock within 102 cm (40 inches) of the soil surface.
Shelocta soils have argillic horizons that extend below 102 cm (40 inches).

DRAINAGE AND PERMEABILITY:
Drainage Class (Agricultural): Well drained.

Index Surface Runoff: Negligible to high.
Saturated Hydraulic Conductivity: Moderately high to high.
Permeability (Obsolete): Moderate.

USE AND VEGETATION:
Major Uses: Cropland, Forestland
Dominant Vegetation: About half of the soil is cleared and used for corn, wheat, other small grain, hay and pasture; abandoned land is growing up to second growth pines and hardwoods. Forests of hardwoods, mostly oaks, cover about one-fourth of the acreage.

DISTRIBUTION AND EXTENT:
Distribution: The soil occurs in the sandstone and shale areas of Kentucky, Maryland, New York, Ohio, Pennsylvania, Virginia, and West Virginia.
Extent: Large extent.

MLRA SOIL SURVEY REGIONAL OFFICE (MO) RESPONSIBLE: Morgantown, West Virginia

SERIES ESTABLISHED: Indiana County, Pennsylvania, 1931.

REMARKS: Diagnostic horizons and other features recognized in this pedon are:
a. Ochric epipedon - the zone from 0 to 28 cm (0 to 11 inches) (Ap and BA horizons).
b. Argillic horizon - the zone from 28 to 91 cm (11 to 36 inches) (Bt horizon).

National Cooperative Soil Survey
U.S.A.

LOCATION SEQUOIA TN+KY NC VA

Established Series
Rev. JCJ:RPS
08/2002

SEQUOIA SERIES

The Sequoia series consists of moderately deep, well drained soils with moderately slow permeability. These soils formed in residuum of shale and siltstone. They are on gently rolling to very steep hillsides and ridges. Slopes range from 2 to 65 percent.

TAXONOMIC CLASS: Fine, mixed, semiactive, mesic Typic Hapludults

TYPICAL PEDON: Sequoia silt loam--cultivated. (Colors are for moist soil unless otherwise stated.)

Ap--0 to 6 inches; dark grayish brown (10YR 4/2) silt loam; moderate medium granular structure; friable; medium acid; clear smooth boundary. (4 to 9 inches thick)

Bt1--6 to 9 inches; strong brown (7.5YR 5/6) silty clay loam; moderate medium subangular blocky structure; firm; few distinct clay films on faces of peds; medium acid; clear smooth boundary.

Bt2--9 to 24 inches; yellowish red (5YR 5/8) silty clay; few fine prominent strong brown (7.5YR 5/6) and pale brown (10YR 6/3) mottles; strong medium angular blocky structure; very firm; common prominent clay films on faces of peds; few fine dark concretions; strongly acid; gradual smooth boundary.

Bt3--24 to 32 inches; yellowish red (5YR 5/8) silty clay; common medium prominent yellow (10YR 7/8) and pale brown (10YR 6/3), and common medium distinct red (2.5YR 4/8) mottles; strong medium angular blocky structure; very firm; common prominent clay films on faces of peds; strongly acid; clear wavy boundary. (Thickness of the Bt horizon ranges from 15 to 35 inches.)

BC--32 to 36 inches; strong brown (7.5YR 5/8) silty clay; many fine and coarse distinct brownish yellow (10YR 6/8) and common fine prominent red (2.5YR 4/8) and light gray (10YR 7/2) mottles; weak medium platy structure; very firm; few fine dark concretions; about 15 percent soft fragments of shale; strongly acid; clear wavy boundary. (0 to 14 inches thick)

Cr--36 to 70 inches; soft shale with thin seams of silt loam coating rock strata and extending into cracks.

R--70 inches; hard shale bedrock.

TYPE LOCATION: Blount County, Tennessee; 850 feet north of Clover Hill and 1,200 feet west of Hopewell Church.

RANGE IN CHARACTERISTICS: Thickness of solum and depth to rippable bedrock ranges from 20 to 40 inches. Reaction is strongly acid or very strongly acid except where lime has been added.

Coarse fragments of shale range from 0 to 10 percent in the A horizon and from 0 to 25 percent in the B and C horizons.

The A or Ap horizon has hue of 10YR, value of 3 to 5, and chroma of 2 to 4. Horizons with value of 3 are less than 6 inches thick. Severely eroded pedons have hue of 7.5YR or 5YR, value of 4 or 5, and chroma of 4 to 8. Texture is silt loam or rarely loam. Severely eroded areas are silty clay loam, silty clay, or rarely clay loam.

The upper part of the Bt horizon has hue of 10YR, 7.5YR, or 5YR, value of 4 or 5, and chroma of 4 to 8, and the lower part has hue of 7.5YR, 5YR, or 2.5YR, value of 4 or 5, and chroma of 4 to 8. Some pedons are mottled with shades of brown, yellow, or red. Texture of the fine earth is silty clay, clay, or silty clay loam.

The BC horizon or C horizon, where present, has hue of 10YR, 7.5YR, or 5YR, value of 4 or 5, and chroma of 6 or 8. Some pedons are an evenly mottled pattern in shades of brown, yellow, red, and gray. Texture of the fine earth is silty clay, clay or silty clay loam.

The Cr horizon is soft shale with thin seams of silt loam or silty clay loam between rock strata.

COMPETING SERIES: These are the Agnos, Boden, Braddock, Buckhall, Christian, Clifton, Fairfax, Grassville, Groseclose, Howell, Lodi, Monmouth, Muse, Pervina, Quantico, Timberville, Trappist and Unison series in the same family. All of these series except Trappist are deeper than 40 inches to bedrock. Trappist soils formed in colluvium or residuum from black fissile shale and siltstone. The Bt horizon in Trappist has dominant hue of 7.5YR or 10YR.

The Enders series is in a similar family. Enders soils are deeper than 40 inches to bedrock and are thermic.

GEOGRAPHIC SETTING: Sequoia soils are on gently rolling to steep upland ridges. Slopes range from 3 to 35 percent. The soil formed in residuum of acid shale and siltstone. Near the type location, the average annual temperature is 58 degrees F., and average annual rainfall is 47 inches.

GEOGRAPHICALLY ASSOCIATED SOILS: These are the competing Muse series and the Gilpin, Leadvale, Litz and Shelocta series. Gilpin and Shelocta soils are fine-loamy. Leadvale soils are on foot slopes and benches and have a fragipan. Litz soils are on similar positions and are loamy-skeletal.

DRAINAGE AND PERMEABILITY: Sequoia soils are well drained. Runoff is medium to rapid and permeability is moderately slow.

USE AND VEGETATION: Most of the cleared areas are used for growing pasture and hay. A few small areas are used for growing tobacco, small grains, and corn. The native vegetation was mixed hardwoods.

DISTRIBUTION AND EXTENT: The Appalachian Ridges and Valleys and Cumberland Plateau and Mountains regions in Tennessee, Kentucky and Virginia. The series is of large extent.

MLRA SOIL SURVEY REGIONAL OFFICE (MO) RESPONSIBLE: Morgantown, West Virginia

SERIES ESTABLISHED: Hamblen County, Tennessee; 1940

REMARKS: Diagnostic horizons and features recognized in this pedon are:

Ochric epipedon - 0 to 6 inches (Ap horizon)

Argillic horizon - 6 to 32 inches (Bt horizons)

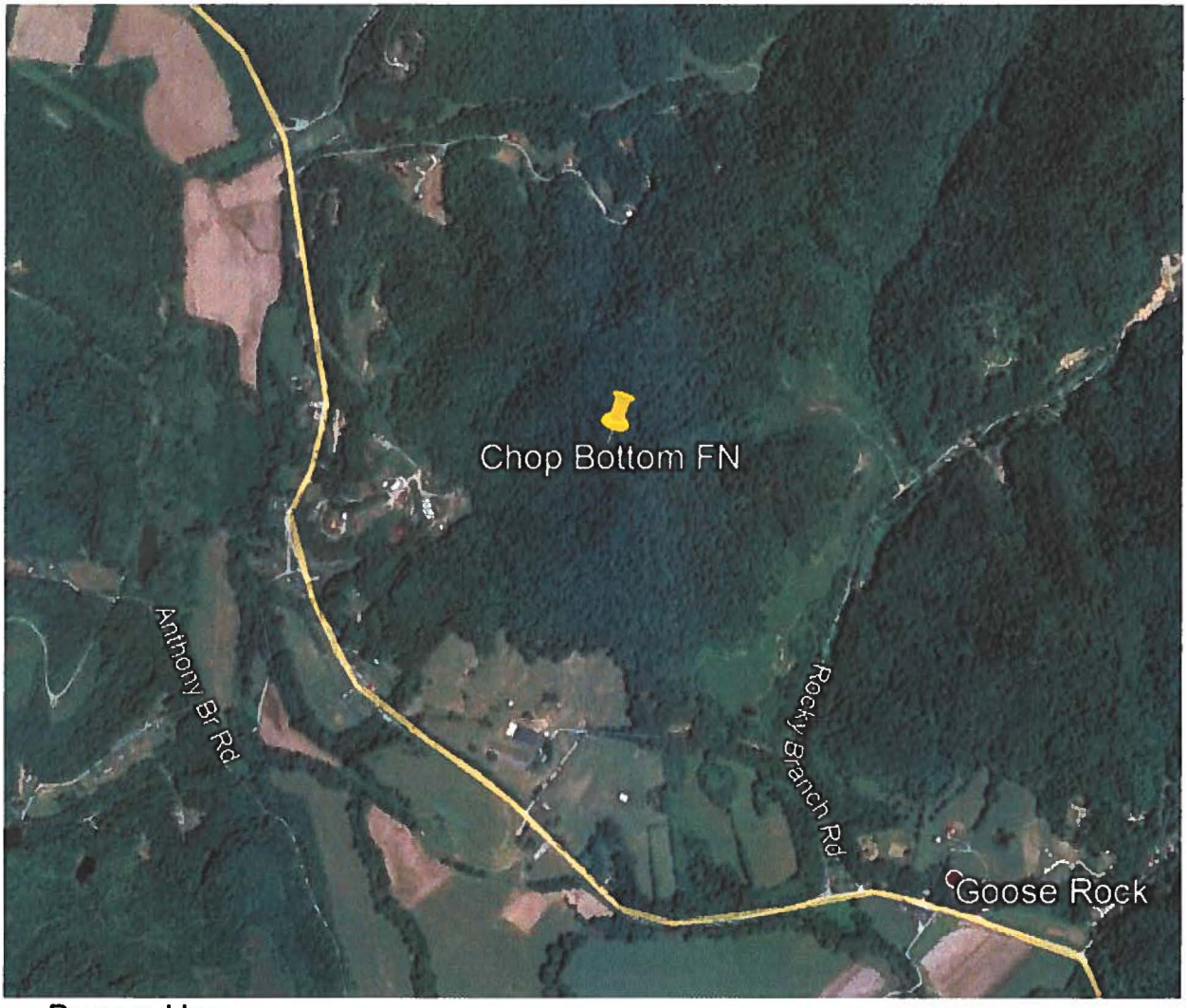
Paralithic contact - 36 inches (top of Cr horizon)

National Cooperative Soil Survey
U.S.A.

EXHIBIT H
DIRECTIONS TO WCF SITE

Driving Directions to Proposed Tower Site

1. Beginning at 102 Richmond Road in Manchester, Kentucky head southeast on US-421 S / Richmond Road (towards Stinson Hill Road) and travel approximately 0.9 miles.
2. Turn left onto Old Highway 421 and travel approximately 0.5 miles.
3. Turn left onto US-421 S and travel approximately 4.2 miles. The site is on the left off of US-421 S. The site coordinates are:
    a. North 37 deg 05 min 55.110 sec
    b. West 83 deg 42 min 09.845 sec



Prepared by:
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Pike Legal Group PLLC
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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: KYL06152
Cell Site Name: Chop Bottom FN
Search Ring Name: Chop Bottom FN
Fixed Asset Number: 12568409

OPTION AND LAND LEASE AGREEMENT

THIS OPTION AND LAND LEASE AGREEMENT ("**Agreement**"), dated as of the latter of the signature dates below (the "**Effective Date**"), is entered into by Randall Wagers and his wife, Rosemary Wagers, as joint tenants, with full rights of survivorship, having a mailing address of P.O. Box 466, Manchester, KY 40962 ("**Landlord**") and New Cingular Wireless PCS, LLC, a Delaware limited liability company, having a mailing address of 575 Morosgo Drive, 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 0 South Highway 421, in the County of Clay, State of Kentucky (collectively, the "**Property**"). Landlord desires to grant to Tenant the right to use a portion of the Property in accordance with this Agreement.

The parties agree as follows:

1. OPTION TO LEASE.

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

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

(c) In consideration of Landlord granting Tenant the Option, Tenant agrees to pay Landlord the sum of [redacted] within sixty (60) business days after the Effective Date. The Option may be exercised during an initial term of one (1) year commencing on the Effective Date (the "**Initial Option Term**") which term may be renewed by Tenant for an additional one (1) year (the "**Renewal Option Term**") upon written notification to Landlord and the payment of an additional [redacted] no later than five (5) days prior to the expiration date of the Initial Option Term. The Initial Option Term and any Renewal Option Term are collectively referred to as the "**Option Term**."

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

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

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

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

3. **TERM.**

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

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

(c) Unless (i) Landlord or Tenant notifies the other in writing of its intention to terminate this Agreement at least six (6) months prior to the expiration of the final Extension Term, or (ii) the Agreement is terminated as otherwise permitted by this Agreement prior to the end of the final Extension Term, this Agreement shall continue in force upon the same covenants, terms and conditions for a further term of one (1) year, and for annual terms thereafter ("**Annual Term**") until terminated by either party hereto by giving to the other party hereto written notice of its intention to so terminate at least six (6) months prior to the end of any such Annual Term. Monthly rent during such Annual Terms shall be 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**."

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, the 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) Upon the commencement of each Extension Term, the monthly Rent will increase b[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 the Permitted Use and Tenant's ability to obtain and maintain all Government Approvals. Landlord authorizes Tenant to prepare, execute and file all required applications to obtain Government Approvals for the Permitted Use and agrees to reasonably assist Tenant with such applications and with obtaining and maintaining the Government Approvals.

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

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

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

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

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

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

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

(e) by Tenant upon sixty (60) days' prior written notice to Landlord for any reason or no reason, so long as Tenant pays Landlord a termination fee 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: Section 5 Approvals, Section 6(a) Termination, Section 6(b) Termination, Section 6(c) Termination, Section 6(d) Termination, Section 11(d) Environmental, Section 18 Condemnation or Section 19 Casualty.

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

8. **INTERFERENCE.**

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

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

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

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

9. **INDEMNIFICATION.**

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

(b) Landlord agrees to indemnify, defend and hold Tenant harmless from and against any and all injury, loss, damage or liability , costs or expenses in connection with a third party claim (including reasonable attorneys' fees and court costs) arising directly from the actions or failure to act of Landlord, its employees,

invitees, agents or independent contractors, or Landlord's breach of any provision of this Agreement, except to the extent attributable to the negligent or intentional act or omission of Tenant, its employees, agents or independent contractors.

(c) The indemnified party: (i) shall promptly provide the indemnifying party with written notice of any claim, demand, lawsuit, or the like for which it seeks indemnification pursuant to this Section 9 and provide the indemnifying party with copies of any demands, notices, summonses, or legal papers received in connection with such claim, demand, lawsuit, or the like; (ii) shall not settle any such claim, demand, lawsuit, or the like without the prior written consent of the indemnifying party; and (iii) shall fully cooperate with the indemnifying party in the defense of the claim, demand, lawsuit, or the like. A delay in notice shall not relieve the indemnifying party of its indemnity obligation, except (1) to the extent the indemnifying party can show it was prejudiced by the delay; and (2) the indemnifying party shall not be liable for any settlement or litigation expenses incurred before the time when notice is given.

10. WARRANTIES.

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

(b) Landlord represents, warrants and agrees that: (i) Landlord solely owns the Property as a legal lot in fee simple, or controls the Property by lease or license; (ii) the Property is not and will not be encumbered by any liens, restrictions, mortgages, covenants, conditions, easements, leases, or any other agreements of record or not of record, which would adversely affect Tenant's Permitted Use and enjoyment of the Premises under this Agreement; (iii) Landlord grants to Tenant sole, actual, quiet and peaceful use, enjoyment and possession of the Premises in accordance with the terms of this Agreement 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, then Landlord will provide promptly to Tenant a mutually agreeable subordination, non-disturbance and attornment agreement executed by Landlord and the holder of such security interest in the form attached hereto as **Exhibit 10(b)**.

11. ENVIRONMENTAL.

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

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

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

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

(d) In the event Tenant becomes aware of any hazardous materials on the Property, or any environmental, health or safety condition or matter relating to the Property, that, in Tenant's sole determination, renders the condition of the Premises or Property unsuitable for Tenant's use, or if Tenant believes that the leasing or continued leasing of the Premises would expose Tenant to undue risks of liability to a government agency or other third party, then 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. If Tenant elects to utilize an Unmanned Aircraft System ("**UAS**") in connection with its installation, construction, monitoring, site audits, inspections, maintenance, repair, modification, or alteration activities at the Property, Landlord hereby grants Tenant, or any UAS operator acting on Tenant's behalf, express permission to fly over the applicable Property and Premises, and consents to the use of audio and video navigation and recording in connection with the use of the UAS. Landlord acknowledges that in the event Tenant cannot obtain Access to the Premises, Tenant shall incur significant damage. If Landlord fails to provide the Access granted by this Section 12, such failure shall be a default under this Agreement. In connection with such default, in addition to any other rights or remedies available to Tenant under this Agreement or at law or equity, Landlord shall pay Tenant, as liquidated damages and not as a penalty, [redacted] per day in consideration of Tenant's damages until Landlord cures such default. Landlord and Tenant agree that Tenant's damages in the event of a denial of Access are difficult, if not impossible, to ascertain, and the liquidated damages set forth above are a reasonable approximation of such damages.

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

landscaping on the Property, including any landscaping installed by Tenant as a condition of this Agreement or any required permit.

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

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

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

15. DEFAULT AND RIGHT TO CURE.

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

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

16. **ASSIGNMENT/SUBLEASE.** Tenant will have the right to assign this Agreement or sublease the Premises and its rights herein, in whole or in part, without Landlord's consent. Upon notification to Landlord of such assignment, Tenant will be relieved of all future performance, liabilities and obligations under this Agreement to the extent of such assignment.

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

If to Tenant:
New Cingular Wireless PCS, LLC
Attn: Network Real Estate Administration
Re: Cell Site #: KYL06152; Cell Site Name: Chop Bottom FN (**KY**)
Fixed Asset #: 12568409
575 Morosgo Drive
Atlanta, Georgia 30324

With a copy to:
New Cingular Wireless PCS, LLC
Attn.: Legal Dept – Network Operations
Re: Cell Site #: KYL06152; Cell Site Name: Chop Bottom FN (**KY**)
Fixed Asset #: 12568409
208 S. Akard Street
Dallas, TX 75202-4206

If to Landlord:
Randall Wagers
P.O. Box 466
Manchester, KY 40962

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

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

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

the terms and conditions of this Agreement, including Rent. If Landlord or Tenant undertakes to rebuild or restore the Premises and/or the Communication Facility, as applicable, Landlord agrees to permit Tenant to place temporary transmission and reception facilities on the Property at no additional Rent until the reconstruction of the Premises and/or the Communication Facility is completed. If Landlord determines not to rebuild or restore the Property, Landlord will notify Tenant of such determination within thirty (30) days after the casualty or other harm. If Landlord does not so notify Tenant and Tenant decides not to terminate under this Section 19, then Landlord will promptly rebuild or restore any portion of the Property interfering with or required for Tenant's Permitted Use of the Premises to substantially the same condition as existed before the casualty or other harm. Landlord agrees that the Rent shall be abated until the Property and/or the Premises are rebuilt or restored, unless Tenant places temporary transmission and reception facilities on the Property.

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

21. TAXES.

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

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

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

and any refunds or rebates secured as a result of Tenant's action shall belong to Tenant, to the extent the amounts were originally paid by Tenant. In the event Tenant notifies Landlord by the due date for assessment of Tenant's intent to contest the assessment, Landlord shall not pay the assessment pending conclusion of the contest, unless required by applicable law.

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

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

(f) Any tax-related notices shall be sent to Tenant in the manner set forth in Section 17. Promptly after the Effective Date, Landlord shall provide Tenant's 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 address changes by notice to Landlord, Landlord shall be required to provide Tenant's new address to the taxing authority or authorities.

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

22. SALE OF PROPERTY.

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

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

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

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

(d) The provisions of this Section 22 shall in no way limit or impair the obligations of Landlord under this Agreement, including interference and access obligations.

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

24. **MISCELLANEOUS.**

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

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

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

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

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

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

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

(h) **Interpretation.** Unless otherwise specified, the following rules of construction and interpretation apply: (i) captions are for convenience and reference only and in no way define or limit the construction of the terms and conditions hereof; (ii) use of the term "including" will be interpreted to mean "including but not limited

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

(i) **Affiliates.** All references to "Tenant" shall be deemed to include any Affiliate of 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 reasonable attorneys' fees and expenses. Prevailing party means the party determined by the court to have most nearly prevailed even if such party did not prevail in all matters. This provision will not be construed to entitle any party other than Landlord, Tenant and their respective Affiliates to recover their fees and expenses.

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

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

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

[SIGNATURES APPEAR ON NEXT PAGE]

IN WITNESS WHEREOF, the parties have caused this Agreement to be effective as of the Effective Date.

"LANDLORD"

Randall Wagers and his wife, Rosemary Wagers, joint tenants with full rights of survivorship

By: Randall Wagers
Print Name: Randall Wagers
Date: 04/23/2018

By: Rosemary Wagers
Print Name: Rosemary Wagers
Date: 04-23-18

LANDLORD ACKNOWLEDGMENT

STATE OF KENTUCKY)
) ss:
COUNTY OF Clay)

On the 23 day of April, 2018 before me, personally appeared Randall Wagers and Rosemary Wagers, 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 the Landlord for the purposes therein contained.

Revelle M. Berry
Notary Public: Revelle M. Berry
My Commission Expires: 8/16/18

"TENANT"

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

By: AT&T Mobility Corporation
Its: Manager

By: Jason Allday
Print Name: Jason Allday
Its: Area Manager – TN/KY
Date: 7/25/18

TENANT ACKNOWLEDGMENT

STATE OF ALABAMA)
) ss:
COUNTY OF JEFFERSON)

On the 25 day of July, 2018, before me personally appeared Jason Allday, and acknowledged under oath that he is the Area Manager – TN/KY 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.

KATHY M. MCLAUGHLIN NOTARY PUBLIC ALABAMA STATE AT LARGE

Notary Public: Kathy M. McLaughlin
My Commission Expires: 10-26-2020

EXHIBIT 1

DESCRIPTION OF PROPERTY AND PREMISES

to the Option and Land Lease Agreement dated July 25, 2018, by and between Randall Wagers and his wife Rosemary Wagers, as joint tenants, with full rights of survivorship, as Landlord, and New Cingular Wireless PCS, LLC, a Delaware limited liability company, as Tenant.

The Property is legally described as follows: Deed Book D291, Page 295

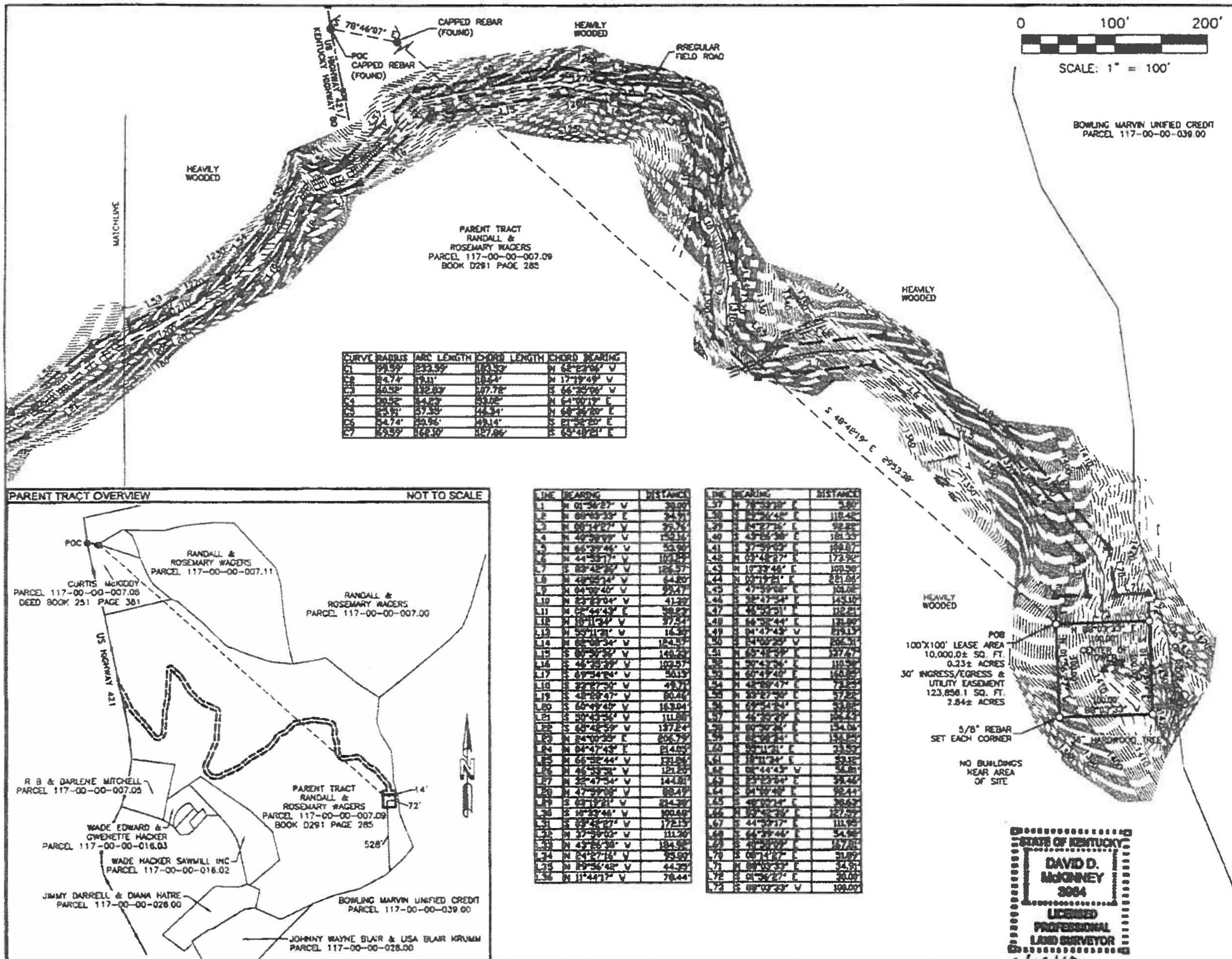
A certain tract or parcel of land lying and being on the east side of U.S. Highway 421 approximately 1.25 miles southeast of its junction with Kentucky State Highway 149, in the County of Clay, State of Kentucky and bounded and described as follows to-wit:

Unless stated otherwise, any monument referred to herein as "rod and cap" is set 1/2" steel rod with a red plastic cap stamped "JCM 1367". All bearings in this description are referred to the magnetic meridian as observed on September 2, 1999.

Beginning at an existing rod and cap stamped "LS1367" on the east right of way line of U.S. Highway 421 and Kentucky State Highway 80 (80 feet from the centerline of same), a corner to Curtis McKiddy (Deed Book 251, Page 381), thence leaving said right of way and running with said McKiddy line N 66-53-59 E, 841.84 feet to an existing rod and cap stamped "LS1367", in the center of a spur ridge that runs down toward White Hall Church, a corner to the John D. Walker reserved parcel (Deed Book 227, Page 316), thence running up the center of said spur as it meanders severing the land of said Walker S 61-24-30 E, 41.79 feet, thence S 49-19-15 E, 34.79 feet,

thence S 39-35-55 E, 100.34 feet, thence S 40-45-35 E, 127.06 feet, thence S 36-32-26 E, 263.56 feet, thence S 59-59-22 E, 179.72 feet, thence S 61-28-02 E, 185.92 feet, thence S 74-53-35 E, 173.32 feet, thence S 69-30-23 E, 184.80 feet to a rod and cap on a high lamb, thence S 41-31-46 E, 259.11 feet, thence S 48-00-26 E, 219.07 feet to a rod and cap on a high knob at the junction of said spur with the main dividing ridge between Goose Creek and Rocky Branch of same, a corner to the Bowling heirs parcel (Deed Book 227, Page 369), thence running down the center of said dividing ridge as it meanders with said Bowling line S 15-01-59 W, 184.06 feet, thence S 09-09-51 E, 104.85 feet, thence S 23-30-23 E, 153.39 feet, thence S 01-50-31 W, 129.31 feet, thence S 09-01-20 W, 101.01 feet, thence S 06-55-42 E, 132.15 feet, thence S 00-19-06 W, 138.07 feet, thence S 13-16-54 E, 265.59 feet to a 30" white oak at the junction of a spur running down between the Wade Hacker Sawmill hollow and another hollow running into Goose Creek, thence running down the center of said spur as it meanders S 46-32-39 W, 118.34 feet, thence S 57-09-46 W, 153.55 feet, thence S 71-31-10 W, 231.05 feet, thence S 64-58-47 W, 202.19 feet to a 10" white oak in the fence, thence S 79-00-38 W, 174.51 feet to a 10" hickory in said fence, thence S 77-49-06 W, 163.31 feet to a rod and cap where said fence leaves the spur ridge, a corner to Leonard Hacker (Deed Book 114, Page 55), thence leaving said spur and running with said fence and said Hacker's line N 87-26-54 W, 217.01 feet to a rod and cap at a fence corner, thence N 22-59-41 E, 146.83 feet to a rod and cap at a fence corner, thence N 57-08-11 W, 87.14 feet to an existing rod and cap, a corner to Wade Hacker (Deed Book 221, Page 113), thence leaving said fence and running with said Wade Hacker's line N 59-05-00 E, 304.98 feet to an existing rod and cap, thence N 05-17-00 W, 228.69 feet to an existing rod and cap, thence N 38-16-00 W, 240.18 feet to an existing rod and cap, thence N 46-16-00 W, 465.38 feet to an existing rod and cap on top of a highwall, thence leaving said highwall S 64-45-00 W, 315.32 feet to an existing rod and cap in a hillside, a corner to Glen Wombles (Deed Book 236, Page 723), thence running with said Wombles line N 21-40-22 E, 277.39 feet to an existing rod and cap, thence N 73-56-38 W, 276.45 feet to an existing rod and cap in the east right of way line of the aforementioned U.S. Highway 421 and Kentucky State Highway 80 (30.00 feet from the centerline of same), thence running with said right of way, N 02-09-47 E, 233.34 feet, thence N 03-31-44 W, 127.42 feet, thence N 03-43-19 W, 157.64 feet, thence N 02-12-45 W, 615.80 feet to the place of beginning, and containing seventy and seventy-eight hundreds (70.78) acres, more or less, all according to a survey performed by Meredith General Surveys, Inc., conducted by James Q. Meredith, Kentucky Registered Land Surveyor Number 1387 on November 4, 1999.

The Premises are described and/or depicted as follows:



CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING
C1	99.59'	232.59'	183.53'	N 62°22'06" W
C2	84.74'	79.11'	76.24'	N 17°17'49" W
C3	80.52'	132.87'	107.78'	S 66°35'06" W
C4	90.52'	94.23'	90.06'	N 64°00'19" E
C5	93.91'	57.35'	46.34'	N 68°38'20" E
C6	84.74'	50.96'	49.14'	S 21°32'20" E
C7	99.59'	162.30'	127.86'	S 63°48'21" E

LINE	BEARING	DISTANCE
L1	N 01°36'27" W	39.00'
L2	N 88°49'33" E	34.57'
L3	N 88°14'27" W	35.79'
L4	N 40°39'09" W	152.16'
L5	N 65°27'46" W	52.90'
L6	N 44°35'17" W	121.59'
L7	S 89°42'39" W	126.57'
L8	N 48°55'14" W	64.60'
L9	N 64°00'40" W	99.47'
L10	N 83°23'04" W	41.30'
L11	N 07°44'43" E	38.83'
L12	N 18°11'34" W	37.54'
L13	N 55°11'21" W	16.50'
L14	N 68°08'34" W	124.57'
L15	S 69°50'32" W	149.23'
L16	S 44°35'37" W	102.57'
L17	S 69°34'24" W	50.15'
L18	S 27°27'59" W	49.71'
L19	S 41°18'47" W	80.45'
L20	S 66°49'42" W	163.04'
L21	S 39°43'56" W	111.66'
L22	S 65°42'39" W	137.24'
L23	N 84°00'35" E	206.79'
L24	N 84°47'43" E	214.05'
L25	N 65°52'44" W	121.25'
L26	N 46°53'55" W	121.25'
L27	N 32°47'54" W	144.81'
L28	N 47°59'09" W	98.41'
L29	S 69°11'21" W	214.39'
L30	S 16°23'46" W	100.69'
L31	S 69°48'27" W	172.15'
L32	N 37°39'03" W	111.30'
L33	N 43°58'38" W	184.35'
L34	N 24°27'16" W	55.90'
L35	N 89°56'42" W	44.35'
L36	N 11°44'17" W	70.44'

LINE	BEARING	DISTANCE
L37	N 78°53'29" E	5.80'
L38	S 52°32'48" E	118.42'
L39	S 24°27'16" E	52.82'
L40	S 43°39'38" E	181.33'
L41	S 37°55'03" E	148.87'
L42	N 03°48'27" E	173.92'
L43	N 10°33'46" E	109.58'
L44	N 03°19'21" E	221.05'
L45	S 47°59'09" E	101.06'
L46	S 32°47'54" E	145.10'
L47	S 46°53'55" E	112.21'
L48	S 66°52'44" E	121.30'
L49	S 84°47'43" W	214.15'
L50	S 84°00'35" W	206.78'
L51	N 65°42'59" E	137.47'
L52	N 57°43'56" E	110.55'
L53	N 66°41'40" E	163.51'
L54	N 42°56'47" E	71.25'
L55	N 33°27'59" E	57.22'
L56	N 67°45'50" E	50.15'
L57	N 44°35'27" E	102.43'
L58	N 69°55'36" E	154.06'
L59	S 68°59'35" E	134.55'
L60	S 56°11'21" E	23.52'
L61	S 18°11'24" E	53.15'
L62	S 07°44'43" W	38.81'
L63	S 83°23'04" E	38.46'
L64	S 64°00'40" E	99.41'
L65	S 48°55'14" E	38.47'
L66	N 89°42'59" E	127.57'
L67	S 44°35'17" E	111.56'
L68	S 64°27'46" E	54.96'
L69	S 40°39'09" E	157.85'
L70	S 08°14'27" E	31.67'
L71	N 88°49'33" E	34.57'
L72	S 01°36'27" E	39.00'
L73	S 88°03'23" W	108.00'

STATE OF KENTUCKY
DAVID D. McKINNEY
3984
LICENSED PROFESSIONAL LAND SURVEYOR
6/28/18

TOWER INFO

LATITUDE: 37°05'55.110" NORTH
LONGITUDE: 83°42'09.845" WEST
(NAD 83)
GROUND ELEVATION: 1412.8'
ABOVE MEAN SEA LEVEL (NAVD88)

VICINITY MAP

KENTUCKY SINGLE ZONE
GRID NORTH

GRID TO TRUE NORTH CONVERGENCE
1°15'

TRUE NORTH TO MAGNETIC DECLINATION
6°9' W

COMBINED SCALE FACTOR
0.999996372

LEGEND

- ○ = 5/8" REBAR SET
- ● = FOUND PROPERTY MARKER
- POB = POINT OF BEGINNING
- POC = POINT OF COMMENCEMENT
- ▲ = CALCULATED POINT
- F/L = FLOW LINE
- (M) = MEASURED
- = POWER POLE
- = TEMPORARY BENCHMARK NAIL IN 36" HARDWOOD ELEV. = 1439.06'
- RIGHT-OF-WAY
- OVERHEAD POWER

FLOOD NOTE
By graphic plotting only, the subject property appears to lie in Zone "X" of the Flood Insurance Rate Map Community Panel No. 21051C0275C, which bears an effective date of September 28, 2007 and IS NOT in a special flood hazard area.
Zone "X": Areas determined to be outside the 0.2% annual chance floodplain.

CHOP BOTTOM FN
CLAY COUNTY, KENTUCKY
PARCEL # 117-00-00-007.09
ADDRESS: 0 SOUTH HIGWAY 421
MANCHESTER, KY 40962
OWNER: RANDALL WAGERS AND ROSEMARY WAGERS

PROJECT NO
18-1304

RAWLAND TOWER SURVEY

INTEGRISITE
214 EXPO CIRCLE SUITE 4
WEST MONROE, LA 71292

SMW Engineering Group, Inc.
158 Business Center Drive
Birmingham, Alabama 35244
Ph: 205-252-6985
www.smweng.com

SMW ENGINEERING GROUP, INC.

Randall Wagers
07-14-18

Rosemary Wagers
07-14-18

EXHIBIT 11

ENVIRONMENTAL DISCLOSURE

Landlord represents and warrants that the Property, as of the Effective Date, is free of hazardous substances except as follows:

[INSERT AS APPLICABLE]

{This Letter Goes On Landlord's Letterhead}

Date: _____

Building Staff / Security Staff
Landlord Name: _____
Street Address: _____
Cite, 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.

Randall Wagner
Landlord Signature

Roxana Wagner
Landlord Signature

EXHIBIT J
NOTIFICATION LISTING

Chop Bottom FN – Notice List

Wagers Randall & Rosemary
PO Box 466
Manchester, KY 40962

Bowling Marvin Unified Credit Trust
c/o Beverly Sebastian
8122 Devens Drive
Brentwood, TN 37027

Esterman David & Amy
6371 South Highway 421
Manchester, KY 40962

Gray Elonda Gail
1259 Highway 1524
Manchester, KY 40962

Wade Hacker Sawmill Inc
156 Wade Hacker Rd
Manchester, KY 40962

Wade Hacker Sawmill Inc
156 Hacker Rd
Manchester, KY 40962

Hacker Wade Edward & Gwenette
135 Wade Hacker Rd
Manchester, KY 40962

Mitchell R B & Darlene
5963 S Hwy 421
Manchester, KY 40962

McKiddy Curtis
PO Box 225
Goose Rock, KY 40944

Wagers Goldie
PO Box 239
Goose Rock, KY 40944

Sandhill Coal Processing Co
PO Box 229
Goose Rock, KY 40944

Rudolph Lauren & Miriam
174 Hwy 1524
Manchester, KY 40962

Wombles Glenn
5900 S Hwy 421
Manchester, KY 40962

Hacker Wade Edward Etal
135 Wade Hacker Road
Manchester, KY 40962

Smith Alan S & Ella
1415 Highway 1524
Manchester, KY 40962

Gray Pauline Smith
5700 S Hwy 421
Manchester, KY 40962

EXHIBIT K
COPY OF PROPERTY OWNER NOTIFICATION

PIKE LEGAL

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

Notice of Proposed Construction of Wireless Communications Facility Site Name: Chop Bottom FN

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 on South Highway 421, Manchester, Kentucky 40962 (37°05'55.110" North latitude, 83°42'09.845" 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.

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 2018-00350 in any correspondence sent in connection with this matter.

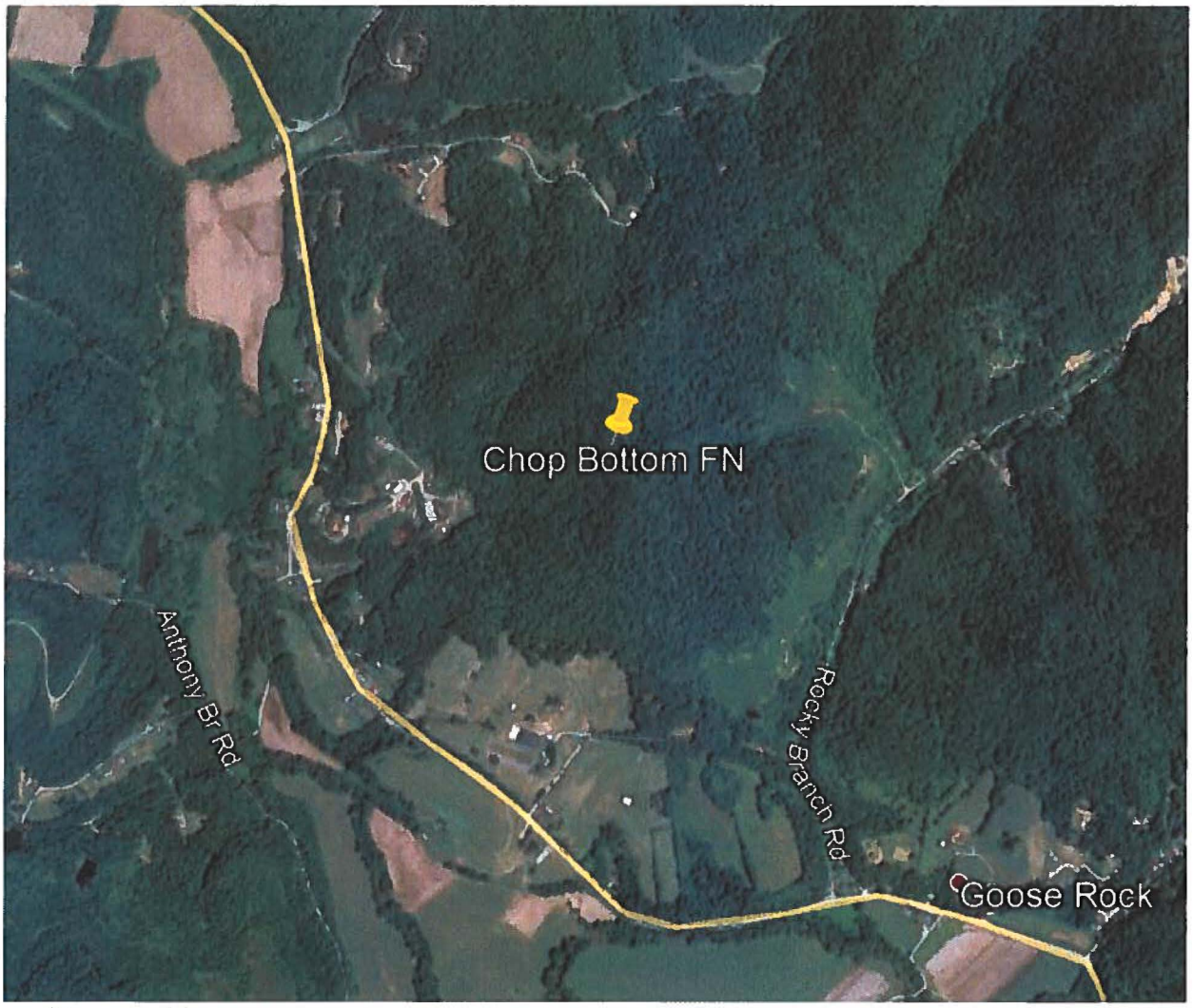
We have attached a map showing the site location for the proposed tower. Applicant's radio frequency engineers assisted in selecting the proposed site for the facility, and they have determined it is the proper location and elevation needed to provide quality service to wireless customers in the area. Please feel free to contact us toll free at (800) 516-4293 if you have any comments or questions about this proposal.

Sincerely,
David A. Pike
Attorney for Applicant

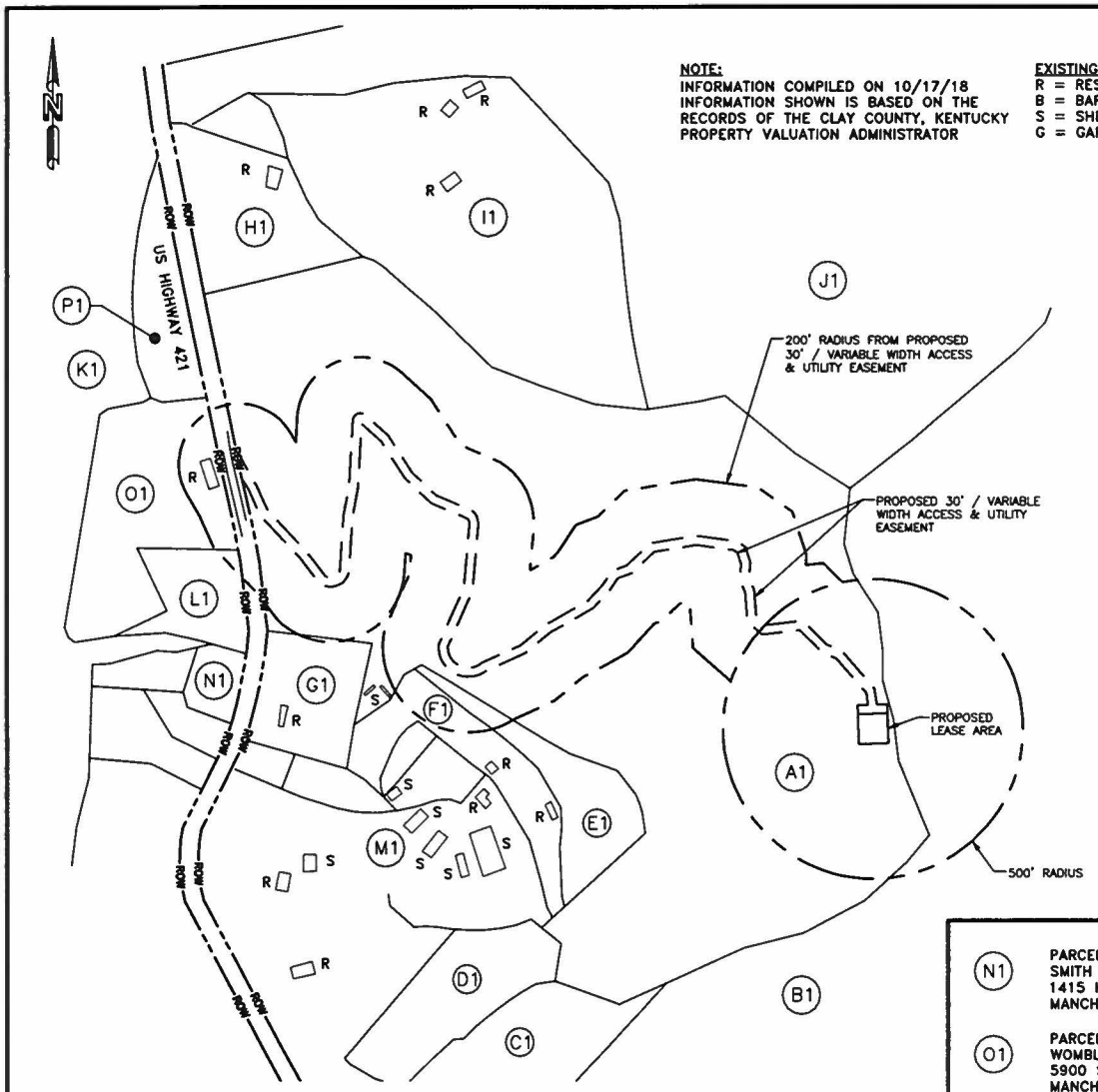
enclosure

Driving Directions to Proposed Tower Site

1. Beginning at 102 Richmond Road in Manchester, Kentucky head southeast on US-421 S / Richmond Road (towards Stinson Hill Road) and travel approximately 0.9 miles.
2. Turn left onto Old Highway 421 and travel approximately 0.5 miles.
3. Turn left onto US-421 S and travel approximately 4.2 miles. The site is on the left off of US-421 S. The site coordinates are:
    a. North 37 deg 05 min 55.110 sec
    b. West 83 deg 42 min 09.845 sec



Prepared by:
Aaron Roof
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



(N1) PARCEL: 117-30-00-007.01
SMITH ALANS & ELLA
1415 HIGHWAY 1524
MANCHESTER KY 40962

(O1) PARCEL: 117-30-00-007.12
WOMBLES GLENN
5900 S HWY 421
MANCHESTER, KY 40962

(P1) PARCEL: 117-00-00-008.00
GRAY PAULINE SMITH
5700 S HWY 421
MANCHESTER KY 40962

(A1) PARCEL: 117-00-00-007.09
RANDALL & ROSEMARY WAGERS
PO BOX 466
MANCHESTER, KY 40962

(B1) PARCEL: 117-00-00-039.00
BOWLING MARVIN UNIFIED CREDIT
TRUST C/O BEVERLY SEBASTIAN
8122 DEVENS DRIVE
BRENTWOOD, TN 37027

(C1) PARCEL: 117-00-00-028.00
ESTERMAN DAVID & AMY
6371 SOUTH HIGHWAY 421
MANCHESTER, KY 40962

(D1) PARCEL: 117-30-00-026.00
GRAY ELONDA GAIL
1259 HIGHWAY 1524
MANCHESTER, KY 40962

(E1) PARCEL: 117-30-00-016.02
WADE HACKER SAWMILL INC
156 HACKER ROAD
MANCHESTER, KY 40962

(F1) PARCEL: 117-30-00-016.03
WADE EDWARD & GWENETTE HACKER
135 WADE HACKER RD
MANCHESTER, KY 40962

(G1) PARCEL: 117-30-00-007.05
R B & DARLENE MITCHELL
5963 SOUTH HIGHWAY 421
MANCHESTER, KY 40962

(H1) PARCEL: 117-00-00-007.08
CURTIS McKIDDY
PO BOX 225
GOOSE ROCK, KY 40944

(I1) PARCEL: 117-00-00-007.11
RANDALL & ROSEMARY WAGERS
PO BOX 466
MANCHESTER, KY 40962

MOBILE HOME ON ADJOINER I1
SANDHILL COAL PROCESSING CO
PO BOX 229
GOOSE ROCK, KY 40944

MOBILE HOME ON ADJOINER I1
WAGERS GOLDIE
PO BOX 239
GOOSE ROCK, KY 40944

(J1) PARCEL: 117-00-00-007.00
RANDALL & ROSEMARY WAGERS
PO BOX 466
MANCHESTER, KY 40962

(K1) PARCEL: 117-00-00-007.12
RUDOLPH, LAUREN & MIRIAM
174 HIGHWAY 1524
MANCHESTER, KY 40962

(L1) PARCEL: 117-30-00-007.03
WOMBLES GLENN
5900 S HWY 421
MANCHESTER, KY 40962

(M1) PARCEL: 117-30-00-016.01
HACKER WADE EDWARD ETAL
135 WADE HACKER ROAD
MANCHESTER KY 40962

SMW

SMW #: 18-1304

at&t

#	DATE	DESCRIPTION
2	12/06/18	REISSUED FOR CLIENT REV.
3	12/17/18	REISSUED FOR CLIENT REV.
4	01/03/19	REISSUED FOR CLIENT REV.
5	01/08/19	REISSUED FOR CLIENT REV.
6	01/09/19	ISSUED FOR CONSTRUCTION

CHOP BOTTOM FN

500' RADIUS AND ABUTTERS MAP

DESIGNED: JDS
DRAWN: BMD
CHECKED: RTB

JOB #: 12568409

B-2

EXHIBIT L
COPY OF COUNTY JUDGE/EXECUTIVE NOTICE

PIKE LEGAL

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

VIA CERTIFIED MAIL

Hon. Johnny Johnson
County Judge Executive
102 Richmond Road, Suite 201
Manchester, KY 40962

RE: Notice of Proposal to Construct Wireless Communications Facility
Kentucky Public Service Commission Docket No. 2018-00350
Site Name: Chop Bottom FN

Dear Judge/Executive:

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 on South Highway 421, Manchester, Kentucky 40962 (37°05'55.110" North latitude, 83°42'09.845" 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 2018-00350 in any correspondence sent in connection with this matter.

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

Sincerely,
David A. Pike
Attorney for Applicant

enclosures

Driving Directions to Proposed Tower Site

1. Beginning at 102 Richmond Road in Manchester, Kentucky head southeast on US-421 S / Richmond Road (towards Stinson Hill Road) and travel approximately 0.9 miles.
2. Turn left onto Old Highway 421 and travel approximately 0.5 miles.
3. Turn left onto US-421 S and travel approximately 4.2 miles. The site is on the left off of US-421 S. The site coordinates are:
    a. North 37 deg 05 min 55.110 sec
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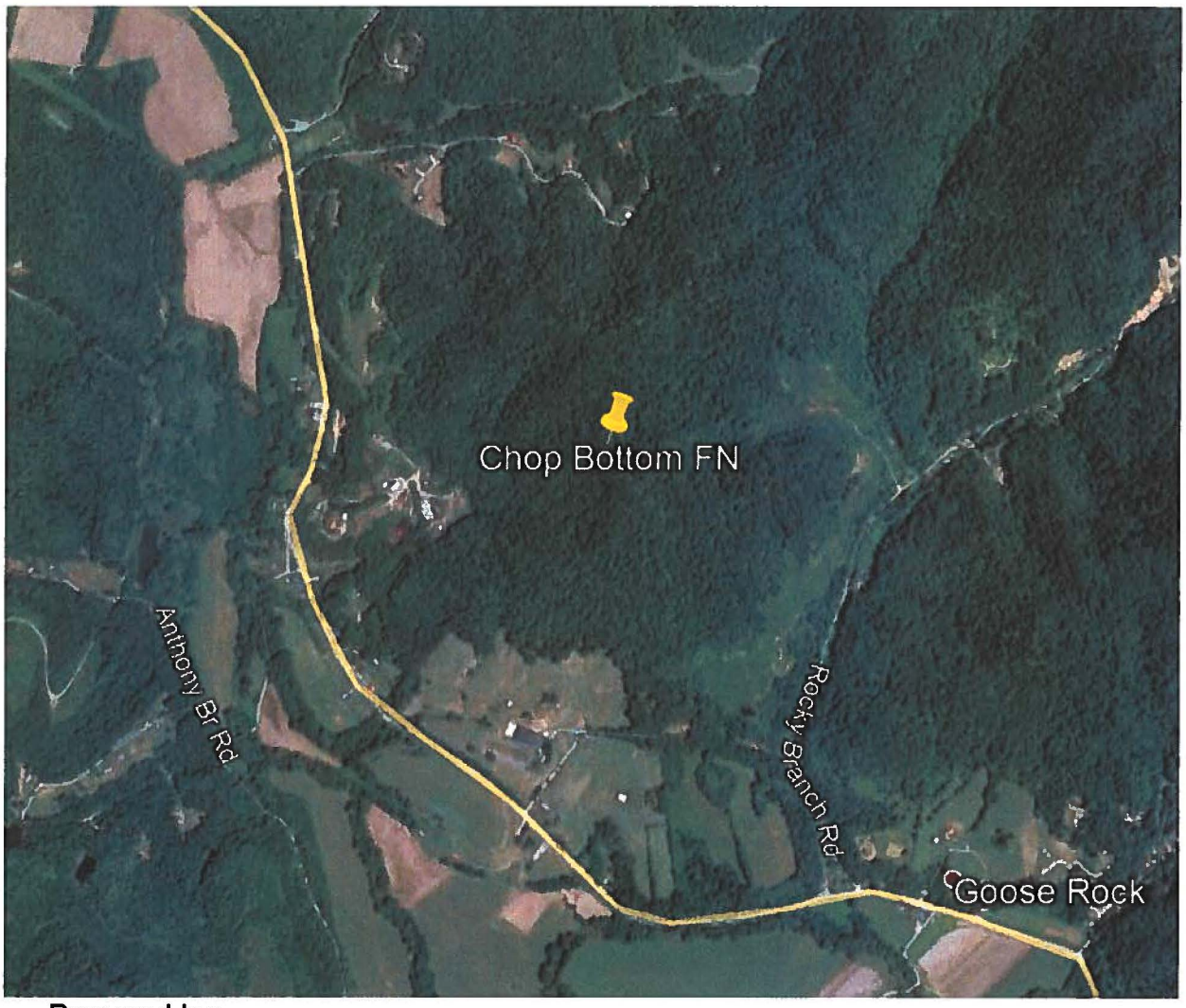
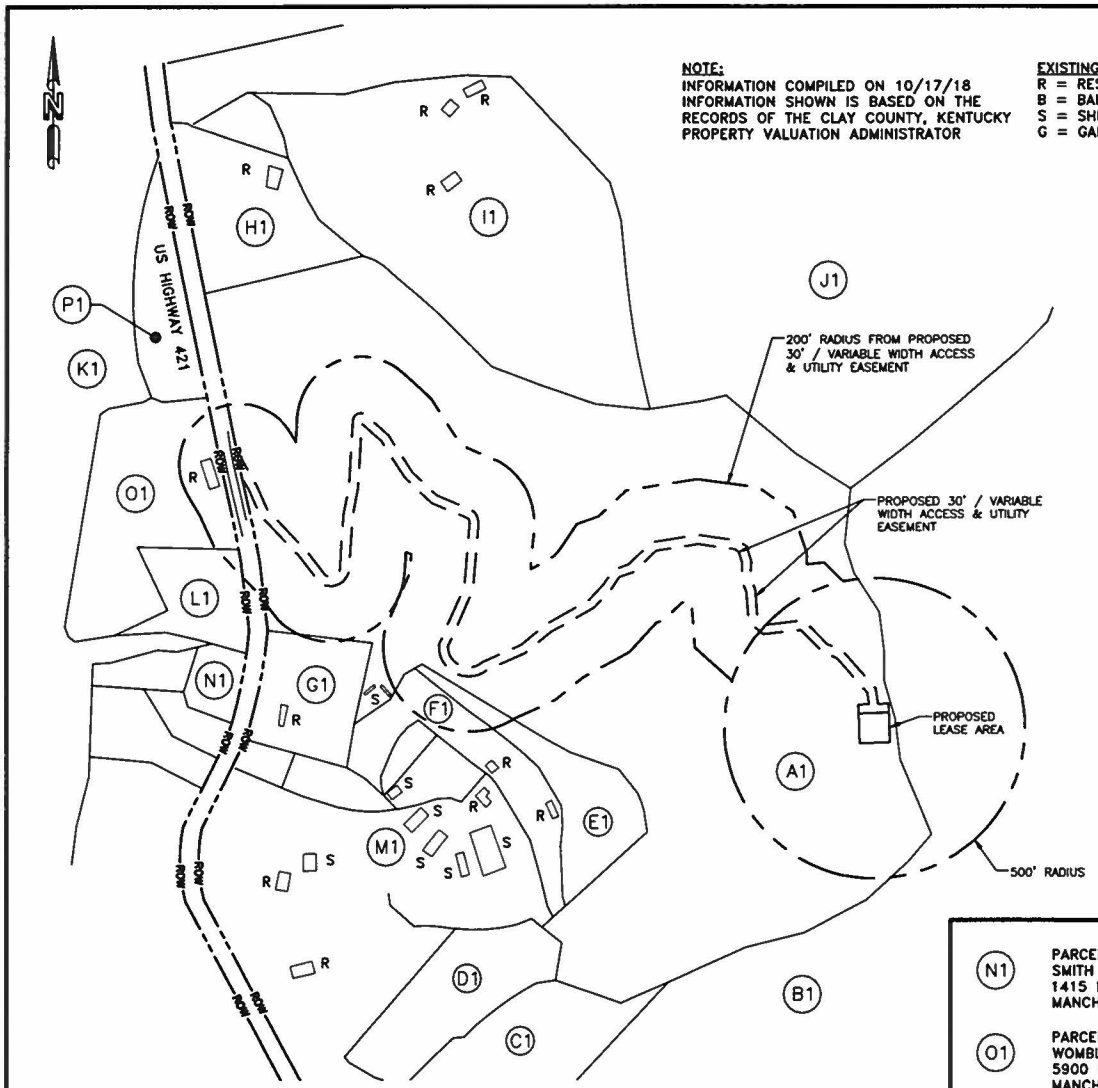


Prepared by:
Aaron Roof
Pike Legal Group PLLC
1578 Highway 44 East, Suite 6
P.O. Box 369
Shepherdsville, KY 40165-3069
Telephone: 502-955-4400 or 800-516-4293



(A1) PARCEL: 117-00-00-007.09
RANDALL & ROSEMARY WAGERS
PO BOX 466
MANCHESTER, KY 40962

(B1) PARCEL: 117-00-00-039.00
BOWLING MARVIN UNIFIED CREDIT TRUST C/O BEVERLY SEBASTIAN
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(D1) PARCEL: 117-30-00-026.00
GRAY ELONDA GAIL
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SMW

SMW #: 18-1304

at&t

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CHOP BOTTOM FN

500' RADIUS AND ABUTTERS MAP

DESIGNED: JDS
DRAWN: BMD
CHECKED: RTB

JOB #: 12568409

B-2

EXHIBIT M
COPY OF POSTED NOTICES
AND NEWSPAPER NOTICE ADVERTISEMENT

SITE NAME: CHOP BOTTOM FN
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 2018-00350 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 2018-00350 in your correspondence.

VIA TELEPHONE: 606-598-2319

Manchester Enterprise
103 Third Street
Manchester, KY 40962

RE: Legal Notice Advertisement
Site Name: Chop Bottom FN

Dear Manchester Enterprise:

Please publish the following legal notice advertisement in the next edition of *The Manchester Enterprise*:

NOTICE

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 on South Highway 421, Manchester, Kentucky 40962 (37°05'55.110" North latitude, 83°42'09.845" West longitude). You may contact the PSC for additional information concerning this matter at: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to docket number 2018-00350 in any correspondence sent in connection with this matter.

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

Sincerely,

Aaron L. Roof
Pike Legal Group, PLLC

EXHIBIT N
COPY OF RADIO FREQUENCY DESIGN SEARCH AREA

Lat: 37.101486
Lon: -83.704886
Radius: .35 miles

Chop Bottom Search Area