## COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:
THE APPLICATION OF NEW CINGULAR WIRELESS PCS, LLC
FOR ISSUANCE OF A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT A WIRELESS COMMUNICATIONS FACILITY
IN THE COMMONWEALTH OF KENTUCKY A WIRELESS COMMUNICATIONS FACILITY
IN THE COMMONWEALTH OF KENTUCKY IN THE COUNTY OF MORGAN

SITE NAME: WHEELRIM

## APPLICATION FOR

CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR CONSTRUCTION OF A WIRELESS COMMUNICATIONS FACILITY

New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT\&T Mobility ("Applicant"), by counsel, pursuant to (i) KRS §§ 278.020, 278.040, 278.650, 278.665, and other statutory authority, and the rules and regulations applicable thereto, and (ii) the Telecommunications Act of 1996, respectfully submits this Application requesting issuance of a Certificate of Public Convenience and Necessity ("CPCN") from the Kentucky Public Service Commission ("PSC") to construct, maintain, and operate a Wireless Communications Facility ("WCF") to serve the customers of the Applicant with wireless communications services.

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

1. The complete name and address of the Applicant: New Cingular Wireless

PCS, LLC, a Delaware limited liability company, d/b/a AT\&T Mobility, having a local address of 601 West Chestnut Street, Louisville, Kentucky 40203.
2. Applicant proposes construction of an antenna tower for communications services, which is to be located in an area outside the jurisdiction of a planning commission, and Applicant submits this application to the PSC for a certificate of public convenience and necessity pursuant to KRS $\S \S 278.020(1), 278.040,278.650,278.665$, 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. AT\&T Mobility is in good standing in the state in which it is organized and is authorized to transact business in Kentucky.
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 license to provide wireless services is 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 3247 Highway 134, Hazel Green, KY ( $37^{\circ} 45^{\prime} 03.847^{\prime \prime}$ North latitude, $83^{\circ} 15^{\prime} 17.985^{\prime \prime}$ West longitude), on a parcel of land located entirely within the county referenced in the caption of this application. The property on which the WCF will be located is owned by Jason Oney pursuant to a Deed recorded at Deed Book 217, Page 483 in the office of the Morgan County Clerk. The proposed WCF will consist of a 255 -foot tall tower, with an approximately 10 -foot tall lightning arrestor attached at the top, for a total height of 265 -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 $D$, along with a map of suitable scale showing the location of the proposed new construction as well as the location of any like facilities located anywhere within the map area, along with a map key showing the owner of such
other facilities.
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. A report detailing Applicant's site selection process for the subject site (including documentation as to why co-location is not possible for this site) is attached as Exhibit E.
11. A copy of the Determination of No Hazard to Air Navigation issued by the Federal Aviation Administration ("FAA") is attached as Exhibit F.
12. A copy of the Application for Kentucky Airport Zoning Commission ("KAZC") Approval to construct the tower is attached as Exhibit G.
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 H. Additionally, a letter signed and stamped by a professional engineer registered in the Commonwealth of Kentucky is attached as Exhibit H. The letter describes the impossibility of conducting a full geotechnical investigation without clearing trees and grading the land. 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 I. The name and telephone number of the preparer of Exhibit I 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 J.
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 Tommy Bailey and the
identity and qualifications of each person directly responsible for design and construction of the proposed tower are contained within 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 telephone number and 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 K and Exhibit L, 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 M.

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 N. Legal notice 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.
23. The general area where the proposed facility is to be located is on a mountaintop. No residential structures are located within a 500 -foot radius of the proposed tower location.
24. The process that was used by the Applicant's radio frequency engineers in selecting the site for the proposed WCF was consistent with the general process used for selecting all other existing and proposed WCF facilities within the proposed network design area. Applicant's radio frequency engineers have conducted studies and tests in order to develop a highly efficient network that is designed to handle voice and data traffic in the service area. The engineers determined an optimum area for the placement of the proposed facility in terms of elevation and location to provide the best quality service to customers in the service area. A radio frequency design search area prepared in reference to these radio frequency studies was considered by the Applicant when searching for sites for its antennas that would provide the coverage deemed necessary by the Applicant. A
map of the area in which the tower is proposed to be located which is drawn to scale and clearly depicts the necessary search area within which the site should be located pursuant to radio frequency requirements is attached as Exhibit $\mathbf{O}$.
25. All Exhibits to this Application are hereby incorporated by reference as if fully set out as part of the Application.
26. 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
Patrick W. Turner
General Attorney-Kentucky
AT\&T Kentucky
1600 Williams Street
Suite 5200
Columbia, South Carolina 29201
Telephone: (803) 401-2900
Telefax: (803) 254-1731
Email: pt1285@att.com

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

Respectfully submitted,

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

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

## LIST OF EXHIBITS

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

EXHIBIT A
FCC LICENSE DOCUMENTATION

## Division of Corporations Business Fillings

P. O. Box 718

Frankfort, KY 40602
(502) 564-2848
http://www.sos.ky.gov

Certificate of Authorization

Authentication Number: 84012
Jurisdiction: Briggs Law Office, PSC
Vish htp;//apps, sos, ky,gov/business/obdb/certvalldate, aspx to authenticate this cortificate.

I, Trey Grayson, Secretary of State of the Commonwealth of Kentucky, do hereby certify that according to the records in the Office of the Secretary of State, NEW CINGULAR WIRELESS PCS, LLC
, a limited liability company organized under the laws of the state of Delaware, is authorized to transact business in the Commonwealth of Kentucky and received the authority to transact business in Kentucky on October 14, 1999.

I further certify that all fees and penalties owed to the Secretary of State have been paid; that an application for certificate of withdrawal has not been filed; and that the most recent annual report required by KRS 275.190 has been delivered to the Secretary of State.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal at Frankfort, Kentucky, this 6th day of August, 2009.


Trey Grayson
Secretary of State Commonwealth of Kentucky 84012/0481848

ULS License

## Cellular License - KNKN861 - NEW CINGULAR WIRELESS PCS, LLC

| Call Sign | KNKN861 <br> Active |  | Radio Service Auth Type | CL-Cellular Regular |
| :---: | :---: | :---: | :---: | :---: |
| Status |  |  |  |  |
| Market |  |  |  |  |
| Market | CMA451 - Kentucky 9 | Elliott | Channel Block | A |
| Submarket | 0 |  | Phase | 2 |
| Dates |  |  |  |  |
| Grant | 08/30/2011 |  | Expiration | 10/01/2021 |
| Effective | 02/14/2014 |  | Cancellation |  |
| Five Year Buildout Date |  |  |  |  |
| 02/04/1997 |  |  |  |  |
| Control Points |  |  |  |  |
| 1 | 1650 Lyndon Farms Court, LOUISVILLE, KY P: (502)329-4700 |  |  |  |
| 2 | 707 CONCORD ROAD, KNOXVILLE, TN |  |  |  |
| Licensee |  |  |  |  |
| FRN | 0003291192 |  | Type | Limited Lia |
| Licensee |  |  |  |  |
| NEW CINGU 3300 E. Ren Richardson, ATTN Regina | WIRELESS PCS, LLC <br> Road, B3132 <br> 75082 <br> Youngblood |  | $\begin{aligned} & P:(855) 699-7073 \\ & F:(972) 907-1131 \\ & E: F C C M W @ a t t . c o m \end{aligned}$ |  |
| Contact |  |  |  |  |
| AT\&T MOBIL Michael P G 1120 20th St Washington ATTN Michae | LLC <br> t, NW - Suite 1000 20036 Goggin |  | $\begin{aligned} & P:(202) 457-2055 \\ & F:(202) 457-3073 \\ & E: \text { michael.p.goggin@att.com } \end{aligned}$ |  |
| Ownership and Quallicathons |  |  |  |  |
| Radio Service Type Mobile |  |  |  |  |
| Regulatory Status Common Carrier |  | Interconnected Yes |  |  |
| Alien Ownership <br> The Applicant answered "No" to each of the Alien Ownership questions. |  |  |  |  |
| Basic Qualifications <br> The Applicant answered "No" to each of the Basic Qualification questions. |  |  |  |  |
| Demographics |  |  |  |  |
| Race |  |  |  |  |
| Ethnicity |  |  | Gender |  |

## ULS License

## PCS Broadband License - WPOI255 - NEW CINGULAR WIRELESS PCS, LLC

| Call Sign | WPOI255 |  | Radio Service | CW - PCS Broadband |
| :---: | :---: | :---: | :---: | :---: |
| Status | Active |  | Auth Type | Regular |
| Market |  |  |  |  |
| Market | MTA026 - Louisville-1 Evansvill | xington- | Channel Block | A |
| Submarket | 19 |  | Associated Frequencies (MHz) | $\begin{aligned} & 001850.00000000- \\ & 001865.00000000 \\ & 001930.00000000- \\ & 001945.00000000 \end{aligned}$ |
| Dates |  |  |  |  |
| Grant | 07/07/2005 |  | Expiration | 06/23/2015 |
| Effective | 02/13/2014 |  | Cancellation |  |
| Buildout Deadlines |  |  |  |  |
| 1st | 06/23/2000 |  | 2nd | 06/23/2005 |
| Notification Dates |  |  |  |  |
| 1st | 07/07/2000 |  | 2nd | 02/17/2005 |
| Licensee |  |  |  |  |
| FRN | 0003291192 |  | Type | Limited Liability Company |
| Licensee |  |  |  |  |
| NEW CINGULAR WIRELESS PCS, LLC 3300 E. Renner Road, B3132 Richardson, TX 75082 ATTN Reginald Youngblood |  |  | $\begin{aligned} & P:(855) 699-7073 \\ & F:(972) 907-1131 \\ & E: F C C M W @ a t t . c o m \end{aligned}$ |  |
| Contact |  |  |  |  |
| AT\&T MOBILITY LLC <br> Michael P Goggin $\begin{aligned} & P:(202) 457-2055 \\ & F:(202) 457-3073 \end{aligned}$ <br> 1120 20th Street, NW - Suite 1000 <br> E:michael.p.goggin@att.com <br> Washington, DC 20036 <br> ATTN Michael P. Goggin |  |  |  |  |
| Ownership and Qualifications |  |  |  |  |
| Radio Service Type Mobile |  |  |  |  |
| Regulatory Status Common Carrier |  | Interconnected Yes |  |  |
| Alien Ownership <br> The Applicant answered "No" to each of the Alien Ownership questions. |  |  |  |  |
| Basic $\mathbf{Q}$ ualifications <br> The Applicant answered "No" to each of the Basic Qualification questions. |  |  |  |  |
| Tribal Land Bidding Credits <br> This license did not have tribal land bidding cre |  |  |  |  |

ULS License
AWS, 1710-1755/2110-2155 MHz bands License - WQGA822New Cingular Wireless PCS, LLC

| Call Sign | WQGA822 | Radio Service | $\begin{aligned} & \text { AW - AWS, 1710-1755/2110- } \\ & 2155 \mathrm{MHz} \text { bands } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| Status | Active | Auth Type | Regular |
| Market |  |  |  |
| Market | CMA451 - Kentucky 9-Elliott | Channel Block | A |
| Submarket | 0 | Associated Frequencles (MHz) | $001710.00000000-$ 001720.00000000 $002110.00000000-$ 002120.00000000 |
| Dates |  |  |  |
| Grant | 11/29/2006 | Explration | 11/29/2021 |
| Effective | 02/12/2014 | Cancellation |  |
| Buildout Deadlines |  |  |  |
| 1st |  | 2nd |  |
| Notification Dates |  |  |  |
| 1st |  | 2nd |  |
| Licensee |  |  |  |
| FRN | 0003291192 | Type | Limited Liability Company |
| Licensee |  |  |  |
| New Cingular Wireless PCS, LLC 3300 E. Renner Road, B3132 Richardson, TX 75082 ATTN Reginald Youngblood |  | $\begin{aligned} & \text { P:(855)699-7073 } \\ & F:(972) 907-1131 \\ & E: F C C M W @ a t t . c o m \end{aligned}$ |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| Contact |  |  |  |
| AT\&T Mobility LLC Michael P Goggin 1120 20th Street, NW - Suite 1000 Washington, DC 20036 ATTN Michael P. Goggin |  | P:(202)457-2055 |  |
|  |  | F:(202)457-3073 <br> E:michael.p.goggln@att.com |  |
|  |  |  |  |
|  |  | E:michael.p.goggin@att.com |  |

## Ownership and quallfcations

Radlo Service Type Mobile
Regulatory Status Common Carrier Interconnected Yes

## Alien Ownership

The Applicant answered "No" to each of the Alien Ownership questions.

## Basic Qualifications

The Applicant answered "No" to each of the Basic Qualification questions.
Tribal Land Bidding Credits
This license did not have tribal land bidding credits.

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## EXHIBIT B

## SITE DEVELOPMENT PLAN:

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



$\qquad$ _rgan County

1) PARCEL NUMBER: 114-00-00-015.00 Jason Oney 3247 Highway 134 Hazel Green, Kentucky 41332
(2) PARCEL NUMBER: 129-00-00-003.0 WARCEL NUMBER:
3721 Highway Oney
134 Hazel Green, Kentucky 41332
(3) PARCEL NUMBER: 129-00-00-001.00 Oney Cemetery - Per PVA, No Information Avaiiable Oney Cemetery - Pe
3721 Highway 134
Hazel Green, Kentucky 41332
(4) PARCEL NUMBER: $129-00-00-004.0$ Lee \& Rissie Roark Hazel Green, Kentucky 41332
(5) PARCEL NUMBER: $113-00-00-009.00$ J.C. $\&$ Christine Rudd
Box 27 Box 27
Felicity, Ohio 45120
(6) PARCEL NUMBER: 002-00-00-004 Ernie \& Sue Ann Alsept 400 Lee Roark Road

7 PARCEL NUMBER: $129-00-00-002.00$ William \& Judy Oney 3721 Highway 134 Hazel Green Kentucky 41332
(8) PARCEL NUMBER: $114-00-00-011.00$ Dean Family Farms, L Dean Family Farms
3612 Epperly Drive Del City, Oklahoma 73115

| $\sum$ at\&t |  |  |
| :---: | :---: | :---: |
|  |  |  |
| BTM Enginering Inc $^{\text {In }}$ 3001 TAYLOR SPRINGS DRVE LOUISVILLE, KENTUCKY 40220 (502) 459-8402 PHONE (502) 459-8427 FAX |  |  |
|  |  |  |
| STIE NAME: WHEERRM |  |  |
| STIE I.D.: KYaLU6169 |  |  |
| SITE ADDRESS: 324 HIGHWAY 134HAZEL GREEN. MORGAN CO. KY 41332 |  |  |
| [LEASE AREA: 4000 SF |  |  |
| PROPERTY OWNER: $\begin{array}{r}\text { JASON ONEY } \\ \text { HAZEL GREEN, KENTUCKY 4 } 41332 \\ \text { HAT }\end{array}$ |  |  |
| PARCEL NUMBER: ${ }^{144-00000-015000}$ |  |  |
| $\left(\begin{array}{c} \text { SOURCE OF TTLEE } \\ \text { DEEED BOKK } 217 \text { PAGE } 483 \\ \text { DEED BOOK 153 PAGE } 385 \end{array}\right.$ |  |  |
|  |  |  |
| No. | REVSION/ISSUE | DATE |
|  |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
| 5 |  |  |
| TITLE: 500' RADIUS <br>  VICINITY MAP |  |  |
| SHEET: |  |  |



## LEGAL DESCRIPTIONS

These are the descriotions of:
A ract of land conveyed to Jason Oney in Deed Book 217 at Page 483, and a tract of land conveyed to William C. and Judy Oney in Deed Book 153 at page 385 , in the Office of the County Clerk of Morgan County, Kentucky
An area to be leased from, and situated entirely within, the Jason Oney tract;
An appurtenant easement for access \& utilities, abutting the lease area, situated entirely within the Jason Oney tract; and A 30 -foot wide ea
Judy Oney tract.

## PARENT TRACT DESCRIPTIONS

Deed Book 271 Page 483 - Jason One
BEGINNING on the North side of Mountain Parkway at a set stone in the line of Willie Bailey; thence following the Willie Bailey line to the line of Mardy Center; thence with Mandy Center line to the line of Branson Phipps; thence following Sronson Phipp's line to a bridge at Highway 134 at the mouth of Prater Branch; and at the right of way of Mountain but to contain all the land described in the within boundary
o 153 Fas

BEGINNING at the mouth of a small drain which empties into the Johnson Fork of Licking River at a set stone between sycamore and a Lynn; thence in a southern direction with the meanders of same to the head of the drain; thence a straight line to the top of the hill to a set stone on Homer Patrick's line, being the ridge between the Johnson Fork and Boone Back's line to the David Lindon line; thence with David Lindon's line in a northern direction down the hill to the Johnson Fork Creek, opposite the mouth of what is known as the Shop Branch; thence crossing Johnson Fork Creek to the mouth of the Shop Branch; thence up said branch with the meanders of same and David Lindon's line to the top of in a southern direction with the line of the Mort Lindon tract down the hill to Lick Branch; thence continuing with the Mort Lindon line crossing the branch and up the hill to a chestrut; thence continuing with the Mort Lindon line to the top of the hili to a set stone, s corner between the Morth Lindon tract and the Heddy Lindon tract and the Bonny Higgins tract; between Logan Lindon and second party hereto to a set stone; thence down the hill a straight line to a marked chestruut thence a straight line to the beginning.

## DESCRIPTION OF PROPOSED LEASE AREA

NOTE: All bearings and distances are based on Grid North, Kentucky State Plane Coordinate System, Single Zone, NAD
Beginning, for reference, at the southeasterly corner of the Jason Oney tract, as recorded in Deed Book 217 at Page 83, said corner being common with the southwesterly corner of the William C. and Judy Oney tract, as recor at Page right-of-way line of Highway 134 ; thence in a northeasterly direction, with Jason Oner's easterly boundary, common with
William C. and Judy Oney's westerly boundary, approximately 482 feet to a polnt: thence continuing with Jason Oney's easterly boundary line, in a northerly direction, approximately 190 feet to the TRUE POINT OF BEGINNING, being an ron pin with cap stamped \#2328; thence running on over, and across the lands of the said Jason Oney, South 86 degrees 34 minutes 43 seconds West, a distance of 50.00 feet to an iron pin with cap stamped $\# 2328 ;$ thence North 03
degrees 25 minutes 17 seconds West, a distance of 80.00 feet to a iron in win degrees 25 minutes 17 seconds West, a a istance of 80.00 feet to an iron pin with cap stamped $\# 2328$; thence North 86
degrees 34 minutes 43 seconds East, a distance of 50.00 feet to an iron pin with cap stamped $\# 2328$; thence South 03 degrees 25 minutes 17 seconds East, a distance of 80.00 feet to the point of beginning, containing 4000.00 square feet,

## DESCRIPTION OF PROPOSED APPURTENANT ACCESS \& UTILITY EASEMENT

NOTE: All bearings and distances are based on Grid North, Kentucky State Plane Coordinate System, Single Zone, NA

Beginning at the southeasterly corner of the above-described Lease Area, thence with Jason Oney's easterly boundary dise, common with William C. and Judy Oney's westerly boundary line, South 03 degrees 25 minutes 17 seconds East, a 43 seconds West, a distance of 50.00 feet to a point; thence North 03 degrees 25 minutes 17 seconds West, a distance of 30.00 feet to the southwesterly corner of the above-described Lease Area, thence with the southrly line of the Lease
Area, North 86 degrees 34 minutes 43 seconds East, a distance of 50.00 feet to the point of beginnlig.

## DESCRIPTION OF PROPOSED 30-FOOT ACCESS $\&$ UTILITY EASEMENT

NOE:All beangs and distances are based on Grid North, Kentucky State Plane Coordinate System, Single Zone

30-foot wide easement for the righ to use for access and utilities to the above described Lease Area, said easement being described as follows:
Beginning at a point in the northerly right-of-way line of Highway 134 , said point being approximately 860 feet northwest of the southeasterly corner of the Jason Oney tract, as recorded in Deed Book 271 at Page 482, in the Morgan County Clerk's office: thence North 18 degrees 58 minutes 39 seconds East, a distance of 48.64 feet to a point; thence with a curve to the right, of radius 35.00 feet, the chord of which bears North 63 degrees 06 minutes 24 seconds East, a point; thence with a curve to the left, of radius 350.00 feet, the chord of which bears South 85 degrees 01 minutes 32 seconds East, a distance of 148.66 feet to a point; thence with a curve to the right, of radius 500.00 feet, the chord of which bears South 88 degrees 57 minutes 46 seconds East, a distance of 144.78 feet to a point: thence with a curve to 8.04 feet; thence with a curve to the right, of radius 500.00 feet, the chord of which bears South 84 degrees 16 minutes 22 seconds East, a distance of 92.67 feet to a point; thence with a curve to the left, of radius 400.00 feet, the chord of hich bears South 87 degrees 09 minutes 22 seconds East, a distance of 114.11 feet to a point; thence North 84 ract and the abutting William C. and Judy Oney tract, as recorded in Deed Book 153 at Page 385 , at 3.5 feet, more or less, in all a distance of 27.04 feet to a point; thence with a curve to the left, of radius 250.00 feet, the chord of which ears North 70 degrees 38 minutes 55 seconds East, a distance of 120.92 feet to a point; thence North 56 degrees 39 minutes 13 seconds East, a distance of 50.45 feet to a point; thence with a curve to the right, of radius 150.00 reet, the
chord of which bears North 71 degrees 00 minutes 09 seconds East, a distance of 74.35 feet to a point; thence with a curve to the left, of radius 100.00 feet, the chord of which bears North 11 degrees 27 minutes 50 seconds East, a istance of 192.14 feet to a pointst thence North 62 degrees 25 minutes 25 seconds West, a distance of 71.66 feet to a seconds West, a distance of 26.37 feet to a point; thence with a curve to the right, of radius 100.00 feet to a point, the chord of which bears North 68 degrees 01 mirutes 25 seconds West, a distance of 33.19 feet to a pointst thence North 58 degrees 28 minutes 16 seconds West, crossing the common boundary line between the aforementioned William $C$ and Judy Oney tract and the abutting Jason Oney al 158 feet, more or less, in all a distance of 12.96 feet to a point, West, a distance of 16.83 feet to a point in the southerly boundary of the above-described $30^{\circ} \times 50^{\circ}$ Appurtenant

STIE NAME: WHELRM
SITE I.D.: KYaLLE169

| NO. | REVSION/SSUE | DATE |
| :---: | :---: | :---: |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
| 5 |  |  |








## EXHIBIT C

TOWER AND FOUNDATION DESIGN

March 1, 2014
Kentucky Public Service Commission
211 Sower Blvd.
P.O. Box 615

Frankfort, KY 40602-0615

RE: Site Name: Wheelrim<br>Proposed Cell Tower<br>37-45-3.847 North Latitude, 83-15-17.985 West Longitude

Dear Commissioners:
The Project / Construction Manager for the proposed new communications facility will be Tommy Bailey. His contact information is (606) 316-6620 or tbailey@westower.com.

Tommy has been in the industry doing civil construction and constructing towers since 1983. He started in the industry with Andrew Corporation building MCI microwave sites across the US. He's worked for Southwest Bell, Cell One and AT\&T. He has erected approximately fifty ( 50 ) cellular communications facilities and built over 1,000 civil sites for various carriers, nationwide.

He was also co-owner of EWS in Bastrop, TX for four (4) years installing radio equipment for T-Mobile and AT\&T.

Thank you,


John Bour
Site Acquisition Manager: Kentucky Market 10400 Linn Station Rd., Suite 225, Louisville, KY 40223 iboud@westower.com | 559.790 .8855 (mobile)
www.westower.com

# valmont 

STRUCTURES

Westower Communications

Attn: John Boud
SUBJECT: Valmont File \# 243505
Model V-27.0 X 255 ' Self Supporting Tower
Site Name: Wheelrim-AL6169, KY
Thank you for your inquiry concerning tower design codes and practices as they relate to your requested tower designs.

Valmont Structures has been designing and building guyed and self-supporting towers and monopoles since the early 1950's. During this time, we have sold thousands of towers ranging in height from as little as $50^{\prime}$ high to in excess of 1400 '. These towers were individually engineered to accommodate the loading requirements imparted by the design wind speed, ice considerations, antenna loading, and other factors dictated by the national code requirements existing at the time the tower was built.

The ANSI/TIA-222-G Standard represents the latest refinement of specific minimum requirements for tower engineers and manufacturers to follow to help assure that the tower structure and its foundations are designed to meet the most realistic conditions for local weather while assuring that the tower is designed to stringent factors of safety. This tower is designed to 90 MPH (no ice) and 30 MPH ( $3 / 4^{\prime \prime}$ ice) per ANSI/TIA-222-G with Class II, Topographical category 1 , Exposure criteria C and a Crest height of 0 feet.

We are aware of few documented instances of a self supporting tower or monopole failure. Self supporting towers and monopoles can be designed such that the most common mode of failure is in the upper middle region of the tower, with the upper portion of the tower remaining connected and "bending and bowing over" against the base of the tower or pole. The fact that the wind is normally greater on the upper portion of the structure contributes to the likelihood of this type of failure. This particular Tower has a theoretical failure at the tower midpoint or above. The predicted mode of wind induced failure would be a buckling of the tower legs at or above the tower midpoint with the top sections of the tower folding over on to the intact base sections. This would then affect a "zero fall zone" at ground level.

Including myself, our site has three licensed Professional Engineers covering a total of 49 states. Valmont Structures is an AISC approved shop. All Valmont Structures welders are AWS and CWB qualified. Our total design, engineer and build process has been quality audited by our customers including public utilities, telephone companies, government agencies, and of course AISC.

We trust the above and the attached will be helpful to you. If you should need anything else, please let us know at your convenience.

Sincerely,

Nitesh Ahuja, P.E. Senior Engineer Ext. \#5257



| $V$-SERIES LEG SECTION DATA $140^{\circ}-255^{\circ}$ ELEVATION |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SECTION |  |  | LEG |  |  |  |  |  |  |  |  | DIAGONAL BRACE |  |  |  |  |  |  |  | $\begin{aligned} & \text { HOR } \\ & \hline \text { QTY } \end{aligned}$ |
| \# | LENGTH | WEIGHT | $\begin{aligned} & \hline \text { NOM } \\ & \text { SIZE } \\ & \hline \end{aligned}$ | WALL | GRADE | CLIMBING |  | NON-CLIMB |  | CONNECT BOLT+ |  | PART NUMBER ** |  |  | ANGLE |  | CONNECT BOLT |  | CENTER <br> SPACER |  |
|  |  |  |  |  |  | QTY | PART\# | QTY | PART\# | DIAM | LENGTH | \#1 | \#2 | \#3 | FACE | THICK | DIAM | LENGTH |  |  |
| $v-5.0$ | $15^{\circ}$ | 734\# | 2-1/2" | 0.203 | A572-50 | 1 | 226169 | 2 | 226170 | $3 / 4^{\prime \prime}$ | 3-1/2" | 227077 | 227077 | 227077 | 2" | 1/8" | $3 / 4^{\prime \prime}$ | 2-1/4" | 116467 | 1 |
| $v-5.0$ | $20^{\circ}$ | 1285\# | 4" | 0.237 | A572-50 | 1 | 226184 | 2 | 226185 | $3 / 4^{\prime \prime}$ | $3-1 / 2^{\prime \prime}$ | 227113 | 227113 | 227113 | 2" | 3/16" | $3 / 4^{\prime \prime}$ | 2-1/4" | 116467 |  |
| $v-7.0$ | $20^{\circ}$ | 1609\# | 5" | 0.258 | A572-50 | 1 | 226200 | 2 | 226201 | $3 / 4^{\prime \prime}$ | $3-1 / 2^{\prime \prime}$ | 226190 | 226189 | 231342 | 2" | $3 / 16^{\prime \prime}$ | $3 / 4^{\prime \prime}$ | 2-1/4" | 116467 |  |
| $v-9.0$ | $20^{\circ}$ | 1752\# | $5{ }^{\prime \prime}$ | 0. 258 | A572-50 | 3 | 226192 |  |  | $3 / 4^{\prime \prime}$ | 3-1/2" | 226196 | 226195 | 231344 | $2^{\prime \prime}$ | 3/16" | $3 / 4^{\prime \prime}$ | 2-1/4" | 116467 |  |
| $V-11.0$ | $20^{\prime}$ | 2200\# | $6^{\prime \prime}$ | 0.280 | A572-50 | 3 | 226206 |  |  | $3 / 4^{\prime \prime}$ | 3-1/2" | 225038 | 225037 | 231347 | 2-1/2" | 3/16" | $3 / 4^{\prime \prime}$ | 2-1/4" | 116467 |  |
| V -13.0 | $20^{\prime}$ | 2490\# | 6 " | 0.280 | A572-50 | 3 | 229377 |  |  | $1^{\prime \prime}$ | 4-3/4* | 227341 | 226209 | 231349 | 2-1/2" | 3/16" | $3 / 4^{\text {² }}$ | 2-1/4" | 116467 |  |
| + AT BOTTOM OF SECTION <br> * the weights listed are theoretical. the actual weights will vary. all weights should be confirmed in the field prior to erection. <br> ** panels are numbered beginning at the top of the section. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


TYPICAL V-SERIES SECTION ASSEMBLY 140' - 255' ELEVATION

| BREAKDOWN SECTION |  |  |  |  | DATA (12 |  |  | ELEVATION |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SEC | SECTION | LEG | LEG | Top diag | BOT DIAG |  | AN | SECTION | EG | NNECT+ | DIA | ONN |
| \# | LENGTH | SIZE | PART\# | PART\# | PART\# | FACE | THICK | WEIGHT | DIAM | LENGTH | DIAM | LENGTH |
| U-15.0 | $20^{\circ}$ | 1-3/4* | 229588 | 05579 | 105582 | $3^{\prime \prime}$ | 3/16" | 3128\# | $1^{*}$ | 4-3/4* | $1{ }^{-}$ | 2-1/4* |
| U-17.0 | $20^{\circ}$ | 1-3/4- | 229588 | 105588 | 127611 | 3" | 5/16 ${ }^{\text { }}$ | 3710\# | $1^{\prime \prime}$ | 4-3/4* | 1 " | 2-1/4* |
| * THE WEIGHTS LISTED ARE THEORETICAL. THE ACTUAL WEIGHTS WILL VARY. ALL WEIGHTS SHOULD be CONFIRMED IN THE FIELD PRIOR TO ERECTION. <br> + USE 1 fLAT WASHER UNDER EACH LOCK WASHER FOR LEG CONNECTION ONLY. |  |  |  |  |  |  |  |  |  |  |  |  |


|  |  |  |  | WESTOWER COMMUNICATIONS WHEELRIM AL6169, KY$V-27.0 \times 255^{\prime}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | UPDATE TITLE BLOCK | SKK | 01/14/2014 | APPROVED/ENG. | M_S | 1/14/2014 | valmontrer |  |  |  |
| REV | DESCRIPTION OF REVISIONS | INI | DATE | APPROVED/FOUND. | N/A |  |  | STRUCTURES |  |  |
|  |  |  |  | COPYRIGHT 2014 |  |  |  |  |  |  |
|  |  |  |  | DRAWN BY | SKK |  | $\begin{aligned} & \text { DRAWING No. } \\ & 252660 \\ & \text { PAGE } \end{aligned}$ | 2 | OF 10 |  |
| From: F1015870. DFT - 01/14/2014 09:40 Printed from 252660_02@A. DWG - 01/14/2014 09:43 @ 01/14/2014 14:34 |  |  |  | ENG. FILE No. A-234505-ARCHIVEF-1015870 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |



|  | SECTION |  |  | LEG |  | LEG CONNECT <br> @ BOTTOM+ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \# | MODEL | LENGTH | WEIGHT* | SIZE | PART \# | DIAM | LENGTH | \# |
| 5 | U-19.0 | 20' | 4069\# | 2 | 208332 | $1^{\prime \prime}$ | 4-3/4" | 12 |
| 4 | U-21.0 | $20^{\prime}$ | 4741\# | 2-1/4 | 208334 | $1 "$ | 4-3/4" | 12 |
| 3 | U-23.0 | $20^{\prime}$ | 4807\# | 2-1/4 | 208334 | $1 "$ | 4-3/4" | 12 |
| 2 | U-25.0 | $20^{\prime}$ | 4876\# | $2-1 / 4$ | 208334 | 1" | 4-3/4" | 12 |
| 1 | U-27.0 | 20' | 5681\# | 2-1/4 | 208334 |  |  |  |

* THE WEIGHTS LISTED ARE THEORETICAL. THE ACTUAL WEIGHTS WILL VARY. ALL WEIGHTS SHOULD BE CONFIRMED IN THE FIELD PRIOR TO ERECTION.
+ QTY IS PER LEG. USE 1 LOCK WASHER AND 1 FLAT WASHER UNDER EACH PLAIN NUT.

|  | WN | SECTIO |  |  | ( | LE | WITH | E A |  | O' | 100' | ELEVATION |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | SECTION | DIAGONAL PART \# |  |  | DIAG ANGLE |  | DIAG END BOLT |  | DIAG CENTER \& SPACER BOLT |  | CENTER PLATE | SPACER |  |
| \# | MODEL | UPPER | LOWER | LONG | FACE | THICK | DIAM | LENGTH | DIAM | LENGTH | PART \# | PART | \#* |
| 5 | U-19. 0 | 215288 | 215292 | 215364 | 3" | 3/16 | 7/8" | 2-1/2" | 5/8" | 2-1/4" | 211833 | 104291 | 7 |
| 4 | U-21.0 | 215295 | 215299 | 215368 | 3" | $3 / 16^{\prime \prime}$ | 7/8" | 2-1/2" | 5/8" | 2-1/4" | 211833 | 104291 | 8 |
| 3 | U-23. 0 | 215303 | 21530 | 215372 | 3" | 3/16" | 7/8" | 2-1/2" | 5/8" | 2-1/4" | 211833 | 10429 | 8 |
| 2 | U-25.0 | 215311 | 215315 | 215376 | 3" | 3/16" | 7/8" | 2-1/2" | 5/8" | 2-1/4" | 211833 | 104291 | 8 |
| 1 | U-27. 0 | 215320 | 215324 | 215380 | 3-1/2" | 1/4" | 7/8" | 2-1/2" | 5/8" | 2-1/4" | 211833 | 104291 | 8 |
|  | JANTIT | IS PER | PANEL | PER FAC | USE | 1 LOCK | WASHER | UNDER E | ACH P | N NUT. |  |  |  |


|  |  |  |  | WESTOWER COMMUNICATIONS WHEELRIM AL6169, KY $\mathrm{V}-27.0 \times 255^{\circ}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | UPDATE TITLE BLOCK | SKK | 01/14/2014 | APPROVED/ENG. | M_S | 1/14/2014 | valmont $\sqrt{7}$ <br> 1-877-467-4763 Plymouth, IN $1-888-880-9191$ Salem, OR <br> STRUCTURES |  |  |  |
| REV DESCRIPTION OF REVISIONS |  | INI | DATE | APPROVED/FOUND | N/A |  |  |  |  |  |
|  |  |  |  | COPYRIGHT 2014 |  |  |  |  |  |  |
|  |  |  |  | dRAWN BY | SKK |  | $\begin{aligned} & \text { DRAWING No. } \\ & 2526660 \\ & \text { PAGE } \end{aligned}$ |  | OF 10 |  |
| From: F1015870. DFT - 01/14/2014 09: 40 Printed from 252660_03@A. DWG - 01/14/201 |  | 01/14/2014 14:34 |  | Eng. File no. A-234505-archiver $\quad$ F-1015870 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |

TYPICAL BREAKDOWN SECTION ASSEMBLY (12" LEG WITH DOUBLE ANGLES) $0^{\prime}$ - 100' ELEVATION
DIAGONAL END BOLTS - SEE
DIAGONAL TABLE ON PAGE 3 FOR
SIZE. NO FLAT WASHER
REQUIRED.
"UPPER" DIAGONAL BRACES
(BACK TO BACK ANGLES) - SEE
TABLE ON PG. 3 FOR PART \#.
"LOWER" DIAGONAL BRACES
(BACK TO BACK ANGLES) - SEE
TABLE ON PG. 3 FOR PART \#.

"LONG" DIAGONAL BRACE (BACK TO BACK ANGLES) - SEE TABLE ON PG. 3 FOR PART \#.

INTERMEDIATE DIAGONAL BOLTS WITH SPACER - SEE TABLE ON PG. 3 FOR SIZE, SPACER PART \# AND NUMBER OF LOCATIONS PER PANEL ON EACH FACE. USE 1 SPACER PER BOLT. SEE DRAWING \# 214823 FOR DETAILS.

DIAGONAL CENTER PLATE SEE DIAGONAL TABLE ON PAGE 3 FOR PART \# AND BOLT SIZE.

LEG CONNECTION - SEE TABLE ON PAGE 3 FOR BOLT SIZE. USE 1 LOCK WASHER AND 1 FLAT WASHER UNDER EACH PLAIN NUT FOR LEG CONNECTION.

## ATTENTION ERECTOR:

1. EXTRA CARE MUST BE TAKEN WHEN STANDING BREAKDOWN LEG SECTIONS FROM A FLAT "ASSEMBLY" POSITION ON THE GROUND TO AN UPRIGHT POSITION FOR STACKING. POOR RIGGING AND/OR LIFTING PROCEDURES MAY DAMAGE THE ANGLE BRACES AND/OR BREAKDOWN LEGS. IT IS THE RESPONSIBILTY OF THE TOWER CONTRACTOR TO ENSURE BREAKDOWN LEGS AND ANGLES ARE NOT DAMAGED DURING THE TOWER ASSEMBLY AND ERECTION.
2. WHEN LIFTING ("FLYING") SINGLE PANEL TOWER SECTIONS TO PLACE THEM ON PREVIOUSLY ERECTED SECTIONS, A MINIMUM OF TWO (2) FULL SECTIONS (TYPICALLY 40') MUST BE ASSEMBLED TOGETHER TO PROVIDE ADEQUATE STABILITY TO THE TOWER LEGS AND ANGLE BRACES. IT IS THE RESPONSIBILTY OF THE TOWER CONTRACTOR TO ENSURE BREAKDOWN LEGS AND ANGLES ARE NOT DAMAGED DURING THE TOWER ASSEMBLY AND ERECTION.


Nitenh Ahuja, KY Professional Enginaer: \#28866


1. TOWER DESIGN CONFORMS TO STANDARD TIA-222-G UTILIZING AN 90 MPH 3-SEC GUST BASIC WIND SPEED WITH A STRUCTURE CLASS OF II, TOPOGRAPHIC CATEGORY OF 1 AND EXPOSURE C CRITERIA WITH NO ICE.

ITILIZING AN 30 MPH 3-SEC GUST BASIC WIND SPEED WITH A STRUCTURE CLASS OF II, TOPOGRAPHIC CATEGORY OF 1 AND EXPOSURE C CRITERIA WITH . $75^{* \prime}$ Radial ice.
2. NO TWIST AND SWAY LIMITATIONS SPECIFIED OR USED FOR THIS TOWER.
3. MATERIAL: (A) SOLID RODS TO ASTM A572 GRADE 50. (B) ANGLES TO ASTM A36. (C) PIPE TO ASTM A500 GRADE B. (D) STEEL PLATES TO ASTM A36. (E) CONNECTION BOLTS TO ASTM A325 OR ASTM A449 (Fu=120 KSI AND Fy=92 KSI) AND ANCHOR BOLTS TO ASTM F1554 (Fu=150 KSI AND Fy=105 KSI). (F) TOWER LEG PIPE TO BE ASTM A500 GRADE B/C WITH 5OKSI MIN. YIELD STRENGTH
4. BASE REACTIONS PER TIA-222-G FOR 90 MPH BASIC WIND SPEED WITH NO ICE (REACTIONS INCLUDE TIA-222-G LOAD FACTORS): TOTAL WEIGHT = G8. O KIPS. MAXIMUM COMPRESSION $=432.0 \mathrm{KIPS}$ PER LEG. MOMENT $=9578.0 \mathrm{KIP-FT}$. MAXIMUM UPLIFT = 378. 0 KIPS PER LEG. MAXIMUM SHEAR $=85.0$ KIPS TOTAL. BASE REACTIONS PER TIA-222-G FOR 30 MPH BASIC WIND SPEED WITH O. $75^{\prime \prime}$ R
218. 0 KIPS. MOMENT $=1223.0$ KIP-FT. MAXIMUM SHEAR $=8.0$ KIPS TOTAL.
6. FINISH: ALL BOLTS ARE GALVANIZED IN ACCORDANCE WITH ASTMA153 (HOT DIPPED) OR ASTM B695 CLASS 50 (MECHANICAL). ALL OTHER STRUCTURAL MATERIALS ARE GALVANIZED IN ACCORDANCE WITH ASTM123.
7. ANTENNAS: 250' - (3) SBNH-1D6565C, (3) SBNH-1D8585C (ANDREW PANELS), (9) ERICSSON RRU11, (3) ANDREW E15ZO1P13, (3) RAYCAP DC8-48-60-18-F AND (3) RAYCAP DC2-48-60-0-9F WITH (12) $1-5 / 8^{\prime \prime}$ AND (2) $1 / 2^{\prime \prime}$ LINES ASSUMED
$240^{\prime}$ - (3) SBNH-1D6565C, (3) SBNH-1D8585C (ANDREW PANELS), (9) ERICSSON RRU11, (3) ANDREW E15ZO1P13, (3) RAYCAP DC6-48-60-18-F AND (3) RAYCAP DC2-48-80-0-9F WITH (12) $1-5 / 8^{\prime \prime}$ AND (2) $1 / 2^{\prime \prime}$ LINES ASSUMED

230' - (3) SBNH-1D6565C, (3) SBNH-1D8585C (ANDREW PANELS), (9) ERICSSON RRU11, (3) ANDREW E15ZO1P13, (3) RAYCAP DC6-48-60-18-F AND
220' - 3) SBNH-40-600 (3) SBNH-1DR585C (ANDREW PANEI S
(3) RAYCAP DC2-48-60-0-9F WITH (12) $1-5 / 8^{\prime \prime}$ AND (2) $1 / 2^{\prime \prime}$ ' LINES ASSUMED RRU11, (3) ANDREW E15ZO1P13, (3) RAYCAP DC8-48-60-18-F AND

NOTE: (A) ELEVATIONS ARE TO THE BOTTOM OF THE ANTENNAS EXCEPT FOR MICROWAVE DISHES, WHICH ARE TO THE CENTERLINE. (B) ALL TRANSMISSION LINES MUST BE PLACED ON PIROD SUPPLIED LINE BRACKETS.
8. REMOVE FOUNDATION TEMPLATE PRIOR TO ERECTING TOWER. INSTALL BASE SECTION WITH MINIMUM OF $2^{\prime \prime \prime}$ CLEARANCE ABOVE CONCRETE. SEE BASE SECTION PLACEMENT PAGE FOR MORE INFORMATION. PACK NON-SHRINK STRUCTURAL GROUT UNDER BASE SECTION AFTER LEVELING TOWER.
9. MIN. WELDS $5 / 16^{\prime \prime}$ UNLESS OTHERWISE SPECIFIED. ALL WELDING TO CONFORM TO AWS D1. 1 SPECIFICATIONS .
10. this drawing does not indicate the method of construction. the contractor shall supervise and direct the work and he shall be solely RESPONSIBLE FOR ALL CONSTRUCTION MEANS. SEQUENCES AND PROCEDURES.

1. ALL bolts and nuts must be in place before the adjoining sections are installed.
2. ALL STRUCTURAL bOLTS ARE TO be tightened to a snug tight condition as defined by aisc specification unless otherwise noted.
3. ATTENTION TOWER ERECTOR: COAT ALL BOLT ASSEMBLIESTHAT USE PIN LOCK NUTS WITH ZINC RICH COLD GALVANIZING COMPOUND AFTER FINAL TIGHTNENING.
4. TIA-222-G GROUNDING FOR TOWER.
5. based on the loading listed above, this tower has a theoretical failure point at tower midpoint or above for an effective "Zero fall zone" at GROUND LEVEL



## FOUNDATION NOTES

1. ULTIMATE SOIL PRESSURE ASSUMED TO BE 5000 PSF. LLTIMATE PASSIVE PRESSURE ASSUMED TO bE 450 LB PCF. THE PURCHASER \& OWNER/CONTRACTOR MUST VERIFY位 FOR THE ACTUAL SUBSURFACE CONDITIONS ENCOUNTERED.
2. CONCRETE TO BE 4000 PSI - 28 DAYS. REINFORCING BAR TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. CONCRETE INSTALLATION TO CONFORM TO ACI-318 CONCRETE TO BE 4000 PSI 28 DAYS. REINFORCING BAR TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. CONCRETE INSTALLATION TO CONFORM TO ACI-SIS
(2008) BUILDING REQUIREMENTS FOR REINFORCED CONCRETE. ALL CONCRETE TO BE PLACED AGANST UNDISTURBED EARTH FREE OF WATER AND ALL FOREIGN OBJECTS AND MATERIALS. A MINIMUM OF THREE INCHES OF CONCRETE SHALL COVER ALL REINFORCEMENT. WELDING OF REBAR NOT PERMITTED.
3. A COLD JOINT IS PERMISSIBLE UPON CONSULTATION WITH PIROD. ALL COLD JOINTS SHALL BE COATED WITH BONDING AGENTS PRIOR TO SECOND POUR.
4. all fill should be placed in loose level lifts ofno more than $12^{\prime \prime}$ Thick. fill materials should be clean and free of organic and frozen MATERIALS OR ANY BE PLACED IN LOOSE LEVEL LIFTS OFNO MORE TAN 12 THICK. FILL MATERIALS SHOULD BE CLEAN AND FREE OF ORGAN
. bending, straightening or realigning (hot or cold) of the anchor bolts by any method is prohibited.
5. CROWN TOP OF FOUNDATION FOR PROPER DRAINAGE.
6. IN THE ABSENCE OF A GEOTECHNICAL REPORT. THE FOLLOWING PRESUMPTIVE SOIL PARAMETERS WERE USED: AN ULTIMATE BEARING PRESSURE OF 5000 PSF, A COHESION of 1000 PSF, A SOIL UNIT WEIGHT OF 110 PCF, AN ANGLE OF INTERNAL FRICTION OF O DEGREES AND NO GROUNDWATER ENCOUNTERED. THESE SOIL PARAMETERS ARE IN COMPLIANCE WITH THE REQUIREMENTS OF ANSI/TIA-222-G-2005 AND CAN BE FOUND IN ANNEX F OF THIS STANDARD.




NOTE: THE FOUNDATIONS DEPICTED ON THIS DRAWING WERE DESIGNED PER ASSUMED SOIL PARAMETERS. ALTHOUGH IT IS OUR EXPECTATION THAT THE SOIL WILL EXHIBIT SUFFICIENT STRENGTH TO COMPLY WITH THE ASSUMED STRENGTHS, IT IS POSSIBLE THAT THE SOIL MAY NOT EXHIBIT THE REQUIRED STRENGTHS. THERE FORE, IT IS HIGHLY RECOMMENDED THAT THE ASSUMED PROPERTIES BE CONFIRMED BY A GEOTECHNICAL ENGINEER VIA A SOIL REPORT OR AN ON-SITE INSPECTION DURING INSTALLATION.
\# 7 VERTICAL REBAR SEE C C ON PAGE 8. 22 PIECES REQ. PER PIER, EQUALLY SPACED, TO BE 7 PLACED INSIDE TIES.


FOR ANCHOR STEEL IDENTIFICATION AND
PLACEMENT INFORMATION, SEE PAGE 9

- OF THIS DRAWING. SEE PAGE 10 FOR

BASE SECTION INSTALLATION DETAIL. 4 TIES - SEE $\langle D$ ON PAGE 8.
7 PIECES REQ. PER PIER

\# 5 REBAR - $100^{\uparrow}$
STANDEES TOTAL.
SEE B ON PAGE 8.


Nitemh Ahuja, KY Professional Engineer tra8866

(A)

\# 7 REBAR - 200 PIECES REQ. TOTAL APPROX $W T=70.5 \# E A C H, \quad 14100 \#$ TOTAL

REBAR SUPPORTS MAY CONSIST OF ANY ACCEPTABLE MEANS OF SECURELY SUPPORTING THE TOP REINFORCEMENT GRID ABOVE THE BOTTOM REINFORCEMENT GRID WHILE MAINTAINING A SEPARATION OF $0^{\prime}-9$ " (OUTSIDE REBAR TO OUTSIDE REBAR).

\# 5 REBAR - 100 PIECES REQUIRED TOTAL TYPE 26 STANDEE PLACED BETWEEN REBAR GRIDS ON NOMINAL 4' SPACING THROUGHOUT APPROX UNBENT LENGTH $=4^{\prime}-3-3 / 8$ " APPROX WT $=\quad 4.5 \#$ EACH, $\quad 450 \#$ TOTAL

${ }^{1^{\prime}-6-3 / 8^{\prime \prime}}$ \# 7 REBAR - 66 PIECES REQUIRED TOTAL APPROX UNBENT LENGTH = 7' - 4- 7/8" APPROX $W$ T $=15.1 \# E A C H, \quad 997 \#$ TOTAL
$4^{\prime}$
(D)

\# 4 REBAR - 21 PIECES REQUIRED TOTAL APPROX UNBENT LENGTH $=14$ ' $1-3 / 8^{\prime \prime}$ APPROX WT $=9.4 \#$ EACH, $197 \#$ TOTAL

LAP DIMENSION: 1'-6- $1 / 2^{\prime \prime}$
PLACE CIRCULAR TIES SO THAT LAPS ON ADJACENT TIES ARE 180 DEGREES APART. PLACE ONE TIE AT TOP OF PAD AND TWO TIES AT TOP OF PIER REBAR. EQUALLY SPACE REMAINING TIES ALONG PIER.

REBAR DETAIL
TOTAL APPROX REBAR WEIGHT $=15744 \#$
REINFORCING BAR TO CONFORM TO
ASTM A615 GRADE 60 SPECIFICATIONS.


Nitemh Anuja, KY Professional Engineer \#2e866



TOWER ANCHOR STEEL PLACEMENT - TOP VIEW

TEMPLATE ASSEMBLY P/N 216152 INCLUDES CORNER PLATE P/N 211902, IS REQUIRED FOR INSTALLATION AND must be placed as shown. SEE DRAWING \# 211875 FOR TEMPLATE ASSEMBLY DETAILS. SEE PAGE 7 FOR TOWER C/L LOCATION RELATIVE TO the Foundation layout. template PLACEMENT +/- 3". EACH LEG MUST BE CENTERED IN PIER WITHIN +/10\% OF PIER DIAMETER. TEMPLATE MUST BE LEVEL +/- 1 DEGREE. INSTALL TEMPLATE WITH SUFFICIENT SPACE BENEATH (2" MINIMUM) TO PERMIT FINISHING OF CONCRETE AND to facilitate template removal PRIOR TO TOWER ERECTION.

SEE PAGE 10 FOR BASE SECTION INSTALLATION DETAIL.


## ATTENTION CONTRACTOR INSTALLING THE ANCHOR BOLTS! <br> 1" DIAMETER ANCHOR BOLTS FOR TAPERED TOWER.

VERIFY THE PART NUMBERS AND SIZES FOR ALL COMPONENTS ON THIS PAGE AND PAGE 10. IF THERE ARE ANY DISCREPANCiEs, PLEASE NOTIFY PIROD, inc. PRIOR TO INSTALLATION!!


Nitemh Ahuja, KY Professional Encrineer \#28966

|  |  |  |  | WESTOWER COMMUNICATIONS WHEELRIM AL6169, KY V-27. $0 \times 255^{\prime}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | UPDATE TITLE BLOCK | SKK | 01/14/2014 | APPROVED/ENG. | M_S | 1/14/2014 | valmont $\sqrt{ }$ <br> 1-877-467-4763 Plymouth, IN $1-888-880-9191$ Salem, OR <br> STRUCTURES |  |  |  |
| REV DESCRIPTION OF REVISIONS |  | INI | DATE | APPROVED/FOUND. | M_S | 1/14/2014 |  |  |  |  |
|  |  |  |  | COPYRIGHT 2014 |  |  |  |  |  |  |
|  |  |  |  | DRAWN BY | SKK |  | $\begin{array}{lllll} \hline \text { DRAWING No. } & & & \\ 252660 & 9 & \text { of } & 10 \\ \text { PAGE } & & \\ \hline \end{array}$ |  |  |  |
| From: F1015870. DFT - 01/14/2014 09:40 Printed from 252660_09@A. DWG - 01/14/2014 |  |  | /2014 14:35 | ENG. File no. A-234505- <br> ARCHIVE |  |  |  |  |  |  |

```
                                    ANCHOR BOLT - BENDING, STRAIGHTENING OR REALIGNING (HOT
                                    OR COLD) OF THE ANCHOR BOLTS BY ANY METHOD IS PROHIBITED.
                                    gALVANIZED HEX NUT
                                    GALVANIZED LOCK WASHER
                                    GALVANIZED FLAT WASHER
    BASE SECTION FLANGE
    PACK NON-SHRINK STRUCTURAL GROUT UNDER
    FLANGE AFTER LEVELING TOWER.
```



```
base section installation detail
```



## EXHIBIT D

COMPETING UTILITIES, CORPORATIONS, OR PERSONS LIST AND MAP OF LIKE FACILITIES IN VICINITY


# Universal Licensing System 

```
ECC \(>\underline{\text { WTB }}>\underline{\text { ULS }}>\) Online Systems \(>\) License Search

\section*{Search Results}

\title{
Q New Search Q Refine Search Printable Page 贯 Query Download \({ }^{4}\) Map License
}

Specified Search
State \(=\) Kentucky
County＝WOLFE
Radio Service＝AW，CL，CW，WU
Status＝Active
Matches 1－35（of 35）

Page 1
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline & Call
Sign／Lease
ID & Name & FRN & Radio Service & Status & Expiration
Date \\
\hline 1 & KNKN809 & East Kentucky Network，LLC d／b／a Appalachian Wireless & 0001786607 & CL & Active & 10／01／2021 \\
\hline 2 & KNKN841 & NEW CINGULAR WIRELESS PCS，LLC & 0003291192 & CL & Active & 10／01／2021 \\
\hline 3 & KNLF252 & WIRELESSCO，L．P． & 0002316545 & CW & Active & 06／23／2015 \\
\hline 4 PA & KNLH256 & Cellco Partnership & 0003290673 & CW & Active & 04／28／2017 \\
\hline 5 里 & KNLH398 & Powertel Memphis Licenses，Inc． & 0001832807 & CW & Active & 04／28／2017 \\
\hline 6 四 & KNLH399 & Powertel Memphis Licenses，Inc． & 0001832807 & CW & Active & 04／28／2017 \\
\hline 7 & \(\underline{L 000008141}\) & GTE Mobilnet of Florence，Alabama Incorporated & 0001573518 & WU & Active & 06／13／2019 \\
\hline 8 & \(\underline{L 000008142}\) & Topeka Cellular Telephone Company，Inc． & 0005068713 & WU & Active & 06／13／2019 \\
\hline 9 & \(\underline{L 000008150}\) & Tuscaloosa Cellular Partnership & 0001573104 & WU & Active & 06／13／2019 \\
\hline 10 & \(\underline{L 000008155}\) & Kentucky RSA No． 1 Partnership & 0001836709 & WU & Active & 06／13／2019 \\
\hline 11 & \(\underline{L 000008156}\) & Missouri RSA 2 Limited Partnership & 0019468784 & WU & Active & 06／13／2019 \\
\hline 12 & \(\underline{L 000008157}\) & Missouri RSA 4 Limited Partnership & 0019468800 & WU & Active & 06／13／2019 \\
\hline 13 & \(\underline{L 000008169}\) & St．Joseph CellTelCo & 0005005541 & WU & Actlve & 06／13／2019 \\
\hline 14 & \(\underline{L 000008489}\) & Illinois RSA 6 and 7 Limited Partnership & 0002842334 & WU & Active & 06／13／2019 \\
\hline 15 & \(\underline{L 000008492}\) & Alltel Central Arkansas Cellular Limited Partnership & 0001722008 & WU & Active & 06／13／2019 \\
\hline 16 & \(\underline{L 000008494}\) & Alltel Communications Wireless，Inc． & 0020532149 & WU & Active & 06／13／2019 \\
\hline 17 & \(\underline{L 000008505}\) & Arkansas RSA \＃2（Searcy County）Cellular Limited Partnership & 0004989638 & AW & Active & 06／13／2019 \\
\hline 18 & \(\underline{L 000008506}\) & Arkansas RSA \＃2（Searcy County）Cellular Limited Partnership & 0004989638 & WU & Active & 06／13／2019 \\
\hline 19 & L000008543 & Mis souri RSA \＃ 15 Limited Partners hip & 0002533610 & AW & Active & 06／13／2019 \\
\hline 20 & \(\underline{L 000008544}\) & Missouri RSA \＃ 15 Limited Partnership & 0002533610 & WU & Active & 06／13／2019 \\
\hline 21 & \(\underline{L 000008574}\) & Northwest Arkansas RSA Limited Partnership & 0001837178 & WU & Active & 06／13／2019 \\
\hline 22 & \(\underline{L 000008622}\) & Southern Indiana RSA Limited Partnership & 0001837269 & AW & Active & 06／13／2019 \\
\hline 23 & \(\underline{L 000008624}\) & Southern Indiana RSA Limited Partnership & 0001837269 & WU & Active & 06／13／2019 \\
\hline 24 & \(\underline{L 000010763}\) & East Kentucky Network，LLC d／b／a Appalachlan Wireless & 0001786607 & WU & Active & 06／13／2019 \\
\hline 25 & WPOI255 & NEW CINGULAR WIRELESS PCS，LLC & 0003291192 & CW & Actlve & 06／23／2015 \\
\hline 26 & WOCS428 & Cellco Partnership & 0003290673 & CW & Active & 05／13／2015 \\
\hline 27 Pa & WQCX683 & T－Mobile License LLC & 0001565449 & CW & Active & 06／20／2015 \\
\hline 28 Pa & WQDI527 & Cricket License Company，LLC & 0018402123 & CW & Active & 09／06／2015 \\
\hline 29 ［围 & WQGA718 \(\square\) & Cellco Partnership & 0003290673 & AW & Actlve & 11／29／2021 \\
\hline 30 & WQGA823 & New Cingular Wireless PCS，LLC & 0003291192 & AW & Active & 11／29／2021 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline 31 & WQGA940 & Cellco Partnership & 0003290673 & AW & Active & 11/29/2021 \\
\hline 32 PA & WQGB377 & T-Mobile License LLC & 0001565449 & AW & Active & 11/29/2021 \\
\hline 33 PA & WOGD755 & Cricket License Company, LLC & 0018402123 & AW & Active & 12/18/2021 \\
\hline 34 PA & W0JQ692 \(\square\) & Cellco Partnership & 0003290673 & WU & Active & 06/13/2019 \\
\hline 35 PA & WQSL582 & T-Mobile License LLC & 0001565449 & AW & Active & 04/30/2022 \\
\hline & \[
\begin{gathered}
\text { Call } \\
\text { Sign/Lease } \\
\text { ID }
\end{gathered}
\] & Name & FRN & Radio Service & Status & Expiration Date \\
\hline
\end{tabular}
\begin{tabular}{ll} 
ULS Help & ULS Glossary - FAQ - Online Help - Technical Support - Licensing Support \\
ULS Online Systems & CORES - ULS Online Filing - License Search - Application Search - Archive License Search \\
About ULS & Privacy Statement - About ULS - ULS Home \\
Basic Search & By Call Sign \\
\end{tabular}

FCC | Wireless | ULS | CORES Help | Tech Support

Federal Communications Commission Phone: 1-877-480-3201
445 12th Street SW
TTY: 1-717-338-2824
Washington, DC 20554
Submit Help Request

\section*{EXHIBIT E}

CO-LOCATION REPORT

\section*{March 7, 2014}

Kentucky Public Service Commission
211 Sower Blvd
PO Box 615
Frankfort, KY 40602

\author{
RE: Alternate Site Analysis Report \\ Uniform Application for a Communications Facility \\ Applicant: AT\&T Mobility \\ Site Location: 3247 Hwy 134, Hazel Green, KY \\ Site Name: Wheelrim
}

Dear Commissioners:
This report is provided to explain the site development process used by the Applicant to identify the site selected for the new wireless communications facility proposed in the accompanying Uniform Application.

\section*{AT\&T Mobility Site Development Process}

Step 1: Problem Identification. AT\&T Mobility radio frequency engineers first identified a growing coverage and/or capacity gap in the Hazel Green area, within Morgan County.

Step 2: Search Ring. To help guide the site development team's task of identifying a suitable location for a new wireless communications facility site, AT\&T Mobility's radio frequency engineers identified the geographic area where the antenna site must be located in order to close the gap and issued a map (called a Search Ring) that identified the general area in which a new site must be located. In this instance, the search ring was designed for an antenna site to be constructed within an area southeast of Hazel Green in Morgan County Kentucky characterized by major ground elevation changes. This variation of over 400' changes in ground elevations within the ring required that we focus our search on property located at the higher elevations in order to make the site work.

Step 3: Co-location Review. The site development team first reviewed the area within the Search Ring for a suitable tall structure for co-location. In this case, there are no tall structures suitable for collocation in or near the ring.

Step 4: Review of the Area's Zoning Classification. Once the site development team determined that there are no available existing tall structures which are technically feasible and suitable for co-location, the team next reviewed local zoning requirements to identify parcels located within the search area that might be suitable from a land use perspective to host an antenna site. In this case, zoning did not play a part in establishing the proposed
tower location. The Morgan County Judge Executive's Office confirmed prior to our evaluation phase that no zoning was in effect in the area under review.

Step 5: Preliminary Inspection and Assessment of Suitable Parcels. Once suitable parcels are identified, the site development team visits the parcels and performs a preliminary inspection. The purpose of the preliminary inspection is: (1) to confirm the availability of sufficient land space for the proposed facility; (2) to identify a specific location for the facility on the parcel; (3) to identify any recognized environmental conditions that would disqualify the parcel from consideration; (4) to identify any construction issues that would disqualify the candidate; and, (5) to assess the potential impact of the facility on neighboring properties. In this case, only two (2) separate candidate properties met the property location and ground elevation requirements to make the site workable.

The A candidate property was located off Wheel Rim Road, in the southern half of the search ring. Although the property had sufficient elevation and proper placement to cover the objective, cutting an estimated \(1500^{\prime}\) long, new access road into the hillside would have required extensive tree removal and grading. In addition to the tree removal for the access road, utilities would have had to be extended up the side of the hill, likely removing additional tree cover from the property to allow the installation of the utility lines.

Our B candidate offered sufficient elevation and proper placement to meet the coverage objectives of the search ring; however, an existing road provided access to the top of the ridge without the massive tree removal required with candidate A. Utility runs were able to be co-located with the access road further limiting the impact to the property.

Step 6: Candidate Evaluation and Selection. After the preliminary site assessments were performed, the site development team ranked the candidates based on the availability of ground space, topography, applicable environmental conditions, construction feasibility and the potential impact of the facility on neighboring properties. In this case, one property required that a new road would need to be cut into a highly forested area in order to reach a workable location on the property. With another candidate available with an existing road and almost no tree clearing required, AT\&T chose to use the site with a much lower impact to the environment.

Step 7: Leasing and Due Diligence. Once a suitable candidate was selected, lease negotiations were commenced and site due diligence steps were performed, as described below.

\section*{Leasehold Due Diligence:}
- A Title Report was obtained and reviewed to ensure that there are no limitations on the landowner's capacity to lease and to address any title issues.
- A site survey was obtained to identify the location of parcel features, boundaries, easements and other encumbrances revealed by the title search.

\section*{Engineering Due Diligence:}
- Utility access identified.
- Grounding plan designed.
- Geotechnical soil analysis performed to determine foundation requirements.
- Foundations designed to meet the Kentucky Building Code lateral and subjacent support requirements.
- Site plan developed.

\section*{Environmental Due Diligence:}

A Phase I Environmental Site Assessment ("ESA") investigation was performed to establish the pre-existing types and amounts of contamination at a site, and to establish that the leaseholder is innocent of liability for the costs of performing environmental cleanup work that might arise from pollution or contamination of the site caused by a third party.

In addition to performing a Phase 1 ESA, the site was also evaluated for potential impacts under the National Environmental Policy Act (NEPA), submitted to the State Historic Preservation Office for review of potential impacts to historic structures or districts, and submitted to the registered Tribal Historic Preservation Office so that registered Native American nations had the opportunity to review potential impacts on native religious, ceremonial, or cultural resources.

\section*{Federal Regulatory Approvals}
- Federal Aviation Administration ("FAA") compliance.
- Federal Communication Commission ("FCC") compliance.

Step 8: Application. Once a lease is obtained and all site due diligence is completed, AT\&T Mobility prepared and filed the accompanying uniform application to construct, maintain and operate a communications facility.

\section*{Conclusion}

Applicant's site identification and selection process aims to identify the least intrusive of all the technically feasible parcels in a service need area. In this case, AT\&T focused their efforts on a property with existing access and utility runs eliminating the need to cut a new road and utility route into a heavily forested hillside area. There is no more suitable location available from which adequate service to the area can be provided.

Sincerely,


Kristopher M. "Kit" Nickel
Site Acquisition Agent: Kentucky Market
3173 Deanpark Drive, Hilliard, OH 43026
Kit.nickel@cbjm.com | 614.559.4648

\section*{Westower communications f 0 in}
(2)
\(\qquad\)

\section*{EXHIBIT F}

\section*{FAA}

Mail Processing Center
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard Fort Worth, TX 76137

Issued Date: 11/15/2013
John Monday (Judd Yarbrough)
AT\&T Mobility
2200 Greenville Ave.
Richardson, TX 75082

\section*{** DETERMINATION OF NO HAZARD TO AIR NAVIGATION **}

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:
\begin{tabular}{ll} 
Structure: & Antenna Tower Wheelrim \\
Location: & Hazel Green, KY \\
Latitude: & \(37-45-03.84 \mathrm{~N}\) NAD 83 \\
Longitude: & \(83-15-17.98 \mathrm{~W}\) \\
Heights: & 1213 feet site elevation (SE) \\
& 265 feet above ground level (AGL) \\
& 1478 feet above mean sea level (AMSL)
\end{tabular}

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

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, a med-dual system - Chapters 4,8(M-Dual),\&12.

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

At least 10 days prior to start of construction (7460-2, Part l)
_ X _ Within 5 days after the construction reaches its greatest height (7460-2, Part II)
This determination expires on 05/15/2015 unless:
(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

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

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

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

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

If we can be of further assistance, please contact our office at (847) 294-8084. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2013-ASO-7436-OE.

Signature Control No: 196887121-201894889
(DNE )
Carole Bernacchi
Technician
Attachment(s)
Frequency Data
cc: FCC

\section*{Frequency Data for ASN 2013-ASO-7436-OE}
\begin{tabular}{ccccc}
\begin{tabular}{c} 
LOW \\
FREQUENCY
\end{tabular} & \begin{tabular}{c} 
HIGH \\
FREQUENCY
\end{tabular} & \begin{tabular}{c} 
FREQUENCY \\
UNIT
\end{tabular} & \begin{tabular}{c} 
ERP \\
ERP
\end{tabular} & \begin{tabular}{c} 
UNIT
\end{tabular} \\
\hline & & & & \\
698 & 806 & MHz & WHz \\
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 \\
930 & 931 & MHz & 3500 & W \\
931 & 932 & MHz & 3500 & W \\
932 & 932.5 & MHz & 17 & W \\
935 & 940 & MHz & 1000 & dBW \\
940 & 941 & MHz & 3500 & W \\
1850 & 1910 & MHz & 1640 & W \\
1930 & 1990 & MHz & 1640 & W \\
2305 & 2310 & MHz & 2000 & W \\
2345 & 2360 & MHz & 2000 & W \\
& & & W
\end{tabular}

O

\section*{EXHIBIT G}

KENTUCKY AIRPORT ZONING COMMISSION

\section*{APPLICATION FOR PERMIT TO CONSTRUCT OR ALTER A STRUCTURE}


(2)
\(\because\)
\(\qquad\)

\section*{EXHIBIT H}

GEOTECHNICAL REPORT

ENVIRONMENTAL CORPORATION OF AMERICA
ENVIRONMENTAL \| GEOTECHNICAL \| WETLANDS | ECOLOGY \| CULTURAL RESOURCES

\author{
WesTower Communications 10400 Linn Station Road \\ Suite 225 \\ Louisville, Kentucky 40223 \\ Attention: Mr. John Boud \\ Subject: Geotechnical Investigation \\ AT\&T Site KYALU6163 (Wheelrim) \\ Off KY Highway 134 \\ Hazel Green, Morgan County, Kentucky \\ ECA Project \# P1329
}

Dear Mr. Boud:
Environmental Corporation of America (ECA) was authorized in October, 2013 to complete the Geotechnical Investigation for the subject Property. We were provided with a survey of the subject Property dated September 3, 2013. The Property is located in a wooded area north of KY Highway 134. The Property includes a proposed 80 -foot by 50 -foot lease area located in a wooded area and a proposed approximate 2,195 -foot long by 30 -foot wide access/utility easement. The proposed easement would extend in a north/northeasterly direction off KY Highway 134 until reaching the proposed lease area.

Due to existing steep terrain along the proposed access/utility easement, it would not be possible for a geotechnical drill rig to access the center of the lease area. In order to complete the requested Geotechnical Investigation, tree clearing and considerable grading activities would be necessary.

Please let us know if you have questions or concerns.
Sincerely yours, Environmental Corportaion of America



Kelby Williams, EIT Project Engineer

\section*{ENVIRONMENTAL CORPORATION OF AMERICA}

\author{
ENVIRONMENTAL | GEOTECHNICAL | WETLANDS | ECOLOGY | CULTURALRESOURCES
}

\section*{Preliminary Geotechnical Investigation}

\author{
AT\&T Site WHEELRIM
}

3721 Highway 134
Hazel Green, Morgan Co., KY
ECA Project No. P-1329

\section*{SUBMITTED TO:}

WesTower Communications 10400 Linn Station Road, Suite 225
Louisville, KY 40223


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

ENVIRONMENTAL CORPORATION OF AMERICA
ENVIRONMENTAL \| GEOTECHNICAL \| WETLANDS | ECOLOGY \| CULTURAL RESOURCES
WesTower Communications
10400 Linn Station Road, Suite 225
Louisville, KY 40223
Attention: Mr. John Boud
Subject: Report of Preliminary Geotechnical Investigation AT\&T Site WHEELRIM
3721 Highway 134Hazel Green, Morgan Co., KYECA Project No. P-1329
Dear Mr. Boud:

Environmental Corporation of America (ECA) is pleased to submit this report of our Preliminary Geotechnical Investigation for the proposed project. Our services were provided as authorized verbally on January 7, 2014.

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

\section*{Purpose and Scope of Work}

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

\section*{Project Information}

We were provided with an undated survey of the Property. The Property is located on a steep wooded hillside north of Highway 134. We understand that plans call for a new 255 -foot tall self-supporting lattice tower on the site, approximately as shown on Figure 1.

Mr. Boud
Page 2

\section*{Estimated Site and Subsurface Conditions}

The topography leading up to the proposed compound is hilly. The elevation at the proposed tower location is about 1,212 feet AMSL. Based on view of the area from Google Earth, the exposed highway cut slopes near the Property exhibit weathered rock and soil with rock lens.

The soil survey shows three potential soil types near the proposed tower location. Descriptions of these soil types are attached. In summary, the general soil profile descriptions include sandstone, shale, or siltstone occurring at depths of from about 4 to 10 feet. Most of the upper rock at these depths is described as "rippable".

\section*{Recommendations}

Based on the anticipated rocky soil and relatively shallow bedrock, the tower will likely be supported on a shallow mat (pad and pier) foundation system. Groundwater will not likely be encountered in foundation excavations. Assuming partially weathered rock at the tower foundation bearing level, a nominal bearing pressure of about 5 kips per square foot is likely appropriate.

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

Sincerely, Environmental Cotyofation of Ámerica


Kelby Williams, EIT Project Engineer

Appendix A Figure 1 - Topographic Map and Site Survey Appendix B Soil Survey and Soil Descriptions

\section*{APPENDIX A \\ Topographic Map and Site Survey}


Source: USGS Topographic Quandrangle Map, 7.5 Minute Series, Cannel City, KY (1965, Revised 1993), White Oak, KY (1965), Lee City, KY (1965), and Seitz, KY (1965, Photoinspected 1976).

\section*{Wheelrim Site}

\section*{3721 Highway 134}

Hazel Green, Morgan County, Kentucky
Figure 1: Site Location Plan


ECA Proj. \#: P-1329




\section*{LEGAL DESCRIPTIONS}

\section*{Thase ere the descriptions of}

A tract of land conveyed to Jason Onay in Deed Book 217 at Page 483 , and a tract of fand conveyed to Willam C. and Judy Oney in Deed Book 153 at pege 385, in the Office of the County Clerik of Morgen Countr, Kentucky;
An area to be leased from. and situated entirely within, the Jason Oney tract
An appurtenant easement for access \(\&\) utilitiss, abuting the lease area, situated entraily within, the Jeson Onay tract;
A 30-foot wide easement for access \(\&\) utilities on, over, and ecross both the Jason Oney tract and the williem C. and Judy Oney tract, and

A 20-foot wide easment for utillas on situated entiraly within, the Jason Oney tract.

\section*{PARENT TRACT DESCRIPTIONS}

Deed Book 271 Page 483 - Jason Oney
BEGINNING on the North side of Mountain Parkway et a set stone in the ilne of Wilise Balley; thence following the Wilie Eailey ine to the line of Mandy Center, thence with Mandy Center line to the line of Branson Phips; thence foilowin
Bronson Phipp's Ine to a bridge et Highway 134 at the mouth of Preter Branch; and at the right of way of Mountaln Parkway, thence with the right of way of Mountain Parkway to the point of beginning, containing 65 acres, more or less, but to contaln ell the land described in the wittin boundary

Deed Book 453 Page 385 - Willam C. end Judy Oney:
BEGiNNING at tha mouth of a smail drain which amptlas into the Johnson Fork of Licking River ata set stone batween a sycamore and a Lymi; thence in a southem direction with the meanders of same to the head of the drain; thence a
straight ine to the top of the hill to a set stone on Homer Petrick's ine, being the ridge between the dohnson Fork an Whesirim Fork; thencs in an eastem direction with the ridge and Homer Patrick's ine to Boone Beck's line; thence with Boone Beck's ine to the David Lindon ine;, thence with David Lindon's ine in a northem direction down the hill to the the mouth of the Shop Branch; thence up sald branch with the meandiers of same and Devidd Lindori's ine to the top of the hill to a dogwood and oak stump marked as a comer in the inn of Mort LIndon tract now owned by First party; thance in \(\begin{aligned} & \text { southam direction with the line of the Mort Lindon tract down the hill to Lick Branctr; thence contifinuling with tha Mort }\end{aligned}\) Liliton in a set stone, s comer between the Morth Lindon tract and the Heddy Lindon tract and the Bonny Higans tract thence with the Heddy Lindon tract down the center of a spur to a set stone; thence with en egreed line down the pol between Logan Lndon and second party hereto to a set stone; thence down the hill a straight line to a marked chestrut; thence a straight ine to the beginning.

\section*{DESCRIPTION OF PROPOSED LEASE AREA}

NOTE: All bearings and distances era based on Grid North, Kentucky State Plana Cocrdinate System, Singia Zona, NAD
1983.
Bagining, for reference, at the southeasteriy comer of the Jason Oney tract, as recarded in Deed Book 217 at Page 483, seld comer being common with the southwesteny comar of the William C. and Judy Oney tract, as recorded In Des ook 153 at Page 385 , all records of the Morgan County Clerk's Office, said comar also belng in the northerly right-of-way line of Highway 134 ; thenca in a northaastanty direction, with Jason Oney's easteriy boundery, common with easterfy boundiary line, in a northeriy direction, approximataly 190 feet to the TRU POINT OF BEGINNING, being an n ph 34 cap stam 43 seconds Wast a distance of 50.00 feet to an iron pin with cap starmped t2328; degrees 25 minutes 17 seconds West, a distance of 80.00 feat to an Iron pin with cep stamped \#2328; thence North 86 degrees 34 minutes 43 seconds East, a distance of 50.00 feet to an iron pin with cap stamped \#2328; thenca South 03 egrees 25 minutes 17 saconds East, aditance of 80.00 feet to the point of beginning, containing 4000.00 square feet

DESCRIPTION OF PROPOSED APPURTENANT ACCESS \& UTILITY EASEMENT
NOTE: All beerngs and distances are based on Grd North, Kentucky State Piane Coordinate System, Single Zone, NAD
Beginning et the southeasteriy comer of the above-described Lease Area, thance with Jeson Oney's aaetarty boundary ine, common with Willarme. and Judy Oney's westeriy boundary Ine, South 03 degrees 25 minutres 17 seconds. East, a distance of 30.00 feet to a point; thence rumning on, over, and across the Jason Oney tract. South 86 degreas 34 minute 3 seconds Wast, a distance of 50.00 feet to a point: thence North 03 dagreas 25 minutas 17 saconds West, a distance Area, North Be degreas 34 minutes 43 seconds East, a distance of 50.00 feet to the point of beginning.

\section*{DESCRIPTION OF PROPOSED 30-FOOT ACCESS \& UTILITY EASEMENT}

NOTE, An beatigs and distances are based on Grid North, Kantucky State Plana Coordinata System, Singie Zone ,
A 30-foot wide easement for the right to use for eccess and utillites to the ebove described Leese Area, sald eesemen

Beginning et a point In the northerly right-of-way ine of Highway 134, sald point being approximately 860 feet northwest
of the southeasterly comer of the Jeson Oney tract as recorded in Deed Book 271 at Paga 482 in the Morgan County Clerk's office; thence North 18 degress 58 minutes 39 seconds East a distance of 48.64 fee to a point thenco with curve to the tight, of radlus 35.00 feet, the churd of which bears North 63 degrees 06 minutes 24 seconds East, a distance of 48.74 feet to a point; thence South 72 degrees 45 minutes 52 seconds East, a distance of 226.28 feet to a seconds East, a distance of 148.65 feet to a point; thence with a curve to the right, of radus 500.00 feet; the chord of seconds East a distance of 18,66 feet to a point: thence with a curve to the ight, of radus 500.00 feet, the chord of
whict bears South 88 degres 57 minutes 46 seconds East, a distance of 144.78 feet to a point; thence with a curve to the left, of radius 500.00 of fett, the chord of which beers south 85 degrees 08 minutes 51 seconds East, a distence of 78.04 feet, thence with a curve to the ight, of radus 500.00 feet, the chord of which bears \(S\) South 84 degrees 16 minutes
22 seconds East, e distance of 92.67 feet to a polnt, thence with a curve to the left, of radus 400.00 feet, the chord of which bears South 87 degrees 09 minifutes 22 seconds East, a distance of 114.11 feet to p point; thence North 84 degrees 38 minutes 36 saconds East, crossing the commmon boundary line between the aforamentoned Jason Onay less, in all a distance of 27.04 feet to a point; thence with a curve to the leff, of radlus 250.00 feet, the chord of which bears North 70 degrees 38 minutes 55 seconds East, a distance of 120.92 feet toa poltt; thence North 56 degrees 39
 chord or which bears \(\mathbf{d} \mathbf{~ d e g r e e s ~} 38\) minutes 57 seconds East, a distance of 204.20 feet to a point thence with e curve to the left of radus 150.00 feet, the chord of which beers North 79 degreess 10 milutes 53 seconds East, a distance of 73.44 feet to a poit thence North 65 dagrees 00 minutas 42 seconds East, a distance of 7.64 fee to a pontst thence with a curve to the left, of railus 50.0 e seconds West, a distance of 124.28 feet to a point; thence South 83 degrees 24 milutes 42 secocnds West, a distance of 58.80 feet to a point, thence with a curve to the right, of radius 50.00 fees, the chord of which bears North 79 degrees 30 mhnutes 22 seconds West, a distance of 29.37 feet to a point; thence North 62 degrees 25 mhnutas 25 seconds West 70 degrees 00 minutes 00 seconds West, a distance of 28.37 feet to a polnt, thence with e curve to the right, of radius 100.00 feet to a point, the chorid of which bears North 68 degreas 01 minutes 25 saconds Wast, a distanca of 33.19 feed toa point, thince of 172.96 feet to a polnt; thence with a curve to the right, of radurs 30.00 feat, the chord of which bears North 42 degrees 11 minutas 09 seconds West, a distance of 16.83 feet to a point in the southeriy boundary of the above-described \(30^{\prime} \times\)

\section*{DESCRIPTION OF PROPOSED 20-FOOT UTILITY EASEMENT}

NOTE: Al baarings and distences are based on Grid North, Kentucky State Plane Coordinate System, Single Zona, NAD
A 20 -foot wide easemant for utilltes to the above described Lease Area, sald easement belng described as followe:
Beginning at an existing LVREC power pole, which is approximatety 50 feet south of the residenca on the Jason Onay tract, as recorrted in Deed Book 217 at Paga 483, thance running on, over, end across the Jason Oney tract, North 11


\section*{TITLE COMMITMENT NOTES}

Schedule B-Section II

\begin{tabular}{|c|c|}
\hline STE NAIIE: & wreme \\
\hline SIIE 1.0: & \\
\hline & KYALUB:Es \\
\hline
\end{tabular}

SIE ADDRESS: 322 HiGHWAY 134 LEASE AREA: 4000 SF
\begin{tabular}{|c|}
\hline \\
\hline
\end{tabular}
(FRRCEL NUWGERE 11400000-015:00


\begin{tabular}{|c|l|l|}
\hline NQ & REMSON/SSUE & DATE \\
\hline 1 & & \\
\hline 2 & & \\
\hline 3 & & \\
\hline 4 & & \\
\hline 5 & & \\
\hline
\end{tabular}

COMMUNICATIONS SITE SURVEY

\title{
APPENDIX B \\ Soil Survey and Soil Descriptions
}


\section*{MAP LEGEND}
\begin{tabular}{|c|c|c|c|}
\hline \multicolumn{2}{|l|}{Area of Interest（AOI）} & \multirow[t]{2}{*}{8} & \multirow[t]{2}{*}{\begin{tabular}{l}
Spoil Area \\
Stony Spot
\end{tabular}} \\
\hline 4 & Area of Interest（AOI） & & \\
\hline \multirow[t]{3}{*}{Soils} & \multirow{3}{*}{Soil Map Unit Polygons} & 8 & Very Stony Spot \\
\hline & & & \\
\hline & & y & Wet Spot \\
\hline m & Soil Map Unit Lines & \(\triangle\) & Other \\
\hline \multirow[t]{2}{*}{國} & \multirow[t]{2}{*}{Soil Map Unit Points} & & \\
\hline & & ＊ & Special Line Features \\
\hline \multicolumn{2}{|l|}{Special Point Features} & & \\
\hline \multirow[t]{2}{*}{（0）} & \multirow[t]{2}{*}{Blowout} & \multicolumn{2}{|l|}{Water Features} \\
\hline & & － & Streams and Canals \\
\hline d & Borrow Pit & \multicolumn{2}{|l|}{\multirow[t]{2}{*}{Transportation}} \\
\hline \multirow[t]{2}{*}{顽} & \multirow[t]{2}{*}{Clay Spot} & & \\
\hline & & ＋＋ & Rails \\
\hline \(\bigcirc\) & Closed Depression & － & Interstate Highways \\
\hline \({ }_{3}\) & Gravel Pit & 5 & US Routes \\
\hline \(\cdots\) & Gravelly Spot & － & Major Roads \\
\hline 9 & Landfill & －s & Local Roads \\
\hline R & Lava Flow & \multicolumn{2}{|l|}{Background} \\
\hline 霛 & Marsh or swamp & \％ & Aerial Photography \\
\hline \％ & Mine or Quarry & & \\
\hline （9） & Miscellaneous Water & & \\
\hline 0 & Perennial Water & & \\
\hline \(\theta\) & Rock Outcrop & & \\
\hline \(+\) & Saline Spot & & \\
\hline \(0 \%\) & Sandy Spot & & \\
\hline 들 & Severely Eroded Spot & & \\
\hline 9 & Sinkhole & & \\
\hline \％ & Slide or Slip & & \\
\hline \％ & Sodic Spot & & \\
\hline
\end{tabular}

\section*{MAP INFORMATION}

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

\section*{Warning：Soil Map may not be valid at this scale．}

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

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

Source of Map：Natural Resources Conservation Service Web Soil Survey URL：hitp：／／websoilsurvey．nrcs．usda．gov Coordinate System：Web Mercator（EPSG：3857）

Maps from the Web Soil Survey are based on the Web Mercator projection，which preserves direction and shape but distorts distance and area．A projection that preserves area，such as the Albers equal－area conic projection，should be used if more accurate calculations of distance or area are required．
This product is generated from the USDA－NRCS certified data as of the version date（s）listed below．
Soil Survey Area：Magoffin and Morgan Counties，Kentucky Survey Area Data：Version 8，Sep 16， 2012
Soil map units are labeled（as space allows）for map scales 1：50，000 or larger．
Date（s）aerial images were photographed：Apr 18，2010－Jul 1， 2010
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps．As a result，some minor shifting of map unit boundaries may be evident．

\section*{Map Unit Legend}
\begin{tabular}{|c|c|c|c|}
\hline \multicolumn{4}{|c|}{Magoffin and Morgan Counties, Kentucky (KY641)} \\
\hline Map Unit Symbol & Map Unit Name & Acres in AOI & Percent of AOI \\
\hline GnF & Gilpin-Latham-Marrowbone complex, 20 to 60 percent slopes & 10.8 & 19.6\% \\
\hline Gr & Grigsby sandy loam, 0 to 4 percent slopes, occasionally flooded & 7.6 & 13.8\% \\
\hline SpF & Shelocta-Helechawa-Hazleton complex, 30 to 65 percent slopes, stony & 36.6 & 66.7\% \\
\hline \multicolumn{2}{|l|}{Totals for Area of Interest} & 54.9 & 100.0\% \\
\hline
\end{tabular}

\section*{Established Series}

Rev. WRK-LER-AWD-ART
07/2004

\section*{GILPIN SERIES}

The Gilpin series consists of moderately deep, well drained soils formed in residuum of nearly horizontal interbedded shale, siltstone, and some sandstone of the Allegheny Plateau. They are on gently sloping to steep, convex, dissected uplands. Slope ranges from 0 to 70 percent. Permeability is moderate. Mean annual precipitation is 43 inches, and mean annual air temperature is 51 degrees F .

TAXONOMIC CLASS: Fine-loamy, mixed, active, mesic Typic Hapludults
TYPICAL PEDON: Gilpin channery silt loam on a 3 percent northwest facing slope in cropland. (Colors are for moist soil unless otherwise noted.)

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

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

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

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

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

TYPE LOCATION: Indiana County, Pennsylvania; North Mahoning Township, about \(1 / 2\) mile southeast of Marchand, on hilltop 500 feet east of Township Road 660. U.S.G.S. Marion Center Topographic Quadrangle. Lat. 40 degrees, 51 minutes, 18 seconds, N. and Long. 79 degrees, 1 minute, 7 seconds W; NAD 1927.

RANGE IN CHARACTERISTICS: Solum thickness ranges from 18 to 36 inches. Fractured, bedded and rippable bedrock is at depths of 20 to 40 inches. Rock fragments are mostly angular to subangular channers of shale, siltstone and sandstone and comprise 5 to 40 percent of individual horizons of the solum and 30 to 90 percent of the C horizon. The rock fragment content is less than 35
percent, by volume in the upper 20 inches of the argillic horizon. Reaction ranges from strongly to extremely acid throughout unless limed.

The Ap has hue of 10 YR or 2.5 Y with value of 3 to 5 , and chroma of 2 to 4 . Dry values are 6 or 7 . The A horizon, where present, has hue of 10 YR or 2.5 Y with value of 2 to 4 , and chroma of 1 to 3 . Thickness for the A horizon ranges from 2 to 5 inches. The texture of the Ap or A horizon is silt loam or loam in the fine earth fraction.

Some pedons have E, BE, or BA horizons. These horizons range from 0 to 6 inches thick and have hue of 7.5 YR or 10 YR , value of 4 to 6 , and chroma of 5 to 3 . Texture is silt loam or loam in the fine earth fraction.

The Bt horizon has hue of 7.5 YR to 2.5 Y , value of 4 to 6 , and chroma of 4 to 8 . Colors tend to become redder with depth. Textures are silt loam, loam, clay loam, or silty clay loam in the fine-earth fraction. Clay films on ped faces, pores and on rock fragments are few or common and faint or distinct.

Some pedons have a BC horizon with colors and textures similar to the C horizon.
The C horizon has hue of 7.5 YR to 2.5 Y , value of 3 to 5 , and chroma of 2 to 6 . Texture is silt loam, loam or silty clay loam in the fine-earth fraction.

Some pedons have a Cr horizon.
The R horizon is horizontal interbedded shale, siltstone or fine grained sandstone.
COMPETING SERIES: The Bedington, Clymer, Edgemont, Edneytown, Gladstone, Joana, Millstone, Pigeonroost, Rayne, Shelocta, Syenite and Wist (T) series are in the same family. Bedington, Clymer, Edgemont, Joanna, Rayne, Shelocta and Wist (T) soils have bedrock at more than 40 inches. Edneytown soils have a Cr horizon at more than 60 inches. Gladstone soils have granitic gneiss bedrock at 60 inches or more. Millstone soils have bedrock deeper than 80 inches. Pigeonroost soils have a Cr horizon within a 20 to 40 inch depth. Syenite soils have coarse fragments of granite in the control section.

The following series were competing under the old classification. They may compete after they are updated to the 9th Edition of Keys to Soil Taxonomy. The Albemarle, Arendtsville, Bucks, Butano, Chester, Elsinboro, Eubanks, Ezel, Freehold, Leedsville, Meadowville, Nixon, Pineville, and Quakertown competed under the old classification. Of these only Butano soils have bedrock at a depth of 20 to 40 inches. Bertano soils occur in the costal range of mountains of central eastern California with humid mesothermal climate.

GEOGRAPHIC SETTING: Gilpin soils are on nearly level to very steep, convex, dissected uplands with slopes of 0 to 70 percent. They developed in residuum weathered from nearly horizontal, interbedded gray and brown acid siltstone, shale and sandstone. The climate is humid temperate with an average annual rainfall of 36 to 50 inches, average annual air temperatures of 46 to 57 degrees \(F\)., and a growing season of 120 to 180 days.

GEOGRAPHICALLY ASSOCIATED SOILS: These are the Berks, Blairton, Clymer, Dekalb, Muskingum, Rayne, Shelocta, Upshur, Weikert, Wellston, Westmoreland and Wharton soils. Blairton, Cavode, Ernest and Wharton soils have redoximorphic features in the subsoil. Berks and Muskingum
soils do not have argillic horizons. Shelocta, Rayne and Wellston soils are more than 40 inches to rock. Upshur soils have finer textures. Weikert soils have bedrock at 20 inches or less.

DRAINAGE AND PERMEABILITY: Well drained. The potential for surface runoff is negligible to high. The permeability is moderate.

USE AND VEGETATION: Gilpin soils are mainly used for cropland and pasture. Wooded areas are in mixed hardwoods, mainly oaks.

DISTRIBUTION AND EXTENT: Pennsylvania, West Virginia, Ohio, Kentucky, Maryland, New York, North Carolina, Tennessee, Virginia and Indiana. The series is of large extent.

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

SERIES ESTABLISHED: Indiana County, Pennsylvania, 1931.
REMARKS: Diagnostic horizons and features recognized in this pedon are:
a. Ochric epipedon - the zone from the surface of the soil to a depth of 8 inches (Ap horizon).
b. Argillic horizon - the zone from 8 to 24 inches ( Bt horizon).

The clay mineralogy is mixed, with illite dominant and kaolinite and vermiculite in lesser quantities.
This series is mapped extensively in many states and MLRA's. Data available indicates CEC of superactive, active, and semiactive. Weighted average supports a CEC of active.

ADDITIONAL DATA: Characterization sample S61PA-32-56 is from Type Location, and was used as the basis for placing this series in the active CEC class. Also available is S61PA-32-54.

National Cooperative Soil Survey
U.S.A.

\section*{LOCATION LATHAM}
\(\mathrm{OH}+\mathrm{KY}\) WV
Established Series
DDC, SLH/Rev. MDJ
04/2013

\section*{LATHAM SERIES}

TAXONOMIC CLASS: Fine, mixed, semiactive, mesic Aquic Hapludults
TYPICAL PEDON: Latham silt loam - on a 20 percent north-facing convex slope in a forested area. (Colors are for moist soil unless otherwise stated.)

Oe--0 to 5 cm ( 0 to 2 inches); partly decomposed mixed hardwood leaf litter.
A-5 to 10 cm (2 to 4 inches); brown (10YR 4/3) silt loam, light brownish gray (10YR 6/2) dry; moderate fine granular structure; very friable; many fine and very fine roots; 10 percent fragments of siltstone; very strongly acid; clear smooth boundary. ( 2 to 10 cm thick)

E--10 to 25 cm (4 to 10 inches); yellowish brown (10YR 5/4) silt loam; moderate fine subangular blocky structure; firm; many very fine and few fine roots; 10 percent fragments of siltstone; very strongly acid; clear smooth boundary. ( 0 to 20 cm thick)

Bt1--25 to 43 cm (10 to 17 inches); strong brown (7.5YR 5/8) silty clay loam; moderate medium subangular blocky structure; firm; few very fine roots; many faint strong brown (7.5YR 5/6) clay films on faces of peds; 5 percent fragments of siltstone; very strongly acid; clear wavy boundary.

Bt2--43 to 61 cm ( 17 to 24 inches); strong brown ( \(7.5 \mathrm{YR} 5 / 6\) ) silty clay; common fine prominent pinkish gray (7.5YR 6/2) iron depletions and common fine distinct yellowish red (5YR 5/8) ironmanganese masses; moderate medium subangular blocky structure; firm; few very fine roots; many distinct pale brown (10YR 6/3) clay films on faces of peds; 5 percent fragments of siltstone; very strongly acid; clear wavy boundary.

Bt3--61 to 91 cm ( 24 to 36 inches); light olive brown ( \(2.5 \mathrm{Y} 5 / 4\) ) channery silty clay; many fine prominent pinkish gray ( \(7.5 \mathrm{YR} 6 / 2\) ) iron depletions and common fine prominent strong brown (7.5YR 5/8) iron-manganese masses; moderate coarse subangular blocky structure; very firm; few very fine roots; many prominent light brownish gray ( \(2.5 \mathrm{Y} 6 / 2\) ) clay films on faces of peds; 3 percent fragments of siltstone and 15 percent fragments of soft shale; very strongly acid; gradual smooth boundary. (Combined thickness of the Bt horizon is 38 to 76 cm )

Cr--91 to 116 cm ( 36 to 46 inches); light olive brown (2.5Y 5/4) and light brownish gray ( \(2.5 \mathrm{Y} 6 / 2\) ) soft shale interbedded with thin layers of yellowish brown (10YR 5/6) siltstone.

\section*{TYPE LOCATION:}

County: Pike

State: Ohio
USGS Quadrangle: Waverly North, Ohio
Latitude (Decimal Degrees, NAD 83): 39.152778 N
Longitude (Decimal Degrees, NAD 83): 82.992222 W
Directions to Pedon: About 2 miles north of Waverly, Pee Pee Township, about 5,400 feet north of the intersection of Prussia Road (CR-46) and Denver Road (CR-47) along Prussia Road, then about 810 feet southwest.

\section*{RANGE IN CHARACTERISTICS:}

Depth to the top of the Argillic: 2 to 35 cm ( 1 to 14 inches)
Depth to the base of the Argillic: 40 to 102 cm ( 16 to 40 inches)
Solum Thickness: 40 to 102 cm ( 16 to 40 inches)
Depth to Bedrock: 51 to 102 cm ( 20 to 40 inches)
Depth Class: Moderately Deep
Depth to Seasonal High Water Table: 35 to 58 cm ( 14 to 23 inches), January to April
Rock Fragment content: 0 to 14 percent, by volume, in the \(A\) and \(E\) horizons and 0 to 30 percent, by volume, in the B horizons and substratum
Fine-Earth Fraction: 35 to 55 percent clay in the particle size control section
Soil Reaction: Strongly acid through extremely acid in A and E horizons, and very strongly acid or extremely acid in the \(\mathrm{Bt}, \mathrm{BC}\), and C horizons, except where limed

Range Of Individual Horizons:
A or Ap horizon:
Color--hue of 10 YR ; value of 3 through 5 ; and chroma of 2 through 4
Texture (fine-earth fraction)--silt loam or silty clay loam
E horizon (if it occurs):
Color--hue of 10 YR ; value of 5 or 6 ; and chroma of 2 through 4
Texture (fine-earth fraction)--silt loam or silty clay loam
BA or BE horizon (if it occurs):
Color--hue of 10 YR or 7.5 YR ; value of 5 or 6 ; and chroma of 4 through 6
Texture (fine-earth fraction)--silt loam or silty clay loam
Bt horizon:
Color--hue of 2.5 Y through 7.5 YR ; value of 4 through 6 ; and chroma of 2 through 8
Texture (fine-earth fraction)--silty clay loam or silty clay
Redoximorphic features--iron masses in shades of red, yellow, or brown and iron depletions in shades of brown, yellow, olive, or gray

BC or C horizon (if it occurs):
Color--hue of 2.5 Y or 10 YR ; value of 5 or 6 ; chroma of 2 through 6
Texture (fine-earth fraction)--silty clay loam or silty clay
Redoximorphic features-iron masses in shades of red, yellow, or brown and iron depletions in shades of brown, yellow, olive, or gray

\section*{COMPETING SERIES:}

Cruze soils--have a paralithic contact that is greater than 102 centimeters deep.
Flatwoods soils--have a lithic contact between 51 and 102 cm , and have moderately slow
permeability.
Halifax soils--are very deep and formed from igneous and metamorphic rocks.
Kanuga soils--are very deep and have moderately slow permeability.
Keyport soils--are very deep and formed in fluviomarine sediments.
Lackstown soils--are very deep and formed from Triassic rocks.
Zoar soils--are very deep and formed in clayey lacustrine sediments.

\section*{GEOGRAPHIC SETTING:}

MLRA(s): 124 (Western Allegheny Plateau), 125 (Cumberland Plateau and Mountains), 126 (Central
Allegheny Plateau)
Landscape: Uplands
Landform: Hill and hillslope
Hillslope Profile Position: Backslope, shoulder, or summit
Geomorphic Component: Side slope, nose slope, head slope, or crest
Parent Material: Residuum from soft acid shale; in some areas strata of more resistant bedrock, such as siltstone, are included with the shale
Slope: 0 to 35 percent
Elevation: 150 to 450 meters ( 490 to 1475 feet)
Frost-Free Period: 176 to 213 days
Mean Annual Air Temperature: 9 to 13 degrees C. ( 48 to 55 degrees F.)
Mean Annual Precipitation: 1012 to 1270 mm ( 40 to 50 inches)

\section*{GEOGRAPHICALLY ASSOCIATED SOILS:}

Berks soils--occur on well drained summits and upper shoulders that are loamy-skeletal.
Brownsville soils--occur on well drained summits and upper shoulders that are loamy-skeletal and have a lithic contact that is greater than 102 centimeters deep.
Coolville soils--occur on uplands that have a silt mantle and a paralithic contact that is greater than 102 centimeters deep.
Gilpin soils--occur on well drained uplands that are fine-loamy.
Lily soils--occur on well drained uplands that are fine-loamy and siliceous.
Rarden soils--occur on broader summits that have a fine particle-size class and hues redder than 10 YR .
Shelocta soils--occur on well drained uplands that are fine-loamy and have a lithic contact that is greater than 102 centimeters deep.
Steinsburg soils--occur on well drained narrow summits and upper shoulders that are dominated by sandstone.
Wharton soils--occur on uplands that are fine-loamy and have a paralithic contact that is greater than 102 centimeters deep.

\section*{DRAINAGE AND SATURATED HYDRAULIC CONDUCTIVITY:}

Drainage Class (Agricultural): Moderately well drained
Internal Free Water Occurrence: Thin ( \(30 \mathrm{~cm}-1 \mathrm{~m}\) ), shallow ( \(25 \mathrm{~cm}-50 \mathrm{~cm}\) ), and common (present 3-6 months)
Flooding Frequency and Duration: None
Ponding Frequency and Duration: None
Index Surface Runoff: Medium through very rapid
Saturated Hydraulic Conductivity: Moderately low and moderately high
Shrink-Swell Potential: Low

\section*{USE AND VEGETATION:}

Major Uses: Hayland, pasture, cropland, and woodland
Dominant Vegetation: Grass-legume hay, corn, wheat, oats, and mixed hardwood trees dominated by oak and maple

DISTRIBUTION AND EXTENT:
Distribution: Southeastern Ohio, West Virginia, and northeastern Kentucky; mainly MLRAs 124, 125, and 126
Extent: Large, about 700,000 acres at the time of this revision

\section*{MLRA SOIL SURVEY REGIONAL OFFICE (MO) RESPONSIBLE: MORGANTOWN, WEST VIRGINIA}

SERIES ESTABLISHED: Adams County, Ohio, 1932.

\section*{REMARKS:}

Diagnostic horizons and soil characteristics recognized in this pedon are:
Ochric epipedon--the zone from 5 to 25 cm (A and E horizons)
Argillic horizon--the zone from 25 to 91 cm (Bt1, Bt2, Bt3 horizons)
Redoximorphic depletions with chroma 2 or less--the zone from 43 to 91 cm
Paralithic contact--91 cm
Previous revisions: 10/98-AR,DRM

\section*{ADDITIONAL DATA:}

Refer to sample pedon PK-12 (OSD type location) for characterization data, analyzed by The Ohio State University Soil Characterization Laboratory, Columbus, Ohio. Other sampled pedons include \(83 \mathrm{P} 0702,73 \mathrm{KY} 19-42,69 \mathrm{KY}-165-075,69 \mathrm{KY}-165-076\), and \(73 \mathrm{KY}-089-035\). These samples were analyzed by the University of Kentucky, Lexington, KY.

\footnotetext{
National Cooperative Soil Survey U.S.A.
}

\section*{MARROWBONE SERIES}

The Marrowbone series consists of moderately deep, well drained soils that formed in loamy residuum or colluvium weathered from interbedded sandstone and siltstone. They are located on hillslopes, mountainsides, nose slopes and ridgetop crests. Slopes range from 8 to 120 percent, but are dominantly 30 to 90 percent.

TAXONOMIC CLASS: Coarse-loamy, mixed, semiactive, mesic Typic Dystrudepts
TYPICAL PEDON: Marrowbone fine sandy loam - on a 44 percent south facing slope under mixed hardwoods at 1,480 feet elevation. (Colors are for moist soil unless otherwise stated).
\(\mathbf{0 i}--1\) to 0 inch; loose, undecomposed hardwood leaf litter; moderately acid; abrupt wavy boundary. ( 0 to 2 inches thick)

A--0 to 5 inches; brown (10YR 4/3) fine sandy loam; moderate medium granular structure; very friable; common fine to coarse roots; 10 percent sandstone fragments; moderately acid; clear smooth boundary. (3 to 7 inches thick)

Bw1--5 to 10 inches; brown (7.5YR 4/4) loam; moderate medium subangular blocky structure; friable; few fine and medium roots; few thin discontinuous brown (10YR 4/3) organic coatings on faces of peds; 5 percent sandstone fragments; strongly acid; clear smooth boundary.

Bw2--10 to 17 inches; strong brown (7.5YR 5/6) fine sandy loam; moderate medium subangular blocky structure; friable; few fine and medium roots; 10 percent sandstone fragments; very strongly acid; clear smooth boundary.

Bw3--17 to 23 inches; strong brown (7.5YR 5/6) loam; moderate medium subangular blocky structure; friable; few fine and medium roots; very thin discontinuous silt coatings on faces of peds; 10 percent sandstone fragments; very strongly acid; clear smooth boundary. (Combined thickness of the Bw horizon is 17 to 25 inches)

BC--23 to 28 inches; yellowish brown (10YR 5/6) channery loam; common medium distinct strong brown (7.5YR \(5 / 6\) ) and light yellowish brown ( \(2.5 \mathrm{Y} 6 / 4\) ) lithochromic mottles; weak medium subangular blocky structure; friable; 20 percent sandstone fragments; strongly acid; abrupt wavy boundary. ( 0 to 8 inches thick)

R--28 inches; olive (5Y 5/3) sandstone.
TYPE LOCATION: Pike County, Kentucky; about 7.3 miles south of the community of Zebulon; 1000 yards east of the confluence of Raccoon Creek and Morris Branch in the head of Raccoon Creek
on a south facing hill slope; 37 degrees, 28 minutes, 37 seconds N. Latitude and 82 degrees, 23 minutes, 06 seconds, W. Longitude; USGS Millard Quadrangle; NAD 83.

RANGE IN CHARACTERISTICS: Thickness of the solum and depth to rock ranges from 20 to 40 inches. Rock fragments, mostly sandstone or siltstone channers and flagstones, make up 0 to 15 percent of the surface layer and from 0 to 50 percent of individual horizons, but average less than 35 percent in the particle-size control section. Surface stones range from .01 to 15 percent and are commonly associated with sandstone rock outcrops that make up from . 1 to 50 percent of mapped areas. Reaction commonly ranges from very strongly acid to moderately acid throughout the profile, but may range from slightly acid to neutral in the upper 10 inches.

The A horizon has hue of 7.5 YR to 2.5 Y , value of 3 to 5 , and chroma of 2 to 4 . Fine-earth texture is fine sandy loam, sandy loam, loam, or silt loam. Structure is weak or moderate, fine or medium granular.

The B horizon has hue of 7.5 YR to 2.5 Y , value of 4 to 6 , and chroma of 3 to 8 . Fine-earth texture is fine sandy loam, sandy loam, loam, or rarely silt loam. Structure is weak or moderate, fine through coarse subangular blocky or angular blocky. Lithochromic mottles in shades of brown, yellow, or red and in the lower part shades of gray, are common but not required. Neither are the thin silt coatings or clay films.

The C horizon, where present, has hue of 7.5 YR to 2.5 Y , value of 4 to 6 , and chroma of 3 to 8 . Fineearth texture is loamy sand, loamy fine sand, fine sandy loam, sandy loam, loam, silt loam, clay loam, or sandy clay loam. Lithochromic mottles in shades of brown, yellow, red or gray are in some pedons. Silt coatings and clay films are in some pedons. A Cr horizon is in some pedons on more exposed locations or in areas with relatively soft bedrock.

The R horizon is commonly unweathered sandstone or siltstone, but grades to more fractured and weathered conditions on some landforms.

COMPETING SERIES: These are the Bannertown, Cheshire, Devotion, Ditney, Fedscreek, Maymead, Mine Run (T) and Tipsaw series. Bannertown soils are somewhat excessively drained and formed in residuum weathered form felsic metamorphic or igneous parent materials. Cheshire soils are very deep and formed in supraglacial till on uplands. Devotion soils formed in residuum weathered from felsic to intermediate metamorphic or igneous rock with paralithic contact. Ditney soils formed in residuum affected by soil creep that weathered from metasedimentary rock such as arkose, metagraywacke, metasandstone or quartzite. Fedscreek soils are deep and formed in colluvium. Maymead soils are very deep, formed in colluvium and contain coarse fragments of feldspathic quartzite, graywacke and arkosic sandstone. The tentative Mine Run Series is somewhat excessively drained and formed in residuum weathered from metamonzonite and gneiss. The Tipsaw series is exclusively over paralithic contact with moderately cemented sandstone interbedded with siltstone and shale.

GEOGRAPHIC SETTING: Marrowbone soils are mostly on southern and western hill slopes, mountain sides, nose slopes or narrow ridgetop crests. Slopes are dominantly 30 to 90 percent, but range from 8 to 120 percent. These soils formed in loamy residuum or creeping colluvium weathered from strongly acid through neutral Pennsylvanian aged sandstone or siltstone. Elevation ranges from 800 to about 4,000 feet. Mean annual temperature ranges from 53 to 57 degrees \(F\). with a mean of 56 degrees. The mean annual precipitation ranges from 40 to 49 inches with a mean of about 43 inches.

GEOGRAPHICALLY ASSOCIATED SOILS: These are the Berks, Cloverlick, Cutshin, Dekalb, Fedscreek, Gilpin, Guyandotte, Handshoe, Highsplint, Kimper, Latham, Muskingum, Pineville, Rayne, Sharondale and Shelocta series. Berks, Dekalb, Gilpin, Rayne and Muskingum soils are on ridgetop positions adjacent to or above the Marrowbone soils. All of these soils are moderately deep with the exception of Rayne, which is deep. Berks and Dekalb soils are loamy-skeletal; Gilpin, Muskingum and Rayne soils are fine-loamy; and Latham soils are fine. Gilpin, Latham and Rayne soils have argillic horizons. Cloverlick, Cutshin, Fedscreek, Guyandotte, Handshoe, Highsplint, Kimper, Pineville and Shelocta soils are on lower hill slopes and mountain sides. All of these series are deep or very deep. Cloverlick, Guyandotte, Handshoe, Highsplint and Sharondale soils are loamyskeletal and Cutshin, Kimper, Pineville and Shelocta soils are fine-loamy. Cloverlick, Cutshin, Kimper and Guyandotte soils have umbric surface layers and Sharondale soils have mollic surface layers. Pineville and Shelocta soils have argillic horizons.

DRAINAGE AND PERMEABILITY: Well drained. Permeability is moderate or moderately rapid and runoff ranges from low to medium on slopes less than 20 percent and from medium to high on slopes greater than 20 percent.

USE AND VEGETATION: Most areas are in secondary growth deciduous forest with mixed stands of white oak, black oak, scarlet oak, chestnut oak, red maple, American beech, shortleaf pine and Virginia pine. Less sloping areas are used for pasture and as sites for homes and gardens.

DISTRIBUTION AND EXTENT: Marrowbone soils are in the Allegheny-Cumberland Plateau of eastern Kentucky and West Virginia with possible similar areas in Ohio, Virginia, Indiana and Tennessee. The area is estimated to be of large extent, about 250,000 acres.

\section*{MLRA SOIL SURVEY REGIONAL OFFICE (MO) RESPONSIBLE: Morgantown, West Virginia}

SERIES ESTABLISHED: Pike County, Kentucky; 1985. Source of the name is a small community in Pike County.

REMARKS: Diagnostic horizons recognized in this pedon are:
Ochric epipedon - 0 to 5 inches (A).
Cambic horizon - 5 to 23 inches (Bw); and 23 to 28 inches (BC).
ADDITIONAL DATA: Characterization sample S83KY-195-017 by NSSL. Supplemental data for pedons S83KY-195-014, S82KY-195-018, and S83KY-195-016.

National Cooperative Soil Survey
U.S.A.
-

EXHIBIT I
DIRECTIONS TO WCF SITE

Driving Directions to Proposed Tower Site:
1. Beginning at the offices of the Morgan County Clerk, located at 450 Prestonburg Street in West Liberty, KY, head south on Prestonsburg Street towards KY-7 North / US-460 West.
2. Turn right onto KY-7 North / US-460 West and travel approximately 0.8 miles.
3. Turn left to continue onto US-460 West / Main Street and travel approximately 4.7 miles.
4. Turn left onto KY-205 South and travel approximately 8.9 miles.
5. Continue onto \(\mathrm{KY}-191\) and travel approximately 2.4 miles.
6. Turn right onto \(\mathrm{KY}-134\) and travel approximately 3.4 miles. The site is located on the left at 3247 Highway 134 in Hazel Green, Kentucky.
7. site coordinates are
a. 37 deg 45 min 03.847 sec N
b. 83 deg 15 min 17.985 sec W


Prepared by:
Aaron L. Roof
Pike Legal Group PLLC
1578 Highway 44 East, Suite 6
PO Box 369
Shepherdsville, KY 40165-0369
Telephone: 502-955-4400 or 800-516-4293

EXHIBIT J
COPY OF REAL ESTATE AGREEMENT

JAN 312014
TIME: \(\quad 1 \div 45 / 1 / 7\)
RANDY WILLIAMS. CLERK

\section*{MEMORANDUM OF LEASE}

\section*{Prepared by: Kit Nickel Tit Rule PBM Wireless \\ 13714 Smokey Ridge Overlook \\ Carmel, IN 46033}

\section*{Return to:}

New Singular Wireless PCS, LLC
Attn: Network Real Estate Administration
575 Morosgo Drive NE,
Suite 13-F West Tower,
Atlanta, GA 30324

Re: Cell Site \#KYALU6169; Cell Site Name: WHEELRIM
Fixed Asset \# 12674956
State: KENTUCKY
County: MORGAN

\section*{MEMORANDUM \\ OF \\ Lease}

This Memorandum of Lease is entered into on this ISth day of January, 2014 , by and between JASON ONEY AND JACQUELINE R. ONEY, HUSBAND AND WIFE, having a mailing address of 3247 HWY 134, HAZEL GREEN, KY 41322 (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, Suite 13F West Tower, Atlanta, Ga 30324 (hereinafter referred to as "Tenant").
1. Landlord and Tenant entered into a certain Option and Lease Agreement ("Agreement") on the Isth day of January , \(201 y\), 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.

\section*{"LANDLORD"}

JASON ONE AND JACQUELINE R. ONEY, HUSBAND AND WIFE

By:
Print Jame: Jason One
Its: owner
Date: \(\qquad\)


Its: Owner
Date:


\section*{"TENANT"}

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

By:


Print Name: Terry /R. Kilgore
Its: Area Manager, C\&E
Date:


\section*{TENANT ACKNOWLEDGMENT}


On the 15 h day of Sanutire, 2014 , before me personally appeared Terry R. Kilgore, and acknowledged under oath that here is the Area Mr \(\cdot C^{+} c^{-}\)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.


COUNT LANDLORD ACKNOWLEDGMENT
STATE OF


On the 15 K day of December, 2013 before me, personally appeared Jason Ones and Jacqueline R. Oney, who acknowledged under oath, that they are the persons named in the within instrument, and that they executed the same in their stated capacity as the voluntary act and deed of the Landlord for the purposes therein contained.


\section*{EXHIBIT 1}

\section*{DESCRIPTION OF PREMISES}

\section*{Page 1 of 5}
to the Option and Lease Agreement dated January is, 20/Y, by and between JASON ONEY AND JACQUELINE R. ONEY, 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 on the North side of Mountain Parkway at a set stone in the line of Willie Bailey; thence following the Willie Bailey line to the line of Mandy Center; thence with Mandy Center line to the line of Branson Phipps; thence following Bronson Phipp's line to a bridge at Highway 134 at the mouth of Prater Branch; and at the right of way of Mountain Parkway; thence with the right of way of Mountain Parkway to the point of beginning, containing 65 acres, more or less, but to contain all the land described in the within boundary.

\section*{EXHIBIT 1}

\section*{DESCRIPTION OF PREMISES}

Page 2 of 5

The Premises are described as follows:

\section*{DESCRIPTION OF PROPOSED LEASE AREA}

NOTE: All bearings and distances are based on Grid North, Kentucky State Plane Coordinate System, Single Zone, NAD 1983.

Beginning, for reference, at the southeasterly corner of the Jason Oney tract, as recorded in Deed Book 217 at Page 483, said corner being common with the southwesterly corner of the William C. and Judy Oney tract, as recorded in Deed Book 153 at Page 385, all records of the Morgan County Clerk's Office, said corner also being in the northerly right-of-way line of Highway 134; thence in a northeasterly direction, with Jason Oney's easterly boundary, common with William C. and Judy Oney's westerly boundary, approximately 482 feet to a point; thence continuing with Jason Oney's easterly boundary line, in a northerly direction, approximately 190 feet to the TRUE POINT OF BEGINNING, being an iron pin with cap stamped \#2328; thence running on over, and across the lands of the said Jason Oney, South 86 degrees 34 minutes 43 seconds West, a distance of 50.00 feet to an iron pin with cap stamped \#2328; thence North 03 degrees 25 minutes 17 seconds West, a distance of 80.00 feet to an iron pin with cap stamped \#2328; thence North 86 degrees 34 minutes 43 seconds East, a distance of 50.00 feet to an iron pin with cap stamped \(\# 2328\); thence South 03 degrees 25 minutes 17 seconds East, a distance of 80.00 feet to the point of beginning, containing 4000.00 square feet, or 0.92 acres.

\section*{DESCRIPTION OF PROPOSED APPURTENANT ACCESS \& UTILITY EASEMENT}

NOTE: All bearings and distances are based on Grid North, Kentucky State Plane Coordinate System, Single Zone, NAD 1983.

Beginning at the southeasterly corner of the above-described Lease Area, thence with Jason Oney's easterly boundary line, common with William C. and Judy Oney's westerly boundary line, South 03 degrees 25 minutes 17 seconds East, a distance of 30.00 feet to a point; thence running on, over, and across the Jason Oney tract, South 86 degrees 34 minutes 43 seconds West, a distance of 50.00 feet to a point; thence North 03 degrees 25 minutes 17 seconds West, a distance of 30.00 feet to the southwesterly corner of the above-described Lease Area, thence with the southerly line of the Lease Area, North 86 degrees 34 minutes 43 seconds East, a distance of 50.00 feet to the point of beginning.

\section*{EXHIBIT 1}

\section*{DESCRIPTION OF PREMISES}

Page 3 of 5

\section*{DESCRIPTION OF PROPOSED 30-FOOT ACCESS \& UTILITY EASEMENT}

NOTE: All bearings and distances are based on Grid North, Kentucky State Plane Coordinate System, Single Zone, NAD 1983.

A 30 -foot wide easement for the right to use for access and utilities to the above described Lease Area, said easement being described as follows:

Beginning at a point in the northerly right-of-way line of Highway 134, said point being approximately 860 feet northwest of the southeasterly corner of the Jason Oney tract, as recorded in Deed Book 271 at Page 482, in the Morgan County Clerk's office; thence North 18 degrees 58 minutes 39 seconds East, a distance of 48.64 fee to a point; thence with a curve to the right, of radius 35.00 feet, the chord of which bears North 63 degrees 06 minutes 24 seconds East, a distance of 48.74 feet to a point; thence South 72 degrees 45 minutes 52 seconds East, a distance of 226.28 feet to a point; thence with a curve to the left, of radius 350.00 feet, the chord of which bears South 85 degrees 01 minutes 32 seconds East, a distance of 148.66 feet to a point; thence with a curve to the right, of radius 500.00 feet, the chord of which bears South 88 degrees 57 minutes 46 seconds East, a distance of 144.78 feet to a point; thence with a curve to the left, of radius 500.00 feet, the chord of which bears South 85 degrees 06 minutes 51 seconds East, a distance of 78.04 feet; thence with a curve to the right, of radius 500.00 feet, the chord of which bears South 84 degrees 16 minutes 22 seconds East, a distance of 92.67 feet to a point; thence with a curve to the left, of radius 400.00 feet, the chord of which bears South 87 degrees 09 minutes 22 seconds East, a distance of 114.11 feet to a point; thence North 84 degrees 38 minutes 36 seconds East, crossing the common boundary line between the aforementioned Jason Oney tract and the abutting William C. and Judy Oney tract, as recorded in Deed Book 153 at Page 385, at 3.5 feet, more or less, in all a distance of 27.04 feet to a point; thence with a curve to the left, of radius 250.00 feet, the chord of which bears North 70 degrees 38 minutes 55 seconds East, a distance of 120.92 feet to a point; thence North 56 degrees 39 minutes 13 seconds East, a distance of 50.45 feet to a point; thence with a curve to the right, of radius 150.00 feet, the chord of which bears North 71 degrees 00 minutes 09 seconds East, a distance of 74.35 feet to a point; thence with a curve to the left, of radius 100.00 feet, the chord of which bears North 11 degrees 27 minutes 50 seconds East, a distance of 192.14 feet to a point; thence North 62 degrees 25 minutes 25 seconds West, a distance of 71.66 feet to a point; thence with a curve to the left, of radius 100.00 feet, the chord of which bears North 70 degrees 00 minutes 00 seconds West, a distance of 26.37 feet to a point; thence with a curve to the right, of radius 100.00 feet to a point, the chord of which bears North 68 degrees 01 minutes 25 seconds West, a distance of 33.19 feet to a point; thence North 58 degrees 28 minutes 16 seconds West, crossing the common boundary line between the aforementioned William C. and Judy Oney tract and the abutting Jason Oney at 158 feet, more or less, in all a distance of 172.96 feet to a point; thence with a curve to the right, of radius 30.00 feet, the chord of which bears North 42 degrees 11 minutes 09 seconds West, a distance of 16.83 feet to a point in the southerly boundary of the above-described \(30^{\prime} \times 50^{\prime}\) Appurtenant Easement.

\section*{EXHIBIT 1}

\section*{DESCRIPTION OF PREMISES}

Page 4 of 5

The Premises are described and/or depicted as follows:


\section*{EXHIBIT 1}

\section*{DESCRIPTION OF PREMISES}

Page 5 of 5

The Premises are described and/or depicted as follows:


\section*{Notes:}
1. THIS EXHIBIT MAY BE REPLACED BY A LAND SURVEY AND/OR CONSTRUCTION DRAWINGS OF THE PREMISES ONCE RECEIVED BY TENANT.
2. ANY SETBACK OF THE PREMISES FROM THE PROPERTY'S BOUNDARIES SHALL BE THE DISTANCE REQUIRED BY THE APPLICABLE GOVERNMENTAL AUTHORITIES.
3. WIDTH OF ACCESS ROAD SHALL BE THE WIDTH REQUIRED BY THE APPLICABLE GOVERNMENTAL AUTHORITIES, INCLUDING POLICE AND FIRE DEPARTMENTS.
4. THE TYPE, NUMBER AND MOUNTING POSTTIONSMNO GQCAFIQNG QFANTENNAS AND TRANSMISSION LINES ARIE LLEUSTRATIVE ONLY. ACTUAL TYPES, NUMBERSSANDGQUNDNGPOSITIONS MAY VARY FROM WHATIS SHOWN ABOVE.


Cell Site No.: KYALU6169
Cell Site Name: Wheelrim
County: Morgan

Carmel, IN 46033
Return to:
New Cingular Wireless PCS, LLC
Attn: Network Real Estate Administration
575 Morosgo Drive NE,
Suite 13-F West Tower,
Atlanta, GA 30324

\section*{EASEMENT AGREEMENT}

This Easement Agreement is made as of the /Fth day of January, 20/4, by and between William C. Oney and Judy Oney, husband and wife ("Grantor") and NEW CINGULAR WIRELESS PCS LLC, a Delaware limited liability company ("Grantee"), which parties, for and in consideration the mutual agreements and undertakings herein contained, receipt and sufficiency of which valuable consideration is hereby acknowledged, do hereby agree to be bound as follows:
1. RECITAL. Grantor is the owner of that certain parcel of land located in Morgan County, Kentucky, of record in Book 153 Page 385 County Clerk's Office for Morgan County, Kentucky, and being known as tax map 129-00-00-003.00, (the "Grantor's Property").
2. GRANT OF EASEMENT. Grantor hereby grants and conveys to Grantee, its successors and assigns, an Easement (the "Easement") for the right of access, for ingress and egress and utilities, to and through the Grantor's Property, as more fully described in Exhibit A, attached hereto and incorporated herein, to the areas as leased by Grantee under the Lease. Grantor reserves the right to reroute the Easement, at Grantor's own expense, as long as Granter does not block access to the communications system or increase the grade. Grantor shall have the mutual right to use of the Easement. Grantee, together with Grantee's successors, subleases, assigns, contractors, agents and representatives, may use the Easement for purposes of accessing, installing, constructing, maintaining, repairing, operating, altering, inspecting, replacing, removing modifying, substituting, expanding, and relocating a communications service system on the areas as leased by Grantor under the Lease. Grantee will have such access twenty-four hours per day, seven days per week. Grantee to keep and maintain access road in good condition.
3. PAYMENTS. Grantee agrees to pay Grantor a one time payment of \(\square\) , within thirty (30) days after Grantee's execution of this Agreement. Payments shall be made to the address as shown below.
4. TERM. The Easement as herein granted herein shall continue for the term of the Lease, and any extensions, options, renewals, replacements or revisions of the Lease (the "Term"). The initial term of the Lease is five years from the Commencement Date as defined therein, and there are options to extend the term for four (4) additional consecutive five year periods, as well as the right of the parties to further extend by agreement. The Easement shall be continuous and irrevocable, and shall run with the land and be binding upon Grantor, and Grantor's successors and assigns, during the entire Term. Upon the end of the Term, the Grantee agrees to execute such documents as the Grantor may reasonably request to confirm the termination. Grantee shall have the right to terminate the Easement upon ninety days written notice to the Grantor at any time from the date of this Agreement for failure to comply with any of the terms or conditions contained herein.
5. NO PUBLIC USE DEDICATION. Nothing contained in this Agreement will be deemed to be a dedication of any portion of the Easement to the general public or for the general public or for any public purpose whatsoever, it being the intention that this Agreement will be strictly limited to and for the purposes set forth herein.
6. INDEMNITY. Grantee shall indemnify and hold Grantor harmless against any liability or loss from personal injury or property damage resulting from or arising out of the use or occupancy of the Easement by Grantee or its employees or agents, excepting, however, such liabilities and losses as may be due to or caused by the act or omissions of the Grantor or its employees or agents.
7. NOTICES. All notices required or permitted hereunder must be in writing and are effective only when deposited in the U. S. Mail, certified and postage prepaid, or when sent via overnight delivery to the following addresses (or such other address as the parties may designate and provide notice of in writing in accordance with the terms and provisions of this paragraph). Notice shall be deemed given upon receipt or upon refusal to accept delivery.

If to Tenant:
New Cingular Wireless PCS, LLC
Attn: Network Real Estate Administration
Re: Cell Site \#: KYALU6169 Cell Site Name: Wheelrim KY
Fixed Asset No 12674956
575 Morosgo Drive
Suite 13-F West Tower
Atlanta, GA 30324
With a copy to:
New Cingular Wireless PCS, LLC
Attn.: AT\&T Legal Department - Network
Re: Cell Site \#: KYALU6169; Cell Site Name: Wheelrim KY
Fixed Asset No: 12674956
208 S. Akard Street
Dallas, TX 75202-4206
If to Landlord: \(\quad\)\begin{tabular}{ll} 
William C. Oney and Judy One \\
& 3721 Hwy 134 \\
& Hazel Green, KY 41322
\end{tabular}
8. ENTIRE AGREEMENT. This Easement Agreement contains the entire agreement of the parties as to these matters, and any other discussions or writings are merged herein. This Agreement may only be amended by a writing signed by each of the parties, and shall not be amended orally, or by conduct, waiver or estoppel. Time is of the essence under this Agreement.

GRANTOR: William C. Oney and Judy Oney, husband and wife


Title: Owner


Name: Judy One
Title: Owner

GRANTEE: NEW CINGULAR WIRELESS PCS LDC a Delaware limited liability company
By: AT\&T Mobility Corporation
Its: Manager
By:
Name: Terry R. Kilgore
Title: Area Manager, C\&E

\section*{STATE OF KENTUCKY:}

\section*{COUNTY OF Magoffin}

Personally appeared before me, a Notary Public in and for the above jurisdiction, the within named William C. Oney and Judy Oney, with whom I am personally acquainted (or who was identified to me on the basis of satisfactory evidence), who after being first duly sworn, acknowledged that she was the within named Granter, and that she executed the foregoing Easement Agreement for the purposes therein contained.

Witness my hand and seal, this the \(15 \frac{4}{\text { day }}\) of December, 2013.
notary public: Lealé Gelegox lucelp
My Commission Expires:
7/23/2016

\section*{Georgia}

STATE OF TENSE:
COUNTY OF WHEEIAMSON: Full / ton
Before me, a Notary Public in and for the State and County aforementioned, personally appeared Terry R. Kilgore, with whom I am personally acquainted (or proved to me on the basis of satisfactory evidence), and who, upon oath, acknowledged such person to be Area Manager, C\&E of New Cingular Wireless PCS LLC, the within named bargainor, a Delaware limited liability company, and that such person as such Area Manager, C\&E, executed the foregoing Easement Agreement for the purpose therein contained, by personally signing the name of the limited liability company as - Grantee.

Witness my hand and seal, this the \(\angle 512\) day of January , 20 14 . NOTARY PUBLIC: \(\Rightarrow\) Reptertson My Commission Expires: 7) 5 R,


\section*{EXHIBIT "A"}

Page 1 of 2
Being an easement, across Grantor's Property, located in Morgan County, Kentucky, and being more specifically described as follows:

Beginning at a point in the northerly right-of-way line of Highway 134, said point being approximately 860 feet northwest of the southeasterly corner of the Jason Oney tract, as recorded in Deed Book 271 at Page 482, in the Morgan County Clerk's office; thence North 18 degrees 58 minutes 39 seconds East, a distance of 48.64 fee to a point; thence with a curve to the right, of radius 35.00 feet, the chord of which bears North 63 degrees 06 minutes 24 seconds East, a distance of 48.74 feet to a point; thence South 72 degrees 45 minutes 52 seconds East, a distance of 226.28 feet to a point; thence with a curve to the left, of radius 350.00 feet, the chord of which bears South 85 degrees 01 minutes 32 seconds East, a distance of 148.66 feet to a point; thence with a curve to the right, of radius 500.00 feet, the chord of which bears South 88 degrees 57 minutes 46 seconds East, a distance of 144.78 feet to a point; thence with a curve to the left, of radius 500.00 feet, the chord of which bears South 85 degrees 06 minutes 51 seconds East, a distance of 78.04 feet; thence with a curve to the right, of radius 500.00 feet, the chord of which bears South 84 degrees 16 minutes 22 seconds East, a distance of 92.67 feet to a point; thence with a curve to the left, of radius 400.00 feet, the chord of which bears South 87 degrees 09 minutes 22 seconds East, a distance of 114.11 feet to a point; thence North 84 degrees 38 minutes 36 seconds East, crossing the common boundary line between the aforementioned Jason Oney tract and the abutting William C. and Judy Oney tract, as recorded in Deed Book 153 at Page 385, at 3.5 feet, more or less, in all a distance of 27.04 feet to a point; thence with a curve to the left, of radius 250.00 feet, the chord of which bears North 70 degrees 38 minutes 55 seconds East, a distance of 120.92 feet to a point; thence North 56 degrees 39 minutes 13 seconds East, a distance of 50.45 feet to a point; thence with a curve to the right, of radius 150.00 feet, the chord of which bears North 71 degrees 00 minutes 09 seconds East, a distance of 74.35 feet to a point; thence with a curve to the left, of radius 100.00 feet, the chord of which bears North 11 degrees 27 minutes 50 seconds East, a distance of 192.14 feet to a point; thence North 62 degrees 25 minutes 25 seconds West, a distance of 71.66 feet to a point; thence with a curve to the left, of radius 100.00 feet, the chord of which bears North 70 degrees 00 minutes 00 seconds West, a distance of 26.37 feet to a point; thence with a curve to the right, of radius 100.00 feet to a point, the chord of which bears North 68 degrees 01 minutes 25 seconds West, a distance of 33.19 feet to a point; thence North 58 degrees 28 minutes 16 seconds West, crossing the common boundary line between the aforementioned William C. and Judy Oney tract and the abutting Jason Oney at 158 feet, more or less, in all a distance of 172.96 feet to a point; thence with a curve to the right, of radius 30.00 feet, the chord of which bears North 42 degrees 11 minutes 09 seconds West, a distance of 16.83 feet to a point in the southerly boundary of the above-described 30' x 50' Appurtenant Easement.

\section*{EXHIBIT "A"}

Page 2 of 2

The Easement is described and/or depicted as follows:


EXHIBIT K
NOTIFICATION LISTING
Jason Oney
3721 Hwy 134
Hazel Green, KY 41332
Jason Oney
3247 Highway 134
Hazel Green, KY 41332
William \& Judy Oney
3721 Hwy 134
Hazel Green, KY 41332
Oney Cemetery
3721 Highway 134
Hazel Green, KY 41332
Lee \& Rissie Roark
220 Lee Roark Rd.
Hazel Green, KY 41332
J C \& Christene Rudd
Box 27
Felicity, OH 45120
William \& Ashley Oney
3471 Hwy 134
Hazel Green, KY 41332
Ernie \& Sue Ann Alsept
400 Lee Roark Rd.
Hazel Green, KY 41332
Dean Family Farms LLC
3612 Epperly Drive
Del City, OK 73115-3698

O

\section*{EXHIBIT L}

COPY OF PROPERTY OWNER NOTIFICATION

\title{
Notice of Proposed Construction of Wireless Communications Facility Site Name: Wheelrim
}

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 3247 Highway 134, Hazel Green, Kentucky 41332 ( \(37^{\circ} 45^{\prime} 03.847^{\prime \prime}\) North latitude, \(83^{\circ} 15^{\prime} 17.985^{\prime \prime}\) West longitude). The proposed facility will include a 255 -foot tall antenna tower, plus a 10 -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 Morgan 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 2014-00093 in any correspondence sent in connection with this matter.

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

Sincerely,
David A. Pike
Attorney for AT\&T Mobility
enclosure

Driving Directions to Proposed Tower Site:
1. Beginning at the offices of the Morgan County Clerk, located at 450 Prestonburg Street in West Liberty, KY, head south on Prestonsburg Street towards KY-7 North / US-460 West.
2. Turn right onto KY-7 North / US-460 West and travel approximately 0.8 miles.
3. Turn left to continue onto US-460 West / Main Street and travel approximately 4.7 miles.
4. Turn left onto KY-205 South and travel approximately 8.9 miles.
5. Continue onto KY-191 and travel approximately 2.4 miles.
6. Turn right onto \(\mathrm{KY}-134\) and travel approximately 3.4 miles. The site is located on the left at 3247 Highway 134 in Hazel Green, Kentucky.
7. site coordinates are
a. 37 deg 45 min 03.847 sec N
b. 83 deg 15 min 17.985 sec W


Prepared by:
Aaron L. Roof
Pike Legal Group PLLC
1578 Highway 44 East, Suite 6
PO Box 369
Shepherdsville, KY 40165-0369
Telephone: 502-955-4400 or 800-516-4293

(1) PARCEL NUMBER: \(114-00-00-015.00\) \({ }_{3247}\) Hason Oney Jason iney 1324 Highway 134
324 Hzel Green Kent
Hazel Green, Kentucky 41332
(2) PARCEL NUMBER: 129-00-00-003.00 William 8 Judy Oney
3721 Highway 134
Hazei Green, Kentucky 41332
(3) PARCEL NUMBER: \(129-00-00-001.00\) Oney Cemetery - Per PVA, No Information Avallable Hazel Green, Kentucky 41332
(4) PARCEL NUMBER: 129-00-00-004.00 \({ }_{2}^{L e e}\) \& Rissie Roark
Hazel Green, Kentucky 41332
(5) PARCEL NUMBER: \(113-00-00-009.00\) J.C. \& Christine Rudd

Box 27
Felicily, Ohio 45120
(6) PARCEL NUMBER: 002-00-00-004 Enie 8 Sue Ann Alsept
400 Lee Roark Road
Hazel Green, Kentucky 41332
(7) PARCEL NUMBER: \(129-00-00-002.00\) William 8 Judy Oney
3721 Highway 134
Hazel Green, Kentucky 41332
(8) PARCEL NUMBER: \(144-00-00-014.00\)

Dean Fanily Farns,
Dea City, OXdahoma 73115


500' RADIUS VICINITY MAP

C-1A
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\section*{EXHIBIT M}

\section*{COPY OF COUNTY JUDGE/EXECUTIVE NOTICE}

1578 Highway 44 East, Suite 6
P.O. Box 369

Shepherdsville, KY 40165-0369
Phone (502) 955-4400 or (800) 516-4293
Fax (502) 543-4410 or (800) 541-4410

\section*{VIA CERTIFIED MAIL}

\author{
Hon. Tim Conley \\ Morgan County Judge Executive 450 Prestonsburg Street \\ West Liberty, KY 41472
}

\section*{RE: Notice of Proposal to Construct Wireless Communications Facility Kentucky Public Service Commission Docket No. 2014-00093 Site Name: Wheelrim}

Dear Judge Conley:
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 3247 Highway 134, Hazel Green, Kentucky 41332 ( \(37^{\circ} 45^{\prime} 03.847^{\prime \prime}\) North latitude, \(83^{\circ} 15^{\prime} 17.985^{\prime \prime}\) West longitude). The proposed facility will include a 255 -foot tall antenna tower, plus a 10 -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 2014-00093 in any correspondence sent in connection with this matter.

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

\section*{Sincerely,}

David A. Pike
Attorney for AT\&T Mobility
enclosure

Driving Directions to Proposed Tower Site:
1. Beginning at the offices of the Morgan County Clerk, located at 450 Prestonburg Street in West Liberty, KY, head south on Prestonsburg Street towards KY-7 North / US-460 West.
2. Turn right onto KY-7 North / US-460 West and travel approximately 0.8 miles.
3. Turn left to continue onto US-460 West / Main Street and travel approximately 4.7 miles.
4. Turn left onto KY-205 South and travel approximately 8.9 miles.
5. Continue onto KY-191 and travel approximately 2.4 miles.
6. Turn right onto \(\mathrm{KY}-134\) and travel approximately 3.4 miles. The site is located on the left at 3247 Highway 134 in Hazel Green, Kentucky.
7. site coordinates are
a. 37 deg 45 min 03.847 sec N
b. 83 deg 15 min 17.985 sec W


Prepared by:
Aaron L. Roof
Pike Legal Group PLLC
1578 Highway 44 East, Suite 6
PO Box 369
Shepherdsville, KY 40165-0369
Telephone: 502-955-4400 or 800-516-4293


-
(3)

\section*{EXHIBIT N \\ COPY OF POSTED NOTICES}

\section*{SITE NAME: WHEELRIM \\ 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 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 (800) 516-4293, or the Executive Director, Public Service Commission, 211 Sower Boulevard, PO Box 615, Frankfort, Kentucky 40602. Please refer to docket number Case No. 2014-00093 in your correspondence.

New Cingular Wireless PCS, LLC 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 (800) 516-4293, or the Executive Director, Public Service Commission, 211 Sower Boulevard, PO Box 615, Frankfort, Kentucky 40602. Please refer to docket number Case No. 2014-00093 in your correspondence.

VIA TELEFAX: 606-743-3565
The Licking Valley Courier
Attn: Greg Kinner
142 Prestonsburg Street
P.O. Box 187

West Liberty, KY 41472
RE: Legal Notice Advertisement Site Name: Wheelrim

Dear Jamie:
Please publish the following legal notice advertisement in the next edition of The Licking Valley Courier.

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 3247 Highway 134, Hazel Green, Kentucky 41332 ( \(37^{\circ} 45^{\prime} 03.847^{\prime \prime}\) North latitude, \(83^{\circ} 15^{\prime} 17.985^{\prime \prime}\) West longitude). You may contact the PSC for additional information concerning this matter at: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to docket number 2014-00093 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
\(\sum\)

\section*{EXHIBIT O} COPY OF RADIO FREQUENCY DESIGN SEARCH AREA
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