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# COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

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 CONVENIENCE AND NECESSITY TO CONSTRUCT A WIRELESS COMMUNICATIONS FACILITY IN THE COMMONWEALTH OF KENTUCKY IN THE COUNTY OF CRITTENDEN

CASE NO.: 2018-00395

SITE NAME: SHERIDAN

#### \* \* \* \* \* \* \*

# 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. 4<sup>th</sup> Street, Suite 2400, Louisville, KY 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 Humphrey Lane, Marion, KY 42064 (37°21'50.17" North latitude, 88°12'51.76" 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 Curt and Melody Buntin pursuant to a Deed recorded at Deed Book 199, Page 130 in the office of the County Clerk. The proposed WCF will consist of a 355-foot tall tower, with an approximately 15-foot tall lightning arrestor attached at the top, for a total height of 370-feet. The WCF will also include concrete foundations and a shelter or cabinets to accommodate the placement of the Applicant's radio electronics equipment and appurtenant equipment. The Applicant's equipment cabinet or shelter will be approved for use in the Commonwealth of Kentucky by the relevant building inspector. The WCF compound will be fenced and all access gate(s) will be secured. A description of the manner in which the proposed WCF will be constructed is attached as **Exhibit B** and **Exhibit C**.

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

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

as part of Exhibit B.

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

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

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

12. A copy of the Kentucky Airport Zoning Commission ("KAZC") Approval to construct the tower is attached as **Exhibit F**.

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

exhibit.

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

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

16. Personnel directly responsible for the design and construction of the proposed WCF are well qualified and experienced. The tower and foundation drawings for the proposed tower submitted as part of **Exhibit C** bear the signature and stamp of a professional engineer registered in the Commonwealth of Kentucky. All tower designs meet or exceed the minimum requirements of applicable laws and regulations.

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

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

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

illustrated in Exhibit B.

20. Applicant has notified every person who, according to the records of the County Property Valuation Administrator, owns property which is within 500 feet of the proposed tower or contiguous to the site property, by certified mail, return receipt requested, of the proposed construction. Each notified property owner has been provided with a map of the location of the proposed construction, the PSC docket number for this application, the address of the PSC, and has been informed of his or her right to request intervention. A list of the notified property owners and a copy of the form of the notice sent by certified mail to each landowner are attached as **Exhibit J** and **Exhibit K**, respectively.

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

22. Notice signs meeting the requirements prescribed by 807 KAR 5:063, Section 1(2) that measure at least 2 feet in height and 4 feet in width and that contain all required language in letters of required height, have been posted, one in a visible location on the proposed site and one on the nearest public road. Such signs shall remain posted for at least two weeks after filing of the Application, and a copy of the posted text is attached as **Exhibit M**. 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 rural. There are sparse residences in the area.

24. The process that was used by the Applicant's radio frequency engineers in selecting the site for the proposed WCF was consistent with the general process used for selecting all other existing and proposed WCF facilities within the proposed network design area. Applicant's radio frequency engineers have conducted studies and tests in order to develop a highly efficient network that is designed to handle voice and data traffic in the service area. The engineers determined an optimum area for the placement of the proposed facility in terms of elevation and location to provide the best quality service to customers in the service area. A radio frequency design search area prepared in reference to these radio frequency studies was considered by the Applicant when searching for sites for its antennas that would provide the coverage deemed necessary by the Applicant. A map of the area in which the tower is proposed to be located which is drawn to scale and clearly depicts the necessary search area within which the site should be located pursuant to radio frequency requirements is attached as **Exhibit N**.

25. The tower must be located at the proposed location and proposed height to provide necessary service to wireless communications users in the subject area. In addition to expanding and improving voice and data service for AT&T mobile customers, this site will also provide wireless local loop ("WLL") broadband internet service in the subject area. As a participant in the FCC's Connect America Fund Phase II (CAF II) program, AT&T is aggressively deploying WLL service infrastructure to bring expanded

internet access to residential and business customers in rural and other underserved areas. WLL will support internet access at the high speeds required to use and enjoy the most current business, education and entertainment technologies. Broadband service via WLL will be delivered from the tower to a dedicated antenna located at the home or business receiving service and will support downloads at 10 Mbps and uploads at 1 Mbps.

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

27. All responses and requests associated with this Application may be directed

to:

David A. Pike Pike Legal Group, PLLC 1578 Highway 44 East, Suite 6 P. O. Box 369 Shepherdsville, KY 40165-0369 Telephone: (502) 955-4400 Telefax: (502) 543-4410 Email: dpike@pikelegal.com WHEREFORE, Applicant respectfully request that the PSC accept the foregoing Application for filing and having met the requirements of KRS §§ 278.020(1), 278.650, and 278.665 and all applicable rules and regulations of the PSC, grant a Certificate of Public Convenience and Necessity to construct and operate the WCF at the location set forth herein.

Respectfully submitted,

Pavid a Pilse

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

# LIST OF EXHIBITS

- A FCC License Documentation
- B Site Development Plan:

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

- C Tower and Foundation Design
- D Competing Utilities, Corporations, or Persons List
- E FAA
- F Kentucky Airport Zoning Commission
- G Geotechnical Report
- H Directions to WCF Site
- I Copy of Real Estate Agreement
- J Notification Listing
- K Copy of Property Owner Notification
- L Copy of County Judge/Executive Notice
- M Copy of Posted Notices and Newspaper Notice Advertisement
- N Copy of Radio Frequency Design Search Area

# EXHIBIT A FCC LICENSE DOCUMENTATION

#### **REFERENCE COPY**

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

	Federal Co Wireless RADIO S	s Telecon	mmunica	tions	Bur	eau	0 <b>n</b>		
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DALLAS, TX 75202							et Numer IA444	Chan	nel Block A
FCC Registration Numb	per (FRN): 00032911	92					Sub-Mark	et Designa 0	tor
Market Name Kentucky 2 - Union		N.	stite						
Grant Date 08-30-2011	Effective Date 08-31-2018		<b>Diration Da</b> 0-01 <b>-20</b> 21	te	Five	Yr Build	l-Out Date	Pri	nt Date
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Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. § 606.

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Antenna Height AAT (meters)	181.700	184.800	184.200	171.50		138.000	160.700	151.100
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Azimuth(from true north)		45	90	135	180	225	270	315
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Transmitting ERP (watts)	90.126	27.369	33.582	15.535	16.134	77.108	101.371	97.219
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Antenna Height AAT (meters)	94.900	96.900	82.100	74.200	105.800	97.600	103.000	117.500
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Address: 2600 U S HIGHWAY City: ROBARDS County: WE Antenna: 1 Maximum Transmitting ERP in W Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in W	41 NORTH (76 EBSTER Stat atts: 140.820 0 82.000 74.559 atts: 140.820	45 79.900 254.016	90 83.900 181.766	135 94.200 25.285	<b>180</b> 79.700 3.250	<b>225</b> 65.300 0.514	76.600 1.146	84.400 5.470
Address: 2600 U S HIGHWAY City: ROBARDS County: WE Antenna: 1 Maximum Transmitting ERP in W Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in W Azimuth(from true north) Antenna Height AAT (meters)	41 NORTH (76 EBSTER Stat atts: 140.820 0 82.000 74.559	45 79.900 254.016 45	90 83.900 181.766 90	135 94.200 25.285 135	180 79.700 3.250 180	<b>225</b> 65.300 0.514 <b>225</b>	76.600 1.146 <b>270</b>	84.400 5.470 <b>315</b>
Address: 2600 U S HIGHWAY City: ROBARDS County: WE Antenna: 1 Maximum Transmitting ERP in W Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in W Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts)	41 NORTH (76 EBSTER Stat Vatts: 140.820 0 82.000 74.559 Vatts: 140.820 0	45 79.900 254.016	90 83.900 181.766	135 94.200 25.285	<b>180</b> 79.700 3.250 <b>180</b> 79.700	<b>225</b> 65.300 0.514	76.600 1.146	84.400 5.470
Address: 2600 U S HIGHWAY City: ROBARDS County: WE Antenna: 1 Maximum Transmitting ERP in W Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in W Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 3	41 NORTH (76 EBSTER Stat atts: 140.820 0 82.000 74.559 atts: 140.820 0 82.000 0.604	45 79.900 254.016 45 79.900	90 83.900 181.766 90 83.900	135 94.200 25.285 135 94.200	<b>180</b> 79.700 3.250 <b>180</b> 79.700	<b>225</b> 65.300 0.514 <b>225</b> 65.300	76.600 1.146 <b>270</b> 76.600	84.400 5.470 <b>315</b> 84.400
Address: 2600 U S HIGHWAY City: ROBARDS County: WE Antenna: 1 Maximum Transmitting ERP in W Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in W Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 3 Maximum Transmitting ERP in W Azimuth(from true north)	41 NORTH (76 EBSTER Stat atts: 140.820 0 82.000 74.559 atts: 140.820 0 82.000 0.604 atts: 140.820 0	45 79.900 254.016 45 79.900	90 83.900 181.766 90 83.900	135 94.200 25.285 135 94.200	<b>180</b> 79.700 3.250 <b>180</b> 79.700	<b>225</b> 65.300 0.514 <b>225</b> 65.300	76.600 1.146 <b>270</b> 76.600	84.400 5.470 <b>315</b> 84.400
Address: 2600 U S HIGHWAY City: ROBARDS County: WE Antenna: 1 Maximum Transmitting ERP in W Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in W Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 3 Maximum Transmitting ERP in W	41 NORTH (76 EBSTER Stat atts: 140.820 0 82.000 74.559 atts: 140.820 0 82.000 0.604 atts: 140.820	45 79.900 254.016 45 79.900 0.911	90 83.900 181.766 90 83.900 15.830	135 94.200 25.285 135 94.200 126.13	<b>180</b> 79.700 3.250 <b>180</b> 79.700 79.700 79.700 297.959	225 65.300 0.514 225 65.300 109.909	76.600 1.146 <b>270</b> 76.600 11.178	84.400 5.470 315 84.400 2.898



Call Sign: KNKN674		Number:			Р	rint Date	:	
Location Latitude	Longitude	(n	round Elev neters)	(1	Structure Hg meters)	t to Tip	Antenna Si Registratio	
57-14-55.114	088-20-42.2 W	17	75.8	1	08.8		1231318	
Address: 708 Mitchell Road (	a de la constancia de la c							
City: Burna County: LIVI	NGSTON State:	KY Co	nstruction	Deadline	: 12-13-2014			
	.53							
Antenna: 1								
Maximum Transmitting ERP in Azimuth(from true north)	2 Y 2 Y 2 Y 2 Y 2 Y 2 Y 2 Y 2 Y 2 Y 2 Y	45	00	125	190	225	270	216
Antenna Height AAT (meters)	0 103.700	<b>45</b> 135.300	<b>90</b> 134.600	135 160.200	180 145.200	225 154.500	270 135.200	315 128.600
Transmitting ERP (watts)	45.066	148.806	105.252	14.601	1.889	0.303	0.684	3.302
Antenna: 2		110.000	100.202	1	1.007	0.000	0.001	5.502
Maximum Transmitting ERP in	Sphield TSTLE Clamber				100			
Azimuth(from true north) Antenna Height AAT (meters)	<b>0</b> 103.700	45 135.300	90	135	180	225	270	315
Transmitting ERP (watts)	0.360	0.556	134.600 9.612	160.200 74.944	145.200 174.640	154.500 62.865	135.200 6.468	128.600
Antenna: 3	States K	0.350	9.012	/4./44	174.040	02.005	0.400	1.070
Maximum Transmitting ERP in		1.24.11						
Azimuth(from true north) Antenna Height AAT (meters)	0	45	90	135	180	225	270	315
rentenna meigne mart (meters)	103.700	135.300		160.200	145.200	154,500	135.200	128.600
Transmitting ERP (watts)	64 517	GAL AND	134.600					
Transmitting ERP (watts)	64.517	19.549	24.038	11.103	11.663	54.460	72.252	68.527
		19.549	24.038	11.103	11.663	54.460	72.252	68.527
Transmitting ERP (watts) Location Latitude	64.517 Longitude	19.549 Gi	24.038 round Elev	11.103 vation S		54.460	72.252 Antenna St	68.527
Location Latitude	Longitude	19.549 Gi (m	24.038 round Elev ieters)	11.103 vation S (1	11.663 Structure Hg meters)	54.460	72.252 Antenna St Registratio	68.527
Location Latitude	Longitude 087-49-59.4 W	19.549 Gi (m	24.038 round Elev	11.103 vation S (1	11.663 Structure Hg	54.460	72.252 Antenna St	68.527
Location Latitude 19 36-55-26.0 N Address: 699 BUSH ROAD (	Longitude 087-49-59.4 W (76154)	19.549 Gi (m 14	24.038 round Elev neters) 15.1	11.103 vation S (1 8	11.663 Structure Hg meters) 86.6	54.460	72.252 Antenna St Registratio	68.527
Location Latitude 19 36-55-26.0 N	Longitude 087-49-59.4 W (76154)	19.549 Gi (m 14	24.038 round Elev ieters)	11.103 vation S (1 8	11.663 Structure Hg meters) 86.6	54.460	72.252 Antenna St Registratio	68.527
Location Latitude 19 36-55-26.0 N Address: 699 BUSH ROAD ( City: CADIZ County: TRI	Longitude 087-49-59.4 W (76154)	19.549 Gi (m 14	24.038 round Elev neters) 15.1	11.103 vation S (1 8	11.663 Structure Hg meters) 86.6	54.460	72.252 Antenna St Registratio	68.527
Location Latitude 19 36-55-26.0 N Address: 699 BUSH ROAD ( City: CADIZ County: TRI Antenna: 1	Longitude 087-49-59.4 W (76154) GG State: KY	19.549 Gi (m 14	24.038 round Elev neters) 15.1	11.103 vation S (1 8	11.663 Structure Hg meters) 86.6	54.460	72.252 Antenna St Registratio	68.527
Location Latitude 19 36-55-26.0 N Address: 699 BUSH ROAD ( City: CADIZ County: TRI	Longitude 087-49-59.4 W (76154) GG State: KY	19.549 Gi (m 14 Construc	24.038 round Elev neters) 15.1	11.103 vation S (1 8	11.663 Structure Hg meters) 86.6	54.460	72.252 Antenna St Registratio	68.527
Location Latitude 19 36-55-26.0 N Address: 699 BUSH ROAD ( City: CADIZ County: TRI Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters)	Longitude 087-49-59.4 W (76154) GG State: KY n Watts: 140.820	19.549 Gi (m 14	24.038 round Elev teters) 15.1 ction Dead	11.103 ration S (1 8 line: 12-1	11.663 Structure Hg meters) 66.6 3-2014	54.460	72.252 Antenna St Registratio 1244917	68.527 ructure n No.
Location Latitude 19 36-55-26.0 N Address: 699 BUSH ROAD ( City: CADIZ County: TRI Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts)	Longitude 087-49-59.4 W (76154) GG State: KY n Watts: 140.820 0	19.549 Gi (m 14 Construe	24.038 round Elev teters) 15.1 ction Dead	11.103 ration S (1 8 line: 12-1	11.663 Structure Hg meters) 66.6 3-2014 180 83.700	54.460 to Tip 225	72.252 Antenna St Registratio 1244917 270	68.527 rructure n No. 315
Location Latitude 19 36-55-26.0 N Address: 699 BUSH ROAD ( City: CADIZ County: TRI Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2	Longitude 087-49-59.4 W (76154) GG State: KY n Watts: 140.820 0 69.300 178.878	19.549 Gi (m 14 Construe 45 79.700	24.038 round Elev teters) 55.1 ction Dead 90 74.700	11.103 ration S (1 8 line: 12-1 135 83.600	11.663 Structure Hg meters) 66.6 3-2014 180 83.700	225 107.800	72.252 Antenna St Registratio 1244917 270 90.100	68.527 ructure n No. 315 68.300
Location Latitude 19 36-55-26.0 N Address: 699 BUSH ROAD ( City: CADIZ County: TRI Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2	Longitude 087-49-59.4 W (76154) GG State: KY n Watts: 140.820 0 69.300 178.878	19.549 Gi 14 Construct 45 79.700 232.715	24.038 round Elev teters) 55.1 ction Dead 90 74.700	11.103 ration S (1 8 line: 12-1 135 83.600	11.663 Structure Hg meters) 66.6 3-2014 180 83.700	225 107.800	72.252 Antenna St Registratio 1244917 270 90.100	68.527 ructure n No. 315 68.300
Location Latitude 19 36-55-26.0 N Address: 699 BUSH ROAD ( City: CADIZ County: TRI Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters)	Longitude 087-49-59.4 W (76154) GG State: KY n Watts: 140.820 0 69.300 178.878 n Watts: 140.820	19.549 Gi (m 14 Construe 45 79.700	24.038 round Elev teters) 55.1 ction Dead 90 74.700 257.641	11.103 vation S (1 8 line: 12-1 135 83.600 101.135	11.663 Structure Hg meters) 66.6 13-2014 180 83.700 34.491	225 107.800 13.229	72.252 Antenna St Registratio 1244917 270 90.100 17.593	68.527 ructure n No. 315 68.300 39.790
Location Latitude 19 36-55-26.0 N Address: 699 BUSH ROAD ( City: CADIZ County: TRI Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts)	Longitude 087-49-59.4 W (76154) GG State: KY n Watts: 140.820 0 69.300 178.878 n Watts: 140.820 0	19.549 Gi (m 14 Construct 45 79.700 232.715 45	24.038 round Elev teters) 55.1 ction Dead 90 74.700 257.641 90	11.103 ration S (1 8 line: 12-1 135 83.600 101.135 135	11.663 Structure Hgr meters) 66.6 13-2014 180 83.700 34.491 180 83.700	225 107.800 13.229 225	72.252 Antenna St Registratio 1244917 270 90.100 17.593 270	68.527 ructure n No. 315 68.300 39.790 315
Location Latitude 19 36-55-26.0 N Address: 699 BUSH ROAD ( City: CADIZ County: TRI Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 3	Longitude 087-49-59.4 W (76154) GG State: KY n Watts: 140.820 0 69.300 178.878 n Watts: 140.820 0 69.300 0.637	19.549 Gi (m 14 Construe 45 79.700 232.715 45 79.700	24.038 round Elev teters) 15.1 ction Dead 90 74.700 257.641 90 74.700	11.103 ration S (1 8 line: 12-1 135 83.600 101.135 135 83.600	11.663 Structure Hgr meters) 66.6 13-2014 180 83.700 34.491 180 83.700	225 107.800 225 107.800 13.229 225 107.800	72.252 Antenna St Registratio 1244917 270 90.100 17.593 270 90.100	68.527 ructure n No. 315 68.300 39.790 315 68.300
Location Latitude 19 36-55-26.0 N Address: 699 BUSH ROAD ( City: CADIZ County: TRI Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts)	Longitude 087-49-59.4 W (76154) GG State: KY n Watts: 140.820 0 69.300 178.878 n Watts: 140.820 0 69.300 0.637 n Watts: 140.820	19.549 Gi (m 14 Construct 45 79.700 232.715 45 79.700 0.967	24.038 round Elev teters) 55.1 ction Dead 90 74.700 257.641 90 74.700 16.790	11.103 Pation S (1 8 11.103 (1 8 8 11.103 (1 8 12-1 135 83.600 101.135 83.600 133.407	11.663 Structure Hg meters) 36.6 3-2014 180 83.700 34.491 180 83.700 314.491	225 107.800 13.229 225 107.800 113.888	72.252 Antenna St Registratio 1244917 270 90.100 17.593 270 90.100 11.612	68.527 ructure n No. 315 68.300 39.790 315 68.300 3.032
Location Latitude 19 36-55-26.0 N Address: 699 BUSH ROAD ( City: CADIZ County: TRI Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 3 Maximum Transmitting ERP in	Longitude 087-49-59.4 W (76154) GG State: KY n Watts: 140.820 0 69.300 178.878 n Watts: 140.820 0 69.300 0.637	19.549 Gi (m 14 Construe 45 79.700 232.715 45 79.700	24.038 round Elev teters) 15.1 ction Dead 90 74.700 257.641 90 74.700	11.103 ration S (1 8 line: 12-1 135 83.600 101.135 135 83.600	11.663 Structure Hgr meters) 66.6 13-2014 180 83.700 34.491 180 83.700	225 107.800 225 107.800 13.229 225 107.800	72.252 Antenna St Registratio 1244917 270 90.100 17.593 270 90.100	68.527 ructure n No. 315 68.300 39.790 315 68.300



Call Sign: KNKN674		File	Number	:		P	rint Date	:	
Location Latitude	Long		(1	Fround Elev meters)	vation	Structure Hg (meters)	t to Tip	Antenna S Registratio	
20 37-11-26.3 N		3-12.6 W	1	52.1		77.4		1246381	
Address: Gilliand Street (761	Dult_	100 M	1.04098000001007 XXX80		2	anter e fai parsente	50)		
City: St. Charles County: I	HOPKIN	IS State	:KY C	onstructior	n Deadli	ne: 12-13-201	4		
M. V.									
Antenna: 1 Maximum Transmitting ERP in	n Watter	140 820							
Azimuth(from true north)	n watts.	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	B.P.	85.000	86.700	95.000	78.400		76.700	86.700	87.100
Transmitting ERP (watts)	in the second	203.086	265.427	293.723	115.33		15.161	20.131	44.941
Antenna: 2 Maximum Transmitting ERP in	wette.	140 820							
Azimuth(from true north)	i vratts.	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)		85.000	86.700	95.000	78.400	Particular International	76.700	86.700	87.100
Transmitting ERP (watts) Antenna: 3		0.343	21.692	75.219	151.41		160.909	59.465	41.743
Maximum Transmitting ERP in	n Watte	140 820							
Azimuth(from true north)		0	45	90	135	180	225	270	315
Antenna Height AAT (meters)		85.000	86.700	95.000	78.400		76.700	86.700	87.100
Transmitting ERP (watts)		141.930	28.758	15.209	5.387	9.463	101.790	279.413	329.510
Location Latitude	Longi	tude		round Elev neters)	ation	Structure Hg (meters)	t to Tip	Antenna Sa Registratio	
22 36-50-58.2 N	087-5	0-48.6 W	Self1	53.9		79.2		1267262	
Address: 80 Old Dover St (10	)4037)			asser.					
City: Cadiz County: TRIG		te: KY	Construc	tion Deadli	ne: 12-1	3-2014			
				1324					
Antenna: 1				理的	14				
Maximum Transmitting ERP in Azimuth(from true north)	n Watts:		15	a states	10	100			
		0	45	90	135	180	225	270	315
Antenna Height AAT (meters)		82 800	82 800	02 000	77 000	60 (00	77 000		79.100
Antenna Height AAT (meters) Transmitting ERP (watts)		82.800 18.872	82.800 58.121	93.000	77.800		77.800 0.117	101.200	
Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2		18.872	82.800 58.121	93.000 45.266	77.800 7.066	59.600 0.416	77.800 0.117	0.138	1.803
Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP it	n Watts:	18.872 140.820	58.121	45.266	7.066	0.416	0.117	0.138	1.803
Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in Azimuth(from true north)	n Watts:	18.872	58.121 45	45.266 90	7.066 135	0.416 180	0.117 225	0.138 <b>270</b>	1.803 315
Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts)	n Watts:	18.872 140.820 0	58.121	45.266	7.066	0.416 180 59.600	0.117	0.138	1.803
Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 3		18.872 140.820 0 82.800 0.725	58.121 45 82.800	45.266 <b>90</b> 93.000	7.066 135 77.800	0.416 180 59.600	0.117 225 77.800	0.138 <b>270</b> 101.200	1.803 315 79.100
Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 3 Maximum Transmitting ERP in		18.872 140.820 0 82.800 0.725 140.820	58.121 45 82.800 1.296	45.266 90 93.000 23.184	7.066 135 77.800 191.27	0.416 180 59.600 2 358.769	0.117 225 77.800 140.039	0.138 270 101.200 7.340	1.803 315 79.100 1.443
Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP ir		18.872 140.820 0 82.800 0.725	58.121 45 82.800	45.266 <b>90</b> 93.000	7.066 135 77.800	0.416 180 59.600 2 358.769 180	0.117 225 77.800	0.138 <b>270</b> 101.200	1.803 315 79.100



Call Sign: KNKN674		File	Number:			Р	rint Date	:	
Location Latitude	Longit	t <b>ude</b> 5-49.1 W	(m	ound Elev eters) 8.9	ation	Structure Hg (meters)	t to Tip	Antenna Si Registratio	
57 05 2217 11			12	8.9		110.9		1039771	
Address: 1229 US Highway 6	254		Oto to V	V C		D III 10	12 2014		
City: LEDBETTER County	y: LIVIN	GSTUN	State: K	Y Consi	ruction	Deadline: 12-	13-2014		
Antenna: 1	Ø.	- The second							
Maximum Transmitting ERP in	Watts:	140.820							
Azimuth(from true north)	1000	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)		102.900	82.200	104.500	91.900	96.800	102.300	107.600	103.500
Transmitting ERP (watts)	and a	54.977	122.838	60.144	6.545	0.429	0.247	0.264	7.232
Maximum Transmitting ERP in	Watts:	140.820							
Azimuth(from true north)		×0 (9)	45	90	135	180	225	270	315
Antenna Height AAT (meters)	16 A.S.	102.900	82.200	104.500	91.900		102.300	107.600	103.500
Transmitting ERP (watts) Antenna: 3		0.173	0.486	7.193	42.880	59.119	18.759	1.594	0.210
Maximum Transmitting ERP in	Watts:	140.820							
Azimuth(from true north)		0	45	90	135	180	225	270	315
Antenna Height AAT (meters)		102.900	82.200	104.500	91.900		102.300	107.600	103.500
Transmitting ERP (watts)		35.020	2.113	0.624	0.665	7.469	90.508	311.698	261.190
Location Latitude	Longit	ude	19-24	ound Elev eters)	ation	Structure Hg (meters)	t to Tip	Antenna So Registratio	
24 37-38-13.3 N	087-38	3-10.0 W	15	9.1		79.2		1267707	
Address: 465 State Rt 56 East	(106265	5)		1. A.					
City: Sebree County: WEB	STER	State: KY	Const	ruction De	adline:	12-13-2014			
				All and	31				
Antenna: 1 Monimum Transmitting EDD is		140.920							
Maximum Transmitting ERP in	Watts:		45	00	136	190	225	770	215
Maximum Transmitting ERP in Azimuth(from true north)	Watts:	140.820 0 105.000	<b>45</b> 105 100	90 116 800	135	180	225	<b>270</b>	315
Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts)	ı Watts:	0	<b>45</b> 105.100 250.740	<b>90</b> 116.800 177.382	135 107.90 18.902	0 101.900	<b>225</b> 98.200 0.503	<b>270</b> 108.100 0.510	
Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2		0 105.000 84.996	105.100	116.800	107.90	0 101.900	98.200	108.100	108.900
Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in Azimuth(from true north)		0 105.000 84.996 140.820 0	105.100 250.740 45	116.800	107.90	0 101.900	98.200	108.100	108.900
Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters)		0 105.000 84.996 140.820 0 105.000	105.100 250.740 45 105.100	116.800 177.382 90 116.800	107.90 18.902 135 107.90	0 101.900 1.480 180 0 101.900	98.200 0.503 225 98.200	108.100 0.510 <b>270</b> 108.100	108.900 7.043 <b>315</b> 108.900
Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts)		0 105.000 84.996 140.820 0	105.100 250.740 45	116.800 177.382 90	107.90 18.902 135	0 101.900 1.480 180 0 101.900	98.200 0.503 225	108.100 0.510 <b>270</b>	108.900 7.043 <b>315</b>
Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 3	ı Watts:	0 105.000 84.996 140.820 0 105.000 0.535	105.100 250.740 45 105.100	116.800 177.382 90 116.800	107.90 18.902 135 107.90	0 101.900 1.480 180 0 101.900	98.200 0.503 225 98.200	108.100 0.510 <b>270</b> 108.100	108.900 7.043 <b>315</b> 108.900
Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 3 Maximum Transmitting ERP in Azimuth(from true north)	ı Watts:	0 105.000 84.996 140.820 0 105.000 0.535 140.820 0	105.100 250.740 45 105.100 0.947 45	116.800 177.382 90 116.800	107.90 18.902 135 107.90	0 101.900 1.480 180 0 101.900	98.200 0.503 225 98.200	108.100 0.510 <b>270</b> 108.100	108.900 7.043 <b>315</b> 108.900
Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 3 Maximum Transmitting ERP in	ı Watts:	0 105.000 84.996 140.820 0 105.000 0.535 140.820	105.100 250.740 45 105.100 0.947	116.800 177.382 90 116.800 17.057	107.90 18.902 135 107.90 141.48	0 101.900 1.480 180 0 101.900 3 263.966 180	98.200 0.503 225 98.200 103.686	108.100 0.510 <b>270</b> 108.100 5.459	108.900 7.043 <b>315</b> 108.900 1.065



Call Sign: KNKN674	File	Number:			Р	rint Date	:	
North State	ongitude		round Elev teters)		Structure Hg (meters)	t to Tip	Antenna S Registratio	
25 37-25-05.2 N 0	87-29-33.7 W	15	57.6	i i i	91.4		1218437	
Address: 700 Sunset Road (7613	9)							
City: Hanson County: HOPKI	NS State: K	Y Const	truction D	eadline:	12-13-2014			
	a troug							
Antenna: 1 Maximum Transmitting ERP in W	attes 140 920							
Azimuth (from true north)	alls: 140.620 0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	101.000	117.900	109.900	106.600		96.000	86.200	96.100
Transmitting ERP (watts)	226.434	210.842	258.284	142.43		42.878	39.508	78.904
Maximum Transmitting ERP in W	atts: 140.820							
Azimuth(from true north)	011	45	90	135	180	225	270	315
Antenna Height AAT (meters)	101.000	117.900	109.900	106.600		96.000	86.200	96.100
Transmitting ERP (watts) Antenna: 3	0.317	1.779	10.365	29.781	29.842	34.388	7.949	2.571
Maximum Transmitting ERP in W	atts: 140.820	Sec.						
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters) Transmitting ERP (watts)	101.000	117.900	109.900	106.600		96.000	86.200	96.100
	196.098	76.485	83.392	29.118	37.964	175.475	241.895	220.669
Location Latitude L	ongitude	(EUG2)	round Elev ieters)		Structure Hg (meters)	t to Tip	Antenna Sa Registratio	
26 36-55-17.0 N 0	88-05-48.0 W	11	78.0		154.6		1044000	
Address: 9659 Trace Rd (112832	!)	10						
City: GRAND RIVERS Count	ty: LYON St	ate: KY	Construct	tion Dea	dline: 12-13-2	2014		
		100	1003-01-01-025	127.4				
			ALC: NO					
The second								
Maximum Transmitting ERP in W		AE	00	135	190	225	270	216
Maximum Transmitting ERP in W Azimuth(from true north)	0	<b>45</b> 129 300	<b>90</b>	135	180 120 200	<b>225</b>	<b>270</b>	<b>315</b>
Maximum Transmitting ERP in W Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts)		<b>45</b> 129.300 324.639	<b>90</b> 134.100 227.876	135 138.000 24.201		<b>225</b> 146.100 0.650	<b>270</b> 139.600 0.675	
Maximum Transmitting ERP in W Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2	0 126.900 111.221	129.300	134.100	138.000	120.200	146.100	139.600	133.300
Maximum Transmitting ERP in W Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in W Azimuth(from true north)	0 126.900 111.221 atts: 140.820 0	129.300 324.639 <b>45</b>	134.100	138.000	120.200	146.100	139.600	133.300
Maximum Transmitting ERP in W Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in W Azimuth(from true north) Antenna Height AAT (meters)	0 126.900 111.221 atts: 140.820 0 126.900	129.300 324.639 <b>45</b> 129.300	134.100 227.876 <b>90</b> 134.100	138.000 24.201 135 138.000	120.200 1.923 180 120.200	146.100 0.650 <b>225</b> 146.100	139.600 0.675 <b>270</b> 139.600	133.300 9.306 <b>315</b> 133.300
Maximum Transmitting ERP in W Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in W Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts)	0 126.900 111.221 atts: 140.820 0	129.300 324.639 <b>45</b>	134.100 227.876 90	138.000 24.201	) 120.200 1.923 180 ) 120.200	146.100 0.650 <b>225</b>	139.600 0.675 <b>270</b>	133.300 9.306 <b>315</b>
Maximum Transmitting ERP in W Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in W Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 3 Maximum Transmitting ERP in W	0 126.900 111.221 atts: 140.820 0 126.900 0.698	129.300 324.639 <b>45</b> 129.300	134.100 227.876 <b>90</b> 134.100	138.000 24.201 135 138.000	120.200 1.923 180 120.200	146.100 0.650 <b>225</b> 146.100	139.600 0.675 <b>270</b> 139.600	133.300 9.306 <b>315</b> 133.300
Maximum Transmitting ERP in W Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in W Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 3 Maximum Transmitting ERP in W Azimuth(from true north)	0 126.900 111.221 atts: 140.820 0 126.900 0.698 atts: 140.820 0	129.300 324.639 45 129.300 1.253 45	134.100 227.876 <b>90</b> 134.100	138.000 24.201 135 138.000	120.200 1.923 180 120.200	146.100 0.650 <b>225</b> 146.100	139.600 0.675 <b>270</b> 139.600	133.300 9.306 <b>315</b> 133.300
Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in W Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 3 Maximum Transmitting ERP in W	0 126.900 111.221 atts: 140.820 0 126.900 0.698 atts: 140.820	129.300 324.639 45 129.300 1.253	134.100 227.876 90 134.100 22.511	138.000 24.201 135 138.000 183.957	120.200 1.923 180 120.200 7 343.394 180	146.100 0.650 <b>225</b> 146.100 132.128	139.600 0.675 <b>270</b> 139.600 7.021	133.300 9.306 <b>315</b> 133.300 1.377



Call Sign: KNKN674		File	Number:			P	rint Date	:	
Location Latitude	Longi	tude		round Elev neters)		Structure Hg (meters)	to Tip	Antenna Si Registratio	
27 37-16-31.3 N	088-1	3-54.9 W	18	32.9		78.9		1276270	
Address: Baker Road (10970:	5)								
City: Salem County: LIVI	NGSTO	N State:	KY Co	nstruction	Deadlin	ne: 12-13-2014			
RT &	All States					-			
Antenna: 1	W Ca	ar at							
Maximum Transmitting ERP in	n Watts:			0.0	125	100			
Azimuth(from true north) Antenna Height AAT (meters)		<b>0</b> 114.600	45 84.000	90 70 200	135	180	225	270	315
Transmitting ERP (watts)	17	38.924	137.255	79.200 114.557	116.20 20.344		133.000 0.273	101.800 0.287	118.000 2.696
Antenna: 2		Contraction of the	101.200	114.557	20.344	0.707	0.213	0.207	2.070
Maximum Transmitting ERP in Azimuth(from true north)	Watts:	CONSIDER CONSIDER ST	15	00	170	100	225	350	210
Antenna Height AAT (meters)		0 114.600	45 84.000	90 70 200	135	<b>180</b> 0 139.200	225 133.000	<b>270</b> 101.800	315 118.000
Transmitting ERP (watts)	20	0.142	0.151	79.200 2.797	116.20 30.883		32.393	3.173	0.142
Antenna: 3		一些年期间对		2	00.000	701710	52.575	5.175	0.112
Maximum Transmitting ERP in Azimuth(from true north)	1 Watts:	140.820 0	AF	00	175	100	225	370	215
Antenna Height AAT (meters)		114.600	45 84.000	<b>90</b> 79.200	135 116.20	<b>180</b> 0 139.200	225 133.000	<b>270</b> 101.800	315 118.000
Transmitting ERP (watts)		42.248	2.712	0.290	0.346	1.143	17.493	109.449	141.842
Location Latitude	Longi	tude	18, 18, 18, 18, 18, 18, 18, 18, 18, 18,	round Elev		Structure Hg	to Tip	Antenna St	
••			1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	neters)		(meters)		Registratio	n No.
	087-5	6-10.8 W	12	22.2		78.3		1277118	
29 37-45-39.9 N									
	13354)			ALC: NO DECIDENT					
Address: 2400 Hill Top Rd (1		State: K	Y Cons	struction D	eadline	12-13-2014			
Address: 2400 Hill Top Rd (1 City: Uniontown County: U		State: K	Y Cons	struction D	eadline	12-13-2014			
Address: 2400 Hill Top Rd (1 City: Uniontown County: U	JNION		Y Cons	struction D	eadline	12-13-2014			
Address: 2400 Hill Top Rd (1 City: Uniontown County: U Antenna: 1 Maximum Transmitting ERP in	JNION	140.820	1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -				225	270	315
Address: 2400 Hill Top Rd (1 City: Uniontown County: U Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters)	JNION		45 89.400	90	135	12-13-2014 180 68.700	<b>225</b> 71,100	<b>270</b> 83,600	<b>315</b> 91,500
Address: 2400 Hill Top Rd (1 City: Uniontown County: U Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts)	JNION	140.820 0	45			180		and a second second second	and a state of the state of the
Address: 2400 Hill Top Rd (1 City: Uniontown County: U Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2	JNION Watts:	140.820 0 89.600 85.207	<b>45</b> 89.400	90 80.800	135 71.800	<b>180</b> 68.700	71.100	83.600	91.500
Address: 2400 Hill Top Rd (1 City: Uniontown County: U Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2	JNION Watts:	140.820 0 89.600 85.207	<b>45</b> 89.400 249.259	<b>90</b> 80.800 175.535	135 71.800 18.698	180 68.700 1.475	71.100 0.504	83.600 0.518	91.500 7.133
Address: 2400 Hill Top Rd (1 City: Uniontown County: U Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters)	JNION Watts:	140.820 0 89.600 85.207 140.820	<b>45</b> 89.400	90 80.800	135 71.800	180 68.700 1.475 180	71.100	83.600	91.500
Address: 2400 Hill Top Rd (1 City: Uniontown County: U Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts)	JNION Watts:	140.820 0 89.600 85.207 140.820 0	45 89.400 249.259 45	90 80.800 175.535 90	135 71.800 18.698 135	180 68.700 1.475 180 68.700	71.100 0.504 225	83.600 0.518 270	91.500 7.133 <b>315</b>
Address: 2400 Hill Top Rd (1 City: Uniontown County: U Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 3	Watts:	140.820 0 89.600 85.207 140.820 0 89.600 0.535	45 89.400 249.259 45 89.400	90 80.800 175.535 90 80.800	135 71.800 18.698 135 71.800	180 68.700 1.475 180 68.700	71.100 0.504 <b>225</b> 71.100	83.600 0.518 270 83.600	91.500 7.133 <b>315</b> 91.500
Address: 2400 Hill Top Rd (1 City: Uniontown County: U Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 3 Maximum Transmitting ERP in Azimuth(from true north)	Watts:	140.820 0 89.600 85.207 140.820 0 89.600 0.535	45 89.400 249.259 45 89.400	90 80.800 175.535 90 80.800	135 71.800 18.698 135 71.800	180 68.700 1.475 180 68.700	71.100 0.504 <b>225</b> 71.100	83.600 0.518 270 83.600	91.500 7.133 <b>315</b> 91.500
Address: 2400 Hill Top Rd (1 City: Uniontown County: U Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 3 Maximum Transmitting ERP in	Watts:	140.820 0 89.600 85.207 140.820 0 89.600 0.535 140.820	45 89.400 249.259 45 89.400 0.954	90 80.800 175.535 90 80.800 17.190	135 71.800 18.698 135 71.800 141.67	<b>180</b> 68.700 1.475 <b>180</b> 68.700 0 263.404	71.100 0.504 225 71.100 102.884	83.600 0.518 270 83.600 5.438	91.500 7.133 <b>315</b> 91.500 1.063



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Call Sign: KNKN674	File	Number:			P	rint Date	:	
Location Latitude	Longitude	(m	ound Elev eters)	ation	Structure Hg (meters)	t to Tip	Antenna So Registratio	
J/-41-42.J IN	087-51-18.4 W	132	2.0		94.5		1267058	
Address: 3220 US HWY 60E City: Morganfield County:		VV Com	trustion	Deadlin	e: 12-13-2014			
City: Morganneld County:	UNION State:	KI COI	struction	Deaum	e: 12-13-2014			
Antenna: 1	and the set of the set							
Maximum Transmitting ERP in	Watts: 140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters) Transmitting ERP (watts)	109.100	100.100	100.700	96.600		88.700	99.300	108.400
Antenna: 2	106.976	314.584	221.567	23.581	1.860	0.633	0.650	8.963
Maximum Transmitting ERP in								
Azimuth(from true north) Antenna Height AAT (meters)	<b>0</b> 109.100	45	90	135	180	225	270	315
Transmitting ERP (watts)	0.820	100.100	100.700 29.715	96.600 214.06		88.700 155.955	99.300 10.552	108.400
Antenna: 3		1200	29.715	214.00	407.522	155.755	10.552	1.070
Maximum Transmitting ERP in Azimuth(from true north)	Watts: 140.820	到 一	90	135	100	225	270	215
Antenna Height AAT (meters)	109.100	45 100.100	90 100.700	96.600	<b>180</b> 86,100	225 88.700	270 99.300	315 108,400
Transmitting ERP (watts)	49.939	3.203	0.746	0.511	3.999	39.761	205.788	245.836
		10/00/			~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~			
Location Latitude	Longitude		ound Elev	ation	Structure Hg	to Tip	Antenna St	
32 37-31-26 3 N	007 20 04 0 W	100 302.00	eters)		(meters)		Registratio	n No.
JI-JI-20.5 IV	087-30-04.9 W	154	+.0		61.0			
Address: 415 GOWER ROAL	· /	0						
City: SLAUGHTERS Cour	ity: WEBSTER	State: KY	Constr	uction L	Deadline: 12-1	3-2014		
1								
Antenna: 1 Maximum Transmitting ERP in	Watter 140.920							
Azimuth (from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	80.400	78.200	79.800	87.100	and a second sec	56.800	62.000	81.500
Transmitting ERP (watts) Antenna: 2	145.839	137.853	173.595	96.532		25.525	31.352	46.907
Maximum Transmitting ERP in	Watts: 140.820				45/			
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	80.400	78.200	79.800	87.100		56.800	62.000	81.500
Transmitting ERP (watts) Antenna: 3	0.401	2.488	19.967	61.274	71.719	69.254	13.936	4.590
Maximum Transmitting ERP in	Watts: 140.820					1 Bin		
Azimuth(from true north)	0	45	90	135	180	225	270	315
		78.200	70 000	07 100	73.300	56.800	62.000	81.500
Antenna Height AAT (meters) Transmitting ERP (watts)	80.400 187.925	53.508	79.800 38.931	87.100 14.790		144.147	284.024	296.932



Call Sign: KNKN674	File	Number:			Р	rint Date	:	
Location Latitude	Longitude 087-39-41.5 W	(n	round Elev neters) 75.0	(1	tructure Hg meters) 0.8	t to Tip	Antenna So Registratio 1044198	
Address: 4669 DAYLIGHT	ROAD (76138)							
City: DAWSON SPRINGS	County: HOPKIN	S State	KY Co	nstructio	n Deadline:	12-13-20	14	
1000	100							
Antenna: 1	W ale alle							
Maximum Transmitting ERP i								
Azimuth(from true north) Antenna Height AAT (meters)		45 117.800	90 96 400	135	180	225	270	315
Transmitting ERP (watts)	163.523	304.158	86.400 300.409	106.700 80.103	97.300 19.811	102.300 4.884	104.900 7.700	117.00
Antenna: 2	Call Provide State	501.150	500.107	00.105	17.011	1.001	1.100	20.000
Maximum Transmitting ERP i Azimuth(from true north)		45	90	135	180	225	270	315
Antenna Height AAT (meters)		45	90 86.400	106.700	97.300	102.300	104,900	117.000
Transmitting ERP (watts)	0.534	28.458	124.093	251.295	156.234	243.121	99.933	75.450
Antenna: 3 Maximum Transmitting ERP i	Watter 140 920							
Azimuth(from true north)		45	90	135	180	225	270	315
Antenna Height AAT (meters)		117.800	86.400	106.700	97.300	102.300	104.900	117.00
Transmitting ERP (watts)	65.084	6.858	2.416	0.901	2.074	45.621	222.646	303.96
Location Latitude	Longitude	2. P. 16	round Elev		tructure Hg	t to Tip	Antenna St	
34 36-52-21.8 N Address: 5101 HOPKINSVII	087-45-00.6 W LLE RD (76142)	(m 17	neters) 71.6	(1 4	neters) 0.2	t to Tip	Antenna So Registratio	
Address: 5101 HOPKINSVI	087-45-00.6 W LLE RD (76142)	(m 17	neters)	(1 4	neters) 0.2	t to Tip		
34 36-52-21.8 N Address: 5101 HOPKINSVII City: CADIZ County: TRI	087-45-00.6 W LLE RD (76142)	(m 17	neters) 71.6	(1 4	neters) 0.2	t to Tip		
34 36-52-21.8 N Address: 5101 HOPKINSVII	087-45-00.6 W LLE RD (76142) IGG State: KY	(m 17	neters) 71.6	(1 4	neters) 0.2	t to Tip		
34 36-52-21.8 N Address: 5101 HOPKINSVII City: CADIZ County: TRI Antenna: 1 Maximum Transmitting ERP i Azimuth(from true north)	087-45-00.6 W LLE RD (76142) IGG State: KY n Watts: 140.820 0	(m 17 Construc 45	neters) 71.6	(1 4	neters) 0.2	t to Tip		
34 36-52-21.8 N Address: 5101 HOPKINSVII City: CADIZ County: TRI Antenna: 1 Maximum Transmitting ERP i Azimuth(from true north) Antenna Height AAT (meters)	087-45-00.6 W LLE RD (76142) IGG State: KY In Watts: 140.820 0 61.300	(m 17 Construe 45 39.800	neters) 71.6 ction Dead 90 55.100	(1 4) line: 12-1 135 58.400	neters) 0.2 3-2014 180 63.600	<b>225</b> 61.500	<b>Registratio</b> 270 78.600	n No. 315 58.600
34 36-52-21.8 N Address: 5101 HOPKINSVII City: CADIZ County: TRI Antenna: 1 Maximum Transmitting ERP i Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts)	087-45-00.6 W LLE RD (76142) IGG State: KY n Watts: 140.820 0	(m 17 Construc 45	neters) 71.6 ction Dead 90	(1 4) line: 12-1 135	neters) 0.2 3-2014 180	225	Registratio	n No. 315 58.600
34 36-52-21.8 N Address: 5101 HOPKINSVII City: CADIZ County: TRI Antenna: 1 Maximum Transmitting ERP i Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP i	087-45-00.6 W LLE RD (76142) IGG State: KY in Watts: 140.820 0 61.300 409.684 n Watts: 140.820	(m 17 Construc 45 39.800 153.393	90 55.100 15.491	(1 4) line: 12-1 135 58.400 4.017	<b>180</b> 63.600 0.835	<b>225</b> 61.500 1.293	<b>270</b> 78.600 21.975	<b>315</b> 58.600 176.493
34 36-52-21.8 N Address: 5101 HOPKINSVII City: CADIZ County: TRI Antenna: 1 Maximum Transmitting ERP i Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP i Azimuth(from true north)	087-45-00.6 W LLE RD (76142) IGG State: KY n Watts: 140.820 0 61.300 409.684 n Watts: 140.820 0	(m 17 Construe 45 39.800 153.393 45	90 55.100 15.491	(1 4) line: 12-1 135 58.400 4.017 135	neters) 0.2 3-2014 180 63.600 0.835 180	225 61.500 1.293 225	<b>270</b> 78.600 21.975 <b>270</b>	n No. 315 58.600 176.49 315
34 36-52-21.8 N Address: 5101 HOPKINSVII City: CADIZ County: TRI Antenna: 1 Maximum Transmitting ERP i Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP i Azimuth(from true north) Antenna Height AAT (meters)	087-45-00.6 W LLE RD (76142) IGG State: KY n Watts: 140.820 0 61.300 409.684 n Watts: 140.820 0 61.300	(m 17 Construe 45 39.800 153.393 45 39.800	90 55.100 55.100 55.100	(1 4) line: 12-1 135 58.400 4.017 135 58.400	neters) 0.2 3-2014 180 63.600 0.835 180 63.600	225 61.500 1.293 225 61.500	<b>Registratio 270</b> 78.600 21.975 <b>270</b> 78.600	n No. 315 58.600 176.49 315 58.600
34 36-52-21.8 N Address: 5101 HOPKINSVII City: CADIZ County: TRI Antenna: 1 Maximum Transmitting ERP i Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP i Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 3	087-45-00.6 W LLE RD (76142) IGG State: KY In Watts: 140.820 0 61.300 409.684 n Watts: 140.820 0 61.300 0.605	(m 17 Construe 45 39.800 153.393 45	90 55.100 15.491	(1 4) line: 12-1 135 58.400 4.017 135	neters) 0.2 3-2014 180 63.600 0.835 180	225 61.500 1.293 225	<b>270</b> 78.600 21.975 <b>270</b>	n No. 315 58.600 176.499 315
34       36-52-21.8 N         Address: 5101 HOPKINSVII         City: CADIZ       County: TRI         Antenna: 1         Maximum Transmitting ERP i         Azimuth(from true north)         Antenna Height AAT (meters)         Transmitting ERP (watts)         Antenna: 1         Maximum Transmitting ERP i         Azimuth(from true north)         Antenna: 2         Maximum Transmitting ERP i         Antenna Height AAT (meters)         Transmitting ERP (watts)         Antenna: 3         Maximum Transmitting ERP i	087-45-00.6 W LLE RD (76142) IGG State: KY In Watts: 140.820 0 61.300 409.684 n Watts: 140.820 0 61.300 0.605 n Watts: 140.820	(m 17 Construe 45 39,800 153,393 45 39,800 18,273	90 55.100 55.100 55.100 55.100 90 55.100 97.570	(1 4) 135 58.400 4.017 135 58.400 290.196	neters) 0.2 3-2014 180 63.600 0.835 180 63.600 262.860	225 61.500 1.293 225 61.500 286.449	<b>270</b> 78.600 21.975 <b>270</b> 78.600 82.832	<b>315</b> 58.600 176.493 <b>315</b> 58.600 46.273
34 36-52-21.8 N Address: 5101 HOPKINSVII City: CADIZ County: TRI Antenna: 1 Maximum Transmitting ERP i Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP i Azimuth(from true north)	087-45-00.6 W LLE RD (76142) IGG State: KY in Watts: 140.820 0 61.300 409.684 in Watts: 140.820 0 61.300 0.605 in Watts: 140.820 0 0	(m 17 Construe 45 39.800 153.393 45 39.800 18.273 45	90 55.100 15.491 90 55.100 90 90 90	(n 4) line: 12-1 135 58.400 4.017 135 58.400 290.196 135	neters) 0.2 3-2014 180 63.600 0.835 180 63.600 262.860 180	225 61.500 1.293 225 61.500 286.449 225	<b>270</b> 78.600 21.975 <b>270</b> 78.600 82.832 <b>270</b>	n No. 315 58.600 176.49 315 58.600 46.273 315
34       36-52-21.8 N         Address: 5101 HOPKINSVII         City: CADIZ       County: TRI         Antenna: 1         Maximum Transmitting ERP i         Azimuth(from true north)         Antenna: 1         Maximum Transmitting ERP i         Antenna: 2         Maximum Transmitting ERP i         Azimuth(from true north)         Antenna: 1         Maximum Transmitting ERP i         Aitenna: 3         Maximum Transmitting ERP i         Antenna: 3	087-45-00.6 W LLE RD (76142) IGG State: KY In Watts: 140.820 0 61.300 409.684 n Watts: 140.820 0 61.300 0.605 n Watts: 140.820	(m 17 Construe 45 39,800 153,393 45 39,800 18,273	90 55.100 55.100 55.100 55.100 90 55.100 97.570	(1 4) 135 58.400 4.017 135 58.400 290.196	neters) 0.2 3-2014 180 63.600 0.835 180 63.600 262.860	225 61.500 1.293 225 61.500 286.449	<b>270</b> 78.600 21.975 <b>270</b> 78.600 82.832	n No. 315 58.600 176.49 315 58.600 46.273 315 58.600
34       36-52-21.8 N         Address: 5101 HOPKINSVII         City: CADIZ       County: TRI         Antenna: 1         Maximum Transmitting ERP i         Azimuth(from true north)         Antenna Height AAT (meters)         Transmitting ERP (watts)         Antenna: 2         Maximum Transmitting ERP i         Azimuth(from true north)         Antenna Height AAT (meters)         Transmitting ERP (watts)         Antenna: 3         Maximum Transmitting ERP i         Azimuth(from true north)         Antenna: 3         Maximum Transmitting ERP i         Azimuth(from true north)         Antenna: 3         Maximum Transmitting ERP i         Azimuth(from true north)         Antenna Height AAT (meters)         Transmitting ERP (watts)	087-45-00.6 W LLE RD (76142) IGG State: KY In Watts: 140.820 0 61.300 409.684 n Watts: 140.820 0 61.300 0.605 n Watts: 140.820 0 61.300 0.605	(m 17 Construe 45 39.800 153.393 45 39.800 18.273 45 39.800	90 55.100 55.100 55.100 90 55.100 97.570 90 55.100	(n 4) line: 12-1 135 58.400 4.017 135 58.400 290.196 135 58.400	neters) 0.2 3-2014 180 63.600 0.835 180 63.600 262.860 180 63.600	225 61.500 1.293 225 61.500 286.449 225 61.500	<b>270</b> 78.600 21.975 <b>270</b> 78.600 82.832 <b>270</b> 78.600	n No. 315 58.600 176.49 315 58.600 46.273 315 58.600
34       36-52-21.8 N         Address: 5101 HOPKINSVII         City: CADIZ       County: TRI         Antenna: 1         Maximum Transmitting ERP i         Azimuth(from true north)         Antenna Height AAT (meters)         Transmitting ERP (watts)         Antenna Ileight AAT (meters)         Transmitting ERP (watts)         Antenna Ileight AAT (meters)         Transmitting ERP (watts)         Antenna: 3         Maximum Transmitting ERP i         Azimuth(from true north)         Antenna: 3         Maximum Transmitting ERP i         Artenna: 4         Maximum Transmitting ERP i         Artenna: 5         Maximum Transmitting ERP i         Artenna: 4         Maximum Transmitting ERP i         Artenna: 5         Maximum Transmitting ERP i         Artenna: 8         Maximum Transmitting ERP i         Artenna: 9         Transmitting ERP (watts)         Transmitting ERP (watts)         Control Points:	087-45-00.6 W LLE RD (76142) IGG State: KY In Watts: 140.820 0 61.300 409.684 n Watts: 140.820 0 61.300 0.605 n Watts: 140.820 0 61.300 0.605	(m 17 Construe 45 39.800 153.393 45 39.800 18.273 45 39.800	90 55.100 55.100 55.100 90 55.100 97.570 90 55.100	(n 4) line: 12-1 135 58.400 4.017 135 58.400 290.196 135 58.400	neters) 0.2 3-2014 180 63.600 0.835 180 63.600 262.860 180 63.600	225 61.500 1.293 225 61.500 286.449 225 61.500	<b>270</b> 78.600 21.975 <b>270</b> 78.600 82.832 <b>270</b> 78.600	n No. 315 58.600 176.49 315 58.600 46.273 315 58.600
34       36-52-21.8 N         Address: 5101 HOPKINSVII         City: CADIZ       County: TRI         Antenna: 1         Maximum Transmitting ERP i         Azimuth(from true north)         Antenna: Height AAT (meters)         Transmitting ERP (watts)         Antenna: 2         Maximum Transmitting ERP i         Azimuth(from true north)         Antenna Height AAT (meters)         Fransmitting ERP (watts)         Antenna: 3         Maximum Transmitting ERP i         Azimuth(from true north)         Antenna: 3         Maximum Transmitting ERP i         Azimuth(from true north)         Antenna Height AAT (meters)         Transmitting ERP (watts)         Antenna Height AAT (meters)         Transmitting ERP (watts)	087-45-00.6 W LLE RD (76142) IGG State: KY n Watts: 140.820 0 61.300 409.684 n Watts: 140.820 0 61.300 0.605 n Watts: 140.820 0 61.300 15.711	(m 17 Construe 45 39.800 153.393 45 39.800 18.273 45 39.800	90 55.100 55.100 55.100 90 55.100 97.570 90 55.100	(n 4) line: 12-1 135 58.400 4.017 135 58.400 290.196 135 58.400	neters) 0.2 3-2014 180 63.600 0.835 180 63.600 262.860 180 63.600	225 61.500 1.293 225 61.500 286.449 225 61.500	<b>270</b> 78.600 21.975 <b>270</b> 78.600 82.832 <b>270</b> 78.600	n No. 315 58.600 176.499 315 58.600 46.273 315

City: LOUISVILLE County: State: KY

Telephone Number: (502)329-4700

File Number:

**Print Date:** 

## Waivers/Conditions:

Call Sign: KNKN674

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).

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

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	Federal Communic Wireless Telecomm			
+COMNIB SIGN+	RADIO STATION A	UTHORIZATIO	DN	
LICENSEE: NEW CINC	ULAR WIRELESS PCS, LLC			
ATTN: LESLIE WILSON			Call Sign KNLF251	File Number
NEW CINGULAR WIRELESS PCS, LLC 208 S AKARD ST., RM 1016 DALLAS, TX 75202				dio Service CS Broadband
Registration Number (FR	N): 0003291192			
Grant Date 06-02-2015	Effective Date 08-31-2018	Expiration 1 06-23-202		Print Date
Market Number MTA026	- A Martin State and	el Block A	Sub-	Market Designator 15
	Market Louisville-Lexir			
1st Build-out Date 06-23-2000	<b>2nd Build-out Date</b> 06-23-2005	3rd Build-out	Date	4th Build-out Date
vers/Conditions:	4 A	AT TH		
	e condition that, in the event tha territory (Canada/United States)			

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).

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.

#### **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.

#### Call Sign: KNLF251

File Number:

**Print Date:** 

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

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

Spectrum Lease Associated with this License. See Spectrum Leasing Arrangement Letter dated 12/06/2004 and File # 0001918512.

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

Call Sign: KNLF251	File Num	ber:	Print Date:	
700 MHz Relicensed A	rea Information:			
Market	Market Name	Buildout Deadline	<b>Buildout Notification</b>	Status
		and the second		
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I	Federal Communics Wireless Telecomm		ssion		
COMMISSION	RADIO STATION A	UTHORIZATION	1		
ATTN: CECIL J MATHE			Call Sign KNLH653	File Number	
NEW CINGULAR WIRELESS PCS, LLC 208 S AKARD ST., RM 1015 DALLAS, TX 75202			Radio Service CW - PCS Broadband		
FCC Registration Number (FR	N): 0003291192				
<b>Grant Date</b> 04-11-2017	Effective Date 08-31-2018	Expiration Da 04-28-2027	ite	Print Date	
Market Number BTA339	二、二、一、二、二、二、二、二、二、二、二、二、二、二、二、二、二、二、二、二	Channel Block F		Sub-Market Designator 0	
	<b>Market</b> Paducah-Mu <b>r</b> ray				
<b>1st Build-out Date</b> 04-28-2002	2nd Build-out Date	3rd Build-out D	ate 4	th Build-out Date	
Waivers/Conditions: This authorization is subject to th authorized in an adjacent foreign km (45 miles) of the United State adjacent foreign territory and to e	territory (Canada/United States) s/Canada border shall be require	, future coordination of ed to eliminate any harm	any base station ful interference	transmitters within 72	

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.

Call Sign: KNLH653

#### File Number:

**Print Date:** 

Grant conditioned upon consummation of the assignment of license to Banana Communications, LLC within 180 days of June 9, 2008, per Memorandum Opinion and Order, DA 08-1380, released June 9, 2008.

Call Sign: KNLH653	File N	umber:	Print Date:	
700 MHz Relicensed A	Area Information:			
Market	Market Name	Buildout Deadline	Buildout Notification	Status

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F	Federal Communica Wireless Telecomm		sion		
Commission	RADIO STATION A	UTHORIZATION			
LICENSEE: NEW CING	ULAR WIRELESS PCS, LLC				
ATTN: CECIL J MATHEW			Call Sign POI215	File Number	
NEW CINGULAR WIRE 208 S AKARD ST., RM 1 DALLAS, TX 75202		Radio Service CW - PCS Broadband			
CC Registration Number (FR	N): 0003291192				
<b>Grant Date</b> 05-27-2015	Effective Date 08-31-2018	Expiration Date 06-23-2025	Expiration Date Print Da 06-23-2025		
Market Number MTA026	2000 A 10	Channel Block A		Sub-Market Designator 17	
	Market Louisville-Lexin				
1st Build-out Date 10-23-2000	<b>2nd Build-out Date</b> 06-23-2005	3rd Build-out Dat	e 4	th Build-out Date	
Vaivers/Conditions:	e condition that, in the event that	t systems using the same	frequencies as	granted herein are	
tuthorized in an adjacent foreign t am (45 miles) of the United States adjacent foreign territory and to en	territory (Canada/United States) s/Canada border shall be require	, future coordination of an d to eliminate any harmfu	ny base station al interference	transmitters within 72	
License renewal granted on a con-	ditional basis, subject to the outo	come of FCC proceeding	WT Docket N	o. 10-112 (see FCC	

## **Conditions:**

10-86, paras. 113 and 126).

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.

## Call Sign: WPOI215 File Number:

**Print Date:** 

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

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

Spectrum Lease Associated with this License. See Spectrum Leasing Arrangement Letter dated 12/06/2004 and File # 0001918579.

The Spectrum Leasing Arrangement, which became effective upon approval of application file number 0001918579, was terminated on 04/14/2005. Please 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).

Call Sign: WPOI215 **Print Date:** File Number: 700 MHz Relicensed Area Information: Market **Market** Name **Buildout Deadline Buildout Notification** Status

#### **REFERENCE COPY**

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	Federal Communica Wireless Telecomm				
COMNISSION	RADIO STATION A	UTHORIZATIO	ON		
ATTN: CECIL J MATH NEW CINGULAR WIR	RELESS PCS, LLC	_		File Number o Service	
208 S AKARD ST., RM DALLAS, TX 75202 FCC Registration Number (FI			CW - PC	S Broadband	
Grant Date 06-03-2011	Effective Date 08-31-2018	Expiration 05-29-202			
Market Number BTA339	+-1.0X-34-0tt -	Channel Block C		Sub-Market Designator 1	
	Market Paducah-Murray				
<b>1st Build-out Date</b> 05-29-2006	2nd Build-out Date	3rd Build-out	Date	th Build-out Date	
authorized in an adjacent foreig km (45 miles) of the United Sta adjacent foreign territory and to	the condition that, in the event that n territory (Canada/United States), tes/Canada border shall be require ensure continuance of equal acces onditional basis, subject to the outc	, future coordination d to eliminate any ha ss to the frequencies l	of any base station rmful interference by both countries.	transmitters within 72 to operations in the	
License renewal granted on a co 10-86, paras. 113 and 126).	inditional basis, subject to the outc	come of FCC proceed	ing WT Docket N	lo. 10-112 (see FCC	

#### **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.

Call Sign: WPSJ971

File Number:

**Print Date:** 

700 MHz Relicensed Area Information:

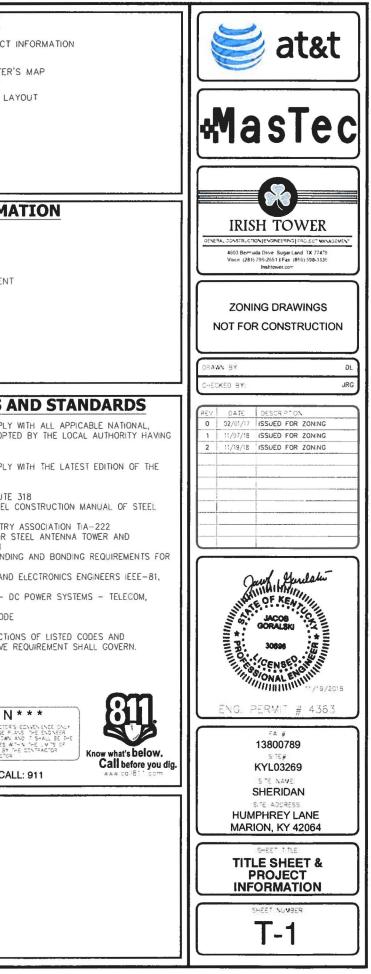


# EXHIBIT B

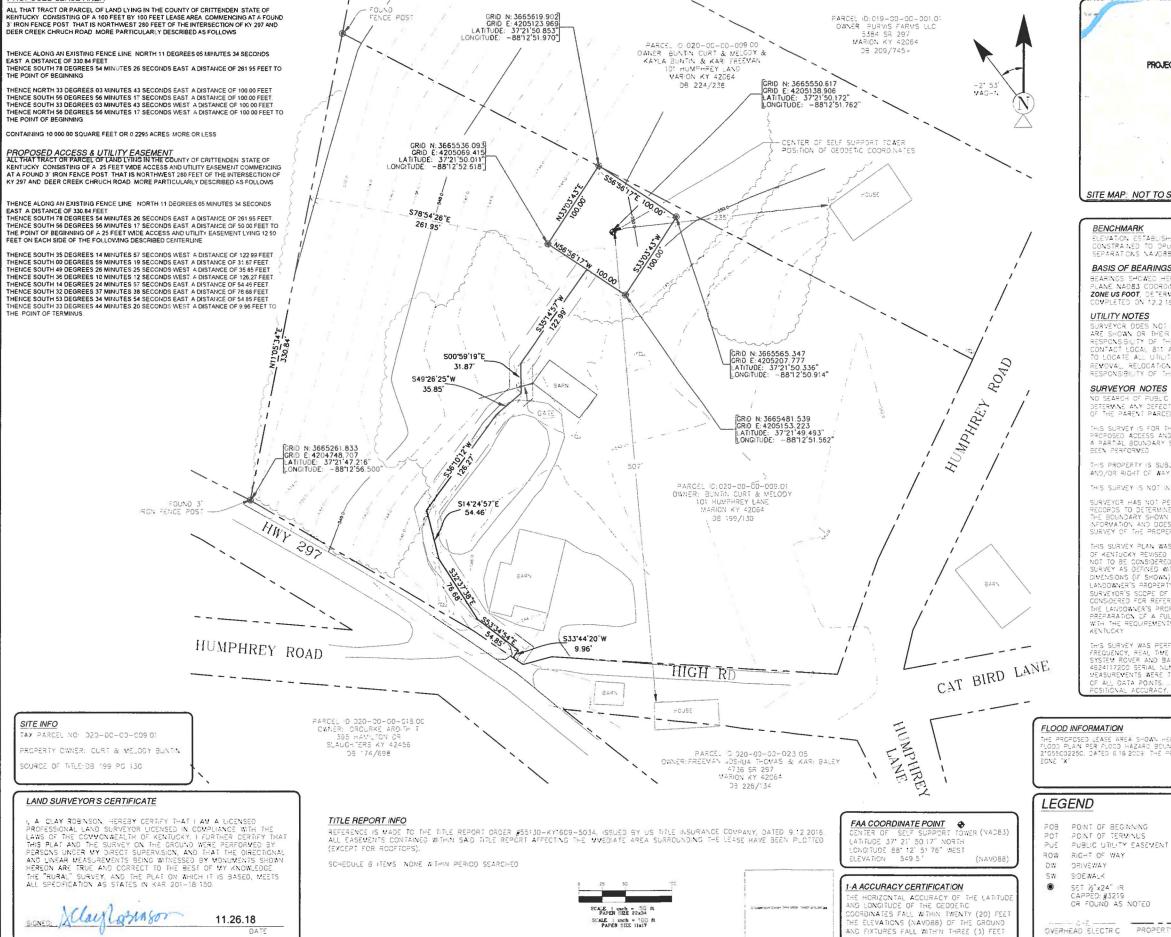
# SITE DEVELOPMENT PLAN:

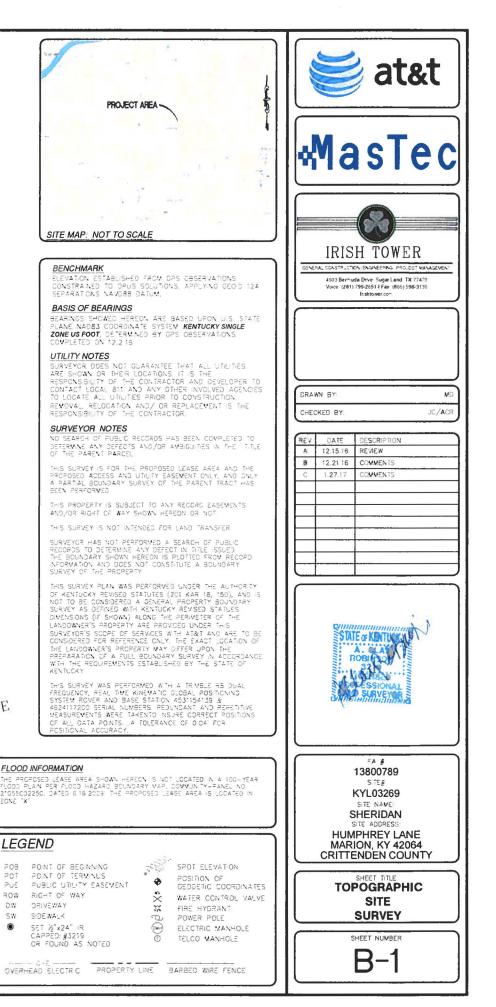
500' VICINITY MAP LEGAL DESCRIPTIONS FLOOD PLAIN CERTIFICATION SITE PLAN VERTICAL TOWER PROFILE

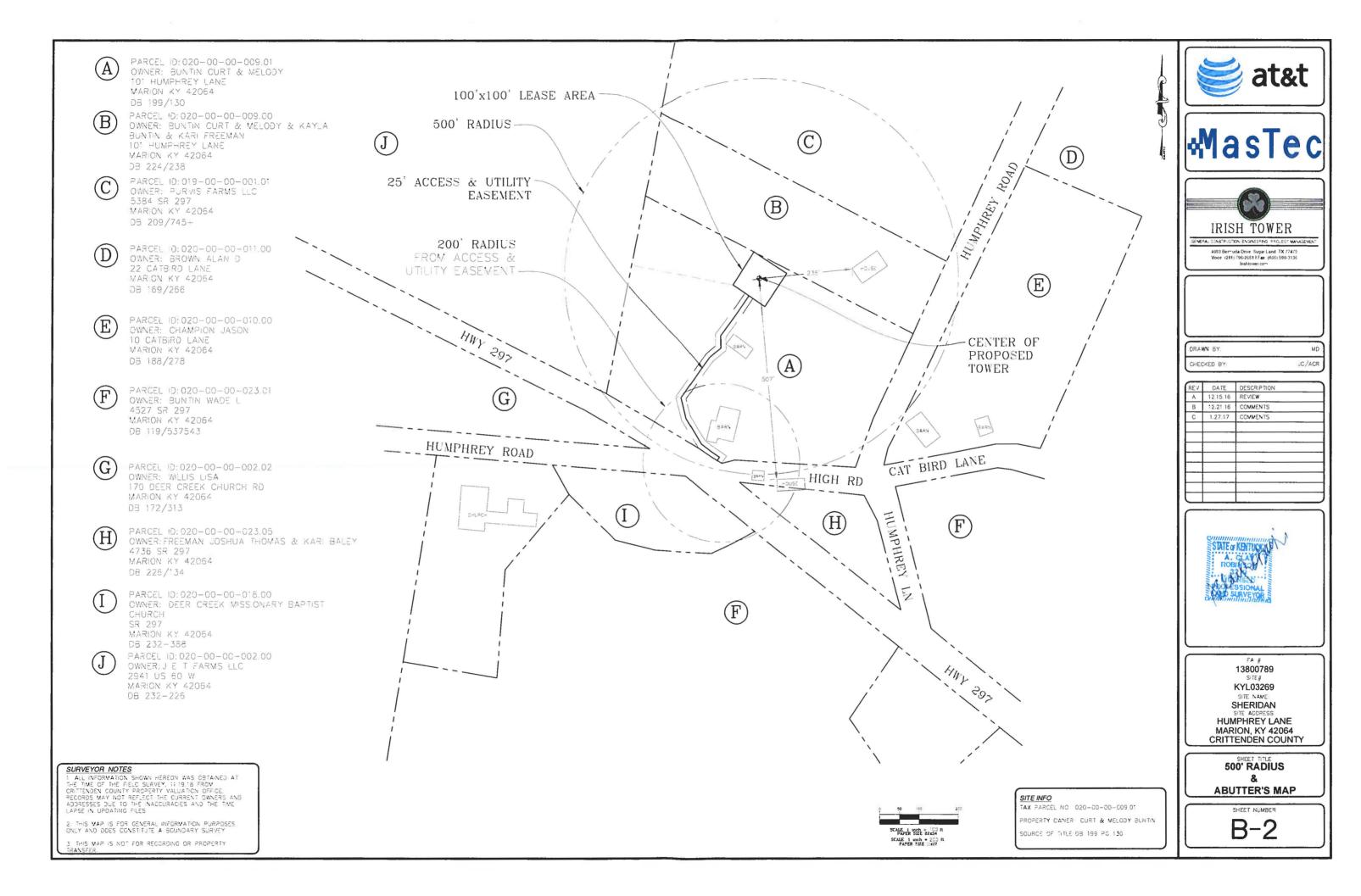
at&t			
		CONTACT INFORM	
SITE NAME: K	SITE NUMBER: YL03269	ELECTRIC COMPANY: KENTUCKY UTILITIES COMPANY PHONE: 800-981-0600 IELEPHONE COMPANY: AT&T PHONE: 800-991-0500 BUILDING CODES	
		CONTRACTOR'S WORK SHALL COMPL' STATE AND LOCAL CODES AS ADOP JURISDICTION FOR THE LOCATION. CONTRACTOR'S WORK SHALL COMPL' FOLLOWING STANDARDS: • AMERICAN CONCRETE INSTITUTI	
PROPOSED RAW LAND SITE WITH PROPOSED 38 TOWER WITH A 15' LIGHTNING ARRESTOR ANI OF A 80" x 80" WALK IN CABINET AND GE	DINSTALLATION	AMERICAN INSTITUTE OF STEEL CONSTRUCTION     TELECOMMUNICATIONS INDUSTR     STRUCTURAL STANDARDS FOR SUPPORTING STRUCTURES TIA-601     COMMERCIAL BUILDING GROUNE TELECOMMUNICATIONS     INSTITUTE FOR ELECTRICAL AN IEEE 1100, IEEE C62.41     ANSI T1.311, FOR TELECOM – ENVIRONMENTAL PROTECTION     2014 KENTUCKY BUILDING COD 2014 NEC FOR ANY CONFLICTS BETWEEN SECT STANDARDS, THE MOST RESTRICTIVE	
VICINITY MAP SITE 37.363937 B& 214378 107 S Main St, Marion, KY 42064 Marion,	PROJECT INFORMATION         COUNTY:       CRITTENDEN         SITE_ADDRESS:       HUMPHREY LANE MARION, KY 42064         APPLICANT:       NEW CINGULAR WRELESS PCS, LLC, A DELAWARE LIMITED LIABILITY COMPANY, D/B/A AT&T MOBILITY MEIDINGER TOWER 462 S. 4TH ST, SUITE 2400 LOUISVILLE, KY 40202	* * * CAUTION	
PROJECT SCOPE OF WORK ZONING DRAWINGS FOR: CONSTRUCTION OF A PROPOSED UNMANNED TELECOMMUNICATIONS FACILITY. SITE WORK: PROPOSED TOWER, UNMANNED EQUIPMENT SHELTER AN GENERATOR ON A CONCRETE FOUNDATIONS, AND UTILITY INSTALLATIONS.	L <u>ATITUDE:</u> 37' 21' 50.17" L <u>ONGITUDE:</u> -88' 12' 51.76"		

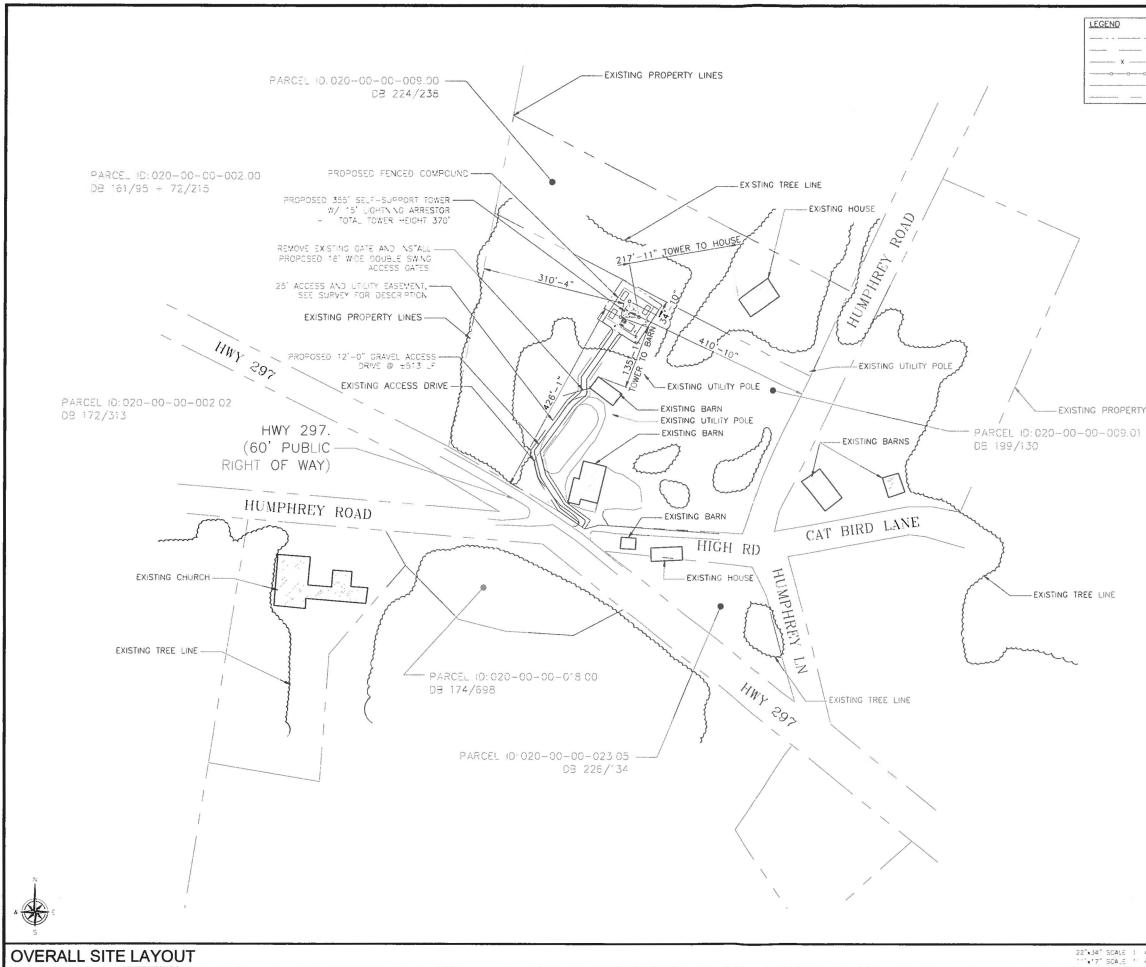


#### PROPOSED LEASE AREA

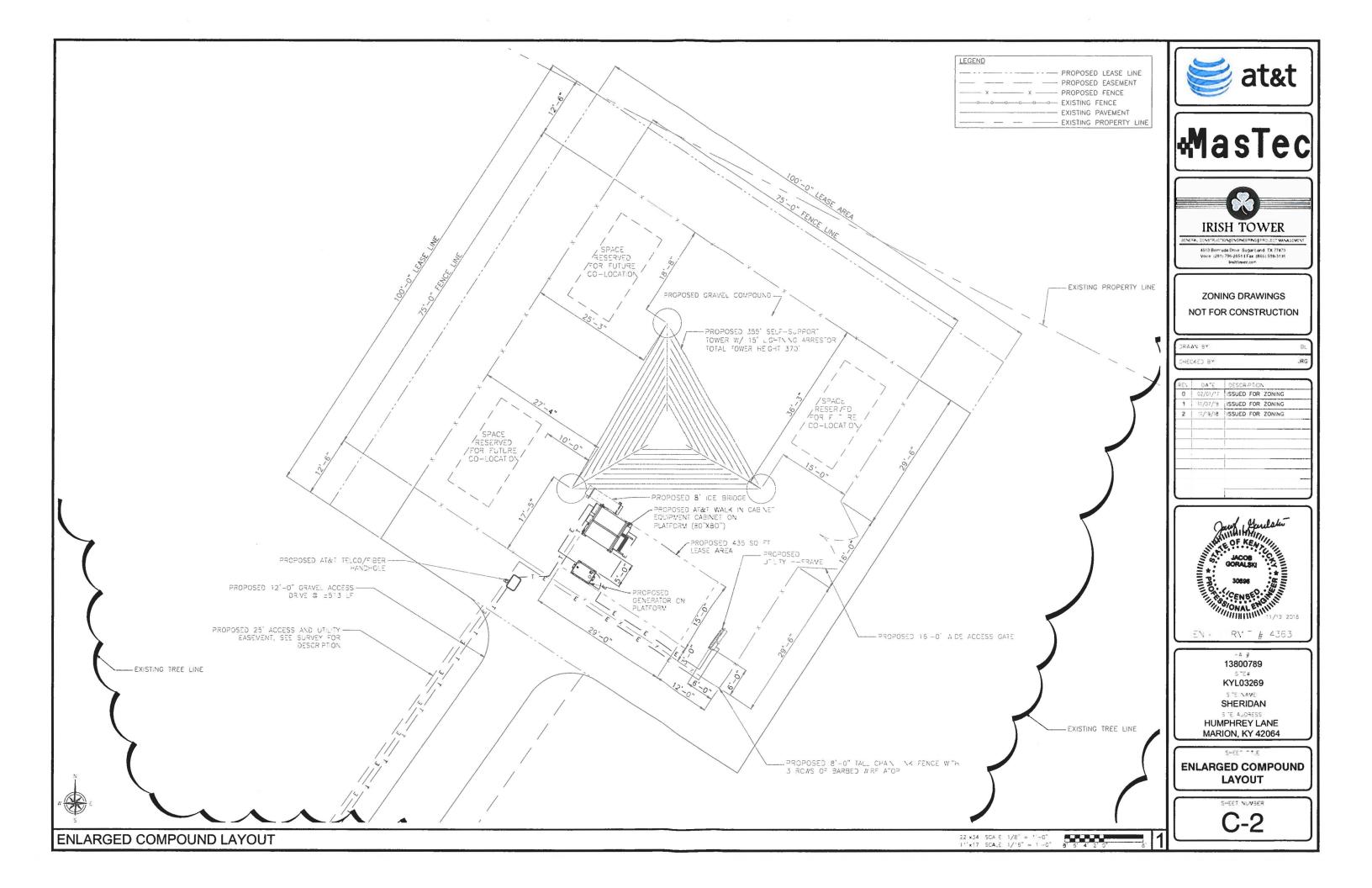


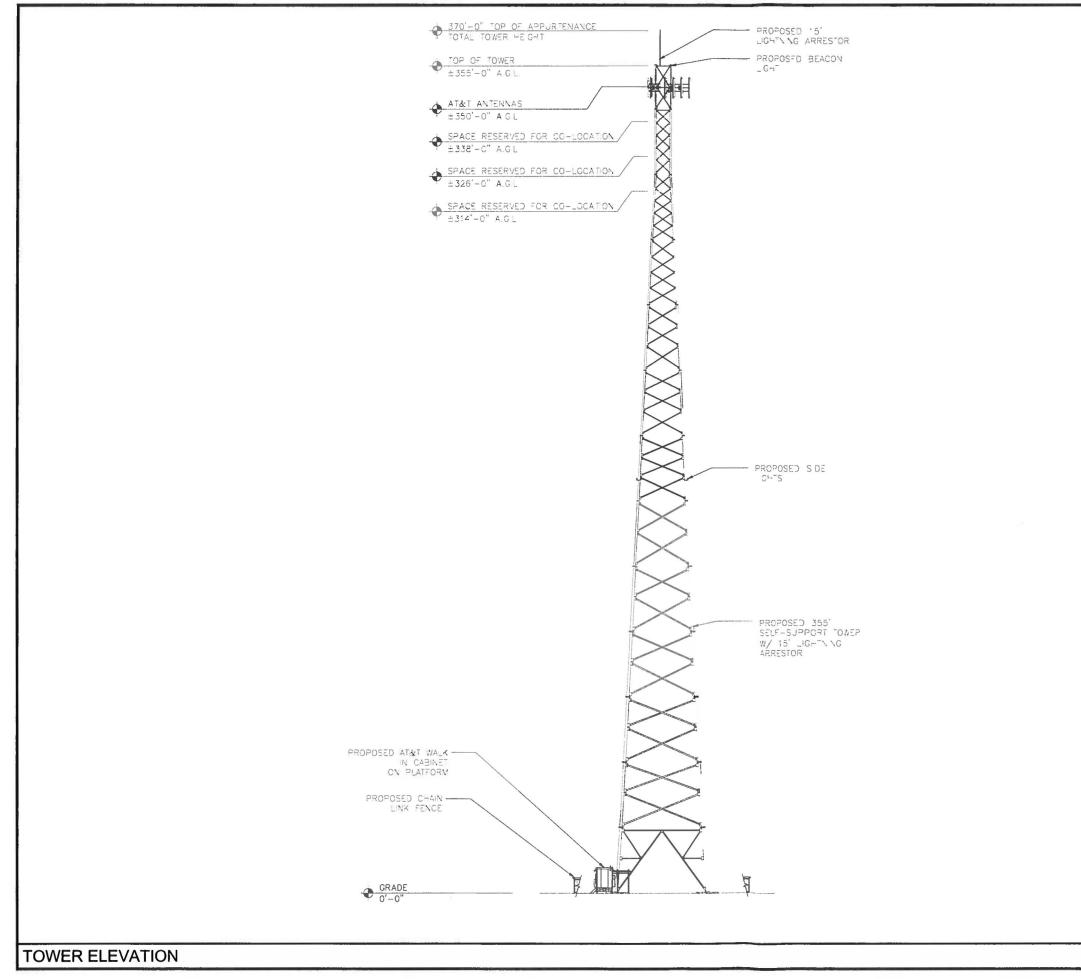






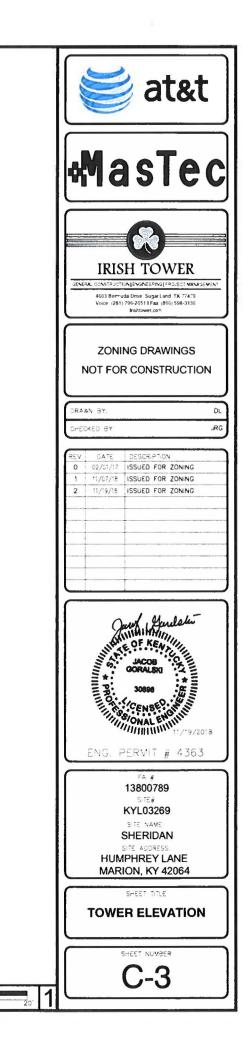
PROPOSED LEASE LINE     PROPOSED EASEMENT     PROPOSED FENCE     EXISTING FENCE     EXISTING PAVEMENT     EXISTING PROPERTY LINE	at&t
	<pre>MasTec</pre>
	IRISH TOWER SINGAL CASTRUCTUATEGING FROM CT VANGEVENT 4603 Berr uda Drive Sugar Land TX 77479 Voice (211) 779-5251 Fab (66) 598-3136 Instituter.com
	ZONING DRAWINGS NOT FOR CONSTRUCTION
	۵۲ کم کې ۵۲ کې ۲۹ کې
Y LINES	A** J     DA*E     P P* CN       0     2 0* /**     SSUED FOR ZONING       1     *1 7 *B     ISSUED FOR ZONING       2     1* /*9 *B     SSUED FOR ZONING
	B. SOBSE BEING
	3800789 5°€#
	KYL03269 SITE NAVE SHERIDAN SITE ADRESS
	HUMPHREY LANE MARION, KY 42064
	OVERALL SITE LAYOUT
= 100 -0' = 200 -0' 00' 50' 0' 00'	C-1
- 200 -0 00 00 0	





22"x34" SCALE: 1" = 20'-0" :1"x17" SCALE: 1" = 40'-0"

20 10 0



## EXHIBIT C TOWER AND FOUNDATION DESIGN



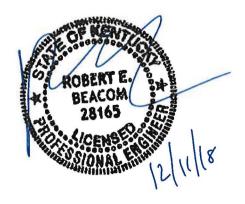
Structural Design Report 355' S3TL Series HD1 Self-Supporting Tower Site: Sheridan, KY

> Prepared for: AT&T by: Sabre Towers & Poles <sup>™</sup>

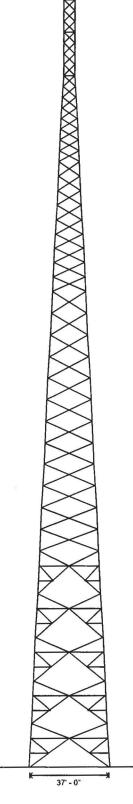
> > Job Number: 423578

December 11, 2018

Tower Profile	1-2
Foundation Design Summary (Option 1)	3
Foundation Design Summary (Option 2)	4
Maximum Leg Loads	5
Maximum Diagonal Loads	6
Maximum Foundation Loads	7
Calculations	8-26



	-	Σ					<b></b>			355'						
ш	¥	z							565							
٥	-	NONE L	-				ĩo		1447	340'						
υ	¥	¥ 4				15@5	15 @ 5' 2026	320'								
B	2 X 3/16			(1) 5/8"	ż		2785	300'								
A	2 1/2 X 2 1/2	L 2 1/2 X 2 1/2 X 3/16 (1) ( 9' 7'		2835	280'											
	-						-	.2	-	260'						
	L 3 X 3 X 3/16	4007	240'													
8.625 OD X .500	L3X		NONE	NONE	NONE		13.		4135	220'						
8.625 OI	٦	NONE	2	-	-		15'		4305							
	4	ž								200'						
	L 3 1/2 X 3 1/2 X 1/4					(1) 3/4"	17		4830	180'						
10.75 OD X .500	L31/2)						19	12 @ 10'	5848	160'						
10.75 0	L 4 X 4 X 1/4												21'	12 (	6207	
X.375					/8"	23'		5877	140'							
12.75 OD X .375	٢	-							(2) 5/8"	25'		6030	120'			
-	-												S	10	100'	
	L	0	σ	σ	σ		27'	ы	8275							
	-	z	z	z	z			S		80'						
	F	-	a	σ	σ		29,	R	8503							
(.500	-	z	z	z	z	1		s		60'						
12.75 OD X .500	н	-	٩	σ	σ	(2) 3/4"	31	Я	8570							
12.7	-	z	z	z	z			s		40'						
	r	ს	٩	σ	σ		33.	Я	8911							
	υ	z	z	z	z			s		20'						
	ш	ს	٩	σ	σ		35.	æ	9635							
Legs	Diagonals	Horizontals	Internals	Sub-Diagonals	Sub-Horizontals	Brace Bolts	Top Face Width	Panel Count/Height	Section Weight	0'						



### Design Criteria - ANSI/TIA-222-G

ASCE 7-16 Ultimate Wind Speed (No Ice)	106 mph		
Wind Speed (Ice)	30 mph		
Design Ice Thickness	1.50 in		
Structure Class	11		
Risk Category	11		
Exposure Category	С		
Topographic Category	1		

#### **Base Reactions**

Total Fou	undation	Individual Footing			
Shear (kips)	118.3	Shear (kips)	72.94		
Axial (kips)	372.18	Compression (kips)	813		
Moment (ft-kips)	24391	Uplift (kips)	693		
Torsion (ft-kips)	54.23				

### Material List

Display	Value	
A	8.625 OD X .322	
В	5.563 OD X .500	
С	5.563 OD X .375	
D	3.500 OD X .300	
E	2.375 OD X .154	
F	L 5 X 3 1/2 X 5/16 (SLV)	
G	L 4 X 4 X 3/8	
Н	L 5 X 3 1/2 X 1/4 (SLV)	
1	L 4 X 4 X 5/16	
J	L 3 1/2 X 3 X 1/4 (SLV)	
к	L 2 X 2 X 3/16	
L	L 2 X 2 X 1/4	
м	L 2 X 2 X 1/8	
N	NONE	
0	L 4 X 3 1/2 X 5/16 (SLV)	
Р	L 3 1/2 X 3 1/2 X 1/4	
Q	L 3 X 3 X 1/4	
R	1 @ 13.333'	
S	1@6.667'	

#### Notes

- 1) All legs are A500 (50 ksi Min. Yield).
- 2) All braces are A572 Grade 50.
- 3) All brace bolts are A325-X.
- 4) The tower model is S3TL Series HD1.
- 5) Transmission lines are to be attached to standard 12 hole waveguide ladders with stackable hangers.
- 6) Azimuths are relative (not based on true north).
- 7) Foundation loads shown are maximums.
- 8) All unequal angles are oriented with the short leg vertical.
- 9) Weights shown are estimates. Final weights may vary.
- 10) Tower Rating: 99.96%

	Sabre Communications Corporation 7101 Southbridge Drive	Job	423578		
Sabre Industries	P.O. Box 658	Customer	AT&T		
	Stoux City, IA 51102-0658 Phone (712) 258-6690 Fax (712) 279-0814 perty of Sapre Communications Corporation, constitutes a	Site Name	Sheridan, KY		
		Description	355' S3TL		
	trade secret as defined by lowa Code Ch. 550 and shall not be reproduced, copied or used in whole or part for any purpose whatsoever without the pror written consent of Sabre Communications.		12/11/2018	By: REB	

**Designed Appurtenance Loading** 

Elev	Description	Tx-Line	Elev	Description	Tx-Line
360	(1) Extendible Lightning Rod		326	(1) 208 sq. ft. EPA 4000# (no ice)	(18) 1 5/8"
350	(1) 278 sq. ft. EPA 6000# (no Ice)	(18) 1 5/8"	314	(1) 208 sq. ft. EPA 4000# (no ice)	(18) 1 5/8"
338	(1) 208 sq. ft. EPA 4000# (no ice)	(18) 1 5/8"		• · · · · · · · · · · · · · · · · · · ·	

	Sabre Communications Corporation	Job	423578			
	7101 Southbridge Drive P.O. Box 658	Customer	Customer AT&T			
	Stoux City, IA 51102-0658 Phone (712) 258-6690	Site Name	Sheridan, KY			
	Fax (712) 279-0814 perty of Sabre Communications Corporation, constitutes a	Description	cription 355' S3TL			
	50 and shall not be reproduced copied or used in whole he prior written consent of Sabre Communications	Date	12/11/2018	By	REB	

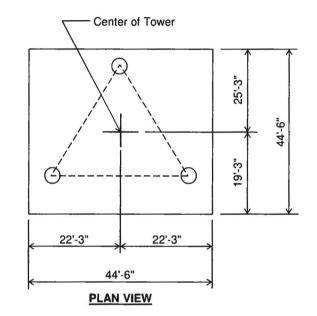
Sabre Industries

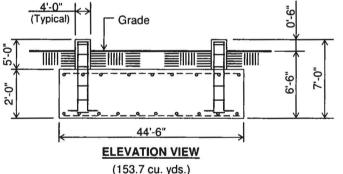
No.: 423578

Date: 12/11/18 By: REB

### Customer: AT&T Site: Sheridan, KY

355 ft. Model S3TL Series HD1 Self Supporting Tower





(153.7 cu. yds.) (1 REQD.; NOT TO SCALE)

CAUTION: Center of tower is not in center of slab.

### Notes:

- 1) Concrete shall have a minimum 28-day compressive strength of 4,500 psi, in accordance with ACI 318-11.
- 2) Rebar to conform to ASTM specification A615 Grade 60.
- 3) All rebar to have a minimum of 3" concrete cover.
- 4) All exposed concrete corners to be chamfered 3/4".
- 5) The foundation design is based on the geotechnical report by ECS project no. 26:3125-T2, dated: 11/1/18
- 6) See the geotechnical report for compaction requirements, if specified.
- 7) The foundation is based on the following factored loads: Factored download (kips) = 155.24
   Factored overturn (kip-ft) = 24,390.94
   Factored shear (kips) = 118.30
- 4.5' of soil cover is required over the entire area of the foundation slab.
- 9) The bottom anchor bolt template shall be positioned as closely as possible to the bottom of the anchor bolts.

1	Rebar Schedule per Mat and per Pier						
Pier	(20) #9 vertical rebar w/ hooks at bottom w/ #4 rebar ties, two (2) within top 5" of pier then 9" C/C						
Mat	(75) #10 horizontal rebar evenly spaced each way top and bottom. (300 total)						
	Anchor Bolts per Leg						
(6) 1.75	(6) 1.75" dia. x 87" F1554-105 on a 18" B.C. w/ 10.5" max. projection above concrete.						

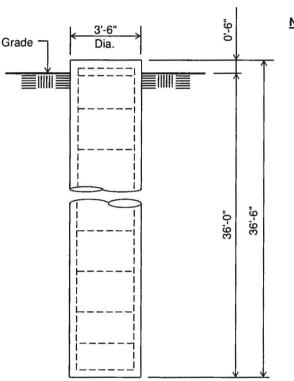
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No.: 423578

Date: 12/11/18 By: REB

### Customer: AT&T Site: Sheridan, KY



#### ELEVATION VIEW (13.0 cu. yds.) (3 REQUIRED; NOT TO SCALE)

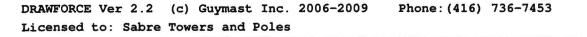
355 ft. Model S3TL Series HD1 Self Supporting Tower

### Notes:

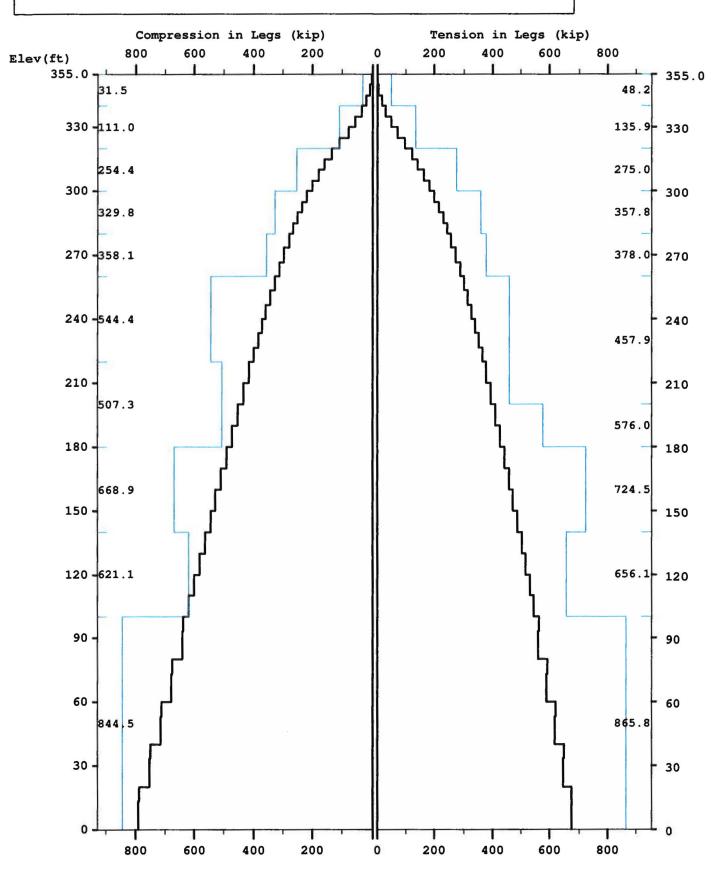
- Concrete shall have a minimum 28-day compressive strength of 4,500 psi, in accordance with ACI 318-11.
- 2) Rebar to conform to ASTM specification A615 Grade 60.
- 3) All rebar to have a minimum of 3" concrete cover.
- 4) All exposed concrete corners to be chamfered 3/4".
- 5) The foundation design is based on the geotechnical report by ECS project no. 26:3125-T2, dated: 11/1/18
- 6) See the geotechnical report for drilled pier installation requirements, if specified.
- 7) The foundation is based on the following factored loads: Factored uplift (kips) = 693.00
   Factored download (kips) = 813.00
   Factored shear (kips) = 73.00
- The bottom anchor bolt template shall be positioned as closely as possible to the bottom of the anchor bolts.

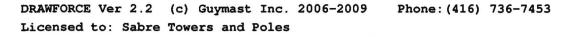
	Rebar Schedule per Pier
Pier	<ul> <li>(16) #11 vertical rebar w/ #4 rebar ties, two</li> <li>(2) within top 5" of pier then 9" C/C</li> </ul>
	Anchor Boits per Leg
(6) 1.75	" dia. x 87" F1554-105 on a 18" B.C. w/ 10.5" max. projection above concrete.

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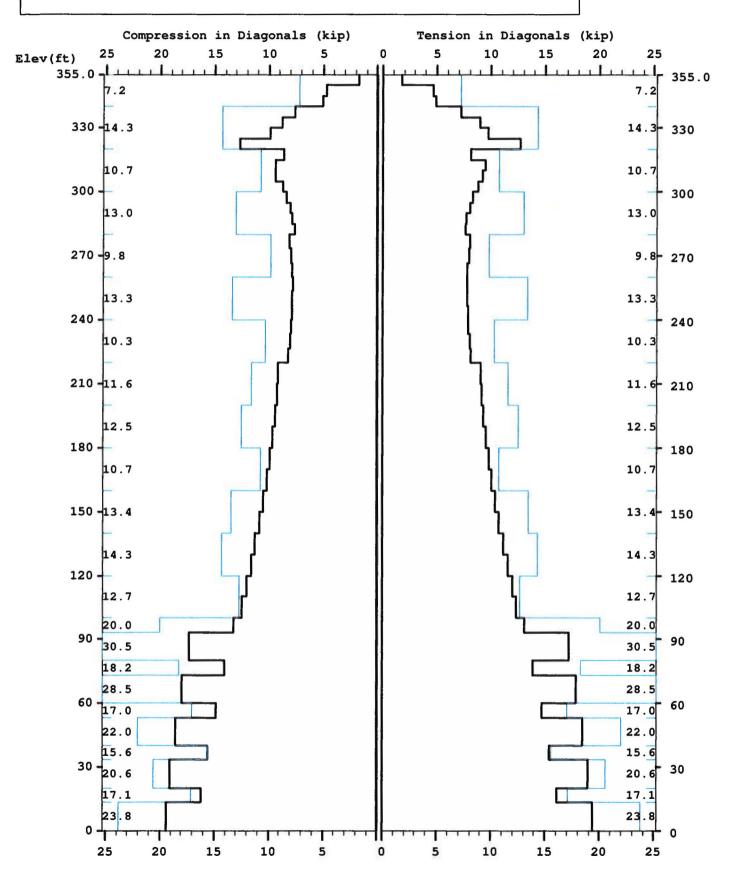


Maximum





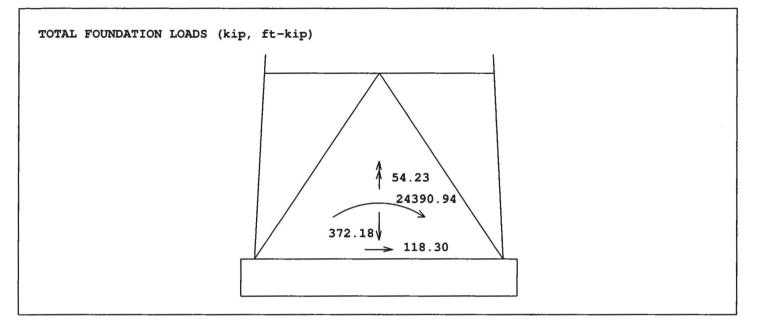
Maximum

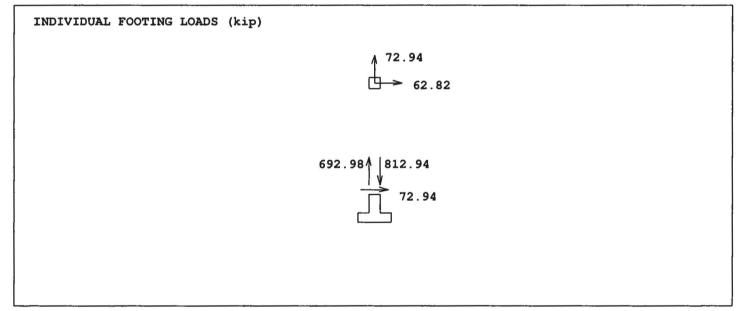


					_			
DRAWFORCE	Ver	2.2	(c)	Guymast	Inc.	2006-2009	Phone: (416)	736-7453

Licensed to: Sabre Towers and Poles

Maximum





Latticed Tower Analysis (Unguyed) Processed under license at:	(c)2015 Guymast Inc. 416-736-7453
Sabre Towers and Poles	on: 10 dec 2018 at: 16:08:21

MAST GEOMETRY ( ft )

PANEL TYPE	NO.OF LEGS	ELEV.AT BOTTOM	ELEV.AT TOP	F.WAT BOTTOM	F.WAT TOP	TYPICAL PANEL HEIGHT
*****	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	$\begin{array}{c} 350.00\\ 340.00\\ 335.00\\ 320.00\\ 315.00\\ 300.00\\ 280.00\\ 260.00\\ 240.00\\ 240.00\\ 220.00\\ 200.00\\ 160.00\\ 160.00\\ 160.00\\ 160.00\\ 100.00\\ 100.00\\ 100.00\\ 100.00\\ 53.33\\ 60.00\\ 53.33\\ 40.00\\ 33.33\\ \end{array}$	$\begin{array}{c} 355.00\\ 350.00\\ 340.00\\ 335.00\\ 320.00\\ 315.00\\ 300.00\\ 280.00\\ 280.00\\ 280.00\\ 240.00\\ 200.00\\ 180.00\\ 180.00\\ 160.00\\ 140.00\\ 120.00\\ 100.00\\ 100.00\\ 93.33\\ 80.00\\ 73.33\\ 60.00\\ 53.33\\ 40.00\\ \end{array}$	5.00 5.00 5.00 5.00 7.00 9.00 11.00 13.00 17.00 19.00 21.00 27.00 27.00 27.07 29.00 29.67 31.00 31.67 33.00 33.67	5.00 5.00 5.00 5.00 5.00 9.00 13.00 17.00 17.00 19.00 27.00 27.00 27.67 29.00 27.67 31.67 33.00	5.00 5.00 5.00 5.00 5.00 6.67 6.67 10.00 13.33 6.67 13.33 6.67
A V A	3 3 3	20.00 13.33 0.00	33.33 20.00 13.33	35.00 35.67 37.00	33.67 35.00 35.67	13.33 6.67 13.33

# MEMBER PROPERTIES

MEMBER TYPE	BOTTOM ELEV ft	TOP ELEV ft	X-SECTN AREA in.sq	RADIUS OF GYRAT in	ELASTIC MODULUS ksi	THERMAL EXPANSN /deg
LE LE LE LE LE LE DI DI DI DI DI DI DI DI DI DI DI DI DI	340.00 320.00 280.00 280.00 180.00 140.00 100.00 320.00 320.00 220.00 220.00 220.00 200.00 100.00 93.33 80.00 73.33 60.00 53.33 40.00 33.33 20.00	355.00 340.00 320.00 260.00 180.00 140.00 140.00 140.00 355.00 340.00 320.00 320.00 260.00 220.00 260.00 300.00 260.00 300.00 260.00 300.00 260.00 300.00 300.00 260.00 300.00 260.00 300.00 260.00 300.00 260.00 300.00 260.00 300.00 260.00 260.00 260.00 260.00 260.00 300.00 260.00 300.00 260.00 300.00 260.00 260.00 260.00 260.00 300.00 260.00 300.00 260.00 300.00 260.00 300.00 260.00 333 80.00 333 80.00 333 30.00 333 30.00 333 333	1.075 3.016 6.111 7.952 8.399 12.763 16.101 14.579 19.242 0.484 0.938 0.715 0.902 1.0900 1.562 1.688 1.938 2.402 2.402 2.402 2.559 2.402 2.062	0.787 0.787 0.787 0.787 0.787 0.787 0.787 0.626	29000. 29000.	0.0000117 0.0000117
DI DI HO	13.33 0.00 350.00	20.00 13.33 355.00	2.859 2.559 0.484	0.626 0.626 0.626	29000. 29000. 29000.	0.0000117 0.0000117 0.0000117

A	7	2	c	79

				76,75	
HO	335.00	340.00	0.938	0.626	29000. 0.0000117
но	315.00	320.00	0.715	0.626	29000. 0.0000117
HO	80.00	93.33	2.246	0.626	29000. 0.0000117
но	60.00	73.33	2.402	0.626	29000. 0.0000117
HO	40.00	53.33	2.402	0.626	29000. 0.0000117
HO	20.00	33.33	2.859	0.626	29000. 0.0000117
HO	0.00	13.33	2.859	0.626	29000. 0.0000117
BR	80.00	93.33	1.438	0.000	29000. 0.0000117
BR	60.00	73.33	1.438	0.000	29000. 0.0000117
BR	40.00	53.33	1.688	0.000	29000. 0.0000117
BR	20.00	33.33	1.688	0.000	29000. 0.0000117
BR	0.00	13.33	1.688	0.000	29000. 0.0000117

FACTORED MEMBER RESISTANCES \_\_\_\_\_

воттом	TOP	L COMP	EGS TENS	DIAC	GONALS TENS	HORIZ COMP	ZONTALS TENS	INT COMP	BRACING TENS
ELEV ft	ELEV ft	kip	kip	kip	kip	kip	kip	kip	kip
ft 350.0 340.0 315.0 320.0 280.0 260.0 260.0 240.0 200.0 180.0 140.0 120.0 140.0 100.0 93.3 80.0 73.3 60.0 53.3 40.0 33.3	ft 355.0 350.0 340.0 335.0 300.0 280.0 280.0 240.0 240.0 220.0 180.0 140.0 140.0 120.0 140.0 120.0 140.0 140.0 140.0 140.0 140.0 140.0 140.0 153.3 80.0 53.3 40.0	kip 31.48 31.48 110.98 110.98 254.38 329.84 358.08 544.40 507.33 507.33 668.86 668.86 621.06 621.06 844.46 844.46 844.46 844.46	kip 48.15 135.90 135.90 274.95 357.75 378.00 457.90 457.90 457.90 576.00 724.50 656.10 656.10 865.80 865.80 865.80 865.80 865.80	kip 7.16 7.16 14.32 14.32 14.32 10.74 13.03 9.84 10.34 11.62 12.53 10.73 13.43 14.31 12.68 20.02 30.51 18.24 28.50 16.98 22.03 15.56	kip 7.16 7.16 14.32 14.32 10.74 10.74 13.03 9.84 10.34 11.62 12.53 10.73 13.43 14.31 12.68 20.02 30.51 18.24 28.50 16.98 22.03 15.56	kip 5.82 0.00 10.95 0.00 8.46 0.00	kip 5.82 0.00 10.95 0.00 8.46 0.00	kip 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	kip 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
20.0 13.3 0.0	33.3 20.0 13.3	844.46 844.46 844.46	865.80 865.80 865.80	20.57 17.10 23.80	20.57 17.10 23.80	16.75 0.00 16.89	16.75 0.00 16.89	8.14 0.00 7.39	8.14 0.00 7.39
0.0		011110	000.00	23.00	23.00	10.00	10.05		

\* Only 3 condition(s) shown in full \* Some wind loads may have been derived from full-scale wind tunnel testing

LOADING CONDITION A \_\_\_\_\_

106 mph Ultimate wind with no ice. Wind Azimuth: 00

MAST LOADING

====	===	===	==
------	-----	-----	----

LOAD TYPE	ELEV ft	APPLYLO RADIUS ft	ADAT AZI	LOAD AZI	HORIZ kip	S DOWN kip	MOME VERTICAL ft-kip	TORSNAL ft-kip
00000	360.0 350.0 338.0 326.0 314.0	0.00 0.00 0.00 0.00 0.00	$0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0$	$0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0$	0.20 9.11 6.81 6.76 6.70	0.15 7.20 4.80 4.80 4.80	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
	355.0 350.0 350.0 340.0 340.0 335.0 335.0	$\begin{array}{c} 0.00\\ 0.00\\ 0.00\\ 0.00\\ 0.00\\ 0.00\\ 0.00\\ 0.00\\ 0.00\\ \end{array}$	180.0 180.0 42.0 63.7 63.7 76.5	$0.0 \\ 0.0 $	0.06 0.06 0.12 0.12 0.15 0.15 0.15	0.04 0.06 0.06 0.13 0.13 0.13	0.00 0.00 0.06 0.06 0.06 0.06 0.06	$\begin{array}{c} 0.00\\ 0.00\\ 0.09\\ 0.09\\ 0.10\\ 0.10\\ 0.11 \end{array}$

D 325.0 D 325.0 D 320.0 D 315.0 D 315.0 D 300.0 D 280.0 D 280.0 D 280.0 D 280.0 D 280.0 D 260.0 D 260.	$\begin{array}{c} 0 & 0 & 0 \\ 0 & 0 & 0 \\ 0 & 0 & 0 \\ 0 & 0 &$	80.5         102.0         103.3         103.3         104.8         180.0     <		$\begin{array}{c} 0.16\\ 0.18\\ 0.19\\ 0.19\\ 0.19\\ 0.20\\ 0.22\\ 0.22\\ 0.22\\ 0.22\\ 0.22\\ 0.24\\ 0.24\\ 0.24\\ 0.24\\ 0.24\\ 0.25\\ 0.26\\ 0.27\\ 0.25\\ 0.28\\ 0.28\\ 0.28\\ 0.28\\ 0.28\\ 0.28\\ 0.28\\ 0.28\\ 0.28\\ 0.28\\ 0.28\\ 0.28\\ 0.28\\ 0.22\\ 0.26\\ 0.27\\ 0.27\\ 0.22\\ 0.26\\ 0.21\\ 0.22\\ 0.22\\ 0.26\\ 0.23\\$	$\begin{array}{c} 423578\\ 0.13\\ 0.15\\ 0.19\\ 0.20\\ 0.21\\ 0.24\\ 0.25\\ 0.25\\ 0.25\\ 0.32\\ 0.32\\ 0.32\\ 0.33\\ 0.33\\ 0.33\\ 0.35\\ 0.39\\ 0.42\\ 0.41\\ 0.42\\ 0.44\\ 0.42\\ 0.44\\ 0.57\\ 0.57\\ 0.57\\ 0.48\\ 0.59\\ 0.50\\ 0.50\\ 0.50\\ 0.65\\ 0.6$	0.06 0.05 0.04 0.04 0.00	0.10 0.06 0.06 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.04 0.03
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106 mph Ultimate wind with no ice. Wind Azimuth: 0  $\bullet$ 

# MAST LOADING

LOAD TYPE	ELEV	APPLYLOAD	AT LOAD	HORIZ	DOWN	VERTICAL	TORSNAL
	ft	ft		kip 0.20	kip	ft-kip	ft-kip
C C	360.0 350.0	0.00	0.0 0.0	9.11	0.12	0.00	0.00
с с с	338.0 326.0	0.00	0.0 0.0	6.76	3.60 3.60	0.00	0.00
С	314.0	0.00	0.0 0.0	6.70	3.60	0.00	0.00
D D	355.0 350.0		30.0 0.0 30.0 0.0		0.03	0.00	0.00
D	350.0	0.00 4	12.0 0.0	0.12	0.04	0.04	0.09
D D	340.0 340.0		12.0 0.0 55.8 0.0		0.04	0.04	0.09 0.10
D	325.0 325.0		31.3 0.0 02.0 0.0		0.10	0.04 0.03	$0.10 \\ 0.06$
D	320.0	0.00 10	0.0	0.18	0.12	0.03	0.06
D D	320.0 315.0		)3.3 0.0 )3.3 0.0		0.15 0.15	0.03 0.03	0.06 0.06
D D	315.0 300.0		)4.8 0.0 30.0 0.0		$0.15 \\ 0.16$	0.00	0.05
D	300.0	0.00 18	30.0 0.0	0.21	0.18	0.00	0.05
D D	280.0 280.0	0.00 18	30.0 0.0 30.0 0.0	0.22	0.19 0.19	0.00	0.05
D D	260.0 260.0		30.0 0.0 30.0 0.0		0.19	0.00	0.05
D	240.0		30.0 0.0		0.24	0.00	0.05

0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	$\begin{array}{c} 240.0\\ 220.0\\ 220.0\\ 180.0\\ 140.0\\ 140.0\\ 100.0\\ 93.3\\ 93.3\\ 93.3\\ 80.0\\ 80.0\\ 73.3\\ 73.3\\ 60.0\\ 60.0\\ 53.3\\ 53.3\\ 53.3\\ 33.3\\ 33.3\\ 33.3\\ 20.0\\ 20.0\\ 13.3\\ 13.3\\ 0.0 \end{array}$	$\begin{array}{c} 0.00\\$	$\begin{array}{c} 180.0\\ 18$	$\begin{array}{c} 0.0\\ 0.0\\ 0.0\\ 0.0\\ 0.0\\ 0.0\\ 0.0\\ 0.0$	0.24 0.24 0.22 0.25 0.26 0.27 0.25 0.28 0.28 0.24 0.28 0.24 0.224 0.225 0.223 0.227 0.222 0.222 0.222 0.223 0.227 0.222 0.222 0.222 0.223 0.227 0.222 0.222 0.222 0.222 0.222 0.222 0.222 0.222 0.222 0.222 0.222 0.222 0.222 0.222 0.222 0.222 0.222 0.222 0.222 0.223 0.227 0.222 0.222 0.226 0.223 0.227 0.222 0.222 0.226 0.223	$\begin{array}{c} 423578\\ 0.24\\ 0.25\\ 0.26\\ 0.30\\ 0.31\\ 0.30\\ 0.31\\ 0.36\\ 0.43\\ 0.43\\ 0.43\\ 0.44\\ 0.36\\ 0.44\\ 0.37\\ 0.36\\ 0.44\\ 0.37\\ 0.37\\ 0.44\\ 0.37\\ 0.37\\ 0.44\\ 0.37\\ 0.44\\ 0.37\\ 0.44\\ 0.44\\ 0.37\\ 0.44\\ 0.44\\ 0.40\\ 0.49\\ 0.4$	$\begin{array}{c} 0.00\\$	$\begin{array}{c} 0.05\\ 0.05\\ 0.04\\ 0.04\\ 0.04\\ 0.04\\ 0.04\\ 0.04\\ 0.04\\ 0.04\\ 0.04\\ 0.04\\ 0.04\\ 0.04\\ 0.04\\ 0.04\\ 0.04\\ 0.04\\ 0.04\\ 0.03\\$	
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LOADING CONDITION Y

30 mph wind with 1.5 ice. Wind Azimuth: 0.

# MAST LOADING

TYPE RADIUS AZI AZI HORIZ ( ft ft kip	DOWN VERTICAL TORSNAL kip ft-kip ft-kip
C         350.0         0.00         0.0         0.0         1.35         18           C         338.0         0.00         0.0         0.0         1.65         12           C         326.0         0.00         0.0         0.0         1.63         12	0.31         0.00         0.00           8.60         0.00         0.00           2.37         0.00         0.00           2.34         0.00         0.00           2.32         0.00         0.00
D         360.0         0.00         180.0         0.0         0.01         0           D         350.0         0.00         42.0         0.0         0.01         0           D         340.0         0.00         42.0         0.0         0.01         0           D         340.0         0.00         68.9         0.0         0.02         0           D         335.0         0.00         68.3         0.0         0.02         0           D         330.0         0.00         86.3         0.0         0.02         0           D         330.0         0.00         86.3         0.0         0.02         0           D         330.0         0.00         88.3         0.0         0.02         0           D         325.0         0.00         102.0         0.0         0.02         0           D         320.0         0.00         103.3         0.0         0.02         0           D         320.0         0.00         103.3         0.0         0.02         0           D         310.0         0.00         104.8         0.0         0.02         0           D	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

140.0 140.0 93.3 93.3 80.0 73.3 73.3 73.3 60.0 53.3 53.3 53.3 40.0 33.3 33.3 20.0	$\begin{array}{c} 0.00\\$	180.4 198.3 186.8 189.0 196.1 196.1 195.8 188.3 190.1 190.1 190.1 190.7 190.7 189.1	$\begin{array}{c} 0.03\\ 0.03\\ 0.03\\ 0.03\\ 0.03\\ 0.03\\ 0.03\\ 0.03\\ 0.03\\ 0.03\\ 0.03\\ 0.03\\ 0.03\\ 0.03\\ 0.03\\ 0.03\\ 0.02\\ 0.02\\ 0.02\\ 0.03\\ 0.02\\ 0.02\\ 0.03\\ 0.02\\ 0.02\\ 0.03\\ 0.02\\ 0.03\\ 0.02\\ 0.03\\ 0.02\\ 0.03\\ 0.02\\ 0.03\\ 0.02\\ 0.03\\ 0.02\\ 0.03\\ 0.02\\ 0.03\\ 0.02\\ 0.03\\ 0.02\\ 0.03\\ 0.02\\ 0.03\\ 0.02\\ 0.03\\ 0.02\\ 0.03\\ 0.02\\ 0.03\\ 0.02\\ 0.03\\ 0.02\\ 0.03\\ 0.02\\ 0.03\\ 0.02\\ 0.03\\ 0.02\\ 0.03\\$	423578 0.97 1.00 1.27 1.01 1.01 1.30 1.01 1.30 1.01 1.30 1.01 1.30 1.01 1.30 1.01 1.30 1.01 1.32 1.32 1.06	$\begin{array}{c} 0.00\\$	$\begin{array}{c} 0.00\\$
	0.00 0.00 0.00					

MAXIMUM TENSION IN MAST MEMBERS (kip)

	ETTERSTOR IN MAST			
ELEV ft	LEGS	DIAG	HORIZ	BRACE
355.0	0.02.6	1 76 6	1.12 A	0.00 A
350.0	0.83 S		0.18 G	0.00 A
345.0	4.07 M	4.69 H	0.24 I	0.00 A
340.0	16.38 M	4.94 N	0.45 Y	0.00 A
335.0	29.27 M	7.18 M	0.32 A	0.00 A
330.0	49.55 M	8.94 в	0.05 s	0.00 A
	71.33 M	9.74 т		
325.0	97.60 M	12.73 в	0.34 A	0.00 A
320.0	122.12 M	8.16 M	0.31 U	0.00 A
315.0	142.40 м	9.48 н	0.24 A	0.00 A
310.0	162.51 M	9.23 N	0.07 A	0.00 A
305.0	182.03 M		0.21 A	0.00 A
300.0		8.27 N	0.08 A	0.00 A
295.0	198.88 M		0.13 A	0.00 A
290.0	214.82 M	8.02 B	0.14 A	0.00 A
285.0	229.05 M		0.11 A	0.00 A
280.0	242.76 M	7.61 B	0.12 A	0.00 A
273.3	257.13 M	8.04 N	0.12 A	0.00 A
266.7	273.09 M	7.91 B	0.11 A	0.00 A
	287.64 M	7.77 N	0.09 A	0.00 A
260.0	301.78 M	7.77 N		
253.3	314.88 M	7.75 N	0.06 A	0.00 A
246.7	327.77 м	7.83 N	0.08 A	0.00 A
240.0	340.00 M	7.89 N	0.05 A	0.00 A
233.3	352.05 M	8.01 N	0.14 A	0.00 A
226.7	363.70 M		0.05 A	0.00 A
220.0		9.04 N	0.12 A	0.00 A
210.0	377.82 м	9.04 N	0.11 A	0.00 A

			423	3578
200.0	394.36 M	9.15 N	0.09 A	0.00 A
	410.45 M	9.33 T		14 m
190.0	426.13 M	9.54 N	0.10 A	0.00 A
180.0	441.51 м	0 91 T	0.07 A	0.00 A
170.0		9.81 T	0.07 A	0.00 A
160.0	456.58 м	10.10 N	0.07 A	0.00 A
	471.54 M	10.43 T		
150.0	486.35 M	10.79 N	0.06 A	0.00 A
140.0			0.06 A	0.00 A
130.0	501.13 M	11.1/ T	0.06 A	0.00 A
120.0	515.88 M	11.57 N	0.03 0	0.00 A
120.0	530.64 M	11.98 N		
110.0	545.33 M		0.05 s	0.00 A
100.0			0.30 A	0.00 A
93.3	562.67 M	13.12 N	1.01 M	0.00 U
	561.32 M	17.19 N		
80.0	591.34 M	13.90 N	0.25 A	0.00 A
73.3	589.95 M	17.84 N	0.99 U	0.00 A
60.0			0.25 A	0.00 A
53.3	619.95 M	14.69 N	0.96 M	0.00 K
	618.55 M	18.46 N		
40.0	648.38 M	15.42 N	0.23 A	0.00 A
33.3			0.89 Q	0.00 K
20.0	646.93 M	18.99 N	0.09 A	0.00 K
13.3	676.40 M	16.05 N	0.78 U	0.00 Q
	674.86 M	19.37 N		
0.0			0.00 A	0.00 A

# MAXIMUM COMPRESSION IN MAST MEMBERS (kip)

ELEV ft	LEGS	DIAG	HORIZ	BRACE
355.0	-1.01 A	-1.73 A	-1.13 G -0.17 M	0.00 A 0.00 A
350.0 345.0	-8.60 G	-4.72 в	-0.17 M	0.00 A
340.0	-21.12 G -35.82 G	-5.03 н -7.56 G	-0.11 S	0.00 A
335.0	-58.50 G	-8.75 T	-0.24 s	0.00 A
330.0 325.0	-81.02 G	-9.89 в	-0.08 A -0.26 S	0.00 A 0.00 A
320.0	-110.50 G	-12.70 H	-0.48 C	0.00 A
315.0	-135.33 G -159.25 G	-8.58 G 	-0.20 s	0.00 A
310.0 305.0	-180.41 G	-9.38 в	-0.06 s -0.17 s	0.00 A 0.00 A
300.0	-201.04 G	-8.71 N	-0.17 s	0.00 A
295.0	-218.57 G	-8.37 H 	-0.11 s	0.00 A

290.0			-0.12 s	23578 0.00 A
285.0	-250.69 G	-7.81 B	-0.10 s	0.00 A
	-265.50 G	-7.58 N	-0.11 S	0.00 A
280.0	-280.88 G	-8.12 в		
273.3	-298.31 G	-7.90 N	-0.10 S	0.00 A
266.7	-314.10 G	-7.85 B	-0.10 s	0.00 A
260.0	-329.81 G	-7.76 N	-0.08 s	0.00 A
253.3	-344,48 G	-7.82 в	-0.05 s	0.00 A
246.7	-359.10 G		-0.07 s	0.00 A
240.0			-0.05 s	0.00 A
233.3	-372.96 G	-7.94 В	-0.12 s	0.00 A
226.7	-386.78 G	-8.02 H	-0.04 s	0.00 A
220.0	-400.16 G	-8.16 B	-0.11 s	0.00 A
210.0	-416.48 G	-9.08 H	-0.10 s	0.00 A
	-435.75 G	-9.20 в	-0.07 s	0.00 A
200.0	-454.63 G	-9.37 н		
190.0	-473.11 G	-9.60 в	-0.08 S	0.00 A
180.0	-491.50 G	-9.85 в	-0.06 S	0.00 A
170.0	-509.75 G	-10.15 н	-0.06 S	0.00 A
160.0	-527.99 G	-10.47 в	-0.06 s	0.00 A
150.0	-546.13 G	-10.84 H	-0.05 s	0.00 A
140.0			-0.05 s	0.00 A
130.0	-564.28 G	-11.22 B	-0.05 s	0.00 A
120.0	-582.40 G	-11.62 н	-0.03 I	0.00 A
110.0	-600.61 G	-12.01 в	-0.06 A	0.00 A
100.0	-618.77 G	-12.43 в	-0.27 s	0.00 A
93.3	-639.46 G	-13.22 G	-1.21 G	0.00 C
	-641.25 G	-17.25 в		
80.0	-676.64 G	-14.08 G	-0.22 S	0.00 A
73.3	-678.49 G	-17.91 в	-1.20 G	0.00 s
60.0	-714.07 G	-14.80 G	-0.22 S	0.00 A
53.3	-715.92 G	-18.53 B	-1.17 G	0.00 o
40.0	-751.41 G	-15.53 в	-0.19 S	0.00 A
33.3			-1.10 K	0.00 F
20.0	-753.34 G	-19.06 B	-0.07 S	0.00 F
13.3	-788.73 G	-16.13 B	-0.98 C	0.00 K
0.0	-790.78 G	-19.42 в	0.00 A	0.00 A

### FORCE/RESISTANCE RATIO IN LEGS

MAST	LE	G COMPRE	SSION - FORCE/		LEG TENS	ION FORCE/
ELEV	MAX	COMP	RESIST	MAX	TENS	RESIST
ft	COMP	RESIST	RATIO	TENS	RESIST	RATIO
355.00						
	1.01	31.48	0.03	0.83	48.15	0.02
350.00						

	8.60	31.48	0.27	4.07	48.15	423578 0.08
345.00	21.12	31.48	0.67	16.38	48.15	0.34
340.00	35.82	110.98	0.32	29.27	135.90	0.22
335.00	58.50	110.98	0.53	49.55	135.90	0.36
330.00	81.02	110.98	0.73	71.33	135.90	0.52
325.00	110.50	110.98	1.00	97.60	135.90	0.72
320.00	135.33	254.38	0.53	122.12	274.95	0.44
315.00	159.25	254.38	0.63	142.40	274.95	0.52
310.00	180.41	254.38	0.71	162.51	274.95	0.59
305.00	201.04		0.79	182.03	274.95	0.66
300.00	218.57	329.84	0.66	198.88	357.75	0.56
295.00	235.62	329.84	0.71	214.82	357.75	0.60
290.00	250.69	329.84	0.76	229.05	357.75	0.64
285.00	265.50	329.84	0.80	242.76	357.75	0.68
280.00	280.88	358.08	0.78	257.13	378.00	0.68
273.33		358.08	0.83	273.09		0.00
266.67	298.31	358.08	0.85	273.09	378.00	0.72
260.00	314.10					
253.33	329.81	544.40	0.61	301.78	457.90	0.66
246.67	344.48	544.40	0.63	314.88	457.90	0.69
240.00	359.10	544.40	0.66	327.77	457.90	0.72
233.33	372.96	544.40	0.69	340.00	457.90	0.74
226.67	386.78	544.40	0.71	352.05	457.90	0.77
220.00	400.16	544.40	0.74	363.70	457.90	0.79
210.00	416.48	507.33	0.82	377.82	457.90	0.83
200.00	435.75	507.33	0.86	394.36	457.90	0.86
190.00	454.63	507.33	0.90	410.45	576.00	0.71
180.00	473.11	507.33	0.93	426.13	576.00	0.74
170.00	491.50	668.86	0.73	441.51	724.50	0.61
160.00	509.75	668.86	0.76	456.58	724.50	0.63
150.00	527.99	668.86	0.79	471.54	724.50	0.65
140.00	546.13	668.86	0.82	486.35	724.50	0.67
130.00	564.28	621.06	0.91	501.13	656.10	0.76
	582.40	621.06	0,94	515.88	656.10	0.79
120.00	600.61	621.06	0.97	530.64	656.10	0.81
110.00	618.77	621.06	1.00	545.33	656.10	0.83
100.00	639.46	844.46	0.76	562.67	865.80	0.65
93.33	641.25	844.46	0.76	561.32	865.80	0.65
80.00	676.64	844.46	0.80	591.34	865.80	0.68
73.33	678.49	844.46	0.80	589.95	865.80	0.68
60.00	714.07	844.46	0.85	619.95	865.80	0.72
53.33						

40.00	715.92	844.46	0.85	618.55	865.80	423578 0.71
	751.41	844.46	0.89	648.38	865.80	0.75
	753.34	844.46	0.89	646.93	865.80	0.75
	788.73	844.46	0.93	676.40	865.80	0.78
	790.78	844.46	0.94	674.86	865.80	0.78
40.00 33.33 20.00 13.33 0.00	753.34	844.46 844.46	0.89	646.93 676.40	865.80	0.75

### FORCE/RESISTANCE RATIO IN DIAGONALS

MAST	- DIA	G COMPRE	SSION - FORCE/		DIAG TEN	SION FORCE/
ELEV ft	MAX COMP	COMP RESIST	RESIST RATIO	MAX TENS	TENS RESIST	RESIST RATIO
355.00	1.73	7.16	0.24	1.76	7.16	0.25
350.00	4.72	7.10	0.66	4.69	7.10	0.66
345.00	5.03	7.10	0.00	4.09	7.16	0.60
340.00	7.56	14.32	0.70	4.94	14.32	0.69
335.00						
330.00	8.75	14.32	0.61	8.94	14.32	0.62
325.00	9.89	14.32	0.69	9.74		0.68
320.00	12.70	14.32	0.89			0.89
315.00	8.58	10.74	0.80	8.16		0.76
310.00	9.38	10.74	0.87	9.48	10.74	0.88
305.00	9.38	10.74	0.87	9.23	10.74	0.86
300.00	8.71	10.74	0.81	8.77	10.74	0.82
295.00	8.37	13.03	0.64	8.27	13.03	0.63
	7.98	13.03	0.61	8.02	13.03	0.62
290.00	7.81	13.03	0.60	7.73	13.03	0.59
285.00	7.58	13.03	0.58	7.61	13.03	0.58
280.00	8.12	9.84	0.83	8.04	9.84	0.82
273.33	7.90	9.84	0.80	7.91	9.84	0.80
266.67	7.85	9.84	0.80	7.77	9.84	0.79
260.00	7.76	13.34	0.58	7.77	13.34	0.58
253.33	7.82	13.34	0.59	7.75	13.34	0.58
246.67	7.83	13.34	0.59	7.83	13.34	0.59
240.00	7.94	10.34	0.77	7.89	10.34	0.76
233.33	8.02	10.34	0.78	8.01	10.34	0.77
226.67	8.16	10.34	0.79	8.12	10.34	0.79
220.00	9.08	11.62	0.78	9.04		0.78
210.00	9.20	11.62	0.79	9.15	11.62	0.79
200.00	9.37	12.53	0.75	9.33	12.53	0.74
190.00						
180.00	9.60	12.53	0.77	9.54	12.53	0.76
170.00	9.85	10.73	0.92	9.81	10.73	0.91
160.00	10.15	10.73	0.95	10.10	10.73	0.94

						423578		
150.00	10.47	13.43	0.78	10.43	13.43	0.78		
140.00	10.84	13.43	0.81	10.79	13.43	0.80		
130.00	11.22	14.31	0.78	11.17	14.31	0.78		
	11.62	14.31	0.81	11.57	14.31	0.81		
120.00	12.01	12.68	0.95	11.98	12.68	0.95		
110.00	12.43	12.68	0.98	12.38	12.68	0.98		
100.00	13.22	20.02	0.66	13.12	20.02	0.66		
93.33	17.25	30.51	0.57	17.19	30.51	0.56		
	14.08	18.24	0.77	13.90	18.24	0.76		
73.33	17.91	28.50	0.63	17.84	28.50	0.63		
60.00	14.80	16.98		14.69		0.87		
53.33	18.53	22.03		18.46		0.84		
40.00	15.53	15.56	1.00	15.42	15.56	0.99		
33.33	19.06	20.57	0.93	18.99	20.57	0.92		
20.00	16.13	17.10	0.94	16.05	17.10	0.94		
13.33	19.42	23.80	0.82	19.37	23.80	0.81		
0.00								
		JAL FOUND						
		LOAD	-COMPONE	NTS		-	TOTAL	
NOR		EAST		DOWN	UPLIFT		SHEAR	
72.9	94 G	62.82 K	812	2.94 G	-692.98	3 м	72.94 G	
MAYTMUM		ADS ON FO		N. · (kir	e kin-1	F+)		
NORTH	HORIZONT EAST	AL TOTAL @ 0.0	DOWN		( ОRTH	OVERTURNI EAST	(NG TOTAL @ 0.0	DRSION
118.3 S	112.5 V	118.3 S	372.2 e	2439	0.9 G	23362.0 J	24390.9 G	54.2 L
		nalysis license a					/mast Inc. 416	
	owers and						) dec 2018 at	
******	owbowanes			********				
							*******	
******	******	*****	* Servi	ce Load	Conditio	n ****	*************	****
							vind tunnel te	
LOADING	CONDITIC	N A ==				*******		

60 mph wind with no ice. Wind Azimuth: 00

423578

MAST	LOADING
=====	

LOAD TYPE		APPLYLO RADIUS ft	ADAT AZI	LOAD AZI	HORIZ HORIZ	DOWN	MOME VERTICAL ft-kip	TORSNAL
υυυυ	360.0 350.0 338.0 326.0 314.0	$\begin{array}{c} 0.00\\ 0.00\\ 0.00\\ 0.00\\ 0.00\\ 0.00\end{array}$	0.0 0.0 0.0 0.0 0.0	$0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.0$	0.07 3.05 2.28 2.26 2.24	$\begin{array}{c} 0.13 \\ 6.00 \\ 4.00 \\ 4.00 \\ 4.00 \end{array}$	$\begin{array}{c} 0.00 \\ 0.00 \\ 0.00 \\ 0.00 \\ 0.00 \\ 0.00 \end{array}$	0.00 0.00 0.00 0.00 0.00
	$\begin{array}{c} 355.0\\ 350.0\\ 350.0\\ 340.0\\ 340.0\\ 325.0\\ 325.0\\ 325.0\\ 325.0\\ 325.0\\ 325.0\\ 320.0\\ 325.0\\ 320.0\\ 320.0\\ 320.0\\ 320.0\\ 320.0\\ 300.0\\ 28$		180.0 180.0 42.0 42.0 65.8 81.3 102.0 103.3 103.3 104.8 180.0		2.26 2.24 0.02 0.04 0.05 0.05 0.06 0.07 0.07 0.07 0.07 0.07 0.07 0.07	$\begin{array}{c} 0.03\\ 0.03\\ 0.05\\ 0.05\\ 0.11\\ 0.11\\ 0.13\\ 0.16\\ 0.16\\ 0.16\\ 0.20\\ 0.21\\ 0.21\\ 0.26\\ 0.27\\ 0.27\\ 0.27\\ 0.27\\ 0.27\\ 0.28\\ 0.29\\ 0.33\\ 0.35\\ 0.40\\ 0.48\\ 0.48\\ 0.40\\ 0.48\\ 0.48\\ 0.40\\ 0.49\\ 0.49\\ 0.49\\ 0.49\\ 0.49\\ 0.49\\ 0.49\\ 0.42\\ 0.51\\ 0.51\\ 0.54\\ 0.54\\ 0.54\\ 0.54\\ 0.54\\ 0.54\\ 0.54\\ 0.54\\ 0.54\\ 0.54\\ 0.54\\ 0.54\\ 0.54\\ 0.54\\ 0.54\\ 0.54\\ 0.54\\ 0.54\\ 0.55\\ 0.54\\ 0.54\\ 0.54\\ 0.55\\ 0.54\\ 0.54\\ 0.55\\ 0.54\\ 0.54\\ 0.55\\ 0.54\\ 0.54\\ 0.55\\ 0.54\\ 0.54\\ 0.55\\ 0.54\\ 0.55\\$		0.00 0.03 0.03 0.03 0.02 0.01
	ELEV	DE	FLECTION		)	TILTS (I		TWIST
3	ft 55.0	NORTH 1.969 G	EAST 1.895	J	DOWN 0.025 G	NORTH 0.815 G	EAST 0.785 J	DEG 0.053 L
3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	50.0 45.0 35.0 30.0 25.0 20.0 15.0 10.0	1.898 G 1.826 G 1.755 G 1.686 G 1.618 G 1.552 G 1.428 G 1.428 G 1.370 G	1.827 1.757 1.689 1.622 1.557 1.493 1.433 1.374 1.318	] ] ] ] ] ] ] ] ] ] ]	0.025 G 0.024 G 0.023 G 0.022 G 0.022 G 0.021 G 0.020 G 0.020 G 0.020 G	0.816 G 0.810 G 0.790 G 0.777 G 0.757 G 0.758 G 0.668 G 0.666 G 0.643 G	0.786 J 0.780 J 0.760 J 0.748 J 0.729 J 0.701 J 0.663 J 0.642 J 0.620 J	0.053 L 0.052 L 0.051 L 0.050 L 0.049 L -0.047 F -0.042 F -0.042 F -0.040 F

$\begin{array}{cccccccccccccccccccccccccccccccccccc$	60 G       1.212         08 G       1.162         57 G       1.113         09 G       1.067         63 G       1.022         03 G       0.965         46 G       0.910         92 G       0.761         99 G       0.671         55 G       0.629         12 G       0.581         97 G       0.478         45 G       0.428         97 G       0.478         45 G       0.225         01 G       0.225         70 G       0.103         71 G       0.225         70 G       0.109         01 G       0.096         75 G       0.071         64 G       0.0051         14 G       0.0020         01 G       0.020         01 G       0.020	J         0.018           J         0.018           J         0.017           J         0.017           J         0.016           J         0.015           J         0.014           J         0.014           J         0.014           J         0.012           J         0.012           J         0.010           J         0.0010           J         0.0010           J         0.0010           J         0.007           J         0.007           J         0.006           J         0.005           J         0.004           J         0.003           J         0.001           J         0.001	423578 G 0.619 G G 0.594 G G 0.554 G G 0.554 G G 0.554 G G 0.554 G G 0.489 G G 0.489 G G 0.483 G G 0.4439 G G 0.4439 G G 0.4439 G G 0.4439 G G 0.423 G G 0.423 G G 0.391 G G 0.391 G G 0.391 G G 0.323 G G 0.323 G G 0.323 G G 0.324 G G 0.2258 G G 0.2258 G G 0.2258 G G 0.2258 G G 0.123 G G 0.098 G G 0.098 G G 0.0073 G G 0.0073 G G 0.0048 G G 0.024 G K K 0.0246 G K K 0.0246 G	0.596 J 0.572 J 0.5534 J 0.514 J 0.495 J 0.471 J 0.472 J 0.476 J 0.422 J 0.477 J 0.362 J 0.377 J 0.362 J 0.377 J 0.362 J 0.377 J 0.362 J 0.377 J 0.362 J 0.269 J 0.269 J 0.269 J 0.269 J 0.269 J 0.216 J 0.185 J 0.118 J 0.118 J 0.110 J 0.094 J 0.0062 J 0.002 J	-0.038 F -0.036 F -0.033 F -0.032 F -0.030 F -0.027 F -0.027 F -0.023 F -0.023 F -0.023 F -0.021 F -0.021 F -0.019 F -0.015 F -0.015 F -0.015 F -0.016 F -0.017 F -0.017 F -0.017 F -0.017 F -0.017 F -0.017 F -0.017 F -0.019 F -0.019 F -0.019 F -0.010 F -0.000 F -0.0000 F -0.000 F -0
	03 G -0.003 00 A 0.000		K 0.016 G A 0.000 A	0.016 J 0.000 A	-0.001 F 0.000 A

# MAXIMUM TENSION IN MAST MEMBERS (kip)

ELEV ft	LEGS	DIAG	HORIZ	BRACE
355.0		0.00.0	0.38 A	0.00 A
350.0	0.23 G	0.60 G	0.06 G	0.00 A
345.0	0.00 A	1.58 H	0.10 I	0.00 A
340.0	4.03 A	1.64 B	0.20 A	0.00 A
	7.83 A	2.32 A		
335.0	13.93 A	3.06 в	0.13 A	0.00 A
330.0	21.10 A	3.23 в	0.01 G	0.00 A
325.0	28.97 A	4.28 B	0.14 A	0.00 A
320.0			0.04 I	0.00 A
315.0	37.17 A	2.63 A	0.10 A	0.00 A
310.0	42.83 A	3.20 H	0.03 A	0.00 A
305.0	49.26 A	3.04 н	0.08 A	0.00 A
	55.51 A	2.96 H		
300.0	60.99 A	2.74 в	0.03 A	0.00 A
295.0	66.04 A	2.70 н	0.05 A	0.00 A
290.0	70.62 A	2.57 H	0.05 A	0.00 A
285.0			0.04 A	0.00 A
280.0	74.94 A	2.57 в	0.05 A	0.00 A
273.3	79.53 A	2.67 H	0.04 A	0.00 A
	84.53 A	2.67 н	0.04 A	0.00 A
266.7			0.04 A	0.00 A

			42	3578
260.0	89.14 A		0.04 A	0.00 A
253.3	93.51 A		0.02 A	0.00 A
246.7	97.55 A	2.60 H	0.03 A	0.00 A
240.0	101.47 A	2.65 B	0.02 A	0.00 A
233.3	105.21 A	2.65 H	0.05 A	0.00 A
226.7	108.86 A	2.71 в	0.02 A	0.00 A
220.0	112.39 A	2.74 н	0.05 A	0.00 A
210.0	116.64 A	3.05 в	0.04 A	0.00 A
200.0	121.61 A	3.09 в	0.03 A	0.00 A
190.0	126.42 A	3.16 в	0.04 A	0.00 A
180.0	131.09 A	3.23 в	0.03 A	0.00 A
170.0	135.60 A	3.33 в	0.03 A	0.00 A
160.0	139.96 A	3.42 в	0.03 A	0.00 A
	144.25 A	3.53 н		0.00 A
150.0	148.48 A	3.64 B	0.02 A	0.00 A
140.0	152.69 A	3.77 н	0.02 A	
130.0	156.89 A	3.90 в	0.02 A	0.00 A
120.0	161.08 A	4.04 в	0.01 C	0.00 A
110.0	165.24 A	4.17 н	0.01 G	0.00 A
100.0	170.41 A	4.40 H	0.12 A	0.00 A
93.3	168.91 A	 5.78 н	0.30 A	0.00 D
80.0	178.00 A	4.65 н	0.10 A	0.00 A
73.3	176.46 A	 5.99 н	0.30 A	0.00 в
60.0	185.49 A	4.91 в	0.10 A	0.00 A
53.3	183.94 A	6.20 в	0.29 A	0.00 J
40.0	192.91 A	5.15 в	0.09 A	0.00 A
33.3	191.30 A	6.37 в	0.26 I	0.00 J
20.0	200.07 A		0.04 A	0.00 J
13.3	198.36 A	6.51 B	0.22 I	0.00 E
0.0			0.00 A	0.00 A

## MAXIMUM COMPRESSION IN MAST MEMBERS (kip)

ELEV ft	LEGS	DIAG	HORIZ	BRACE
355.0			-0.38 G	0.00 A
350.0	-0.39 A	-0.58 A	-0.05 A	0.00 A
345.0	-4.16 G	-1.60 в	-0.03 C	0.00 A
340.0	-8.41 G	-1.72 B	0.00 A	0.00 A
335.0	-13.82 G	-2.63 G	-0.05 G	0.00 A
55510	-22.07 G	-2.89 H		

			42	3578
330.0	-29.78 G	-3.37 в	-0.03 A	0.00 A
325.0	-40.50 G	-4.26 н	-0.06 G	0.00 A
320.0	-48.84 G	-2.96 G	-0.20 C	0.00 A
315.0	-57.82 G	-3.10 н	-0.05 G	0.00 A
310.0			-0.02 G	0.00 A
305.0	-65.13 G	-3.18 H	-0.05 G	0.00 A
300.0	-72.29 G	-2.89 H	-0.02 G	0.00 A
295.0	-78.29 G	-2.83 H	-0.03 G	0.00 A
290.0	-84.26 G	-2.66 H	-0.03 G	0.00 A
285.0	-89.48 G	-2.65 H	-0.03 G	0.00 A
280.0	-94.69 G	-2.54 н	-0.03 G	0.00 A
273.3	-100.07 G	-2.76 B	-0.03 G	0.00 A
266.7	-106.24 G	-2.65 н	-0.03 G	0.00 A
260.0	-111.81 G	-2.67 H	-0.02 G	0.00 A
253.3	-117.44 G	-2.62 н	-0.01 G	0.00 A
246.7	-122.72 G	-2.66 H	-0.02 G	0.00 A
240.0	-128.03 G	-2.65 н	-0.01 G	0.00 A
-	-133.06 G	-2.70 в	-0.03 G	0.00 A
233.3	-138.10 G	-2.72 н		
226.7	-142.98 G	-2.78 в	-0.01 G	0.00 A
220.0	-148.97 G	-3.09 в	-0.03 G	0.00 A
210.0	-156.06 G	-3.15 в	-0.03 G	0.00 A
200.0	-163.04 G	-3.20 в	-0.02 G	0.00 A
190.0	-169.89 G	-3.28 в	-0.02 G	0.00 A
180.0	-176.76 G	-3.37 B	-0.02 G	0.00 A
170.0	-183.62 G	-3.47 н	-0.02 G	0.00 A
160.0	-190.49 G	-3.57 в	-0.02 G	0.00 A
150.0	-197.32 G	-3.69 н	-0.01 G	0.00 A
140.0	-204.15 G	-3.81 в	-0.01 G	0.00 A
130.0	-210.96 G	-3.95 н	-0.01 G	0.00 A
120.0	-217.80 G	 -4.07 н	-0.01 I	0.00 A
110.0	-224.62 G	-4.21 н	-0.02 A	0.00 A
100.0	-232.20 G	-4.49 н	-0.07 G	0.00 A
93.3	-233.70 G	-5.84 H	-0.43 G	0.00 D
80.0	-246.53 G	-4.78 G	-0.06 G	0.00 A
73.3	-248.07 G	-6.06 B	-0.43 G	0.00 G
60.0	-260.98 G		-0.06 G	0.00 A
53.3	-262.52 G	-5.02 В  -6.26 В	-0.42 G	0.00 в
40.0			-0.05 G	0.00 A
33.3	-275.40 G	-5.26 B	-0.40 C	0.00 F
20.0	-277.00 G	-6.44 B	-0.02 G	0.00 F
	-289.90 G	-5.46 в		

			423578
13.3		-0.37 C	0.00 J
	-291.60 G -6.55 (	В	
0.0		0.00 A	0.00 A

# MAXIMUM INDIVIDUAL FOUNDATION LOADS: (kip)

	LOADC	MPONENTS		TOTAL
NORTH	EAST	DOWN	UPLIFT	SHEAR
26.04 G	22.43 K	299.76 G	-203.66 A	26.04 G

### MAXIMUM TOTAL LOADS ON FOUNDATION : (kip & kip-ft)

NORTH	ORIZONTA EAST @	L TOTAL 0.0	DOWN	NORTH	-OVERTURNING EAST	TOTAL @ 0.0	ORSION
39.9	37.9	39.9	129.4	8223.3	7878.3	8223.3	-18.1
G	J	G	K	G	J	G	F

### MAT FOUNDATION DESIGN BY SABRE TOWERS & POLES

Tower Description 355' S3TL Series HD1 Customer AT&T Project Number 423578 Date 12/11/2018 Engineer REB

### **Overall Loads:**

Factored Moment (ft-kips) Factored Axial (kips) Factored Shear (kips) Individual Leg Loads: Factored Uplift (kips) Factored Download (kips) Factored Shear (kips)

Width of Tower (ft) Ultimate Bearing Pressure Bearing Φs

Bearing Design Strength (ksf) Water Table Below Grade (ft) Width of Mat (ft) Thickness of Mat (ft) Depth to Bottom of Slab (ft) Bolt Circle Diameter (in) Top of Concrete to Top of Bottom Threads (in) Diameter of Pier (ft) Ht. of Pier Above Ground (ft) Ht. of Pier Below Ground (ft) Quantity of Bars in Mat Bar Diameter in Mat (in) Area of Bars in Mat (in<sup>2</sup>) Spacing of Bars in Mat (in) Quantity of Bars Pier Bar Diameter in Pier (in) Tie Bar Diameter in Pier (in) Spacing of Ties (in) Area of Bars in Pier (in<sup>2</sup>) Spacing of Bars in Pier (in) f'c (ksi) fy (ksi) Unit Wt. of Soil (kcf) Unit Wt. of Concrete (kcf) Volume of Concrete (yd<sup>3</sup>)

372.18	
118.30	
693.00	
813.00	
73.00	

24390.94

37	
6.00	
0.75	
4.5	
999	
44.5	
2	
6.5	
18	

72.625
4
0.5
4.5
75
1.27
95.01
7.12
20
1.128
0.5
9
19.99
6.24
4.5
60
0.11
0.15
150.07

153.67

Allowable Bearing Pressure (ksf) Safety Factor	3.00 2.00
Max. Factored Net Bearing Pressure (ksf)	3.13
Minimum Mat Width (ft)	44.01
Minimum Pier Diameter (ft) Equivalent Square b (ft)	2.83 3.54

Tower eccentric from mat (ft)=

Recommended Spacing (in)

6 to 12

3

Minimum Pier A <sub>s</sub> (in²)	
Recommended Spacing	(in)

9.05	
5 to 12	

Two-Way Shear:			
Average d (in)	19.73		
φv <sub>c</sub> (ksi)	0.228	v <sub>u</sub> (ksi)	0.219
$\phi v_{\rm c} = \phi (2 + 4/\beta_{\rm c}) {\rm f'_c}^{1/2}$	0.342		
$\phi v_{c} = \phi(\alpha_{s} d/b_{o} + 2) f'_{c}^{1/2}$	0.343		
$\phi v_c = \phi 4 f'_c^{1/2}$	0.228		
Shear perimeter, $b_o$ (in)	196.39		
β <sub>c</sub>	1		
Stability:			
Overturning Design Strength (ft-k)	33766.6	Factored Overturning Moment (ft-k)	25219.0
One-Way Shear:		,	
φV <sub>c</sub> (kips)	1201.5	V <sub>u</sub> (kips)	805.7
Pier Design:			
Design Tensile Strength (kips)	1079.3	Tu (kips)	693.0
φV <sub>n</sub> (kips)	134.7	V <sub>u</sub> (kips)	73.0
$\phi V_{c} = \phi 2 (1 + N_{u} / (500 A_{g})) f'_{c}^{1/2} b_{w} d$	49.2		
V <sub>s</sub> (kips)	100.5	*** $V_s max = 4 f'_c^{1/2} b_w d$ (kips)	494.6
Maximum Spacing (in)	9.76	(Only if Shear Ties are Required)	
Actual Hook Development (in)	18.46	Reg'd Hook Development I <sub>dh</sub> (in)	11.48
	10.10	*** Ref. ACI 11.5.5 & 11.5.6.3	
Anchor Bolt Pull-Out:			
$\phi P_{c} = \phi \lambda (2/3) f'_{c}^{1/2} (2.8 A_{SLOPE} + 4 A_{FLAT})$	272.8	P <sub>u</sub> (kips)	693.0
Pier Rebar Development Length (in)	and the second se	Required Length of Development (in)	32.39
Flexure in Slab:			
φM <sub>n</sub> (ft-kips)	7838.7	M <sub>u</sub> (ft-kips)	7742.8
a (in)	2.79		
Steel Ratio	0.00902		
β <sub>1</sub>	0.825		
Maximum Steel Ratio (ρ <sub>t</sub> )	0.0197		
Minimum Steel Ratio	0.0018		
Rebar Development in Pad (in)	121.10	Required Development in Pad (in)	14.81
Condition	1 is OK, 0 Fails		
Minimum Mat Width			
Maximum Soil Bearing Pressure Pier Area of Steel			
Pier Shear			
Two-Way Shear			
Overturning	l i		
Anchor Bolt Pull-Out	1		
Flexure	1		
Steel Ratio	1		
Length of Development in Pad	1		
Interaction Diagram Visual Check	1		
One-Way Shear			
Hook Development			
Minimum Mat Depth	1		

# MAT FOUNDATION DESIGN BY SABRE TOWERS & POLES (CONTINUED)

### **DRILLED STRAIGHT PIER DESIGN BY SABRE TOWERS & POLES**

Tower Description 355' S3TL Series HD1 Customer Name AT&T Job Number 423578 Date 12/11/2018 Engineer REB

Factored Uplift (kips)	693		
Factored Download (kips)	813		
Factored Shear (kips)	73		
Ultimate Bearing Pressure	20		
Bearing Φs	0.75		
Bearing Design Strength (ksf)	15		
Water Table Below Grade (ft)	999		
Bolt Circle Diameter (in)	18		
Top of Concrete to Top			
of Bottom Threads (in)	72.625		
Pier Diameter (ft)	3.5	Minimum Pier Diameter (ft)	2.83
Ht. Above Ground (ft)	0.5		
Pier Length Below Ground (ft)	36		
Quantity of Bars	16		
Bar Diameter (in)	1.41		
Tie Bar Diameter (in)	0.5		
Spacing of Ties (in)	9		
Area of Bars (in <sup>2</sup> )	24.98	Minimum Area of Steel (in <sup>2</sup> )	6.93
Spacing of Bars (in)	6.60		
f'c (ksi)	4.5		
fy (ksi)	60		
Unit Wt. of Concrete (kcf)	0.15		
Download Friction Φs	0.75		
Uplift Friction $\Phi$ s	0.75		
Volume of Concrete (yd <sup>3</sup> )	13.01		
Skin Friction Factor for Uplift	formed at 1 per 201	Length to Ignore Download (ft)	
Ignore Bottom Length in Download?		0	
Depth at Bottom of Layer (ft)	Ult. Skin Friction (ksf)	(Ult. Skin Friction)*(Uplift Factor)	γ (kcf)
1 States and 5 States and 5	0.00	0.00	0.11
17	2.00	2.00	0.11
36	5.00	5.00	0.11
0	0.00	0.00	0
0	0.00	0.00	0
	0.00	0.00	0
0	0.00	0.00	0
0	0.00	0.00	0
0	0.00	0.00	0
0	0.00	0.00	0

### Download:

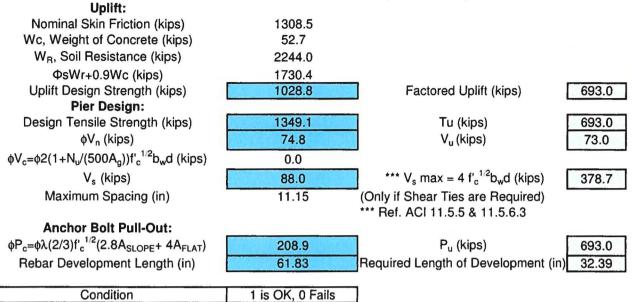
Factored Net Weight of Concrete (kips) Bearing Design Strength (kips) Skin Friction Design Strength (kips) Download Design Strength (kips)

17.5	
144.3	
981.4	
1125.7	

Factored Net Download (kips)

830.5

### DRILLED STRAIGHT PIER DESIGN BY SABRE TOWERS & POLES (CONTINUED)



Condition	1 is OK, 0 Fails
Download	1
Uplift	1
Area of Steel	1
Shear	1
Anchor Bolt Pull-Out	1
Interaction Diagram Visual Check	1



November 19, 2018

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

RE: Site Name – Sheridan Proposed Cell Tower 37 21 50.17 North Latitude, 88 12 51.76 West Longitude

Dear County Clerk:

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,

him Madie

Don Murdock, Sr. Project Manager – Tennessee/Kentucky Market MasTec Network Solutions (615) 207-8280 EXHIBIT D COMPETING UTILITIES, CORPORATIONS, OR PERSONS LIST Navigation Reports

10/23/2018

### **KY** Public Service Commission

# Master Utility Search

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

Search

	Utility ID	Utility Name	Utility Type	Class	City	State
View	4111300	2600Hz, Inc. dba ZSWITCH	Cellular	С	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	МІ
View	4110650	Alliant Technologies of KY, L.L.C.	Cellular	D	Morristown	IJ
View	44451184	Alltel Communications, LLC	Cellular	A	Basking Ridge	IJ
View	4110850	AltaWorx, LLC	Cellular	D	Fairhope	AL
View	4107800	American Broadband and Telecommunications Company	Cellular	D	Toledo	он
View	41118650	AmeriMex Communications Corp.	Cellular	D	Dunedin	FL
View	4105100	AmeriVision Communications, Inc. d/b/a Affinity 4	Cellular	D	Virginia Beach	VA
View	4 1 1 1 7 / 1 1 1	Andrew David Balholm dba Norcell	Cellular	D	Clayton	WA
View	4108600	BCN Telecom, Inc.	Cellular	D	Morristown	LΝ
View	4110550	Blue Casa Mobile, LLC	Cellular	D	Santa Barbara	CA
View	4108750	Blue Jay Wireless, LLC	Cellular	С	Carrollton	тх
View	4111050	BlueBird Communications, LLC	Cellular	С	New York	NY
View	4202300	Bluegrass Wireless, LLC	Cellular	Α	Elizabethtown	КY
View	4107600	Boomerang Wireless, LLC	Cellular	В	Hiawatha	IA

Utility Master Information -- Search

View	4105500	BullsEye Telecom, Inc.	Cellular	D		MI
View	4100700	Cellco Partnership dba Verizon Wireless	Cellular	A	Basking Ridge	L
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	В	San Francisco	CA
View	4108850	Cricket Wireless, LLC	Cellular	D	San Antonio	ТХ
View	10640	Cumberland Cellular Partnership	Cellular	A	Elizabethtown	KΥ
View	4111200	Dynalink Communications, Inc.	Cellular	С	Brooklyn	NY
View	4101000	East Kentucky Network, LLC dba Appalachian Wireless	Cellular	A	Ivel	кy
View	4002300	Easy Telephone Service Company dba Easy Wireless	Cellular	D	Ocala	FL
View	4109500	Enhanced Communications Group, LLC	Cellular	D	Bartlesville	ок
View	4110450	Excellus Communications, LLC	Cellular	D	Chattanooga	ΤN
View	4105900	Flash Wireless, LLC	Cellular	С	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	В	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	UN
View	4103100	i-Wireless, LLC	Cellular	A	Newport	KΥ
View		IM Telecom, LLC d/b/a Infiniti Mobile	Cellular	D	Tulsa	ок
View	22215360	KDDI America, Inc.	Cellular	D	New York	NY
View	10872	Kentucky RSA #1 Partnership	Cellular	A	Basking Ridge	IJ
View	10680	Kentucky RSA #3 Cellular General	Cellular	A	Elizabethtown	кy
View	10681	Kentucky RSA #4 Cellular General	Cellular	A	Elizabethtown	КY
View	4109750	Konatel, Inc. dba telecom.mobi	Cellular	D	Johnstown	PA
View	4111250	Liberty Mobile Wireless, LLC	Cellular	с	Sunny Isles Beach	
View	4111400	Locus Telecommunications, LLC	Cellular	С	Fort Lee	ΟJ
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

Utility Master Information -- Search

liou	4109650	Mitel Cloud Services, Inc.	Cellular	In	Mesa	AZ
View	4109030		Cellular		IMESO	AZ
View	4202400	New Cingular Wireless PCS, LLC dba AT&T Mobility, PCS	Cellular	A	San Antonio	ТХ
View	10900	New Par dba Verizon Wireless	Cellular	A	Basking Ridge	ĽΝ
View	4000800	Nextel West Corporation	Cellular	D	Overland Park	кs
View	4001300	NPCR, Inc. dba Nextel Partners	Cellular	D	Overland Park	кs
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	ΤХ
View	4110250	Plintron Technologies USA LLC	Cellular	D	Bellevue	WA
View	33351182	PNG Telecommunications, Inc. dba PowerNet Global Communications	Cellular	D	Cincinnati	он
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	С	Dania Beach	FL
View	4106700	Q Link Wireless, LLC	Cellular	В	Dania	FL
View	4108700	Ready Wireless, LLC	Cellular	В	Hiawatha	IA
View	4110500	Republic Wireless, Inc.	Cellular	D	Raleigh	NC
View	4111100	ROK Mobile, Inc.	Cellular	С	Culver City	CA
View		Rural Cellular Corporation	Cellular		Basking Ridge	СИ
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	L
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	ТХ
View	4110200	T C Telephone LLC d/b/a Horizon Cellular	Cellular	D	Red Bluff	СА
View	4202200	T-Mobile Central, LLC dba T- Mobile	Cellular	A	Bellevue	WA
View		TAG Mobile, LLC	Cellular	D	Carrollton	ΤХ
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	Cellular	D	Covington	GA
		Tempo Telecom, LLC	Cellular		Atlanta	GA
	4109950	The People's Operator USA, LLC			New York	NY
	4109000	Ting, Inc.	Cellular		Toronto	ON

#### Utility Master Information -- Search

View	4110400	Torch Wireless Corp.	Cellular	D	Jacksonville	FL
View	4103300	Touchtone Communications, Inc.	Cellular	D	Whippany	ΓN
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	КY

EXHIBIT E FAA

Mail Processing Center Federal Aviation Administration Southwest Regional Office Obstruction Evaluation Group 10101 Hillwood Parkway Fort Worth, TX 76177 Aeronautical Study No. 2017-ASO-18995-OE

Issued Date: 09/29/2017

Dave Cundiff (LA) AT&T 208 S Akard Room 1016 Dallas, TX 75202

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

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

Structure:Antenna Tower Sheridan - 13800789Location:Marion, KYLatitude:37-21-50.17N NAD 83Longitude:88-12-51.76WHeights:550 feet site elevation (SE)370 feet above ground level (AGL)920 feet above mean sea level (AMSL)

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

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, a med-dual system - Chapters 4,8(M-Dual),&12.

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

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

At least 10 days prior to start of construction (7460-2, Part 1)

X\_\_\_Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

This determination expires on 03/29/2019 unless:

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

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

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

This determination does not constitute authority to transmit on the frequency(ies) identified in this study. The proponent is required to obtain a formal frequency transmit license from the Federal Communications Commission (FCC) or National Telecommunications and Information Administration (NTIA), prior to on-air operations of these frequency(ies).

This determination of No Hazard is granted provided the following conditional statement is included in the proponent's construction permit or license to radiate:

Upon receipt of notification from the Federal Communications Commission that harmful interference is being caused by the licencee's (permittee's) transmitter, the licensee (permittee) shall either immediately reduce the power to the point of no interference, cease operation, or take such immediate corrective action as is necessary to eliminate the harmful interference. This condition expires after 1 year of interference-free operation.

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

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

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

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

If we can be of further assistance, please contact our office at (202) 267-0105, or j.garver@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2017-ASO-18995-OE.

#### Signature Control No: 344160742-345029709

Jay Garver Specialist

Attachment(s) Frequency Data Map(s)

cc: FCC

## Frequency Data for ASN 2017-ASO-18995-OE

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

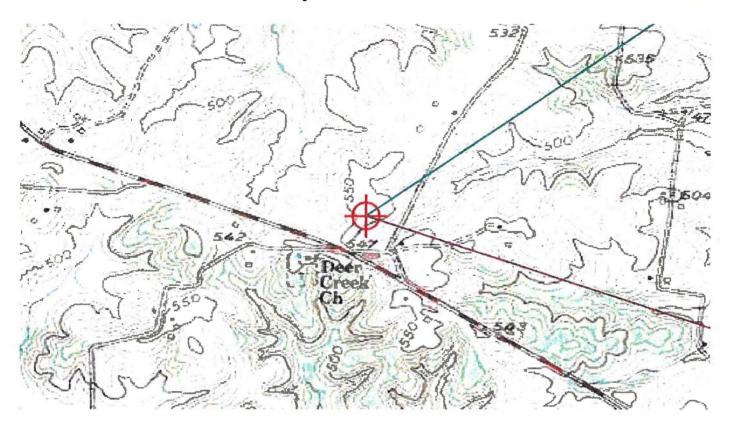


EXHIBIT F KENTUCKY AIRPORT ZONING COMMISSION



#### **KENTUCKY AIRPORT ZONING COMMISSION**

MATTHEW BEVIN Governor 421 Buttermilk Pike Covington, KY 41017 www.transportation.ky.gov 859-341-2700

December 27, 2017

APPROVAL OF APPLICATION

APPLICANT: John Monday John Monday 3300 E. Renner Rd B3132 Richardson, TX 75082

SUBJECT: AS-028-5M9-2017-114

STRUCTURE:	Antenna Tower
LOCATION:	Marion, KY
COORDINATES:	37° 21' 50.17" N / 88° 12' 51.76" W
HEIGHT:	370' AGL/920'AMSL

The Kentucky Airport Zoning Commission has approved your application for a permit to construct 370'AGL/920'AMSL Antenna Tower near Marion, KY 37° 21' 50.17" N / 88° 12' 51.76" W.

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

A copy of the approved application is enclosed for your files.

Medium Dual Obstruction Lighting is required in accordance with 602 KAR 50:100.

John Houlihan Administrator



An Equal Opportunity Employer M/F/D



KENTUCKY AIRPORT ZONING COMMISSION

MATTHEW BEVIN Governor 421 Buttermilk Pike Covington, KY 41017 www.transportation.ky.gov 859-341-2700

#### CONSTRUCTION/ALTERATION STATUS REPORT

December 27, 2017

AERONAUTICIAL STUDY NUMBER: AS-028-5M9-2017-114

John Monday John Monday 3300 E. Renner Rd B3132 Richardson, TX 75082

This concerns the permit which was issued to you by the Kentucky Airport Zoning Commission on December 27, 2017. This permit is valid for a period of 18 Month(s) from its date of issuance. If construction is not completed within the said 18-Month period, this permit shall lapse and be void, and no work shall be performed without the issuance of a new permit. When appropriate, please indicate the status of the project in the place below and return this letter to John Houlihan, Administrator, Kentucky Airport Zoning Commission, 421 Buttermilk Pike, Covington, KY, 41017. 859-341-2700.

STRUCTURE:	Antenna Tower
LOCATION:	Marion, KY
COORDINATES:	37° 21' 50.17" N / 88° 12' 51.76" W
HEIGHT:	370' AGL /920'AMSL

CONSTRUCTION/ALTERATION STATUS

1. The project ( ) is abandoned. ( ) is not abandoned.

2. Constructi	on status is as follows:	
Structure	reached its greatest height of	ft. AGL
	ft. AMSL on	(date).

Date construction was completed.
Type of obstruction marking/painting.
Type of obstruction lighting.
As built coordinates.
Miscellaneous Information.
DATE
SIGNATURE/TITLE



An Equal Opportunity Employer M/F/D

			<b>B</b> 2	017-114		
		PORTATION CABINET		TC 55-2		
- Erit	RENTOCKT INANS			Rev. 06/2016		
К	ENTUCKY AIRPORT	ZONING COMMISSIC	)N	Page 2 of 2		
APPLICATION FOR	PERMIT TO CO	NSTRUCT OR ALI	<b>TER A STRUCTU</b>	RE		
APPLICANT (name)	PHONE	FAX	KY AERONAUTICAL	.STUDY#		
John Monday	855-699-7073	972-907-1131	B-028-5M9	-2017-114		
ADDRESS (street)	CITY		STATE	ZIP		
3300 E. Renner Road, B3132	Richardson		אז	75082		
APPLICANT'S REPRESENTATIVE (name)	- 51 - 62 - 66 (13.2) - 18 - 1929 - 1920	FAX				
Roy Johnson	502-445-2475	502-222-4266		<u> </u>		
ADDRESS (street)	CITY		STATE	ZIP		
3605 Mattingly Road	Buckner	Contraction of	KY	40010		
APPLICATION FOR X New Construct			WORK SCHEDULE	тво		
DURATION Permanent Tem	porary (months	days ) IG/LIGHTING PREFER	Start End	100		
X Antenna Tower	The real statement of the second statement of	int White- medi		hite- high intensity		
Power Line Water Tank		dium intensity white		gh intensity white		
	Other	atom meetisity white		Bit incensicy write		
LATITUDE	LONGITUDE		DATUM X NAD	83 NAD27		
37° 21′ 50,17 ″		1.76 ″	Other			
NEAREST KENTUCKY City Marion County Crittenden	NEAREST KENTUCK 5M9 Marion-Critt	Y PUBLIC USE OR MI enden County	LITARY AIRPORT			
SITE ELEVATION (AMSL, feet) 550	TOTAL STRUCTURE 370	HEIGHT (AGL, feet)	CURRENT (FAA aeronautical study # 2017-ASO-18995-OE			
OVERALL HEIGHT (site elevation plus to 920	tal structure height,	feet)	PREVIOUS (FAA ae	ronautical study #)		
DISTANCE (from nearest Kentucky publi 5.27 NM	c use or Military airp	port to structure)	PREVIOUS (KY aero	onautical study #)		
DIRECTION (from nearest Kentucky publ	lic use or Military ai	rport to structure)				
DESCRIPTION OF LOCATION (Attach US	GS 7 5 minute auad	ranale man or an airr	l	with the precise site		
marked and any certified survey.)	us 7.5 minute quud	angle map of an allp	on they but und wing	with the precise site		
	nd Quad attached					
DESCRIPTION OF PROPOSAL		<del></del>				
AT&T proposes to construct a 355' cell tow	ver with a 15' lightning	; rod for an overall heig	ht of 370'.			
FAA Form 7460-1 (Has the "Notice of Co	onstruction or Altera	tion" been filed with	the Federal Aviation	Administration?)		
	<b>CERTIFICATION</b> (I hereby certify that all the above entries, made by me, are true, complete, and correct to the best of					
my knowledge and belief.)						
PENALITIES (Persons failing to comply with KRS 183.861 to 183.990 and 602 KAR 050 are liable for fines and/or						
imprisonment as set forth in KRS 183.990(3). Noncompliance with FAA regulations may result in further penalties.)						
NAME         TITLE           Michelle Ward         Sr. Real Estate M	gr. SIGNATURE	fine word	DATE 09/29/17			
COMMISSION ACTION	Chairperson	•	• · · ·			
Approved SIGNATURE			DATE /2-2	7-17		
Disapproved	/					
V						

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# EXHIBIT G GEOTECHNICAL REPORT

"Setting the Standard for Service"



November 1, 2018

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

ECS Project No. 26:3125-T2

Reference: Report of Subsurface Exploration and Geotechnical Engineering Services Sheridan Tower Humphrey Lane Marion, KY

Dear Mr. Goralski:

ECS Southeast, LLP (ECS) has completed the subsurface exploration for the proposed construction of a self-supporting tower located on Humphrey Lane, in Marion, Kentucky, approximately 500 feet northwest of the intersection with High Road. The purpose of these services was to explore the subsurface soil and groundwater conditions at the site, and to develop geotechnical recommendations pertaining to foundation support of the structures. This report explains our understanding of the project, documents our findings, and presents our conclusions and geotechnical engineering recommendations to serve as an aid during the design and construction of the project.

#### PROJECT INFORMATION AND PROPOSED CONSTRUCTION

The project will consist of the construction of a new 355+/-foot tall self-supporting tower with a 15-foot lightning arrestor and fenced equipment compound. The proposed tower site is located in a grassy area. See the attached Site Location Diagram (Figure 1) and Boring Location Diagram (Figure 2). We have received preliminary site plans showing the site boundaries and proposed tower location. No loading information was provided for the tower. Based on information provided from the client, the current ground surface elevation at the center of the tower is approximately 549.5 feet MSL. To achieve the proposed grading at the tower site, we anticipate that minimal cut and fill will be required. We do not anticipate that any significant stormwater management (SWM) facilities or site retaining walls will be required for this project.

#### **EXPLORATION PROCEDURES**

The site subsurface conditions were explored on October 26, 2018, completing three Standard Penetration Test (SPT) borings drilled 35 feet from the staked center of the tower location. The borings were drilled to depths of approximately 10 ½ to 17 feet (depth of auger refusal). The approximate boring locations are shown on the attached Boring Location diagram (Figure 2). The boring locations were based on a survey stake-out that was performed by others. Prior to drilling, underground utilities were cleared through the Kentucky 811system.

A CME 45 track-mounted drill rig was utilized to complete the SPT boring. The drill rig utilized 3-¼ inch hollow stem augers to advance the boreholes. Representative soil samples were secured by means of conventional split-barrel sampling procedures (ASTM D1586). In this procedure, a 2-inch O.D., split-barrel sampler is driven into the soil a distance of 18 inches by a 140-pound hammer falling 30 inches. The number of blows required to drive the sampler

through the final 12-inch interval, after initial setting of 6 inches, is termed the Standard Penetration Test (SPT) value or N-value, and is indicated for each sample on the attached boring logs.

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

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

#### CLASSIFICATION AND LABORATORY TESTING PROCEDURES

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

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

#### SITE GEOLOGY

The USGS Geologic Map of the Salem Quadrangle (1962) indicates this particular site is underlain by the St. Louis Limestone Formation. This formation is typically a light olive to dark gray, very fine to medium-grained, medium to thick-bedded, fossiliferous limestone containing numerous chert stringers and nodules. Soil formed by the solution weathering of the parent limestone formation normally consists of reddish-brown silty clay of low to moderate plasticity with occasional zones of high plasticity. Often bands of partially and unweathered chert exist within the overburden soil.



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

#### SUBSURFACE CONDITIONS

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

In general, the exploration revealed an approximately 3- to 8-inch thick layer of topsoil underlain by lean clay to depths of approximately 10 ½ to 17 feet below the ground surface. SPT N-values for the clay materials varied from 11 to 46 blows per foot (bpf). The encountered conditions are shown on the attached boring logs.

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

#### ANALYSIS AND RECOMMENDATIONS

#### General

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

#### Subgrade Preparation

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

#### Engineered Fill

The first layer of fill should be placed in a relatively uniform horizontal lift and be adequately keyed into the stripped and scarified subgrade soils. Fill materials should be free of organics, wet/frozen materials, or other deleterious materials. Engineered fill materials should consist of low to moderately plastic clays and silts, or coarse grained material such as sand and gravel. Engineered fill should have a maximum Liquid Limit no greater than 50, and a maximum Plasticity Index no greater than 30. In general, we recommend material to be used as engineered fill have a Standard Proctor maximum dry density of at least 90 pcf. Engineered soil fill should be placed in maximum loose lifts of 8 inches and compacted to at least 95 percent of the Standard Proctor (ASTM D698) maximum dry density. Soil engineered fill should be compacted within 3 percentage points of the optimum moisture content determined by the Standard Proctor method. Soil fill should not contain rock material greater than 4 inches in diameter.

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

#### **Equipment Shelter Foundations**

Based upon our findings, the equipment shelter may be supported by a turned-down monolithic slab-on-grade with foundation elements bearing on the undisturbed natural residual soils, weathered bedrock, or properly-compacted engineered fill. These foundations can be designed for a maximum net allowable soil bearing pressure of up to 3,000 psf.

For footings constructed in accordance with the requirements outlined in this report, maximum total settlement is expected to be less than 1 inch (plus any consolidation settlement from new fill loads). Maximum differential settlement is expected to be half the total settlement. Shallow foundations should be designed to bear at least 24 inches below the final exterior grades. The slab-on-grade may be designed using a modulus of subgrade reaction of 110 pounds per cubic inch (pci). A layer of free draining gravel may be used underlying the slab to serve as a leveling pad and provide a capillary break. All slab and foundation subgrades should be evaluated immediately prior to concrete placement by ECS to verify that the exposed subgrades are capable of satisfactorily supporting the design loads.

#### Self-support Tower Foundation

The proposed tower can be supported on drilled shaft (caisson) or pad and pier foundation. Based on previous experience with tower structures, we anticipate that wind loading, associated uplift resistance, and lateral loading may control the sizing and depth of the tower foundation.

We have provided estimated soil parameters at various depths to aid in drilled shaft foundation design in the attached <u>Geotechnical Data Form</u>.

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

Casing of the excavation is not expected, but may be required, depending on the condition of the soils and the ground water elevation at the time of construction. Once the bearing level is reached, all loose materials and any accumulated water seepage should be removed prior to placement of drilled shaft reinforcing cage and concrete. Up to 1 inch of water standing in the base of the shaft excavation is acceptable at the time concrete is placed, and an inflow rate of 1 inch per 5 minutes is also acceptable. Higher inflow rates, which could likely be encountered, may require additional control such as temporary casing or that drilled shaft concrete be placed by tremie method. The drilled shaft contractor should be prepared to handle such a condition and to ensure suitable end bearing conditions.

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

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

<u>Pad and Pier Recommendations</u>: A pad and pier foundation approach would also be reasonable. We recommend that the foundation can be designed for a net allowable bearing capacity in accordance to the information presented in our geotechnical data form, depending on the desired bearing depth. Base friction and passive earth pressures can be used to resist lateral loads. The friction coefficient between the foundation bottom and underlying material can be assumed to be 0.35. Passive earth pressures along the edge of the foundation can be calculated using a fluid equivalent of 300 pcf. Passive resistant should only be used where the soils adjacent to the foundation will not be eroded or removed in the future.

The shaft design and construction procedures should be reviewed with the foundation contractor prior to the start of construction. If you desire, we would be pleased to review the

plans and specifications for the project once they are completed so we may have the opportunity to comment on the impact of the soil/rock and groundwater conditions on the final design.

#### Seismic Site Classification

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

- Latitude: 37.363936, Longitude: 88.214378
- $S_s = 0.833, S_1 = 0.284$
- $S_{MS} = 0.888, S_{M1} = 0.431$
- $S_{DS} = 0.592, S_{D1} = 0.287$

\*Spectral accelerations were determined from USGS National Seismic Hazard Maps

#### **General Construction Considerations**

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

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

#### <u>CLOSING</u>

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

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

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

Respectfully,

#### ECS SOUTHEAST, LLP

Caron Holland

Aaron M. Holland, GIT Geotechnical Project Manager

Tric Slasiecki

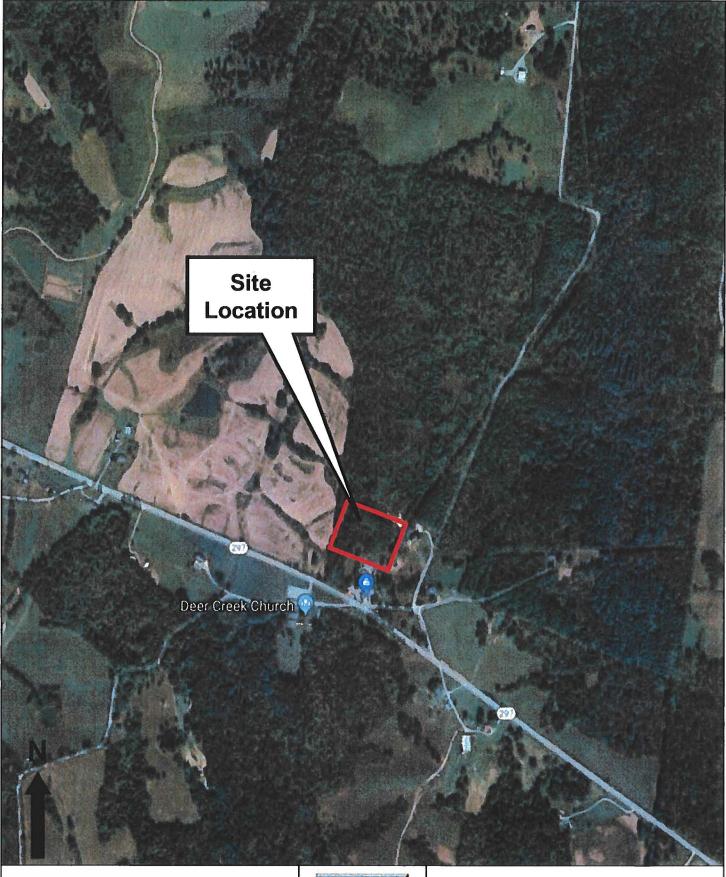
Eric M. Gasiecki Geotechnical Department Manager

Attachments: Figure 1: Site Location Diagram Figure 2: Boring Location Diagrams Geotechnical Data Form SPT Boring Logs (B-1 through B-3) Reference Notes for Boring Logs USGS Summary Report



Mark D. Luskin, P.E. Engineering Manager

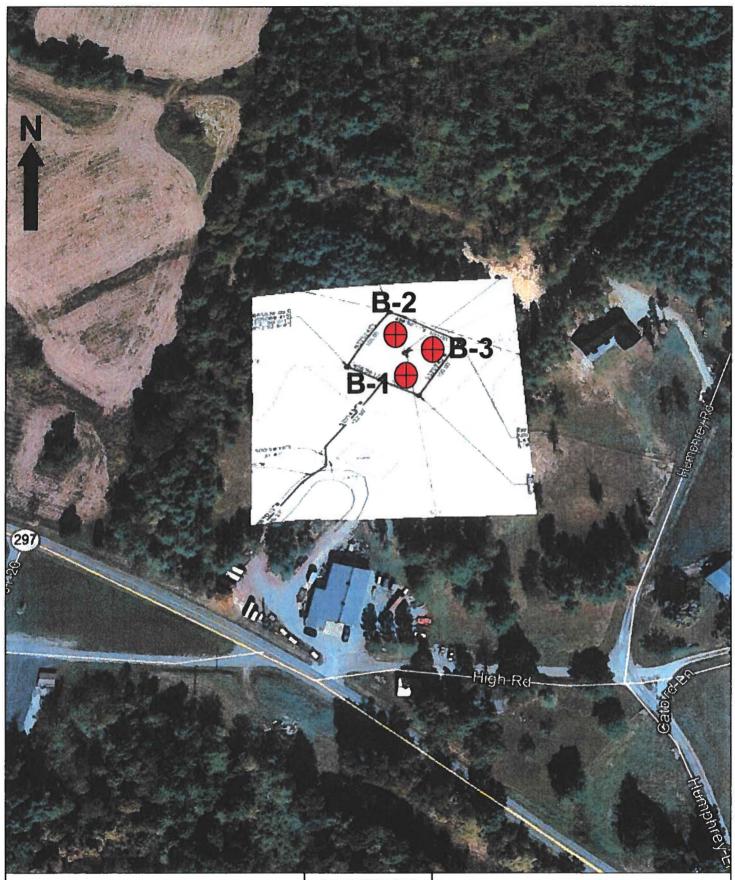
I:\D3 - Geotechnical\D3 Projects\3100-3199\26-3125 Irish Tower\26-3125-C2 Sheridan, KY\Report\26-3125-C2 Sheridan, KYdocx



Irish Tower-Sheridan Tower Humphrey Lane Marion, KY ECS Project No. 26:3125-T2



Figure 1: Site Location Diagram



Irish Tower-Sheridan Tower Humphrey Lane Marion, KY ECS Project No. 26:3125-T2



Figure 2: Boring Location Diagram

Approximate Boring Locations

#### **GEOTECHNICAL DATA FORM**

#### Background Information

Irish Tower, LLC Client: Sheridan Project: Location: Humphrey Lane, Marion, KY ECS Project No.: 26:3125-T2 Self-Support Type: Height: 305'+/-



#### Subsurface Conditions

Depth (feet)	Soil Behavior Type	Average N (spt)	Relative Density/Consistency	USCS Classificati on
0 - 17	Lean Clay	27	Very Stiff	CL
17+	Limestone Bedrock	50/0	-	-

#### Estimated Soil Parameters for LPILE

Depth	LPILE Soil	γ	Su	¢'	К*	E <sub>50</sub> *
(feet)	Туре	(pcf)	(psf)	(°)	(pci)	
0 - 17	Very Stiff Clay	110	3000		110	0.005
17+	Limestone Bedrock	135	5000+		500	0.001

y= In-situ Soil Density

S<sub>u</sub>= Undrained Shear Strength

6'= Effective Friction Angle

K= Horizontal Subgrade Reaction

\*Parameters estimated from values suggested in LPILE user manual.

#### Foundation Recommendations

For Drilled Shaft Foundations\*\*

Depth (ft)	Allowable End Bearing (KSF)
0 - 17	3
17 - 25	5
25+	10

Depth Interval	Allowable Average Side Friction (PSF)
0 - 5	•
5 - 17	1,000
17+	2,500

\*\*Ignore in top 5 feet in design, minimum embedment depth of 10% tower height applies.

\*Paramaters were increased with embedment depth due to anticipated increase in bedrock quality

#### **Construction Criteria**

1) Proofroll site prior to construction to detect unsuitable soil near the surface.

2) Compact building pads/roadway subgrade and each 8 inch lift of approved fill to 95% maximum dry density in accordance with ASTM D698 standard proctor

Approved fill materials are soils with less than 3% organics, less than 50 liquid limit and less than 30 plastic index.
 Foundation construction should be observed by Geotechnical Engineer.
 Dnlled shaft foundations should be installed in accordance with the requirements of the Deep Foundation Institute and monitored by the Geotechnical Engineer.

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		ų	L. (IN)	(N	DESCRIPTION OF M	ATERIAL		ENGLISH		SI	Ē	PLASTIC WATER LIQUID LIMIT% CONTENT% LIMIT%	
DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	BOTTOM OF CASING		LOSS OF (	CIRCULATION	N 💽	WATER LEVELS	ELEVATION (F1) BLOWS/6"	STANDARD PENETRATION	
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5											10	4.5	
_	S-3	SS	11	11							17 50/5		
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0	S-4	SS	18	18							14 13 18	-O- 4.5	
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0	-				Topsoil Thickr	ess [8"] AY, trace sand,	contains slight							
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Hump	hre	<u>/ Lai</u>	ne, I	Mari	on, Kentucky						Ŭ	ITY DESIGNA		
NORTHIN	IG			LASTIN	iG	STATION					RQD%			
		ЪЕ В	5T. (IN)	(NI)	DESCRIPTION OF M			LISH UNITS			PLASTIC LIMIT%			
DEPTH (FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DIST. (IN)	RECOVERY (IN)	BOTTOM OF CASING		LOSS OF CIRCUL	ATION 223	WATER LEVELS ELEVATION (FT)	BLOWS/6"		ANDARD PEN		
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_					(CL) LEAN CL	AY, trace sand,	contains slight			7				
	S-1	SS	18	18	rock fragments	, brown, moist,	stiff to very stiff			6 7	13 0		4.5	
-										8				
5	S-2	SS	18	18						8 10	18-0	2. :	4.5	
										12		$\mathbf{X}$		
-	S-3	SS	18	18						10 16		26	4.5	
	<u>S-4</u>	SS	3	3						50/3	-			⊗ 50/3
10 -													. 4.0	50/3
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# **REFERENCE NOTES FOR BORING LOGS**

	2				1	RILLING	SAMPLING	SYMBO	DLS	5 & A	BBREV	ATIONS		
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	CONC	RETE		WS	Wash Sar						ore, NX,			
2				BS	Bulk Sam							ecovery %		
00001	GRAV	EL		PA	Power Au		mple)	RQD	Ro	ck Qı	uality De	signation %		
ÎK	TOPS	011	11	HSA	Hollow St	em Auger								
2112.	1055	JIL	l r				PARTICLE S		INT	TIFIC/	ATION			
	VOID			DESIGNA	TION		ICLE SIZES							
 			11	Boulders		12 in	ches (300 mm	1) or lar	ger				· · · · · · · · · · · · · · · · · · ·	•
	BRICK		11	Cobbles		3 incl	nes to 12 incl	nes (75	mr	m to 3	300 mm)			
~ <sup>0</sup>	ACCE	EGATE BASE COURSE		Gravel:	Coarse	3/4 inc	h to 3 inches	(19 mn	n to	75 m	nm)			
£ co €	Addn	EGATE DASE COURSE			Fine	4.75	mm to 19 mm	(No. 4	sie	eve to	3/4 inch)			
A 8	FILL <sup>3</sup>	MAN-PLACED SOILS		Sand:	Coarse		mm to 4.75 m	(etc.)				•		
Line To					Medium		5 mm to 2.00 r					,		
	GW	WELL-GRADED GRAVEL gravel-sand mixtures, little or no fine:		0111 0 01	Fine		mm to 0.425					sieve)		
	GP	POORLY-GRADED GRAVEL		Silt & Cla	ay ("Fines")	<0.07	'4 mm (smalle	er than	a N	lo. 20	0 sieve)			,
7		gravel-sand mixtures, little or no fine	i r		00115011		01.43/0		Г					•
	GM	SILTY GRAVEL			COHESIVE	SILTS &	CLAYS			REI	ATIVE	COARSE GRAINED	FINE	1
100	~~	gravel-sand-silt mixtures		000000000000000000000000000000000000000	NFINED	SPT <sup>5</sup>	CONSISTEN	~7	L		DUNT	(%) <sup>8</sup>	(%) <sup>8</sup>	ĺ
~	GC	CLAYEY GRAVEL gravel-sand-clay mixtures			ESSIVE STH, Qp <sup>4</sup>	(BPF)	(COHESIVI		F			1		
	SW	WELL-GRADED SAND			.25	<3	Very Sof			Trace		<u>&lt;</u> 5	<u>&lt;</u> 5	
		gravelly sand, little or no fines	11		<0.50	3 - 4	Soft				Symbol <i>W-SM</i> )	10	10	
	SP	POORLY-GRADED SAND		0.50 -	<1.00	5 - 8	Medium S	tiff	11	With		15 - 20	15 - 25	
ii: aaa	~	gravelly sand, little or no fines		1.00 -	<2.00	9 - 15	Stiff			Adjec	tive	≥25	<u>≥</u> 30	
	SM	SILTY SAND sand-silt mixtures		2.00 -	<4.00	16 - 30	Very Stif	t I		(ex: "S		-	_	
11111 1111	SC	CLAYEY SAND		4.00	- 8.00	31 - 50	Hard							
1		sand-clay mixtures		>8	.00	>50	Very Har	d	Γ		W	ATER LEVELS	6	
ΠΠ	ML	SILT	lг		n a a case o					¥	WL	Water Level (	WS)(WD)	
		non-plastic to medium plasticity		1000	C 120. OIL ST MONEOUR MILLS	& NON-C	OHESIVE SI	LTS				(WS) While	Sampling	
	MH	ELASTIC SILT high plasticity		S	PT <sup>5</sup>		DENSITY					(WD) While	Drilling	
77	CL	LEAN CLAY	11		<5		Very Loose			Ţ	SHW	Seasonal Hig		
11.		low to medium plasticity		5	- 10		Loose			- V	ACR	After Casing		
7.	СН	FAT CLAY			- 30	М	edium Dense			v	SWT	Stabilized Wa	ater I able	
		high plasticity			- 50		Dense				DCI WCI	Dry Cave-In		
	OL	ORGANIC SILT or CLAY non-plastic to low plasticity	L	2	>50		Very Dense		L		WU	Wet Cave-In	<b>11—11 1</b> 11 (11)	
	он	ORGANIC SILT or CLAY high plasticity												
	РТ	PEAT highly organic soils												

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

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

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

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

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

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

<sup>7</sup>Minor deviation from ASTM D 2488-09 Note 16.

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

Reference Notes for Boring Logs (FINAL 10-13-2016)

D

### **USGS** Design Maps Detailed Report

#### 2012/2015 International Building Code (37.364°N, 88.214°W)

Site Class C - "Very Dense Soil and Soft Rock", Risk Category I/II/III

#### Section 1613.3.1 — Mapped acceleration parameters

Note: Ground motion values provided below are for the direction of maximum horizontal spectral response acceleration. They have been converted from corresponding geometric mean ground motions computed by the USGS by applying factors of 1.1 (to obtain  $S_s$ ) and 1.3 (to obtain  $S_s$ ). Maps in the 2012/2015 International Building Code are provided for Site Class B. Adjustments for other Site Classes are made, as needed, in Section 1613.3.3.

From <u>Figure 1613.3.1(1)</u> <sup>[1]</sup>	S <sub>5</sub> = 0.833 g
From <u>Figure 1613.3.1(2)</u> <sup>(2)</sup>	$S_{t} = 0.284 \text{ g}$
Section 1613.3.2 — Site class definitions	

The authority having jurisdiction (not the USGS), site-specific geotechnical data, and/or the default has classified the site as Site Class C, based on the site soil properties in accordance with Section 1613.

ν <sub>s</sub>	$\overline{N}$ or $\overline{N}_{ch}$	
>5,000 ft/s	N/A	N/A
2,500 to 5,000 ft/s	N/A	N/A
1,200 to 2,500 ft/s	>50	>2,000 psf
600 to 1,200 ft/s	15 to 50	1,000 to 2,000 psf
<600 ft/s	<15	<1,000 psf
<ul> <li>Plasticity index PI &gt;</li> <li>Moisture content w</li> </ul>	20, ≥ 40%, and	-
	>5,000 ft/s 2,500 to 5,000 ft/s 1,200 to 2,500 ft/s 600 to 1,200 ft/s <600 ft/s Any profile with more than • Plasticity index <i>PI</i> > • Moisture content <i>w</i>	>5,000 ft/s         N/A           2,500 to 5,000 ft/s         N/A           1,200 to 2,500 ft/s         >50           600 to 1,200 ft/s         15 to 50

See Section 20.3.1

2010 ASCE-7 Standard – Table 20.3-1 SITE CLASS DEFINITIONS

F. Soils requiring site response analysis in accordance with Section

21.1

For SI: 1ft/s = 0.3048 m/s 1lb/ft<sup>2</sup> = 0.0479 kN/m<sup>2</sup>

# Section 1613.3.3 — Site coefficients and adjusted maximum considered earthquake spectral response acceleration parameters

					a 11 Mild and				
Site Class	Mapp	oed Spectral Re	eriod						
	S₅ ≤ 0.25	S <sub>s</sub> = 0.50	S <sub>s</sub> = 0.75	S = 1.00	S₅ ≥ 1.25				
A	0.8	0.8	0.8	0.8	0.8				
В	1.0	1.0	1.0	1.0	1.0				
С	1.2	1.2	1.1	1.0	1.0				
D	1.6	1.4	1.2	1.1	1.0				
E	2.5	1.7	1.2	0.9	0.9				
F	See Section 11.4.7 of ASCE 7								

TABLE 1613.3.3(1) VALUES OF SITE COEFFICIENT F.

Note: Use straight-line interpolation for intermediate values of  $S_{\mbox{\scriptsize s}}$ 

For Site Class = C and  $S_s = 0.833 \text{ g}$ ,  $F_s = 1.067$ 

TABLE 1613.3.3(2) VALUES OF SITE COEFFICIENT F.

Site Class	Mapped Spectral Response Acceleration at 1-s Period								
	S₁ ≤ 0.10	S: = 0.20	S: = 0.30	S <sub>1</sub> = 0.40	S, ≥ 0.50				
А	0.8	0.8	0.8	0.8	0.8				
В	1.0	1.0	1.0	1.0	1.0				
С	1.7	1.6	1.5	1.4	1.3				
D	2.4	2.0	1.8	1.6	1.5				
E	3.5	3.2	2.8	2.4	2.4				
F		See Section 11.4.7 of ASCE 7							

Note: Use straight–line interpolation for intermediate values of  ${\bf S}_i$ 

For Site Class = C and S1 = 0.284 g,  $F_v$  = 1.516

Equation (16-37):	$S_{M5} = F_a S_5 = 1.067 \times 0.833 = 0.888 \text{ g}$						
Equation (16-38):	$S_{M1} = F_x S_1 = 1.516 \times 0.284 = 0.431 g$						
Section 1613.3.4 — Design spectral response acceleration parameters							
Equation (16-39):	$S_{DS} = \frac{3}{3} S_{MS} = \frac{3}{3} \times 0.888 = 0.592 g$						
Equation (16-40):	$S_{D1} = \frac{2}{3} S_{M1} = \frac{2}{3} \times 0.431 = 0.287 g$						

#### Section 1613.3.5 — Determination of seismic design category

TABLE	1613.3.5(1)
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SEISMIC DESIGN CATEGORY BASED ON SHORT-PERIOD (0.2 second) RESPONSE ACCELERATION

	RISK CATEGORY							
	I or II	III	IV					
S <sub>os</sub> < 0.167g	A	A	A					
$0.167g \le S_{DS} < 0.33g$	В	В	С					
$0.33g \le S_{DS} < 0.50g$	С	С	D					
0.50g ≤ S <sub>DS</sub>	D	D	D					

For Risk Category = I and  $S_{os}$  = 0.592 g, Seismic Design Category = D

TABLE 1613.3.5(2)

SEISMIC DESIGN CATEGORY BASED ON 1-SECOND PERIOD RESPONSE ACCELERATION

	RISK CATEGORY							
VALUE OF S <sub>D1</sub>	I or II	III	IV					
S <sub>□1</sub> < 0.067g	А	A	A					
$0.067g \le S_{D1} < 0.133g$	В	В	С					
$0.133g \le S_{D1} < 0.20g$	С	С	D					
0.20g ≤ S <sub>01</sub>	D	D	D					

For Risk Category = I and  $S_{D1}$  = 0.287 g, Seismic Design Category = D

Note: When  $S_i$  is greater than or equal to 0.75g, the Seismic Design Category is **E** for buildings in Risk Categories I, II, and III, and **F** for those in Risk Category IV, irrespective of the above.

Seismic Design Category  $\equiv$  "the more severe design category in accordance with Table 1613.3.5(1) or 1613.3.5(2)" = D

Note: See Section 1613.3.5.1 for alternative approaches to calculating Seismic Design Category.

#### References

- 1. *Figure 1613.3.1(1)*: https://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/IBC-2012-Fig1613p3p1(1).pdf
- Figure 1613.3.1(2): https://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/IBC-2012-Fig1613p3p1(2).pdf

# EXHIBIT H DIRECTIONS TO WCF SITE

#### **Driving Directions to Proposed Tower Site**

- 1. Beginning at 107 South Main Street, Marion, KY, head south on Main Street and travel approximately 0.3 miles.
- 2. Turn right onto Highway 60 and travel approximately 4.3 miles.
- 3. Turn right onto Dove Lane and travel approximately 52 feet.
- 4. Turn left toward KY-297 N and travel approximately 164 feet.
- 5. Continue onto KY-297N and travel approximately 4.7 miles.
- 6. The site is on Humphrey Road in Marion, KY. The site coordinates are:
  - a. North 37 deg 21 min 50.17 sec
  - b. West 88 deg 12 min 51.76 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 EXHIBIT I COPY OF REAL ESTATE AGREEMENT Market: Evansville Cell Site Number: <u>KYL03269</u> Cell Site Name: <u>Sheridan (KY)</u> Fixed Asset Number: 13800789

#### **OPTION AND LEASE AGREEMENT**

THIS OPTION AND LEASE AGREEMENT ("Agreement"), dated as of the latter of the signature dates below (the "Effective Date"), is entered into by Curt and Melody Buntin, a married couple, having a mailing address of 101 Humphrey Lane Marion, KY 42064 ("Landlord") and New Cingular Wireless PCS, LLC, a Delaware limited liability company, having a mailing address of 575 Morosgo Drive NE, Atlanta, GA 30324 ("Tenant").

#### BACKGROUND

Landlord owns or controls that certain plot, parcel or tract of land, as described on **Exhibit 1**, together the with all rights and privileges arising in connection therewith, located at Humphrey Lane Marion, KY 42064, and the County of Crittenden, State of Kentucky (collectively, the "**Property**"). Tenant desires to use a portion of the Property in connection with its federally licensed communications business. Landlord desires to grant to Tenant the right to use a portion of the Property in accordance with this Agreement.

The parties agree as follows:

#### 1. OPTION TO LEASE.

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

During the Option Term, and during the term of this Agreement, Tenant and its agents, engineers, (b) 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 the sum

Renewal Option Term are collectively referred to as the "**Option Term**." (d) The Option may be sold, assigned or transferred at any time by Tenant to an Affiliate (as that term is hereinafter defined) of Tenant or to any third party agreeing to be subject to the terms hereof. Otherwise, the Option may not be sold, assigned or transferred without the written consent of Landlord, such consent not to be unreasonably withheld, conditioned or delayed. From and after the date the Option has been sold, assigned or transferred by Tenant to an Affiliate or a third party agreeing to be subject to the terms hereof. Tenant shall immediately be released from any and all liability under this Agreement, including the payment of any rental or other sums due, without any further action.

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

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

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

## 3. <u>TERM.</u>

(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 (5<sup>th</sup>) anniversary of the Term Commencement Date.

(b) This Agreement will automatically renew for four (4) additional five (5) year term(s) (each five (5) year term shall be defined as an "Extension Term"), upon the same terms and conditions unless Tenant notifies Landlord in writing of Tenant's intention not to renew this Agreement at least sixty (60) days prior to the expiration of the Initial Term or then-existing Extension Term.

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

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

### 4. <u>**RENT.</u>**</u>

(b)

(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 (5<sup>th</sup>) day of each calendar month in advance (the "**Rent**"), at the address set forth above. In any partial month occurring after the Rent Commencement Date, Rent will be prorated. The initial Rent payment will be forwarded by Tenant to Landlord within forty-five (45) days after the Rent Commencement Date.

In year one (1) of each Extension Term, the monthly Rent will increase by

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. <u>APPROVALS.</u>

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

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

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

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

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

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

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

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

(e) by Tenant upon sixty (60) days' prior written notice to Landlord for any reason or no reason, so long as Tenant pays Landlord a termination fee equal to three (3) months' Rent, at the then-current rate, provided, however, that no such termination fee will be payable on account of the termination of this Agreement by Tenant under any termination provision contained in any other Section of this Agreement, including the following: 5 Approvals, 6(a) Termination, 6(b) Termination, 6(c) Termination, 6(d) Termination, 11(d) Environmental, 18 Condemnation, or 19 Casualty.

#### 7. INSURANCE.

(a) During the Term, Tenant will carry, at its own cost and expense, the following insurance: (i) workers' compensation insurance as required by law; and (ii) commercial general liability (CGL) insurance with respect to its activities on the Property, such insurance to afford protection of up to

per occurrence and general aggregate, based on Insurance Services Office (ISO) Form CG 00 01 or a substitute form providing substantially equivalent coverage. Tenant's CGL insurance shall contain a provision including Landlord as an additional insured. Such additional insured coverage:

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

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

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

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

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

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

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

#### 8. INTERFERENCE.

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

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

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

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

### 9. INDEMNIFICATION.

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

(b) Landlord agrees to indemnify, defend and hold Tenant harmless from and against any and all injury, loss, damage or liability (or any claims in respect of the foregoing), costs or expenses (including reasonable attorneys' fees and court costs) arising directly from the actions or failure to act of Landlord, its employees or agents, or Landlord's breach of any provision of this Agreement, except to the extent attributable to the negligent or intentional act or omission of Tenant, its employees, agents or independent contractors.

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

#### 10. WARRANTIES.

(a) Tenant and Landlord each acknowledge and represent that it is duly organized, validly existing and in good standing and has the right, power and authority to enter into this Agreement and bind itself hereto through the party set forth as signatory for the party below.

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

### 11. ENVIRONMENTAL.

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

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

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

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

12. <u>ACCESS.</u> At all times throughout the Term of this Agreement, and at no additional charge to Tenant, Tenant and its employees, agents, and subcontractors, will have twenty-four (24) hour per day, seven (7) day per week pedestrian and vehicular access ("Access") to and over the Property, from an open and improved public road to the Premises, for the installation, maintenance and operation of the Communication Facility and any utilities serving the Premises. As may be described more fully in **Exhibit 1**, Landlord grants to Tenant an easement for such Access and Landlord agrees to provide to Tenant such codes, keys and other instruments necessary for such Access at no additional cost to Tenant. Upon Tenant's request, Landlord will execute a separate recordable easement evidencing this right. Landlord shall execute a letter granting Tenant Access to the Property substantially in the form attached as **Exhibit 12**; upon Tenant's request, Landlord shall execute additional letters during the Term. Landlord acknowledges that in the event Tenant cannot obtain Access to the Premises, Tenant shall incur significant damage. If Landlord fails to provide the Access granted by this Section 12, such failure shall be a default under this Agreement. In connection with such default, in addition to any other rights or remedies available to Tenant under this Agreement or at law or equity, Landlord shall pay Tenant, as liquidated damages and not as a penalty, \$500.00 per day in consideration of Tenant's damages until Landlord cures such default. Landlord and Tenant agree that Tenant's damages in the event of a denial of Access are difficult, if not impossible, to ascertain, and the liquidated damages set forth above are a reasonable approximation of such damages.

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

## 14. MAINTENANCE/UTILITIES.

(a) Tenant will keep and maintain the Premises in good condition, reasonable wear and tear and damage from the elements excepted. Landlord will maintain and repair the Property and access thereto and all areas of the Premises where Tenant does not have exclusive control, in good and 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 submeter from Landlord. When submetering is required under this Agreement, Landlord will read the meter and provide Tenant with an invoice and usage data on a monthly basis. Landlord agrees that it will not include a markup on the utility charges. Landlord further agrees to provide the usage data and invoice on forms provided by Tenant and to send such forms to such address and/or agent designated by Tenant. Tenant will remit payment within forty-five (45) days of receipt of the usage data and required forms. As noted in Section 4(c) above, any utility fee recovery by Landlord is limited to a twelve (12) month period. If Tenant submeters electricity from Landlord, Landlord agrees to give Tenant at least twenty-four (24) hours advance notice of any planned interruptions of said electricity. Landlord acknowledges that Tenant provides a communication service which requires electrical power to operate and must operate twenty-four (24) hours per day, seven (7) days per week. If the interruption is for an extended period of time, in Tenant's reasonable determination, Landlord agrees to allow Tenant the right to bring in a temporary source of power for the duration of the interruption. Landlord will not be responsible for interference with, interruption of or failure, beyond the reasonable control of Landlord, of such services to be furnished or supplied by Landlord.

(c) Landlord hereby grants to any company providing utility or similar services, including electric power and telecommunications, to Tenant an easement over the Property, from an open and improved public road to the Premises, and upon the Premises, for the purpose of constructing, operating and maintaining such lines, wires, circuits, and conduits, associated equipment cabinets and such appurtenances thereto, as such companies may from time to time require in order to provide such services to the Premises. Upon Tenant's or

the service company's request, Landlord will execute a separate recordable easement evidencing this grant, at no cost to Tenant or the service company.

## 15. DEFAULT AND RIGHT TO CURE.

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

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

16. <u>ASSIGNMENT/SUBLEASE.</u> 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. <u>NOTICES.</u> All notices, requests and demands hereunder will be given by first class certified or registered mail, return receipt requested, or by a nationally recognized overnight courier, postage prepaid, to be effective when properly sent and received, refused or returned undelivered. Notices will be addressed to the

parties as follows:

If to Tenant:	New Cingular Wireless PCS, LLC Attn: Network Real Estate Administration Re: Cell Site #KYL03269; Cell Site Name: Sheridan (KY) Fixed Asset No.: 13800789 575 Morosgo Drive NE Atlanta, GA 30324
With a copy to:	New Circular Window DCS II C

New Cingular Wireless PCS, LLC Attn.: Legal Department Re: Cell Site #: KYL03269; Cell Site Name: Sheridan (KY) Fixed Asset No.: 13800789 208 S. Akard Street Dallas, TX 75202-4206

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

If to Landlord: Curt and Melody Buntin 101 Humphrey Land Marion, KY 42064

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

18. <u>CONDEMNATION.</u> In the event Landlord receives notification of any condemnation proceedings affecting the Property, Landlord will provide notice of the proceeding to Tenant within forty-eight (48) hours. If a condemning authority takes all of the Property, or a portion sufficient, in Tenant's sole determination, to render the Premises unsuitable for Tenant, this Agreement will terminate as of the date the title vests in the condemning authority. The parties will each be entitled to pursue their own separate awards in the condemnation proceeds, which for Tenant will include, where applicable, the value of its Communication Facility, moving expenses, prepaid Rent, and business dislocation expenses. Tenant will be entitled to reimbursement for any prepaid Rent on a prorata basis.

19. CASUALTY. Landlord will provide notice to Tenant of any casualty or other harm affecting the Property within forty-eight (48) hours of the casualty or other harm. If any part of the Communication Facility or Property is damaged by casualty or other harm as to render the Premises unsuitable, in Tenant's sole determination, then Tenant may terminate this Agreement by providing written notice to Landlord, which termination will be effective as of the date of such casualty or other harm. Upon such termination, Tenant will be entitled to collect all insurance proceeds payable to Tenant on account thereof and to be reimbursed for any prepaid Rent on a prorata basis. Landlord agrees to permit Tenant to place temporary transmission and reception facilities on the Property, but only until such time as Tenant is able to activate a replacement transmission facility at another location; notwithstanding the termination of the Agreement, such temporary facilities will be governed by all of the terms and conditions of this Agreement, including Rent. If Landlord or Tenant undertakes to rebuild or restore the Premises and/or the Communication Facility, as applicable, Landlord agrees to permit Tenant to place temporary at no additional Rent until the reconstruction of the Premises and/or the Communication Facility is completed. If Landlord

determines not to rebuild or restore the Property, Landlord will notify Tenant of such determination within thirty (30) days after the casualty or other harm. If Landlord does not so notify Tenant, and Tenant decides not to terminate under this Section, then Landlord will promptly rebuild or restore any portion of the Property. Interfering with or required for Tenant's Permitted Use of the Premises to substantially the same condition as existed before the casualty or other harm. Landlord agrees that the Rent shall be abated until the Property and/or the Premises are rebuilt or restored, unless Tenant places temporary transmission and reception facilities on the Property.

20. <u>WAIVER OF LANDLORD'S LIENS.</u> 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. <u>TAXES</u>.

(a) Landlord shall be responsible for timely payment of all taxes and assessments levied upon the lands, improvements and other property of Landlord, including any such taxes that may be calculated by the taxing authority using any method, including the income method. Tenant shall be responsible for any taxes and assessments attributable to and levied upon Tenant's leasehold improvements on the Premises if and as set forth in this Section 21. Nothing herein shall require Tenant to pay any inheritance, franchise, income, payroll, excise, privilege, rent, capital stock, stamp, documentary, estate or profit tax, or any tax of similar nature, that is or may be imposed upon Landlord.

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

(c) For any tax amount for which Tenant is responsible under this Agreement, Tenant shall have the right to contest, in good faith, the validity or the amount thereof using such administrative, appellate or other proceedings as may be appropriate in the jurisdiction, and may defer payment of such obligations, pay same under protest, or take such other steps as Tenant may deem appropriate. This right shall include the ability to institute any legal, regulatory or informal action in the name of Landlord, Tenant, or both, with respect to the valuation of the Premises. Landlord shall cooperate with respect to the commencement and prosecution of any such proceedings and will execute any documents required therefor. The expense of any such proceedings shall be borne by Tenant and any refunds or rebates secured as a result of Tenant's action shall belong to Tenant, to the extent the amounts were originally paid by Tenant. In the event Tenant notifies Landlord by the due date for assessment of Tenant's intent to contest the assessment, Landlord shall not pay the assessment pending conclusion of the contest, unless required by applicable law.

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

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

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

New Cingular Wireless PCS, LLC Attn: Network Real Estate Administration -- Taxes Re: Cell Site #KYL03269; Cell Site Name: Sheridan (KY) Fixed Asset No: 13800789 575 Morosgo Drive NE Atlanta, GA 30324

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

#### 22. <u>SALE OF PROPERTY</u>

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

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

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

(c) Landlord agrees not to sell, lease or use any areas of the Property or Surrounding Property for the installation, operation or maintenance of other wireless communications facilities if such installation, operation or maintenance would interfere with Tenant's Permitted Use or communications equipment as determined by radio propagation tests performed by Tenant in its sole discretion. Landlord or Landlord's prospective purchaser shall reimburse Tenant for any costs and expenses of such testing. If the radio frequency propagation tests demonstrate levels of interference unacceptable to Tenant, Landlord shall be prohibited from selling, leasing or using any areas of the Property or the Surrounding Property for purposes of any installation, operation or maintenance of any other wireless communications facility or equipment. (d) The provisions of this Section shall in no way limit or impair the obligations of Landlord under this Agreement, including interference and access obligations.

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

### 24. MISCELLANEOUS.

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

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

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

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

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

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

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

(h) Interpretation. Unless otherwise specified, the following rules of construction and interpretation apply: (i) captions are for convenience and reference only and in no way define or limit the construction of the terms and conditions hereof; (ii) use of the term "including" will be interpreted to mean "including but not limited to"; (iii) whenever a party's consent is required under this Agreement, except as otherwise stated in this Agreement or as same may be duplicative, such consent will not be unreasonably

withheld, conditioned or delayed; (iv) exhibits are an integral part of this Agreement and are incorporated by reference into this Agreement; (v) use of the terms "termination" or "expiration" are interchangeable; (vi) reference to a default will take into consideration any applicable notice, grace\_and\_cure\_periods; (vii)\_to\_the\_extent there is any issue with respect to any alleged, perceived or actual ambiguity in this Agreement, the ambiguity shall not be resolved on the basis of who drafted the Agreement; (viii) the singular use of words includes the plural where appropriate and (ix) if any provision of this Agreement is held invalid, illegal or unenforceable, the remaining provisions of this Agreement shall remain in full force if the overall purpose of the Agreement is not rendered impossible and the original purpose, intent or consideration is not materially impaired.

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

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

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

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

(m) Attorneys' Fees. In the event that any dispute between the parties related to this Agreement should result in litigation, the prevailing party in such litigation shall be entitled to recover from the other party all reasonable fees and expenses of enforcing any right of the prevailing party, including without limitation, reasonable attorneys' fees and expenses. Prevailing party means the party determined by the court to have most nearly prevailed even if such party did not prevail in all matters. This provision will not be construed to entitle any party other than Landlord, Tenant and their respective Affiliates to recover their fees and expenses.

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

#### [SIGNATURES APPEAR ON NEXT PAGE]

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

#### "LANDLORD"

Curt Bunnin By: Print Name: Curt Buntin Its: Owner 7-16 Date:

Melody Buntin

B Print Nan Its: Owner Date: 17-1

#### LANDLORD ACKNOWLEDGMENT

STATE OF <u>Kentucly</u> COUNTY OF <u>Ceitfenden</u> ) ss: November Curt and Melody Buntin 2016 before me, personally appeared , who acknowledged under oath, that he/she/they is/are the person/officer named in the within instrument, and that he/she/they executed the same in his/her/their stated capacity as the voluntary act and deed of the Landlord for the purposes therein contained.

Notary Public: My Commission Expires:

### "TENANT"

New Cingular Wireless PCS, LLC,

a Delaware limited liability company By: AT&T Mobility Corporation Its: Manager

By: mont

Its: Area Manager - TN/KY Date: 1/20

#### **TENANT ACKNOWLEDGMENT**

## STATE OF ALABAMA

) ) ss:

COUNTY OF JEFFERSON

Print Name: Russell Barakat

On the 20 day of January, 2016, before me personally appeared Russell Barakat, 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.



M. MCL th Notary Public: 10-26-My Commission Expires:

#### **EXHIBIT 1**

#### DESCRIPTION-OF-PREMISES

## Page \_\_\_\_ of \_\_\_\_

to the Option and Lease Agreement dated \_\_\_\_\_\_, 2016, by and between Curt and Melody Buntin, a married couple, as Landlord, and New Cingular Wireless PCS, LLC, a Delaware limited liability company, as Tenant.

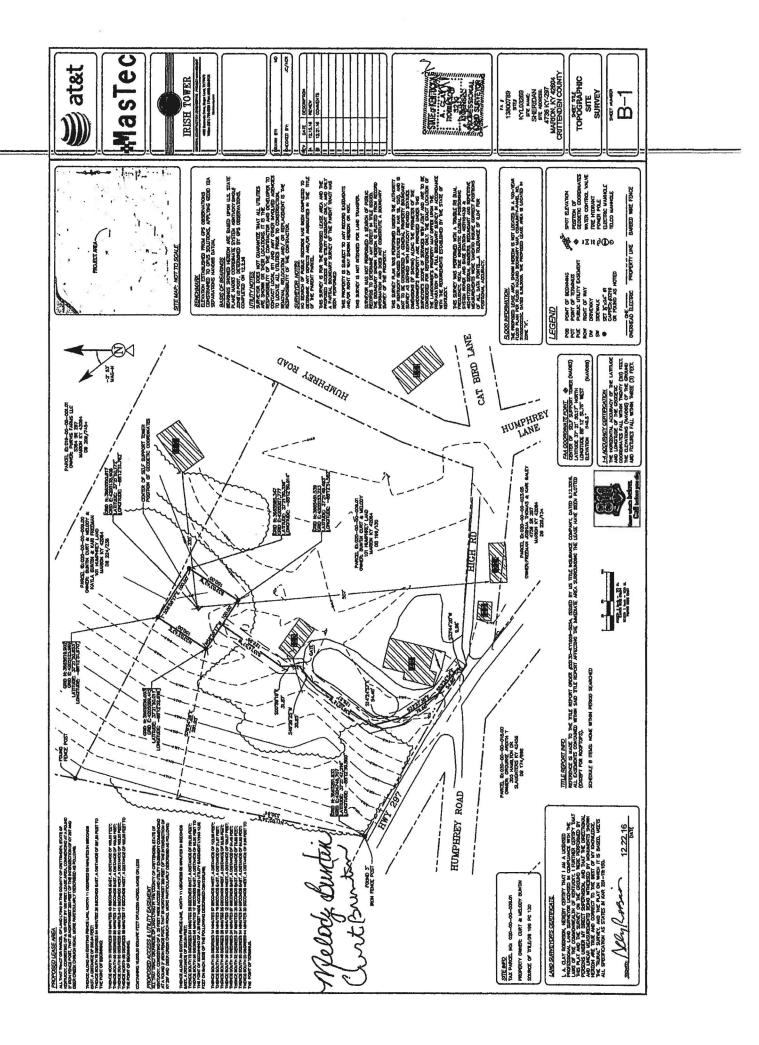
The Property is legally described as follows:

All iron pins set are 1/2x24" rebar with a plastic cap stamped "B. J. MAY L.S. 876"

All from pins found are '%' rebar with a plastic cap stamped "B.J. MAY L.S. 878",

BEGINNING at an iron pin found on the north side of and 15 feet from the center of High Road, and on the north side of and 30 feet from the center of KY. 297; thence with the meandare of north side of KY, 297 N, 58 deg. 21 min, 28 sec. W. 64.60 ft.; and N. 61 deg. 55 min. 56 sec. W. 278.85 ft. to an iron pin found on the north side of and 30 feet from the center of KY, 297, corner to Turner/Willis (d.b. 161 p. 72); thence leaving the road and with their line N. 08 deg. 59 min, 46 sec. E. 507,10 ft, to an iron pin set, a new corner; thence with a new division line S. 65 deg. 08 min, 35 sec, E. 764,62 ft, to an iron pin set on the west side of and 15 feet from the center of Humphrey Lane; thence with the west side of the Humphrey Lane S. 23 deg. 08 min. 39 sec. W 236.03 ft., and S. 17 deg. 38 min. 22 sec. W. 131.76 ft. to an iron pin found on the west side of and . 15 feet from the center of Humphrey Lane and on the north side of and 15 feet from the center of High Road; thence with meanders of the north side of High Road N. 88 deg. 35 min. 18 sec. W. 308.89 ft., and S. 72 deg. 37 min. 41 sec. W. 31.99 ft. to the beginning containing 7.61 acres, more or less, according to a survey by Billy J. May L.S. 878 of J& J LAND SURVEYS on March 10, 2004.

SOURCE OF TITLE: Being a part of the same property conveyed to R.Y.E. Land and Cattle Company, inc by Ada Williams e, all by Daed dated June 25, 2001 and recorded in Deed Book 190, at page 472, Crittenden County Court Clerk's Office.



## EXHIBIT 10c(i)

## GROUND LEASE

## [FOLLOWS ON NEXT PAGE]

KY Land Lease Version 5 30 2012

## EXHIBIT 10c(iii)

## SUBORDINATION, NON-DISTURBANCE AND ATTORNMENT AGREEMENT

[FOLLOWS ON NEXT PAGE]

KY Land Lease Version 5 30 2012

## **EXHIBIT 11**

## ENVIRONMENTAL DISCLOSURE

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

1. NONE.

## EXHIBIT 12

## STANDARD ACCESS LETTER

[FOLLOWS ON NEXT PAGE]

November 1, 2016

Curt and Melody Buntin 101 Humphrey Land Marion, KY 42064

Re: Authorized Access granted to AT&T

To Whom It May Concern:

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.

## EXHIBIT 24b

## MEMORANDUM OF LEASE

## [FOLLOWS ON NEXT PAGE]

1

KY Land Lease Version \$ 30 2012

# EXHIBIT J NOTIFICATION LISTING

## NOTIFICATION LISTING SITE NAME: SHERIDAN

BUNTIN, CURT & MELODY 101 HUMPHREY LANE MARION, KY 42064

PURVIS FARMS LLC 5384 SR 297 MARION, KY 42064

BROWN, ALAN D 22 CATBIRD LANE MARION, KY 42064

CHAMPION, JASON 10 CATBIRD LANE MARION, KY 42064

BUNTIN, WADE L 4527 SR 297 MARION, KY 42064

WILLIS, LISA 170 DEER CREEK CHURCH RD MARION, KY 42064

FREEMAN, JOSHUA THOMAS & KARI BALEY 4736 SR 297 MARION, KY 42064

DEER CREEK MISSIONARY BAPTIS CHURCH SR 297 MARION, KY 42064

JET FARMS LLC 2941 US 60 W MARION, KY 42064

BUNTIN, CURT & MELODY KAYLA BUNTIN & KARI FREEMAN 101 HUMPHREY LANE MARION, KY 42064 EXHIBIT K COPY OF PROPERTY OWNER NOTIFICATION



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

## Notice of Proposed Construction of Wireless Communications Facility Site Name: Sheridan

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 Humphrey Lane, Marion, KY 42064 (37° 21' 50.17" North latitude, 88° 12' 51.76" West longitude). The proposed facility will include a 355-foot tall antenna tower, plus a 15-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 <u>or</u> 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 2018-00395 in any correspondence sent in connection with this matter.

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

We have attached a map showing the site location for the proposed tower. 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 107 South Main Street, Marion, KY, head south on Main Street and travel approximately 0.3 miles.
- 2. Turn right onto Highway 60 and travel approximately 4.3 miles.
- 3. Turn right onto Dove Lane and travel approximately 52 feet.
- 4. Turn left toward KY-297 N and travel approximately 164 feet.
- 5. Continue onto KY-297N and travel approximately 4.7 miles.
- 6. The site is on Humphrey Road in Marion, KY. The site coordinates are:
  - a. North 37 deg 21 min 50.17 sec
  - b. West 88 deg 12 min 51.76 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

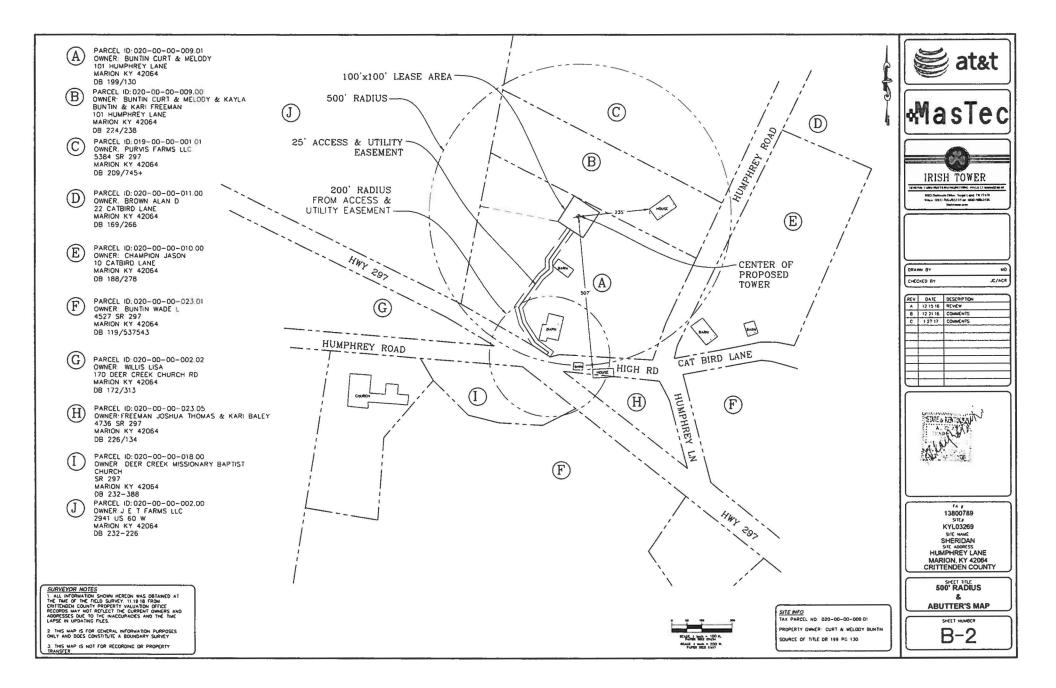


EXHIBIT L COPY OF COUNTY JUDGE/EXECUTIVE NOTICE



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

Perry A. Newcom County Judge Executive 107 South Main Street Marion, KY 42064

RE: Notice of Proposal to Construct Wireless Communications Facility Kentucky Public Service Commission Docket No. 2018-00395 Site Name: Sheridan

Dear Judge Newcom:

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 Humphrey Lane, Marion, KY 42064 (37°21'50.17" North latitude, 88°12'51.76" West longitude). The proposed facility will include a 355-foot tall antenna tower, plus a 15-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 2018-00395 in any correspondence sent in connection with this matter.

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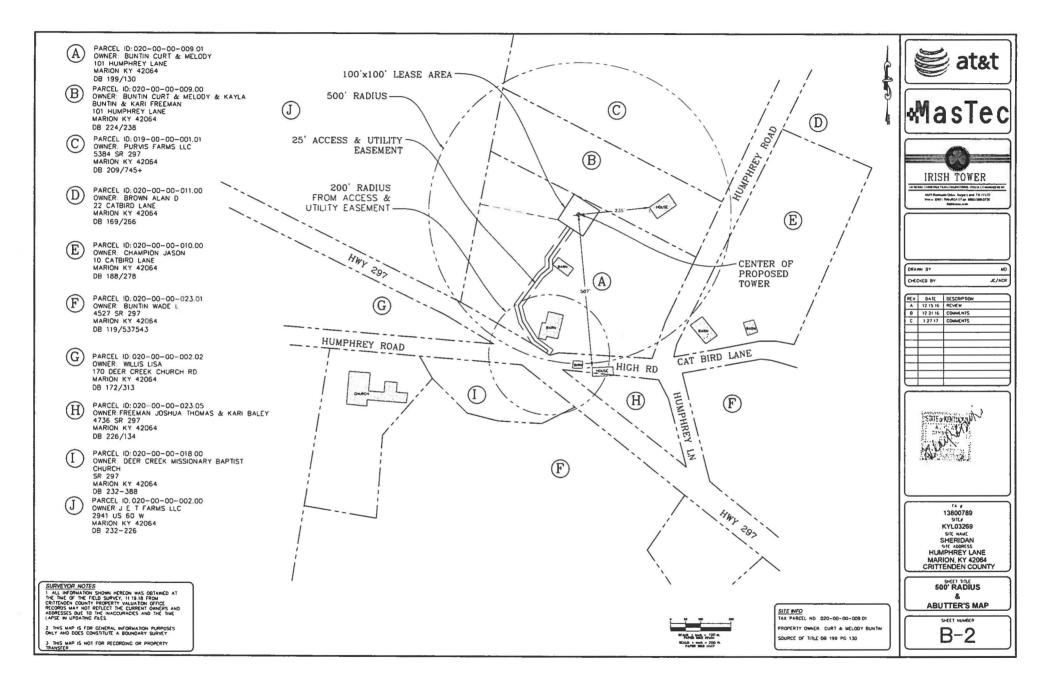
Sincerely, David A. Pike Attorney for Applicant enclosures

## **Driving Directions to Proposed Tower Site**

- 1. Beginning at 107 South Main Street, Marion, KY, head south on Main Street and travel approximately 0.3 miles.
- 2. Turn right onto Highway 60 and travel approximately 4.3 miles.
- 3. Turn right onto Dove Lane and travel approximately 52 feet.
- 4. Turn left toward KY-297 N and travel approximately 164 feet.
- 5. Continue onto KY-297N and travel approximately 4.7 miles.
- 6. The site is on Humphrey Road in Marion, KY. The site coordinates are:
  - a. North 37 deg 21 min 50.17 sec
  - b. West 88 deg 12 min 51.76 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



# EXHIBIT M COPY OF POSTED NOTICES AND NEWSPAPER NOTICE ADVERTISEMENT

# SITE NAME: SHERIDAN 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 2018-00395 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 2018-00395 in your correspondence.



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

## VIA TELEPHONE: 270-965-3191

The Crittenden Press Attn: Legal Notice Advertisements P.O. Box 191 Marion, KY 42064-0191

> RE: Legal Notice Advertisement Site Name: Sheridan

Dear Legal Notice Advertisement Contact:

Please publish the following legal notice advertisement in the next edition of *The Crittenden Press*:

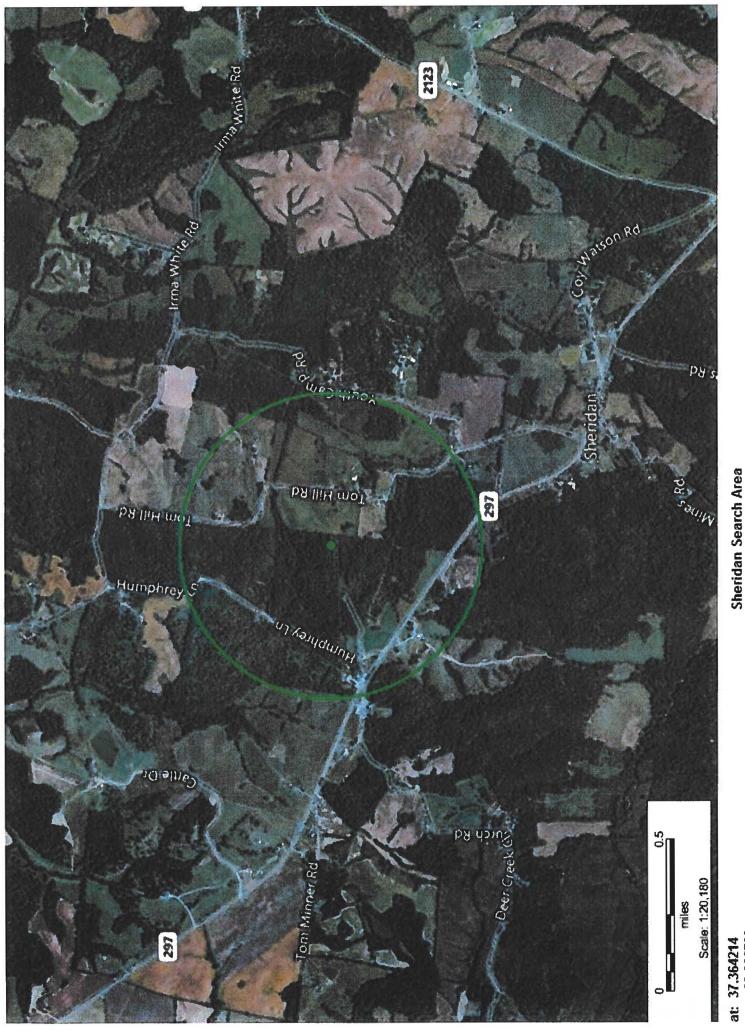
## NOTICE

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 Humphrey Lane, Marion, KY 42064 (37°21'50.17" North latitude, 88°12'51.76" 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 2018-00395 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



at: 37.364214 on: -88.206709 adius: .5 miles