

## RECEIVED

FEB 19 2013

) CASE NO.: 2018-00070

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1. The complete name and address of the Applicant: New Cingular Wireless PCS, LLC, a Delaware Limited Liability Company, d/b/a AT&T Mobility, having a local address of Meidinger Tower, 462 S. 4<sup>th</sup> Street, Suite 2400, Louisville, KY 40202.

2. Applicant proposes construction of an antenna tower for communications services, which is to be located in an area outside the jurisdiction of a planning commission, and Applicant submits this application to the PSC for a certificate of public convenience and necessity pursuant to KRS §§ 278.020(1), 278.040, 278.650, 278.665, and other statutory authority.

3. The Certificate of Authority filed with the Kentucky Secretary of State for the Applicant entity was attached to a prior application and is part of the case record for PSC case number 2011-00473 and is hereby incorporated by reference.

4. The Applicant operates on frequencies licensed by the Federal Communications Commission ("FCC") pursuant to applicable FCC requirements. A copy of the Applicant's FCC licenses to provide wireless services are attached to this Application or described as part of **Exhibit A**, and the facility will be constructed and operated in accordance with applicable FCC regulations.

5. The public convenience and necessity require the construction of the proposed WCF. The construction of the WCF will bring or improve the Applicant's services to an area currently not served or not adequately served by the Applicant by increasing coverage or capacity and thereby enhancing the public's access to innovative and competitive wireless communications services. The WCF will provide a necessary link in the Applicant's communications network that is designed to meet the increasing demands



for wireless services in Kentucky's wireless communications service area. The WCF is an integral link in the Applicant's network design that must be in place to provide adequate coverage to the service area.

6. To address the above-described service needs, Applicant proposes to construct a WCF at 933 Dan Road, Horse Branch, KY 42349 (37°28'43.62" North latitude, 86°41'45.92" 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 Michael A. and Kristy S. Murphy pursuant to a Deed recorded at Deed Book 336, Page 287 in the office of the 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 for a Determination of No Hazard to Air Navigation issued by the Federal Aviation Administration ("FAA") is attached as **Exhibit E**.

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

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



exhibit.

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

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

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

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

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

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



illustrated in **Exhibit B**.

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

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

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



as part of **Exhibit M**.

23. The general area where the proposed facility is to be located is rural with sparse residences. There are no residential structures within 500' of the proposed site.

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

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



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

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

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

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



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

Respectfully submitted,



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



## LIST OF EXHIBITS

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



**EXHIBIT A**  
**FCC LICENSE DOCUMENTATION**



**REFERENCE COPY**

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

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

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

Call Sign	File Number
KNLH406	
Radio Service	
CW - PCS Broadband	

**FCC Registration Number (FRN):** 0003291192

<b>Grant Date</b> 04-12-2017	<b>Effective Date</b> 06-14-2017	<b>Expiration Date</b> 04-28-2027	<b>Print Date</b>
<b>Market Number</b> BTA338	<b>Channel Block</b> D	<b>Sub-Market Designator</b> 0	
<b>Market Name</b> Owensboro, KY			
<b>1st Build-out Date</b> 04-28-2002	<b>2nd Build-out Date</b>	<b>3rd Build-out Date</b>	<b>4th Build-out Date</b>

**Waivers/Conditions:**

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

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

**Conditions:**

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

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



**Licensee Name:** NEW CINGULAR WIRELESS PCS, LLC

**Call Sign:** KNLH406

**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.

Reference Copy



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

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

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

Call Sign	File Number
WPOI255	
Radio Service	
CW - PCS Broadband	

FCC Registration Number (FRN): 0003291192

<b>Grant Date</b> 05-27-2015	<b>Effective Date</b> 06-14-2017	<b>Expiration Date</b> 06-23-2025	<b>Print Date</b>
<b>Market Number</b> MTA026	<b>Channel Block</b> A	<b>Sub-Market Designator</b> 19	
<b>Market Name</b> Louisville-Lexington-Evansvill			
<b>1st Build-out Date</b> 06-23-2000	<b>2nd Build-out Date</b> 06-23-2005	<b>3rd Build-out Date</b>	<b>4th Build-out Date</b>

**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.

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**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).



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## Federal Communications Commission

### Wireless Telecommunications Bureau

#### RADIO STATION AUTHORIZATION

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

<b>Call Sign</b> WPTJ404	<b>File Number</b>
<b>Radio Service</b> CW - PCS Broadband	

FCC Registration Number (FRN): 0003291192

<b>Grant Date</b> 10-29-2009	<b>Effective Date</b> 06-14-2017	<b>Expiration Date</b> 09-29-2019	<b>Print Date</b>
<b>Market Number</b> BTA338	<b>Channel Block</b> C	<b>Sub-Market Designator</b> 7	
<b>Market Name</b> Owensboro, KY			
<b>1st Build-out Date</b> 09-29-2004	<b>2nd Build-out Date</b> 09-29-2009	<b>3rd Build-out Date</b>	<b>4th Build-out Date</b>

#### Waivers/Conditions:

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 # 0001918563.

The Spectrum Leasing Arrangement, which became effective upon approval of application file number 0001918563, was terminated on 04/14/2005. See file number 0002135370.

#### Conditions:

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

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**Licensee Name:** NEW CINGULAR WIRELESS PCS, LLC

**Call Sign:** WPTJ404

**File Number:**

**Print Date:**

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



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# **Federal Communications Commission**

## **Wireless Telecommunications Bureau**

### **RADIO STATION AUTHORIZATION**

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

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

<b>Call Sign</b> WQGD546	<b>File Number</b>
<b>Radio Service</b> AW - AWS (1710-1755 MHz and 2110-2155 MHz)	

**FCC Registration Number (FRN):** 0003291192

<b>Grant Date</b> 12-18-2006	<b>Effective Date</b> 06-14-2017	<b>Expiration Date</b> 12-18-2021	<b>Print Date</b>
<b>Market Number</b> CMA445	<b>Channel Block</b> A	<b>Sub-Market Designator</b> 0	
<b>Market Name</b> Kentucky 3 - Meade			
<b>1st Build-out Date</b>	<b>2nd Build-out Date</b>	<b>3rd Build-out Date</b>	<b>4th Build-out Date</b>

#### **Waivers/Conditions:**

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

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

#### **Conditions:**

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

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# Federal Communications Commission

## Wireless Telecommunications Bureau

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

<b>Call Sign</b> WQGT878	<b>File Number</b>
<b>Radio Service</b> AW - AWS (1710-1755 MHz and 2110-2155 MHz)	

**FCC Registration Number (FRN):** 0003291192

<b>Grant Date</b> 04-16-2007	<b>Effective Date</b> 06-14-2017	<b>Expiration Date</b> 04-16-2022	<b>Print Date</b>
<b>Market Number</b> BEA069	<b>Channel Block</b> C	<b>Sub-Market Designator</b> 0	
<b>Market Name</b> Evansville-Henderson, IN-KY-IL			
<b>1st Build-out Date</b>	<b>2nd Build-out Date</b>	<b>3rd Build-out Date</b>	<b>4th Build-out Date</b>

#### Waivers/Conditions:

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

#### Conditions:

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## Federal Communications Commission

### Wireless Telecommunications Bureau

#### RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

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

Call Sign	File Number
WQNE326	
Radio Service	
CW - PCS Broadband	

FCC Registration Number (FRN): 0003291192

<b>Grant Date</b> 06-05-2015	<b>Effective Date</b> 06-14-2017	<b>Expiration Date</b> 06-23-2025	<b>Print Date</b>
<b>Market Number</b> MTA026	<b>Channel Block</b> B	<b>Sub-Market Designator</b> 4	
<b>Market Name</b> Louisville-Lexington-Evansvill			
<b>1st Build-out Date</b>	<b>2nd Build-out Date</b>	<b>3rd Build-out Date</b>	<b>4th Build-out Date</b>

#### Waivers/Conditions:

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#### Conditions:

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

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



**Licensee Name:** NEW CINGULAR WIRELESS PCS, LLC

**Call Sign:** WQNE326

**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.

Reference Copy



**EXHIBIT B**

**SITE DEVELOPMENT PLAN:**

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





at&t

SITE NAME:  
**HORSE BRANCH**

SITE NUMBER:  
**KYL03663**

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



VICINITY MAP

SCALE: NONE

DRIVE DIRECTIONS

FROM OHIO COUNTY CLERK, 301 SOUTH MAIN ST. SUITE 201 HARTFORD, KY 42347:

HEAD SOUTHWEST ON US-231/S MAIN ST TOWARD W WASHINGTON ST	0.9 MILES
TURN LEFT ONTO KY-69	0.6 MILES
TURN RIGHT ONTO KY-1543/CLAY ST	3.1 MILES
TURN LEFT ONTO US-62	8.9 MILES
TURN LEFT ONTO KY-505/DAN ROAD	0.9 MILES

ARRIVE AT SITE, ON THE LEFT

SCOPE OF WORK:

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

SITE WORK: NEW SELF-SUPPORT TOWER, UNMANNED WALK-IN CABINET ON A STEEL PLATFORM,  
GENERATOR ON A STEEL PLATFORM, AND UTILITY INSTALLATIONS.

PROJECT INFORMATION

COUNTY: OHIO

SITE ADDRESS: 933 DAN ROAD  
HORSE BRANCH, KY 42349

APPLICANT: NEW CINGULAR WIRELESS PCS, LLC,  
A DELAWARE LIMITED LIABILITY  
COMPANY, D/B/A AT&T MOBILITY  
MEIDINGER TOWER  
462 S. 4TH STREET, SUITE 2400  
LOUISVILLE, KY 40202

LATITUDE: 37° 28' 43.62"  
LONGITUDE: 86° 41' 45.92"



Know what's below.  
Call before you dig.  
Call Monday thru Friday - 7 am. to 6 pm.  
**1-800-752-6007**

PER KENTUCKY STATE LAW, IT IS AGAINST THE LAW  
TO EXCAVATE WITHOUT NOTIFYING THE  
UNDERGROUND LOCATION SERVICE TWO (2)  
WORKING DAYS BEFORE COMMENCING WORK.

SHEET INDEX

T-1 TITLE SHEET & PROJECT INFORMATION

SURVEY:  
B-1 SITE SURVEY  
B-1.1 SITE SURVEY  
B-1.2 SITE SURVEY  
B-1.3 SITE SURVEY  
B-2 500' RADIUS AND ABUTTERS MAP

CIVIL:  
C-1 OVERALL SITE LAYOUT  
C-2 OVERALL SITE LAYOUT -CONT'D  
C-3 ENLARGED COMPOUND LAYOUT  
C-4 TOWER ELEVATION

CONTACT INFORMATION

FIRE DEPARTMENT  
HARTFORD FIRE DEPARTMENT  
PHONE: (270) 298-4663

POLICE DEPARTMENT  
OHIO COUNTY SHERIFF'S OFFICE  
PHONE: (270) 298-4444

ELECTRIC COMPANY  
WARREN RECC  
PHONE: (270) 259-3161

TELEPHONE COMPANY  
AT&T  
PHONE: (855) 293-7676

BUILDING CODES AND STANDARDS

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

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

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

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

PREPARED BY:  
  
**POD**  
POWER OF DESIGN  
11490 BLUEGRASS PARKWAY  
LOUISVILLE, KY 40299  
502-437-5252

PREPARED FOR:  
  
**MasTec**

PREPARED FOR:  
  
**at&t**

MARK E. PATTERSON  
16300  
PROFESSIONAL ENGINEER  
2/9/2018

EN PERMIT: 3594

ZONING  
DRAWINGS

REV	DATE	DESCRIPTION
A	1.18.18	ISSUED FOR REVIEW
0	2.7.18	ISSUED AS FINAL

SITE INFORMATION:

**HORSE BRANCH**

933 DAN ROAD  
HORSE BRANCH, KY 42349

OHIO COUNTY

SITE NUMBER:  
**KYL03663**

POD NUMBER: 17-13526

DRAWN BY: ADM  
CHECKED BY: MEP  
DATE: 01.18.18

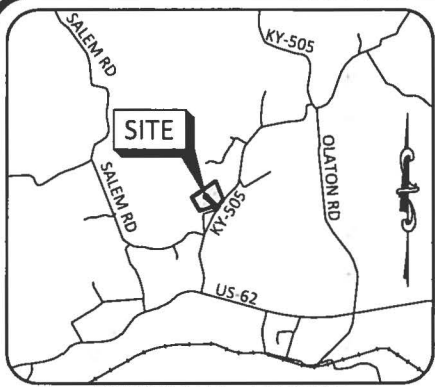
SHEET TITLE:

**TITLE SHEET  
& PROJECT  
INFORMATION**

SHEET NUMBER:

**T-1**

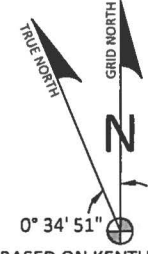




VICINITY MAP = NO SCALE

**FAA COORDINATE POINT**  
NAD 83  
LATITUDE: 37°28'43.62"  
LONGITUDE: 86°41'45.92"  
NAVD 88  
ELEVATION: 541'± AMSL  
NORTHING: 3699302.664  
EASTING: 4646727.307

**TEMPORARY BENCHMARK**  
NORTHING: 3699221.416  
EASTING: 4646720.471  
ELEVATION: 547.92'  
LOCATION: A SET 1/2" REBAR  
W/RED CAP STAMPED "POD TRV"  
S42°10'W 14'± FROM THE SOUTH  
CORNER OF THE PROPOSED LEASE  
AREA.



0° 34' 51"  
BASED ON KENTUCKY STATE  
PLANE SINGLE ZONE AND  
DETERMINED BY GPS OBSERVATIONS  
COMPLETED ON APRIL 20, 2017

**GLOBAL POSITIONING SYSTEMS NOTE**

1. RANDOM TRAVERSE POINTS AND A PORTION OF THE TOPOGRAPHY WAS LOCATED USING GPS.
2. THE TYPE OF GPS UTILIZED WAS NETWORK ADJUSTED REAL TIME KINEMATIC (KDOT VRS NETWORK), NAD 83 KENTUCKY SINGLE ZONE WITH THE ORTHOMETRIC HEIGHT COMPUTED USING GEOID12A. RELATIVE POSITIONAL ACCURACY VARIED FROM 0.04' TO 0.07' HORIZONTALLY.
3. SPECTRA PRECISION EPOCH 50 DUAL FREQUENCY RECEIVERS WERE USED TO PERFORM THE SURVEY.



**SURVEY**

REV.	DATE	DESCRIPTION
A	4.28.17	PRELIM ISSUE W/ TITLE
B	5.15.17	OLC COMMENTS
0	5.17.17	ISSUED AS FINAL

**SITE INFORMATION:**

**HORSE BRANCH**  
933 DAN ROAD  
HORSE BRANCH, KY 42349  
OHIO COUNTY

**TAX PARCEL NUMBER:**  
80-26B

**PROPERTY OWNER:**  
MICHAEL A. & KRISTY S. MURPHY  
933 DAN ROAD  
HORSE BRANCH, KY 42349

**SOURCE OF TITLE:**  
DEED BOOK 336, PAGE 287

**SITE NUMBER:**  
KYLO3663

**POD NUMBER:** 17-13528

**DRAWN BY:** RAE  
**CHECKED BY:** MEP  
**SURVEY DATE:** 4.20.17  
**PLAT DATE:** 4.28.17

**SHEET TITLE:**

**SITE SURVEY**

**SHEET NUMBER:**  
**B-1**

**GENERAL NOTES**

NO SEARCH OF PUBLIC RECORDS HAS BEEN COMPLETED BY POD GROUP TO DETERMINE ANY DEFECTS AND/OR AMBIGUITIES IN THE TITLE OF THE SUBJECT PROPERTY.

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A PORTION OF THIS SURVEY WAS CONDUCTED BY METHOD OF RANDOM TRAVERSE WITH SIDE SHOTS. UNADJUSTED CLOSURE EQUALS 0.06', FOR A PRECISION OF 1:49,118 AND HAS NOT BEEN ADJUSTED.

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THIS PLAT IS NOT INTENDED FOR LAND TRANSFER.

THE PARENT PARCEL, THE PROPOSED LEASE AREA AND THE PROPOSED 30' / VARIABLE WIDTH ACCESS & UTILITY EASEMENT SHOWN HEREON ARE NOT LOCATED IN A 100-YEAR FLOOD PLAIN, ZONE X, PER FLOOD HAZARD BOUNDARY MAP, COMMUNITY-PANEL NUMBER 21183C0325D, DATED JUNE 2, 2011.

**LAND SURVEYOR'S CERTIFICATE**

I, MARK E. PATTERSON, HEREBY CERTIFY THAT I AM A LICENSED PROFESSIONAL LAND SURVEYOR LICENSED IN COMPLIANCE WITH THE LAWS OF THE COMMONWEALTH OF KENTUCKY. I FURTHER CERTIFY THAT THIS PLAT AND THE SURVEY ON THE GROUND WERE PERFORMED BY PERSONS UNDER MY DIRECT SUPERVISION, AND THAT THE DIRECTIONAL AND LINEAR MEASUREMENTS BEING WITNESSED BY MONUMENTS SHOWN HEREON ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE. THE "RURAL" SURVEY, AND THE PLAT ON WHICH IT IS BASED, MEETS ALL SPECIFICATIONS AS STATED IN KAR 201.18:150.

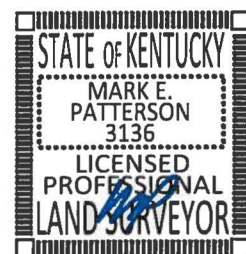
*Mark E. Patterson*

2/9/2018

MARK PATTERSON, PLS #3136

DATE

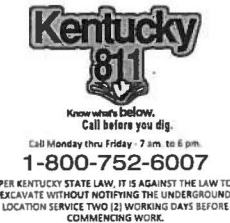
PARCEL ID: 80-42A & 42  
EARNEST L. & IGENE WHITELY  
DEED BOOK 130, PAGE 513



PARCEL ID: 80-20  
WILLIAM J. & ELIZABETH FARRIS  
DEED BOOK 357, PAGE 391

PARCEL ID: 80-26B  
MICHAEL A. & KRISTY S. MURPHY  
DEED BOOK 336, PAGE 287

PARCEL ID: 80-26B-1  
LEONARD E. & MONA F. COOK  
DEED BOOK 357, PAGE 283



N80°21'05"E 723.13' (REFERENCE TIE)

N73°32'21"W 889.64' (REFERENCE TIE)

P.O.R.  
FOUND 2"x 2" ANGLE IRON

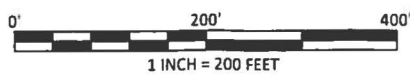
PROPOSED LEASE AREA  
(10,000.000 S.F.)  
DETAIL SHEET B-1.1

PROPOSED 30' / VARIABLE WIDTH  
ACCESS & UTILITY EASEMENT  
(27,014.248 S.F.)  
DETAIL SHEET B-1.1 & B-1.2

PROPOSED 15' UTILITY  
EASEMENT  
(2,457.113 S.F.)  
DETAIL SHEET B-1.2

DAN ROAD  
a.k.a. KY - 505  
PUBLIC RIGHT OF WAY -  
WIDTH UNKNOWN

WHITLEY LOOP  
PUBLIC RIGHT OF WAY -  
WIDTH UNKNOWN



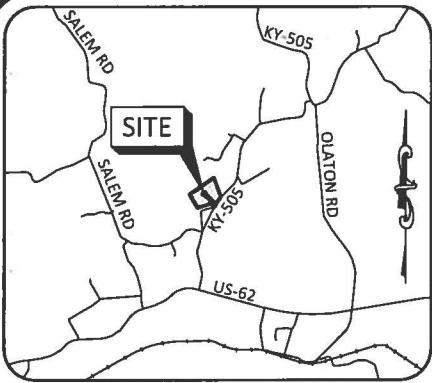
**LEGEND**

- POWER POLE
- GUY ANCHOR
- TELEPHONE PEDESTAL
- TELEPHONE MARKER

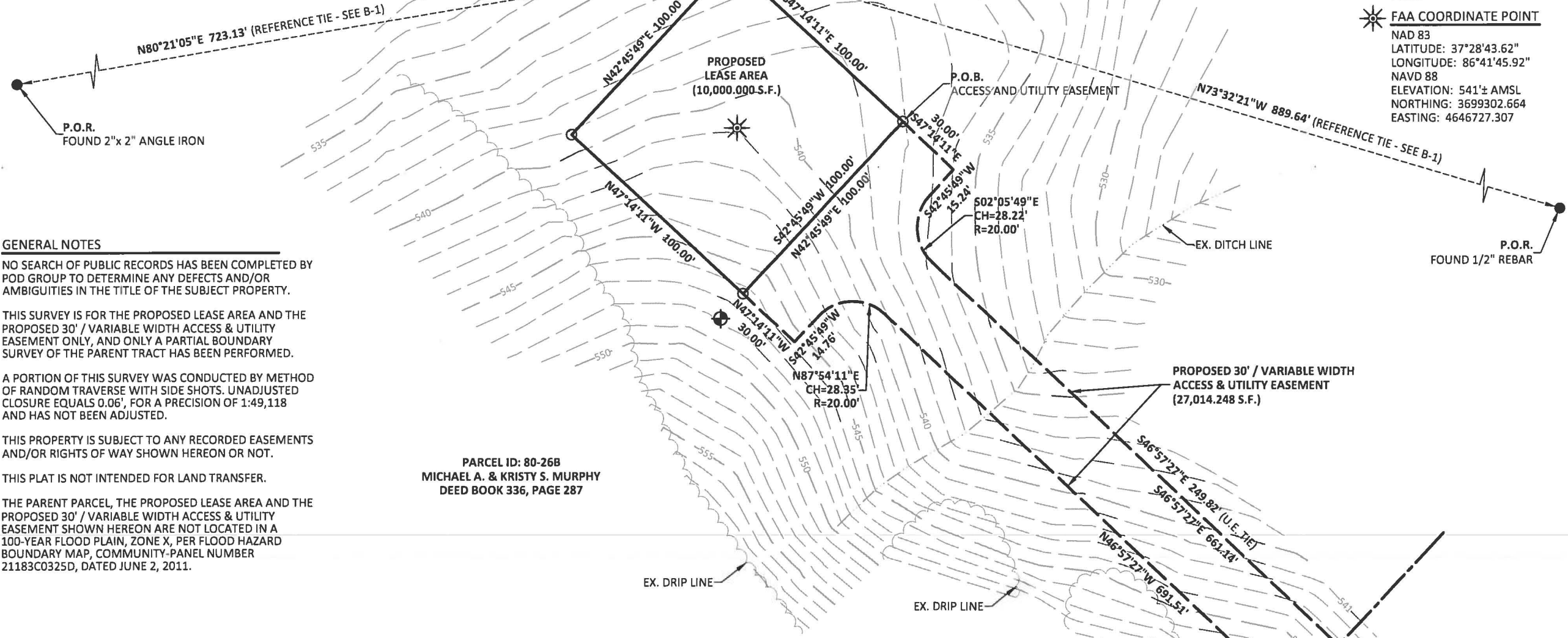
- OHE
- EX. OVERHEAD ELECTRIC
- EX. FENCE LINE
- SET 1/2" REBAR 18" LONG  
CAPPED "PATTERSON PLS 3136"
- FOUND MONUMENT AS NOTED
- PROPERTY LINE
- ADJACENT PROPERTY LINE

- P.O.C. POINT OF COMMENCEMENT
- P.O.R. POINT OF REFERENCE
- P.O.B. POINT OF BEGINNING
- ROW RIGHT OF WAY
- EOP EDGE OF PAVEMENT
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VICINITY MAP = NO SCALE



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PARCEL ID: 80-26B  
MICHAEL A. & KRISTY S. MURPHY  
DEED BOOK 336, PAGE 287

LAND SURVEYOR'S CERTIFICATE

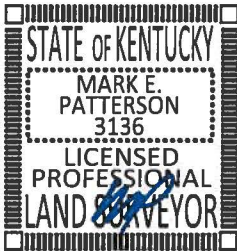
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*Mark Patterson*

2/9/2018

MARK PATTERSON, PLS #3136

DATE



LEGEND

- POWER POLE
- GUY ANCHOR
- TELEPHONE PEDESTAL
- TELEPHONE MARKER

OHE OHE

X X X

— — —

— — —

— — —

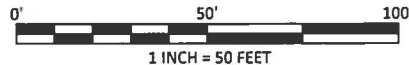
— — —

— — —

- P.O.C. POINT OF COMMENCEMENT
- P.O.R. POINT OF REFERENCE
- P.O.B. POINT OF BEGINNING
- ROW RIGHT OF WAY
- EOP EDGE OF PAVEMENT
- U.E. UTILITY EASEMENT
- EX. OVERHEAD ELECTRIC
- EX. FENCE LINE
- SET 1/2" REBAR 18" LONG CAPPED "PATTERSON PLS 3136"
- FOUND MONUMENT AS NOTED
- PROPERTY LINE
- ADJACENT PROPERTY LINE



PER KENTUCKY STATE LAW, IT IS AGAINST THE LAW TO EXCAVATE WITHOUT NOTIFYING THE UNDERGROUND LOCATION SERVICE TWO (2) WORKING DAYS BEFORE COMMENCING WORK.



GLOBAL POSITIONING SYSTEMS NOTE

1. RANDOM TRAVERSE POINTS AND A PORTION OF THE TOPOGRAPHY WAS LOCATED USING GPS.
2. THE TYPE OF GPS UTILIZED WAS NETWORK ADJUSTED REAL TIME KINEMATIC (KDOT VRS NETWORK), NAD 83 KENTUCKY SINGLE ZONE WITH THE ORTHOMETRIC HEIGHT COMPUTED USING GEOID12A. RELATIVE POSITIONAL ACCURACY VARIED FROM 0.04' TO 0.07' HORIZONTALLY.
3. SPECTRA PRECISION EPOCH 50 DUAL FREQUENCY RECEIVERS WERE USED TO PERFORM THE SURVEY.

TEMPORARY BENCHMARK

NORTHING: 3699221.416  
EASTING: 4646720.471  
ELEVATION: 547.92'  
LOCATION: A SET 1/2" REBAR W/RED CAP STAMPED "POD TRV" S42°10'W 14'± FROM THE SOUTH CORNER OF THE PROPOSED LEASE AREA.

FAA COORDINATE POINT

NAD 83  
LATITUDE: 37°28'43.62"  
LONGITUDE: 86°41'45.92"  
NAVD 88  
ELEVATION: 541'± AMSL  
NORTHING: 3699302.664  
EASTING: 4646727.307

PREPARED BY:



11490 BLUEGRASS PARKWAY  
LOUISVILLE, KY 40299  
502 437 5252

PREPARED FOR:



PREPARED FOR:



SURVEY

REV.	DATE	DESCRIPTION
A	4.28.17	PRELIM ISSUE W/ TITLE
B	5.15.17	OLC COMMENTS
O	5.17.17	ISSUED AS FINAL

SITE INFORMATION:

HORSE BRANCH  
933 DAN ROAD  
HORSE BRANCH, KY 42349  
OHIO COUNTY

TAX PARCEL NUMBER:  
80-26B

PROPERTY OWNER:  
MICHAEL A. & KRISTY S. MURPHY  
933 DAN ROAD  
HORSE BRANCH, KY 42349

SOURCE OF TITLE:  
DEED BOOK 336, PAGE 287

SITE NUMBER:  
KYLO3663

POD NUMBER: 17-13528

DRAWN BY: RAE  
CHECKED BY: MEP  
SURVEY DATE: 4.20.17  
PLAT DATE: 4.28.17

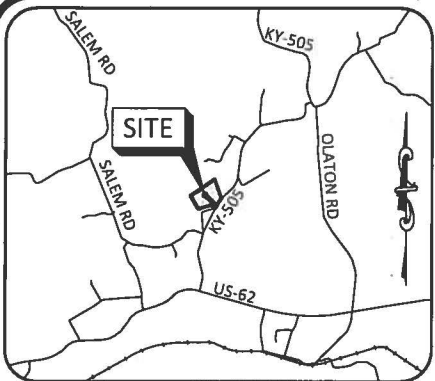
SHEET TITLE:

SITE SURVEY

SHEET NUMBER:

B-1.1





VICINITY MAP = NO SCALE

**FAA COORDINATE POINT**  
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NAVD 88  
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BOUNDARY MAP, COMMUNITY-PANEL NUMBER  
21183C0325D, DATED JUNE 2, 2011.

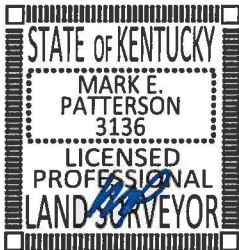
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*Mark Patterson*  
MARK PATTERSON, PLS #3136

2/9/2018

DATE



**LEGEND**

- POWER POLE
- GUY ANCHOR
- TELEPHONE PEDESTAL
- TELEPHONE MARKER

OHE OHE

X X X

SET 1/2" REBAR 18" LONG

CAPPED "PATTERSON PLS 3136"

FOUND MONUMENT AS NOTED

PROPERTY LINE

ADJACENT PROPERTY LINE

- P.O.C. POINT OF COMMENCEMENT
- P.O.R. POINT OF REFERENCE
- P.O.B. POINT OF BEGINNING
- ROW RIGHT OF WAY
- EOP EDGE OF PAVEMENT
- EX. OVERHEAD ELECTRIC
- EX. FENCE LINE
- SET 1/2" REBAR 18" LONG  
CAPPED "PATTERSON PLS 3136"
- FOUND MONUMENT AS NOTED
- PROPERTY LINE
- ADJACENT PROPERTY LINE

0° 34' 51"  
TRUE NORTH  
GRID NORTH  
N  
BASED ON KENTUCKY STATE  
PLANE SINGLE ZONE AND  
DETERMINED BY GPS OBSERVATIONS  
COMPLETED ON APRIL 20, 2017

**GLOBAL POSITIONING SYSTEMS NOTE**

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VARIED FROM 0.04' TO 0.07' HORIZONTALLY.
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RECEIVERS WERE USED TO PERFORM THE SURVEY.

PREPARED BY:



PREPARED FOR:



PREPARED FOR:



**SURVEY**

REV.	DATE	DESCRIPTION
A	4.28.17	PRELIM ISSUE W/ TITLE
B	5.15.17	OLC COMMENTS
D	5.17.17	ISSUED AS FINAL

**SITE INFORMATION:**

**HORSE BRANCH**  
933 DAN ROAD  
HORSE BRANCH, KY 42349  
OHIO COUNTY

**TAX PARCEL NUMBER:**  
80-26B

**PROPERTY OWNER:**  
MICHAEL A. & KRISTY S. MURPHY  
933 DAN ROAD  
HORSE BRANCH, KY 42349

**SOURCE OF TITLE:**  
DEED BOOK 336, PAGE 287

**SITE NUMBER:**  
KYLO3663

**POD NUMBER:** 17-13528  
**DRAWN BY:** RAE  
**CHECKED BY:** MEP  
**SURVEY DATE:** 4.20.17  
**PLAT DATE:** 4.28.17

**SHEET TITLE:**

**SITE SURVEY**

**SHEET NUMBER:**

**B-1.2**



Know what's below.  
Call before you dig.  
Call Monday thru Friday - 7 am. to 6 pm.  
**1-800-752-6007**

PER KENTUCKY STATE LAW, IT IS AGAINST THE LAW TO  
EXCAVATE WITHOUT NOTIFYING THE UNDERGROUND  
LOCATION SERVICE TWO (2) WORKING DAYS BEFORE  
COMMENCING WORK.

0' 50' 100'  
1 INCH = 50 FEET



LEGAL DESCRIPTIONS

PROPOSED LEASE AREA

THE FOLLOWING IS A DESCRIPTION OF THE PROPOSED LEASE AREA TO BE LEASED FROM THE PROPERTY CONVEYED TO MICHAEL A. & KRISTY S. MURPHY AS RECORDED IN DEED BOOK 336, PAGE 287, PARCEL ID: 80-26B, WHICH IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEARING DATUM USED HEREIN IS BASED UPON KENTUCKY STATE PLANE COORDINATE SYSTEM, SINGLE ZONE, NAD 83, FROM A REAL TIME KINEMATIC GLOBAL POSITIONING SYSTEM OBSERVATION USING THE KENTUCKY TRANSPORTATION CABINET REAL TIME GPS NETWORK COMPLETED ON APRIL 20, 2017.

BEGINNING AT A SET 1/2" REBAR WITH CAP STAMPED "PATTERSON PLS 3136", HEREAFTER REFERRED TO AS A "SET IPC" IN THE NORTH CORNER OF THE PROPOSED LEASE AREA, FOR REFERENCE, SAID NORTH CORNER IS N80°21'05"E 723.13' FROM A FOUND 2"x 2" ANGLE IRON IN THE NORTHWEST CORNER OF THE PROPERTY CONVEYED TO MICHAEL A. & KRISTY S. MURPHY AS RECORDED IN DEED BOOK 336, PAGE 287, PARCEL ID: 80-26B, FOR REFERENCE, SAID NORTH CORNER IS N73°32'21"W 889.64' FROM A FOUND 1/2" REBAR IN THE SOUTHEAST CORNER OF SAID MURPHY PROPERTY; THENCE S47°14'11"E 100.00' TO A "SET IPC"; THENCE S42°45'49"W 100.00' TO A "SET IPC"; THENCE N47°14'11"W 100.00' TO A "SET IPC"; THENCE N42°45'49"E 100.00' TO THE POINT OF BEGINNING CONTAINING 10,000.000 SQUARE FEET AS PER SURVEY BY MARK PATTERSON, PLS #3136 WITH POWER OF DESIGN GROUP, LLC DATED APRIL 20, 2017.

PROPOSED 30' / VARIABLE WIDTH ACCESS & UTILITY EASEMENT

THE FOLLOWING IS A DESCRIPTION OF THE 30' / VARIABLE WIDTH ACCESS & UTILITY EASEMENT TO BE GRANTED FROM THE PROPERTY CONVEYED TO MICHAEL A. & KRISTY S. MURPHY AS RECORDED IN DEED BOOK 336, PAGE 287, PARCEL ID: 80-26B, WHICH IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEARING DATUM USED HEREIN IS BASED UPON KENTUCKY STATE PLANE COORDINATE SYSTEM, SINGLE ZONE, NAD 83, FROM A REAL TIME KINEMATIC GLOBAL POSITIONING SYSTEM OBSERVATION USING THE KENTUCKY TRANSPORTATION CABINET REAL TIME GPS NETWORK COMPLETED ON APRIL 20, 2017.

COMMENCING AT A SET 1/2" REBAR WITH CAP STAMPED "PATTERSON PLS 3136", HEREAFTER REFERRED TO AS A "SET IPC" IN THE NORTH CORNER OF THE PROPOSED LEASE AREA, FOR REFERENCE, SAID NORTH CORNER IS N80°21'05"E 723.13' FROM A FOUND 2"x 2" ANGLE IRON IN THE NORTHWEST CORNER OF THE PROPERTY CONVEYED TO MICHAEL A. & KRISTY S. MURPHY AS RECORDED IN DEED BOOK 336, PAGE 287, PARCEL ID: 80-26B, FOR REFERENCE, SAID NORTH CORNER IS N73°32'21"W 889.64' FROM A FOUND 1/2" REBAR IN THE SOUTHEAST CORNER OF SAID MURPHY PROPERTY; THENCE ALONG THE NORTHEAST LINE OF THE PROPOSED LEASE AREA, S47°14'11"E 100.00' TO A "SET IPC" AND BEING THE TRUE POINT OF BEGINNING; THENCE S47°14'11"E 30.00'; THENCE S42°45'49"W 15.24'; THENCE WITH THE CHORD OF A CURVE TO THE LEFT HAVING A RADIUS OF 20.00', S02°05'49"E 28.22'; THENCE S46°57'27"E 661.14'; THENCE N81°41'24"E 64.09' TO THE RIGHT OF WAY DAN ROAD A.K.A. KY 505; THENCE ALONG SAID RIGHT OF WAY LINE, S29°04'06"W 111.67'; THENCE LEAVING SAID RIGHT OF WAY, N08°59'09"W 46.02'; THENCE N46°57'27"W 691.51'; THENCE WITH THE CHORD OF A CURVE TO THE LEFT HAVING A RADIUS OF 20.00', S87°54'11"W 28.35'; THENCE S42°45'49"W 14.76'; THENCE N47°14'11"W 30.00' TO A "SET IPC" IN THE SOUTH CORNER OF THE PROPOSED LEASE AREA; THENCE ALONG THE SOUTHEAST LINE OF SAID LEASE AREA, N42°45'49"E 100.00' TO THE POINT OF BEGINNING CONTAINING 27,014.248 SQUARE FEET AS PER SURVEY BY MARK PATTERSON, PLS #3136 WITH POWER OF DESIGN GROUP, LLC DATED APRIL 20, 2017.

PROPOSED 15' UTILITY EASEMENT

THE FOLLOWING IS A DESCRIPTION OF THE PROPOSED 15' UTILITY EASEMENT TO BE GRANTED FROM THE PROPERTY CONVEYED TO MICHAEL A. & KRISTY S. MURPHY AS RECORDED IN DEED BOOK 336, PAGE 287, PARCEL ID: 80-26B, WHICH IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEARING DATUM USED HEREIN IS BASED UPON KENTUCKY STATE PLANE COORDINATE SYSTEM, SINGLE ZONE, NAD 83, FROM A REAL TIME KINEMATIC GLOBAL POSITIONING SYSTEM OBSERVATION USING THE KENTUCKY TRANSPORTATION CABINET REAL TIME GPS NETWORK COMPLETED ON APRIL 20, 2017.

COMMENCING AT A SET 1/2" REBAR WITH CAP STAMPED "PATTERSON PLS 3136", HEREAFTER REFERRED TO AS A "SET IPC" IN THE NORTH CORNER OF THE PROPOSED LEASE AREA, FOR REFERENCE, SAID NORTH CORNER IS N80°21'05"E 723.13' FROM A FOUND 2"x 2" ANGLE IRON IN THE NORTHWEST CORNER OF THE PROPERTY CONVEYED TO MICHAEL A. & KRISTY S. MURPHY AS RECORDED IN DEED BOOK 336, PAGE 287, PARCEL ID: 80-26B, FOR REFERENCE, SAID NORTH CORNER IS N73°32'21"W 889.64' FROM A FOUND 1/2" REBAR IN THE SOUTHEAST CORNER OF SAID MURPHY PROPERTY; THENCE ALONG THE NORTHEAST LINE OF THE PROPOSED LEASE AREA, S47°14'11"E 100.00' TO A "SET IPC"; THENCE S47°14'11"E 30.00'; THENCE S42°45'49"W 15.24'; THENCE WITH THE CHORD OF A CURVE TO THE LEFT HAVING A RADIUS OF 20.00', S02°05'49"E 28.22'; THENCE S46°57'27"E 249.82' TO THE TRUE POINT OF BEGINNING; THENCE N88°02'33"E 171.31'; THENCE S01°57'27"E 15.00'; THENCE S88°02'33"W 156.31'; THENCE N46°57'27"W 21.21' TO THE POINT OF BEGINNING CONTAINING 2,457.113 SQUARE FEET AS PER SURVEY BY MARK PATTERSON, PLS #3136 WITH POWER OF DESIGN GROUP, LLC DATED APRIL 20, 2017.

PARENT PARCEL - LEGAL DESCRIPTION - DEED BOOK 336, PAGE 287 (NOT FIELD SURVEYED)

A CERTAIN TRACT OR PARCEL OF LAND LYING AND BEING IN OHIO COUNTY, KY. AND BOUNDED AS FOLLOWS:

BEGINNING AT EAST CORNER OF A.W. MURPHY'S LAND; THENCE A STRAIGHT LINE NORTH 50-1/4 E. TO A STONE IN THE FORD AND CHRISTIAN LINE; THENCE SOUTH 26-1/2 E. WITH SAID LINE TO A STONE ON STATE HIGHWAY #505; THENCE WITH SAID HIGHWAY #505 TO AN OLD ABANDONED ROAD BED; THENCE SOUTHWEST TO AN ELM TREE IN G. S. CANNON'S CORNER; THENCE A STRAIGHT LINE WEST TO THE BEGINNING, CONTAINING THIRTY ACRES, MORE OR LESS.

ONE ACRE EXCLUDED FOR CEMETERY.

THERE IS EXCEPTED AND NOT HEREIN CONVEYED FROM THE ABOVE TRACT OF LAND DEEDED TO C. J. FORD AND LURLENE FORD, HIS WIFE, BY DEED DATED THE 14TH DAY OF JUNE, 1989, AND OF RECORD IN DEED BOOK 269, PAGE 436, IN THE OFFICE OF THE CLERK, OHIO COUNTY COURT AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

A CERTAIN TRACT OR PARCEL OF LAND LING AND BEING IN OHIO COUNTY, KENTUCKY, AND BOUNDED AS FOLLOWS:

BEGINNING AT A STEEL STAKE LOCATED IN THE NORTH RIGHT OF WAY LINE OF DAN ROAD; SAID STEEL STAKE BEING A NEW NORTHEAST CORNER OF THE T. L. AND BETTY LOU FORD PROPERTY AND SAID STAKE BEING EAST 255 FEET (IN A STRAIGHT LINE) FROM THE NORTH EDGE OF THE T. L. AND BETTY FORD BLACKTOP DRIVEWAY; THENCE WITH THE NORTH RIGHT OF WAY LINE OF THE DAN ROAD IN AN EASTERLY DIRECTION 100 FEET TO A CONCRETE BLOCK; THENCE NORTH APPROXIMATELY 1,045 FEET TO A PAINTED ROCK; THENCE WEST 100 FEET WITH THE CHRISTIAN PROPERTY LINE TO A ROCK AND TREE; THENCE SOUTH APPROXIMATELY 1,045 FEET TO THE POINT OF BEGINNING, CONTAINING 2-4/10 ACRES, MORE OR LESS.

FOR THE SAME CONSIDERATION, GRANTERS SELL AND CONVEY UNTO THE GRANTEES ALL THEIR RIGHT, TITLE AND INTEREST IN THE MINERALS IN AND UNDER THE SURFACE OF THE ABOVE DESCRIBED PROPERTY.

AND BEING THE SAME PROPERTY CONVEYED TO SAMMEY PETERS AND GINA PETERS, HIS WIFE, BY DEED FROM MARTY K. FORD AND GLENDA J. FORD, HIS WIFE, AND SHERRY L. BENNETT AND JOSEPH G. BENNETT, HER HUSBAND, DATED THE 14TH DAY OF JUNE, 1989, OF RECORD IN DEED BOOK 269, PAGE 438, IN THE OFFICE OF THE OHIO COUNTY CLERK.

AND ALSO BEING THE SAME PROPERTY CONVEYED TO SAMMEY PETERS, DIVORCED AND NOT REMARRIED, BY DEED FROM GINA PETERS HEILMAN AND CASEY HEILMAN, HER HUSBAND, DATED THE 5TH DAY OF DECEMBER, 1998, OF RECORD IN DEED BOOK 315, PAGE 506, IN THE OFFICE OF THE OHIO COUNTY CLERK.

TITLE OF COMMITMENT

THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY POD GROUP, LLC. AND AS SUCH WE ARE NOT RESPONSIBLE FOR THE INVESTIGATION OR INDEPENDENT SEARCH FOR EASEMENTS OF RECORD, ENCUMBRANCES, RESTRICTIVE COVENANTS, OWNERSHIP TITLE EVIDENCE, UNRECORDED EASEMENTS, AUGMENTING EASEMENTS, IMPLIED OR PRESCRIPTIVE EASEMENTS, OR ANY OTHER FACTS THAT AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE AND THIS SURVEY WAS COMPLETED WITH THE AID OF TITLE WORK PREPARED BY STEWART TITLE GUARANTY COMPANY, FOR THE BENEFIT OF AT&T MOBILITY, FILE NO. 00300-20170055, EFFECTIVE DATE OF FEBRUARY 22, 2017 AT 8:00 AM. THE FOLLOWING COMMENTS ARE IN REGARD TO SAID REPORT.

SCHEDULE B

1. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, CREATED, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES FOR VALUE OF RECORD THE ESTATE OR INTEREST OR MORTGAGE THEREON COVERED BY THIS COMMITMENT. (POD GROUP, LLC DID NOT EXAMINE OR ADDRESS THIS ITEM.)

2. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (POD GROUP, LLC DID NOT EXAMINE OR ADDRESS THIS ITEM.)

3. EASEMENTS OR CLAIMS OF EASEMENTS, NOT SHOWN BY THE PUBLIC RECORDS. (POD GROUP, LLC DID NOT EXAMINE OR ADDRESS THIS ITEM.)

4. ENCROACHMENTS, OVERLAPS, BOUNDARY LINE DISPUTES, OR OTHER MATTERS WHICH WOULD BE DISCLOSED BY AN ACCURATE SURVEY AND INSPECTION OF THE PREMISES. (POD GROUP, LLC DID NOT PERFORM A BOUNDARY SURVEY, THEREFORE WE DID NOT ADDRESS THIS ITEM.)

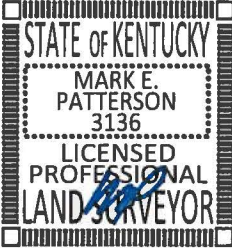
5. ANY LIEN OR RIGHT TO A LIEN, FOR SERVICES, LABOR, OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, IMPOSED BY LAW AND NOT SHOWN BY THE PUBLIC RECORDS. (POD GROUP, LLC DID NOT EXAMINE OR ADDRESS THIS ITEM.)

6. SUBJECT TO 2017 TAXES, WHICH ARE NOT YET DUE AND PAYABLE (IF APPLICABLE). (POD GROUP, LLC DID NOT EXAMINE OR ADDRESS THIS ITEM.)

7. MINERALS OF WHATSOEVER KIND, SUBSURFACE AND SURFACE SUBSTANCES, INCLUDING BUT NOT LIMITED TO COAL, LIGNITE, OIL, GAS, URANIUM, CLAY, ROCK, SAND AND GRAVEL IN, ON, UNDER AND THAT MAY BE PRODUCED FROM THE LAND, TOGETHER WITH ALL RIGHTS, PRIVILEGES, AND IMMUNITIES RELATING THERETO, WHETHER OR NOT APPEARING IN THE PUBLIC RECORDS OR LISTED IN SCHEDULE B. THE COMPANY MAKES NO REPRESENTATION AS TO THE PRESENT OWNERSHIP OF ANY SUCH INTERESTS. THERE MAY BE LEASES, GRANTS, EXCEPTIONS OR RESERVATIONS OF INTERESTS THAT ARE NOT LISTED. (POD GROUP, LLC DID NOT EXAMINE OR ADDRESS THIS ITEM.)

LAND SURVEYOR'S CERTIFICATE

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



*Mark Patterson* 2/9/2018  
MARK PATTERSON, PLS #3136 DATE

PREPARED BY:



PREPARED FOR:



PREPARED FOR:



SURVEY

REV.	DATE	DESCRIPTION
A	4.28.17	PRELIM ISSUE W/ TITLE
B	5.15.17	OLC COMMENTS
D	5.17.17	ISSUED AS FINAL

SITE INFORMATION:

HORSE BRANCH

933 DAN ROAD  
HORSE BRANCH, KY 42349  
OHIO COUNTY

TAX PARCEL NUMBER:  
80-26B

PROPERTY OWNER:  
MICHAEL A. & KRISTY S. MURPHY  
933 DAN ROAD  
HORSE BRANCH, KY 42349

SOURCE OF TITLE:  
DEED BOOK 336, PAGE 287

SITE NUMBER:  
KYLO3663

POD NUMBER: 17-13528

DRAWN BY: RAE  
CHECKED BY: MEP  
SURVEY DATE: 4.20.17  
PLAT DATE: 4.28.17

SHEET TITLE:

SITE SURVEY

SHEET NUMBER:

B-1.3



(A1) PARCEL ID: 80-26B  
MURPHY MICHAEL A & KRISTY S  
933 DAN RD  
HORSE BRANCH, KY 42349

(B1) PARCEL ID: 80-42D  
BRIGMAN JOSHUA DAVID  
1420 E MARYLAND ST  
EVANSVILLE, IN 47711

(C1) PARCEL ID: 80-42C  
FIELDS CARL TIMOTHY & VICKY E  
P O BOX 214  
ROCKPORT, KY 42369

(D1) PARCEL ID: 80-42A-5  
WHITELY EARNEST L & IJEAN  
162 SALEM DR  
HORSE BRANCH, KY 42349

(E1) PARCEL ID: 80-42A & 42  
WHITELY ERNEST LEE & IGENE  
162 SALEM RD  
HORSE BRANCH, KY 42349

(F1) PARCEL ID: 80-27  
LINDSEY BRENT & ASHLEY  
27 WHITELY LP  
BEAVER DAM, KY 42320

(G1) PARCEL ID: 80-20  
FARRIS WILLIAM J & ELIZABETH  
2418 N FT THOMAS AVE  
FORT THOMAS, KY 41075

(H1) PARCEL ID: 80-26B-1  
COOK LEONARD E & MONA F  
979 DAN RD  
HORSE BRANCH, KY 42349

(I1) PARCEL ID: 80-26B-1  
COOK LEONARD E & MONA F  
979 DAN RD  
HORSE BRANCH, KY 42349

(J1) PARCEL ID: 80-25C  
COOK ROBERT E & MARY L  
1039 DAN RD  
HORSE BRANCH, KY 42349

(K1) PARCEL ID: 80-26D  
LINDSEY FARON  
982 DAN ROAD  
HORSE BRANCH, KY 42349

(L1) PARCEL ID: 80-26  
LINDSEY FARON  
982 DAN RD  
HORSE BRANCH, KY 42349

(M1) PARCEL ID: 80-26C  
SANDEFUR RITA & DAVID SR  
754 DAN RD  
HORSE BRANCH, KY 42349

(N1) PARCEL ID: 80-26A  
GILSTRAP TINA M  
306 WHITELY LOOP  
HORSE BRANCH, KY 42349

(O1) PARCEL ID: 85-14A  
AUTRY RAYMOND LUTHER  
ROUTE 1  
OLATON, KY 42361

(P1) PARCEL ID: 85-14A-1  
OHIO COUNTY VICTORY  
BAPTIST CHURCH

PREPARED BY:



**POD**  
POWER OF DESIGN  
11490 BLUEGRASS PARKWAY  
LOUISVILLE, KY 40299  
502-437-5252

PREPARED FOR:



**MasTec**

PREPARED FOR:



**at&t**

EXHIBIT

REV.	DATE	DESCRIPTION
A	1.2.18	ISSUED FOR REVIEW
0	2.6.18	ISSUED AS FINAL

SITE INFORMATION:

**HORSE BRANCH**  
933 DAN ROAD  
HORSE BRANCH, KY 42349  
OHIO COUNTY

TAX PARCEL NUMBER:  
80-26B

PROPERTY OWNER:  
MICHAEL A. & KRISTY S. MURPHY  
933 DAN ROAD  
HORSE BRANCH, KY 42349

SOURCE OF TITLE:  
DEED BOOK 336, PAGE 287

SITE NUMBER:  
KYL03663

POD NUMBER: 17-13527  
DRAWN BY: DAP  
CHECKED BY: MEP  
SURVEY DATE: 4.20.17  
PLAT DATE: 1.2.18

SHEET TITLE:  
**500' RADIUS AND  
ABUTTERS MAP**

SHEET NUMBER:  
**B-2**

NOTE:  
PARCEL NUMBERS ARE OF  
RECORD IN THE OHIO COUNTY  
PROPERTY VALUATION  
ADMINISTRATOR OFFICE.

CERTIFICATE

I HEREBY CERTIFY THAT THIS EXHIBIT  
PERTAINING TO THE ADJOINING PROPERTY  
OWNERS PER PVA RECORDS WAS PREPARED  
UNDER MY DIRECT SUPERVISION. NO BOUNDARY  
SURVEYING OF ANY KIND HAS BEEN PERFORMED  
FOR THIS EXHIBIT.

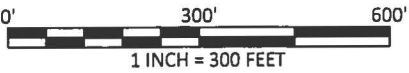
 2/9/2018  
MARK PATTERSON, PLS #3136 DATE

STATE OF KENTUCKY

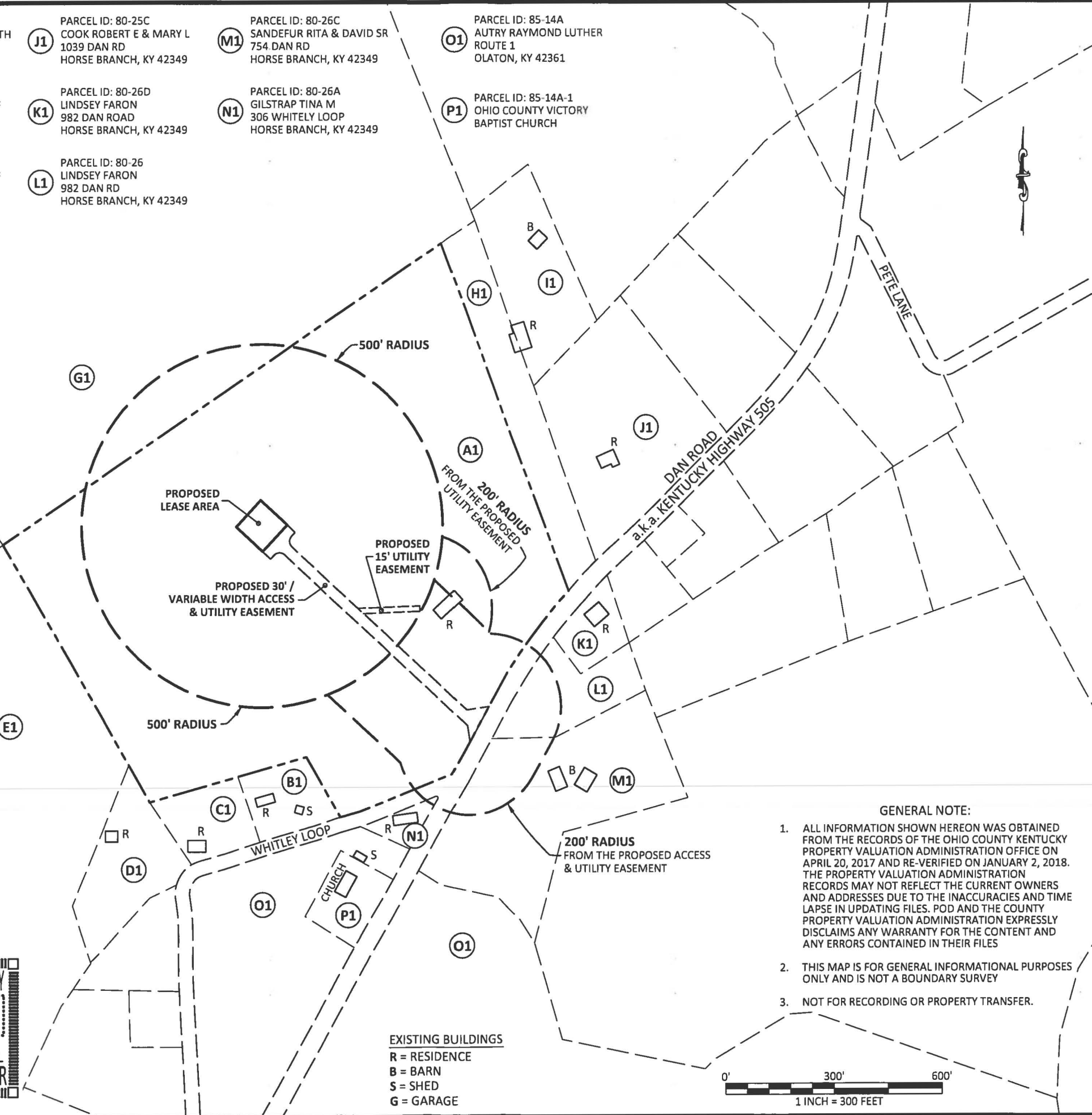
MARK E.  
PATTERSON  
3136

LICENSED  
PROFESSIONAL  
LAND SURVEYOR

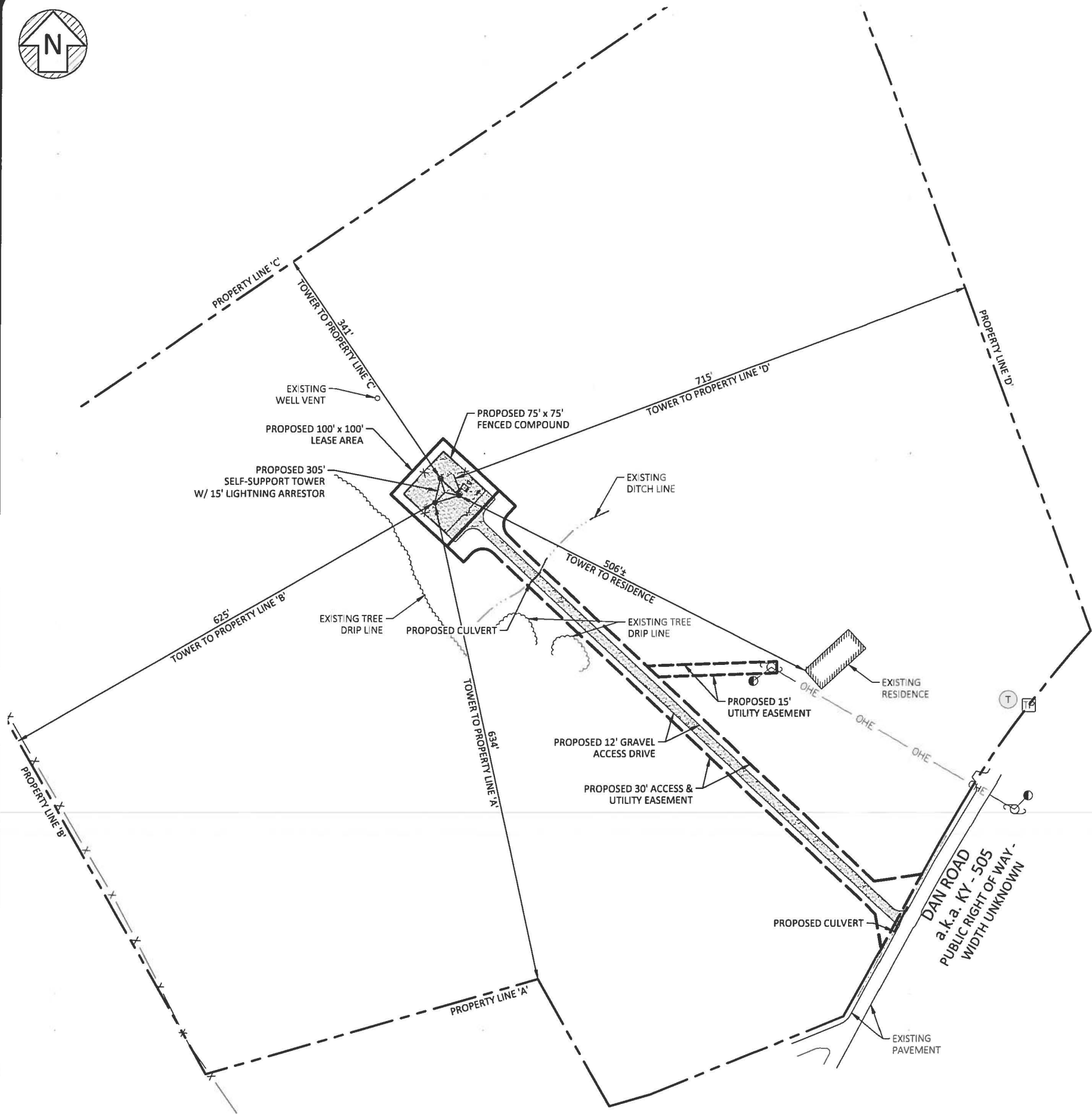
EXISTING BUILDINGS  
R = RESIDENCE  
B = BARN  
S = SHED  
G = GARAGE



- GENERAL NOTE:
1. ALL INFORMATION SHOWN HEREON WAS OBTAINED FROM THE RECORDS OF THE OHIO COUNTY KENTUCKY PROPERTY VALUATION ADMINISTRATION OFFICE ON APRIL 20, 2017 AND RE-VERIFIED ON JANUARY 2, 2018. THE PROPERTY VALUATION ADMINISTRATION RECORDS MAY NOT REFLECT THE CURRENT OWNERS AND ADDRESSES DUE TO THE INACCURACIES AND TIME LAPSE IN UPDATING FILES. POD AND THE COUNTY PROPERTY VALUATION ADMINISTRATION EXPRESSLY DISCLAIMS ANY WARRANTY FOR THE CONTENT AND ANY ERRORS CONTAINED IN THEIR FILES
  2. THIS MAP IS FOR GENERAL INFORMATIONAL PURPOSES ONLY AND IS NOT A BOUNDARY SURVEY
  3. NOT FOR RECORDING OR PROPERTY TRANSFER.







Know what's below.  
Call before you dig.  
Call Monday thru Friday - 7 am. to 6 pm.  
**1-800-752-6007**  
PER KENTUCKY STATE LAW, IT IS AGAINST THE LAW  
TO EXCAVATE WITHOUT NOTIFYING THE  
UNDERGROUND LOCATION SERVICE TWO (2)  
WORKING DAYS BEFORE COMMENCING WORK

**LEGEND**

	EXISTING TELEPHONE MARKER
	EXISTING TELEPHONE PEDESTAL
	EXISTING GUY ANCHOR
	EXISTING UTILITY POLE
	EXISTING BOUNDARY
	PROPOSED ACCESS & UTILITY EASEMENT
	EXISTING FENCE LINE
	EXISTING OVERHEAD ELECTRIC

0' 150' 300'  
1" = 150'

PREPARED BY:

**POD**  
POWER OF DESIGN  
11490 BLUEGRASS PARKWAY  
LOUISVILLE, KY 40299  
502-437-5252

PREPARED FOR:

**MasTec**

PREPARED FOR:

**at&t**

STATE OF KENTUCKY

MARK E. PATTERSON  
16,380  
Professional Engineer  
9/9/2018

EN PERMIT: 3594

**ZONING  
DRAWINGS**

REV	DATE	DESCRIPTION
A	1.18.18	ISSUED FOR REVIEW
0	2.7.18	ISSUED AS FINAL

SITE INFORMATION:

**HORSE BRANCH**

933 DAN ROAD  
HORSE BRANCH, KY 42349

OHIO COUNTY

SITE NUMBER:  
KYL03663

POD NUMBER: 17-13526

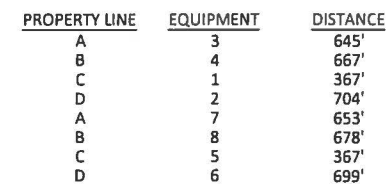
DRAWN BY: ADM  
CHECKED BY: MEP  
DATE: 01.18.18

SHEET TITLE:

**OVERALL  
SITE LAYOUT**

SHEET NUMBER:  
**C-1**







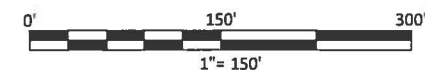


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UNDERGROUND LOCATION SERVICE TWO (2)  
WORKING DAYS BEFORE COMMENCING WORK.

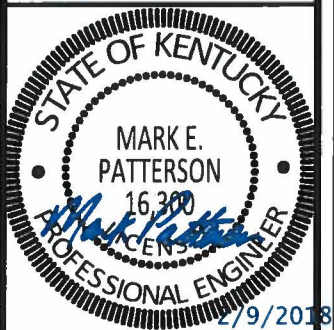
### LEGEND

- |                                                                                       |                                    |
|---------------------------------------------------------------------------------------|------------------------------------|
|  | EXISTING TELEPHONE MARKER          |
|  | EXISTING TELEPHONE PEDESTAL        |
|  | EXISTING GUY ANCHOR                |
|  | EXISTING UTILITY POLE              |
| — — — — —                                                                             | EXISTING BOUNDARY                  |
| — — — — —                                                                             | PROPOSED ACCESS & UTILITY EASEMENT |
| — X — X —                                                                             | EXISTING FENCE LINE                |
| — OHE —                                                                               | EXISTING OVERHEAD ELECTRIC         |



PREPARED FOR:

 **at&t**



EN PERMIT: 3594

## ZONING DRAWINGS

[illegible]

**SITE INFORMATION:**

## HORSE BRANCH

933 DAN ROAD  
HORSE BRANCH, KY 42349

OHIO COUNTY

SITE NUMBER:  
KYL03663

POD NUMBER:	17-13526
-------------	----------

DRAWN BY: ADM  
CHECKED BY: MEP  
DATE: 01.18.18

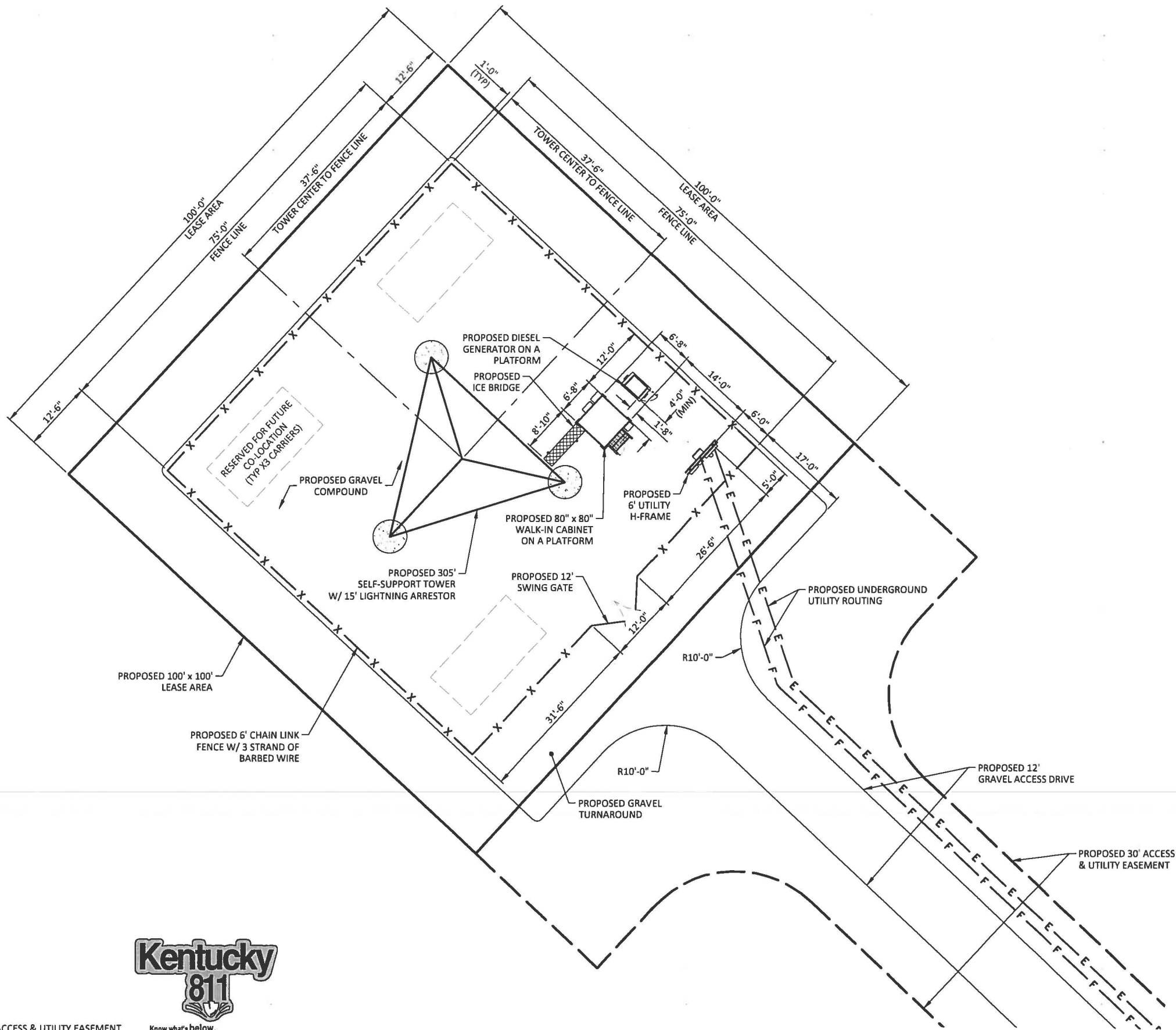
**SHEET TITLE:**

OVERALL  
SITE LAYOUT  
- CONT'D

SHEET NUMBER:

C-2



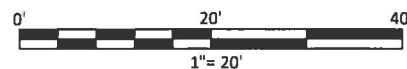


LEGEND

- PROPOSED ACCESS & UTILITY EASEMENT
- PROPOSED FENCE LINE
- PROPOSED ELECTRIC CONDUIT
- PROPOSED FIBER CONDUIT
- EXISTING FENCE LINE



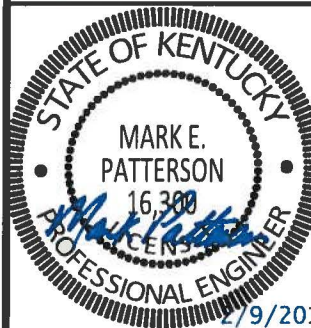
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PER KENTUCKY STATE LAW, IT IS AGAINST THE LAW  
TO EXCAVATE WITHOUT NOTIFYING THE  
UNDERGROUND LOCATION SERVICE TWO (2)  
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PREPARED BY:  
**POD**  
POWER OF DESIGN  
11490 BLUEGRASS PARKWAY  
LOUISVILLE, KY 40299  
502-437-5252

PREPARED FOR:  
**MasTec**

PREPARED FOR:  
**at&t**



EN PERMIT: 3594

ZONING  
DRAWINGS

REV	DATE	DESCRIPTION
A	1.18.18	ISSUED FOR REVIEW
0	2.7.18	ISSUED AS FINAL

SITE INFORMATION:

HORSE BRANCH

933 DAN ROAD  
HORSE BRANCH, KY 42349

OHIO COUNTY

SITE NUMBER:  
KYLO3663

POD NUMBER: 17-13526

DRAWN BY: ADM  
CHECKED BY: MEP  
DATE: 01.18.18

SHEET TITLE:

ENLARGED  
COMPOUND  
LAYOUT

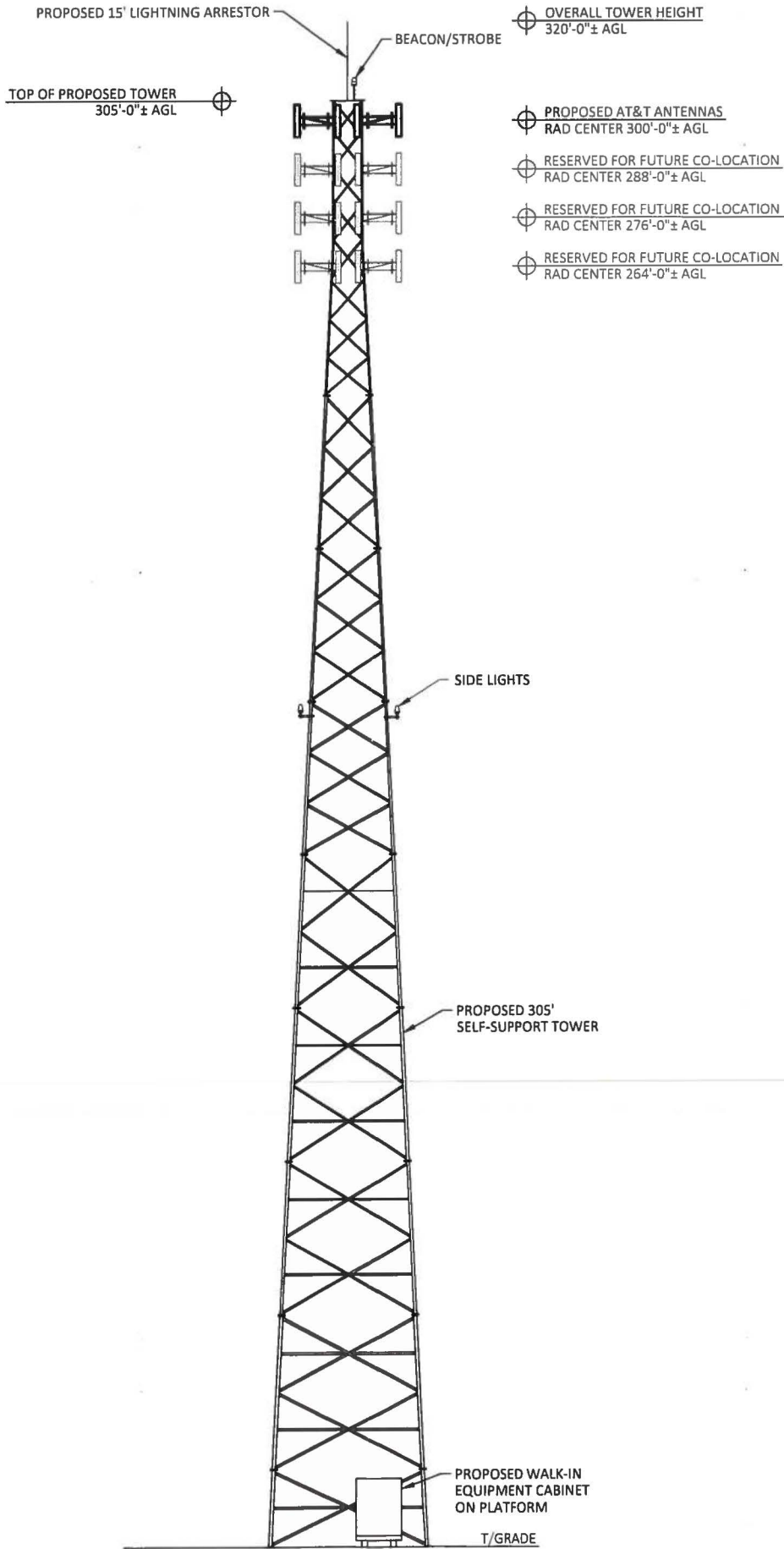
SHEET NUMBER:

C-3



TOWER NOTES:

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



PREPARED BY:



**POD**  
POWER OF DESIGN

11490 BLUEGRASS PARKWAY  
LOUISVILLE, KY 40299  
502-437-5252

PREPARED FOR:

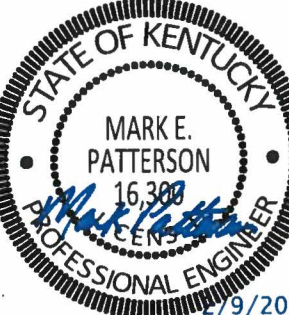


**MasTec**

PREPARED FOR:



**at&t**



STATE OF KENTUCKY  
MARK E. PATTERSON  
16,300  
2/9/2018  
PROFESSIONAL ENGINEER

EN PERMIT: 3594

ZONING  
DRAWINGS

REV	DATE	DESCRIPTION
A	1.18.18	ISSUED FOR REVIEW
0	2.7.18	ISSUED AS FINAL

SITE INFORMATION:

**HORSE BRANCH**

933 DAN ROAD  
HORSE BRANCH, KY 42349

OHIO COUNTY

SITE NUMBER:  
KYL03663

POD NUMBER: 17-13526

DRAWN BY: ADM  
CHECKED BY: MEP  
DATE: 01.18.18

SHEET TITLE:

**TOWER  
ELEVATION**

SHEET NUMBER:  
**C-4**



**EXHIBIT C**  
**TOWER AND FOUNDATION DESIGN**





January 26<sup>th</sup>, 2018  
Kentucky Public Service Commission  
211 Sower Blvd.  
P.O. Box 615  
Frankfort, KY 40602-0615

RE: Site Name – Horse Branch  
Proposed Cell Tower  
37 28 43.62 North Latitude, 86 41 45.92 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](mailto:Don.Murdock@mastec.com)

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

Thank you,

A handwritten signature in black ink, appearing to read "Don Murdock". The signature is stylized with a large, looped "D" and a cursive "Murdock".

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





## Structural Design Report

305' S3TL Series HD1 Self-Supporting Tower

Site: Horse Branch, KY

Site Number: KYL03663

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

Job Number: 401967

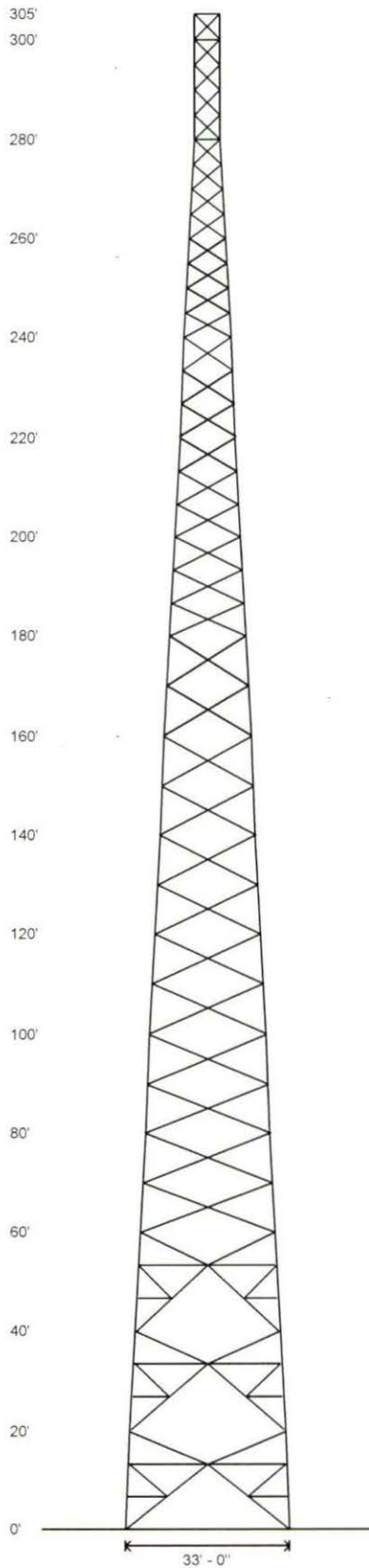
February 6, 2018

Tower Profile.....	1-2
Foundation Design Summary (Option 1).....	3
Foundation Design Summary (Option 2).....	4
Maximum Leg Loads.....	5
Maximum Diagonal Loads.....	6
Maximum Foundation Loads.....	7
Calculations.....	8-28





Legs	12.75 OD X .500				A	10.75 OD X .500				8.625 OD X .500				B	C	D	E	F	G	
Diagonals	H	I	J	J	I	L 4 X 4 X 5/16	J	K	L	L 3 X 3 X 3/16	M	N					O			
Horizontals	I	Q	I	Q	R					NONE										
Internals	T	Q	U	Q	U					NONE										
Sub-Diagonals	U	Q	U	Q	U					NONE										
Sub-Horizontals	U	Q	U	Q	M					NONE										
Brace Bolts	(2) 3/4"				(2) 5/8"				(1) 3/4"				(1) 5/8"							
Top Face Width	31'	29'	27'	25'	23'	21'	19'	17'	15'	13'	11'	9'	7'	5'						
Panel Count/Height	V	W	V	W	V	12 @ 10'				9 @ 6.6667"				13 @ 5'						
Section Weight	8684	8503	8158	7543	5877	6207	6058	4927	4305	4135	3083	2579	2227	1840	1175	X				



### Designed Appurtenance Loading

Elev	Description	Tx-Line
310	(1) Extendible Lightning Rod	
300	(1) 278 sq. ft. EPA 6000# (no ice)	(18) 1 5/8"
288	(1) 208 sq. ft. EPA 4000# (no ice)	(18) 1 5/8"
276	(1) 208 sq. ft. EPA 4000# (no ice)	(18) 1 5/8"
264	(1) 208 sq. ft. EPA 4000# (no ice)	(18) 1 5/8"

### Base Reactions

Total Foundation		Individual Footing	
Shear (kips)	117.43	Shear (kips)	71.84
Axial (kips)	312.02	Compression (kips)	792
Moment (ft-kips)	21403	Uplift (kips)	689
Torsion (ft-kips)	-49.2		

### Notes

- 1) All legs are A500 (50 ksi Min. Yield).
- 2) All braces are A572 Grade 50.
- 3) All brace bolts are A325-X.
- 4) The tower model is S3TL Series HD1.
- 5) Transmission lines are to be attached to standard 12 hole waveguide ladders with stackable hangers.
- 6) Azimuths are relative (not based on true north).
- 7) Foundation loads shown are maximums.
- 8) (6) 1 3/4" dia. F1554 grade 105 anchor bolts per leg. Minimum 65.5" embedment from top of concrete to top of nut.
- 9) All unequal angles are oriented with the short leg vertical.
- 10) Weights shown are estimates. Final weights may vary.
- 11) This tower was designed for a basic wind speed of 89 mph with 0" of radial ice, and 30 mph with 3/4" of radial ice, in accordance with ANSI/TIA-222-G, Structure Class II, Exposure Category C, Topographic Category 1.
- 12) The foundation loads shown are factored loads.
- 13) The tower design meets the requirements for an Ultimate Wind Speed of 115 mph (Risk Category II), in accordance with the 2012 International Building Code.
- 14) Tower Rating: 99.32%



**Sabre Communications Corporation**  
7101 Southbridge Drive  
P.O. Box 658  
Sioux City, IA 51102-0658  
Phone: (712) 258-6690  
Fax: (712) 279-0814

Information contained herein is the sole property of Sabre Communications Corporation, constitutes a trade secret as defined by Iowa Code Ch. 550 and shall not be reproduced, copied or used in whole or part for any purpose whatsoever without the prior written consent of Sabre Communications Corporation.

Job:	401967
Customer:	AT&T
Site Name:	Horse Branch, KY KYL03663
Description:	305' S3TL
Date:	2/6/2018
By:	MH



# Material List

Display	Value
A	12.75 OD X .375
B	8.625 OD X .322
C	5.563 OD X .500
D	5.563 OD X .375
E	4.500 OD X .337
F	2.875 OD X .276
G	2.375 OD X .154
H	L 5 X 3 1/2 X 1/4 (SLV)
I	L 4 X 4 X 5/16
J	L 5 X 3 1/2 X 5/16 (SLV)
K	L 4 X 3 1/2 X 1/4 (SLV)
L	L 3 1/2 X 3 X 1/4 (SLV)

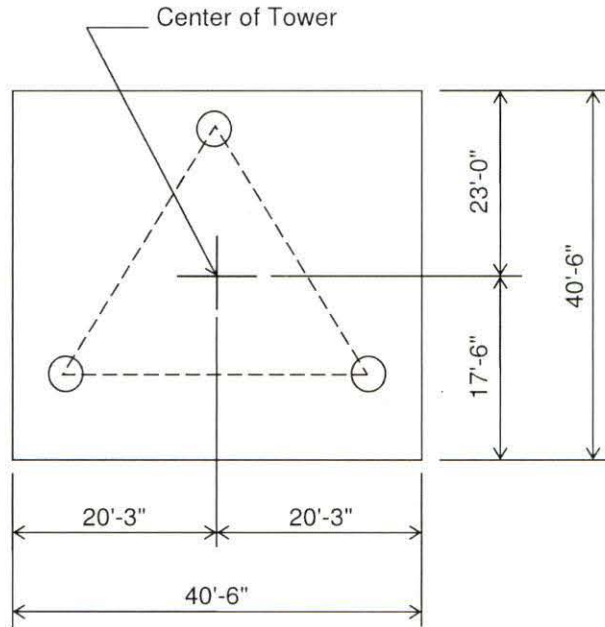
Display	Value
M	L 2 1/2 X 2 1/2 X 1/4
N	L 2 1/2 X 2 1/2 X 3/16
O	L 2 X 2 X 3/16
P	L 2 X 2 X 1/8
Q	NONE
R	L 4 X 4 X 1/4
S	L 2 X 2 X 1/4
T	L 3 1/2 X 3 1/2 X 1/4
U	L 3 X 3 X 1/4
V	1 @ 13.333'
W	1 @ 6.667'
X	249

 <b>Sabre Industries</b> Towers and Poles	<b>Sabre Communications Corporation</b> 7101 Southbridge Drive P.O. Box 658 Sioux City, IA 51102-0658 Phone: (712) 258-6690 Fax: (712) 279-0814		Job: <b>401967</b>
			Customer: <b>AT&amp;T</b>
			Site Name: <b>Horse Branch, KY KYL03663</b>
			Description: <b>305' S3TL</b>
			Date: <b>2/6/2018</b> By: <b>MH</b>
<small>Information contained herein is the sole property of Sabre Communications Corporation; constitutes a trade secret as defined by Iowa Code Ch. 550 and shall not be reproduced, copied or used in whole or part for any purpose whatsoever without the prior written consent of Sabre Communications Corporation.</small>			

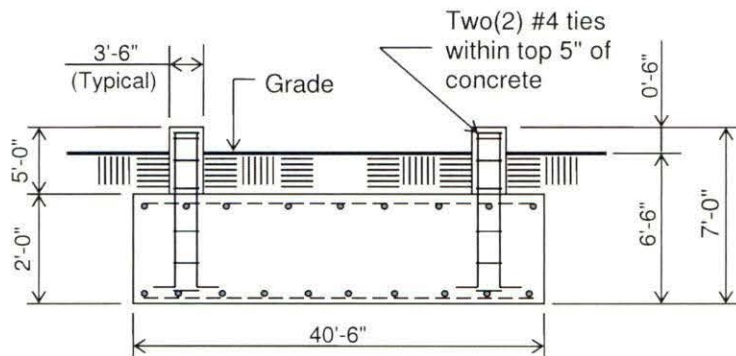


**Customer: AT&T**  
**Site: Horse Branch, KY KYL03663**

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.



**PLAN VIEW**



**ELEVATION VIEW**

(126.85 Cu. Yds.)  
(1 REQD.; NOT TO SCALE)

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

**Notes:**

- 1). Concrete shall have a minimum 28-day compressive strength of 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" concrete cover.
- 4). All exposed concrete corners to be chamfered 3/4".
- 5.) The foundation design is based on the geotechnical report by POD Project No. 17-13524, dated: 01/15/2018.

- 6). See the geotechnical report for compaction requirements, if specified.
- 7). The foundation is based on the following factored loads:  
Factored download (kips) = 130.15  
Factored overturn (kip-ft) = 21403.43  
Factored shear (kips) = 117.43

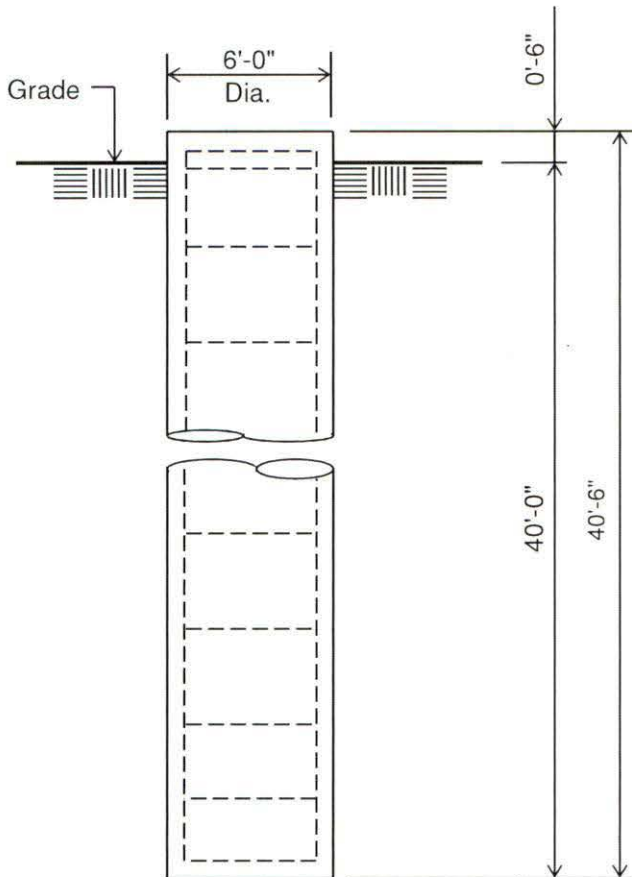
- 8). 4.5 ft of soil cover is required over the entire area of the foundation slab.

Rebar Schedule per Mat and per Pier	
Pier	(16) #10 vertical rebar w/ hooks at bottom w/ #4 Rebar ties, two (2) within top 5" of pier then 9" C/C
Mat	(70) #11 horizontal rebar evenly spaced each way top and bottom. (280 total)



**Customer: AT&T**  
**Site: Horse Branch, KY KYL03663**

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.



**ELEVATION VIEW**  
(42.41 Cu. Yds. each)  
(3 REQUIRED; NOT TO SCALE)

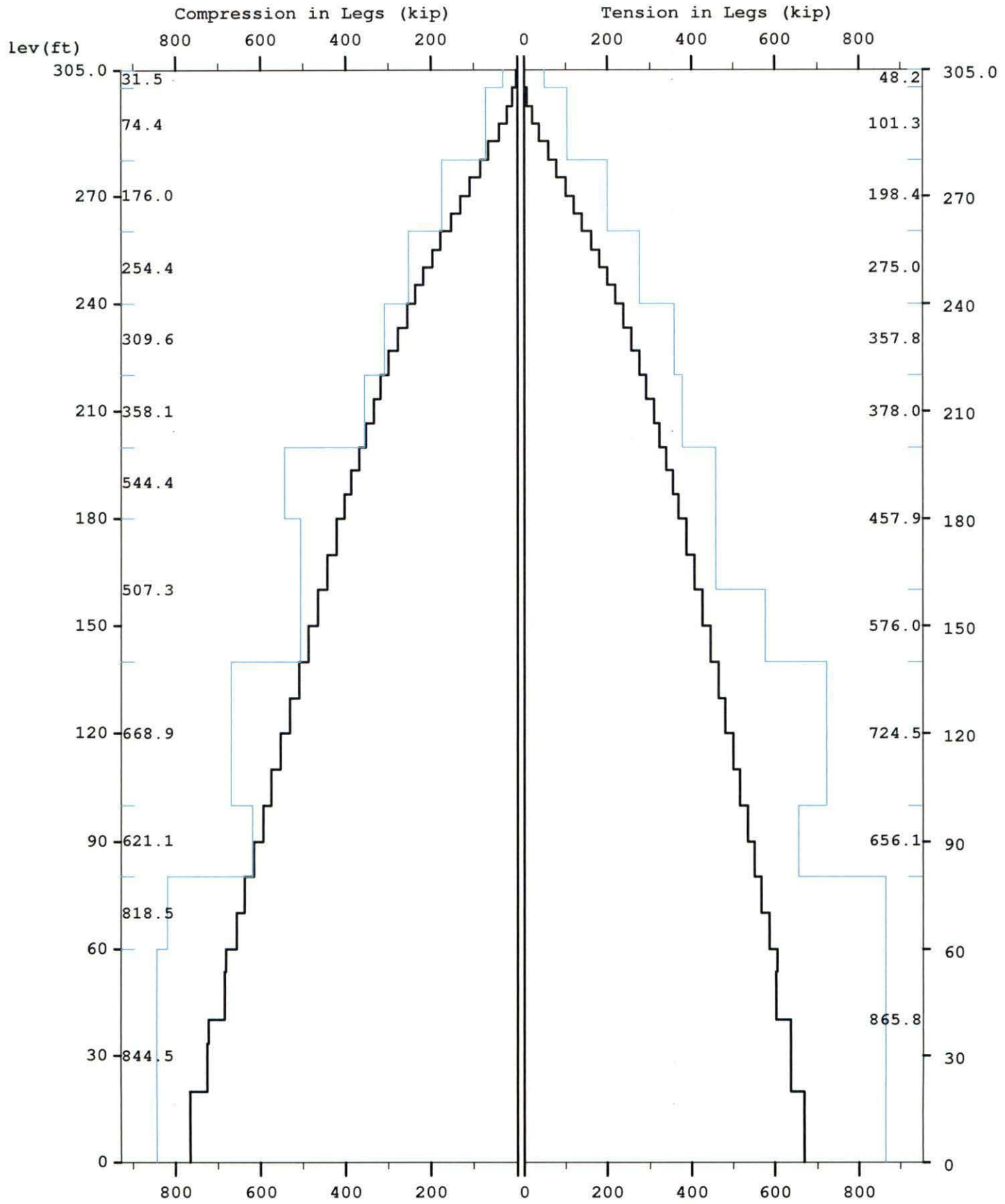
**Notes:**

- 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" concrete cover.
- 4). All exposed concrete corners to be chamfered 3/4".
- 5.) The foundation design is based on the geotechnical report by POD Project No. 17-13524, dated: 01/15/2018.
- 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) = 792  
Factored shear (kips) = 72

Rebar Schedule per Pier	
Pier	(26) #8 vertical rebar w/#4 ties, two (2) within top 5" of pier then 12" C/C

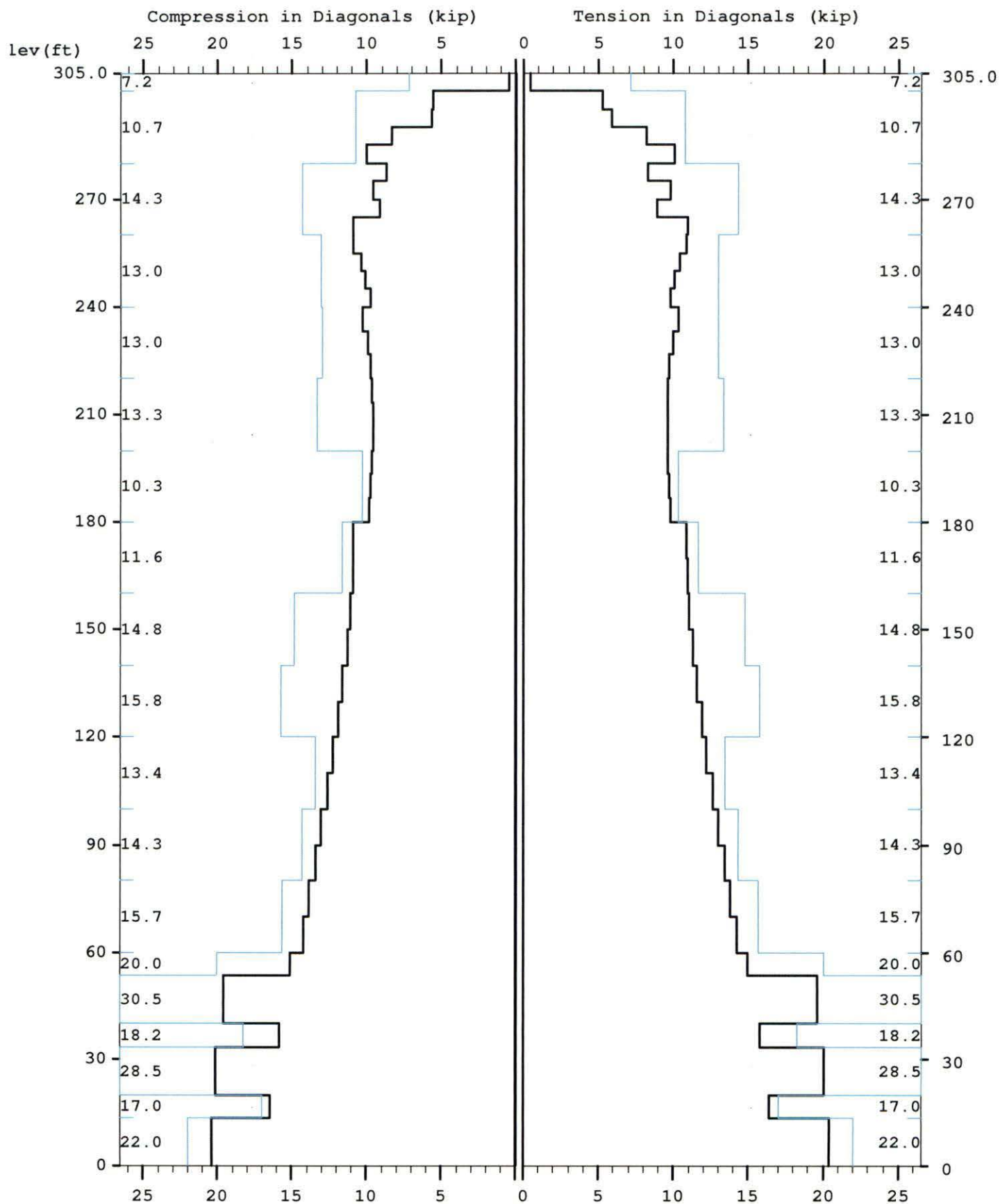


Maximum





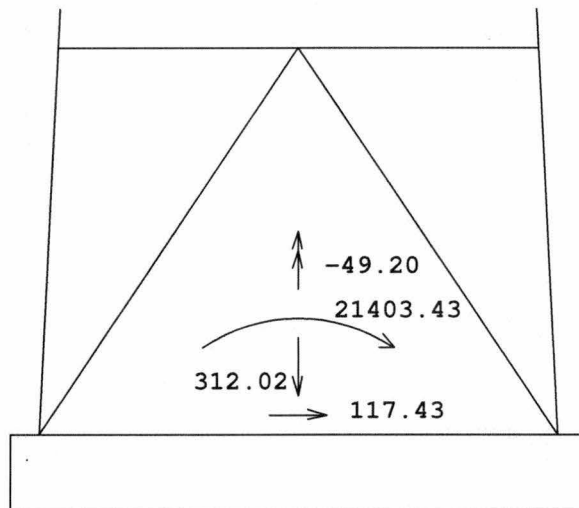
Maximum



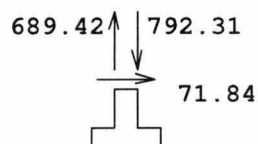
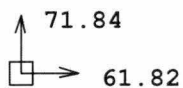


Maximum

TOTAL FOUNDATION LOADS (kip, ft-kip)



INDIVIDUAL FOOTING LOADS (kip)





401967

Latticed Tower Analysis (Unguyed)  
 Processed under license at:

(c)2015 Guymast Inc. 416-736-7453

Sabre Towers and Poles

on: 6 feb 2018 at: 16:19:37

## MAST GEOMETRY ( ft )

PANEL TYPE	NO.OF LEGS	ELEV.AT BOTTOM	ELEV.AT TOP	F.W..AT BOTTOM	F.W..AT TOP	TYPICAL PANEL HEIGHT
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 TYPE	BOTTOM ELEV ft	TOP ELEV ft	X-SECTN AREA in.sq	RADIUS OF GYRAT in	ELASTIC MODULUS ksi	THERMAL EXPANSN /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	80.00	100.00	14.579	0.787	29000.	0.0000117
LE	0.00	80.00	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	1.812	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

BOTTOM ELEV ft	TOP ELEV ft	LEGS COMP kip	TENS kip	DIAGONALS COMP kip	TENS kip	HORIZONTALS COMP kip	TENS kip	INT COMP kip	BRACING TENS kip
300.0	305.0	31.48	48.15	7.16	7.16	5.82	5.82	0.00	0.00
295.0	300.0	74.39	101.25	10.74	10.74	8.46	8.46	0.00	0.00
280.0	295.0	74.39	101.25	10.74	10.74	0.00	0.00	0.00	0.00



										401967		
275.0	280.0	175.98	198.45	14.32	14.32	10.95	10.95	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	11.62	11.62	0.00	0.00	0.00	0.00			
140.0	160.0	507.33	576.00	14.82	14.82	0.00	0.00	0.00	0.00			
120.0	140.0	668.86	724.50	15.77	15.77	0.00	0.00	0.00	0.00			
100.0	120.0	668.86	724.50	13.43	13.43	0.00	0.00	0.00	0.00			
80.0	100.0	621.06	656.10	14.31	14.31	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	30.51	30.51	15.60	15.60	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	17.32	17.32	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	22.03	22.03	15.58	15.58	9.00	9.00			

=====

\* only 3 condition(s) shown in full

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

=====

# LOADING CONDITION A

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

## MAST LOADING

=====

LOAD TYPE	ELEV ft	APPLY.. RADIUS ft	LOAD..AT AZI	LOAD AZI	.....FORCES.....		.....MOMENTS.....	
					HORIZ kip	DOWN kip	VERTICAL ft-kip	TORSNAL 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	0.35	0.01	0.05
D	150.0	0.00	329.8	0.0	0.27	0.36	0.01	0.05
D	140.0	0.00	329.8	0.0	0.27	0.36	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	0.41	0.01	0.04
D	80.0	0.00	329.9	0.0	0.30	0.41	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

SUPPRESS PRINTING

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401967

LOADS INPUT	...FOR THIS LOADING..			.....MAXIMUMS.....			
	DISPL	MEMBER FORCES	FOUNDN LOADS	ALL	DISPL	MEMBER FORCES	FOUNDN LOADS

no	yes	yes	yes	no	no	no	no
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LOADING CONDITION M =====

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

MAST LOADING  
=====

LOAD TYPE	ELEV ft	APPLY.. RADIUS ft	LOAD..AT AZI	LOAD AZI	.....FORCES.....		.....MOMENTS.....	
					HORIZ kip	DOWN kip	VERTICAL ft-kip	TORSNAL ft-kip
C	310.0	0.00	0.0	0.0	0.29	0.12	0.00	0.00
C	300.0	0.00	0.0	0.0	10.39	5.40	0.00	0.00
C	288.0	0.00	0.0	0.0	7.71	3.60	0.00	0.00
C	276.0	0.00	0.0	0.0	7.64	3.60	0.00	0.00
C	264.0	0.00	0.0	0.0	7.57	3.60	0.00	0.00
D	305.0	0.00	180.0	0.0	0.07	0.03	0.00	0.00
D	300.0	0.00	180.0	0.0	0.07	0.03	0.00	0.00
D	300.0	0.00	42.0	0.0	0.15	0.07	0.04	0.10
D	290.0	0.00	42.0	0.0	0.14	0.06	0.04	0.10
D	290.0	0.00	63.7	0.0	0.16	0.07	0.04	0.12
D	285.0	0.00	63.7	0.0	0.16	0.07	0.04	0.12
D	285.0	0.00	76.5	0.0	0.17	0.08	0.05	0.12
D	280.0	0.00	76.5	0.0	0.17	0.08	0.05	0.12
D	280.0	0.00	80.8	0.0	0.19	0.12	0.04	0.11
D	275.0	0.00	80.8	0.0	0.19	0.12	0.04	0.11
D	275.0	0.00	99.1	0.0	0.21	0.13	0.03	0.07
D	265.0	0.00	101.2	0.0	0.21	0.13	0.03	0.07
D	265.0	0.00	58.7	0.0	0.22	0.15	0.00	0.05
D	260.0	0.00	58.7	0.0	0.22	0.15	0.00	0.05
D	260.0	0.00	330.0	0.0	0.24	0.17	0.01	0.05
D	240.0	0.00	329.1	0.0	0.25	0.17	0.01	0.05
D	240.0	0.00	329.9	0.0	0.24	0.19	0.01	0.05
D	220.0	0.00	329.2	0.0	0.24	0.19	0.01	0.05
D	220.0	0.00	329.9	0.0	0.26	0.20	0.01	0.05
D	200.0	0.00	329.4	0.0	0.27	0.20	0.01	0.05
D	200.0	0.00	330.0	0.0	0.27	0.24	0.01	0.05
D	180.0	0.00	329.6	0.0	0.28	0.25	0.01	0.05
D	180.0	0.00	329.9	0.0	0.25	0.25	0.01	0.05
D	150.0	0.00	329.9	0.0	0.26	0.26	0.01	0.05
D	150.0	0.00	329.8	0.0	0.27	0.27	0.01	0.05
D	140.0	0.00	329.8	0.0	0.27	0.27	0.01	0.05
D	140.0	0.00	330.0	0.0	0.29	0.31	0.01	0.05
D	100.0	0.00	329.9	0.0	0.29	0.32	0.01	0.04
D	100.0	0.00	330.0	0.0	0.29	0.30	0.01	0.04
D	80.0	0.00	329.9	0.0	0.30	0.31	0.01	0.04
D	80.0	0.00	330.0	0.0	0.29	0.38	0.01	0.04
D	60.0	0.00	329.9	0.0	0.29	0.38	0.01	0.04
D	60.0	0.00	330.0	0.0	0.26	0.36	0.01	0.04
D	53.3	0.00	330.0	0.0	0.26	0.36	0.01	0.04
D	53.3	0.00	329.9	0.0	0.30	0.42	0.01	0.04
D	40.0	0.00	329.9	0.0	0.30	0.42	0.01	0.04
D	40.0	0.00	330.0	0.0	0.24	0.36	0.01	0.04
D	33.3	0.00	330.0	0.0	0.24	0.36	0.01	0.04
D	33.3	0.00	330.0	0.0	0.28	0.44	0.01	0.04
D	20.0	0.00	330.0	0.0	0.28	0.44	0.01	0.04
D	20.0	0.00	330.0	0.0	0.21	0.37	0.01	0.03
D	13.3	0.00	330.0	0.0	0.21	0.37	0.01	0.03
D	13.3	0.00	330.0	0.0	0.25	0.44	0.01	0.03
D	0.0	0.00	330.0	0.0	0.25	0.44	0.01	0.03

SUPPRESS PRINTING  
=====

LOADS INPUT	...FOR THIS LOADING..			.....MAXIMUMS.....			
	DISPL	MEMBER FORCES	FOUNDN LOADS	ALL	DISPL	MEMBER FORCES	FOUNDN LOADS

no	yes	yes	yes	no	no	no	no
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LOADING CONDITION Y =====

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



MAST LOADING  
=====

LOAD TYPE	ELEV ft	APPLY... RADIUS ft	LOAD...AT AZI	LOAD AZI	.....FORCES.....		.....MOMENTS.....	
					HORIZ kip	DOWN kip	VERTICAL ft-kip	TORSNAL 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	0.84	0.02	0.00
D	150.0	0.00	329.8	0.0	0.03	0.85	0.02	0.00
D	140.0	0.00	329.8	0.0	0.03	0.85	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
D	100.0	0.00	330.0	0.0	0.03	0.95	0.02	0.00
D	80.0	0.00	329.9	0.0	0.03	0.96	0.02	0.00
D	80.0	0.00	330.0	0.0	0.03	1.05	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  
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LOADS INPUT	...FOR THIS LOADING..			.....MAXIMUMS.....			
	DISPL	MEMBER FORCES	FOUNDN LOADS	ALL	DISPL	MEMBER FORCES	FOUNDN LOADS
no	yes	yes	yes	no	no	no	no

## =====

## MAXIMUM MAST DISPLACEMENTS:

ELEV ft	-----DEFLECTIONS (ft)-----			--TILTS (DEG)---		TWIST DEG
	NORTH	EAST	DOWN	NORTH	EAST	
305.0	4.794 G	-4.612 D	0.069 G	2.208 G	-2.126 D	0.134 L
300.0	4.601 G	-4.426 D	0.065 G	2.208 G	-2.125 D	0.134 L
295.0	4.406 G	-4.238 D	0.061 G	2.197 G	-2.114 D	0.133 L
290.0	4.215 G	-4.054 D	0.057 G	2.164 G	-2.083 D	0.130 L
285.0	4.023 G	-3.869 D	0.054 G	2.107 G	-2.027 D	0.126 L
280.0	3.840 G	-3.693 D	0.050 G	2.014 G	-1.938 D	-0.119 R
275.0	3.663 G	-3.523 D	0.047 G	1.956 G	-1.882 D	-0.114 R
270.0	3.493 G	-3.359 D	0.044 G	1.890 G	-1.819 D	-0.109 R
265.0	3.329 G	-3.201 D	0.041 G	1.816 G	-1.748 D	-0.105 R
260.0	3.170 G	-3.048 D	0.039 G	1.736 G	-1.670 D	-0.100 R
255.0	3.018 G	-2.902 D	0.037 e	1.674 G	-1.612 D	-0.096 R



401967						
250.0	2.871 G	-2.760 D	0.036 e	1.609 G	-1.549 D	-0.092 R
245.0	2.730 G	-2.625 D	0.035 e	1.542 G	-1.484 D	-0.088 R
240.0	2.595 G	-2.495 D	0.034 e	1.472 G	-1.417 D	-0.084 R
233.3	2.425 G	-2.331 D	0.033 e	1.399 G	-1.347 D	-0.080 R
226.7	2.263 G	-2.175 D	0.032 e	1.325 G	-1.275 D	-0.076 R
220.0	2.110 G	-2.028 D	0.031 e	1.250 G	-1.203 D	-0.073 R
213.3	1.965 G	-1.888 D	0.031 e	1.179 G	-1.135 D	-0.069 R
206.7	1.827 G	-1.756 D	0.030 e	1.108 G	-1.067 D	-0.065 R
200.0	1.698 G	-1.632 D	0.028 e	1.038 G	-0.999 D	-0.061 R
193.3	1.575 G	-1.514 D	0.028 e	0.993 G	-0.955 D	-0.058 R
186.7	1.459 G	-1.402 D	0.027 e	0.948 G	-0.912 D	-0.054 R
180.0	1.346 G	-1.293 D	0.026 e	0.903 G	-0.869 D	-0.050 R
170.0	1.190 G	-1.143 D	0.025 j	0.835 G	-0.803 D	-0.046 R
160.0	1.046 G	-1.005 D	0.024 e	0.768 G	-0.739 D	-0.043 R
150.0	0.914 G	-0.877 D	0.022 e	0.701 G	-0.674 D	-0.040 R
140.0	0.793 G	-0.761 D	0.021 e	0.635 G	-0.610 D	-0.037 R
130.0	0.683 G	-0.655 D	0.020 e	0.583 G	-0.561 D	-0.034 R
120.0	0.581 G	-0.557 D	0.019 e	0.532 G	-0.512 D	-0.031 R
110.0	0.487 G	-0.467 D	0.017 e	0.482 G	-0.463 D	-0.028 R
100.0	0.402 G	-0.386 D	0.016 j	0.432 G	-0.415 D	-0.025 R
90.0	0.325 G	-0.312 D	0.014 j	0.376 G	-0.362 D	-0.022 R
80.0	0.258 G	-0.248 D	0.013 j	0.322 G	-0.309 D	-0.018 R
70.0	0.196 G	-0.187 D	0.011 e	0.280 G	-0.269 D	-0.016 R
60.0	0.138 G	-0.133 D	0.010 j	0.238 G	-0.229 D	-0.013 R
53.3	0.115 G	-0.110 D	0.009 i	0.213 G	-0.204 D	-0.012 R
40.0	0.067 G	-0.064 D	0.007 Y	0.158 G	-0.152 D	-0.009 R
33.3	0.051 G	-0.049 D	0.006 d	0.133 G	-0.127 D	-0.007 R
20.0	0.021 S	-0.020 P	0.003 d	0.078 G	-0.075 D	-0.005 R
13.3	0.011 S	-0.010 P	0.002 d	0.053 G	-0.050 D	-0.003 R
0.0	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A

MAXIMUM TENSION IN MAST MEMBERS (kip)

ELEV ft	LEGS	DIAG	HORIZ	BRACE
305.0	-----	-----	0.09 A	0.00 A
	0.15 U	0.46 M		
300.0	-----	-----	1.68 K	0.00 A
	5.43 M	5.29 T		
295.0	-----	-----	0.28 A	0.00 A
	18.86 M	5.83 B		
290.0	-----	-----	0.13 S	0.00 A
	34.64 M	8.21 N		
285.0	-----	-----	0.30 A	0.00 A
	57.01 M	10.09 B		
280.0	-----	-----	0.55 M	0.00 A
	76.89 M	8.24 M		
275.0	-----	-----	0.20 A	0.00 A
	97.86 M	9.78 H		
270.0	-----	-----	0.15 A	0.00 A
	118.04 M	8.95 T		
265.0	-----	-----	0.13 A	0.00 A
	137.87 M	10.92 T		
260.0	-----	-----	0.16 A	0.00 A
	160.47 M	10.90 T		
255.0	-----	-----	0.10 A	0.00 A
	180.63 M	10.44 T		
250.0	-----	-----	0.18 A	0.00 A
	199.90 M	10.04 T		
245.0	-----	-----	0.09 A	0.00 A
	217.16 M	9.78 T		
240.0	-----	-----	0.16 A	0.00 A
	236.21 M	10.29 T		
233.3	-----	-----	0.12 A	0.00 A
	256.06 M	9.98 T		
226.7	-----	-----	0.14 A	0.00 A
	274.88 M	9.74 T		
220.0	-----	-----	0.11 A	0.00 A
	292.26 M	9.64 T		
213.3	-----	-----	0.08 A	0.00 A
	309.02 M	9.58 T		
206.7	-----	-----	0.10 A	0.00 A
	324.81 M	9.59 T		
200.0	-----	-----	0.07 A	0.00 A
	340.19 M	9.63 T		
193.3	-----	-----	0.12 A	0.00 A
	354.77 M	9.71 N		
186.7	-----	-----	0.06 A	0.00 A
	369.18 M	9.82 T		
180.0	-----	-----	0.11 A	0.00 A
	386.16 M	10.85 T		
170.0	-----	-----	0.12 A	0.00 A
	406.35 M	10.94 N		
160.0	-----	-----	0.08 A	0.00 A
	425.54 M	11.08 T		
150.0	-----	-----	0.11 A	0.00 A
	444.42 M	11.29 N		
140.0	-----	-----	0.07 A	0.00 A
	462.63 M	11.55 N		



130.0	-----		0.07 A	401967 0.00 A
	480.65 M	11.89 V		
120.0	-----		0.07 A	0.00 A
	498.31 M	12.24 P		
110.0	-----		0.07 A	0.00 A
	515.91 M	12.61 V		
100.0	-----		0.05 A	0.00 A
	533.27 M	12.99 P		
90.0	-----		0.07 A	0.00 A
	550.61 M	13.40 V		
80.0	-----		0.05 O	0.00 A
	567.70 M	13.81 P		
70.0	-----		0.07 S	0.00 A
	584.56 M	14.21 V		
60.0	-----		0.30 A	0.00 A
	604.42 M	14.99 P		
53.3	-----		1.07 U	0.00 S
	603.09 M	19.55 P		
40.0	-----		0.26 A	0.00 A
	637.41 M	15.73 P		
33.3	-----		1.00 U	0.00 J
	636.02 M	20.04 V		
20.0	-----		0.11 A	0.00 J
	669.85 M	16.38 P		
13.3	-----		0.88 U	0.00 B
	668.45 M	20.37 P		
0.0	-----		0.00 A	0.00 A

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MAXIMUM COMPRESSION IN MAST MEMBERS (kip)

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ELEV ft	LEGS	DIAG	HORIZ	BRACE
305.0	-----		-0.08 S	0.00 A
	-0.29 C	-0.50 G		
300.0	-----		-1.47 Q	0.00 A
	-9.67 G	-5.56 B		
295.0	-----		-0.20 S	0.00 A
	-24.11 G	-5.67 N		
290.0	-----		-0.15 A	0.00 A
	-41.64 G	-8.34 B		
285.0	-----		-0.23 S	0.00 A
	-65.90 G	-10.07 B		
280.0	-----		-0.59 G	0.00 A
	-86.46 G	-8.70 G		
275.0	-----		-0.15 S	0.00 A
	-111.10 G	-9.63 T		
270.0	-----		-0.13 S	0.00 A
	-131.63 G	-9.11 B		
265.0	-----		-0.10 S	0.00 A
	-154.69 G	-10.92 T		
260.0	-----		-0.14 S	0.00 A
	-178.63 G	-10.96 B		
255.0	-----		-0.08 S	0.00 A
	-199.78 G	-10.44 T		
250.0	-----		-0.16 S	0.00 A
	-219.91 G	-10.10 B		
245.0	-----		-0.08 S	0.00 A
	-238.18 G	-9.78 T		
240.0	-----		-0.14 S	0.00 A
	-258.32 G	-10.34 B		
233.3	-----		-0.10 S	0.00 A
	-279.65 G	-9.99 T		
226.7	-----		-0.12 S	0.00 A
	-299.86 G	-9.79 H		
220.0	-----		-0.09 S	0.00 A
	-318.75 G	-9.64 H		
213.3	-----		-0.07 S	0.00 A
	-336.97 G	-9.62 H		
206.7	-----		-0.09 S	0.00 A
	-354.30 G	-9.61 H		
200.0	-----		-0.06 S	0.00 A
	-371.32 G	-9.66 H		
193.3	-----		-0.11 S	0.00 A
	-387.69 G	-9.74 H		
186.7	-----		-0.05 S	0.00 A
	-403.93 G	-9.84 B		
180.0	-----		-0.10 S	0.00 A
	-423.18 G	-10.91 H		
170.0	-----		-0.11 S	0.00 A
	-446.23 G	-10.98 H		
160.0	-----		-0.07 S	0.00 A
	-468.30 G	-11.13 B		
150.0	-----		-0.09 S	0.00 A
	-490.15 G	-11.33 H		
140.0	-----		-0.06 S	0.00 A



401967

	-511.52 G	-11.61 B		
130.0	-532.93 G	-11.94 D	-0.06 S	0.00 A
120.0	-554.03 G	-12.29 J	-0.06 S	0.00 A
110.0	-575.13 G	-12.65 D	-0.06 S	0.00 A
100.0	-595.99 G	-13.04 J	-0.04 S	0.00 A
90.0	-616.85 G	-13.45 D	-0.06 S	0.00 A
80.0	-637.78 G	-13.85 J	-0.05 I	0.00 A
70.0	-658.78 G	-14.26 D	-0.08 A	0.00 A
60.0	-682.40 G	-15.09 J	-0.27 S	0.00 A
53.3	-684.18 G	-19.61 J	-1.28 C	0.00 O
40.0	-724.08 G	-15.85 D	-0.22 S	0.00 A
33.3	-725.93 G	-20.11 D	-1.21 C	0.00 F
20.0	-765.59 G	-16.46 J	-0.09 S	0.00 F
13.3	-767.44 G	-20.42 J	-1.08 C	0.00 G
0.0			0.00 A	0.00 A

## FORCE/RESISTANCE RATIO IN LEGS

MAST ELEV ft	-- LEG COMPRESSION --			---- LEG TENSION ----		
	MAX COMP	COMP RESIST	FORCE/ RESIST RATIO	MAX TENS	TENS RESIST	FORCE/ RESIST RATIO
305.00	0.29	31.48	0.01	0.15	48.15	0.00
300.00	9.67	74.39	0.13	5.43	101.25	0.05
295.00	24.11	74.39	0.32	18.86	101.25	0.19
290.00	41.64	74.39	0.56	34.64	101.25	0.34
285.00	65.90	74.39	0.89	57.01	101.25	0.56
280.00	86.46	175.98	0.49	76.89	198.45	0.39
275.00	111.10	175.98	0.63	97.86	198.45	0.49
270.00	131.63	175.98	0.75	118.04	198.45	0.59
265.00	154.69	175.98	0.88	137.87	198.45	0.69
260.00	178.63	254.38	0.70	160.47	274.95	0.58
255.00	199.78	254.38	0.79	180.63	274.95	0.66
250.00	219.91	254.38	0.86	199.90	274.95	0.73
245.00	238.18	254.38	0.94	217.16	274.95	0.79
240.00	258.32	309.64	0.83	236.21	357.75	0.66
233.33	279.65	309.64	0.90	256.06	357.75	0.72
226.67	299.86	309.64	0.97	274.88	357.75	0.77
220.00	318.75	358.08	0.89	292.26	378.00	0.77
213.33	336.97	358.08	0.94	309.02	378.00	0.82
206.67	354.30	358.08	0.99	324.81	378.00	0.86
200.00	371.32	544.40	0.68	340.19	457.90	0.74
193.33	387.69	544.40	0.71	354.77	457.90	0.77
186.67	403.93	544.40	0.74	369.18	457.90	0.81
180.00	423.18	507.33	0.83	386.16	457.90	0.84
170.00	446.23	507.33	0.88	406.35	457.90	0.89
160.00	468.30	507.33	0.92	425.54	576.00	0.74
150.00	490.15	507.33	0.97	444.42	576.00	0.77
140.00	511.52	668.86	0.76	462.63	724.50	0.64



401967

130.00	532.93	668.86	0.80	480.65	724.50	0.66
120.00	554.03	668.86	0.83	498.31	724.50	0.69
110.00	575.13	668.86	0.86	515.91	724.50	0.71
100.00	595.99	621.06	0.96	533.27	656.10	0.81
90.00	616.85	621.06	0.99	550.61	656.10	0.84
80.00	637.78	818.52	0.78	567.70	865.80	0.66
70.00	658.78	818.52	0.80	584.56	865.80	0.68
60.00	682.40	844.46	0.81	604.42	865.80	0.70
53.33	684.18	844.46	0.81	603.09	865.80	0.70
40.00	724.08	844.46	0.86	637.41	865.80	0.74
33.33	725.93	844.46	0.86	636.02	865.80	0.73
20.00	765.59	844.46	0.91	669.85	865.80	0.77
13.33	767.44	844.46	0.91	668.45	865.80	0.77
0.00						

## FORCE/RESISTANCE RATIO IN DIAGONALS

MAST ELEV ft	- DIAG COMPRESSION -			--- DIAG TENSION ---		
	MAX COMP	COMP RESIST	FORCE/ RESIST RATIO	MAX TENS	TENS RESIST	FORCE/ RESIST RATIO
305.00	0.50	7.16	0.07	0.46	7.16	0.06
300.00	5.56	10.74	0.52	5.29	10.74	0.49
295.00	5.67	10.74	0.53	5.83	10.74	0.54
290.00	8.34	10.74	0.78	8.21	10.74	0.76
285.00	10.07	10.74	0.94	10.09	10.74	0.94
280.00	8.70	14.32	0.61	8.24	14.32	0.58
275.00	9.63	14.32	0.67	9.78	14.32	0.68
270.00	9.11	14.32	0.64	8.95	14.32	0.62
265.00	10.92	14.32	0.76	10.92	14.32	0.76
260.00	10.96	13.03	0.84	10.90	13.03	0.84
255.00	10.44	13.03	0.80	10.44	13.03	0.80
250.00	10.10	13.03	0.77	10.04	13.03	0.77
245.00	9.78	13.03	0.75	9.78	13.03	0.75
240.00	10.34	13.00	0.80	10.29	13.00	0.79
233.33	9.99	13.00	0.77	9.98	13.00	0.77
226.67	9.79	13.00	0.75	9.74	13.00	0.75
220.00	9.64	13.34	0.72	9.64	13.34	0.72
213.33	9.62	13.34	0.72	9.58	13.34	0.72
206.67	9.61	13.34	0.72	9.59	13.34	0.72
200.00	9.66	10.34	0.93	9.63	10.34	0.93
193.33	9.74	10.34	0.94	9.71	10.34	0.94
186.67	9.84	10.34	0.95	9.82	10.34	0.95
180.00	10.91	11.62	0.94	10.85	11.62	0.93
170.00	10.98	11.62	0.94	10.94	11.62	0.94
160.00	11.13	14.82	0.75	11.08	14.82	0.75
150.00	11.33	14.82	0.76	11.29	14.82	0.76
140.00	11.61	15.77	0.74	11.55	15.77	0.73
130.00	11.94	15.77	0.76	11.89	15.77	0.75



120.00	12.29	13.43	0.92	12.24	13.43	0.91
110.00	12.65	13.43	0.94	12.61	13.43	0.94
100.00	13.04	14.31	0.91	12.99	14.31	0.91
90.00	13.45	14.31	0.94	13.40	14.31	0.94
80.00	13.85	15.70	0.88	13.81	15.70	0.88
70.00	14.26	15.70	0.91	14.21	15.70	0.90
60.00	15.09	20.02	0.75	14.99	20.02	0.75
53.33	19.61	30.51	0.64	19.55	30.51	0.64
40.00	15.85	18.24	0.87	15.73	18.24	0.86
33.33	20.11	28.50	0.71	20.04	28.50	0.70
20.00	16.46	16.98	0.97	16.38	16.98	0.96
13.33	20.42	22.03	0.93	20.37	22.03	0.92
0.00						

## FORCE/RESISTANCE RATIO IN HORIZONTALS

MAST ELEV ft	- HORIZ COMPRESSION -			--- HORIZ TENSION ---		
	MAX COMP	COMP RESIST	FORCE/ RESIST RATIO	MAX TENS	TENS RESIST	FORCE/ RESIST RATIO
305.00	0.08	5.82	0.01	0.09	5.82	0.02
300.00	1.47	8.46	0.17	1.68	8.46	0.20
295.00	0.20	0.00	N/A	0.28	0.00	N/A
290.00	Resistances values are not provided for this range.					
285.00	Resistances values are not provided for this range.					
280.00	0.59	10.95	0.05	0.55	10.95	0.05
275.00	0.15	0.00	N/A	0.20	0.00	N/A
270.00	Resistances values are not provided for this range.					
265.00	Resistances values are not provided for this range.					
260.00	0.14	0.00	N/A	0.16	0.00	N/A
255.00	Resistances values are not provided for this range.					
250.00	Resistances values are not provided for this range.					
245.00	Resistances values are not provided for this range.					
240.00	0.14	0.00	N/A	0.16	0.00	N/A
233.33	Resistances values are not provided for this range.					
226.67	Resistances values are not provided for this range.					
220.00	0.09	0.00	N/A	0.11	0.00	N/A
213.33	Resistances values are not provided for this range.					
206.67	Resistances values are not provided for this range.					
200.00	0.06	0.00	N/A	0.07	0.00	N/A
193.33	Resistances values are not provided for this range.					
186.67	Resistances values are not provided for this range.					
180.00	0.10	0.00	N/A	0.11	0.00	N/A
170.00	Resistances values are not provided for this range.					
160.00	0.07	0.00	N/A	0.08	0.00	N/A
150.00	Resistances values are not provided for this range.					
140.00	0.06	0.00	N/A	0.07	0.00	N/A
130.00	Resistances values are not provided for this range.					
120.00	0.06	0.00	N/A	0.07	0.00	N/A
110.00	Resistances values are not provided for this range.					
100.00	0.04	0.00	N/A	0.05	0.00	N/A
90.00	Resistances values are not provided for this range.					
80.00	0.05	0.00	N/A	0.05	0.00	N/A
70.00	Resistances values are not provided for this range.					
60.00	0.27	0.00	N/A	0.30	0.00	N/A
53.33	1.28	15.60	0.08	1.07	15.60	0.07
40.00	0.22	0.00	N/A	0.26	0.00	N/A
33.33	1.21	17.32	0.07	1.00	17.32	0.06
20.00	0.09	0.00	N/A	0.11	0.00	N/A
13.33	1.08	15.58	0.07	0.88	15.58	0.06

## FORCE/RESISTANCE RATIO IN INTERNAL BRACING

MAST ELEV ft	- BRACE COMPRESSION -			--- BRACE TENSION ---		
	MAX COMP	COMP RESIST	FORCE/ RESIST RATIO	MAX TENS	TENS RESIST	FORCE/ RESIST RATIO
305.00	0.00	0.00	N/A	0.00	0.00	N/A
300.00	0.00	0.00	N/A	0.00	0.00	N/A
295.00	0.00	0.00	N/A	0.00	0.00	N/A
290.00	Resistances values are not provided for this range.					
285.00	Resistances values are not provided for this range.					
280.00	0.00	0.00	N/A	0.00	0.00	N/A
275.00	0.00	0.00	N/A	0.00	0.00	N/A
270.00	Resistances values are not provided for this range.					
265.00	Resistances values are not provided for this range.					



401967

260.00	0.00	0.00	N/A	0.00	0.00	N/A
255.00	Resistances values are not provided for this range.					
250.00	Resistances values are not provided for this range.					
245.00	Resistances values are not provided for this range.					
240.00	0.00	0.00	N/A	0.00	0.00	N/A
233.33	Resistances values are not provided for this range.					
226.67	Resistances values are not provided for this range.					
220.00	0.00	0.00	N/A	0.00	0.00	N/A
213.33	Resistances values are not provided for this range.					
206.67	Resistances values are not provided for this range.					
200.00	0.00	0.00	N/A	0.00	0.00	N/A
193.33	Resistances values are not provided for this range.					
186.67	Resistances values are not provided for this range.					
180.00	0.00	0.00	N/A	0.00	0.00	N/A
170.00	Resistances values are not provided for this range.					
160.00	0.00	0.00	N/A	0.00	0.00	N/A
150.00	Resistances values are not provided for this range.					
140.00	0.00	0.00	N/A	0.00	0.00	N/A
130.00	Resistances values are not provided for this range.					
120.00	0.00	0.00	N/A	0.00	0.00	N/A
110.00	Resistances values are not provided for this range.					
100.00	0.00	0.00	N/A	0.00	0.00	N/A
90.00	Resistances values are not provided for this range.					
80.00	0.00	0.00	N/A	0.00	0.00	N/A
70.00	Resistances values are not provided for this range.					
60.00	0.00	0.00	N/A	0.00	0.00	N/A
53.33	0.00	7.41	0.00	0.00	7.41	0.00
40.00	0.00	0.00	N/A	0.00	0.00	N/A
33.33	0.00	6.59	0.00	0.00	6.59	0.00
20.00	0.00	0.00	N/A	0.00	0.00	N/A
13.33	0.00	9.00	0.00	0.00	9.00	0.00

## MAXIMUM INDIVIDUAL FOUNDATION LOADS: (kip)

LOAD---COMPONENTS---				TOTAL
NORTH	EAST	DOWN	UPLIFT	SHEAR
71.84 G	61.82 K	792.31 G	-689.42 M	71.84 G

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

HORIZONTAL-----			DOWN	OVERTURNING-----		TORSION
NORTH	EAST	TOTAL @ 0.0		NORTH	EAST	TOTAL @ 0.0
117.4 S	-111.8 P	117.4 S	312.0 d	21403.4 G	-20512.9 D	21403.4 G
						-49.2 R

Latticed Tower Analysis (Unguyed)  
 Processed under license at:

(c)2015 Guymast Inc. 416-736-7453

Sabre Towers and Poles

on: 6 feb 2018 at: 16:20:11

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

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

## LOADING CONDITION A

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

## MAST LOADING

LOAD TYPE	ELEV ft	APPLY..LOAD..AT RADIUS ft	LOAD AZI	FORCES.....	MOMENTS.....		
				HORIZ kip	DOWN kip	VERTICAL ft-kip	TORSNAL ft-kip



401967

C	310.0	0.00	0.0	0.0	0.08	0.13	0.00	0.00
C	300.0	0.00	0.0	0.0	2.95	6.00	0.00	0.00
C	288.0	0.00	0.0	0.0	2.19	4.00	0.00	0.00
C	276.0	0.00	0.0	0.0	2.17	4.00	0.00	0.00
C	264.0	0.00	0.0	0.0	2.15	4.00	0.00	0.00
D	305.0	0.00	180.0	0.0	0.02	0.03	0.00	0.00
D	300.0	0.00	180.0	0.0	0.02	0.03	0.00	0.00
D	300.0	0.00	42.0	0.0	0.04	0.08	0.05	0.03
D	290.0	0.00	42.0	0.0	0.04	0.07	0.05	0.03
D	290.0	0.00	63.7	0.0	0.04	0.08	0.05	0.03
D	280.0	0.00	76.5	0.0	0.05	0.09	0.05	0.04
D	280.0	0.00	80.8	0.0	0.06	0.13	0.05	0.03
D	275.0	0.00	80.8	0.0	0.06	0.13	0.05	0.03
D	275.0	0.00	99.1	0.0	0.06	0.14	0.04	0.02
D	265.0	0.00	101.2	0.0	0.06	0.15	0.03	0.02
D	265.0	0.00	58.7	0.0	0.06	0.16	0.00	0.02
D	260.0	0.00	58.7	0.0	0.06	0.16	0.00	0.02
D	260.0	0.00	330.0	0.0	0.07	0.18	0.01	0.01
D	240.0	0.00	329.1	0.0	0.07	0.19	0.01	0.01
D	240.0	0.00	329.9	0.0	0.07	0.21	0.01	0.01
D	220.0	0.00	329.2	0.0	0.07	0.22	0.01	0.01
D	220.0	0.00	329.9	0.0	0.08	0.22	0.01	0.01
D	200.0	0.00	329.4	0.0	0.08	0.22	0.01	0.01
D	200.0	0.00	330.0	0.0	0.08	0.27	0.01	0.01
D	180.0	0.00	329.6	0.0	0.08	0.27	0.01	0.01
D	180.0	0.00	329.9	0.0	0.07	0.28	0.01	0.01
D	150.0	0.00	329.9	0.0	0.08	0.29	0.01	0.01
D	150.0	0.00	329.8	0.0	0.08	0.30	0.01	0.01
D	140.0	0.00	329.8	0.0	0.08	0.30	0.01	0.01
D	140.0	0.00	330.0	0.0	0.08	0.34	0.01	0.01
D	100.0	0.00	329.9	0.0	0.08	0.35	0.01	0.01
D	100.0	0.00	330.0	0.0	0.08	0.34	0.01	0.01
D	80.0	0.00	329.9	0.0	0.08	0.34	0.01	0.01
D	80.0	0.00	330.0	0.0	0.08	0.42	0.01	0.01
D	60.0	0.00	329.9	0.0	0.08	0.42	0.01	0.01
D	60.0	0.00	330.0	0.0	0.07	0.40	0.01	0.01
D	53.3	0.00	330.0	0.0	0.07	0.40	0.01	0.01
D	53.3	0.00	329.9	0.0	0.09	0.47	0.01	0.01
D	40.0	0.00	329.9	0.0	0.09	0.47	0.01	0.01
D	40.0	0.00	330.0	0.0	0.07	0.40	0.01	0.01
D	33.3	0.00	330.0	0.0	0.07	0.40	0.01	0.01
D	33.3	0.00	330.0	0.0	0.08	0.49	0.01	0.01
D	20.0	0.00	330.0	0.0	0.08	0.49	0.01	0.01
D	20.0	0.00	330.0	0.0	0.06	0.41	0.01	0.01
D	13.3	0.00	330.0	0.0	0.06	0.41	0.01	0.01
D	13.3	0.00	330.0	0.0	0.07	0.49	0.01	0.01
D	0.0	0.00	330.0	0.0	0.07	0.49	0.01	0.01

SUPPRESS PRINTING

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LOADS INPUT	...FOR THIS LOADING..			.....MAXIMUMS.....			
	DISPL	MEMBER FORCES	FOUNDN LOADS	ALL	DISPL	MEMBER FORCES	FOUNDN LOADS
no	yes	yes	yes	no	no	no	no

=====

MAXIMUM MAST DISPLACEMENTS:

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ELEV ft	-----DEFLECTIONS (ft)-----			--TILTS (DEG)--		TWIST DEG
	NORTH	EAST	DOWN	NORTH	EAST	
305.0	1.372 G	-1.320 D	0.018 G	0.631 G	-0.608 D	-0.038 F
300.0	1.317 G	-1.267 D	0.018 G	0.631 G	-0.608 D	-0.038 F
295.0	1.261 G	-1.213 D	0.017 G	0.628 G	-0.604 D	-0.038 F
290.0	1.206 G	-1.161 D	0.017 G	0.619 G	-0.595 D	-0.037 F
285.0	1.151 G	-1.108 D	0.016 G	0.602 G	-0.580 D	-0.036 F
280.0	1.099 G	-1.057 D	0.016 G	0.576 G	-0.554 D	-0.034 F
275.0	1.049 G	-1.009 D	0.015 G	0.559 G	-0.538 D	-0.032 F
270.0	1.000 G	-0.962 D	0.015 G	0.540 G	-0.520 D	-0.031 F
265.0	0.953 G	-0.917 D	0.014 G	0.519 G	-0.500 D	-0.030 F
260.0	0.908 G	-0.873 D	0.014 G	0.496 G	-0.478 D	-0.028 F
255.0	0.864 G	-0.831 D	0.014 G	0.479 G	-0.461 D	-0.027 F
250.0	0.822 G	-0.791 D	0.013 G	0.460 G	-0.443 D	-0.026 F
245.0	0.782 G	-0.752 D	0.013 G	0.441 G	-0.424 D	-0.025 F
240.0	0.743 G	-0.715 D	0.012 G	0.421 G	-0.405 D	-0.024 F
233.3	0.695 G	-0.668 D	0.012 G	0.400 G	-0.385 D	-0.023 F
226.7	0.648 G	-0.623 D	0.012 G	0.379 G	-0.365 D	-0.022 F
220.0	0.605 G	-0.581 D	0.011 G	0.358 G	-0.344 D	-0.021 F
213.3	0.563 G	-0.541 D	0.011 G	0.337 G	-0.325 D	-0.020 F
206.7	0.524 G	-0.503 D	0.010 G	0.317 G	-0.305 D	-0.019 F
200.0	0.487 G	-0.468 D	0.010 G	0.297 G	-0.286 D	-0.017 F
193.3	0.452 G	-0.434 D	0.010 G	0.284 G	-0.274 D	-0.016 F
186.7	0.418 G	-0.402 D	0.009 G	0.271 G	-0.261 D	-0.015 F
180.0	0.386 G	-0.371 D	0.009 G	0.259 G	-0.249 D	-0.014 F



401967

170.0	0.341 G	-0.328 D	0.009 G	0.239 G	-0.230 D	0.013 L
160.0	0.300 G	-0.288 D	0.008 G	0.220 G	-0.212 D	0.012 L
150.0	0.262 G	-0.252 D	0.008 G	0.201 G	-0.193 D	0.011 L
140.0	0.227 G	-0.218 D	0.007 G	0.182 G	-0.175 D	0.010 L
130.0	0.196 G	-0.188 D	0.007 G	0.167 G	-0.161 D	0.010 L
120.0	0.167 G	-0.160 D	0.006 G	0.153 G	-0.147 D	0.009 L
110.0	0.140 G	-0.134 D	0.006 G	0.138 G	-0.133 D	0.008 L
100.0	0.115 G	-0.111 D	0.005 G	0.124 G	-0.119 D	0.007 L
90.0	0.093 G	-0.089 D	0.005 G	0.108 G	-0.104 D	0.006 L
80.0	0.074 G	-0.071 D	0.004 G	0.092 G	-0.089 D	0.005 L
70.0	0.056 G	-0.054 D	0.004 G	0.080 G	-0.077 D	-0.004 F
60.0	0.040 G	-0.038 D	0.003 G	0.068 G	-0.066 D	-0.004 F
53.3	0.033 G	-0.031 D	0.003 G	0.061 G	-0.059 D	-0.003 F
40.0	0.019 G	-0.018 D	0.002 K	0.045 G	-0.043 D	-0.003 F
33.3	0.015 G	-0.014 D	0.002 B	0.038 G	-0.036 D	-0.002 F
20.0	0.006 G	-0.006 D	0.001 B	0.022 G	-0.022 D	-0.001 F
13.3	0.003 G	-0.003 D	0.001 B	0.015 G	-0.014 D	-0.001 F
0.0	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A

MAXIMUM TENSION IN MAST MEMBERS (kip)

ELEV ft	LEGS	DIAG	HORIZ	BRACE
305.0	-----	-----	0.03 A	0.00 A
	0.00 I	0.13 A		
300.0	-----	-----	0.54 K	0.00 A
	0.09 A	1.42 H		
295.0	-----	-----	0.10 A	0.00 A
	3.64 A	1.72 H		
290.0	-----	-----	0.03 G	0.00 A
	7.62 A	2.30 H		
285.0	-----	-----	0.11 A	0.00 A
	13.44 A	2.89 H		
280.0	-----	-----	0.14 A	0.00 A
	18.97 A	2.22 A		
275.0	-----	-----	0.08 A	0.00 A
	23.73 A	2.83 H		
270.0	-----	-----	0.05 A	0.00 A
	29.43 A	2.49 B		
265.0	-----	-----	0.05 A	0.00 A
	34.02 A	3.10 H		
260.0	-----	-----	0.05 A	0.00 A
	40.04 A	3.08 H		
255.0	-----	-----	0.03 A	0.00 A
	45.52 A	2.97 B		
250.0	-----	-----	0.06 A	0.00 A
	50.80 A	2.84 B		
245.0	-----	-----	0.03 A	0.00 A
	55.46 A	2.79 B		
240.0	-----	-----	0.05 A	0.00 A
	60.63 A	2.91 B		
233.3	-----	-----	0.04 A	0.00 A
	65.93 A	2.85 H		
226.7	-----	-----	0.04 A	0.00 A
	70.97 A	2.77 H		
220.0	-----	-----	0.04 A	0.00 A
	75.58 A	2.76 H		
213.3	-----	-----	0.03 A	0.00 A
	80.03 A	2.73 H		
206.7	-----	-----	0.03 A	0.00 A
	84.19 A	2.75 H		
200.0	-----	-----	0.02 A	0.00 A
	88.21 A	2.76 H		
193.3	-----	-----	0.04 A	0.00 A
	91.95 A	2.78 H		
186.7	-----	-----	0.02 A	0.00 A
	95.64 A	2.82 H		
180.0	-----	-----	0.04 A	0.00 A
	99.98 A	3.11 B		
170.0	-----	-----	0.04 A	0.00 A
	105.10 A	3.15 B		
160.0	-----	-----	0.03 A	0.00 A
	109.94 A	3.19 H		
150.0	-----	-----	0.04 A	0.00 A
	114.67 A	3.25 B		
140.0	-----	-----	0.02 A	0.00 A
	119.16 A	3.33 H		
130.0	-----	-----	0.02 A	0.00 A
	123.52 A	3.42 J		
120.0	-----	-----	0.02 A	0.00 A
	127.77 A	3.52 D		
110.0	-----	-----	0.02 A	0.00 A
	131.99 A	3.62 J		
100.0	-----	-----	0.02 A	0.00 A
	136.15 A	3.73 D		
90.0	-----	-----	0.02 A	0.00 A
	140.30 A	3.84 D		
80.0	-----	-----	0.01 C	0.00 A
	144.28 A	3.96 D		



70.0	-----		0.01 G	401967 0.00 A
	148.09 A	4.07 D		
60.0	-----		0.10 A	0.00 A
	152.96 A	4.27 D		
53.3	-----		0.27 I	0.00 I
	151.48 A	5.59 D		
40.0	-----		0.09 A	0.00 A
	160.23 A	4.47 D		
33.3	-----		0.25 I	0.00 I
	158.69 A	5.72 D		
20.0	-----		0.04 A	0.00 I
	167.23 A	4.67 D		
13.3	-----		0.22 I	0.00 B
	165.69 A	5.83 D		
0.0	-----		0.00 A	0.00 A

MAXIMUM COMPRESSION IN MAST MEMBERS (kip)

ELEV ft	LEGS	DIAG	HORIZ	BRACE
305.0	-----		-0.02 G	0.00 A
	-0.12 C	-0.15 G		
300.0	-----		-0.35 E	0.00 A
	-4.07 G	-1.68 H		
295.0	-----		-0.03 G	0.00 A
	-8.47 G	-1.57 H		
290.0	-----		-0.05 A	0.00 A
	-13.97 G	-2.42 B		
285.0	-----		-0.04 G	0.00 A
	-21.42 G	-2.87 B		
280.0	-----		-0.18 G	0.00 A
	-27.42 G	-2.60 G		
275.0	-----		-0.03 G	0.00 A
	-35.52 G	-2.69 B		
270.0	-----		-0.03 G	0.00 A
	-41.40 G	-2.65 H		
265.0	-----		-0.02 G	0.00 A
	-48.90 G	-3.11 B		
260.0	-----		-0.03 G	0.00 A
	-56.04 G	-3.14 B		
255.0	-----		-0.01 G	0.00 A
	-62.29 G	-2.97 B		
250.0	-----		-0.04 G	0.00 A
	-68.20 G	-2.89 B		
245.0	-----		-0.02 G	0.00 A
	-73.64 G	-2.79 H		
240.0	-----		-0.03 G	0.00 A
	-79.61 G	-2.97 H		
233.3	-----		-0.02 G	0.00 A
	-86.04 G	-2.86 H		
226.7	-----		-0.03 G	0.00 A
	-92.12 G	-2.82 H		
220.0	-----		-0.02 G	0.00 A
	-97.86 G	-2.77 H		
213.3	-----		-0.02 G	0.00 A
	-103.39 G	-2.77 H		
206.7	-----		-0.02 G	0.00 A
	-108.69 G	-2.77 H		
200.0	-----		-0.01 G	0.00 A
	-113.93 G	-2.79 H		
193.3	-----		-0.02 G	0.00 A
	-119.04 G	-2.81 H		
186.7	-----		-0.01 G	0.00 A
	-124.10 G	-2.84 H		
180.0	-----		-0.02 G	0.00 A
	-130.13 G	-3.16 H		
170.0	-----		-0.02 G	0.00 A
	-137.40 G	-3.18 H		
160.0	-----		-0.02 G	0.00 A
	-144.39 G	-3.24 B		
150.0	-----		-0.02 G	0.00 A
	-151.34 G	-3.29 H		
140.0	-----		-0.01 G	0.00 A
	-158.21 G	-3.38 B		
130.0	-----		-0.01 G	0.00 A
	-165.14 G	-3.47 D		
120.0	-----		-0.01 G	0.00 A
	-171.99 G	-3.57 J		
110.0	-----		-0.01 G	0.00 A
	-178.83 G	-3.67 D		
100.0	-----		-0.01 G	0.00 A
	-185.59 G	-3.78 D		
90.0	-----		-0.01 G	0.00 A
	-192.34 G	-3.89 D		
80.0	-----		-0.02 I	0.00 A



401967

	-199.19 G	-4.00 D		
70.0	-----	-----	-0.03 A	0.00 A
	-206.15 G	-4.11 D		
60.0	-----	-----	-0.06 G	0.00 A
	-213.66 G	-4.37 D		
53.3	-----	-----	-0.40 C	0.00 C
	-215.14 G	-5.65 D		
40.0	-----	-----	-0.05 G	0.00 A
	-227.55 G	-4.58 D		
33.3	-----	-----	-0.38 C	0.00 H
	-229.09 G	-5.79 D		
20.0	-----	-----	-0.02 G	0.00 H
	-241.48 G	-4.75 D		
13.3	-----	-----	-0.34 C	0.00 G
	-243.02 G	-5.87 D		
0.0	-----	-----	0.00 A	0.00 A

## FORCE/RESISTANCE RATIO IN LEGS

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MAST ELEV ft	-- LEG COMPRESSION --			---- LEG TENSION ----		
	MAX COMP	COMP RESIST	FORCE/ RESIST RATIO	MAX TENS	TENS RESIST	FORCE/ RESIST RATIO
305.00	0.12	31.48	0.00	0.00	48.15	0.00
300.00	4.07	74.39	0.05	0.09	101.25	0.00
295.00	8.47	74.39	0.11	3.64	101.25	0.04
290.00	13.97	74.39	0.19	7.62	101.25	0.08
285.00	21.42	74.39	0.29	13.44	101.25	0.13
280.00	27.42	175.98	0.16	18.97	198.45	0.10
275.00	35.52	175.98	0.20	23.73	198.45	0.12
270.00	41.40	175.98	0.24	29.43	198.45	0.15
265.00	48.90	175.98	0.28	34.02	198.45	0.17
260.00	56.04	254.38	0.22	40.04	274.95	0.15
255.00	62.29	254.38	0.24	45.52	274.95	0.17
250.00	68.20	254.38	0.27	50.80	274.95	0.18
245.00	73.64	254.38	0.29	55.46	274.95	0.20
240.00	79.61	309.64	0.26	60.63	357.75	0.17
233.33	86.04	309.64	0.28	65.93	357.75	0.18
226.67	92.12	309.64	0.30	70.97	357.75	0.20
220.00	97.86	358.08	0.27	75.58	378.00	0.20
213.33	103.39	358.08	0.29	80.03	378.00	0.21
206.67	108.69	358.08	0.30	84.19	378.00	0.22
200.00	113.93	544.40	0.21	88.21	457.90	0.19
193.33	119.04	544.40	0.22	91.95	457.90	0.20
186.67	124.10	544.40	0.23	95.64	457.90	0.21
180.00	130.13	507.33	0.26	99.98	457.90	0.22
170.00	137.40	507.33	0.27	105.10	457.90	0.23
160.00	144.39	507.33	0.28	109.94	576.00	0.19
150.00	151.34	507.33	0.30	114.67	576.00	0.20
140.00	158.21	668.86	0.24	119.16	724.50	0.16
130.00	165.14	668.86	0.25	123.52	724.50	0.17
120.00	171.99	668.86	0.26	127.77	724.50	0.18
110.00	178.83	668.86	0.27	131.99	724.50	0.18
100.00	185.59	621.06	0.30	136.15	656.10	0.21
90.00	192.34	621.06	0.31	140.30	656.10	0.21
80.00	199.19	818.52	0.24	144.28	865.80	0.17



401967

70.00	206.15	818.52	0.25	148.09	865.80	0.17
60.00	213.66	844.46	0.25	152.96	865.80	0.18
53.33	215.14	844.46	0.25	151.48	865.80	0.17
40.00	227.55	844.46	0.27	160.23	865.80	0.19
33.33	229.09	844.46	0.27	158.69	865.80	0.18
20.00	241.48	844.46	0.29	167.23	865.80	0.19
13.33	243.02	844.46	0.29	165.69	865.80	0.19
0.00						

## FORCE/RESISTANCE RATIO IN DIAGONALS

MAST ELEV ft	- DIAG COMPRESSION -			--- DIAG TENSION ---		
	MAX COMP	COMP RESIST	FORCE/ RESIST RATIO	MAX TENS	TENS RESIST	FORCE/ RESIST RATIO
305.00	0.15	7.16	0.02	0.13	7.16	0.02
300.00	1.68	10.74	0.16	1.42	10.74	0.13
295.00	1.57	10.74	0.15	1.72	10.74	0.16
290.00	2.42	10.74	0.23	2.30	10.74	0.21
285.00	2.87	10.74	0.27	2.89	10.74	0.27
280.00	2.60	14.32	0.18	2.22	14.32	0.15
275.00	2.69	14.32	0.19	2.83	14.32	0.20
270.00	2.65	14.32	0.18	2.49	14.32	0.17
265.00	3.11	14.32	0.22	3.10	14.32	0.22
260.00	3.14	13.03	0.24	3.08	13.03	0.24
255.00	2.97	13.03	0.23	2.97	13.03	0.23
250.00	2.89	13.03	0.22	2.84	13.03	0.22
245.00	2.79	13.03	0.21	2.79	13.03	0.21
240.00	2.97	13.00	0.23	2.91	13.00	0.22
233.33	2.86	13.00	0.22	2.85	13.00	0.22
226.67	2.82	13.00	0.22	2.77	13.00	0.21
220.00	2.77	13.34	0.21	2.76	13.34	0.21
213.33	2.77	13.34	0.21	2.73	13.34	0.20
206.67	2.77	13.34	0.21	2.75	13.34	0.21
200.00	2.79	10.34	0.27	2.76	10.34	0.27
193.33	2.81	10.34	0.27	2.78	10.34	0.27
186.67	2.84	10.34	0.27	2.82	10.34	0.27
180.00	3.16	11.62	0.27	3.11	11.62	0.27
170.00	3.18	11.62	0.27	3.15	11.62	0.27
160.00	3.24	14.82	0.22	3.19	14.82	0.22
150.00	3.29	14.82	0.22	3.25	14.82	0.22
140.00	3.38	15.77	0.21	3.33	15.77	0.21
130.00	3.47	15.77	0.22	3.42	15.77	0.22
120.00	3.57	13.43	0.27	3.52	13.43	0.26
110.00	3.67	13.43	0.27	3.62	13.43	0.27
100.00	3.78	14.31	0.26	3.73	14.31	0.26
90.00	3.89	14.31	0.27	3.84	14.31	0.27
80.00	4.00	15.70	0.25	3.96	15.70	0.25
70.00	4.11	15.70	0.26	4.07	15.70	0.26



60.00	4.37	20.02	0.22	4.27	20.02	0.21
53.33	5.65	30.51	0.19	5.59	30.51	0.18
40.00	4.58	18.24	0.25	4.47	18.24	0.25
33.33	5.79	28.50	0.20	5.72	28.50	0.20
20.00	4.75	16.98	0.28	4.67	16.98	0.28
13.33	5.87	22.03	0.27	5.83	22.03	0.26
0.00						

## FORCE/RESISTANCE RATIO IN HORIZONTALS

MAST ELEV ft	- HORIZ COMPRESSION -			--- HORIZ TENSION ---		
	MAX COMP	COMP RESIST	FORCE/ RESIST RATIO	MAX TENS	TENS RESIST	FORCE/ RESIST RATIO
305.00	0.02	5.82	0.00	0.03	5.82	0.01
300.00	0.35	8.46	0.04	0.54	8.46	0.06
295.00	0.03	0.00	N/A	0.10	0.00	N/A
290.00	Resistances values are not provided for this range.					
285.00	Resistances values are not provided for this range.					
280.00	0.18	10.95	0.02	0.14	10.95	0.01
275.00	0.03	0.00	N/A	0.08	0.00	N/A
270.00	Resistances values are not provided for this range.					
265.00	Resistances values are not provided for this range.					
260.00	0.03	0.00	N/A	0.05	0.00	N/A
255.00	Resistances values are not provided for this range.					
250.00	Resistances values are not provided for this range.					
245.00	Resistances values are not provided for this range.					
240.00	0.03	0.00	N/A	0.05	0.00	N/A
233.33	Resistances values are not provided for this range.					
226.67	Resistances values are not provided for this range.					
220.00	0.02	0.00	N/A	0.04	0.00	N/A
213.33	Resistances values are not provided for this range.					
206.67	Resistances values are not provided for this range.					
200.00	0.01	0.00	N/A	0.02	0.00	N/A
193.33	Resistances values are not provided for this range.					
186.67	Resistances values are not provided for this range.					
180.00	0.02	0.00	N/A	0.04	0.00	N/A
170.00	Resistances values are not provided for this range.					
160.00	0.02	0.00	N/A	0.03	0.00	N/A
150.00	Resistances values are not provided for this range.					
140.00	0.01	0.00	N/A	0.02	0.00	N/A
130.00	Resistances values are not provided for this range.					
120.00	0.01	0.00	N/A	0.02	0.00	N/A
110.00	Resistances values are not provided for this range.					
100.00	0.01	0.00	N/A	0.02	0.00	N/A
90.00	Resistances values are not provided for this range.					
80.00	0.02	0.00	N/A	0.01	0.00	N/A
70.00	Resistances values are not provided for this range.					
60.00	0.06	0.00	N/A	0.10	0.00	N/A
53.33	0.40	15.60	0.03	0.27	15.60	0.02
40.00	0.05	0.00	N/A	0.09	0.00	N/A
33.33	0.38	17.32	0.02	0.25	17.32	0.01
20.00	0.02	0.00	N/A	0.04	0.00	N/A
13.33	0.34	15.58	0.02	0.22	15.58	0.01

## FORCE/RESISTANCE RATIO IN INTERNAL BRACING

MAST ELEV ft	- BRACE COMPRESSION -			--- BRACE TENSION ---		
	MAX COMP	COMP RESIST	FORCE/ RESIST RATIO	MAX TENS	TENS RESIST	FORCE/ RESIST RATIO
305.00	0.00	0.00	N/A	0.00	0.00	N/A
300.00	0.00	0.00	N/A	0.00	0.00	N/A
295.00	0.00	0.00	N/A	0.00	0.00	N/A
290.00	Resistances values are not provided for this range.					
285.00	Resistances values are not provided for this range.					
280.00	0.00	0.00	N/A	0.00	0.00	N/A
275.00	0.00	0.00	N/A	0.00	0.00	N/A
270.00	Resistances values are not provided for this range.					
265.00	Resistances values are not provided for this range.					
260.00	0.00	0.00	N/A	0.00	0.00	N/A
255.00	Resistances values are not provided for this range.					
250.00	Resistances values are not provided for this range.					
245.00	Resistances values are not provided for this range.					
240.00	0.00	0.00	N/A	0.00	0.00	N/A
233.33	Resistances values are not provided for this range.					
226.67	Resistances values are not provided for this range.					
220.00	0.00	0.00	N/A	0.00	0.00	N/A
213.33	Resistances values are not provided for this range.					
206.67	Resistances values are not provided for this range.					
200.00	0.00	0.00	N/A	0.00	0.00	N/A
193.33	Resistances values are not provided for this range.					



401967

186.67	Resistances values are not provided for this range.					
180.00	0.00	0.00	N/A	0.00	0.00	N/A
170.00	Resistances values are not provided for this range.					
160.00	0.00	0.00	N/A	0.00	0.00	N/A
150.00	Resistances values are not provided for this range.					
140.00	0.00	0.00	N/A	0.00	0.00	N/A
130.00	Resistances values are not provided for this range.					
120.00	0.00	0.00	N/A	0.00	0.00	N/A
110.00	Resistances values are not provided for this range.					
100.00	0.00	0.00	N/A	0.00	0.00	N/A
90.00	Resistances values are not provided for this range.					
80.00	0.00	0.00	N/A	0.00	0.00	N/A
70.00	Resistances values are not provided for this range.					
60.00	0.00	0.00	N/A	0.00	0.00	N/A
53.33	0.00	7.41	0.00	0.00	7.41	0.00
40.00	0.00	0.00	N/A	0.00	0.00	N/A
33.33	0.00	6.59	0.00	0.00	6.59	0.00
20.00	0.00	0.00	N/A	0.00	0.00	N/A
13.33	0.00	9.00	0.00	0.00	9.00	0.00

MAXIMUM INDIVIDUAL FOUNDATION LOADS: (kip)

-----LOAD-----COMPONENTS-----				TOTAL
NORTH	EAST	DOWN	UPLIFT	SHEAR
21.94 G	18.89 K	250.84 G	-170.91 A	21.94 G

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

-----HORIZONTAL-----			DOWN	-----OVERTURNING-----			TORSION
NORTH	EAST	TOTAL		NORTH	EAST	TOTAL	
	@	0.0			@	0.0	
33.7	-32.1	33.7	108.5	6135.7	-5883.4	6135.7	-14.0
G	D	G	B	G	D	G	F



# MAT FOUNDATION DESIGN BY SABRE TOWERS & POLES

Tower Description 305' S3TL Series HD1

Customer AT&T

Project Number 401967

Date 2/6/2018

Engineer MH

## Overall Loads:

Factored Moment (ft-kips)	21403.43
Factored Axial (kips)	312.02
Factored Shear (kips)	117.43

## Individual Leg Loads:

Factored Uplift (kips)	689.00
Factored Download (kips)	792.00
Factored Shear (kips)	72.00

Anchor Bolt Count (per leg) 6

Tower eccentric from mat (ft)= 2.75

Width of Tower (ft)	33
Ultimate Bearing Pressure	12.00
Bearing $\Phi_s$	0.75

Allowable Bearing Pressure (ksf) 6.00  
Safety Factor 2.00

Bearing Design Strength (ksf)	9
Water Table Below Grade (ft)	999
Width of Mat (ft)	40.5
Thickness of Mat (ft)	2
Depth to Bottom of Slab (ft)	6.5
Bolt Circle Diameter (in)	18

Max. Factored Net Bearing Pressure (ksf) 6.21

Minimum Mat Width (ft) 39.89

Top of Concrete to Top of Bottom Threads (in)	65.5
Diameter of Pier (ft)	3.5
Ht. of Pier Above Ground (ft)	0.5
Ht. of Pier Below Ground (ft)	4.5
Quantity of Bars in Mat	70
Bar Diameter in Mat (in)	1.41
Area of Bars in Mat (in <sup>2</sup> )	109.30
Spacing of Bars in Mat (in)	6.94
Quantity of Bars Pier	16
Bar Diameter in Pier (in)	1.27
Tie Bar Diameter in Pier (in)	0.5
Spacing of Ties (in)	9

Minimum Pier Diameter (ft) 2.83  
Equivalent Square b (ft) 3.10

Area of Bars in Pier (in <sup>2</sup> )	20.27
Spacing of Bars in Pier (in)	6.58
f'c (ksi)	4.5
fy (ksi)	60
Unit Wt. of Soil (kcf)	0.11
Unit Wt. of Concrete (kcf)	0.15
Volume of Concrete (yd <sup>3</sup> )	126.85

Recommended Spacing (in) 6 to 12

Minimum Pier A<sub>s</sub> (in<sup>2</sup>) 6.93  
Recommended Spacing (in) 5 to 12



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

## Two-Way Shear:

Average d (in)	19.59		
$\phi v_c$ (ksi)	0.228	$v_u$ (ksi)	0.226
$\phi v_c = \phi(2 + 4/\beta_c)f'_c{}^{1/2}$	0.342		
$\phi v_c = \phi(\alpha_s d/b_o + 2)f'_c{}^{1/2}$	0.353		
$\phi v_c = \phi 4f'_c{}^{1/2}$	0.228		
Shear perimeter, $b_o$ (in)	186.75		
$\beta_c$	1		

## Stability:

Overturning Design Strength (ft-k)	25473.6	Factored Overturning Moment (ft-k)	22225.4
------------------------------------	---------	------------------------------------	---------

## One-Way Shear:

$\phi V_c$ (kips)	1085.7	$V_u$ (kips)	999.1
<b>Pier Design:</b>			
Design Tensile Strength (kips)	1094.5	$T_u$ (kips)	689.0
$\phi V_n$ (kips)	75.6	$V_u$ (kips)	72.0
$\phi V_c = \phi 2(1 + N_u/(500A_g))f'_c{}^{1/2}b_w d$	0.9		
$V_s$ (kips)	88.0	*** $V_s \text{ max} = 4 f'_c{}^{1/2}b_w d$ (kips).	378.7
Maximum Spacing (in)	11.15	(Only if Shear Ties are Required)	
Actual Hook Development (in)	18.18	Req'd Hook Development $l_{dh}$ (in)	13.25
		*** Ref. ACI 11.5.5 & 11.5.6.3	

## Anchor Bolt Pull-Out:

$\phi P_c = \phi \lambda (2/3)f'_c{}^{1/2}(2.8A_{\text{SLOPE}} + 4A_{\text{FLAT}})$	208.9	$P_u$ (kips)	689.0
Pier Rebar Development Length (in)	54.64	Required Length of Development (in)	35.75

## Flexure in Slab:

$\phi M_n$ (ft-kips)	8767.9	$M_u$ (ft-kips)	8696.5
a (in)	3.53		
Steel Ratio	0.01148		
$\beta_1$	0.825		
Maximum Steel Ratio ( $\rho_t$ )	0.0197		
Minimum Steel Ratio	0.0018		
Rebar Development in Pad (in)	111.30	Required Development in Pad (in)	21.04

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 401967  
 Date 2/6/2018  
 Engineer MH

Factored Uplift (kips)	689
Factored Download (kips)	792
Factored Shear (kips)	72
Ultimate Bearing Pressure	27.65
Bearing $\Phi$ s	0.75
Bearing Design Strength (ksf)	20.7375
Water Table Below Grade (ft)	999
Bolt Circle Diameter (in)	18
Top of Concrete to Top of Bottom Threads (in)	65.5
Pier Diameter (ft)	6
Ht. Above Ground (ft)	0.5
Pier Length Below Ground (ft)	40
Quantity of Bars	26
Bar Diameter (in)	1
Tie Bar Diameter (in)	0.5
Spacing of Ties (in)	12
Area of Bars (in <sup>2</sup> )	20.42
Spacing of Bars (in)	7.73
f'c (ksi)	4.5
fy (ksi)	60

Anchor Bolt Count (per leg) 6

Unit Wt. of Concrete (kcf)	0.15
Download Friction $\Phi$ s	0.75
Uplift Friction $\Phi$ s	0.75
Volume of Concrete (yd <sup>3</sup> )	42.41

Minimum Pier Diameter (ft) 2.83

Minimum Area of Steel (in<sup>2</sup>) 20.36

Skin Friction Factor for Uplift	1
Ignore Bottom Length in Download?	<input type="checkbox"/>

Length to Ignore Download (ft) 0

Depth at Bottom of Layer (ft)	Ult. Skin Friction (ksf)	(Ult. Skin Friction)*(Uplift Factor)	$\gamma$ (kcf)
2	0.10	0.10	0.11
6	0.30	0.30	0.12
33	1.00	1.00	0.135
40	1.50	1.50	0.135
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)	2.5
Bearing Design Strength (kips)	586.3
Skin Friction Design Strength (kips)	549.9
Download Design Strength (kips)	1136.3

Factored Net Download (kips) 794.5



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

## **Uplift:**

Nominal Skin Friction (kips)	733.2
Wc, Weight of Concrete (kips)	171.8
W <sub>R</sub> , Soil Resistance (kips)	3985.4
$\Phi sW_r + 0.9W_c$ (kips)	3143.6

Uplift Design Strength (kips)	704.5
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Factored Uplift (kips)	689.0
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## **Pier Design:**

Design Tensile Strength (kips)	1102.7
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T <sub>u</sub> (kips)	689.0
-----------------------	-------

$\Phi V_n$ (kips)	312.9
-------------------	-------

V <sub>u</sub> (kips)	72.0
-----------------------	------

$\Phi V_c = \Phi 2(1 + N_u / (500A_g)) f'_c{}^{1/2} b_w d$ (kips)	312.9
-------------------------------------------------------------------	-------

V <sub>s</sub> (kips)	0.0
-----------------------	-----

*** V <sub>s</sub> max = 4 f' <sub>c</sub> <sup>1/2</sup> b <sub>w</sub> d (kips)	1112.8
-----------------------------------------------------------------------------------	--------

Maximum Spacing (in)	6.50
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(Only if Shear Ties are Required)

\*\*\* Ref. ACI 11.5.5 & 11.5.6.3

## **Anchor Bolt Pull-Out:**

$\Phi P_c = \Phi \lambda (2/3) f'_c{}^{1/2} (2.8A_{\text{SLOPE}} + 4A_{\text{FLAT}})$	613.2
---------------------------------------------------------------------------------------	-------

P <sub>u</sub> (kips)	689.0
-----------------------	-------

Rebar Development Length (in)	39.50
-------------------------------	-------

Required Length of Development (in)	27.94
-------------------------------------	-------

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



**EXHIBIT D**  
**COMPETING UTILITIES, CORPORATIONS, OR PERSONS LIST**



## KY Public Service Commission

### Master Utility Search

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

Utility ID	Utility Name	Address/City/Contact	Utility Type	Status
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Active <input type="text"/>
<input type="button" value="Search"/>				

	Utility ID	Utility Name	Utility Type	Class	City	State
<a href="#">View</a>	4107900	365 Wireless, LLC	Cellular	D	Atlanta	GA
<a href="#">View</a>	4109300	Access Point, Inc.	Cellular	D	Cary	NC
<a href="#">View</a>	4108300	Air Voice Wireless, LLC	Cellular	A	Bloomfield Hill	MI
<a href="#">View</a>	4110650	Alliant Technologies of KY, L.L.C.	Cellular	C	Morristown	NJ
<a href="#">View</a>	44451184	Alltel Communications, LLC	Cellular	A	Basking Ridge	NJ
<a href="#">View</a>	4110850	AltaWorx, LLC	Cellular	C	Fairhope	AL
<a href="#">View</a>	4107800	American Broadband and Telecommunications Company	Cellular	C	Toledo	OH
<a href="#">View</a>	4108650	AmeriMex Communications Corp.	Cellular	D	Dunedin	FL
<a href="#">View</a>	4105100	AmeriVision Communications, Inc. d/b/a Affinity 4	Cellular	D	Virginia Beach	VA
<a href="#">View</a>	4110700	Andrew David Balholm dba Norcell	Cellular	C	Clayton	WA
<a href="#">View</a>	4108600	BCN Telecom, Inc.	Cellular	D	Morristown	NJ
<a href="#">View</a>	4110550	Blue Casa Mobile, LLC	Cellular	D	Santa Barbara	CA
<a href="#">View</a>	4108750	Blue Jay Wireless, LLC	Cellular	C	Carrollton	TX
<a href="#">View</a>	4111050	BlueBird Communications, LLC	Cellular	C	New York	NY
<a href="#">View</a>	4202300	Bluegrass Wireless, LLC	Cellular	A	Elizabethtown	KY
<a href="#">View</a>	4107600	Boomerang Wireless, LLC	Cellular	B	Hiawatha	IA
<a href="#">View</a>	4105500	BullsEye Telecom, Inc.	Cellular	D	Southfield	MI



<a href="#">View</a>	4110050	CampusSims, Inc.	Cellular	D	Boston	MA
<a href="#">View</a>	4100700	Cellco Partnership dba Verizon Wireless	Cellular	A	Basking Ridge	NJ
<a href="#">View</a>	4106600	Cintex Wireless, LLC	Cellular	D	Rockville	MD
<a href="#">View</a>	4111000	ComApp Technologies LLC	Cellular	C	Melrose	MA
<a href="#">View</a>	4101900	Consumer Cellular, Incorporated	Cellular	A	Portland	OR
<a href="#">View</a>	4106400	Credo Mobile, Inc.	Cellular	A	San Francisco	CA
<a href="#">View</a>	4108850	Cricket Wireless, LLC	Cellular	A	San Antonio	TX
<a href="#">View</a>	4001900	CTC Communications Corp. d/b/a EarthLink Business I	Cellular	D	Grand Rapids	MI
<a href="#">View</a>	10640	Cumberland Cellular Partnership	Cellular	A	Elizabethtown	KY
<a href="#">View</a>	4101000	East Kentucky Network, LLC dba Appalachian Wireless	Cellular	A	Ivel	KY
<a href="#">View</a>	4002300	Easy Telephone Service Company dba Easy Wireless	Cellular	D	Ocala	FL
<a href="#">View</a>	4109500	Enhanced Communications Group, LLC	Cellular	D	Bartlesville	OK
<a href="#">View</a>	4110450	Excellus Communications, LLC	Cellular	D	Chattanooga	TN
<a href="#">View</a>	4105900	Flash Wireless, LLC	Cellular	C	Concord	NC
<a href="#">View</a>	4104800	France Telecom Corporate Solutions L.L.C.	Cellular	D	Oak Hill	VA
<a href="#">View</a>	4109350	Global Connection Inc. of America	Cellular	D	Norcross	GA
<a href="#">View</a>	4102200	Globalstar USA, LLC	Cellular	B	Covington	LA
<a href="#">View</a>	4109600	Google North America Inc.	Cellular	B	Mountain View	CA
<a href="#">View</a>	33350363	Granite Telecommunications, LLC	Cellular	D	Quincy	MA
<a href="#">View</a>	4106000	GreatCall, Inc. d/b/a Jitterbug	Cellular	A	San Diego	CA
<a href="#">View</a>	10630	GTE Wireless of the Midwest dba Verizon Wireless	Cellular	A	Basking Ridge	NJ
<a href="#">View</a>	4110600	Horizon River Technologies, LLC	Cellular	C	Atlanta	GA
<a href="#">View</a>	4103100	i-Wireless, LLC	Cellular	A	Newport	KY
<a href="#">View</a>	4109800	IM Telecom, LLC d/b/a Infiniti Mobile	Cellular	D	Tulsa	OK
<a href="#">View</a>	22215360	KDDI America, Inc.	Cellular	D	New York	NY
<a href="#">View</a>	10872	Kentucky RSA #1 Partnership	Cellular	A	Basking Ridge	NJ
<a href="#">View</a>	10680	Kentucky RSA #3 Cellular General	Cellular	A	Elizabethtown	KY
<a href="#">View</a>	10681	Kentucky RSA #4 Cellular General	Cellular	A	Elizabethtown	KY
<a href="#">View</a>	4109750	Konatel, Inc. dba telecom.mobi	Cellular	D	Johnstown	PA
<a href="#">View</a>	4110900	Lunar Labs, Inc.	Cellular	C	Detroit	MI
<a href="#">View</a>	4107300	Lycamobile USA, Inc.	Cellular	D	Newark	NJ
<a href="#">View</a>	4108800	MetroPCS Michigan, LLC	Cellular	A	Bellevue	WA



<a href="#">View</a>	4109650	Mitel Cloud Services, Inc.	Cellular	D	Mesa	AZ
<a href="#">View</a>	4202400	New Cingular Wireless PCS, LLC dba AT&T Mobility, PCS	Cellular	A	San Antonio	TX
<a href="#">View</a>	10900	New Par dba Verizon Wireless	Cellular	A	Basking Ridge	NJ
<a href="#">View</a>	4000800	Nextel West Corporation	Cellular	D	Overland Park	KS
<a href="#">View</a>	4001300	NPCR, Inc. dba Nextel Partners	Cellular	D	Overland Park	KS
<a href="#">View</a>	4001800	OnStar, LLC	Cellular	A	Detroit	MI
<a href="#">View</a>	4110750	Onvoy Spectrum, LLC	Cellular	C	Plymouth	MN
<a href="#">View</a>	4109050	Patriot Mobile LLC	Cellular	D	Southlake	TX
<a href="#">View</a>	4110250	Plintron Technologies USA LLC	Cellular	D	Bellevue	WA
<a href="#">View</a>	33351182	PNG Telecommunications, Inc. dba PowerNet Global Communications	Cellular	D	Cincinnati	OH
<a href="#">View</a>	4202100	Powertel/Memphis, Inc. dba T-Mobile	Cellular	A	Bellevue	WA
<a href="#">View</a>	4107700	Puretalk Holdings, LLC	Cellular	A	Covington	GA
<a href="#">View</a>	4106700	Q Link Wireless, LLC	Cellular	A	Dania	FL
<a href="#">View</a>	4108700	Ready Wireless, LLC	Cellular	B	Hiawatha	IA
<a href="#">View</a>	4110500	Republic Wireless, Inc.	Cellular	D	Raleigh	NC
<a href="#">View</a>	4106200	Rural Cellular Corporation	Cellular	A	Basking Ridge	NJ
<a href="#">View</a>	4108550	Sage Telecom Communications, LLC dba TruConnect	Cellular	D	Los Angeles	CA
<a href="#">View</a>	4109150	SelecTel, Inc. d/b/a SelecTel Wireless	Cellular	D	Freemont	NE
<a href="#">View</a>	4106300	SI Wireless, LLC	Cellular	A	Carbondale	IL
<a href="#">View</a>	4110150	Spectrotel, Inc. d/b/a Touch Base Communications	Cellular	D	Neptune	NJ
<a href="#">View</a>	4200100	Sprint Spectrum, L.P.	Cellular	A	Atlanta	GA
<a href="#">View</a>	4200500	SprintCom, Inc.	Cellular	A	Atlanta	GA
<a href="#">View</a>	4109550	Stream Communications, LLC	Cellular	D	Dallas	TX
<a href="#">View</a>	4110200	T C Telephone LLC d/b/a Horizon Cellular	Cellular	D	Red Bluff	CA
<a href="#">View</a>	4202200	T-Mobile Central, LLC dba T-Mobile	Cellular	A	Bellevue	WA
<a href="#">View</a>	4002500	TAG Mobile, LLC	Cellular	D	Carrollton	TX
<a href="#">View</a>	4109700	Telecom Management, Inc. dba Pioneer Telephone	Cellular	D	South Portland	ME
<a href="#">View</a>	4107200	Telefonica USA, Inc.	Cellular	D	Miami	FL
<a href="#">View</a>	4108900	Telrite Corporation dba Life Wireless	Cellular	D	Covington	GA
<a href="#">View</a>	4108450	Tempo Telecom, LLC	Cellular	D	Kansas City	MO
<a href="#">View</a>	4109950	The People's Operator USA, LLC	Cellular	D	New York	NY
<a href="#">View</a>	4109000	Ting, Inc.	Cellular	A	Toronto	ON
<a href="#">View</a>	4110400	Torch Wireless Corp.	Cellular	D	Jacksonville	FL



<a href="#">View</a>	4103300	Touchtone Communications, Inc.	Cellular	D	Whippany	NJ
<a href="#">View</a>	4104200	TracFone Wireless, Inc.	Cellular	D	Miami	FL
<a href="#">View</a>	4002000	Truphone, Inc.	Cellular	D	Durham	NC
<a href="#">View</a>	4110300	UVNV, Inc.	Cellular	D	Costa Mesa	CA
<a href="#">View</a>	4105700	Virgin Mobile USA, L.P.	Cellular	A	Atlanta	GA
<a href="#">View</a>	4110800	Visible Service LLC	Cellular	C	Lone Tree	CO
<a href="#">View</a>	4106500	WiMacTel, Inc.	Cellular	D	Palo Alto	CA
<a href="#">View</a>	4110950	Wing Tel Inc.	Cellular	C	New York	NY
<a href="#">View</a>	4109900	Wireless Telecom Cooperative, Inc. dba theWirelessFreeway	Cellular	D	Louisville	KY



**EXHIBIT E**  
**FAA**





## Proposed Case for : 2018-ASO-3032-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.

Overview		Received Date: 02/06/2018		
Study (ASN): 2018-ASO-3032-OE		Entered Date: 02/06/2018		
Prior Study:		Map: <a href="#">View Map</a>		
Status: Work In Progress				
Construction Info		Structure Summary		
Notice Of: CONSTR		Structure Type: Antenna Tower		
Duration: PERM (Months: 0 Days: 0)		Structure Name: Horse Branch		
Work Schedule:		FCC Number:		
Structure Details		Height and Elevation		
Latitude (NAD 83): 37° 28' 43.62" N		Proposed		
Longitude (NAD 83): 86° 41' 45.92" W		Site Elevation: 541		
Datum: NAD 83		Structure Height: 320		
City: Horse Branch		Total Height (AMSL): 861		
State: KY				
Nearest County: Ohio				
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



**EXHIBIT F**  
**KENTUCKY AIRPORT ZONING COMMISSION**

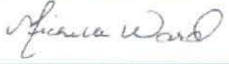




KENTUCKY TRANSPORTATION CABINET  
KENTUCKY AIRPORT ZONING COMMISSION

TC 55-2  
Rev. 06/2016  
Page 2 of 2

APPLICATION FOR PERMIT TO CONSTRUCT OR ALTER A STRUCTURE

<b>APPLICANT (name)</b> John Monday		<b>PHONE</b> 855-699-7073	<b>FAX</b> 972-907-1131	<b>KY AERONAUTICAL STUDY #</b>	
<b>ADDRESS (street)</b> 3300 E. Renner Road, B3132		<b>CITY</b> Richardson		<b>STATE</b> TX	<b>ZIP</b> 75082
<b>APPLICANT'S REPRESENTATIVE (name)</b> Roy Johnson		<b>PHONE</b> 502-445-2475	<b>FAX</b> 502-222-4266		
<b>ADDRESS (street)</b> 3605 Mattingly Road		<b>CITY</b> Buckner		<b>STATE</b> KY	<b>ZIP</b> 40010
<b>APPLICATION FOR</b> <input checked="" type="checkbox"/> New Construction <input type="checkbox"/> Alteration <input type="checkbox"/> Existing				<b>WORK SCHEDULE</b>	
<b>DURATION</b> <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary (months days )				Start End TBD	
<b>TYPE</b> <input type="checkbox"/> Crane <input type="checkbox"/> Building <input checked="" type="checkbox"/> Antenna Tower <input type="checkbox"/> Power Line <input type="checkbox"/> Water Tank <input type="checkbox"/> Landfill <input type="checkbox"/> Other		<b>MARKING/PAINTING/LIGHTING PREFERRED</b> <input type="checkbox"/> Red Lights & Paint <input type="checkbox"/> White- medium intensity <input type="checkbox"/> White- high intensity <input checked="" type="checkbox"/> Dual- red & medium intensity white <input type="checkbox"/> Dual- red & high intensity white <input type="checkbox"/> Other			
<b>LATITUDE</b> 37° 28' 43.62 "		<b>LONGITUDE</b> 86° 41' 45.92 "		<b>DATUM</b> <input checked="" type="checkbox"/> NAD83 <input type="checkbox"/> NAD27 <input type="checkbox"/> Other	
<b>NEAREST KENTUCKY</b> City <sup>Horse Branch</sup> County Ohio		<b>NEAREST KENTUCKY PUBLIC USE OR MILITARY AIRPORT</b> JQD Ohio County			
<b>SITE ELEVATION (AMSL, feet)</b> 541		<b>TOTAL STRUCTURE HEIGHT (AGL, feet)</b> 320		<b>CURRENT (FAA aeronautical study #)</b> 2018-ASO-3032-OE	
<b>OVERALL HEIGHT (site elevation plus total structure height, feet)</b> 861				<b>PREVIOUS (FAA aeronautical study #)</b>	
<b>DISTANCE (from nearest Kentucky public use or Military airport to structure)</b> 7.44 NM				<b>PREVIOUS (KY aeronautical study #)</b>	
<b>DIRECTION (from nearest Kentucky public use or Military airport to structure)</b> East					
<b>DESCRIPTION OF LOCATION</b> (Attach USGS 7.5 minute quadrangle map or an airport layout drawing with the precise site marked and any certified survey.) 1A and Quad attached					
<b>DESCRIPTION OF PROPOSAL</b> AT&T proposes to construct a 305' cell tower with a 15' lightning rod for an overall height of 320'.					
<b>FAA Form 7460-1</b> (Has the "Notice of Construction or Alteration" been filed with the Federal Aviation Administration?) <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes, when? 2/6/18					
<b>CERTIFICATION</b> (I hereby certify that all the above entries, made by me, are true, complete, and correct to the best of my knowledge and belief.)					
<b>PENALTIES</b> (Persons failing to comply with KRS 183.861 to 183.990 and 602 KAR 050 are liable for fines and/or imprisonment as set forth in KRS 183.990(3). Noncompliance with FAA regulations may result in further penalties.)					
<b>NAME</b> Michelle Ward		<b>TITLE</b> Sr. Real Estate Mgr.		<b>SIGNATURE</b>  <b>DATE</b> 02/15/18	
<b>COMMISSION ACTION</b>		<input type="checkbox"/> Chairperson, KAZC <input type="checkbox"/> Administrator, KAZC			
<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved		<b>SIGNATURE</b>		<b>DATE</b>	



**EXHIBIT G**  
**GEOTECHNICAL REPORT**



GEOTECHNICAL  
REPORT

**HORSE BRANCH  
(KYL03663)**

**37° 28' 43.62" N  
86° 41' 45.92" W**

933 Dan Rd  
Horse Branch, KY  
42349

Prepared For:



For:



Prepared By:







January 15, 2018

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: **HORSE BRANCH (KYL03663)**  
Site Address: 933 Dan Road, Horse Branch, Ohio County, Kentucky  
Coordinates: N37° 28' 43.62", W86° 41' 45.92"  
POD Project No. 17-13524

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.

Cordially,

A handwritten signature in black ink, appearing to read "Mark Patterson", is written over a circular professional seal.

Mark Patterson, P.E.  
Project Engineer  
License No.: KY 16300



Copies submitted: (3) Ms. Marie Glasgow



## LETTER OF TRANSMITTAL

TABLE OF CONTENTS

	<u>Page</u>
<b>1. PURPOSE AND SCOPE.....</b>	<b>1</b>
<b>2. PROJECT CHARACTERISTICS .....</b>	<b>1</b>
<b>3. SUBSURFACE CONDITIONS .....</b>	<b>1</b>
<b>4. FOUNDATION DESIGN RECOMMENDATIONS.....</b>	<b>2</b>
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 .....	5
4.5. DRAINAGE AND GROUNDWATER CONSIDERATIONS .....	5
<b>5. GENERAL CONSTRUCTION PROCEDURES AND RECOMMENDATIONS.....</b>	<b>5</b>
5.1 DRILLED PIERS .....	6
5.2 FILL COMPACTION .....	6
5.3 CONSTRUCTION DEWATERING .....	7
<b>6 FIELD INVESTIGATION .....</b>	<b>7</b>
<b>7 WARRANTY AND LIMITATIONS OF STUDY.....</b>	<b>7</b>

APPENDIX

BORING LOCATION PLAN  
BORING LOG  
SOIL SAMPLE CLASSIFICATION



Geotechnical Report  
**PROPOSED 305' SELF-SUPPORT TOWER w/ 15' LIGHTNING ARRESTOR**

Site Name: **HORSE BRANCH (KYL03663)**  
933 Dan Road, Horse Branch, Ohio County, Kentucky  
N37° 28' 43.62", W86° 41' 45.92"

**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 support foundations. 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 self-support tower and either an equipment shelter, slab or platform at N37° 28' 43.62", W86° 41' 45.92", 933 Dan Road, Horse Branch, Ohio County, Kentucky. The site is located in a hay field in a rural area just north of Horse Branch. The proposed lease area will be 10,000 square feet and will be accessed by a new road off Dan Road running northwest to the site. The proposed elevation at the tower location is about EL 541 and there is about 10 feet of change in elevation across the proposed lease area. 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 Pennsylvanian age Tradewater and Caseyville Formation. The formation is made up of mixed clastics of sandstone, siltstone, shale and coal.

The borings encountered about 5 inches of topsoil at the existing ground surface. Below the topsoil, the borings encountered clay (CH) of medium to high low plasticity. The SPT N-values in the clay were between 5 and 28 blows per foot (bpf) generally indicating a medium to very stiff consistency. Highly weathered sandstone was encountered below the clay from about 6 to 8.5 feet. Borings 1 and 2 were terminated in the highly weathered shale at the scheduled depths of 20 feet. Boring 2 encountered auger refusal in the shale at about 29 feet. Auger refusal is



defined as the depth at which the boring can no longer be advanced using the current drilling method.

The refusal material was cored in Boring 2 from 29 to 40 feet below the ground surface. From about 29 to 33 feet, the shale was still highly weathered but at about 33 feet, the shale became hard and only slightly moderately weathered. The recoveries of the rock cores were 97 to 100 percent and the RQD values were 70 and 100 percent. These values generally represent good to excellent quality rock from a foundation support viewpoint.

Observations made at the completion of soil drilling operations indicated the boring 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 2013 Kentucky Building Code, the site class is considered "B". 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 tower 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 26 feet, a deeper boring should be drilled to determine the nature of the deeper material.

Depth Below Ground Surface, feet	0 - 2	2 - 6	6 - 33	33 - 40
Ultimate Bearing Pressure (psf)		5,500	27,650	27,650
C Undrained Shear Strength, psf	500	1,000	5,000	10,000
$\phi$ Angle of Internal Friction degrees	0	0	0	0
Total Unit Weight, pcf	110	120	135	135
Soil Modulus Parameter k, pci	30	500	2000	2000
Passive Soil Pressure, psf/one foot of depth		675 + 40(D-2)	3,350 + 45(D-6)	6,500 + 45(D-33)
Side Friction, psf	100	300	1000	1500

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 highly weathered sandstone at least 6 feet in depth can be designed using a net allowable bearing pressure of 6,000 pounds per square foot may be used. This value may be increased by 30 percent for the maximum edge pressure under transient loads. The friction value can be increased to 0.40 between the concrete and bedrock. 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 2,000 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 (k) of 110 lbs/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 2,000 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.

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 ( $k$ ) of 110 lbs/cu.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:

- ❖ Clean the foundation bearing area so it is nearly level or suitably benched and is free of ponded water or loose material.
- ❖ Make provisions for ground water removal from the drilled shaft excavation. While groundwater was not encountered during the soil drilling, some significant seepage may be encountered. The drilled pier contractor should have pumps on hand to remove water from the drilled pier.
- ❖ 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.
- ❖ 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.
- ❖ 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**

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.

If groundwater is encountered in the drilled pier excavations, it may be difficult to dewater 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.

## **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. Boring 1 and 3 were terminated at the scheduled depth of 20 feet. Boring 2 encountered auger refusal at about 29 feet. A rock core of the refusal material was taken in Boring 2 from 29 to 40 feet. 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

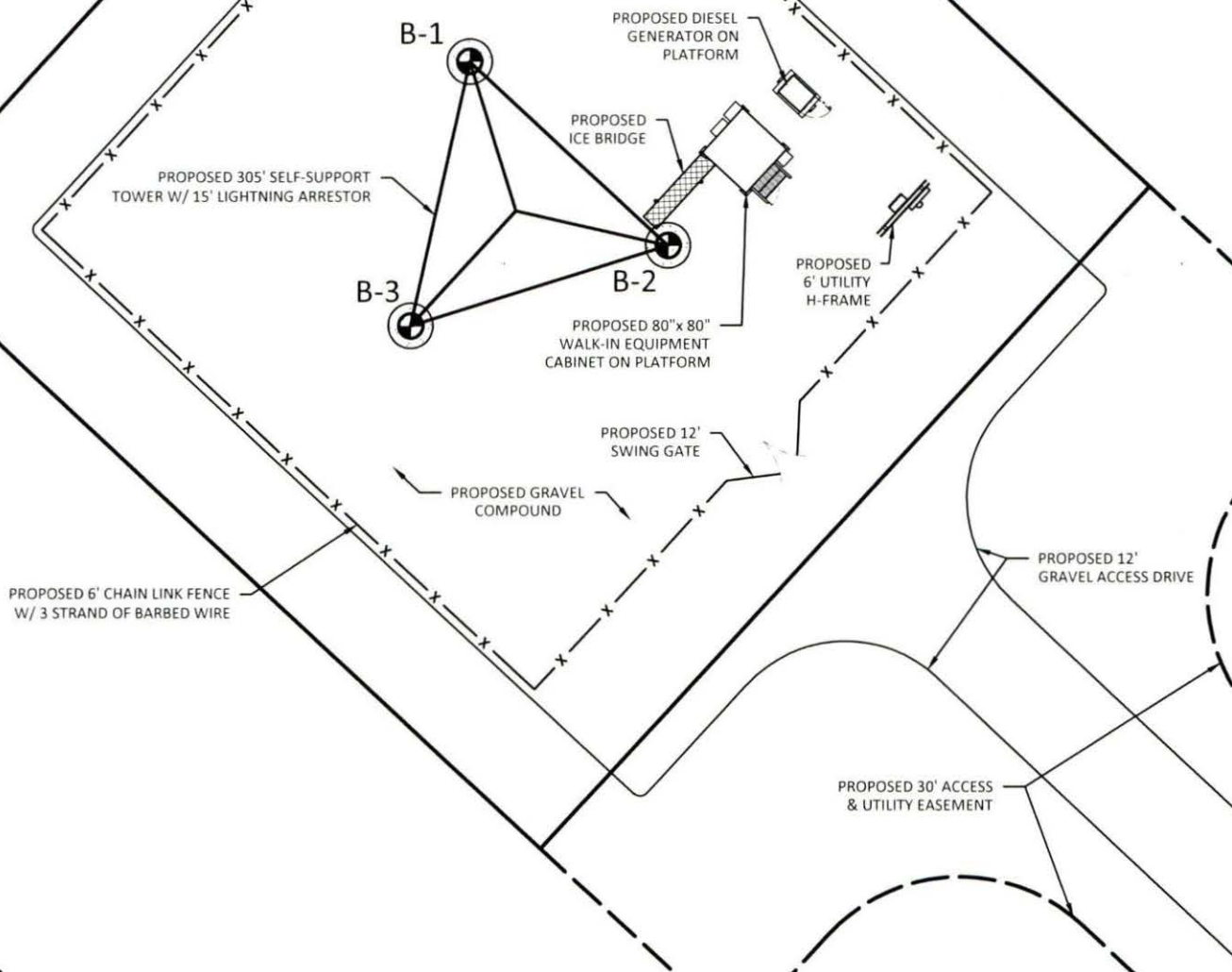
BORING LOG

SOIL SAMPLE CLASSIFICATION





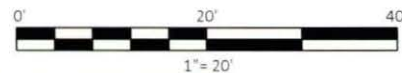
PROPOSED 75' x 75'  
LEASE AREA



### LEGEND



BORING LOCATION



1" = 20'

SHEET TITLE: <b>BORING LOCATION PLAN</b>	SITE NUMBER: <b>KYL03663</b>		SITE INFORMATION: <b>HORSE BRANCH</b>  933 DAN ROAD HORSE BRANCH, KY 42349  OHIO COUNTY	 <b>POD</b> POWER OF DESIGN 11490 BLUEGRASS PKWY LOUISVILLE, KY 40299 502-437-5252
	LATITUDE: 37° 28' 43.62"N LONGITUDE: 86° 41' 45.92"W			
SHEET NUMBER: <b>1</b>	POD NUMBER: 17-13524 DRAWN BY: ADM CHECKED BY: MEP DATE: 1.15.18			



[illegible]





## Page 1 of 1

[illegible]





**Boring: B-3**

Page 1 of 1

**Horse Branch, KY**

**Note: About 5 inches of topsoil was encountered at the ground surface**

[illegible]



# SOIL SAMPLE CLASSIFICATION

## FINE AND COARSE GRAINED SOIL INFORMATION

COARSE GRAINED SOILS (SANDS & GRAVELS)		FINE GRAINED SOILS (SILTS & CLAYS)			PARTICLE SIZE	
N	Relative Density	N	Consistency	Qu, KSF Estimated		
0-4	Very Loose	0-1	Very Soft	0-0.5	Boulders	Greater than 300 mm (12 in)
5-10	Loose	2-4	Soft	0.5-1	Cobbles	75 mm to 300 mm (3 to 12 in)
11-20	Firm	5-8	Firm	1-2	Gravel	4.74 mm to 75 mm (3/16 to 3 in)
21-30	Very Firm	9-15	Stiff	2-4	Coarse Sand	2 mm to 4.75 mm
31-50	Dense	16-30	Very Stiff	4-8	Medium Sand	0.425 mm to 2 mm
Over 50	Very Dense	Over 31	Hard	8+	Fine Sand	0.075 mm to 0.425 mm
					Silts & Clays	Less than 0.075 mm

The **STANDARD PENETRATION TEST** as defined by ASTM D 1586 is a method to obtain a disturbed soil sample for examination and testing and to obtain relative density and consistency information. A standard 1.4-inch I.D./2-inch O.D. split-barrel sampler is driven three 6-inch increments with a 140 lb. hammer falling 30 inches. The hammer can either be of a trip, free-fall design, or actuated by a rope and cathead. The blow counts required to drive the sampler the final two increments are added together and designate the N-value defined in the above tables.

## ROCK PROPERTIES

ROCK QUALITY DESIGNATION (RQD)		ROCK HARDNESS	
Percent RQD	Quality		
0-25	Very Poor	Very Hard:	Rock can be broken by heavy hammer blows.
25-50	Poor	Hard:	Rock cannot be broken by thumb pressure, but can be broken by moderate hammer blows.
50-75	Fair	Moderately Hard:	Small pieces can be broken off along sharp edges by considerable hard thumb pressure; can be broken with light hammer blows.
75-90	Good	Soft:	Rock is coherent but breaks very easily with thumb pressure at sharp edges and crumbles with firm hand pressure.
90-100	Excellent	Very Soft:	Rock disintegrates or easily compresses when touched; can be hard to very hard soil.

Recovery =	$\frac{\text{Length of Rock Core Recovered}}{\text{Length of Core Run}}$	X100	63 REC	Core Diameter	Inches
			NQ	BQ	1-7/16
			43 RQD	NQ	1-7/8
RQD =	$\frac{\text{Sum of 4 in. and longer Rock Pieces Recovered}}{\text{Length of Core Run}}$	X100		HQ	2-1/2

## SYMBOLS

### KEY TO MATERIAL TYPES

SOILS	
Group Symbols	Typical Names
GW	Well graded gravel - sand mixture, little or no fines
GP	Poorly graded gravels or gravel - sand mixture, little or no fines
GM	Silty gravels, gravel - sand silt mixtures
GC	Clayey gravels, gravel - sand - clay mixtures
SW	Well graded sands, gravelly sands, little or no fines
SP	Poorly graded sands or gravelly sands, little or no fines
SM	Silty sands, sand - silt mixtures
SC	Clayey sands, sand - clay mixtures
ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands, or clayey silts
OL	Organic silts and organic silty clays of low plasticity
CL	Inorganic clays of low range plasticity, gravelly clays, sandy clays, silty clays, lean clays
MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
CH	Inorganic clays of high range plasticity, fat clays

ROCKS	
Symbols	Typical Names
	Limestone or Dolomite
	Shale
	Sandstone

### SOIL PROPERTY SYMBOLS

N:	Standard Penetration, BPF
M:	Moisture Content, %
LL:	Liquid Limit, %
PI:	Plasticity Index, %
Qp:	Pocket Penetrometer Value, TSF
Qu:	Unconfined Compressive Strength Estimated Qu, TSF
$\gamma_d$ :	Dry Unit Weight, PCF
F:	Fines Content

### SAMPLING SYMBOLS

SS	Split Spoon Sample
	Relatively Undisturbed Sample
	Rock Core Sample

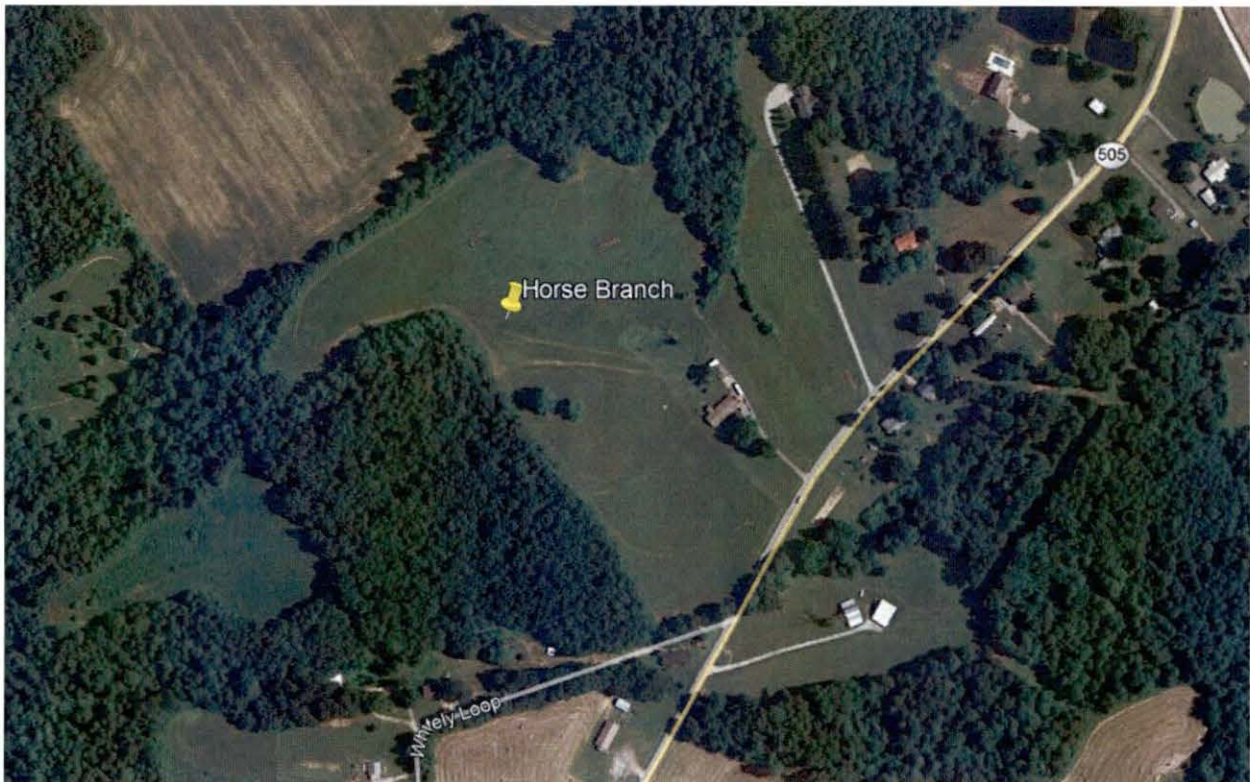


**EXHIBIT H**  
**DIRECTIONS TO WCF SITE**



### Driving Directions to Proposed Tower Site

1. Beginning at the offices of the Ohio County Clerk located at 301 South Main Street, Hartford, KY, head southeast on South Main Street toward W. Washington Street. Travel approximately 0.9 miles.
2. Turn left onto KY-69N and travel approximately 0.6 miles.
3. Turn right onto KY-1543 / Clay Street and travel approximately 3.1 miles.
4. Turn left onto US-62E and travel approximately 8.9 miles.
5. Turn left onto KY-505 N / Dan Road and travel approximately 0.9 miles. The site is on the left at 933 Dan Road in Horse Branch, KY.
6. The site coordinates are
  - a. North 37 deg 28 min 43.62 sec
  - b. West 86 deg 41 min 45.92 sec



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



**EXHIBIT I**  
**COPY OF REAL ESTATE AGREEMENT**



Market: Evansville  
Cell Site Number: KYL03663  
Cell Site Name: Horse Branch (KY)  
Fixed Asset Number: 13800747

## 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 Michael A. Murphy and Kristy S. Murphy, a husband and wife, having a mailing address of 933 Dan Road, Horse Branch, KY 42349 ("**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 933 Dan Road, Horse Branch, KY 42349, in the County of Ohio, 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 (100'x100') square feet including the air space above such ground space, as described on attached **Exhibit 1** (the "**Premises**"), for the placement of Tenant's Communication Facility.

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

(c) In consideration of Landlord granting Tenant the Option, Tenant agrees to pay Landlord the sum of [REDACTED] within forty five (45) business days of the Effective Date. The Option will be for an initial term of one (1) year commencing on the Effective Date (the "**Initial Option Term**") and may be renewed by Tenant for an additional one (1) year (the "**Renewal Option Term**") upon written notification to Landlord and the payment of an additional [REDACTED] no later than five (5) days prior to the expiration date of the Initial Option Term. The Initial Option Term and any Renewal Option Term are collectively referred to as the "**Option Term**."

(d) The Option may be sold, assigned or transferred at any time by Tenant to an Affiliate (as that term is hereinafter defined) of Tenant or to any third party agreeing to be subject to the terms hereof. Otherwise,



the Option may not be sold, assigned or transferred without the written consent of Landlord, such consent not to be unreasonably withheld, conditioned or delayed. From and after the date the Option has been sold, assigned or transferred by Tenant to an Affiliate or a third party agreeing to be subject to the terms hereof, Tenant shall immediately be released from any and all liability under this Agreement, including the payment of any rental or other sums due, without any further action.

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

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

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



3. **TERM.**

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

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

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

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

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

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

(c) All charges payable under this Agreement such as utilities and taxes shall be billed by Landlord within one (1) year from the end of the calendar year in which the charges were incurred; any charges beyond such period shall not be billed by Landlord, and shall not be payable by Tenant. The foregoing shall not apply to monthly Rent which is due and payable without a requirement that it be billed by Landlord. The provisions of this subsection shall survive the termination or expiration of this Agreement.

5. **APPROVALS.**

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

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

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

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



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

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

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

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

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

## **7. INSURANCE.**

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

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

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

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

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

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

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

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



## **8. INTERFERENCE.**

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

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

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

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

## **9. INDEMNIFICATION.**

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

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

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

## **10. WARRANTIES.**

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

(b) Landlord represents, warrants and agrees that: (i) Landlord solely owns the Property as a legal lot in fee simple, or controls the Property by lease or license; (ii) the Property is not and will not be encumbered by any liens, restrictions, mortgages, covenants, conditions, easements, leases, or any other agreements of record or not of record, which would adversely affect Tenant's Permitted Use and enjoyment of the Premises under this



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

## **11. ENVIRONMENTAL.**

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

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

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

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

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



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

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

**14. MAINTENANCE/UTILITIES.**

(a) Tenant will keep and maintain the Premises in good condition, reasonable wear and tear and damage from the elements excepted. Landlord will maintain and repair the Property and access thereto and all areas of the Premises where Tenant does not have exclusive control, in good and tenantable condition, subject to reasonable wear and tear and damage from the elements. Landlord will be responsible for maintenance of landscaping on the Property, including any landscaping installed by Tenant as a condition of this Agreement or any required permit.

(b) Tenant will be responsible for paying on a monthly or quarterly basis all utilities charges for electricity, telephone service or any other utility used or consumed by Tenant on the Premises. In the event Tenant cannot secure its own metered electrical supply, Tenant will have the right, at its own cost and expense, to submeter from Landlord. When submetering is required under this Agreement, Landlord will read the meter and provide Tenant with an invoice and usage data on a monthly basis. Landlord agrees that it will not include a markup on the utility charges. Landlord further agrees to provide the usage data and invoice on forms provided by Tenant and to send such forms to such address and/or agent designated by Tenant. Tenant will remit payment within forty-five (45) days of receipt of the usage data and required forms. As noted in Section 4(c) above, any utility fee recovery by Landlord is limited to a twelve (12) month period. If Tenant submeters electricity from Landlord, Landlord agrees to give Tenant at least twenty-four (24) hours advance notice of any planned interruptions of said electricity. Landlord acknowledges that Tenant provides a communication service which requires electrical power to operate and must operate twenty-four (24) hours per day, seven (7) days per week. If the interruption is for an extended period of time, in Tenant's reasonable determination, Landlord agrees to allow Tenant the right to bring in a temporary source of power for the duration of the interruption. Landlord will not be responsible for interference with, interruption of or failure, beyond the reasonable control of Landlord, of such services to be furnished or supplied by Landlord.

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



**15. DEFAULT AND RIGHT TO CURE.**

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

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

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



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

If to Tenant: New Cingular Wireless PCS, LLC  
Attn: Network Real Estate Administration  
Re: Cell Site # KYL03663; Cell Site Name: Horse Branch (KY)  
Fixed Asset No.: 13800747  
575 Morosgo Drive NE  
Atlanta, GA 30324

With a copy to: New Cingular Wireless PCS, LLC  
Attn.: Legal Department  
Re: Cell Site #: KYL03663; Cell Site Name: Horse Branch (KY)  
Fixed Asset No.: 13800747  
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: Michael and Kristy Murphy  
993 Dan Road  
Horse Branch, KY 42349

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 # KYL03663; Cell Site Name: Horse Branch (KY)  
Fixed Asset No: 13800747  
575 Morosgo Drive NE  
Atlanta, GA 30324

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

## **22. SALE OF PROPERTY**

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

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

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

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



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

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

**24. MISCELLANEOUS.**

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

[SIGNATURES APPEAR ON NEXT PAGE]



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

"LANDLORD"

By: Michael Murphy  
Print Name: Michael A. Murphy  
Its: Owner  
Date: 3/31/17

LANDLORD ACKNOWLEDGMENT

STATE OF Ky )  
COUNTY OF DAVIES ) ss:

On the 31 day of MARCH, 2017 before me, personally appeared \_\_\_\_\_, who acknowledged under oath, that he/she/they is/are the person landlord 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.



Dennis Jones  
Notary Public: \_\_\_\_\_  
My Commission Expires: 10-30-19



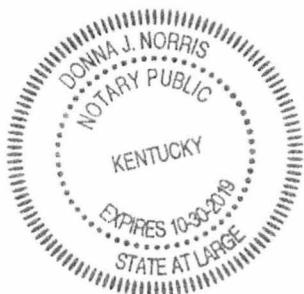
"LANDLORD"

By: Kristy Murphy  
Print Name: Kristy S. Murphy  
Its: Owner  
Date: 3/31/17

LANDLORD ACKNOWLEDGMENT

STATE OF Ky )  
COUNTY OF DAVIESS ) ss:

On the 31 day of March, 2017 before me, personally appeared \_\_\_\_\_, who acknowledged under oath, that he/she/they is/are the person/officer named in the within instrument, and that he/she/they executed the same in his/her/their stated capacity as the voluntary act and deed of the Landlord for the purposes therein contained.



Donna J. Norris  
Notary Public: \_\_\_\_\_  
My Commission Expires: 10-30-19



"TENANT"

New Cingular Wireless PCS, LLC,  
a Delaware limited liability company  
By: AT&T Mobility Corporation  
Its: Manager

By: [Signature]  
Name: Bryan Coleman  
Title: Area Manager Network Engineering  
Gulf States/TNKY Site Acquisition  
Date: 6/5/2017

STATE OF ALABAMA )

) ss:

COUNTY OF JEFFERSON )

On the 5 day of June, 2017, before me personally appeared Bryan Coleman and acknowledged under oath that he is the Area Manager Network Engineering – Gulf States/TNKY Site Acquisition of AT&T Mobility Corporation, the Manager of New Cingular Wireless PCS, LLC, the Tenant named in the attached instrument, and as such was authorized to execute this instrument on behalf of the Tenant.



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



## EXHIBIT 1

### DESCRIPTION OF PREMISES

Page 1 of 2

to the Option and Lease Agreement dated June 5, 2017, by and between Michael A. Murphy and Kristy S. Murphy, a husband and wife, as Landlord, and New Cingular Wireless PCS, LLC, a Delaware limited liability company, as Tenant.

The Property is legally described as follows:

BEGINNING at East corner of A. W. Murphy's land; thence a straight line North 50-1/4 E. to a stone in the Ford and Christian line; thence South 26-1/2 E. with said line to a stone on State Highway #505; thence with said Highway #505 to an old abandoned road bed; thence Southwest to an elm tree in S. S. Cannon's corner; thence a straight line West to the beginning, containing thirty acres, more or less.

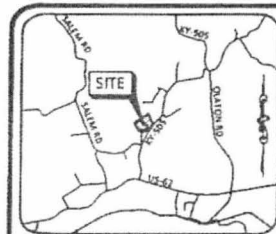
One acre excluded for cemetery.

THERE IS EXCEPTED and not herein conveyed from the above tract of land deeded to C. J. Ford and Lurlene Ford, his wife, by deed dated the 14<sup>th</sup> day of June, 1989, and of record in Deed Book 269, Page 436, in the Office of the Clerk, Ohio County Court and more particularly described as follows:

A certain tract or parcel of land lying and being in Ohio County, Kentucky, and bounded as follows:

BEGINNING at a steel stake located in the North right of way line of Dan Road; said steel stake being a new Northeast corner of the T. L. and Betty Lou Ford property and said stake being East 255 feet (in a straight line) from the North edge of the T. L. and Betty Lou Ford blacktop driveway; thence with the North right of way line of the Dan Road in an Easterly direction 100 feet to a concrete block; thence North approximately 1,045 feet to a painted rock; thence West 100 feet with the Christian property line to a rock and tree; thence South approximately 1,045 feet to the point of beginning, containing 2-4/10 acres, more or less.





**FAA COORDINATE POINT**  
 NAD 83  
 LATITUDE: 37°28'43.62"  
 LONGITUDE: 86°41'45.92"  
 NAVD 83  
 ELEVATION: 541.1 AMSL  
 NORTHING: 3699302.564  
 EASTING: 4646727.307

**TEMPORARY BENCHMARK**  
 NORTHING: 3699221.416  
 EASTING: 4646720.471  
 ELEVATION: 547.92'  
 LOCATION: A SET 1/2" REBAR  
 W/RED CAP STAMPED "POD TRV"  
 542°10'W 14" FROM THE SOUTH  
 CORNER OF THE PROPOSED LEASE AREA



0° 34' 51"  
 BASED ON KENTUCKY STATE  
 PLANE SINGLE ZONE AND  
 DETERMINED BY GPS OBSERVATIONS  
 COMPLETED ON APRIL 20, 2017

#### GLOBAL POSITIONING SYSTEMS NOTE

1. RANDOM TRAVERSE POINTS AND A PORTION OF THE TOPOGRAPHY WAS LOCATED USING GPS.
2. THE TYPE OF GPS UTILIZED WAS NETWORK ADJUSTED REAL TIME KINEMATIC (KDOT VRS NETWORK), NAD 83 KENTUCKY SINGLE ZONE WITH THE ORTHOMETRIC HEIGHT COMPUTED USING GEOID12A. RELATIVE POSITIONAL ACCURACY VARIED FROM 0.04" TO 0.07" HORIZONTALLY.
3. SPECTRA PRECISION EPOCH 50 DUAL FREQUENCY RECEIVERS WERE USED TO PERFORM THE SURVEY.



Call today for more info  
 1-800-752-6007  
 We can assist you with all your surveying needs. We are a full service surveying firm. We are a full service surveying firm. We are a full service surveying firm.



PREPARED FOR:  
**MasTec**

PREPARED FOR:  
**at&t**

#### SURVEY

REV.	DATE	DESCRIPTION
A	4.28.17	PRELIM ISSUE W/ TITLE
B	5.15.17	EXC COMMENTS
D	5.17.17	ISSUED AS FINAL

#### SITE INFORMATION:

**HORSE BRANCH**  
 933 DAN ROAD  
 HORSE BRANCH, KY 42349  
 OHIO COUNTY

TAX PARCEL NUMBER:  
 80-268

PROPERTY OWNER:  
 MICHAEL A. & KRISTY S. MURPHY  
 933 DAN ROAD  
 HORSE BRANCH, KY 42349

SOURCE OF TITLE:  
 DEED BOOK 336, PAGE 287

SITE NUMBER:  
 KYL03663

POD NUMBER: 17-13528  
 DRAWN BY: RAE  
 CHECKED BY: MEP  
 SURVEY DATE: 4.20.17  
 PLAT DATE: 4.28.17

#### SHEET TITLE:

**SITE SURVEY**

SHEET NUMBER:

**B-1**

#### GENERAL NOTES

NO SEARCH OF PUBLIC RECORDS HAS BEEN COMPLETED BY POD GROUP TO DETERMINE ANY DEFECTS AND/OR AMBIGUITIES IN THE TITLE OF THE SUBJECT PROPERTY.

THIS SURVEY IS FOR THE PROPOSED LEASE AREA AND THE PROPOSED 30' / VARIABLE WIDTH ACCESS & UTILITY EASEMENT ONLY, AND ONLY A PARTIAL BOUNDARY SURVEY OF THE PARENT TRACT HAS BEEN PERFORMED.

A PORTION OF THIS SURVEY WAS CONDUCTED BY METHOD OF RANDOM TRAVERSE WITH SIDE SHOTS. UNADJUSTED CLOSURE EQUALS 0.06". FOR A PRECISION OF 1:49,128 AND HAS NOT BEEN ADJUSTED.

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

THIS PLAT IS NOT INTENDED FOR LAND TRANSFER.

THE PARENT PARCEL, THE PROPOSED LEASE AREA AND THE PROPOSED 30' / VARIABLE WIDTH ACCESS & UTILITY EASEMENT SHOWN HEREON ARE NOT LOCATED IN A 100-YEAR FLOOD PLAIN, ZONE X, PER FLOOD HAZARD BOUNDARY MAP, COMMUNITY PANEL NUMBER 21183C0325D, DATED JUNE 2, 2011.

#### LAND SURVEYOR'S CERTIFICATE

I, MARK E. PATTERSON, HEREBY CERTIFY THAT I AM A LICENSED PROFESSIONAL LAND SURVEYOR LICENSED IN COMPLIANCE WITH THE LAWS OF THE COMMONWEALTH OF KENTUCKY. I FURTHER CERTIFY THAT THIS PLAT AND THE SURVEY ON THE GROUND WERE PERFORMED BY PERSONS UNDER MY DIRECT SUPERVISION, AND THAT THE DIRECTIONAL AND LINEAR MEASUREMENTS BEING WITNESSED BY MONUMENTS SHOWN HEREON ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE. THE "RURAL" SURVEY, AND THE PLAT ON WHICH IT IS BASED, MEETS ALL SPECIFICATIONS AS STATED IN KAR 201.18:150.

Mark Patterson  
 5/17/2017  
 DATE  
 MARK PATTERSON, PLS #3136



PARCEL ID: 80-20  
 WILLIAM J. & ELIZABETH FARRIS  
 DEED BOOK 357, PAGE 391

PARCEL ID: 80-268  
 MICHAEL A. & KRISTY S. MURPHY  
 DEED BOOK 336, PAGE 287

PARCEL ID: 80-364  
 COOK  
 DEED BOOK 371, PAGE 283

PARCEL ID: 80-42A & 42  
 EARNIST L. & DEAN WHITELY  
 DEED BOOK 350, PAGE 513

#### ADJACENT PARCELS

- PARCEL ID: 80-43D  
 JOSHUA D. BRIGHAM  
 DEED BOOK 411, PAGE 229
- PARCEL ID: 80-42C  
 CARL T. & VICKY E. FIELDS  
 DEED BOOK 362, PAGE 748
- PARCEL ID: 80-42A-5  
 EARNIST L. & DEAN WHITELY  
 DEED BOOK 362, PAGE 635

#### LEGEND

- POWER POLE
- GUY ANCHOR
- TELEPHONE PEDESTAL
- TELEPHONE MARKER

- EX. OVERHEAD ELECTRIC
- EX. FENCE LINE
- SET 1/2" REBAR 18" LONG  
 CAPPED "PATTERSON PLS 3136"  
 FOUND MONUMENT AS NOTED
- PROPERTY LINE
- ADJACENT PROPERTY LINE

- P.O.C. POINT OF COMMENCEMENT
- P.O.R. POINT OF REFERENCE
- P.O.B. POINT OF BEGINNING
- ROW RIGHT OF WAY
- EOP EDGE OF PAVEMENT
- EX. OVERHEAD ELECTRIC
- EX. FENCE LINE
- SET 1/2" REBAR 18" LONG  
 CAPPED "PATTERSON PLS 3136"  
 FOUND MONUMENT AS NOTED
- PROPERTY LINE
- ADJACENT PROPERTY LINE

1" = 200' FEET

Michael Murphy 5/25/17



## **EXHIBIT 11**

### **ENVIRONMENTAL DISCLOSURE**

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

1. NONE.



**EXHIBIT 12**  
**STANDARD ACCESS LETTER**  
**[FOLLOWS ON NEXT PAGE]**



[Landlord Letterhead]

DATE

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

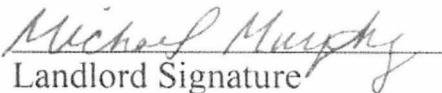
Re: Authorized Access granted to AT&T

To whom it may concern,

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

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

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

  
Landlord Signature



## MEMORANDUM OF LEASE

**Prepared by:**

LCC Telecom Services  
10700 W Higgins Road  
Rosemont, IL 60018

**Return to:**

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

Re: Cell Site # KYL03663; Cell Site Name: Horse Branch  
Fixed Asset # 13800747  
State: Kentucky  
County: Ohio

## MEMORANDUM OF LEASE

This Memorandum of Lease is entered into on this 5 day of June, 2017, by and between Michael A. Murphy and Kristy S. Murphy, a husband, having a mailing address of 993 Dan Road, Horse Branch, KY 42349 (hereinafter referred to as "**Landlord**") and New Cingular Wireless PCS, LLC, a Delaware limited liability company, having a mailing address of 575 Morosgo Drive NE, Atlanta, GA 30324 (hereinafter referred to as "**Tenant**").

1. Landlord and Tenant entered into a certain Option and Lease Agreement ("**Agreement**") on the 5 day of June, 2017, for the purpose of installing, operating and maintaining a communications facility and other improvements. All of the foregoing is set forth in the Agreement.
2. The initial lease term will be five (5) years commencing on the effective date of written notification by Tenant to Landlord of Tenant's exercise of its option, with four (4) successive five (5) year options to renew.
3. The portion of the land being leased to Tenant and associated easements are described in **Exhibit 1** annexed hereto.



4. This Memorandum of Lease is not intended to amend or modify, and shall not be deemed or construed as amending or modifying, any of the terms, conditions or provisions of the Agreement, all of which are hereby ratified and affirmed. In the event of a conflict between the provisions of this Memorandum of Lease and the provisions of the Agreement, the provisions of the Agreement shall control. The Agreement shall be binding upon and inure to the benefit of the parties and their respective heirs, successors, and assigns, subject to the provisions of the Agreement.



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

"LANDLORD"

By: Michael A. Murphy  
Print Name: Michael A. Murphy  
Its: Owner  
Date: 3/31/17

LANDLORD ACKNOWLEDGMENT

STATE OF Ky )  
COUNTY OF DAVLESS ) ss:

On the 31 day of MARCH, 2017 before me, personally appeared \_\_\_\_\_, who acknowledged under oath, that he/she is the person/officer named in the within instrument, and that he/she executed the same in his/her stated capacity as the voluntary act and deed of Landlord for the purposes therein contained.



Donna J. Norris  
Notary Public: \_\_\_\_\_  
My Commission Expires: 10-30-19



"LANDLORD"

By: Kristy S. Murphy  
Print Name: Kristy S. Murphy  
Its: Owner  
Date: 3/31/17

LANDLORD ACKNOWLEDGMENT

STATE OF Ky )  
COUNTY OF DAVIESS ) ss:

On the 31 day of March, 2017 before me, personally appeared \_\_\_\_\_, who acknowledged under oath, that he/she is the person/officer named in the within instrument, and that he/she executed the same in his/her stated capacity as the voluntary act and deed of Landlord for the purposes therein contained.

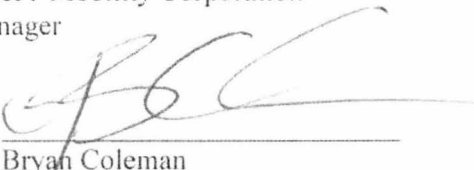


Donna J. Norris  
Notary Public: \_\_\_\_\_  
My Commission Expires: 10-30-19



"TENANT"

New Cingular Wireless PCS, LLC,  
a Delaware limited liability company  
By: AT&T Mobility Corporation  
Its: Manager

By:   
Name: Bryan Coleman  
Title: Area Manager Network Engineering  
Gulf States/TN KY Site Acquisition  
Date: 6/5/2017

STATE OF ALABAMA )

) ss:

COUNTY OF JEFFERSON )

On the 5 day of June, 2017, before me personally appeared Bryan Coleman and acknowledged under oath that he is the Area Manager Network Engineering – Gulf States/TN KY Site Acquisition of AT&T Mobility Corporation, the Manager of New Cingular Wireless PCS, LLC, the Tenant named in the attached instrument, and as such was authorized to execute this instrument on behalf of the Tenant.



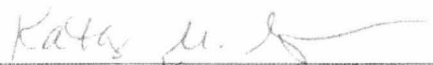
  
Notary Public: Kathy M. McLaughlin  
My Commission Expires: 10-26-2020



EXHIBIT 1

DESCRIPTION OF PREMISES

Page 1 of 2

to the Memorandum of Lease dated June 5, 2017, by and between Michael A. Murphy and Kristy S. Murphy, a husband and wife, as Landlord, and New Cingular Wireless PCS, LLC, a Delaware limited liability company, as Tenant.

The Property is legally described as follows:

BEGINNING at East corner of A. W. Murphy's land; thence a straight line North 50-1/4 E. to a stone in the Ford and Christian line; thence South 26-1/2 E. with said line to a stone on State Highway #505; thence with said Highway #505 to an old abandoned road bed; thence Southwest to an elm tree in S. S. Cannon's corner; thence a straight line West to the beginning, containing thirty acres, more or less.

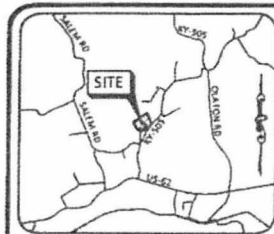
One acre excluded for cemetery.

THERE IS EXCEPTED and not herein conveyed from the above tract of land deeded to C. J. Ford and Lurlene Ford, his wife, by deed dated the 14<sup>th</sup> day of June, 1989, and of record in Deed Book 269, Page 436, in the Office of the Clerk, Ohio County Court and more particularly described as follows:

A certain tract or parcel of land lying and being in Ohio County, Kentucky, and bounded as follows:

BEGINNING at a steel stake located in the North right of way line of Dan Road; said steel stake being a new Northeast corner of the T. L. and Betty Lou Ford property and said stake being East 255 feet (in a straight line) from the North edge of the T. L. and Betty Lou Ford blacktop driveway; thence with the North right of way line of the Dan Road in an Easterly direction 100 feet to a concrete block; thence North approximately 1,045 feet to a painted rock; thence West 100 feet with the Christian property line to a rock and tree; thence South approximately 1,045 feet to the point of beginning, containing 2-4/10 acres, more or less.





**FAA COORDINATE POINT**  
 NAD 83  
 LATITUDE: 37°28'43.62"  
 LONGITUDE: 86°41'45.92"  
 NAVD 88  
 ELEVATION: 541.1 AMSL  
 NORTHING: 3599302.664  
 EASTING: 4546727.307

**TEMPORARY BENCHMARK**  
 NORTHING: 3699221.416  
 EASTING: 4646720.471  
 ELEVATION: 547.92'  
 LOCATION: A SET 1/2" REBAR  
 W/RED CAP STAMPED "POD TRV"  
 542.10' W. 14" E FROM THE SOUTH  
 CORNER OF THE PROPOSED LEASE  
 AREA.

0° 34' 51"  
 BASED ON KENTUCKY STATE  
 PLANE SINGLE ZONE AND  
 DETERMINED BY GPS OBSERVATIONS  
 COMPLETED ON APRIL 20, 2017

#### GLOBAL POSITIONING SYSTEMS NOTE

1. RANDOM TRAVERSE POINTS AND A PORTION OF THE TOPOGRAPHY WAS LOCATED USING GPS.
2. THE TYPE OF GPS UTILIZED WAS NETWORK ADJUSTED REAL TIME KINEMATIC (KDOT VRS NETWORK), NAD 83 KENTUCKY SINGLE ZONE WITH THE ORTHOMETRIC HEIGHT COMPUTED USING GEOID12A. RELATIVE POSITIONAL ACCURACY VARIED FROM 0.04' TO 0.07' HORIZONTALLY.
3. SPECTRA PRECISION EPOCH 50 DUAL FREQUENCY RECEIVERS WERE USED TO PERFORM THE SURVEY.



PREPARED BY:  
**POD**  
 POWER OF DESIGN  
 31490 BLUEGRASS PARKWAY  
 LOUISVILLE, KY 40299  
 502-457-3333

PREPARED FOR:  
**MasTec**

PREPARED FOR:  
**at&t**

#### SURVEY

REV.	DATE	DESCRIPTION
A	4.28.17	PRELIMINARY W/ TITLE
B	5.15.17	DEC COMMENTS
D	5.17.17	ISSUED AS FINAL

#### SITE INFORMATION:

**HORSE BRANCH**  
 933 DAN ROAD  
 HORSE BRANCH, KY 42349  
 OHIO COUNTY

TAX PARCEL NUMBER:  
 80-268

PROPERTY OWNER:  
 MICHAEL A. & KRISTY S. MURPHY  
 933 DAN ROAD  
 HORSE BRANCH, KY 42349

SOURCE OF TITLE:  
 DEED BOOK 336, PAGE 287

#### SITE NUMBER:

KYLD3663

POD NUMBER: 17-13528

DRAWN BY: RAE  
 CHECKED BY: MEP  
 SURVEY DATE: 4.20.17  
 PLAT DATE: 4.28.17

#### SHEET TITLE:

**SITE SURVEY**

#### SHEET NUMBER:

**B-1**

#### GENERAL NOTES

NO SEARCH OF PUBLIC RECORDS HAS BEEN COMPLETED BY POD GROUP TO DETERMINE ANY DEFECTS AND/OR AMBIGUITIES IN THE TITLE OF THE SUBJECT PROPERTY.

THIS SURVEY IS FOR THE PROPOSED LEASE AREA AND THE PROPOSED 30' / VARIABLE WIDTH ACCESS & UTILITY EASEMENT ONLY, AND ONLY A PARTIAL BOUNDARY SURVEY OF THE PARENT TRACT HAS BEEN PERFORMED.

A PORTION OF THIS SURVEY WAS CONDUCTED BY METHOD OF RANDOM TRAVERSE WITH SIDE SHOTS. UNADJUSTED CLOSURE EQUALS 0.06', FOR A PRECISION OF 1:49,118 AND HAS NOT BEEN ADJUSTED.

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

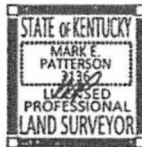
THIS PLAT IS NOT INTENDED FOR LAND TRANSFER.

THE PARENT PARCEL, THE PROPOSED LEASE AREA AND THE PROPOSED 30' / VARIABLE WIDTH ACCESS & UTILITY EASEMENT SHOWN HEREON ARE NOT LOCATED IN A 100-YEAR FLOOD PLAIN, ZONE X, PER FLOOD HAZARD BOUNDARY MAP, COMMUNITY-PANEL NUMBER 21183CD325D, DATED JUNE 2, 2011.

#### LAND SURVEYOR'S CERTIFICATE

I, MARK E. PATTERSON, HEREBY CERTIFY THAT I AM A LICENSED PROFESSIONAL LAND SURVEYOR LICENSED IN COMPLIANCE WITH THE LAWS OF THE COMMONWEALTH OF KENTUCKY. I FURTHER CERTIFY THAT THIS PLAT AND THE SURVEY ON THE GROUND WERE PERFORMED BY PERSONS UNDER MY DIRECT SUPERVISION, AND THAT THE DIRECTIONAL AND LINEAR MEASUREMENTS BEING WITNESSED BY MONUMENTS SHOWN HEREON ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE. THE "RURAL" SURVEY, AND THE PLAT ON WHICH IT IS BASED, MEETS ALL SPECIFICATIONS AS STATED IN KAR 201.18.150

Mark Patterson 5/17/2017  
 MARK PATTERSON, PLS #3136 DATE



PARCEL ID: 80-20  
 WILLIAM J. & ELIZABETH FARRIS  
 DEED BOOK 357, PAGE 391

PARCEL ID: 80-268  
 MICHAEL A. & KRISTY S. MURPHY  
 DEED BOOK 336, PAGE 287

PARCEL ID: 80-268  
 MICHAEL A. & KRISTY S. MURPHY  
 DEED BOOK 336, PAGE 287

PARCEL ID: 80-42A & 42  
 EARNEST L. & JENNE WHITLEY  
 DEED BOOK 330, PAGE 513

EX. WELL VENT

P.O.C. ACCESS & UTILITY EASEMENT

P.O.B. LEASE AREA

P.O.B. ACCESS & UTILITY EASEMENT

N80°21'05"E 723.13' (REFERENCE TIE)

P.O.R. FOUND 2" x 2" ANGLE IRON

PROPOSED LEASE AREA  
 (10,000.000 S.F.)  
 DETAIL SHEET B-1.1

EX. DITCH LINE

PROPOSED 30' / VARIABLE WIDTH  
 ACCESS & UTILITY EASEMENT  
 (27,014.248 S.F.)  
 DETAIL SHEET B-1.1 & B-1.2

457.5

P.O.B. 15' UTILITY EASEMENT

EX. RESIDENCE

DAN ROAD  
 a.k.a. KY-505  
 PUBLIC RIGHT OF WAY -  
 WIDTH UNKNOWN

EX. DITCH LINE

WHITLEY LOOP  
 PUBLIC RIGHT OF WAY -  
 WIDTH UNKNOWN

#### LEGEND

- POWER POLE
- GUY ANCHOR
- TELEPHONE PEDESTAL
- TELEPHONE MARKER

EX. OVERHEAD ELECTRIC

EX. FENCE LINE

SET 1/2" REBAR 18" LONG

CAPPED "PATTERSON PLS 3136"

FOUND MONUMENT AS NOTED

PROPERTY LINE

ADJACENT PROPERTY LINE

- P.O.C. POINT OF COMMENCEMENT
- P.O.R. POINT OF REFERENCE
- P.O.B. POINT OF BEGINNING
- ROW RIGHT OF WAY
- EOP EDGE OF PAVEMENT
- EX. OVERHEAD ELECTRIC
- EX. FENCE LINE
- SET 1/2" REBAR 18" LONG
- CAPPED "PATTERSON PLS 3136"
- FOUND MONUMENT AS NOTED
- PROPERTY LINE
- ADJACENT PROPERTY LINE

1" = 200 FEET

Michael Murphy 5/25/17



**Prepared by and Return to:**

New Cingular Wireless PCS, LLC

Attn: Real Estate Administration

575 Morosgo Drive NE

Atlanta, GA 30324

Cell Site No: KYL03663

Cell Site Name: Horse Branch

Fixed Asset Number: 13800747

State: Kentucky

County: Ohio

**SUBORDINATION, NON-DISTURBANCE AND ATTORNMENMENT AGREEMENT**

**THIS SUBORDINATION, NON-DISTURBANCE AND ATTORNMENMENT AGREEMENT**

("Agreement"), dated as of the date below, between Evansville Teachers Federal Credit Union having its principal office at 4401 Theater Drive, Evansville, IN 47715, (hereinafter called "**Mortgagee**") and Michael A. Murphy and Kristy S. Murphy, a husband and wife residing at 933 Dan Road, Horse Branch, KY 42349 ("**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**").

**WITNESSETH:**

**WHEREAS**, Tenant has entered into a certain lease dated June 5, 2017, (the "**Lease**") with Landlord, covering property more fully described in **Exhibit 1** attached hereto and made a part hereof (the "**Premises**"); and

**WHEREAS**, Landlord has given to Mortgagee a mortgage (the "**Mortgage**") upon property having a street address of 933 Dan Road, being identified as Lot \_\_\_\_\_ in Block \_\_\_\_\_ in the City of Horse Branch, Ohio County, State of Kentucky ("**Property**"), a part of which Property contains the Premises; and

**WHEREAS**, the Mortgage on the Property is in the original principal sum of Seventy Six Thousand and Two Hundred and no/100 (\$76,200.00) Dollars, which Mortgage has been recorded in the appropriate public office in and for Ohio County, Kentucky ("**Mortgage**"); and

**WHEREAS**, Tenant desires to be assured of continued occupancy of the Premises under the terms of the Lease and subject to the terms of this Agreement.

**NOW, THEREFORE**, in consideration of the mutual promises, covenants and agreements herein contained, the receipt and sufficiency of which are hereby acknowledged, the parties hereto, intending to be legally bound hereby, agree as follows:

1. So long as this Agreement will remain in full force and effect, the Lease is and will be subject and subordinate to the lien and effect of the Mortgage insofar as it affects the real property and fixtures of which the Premises forms a part (but not Tenant's trade fixtures and other personal property), and to all renewals, modifications, consolidations, replacements and extensions thereof, to the full extent of the principal sum secured thereby and interest thereon, with the same force and effect as if the Mortgage had been executed, delivered, and duly recorded among the above-mentioned public records, prior to the execution and delivery of the Lease.



2. In the event Mortgagee takes possession of the Premises as mortgagee-in-possession, including but not limited to, by deed in lieu of foreclosure or foreclosure of the Mortgage, Mortgagee agrees not to affect or disturb Tenant's right to possession of the Premises and any of Tenant's other rights under the Lease in the exercise of Mortgagee's rights so long as Tenant is not then in default, after applicable notice and/or grace periods, under any of the terms, covenants, or conditions of the Lease.

3. In the event that Mortgagee succeeds to the interest of Landlord or other landlord under the Lease and/or to title to the Premises, Mortgagee and Tenant hereby agree to be bound to one another under all of the terms, covenants and conditions of the Lease; accordingly, from and after such event, Mortgagee and Tenant will have the same remedies against one another for the breach of an agreement contained in the Lease as Tenant and Landlord had before Mortgagee succeeded to the interest of Landlord; provided, however, that Mortgagee will not be:

- (a) personally liable for any act or omission of any prior landlord (including Landlord); or
- (b) bound by any rent or additional rent which Tenant might have paid for more than the payment period as set forth under the Lease (one month, year, etc.) in advance to any prior landlord (including Landlord).

4. In the event that Mortgagee or anyone else acquires title to or the right to possession of the Premises upon the foreclosure of the Mortgage, or upon the sale of the Premises by Mortgagee or its successors or assigns after foreclosure or acquisition of title in lieu thereof or otherwise, Tenant agrees not to seek to terminate the Lease by reason thereof, but will remain bound unto the new owner so long as the new owner is bound to Tenant (subject to Section 3 above) under all of the terms, covenants and conditions of the Lease.

5. Mortgagee understands, acknowledges and agrees that notwithstanding anything to the contrary contained in the Mortgage and/or any related financing documents, including, without limitation, any UCC-1 financing statements, Mortgagee will acquire no interest in any furniture, equipment, trade fixtures and/or other property installed by Tenant on the Property. Mortgagee hereby expressly waives any interest which Mortgagee may have or acquire with respect to such furniture, equipment, trade fixtures and/or other property of Tenant now, or hereafter, located on or affixed to the Property or any portion thereof and Mortgagee hereby agrees that same do not constitute realty regardless of the manner in which same are attached or affixed to the Property.

6. This Agreement will be binding upon and will extend to and benefit the successors and assigns of the parties hereto and to any assignees or subtenants of Tenant which are permitted under the Lease. The term "Mortgagee", when used in this Agreement will be deemed to include any person or entity which acquires title to or the right to possession of the Premises by, through or under Mortgagee and/or the Mortgage, whether directly or indirectly.

**[SIGNATURES AND ACKNOWLEDGMENTS APPEAR ON THE NEXT PAGES]**



IN WITNESS WHEREOF, the undersigned has caused this Agreement to be executed as of the last signature date below.

LANDLORD: Michael A. Murphy and Kristy S. Murphy,  
a husband and wife

By: Michael Murphy  
Name: Michael A. Murphy  
Title: Owner  
Date: 3/31/17

LANDLORD ACKNOWLEDGMENT

STATE OF Ky )  
COUNTY OF DAVLESS ) ss:

On the 31 day of March, 2017, before me, personally appeared \_\_\_\_\_, who acknowledged under oath, that he/she is the person/officer named in the within instrument, and that he/she executed the same in his/her stated capacity as the voluntary act and deed of the Landlord for the purposes therein contained.

Donna J. Norris  
Notary Public:  
My Commission Expires: 10-30-19





LANDLORD:

Michael A. Murphy and Kristy S. Murphy,  
a husband and wife

By:

Name: Kristy S. Murphy

Title: Owner

Date: 3/31/19

**LANDLORD ACKNOWLEDGMENT**

STATE OF Ky

COUNTY OF DANVERS

) ss:

On the 31 day of March, 2017, before me, personally appeared \_\_\_\_\_, who acknowledged under oath, that he/she is the person/officer named in the within instrument, and that he/she executed the same in his/her stated capacity as the voluntary act and deed of the Landlord for the purposes therein contained.



Donna J. Norris  
Notary Public:

My Commission Expires: 10-30-19







MORTGAGEE: Evansville Teachers Federal Credit Union,  
a Credit Union

By: Chad Wesselman  
Name: Chad Wesselman  
Title: Director of Mortgage Servicing  
Date: 4/7/17

**MORTGAGEE ACKNOWLEDGMENT**

STATE OF INDIANA )  
COUNTY OF VANDERBURGH ) ss:

On the 7<sup>th</sup> day of April, 2017 before me, personally appeared Chad Wesselman, who acknowledged under oath, that he/she is the person/officer named in the within instrument, and that he/she executed the same in his/her stated capacity as the voluntary act and deed of the Mortgagee for the purposes therein contained.

Laurie M. Evans

Notary Public: Laurie M. Evans

My Commission Expires: 02/06/2019





## EXHIBIT 1

### DESCRIPTION OF PREMISES

The Property is legally described as follows:

BEGINNING at East corner of A. W. Murphy's land; thence a straight line North 50-1/4 E. to a stone in the Ford and Christian line; thence South 26-1/2 E. with said line to a stone on State Highway #505; thence with said Highway #505 to an old abandoned road bed; thence Southwest to an elm tree in S. S. Cannon's corner; thence a straight line West to the beginning, containing thirty acres, more or less.

One acre excluded for cemetery.

THERE IS EXCEPTED and not herein conveyed from the above tract of land deeded to C. J. Ford and Lurlene Ford, his wife, by deed dated the 14<sup>th</sup> day of June, 1989, and of record in Deed Book 269, Page 436, in the Office of the Clerk, Ohio County Court and more particularly described as follows:

A certain tract or parcel of land lying and being in Ohio County, Kentucky, and bounded as follows:

BEGINNING at a steel stake located in the North right of way line of Dan Road; said steel stake being a new Northeast corner of the T. L. and Betty Lou Ford property and said stake being East 255 feet (in a straight line) from the North edge of the T. L. and Betty Lou Ford blacktop driveway; thence with the North right of way line of the Dan Road in an Easterly direction 100 feet to a concrete block; thence North approximately 1,045 feet to a painted rock; thence West 100 feet with the Christian property line to a rock and tree; thence South approximately 1,045 feet to the point of beginning, containing 2-4/10 acres, more or less.



**EXHIBIT J**  
**NOTIFICATION LISTING**



### Horse Branch – Notice List

Murphy Michael A & Kristy S  
933 Dan Rd  
Horse Branch, KY 42349

Brigman Joshua David  
1420 E Maryland St  
Evansville, IN 47711

Fields Carl Timothy & Vicky E  
PO Box 214  
Rockport, KY 42369

Whitely Earnest L & Ijean  
162 Salem Dr  
Horse Branch, KY 42349

Whitely Ernest Lee & Igene  
162 Salem Rd  
Horse Branch, KY 42349

Lindsey Brent & Ashley  
27 Whitely Lp  
Beaver Dam, KY 42320

Farris William J & Elizabeth  
2418 N Ft Thomas Ave  
Fort Thomas, KY 41075

Cook Leonard E & Mona F  
979 Dan Rd  
Horse Branch, KY 42349

Cook Robert E & Mary L  
1039 Dan Rd  
Horse Branch, KY 42349

Lindsey Faron  
982 Dan Road  
Horse Branch, KY 42349

Sandefur Rita & David Sr  
754 Dan Rd  
Horse Branch, KY 42349



Gilstrap Tina M  
306 Whitely Loop  
Horse Branch, KY 42349

Autry Raymond Luther  
Route 1  
Olaton, KY 42361

Ohio County Victory Baptist Church  
NA  
NA

Ohio County Victory Baptist Church  
NA  
Horse Branch, KY



**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: Horse Branch**

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 933 Dan Road, Horse Branch, KY 42349 (37° 28' 43.62" North latitude, 86° 41' 45.92" West longitude). The proposed facility will include a 305-foot tall antenna tower, plus a 15-foot lightning arrestor and related ground facilities. This facility is needed to provide improved coverage for wireless communications in the area.

This notice is being sent to you because the County Property Valuation Administrator's records indicate that you may own property that is within a 500' radius of the proposed tower site or contiguous to the property on which the tower is to be constructed. You have a right to submit testimony to the Kentucky Public Service Commission ("PSC"), either in writing or to request intervention in the PSC's proceedings on the application. You may contact the PSC for additional information concerning this matter at: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to docket number 2018-00070 in any correspondence sent in connection with this matter.

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

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

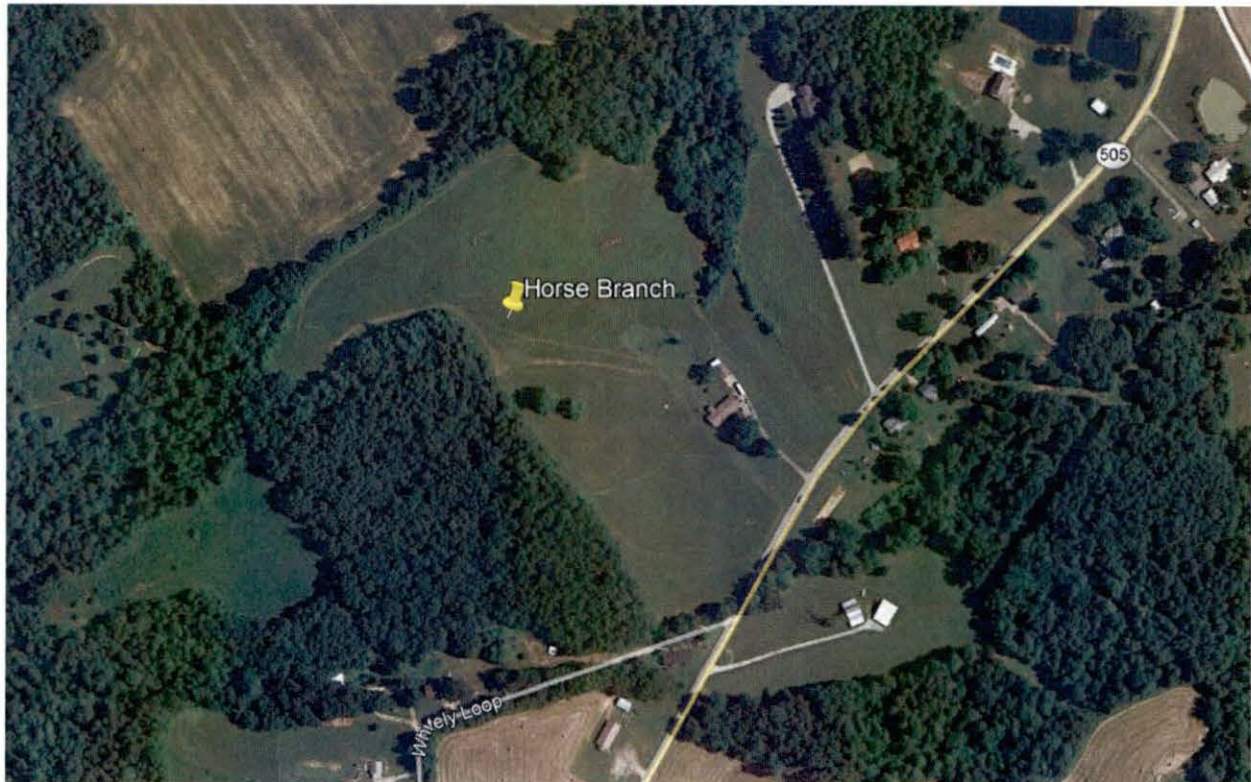
Sincerely,  
David A. Pike  
Attorney for Applicant

enclosure



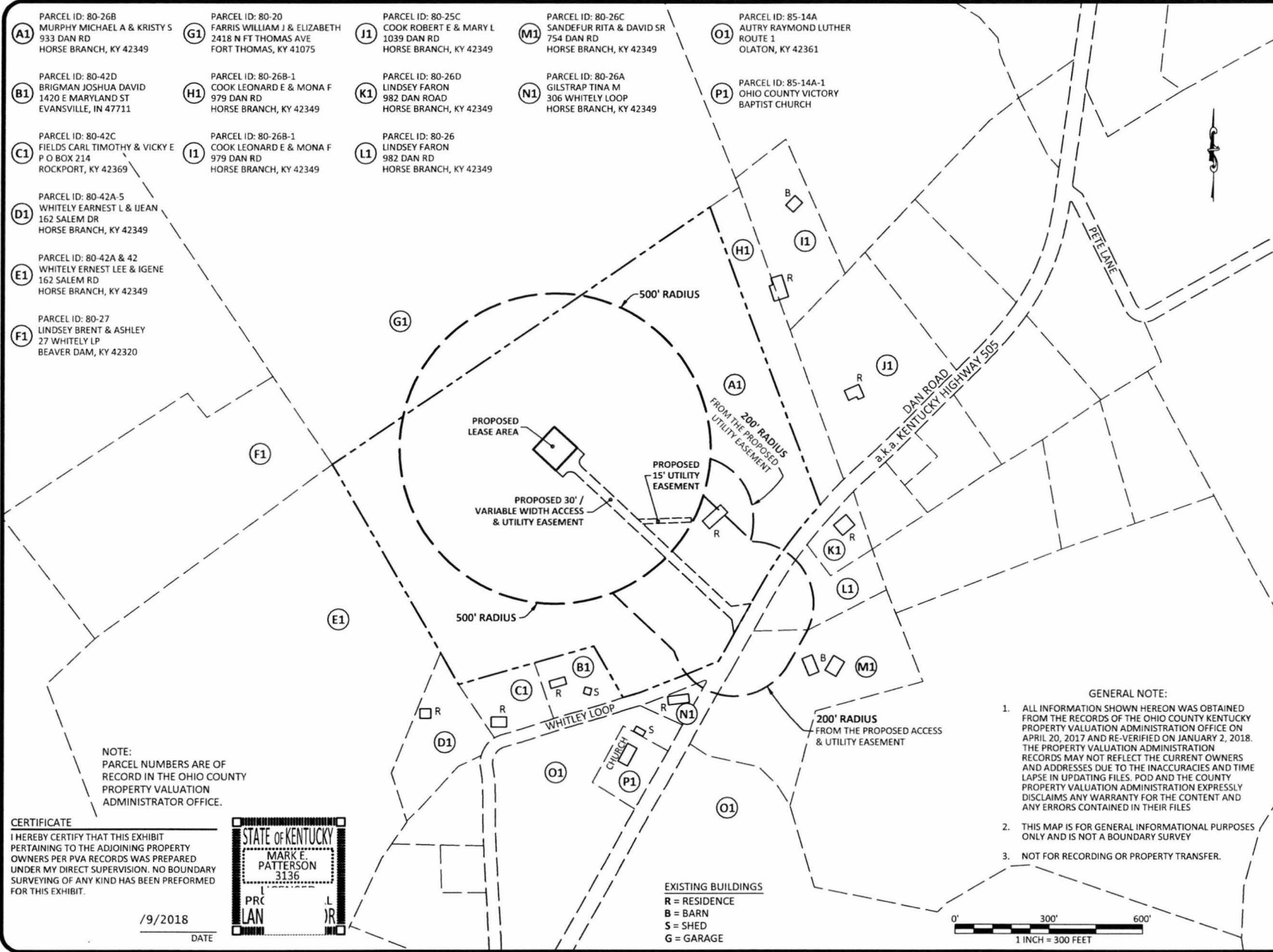
### **Driving Directions to Proposed Tower Site**

1. Beginning at the offices of the Ohio County Clerk located at 301 South Main Street, Hartford, KY, head southeast on South Main Street toward W. Washington Street. Travel approximately 0.9 miles.
2. Turn left onto KY-69N and travel approximately 0.6 miles.
3. Turn right onto KY-1543 / Clay Street and travel approximately 3.1 miles.
4. Turn left onto US-62E and travel approximately 8.9 miles.
5. Turn left onto KY-505 N / Dan Road and travel approximately 0.9 miles. The site is on the left at 933 Dan Road in Horse Branch, KY.
6. The site coordinates are
  - a. North 37 deg 28 min 43.62 sec
  - b. West 86 deg 41 min 45.92 sec



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





- A1

PARCEL ID: 80-26B  
MURPHY MICHAEL A & KRISTY S  
933 DAN RD  
HORSE BRANCH, KY 42349
- B1

PARCEL ID: 80-42D  
BRIGMAN JOSHUA DAVID  
1420 E MARYLAND ST  
EVANSVILLE, IN 47711
- C1

PARCEL ID: 80-42C  
FIELDS CARL TIMOTHY & VICKY E  
P O BOX 214  
ROCKPORT, KY 42369
- D1

PARCEL ID: 80-42A-5  
WHITLEY EARNEST L & UEAN  
162 SALEM DR  
HORSE BRANCH, KY 42349
- E1

PARCEL ID: 80-42A & 42  
WHITLEY EARNEST LEE & IGENE  
162 SALEM RD  
HORSE BRANCH, KY 42349
- F1

PARCEL ID: 80-27  
LINDSEY BRENT & ASHLEY  
27 WHITLEY LP  
BEAVER DAM, KY 42320
- G1

PARCEL ID: 80-20  
FARRIS WILLIAM J & ELIZABETH  
2418 N FT THOMAS AVE  
FORT THOMAS, KY 41075
- H1

PARCEL ID: 80-26B-1  
COOK LEONARD E & MONA F  
979 DAN RD  
HORSE BRANCH, KY 42349
- I1

PARCEL ID: 80-26B-1  
COOK LEONARD E & MONA F  
979 DAN RD  
HORSE BRANCH, KY 42349
- J1

PARCEL ID: 80-25C  
COOK ROBERT E & MARY L  
1039 DAN RD  
HORSE BRANCH, KY 42349
- K1

PARCEL ID: 80-26D  
LINDSEY FARON  
982 DAN ROAD  
HORSE BRANCH, KY 42349
- L1

PARCEL ID: 80-26  
LINDSEY FARON  
982 DAN RD  
HORSE BRANCH, KY 42349
- M1

PARCEL ID: 80-26C  
SANDEFUR RITA & DAVID SR  
754 DAN RD  
HORSE BRANCH, KY 42349
- N1

PARCEL ID: 80-26A  
GILSTRAP TINA M  
306 WHITLEY LOOP  
HORSE BRANCH, KY 42349
- O1

PARCEL ID: 85-14A  
AUTRY RAYMOND LUTHER  
ROUTE 1  
OLATON, KY 42361
- P1

PARCEL ID: 85-14A-1  
OHIO COUNTY VICTORY  
BAPTIST CHURCH

NOTE:  
PARCEL NUMBERS ARE OF  
RECORD IN THE OHIO COUNTY  
PROPERTY VALUATION  
ADMINISTRATOR OFFICE.

CERTIFICATE  
I HEREBY CERTIFY THAT THIS EXHIBIT  
PERTAINING TO THE ADJOINING PROPERTY  
OWNERS PER PVA RECORDS WAS PREPARED  
UNDER MY DIRECT SUPERVISION. NO BOUNDARY  
SURVEYING OF ANY KIND HAS BEEN PERFORMED  
FOR THIS EXHIBIT.

9/2018  
DATE



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

0' 300' 600'  
1 INCH = 300 FEET

- GENERAL NOTE:
1. ALL INFORMATION SHOWN HEREON WAS OBTAINED FROM THE RECORDS OF THE OHIO COUNTY KENTUCKY PROPERTY VALUATION ADMINISTRATION OFFICE ON APRIL 20, 2017 AND RE-VERIFIED ON JANUARY 2, 2018. THE PROPERTY VALUATION ADMINISTRATION RECORDS MAY NOT REFLECT THE CURRENT OWNERS AND ADDRESSES DUE TO THE INACCURACIES AND TIME LAPSE IN UPDATING FILES. POD AND THE COUNTY PROPERTY VALUATION ADMINISTRATION EXPRESSLY DISCLAIMS ANY WARRANTY FOR THE CONTENT AND ANY ERRORS CONTAINED IN THEIR FILES
  2. THIS MAP IS FOR GENERAL INFORMATIONAL PURPOSES ONLY AND IS NOT A BOUNDARY SURVEY
  3. NOT FOR RECORDING OR PROPERTY TRANSFER.

PREPARED BY:

POWER OF DESIGN  
11400 BLUEGRASS PARKWAY  
LOUISVILLE, KY 40298  
502-437-5252

PREPARED FOR:

PREPARED FOR:

EXHIBIT

REV.	DATE	DESCRIPTION
A	1.2.18	ISSUED FOR REVIEW
O	2.6.18	ISSUED AS FINAL

SITE INFORMATION:

HORSE BRANCH  
933 DAN ROAD  
HORSE BRANCH, KY 42349  
OHIO COUNTY

TAX PARCEL NUMBER:  
80-26B

PROPERTY OWNER:  
MICHAEL A. & KRISTY S. MURPHY  
933 DAN ROAD  
HORSE BRANCH, KY 42349

SOURCE OF TITLE:  
DEED BOOK 336, PAGE 287

SITE NUMBER:  
KYL03663

POD NUMBER: 17-13527

DRAWN BY: DAP  
CHECKED BY: MEP  
SURVEY DATE: 4.20.17  
PLAT DATE: 1.2.18

SHEET TITLE:  
500' RADIUS AND  
ABUTTERS MAP

SHEET NUMBER:  
B-2



**EXHIBIT L**  
**COPY OF COUNTY JUDGE/EXECUTIVE NOTICE**





VIA CERTIFIED MAIL

David Johnston  
County Judge Executive  
130 E. Washington Street, Suite 209  
Hartford, KY 42347

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

RE: Notice of Proposal to Construct Wireless Communications Facility  
Kentucky Public Service Commission Docket No. 2018-00070  
Site Name: Horse Branch

Dear Judge/Executive:

New Cingular Wireless PCS, LLC, a Delaware Limited Liability Company, d/b/a AT&T Mobility has filed an application with the Kentucky Public Service Commission ("PSC") to construct a new wireless communications facility on a site located at 933 Dan Road, Horse Branch, KY 42349 (37° 28' 43.62" North latitude, 86° 41' 45.92" West longitude). The proposed facility will include a 305-foot tall antenna tower, plus a 15-foot lightning arrestor and related ground facilities. This facility is needed to provide improved coverage for wireless communications in the area.

You have a right to submit comments to the PSC or to request intervention in the PSC's proceedings on the application. You may contact the PSC at: Executive Director, Public Service Commission, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to docket number 2018-00070 in any correspondence sent in connection with this matter.

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

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

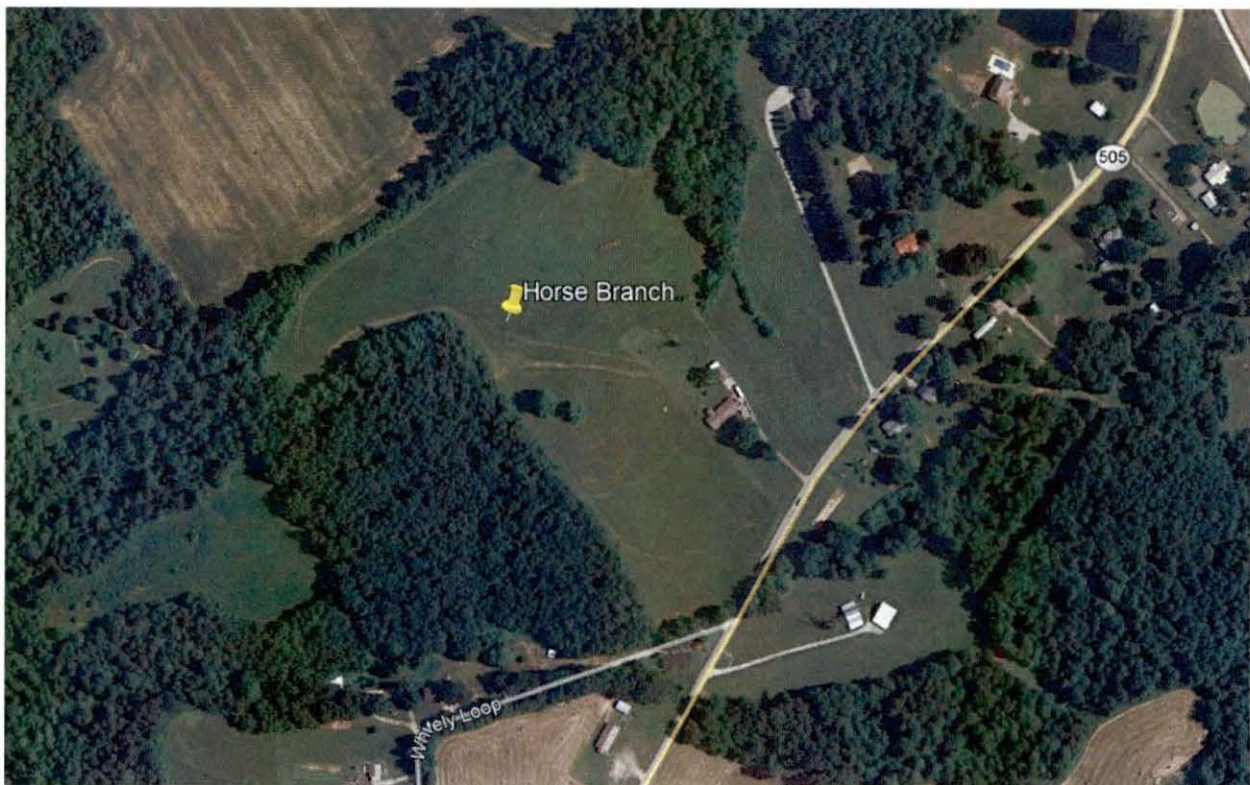
Sincerely,  
David A. Pike  
Attorney for Applicant

enclosures



### Driving Directions to Proposed Tower Site

1. Beginning at the offices of the Ohio County Clerk located at 301 South Main Street, Hartford, KY, head southeast on South Main Street toward W. Washington Street. Travel approximately 0.9 miles.
2. Turn left onto KY-69N and travel approximately 0.6 miles.
3. Turn right onto KY-1543 / Clay Street and travel approximately 3.1 miles.
4. Turn left onto US-62E and travel approximately 8.9 miles.
5. Turn left onto KY-505 N / Dan Road and travel approximately 0.9 miles. The site is on the left at 933 Dan Road in Horse Branch, KY.
6. The site coordinates are
  - a. North 37 deg 28 min 43.62 sec
  - b. West 86 deg 41 min 45.92 sec

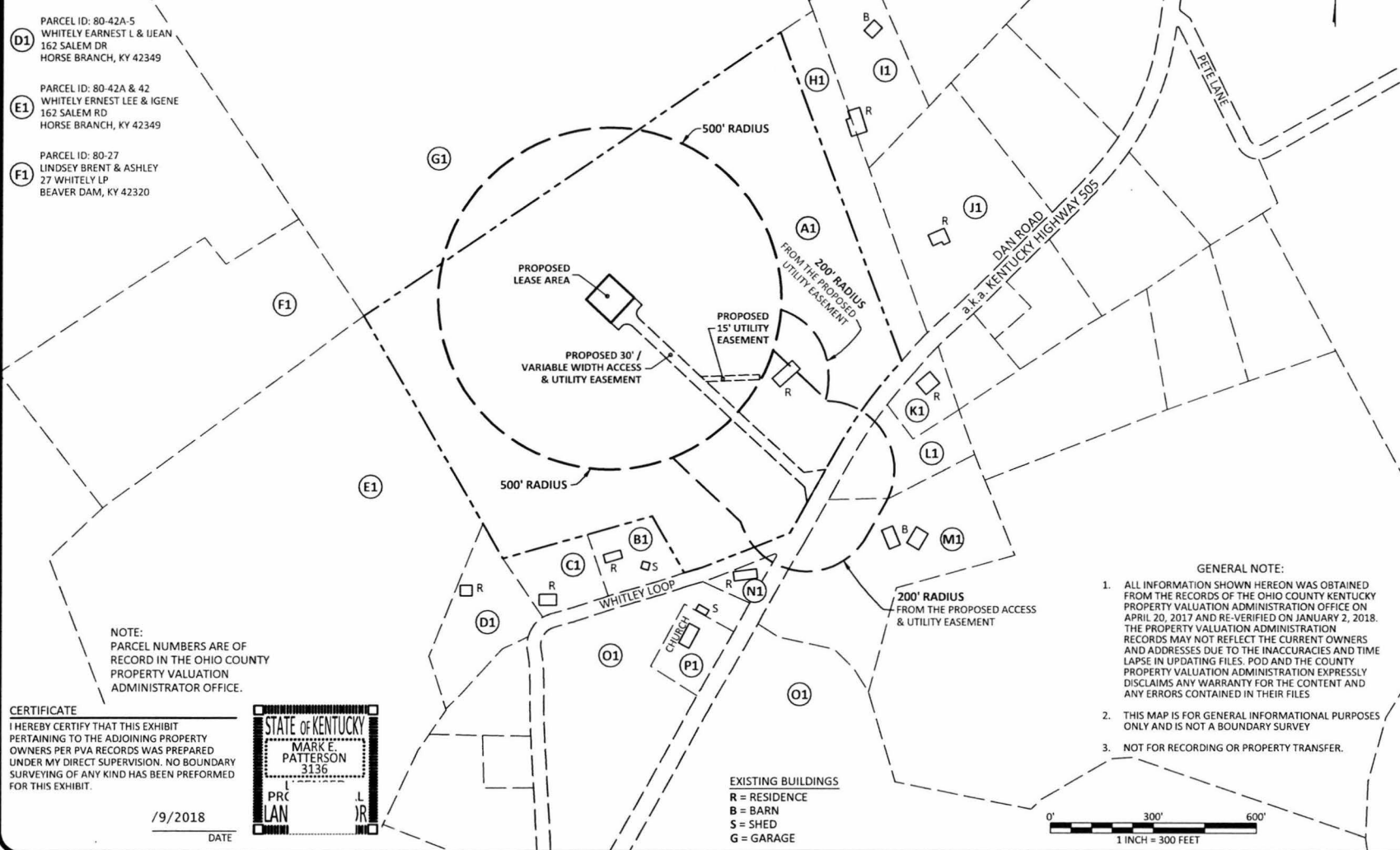


Prepared by:  
Aaron Roof  
Pike Legal Group PLLC  
1578 Highway 44 East, Suite 6  
P.O. Box 369  
Shepherdsville, KY 40165-3069  
Telephone: 502-955-4400 or 800-516-4293



- PARCEL ID: 80-26B  
MURPHY MICHAEL A & KRISTY S  
933 DAN RD  
HORSE BRANCH, KY 42349
- PARCEL ID: 80-20  
FARRIS WILLIAM J & ELIZABETH  
2418 N FT THOMAS AVE  
FORT THOMAS, KY 41075
- PARCEL ID: 80-25C  
COOK ROBERT E & MARY L  
1039 DAN RD  
HORSE BRANCH, KY 42349
- PARCEL ID: 80-26C  
SANDEFUR RITA & DAVID SR  
754 DAN RD  
HORSE BRANCH, KY 42349
- PARCEL ID: 85-14A  
AUTRY RAYMOND LUTHER  
ROUTE 1  
OLATON, KY 42361
- PARCEL ID: 80-42D  
BRIGMAN JOSHUA DAVID  
1420 E MARYLAND ST  
EVANSVILLE, IN 47711
- PARCEL ID: 80-26B-1  
COOK LEONARD E & MONA F  
979 DAN RD  
HORSE BRANCH, KY 42349
- PARCEL ID: 80-26D  
LINDSEY FARON  
982 DAN ROAD  
HORSE BRANCH, KY 42349
- PARCEL ID: 80-26A  
GILSTRAP TINA M  
306 WHITLEY LOOP  
HORSE BRANCH, KY 42349
- PARCEL ID: 85-14A-1  
OHIO COUNTY VICTORY  
BAPTIST CHURCH
- PARCEL ID: 80-42C  
FIELDS CARL TIMOTHY & VICKY E  
P O BOX 214  
ROCKPORT, KY 42369
- PARCEL ID: 80-26B-1  
COOK LEONARD E & MONA F  
979 DAN RD  
HORSE BRANCH, KY 42349
- PARCEL ID: 80-26  
LINDSEY FARON  
982 DAN RD  
HORSE BRANCH, KY 42349

- PARCEL ID: 80-42A-5  
WHITLEY EARNEST L & UJEAN  
162 SALEM DR  
HORSE BRANCH, KY 42349
- PARCEL ID: 80-42A & 42  
WHITLEY EARNEST LEE & IGENE  
162 SALEM RD  
HORSE BRANCH, KY 42349
- PARCEL ID: 80-27  
LINDSEY BRENT & ASHLEY  
27 WHITLEY LP  
BEAVER DAM, KY 42320



NOTE:  
PARCEL NUMBERS ARE OF  
RECORD IN THE OHIO COUNTY  
PROPERTY VALUATION  
ADMINISTRATOR OFFICE.

CERTIFICATE  
I HEREBY CERTIFY THAT THIS EXHIBIT  
PERTAINING TO THE ADJOINING PROPERTY  
OWNERS PER PVA RECORDS WAS PREPARED  
UNDER MY DIRECT SUPERVISION. NO BOUNDARY  
SURVEYING OF ANY KIND HAS BEEN PREFORMED  
FOR THIS EXHIBIT.

/9/2018  
DATE



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

- GENERAL NOTE:
1. ALL INFORMATION SHOWN HEREON WAS OBTAINED FROM THE RECORDS OF THE OHIO COUNTY KENTUCKY PROPERTY VALUATION ADMINISTRATION OFFICE ON APRIL 20, 2017 AND RE-VERIFIED ON JANUARY 2, 2018. THE PROPERTY VALUATION ADMINISTRATION RECORDS MAY NOT REFLECT THE CURRENT OWNERS AND ADDRESSES DUE TO THE INACCURACIES AND TIME LAPSE IN UPDATING FILES. POD AND THE COUNTY PROPERTY VALUATION ADMINISTRATION EXPRESSLY DISCLAIMS ANY WARRANTY FOR THE CONTENT AND ANY ERRORS CONTAINED IN THEIR FILES
  2. THIS MAP IS FOR GENERAL INFORMATIONAL PURPOSES ONLY AND IS NOT A BOUNDARY SURVEY
  3. NOT FOR RECORDING OR PROPERTY TRANSFER.

0' 300' 600'  
1 INCH = 300 FEET

PREPARED BY:  
**POD**  
POWER OF DESIGN  
11490 BLUEGRASS PARKWAY  
LOUISVILLE, KY 40299  
502-437-5252

PREPARED FOR:  
**MasTec**

PREPARED FOR:  
**at&t**

EXHIBIT

REV	DATE	DESCRIPTION
A	1.2.18	ISSUED FOR REVIEW
0	2.6.18	ISSUED AS FINAL

SITE INFORMATION:

**HORSE BRANCH**  
933 DAN ROAD  
HORSE BRANCH, KY 42349  
OHIO COUNTY

TAX PARCEL NUMBER:  
80-26B

PROPERTY OWNER:  
MICHAEL A. & KRISTY S. MURPHY  
933 DAN ROAD  
HORSE BRANCH, KY 42349

SOURCE OF TITLE:  
DEED BOOK 336, PAGE 287

SITE NUMBER:  
KYL03663

POD NUMBER: 17-13527  
DRAWN BY: DAP  
CHECKED BY: MEP  
SURVEY DATE: 4.20.17  
PLAT DATE: 1.2.18

SHEET TITLE:  
**500' RADIUS AND  
ABUTTERS MAP**

SHEET NUMBER:  
**B-2**



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



**SITE NAME: HORSE BRANCH**  
**NOTICE SIGNS**

The signs are at least (2) feet by four (4) feet in size, of durable material, with the text printed in black letters at least one (1) inch in height against a white background, except for the word "**tower**," which is at least four (4) inches in height.

New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility proposes to construct a telecommunications **tower** on this site. If you have questions, please contact Pike Legal Group, PLLC, P.O. Box 369, Shepherdsville, KY 40165; telephone: (800) 516-4293, or the Executive Director, Public Service Commission, 211 Sower Boulevard, PO Box 615, Frankfort, Kentucky 40602. Please refer to docket number 2018-00070 in your correspondence.

New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility proposes to construct a telecommunications **tower** near this site. If you have questions, please contact Pike Legal Group, PLLC, P.O. Box 369, Shepherdsville, KY 40165; telephone: (800) 516-4293, or the Executive Director, Public Service Commission, 211 Sower Boulevard, PO Box 615, Frankfort, Kentucky 40602. Please refer to docket number 2018-00070 in your correspondence.



**VIA TELEPHONE: 270-298-7100**

Ohio County Times News  
314 Main Street  
PO Box 226  
Hartford, KY 42347

RE: Legal Notice Advertisement  
Site Name: Horse Branch

Dear Ohio County Times News:

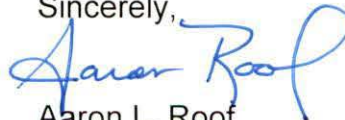
Please publish the following legal notice advertisement in the next edition of *The Ohio County Times News*:

**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 933 Dan Road, Horse Branch, KY 42349 (37°28'43.62" North latitude, 86°41'45.92" West longitude). You may contact the PSC for additional information concerning this matter at: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to docket number 2018-00070 in any correspondence sent in connection with this matter.**

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

Sincerely,

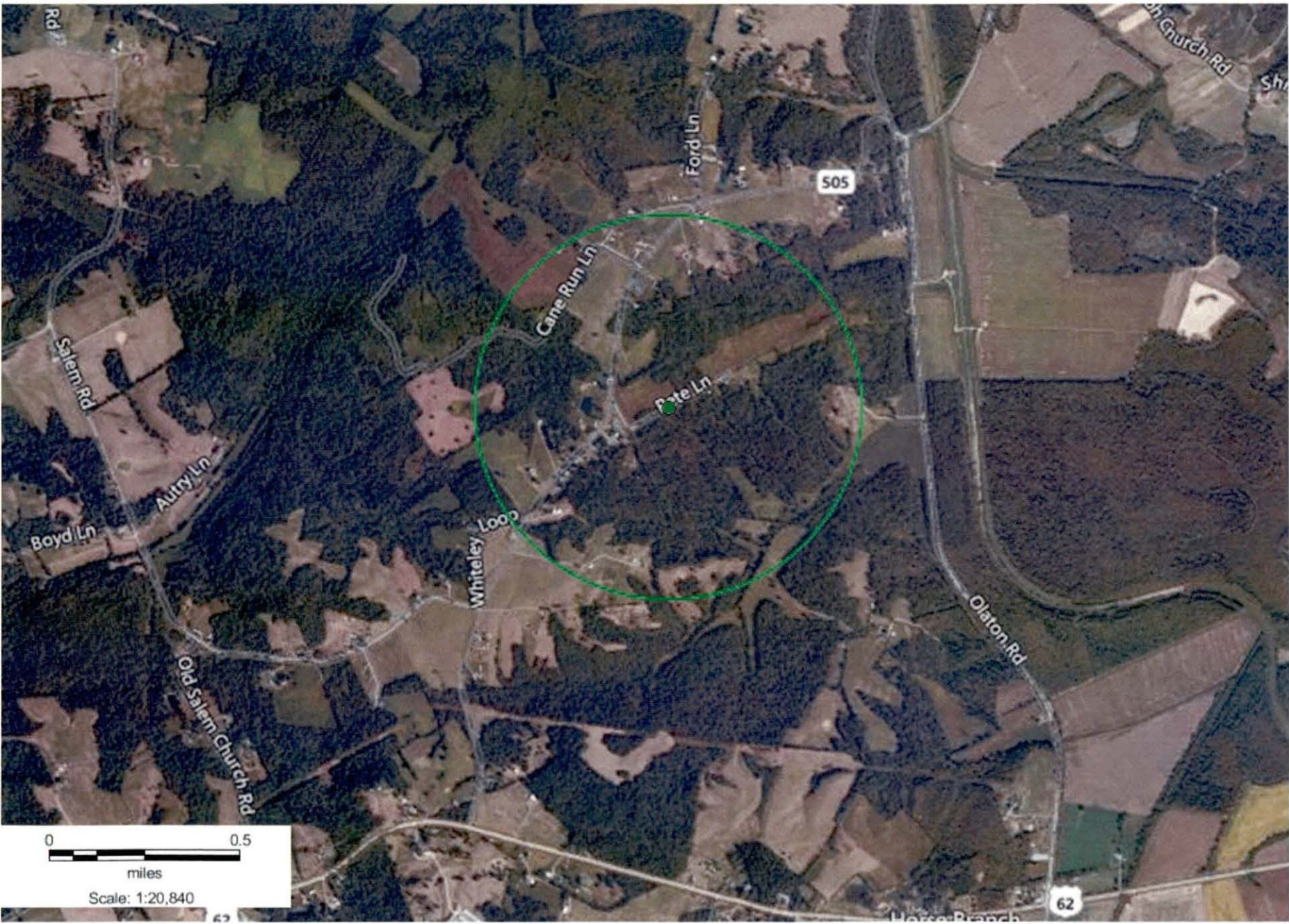


Aaron L. Roof  
Pike Legal Group, PLLC



**EXHIBIT N**  
**COPY OF RADIO FREQUENCY DESIGN SEARCH AREA**





Lat: 37.480782  
Lon: -86.687896  
Radius: .5 miles

Horse Branch Search Area