## COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:
THE APPLICATION OF )
NEW CINGULAR WIRELESS PCS, LLC, A DELAWARE LIMITED LIABILITY COMPANY, D/B/A AT\&T MOBILITY
FOR ISSUANCE OF A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT A WIRELESS COMMUNICATIONS FACILITY IN THE COMMONWEALTH OF KENTUCKY IN THE COUNTY OF BRECKINRIDGE

SITE NAME: HARNED

## APPLICATION FOR <br> 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 601 West Chestnut Street, Louisville, Kentucky 40203.
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 Butler Hobbs Road, Harned, Kentucky ( $37^{\circ} 45^{\prime} 52.73^{\prime \prime}$ North latitude, $86^{\circ} 23^{\prime} 17.94^{\prime \prime}$ 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 Sandra S. Baier pursuant to a Deed recorded at Will Book 27, Page 678 and Deed Book 126, Page 601 in the office of the Breckinridge County Clerk. The proposed WCF will consist of a 305 -foot tall tower, with an approximately 15 -foot tall lightning arrestor attached at the top, for a total height of 320 -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 application to the Federal Aviation Administration ("FAA") is attached as Exhibit E.
12. A copy of the Kentucky Airport Zoning Commission ("KAZC") conditional approval of proposed 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 $\mathbf{B} \& \mathbf{C}$.
18. As noted on the Survey attached as part of Exhibit B, the surveyor has determined that the site is not within any flood hazard area.
19. Exhibit B includes a map drawn to an appropriate scale that shows the location of the proposed tower and identifies every owner of real estate within 500 feet of the proposed tower (according to the records maintained by the County Property Valuation Administrator). Every structure and every easement within 500 feet of the proposed tower or within 200 feet of the access road including intersection with the public street system is

## illustrated in Exhibit B.

20. Applicant has notified every person who, according to the records of the County Property Valuation Administrator, owns property which is within 500 feet of the proposed tower or contiguous to the site property, by certified mail, return receipt requested, of the proposed construction. Each notified property owner has been provided with a map of the location of the proposed construction, the PSC docket number for this application, the address of the PSC, and has been informed of his or her right to request intervention. A list of the notified property owners and a copy of the form of the notice sent by certified mail to each landowner are attached as Exhibit J and Exhibit K, respectively.
21. Applicant has notified the applicable County Judge/Executive by certified mail, return receipt requested, of the proposed construction. This notice included the PSC docket number under which the application will be processed and informed the County Judge/Executive of his/her right to request intervention. A copy of this notice is attached as Exhibit L.
22. Notice signs meeting the requirements prescribed by 807 KAR 5:063, Section 1(2) that measure at least 2 feet in height and 4 feet in width and that contain all required language in letters of required height, have been posted, one in a visible location on the proposed site and one on the nearest public road. Such signs shall remain posted for at least two weeks after filing of the Application, and a copy of the posted text is attached as Exhibit M. Notice of the location of the proposed facility has also been published in a newspaper of general circulation in the county in which the WCF is proposed to be located.
23. The general area where the proposed facility is to be located is rural with
agricultural operations.
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 $\mathbf{N}$.
25. The tower must be located at the proposed location and proposed height to provide necessary service to wireless communications users in the subject area. In addition to expanding and improving voice and data service for AT\&T mobile customers, this site will also support deployment of wireless local loop ("WLL") technology in the subject area. As a participant in the FCC's Connect America Fund Phase II (CAF II) program, AT\&T is aggressively deploying WLL service infrastructure to bring expanded internet access to residential and business customers in rural and other underserved areas. WLL will support internet access at the high speeds required to use and enjoy the
most current business, education and entertainment technologies. Broadband service via WLL will be delivered from the tower to a dedicated antenna located at the home or business receiving service and will support downloads at 10 Mbps and uploads at 1 Mbps .
26. All Exhibits to this Application are hereby incorporated by reference as if fully set out as part of the Application.
27. All responses and requests associated with this Application may be directed to:

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

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

Respectfully submitted,


David A. Pike
Pike Legal Group, PLLC
1578 Highway 44 East, Suite 6
P. O. Box 369

Shepherdsville, KY 40165-0369
Telephone: (502) 955-4400
Telefax: (502) 543-4410
Email: dpike@pikelegal.com
Attorney for New Cingular Wireless PCS, LLC
d/b/a AT\&T Mobility

## LIST OF EXHIBITS

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

EXHIBIT A
FCC LICENSE DOCUMENTATION

## REFERENCE COPY

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

## Federal Communications Commission

## Wireless Telecommunications Bureau

## RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

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

| Call Sign <br> KNKN748 | File Number |
| :---: | :---: |
| Radio Service <br> CL - Cellular |  |
| Market Numer <br> CMA445 | Channel Block <br> A |
| Sub-Market Designator |  |
| 0 |  |

FCC Registration Number (FRN): 0003291192
0
Market Name
Kentucky 3 - Meade

| Grant Date <br> $08-30-2011$ | Effective Date <br> $06-13-2017$ | Expiration Date <br> $10-01-2021$ | Five Yr Build-Out Date | Print Date |
| :---: | :---: | :---: | :---: | :---: |

Site Information:

| Location Latitude | Longitude | Ground Elevation <br> (meters) | Structure Hgt to Tip <br> (meters) | Antenna Structure <br> Registration No. |
| :--- | :--- | :--- | :--- | :--- |
| 2 | 36-49-19.8 N | 086-40-30.2 W | 283.5 | 59.4 |
| Address: 2070 PILOT KNOB CELL ROAD (76159) |  |  | 1043423 |  |
| City: FRANKLIN | County: SIMPSON | State: KY | Construction Deadline: |  |


| Antenna: 1 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Antenna Height AAT (meters) | 149.700 | 154.000 | 142.400 | 134.600 | 134.000 | $\mathbf{1 4 4 . 0 0 0}$ | 132.800 | 132.800 |
| Transmitting ERP (watts) | 127.704 | 122.022 | 156.166 | 85.681 | 30.393 | $\mathbf{2 2 . 5 5 0}$ | 27.951 | 41.372 |
| Antenna: 2 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| Antenna Height AAT (meters) | 149.700 | 154.000 | 142.400 | 134.600 | 134.000 | 144.000 | 132.800 | 132.800 |
| Transmitting ERP (watts) | 0.303 | 19.967 | 70.900 | 141.164 | 91.184 | 151.327 | 56.166 | 39.846 |
| Antenna: 3 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| Antenna Height AAT (meters) | 149.700 | 154.000 | 142.400 | 134.600 | 134.000 | $\mathbf{1 4 4 . 0 0 0}$ | 132.800 | 132.800 |
| Transmitting ERP (watts) | 165.855 | 47.655 | 35.065 | 13.085 | 19.027 | $\mathbf{1 2 6 . 6 3 9}$ | $\mathbf{2 5 4 . 0 8 6}$ | 264.756 |

## Conditions:

Pursuant to $\S 309(\mathrm{~h})$ of the Communications Act of 1934, as amended, 47 U.S.C. $\S 309(\mathrm{~h})$, 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. $\S 310(d)$. This license is subject in terms to the right of use or control conferred by $\S 706$ of the Communications Act of 1934, as amended. See 47 U.S.C. §606.
Call Sign: KNKN748 File Number: Print Date:

| Location Latitude | Longitude | Ground Elevation <br> (meters) | Structure Hgt to Tip <br> (meters) | Antenna Structure <br> Registration No. |
| :--- | :--- | :--- | :--- | :--- |
| 5 | $36-47-00.6 \mathrm{~N}$ | $086-17-12.4 \mathrm{~W}$ | 242.6 | 109.4 |

Address: 6131 Bowling Green Road (76163)
City: Scottsville County: ALLEN State: KY Construction Deadline:

| Antenna: 1 Azimuth (from true north) |  | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Antenna Height AAT (meters) | 172.400 | 151.800 | 131.600 | 118.100 | 137.600 | 143.600 | 150.000 | 172.700 |
| Transmitting ERP (watts) | 29.587 | 17.631 | 2.143 | 0.106 | 0.120 | 0.108 | 1.702 | 15.717 |
| Antenna: 2 Azimuth (from true north) |  | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 172.400 | 151.800 | 131.600 | 118.100 | 137.600 | 143.600 | 150.000 | 172.700 |
| Transmitting ERP (watts) | 0.567 | 8.309 | 54.332 | 71.176 | 21.736 | 1.489 | 0.142 | 0.158 |
| Antenna: 3 Azimuth (from true no |  | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 172.400 | 151.800 | 131.600 | 118.100 | 137.600 | 143.600 | 150.000 | 172.700 |
| Transmitting ERP (watts) | 0.270 | 0.100 | 0.100 | 0.719 | 8.327 | 27.930 | 25.164 | 4.852 |
| Location Latitude Longitude G |  |  | Ground Elevation <br> meters) |  | Structure Hgt to Tip (meters) |  | Antenna Structure Registration No. |  |
| $9 \quad 37-57-06.1 \mathrm{~N} \quad 086-24$ | 086-24-38.3 W 260.0 |  |  | 96.3 |  |  | 1043429 |  |
| Address: HWY 144 (76157) |  |  |  |  |  |  |  |  |
| City: UNION STAR County: BREC | CKINRID | State: KY |  | Construction Deadline: |  |  |  |  |
| Antenna: 1 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 163.100 | 141.100 | 130.700 | 148.200 | 162.700 | 183.900 | 186.100 | 179.000 |
| Transmitting ERP (watts) | 60.057 | 209.658 | 152.570 | 20.969 | 2.687 | 0.418 | 0.941 | 4.434 |
| Antenna: 2 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 163.100 | 141.100 | 130.700 | 148.200 | 162.700 | 183.900 | 186.100 | 179.000 |
| Transmitting ERP (watts) | 0.489 | 0.727 | 12.997 | 103.833 | 245.059 | 92.615 | 9.426 | 2.404 |
| Antenna: 3 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 163.100 | 141.100 | 130.700 | 148.200 | 162.700 | 183.900 | 186.100 | 179.000 |
| Transmitting ERP (watts) | 45.626 | 4.863 | 1.713 | 0.627 | 1.375 | 31.023 | 156.388 | 214.520 |


| Call Sign: KNKN748 | File | Number: |  |  |  | int Date: |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Location Latitude Longit | tude |  | ound Elev <br> eters) | ation St <br> (m | ucture Hg <br> ters) | t to Tip | Antenna <br> Registratio | ructure <br> No. |
| $1937-14-22.1 \mathrm{~N}$ 086-1 | 5-59.7 W |  | 9.8 |  |  |  | 1025100 |  |
| Address: 1400 POPLAR SPRINGS R | . (76169) |  |  |  |  |  |  |  |
| City: BROWNSVILLE County: ED | MONSON | State | Y Co | truction | eadline: |  |  |  |
| Antenna: 1 Azimuth (from true north) |  | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 150.600 | 151.200 | 130.600 | 151.300 | 175.800 | 170.100 | 181.100 | 173.000 |
| Transmitting ERP (watts) | 52.262 | 182.266 | 132.676 | 18.211 | 2.334 | 0.364 | 0.819 | 3.844 |
| Antenna: 2 Azimuth (from true north |  | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 150.600 | 151.200 | 130.600 | 151.300 | 175.800 | 170.100 | 181.100 | 173.000 |
| Transmitting ERP (watts) | 0.425 | 0.633 | 11.292 | 90.388 | 212.968 | 80.505 | 8.178 | 2.094 |
| Antenna: 3 Azimuth (from true north) |  | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 150.600 | 151.200 | 130.600 | 151.300 | 175.800 | 170.100 | 181.100 | 173.000 |
| Transmitting ERP (watts) | 39.661 | 4.221 | 1.487 | 0.543 | 1.196 | 26.979 | 135.691 | 186.462 |
| Location Latitude <br> Longi |  | G | und Elev ters) | ation St <br> (m | cture Hg ters) | to Tip | Antenna S Registrati | ructure <br> No. |
| $22 \quad 37-52-17.8 \mathrm{~N} \quad 086-16$ | 6-03.5 W |  |  |  |  |  | 1043896 |  |
| Address: SAM DOWELL ROAD (761 | 182) |  |  |  |  |  |  |  |
| City: IRVINGTON County: BRECK | KINRIDG | State | KY Co | struction | Deadline: | 07-23-201 |  |  |
| Antenna: 1 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 121.400 | 111.900 | 93.000 | 94.700 | 111.800 | 114.200 | 143.100 | 107.600 |
| Transmitting ERP (watts) | 59.129 | 206.186 | 150.253 | 20.668 | 2.640 | 0.412 | 0.928 | 4.356 |
| Antenna: 2 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 121.400 | 111.900 | 93.000 | 94.700 | 111.800 | 114.200 | 143.100 | 107.600 |
| Transmitting ERP (watts) | 0.482 | 0.716 | 12.797 | 102.360 | 241.122 | 91.084 | 9.268 | 2.368 |
| Antenna: 3 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 121.400 | 111.900 | 93.000 | 94.700 | 111.800 | 114.200 | 143.100 | 107.600 |
| Transmitting ERP (watts) | 44.832 | 4.778 | 1.689 | 0.615 | 1.355 | 30.513 | 153.797 | 211.457 |


| Call Sign: KNKN748 | File Number: |  |  | Print Date: |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Location Latitude | Longitude | Ground Elevation <br> (meters) | Structure Hgt to Tip <br> (meters) | Antenna Structure <br> Registration No. |  |
| 23 | $36-42-08.6 \mathrm{~N}$ | $086-33-19.0 \mathrm{~W}$ | 217.0 | 114.3 | 1200032 |

Address: 297A TURNER FORD ROAD (79470)
City: Franklin County: SIMPSON State: KY Construction Deadline: 07-23-2013

| Antenna: 1 Azimuth (from true north) |  | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Antenna Height AAT (meters) | 115.100 | 113.900 | 95.200 | 90.700 | 79.000 | 97.800 | 103.600 | 98.200 |
| Transmitting ERP (watts) | 12.529 | 51.909 | 43.680 | 6.792 | 0.306 | 0.104 | 0.104 | 0.871 |
| Antenna: 2 Azimuth (from true north) |  | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 115.100 | 113.900 | 95.200 | 90.700 | 79.000 | 97.800 | 103.600 | 98.200 |
| Transmitting ERP (watts) | 0.126 | 0.114 | 1.788 | 16.431 | 30.950 | 18.425 | 2.247 | 0.111 |
| Antenna: 3 Azimuth (from true north) |  | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 115.100 | 113.900 | 95.200 | 90.700 | 79.000 | 97.800 | 103.600 | 98.200 |
| Transmitting ERP (watts) | 64.739 | 3.664 | 0.447 | 0.530 | 1.414 | 26.223 | 172.206 | 223.125 |
| Location Latitude |  | $\begin{array}{ll}\text { Ground Elevation } & \text { S } \\ \text { (meters) }\end{array}$ |  |  | Structure Hgt to Tip (meters) |  | Antenna Structure Registration No. |  |
| 27 36-50-29.5 N 087-07 | 7-55.8 W |  |  |  |  |  |  |  |
| Address: 360 C STOKES ROAD (76158) |  |  |  |  |  |  |  |  |
| City: ELKTON County: TODD S | State: KY | Constr | ction Dea | dline: 07-23 | 3-2013 |  |  |  |
| Antenna: 1 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 88.600 | 106.300 | 98.000 | 103.600 | 113.600 | 107.900 | 90.000 | 83.900 |
| Transmitting ERP (watts) | 59.416 | 267.210 | 296.881 | 53.793 | 5.846 | 1.888 | 1.202 | 3.110 |
| Antenna: 2 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 88.600 | 106.300 | 98.000 | 103.600 | 113.600 | 107.900 | 90.000 | 83.900 |
| Transmitting ERP (watts) | 0.355 | 2.851 | 12.889 | 51.983 | 75.907 | 82.466 | 21.953 | 4.744 |
| Antenna: 3 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 88.600 | 106.300 | 98.000 | 103.600 | 113.600 | 107.900 | 90.000 | 83.900 |
| Transmitting ERP (watts) | 62.796 | 11.059 | 4.662 | 1.147 | 2.477 | 23.358 | 65.087 | 76.580 |


| Call Sign: KNKN748 | File Number: |  | Print Date: |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Location Latitude | Longitude | Ground Elevation <br> (meters) | Structure Hgt to Tip <br> (meters) | Antenna Structure <br> Registration No. |  |
| 28 | $37-14-33.4 \mathrm{~N}$ | $087-19-57.9 \mathrm{~W}$ | 128.6 | 96.9 | 1217687 |

Address: 1020 HENRY OATS ROAD (76201)
City: Graham County: MUHLENBERG State: KY Construction Deadline: 07-23-2013

| Antenna: 1 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Antenna Height AAT (meters) | 91.700 | 68.800 | 64.200 | 74.700 | 79.100 | 81.600 | 85.800 | 91.900 |
| Transmitting ERP (watts) | 35.026 | 195.687 | 216.768 | 54.685 | 2.636 | 0.432 | 0.445 | 1.843 |
| Antenna: 2 Azimuth (from true north) |  | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 91.700 | 68.800 | 64.200 | 74.700 | 79.100 | 81.600 | 85.800 | 91.900 |
| Transmitting ERP (watts) | 0.121 | 0.121 | 2.272 | 26.014 | 60.527 | 29.180 | 2.862 | 0.121 |
| Antenna: 3 Azimuth (from true north) |  | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 91.700 | 68.800 | 64.200 | 74.700 | 79.100 | 81.600 | 85.800 | 91.900 |
| Transmitting ERP (watts) | 35.896 | 3.378 | 0.159 | 0.237 | 0.301 | 5.075 | 44.704 | 79.171 |
| Location Latitude Longitude G |  |  | Ground Elevation meters) |  | Structure Hgt to Tip (meters) |  | Antenna Structure Registration No. |  |
| 34 37-04-12.2 N 086-05 | -07.1 W |  |  |  |  |  | 1211505 |  |
| Address: 622 CRUMP ROAD (37518) |  |  |  |  |  |  |  |  |
| City: Smiths Grove County: EDMO | NSON | State: KY Construction Deadline: 07-23-2013 |  |  |  |  |  |  |
| Antenna: 1 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 53.800 | 63.200 | 49.600 | 57.000 | 59.000 | 84.600 | 86.400 | 61.200 |
| Transmitting ERP (watts) | 27.629 | 87.373 | 66.058 | 8.970 | 0.709 | 0.175 | 0.179 | 3.181 |
| Antenna: 2 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 53.800 | 63.200 | 49.600 | 57.000 | 59.000 | 84.600 | 86.400 | 61.200 |
| Transmitting ERP (watts) | 0.101 | 0.305 | 1.436 | 1.860 | 2.041 | 0.788 | 0.130 | 0.100 |
| Antenna: 3 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 53.800 | 63.200 | 49.600 | 57.000 | 59.000 | 84.600 | 86.400 | 61.200 |
| Transmitting ERP (watts) | 0.192 | 0.100 | 0.160 | 0.224 | 1.075 | 2.050 | 1.930 | 1.184 |


| Call Sign: KNKN748 | File Number: |  | Print Date: |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Location Latitude | Longitude | Ground Elevation <br> (meters) | Structure Hgt to Tip <br> (meters) | Antenna Structure <br> Registration No. |  |
| 35 | $37-29-36.0 \mathrm{~N}$ | $086-11-16.5 \mathrm{~W}$ | 221.9 | 83.8 | 1217206 |

Address: 694 BRATON ROAD (81461)
City: Clarkson County: GRAYSON State: KY Construction Deadline: 07-23-2013

| Antenna: 1 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Antenna Height AAT (meters) | $\mathbf{9 2 . 4 0 0}$ | 66.200 | 82.600 | 83.200 | 92.600 | 111.600 | 90.000 | 105.400 |
| Transmitting ERP (watts) | 57.018 | 192.165 | 145.827 | 15.733 | 1.898 | 0.385 | 0.383 | 6.862 |
| Antenna: 2 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| Antenna Height AAT (meters) | 92.400 | 66.200 | 82.600 | 83.200 | 92.600 | 111.600 | 90.000 | 105.400 |
| Transmitting ERP (watts) | $\mathbf{0 . 2 5 2}$ | 0.276 | 8.928 | 64.700 | 126.176 | 53.814 | 5.506 | 0.302 |
| Antenna: 3 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| Antenna Height AAT (meters) | $\mathbf{9 2 . 4 0 0}$ | 66.200 | 82.600 | 83.200 | 92.600 | 111.600 | 90.000 | 105.400 |
| Transmitting ERP (watts) | 54.629 | 3.519 | 0.818 | 0.541 | 4.115 | 41.499 | 223.658 | 269.303 |

Address: 340 HAYES ROAD (37683)
City: Bradenburg County: MEADE State: KY Construction Deadline: 07-23-2013

| Antenna: 1 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Antenna Height AAT (meters) | 85.400 | 108.200 | 75.400 | $\mathbf{7 3 . 7 0 0}$ | 40.000 | 69.400 | 81.900 | 112.400 |
| Transmitting ERP (watts) | 126.151 | 53.803 | 5.511 | 0.302 | 0.252 | 0.277 | 8.920 | 64.703 |
| Antenna: 2 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| Antenna Height AAT (meters) | 85.400 | 108.200 | 75.400 | 73.700 | 40.000 | 69.400 | 81.900 | 112.400 |
| Transmitting ERP (watts) | 0.293 | 3.183 | 18.727 | 24.271 | 10.402 | 0.832 | 0.126 | 0.180 |
| Antenna: 3 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| Antenna Height AAT (meters) | 85.400 | 108.200 | 75.400 | 73.700 | 40.000 | $\mathbf{6 9 . 4 0 0}$ | 81.900 | 112.400 |
| Transmitting ERP (watts) | 0.954 | 0.235 | 0.241 | 4.294 | 37.262 | 117.843 | 89.269 | 12.068 |


| Call Sign: KNKN748 | File Number: |  |  | Print Date: |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Location Latitude | Longitude | Ground Elevation <br> (meters) | Structure Hgt to Tip <br> (meters) | Antenna Structure <br> Registration No. |  |
| 39 | $37-36-06.5 \mathrm{~N}$ | $087-23-53.6 \mathrm{~W}$ | 190.2 | 72.8 | 1049228 |

Address: 8720 STATE HIGHWAY 256 (100726)
City: Calhoun County: MCLEAN State: KY Construction Deadline: 07-23-2013

| Antenna: 1 Azimuth (from true north) |  | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Antenna Height AAT (meters) | 132.100 | 127.700 | 130.400 | 139.700 | 139.200 | 127.700 | 123.000 | 127.400 |
| Transmitting ERP (watts) | 8.604 | 24.150 | 21.298 | 3.973 | 0.289 | 0.100 | 0.110 | 0.868 |
| Antenna: 2 Azimuth (from true north) |  | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 32.100 | 127.700 | 130.400 | 139.700 | 139.200 | 127.700 | 123.000 | 127.400 |
| Transmitting ERP (watts) | . 100 | 0.145 | 0.714 | 2.721 | 2.030 | 2.664 | 0.581 | 0.100 |
| Antenna: 3 Azimuth (from true no |  | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 32.100 | 127.700 | 130.400 | 139.700 | 139.200 | 127.700 | 123.000 | 127.400 |
| Transmitting ERP (watts) | 16.740 | 1.264 | 0.201 | 0.172 | 0.717 | 9.668 | 50.766 | 60.487 |
| Location Latitude Longitude G |  |  | Ground Elevation meters) |  | Structure Hgt to Tip (meters) |  | Antenna Structure Registration No. |  |
| $40 \quad 38-00-08.4 \mathrm{~N}$ 086-19 | -20.3 W |  |  |  |  |  | 1049227 |  |
| Address: 1002 Paynesville Rd (100721) |  |  |  |  |  |  |  |  |
| City: PAYNEVILLE County: MEADE State: KY Construction Deadline: 07-23-2013 |  |  |  |  |  |  |  |  |
| Antenna: 1 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 136.200 | 133.100 | 139.800 | 109.200 | 119.400 | 125.600 | 140.200 | 137.800 |
| Transmitting ERP (watts) | 80.625 | 243.519 | 176.744 | 18.512 | 1.434 | 0.489 | 0.488 | 6.707 |
| Antenna: 2 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 136.200 | 133.100 | 139.800 | 109.200 | 119.400 | 125.600 | 140.200 | 137.800 |
| Transmitting ERP (watts) | 0.510 | 0.882 | 16.525 | 137.024 | 255.663 | 104.000 | 5.452 | 1.040 |
| Antenna: 3 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 136.200 | 133.100 | 139.800 | 109.200 | 119.400 | 125.600 | 140.200 | 137.800 |
| Transmitting ERP (watts) | 49.820 | 2.170 | 0.508 | 0.496 | 2.867 | 39.546 | 197.992 | 232.753 |


| Call Sign: KNKN748 | File Number: |  |  | Print Date: |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Location Latitude | Longitude | Ground Elevation <br> (meters) | Structure Hgt to Tip <br> (meters) | Antenna Structure <br> Registration No. |  |
| 45 | $36-47-11.0 \mathrm{~N}$ | $086-08-35.3 \mathrm{~W}$ | 253.3 | 91.1 | 1043039 |

Address: 3499 OLD GLASCOW ROAD (76160)
City: SCOTTSVILLE County: ALLEN State: KY Construction Deadline: 07-23-2013

| Antenna: 1 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Antenna Height AAT (meters) | 141.000 | 115.500 | 104.500 | 105.100 | 65.600 | 99.100 | 114.200 | 122.300 |
| Transmitting ERP (watts) | 69.057 | 33.233 | 3.269 | 0.138 | 0.138 | 0.139 | 2.591 | 29.564 |
| Antenna: 2 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| Antenna Height AAT (meters) | 141.000 | 115.500 | 104.500 | 105.100 | 65.600 | 99.100 | 114.200 | 122.300 |
| Transmitting ERP (watts) | 0.695 | 10.164 | 66.502 | 87.307 | 26.647 | 1.827 | 0.175 | 0.193 |
| Antenna: 3 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| Antenna Height AAT (meters) | 141.000 | 115.500 | 104.500 | 105.100 | 65.600 | 99.100 | 114.200 | 122.300 |
| Transmitting ERP (watts) | 0.331 | 0.100 | 0.100 | 0.877 | 10.209 | 34.235 | 30.831 | 5.937 |

Address: 14010 Greenville Rd (114156)
City: CLIFTY County: TODD State: KY Construction Deadline: 07-23-2013

| Antenna: 1 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Antenna Height AAT (meters) | 140.300 | 148.600 | 164.300 | 137.900 | 115.200 | 131.900 | 156.200 | 154.200 |
| Transmitting ERP (watts) | 90.933 | 49.427 | 5.614 | 0.231 | 0.294 | 0.248 | 4.251 | 44.027 |
| Antenna: 2 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| Antenna Height AAT (meters) | 140.300 | 148.600 | 164.300 | 137.900 | 115.200 | 131.900 | 156.200 | 154.200 |
| Transmitting ERP (watts) | 1.696 | 31.376 | 206.048 | 266.811 | 77.333 | 4.381 | 0.534 | 0.634 |
| Antenna: 3 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| Antenna Height AAT (meters) | 140.300 | 148.600 | 164.300 | 137.900 | 115.200 | 131.900 | 156.200 | 154.200 |
| Transmitting ERP (watts) | 0.365 | 0.124 | 0.124 | 1.043 | $\mathbf{1 4 . 9 8 7}$ | 62.052 | 52.143 | 8.124 |


| Call Sign: KNKN748 | File Number: |  |  | Print Date: |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Location Latitude | Longitude | Ground Elevation <br> (meters) | Structure Hgt to Tip <br> (meters) | Antenna Structure <br> Registration No. |  |
| 48 | $36-39-29.0 \mathrm{~N}$ | $087-10-56.1 \mathrm{~W}$ | 168.9 | 46.9 |  |

Address: 9141 Russellville Rd (116025)
City: Guthrie County: TODD State: KY Construction Deadline: 07-23-2013

| Antenna: 1 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Antenna Height AAT (meters) | 30.000 | 36.200 | 41.000 | 46.500 | 50.000 | 51.500 | 45.300 | 40.200 |
| Transmitting ERP (watts) | 83.826 | 171.373 | 91.533 | 10.341 | 0.391 | 0.553 | 0.470 | 7.798 |
| Antenna: 2 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| Antenna Height AAT (meters) | 30.000 | 36.200 | 41.000 | 46.500 | 50.000 | 51.500 | 45.300 | 40.200 |
| Transmitting ERP (watts) | 39.359 | 3.884 | 0.163 | 0.164 | 0.163 | 3.073 | 35.149 | 81.833 |


| Location Latitude | Longitude | Ground Elevation <br> (meters) | Structure Hgt to Tip <br> (meters) | Antenna Structure <br> Registration No. |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 49 | $36-49-53.1 \mathrm{~N}$ | $086-54-51.9 \mathrm{~W}$ | 253.9 | 87.8 | 1043422 |

Address: 374 SARAH CELL LANE (79468)
City: RUSSELLVILLE County: LOGAN State: KY Construction Deadline:

| Antenna: 1 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Antenna Height AAT (meters) | 147.800 | 136.900 | 122.800 | 139.500 | 151.400 | 149.000 | 137.200 | 143.600 |
| Transmitting ERP (watts) | 13.191 | 15.375 | 20.623 | 9.724 | 2.241 | 0.917 | 1.606 | 4.394 |
| Antenna: 2 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| Antenna Height AAT (meters) | 147.800 | 136.900 | 122.800 | 139.500 | 151.400 | 149.000 | 137.200 | 143.600 |
| Transmitting ERP (watts) | 0.302 | 19.944 | 70.809 | 141.157 | 91.158 | 151.443 | 56.229 | 39.824 |
| Antenna: 3 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| Antenna Height AAT (meters) | 147.800 | 136.900 | 122.800 | $\mathbf{1 3 9 . 5 0 0}$ | 151.400 | 149.000 | 137.200 | 143.600 |
| Transmitting ERP (watts) | 165.961 | 47.564 | 35.048 | 13.108 | 19.047 | 126.532 | 254.037 | 264.411 |


| Location Latitude | Longitude | Ground Elevation <br> (meters) | Structure Hgt to Tip <br> (meters) | Antenna Structure <br> Registration No. |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 50 | $37-06-13.5 \mathrm{~N}$ | $086-11-31.9 \mathrm{~W}$ | 248.4 | 94.5 | 1043426 |

Address: HWY 31 W. 15.5 MILES NORTH OF BOWLING GREEN (76162)
City: BROWNSVILLE County: EDMONSON State: KY Construction Deadline:

| Antenna: 1 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Antenna Height AAT (meters) | 132.900 | 119.800 | 121.900 | 132.500 | 139.700 | 156.900 | 138.100 | 144.700 |
| Transmitting ERP (watts) | 76.433 | 61.831 | 10.136 | 0.490 | 0.153 | $\mathbf{0 . 1 5 3}$ | 1.751 | 22.332 |


| Call Sign: KNKN748 | File Number: |  | Print Date: |  |
| :--- | :--- | :--- | :--- | :--- |
| Location Latitude | Longitude | Ground Elevation <br> (meters) | Structure Hgt to Tip <br> (meters) | Antenna Structure <br> Registration No. |
| 50 | $37-06-13.5 \mathrm{~N}$ | $086-11-31.9 \mathrm{~W}$ | 248.4 | 94.5 |

Address: HWY 31 W. 15.5 MILES NORTH OF BOWLING GREEN (76162)
City: BROWNSVILLE County: EDMONSON State: KY Construction Deadline:

| Antenna: 2 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Antenna Height AAT (meters) | 132.900 | 119.800 | 121.900 | 132.500 | 139.700 | 156.900 | 138.100 | 144.700 |
| Transmitting ERP (watts) | 0.140 | 2.140 | 18.403 | 33.047 | 18.411 | 2.087 | 0.101 | 0.132 |
| Antenna: 3 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| Antenna Height AAT (meters) | 132.900 | 119.800 | 121.900 | 132.500 | 139.700 | 156.900 | 138.100 | 144.700 |
| Transmitting ERP (watts) | $\mathbf{0 . 7 1 7}$ | 0.100 | 0.100 | 0.363 | 4.848 | 26.904 | 32.711 | 9.981 |

Address: 754 HIGHWAY 448 (76175)
City: BRANDENBURG County: MEADE State: KY Construction Deadline:

| Antenna: 1 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Antenna Height AAT (meters) | 92.900 | 81.400 | 121.600 | 71.000 | 57.800 | 78.400 | 81.600 | 124.800 |
| Transmitting ERP (watts) | 127.297 | 121.679 | 155.422 | 85.508 | 30.247 | 22.406 | 27.837 | 41.126 |
| Antenna: 2 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| Antenna Height AAT (meters) | 92.900 | 81.400 | 121.600 | 71.000 | 57.800 | 78.400 | 81.600 | 124.800 |
| Transmitting ERP (watts) | 0.549 | 6.006 | 49.925 | 208.129 | 273.538 | 212.776 | 43.513 | 17.704 |
| Antenna: 3 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| Antenna Height AAT (meters) | 92.900 | 81.400 | 121.600 | 71.000 | 57.800 | $\mathbf{7 8 . 4 0 0}$ | 81.600 | 124.800 |
| Transmitting ERP (watts) | 165.198 | 47.446 | 34.954 | 13.065 | 18.961 | 125.826 | 253.004 | 262.909 |


| Call Sign: KNKN748 | File Number: |  | Print Date: |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Location Latitude | Longitude | Ground Elevation <br> (meters) | Structure Hgt to Tip <br> (meters) | Antenna Structure <br> Registration No. |  |
| 52 | $37-32-55.4 \mathrm{~N}$ | $087-16-05.4 \mathrm{~W}$ | 140.2 | 93.0 | 1244911 |

Address: 235 WEST KY 136 (76190)
City: CALHOUN County: MCLEAN State: KY Construction Deadline:

| Antenna: 2 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Antenna Height AAT (meters) | 93.700 | 104.200 | 101.700 | 109.900 | 107.300 | 112.600 | 113.000 | 103.500 |
| Transmitting ERP (watts) | 0.263 | 1.499 | 8.907 | 25.402 | 25.096 | 29.869 | 6.908 | 2.214 |
| Antenna: 3 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| Antenna Height AAT (meters) | 93.700 | 104.200 | 101.700 | 109.900 | 107.300 | 112.600 | 113.000 | 103.500 |
| Transmitting ERP (watts) | 13.485 | 2.840 | 1.968 | 1.182 | 1.861 | 9.279 | 14.950 | 16.111 |


| Location Latitude | Longitude | Ground Elevation <br> (meters) | Structure Hgt to Tip <br> (meters) | Antenna Structure <br> Registration No. |
| :--- | :--- | :--- | :--- | :--- |
| 53 | $37-23-57.3 \mathrm{~N}$ | $087-14-11.0 \mathrm{~W}$ | 142.6 | 66.4 |

Address: 1266 Coffman School House Road (114157)
City: Sacramento County: MCLEAN State: KY Construction Deadline:

| Antenna: 1 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Antenna Height AAT (meters) | 78.900 | 71.400 | 72.900 | 65.300 | 58.100 | 76.700 | 81.000 | 71.700 |
| Transmitting ERP (watts) | 167.796 | 70.666 | 5.756 | 0.746 | 0.337 | 0.392 | 10.993 | 84.493 |
| Antenna: 2 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| Antenna Height AAT (meters) | 78.900 | 71.400 | 72.900 | 65.300 | 58.100 | 76.700 | 81.000 | 71.700 |
| Transmitting ERP (watts) | 2.293 | 23.373 | 125.220 | 157.181 | 33.002 | 3.023 | 0.420 | 0.529 |
| Antenna: 3 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| Antenna Height AAT (meters) | 78.900 | 71.400 | 72.900 | 65.300 | 58.100 | 76.700 | 81.000 | 71.700 |
| Transmitting ERP (watts) | 1.557 | 0.314 | 0.315 | 5.633 | 46.706 | 157.098 | 119.251 | 12.856 |



## Call Sign: KNKN748

File Number:
Print Date:

| Location Latitude | Longitude | Ground Elevation <br> (meters) | Structure Hgt to Tip <br> (meters) | Antenna Structure <br> Registration No. |
| :--- | :--- | :--- | :--- | :--- |
| 54 | $36-44-32.4 \mathrm{~N}$ | $087-03-22.0 \mathrm{~W}$ | 177.4 | 60.7 |

Address: 12442 Clarksville Rd (119164)
City: Olmstead County:LOGAN State: KY Construction Deadline:

| Antenna: 2 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Antenna Height AAT (meters) | 38.700 | 51.200 | 58.700 | 61.000 | 61.600 | 65.600 | 54.200 | 43.800 |
| Transmitting ERP (watts) | 0.398 | 2.494 | 20.501 | 62.455 | 72.666 | 71.877 | 14.509 | 4.740 |
| Antenna: 3 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| Antenna Height AAT (meters) | 38.700 | 51.200 | 58.700 | 61.000 | 61.600 | 65.600 | 54.200 | 43.800 |
| Transmitting ERP (watts) | 70.857 | 7.567 | 2.665 | 0.972 | 2.148 | 48.281 | 243.184 | 333.088 |

Address: 680 Phillips Lane (37504)
City: Franklin County: SIMPSON State: KY Construction Deadline:

| Antenna: 1 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Antenna Height AAT (meters) | 86.700 | 76.200 | 71.800 | 57.600 | 57.100 | 67.700 | 72.000 | 80.500 |
| Transmitting ERP (watts) | 114.881 | 151.450 | 45.595 | 2.950 | 0.302 | 0.353 | 1.123 | 17.809 |
| Antenna: 2 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| Antenna Height AAT (meters) | 86.700 | 76.200 | 71.800 | 57.600 | 57.100 | 67.700 | 72.000 | 80.500 |
| Transmitting ERP (watts) | 0.274 | 0.273 | 1.936 | 29.962 | 137.017 | 135.788 | 29.053 | 1.424 |
| Antenna: 3 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| Antenna Height AAT (meters) | 86.700 | 76.200 | 71.800 | 57.600 | 57.100 | 67.700 | 72.000 | 80.500 |
| Transmitting ERP (watts) | 36.885 | 2.023 | 0.286 | 0.291 | 1.454 | 23.079 | 126.851 | 143.582 |



| Call Sign: KNKN748 | File Number: |  | Print Date: |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Location Latitude | Longitude | Ground Elevation <br> (meters) | Structure Hgt to Tip <br> (meters) | Antenna Structure <br> Registration No. |  |
| 56 | $37-33-42.0 \mathrm{~N}$ | $087-06-34.0 \mathrm{~W}$ | 153.9 | 64.6 | 1043552 |

Address: 5020 HWY 431 (114800)
City: North Calhoun County: MCLEAN State: KY Construction Deadline:

| Antenna: 2 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Antenna Height AAT (meters) | 73.000 | 67.700 | 60.800 | 71.600 | 77.400 | 81.300 | 63.900 | 67.300 |
| Transmitting ERP (watts) | 0.579 | 17.567 | 97.454 | 288.731 | 259.116 | 288.697 | 84.790 | 47.492 |
| Antenna: 3 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| Antenna Height AAT (meters) | 73.000 | 67.700 | 60.800 | 71.600 | 77.400 | 81.300 | 63.900 | 67.300 |
| Transmitting ERP (watts) | 225.807 | 88.641 | 98.488 | 33.766 | 42.937 | 203.385 | 284.088 | 256.109 |


| Location Latitude | Longitude | Ground Elevation <br> (meters) | Structure Hgt to Tip <br> (meters) | Antenna Structure <br> Registration No. |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 57 | $37-53-45.0 \mathrm{~N}$ | $086-49-51.0 \mathrm{~W}$ | 164.5 | 65.6 | 1043711 |

Address: OLD LEWISPORT OWENSBORO RD (118228)
City: HAWESVILLE County: HANCOCK State: KY Construction Deadline:

| Antenna: 1 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Antenna Height AAT (meters) | 89.400 | 84.300 | 98.800 | 62.900 | 81.500 | 94.100 | 95.600 | 100.200 |
| Transmitting ERP (watts) | 145.138 | 138.457 | 177.189 | 97.486 | 34.591 | 25.653 | 31.702 | 46.927 |
| Antenna: 2 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| Antenna Height AAT (meters) | 89.400 | 84.300 | 98.800 | 62.900 | 81.500 | 94.100 | 95.600 | 100.200 |
| Transmitting ERP (watts) | 0.626 | 6.840 | 56.877 | 237.296 | 312.736 | 242.992 | 49.505 | 20.160 |
| Antenna: 3 Azimuth (from true north) | $\mathbf{0}$ | $\mathbf{4 5}$ | $\mathbf{9 0}$ | $\mathbf{1 3 5}$ | $\mathbf{1 8 0}$ | $\mathbf{2 2 5}$ | $\mathbf{2 7 0}$ | $\mathbf{3 1 5}$ |
| Antenna Height AAT (meters) | 89.400 | 84.300 | 98.800 | 62.900 | 81.500 | 94.100 | 95.600 | 100.200 |
| Transmitting ERP (watts) | 206.536 | 81.243 | 90.088 | 30.991 | 39.380 | 186.420 | 259.807 | 234.243 |


| Call Sign: KNKN748 | File Number: |  |  | Print Date: |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Location Latitude Longi | Longitude | Ground Elevation (meters) |  |  | Structure Hgt to Tip (meters) |  | Antenna Structure Registration No. |  |
| 58 37-56-52.0 N 085-5 | 37.8 W |  | 1.0 |  |  |  | 1204254 |  |
| Address: 115 Timber Court (37606) |  |  |  |  |  |  |  |  |
| City: Muldraugh County: MEADE State: KY Construction Deadline: |  |  |  |  |  |  |  |  |
| Antenna: 2 Azimuth (from true north) |  | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 82.000 | 113.300 | 99.300 | 64.300 | 63.500 | 56.300 | 78.500 | 87.900 |
| Transmitting ERP (watts) | 0.100 | 0.100 | 0.790 | 17.085 | 30.505 | 3.551 | 0.100 | 0.100 |
| Antenna: 3 Azimuth (from true north) |  | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 82.000 | 113.300 | 99.300 | 64.300 | 63.500 | 56.300 | 78.500 | 87.900 |
| Transmitting ERP (watts) | 0.100 | 0.100 | 0.100 | 0.309 | 10.332 | 36.527 | 6.709 | 0.159 |

## Control Points:

## Control Pt. No. 1

Address: 1650 Lyndon Farms Court
City: LOUISVILLE County: State: KY Telephone Number: (502)329-4700

## Waivers/Conditions:

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

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


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

## Federal Communications Commission

## Wireless Telecommunications Bureau

## RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

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

| Call Sign <br> KNLG209 | File Number |
| :---: | :---: |
| Radio Service |  |
| CW - PCS Broadband |  |

FCC Registration Number (FRN): 0003291192

| Grant Date | Effective Date | Expiration Date | Print Date |
| :---: | :---: | :---: | :---: |
| $04-12-2017$ | $06-13-2017$ | $04-28-2027$ |  |


| Market Number <br> BTA263 | Channel Block <br> D | Sub-Market Designator <br> 0 |  |
| :---: | :---: | :---: | :---: |
| Market Name <br> Louisville, KY |  |  |  |


| 1st Build-out Date <br> $04-28-2002$ | 2nd Build-out Date | 3rd Build-out Date | 4th Build-out Date |
| :---: | :---: | :---: | :---: |

## Waivers/Conditions:

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

## Conditions:

Pursuant to $\S 309$ (h) of the Communications Act of 1934, as amended, 47 U.S.C. $\S 309(\mathrm{~h})$, 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. $\S 310$ (d). This license is subject in terms to the right of use or control conferred by $\S 706$ of the Communications Act of 1934, as amended. See 47 U.S.C. $\S 606$.

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.

# Federal Communications Commission <br> Wireless Telecommunications Bureau 

## Spectrum Leasing Arrangement

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

Date: 09/21/2017
Reference Number:

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

| Type of Lease Arrangement | Lease Term | Lease Identifier |
| :--- | :--- | :--- |
| Spectrum Manager Lease | Short Term | L000015162 |


| Lease Grant/Accepted Date | Lease Commencement Date | Lease Expiration Date |
| :--- | :--- | :--- |
| $03 / 13 / 2015$ | $12 / 23 / 2014$ | $04 / 30 / 2015$ |


| Call Sign | Radio Service |
| :--- | :--- |
| KNLG923 | CW - PCS Broadband |

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

Licensee Information
0001832807
POWERTEL MEMPHIS LICENSES, INC.
Attn: FCC REGULATORY COMPLIANCE
12920 SE 38TH ST.
BELLEVUE, WA 98006

| Geographically-Licensed Services |  |  |
| :--- | :--- | :--- |
| Market Number | Market Name | Channel Block |
| BTA263 | Louisville, KY | F |

## Condition:

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

## Conditions:

Pursuant to $\S 309(\mathrm{~h})$ of the Communications Act of 1934, as amended, 47 U.S.C. $\S 309$ (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. $\S 310$ (d). This license is subject in terms to the right of use or control conferred by $\S 706$ of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

# Federal Communications Commission <br> Wireless Telecommunications Bureau 

## Spectrum Leasing Arrangement

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

Date: 09/21/2017
Reference Number:

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

| Type of Lease Arrangement | Lease Term | Lease Identifier |
| :--- | :--- | :--- |
| Spectrum Manager Lease | Short Term | L000015162 |


| Lease Grant/Accepted Date | Lease Commencement Date | Lease Expiration Date |
| :--- | :--- | :--- |
| $03 / 13 / 2015$ | $12 / 23 / 2014$ | $04 / 30 / 2015$ |


| Call Sign | Radio Service |
| :--- | :--- |
| KNLG923 | CW - PCS Broadband |

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

Licensee Information
0001832807
POWERTEL MEMPHIS LICENSES, INC.
Attn: FCC REGULATORY COMPLIANCE
12920 SE 38TH ST.
BELLEVUE, WA 98006

| Geographically-Licensed Services |  |  |
| :--- | :--- | :--- |
| Market Number | Market Name | Channel Block |
| BTA263 | Louisville, KY | F |

## Condition:

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

## Conditions:

Pursuant to $\S 309$ (h) of the Communications Act of 1934, as amended, 47 U.S.C. $\S 309$ (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. $\S 310$ (d). This license is subject in terms to the right of use or control conferred by $\S 706$ of the Communications Act of 1934, as amended. See 47 U.S.C. $\S 606$.

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

## Federal Communications Commission

## Wireless Telecommunications Bureau

 RADIO STATION AUTHORIZATIONLICENSEE: NEW CINGULAR WIRELESS PCS, LLC

| Call Sign <br> KNLG209 | File Number |
| :---: | :---: |
| Radio Service |  |
| CW - PCS Broadband |  |

FCC Registration Number (FRN): 0003291192

| Grant Date | Effective Date | Expiration Date | Print Date |
| :---: | :---: | :---: | :---: |
| $04-12-2017$ | $06-13-2017$ | $04-28-2027$ |  |


| Market Number <br> BTA263 | Channel Block | Sub-Market Designator <br> 0 |
| :---: | :---: | :---: |


| Market Name <br> Louisville, KY |  |  |  |
| :---: | :---: | :---: | :---: |
| 1st Build-out Date <br> $04-28-2002$ | 2nd Build-out Date | 3rd Build-out Date | 4th Build-out Date |

## Waivers/Conditions:

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

## Conditions:

Pursuant to $\S 309(\mathrm{~h})$ of the Communications Act of 1934 , as amended, 47 U.S.C. $\S 309(\mathrm{~h})$, 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 $\S 706$ of the Communications Act of 1934, as amended. See 47 U.S.C. $\S 606$.

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.

## Federal Communications Commission

## Wireless Telecommunications Bureau

## Spectrum Leasing Arrangement

ATTN: REGINALD YOUNGBLOOD
Date: 09/21/2017
NEW CINGULAR WIRELESS PCS LLC
Reference Number:
3300 E RENNER ROAD, B3132
RICHARDSON, TX 75082

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

| Type of Lease Arrangement | Lease Term | Lease Identifier |
| :--- | :--- | :--- |
| Spectrum Manager Lease | Short Term | L000015162 |


| Lease Grant/Accepted Date | Lease Commencement Date | Lease Expiration Date |
| :--- | :--- | :--- |
| $03 / 13 / 2015$ | $12 / 23 / 2014$ | $04 / 30 / 2015$ |


| Call Sign | Radio Service |
| :--- | :--- |
| KNLG923 | CW - PCS Broadband |

## Lessee Information

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

```
Licensee Information
0001832807
POWERTEL MEMPHIS LICENSES, INC.
Attn: FCC REGULATORY COMPLIANCE
12920 SE 38TH ST.
BELLEVUE, WA 98006
```

| Geographically-Licensed Services |  |  |
| :--- | :--- | :--- |
| Market Number | Market Name | Channel Block |
| BTA263 | Louisville, KY | F |

## Condition:

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

## Conditions:

Pursuant to $\S 309(\mathrm{~h})$ of the Communications Act of 1934, as amended, 47 U.S.C. $\S 309(\mathrm{~h})$, 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. $\S 310$ (d). This license is subject in terms to the right of use or control conferred by $\S 706$ of the Communications Act of 1934, as amended. See 47 U.S.C. $\S 606$.

# Federal Communications Commission <br> Wireless Telecommunications Bureau 

## Spectrum Leasing Arrangement

ATTN: REGINALD YOUNGBLOOD
Date: 09/21/2017
NEW CINGULAR WIRELESS PCS LLC
Reference Number:
3300 E RENNER ROAD, B3132
RICHARDSON, TX 75082

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

| Type of Lease Arrangement | Lease Term | Lease Identifier |
| :--- | :--- | :--- |
| Spectrum Manager Lease | Short Term | L000015162 |


| Lease Grant/Accepted Date | Lease Commencement Date | Lease Expiration Date |
| :--- | :--- | :--- |
| $03 / 13 / 2015$ | $12 / 23 / 2014$ | $04 / 30 / 2015$ |


| Call Sign | Radio Service |
| :--- | :--- |
| KNLG923 | CW - PCS Broadband |

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

Licensee Information
0001832807
POWERTEL MEMPHIS LICENSES, INC.
Attn: FCC REGULATORY COMPLIANCE
12920 SE 38TH ST.
BELLEVUE, WA 98006

| Geographically-Licensed Services |  |  |
| :--- | :--- | :--- |
| Market Number | Market Name | Channel Block |
| BTA263 | Louisville, KY | F |

## Condition:

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

## Conditions:

Pursuant to $\S 309(\mathrm{~h})$ of the Communications Act of 1934 , as amended, 47 U.S.C. $\S 309(\mathrm{~h})$, 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 $\S 706$ of the Communications Act of 1934, as amended. See 47 U.S.C. $\S 606$.

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

## Federal Communications Commission

## Wireless Telecommunications Bureau

## RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

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

| Call Sign <br> WPOI255 | File Number |
| :---: | :---: |
| Radio Service |  |
| CW - PCS Broadband |  |

FCC Registration Number (FRN): 0003291192

| Grant Date | Effective Date | Expiration Date | Print Date |
| :---: | :---: | :---: | :---: |
| $05-27-2015$ | $06-14-2017$ | $06-23-2025$ |  |


| Market Number <br> MTA026 | Channel Block | Sub-Market Designator |
| :---: | :---: | :---: |
| 19 |  |  |

## Market Name <br> Louisville-Lexington-Evansvill

| 1st Build-out Date | 2nd Build-out Date <br> $06-23-2000$ | 3rd Build-out Date | 4th Build-out Date |
| :---: | :---: | :---: | :---: |

## Waivers/Conditions:

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

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

## Conditions:

Pursuant to $\S 309$ (h) of the Communications Act of 1934, as amended, 47 U.S.C. $\S 309$ (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. $\S 310$ (d). This license is subject in terms to the right of use or control conferred by $\S 706$ of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

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

## Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: WPOI255
File Number:
Print Date:

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

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

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

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

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

## EXHIBIT B

## SITE DEVELOPMENT PLAN:

## 500' VICINITY MAP <br> LEGAL DESCRIPTIONS <br> FLOOD PLAIN CERTIFICATION <br> SITE PLAN <br> VERTICAL TOWER PROFILE



SITE NAME:
HARNED

## at\&t

PROPOSED RAW LAND SITE WITH NEW 305' SELF-SUPPORT TOWER WITH A 15' LIGHTNING ARRESTOR AND INSTALLATION OF AN 80" x 80" WALK-IN CABINET ON PLATFORM \& DIESEL GENERATOR ON PLATFORM


SCOPE OF WORK:



SITE NUMBER:
KYL03659


Kentucky


$1-800-752$
$1-800-72-607$


SHEET INDEX T-1 TITLE SHEE \& PROIECT INFORMATION

 $\underset{\substack{\text { ENLARGED COMPOUN } \\ \text { TOWER ELEVATION }}}{\text { N }}$

CONTACT INFORMATION

##  

 $\frac{\text { POLICE DEPARTMENT }}{\text { BRECKNRRIGE COUNTS SHERFFFS DEPT. }}$ ELECTRIC COMPANY MEADE COUNT RECC
PHONE (270) $756-5172$
TELEPHONE COMPANY
PHONE: (800) 288.2020

BUILDING CODES AND STANDARDS CONTRACTO'S WORK SHAL COMPLY WTH ALL
APPLCABLE AATIONAL STATE ANO LOCAL COOSE ADOPTEE BY THE LOCLAL AUTHORITY HAVING JURISDICTION
FOR THE LOCATON.
CONTRACTOR'S WORK SHALL COMPLY WTHT THE LATEST
EDTION OF THE FOLIOWNG STANDAROS: american concrte institute 318 AMERICAN INSTTUTUE OF STEEL CONSTRUCTION MANUAL O F STEEL CONSTRUCTION
telecommunications industry association tia-222
 Commerial bullong gruunang ann bonding
Requiremenis for Telicommuncations
 IEEE-81, IEEE 1100, IEEE C62.41 ANSITT.311, FOR TELECOM- oC POWER SYYTEMS-
TELICOM, ENVRONMENAL PROTECTON
2014 kgc
2014 NEC
2014 NEC
 AND STANDAROS,
SHALL GOVERN.

EN PERMIT: 359
ZONING
DRAWINGS

| Rev | DATE | Descripion |
| :---: | :---: | :---: |
| A | 76.17 | ISSUED for review |


| A | 7.10 .17 | ISSUED AS FiNAL |
| :--- | :--- | :--- |
| 0 |  |  |
| 1 |  |  |


| 1 | 9.19.17 | TOWER DESIG |
| :--- | :--- | :--- |


|  |  |  |
| :--- | :--- | :--- |
|  |  |  |
|  |  |  |
|  |  |  |

HARNED
EUTLER Hobss road,
HARNE KY, 40144

breckinkioge county STIE NUMBER: POD NUMBER: $\quad 17.12750$ | DRAWN B |
| :--- |
| $\begin{array}{l}\text { CHACCED } \\ \text { DATE: }\end{array}$ |

SHEETTIIE: $\substack{\text { MEP } \\ 4.12,17}_{\text {Ren }}$
TITLE SHEET
\& PROJECT
INFORMATION
T-1



PROPOSED LEASE AREA LEGAL DESCRIPTIONS
 (
 ABINET REAL TIME GPS NETW ORK COMPLLTED ON FEBRUARY 14, 2017.
 27, PAGE G78) AND THE PROPERTY CONEEYEDTO STEPHEN D. \& ANGELA LYNN THORNHIL AS RECORDEDIN DEED BOX

 HEPOIN OF BEGINNNG

PROPOSED $30^{\prime}$ / VARIABLE WIDTH ACCESS \& UTILIT EASEMEN
 GRANTED FROM THE PROPERTY CONVEYED TO SANDRA S. BAIER AS RECORDED DED BOOK 126, PAGE 601 (ACQURED
THROUGH WILL BOOK 27, PAGE 678 ), PARCELD: 102-26, WHICH IS MORE PARTCULARLY DESCRBBED AS FOLIOWS:
 CABINET REAL TIEE GPS NETWORK COMPLETED ON FEEBUARY 14, 2017.









PARENT PARCEL - LEGAL DESCRIPTION - DEED BOOK 126, PAGE 601 (NOT FIELD SURVEYED)








\section*{TITLE (PARCEL ID: 102 <br> |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | <br> }

schedule b
 2. MORTGAGES RETURNED HEREIN. (-O-I), SEE SEPARATE MORTGAGE SCHEDULE. NONE WITHIN PERIOD

4. RIGHTS Of TENANTS OR PERSON IN pOSSESSION. (NOT A SURVEY MATTER, THEREFORE POD GROUP, LIC DIO
NOT EXAMINE OR ADORESS THIS TTEM.). (JUDGMENTS, LENS AND UCC)
5. NONE WITHIN PERIOD SEARCHED
(COVENANTS/RESTRICTIONS)
6. NONE WTHIN PERIOD SEARCHED
(EASEMENTS AND RIGHTS OF WAY)
7 None within period searched
(OTHER FILED DOCUMENTS)
8. PAID-UP OIL AND GAS LEASE BETWEEN ACKIE B. BAIER R SANDRA S. BAIER IUUSBAND \& WIEE) AND WHG


 UTLITY EASEMENT.


 SOIT AFFETTS THE PARENT PARCEL, THE PROPOSED LEASE AREA AND THE PROPOSED ACCESS \& UTILTTY
EASEMENT.)

MasTec


 MARK PATTERSON, PLS \#3136 DATE

B-1.2






## EXHIBIT C

 TOWER AND FOUNDATION DESIGN
## Sabre Industries <br> Towers and Poles

Structural Design Report 305' S3TL Series HD1 Self-Supporting Tower Site: Harned, KY<br>Site Number: KYL03659

Prepared for: AT\&T<br>by: Sabre Towers \& Poles ${ }^{\mathrm{TM}}$

Job Number: 170074

September 18, 2017
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 ..... 8-24


Designed Appurtenance Loading

| Elev | Description | Tx-Line | Elev | Description | Tx-Line |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 310 | (1) Extendible Lightning Rod |  | 276 | (1) 208 sq. ft. EPA 4000\# (no ice) | (18) $15 / 88^{\prime \prime}$ |
| 300 | (1) 278 Sq. FT. EPA 66000 \# (No Ice) | (18) $15 / 8{ }^{\prime \prime}$ | 264 | (1) 208 sq. ft. EPA 4000 \# (no ice) | (18) $15 / 8{ }^{\prime \prime}$ |
| 288 | (1) 208 sq. ft. EPA 4000\# (no ice) | (18) $15 / 8{ }^{\prime \prime}$ |  |  |  |


|  | Job: 170074 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Customer <br> Site Name. | AT\&T |  |  |
|  |  | Harned, KY |  |  |
| Information contained hetain is the sole property of Sabre Coruruinications Corporation consifutes tude sectel as defined by lowa Code Ch. 550 and that not be appoduced, coped or used in whole or part for any purpose whatsoever wethout the prot wertien consant of Sabce Cormwenicationt | Description <br> Date | 305 S3TL |  |  |
|  |  | 9/18/2017 |  | REB |

## Customer: AT\&T <br> Site: Harned, KY KYL03659

305 ft . Model S3TL Series HD1 Self Supporting Tower At 89 mph Wind with no ice and 30 mph Wind with 0.75 in . Ice per ANSI/TIA-222-G.

Antenna Loading per Page 1


Notes:
1). Concrete shall have a minimum 28 -day compressive strength of 4500 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 $3^{\prime \prime}$ concrete cover.
4). All exposed concrete corners to be chamfered $3 / 4^{\prime \prime}$.
5). The foundation design is based on the geotechnical report by POD project no. 1712748, dated: 8/31/17


Information contained herein is the sole property of Sabre Towers \& Poles, constitutes a 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 prior written consent of Sabre Towers \& Poles.

Date: 9/18/17
By: REB

## Customer: AT\&T <br> Site: Harned, KY KYL03659

305 ft . Model S3TL Series HD1 Self Supporting Tower At 89 mph Wind with no ice and 30 mph Wind with 0.75 in . Ice per ANSI/TIA-222-G.

Antenna Loading per Page 1


## ELEVATION VIEW

(60.08 Cu. Yds. each)
(3 REQUIRED; NOT TO SCALE)

## Notes:

1). Concrete shall have a minimum 28 -day compressive strength of 4500 PSI , in accordance with ACI 318 -11.
2). Rebars to conform to ASTM specification A615 Grade 60
3). All rebar to have a minimum of $3^{\prime \prime}$ concrete cover.
4). All exposed concrete corners to be chamfered $3 / 4^{\prime \prime}$.
5). The foundation design is based on the geotechnical report by POD project no. 1712748, dated: 8/31/17
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) $=689$
Factored download (kips) = 793
Factored shear (kips) $=72$

| Rebar Schedule per Pier |  |
| :---: | :---: |
| Pier | (46) \#9 vertical rebar w/\#5 ties, two (2) <br> within top 5" of pier then 12" C/C |



$\square$
DRAWEORCE Ver 2.2
(c) Guymast Inc. 2006-2009

Licensed to: Sabre Towers and Poles

## Maximum

TOTAL FOUNDATION LOADS (kip, ft-kip)


INDIVIDUAL FOOTING LOADS (kip)



MAST GEOMETRY ( ft )

| PANEL TYPE | $\begin{array}{r} \text { NO.OF } \\ \text { LEGS } \end{array}$ | $\begin{aligned} & \text { ELEV.AT } \\ & \text { BOTTOM } \end{aligned}$ | $\begin{array}{r} \text { ELEV.AT } \\ \text { TOP } \end{array}$ | $\begin{array}{r} \text { F.W..AT } \\ \text { BOTTOM } \end{array}$ | $\begin{array}{r} \text { F.W. AT } \\ \text { TOP } \end{array}$ | $\begin{aligned} & \text { TYPICAL } \\ & \text { PANEL } \\ & \text { HEIGHT } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| X | 3 | 300.00 | 305.00 | 5.00 | 5.00 | 5.00 |
| X | 3 | 295.00 | 300.00 | 5.00 | 5.00 | 5.00 |
| X | 3 | 280.00 | 295.00 | 5.00 | 5.00 | 5.00 |
| $x$ | 3 | 275.00 | 280.00 | 5.50 | 5.00 | 5.00 |
| $x$ | 3 | 260.00 | 275.00 | 7.00 | 5.50 | 5.00 |
| X | 3 | 240.00 | 260.00 | 9.00 | 7.00 | 5.00 |
| X | 3 | 220.00 | 240.00 | 11.00 | 9.00 | 6.67 |
| X | 3 | 200.00 | 220.00 | 13.00 | 11.00 | 6.67 |
| X | 3 | 180.00 | 200.00 | 15.00 | 13.00 | 6.67 |
| X | 3 | 160.00 | 180.00 | 17.00 | 15.00 | 10.00 |
| $x$ | 3 | 140.00 | 160.00 | 19.00 | 17.00 | 10.00 |
| X | 3 | 120.00 | 140.00 | 21.00 | 19.00 | 10.00 |
| X | 3 | 100.00 | 120.00 | 23.00 | 21.00 | 10.00 |
| X | 3 | 80.00 | 100.00 | 25.00 | 23.00 | 10.00 |
| X | 3 | 60.00 | 80.00 | 27.00 | 25.00 | 10.00 |
| V | 3 | 53.33 | 60.00 | 27.67 | 27.00 | 6.67 |
| A | 3 | 40.00 | 53.33 | 29.00 | 27.67 | 13.33 |
| V | 3 | 33.33 | 40.00 | 29.67 | 29.00 | 6.67 |
| A | 3 | 20.00 | 33.33 | 31.00 | 29.67 | 13.33 |
| V | 3 | 13.33 | 20.00 | 31.67 | 31.00 | 6.67 |
| A | 3 | 0.00 | 13.33 | 33.00 | 31.67 | 13.33 |

MEMBER PROPERTIES
$================$

| MEMBER | BOTTOM | TOP | X-SECTN | RADIUS | ELASTIC | THERMAL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TYPE | ELEV | ELEV | AREA | OF GYRAT | MODULUS | EXPANSN |
|  | ft | ft | in.sq | in | ksi | /deg |
| LE | 300.00 | 305.00 | 1.075 | 0.787 | 29000. | 0.0000117 |
| LE | 280.00 | 300.00 | 2.254 | 0.787 | 29000. | 0.0000117 |
| LE | 260.00 | 280.00 | 4.407 | 0.787 | 29000. | 0.0000117 |
| LE | 240.00 | 260.00 | 6.111 | 0.787 | 29000. | 0.0000117 |
| LE | 220.00 | 240.00 | 7.952 | 0.787 | 29000. | 0.0000117 |
| LE | 200.00 | 220.00 | 8.399 | 0.787 | 29000. | 0.0000117 |
| LE | 140.00 | 200.00 | 12.763 | 0.787 | 29000. | 0.0000117 |
| LE | 100.00 | 140.00 | 16.101 | 0.787 | 29000. | 0.0000117 |
| LE | 0.00 | 100.00 | 19.242 | 0.787 | 29000. | 0.0000117 |
| DI | 300.00 | 305.00 | 0.484 | 0.626 | 29000. | 0.0000117 |
| DI | 280.00 | 300.00 | 0.715 | 0.626 | 29000. | 0.0000117 |
| DI | 260.00 | 280.00 | 0.938 | 0.626 | 29000. | 0.0000117 |
| DI | 240.00 | 260.00 | 0.902 | 0.626 | 29000. | 0.0000117 |
| DI | 220.00 | 240.00 | 1.188 | 0.626 | 29000. | 0.0000117 |
| DI | 180.00 | 220.00 | 1.090 | 0.626 | 29000. | 0.0000117 |
| DI | 160.00 | 180.00 | 1.562 | 0.626 | 29000. | 0.0000117 |
| DI | 140.00 | 160.00 | 1.688 | 0.626 | 29000. | 0.0000117 |
| DI | 80.00 | 140.00 | 1.938 | 0.626 | 29000. | 0.0000117 |
| DI | 53.33 | 80.00 | 2.402 | 0.626 | 29000. | 0.0000117 |
| DI | 40.00 | 53.33 | 2.559 | 0.626 | 29000. | 0.0000117 |
| DI | 33.33 | 40.00 | 2.402 | 0.626 | 29000. | 0.0000117 |
| DI | 20.00 | 33.33 | 2.559 | 0.626 | 29000. | 0.0000117 |
| DI | 13.33 | 20.00 | 2.402 | 0.626 | 29000. | 0.0000117 |
| DI | 0.00 | 13.33 | 2.062 | 0.626 | 29000. | 0.0000117 |
| HO | 300.00 | 305.00 | 0.484 | 0.626 | 29000. | 0.0000117 |
| HO | 295.00 | 300.00 | 0.715 | 0.626 | 29000. | 0.0000117 |
| HO | 275.00 | 280.00 | 0.938 | 0.626 | 29000. | 0.0000117 |
| HO | 40.00 | 53.33 | 1.938 | 0.626 | 29000. | 0.0000117 |
| HO | 20.00 | 33.33 | 2.402 | 0.626 | 29000. | 0.0000117 |
| HO | 0.00 | 13.33 | 2.402 | 0.626 | 29000. | 0.0000117 |
| BR | 40.00 | 53.33 | 1.438 | 0.000 | 29000. | 0.0000117 |
| BR | 20.00 | 33.33 | 1.438 | 0.000 | 29000. | 0.0000117 |
| BR | 0.00 | 13.33 | 1.688 | 0.000 | 29000. | 0.0000117 |

## FACTORED MEMBER RESISTANCES

| $\begin{array}{r} \text { BOTTOM } \\ \text { ELEV } \\ \mathrm{ft} \end{array}$ | $\begin{array}{r} \text { TOP } \\ \text { ELEV } \\ \mathrm{ft} \end{array}$ | LEGS |  | DIAGONALS |  | HORIZONTALS |  | $\begin{aligned} & \text { INT } \\ & \text { COMP } \\ & \text { kip } \end{aligned}$ | BRACING TENS kip |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | COMP | TENS | COMP | TENS | COMP | TENS |  |  |
|  |  | kip | kip | kip | kip | kip | kip |  |  |
| 300.0 | 305.0 | 31.48 | 48.15 | 7.16 | 7.16 | 5.73 | 5.73 | 0.00 | 0.00 |
| 295.0 | 300.0 | 74.39 | 101.25 | 10.74 | 10.74 | 8.38 | 8.38 | 0.00 | 0.00 |
| 280.0 | 295.0 | 74.39 | 101.25 | 10.74 | 10.74 | 0.00 | 0.00 | 0.00 | 0.00 |
| 275.0 | 280.0 | 175.98 | 198.45 | 14.32 | 14.32 | 10.88 | 10.88 | 0.00 | 0.00 |
| 260.0 | 275.0 | 175.98 | 198.45 | 14.32 | 14.32 | 0.00 | 0.00 | 0.00 | 0.00 |
| 240.0 | 260.0 | 254.38 | 274.95 | 13.03 | 13.03 | 0.00 | 0.00 | 0.00 | 0.00 |
| 220.0 | 240.0 | 309.64 | 357.75 | 13.00 | 13.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 200.0 | 220.0 | 358.08 | 378.00 | 13.34 | 13.34 | 0.00 | 0.00 | 0.00 | 0.00 |
| 180.0 | 200.0 | 544.40 | 457.90 | 10.34 | 10.34 | 0.00 | 0.00 | 0.00 | 0.00 |
| 160.0 | 180.0 | 507.33 | 457.90 | 11.47 | 11.47 | 0.00 | 0.00 | 0.00 | 0.00 |
| 140.0 | 160.0 | 507.33 | 576.00 | 12.46 | 12.46 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120.0 | 140.0 | 668.86 | 724.50 | 15.85 | 15.85 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100.0 | 120.0 | 668.86 | 724.50 | 13.50 | 13.50 | 0.00 | 0.00 | 0.00 | 0.00 |
| 80.0 | 100.0 | 818.52 | 865.80 | 14.39 | 14.39 | 0.00 | 0.00 | 0.00 | 0.00 |
| 60.0 | 80.0 | 818.52 | 865.80 | 15.70 | 15.70 | 0.00 | 0.00 | 0.00 | 0.00 |
| 53.3 | 60.0 | 844.46 | 865.80 | 20.02 | 20.02 | 0.00 | 0.00 | 0.00 | 0.00 |
| 40.0 | 53.3 | 844.46 | 865.80 | 29.94 | 29.94 | 15.50 | 15.50 | 7.41 | 7.41 |
| 33.3 | 40.0 | 844.46 | 865.80 | 18.24 | 18.24 | 0.00 | 0.00 | 0.00 | 0.00 |
| 20.0 | 33.3 | 844.46 | 865.80 | 28.50 | 28.50 | 17.13 | 17.13 | 6.59 | 6.59 |
| 13.3 | 20.0 | 844.46 | 865.80 | 16.98 | 16.98 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.0 | 13.3 | 844.46 | 865.80 | 21.92 | 21.92 | 15.58 | 15.58 | 8.95 | 8.95 |

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

LOADING CONDITION A
==============================================================1
89 mph wind with no ice. wind Azimuth:

MAST LOADING

| $\begin{aligned} & \text { LOAD } \\ & \text { TYPE } \end{aligned}$ |  | APPLY.. LOAD. . AT |  | $\begin{array}{r} \text { LOAD } \\ \text { AZI } \end{array}$ | . . . . . FORCES. . . . . |  | . . . . . MOMENTS. . . . . |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | RADIUS | AZI |  | HORIZ | DOWN | VERTICAL | TORSNAL |
|  | ft | $f t$ |  |  | kip | kip | ft-kip | ft-kip |
| c | 310.0 | 0.00 | 0.0 | 0.0 | 0.29 | 0.15 | 0.00 | 0.00 |
| C | 300.0 | 0.00 | 0.0 | 0.0 | 10.39 | 7.20 | 0.00 | 0.00 |
| C | 288.0 | 0.00 | 0.0 | 0.0 | 7.71 | 4.80 | 0.00 | 0.00 |
| C | 276.0 | 0.00 | 0.0 | 0.0 | 7.64 | 4.80 | 0.00 | 0.00 |
| C | 264.0 | 0.00 | 0.0 | 0.0 | 7.57 | 4.80 | 0.00 | 0.00 |
| D | 305.0 | 0.00 | 180.0 | 0.0 | 0.07 | 0.04 | 0.00 | 0.00 |
| D | 300.0 | 0.00 | 180.0 | 0.0 | 0.07 | 0.04 | 0.00 | 0.00 |
| D | 300.0 | 0.00 | 42.0 | 0.0 | 0.15 | 0.09 | 0.06 | 0.10 |
| D | 290.0 | 0.00 | 42.0 | 0.0 | 0.14 | 0.08 | 0.06 | 0.10 |
| D | 290.0 | 0.00 | 63.7 | 0.0 | 0.16 | 0.10 | 0.06 | 0.12 |
| D | 285.0 | 0.00 | 63.7 | 0.0 | 0.16 | 0.10 | 0.06 | 0.12 |
| D | 285.0 | 0.00 | 76.5 | 0.0 | 0.17 | 0.11 | 0.06 | 0.12 |
| D | 280.0 | 0.00 | 76.5 | 0.0 | 0.17 | 0.11 | 0.06 | 0.12 |
| D | 280.0 | 0.00 | 80.8 | 0.0 | 0.19 | 0.16 | 0.06 | 0.11 |
| D | 275.0 | 0.00 | 80.8 | 0.0 | 0.19 | 0.16 | 0.06 | 0.11 |
| D | 275.0 | 0.00 | 99.1 | 0.0 | 0.21 | 0.17 | 0.04 | 0.07 |
| D | 265.0 | 0.00 | 101.2 | 0.0 | 0.21 | 0.18 | 0.04 | 0.07 |
| D | 265.0 | 0.00 | 58.7 | 0.0 | 0.22 | 0.20 | 0.01 | 0.05 |
| D | 260.0 | 0.00 | 58.7 | 0.0 | 0.22 | 0.20 | 0.01 | 0.05 |
| D | 260.0 | 0.00 | 330.0 | 0.0 | 0.24 | 0.22 | 0.01 | 0.05 |
| D | 240.0 | 0.00 | 329.1 | 0.0 | 0.25 | 0.23 | 0.01 | 0.05 |
| D | 240.0 | 0.00 | 329.9 | 0.0 | 0.24 | 0.25 | 0.01 | 0.05 |
| D | 220.0 | 0.00 | 329.2 | 0.0 | 0.24 | 0.26 | 0.01 | 0.05 |
| D | 220.0 | 0.00 | 329.9 | 0.0 | 0.26 | 0.26 | 0.01 | 0.05 |
| D | 200.0 | 0.00 | 329.4 | 0.0 | 0.27 | 0.27 | 0.01 | 0.05 |
| D | 200.0 | 0.00 | 330.0 | 0.0 | 0.27 | 0.32 | 0.01 | 0.05 |
| D | 180.0 | 0.00 | 329.6 | 0.0 | 0.28 | 0.33 | 0.01 | 0.05 |
| D | 180.0 | 0.00 | 329.9 | 0.0 | 0.25 | 0.33 | 0.01 | 0.05 |
| D | 150.0 | 0.00 | 329.9 | 0.0 | 0.26 | 0.34 | 0.01 | 0.05 |


|  |  |  |  |  |  | 170074 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| D | 150.0 | 0.00 | 329.8 | 0.0 | 0.27 | 0.35 | 0.01 | 0.05 |
| D | 140.0 | 0.00 | 329.8 | 0.0 | 0.27 | 0.35 | 0.01 | 0.05 |
| D | 140.0 | 0.00 | 330.0 | 0.0 | 0.29 | 0.41 | 0.01 | 0.05 |
| D | 100.0 | 0.00 | 329.9 | 0.0 | 0.29 | 0.42 | 0.01 | 0.04 |
| D | 100.0 | 0.00 | 330.0 | 0.0 | 0.29 | 0.46 | 0.01 | 0.04 |
| D | 80.0 | 0.00 | 329.9 | 0.0 | 0.30 | 0.47 | 0.01 | 0.04 |
| D | 80.0 | 0.00 | 330.0 | 0.0 | 0.29 | 0.50 | 0.01 | 0.04 |
| D | 60.0 | 0.00 | 329.9 | 0.0 | 0.29 | 0.51 | 0.01 | 0.04 |
| D | 60.0 | 0.00 | 330.0 | 0.0 | 0.26 | 0.48 | 0.01 | 0.04 |
| D | 53.3 | 0.00 | 330.0 | 0.0 | 0.26 | 0.48 | 0.01 | 0.04 |
| D | 53.3 | 0.00 | 329.9 | 0.0 | 0.30 | 0.56 | 0.01 | 0.04 |
| D | 40.0 | 0.00 | 329.9 | 0.0 | 0.30 | 0.56 | 0.01 | 0.04 |
| D | 40.0 | 0.00 | 330.0 | 0.0 | 0.24 | 0.48 | 0.01 | 0.04 |
| D | 33.3 | 0.00 | 330.0 | 0.0 | 0.24 | 0.48 | 0.01 | 0.04 |
| D | 33.3 | 0.00 | 330.0 | 0.0 | 0.28 | 0.59 | 0.01 | 0.04 |
| D | 20.0 | 0.00 | 330.0 | 0.0 | 0.28 | 0.59 | 0.01 | 0.04 |
| D | 20.0 | 0.00 | 330.0 | 0.0 | 0.21 | 0.49 | 0.01 | 0.03 |
| D | 13.3 | 0.00 | 330.0 | 0.0 | 0.21 | 0.49 | 0.01 | 0.03 |
| D | 13.3 | 0.00 | 330.0 | 0.0 | 0.25 | 0.59 | 0.01 | 0.03 |
| D | 0.0 | 0.00 | 330.0 | 0.0 | 0.25 | 0.59 | 0.01 | 0.03 |


| LOADS <br> INPUT | $\begin{aligned} & \text {...FOR } \\ & \text { DISPL } \end{aligned}$ | THIS LOADING.. |  | . . . . . . . .MAXIMUMS . . . . . . . . . |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | MEMBER | FOUNDN | ALL | DISPL | MEMBER | FOUNDN |
|  |  | FORCES | LOADS |  |  | FORCES | LOADS |
| no | yes | yes | yes | no | no | no | no |

LOADING CONDITION M
89 mph wind with no ice. wind Azimuth: 0 ô

MAST LOADING



LOADING CONDITION
,
30 mph wind with 0.75 ice. Wind Azimuth: 0

MAST LOADING

| $\begin{aligned} & \text { LOAD } \\ & \text { TYPE } \end{aligned}$ | $\begin{array}{r} \text { ELEV } \\ \mathrm{ft} \end{array}$ | APPLY..LOAD. . AT |  | $\begin{array}{r} \text { LOAD } \\ \text { AZI } \end{array}$ | . . . . FORCES . . . . |  | . . . . . MOMENTS. . . . . |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | RADIUS | AZI |  | HORIZ | DOWN | VERTICAL | TORSNAL |
|  |  |  |  |  | kip | kip | ft-kip | ft-kip |
| c | 310.0 | 0.00 | 0.0 | 0.0 | 0.05 | 0.30 | 0.00 | 0.00 |
| C | 300.0 | 0.00 | 0.0 | 0.0 | 1.29 | 18.42 | 0.00 | 0.00 |
| C | 288.0 | 0.00 | 0.0 | 0.0 | 1.57 | 12.25 | 0.00 | 0.00 |
| C | 276.0 | 0.00 | 0.0 | 0.0 | 1.55 | 12.22 | 0.00 | 0.00 |
| C | 264.0 | 0.00 | 0.0 | 0.0 | 1.53 | 12.19 | 0.00 | 0.00 |
| D | 305.0 | 0.00 | 180.0 | 0.0 | 0.01 | 0.18 | 0.00 | 0.00 |
| D | 300.0 | 0.00 | 180.0 | 0.0 | 0.01 | 0.18 | 0.00 | 0.00 |
| D | 300.0 | 0.00 | 42.0 | 0.0 | 0.02 | 0.32 | 0.22 | 0.01 |
| D | 295.0 | 0.00 | 42.0 | 0.0 | 0.02 | 0.32 | 0.22 | 0.01 |
| D | 295.0 | 0.00 | 42.0 | 0.0 | 0.01 | 0.28 | 0.22 | 0.01 |
| D | 290.0 | 0.00 | 42.0 | 0.0 | 0.01 | 0.28 | 0.22 | 0.01 |
| D | 290.0 | 0.00 | 68.8 | 0.0 | 0.02 | 0.34 | 0.21 | 0.01 |
| D | 285.0 | 0.00 | 68.8 | 0.0 | 0.02 | 0.34 | 0.21 | 0.01 |
| D | 285.0 | 0.00 | 86.2 | 0.0 | 0.02 | 0.38 | 0.22 | 0.01 |
| D | 280.0 | 0.00 | 86.2 | 0.0 | 0.02 | 0.38 | 0.22 | 0.01 |
| D | 280.0 | 0.00 | 88.3 | 0.0 | 0.02 | 0.48 | 0.20 | 0.01 |
| D | 275.0 | 0.00 | 88.3 | 0.0 | 0.02 | 0.48 | 0.20 | 0.01 |
| D | 275.0 | 0.00 | 97.5 | 0.0 | 0.02 | 0.52 | 0.12 | 0.00 |
| D | 265.0 | 0.00 | 99.6 | 0.0 | 0.02 | 0.53 | 0.12 | 0.00 |
| D | 265.0 | 0.00 | 44.4 | 0.0 | 0.02 | 0.59 | 0.02 | 0.00 |
| D | 260.0 | 0.00 | 44.4 | 0.0 | 0.02 | 0.59 | 0.02 | 0.00 |
| D | 260.0 | 0.00 | 330.0 | 0.0 | 0.02 | 0.64 | 0.02 | 0.00 |
| D | 240.0 | 0.00 | 329.1 | 0.0 | 0.02 | 0.67 | 0.02 | 0.00 |
| D | 240.0 | 0.00 | 329.9 | 0.0 | 0.02 | 0.67 | 0.02 | 0.00 |
| D | 220.0 | 0.00 | 329.3 | 0.0 | 0.02 | 0.69 | 0.02 | 0.00 |
| D | 220.0 | 0.00 | 329.9 | 0.0 | 0.03 | 0.73 | 0.02 | 0.00 |
| D | 200.0 | 0.00 | 329.4 | 0.0 | 0.03 | 0.75 | 0.02 | 0.00 |
| D | 200.0 | 0.00 | 330.0 | 0.0 | 0.03 | 0.81 | 0.02 | 0.00 |
| D | 180.0 | 0.00 | 329.6 | 0.0 | 0.03 | 0.83 | 0.02 | 0.00 |
| D | 180.0 | 0.00 | 329.9 | 0.0 | 0.03 | 0.79 | 0.02 | 0.00 |
| D | 150.0 | 0.00 | 329.9 | 0.0 | 0.03 | 0.82 | 0.02 | 0.00 |
| D | 150.0 | 0.00 | 329.8 | 0.0 | 0.03 | 0.84 | 0.02 | 0.00 |
| D | 140.0 | 0.00 | 329.8 | 0.0 | 0.03 | 0.84 | 0.02 | 0.00 |
| D | 140.0 | 0.00 | 330.0 | 0.0 | 0.03 | 0.92 | 0.02 | 0.00 |
| D | 100.0 | 0.00 | 329.9 | 0.0 | 0.03 | 0.95 | 0.02 | 0.00 |


|  |  |  |  |  |  | 170074 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| D | 100.0 | 0.00 | 329.9 | 0.0 | 0.03 | 1.00 | 0.02 | 0.00 |
| D | 70.0 | 0.00 | 330.0 | 0.0 | 0.03 | 1.05 | 0.02 | 0.00 |
| D | 70.0 | 0.00 | 329.9 | 0.0 | 0.03 | 1.06 | 0.02 | 0.00 |
| D | 60.0 | 0.00 | 329.9 | 0.0 | 0.03 | 1.06 | 0.02 | 0.00 |
| D | 60.0 | 0.00 | 330.0 | 0.0 | 0.02 | 0.97 | 0.02 | 0.00 |
| D | 53.3 | 0.00 | 330.0 | 0.0 | 0.02 | 0.97 | 0.02 | 0.00 |
| D | 53.3 | 0.00 | 329.9 | 0.0 | 0.03 | 1.22 | 0.02 | 0.00 |
| D | 40.0 | 0.00 | 329.9 | 0.0 | 0.03 | 1.22 | 0.02 | 0.00 |
| D | 40.0 | 0.00 | 330.0 | 0.0 | 0.02 | 0.97 | 0.02 | 0.00 |
| D | 33.3 | 0.00 | 330.0 | 0.0 | 0.02 | 0.97 | 0.02 | 0.00 |
| D | 33.3 | 0.00 | 330.0 | 0.0 | 0.03 | 1.24 | 0.02 | 0.00 |
| D | 20.0 | 0.00 | 330.0 | 0.0 | 0.03 | 1.24 | 0.02 | 0.00 |
| D | 20.0 | 0.00 | 330.0 | 0.0 | 0.02 | 0.99 | 0.02 | 0.00 |
| D | 13.3 | 0.00 | 330.0 | 0.0 | 0.02 | 0.99 | 0.02 | 0.00 |
| D | 13.3 | 0.00 | 330.0 | 0.0 | 0.02 | 1.32 | 0.03 | 0.00 |
| D | 0.0 | 0.00 | 330.0 | 0.0 | 0.02 | 1.32 | 0.03 | 0.00 |

SUPPRESS PRINTING

|  | $\begin{aligned} & \ldots \text { FOR } \\ & \text { DISPL } \end{aligned}$ | THIS LOADING.. |  | ALi | MAXIMUMS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| LOADS |  | MEMBER | FOUNDN |  | DISPL | MEMBER | FOUNDN |
| INPUT |  | FORCES | LOADS |  |  | FORCES | LOADS |
| no | yes | yes | yes | no | no | no | no |

MAXIMUM MAST DISPLACEMENTS:


MAXIMUM TENSION IN MAST MEMBERS (kip)

## 170074



170074

|  | 635.77 M | 20.04 V |
| ---: | ---: | ---: |
| 20.0 | 669.59 M | 16.38 |
| 13.3 | P |  |
| 0.0 | 668.20 M | 20.37 P |


| 0.11 A | 0.00 M |
| :--- | :--- |
| 0.88 U | 0.00 A |
| 0.00 A | 0.00 A |

MAXIMUM COMPRESSION IN MAST MEMBERS (kip)

| $\begin{array}{r} \text { ELEV } \\ \mathrm{ft} \end{array}$ | LEGS | DIAG |  | HORIZ |  | BRACE |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 305.0 |  |  |  | -0.08 | S | 0.00 | A |
|  | -0.29 C | -0. 50 | G |  |  |  |  |
| 300.0 | -9.67 G | -5. 56 | B | $-1.47$ | Q | 0.00 | A |
| 295.0 |  |  |  | -0.20 | S | 0.00 | A |
| 290.0 | -24.11 G | -5.67 | N |  |  |  |  |
|  | -41.64 G | -8.34 | B | -0.15 | A | 0.00 | A |
| 285.0 |  |  |  | -0.23 | S | 0.00 | A |
| 280.0 | -65.90 G | -10.07 | B | -0.59 | G | 0.00 |  |
|  | -86.46 G | -8.70 | G |  |  |  |  |
| 275.0 | -111.10 G | -9.63 | T | -0.15 | S | 0.00 | A |
| 270.0 | -111.10 G |  | T | -0.13 | S | 0.00 | A |
| 265.0 | -131.63 G | -9.11 | B | -0.10 | S | 0.00 | A |
|  | -154.69 G | -10.92 | T |  |  |  |  |
| 260.0 |  |  |  | -0.14 | S | 0.00 | A |
| 255.0 | -178.63 G | -10.96 | B | -0.08 | S | 0.00 | A |
|  | -199.78 G | -10.44 | T |  |  |  |  |
| 250.0 |  |  |  | -0.16 | S | 0.00 | A |
| 245.0 | -219.91 G | -10.10 | B | -0.08 | S | 0.00 | A |
|  | -238.18 G | -9.78 | T |  |  |  |  |
| 240.0 |  |  |  | -0.14 | S | 0.00 | A |
| 233.3 | -258.32 G | -10. | B | -0.10 | S | 0.00 | A |
| 226.7 | -279.65 G | -9.99 | T | -0.12 | S | 0.00 |  |
|  | -299.86 G | -9.79 | H |  |  |  |  |
| 220.0 |  |  |  | -0.09 | S | 0.00 | A |
| 213.3 | -318.75 G | -9.64 | H | -0.07 | S | 0.00 | A |
|  | -336.97 G | -9.62 | H |  |  |  |  |
| 206.7 |  | ----- |  | -0.09 | S | 0.00 | A |
| 200.0 | -354.30 G | -9.61 | H | -0.06 | S | 0.00 | A |
|  | -371.32 G | -9.66 | H |  |  |  |  |
| 193.3 | -387.69 G | -9.74 | H | -0.11 | S | 0.00 | A |
| 186.7 |  |  |  | -0.05 | S | 0.00 | A |
| 180.0 | -403.93 G | -9.84 | B | -0.10 | S | 0.00 | A |
|  | -423.18 G | -10.91 | H |  |  |  |  |
| 170.0 |  |  |  | -0.11 | S | 0.00 | A |
| 160.0 | -446.23 G | -10.98 | H | -0.07 | S | 0.00 | A |
|  | -468.28 G | -11.13 | H |  |  |  |  |
| 150.0 | -490.12 G | -11.33 | H | -0.09 | S | 0.00 | A |
| 140.0 |  |  |  | -0.06 | S | 0.00 | A |
| 130.0 | -511.48 G | -11.61 | H | -0.06 | S | 0.00 | A |
|  | -532.88 G | -11.94 | D |  |  |  |  |
| 120.0 |  |  |  | -0.05 | S | 0.00 | A |
| 110.0 | -553.99 G | -12.29 | J | -0.06 | S | 0.00 |  |
| 100.0 | -575.08 G | -12.66 | D | -0.04 | S | 0.00 | A |
|  | -596.05 G | -13.04 | J |  |  |  |  |



MAXIMUM INDIVIDUAL FOUNDATION LOADS: (kip)


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

| NORTH | ORIZONTA | ----- | DOWN | NORTH | OVERTURNING-EAST |  | TORSION |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | EAST | $\begin{array}{r} \text { TOTAL } \\ 0.0 \end{array}$ |  |  |  | $\begin{array}{r} \text { TOTAL } \\ \text { @ } \quad 0.0 \end{array}$ |  |
| 117.4 | -111.8 | 117.4 | 312.9 | 21403.4 | -20512.9 | 21403.4 | 49.2 |
| G | P | G | j | G | D | G | X |


| Latticed Tower Analysis (Unguyed) | (c)2013 Guymast Inc. 416-736-7453 |  |  |
| :---: | :---: | :---: | :---: |
| Processed under license at: |  |  |  |
| Sabre Towers and Poles | on: | 1 sep 2017 | at: 13:33:20 |




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



```
    LOADING CONDITION A ==============================================================
6 0 \mathrm { mph } \text { wind with no ice. Wind Azimuth: 0}
```

MAST LOADING
============



MAXIMUM MAST DISPLACEMENTS:

| $\begin{array}{r} \text { ELEV } \\ \mathrm{ft} \end{array}$ | NORTH | -DEFLECTIONS |  | (ft)----- |  |  | --TILTS |  | (DEG)--- |  | $\begin{gathered} \text { TWIST } \\ \text { DEG } \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | EAST |  | DOWN |  | NORTH |  | EAST |  |  |  |
| 305.0 | 1.343 | G | -1.292 | D | 0.018 | G | 0.623 | G | -0.600 | D | -0.038 | F |
| 300.0 | 1.288 | G | -1.240 | D | 0.017 | G | 0.623 | G | -0.600 | D | -0.038 | F |
| 295.0 | 1.233 | G | -1.187 | D | 0.017 | G | 0.620 | G | -0.597 | D | -0.038 | F |
| 290.0 | 1.179 | G | -1.135 | D | 0.016 | G | 0.611 | G | -0.588 | D | -0.037 | F |
| 285.0 | 1.125 | G | -1.082 | D | 0.016 | G | 0.594 | G | -0.572 | D | -0.036 | F |
| 280.0 | 1.073 | G | -1.033 | D | 0.015 | G | 0.568 | G | -0.546 | D | -0.034 | F |
| 275.0 | 1.024 | G | -0.985 | D | 0.015 | G | 0.551 | G | -0.530 | D | -0.033 | F |
| 270.0 | 0.976 | G | -0.939 | D | 0.014 | G | 0.532 | G | -0.512 | D | -0.031 | F |
| 265.0 | 0.929 |  | -0.894 | D | 0.014 | G | 0.511 | G | -0.492 | D | -0.030 | F |
| 260.0 | 0.885 | G | -0.851 | D | 0.014 | G | 0.488 | G | -0.470 | D | -0.029 | F |


|  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 255.0 250.0 | 0.842 G 0.800 G | -0.810 -0.770 | D | 0.013 0.013 |  | $\begin{aligned} & 0.471 \\ & 0.452 \end{aligned}$ |  | -0.453 -0.435 |  | -0.027 |
| 245.0 | 0.761 G | -0.732 | D | 0.012 | G | 0.433 | G | -0.417 | D | -0.025 |
| 240.0 | 0.723 G | -0.695 | D | 0.012 | G | 0.413 | G | -0.398 | D | -0.024 |
| 233.3 | 0.675 G | -0.649 | D | 0.012 | G | 0.392 | G | -0.378 | D | -0.023 |
| 226.7 | 0.630 G | -0.606 |  | 0.011 | G | 0.371 | G | -0.357 |  | -0.022 |
| 220.0 | 0.587 G | -0.565 | D | 0.011 | G | 0.350 | G | -0.337 | D | -0.021 |
| 213.3 | 0.546 G | -0.525 | D | 0.010 |  | 0.330 | G | -0.317 |  | -0.020 |
| 206.7 | 0.508 G | -0.488 | D | 0.010 |  | 0.309 | G | -0.298 | D | -0.019 |
| 200.0 | 0.472 G | -0.454 | D | 0.010 | G | 0.289 | G | -0.278 |  | -0.018 |
| 193.3 | 0.438 G | -0.421 | D | 0.009 | G | 0.276 | G | -0.266 | D | -0.017 |
| 186.7 | 0.405 G | -0.390 | D | 0.009 | G | 0.264 | G | -0.254 |  | -0.015 |
| 180.0 | 0.374 G | -0.359 | D | 0.009 | G | 0.251 | G | -0.241 |  | -0.014 |
| 170.0 | 0.331 G | -0.318 | D | 0.008 | G | 0.231 | G | -0.223 |  | -0.013 |
| 160.0 | 0.291 G | -0.279 | D | 0.008 | G | 0.212 | G | -0.204 |  | -0.012 |
| 150.0 | 0.254 G | -0.244 | D | 0.007 |  | 0.193 | G | -0.186 |  | -0.011 |
| 140.0 | 0.221 G | -0.212 | D | 0.007 |  | 0.174 | G | -0.167 | D | -0.010 |
| 130.0 | 0.190 G | -0.183 | D | 0.007 |  | 0.159 | G | -0.153 |  | -0.010 |
| 120.0 | 0.163 G | -0.156 | D | 0.006 | G | 0.145 | G | -0.139 |  | -0.009 |
| 110.0 | 0.137 G | -0.131 | D | 0.006 | G | 0.130 | G | -0.125 |  | -0.008 |
| 100.0 | 0.114 G | -0.109 | D | 0.005 |  | 0.116 | G | -0.111 |  | -0.007 |
| 90.0 | 0.093 G | -0.089 | D | 0.005 | G | 0.104 | G | -0.100 |  | -0.006 |
| 80.0 | 0.074 G | -0.071 | D | 0.004 |  | 0.092 | G | -0.089 |  | -0.005 |
| 70.0 | 0.056 G | -0.054 | D | 0.004 | G | 0.080 | G | -0.077 |  | -0.004 |
| 60.0 | 0.040 G | -0.038 | D | 0.003 |  | 0.068 | G | -0.066 |  | -0.004 |
| 53.3 | 0.033 G | -0.031 | D | 0.003 | G | 0.061 | G | -0.059 |  | -0.003 |
| 40.0 | 0.019 G | -0.018 | D | 0.002 |  | 0.045 | G | -0.043 |  | -0.003 |
| 33.3 | 0.015 G | -0.014 | D | 0.002 |  | 0.038 | G | -0.036 |  | -0.002 |
| 20.0 | 0.006 G | -0.006 | D | 0.001 |  | 0.022 | G | -0.022 |  | -0.001 |
| 13.3 | 0.003 G | -0.003 | D | 0.001 |  | 0.015 | G | -0.014 | D | -0.001 |
| 0.0 | 0.000 A | 0.000 | A | 0.000 |  | 0.000 |  | 0.000 |  | 0.000 |

maximum tension in mast members (kip)


| 186.7 |  |  |  | 170074 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 91.95 A | 2.78 | H | 0.02 | A | 0.00 A |  |
|  | 95.65 A | 2.82 | H |  |  |  |  |
| 180.0 |  |  |  | 0.04 | A | 0.00 | A |
| 170.0 | 99.98 A | 3.11 | H | 0.04 |  | 0.00 | A |
|  | 105.11 A | 3.15 | H |  | A |  |  |
| 160.0 |  |  |  | 0.03 | A | 0.00 | A |
| 150.0 | 109.95 A | 3.19 | H | 0.04 |  | 0.00 | A |
|  | 114.70 A | 3.25 | H |  | A |  |  |
| 140.0 | 119.19 A | 3.33 | B | 0.02 | A | 0.00 | A |
| 130.0 |  |  |  | 0.02 | A | 0.00 | A |
| 120.0 | 123.56 A | 3.42 | J | 0.02 |  | 0.00 |  |
|  | 127.81 A | 3.52 | D |  | A |  | A |
| 110.0 | 132.03 A | 3.62 | J | 0.02 | A | 0.00 | A |
| 100.0 |  |  |  | 0.02 | A | 0.00 | A |
|  | 136.11 A | 3.73 | D | 0.02 |  | 0.00 | A |
| 90.0 | 140.10 A | 3.84 | J |  | A |  |  |
| 80.0 | 143.99 A | 3.96 | D | 0.01 | C | 0.00 | A |
| 70.0 | 147.80 A |  |  | 0.01 | G | 0.00 | A |
| 60.0 | 147.80 A | 4.07 | J | 0.10 |  | 0.00 | A |
|  | 152.68 A | 4.27 | D |  | A |  |  |
| 53.3 | 151.20 A | 5.59 | D | 0.27 | I | 0.00 |  |
| 40.0 | 159.95 A | 4.47 | ] | 0.09 | A | 0.00 |  |
| 33.3 |  |  |  | 0.25 | I | 0.00 | B |
|  | 158.41 A | 5.72 | J | 0.04 |  |  | BA |
| 20.0 | 166.95 A | 4.67 | D |  | A | 0.00 B |  |
| 13.3 | 165.40 A | 5.83 | D | 0.22 I |  | 0.00 A |  |  |
| 0.0 |  |  |  | 0.00 | A | 0.00 | A |



| 233.3 |  |  |  | 170074 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | -0.02 | G | 0.00 | A |
|  | -86.04 G | -2.86 | H | -0.03 | G | 0.00 | A |
| 226.7 | -92.12 G | -2.82 | H |  |  |  |  |
| 220.0 |  |  |  | -0.02 | G | 0.00 | A |
|  | -97.86 G | -2.77 | H |  |  |  |  |
| 213.3 | -103.39 G | -2.77 | H | -0.02 | G | 0.00 | A |
| 206.7 |  |  |  | -0.02 | G | 0.00 | A |
|  | -108.69 G | -2.77 | H | -0.01 | G | 0.00 | A |
| 200.0 | -113.93 G | -2.79 | H |  |  |  |  |
| 193.3 |  |  |  | -0.02 | G | 0.00 | A |
|  | -119.04 G | -2.81 | H | -0.01 | G | 0.00 | A |
| 186.7 | -124.10 G | -2.84 | H | -0.02 | G | 0.00 | A |
| 180.0 | -130.13 G | -3.16 | H |  |  |  |  |
| 170.0 |  |  |  | -0.02 | G | 0.00 | A |
|  | -137.39 G | -3.18 | H | -0.02 | G | 0.00 | A |
| 160.0 | -144.38 G | -3.24 | H |  |  |  |  |
| 150.0 |  |  |  | -0.02 | G | 0.00 | A |
| 140.0 | -151 |  | H | -0.01 | G | 0.00 | A |
|  | -158.18 G | -3.38 | H | -0.01 | G | 0.00 | A |
| 130.0 | -165.11 G | -3.47 | D |  |  |  |  |
| 120.0 |  | ----- |  | -0.01 | G | 0.00 | A |
|  | -171.95 G | -3.56 | J | -0.01 | G | 0.00 | A |
| 110.0 | -178.79 G | -3.67 | D |  |  |  |  |
| 100.0 |  |  |  | -0.01 | G | 0.00 | A |
|  | -185.64 G | -3.78 | J | -0.01 | G | 0.00 | A |
| 90.0 | -192.54 G | -3.89 | D |  |  |  |  |
| 80.0 | -199.47 G | -4.00 | J | -0.02 | I | 0.00 | A |
| 70.0 |  |  |  | -0.03 | A | 0.00 | A |
|  | -206.43 G | -4.11 | D | -0.06 | G | 0.00 | A |
| 60.0 | -213.95 G | -4.37 | J |  |  |  |  |
| 53.3 |  |  |  | -0.40 | C | 0.00 | B |
| 40.0 | -215.42 G | -5.65 | D | -0.05 | G | 0.00 | A |
|  | -227.84 G | -4.58 | D |  |  |  |  |
| 33.3 | -229.38 G | -5.79 | D | -0.38 | C | 0.00 | F |
| 20.0 |  |  |  | -0.02 | G | 0.00 | F |
|  | -241.76 G | -4.75 | J | -0.34 | C | 0.00 | G |
| 13.3 | -243.31 G | -5.87 | D |  |  |  |  |
| 0.0 |  |  |  | 0.00 | A | 0.00 | A |



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

| NORTH | RIZON |  | DOWN | NORTH | VERTURNIEAST |  | TORSION |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | EAST | TOTAL 0.0 |  |  |  | $\begin{array}{r} \text { TOTAL } \\ @ \quad 0.0 \end{array}$ |  |
| 33.7 | -32.1 | 33.7 | 109.3 | 6135.7 | -5883.4 | 6135.7 | -14.0 |
| G | D | G | , | G | D | G | F |

## MAT FOUNDATION DESIGN BY SABRE TOWERS \& POLES

## Tower Description 305' S3TL Series HD1 <br> Customer AT\&T <br> Project Number 170074 <br> Date 9/18/2017 <br> Engineer REB

## Overall Loads:

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

| 689.00 |
| :---: |
| 793.00 |
| 72.00 |

Width of Tower (ft)
Ultimate Bearing Pressure Bearing $\Phi$ s

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)

| 33 |
| :---: |
| 8.00 |
| 0.75 |
|  |
| 6 |
| 999 |
| 40.5 |
| 2 |
| 6.5 |
| 18 |

Anchor Bolt Count (per leg)

Tower eccentric from mat ( ft ) $=$


Allowable Bearing Pressure (ksf) Safety Factor

| 4.00 |
| :--- |
| 2.00 |


| Max. Factored Net Bearing Pressure (ksf) | 4.95 |
| :---: | :---: |
| Minimum Mat Width (ft) | 39.89 |


| Minimum Pier Diameter (ft) |  |
| :--- | :--- |
| Equivalent Square b (ft) | 2.83 |
| 3.10 |  |

Recommended Spacing (in)
6 to 12

Minimum Pier $\mathrm{A}_{\mathrm{s}}$ (in ${ }^{2}$ )
Recommended Spacing (in)

| 6.93 |
| :---: |
| 5 to 12 |

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

Two-Way Shear:

Average d (in)

$$
\phi \mathrm{v}_{\mathrm{c}}(\mathrm{ksi})
$$

$\phi v_{c}=\phi\left(2+4 / \beta_{c}\right) f_{c}{ }_{c}^{1 / 2}$

0.342
$\phi v_{c}=\phi\left(\alpha_{s} d / b_{0}+2\right) f_{c}{ }_{c}^{1 / 2}$
$\phi \mathrm{v}_{\mathrm{c}}=\phi 4 \mathrm{f}_{\mathrm{c}}{ }^{1 / 2}$
Shear perimeter, $b_{0}$ (in)
$\beta_{c}$

## Stability:

Overturning Design Strength (ft-k)
One-Way Shear:
$\phi V_{c}$ (kips)
Pier Design:
Design Tensile Strength (kips) $\phi \mathrm{V}_{\mathrm{n}}$ (kips)
$\phi V_{c}=\phi 2\left(1+N_{u} /\left(500 A_{g}\right)\right) f_{c}^{\prime}{ }^{1 / 2} b_{w} d$ $V_{\mathrm{s}}$ (kips)
Maximum Spacing (in)
Actual Hook Development (in)

$$
\mathrm{v}_{\mathrm{u}}(\mathrm{ksi})
$$

0.225

## Anchor Bolt Pull-Out:

| $\phi P_{c}=\phi \lambda(2 / 3) \mathrm{f}_{\mathrm{c}}{ }_{\mathrm{C}}^{1 / 2}\left(2.8 \mathrm{~A}_{\text {SLOPE }}+4 \mathrm{~A}_{\text {FLAT }}\right)$ | 208.9 |
| :--- | :--- |
|  |  |
| Pier Rebar Development Length (in) | 54.64 |

Flexure in Slab:

| $\mathrm{M}_{\mathrm{n}}$ (ft-kips) | 8063.7 |
| :---: | :---: |
| a (in) | 3.19 |
| Steel Ratio | 0.01030 |
| $\beta_{1}$ | 0.825 |
| mum Steel Ratio ( $\rho_{\mathrm{t}}$ ) | 0.0197 |
| imum Steel Ratio | 0.0018 |
| evelopment in Pad (in) | 111.30 |
|  |  |

Required Development in Pad (in) 17.79

| Condition | 1 is OK, 0 Fails |
| :---: | :---: |
| Minimum Mat Width | 1 |
| Maximum Soil Bearing Pressure | 1 |
| Pier Area of Steel | 1 |
| Pier Shear | 1 |
| Two-Way Shear | 1 |
| Overturning | 1 |
| Anchor Bolt Pull-Out | 1 |
| Flexure | 1 |
| Steel Ratio | 1 |
| Length of Development in Pad | 1 |
| Interaction Diagram Visual Check | 1 |
| One-Way Shear | 1 |
| Hook Development | 1 |
| Minimum Mat Depth | 1 |

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

Tower Description 305' S3TL Series HD1
Customer Name AT\&T
Job Number 170074
Date 9/18/2017
Engineer REB
Factored Uplift (kips)
Factored Download (kips)
Factored Shear (kips)
Ultimate Bearing Pressure Bearing $\Phi$ S
Bearing Design Strength (ksf)
Water Table Below Grade (ft)
Bolt Circle Diameter (in)
Top of Concrete to Top
of Bottom Threads (in) Pier Diameter ( ft )
Ht. Above Ground (ft)
Pier Length Below Ground ( ft ) Quantity of Bars Bar Diameter (in)
Tie Bar Diameter (in)
Spacing of Ties (in) Area of Bars (in ${ }^{2}$ )
Spacing of Bars (in)
$\mathrm{f}^{\prime} \mathrm{c}(\mathrm{ksi})$
fy (ksi)
Unit Wt. of Concrete (kcf)
Download Friction Фs Uplift Friction $\Phi$ S
Volume of Concrete ( $\mathrm{yd}^{3}$ )
Skin Friction Factor for Uplift Ignore Bottom Length in Download?

| Depth at Bottom of Layer (ft) | Ult. Skin Friction (ksf) | (Ult. Skin Friction)*(Uplift Factor) | $\gamma(\mathrm{kcf})$ |
| :---: | :---: | :---: | :---: |
| 2 | 0.00 | 0.00 | 0.11 |
| 7 | 0.30 | 0.30 | 0.11 |
| 14 | 1.50 | 1.50 | 0.11 |
| 27 | 1.00 | 1.00 | 0.11 |
| 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 |
| 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)


Factored Net Download (kips)
798.7

DRILLED STRAIGHT PIER DESIGN BY SABRE TOWERS \& POLES (CONTINUED) Uplift:
Nominal Skin Friction (kips) 650.3
Wc, Weight of Concrete (kips) 243.3
W $_{\text {R }}$, Soil Resistance (kips) 1161.1
$\Phi$ sWr+0.9Wc (kips)
Uplift Design Strength (kips)
Pier Design:
Design Tensile Strength (kips) $\phi \mathrm{V}_{\mathrm{n}}$ (kips)
$\phi V_{c}=\phi 2\left(1+N_{u} /\left(500 A_{g}\right)\right) f_{c}{ }^{1 / 2} b_{w} d(k i p s)$
$V_{\mathrm{s}}$ (kips)
Maximum Spacing (in)
1089.8


Factored Uplift (kips)
689.0

Tu (kips)
$\mathrm{V}_{\mathrm{u}}$ (kips)
689.0
72.0

Anchor Bolt Pull-Out:
$\phi \mathrm{P}_{\mathrm{c}}=\phi \lambda(2 / 3) \mathrm{f}_{\mathrm{c}}{ }^{1 / 2}\left(2.8 \mathrm{~A}_{\text {SLOPE }}+4 \mathrm{~A}_{\text {FLAT }}\right)$
Rebar Development Length (in)

| 1379.3 | $\mathrm{P}_{\mathrm{u}}$ (kips) | 689.0 |
| :---: | :---: | :---: |
| 21.69 | Required Length of Development (in) | N/A |


| 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 |

September $21^{\text {st }}, 2017$
Kentucky Public Service Commission
211 Sower Blvd.
P.O. Box 615

Frankfort, KY 40602-0615

RE: Site Name - Harned
Proposed Cell Tower
3745 52.73 North Latitude, 8623 17.94 West Longitude

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

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

Thank you,


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

EXHIBIT D
COMPETING UTILITIES, CORPORATIONS, OR PERSONS LIST

## Master Utility Search

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

| Utility ID | Utility <br> Name |
| :--- | :--- |

Address/City/Contact entries.


| View | 4100700 | Cellco Partnership dba Verizon Wireless | Cellular | A | Basking <br> Ridge | NJ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| View | 4106600 | Cintex Wireless, LLC | Cellular | D | Rockville | MD |
| View | 4101900 | Consumer Cellular, Incorporated | Cellular | A | Portland | OR |
| View | 4106400 | Credo Mobile, Inc. | Cellular | A | San Francisco | CA |
| View | 4108850 | Cricket Wireless, LLC | Cellular | A | San Antonio | TX |
| View | 4001900 | CTC Communications Corp. <br> d/b/a EarthLink Business I | Cellular | D | Grand Rapids | MI |
| View | 10640 | Cumberland Cellular Partnership | Cellular | A | Elizabethtown | KY |
| View | 4101000 | East Kentucky Network, LLC dba Appalachian Wireless | Cellular | A | Ivel | KY |
| View | 4002300 | Easy Telephone Service Company dba Easy Wireless | Cellular | D | Ocala | FL |
| View | 4109500 | Enhanced Communications Group, LLC | Cellular | D | Bartlesville | OK |
| View | 4110450 | Excellus Communications, LLC | Cellular | D | Chattanooga | TN |
| View | 4105900 | Flash Wireless, LLC | Cellular | C | Concord | NC |
| View | 4104800 | France Telecom Corporate Solutions L.L.C. | Cellular | D | Oak Hill | VA |
| View | 4109350 | Global Connection Inc. of America | Cellular | D | Norcross | GA |
| View | 4102200 | Globalstar USA, LLC | Cellular | B | Covington | LA |
| View | 4109600 | Google North America Inc. | Cellular | B | Mountain View | CA |
| View | 33350363 | Granite Telecommunications, LLC | Cellular | D | Quincy | MA |
| View | 4106000 | GreatCall, Inc. d/b/a Jitterbug | Cellular | A | San Diego | CA |
| View | 10630 | GTE Wireless of the Midwest dba Verizon Wireless | Cellular | A | Basking Ridge | NJ |
| View | 4110600 | Horizon River Technologies, LLC | Cellular | C | Atlanta | GA |
| View | 4103100 | i-Wireless, LLC | Cellular | A | Newport | KY |
| View | 4109800 | IM Telecom, LLC d/b/a Infiniti Mobile | Cellular | D | Tulsa | OK |
| View | 22215360 | KDDI America, Inc. | Cellular | D | New York | NY |
| View | 10872 | Kentucky RSA \#1 Partnership | Cellular | A | Basking Ridge | NJ |
| View | 10680 | Kentucky RSA \#3 Cellular General | Cellular | A | Elizabethtown | KY |
| View | 10681 | Kentucky RSA \#4 Cellular General | Cellular | A | Elizabethtown | KY |
| View | 4109750 | Konatel, Inc. dba telecom.mobi | Cellular | D | Johnstown | PA |
| View | 4107300 | Lycamobile USA, Inc. | Cellular | D | Newark | NJ |
| View | 4108800 | MetroPCS Michigan, LLC | Cellular | A | Bellevue | WA |
| View | 4109650 | Mitel Cloud Services, Inc. | Cellular | D | Mesa | AZ |
| View | 4202400 | New Cingular Wireless PCS, LLC dba AT\&T Mobility, PCS | Cellular | A | San Antonio | TX |
|  |  |  |  |  |  |  |


| View | 10900 | New Par dba Verizon Wireless | Cellular | A | Basking Ridge | NJ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| View | 4000800 | Nextel West Corporation | Cellular | D | Overland Park | KS |
| View | 4001300 | NPCR, Inc. dba Nextel Partners | Cellular | D | Overland Park | KS |
| View | 4001800 | OnStar, LLC | Cellular | A | Detroit | MI |
| View | 4110750 | Onvoy Spectrum, LLC | Cellular | C | Plymouth | MN |
| View | 4109050 | Patriot Mobile LLC | Cellular | D | Southlake | TX |
| View | 4110250 | Plintron Technologies USA LLC | Cellular | D | Bellevue | WA |
| View | 33351182 | PNG Telecommunications, Inc. dba PowerNet Global Communications | Cellular | D | Cincinnati | OH |
| View | 4202100 | Powertel/Memphis, Inc. dba TMobile | Cellular | A | Bellevue | WA |
| View | 4107700 | Puretalk Holdings, LLC | Cellular | A | Covington | GA |
| View | 4106700 | Q Link Wireless, LLC | Cellular | A | Dania | FL |
| View | 4108700 | Ready Wireless, LLC | Cellular | B | Hiawatha | IA |
| View | 4110350 | Regional Strategic Partners LLC | Cellular | D | Buford | GA |
| View | 4110500 | Republic Wireless, Inc. | Cellular | D | Raleigh | NC |
| View | 4106200 | Rural Cellular Corporation | Cellular | A | Basking Ridge | NJ |
| View | 4108550 | Sage Telecom Communications, LLC dba TruConnect | Cellular | D | Los Angeles | CA |
| View | 4109150 | SelecTel, Inc. d/b/a SelecTel Wireless | Cellular | D | Freemont | NE |
| View | 4106300 | SI Wireless, LLC | Cellular | A | Carbondale | IL |
| View | 4110150 | Spectrotel, Inc. d/b/a Touch Base Communications | Cellular | D | Neptune | NJ |
| View | 4200100 | Sprint Spectrum, L.P. | Cellular | A | Atlanta | GA |
| View | 4200500 | SprintCom, Inc. | Cellular | A | Atlanta | GA |
| View | 4109550 | Stream Communications, LLC | Cellular | D | Dallas | TX |
| View | 4110200 | T C Telephone LLC d/b/a Horizon Cellular | Cellular | D | Red Bluff | CA |
| View | 4202200 | T-Mobile Central, LLC dba TMobile | Cellular | A | Bellevue | WA |
| View | 4002500 | TAG Mobile, LLC | Cellular | D | Carrollton | TX |
| View | 4109700 | Telecom Management, Inc. dba Pioneer Telephone | Cellular | D | South Portland | ME |
| View | 4107200 | Telefonica USA, Inc. | Cellular | D | Miami | FL |
| View | 4108900 | Telrite Corporation dba Life Wireless | Cellular | D | Covington | GA |
| View | 4108450 | Tempo Telecom, LLC | Cellular | D | Kansas City | MO |
| View | 4109950 | The People's Operator USA, LLC | Cellular | D | New York | NY |
| View | 4109000 | Ting, Inc. | Cellular | A | Toronto | ON |
| View | 4110400 | Torch Wireless Corp. | Cellular | D | Jacksonville | FL |
| View | 4103300 | Touchtone Communications, Inc. | Cellular | D | Whippany | NJ |


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

## EXHIBIT E

 FAA
## Proposed Case for : 2017-ASO-16999-OE

For information only.
This proposal has not yet been studied. Study outcomes will be posted at a later date. Public comments are not requested, and will not be considered at this time.


| Received Date: | $08 / 17 / 2017$ |
| :--- | :--- |
| Entered Date: | $08 / 17 / 2017$ |
| Map: | View Map |

Structure Summary
Structure Type: Antenna Tower Structure Name: Harned FCC Number:

Height and Elevation

| Site Elevation: | 781 |
| :--- | ---: |
| Structure Height: | 320 |
| Total Height (AMSL): | 1101 |


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

[^0]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

## CONDITIONAL APPROVAL

August 23, 2017

John Monday
John Monday
3300 E. Renner Rd B3132
Richardson, TX 75082
SUBJECT: AS-014-193-2017-070
STRUCTURE: Antenna
LOCATION: Harned, KY
COORDINATES: $37^{\circ} 45^{\prime} 52.73^{\prime \prime} \mathrm{N} / 86^{\circ} 23^{\prime} 17.94^{\prime \prime} \mathrm{W}$
HEIGHT: $\quad 320^{\prime} \mathrm{AGL} / 110 I^{\prime} \mathrm{AMSL}$

Your application for a permit to construct or alter the above structure was reviewed at the Thursday, August 10, 2017 regular meeting of the Kentucky Airport Zoning Commission. This letter is to advise you that your permit has been tentatively approved by the Commission pending the FAA Determination. Upon receipt of notification of No Hazard, No IFR/VFR Effects from the FAA and FAA recommended lighting, final approval of your application will be granted and copies forwarded to you.

If you have any questions or would like to check on the status of your permit, please feel free to call me at 859-341-2700.

Sincerely,


Administrator

## EXHIBIT G <br> GEOTECHNICAL REPORT

## GEOTECHNICAL

## REPORT

> HARNED
> (KYLO3659)
> $37^{\circ} 45^{\prime} 52.73^{\prime \prime} \mathrm{N}$
> $86^{\circ} 23^{\prime} 17.94^{\prime \prime} \mathrm{W}$

Butler Hobbs Rd
Harned, KY 40144

Prepared For:

## MasTec Network Solutions

For:


Prepared By:


August 31, 2017

Ms. Marie Glasgow
Mastec Network Solutions
1975 Joe B Jackson Hwy
Murfreesboro, TN 37127

Re: Geotechnical Report - PROPOSED 305' SELF-SUPPORT TOWER w/ 15' LIGHTNING ARRESTOR Site Name: HARNED (KYLO3659)
Site Address: Butler Hobbs Road, Harned, Breckenridge County, Kentucky
Coordinates: N37* 45' 52.73", W86" $23^{\prime} 17.94^{\prime \prime}$
POD Project No. 17-12748

## Dear Ms. Glasgow:

Attached is our geotechnical engineering report for the referenced project. This report contains our findings, an engineering interpretation of these findings with respect to the available project characteristics, and recommendations to aid design and construction of the tower and equipment support foundations.

We appreciate the opportunity to be of service to you on this project. If you have any questions regarding this report, please contact our office.


Project Engineer
License No.: KY 16300

Copies submitted:
(3) Ms. Marie Glasgow


## LETTER OF TRANSMITTAL <br> TABLE OF CONTENTS

## Page

1. PURPOSE AND SCOPE .....  1
2. PROJECT CHARACTERISTICS .....  1
3. SUBSURFACE CONDITIONS .....  1
4. FOUNDATION DESIGN RECOMMENDATIONS ..... 2
4.1. PROPOSED TOWER ..... 3
4.1.1. Drilled Piers .....  3
4.1.2. Mat Foundation .....  4
4.2. Equipment Platform .....  4
4.3. EQUIPMENT SLAB .....  4
4.4. EQUIPMENT BUILDING ..... 4
4.5. Drainage and Groundwater Considerations ..... 5
5. GENERAL CONSTRUCTION PROCEDURES AND RECOMMENDATIONS .....  5
5.1 Drilled Piers ..... 5
5.2 Fill Compaction .....  .6
5.3 Construction Dewatering .....  6
6 FIELD INVESTIGATION .....  .7
7 WARRANTY AND LIMITATIONS OF STUDY .....  7

## APPENDIX

BORING LOCATION PLAN
BORING LOG
SOIL SAMPLE CLASSIFICATION

Geotechnical Report

PROPOSED 305' SELF-SUPPORT TOWER w/ 15' LIGHTNING ARRESTOR<br>Site Name: HARNED (KYL03659)<br>Butler Hobbs Road, Harned, Breckenridge County, Kentucky<br>N37 $45^{\prime} 52.73^{\prime \prime}$, W86 $23^{\prime} 17.94^{\prime \prime}$

## 1. PURPOSE AND SCOPE

The purpose of this study was to determine the general subsurface conditions at the site of the proposed tower by drilling three borings and to evaluate this data with respect to foundation concept and design for the proposed tower and equipment platform. Also included is an evaluation of the site with respect to potential construction problems and recommendations dealing with quality control during construction.

## 2. PROJECT CHARACTERISTICS

AT\&T is proposing to construct a $305^{\prime}$ self-support tower and either an equipment shelter, slab or platform at N37 ${ }^{\circ}$ $45^{\prime} 52.73^{\prime \prime}$, W86 $23^{\prime} 17.94^{\prime \prime}$, Butler Hobbs Road, Harned, Breckenridge County, Kentucky. The site is located in a farm field in a rural area of Breckenridge County to the east of Hardinsburg. The development will also include a small equipment platform near the base of the tower. The proposed tower location is shown on the Boring Location Plan in the Appendix.

## 3. SUBSURFACE CONDITIONS

The subsurface conditions were explored by drilling three test borings near the base of the proposed tower. The Geotechnical Soil Test Boring Logs, which are included in the Appendix, describes the materials and conditions encountered. A sheet defining the terms and symbols used on the boring logs is also included in the Appendix. The general subsurface conditions disclosed by the test boring is discussed in the following paragraphs.

According to the Kentucky Geological Survey, Kentucky Geologic Map Information Services, the site is underlain by the Mississippian age Hardinsburg Sandstone Formation. This formation consists of sandstone with minor amounts of shale. There is no potential for karst activity in the Hardinsburg Sandstone Formation.

The borings encountered about 5 inches of topsoil at the existing ground surface. Below the topsoil, the borings encountered clayey silt (ML) of low plasticity to auger refusal depths between 5.2 to 7 feet. Auger refusal is defined as the depth at which the boring can no longer be advanced using the current drilling method. The SPT N-values in the clayey silt were between 14 and 50 blows per foot (bpf) generally indicating a stiff to hard consistency.

The refusal material was cored in Boring 3 from 7 to 27 feet below the ground surface. Sandstone that was hard, slightly
weathered and light brown was encountered from about 7 to 14 feet. Moderately hard, moderately weathered, gray shale with some limestone was encountered below the sandstone at about 14 feet. At about 23 feet, the shale was soft and highly weathered with thick clay seams. The recovery of the cores were between 17 to 100 percent with RQD values between 0 and 97 percent. These values increased with depth and generally represent a very poor quality rock in the shale with a good rock in the sandstone from a foundation support viewpoint.

Observations made at the completion of soil drilling operations indicated the borings to be dry. It must be noted, however, that short-term water readings in test borings are not necessarily a reliable indication of the actual groundwater level. Furthermore, it must be emphasized that the groundwater level is not stationary, but will fluctuate seasonally.

Based on the limited subsurface conditions encountered at the site and using Table 1615.1.1 of the 2011 Kentucky Building Code, the site class is considered " $C$ ". Seismic design requirements for telecommunication towers are given in section 1622 of the code. A detailed seismic study was beyond the scope of this report.

## 4. FOUNDATION DESIGN RECOMMENDATIONS

The following design recommendations are based on the previously described project information, the subsurface conditions encountered in our borings, the results of our laboratory testing, empirical correlations for the soil types encountered, our analyses, and our experience. If there is any change in the project criteria or structure location, you should retain us to review our recommendations so that we can determine if any modifications are required. The findings of such a review can then be presented in a supplemental report or addendum.

We recommend that the geotechnical engineer be retained to review the near-final project plans and specifications, pertaining to the geotechnical aspects of the project, prior to bidding and construction. We recommend this review to check that our assumptions and evaluations are appropriate based on the current project information provided to us, and to check that our foundation and earthwork recommendations were properly interpreted and implemented.

### 4.1. Proposed Tower

Our findings indicate that the proposed self-support can be supported on drilled piers or on a common mat foundation.

### 4.1.1. Drilled Piers

The following table summarizes the recommended values for use in analyzing lateral and frictional resistance for the various strata encountered at the test boring. It is important to note that these values are estimated based on the standard penetration test results and soil types, and were not directly measured. The all values provided are ultimate values and appropriate factors of safety should be used in conjunction with these values. If the piers will bear deeper than about 27 feet, a deeper boring should be drilled to determine the nature of the deeper material.

| Depth Below Ground Surface, feet | 0-2 | 2-7 | 7-14 | 14-27 |
| :---: | :---: | :---: | :---: | :---: |
| Ultimate Bearing Pressure (psf) |  | 8,300 | 44,250 | 22,120 |
| C <br> Undrained Shear Strength, psf | 500 | 1,500 | 8,000 | 4,000 |
| Angle of Internal Friction degrees | 0 | 0 | 0 | 0 |
| Total Unit Weight, pcf | 120 | 120 | 135 | 135 |
| Soil Modulus Parameter k, pci | 30 | 500 | 2000 | 1000 |
| Passive Soil Pressure, psf/one foot of depth |  | $\begin{aligned} & 1,000+ \\ & 40(D-2) \end{aligned}$ | $\begin{aligned} & 5,250+ \\ & 45(D-7) \end{aligned}$ | $\begin{aligned} & 2,500+ \\ & 45(\mathrm{D}-24) \end{aligned}$ |
| Side Friction, psf |  | 300 | 1500 | 1000 |

Note: $D=$ Depth below ground surface (in feet) to point at which the passive pressure is calculated.

It is important that the drilled piers be installed by an experienced, competent drilled pier contractor who will be responsible for properly installing the piers in accordance with industry standards and generally accepted methods, without causing deterioration of the subgrade. The recommendations contained herein relate only to the soil-pier interaction and do not account for the structural design of the piers.

### 4.1.2. Mat Foundation

The tower could be supported on a common mat foundation bearing on the clayey silt at a minimum of 3 feet can be designed using an allowable soil pressure of 4,000 pounds per square foot may be used. This value may be increased by 30 percent for the maximum edge pressure under transient loads. A friction value of 0.30 may be used between the concrete and the silt soil. The passive pressures given for the drilled pier foundation may be used to resist lateral forces.

It is important that the mat be designed with an adequate factor of safety with regard to overturning under the maximum design wind load.

### 4.2. Equipment Platform

An equipment platform may be supported on shallow piers bearing in the natural clay and designed for a net allowable soil pressure of 2,500 pounds per square foot. The piers should bear at a depth of at least 30 inches to minimize the effects of frost action. All existing topsoil or soft natural soil should be removed beneath footings.

### 4.3. Equipment Slab

A concrete slab supporting the equipment must be supported on at least 6 -inch layer of relatively clean granular material such as gravel or crushed stone containing not more than 10 percent material that passes through a No. 4 sieve. This is to help distribute concentrated loads and equalize moisture conditions beneath the slab. Provided that a minimum of 6 in . of granular material is placed below the slab, a modulus of subgrade reaction (k30) of 110 $\mathrm{lbs} / \mathrm{cu}$.in. can be used for design of the slab. All existing topsoil or soft natural soil should be removed beneath crushed stone layer.

### 4.4. Equipment Building

If an equipment building support on a slab is chosen in place of the equipment platform, it may be supported on shallow spread footings bearing in the natural clay soil and designed for a net allowable soil pressure of 2,500 pounds per square foot.

The footings should be at least ten inches wide. If the footings bear on soil they should bear at a depth of at least 30 inches to minimize the effects of frost action. All existing topsoil or soft natural soil should be removed beneath footings.

The floor slab for the new equipment building can be supported on firm natural soils or on new compacted structural fill. Floor slabs must be supported on at least 4-inch layer of relatively clean granular material such as gravel or crushed stone containing not more than 10 percent material that passes through a No. 4 sieve. This is to help distribute concentrated loads and equalize moisture conditions beneath the slab. Provided that a minimum of 4 in . of granular material is placed below the slab, a modulus of subgrade reaction (k30) of $110 \mathrm{lbs} / \mathrm{cu} . \mathrm{in}$. can be used for design of the floor slabs.

### 4.5. Drainage and Groundwater Considerations

Good site drainage must be provided. Surface run-off water should be drained away from the tower and platform and not allowed to pond. It is recommended that all foundation concrete be placed the same day the excavation is made.

At the time of this investigation, groundwater was not encountered. Therefore, no special provisions regarding groundwater control are considered necessary for shallow foundations. Any seepage should be able to be pumped with sumps.

## 5. GENERAL CONSTRUCTION PROCEDURES AND RECOMMENDATIONS

It is possible that variations in subsurface conditions will be encountered during construction. Although only minor variations that can be readily evaluated and adjusted for during construction are anticipated, it is recommended the geotechnical engineer or a qualified representative be retained to perform continuous inspection and review during construction of the soils-related phases of the work. This will permit correlation between the test boring data and the actual soil conditions encountered during construction.

### 5.1 Drilled Piers

The following recommendations are recommended for drilled pier construction:
\& All piers must be poured the same day drilling is completed so that any shale is not allowed to swell. Clean the foundation bearing area so it is nearly level or suitably benched and is free of ponded water or loose material.

4 Make provisions for ground water removal from the drilled shaft excavation. While the borings were dry prior to rock coring and significant seepage is not anticipated, the drilled pier contractor should have pumps on hand to remove water in the event seepage into the drilled pier is encountered.

4 Specify concrete slumps ranging from 4 to 7 inches for the drilled shaft construction. These slumps are recommended to fill irregularities along the sides and bottom of the drilled hole, displace water as it is placed, and permit placement of reinforcing cages into the fluid concrete.
\& Retain the geotechnical engineer to observe foundation excavations after the bottom of the hole is leveled, cleaned of any mud or extraneous material, and dewatered.
\& Install a temporary protective steel casing to prevent side wall collapse, prevent excessive mud and water intrusion in the drilled shaft.
4. The protective steel casing may be extracted as the concrete is placed provided a sufficient head of concrete is maintained inside the steel casing to prevent soil or water intrusion into the newly placed concrete.
4. Direct the concrete placement into the drilled hole through a centering chute to reduce side flow or segregation.

### 5.2 Fill Compaction

All engineered fill placed adjacent to and above the tower foundation should be compacted to a dry density of at least 95 percent of the standard Proctor maximum dry density (ASTM D-698). This minimum compaction requirement should be increased to 98 percent for any fill placed below the tower foundation bearing elevation. Any fill placed beneath the tower foundation should be limited to well-graded sand and gravel or crushed stone. The compaction should be accomplished by placing the fill in about 8 inch (or less) loose lifts and mechanically compacting each lift to at least the specified minimum dry density. Field density tests should be performed on each lift as necessary to ensure that adequate moisture conditioning and compaction is being achieved.

Compaction by flooding is not considered acceptable. This method will generally not achieve the desired compaction and the large quantities of water will tend to soften the foundation soils.

### 5.3 Construction Dewatering

If groundwater is encountered in the shallow foundations, it should be minor and can be handled by conventional dewatering methods such as pumping from sumps.

If groundwater is encountered in the drilled pier excavations, it may be more difficult since pumping directly from the excavations could cause a deterioration of the bottom of the excavation. If the pier excavations are not
dewatered, concrete should be placed by the tremie method. If groundwater sits on the bottom of the foundation for longer than an hour, the bottom should be cleaned again before the pier is poured.

## 6 FIELD INVESTIGATION

Three soil test boring was drilled near the base of the proposed tower. Split-spoon samples were obtained by the Standard Penetration Test (SPT) procedure (ASTM D1586) in all test borings. The borings encountered auger refusal between 5.2 and 7 feet. A sample of the refusal material was cored in Boring 3 from 7 to 27 feet below the ground surface. The split-spoon samples were inspected and visually classified by a geotechnical engineer. Representative portions of the soil samples were sealed in glass jars and returned to our laboratory.

The boring log is included in the Appendix along with a sheet defining the terms and symbols used on the logs and an explanation of the Standard Penetration Test (SPT) procedure. The log present visual descriptions of the soil strata encountered, Unified System soil classifications, groundwater observations, sampling information, laboratory test results, and other pertinent field data and observations.

## 7 WARRANTY AND LIMITATIONS OF STUDY

Our professional services have been performed, our findings obtained, and our recommendations prepared in accordance with generally accepted geotechnical engineering principles and practices. This warranty is in lieu of all other warranties, either express or implied. POD Group is not responsible for the independent conclusions, opinions or recommendations made by others based on the field exploration and laboratory test data presented in this report.

A geotechnical study is inherently limited since the engineering recommendations are developed from information obtained from test borings, which depict subsurface conditions only at the specific locations, times and depths shown on the log. Soil conditions at other locations may differ from those encountered in the test borings, and the passage of time may cause the soil conditions to change from those described in this report.

The nature and extent of variation and change in the subsurface conditions at the site may not become evident until the course of construction. Construction monitoring by the geotechnical engineer or a representative is therefore considered necessary to verify the subsurface conditions and to check that the soils connected construction phases are properly completed. If significant variations or changes are in evidence, it may then be necessary to reevaluate the recommendations of this report. Furthermore, if the project characteristics are altered significantly from those discussed in this report, if the project information contained in this report is incorrect, or if additional information becomes available, a review must be made by this office to determine if any modification in the recommendations will be required.

## APPENDIX

BORING LOCATION PLAN
BORING LOG
SOIL SAMPLE CLASSIFICATION






FINE AND COARSE GRAINED SOIL INFORMATION


EXHIBIT H DIRECTIONS TO WCF SITE

## Driving Directions to Proposed Harned Tower Site

1. Beginning at the offices of the County Judge Executive at 208 S Main St, Hardinsburg, KY 40143 head south on S Main St.
2. Turn Left onto US-60 Bus E/3rd $S$.
3. Turn Left onto Fairgrounds Rd.
4. Make a slight left onto Butler - Hobbs Rd.
5. The site coordinates are $37^{\circ} 45^{\prime} 52.73^{\prime \prime}$ North latitude, $86^{\circ} 23^{\prime} 17.94^{\prime \prime}$ West longitude.


Prepared by:
Robert Grant
Pike Legal Group PLLC
1578 Highway 44 East, Suite 6
P.O. Box 369

Shepherdsville, KY 40165-3069
Telephone: 502-955-4400 or 800-516-4293


## EXHIBIT I

COPY OF REAL ESTATE AGREEMENT

Markef: Evansville
Cell Site Number: KYL03659
Cell Site Name: Harned
Fixed Asset Number: 13800743

## 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 Sandra S. Baier, a widow, having a mailing address of P.O. Box 553, Hardinsburg, KY 40143 ("Landlord") and New Cingular Wireless PCS, LLC, a Delaware limited liability company, having a mailing address of 575 Morosgo Drive NE, Atlanta, GA 30324 ("Tenant").

## BACKGROUND

Landlord owns or controls that certain plot, parcel or tract of land, as described on Exhibit 1, together with all rights and privileges arising in connection therewith, located at Buter Hobbs Road, Harned, KY 40144 , in the County of Breckinridge, 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.
(b) During the Option Term, and during the term of this Agreement, Tenant and its agents, engineers, surveyors and other representatives will have the right to enter upon the Property to inspect, examine, conduct soil borings, drainage testing, material sampling, radio frequency testing and other geological or engineering tests or studies of the Property (collectively, the "Tests"), to apply for and obtain licenses, permits, approvals, or other relief required of or deemed necessary or appropriate at Tenant's sole discretion for its use of the Premises and include, without limitation, applications for zoning variances, zoning ordinances, amendments, special use permits, and construction permits (collectively, the "Government Approvals"), initiate the ordering and/or scheduling of necessary utilities, and otherwise to do those things on or off the Property that, in the opinion of Tenant, are necessary in Tenant's sole discretion to determine the physical condition of the Property, the environmental history of the Property, Landlord's title to the Property and the feasibility or suitability of the Property for Tenant's Permitted Use, all at Tenant's expense. Tenant will not be liable to Landlord or any third party on account of any pre-existing defect or condition on or with respect to the Property, whether or not such defect or condition is disclosed by Tenant's inspection. Tenant will restore the Property to its condition as it existed at the commencement of the Option Term, reasonable wear and tear and loss by casualty or other causes beyond Tenant's control excepted.
(c) In consideration of Landlord granting Tenant the Option, Tenant agrees to pay Landlord the sum of Date. The Option will be for an initial term of one ( 1 ) year commencing on the Effective Date (the "Initial Option Term") and may be renewed by Tenant for an additional one (1) year (the "Renewal Option Term") upon written notification to Landlord and the payment of an additional
no later than five (5) days prior to the expiration date of the Initial Option Term. The Initial Option Term and any Renewal Option Term are collectively referred to as the "Option Term."
(d) The Option may be sold, assigned or transferred at any time by Tenant to an Affiliate (as that term is hereinafter defined) of Tenant or to any third party agreeing to be subject to the terms hereof. Otherwise, the Option may not be sold, assigned or transferred without the written consent of Landlord, such consent not to
be unreasonably withheld, conditioned or delayed. From and after the date the Option has been sold, assigned or transferred by Tenant to an Affiliate or a third party agreeing to be subject to the terms hereof, Tenant shall immediately be released from any and all liability under this Agreement, including the payment of any rental or other sums due, without any further action.
(e) During the Option Term, Tenant may exercise the Option by notifying Landlord in writing. If Tenant exercises the Option then Landlord leases the Premises to Tenant subject to the terms and conditions of this Agreement. If Tenant does not exercise the Option during the Initial Option Term or any extension thereof, this Agreement will terminate and the parties will have no further liability to each other.
(f) If during the Option Term, or during the term of this Agreement the Option is exercised, Landlord decides to subdivide, sell, or change the status of the zoning of the Premises, Property or any of Landlord's contiguous, adjoining or surrounding property (the "Surrounding Property,") or in the event of foreclosure, Landlord shall immediately notify Tenant in writing. Landlord agrees that during the Option Term, or during the Term of this Agreement if the Option is exercised, Landlord shall not initiate or consent to any change in the zoning of the Premises, Property or Surrounding Property or impose or consent to any other use or restriction that would prevent or limit Tenant from using the Premises for the Permitted Use. Any and all terms and conditions of this Agreement that by their sense and context are intended to be applicable during the Option Term shall be so applicable.
2. PERMITTED USE. Tenant may use the Premises for the transmission and reception of communications signals and the installation, construction, maintenance, operation, repair, replacement and upgrade of its communications fixtures and related equipment, cables, accessories and improvements, which may include a suitable support structure, associated antennas, equipment shelters or cabinets and fencing and any other items necessary to the successful and secure use of the Premises (collectively, the "Communication Facility"), as well as the right to test, survey and review title on the Property; Tenant further has the right but not the obligation to add, modify and/or replace equipment in order to be in compliance with any current or future federal, state or local mandated application, including, but not limited to, emergency 911 communication services, at no additional cost to Tenant or Landlord (collectively, the "Permitted Use"). Landlord and Tenant agree that any portion of the Communication Facility that may be conceptually described on Exhibit 1 will not be deemed to limit Tenant's Permitted Use. If Exhibit 1 includes drawings of the initial installation of the Communication Facility, Landlord's execution of this Agreement will signify Landlord's approval of Exhibit 1. For a period of ninety (90) days following the start of construction, Landlord grants Tenant, its subtenants, licensees and sublicensees, the right to use such portions of Landlord's contiguous, adjoining or Surrounding Property as described on Exhibit 1 as may reasonably be required during construction and installation of the Communication Facility. Tenant has the right to install and operate transmission cables from the equipment shelter or cabinet to the antennas, electric lines from the main feed to the equipment shelter or cabinet and communication lines from the Property's main entry point to the equipment shelter or cabinet, and to make other improvements, alterations, upgrades or additions appropriate for Tenant's Permitted Use, including the right to construct a fence around the Premises and undertake any other appropriate means to secure the Premises at Tenant's expense. Tenant has the right to modify, supplement, replace, upgrade, expand the equipment, increase the number of antennas or relocate the Communication Facility within the Premises at any time during the term of this Agreement. Tenant will be allowed to make such alterations to the Property in order to ensure that Tenant's Communication Facility complies with all applicable federal, state or local laws, rules or regulations.

## 3. TERM.

(a) The initial lease term will be five (5) years (the "Initial Term"), commencing on the effective date of written notification by Tenant to Landlord of Tenant's exercise of the Option (the "Term Commencement Date"). The Initial Term will terminate on the fifth ( $5^{\text {th }}$ ) 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 ("Aunual 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 Temm (the "Term").

## 4. RENT.

(a) Commencing on the first day of the month following the date that Tenant commences construction (the "Rent Commencement Date"), Tenant will pay Landlord on or before the fifth ( $5^{\text {th }}$ ) day of each calendar month in advance Seven Hundred and No/100 Dollars ( $\$ 700.00$ ) (the "Rent"), at the address set forth above. In any partial month occurring after the Rent Commencement Date, Rent will be prorated. The initial Rent payment will be forwarded by Tenant to Landlord within forty-five (45) days after the Rent Commencement Date.
(b) Beginning in year two (2) of the Initial Term, and each year thereafter, including throughout any Extension Terms exercised, the Rent will be calculated by a formula as follows:
(c) All charges payable under this Agreement such as utilities and taxes shall be billed by Landlord within one (1) year from the end of the calendar year in which the charges were incurred; any charges beyond such period shall not be billed by Landlord, and shall not be payable by Tenant. The foregoing shall not apply to monthly Rent which is due and payable without a requirement that it be billed by Landlord. The provisions of this subsection shall survive the termination or expiration of this Agreement.

## 5. APPROVALS.

(a) Landlord agrees that Tenant's ability to use the Premises is contingent upon the suitability of the Premises and Property for Tenant's Permitted Use and Tenant's ability to obtain and maintain all Government Approvals. Landlord authorizes Tenant to prepare execute and file all required applications to obtain Government Approvals for Tenant's Permitted Use under this Agreement and agrees to reasonably assist Tenant with such applications and with obtaining and maintaining the Government Approvals.
(b) Tenant has the right to obtain a title report or commitment for a leasehold title policy from a title insurance company of its choice and to have the Property surveyed by a surveyor of its choice.
(c) Tenant may also perform and obtain, at Tenant's sole cost and expense, soil borings, percolation tests, engineering procedures, environmental investigation or other tests or reports on, over, and under the Property, necessary to determine if Tenant's use of the Premises will be compatible with Tenant's engineering specifications, system, design, operations or Government Approvals.
6. TERMINATION. This Agreement may be terminated, without penalty or further liability, as follows:
(a) by either party on thirty (30) days prior written notice, if the other party remains in default under Section 15 of this Agreement after the applicable cure periods;
(b) by Tenant upon written notice to Landlord, if Tenant is unable to obtain or maintain, any required approval(s) or the issuance of a license or permit by any agency, board, court or other governmental authority necessary for the construction or operation of the Communication Facility as now or hereafter intended by Tenant; or if Tenant determines, in its sole discretion that the cost of or delay in obtaining or retaining the same is commercially unreasonable;
(c) by Tenant, upon written notice to Landlord, if Tenant determines, in its sole discretion, due to the title report results or survey results, that the condition of the Premises is unsatisfactory for its intended uses;
(d) by Tenant upon written notice to Landlord for any reason or no reason, at any time prior to commencement of construction by Tenant; or
(e) by Tenant upon sixty ( 60 ) days' prior written notice to Landlord for any reason or no reason, so long as Tenant pays Landlord a termination fee equal to three (3) months' Rent, at the then-current rate, provided, however, that no such termination fee will be payable on account of the termination of this Agreement by Tenant under any termination provision contained in any other Section of this Agreement, including the following: 5 Approvals, 6(a) Termination, 6(b) Termination, 6(c) Termination, 6(d) Termination, 11 (d) Environmental, 18 Condemnation, or 19 Casualty.

## 7. INSURANCE.

(a) During the Term, Tenant will carry, at its own cost and expense, the following insurance: (i) workers' compensation insurance as required by law; and (ii) commercial general liability (CGL) insurance with respect to its activities on the Property, such insurance to afford protection of up to per occurrence and general aggregate, based on Insurance Services Office (ISO) Form CG OU or a substitute form providing substantially equivalent coverage. Tenant's CGL insurance shall contain a provision including Landlord as an additional insured. Such additional insured coverage:
(i) shall be limited to bodily injury, property damage or personal and advertising injury caused, in whole or in part, by Tenant, its employees, agents or independent contractors;
(ii) shall not extend to claims for punitive or exemplary damages arising out of the acts or omissions of Landlord, its employees, agents or independent contractors or where such coverage is prohibited by law or to claims arising out of the gross negligence of Landlord, its employees, agents or independent contractors; and
(iii) shall not exceed Tenant's indemnification obligation under this Agreement, if any.
(b) Notwithstanding the foregoing, Tenant shall have the right to self-insure the coverages required in subsection (a). In the event Tenant elects to self-insure its obligation to include Landlord as an additional insured, the following provisions shall apply (in addition to those set forth in subsection (a)):
(i) Landlord shall promptly and no later than thirty (30) days after notice thereof provide Tenant with written notice of any claim, demand, lawsuit, or the like for which it seeks coverage pursuant to this Section and provide Tenant with copies of any demands, notices, summonses, or legal papers received in connection with such claim, demand, lawsuit, or the like;
(ii) Landlord shall not settle any such claim, demand, lawsuit, or the like without the prior written consent of Tenant; and
(iii) Landlord shall fully cooperate with Tenant in the defense of the claim, demand, lawsuit, or the like.

## 8. INTERFERENCE.

(a) Prior to or concurrent with the execution of this Agreement, Landlord has provided or will provide Tenant with a list of radio frequency user(s) and frequencies used on the Property as of the Effective Date. Tenant warrants that its use of the Premises will not interfere with those existing radio frequency uses on the Property, as long as those existing radio frequency user(s) operate and continue to operate within their respective frequencies and in accordance with all applicable laws and regulations.
(b) Landlord will not grant, after the date of this Agreement, a lease, license or any other right to any third party, if the exercise of such grant may in any way adversely affect or interfere with the Communication Facility, the operations of Tenant or the rights of Tenant under this Agreement. Landlord will notify Tenant in writing prior to granting any third party the right to install and operate communications equipment on the Property.
(c) Landlord will not, nor will Landlord permit its employees, tenants, licensees, invitees, agents or independent contractors to, interfere in any way with the Communication Facility, the operations of Tenant or the rights of Tenant under this Agreement. Landlord will cause such interference to cease within twenty-four (24) hours after receipt of notice of interference from Tenant. In the event any such interference does not cease within the aforementioned cure period, Landlord shall cease all operations which are suspected of causing interference (except for intermittent testing to determine the cause of such interference) until the interference has been corrected.
(d) For the purposes of this Agreement, "interference" may include, but is not limited to, any use on the Property or Surrounding Property that causes electronic or physical obstruction with, or degradation of, the communications signals from the Communication Facility.

## 9. INDEMNIFICATION.

(a) Tenant agrees to indemnify, defend and hold Landlord harmless from and against any and all injury, loss, damage or liability (or any claims in respect of the foregoing), costs or expenses (including reasonable attorneys' fees and court costs) arising directly from the installation, use, maintenance, repair or removal of the Communication Facility or Tenant's breach of any provision of this Agreement, except to the extent attributable to the negligent or intentional act or omission of Landlord, its employees, agents or independent contractors.
(b) Landlord agrees to indemnify, defend and hold Tenant harmless from and against any and all injury, loss, damage or liability (or any claims in respect of the foregoing), costs or expenses (including reasonable attorneys' fees and court costs) arising directly from the actions or failure to act of Landlord, its employees or agents, or Landlord's breach of any provision of this Agreement, except to the extent attributable to the negligent or intentional act or omission of Tenant, its employees, agents or independent contractors.
(c) The indemnified party: (i) shall promptly provide the indemnifying party with written notice of any claim, demand, lawsuit, or the like for which it seeks indemnification pursuant to this Section and provide the indemnifying party with copies of any demands, notices, summonses, or legal papers received in connection with such claim, demand, lawsuit, or the like; (ii) shall not settle any such claim, demand, lawsuit, or the like without the prior written consent of the indemnifying party; and (iii) shall fully cooperate with the indemnifying party in the defense of the claim, demand, lawsuit, or the like. A delay in notice shall not relieve the indemnifying party of its indemnity obligation, except (1) to the extent the indemnifying party can show it was prejudiced by the delay; and (2) the indemnifying party shall not be liable for any settlement or litigation expenses incurred before the time when notice is given.

## 10. WARRANTIES.

(a) Tenant and Landlord each acknowledge and represent that it is duly organized, validly existing and in good standing and has the right, power and authority to enter into this Agreement and bind itself hereto through the party set forth as signatory for the party below.
(b) Landlord represents, warrants and agrees that: (i) Landlord solely owns the Property as a legal lot in fee simple, or controls the Property by lease or license; (ii) the Property is not and will not be encumbered by any liens, restrictions, mortgages, covenants, conditions, easements, leases, or any other agreements of record or not of record, which would adversely affect Tenant's Permitted Use and enjoyment of the Premises under this

Agreement; (iii) as long as Tenant is not in default then Landlord grants to Tenant sole, actual, quiet and peaceful use, enjoyment and possession of the Premises without hindrance or ejection by any persons lawfully claiming under Landlord; (iv) Landlord's execution and performance of this Agreement will not violate any laws, ordinances, covenants or the provisions of any mortgage, lease or other agreement binding on Landlord; and (v) if the Property is or becomes encumbered by a deed to secure a debt, mortgage or other security interest, Landlord will provide promptly to Tenant a mutually agreeable subordination, non-disturbance and attornment agreement executed by Landlord and the holder of such security interest.

## 11. ENVIRONMENTAL.

(a) Landlord represents and warrants that, except as may be identified in Exhibit 11 attached to this Agreement, (i) the Property, as of the date of this Agreement, is free of hazardous substances, including asbestos-containing materials and lead paint, and (ii) the Property has never been subject to any contamination or hazardous conditions resulting in any environmental investigation, inquiry or remediation. Landlord and Tenant agree that each will be responsible for compliance with any and all applicable governmental laws, rules, statutes, regulations, codes, ordinances, or principles of common law regulating or imposing standards of liability or standards of conduct with regard to protection of the environment or worker health and safety, as may now or at any time hereafter be in effect, to the extent such apply to that party's activity conducted in or on the Property.
(b) Landlord and Tenant agree to hold harmless and indemnify the other from, and to assume all duties, responsibilities and liabilities at the sole cost and expense of the indemnifying party for, payment of penalties, sanctions, forfeitures, losses, costs or damages, and for responding to any action, notice, claim, order, summons, citation, directive, litigation, investigation or proceeding ("Claims"), to the extent arising from that party's breach of its obligations or representations under Section 11(a). Landlord agrees to hold harmless and indemnify Tenant from, and to assume all duties, responsibilities and liabilities at the sole cost and expense of Landlord for, payment of penalties, sanctions, forfeitures, losses, costs or damages, and for responding to any Claims, to the extent arising from subsurface or other contamination of the Property with hazardous substances prior to the effective date of this Agreement or from such contamination caused by the acts or omissions of Landlord during the Term. Tenant agrees to hold harmless and indemnify Landlord from, and to assume all duties, responsibilities and liabilities at the sole cost and expense of Tenant for, payment of penalties, sanctions, forfeitures, losses, costs or damages, and for responding to any Claims, to the extent arising from hazardous substances brought onto the Property by Tenant.
(c) The indemnifications of this Section 11 specifically include reasonable costs, expenses and fees incurred in connection with any investigation of Property conditions or any clean-up, remediation, removal or restoration work required by any governmental authority. The provisions of this Section 11 will survive the expiration or termination of this Agreement.
(d) In the event Tenant becomes aware of any hazardous substances on the Property, or any environmental, health or safety condition or matter relating to the Property, that, in Tenant's sole determination, renders the condition of the Premises or Property unsuitable for Tenant's use, or if Tenant believes that the leasing or continued leasing of the Premises would expose Tenant to undue risks of liability to a government agency or other third party, Tenant will have the right, in addition to any other rights it may have at law or in equity, to terminate this Agreement upon written notice to Landlord.
12. ACCESS. At all times throughout the Term of this Agreement, and at no additional charge to Tenant, Tenant and its employees, agents, and subcontractors, will have twenty-four (24) hour per day, seven (7) day per week pedestrian and vehicular access ("Access") to and over the Property, from an open and improved public road to the Premises, for the installation, maintenance and operation of the Communication Facility and any utilities serving the Premises. As may be described more fully in Exhibit 1, Landlord grants to Tenant an easement for such Access and Landlord agrees to provide to Tenant such codes, keys and other instruments necessary for such Access at no additional cost to Tenant. Upon Tenant's request, Landlord will execute a separate recordable easement evidencing this right. Landlord shall execute a letter granting Tenant Access to the Property substantially in the form attached as Exhibit 12; upon Tenant's request, Landlord shall execute additional letters during the Term. Landlord acknowledges that in the event Tenant cannot obtain Access to the

Premises, Tenant shall incur significant damage. If Landlord fails to provide the Access granted by this Section 12, such failure shall be a default under this Agreement. In connection with such default, in addition to any other rights or remedies available to Tenant under this Agreement or at law or equity, Landlord shall pay Tenant, as liquidated damages and not as a penalty 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 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 the 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 the Tenant and may be removed by Tenant at any time during the Term. Within one hundred twenty (120) days after the termination of this Agreement, Tenant will, to the extent reasonable, restore the Premises to its condition at the commencement of the Agreement, reasonable wear and tear and loss by casualty or other causes beyond Tenant's control excepted. Footings, foundations, and concrete will be removed to a depth of two-foot below grade. Notwithstanding the foregoing, Tenant will not be responsible for the replacement of any trees, shrubs, or other vegetation, nor will Tenant be required to remove from the Premises or the Property any underground utilities.

## 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 twentyfour (24) hours after written notice of such failure; (ii) Landlord's failure to cure an interference problem as required by Section 8 of this Agreement within twenty-four (24) hours after written notice of such failure; or (iii) Landlord's failure to perform any term, condition or breach of any warranty or covenant under this Agreement within forty-five (45) days after written notice from Tenant specifying the failure. No such failure, however, will be deemed to exist if Landlord has commenced to cure the default within such period and provided such efforts are prosecuted to completion with reasonable diligence. Delay in curing a default will be excused if due to causes beyond the reasonable control of Landlord. If Landlord remains in default beyond any applicable cure period, Tenant will have: (i) the right to cure Landlord's default and to deduct the costs of such cure from any monies due to Landlord from Tenant, and (ii) any and all other rights available to it under law and equity.
16. ASSIGNMENT/SUBLEASE. Tenant will have the right to assign this Agreement or sublease the Premises and its rights herein, in whole or in part, without Landlord's consent. Upon notification to Landlord of such assignment, Tenant will be relieved of all future performance, liabilities and obligations under this Agreement to the extent of such assignment.
17. NOTICES. All notices, requests and demands hereunder will be given by first class certified or registered mail, return receipt requested, or by a nationally recognized overnight courier, postage prepaid, to be effective when properly sent and received, refused or returned undelivered. Notices will be addressed to the parties as follows:

If to Tenant: New Cingular Wireless PCS, LLC
Attn: Network Real Estate Administration
Re: Cell Site \#KYL03659; Cell Site Name: Harned (KY)
Fixed Asset No.: 13800743
575 Morosgo Drive NE
Atlanta, GA 30324
With a copy to:
New Cingular Wireless PCS, LLC
Attn: Legal Department
Re: Cell Site \#K YL03659; Cell Site Name: Harned (KY)
Fixed Asset No.: 13800743
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: Sandra Baier
P.O. Box 553

Hardinsburg, KY 40143
Either party hereto may change the place for the giving of notice to it by thirty (30) days' prior written notice to the other as provided herein.
18. CONDEMNATION. In the event Landlord receives notification of any condemnation proceedings affecting the Property, Landlord will provide notice of the proceeding to Tenant within forty-eight (48) hours. If a condemning authority takes all of the Property, or a portion sufficient, in Tenant's sole determination, to render the Premises unsuitable for Tenant, this Agreement will terminate as of the date the title vests in the condemning authority. The parties will each be entitled to pursue their own separate awards in the condemnation proceeds, which for Tenant will include, where applicable, the value of its Communication Facility, moving expenses, prepaid Rent, and business dislocation expenses. Tenant will be entitled to reimbursement for any prepaid Rent on a prorata basis.
19. CASUALTY. Landlord will provide notice to Tenant of any casualty or other harm affecting the Property within forty-eight (48) hours of the casualty or other harm. If any part of the Communication Facility or Property is damaged by casualty or other harm as to render the Premises unsuitable, in Tenant's sole determination, then Tenant may terminate this Agreement by providing written notice to Landlord, which termination will be effective as of the date of such casualty or other harm. Upon such termination, Tenant will be entitled to collect all insurance proceeds payable to Tenant on account thereof and to be reimbursed for any prepaid Rent on a prorata basis. Landlord agrees to permit Tenant to place temporary transmission and reception facilities on the Property, but only until such time as Tenant is able to activate a replacement transmission facility at another location; notwithstanding the termination of the Agreement, such temporary facilities will be governed by all of the terms and conditions of this Agreement, including Rent. If Landlord or Tenant undertakes to rebuild or restore the Premises and/or the Communication Facility, as applicable, Landlord agrees to permit Tenant to place temporary transmission and reception facilities on the Property at no additional Rent until the reconstruction of the Premises and/or the Communication Facility is completed. If Landlord determines not to rebuild or restore the Property, Landlord will notify Tenant of such determination within thirty (30) days after the casualty or other harm. If Landlord does not so notify Tenant, and Tenant decides not to terminate under this Section, then Landlord will promptly rebuild or restore any portion of the Property interfering with or required for Tenant's Permitted Use of the Premises to substantially the same condition as existed before the casualty or other harm. Landlord agrees that the Rent shall be abated until the Property and/or the Premises are rebuilt or restored, unless Tenant places temporary transmission and reception facilities on the Property.
20. WAIVER OF LANDLORD'S LIENS. Landlord waives any and all lien rights it may have, statutory or otherwise, concerning the Communication Facility or any portion thereof. The Communication Facility shall be deemed personal property for purposes of this Agreement, regardless of whether any portion is deemed real or personal property under applicable law; Landlord consents to Tenant's right to remove all or any portion of the Communication Facility from time to time in Tenant's sole discretion and without Landlord's consent.

## 21. TAXES.

(a) Landlord shall be responsible for timely payment of all taxes and assessments levied upon the lands, improvements and other property of Landlord, including any such taxes that may be calculated by the taxing authority using any method, including the income method. Tenant shall be responsible for any taxes and assessments attributable to and levied upon Tenant's leasehold improvements on the Premises if and as set forth in this Section 21. Nothing herein shall require Tenant to pay any inheritance, franchise, income, payroll,
excise, privilege, rent, capital stock, stamp, documentary, estate or profit tax, or any tax of similar nature, that is or may be imposed upon Landlord.
(b) In the event Landlord receives a notice of assessment with respect to which taxes or assessments are imposed on Tenant's leasehold improvements on the Premises, Landlord shall provide Tenant with copies of each such notice immediately upon receipt, but in no event later than thirty (30) days after the date of such notice of assessment. If Landlord does not provide such notice or notices to Tenant within such time period, Landlord shall be responsible for payment of the tax or assessment set forth in the notice, and Landlord shall not have the right to reimbursement of such amount from Tenant. If Landlord provides a notice of assessment to Tenant within such time period and requests reimbursement from Tenant as set forth below, then Tenant shall reimburse Landlord for the tax or assessments identified on the notice of assessment on Tenant's leasehold improvements, which has been paid by Landlord. If Landlord seeks reimbursement from Tenant, Landlord shall, no later than thirty (30) days after Landlord's payment of the taxes or assessments for the assessed tax year, provide Tenant with written notice including evidence that Landlord has timely paid same, and Landlord shall provide to Tenant any other documentation reasonably requested by Tenant to allow Tenant to evaluate the payment and to reimburse Landlord.
(c) For any tax amount for which Tenant is responsible under this Agreement, Tenant shall have the right to contest, in good faith, the validity or the amount thereof using such administrative, appellate or other proceedings as may be appropriate in the jurisdiction, and may defer payment of such obligations, pay same under protest, or take such other steps as Tenant may deem appropriate. This right shall include the ability to institute any legal, regulatory or informal action in the name of Landlord, Tenant, or both, with respect to the valuation of the Premises. Landlord shall cooperate with respect to the commencement and prosecution of any such proceedings and will execute any documents required therefor. The expense of any such proceedings shall be borne by Tenant and any refunds or rebates secured as a result of Tenant's action shall belong to Tenant, to the extent the amounts were originally paid by Tenant. In the event Tenant notifies Landlord by the due date for assessment of Tenant's intent to contest the assessment, Landlord shall not pay the assessment pending conclusion of the contest, unless required by applicable law.
(d) Landlord shall not split or cause the tax parcel on which the Premises are located to be split, bifurcated, separated or divided without the prior written consent of Tenant.
(e) Tenant shall have the right but not the obligation to pay any taxes due by Landlord hereunder if Landlord fails to timely do so, in addition to any other rights or remedies of Tenant. In the event that Tenant exercises its rights under this Section 21 (e) due to such Landlord default, Tenant shall have the right to deduct such tax amounts paid from any monies due to Landlord from Tenant as provided in Section 15(b), provided that Tenant may exercise such right without having provided to Landlord notice and the opportunity to cure per Section 15(b).
(f) Any tax-related notices shall be sent to Tenant in the manner set forth in Section 17 and, in addition, of a copy of any such notices shall be sent to the following address. Promptly after the Effective Date of this Agreement, Landlord shall provide the following address to the taxing authority for the authority's use in the event the authority needs to communicate with Tenant. In the event that Tenant's tax addresses changes by notice to Landlord, Landlord shall be required to provide Tenant's new tax address to the taxing authority or authorities.

New Cingular Wireless PCS, LLC
Attn: Network Real Estate Administration -- Taxes
Re: Cell Site \#KYL03659; Cell Site Name: Harned (KY)
Fixed Asset No: 13800743
575 Morosgo Drive NE
Atlanta, GA 30324
(g) Notwithstanding anything to the contrary contained in this Section 21, Tenant shall have no obligation to reimburse any tax or assessment for which the Landlord is reimbursed or rebated by a third party.

## 22. SALE OF PROPERTY

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

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

(c) Landlord agrees not to sell, lease or use any areas of the Property or Surrounding Property for the installation, operation or maintenance of other wireless communications facilities if such installation, operation or maintenance would interfere with Tenant's Permitted Use or communications equipment as determined by radio propagation tests performed by Tenant in its sole discretion. Landlord or Landlord's prospective purchaser shall reimburse Tenant for any costs and expenses of such testing. If the radio frequency propagation tests demonstrate levels of interference unacceptable to Tenant, Landlord shall be prohibited from selling, leasing or using any areas of the Property or the Surrounding Property for purposes of any installation, operation or maintenance of any other wireless communications facility or equipment.
(d) The provisions of this Section shall in no way limit or impair the obligations of Landlord under this Agreement, including interference and access obligations.
23. RENTAL STREAM OFFER. If at any time after the date of this Agreement, Landlord receives a bona fide written offer from a third party seeking an assignment or transfer of Rent payments associated with this Agreement ("Rental Stream Offer"), Landlord shall immediately furnish Tenant with a copy of the Rental Stream Offer. Tenant shall have the right within twenty (20) days after it receives such copy to match the Rental Stream Offer and agree in writing to match the terms of the Rental Stream Offer. Such writing shall be in the form of a contract substantially similar to the Rental Stream Offer. If Tenant chooses not to exercise this right or fails to provide written notice to Landlord within the twenty (20) day period, Landlord may assign the right to receive Rent payments pursuant to the Rental Stream Offer, subject to the terms of this Agreement. If Landlord attempts to assign or transfer Rent payments without complying with this Section, the assignment or transfer shall be void. Tenant shall not be responsible for any failure to make payments under this Agreement and reserves the right to hold payments due under this Agreement until Landlord complies with this Section.

## 24. MISCELLANEOUS.

(a) Amendment/Waiver. This Agreement cannot be amended, modified or revised unless done in writing and signed by Landlord and Tenant. No provision may be waived except in a writing signed by both parties. The failure by a party to enforce any provision of this Agreement or to require performance by the other
party will not be construed to be a waiver, or in any way affect the right of either party to enforce such provision thereafter.
(b) Memorandum/Short Form Lease. Contemporaneously with the execution of this Agreement, the parties will execute a recordable Memorandum or Short Form of Lease substantially in the form attached as Exhibit 24b. Either party may record this Memorandum or Short Form of Lease at any time during the Term, in its absolute discretion. Thereafter during the Term of this Agreement, either party will, at any time upon fifteen (15) business days' prior written notice from the other, execute, acknowledge and deliver to the other a recordable Memorandum or Short Form of Lease.
(c) Limitation of Liability. Except for the indemnity obligations set forth in this Agreement, and otherwise notwithstanding anything to the contrary in this Agreement, Tenant and Landlord each waives any claims that each may have against the other with respect to consequential, incidental or special damages, however caused, based on any theory of liability.
(d) Compliance with Law. Tenant agrees to comply with all federal, state and local laws, orders, rules and regulations ("Laws") applicable to Tenant's use of the Communication Facility on the Property. Landlord agrees to comply with all Laws relating to Landlord's ownership and use of the Property and any improvements on the Property.
(e) Bind and Benefit. The terms and conditions contained in this Agreement will run with the Property and bind and inure to the benefit of the parties, their respective heirs, executors, administrators, successors and assigns.
(f) Entire Agreement. This Agreement and the exhibits attached hereto, all being a part hereof, constitute the entire agreement of the parties hereto and will supersede all prior offers, negotiations and agreements with respect to the subject matter of this Agreement. Exhibits are numbered to correspond to the Section wherein they are first referenced. Except as otherwise stated in this Agreement, each party shall bear its own fees and expenses (including the fees and expenses of its agents, brokers, representatives, attorneys, and accountants) incurred in connection with the negotiation, drafting, execution and performance of this Agreement and the transactions it contemplates.
(g) Governing Law. This Agreement will be governed by the laws of the state in which the Premises are located, without regard to conflicts of law.
(h) Interpretation. Unless otherwise specified, the following rules of construction and interpretation apply: (i) captions are for convenience and reference only and in no way define or limit the construction of the terms and conditions hereof; (ii) use of the term "including" will be interpreted to mean "including but not limited to"; (iii) whenever a party's consent is required under this Agreement, except as otherwise stated in this Agreement or as same may be duplicative, such consent will not be unreasonably withheld, conditioned or delayed; (iv) exhibits are an integral part of this Agreement and are incorporated by reference into this Agreement; (v) use of the terms "termination" or "expiration" are interchangeable; (vi) reference to a default will take into consideration any applicable notice, grace and cure periods; (vii) to the extent there is any issue with respect to any alleged, perceived or actual ambiguity in this Agreement, the ambiguity shall not be resolved on the basis of who drafted the Agreement; (viii) the singular use of words includes the plural where appropriate and (ix) if any provision of this Agreement is held invalid, illegal or unenforceable, the remaining provisions of this Agreement shall remain in full force if the overall purpose of the Agreement is not rendered impossible and the original purpose, intent or consideration is not materially impaired.
(i) Affiliates. All references to "Tenant" shall be deemed to include any Affiliate of New Cingular Wireless PCS, LLC using the Premises for any Permitted Use or otherwise exercising the rights of Tenant pursuant to this Agreement. "Affiliate" means with respect to a party to this Agreement, any person or entity that (directly or indirectly) controls, is controlled by, or under common control with, that party. "Control" of a person or entity means the power (directly or indirectly) to direct the management or policies of that person or entity, whether through the ownership of voting securities, by contract, by agency or otherwise.
(j) Survival. Any provisions of this Agreement relating to indemnification shall survive the termination or expiration hereof. In addition, any terms and conditions contained in this Agreement that by their sense and context are intended to survive the termination or expiration of this Agreement shall so survive.
(k) W-9. As a condition precedent to payment, Landlord agrees to provide Tenant with a completed IRS Form W-9, or its equivalent, upon execution of this Agreement and at such other times as may be reasonably requested by Tenant, including, any change in Landlord's name or address.
(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.
( $\cap)$ 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 AND ACKNOWLEDGMENTS APPEAR ON NEXT PAGES]

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

## "LANDLORD"

Sandra S. Bayer


Print Name: Sandra S. Baier
Title: Owner
Date: $\quad 12-3-16$

## LANDLORD ACKNOWLEDGMENT

## STATE OF KENTUCKY)

$$
\text { ) } \mathrm{ss}:
$$

COUNTY OF BRECKINRIDGE)
On the $5^{t^{h}}$ day of December, 2016 before me, personally appeared Sandra S . Baier, 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: Tim Tucker
My Commission Expires: $10-25-20$
"TENANT"
New Cingular Wireless PCS, LLC, a Delaware limited liability company By: AT\&T Mobility Corporation Its: Manager

By:


Print Name: Russell Barakat
Its: Area Manager - TN/KY
Date:


## TENANT ACKNOWLEDGMENT

## STATE OF ALABAMA

## COUNTY OF JEFFERSON

)
) ss :
On the 7 day of $1 p^{2} \therefore 1$ $\qquad$
$\qquad$ , 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.


## EXHIBIT 1

## DESCRIPTION OF PREMISES



The Property is legally described as follows:
DB 126, Pg 601

FARM THREE: A tract of land on the South side of the road at Squiresville, owen County, Kentucky, bounded as follows:

Beginning at a Locust post back of the Baptist Church at Squiresville, Kentucky; thence $S 191 / 2 W 42.3$ poles to a stone in the ravine; thence $S 31$ E 38.1 poles to a Mulberry stump; thence $N$ $801 / 2$ E 7.3 poles to a Mulberry tree; thence $N 351 / 2$ E 23.4 poles to an Elm tree; thence $N 11$ E 30 poles to a stone in the mouth of a ravine; thence $N 311 / 2 W 15$ poles to a stone in a ravine; thence $N$ $71 / 2 \mathrm{~W} 19$ poles to the center of the pike; thence $\$ 79 \mathrm{~W} 17.2$ poles to the center of the pike in front of the church; thence $541 / 2 \mathrm{E}$ 6.4 poles to the corner of the church lot; thence S B2 W 2.9 poles to the beginning, containing 15 acres and 10 poles, excepting out of the above boundary the following lot conveyed by Nellie Lusby and Laurel Lusby, her husband, to the Trustees of the Squiresville Baptist Church by deed dated December 24, 1949 and recorded in Deed Book 92, page 251, Owen County Clerk's Office, which exception is bounded as follows: Beginning at a stone, corner to the Squiresville Church and Nell Lusby; thence following the line of the church lot S $791 / 4$ W 54 feet to a post, corner to the church lot; thence $\$ 161 / 2 \mathrm{~W} 91$ feet to a stake, corner to the property of Lucille Morgan and the Nell Lusby lot; thence N $791 / 4 \varepsilon 34$ poles to a stone; thence 101 feet to the beginning, containing about 4,186 square feet or a little less than. $1 / 10$ of an acre.

Being the same property conveyed to Earl New by deed of Timothy A. Mason and Kimberly A. Mason, husband and wife, dated March 30, 1997 and recorded in Deed Book 187, page 1.

See Affidavit of Descent of Earl C. New of record in Deed Book 188, page 299.


## 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]

# Building Staff / Security Staff 

Landlord, Lessee, Licensee
Street Address
City, State, Zip

## Re: Authorized Access granted to AT\&T

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

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

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

Landlord Signature

EXHIBIT J
NOTIFICATION LISTING
BAIER SANDRA S
PO BOX 553
HARDINSBURG, KY 40143
ROBERTS CODY JAMES
753 FAWN HILL
LEITCHFIELD, KY 42754
THORNHILL STEPHEN D
\& ANGELA LYNN
365 ARMES PAYNE LN
HARDINSBURG, KY 40143
CHERRY VELVA DEAN
4801 E HWY 60
HARNED, KY 40144
BUTLER PAUL C \& OTHERS
C/O EVELYN BUTLER
290 ROCKCREST DR
TAYLORS, SC 29667
BUTLER DANIEL
2403 BUTLER HOBBS RD
HARNED, KY 40144
BUTLER JOSEPH JR
491 TUCKER HOLMES LN
HUDSON, KY 40145-7804
FRANK EDWIN H \& GILBERT
2016 ANSEL HORSLEY LN
GARFIELD, KY 40140
BROWN BECKY
PO BOX 137
HARNED, KY 40144
WILLIAMS CHARLES R JR \& PAM
197 DAVIS NORTON LN
HARNED, KY 40144

## 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: Harned

Dear Landowner:
New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT\&T Mobility has filed an application with the Kentucky Public Service Commission ("PSC") to construct a new wireless communications facility on a site located at Butler Hobbs Road, Harned, Kentucky ( $37^{\circ} 45^{\prime} 52.73^{\prime \prime}$ North latitude, $86^{\circ} 23^{\prime} 17.94^{\prime \prime}$ West longitude). The proposed facility will include a 305 -foot tall tower, with an approximately 15 -foot tall lightning arrestor attached at the top, 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 Butler County Property Valuation Administrator's records indicate that you may own property that is within a 500' radius of the proposed tower site or contiguous to the property on which the tower is to be constructed. You have a right to submit testimony to the Kentucky Public Service Commission ("PSC"), either in writing or to request intervention in the PSC's proceedings on the application. You may contact the PSC for additional information concerning this matter at: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to docket number 2017-00385 in any correspondence sent in connection with this matter.

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

We have attached a map showing the site location for the proposed tower. AT\&T Mobility's radio frequency engineers assisted in selecting the proposed site for the facility, and they have determined it is the proper location and elevation needed to provide quality service to wireless customers in the area. Please feel free to contact us toll free at (800) 516-4293 if you have any comments or questions about this proposal.

Sincerely,
David A. Pike
Attorney for Applicant
enclosure

## Driving Directions to Proposed Harned Tower Site

1. Beginning at the offices of the County Judge Executive at 208 S Main St, Hardinsburg, KY 40143 head south on S Main St.
2. Turn Left onto US-60 Bus E/3rd St.
3. Turn Left onto Fairgrounds Rd.
4. Make a slight left onto Butler - Hobbs Rd.
5. The site coordinates are $37^{\circ} 45^{\prime} 52.73^{\prime \prime}$ North latitude, $86^{\circ} 23^{\prime} 17.94^{\prime \prime}$ West longitude.


Prepared by:
Robert Grant
Pike Legal Group PLLC
1578 Highway 44 East, Suite 6
P.O. Box 369

Shepherdsville, KY 40165-3069
Telephone: 502-955-4400 or 800-516-4293


## EXHIBIT L

COPY OF COUNTY JUDGE/EXECUTIVE NOTICE

Hon. Maurice D. Lucas
County Judge Executive
208 S Main St
PO Box 227
Hardinsburg, KY 40143
RE: Notice of Proposal to Construct Wireless Communications Facility Kentucky Public Service Commission Docket No. 2017-00385 Site Name: Harned

Dear Judge:
New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT\&T Mobility has filed an application with the Kentucky Public Service Commission ("PSC") to construct a new wireless communications facility on a site located at Butler Hobbs Road, Harned, Kentucky ( $37^{\circ} 45^{\prime} 52.73^{\prime \prime}$ North latitude, $86^{\circ} 23^{\prime} 17.94^{\prime \prime}$ West longitude). The proposed facility will include a 305 -foot tall tower, with an approximately 15 -foot tall lightning arrestor attached at the top, 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 2017-00385 in any correspondence sent in connection with this matter.

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

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

Sincerely,
David A. Pike
Attorney for Applicant
enclosure

## Driving Directions to Proposed Harned Tower Site

1. Beginning at the offices of the County Judge Executive at 208 S Main St, Hardinsburg, KY 40143 head south on S Main St.
2. Turn Left onto US-60 Bus E/3rd St.
3. Turn Left onto Fairgrounds Rd.
4. Make a slight left onto Butler - Hobbs Rd.
5. The site coordinates are $37^{\circ} 45^{\prime} 52.73^{\prime \prime}$ North latitude, $86^{\circ} 23^{\prime} 17.94^{\prime \prime}$ West longitude.


Prepared by:
Robert Grant
Pike Legal Group PLLC
1578 Highway 44 East, Suite 6
P.O. Box 369

Shepherdsville, KY 40165-3069
Telephone: 502-955-4400 or 800-516-4293


EXHIBIT M COPY OF POSTED NOTICES

## SITE NAME: HARNED 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, $\mathrm{d} / \mathrm{b} / \mathrm{a}$ 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 201700385 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 201700385 in your correspondence.

The Herald News Breckinridge County
Attn: Public Notice Ad Placement
120 US-60 BUS
Hardinsburg, KY 40143
RE: Legal Notice Advertisement Site Name: Harned

Dear Herald News Breckinridge County:
Please publish the following legal notice advertisement in the next edition of The Herald News Breckinridge County:

## 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 at Butler Hobbs Road, Harned, Kentucky ( $37^{\circ} 45^{\prime} 52.73^{\prime \prime}$ North latitude, $86^{\circ} 23^{\prime} 17.94^{\prime \prime}$ 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 2017-00385 in any correspondence sent in connection with this matter.

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

Sincerely,
Robert Grant
Pike Legal Group, PLLC

## EXHIBIT N <br> COPY OF RADIO FREQUENCY DESIGN SEARCH AREA



Lat: 37.763319
Lon: -86.382158
Radius: . 5 miles


[^0]:    $\leftarrow$ Previous Back to Next Search

