COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

RECEIVED

In the Matter of:

APPLICATION OF NEW CINGULAR WIRELESS PCS, LLC) FOR ISSUANCE OF A CERTIFICATE OF PUBLIC) CONVENIENCE AND NECESSITY TO CONSTRUCT) A WIRELESS COMMUNICATIONS FACILITY AT) 2755 PRINCETON ROAD, HOPKINSVILLE) CHRISTIAN COUNTY, KENTUCKY, 42240) IN THE WIRELESS COMMUNICATIONS LICENSE AREA) IN THE COMMONWEALTH OF KENTUCKY

SITE NAME: LONGBOW (083G0235)

APPLICATION FOR CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT A WIRELESS COMMUNICATIONS FACILITY

New Cingular Wireless PCS, LLC, a Delaware limited liability company, ("Applicant"), by counsel, pursuant to (i) KRS §§ 278.020, 278.040, 278.665 and the rules and regulations applicable thereto, and (ii) the Telecommunications Act of 1996 respectfully submits this Application requesting the 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 telecommunication services. In support of this Application, Applicant respectfully provides and states the following:

1. The complete name and address of the Applicant is: New Cingular Wireless PCS, LLC, a Delaware limited liability company having a local address of 601 West Chestnut Street, Louisville, Kentucky 40203.

2. Applicant is a Delaware limited liability company and a copy of its Delaware Certificate of Formation and Certificate of Amendment are attached as **Exhibit A**. A copy of the Certificate of Authorization to transact business in the Commonwealth of Kentucky is also included as **Exhibit A**.

3. Applicant proposes construction of an antenna tower in Christian County, Kentucky, which is within the jurisdiction of the Hopkinsville-Christian County Planning Commission as jurisdiction is defined by Commonwealth of Kentucky Court of Appeals in opinion for No. 2007-CA-000697 and Applicant submits the Application to the PSC for a CPCN pursuant to KRS §§ 278.020(1), 278.650, and 278.665.

4. 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 enhancing coverage and/or capacity and thereby increasing the public's access to wireless telecommunication services. 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.

5. To address the above-described service needs, Applicant proposes to construct a WCF at 2755 Princeton Road, Hopkinsville, Kentucky 42240 (36° 53' 09.40" North Latitude, 87° 31' 25.73" West Longitude (NAD 83)), in an area entirely within Christian County. The property in which the WCF will be located is currently owned by Hopkinsville Baptist Temple of Christian County, Inc., pursuant to that Deed of record in Deed Book 447, Page 587 in the Office of the Christian County Clerk. The proposed WCF will consist of a 180 foot monopole tower with an approximately 4-foot tall lightning arrestor attached to the top of the tower for a total height of 184 feet. The WCF will also include concrete foundations to accommodate the placement of a prefabricated equipment shelter.

Copies of the licenses are attached as **Exhibit H**. Appropriate FCC required signage will be posted on the site.

11. Based on the review of Federal Emergency Management Agency Flood Insurance Rate Maps, the licensed, professional land surveyor has noted in **Exhibit B** that the Flood Insurance Rate Map (FIRM) No. 21047C0244C dated September 17, 2008 indicates that the proposed WCF is not located within any flood hazard area.

12. Personnel directly responsible for the design and construction of the proposed WCF are well qualified and experienced. Project Manager for the site is Chad Goughnour, of Nsoro, Inc.

13. Clear directions to the proposed WCF site from the county seat are attached as **Exhibit I**, including the name and telephone number of the preparer. A copy of the lease for the property on which the tower is proposed to be located is also attached as **Exhibit I**.

14. Applicant has notified every person of the proposed construction who, according to the records of the Christian County Property Valuation Administrator, owns property which is within 500 feet of the proposed tower or is contiguous to the site property, by certified mail, return receipt requested. Applicant included in said notices the docket number under which the Application will be processed and informed each person of his or her right to request intervention. A list of the property owners who received notices is attached as **Exhibit J**. Copies of the certified letters sent to the referenced property owners are attached as **Exhibit J**.

15. Applicant has notified the Christian County Judge Executive by certified mail, return receipt requested, of the proposed construction. The notice included the docket number under which the Application will be processed and

informed the Christian County Judge Executive of his right to request intervention. Copy of the notice is attached as **Exhibit K**.

16. Pursuant to 807 KAR 5:063, Applicant affirms that two notice signs measuring at least two feet by four feet in size with all required language in letters of required height have been posted in a visible location on the proposed site and on the nearest road. Copies of the signs are attached as **Exhibit L**. Such signs shall remain posted for at least two weeks after filing the Application. Notice of the proposed construction has been posted in a newspaper of general circulation in the county in which the construction is proposed (Kentucky New Era).

17. The site of the proposed WCF is located in a rural area near Hopkinsville, Kentucky.

18. Applicant has considered the likely effects of the proposed construction on nearby land uses and values and has concluded that there is no more suitable location reasonably available from which adequate service to the area can be provided. Applicant carefully evaluated locations within the search area for co-location opportunities and found no suitable towers or other existing structures that met the requirements necessary in providing adequate service to the area. Applicant has attempted to co-locate on towers deigned to host multiple wireless service providers' facilities or existing structures, such as a telecommunications tower or another suitable structure capable of supporting the utility's facilities.

19. A map of the area in which the proposed WCF is located, that is drawn to scale and that clearly depicts the search area in which a site should, pursuant to radio frequency requirements, be located is attached as **Exhibit M**.

20. No reasonably available telecommunications tower, or other suitable structure capable of supporting the Applicant's facilities which would provide adequate service to the area exists.

21. Correspondence and communication with regard to this Application should be directed to:

Todd R. Briggs Briggs Law Office, PSC 1301 Clear Springs Trace Suite 205 Louisville, KY 40223 (502) 412-9222 todd@briggslawoffice.net

WHEREFORE, Applicant respectfully requests that the PSC accept the foregoing application for filing and enter an order granting a Certificate of Public Convenience and Necessity to Applicant for construction and operation of the proposed WCF and providing for such other relief as is necessary and appropriate.

Respectfully submitted,

Todd R. Briggs Briggs Law Office, PSC 1301 Clear Springs Trace Suite 205 Louisville, KY 40223 Telephone 502-412-9222 Counsel for New Cingular Wireless PCS, LLC

Mary K. Keyer General Counsel AT&T Kentucky 601 W. Chestnut Street Room 407 Louisville, KY 40203

LIST OF EXHIBITS

Exhibit A	Certificate of Authorization
Exhibit B	Site Development Plan and Survey
Exhibit C	Vertical Tower Profile
Exhibit D	Structural Design Report Foundation Design Report
Exhibit E	Geotechnical Engineering Report
Exhibit F	Competing Utilities List and Map of Like Facilities, General Area
Exhibit G	FAA Approval KAZC Approval (not applicable)
Exhibit H	FCC Documentation
Exhibit I	Directions to Site and Copy of Lease Agreement
Exhibit J	Property Owner Notification Listing Copy of Property Owner Notifications 500' Radius Vicinity Map
Exhibit K	Copy of County Judge Executive Notice
Exhibit L	Copy of Posted Notices
Exhibit M	Map of Search Area
Exhibit N	Miscellaneous

Exhibit A

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Commonwealth of Kentucky Trey Grayson, Secretary of State

Division of Corporations Business Filings

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 Visit <u>http://apps.sos.ky.gov/business/obdb/certvalidate.aspx_t</u>o authenticate this certificate.

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.



Tn67

Trey Grayson Secretary of State Commonwealth of Kentucky 84012/0481848

8/6/2009

Delaware PAGE 1 The First State

I, HARRIET SMITH WINDSOR, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF AMENDMENT OF "ATGT WIRELESS PCS, LLC", CHANGING ITS NAME FROM "AT&T WIRELESS PCS, LLC" TO "NEW CINGULAR WIRELESS PCS, LLC", FILED IN THIS OFFICE ON THE TWENTY-SIXTH DAY OF OCTOBER, A.D. 2004, AT 11:07 O'CLOCK A.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE EFFECTIVE DATE OF THE AFORESAID CERTIFICATE OF AMENDMENT IS THE TWENTY-SIXTH DAY OF OCTOBER, A.D. 2004, AT 7:30 O'CLOCK P.M.

Idarnet Smith Hundson Harring Smith Windson, Secretary AUTHENTICATION: 3434823

namp. 20 25-01

State of Delaware Secretary of State Division of Corporations Delivered 11:20 AM 10/26/2004 FILED 11:07 BM 10/26/2004 CERTIFICATE OF AMENDMENT SRV 040770586 - 2445544 FILE TO THE CERTIFICATE OF FORMATION OF AT&T WIRELESS PCS, LLC

- 1. The name of the limited liability company is AT&T Wireless PCS, LLC (the "Company").
- 2. The Certificate of Formation of the Company is amended by deleting the first paragraph in its entirety and replacing it with a new first paragraph to read as follows:
 - "FIRST: The name of the limited liability company is New Cingular Wireless PCS, LLC."
- 3. The Certificate of Amendment shall be effective at 7:30 p.m. EDT on October 24, 2004.

[Signature on following page]

ATL01/11728913v2

IN WITNESS WHEREOF, AT&T Wireless PCS, LLC has caused this Certificate of Amendment to be executed by its duly authorized Manager this $2\ell m$ day of October, 2004.

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AT&T WIRELESS PCS, LLC

By: Cingular Wireless LLC, its Manager

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By <u>Admit Joanne Todaro</u> Nieme: Joanne Todaro Title: <u>Assistant secretary</u> d aro

ATL01/11728913y2

STATE OF DELAWARE

CERTIFICATE OF FORMATION OF

AT&T WIRELESS PCS, LLC

The undersigned authorized person hereby executes the following Certificate of Formation for the purpose of forming a limited liability company under the Delaware Limited Liability Company Act.

FIRST The name of the limited liability company is AT&T Wireless PCS, LLC.

SECOND: The address of its registered office in the State of Delaware is Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware 19801. The name of its registered agent at such address is The Corporation Trust Company.

DATED this _____ day of September, 1999.

الموجا الدائم محمد محرد المراجعة محادي ومراجع

AT&T WIRELESS SERVICES, INC., As Authorized Person

Mark U. Thomas, Vice President

Ø 003



KY SPC (SOUTH ZONE) GRID NORTH 50 0 50 100 150 Scale 1" = 100' GRAPHIC SCALE (11" X 17" SHEET SIZE)	at &t
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Image: Data - Atat Mobility's 30' wide Joint Access and Utility's easement RING RADIUS LENGTH TAN CHORD 38" 90.00' 49.92' 25.08' 5 18' 26' 43'' W/48.32' 31" 40.00' 30.29' 15.92' 5 24' 34' 09'' W/29.58' 22" 200.00' 71.41' 36.09' 5 56' 29'' 35'' W/71.03' 22" 200.00' 71.41' 36.09' 5 56' 29'' 35'' W/71.03' 22" 200.00' 71.41' 36.09' 5 56' 29'' 35'' W/71.03' 22" 72.88'	AT&T MOBILITY SITE SURVEY: KENTUCKY "LONGBOW C" TOWER SITE "LONGBOW C" TOWER SITE LOCATED IN: HOPKINSVILLE, CHRISTIAN COUNTY, KENTUCKY TOWER SITE LEASEHOLD AREA SURVEY PREPARED FOR AT&T MOBILITY AT&T MOBILITY SITE NO.: 08360235
WNER: BAPTIST CHURCH CETON ROAD LE, KY +2240 ET ARE 18" MINIMUM LENGTH REINFORCING STEEL BARS WITH A PLASTIC BOSSED 'KY PLS #3093", UNLESS ROCK OR OTHER LIKE MATERIAL IS ED. LD SURVEY: THURSDAY, NOVEMBER 4, 2009. THOUT THE ORIGINAL SIGNATURE OF THE PROFESSIONAL LICENSED SURVEYOR. THOUT THE ORIGINAL SIGNATURE OF THE PROFESSIONAL LICENSED SURVEYOR. THE ORIGINAL SIGNATURE OF THE PROFESSIONAL LICENSED SURVEYOR. THE COMMITMENT WAS FURNISHED TO THIS SURVEYOR AT THE TIME OF THIS REFORE, THIS SURVEY IS SUBJECT TO ANY FINDINGS THAT A CURRENT AND THE COMMITMENT WAS REVEAL	<u>знеет минося:</u> 1 OF 2 <u>C2</u> <u>риолест манося:</u> J.N. 29.094.20

Piot data: NOVDABER 12, 2004

AT&T MOBILITY'S TOWER SITE LEASEHOLD AREA DESCRIPTION

BEGINNING AT A CAPPED IRON PIN (KY PLS ∯3093) SET AT THE WEST CORNER OF AT&T MOBILITY'S TOWER SITE LEASEHOLD AREA, SAID IRON PIN BEING NORTH 67 DEGREES 58 MINUTES 55 SECONDS EAST, 21.61 FEET FROM AN IRON PIN FOUND AT THE WEST CORNER OF THE PROPERTY CONVEYED TO HOPKINSVILLE BAPTIST TEMPLE OF CHRISTIAN COUNTY, INC., OF RECORD IN DEED BOOK 447, PAGE 587, OF THE PROPERTY VALUATION OFFICE OF CHRISTIAN COUNTY, VERTICAL KENTUCKY:

THENCE, NORTH 61 DEGREES 47 MINUTES 30 SECONDS EAST, 100 00 FEET TO A CAPPED (KY PLS #3090) IRON PIN AT THE NORTH CORNER OF AT&T MOBILITY'S TOWER SITE LEASEHOLD AREA;

THENCE, SOUTH 28 DEGREES 12 MINUTES 30 SECONDS EAST, 100.00 FEET TO A CAPPED (KY PLS #3093) IRON PIN SET AT THE EAST CORNER OF AT&T MOBILITY'S TOWER SITE LEASEHOLD AREA;

THENCE, SOUTH 61 DEGREES 47 MINUTES 30 SECONDS WEST, 100.00 FEET TO A CAPPED (KY PLS #3093) IRON PIN SET AT THE SOUTH CORNER OF AT&T MOBILITY'S TOWER SITE LEASEHOLD AREA;

THENCE, NORTH 28 DEGREES 12 MINUTES 30 SECONDS WEST, 100.00 FEET TO THE POINT OF BEGINNING, CONTAINING 10,000 SQUARE FEET, (0.23 ACRES).

BEING A PORTION OF THE PROPERTY CONVEYED TO HOPKINSVILLE BAPTIST TEMPLE OF CHRISTIAN COUNTY, INC., OF RECORD IN DEED BOOK 447, PAGE 587, OF THE PROPERTY VALUATION OFFICE OF CHRISTIAN COUNTY, KENTUCKY.

AT&T MOBILITY'S TURN AROUND EASEMENT AREA DESCRIPTION

BEGINNING AT A POINT IN THE NORTHEAST MARGIN OF AT&T MOBILITY'S TOWER SITE LEASEHOLD AREA BEING SOUTH 28 DEGREES 12 MINUTES 30 SECONDS EAST, 20.00 FEET FROM A CAPPED IRON PIN (KY PLS #3093) IRON PIN SET AT THE NORTH CORNER OF AT&T MOBILITY'S TOWER SITE LEASEHOLD AREA:

THENCE, LEAVING THE NORTHEAST MARGIN OF AT&T MOBILITY'S TOWER SITE LEASEHOLD AREA, NORTH 61 DEGREES 47 MINUTES 30 SECONDS EAST, 20.00 FEET TO A POINT;

THENCE, SOUTH 28 DEGREES 12 MINUTES 30 SECONDS EAST, 60.00 FEET TO A POINT;

THENCE, SOUTH 61 DEGREES 47 MINUTES 30 SECONDS WEST, 20.00 FEET TO A POINT IN THE NORTHEAST MARGIN OF AT&T MOBILITY'S TOWER SITE LEASEHOLD AREA;

THENCE, WITH THE NORTHEAST MARGIN OF AT&T MOBILITY'S TOWER SITE LEASEHOLD AREA, NORTH 28 DEGREES 12 MINUTES 30 SECONDS WEST, 60.00 FEET TO THE POINT OF BEGINNING, CONTAINING 1,200 SQUARE FEET

BEING A PORTION OF THE PROPERTY CONVEYED TO HOPKINSVILLE BAPTIST TEMPLE OF CHRISTIAN COUNTY, INC., OF RECORD IN DEED BOOK 447, PAGE 587, OF THE PROPERTY VALUATION OFFICE OF CHRISTIAN COUNTY, KENTUCKY.

AT&T MOBILITY'S 30' WIDE JOINT ACCESS AND UTILITY EASEMENT AREA DESCRIPTION

BEING A THIRTY FOOT WIDE JOINT ACCESS & UTILITY E EASEMENT EXTENDING FROM THE WEST MARGIN OF PRINCETON ROAD TO THE NORTHEAST MARGIN OF AT&T MOBILITY'S TOWER SITE LEASEHOLD AREA, AT ALL TIMES BEING FIFTEEN FEET WIDE EACH SIDE OF AND PARALLEL WITH THE FOLLOWING DESCRIBED CENTERLINE

BEGINNING AT A SURVEY NAIL SET IN THE WEST MARGIN OF PRINCETON ROAD, SAID SURVEY NAIL BEING NORTH 49 DEGREES 27 MINUTES 55 SECONDS EAST, 845.57 FEET FROM AN IRON PIN FOUND AT THE WEST CORNER OF THE PROPERTY CONVEYED TO HOPKINSVILLE BAPTIST TEMPLE OF CHRISTIAN COUNTY, INC., OF RECORD IN DEED BOOK 447, PAGE 587, OF THE PROPERTY VALUATION OFFICE OF CHRISTIAN COUNTY, KENTUCKY;

THENCE LEAVING THE WEST MARGIN OF PRINCETON ROAD, SOUTH 34 DEGREES 01 MINUTE 02 SECONDS WEST, 190 19 FEET TO A POINT;

THENCE ALONG A CURVE TO THE LEFT WITH A CENTRAL ANGLE OF 31 DEGREES OB MINUTES 38 SECONDS, AND A RADIUS OF 90.00 FEET, A DISTANCE OF 48.92 FEET TO A POINT;

THENCE, ALONG A CURVE TO THE RIGHT WITH A CENTRAL ANGLE OF 43 DEGREES 23 MINUTES 31 SECONDS, AND A RADIUS OF 40.00 FEET, A DISTANCE OF 30.29 FEET TO A CAPPED (KY PLS #3093) IRON PIN SET;

THENCE, SOUTH 46 DEGREES 15 MINUTES 55 SECONDS WEST, 346.96 FEET TO A CAPPED (KY PLS #3093) IRON PIN SET:

THENCE, ALONG A CURVE TO THE RIGHT WITH A CENTRAL ANGLE OF 20 DEGREES 27 MINUTES 22 SECONDS, AND A RADIUS OF 200.00 FEET, A DISTANCE OF 71.41 FEET TO A CAPPED (KY PLS #3093) IRON PIN SET:

THENCE, SOUTH 66 DEGREES 43 MINUTES 22 SECONDS WEST, 72.88 FEET TO A CAPPED IRON PIN SET IN THE NORTHEAST MARGIN OF AT&T MOBILITY'S TOWER SITE LEASEHOLD AREA, CONTAINING 22.820 SOUARE FEET, (0.524 ACRES).

BEING A PORTION OF THE PROPERTY CONVEYED TO HOPKINSVILLE BAPTIST TEMPLE OF CHRISTIAN COUNTY, INC., OF RECORD IN DEED BOOK 447, PAGE 587, OF THE PROPERTY VALUATION OFFICE OF CHRISTIAN COUNTY, KENTUCKY

AT&T MOBILITY'S 20' WIDE UTILITY EASEMENT AREA DESCRIPTION

BEING A TWENTY FOOT WIDE UTILITY EASEMENT EXTENDING FROM AN EXISTING PENNYRILE RURAL ELECTRIC COOPERATIVE POWER POLE TO THE NORTHEAST MARGIN OF AT&T MOBILITY'S TOWER SITE LEASEHOLD AREA, AT ALL TIMES BEING TEN FEET WIDE EACH SIDE OF AND PARALLEL WITH THE FOLLOWING DESCRIBED CENTERLINE:

BEGINNING AT A CAPPED (KY PLS #3093) IRON PIN SET IN THE NORTH MARGIN OF KENTUCKY STATE HIGHWAY 1882, SAID POWER POLE BEING NORTH 70 DEGREES 08 MINUTES 45 SECONDS EAST, 178.76 FEET FROM AN IRON PIN FOUND AT THE WEST CORNER OF THE PROPERTY CONVEYED TO HOPKINSVILLE BAPTIST TEMPLE OF CHRISTIAN COUNTY, INC. OF RECORD IN DEED BOOK 447, PAGE 587, OF THE PROPERTY VALUATION OFFICE OF CHRISTIAN COUNTY, KENTUCKY;

THENCE, SOUTH 61 DEGREES 47 MINUTES 30 SECONDS WEST, 55.38 FEET TO THE NORTHEAST MARGIN OF AT&T MOBILITY'S TOWER SITE LEASEHOLD AREA, CONTAINING 1,108 SQUARE FEET

BEING A PORTION OF THE PROPERTY CONVEYED TO HOPKINSVILLE BAPTIST TEMPLE OF CHRISTIAN COUNTY, INC., OF RECORD IN DEED BOOK 447, PAGE 587, OF THE PROPERTY VALUATION OFFICE OF CHRISTIAN COUNTY, KENTUCKY.







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SHEET NAMBER:
2 OF 2 CZ.1
<u> РИОЛЕСТ ММИЕР:</u> J.N. 29.094.20

dente: NONEMER 12 200







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Exhibit D

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Structural Design Report 180' Monopole located at: Longbow, KY Site Number: 273937
prepared for: AMERICAN TOWER INC. by: Sabre Towers and Poles [™] Job Number: 10-01135
January 18, 2010
Monopole Profile



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SI	ECTION	PROPE	RTIES					0.0			<u> </u>
	X,ft	UP,ft	D,in	T,in	Area in ²	lz in ⁴	in ⁴	SxSy in ³	w/t	d/t	F _y (ksi)
	$\begin{array}{c} 179.00\\ 174.00\\ 169.00\\ 159.00\\$	$\begin{array}{c} 0000000005555555550000000000000000000$	$\begin{array}{c} 0.8754293219865320950976431089297643108759\\ 9.01234216778901233599012345552678901233450\\ 9.0122345556789123355568901234552678901233450\\ 9.012345556789123355568901234555667901233456\\ 9.0123455556756755555555555555555555555555555$	$\begin{array}{c} .1875 \\ .18755 \\ .18775 \\ .18775 \\ .18775 \\ .18775 \\ .3122255 \\ .31122255 \\ .31122255 \\ .31122255 \\ .331122255 \\ .331122255 \\ .33112255 \\ .33112255 \\ .33112255 \\ .33177555 \\ .3377555 \\ .3377555 \\ .3377555 \\ .337755 \\ .337755 \\ .337755 \\ .337755 \\ .337755 \\ .337755 \\ .337755 \\ .337755 \\ .33775$	$\begin{array}{c} 111.23.44920863186419598765432265554321009872\\ 112.33.444567789012.581470322655555556666666\\ 0112.33.444567789012.334444678012233456790.3648036922\\ 0112.33444256789012334456790.3648036922\\ 0112.33444678012233456790.3648036922\\ 0112.3344678012233456790.3648036922\\ 0112.33456790013648667\\ 0112.33456790013648667\\ 0112.33456790013648667\\ 0112.33456790013648667\\ 0112.3345679001366666666666666666666666666666666666$	$\begin{array}{c} 1000\\ 11890\\ 13916\\ 18662\\ 23732\\ 38668\\ 46000\\ 23772\\ 898422\\ 555577\\ 46000\\ 555374\\ 46000\\ 555377\\ 898462\\ 200\\ 1094856\\ 898462\\ 200\\ 1094856\\ 898462\\ 200\\ 1094856\\ 898462\\ 200\\ 200\\ 200\\ 200\\ 200\\ 200\\ 200\\ 2$	$\begin{array}{c} 500\\ 5095\\ 8083\\ 10181614\\ 2020222233604620681\\ 119223602692633\\ 44949447375496582667882667\\ 112236026233604620681\\ 122369263360462068\\ 112236926270362265\\ 112236926703642208266\\ 112233901122356027036188\\ 1122356027036220223560\\ 1122356027036220223560\\ 1122356027036220223560\\ 1122356027036220223560\\ 1122356027036220223560\\ 1122356027036220223560\\ 1122356027036220223560\\ 11223560220223560\\ 11223560220223560\\ 11223560220223560\\ 11223560220223560\\ 11223560220223560\\ 112235602202222222222222222222222222222222$	$\begin{array}{c} 8 & 27.57.4.61.19.3.2.77.4.7.5.97.8.97.1.2.1.6.9.8.3.2(0.0.1.9.4.5.5.0.3.3.0)\\ 1.8.4.1.8.62.0.6.9.4.9.4.0.7.4.2.0.3.9.2(6.1.6.2.8.3.2.1.6.2.6.9.4.5.5.0.3.3.0)\\ 1.16.69.4.9.4.0.7.4.2.0.3.9.2(6.1.6.2.8.3.2.1.6.2.6.2.5.5.5.6.6.6.6.6.7.7.7.8.8.8.9.7.1.2.1.6.9.8.3.2.1.5.5.5.5.6.6.6.6.6.7.7.7.8.8.8.9.7.1.2.1.6.9.8.3.2.1.5.5.5.5.6.6.6.6.6.7.7.7.8.8.8.9.7.1.2.1.6.9.8.3.2.1.5.5.5.5.6.6.6.6.6.7.7.7.8.8.8.9.7.1.2.1.6.9.8.3.2.1.5.5.5.5.6.6.6.6.6.7.7.7.8.8.8.9.7.1.2.1.6.9.8.3.2.1.5.5.5.5.6.6.6.6.6.7.7.7.8.8.8.9.7.7.8.8.8.9.7.1.2.1.6.9.8.3.2.1.5.5.5.5.6.6.6.6.6.7.7.7.8.8.8.9.7.7.8.8.8.9.7.7.8.8.8.9.7.7.8.8.8.9.7.7.8.8.8.9.7.7.8.8.8.9.7.7.8.8.8.9.7.7.8.8.8.9.7.7.8.8.8.9.7.7.8.8.8.9.7.7.7.8.8.9.7.7.7.7$	$\begin{array}{c} 10\\ 1.12\\ 1.15\\ 1.9\\ 1.20\\ 2.22\\ 2.22\\ 1.23\\ 1.4\\ 1.5\\ 1.6\\ 1.7\\ 1.8\\ 1.9\\ 1.20\\ 2.22\\ 2.22\\ 1.23\\ 1.4\\ 1.5\\ 1.6\\ 1.7\\ 1.8\\ 1.6\\ 1.6\\ 1.6\\ 1.6\\ 1.6\\ 1.6\\ 1.6\\ 1.6$	$\begin{array}{c} 101.3\\ 107.9\\ 1128.5\\ 394.4\\ 82.59\\ 494.8\\ 82.59\\ 992.65\\ 499.4\\ 888.9\\ 999.2\\ 1009.3\\ 1007.1\\ 109.8\\ 1007.1\\ 109.8\\ 7.65\\ 43.2\\ 109.8\\ 7.65\\ 43.2\\ 109.8\\ 7.65\\ 392.1\\ 109.8\\ 7.65\\ 392.1\\ 109.8\\ 7.65\\ 392.1\\ 109.8\\ 7.65\\ 392.1\\ 109.8\\ 7.65\\ 392.1\\ 109.8\\ 7.65\\ 392.1\\ 109.8\\ 7.65\\ 392.1\\ 109.8\\ 7.65\\ 392.1\\ 109.8\\ 7.65\\ 392.1\\ 109.8\\ 7.65\\ 392.1\\ 109.8\\ 7.65\\ 392.1\\ 109.8\\ 7.65\\ 392.1\\ 109.8\\ 7.65\\ 392.1\\ 109.8\\ 7.65\\ 392.1\\ 109.8\\ 7.65\\ 392.1\\ 109.8\\ 7.65\\ 392.1\\ 109.8\\ 7.65\\ 392.1\\ 109.8\\ 7.65\\ 392.1\\ 109.8\\ 7.65\\ 392.1\\ 109.8\\ 7.65$	65.00 TOP PC 65.00 PC 65.00 PC 65.00 Slip-B01 65.00 Slip-T02 65.00 Slip-T02 65.00 65.00 65.00 65.00 65.00 Slip-T03 65.00 Slip-T03 65.00 65.00 65.00 Slip-T03 65.00 65.00 65.00 Slip-T04 65.00 Slip-T04 65.00 Slip-T04 65.00 Slip-T04 65.00 65.00 65.00 Slip-T04 65.00 65.00 65.00 Slip-T04 65.00 65

SABRE COMMUNICATIONS CORP	JOB: 10-01135	18-Jan-10 09:50
2101 Murray Street	AMERICAN TOWER INC.	Ph 712.258.6690 Fx 712.258.8250
Sloux City, IA Slivi	Longbow, Ki	TTA /FTA - 222 - F
CASE - 1: Max Wind VERTICAL OLF ICE COVER STRESS REDUCTION STRESS AMPLIFY BASE ABOVE Grd	1.00 WIND SPEED .00 in GUST FACTOR .60 EXPOSURE COEFF. 1.33 Cf 1.00 ft REFERENCE HEIGHT PRESSURE @Ref.Ht	75.0 mph 120.7 kph 1.69 .2857 .650 33.0 ft 24.3 psf 1165.Pa
APPURTENANCE LOADS		-CARLE FORCES MOM.
<pre># Qty Description 1 1 User Defined Loading 2 1 User Defined Loading 3 1 User Defined Loading 4 1 User Defined Loading RESULTS</pre>	Center WEIGHT AREA 1X Line each each Elev-Ft Lbs Ft^2 Type 179.0 1800 105.0 179.0 0 .0 1 5/8" 169.0 1800 105.0 169.0 0 .0 1 5/8" 159.0 1800 105.0 159.0 0 .0 1 5/8" 149.0 1800 105.0 149.0 0 .0 1 5/8"	$\begin{array}{c} \text{WIND Tra-Y Ax-Z Lg-X} \\ \text{WIND Tra-Y Ax-Z Lg-X} \\ \text{Qty #/Ft Psf Kips Kips Ft-K} \\ \hline & & & & & & & & & & & & & & & & & &$
ELEV. POLE WIND I=== FC X, ft X, ft psf ShearX 180.00 179.00 25.7 .0 175.00 169.00 25.3 .0 165.00 164.00 25.1 .0 165.00 154.00 24.8 .0 155.00 154.00 24.4 .0 155.00 140.00 24.4 .0 142.75 141.75 24.0 .0 142.75 141.75 23.5 .0 132.75 131.75 23.3 .0 122.75 121.75 23.3 .0 122.75 121.75 22.8 .0 112.75 111.75 22.8 .0 127.75 106.75 22.2 .0 102.00 101.00 21.8 .0 127.75 101.75 21.9 .0 102.00 101.00 21.8 .0 97.50 96.50 20.2 .0 77.50 76.50 20.2 .0	DRCES, kips Image: AxiaZ BendX BendY 4.9 -3.4 2 .0 5.1 -3.6 -24.5 .0 10.0 -7.0 -50.2 .0 10.2 -7.3 -100.1 .0 15.2 -11.0 -226.5 .0 15.3 -11.3 -287.3 .0 19.9 -14.6 -302.9 .0 20.1 -15.1 -347.6 .0 20.3 -15.7 -447.8 .0 20.4 -16.9 -652.4 .0 21.1 -17.5 -756.5 .0 21.3 -18.1 -861.7 .0 22.1 -20.2 -1185.8 .0 22.3 -20.6 -1296.7 .0 22.4 -21.3 -1313.3 .0 22.7 -22.6 -1414.2 .0 23.0 -23.6 -1527.5 .0 23.3 -24.5 -1642.5 .0 24.1 -27.3 -1995.8 .0	kips STRESS ALLOW TorqZ ksi ksi CSR .0 .83 51.87 .016 .0 5.34 51.87 .103 .0 9.83 51.87 .190 .0 17.15 51.87 .331 .0 23.59 51.87 .455 .0 31.81 51.87 .613 .0 37.47 51.87 .722 .0 24.47 51.87 .472 .0 26.95 51.87 .613 .0 35.87 51.87 .613 .0 35.87 51.87 .691 .0 39.33 51.87 .758 .0 42.26 51.87 .863 .0 46.86 51.87 .903 .0 48.68 51.87 .903 .0 48.68 51.87 .903 .0 48.68 51.87 .903 .0 48.68 51.87 .994 .0 51.53 51.87 .994 .0 51.53 51.87 .994 .0 51.53 51.87 .994 .0 45.73 51.87 .997 .0 45.73 51.87 .997 .0 45.73 51.87 .997 .0 45.73 51.87 .994 .0 51.65 51.87 .928 .0 48.13 51.87 .928 .0 48.50 51.87 .928 .0 48.50 51.87 .945 .0 48.78 51.87 .945 .0 49.02 51.87 .945 .0 49.02 51.87 .945 .0 49.02 51.87 .984 .0 51.06 51.87 .984 .0 51.00 51.87 .984 .0 50.34 51.87 .970 .0 50.25 51.87 .970 .0 50.25 51.87 .974 .0 50.25 51.87 .974 .0 50.25 51.87 .974
ELEV DEFLECTION	feet XY-Result X	ROTATION, degrees Y Z XY-Result
179.00 .00 14.688	4 14.68< 8.20%> -9.30	.00 .00 9.30

SABRE COMMUNICATIONS COR	P JOE	3: 10-01135	18-Jan-10 09:50		
2101 Murray Street	AMERI	CAN TOWER INC.	Ph /12.258.6690 Fx 712.258.8250		
Sloux city, IA Siloi			TTA/ETA-222-F		
CASE - 2: Max Wind Load : VERTICAL OLF ICE COVER STRESS REDUCT STRESS AMPLIN BASE ABOVE G	1.00 .50 in FION .60 FY 1.33 rd 1.00 ft	WIND SPEED GUST FACTOR EXPOSURE COEFF. Cf REFERENCE HEIGHT PRESSURE @Ref.Ht	64.9 mph 104.4 kph 1.69 .2857 .650 33.0 ft 18.2 psf 872.Pa		
APPURTENANCE LOADS	Center	WEIGHT AREA Tx-	-CABLE FORCES MOM.		
<pre># Qty Description 1 1 User Defined Loading 2 1 User Defined Loading 3 1 User Defined Loading 4 1 User Defined Loading 5 1</pre>	Line Elev-Ft 179.0 179.0 169.0 169.0 159.0 159.0 149.0 149.0	each each Lbs Ft^2 Type 1980 115.5 0 0 1 5/8" 1980 115.5 0 .0 1 5/8" 1980 115.5 0 .0 1 5/8" 1980 115.5 0 .0 1 5/8" 1980 115.5 0 .0 1 5/8"	$\begin{array}{c} \text{WIND Tra-Y Ax-Z Lg-X} \\ \text{Qty \#/Ft Psf Kips Kips Ft-K} \\ \hline 29.5 3.41 - 2.02 \\ 12 1.04 29.6 .00 - 2.2 \\ 29.1 3.36 - 2.02 \\ 12 1.04 29.1 .00 - 2.1 \\ 28.6 3.30 - 2.02 \\ 12 1.04 28.6 .00 - 2.0 \\ 28.0 3.24 - 2.02 \\ 12 1.04 28.1 .00 - 1.9 \\ \end{array}$		
RESULTS X, ft Y, ft X, ft psf 180.00179.0019.2175.00174.0019.1170.00169.0018.9165.00164.0018.8160.00159.0018.6155.00154.0018.3150.00149.0018.3150.00149.0018.3147.75146.7518.2142.75141.7518.0137.75136.7517.6127.75126.7517.4122.75121.7517.6127.75116.7517.0112.75101.7516.6102.75101.7516.4102.00101.0016.497.5096.5015.172.5071.5015.987.5086.5015.782.5081.5015.477.5076.5015.172.5071.5014.867.5066.5014.257.5056.5013.954.2553.2513.749.2548.2513.348.5047.5013.243.5032.5011.835022.5011.818.5017.5011.813.5012.5011.813.5012.5011.814.5017.5011.815.5012.5011.816.5014.213.5017.5011.818.5017.5011.813.501	I FORCES, kips ShearX ShearY Axi 0 4.0 -3. 0 4.2 -4. 0 8.3 -0 8.3 -0 8.5 -0 12.5 -12. 0 0 12.6 -12. 0 0 12.7 -12. 0 0 12.7 -12. 0 0 12.7 -12. 0 0 16.7 -17. 0 0 17.1 0 17.6 0 17.6 0 17.6 0 17.6 0 18.0 -21. 0 0 18.3 -223. 0 0 19.3 -224. 0 0 20.4 0 20.5 0 21.7	MOMENTS, ft az BendX BendY 82 .0 1 -20.4 .0 0 -41.8 .0 -126.0 .C 6 -188.4 .0 8 -239.0 .0 5 -251.8 .0 1 -289.0 .0 5 -251.8 .0 1 -289.0 .0 7 -372.3 .0 7 -372.3 .0 7 -456.5 .0 0 -541.8 .0 7 -628.1 .0 7 -628.1 .0 7 -628.1 .0 7 -628.1 .0 1 -893.5 .0 9 -892.5 .0 6 -982.5 .0 1 -1074.2 .0 9 -892.5 .0 1 -1074.2 .0 2 -1170.8 .0 3 -1264.2 .0 2 -1358.3 .0 2 -1454.2 .0 2 -1358.3 .0 2 -1454.8 .0 3 -1264.2 .0 2 -1358.3 .0 2 -1454.8 .0 3 -1264.2 .0 2 -1358.3 .0 2 -1454.8 .0 3 -1264.2 .0 2 -1358.8 .0 6 -22129.2 .0 0 -2231.7 .0 6 -2129.2 .0 0 -2231.7 .0 7 -22113.3 .0 6 -2129.2 .0 0 -2231.7 .0 7 -22113.3 .0 6 -2129.2 .0 0 -2231.7 .0 7 -2213.8 .0 8 -2001.7 .1 9 -2650.8 -1 1 -1 9 -2972.5 -1 8 -3080.8 -1 8 -1	kips STRESS ALLOW TorqZ ksi ksi CSR 0 .73 51.87 .014 .0 4.53 51.87 .067 .0 8.35 51.87 .161 .0 14.44 51.87 .278 .0 19.86 51.87 .383 .0 26.70 51.87 .605 .0 20.52 51.87 .396 .0 22.58 51.87 .435 .0 26.59 51.87 .513 .0 29.97 51.87 .578 .0 32.84 51.87 .633 .0 32.84 51.87 .720 .0 39.05 51.87 .753 .0 32.84 51.87 .781 .0 41.78 51.87 .7826 .0 39.05 51.87 .733 .0 42.86 51.87 .763 .0 39.14 51.87 .763 .0 39.91 51.87 .763		
DISPLACEMENTS	FCTION feet		-ROTATION, degrees		
X, ft X Y 179.00 .00 12.13	Z XY-Re 58 12.13<	esult ' X 6.77%> -7.69	Y Z XY-Result .00 .00 7.69		

SABRE COMMUNICATIONS CORP 2101 Murray Street	JOB: 10-01135 AMERICAN TOWER INC.	18-Jan-10 09:50 Ph 712.258.6690
Sioux City, IA 51101	Longbow, KY	Fx 712.258.8250
CASE - 3: Everyday Operating VERTICAL OLF ICE COVER STRESS REDUCTION STRESS AMPLIFY BASE ABOVE Grd	1.00 WIND SPEED .00 in GUST FACTOR .60 EXPOSURE COEFF. 1.33 Cf 1.00 ft REFERENCE HEIGHT	TIA/EIA-222-F 50.0 mph 80.5 kph 1.69 .2857 .650 33.0 ft
	PRESSURE @Ref.Ht	10.8 psf 518.Pa
APPURTENANCE LOADS	Center WEIGHT AREA Tx	-CABLE FORCES MOM.
<pre># Qty Description 1 1 User Defined Loading 2 1 User Defined Loading 3 1 User Defined Loading 4 1 User Defined Loading 1 RESULTS </pre>	Line each each Elev-Ft Lbs Ft^2 Type 179.0 1800 105.0 179.0 0 .0 1 5/8" 169.0 1800 105.0 169.0 0 .0 1 5/8" 159.0 1800 105.0 159.0 0 .0 1 5/8" 149.0 1800 105.0 149.0 0 .0 1 5/8"	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
ELEV. POLE WIND 1 FC X, ft X, ft psf ShearX 180.00 179.00 11.4 .0 175.00 174.00 11.3 .0 175.00 169.00 11.1 .0 165.00 164.00 11.1 .0 165.00 159.00 11.0 .0 155.00 154.00 10.9 .0 155.00 154.00 10.8 .0 142.75 141.75 10.7 .0 137.75 136.75 10.6 .0 142.75 141.75 10.7 .0 137.75 126.75 10.3 .0 127.75 126.75 10.3 .0 127.75 106.75 9.9 .0 102.75 101.75 9.7 .0 102.00 101.00 97 .0 102.00 101.00 9.7 .0 102.00 101.00 9.7 .0 102.00 101.00 9.7 .0	PRCES, kips MOMENTS, ft- ShearY AxiaZ BendX BendY 2.2 -4.0 1 .0 4.5 -8.2 -22.5 .0 4.6 -8.4 -45.0 .0 6.7 -12.3 -68.1 .0 6.8 -12.6 -101.8 .0 9.9 -16.5 -136.1 .0 9.0 -17.0 -156.1 .0 9.1 -17.6 -201.1 .0 9.2 -18.1 -246.7 .0 9.3 -18.6 -292.8 .0 9.4 -19.1 -339.4 .0 9.6 -19.6 -386.6 .0 9.7 -20.2 -434.3 .0 9.8 -20.8 -482.7 .0 9.9 -21.7 -588.4 .0 10.2 -23.6 -633.6 .0 10.3 -24.5 -684.3 .0 10.4 -25.3 -735.7 .0 10.5 -26.1 -787.7	kips STRESS ALLOW TorqZ ksi ksi CSR .0 .51 51.87 .010 .0 2.61 51.87 .050 .0 4.82 51.87 .093 .0 8.10 51.87 .156 .0 11.14 51.87 .215 .0 14.82 51.87 .286 .0 17.35 51.87 .334 .0 11.40 51.87 .220 .0 12.51 51.87 .241 .0 14.67 51.87 .283 .0 16.49 51.87 .318 .0 18.04 51.87 .318 .0 19.34 51.87 .373 .0 20.45 51.87 .441 .0 22.19 51.87 .428 .0 22.19 51.87 .428 .0 22.19 51.87 .428 .0 22.88 51.87 .441 .0 23.45 51.87 .452 .0 23.55 51.87 .454 .0 20.81 51.87 .401 .0 21.43 51.87 .421 .0 22.03 51.87 .425 .0 22.17 51.87 .427 .0 22.26 51.87 .427 .0 22.39 51.87 .427 .0 22.39 51.87 .447 .0 23.19 51.87 .446 .0 23.00 51.87 .443 .0 22.94 51.87 .444 .0 22.86 51.87 .444 .0 22.86 51.87 .444 .0 22.81 51.87 .440 BASE
X, ft X Y Z 179.00 00 6 59 - 1	XY-Result X 6.59< 3.68%> -4.17	Y Z XY-Result Allow

SABRE COMMUNICATIONS CORP 2101 Murray Street Sioux City. TA 51101	18-Jan-10 09:50 Ph 712.258.6690 Fx 712.258.8250							
SHAPE: 18 SIDED BOLTS: QUADRANT LOCATE:	POLYGON with FLAT-FLAT ORIEN' SPACED BOLTS 6.00 in. ON CEI	TATION NTER						
DIAMETER = 56.09 in. PLATE = .3750 in. TAPER = .2170 in/ft POLE Fy = 65.00 ksi	BASE AXIAL FORCE= -43 ACTIONS SHEAR X = 17 SHEAR Y = 21 X-AXIS MOM = 2709 Y-Axis MOM = 2709 Z-Axis MOM =	.3 kips Vert .3 kips Long .0 kips Tran .0 ft-kips Tran .0 ft-kips Long .0 ft-kips Vert						
DESIGN CASE = 1 Max Wind Design: ANY Orientation Reactions at 45.00 deg to X-AXIS								
BOLT LOADSAXIAL - COMPRESSION AXIAL - TENSION SHEAR= 186.62 kips 181.22 kips = 181.22 kips s 2.39 kips s 2.39 kips = 57.42 ksi = 57.42 ksi = 75.00 ksi = 100.00 ksiCSR CSR CSR CSR CSR SHEAR STRESS FA [.60 x 1.33]ALLOWSTRENGTH FU TENSION AREA REQUIRED TENSION AREA FURNISHED TENSION AREA FURNISHED= 3.12 in^2 3.07 in^2								
A615 ::: 16 Bolts on a 2.250 in. Diameter 12.00 in. Exposed	ANCHOR BOLT DESIGN USED 62.500 in. Bolt Circle 67.13 in. Embedded 84.00 in. Total Length	SHIP (lbs) 2185						
CONCRETE - Fc= 4000 psi								

ANCHOR BOLTS are STRAIGHT w\ UPLIFT NUT

BASE PLATE -----

[Bend Model:	Flat- 17]
YIELD STRENGTH	= 50.0 ksi
BEND LINE WIDTH	= 30.3 in.
PLATE MOMENT	= 1720.0 in-k
THICKNESS REQD	= 2.921 in.
BENDING STRESS	= 37.8 ksi
ALLOWABLE STRESS	= 39.9 ksi
[Fy x .60	0 x 1.33]
• 1	-

	BAS	E PLATE	USED	
3.00	in.	THICK		SHIP
61.00	in.	SQUARE		(lbs)
43.75	in.	CENTER	HOLE	1558
12.00	in.	CORNER	CLIP	

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LOAD CASE SUMMARY

						ABol	t-Str	Plate-	-Str		
FORCES-(kips)				MOME	MOMENTS-(ft-k)			Allow	Actual	Allow	_Design
L	Axial	ShearX	ShearY	X-axis	Y-axis	TorQ	CSR	ksi	ksi	ksi	Code
1	43.3	17.3	21.0	2436	2956	0	.960	59.85	37.84	39.90	EIA-F
2	47.8	13.9	16.8	1994	2419	0	.789	59.85	31.13	39.90	EIA-F
3	42.6	7.7	9.4	1089	1321	0	.436	59.85	17.21	39.90	EIA-F

AMERICAN TOWER® CORPORATION

8505 FREEPORT PARKWAY SUITE 135 IRVING, TX 75063 PHONE: (972) 999-8900 / FAX: (972) 999-8940

273937 - LONGBOW KY, KY

PROJECT DESCRIPTION:

FOUNDATION DESIGN FOR A 180' "SABRE" MONOPOLE

AS-BUILT SIGN-OFF					
DESCRIPTION	SIGNATURE	DATE			
CONTRACTOR NAME					
CONTRACTOR REPRESENTATIVE (PRINT NAME)					
CONTRACTOR REPRESENTATIVE (SIGNATURE)					
REDEVELOPMENT P.M. (PRINT NAME)					
REDEVELOPMENT P.M. (SIGNATURE)					

PROJECT SUMMARY

CUSTOMER: OPERATIONS STRUCTURAL

SITE NUMBER: 273937

SITE NAME: LONGBOW KY, KY

- SITE ADDRESS: 2755 PRINCETON ROAD HOPKINSVILLE, KY 42240
- PROPERTY OWNER: AMERICAN TOWER CORPORATION

ATC JOB NUMBER: 44511971

DATE: 1/21/10

REVISION: 0



I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the state of Kentucky.

DRAWING INDEX				
DRAWING NUMBER	DRAWING TITLE	REVISION		
BOM	BILL OF MATERIALS (1 PAGE)	0		
IGN	IBC GENERAL NOTES	0		
A-1	PIER AND PAD FOUNDATION DETAILS	0		
A-2	BAR LIST FOR REINFORCING STEEL AND GENERAL NOTES	0		

			BILL OF MATE	5			
QUANTITY REQUIRED	QUANTITY SHIPPED	PART NUMBER	DESCRIPTION	LENGTH	DRAWING NUMBER	WEIGHT (lbs)	(
			REBARS				
13		**	#5 REBARS, GRADE 40	21'-4 1/2"	A-1, A-2	290	
128			#10 REBARS, GRADE 60	30'-6"	Α-1, Α-2	1022	
20			#8 REBARS, GRADE 60	20'-0"	A-1, A-2	1068	
					······································		
					······		an a
					······		
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GENERAL

- 1 ALL METHODS MATERIALS AND WORKMANSHIP SHALL FOLLOW THE DICTATES OF GOOD CONSTRUCTION PRACTICE.
- 2. ALL WORK INDICATED ON THESE DRAWINGS SHALL BE PERFORMED BY QUALIFIED CONTRACTORS EXPERIENCED IN TOWER AND FOUNDATION CONSTRUCTION.
- 3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD IMMEDIATELY OF ANY INSTALLATION INTERFERENCES. ALL NEW WORK SHALL ACCOMMODATE EXISTING CONDITIONS. DETAILS NOT SPECIFICALLY SHOWN ON THE DRAWINGS SHALL FOLLOW SIMILAR DETAILS FOR THIS JOB
- 4. ANY SUBSTITUTIONS MUST CONFORM TO THE REQUIREMENTS OF THESE NOTES AND SPECIFICATIONS, AND SHOULD BE SIMILAR TO THOSE SHOWN. ALL SUBSTITUTIONS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO FARRICATION
- 5. ANY MANUFACTURED DESIGN ELEMENTS MUST CONFORM TO THE REQUIREMENTS OF THESE NOTES AND SPECIFICATIONS AND SHOULD BE SIMILAR TO THOSE SHOWN. THESE DESIGN ELEMENTS MUST BE STAMPED BY AN ENGINEER PROFESSIONALLY REGISTERED IN THE STATE OF THE PROJECT, AND SUBMITTED TO THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO FABRICATION.
- 6. ALL WORK SHALL BE DONE IN ACCORDANCE WITH LOCAL CODES AND OSHA SAFETY REGULATIONS.
- 7. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND EXECUTION OF ALL MISCELLANEOUS SHORING, BRACING, TEMPORARY SUPPORTS, ETC. NECESSARY TO PROVIDE A COMPLETE AND STABLE STRUCTURE AS SHOWN ON THESE DRAWINGS.
- 8. CONTRACTOR'S PROPOSED INSTALLATION SHALL NOT INTERFERE, NOR DENY ACCESS TO ANY EXISTING OPERATIONAL AND SAFETY EQUIPMENT
- 9.) FIELD CUT EDGES, EXCEPT DRILLED HOLES, SHALL BE GROUND SMOOTH.
- 10.) ALL FIELD CUT SURFACES SHALL BE REPAIRED WITH ZRC GALVALITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

APPLICABLE CODES AND STANDARDS

- 1. ANSI/TIA/EIA: STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES, 222-F EDITION.
- 2. KENTUCKY BUILDING CODE 2007 AND 2006 INTERNATIONAL BUILDING CODE
- 3. ACI 318: AMERICAN CONCRETE INSTITUTE, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, 318-05
- 4. CRSI: CONCRETE REINFORCING STEEL INSTITUTE, MANUAL OF STANDARD PRACTICE, LATEST EDITION.
- 5. AISC: AMERICAN INSTITUTE OF STEEL CONSTRUCTION, MANUAL OF STEEL CONSTRUCTION, LATEST EDITION.
- 6. STRUCTURAL CONNECTIONS TO BE ASSEMBLED AND INSPECTED IN ACCORDANCE WITH RCSC-2004 (SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR ASTM A490 BOLTS).
- 7, AWS: AMERICAN WELDING SOCIETY D1.1, STRUCTURAL WELDING CODE, LATEST EDITION.

STRUCTURAL STEEL

- 1. ALL DETAILING, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AISC SPECIFICATIONS, LATEST EDITION.
- 2. ALL EXPOSED STRUCTURAL STEEL MEMBERS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123. EXPOSED STEEL HARDWARE AND ANCHOR BOLTS SHALL BE GALVANIZED PER ASTM A153 OR B695
- 3. ALL U-BOLTS SHALL BE ASTM A307 OR EQUIVALENT, WITH LOCKING DEVICE. UNLESS NOTED OTHERWISE.

WELDING

- 1. ALL WELDING TO BE PERFORMED BY AWS CERTIFIED WELDERS AND CONDUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1.
- 2. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, U.N.O.
- 3. MINIMUM WELD SIZE TO BE 0 1875 INCH FILLET WELDS, UNLESS NOTED OTHERWISE
- 4 PRIOR TO FIELD WELDING GALVANIZED MATERIAL CONTRACTOR SHALL GRIND OFF GALVANIZING 1/2" BEYOND ALL FIELD WELD SURFACES. AFTER WELD AND WELD INSPECTION IS COMPLETE. REPAIR ALL GROUND AND WELDED SURFACES WITH ZRC GALVALITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

PAINT

7/8"

1"

1. AS REQUIRED, CLEAN AND PAINT PROPOSED STEEL ACCORDING TO FAA ADVISORY CIRCULAR AC 70/7460-1K

BOLT TIGHTENING PROCEDURE

- 1. TIGHTEN FLANGE BOLTS BY AISC "TURN OF THE NUT" METHOD, USING THE CHART BELOW:
- BOLT LENGTHS UP TO AND INCLUDING FOUR DIA.
- 3/4" BOLTS UP TO AND INCLUDING 4.0 INCH LENGTH +1/3 TURN BEYOND SNUG TIGHT +1/3 TURN BEYOND SNUG TIGHT 7/8" BOLTS UP TO AND INCLUDING 3.5 INCH LENGTH +1/3 TURN BEYOND SNUG TIGHT BOLTS UP TO AND INCLUDING 4.0 INCH LENGTH 1-1/8" BOLTS UP TO AND INCLUDING 4.5 INCH LENGTH +1/3 TURN BEYOND SNUG TIGHT 1-1/4" BOLTS UP TO AND INCLUDING 5.0 INCH LENGTH +1/3 TURN BEYOND SNUG TIGHT 1-1/2" BOLTS UP TO AND INCLUDING 6.0 INCH LENGTH +1/3 TURN BEYOND SNUG TIGHT
- BOLT LENGTHS OVER FOUR DIA. BUT NOT EXCEEDING 8 DIA. 3/4" BOLTS 4.25 TO 6.0 INCH LENGTH
 - BOLTS 3.75 TO 7.0 INCH LENGTH BOLTS 4.25 TO 8.0 INCH LENGTH
- 1-1/8" BOLTS 4,75 TO 9.0 INCH LENGTH
- 1-1/4" BOLTS 5.25 TO 10.0 INCH LENGTH
- 1-1/2" BOLTS 6.25 TO 12.0 INCH LENGTH
- +1/2 TURN REYOND SNUG TIGHT +1/2 TURN BEYOND SNUG TIGHT
- 2. SPLICE BOLTS SUBJECT TO DIRECT TENSION SHALL BE INSTALLED AND TIGHTENED AS PER SECTION 8(d)(1) OF THE AISC SPECIFICATION FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS, LOCATED IN THE AISC MANUAL OF STEEL CONSTRUCTION. THE INSTALLATION PROCEDURE IS PARAPHRASED AS FOLLOWS:

"FASTENERS SHALL BE INSTALLED IN PROPERLY ALIGNED HOLES AND TIGHTENED BY ONE OF THE METHODS DESCRIBED IN SUBSECTION 8(d)(1) THROUGH 8(d)(4).

8(d)(1) TURN-OF-THE-NUT TIGHTENING

BOLTS SHALL BE INSTALLED IN ALL HOLES OF THE CONNECTION AND BROUGHT TO A SNUG TIGHT CONDITION AS DEFINED IN SECTION 8 (c), UNTIL ALL THE BOLTS ARE SIMULTANEOUSLY SNUG TIGHT AND THE CONNECTION IS FULLY COMPACTED. FOLLOWING THIS INITIAL OPERATION ALL BOLTS IN THE CONNECTION SHALL BE TIGHTENED FURTHER BY THE APPLICABLE AMOUNT OF ROTATION SPECIFIED ABOVE. DURING THE TIGHTENING OPERATION THERE SHALL BE NO ROTATION OF THE PART NOT TURNED BY THE WRENCH. TIGHTENING SHALL PROGRESS SYSTEMATICALLY.

3. ALL OTHER BOLTED CONNECTIONS SHALL BE BROUGHT TO A SNUG TIGHT CONDITION AS DEFINED IN SECTION 8 (c) OF THE SPECIFICATION.

SPECIAL INSPECTION

- THE FOLLOWING CONSTRUCTION WORK: a) STRUCTURAL WELDING **b) HIGH STRENGTH BOLTS**
- 2. THE INSPECTION AGENCY SHALL SUBMIT INSPECTION AND TEST REPORTS TO THE WITH KENTUCKY BUILDING CODE 2007 AND IBC 2006, SECTION 1704, UNLESS THE THE SPECIAL INSPECTIONS.

1. A QUALIFIED INDEPENDENT TESTING LABORATORY, EMPLOYED BY THE OWNER, SHALL PERFORM INSPECTION AND TESTING IN ACCORDANCE WITH KENTUCKY BUILDING CODE 2007 AND IBC 2006, SECTION 1704 AS REQUIRED BY PROJECT SPECIFICATIONS FOR

BUILDING DEPARTMENT, THE ENGINEER OF RECORD, AND THE OWNER IN ACCORDANCE FABRICATOR IS APPROVED BY THE BUILDING OFFICIAL TO PERFORM SUCH WORK WITHOUT



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128 5TANE BAR NO 3 4 5 6 7 8 5	#8 #8 DARD RE LBS PEF .3735 .6576 1.043 1.502 2.045 2.045 2.670	30'-6" BAR SIZES & W R FT. DIA. INCHE .375 .500 .625 .750 .875 1.000	10424 /EIGHTS :S GRADE 40 60	STRAIGHT	A= 30'-6"	B B B B B B B B B B B B B B B B B B B B A A A A B B STANDARD REBAR HOOK LENGTHS 90° HOOK 135' HOOKS 5" 8" 7" 10" 9" 10" - 10" - 10" - 10" - 11'-0" - 11'-2" -
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GENERAL FOUNDATION CONSTRUCTION NOTES

- 1. ALL REBAR (HORIZONTAL & VERTICAL) SHALL BE SECURELY WIRE TIED TO PREVENT DISPLACEMENT DURING POURING OF CONCRETE.
- 2. CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS.
- REINFORCED CONCRETE CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH ACI STANDARDS 318.
- 4. MINIMUM CONCRETE COVER OVER REBAR IS 3".
- 5. BACKFILL SHALL BE SELECTED MATERIAL, WELL COMPACTED IN LAYERS NOT EXCEEDING 12".
- 6. BACKFILL SHALL BE PLACED SO AS TO PREVENT ACCUMULATION OF WATER AROUND THE FOUNDATION.
- 7. REINFORCING MATERIAL SHALL BE IN ACCORDANCE WITH ASTM SPECIFICATION A615-85.
- 8. ALL REBAR TO BE GRADE 60 (UNLESS NOTED).

FOUNDATION AND ANCHOR TOLERANCES

- 1. VERTICAL EMBEDMENTS OUT OF PLUMB: 1.0 DEGREE.
- 2. FOUNDATION OUT OF PLUMB: 1.0 DEGREE.
- DEPTH OF FOUNDATION: PLUS 3" (76mm) OR MINUS 0".
- 4. PROJECTIONS OF EMBEDMENTS: PLUS OR MINUS 1/4" (6mm).
- CONCRETE DIMENSIONS: PLUS OR MINUS 1" (25mm).
- 6. REINFORCING STEEL PLACEMENT: PLUS OR MINUS 1/2" INCLUDING CONCRETE COVER.

AMERICAN TOWER STRUCTURAL ENGINEERING 8505 FREEPORT PARKWAY SUITE 135 IRVING, TX 75063 (972) 999–8900 Tel. (972) 999–8900 Tel. (972) 999–8900 Tel. HISE ANT THESE DRAWNES AND/OR THE ACCOMPANYING SPECIFICATION AS UNSTRUMENTS OF SERVICE, AGE THE EXCULSIVE PROPERTY OF ANERGEM TOWER CORPORATION AND THEIR USE AND PUBLICATION SHALL BE RESTRICTED TO THE ORGANA. STREFT FOR WHICH THEY ARE PREVAED. REISES, REPRODUCTION OR PUBLICATION BY ANY METHOD, IN WHICH GO IN PART, IS PROVIDENTED EXCEPT BY WHITTEN PERAISSION FROM AMERICAN. TOWER CORPORATION THEY THE PROVIDENT PLANS AND/OR SPECIFICATIONS SHALL RELAW WITH AMERICAN TOWER CORPORATION WITHOUT PREMICICE AND VISIOL COMPACT WITH THEM SHALL CONSTITUTE PROM. FROM ENDERVICE OF ACCEPTANCE OF THESE RESTRICTIONS. REV. DESCRIPTION BY DATE FIRST ISSUE JL 1/21/10 SITE NUMBER: 273937 SITE NAME: LONGBOW KY, KY SITE ADDRESS: 2755 PRINCETON ROAD HOPKINSVILLE, KY 42240 ES 1228 17 VAL EN IONAL ET 22 DRAWN BY: JL CHECKED BY: HMA APPROVED BY: AS DATE DRAWN: 1/21/10 ATC JOB NO: 44511971 SHEET TITLE: BAR LIST FOR REINFORCING STEEL AND GENERAL NOTES SHEET NUMBER: REV #: A-2 \cap 0 N.T.S.

Exhibit E

Terracon

.

January 15, 2010

Nsoro MasTec, LLC 520 Airpark Center Drive Nashville, Tennessee 37217

Attention: Mr. Frank E. McGonagill, III

Regarding: Geotechnical Engineering Report Proposed 180' Monopole Tower Site Name: Longbow Site Number: 083G0235 Hopkinsville, Kentucky Terracon Project No. 18107302

Dear Mr. McGonagill:

Terracon Consultants, Inc. (Terracon) has completed the geotechnical engineering services for the above referenced project. This report presents the findings of the subsurface exploration and provides geotechnical recommendations concerning earthwork and the design and construction of foundations for the proposed project.

Terracon's geotechnical design parameters and recommendations within this report apply to the existing planned tower height and would apply to adjustments in the tower height, up to a 20% increase or decrease in height, as long as the type of tower does not change. If changes in the height of the tower dictate a change in tower type (i.e. monopole to self-support), Terracon should be contacted to evaluate our recommendations with respect to these changes.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning this report, or if we may be of further service, please contact us.

Sincerely, Terracon Consultants, Inc.

Samuel Vance, P.E.

Geotechnical Manager

Copies Addressee: 1 hard copy and pdf



Terracon Consultants, Inc. 5217 Linbar Drive, Suite 309 Nashville, TN 37211-1018 P [615] 333 6444 F [615] 333 6443 terracon.com

TABLE OF CONTENTS

	Pag	е
1.0	PROJECT INFORMATION	1
1.1	Project Description	1
1.2	Site Location and Description	1
2.0	SUBSURFACE CONDITIONS	2
2.1	Geology	2
2.2	Typical Profile	2
2.3	Groundwater	2
3.0	RECOMMENDATIONS FOR DESIGN AND CONSTRUCTION	3
3.1	Geotechnical Considerations	3
3.2	Foundation Recommendations	3
3	.2.1 Drilled Pier Foundation System	3
3	.2.2 Shallow Buried Foundation System	5
3	.2.3 Equipment Building/Cabinet Foundations	6
3.3	Earthwork	6
3	.3.1 Compaction Requirements	7
3	.3.2 Construction Considerations	7
4.0	GENERAL COMMENTS	8

APPENDIX

Boring Location Plan Boring Log Field Exploration and Laboratory Testing General Notes Unified Soil Classification General Notes - Sedimentary Rock Classification

GEOTECHNICAL ENGINEERING REPORT PROPOSED 180' MONOPOLE TOWER LONGBOW TOWER - #083G0235 HOPKINSVILLE, CHRISTIAN COUNTY, KENTUCKY Terracon Project No. 18107302 January 15, 2010

1.0 PROJECT INFORMATION

1.1 **Project Description**

ITEM	DESCRIPTION		
Site layout	See Appendix A, Figure 1, Boring Location Diagram		
Site Dimensions	About 100 feet by 100 feet		
Tower	Monopole, 180 feet tall		
	Vertical: 40 kips (assumed)		
Maximum loads	Shear: 30 kips (assumed)		
	Moment: 3,600 kip-ft (assumed)		
Maximum allowable settlement	1-inch (assumed)		
Equipment Building:	Column: 25 kips (assumed)		
Maximum Loads	Wall: 1.5 kips/ft (assumed)		
Equipment Building:	Total Settlement: 1-inch (assumed)		
Maximum allowable settlement	Differential Settlement: 3/4 inch over 40 feet (assumed)		
Creding	Cut: 2 feet (+/-) max (assumed)		
Grading	Fill: 2 feet (+/-) max (assumed)		

1.2 Site Location and Description

ITEM	DESCRIPTION
Location	2755 Princeton Drive, Hopkinsville, Kentucky
Existing improvements	Undeveloped pasture
Current ground cover	Grass and weeds
Existing topography	Gently sloping, open ground with about 5 feet of topographic relief across the lease area



2.0 SUBSURFACE CONDITIONS

2.1 Geology

FORMATION ¹	DESCRIPTION
Renault Limestone	Light to medium gray limestone, fine to medium gray, thick to thin bedded, argillaceous, occasionally fossiliferous
1. According to the Kentu	cky Geological Survey internet database.

2.2 Typical Profile

The boring was drilled at the approximate tower location near the labeled ('center of tower') survey stake. Based on the boring results, the subsurface conditions on the project site can be generalized as follows:

Description	Approximate Depth to Bottom of Stratum (feet)	Material Encountered	Consistency/Density	
Surface	1⁄4	Topsoil	N/A	
Stratum 1	3 1/2	Fat Clay	Stiff	
Charlen 2	40.1/	Thin bedded limestone	Recovery = 96%	
Stratum 2	18 72	with shale seams	RQD = 82%	

Specific conditions encountered at the boring location are indicated on the attached boring log. Stratification boundaries on the boring log represent the approximate location of changes in soil and rock types; in-situ, the transition between materials may be gradual. Further details of the boring can be found on the boring log in the Appendix of this report.

2.3 Groundwater

No groundwater was encountered during the auger drilling portion of the borehole. Water was used to advance the borehole during rock coring operations. The introduction of water into the borehole precluded obtaining accurate groundwater level readings at the time of coring operations.

Fluctuations in the groundwater table can occur and perched water can develop over low permeability soil or rock strata following periods of heavy or prolonged precipitation. This possibility should be considered when developing design and construction plans and specifications for the project. Long term monitoring in cased holes or piezometers would be necessary to accurately evaluate the potential range of groundwater conditions on the site.



3.0 RECOMMENDATIONS FOR DESIGN AND CONSTRUCTION

3.1 Geotechnical Considerations

Based on the encountered subsurface conditions, a drilled pier or buried footing foundation is suitable for support of the proposed tower. The lightly loaded equipment building can be supported on shallow spread footings. Drilled pier and shallow foundation recommendations are presented in the following paragraphs.

3.2 Foundation Recommendations

3.2.1 Drilled Pier Foundation System

The proposed tower can be founded on a straight shaft drilled pier foundation system. Based on the results of field and laboratory testing, we have developed the following drilled pier design parameters.

Approximate Depth (feet) ¹	Allowable Skin Friction (psf)	Allowable End Bearing Pressure (psf)	Allowable Passive Pressure (psf)	Cohesion (psf)	Internal Angle of Friction (Degrees)	Strain ϵ_{50}	Lateral Subgrade Modulus (pci)
0 - 3 1/2	Ignore	Ignore	Ignore	Ignore	Ignore	Ignore	Ignore
Limestone 3 ½ – 18 ½	5,000 ²	40,000	10,000 ²	100,000 ²		0.00001	3,000

1. Pier observation is recommended to adjust pier length if variable soil/rock conditions are encountered. A total unit weight of 120 and 150 pcf can be assumed for the clay and limestone bedrock, respectively.

2. The parameters have been reduced to take into account the shallow overburden. The pier should be embedded a minimum of 3 feet into competent limestone to mobilize these higher rock strength parameters. Furthermore, it is assumed the rock socket will be extended using coring techniques rather than blasting/shooting.

The above indicated cohesion, friction angle, lateral subgrade modulus and strain values have no factors of safety, and the allowable skin friction and the passive resistances have a factor of safety of about 2. The cohesion, internal friction angle, lateral subgrade modulus and strain values given in the above table are based on our boring, published values, and our past experience with similar soil and rock types. These values should, therefore, be considered approximate. To mobilize the higher rock strength parameters, the pier should be socketed at least 3 feet into bedrock. Furthermore, it is assumed that the rock socket is developed using coring rather than blasting techniques. The allowable end bearing pressure provided in the table has an approximate factor of safety of at least 3. If the drilled pier is designed using the above parameters and bears within the limestone bedrock, settlements are not anticipated to exceed ½ inch.
Geotechnical Engineering Report

Proposed 180' Monopole Telecommunication Tower
Hopkinsville, Kentucky January 15, 2010 Terracon Project Number 18107302



The upper 3 ½ feet of lean clay should be ignored due to the potential affects of frost action and construction disturbance. To avoid a reduction in lateral and uplift resistance caused by variable bedrock depths and bedrock quality, it is recommended that a minimum pier length and minimum competent rock socket length be stated on the design drawings. Competent rock was encountered in our boring below a depth of about 3 ½ feet, but could vary if the tower is moved from the location of our boring, or if significant grade changes occur at the site. If the tower center is moved more than 25 feet, our office should be notified to review our recommendations and determine whether an additional boring is required. To facilitate pier length adjustments that may be necessary because of variable rock conditions, it is recommended that a Terracon representative observe the drilled pier excavation.

A drilled pier foundation should be designed with a minimum shaft diameter of 30 inches to facilitate clean out and possible dewatering of the pier excavation. Temporary casing may be required during the pier excavation in order to control possible groundwater seepage and support the sides of the excavation in weak soil zones. Care should be taken so that the sides and bottom of the excavations are not disturbed during construction. The bottom of the shaft should be free of loose soil or debris prior to reinforcing steel and concrete placement.

A concrete slump of at least 6 inches is recommended to facilitate temporary casing removal. It should be possible to remove the casing from a pier excavation during concrete placement provided that the concrete inside the casing is maintained at a sufficient level to resist any earth and hydrostatic pressures outside the casing during the entire casing removal procedure.



3.2.3 Equipment Building/Cabinet Foundations

DESCRIPTION	VALUE	
Foundation Subgrade ¹	Suitable stable natural soil or low volume change engineered fill	
Net allowable bearing pressure ²	1,500 psf	
Minimum footing sizes Isolated:	2 feet by 2 feet	
Wall :	16 inches wide	
Coefficient of sliding friction	0.35	
Minimum embedment below finished grade for frost protection ³	18 inches	
Approximate total settlement ⁴	1 inch	

1. A geotechnical engineer should verify footing subgrade prior to concrete placement.

2. Assumes any soft or unsuitable soils, if encountered, will be undercut and replaced with approved engineered fill. The recommended net allowable bearing pressure is the pressure in excess of the minimum surrounding overburden pressure at the footing base elevation.

3. For perimeter footing and footings beneath unheated areas.

4. The foundation settlement will depend upon the variations within the subsurface soil profile, the structural loading conditions, the embedment depth of the footings, the thickness of any compacted fill, and the quality of the earthwork operations.

3.3 Earthwork

Site preparation should begin with removal of topsoil, vegetation, organics and any soft or otherwise unsuitable materials from the entire construction area. We recommend the actual stripping depth along with any soft soils that will require undercutting be evaluated by the geotechnical engineer at the time of construction. Engineered fill should meet the following material property requirements:

Fill Type ¹	USCS Classification	Acceptable Location for Placement ¹
Lean clay	CL (LL<40 & PI<22)	Beneath equipment building and access road all elevations
Well graded granular material	GW, SW, SM, and SC 2	All locations and elevations
On-site soils	CL/CH	Beneath equipment building and access road all elevations

Controlled, compacted fill should consist of approved materials that are free of organic matter and debris. Frozen
material should not be used, and fill should not be placed on a frozen subgrade. A sample of each material type
should be submitted to the geotechnical engineer for evaluation. Any fill to be placed beneath the tower footing
should consist of well graded granular material.

2. Similar to crushed limestone or limestone screenings or granular material such as sand, gravel or crushed stone.



3.3.1 Compaction Requirements

Fill Lift Thickness	9-inches or less in loose thickness
Compaction Requirements ¹	98% of the materials standard Proctor maximum dry density (ASTM D-698)
Moisture Content – Granular Material	Workable moisture levels ²
Moisture Content – Cohesive Soil	Within the range of optimum moisture content to 3% above optimum moisture content as determined by the standard Proctor test at the time of placement

- 1. We recommend that engineered fill be tested for moisture content and compaction during placement. Should the results of the in-place density tests indicate the specified moisture or compaction limits have not been met, the area represented by the test should be reworked and retested as required until the specified moisture and compaction requirements are achieved.
- 2. Specifically, moisture levels should be maintained low enough to allow for satisfactory compaction to be achieved without the cohesionless fill material pumping when proofrolled.

3.3.2 Construction Considerations

Although the exposed subgrade is anticipated to be relatively stable upon initial exposure, unstable subgrade conditions could develop during general construction operations, particularly if the soils are wetted and/or subjected to repetitive construction traffic. The use of light construction equipment would aid in reducing subgrade disturbance. Should unstable subgrade conditions develop, stabilization measures will need to be employed.

Construction traffic over the completed subgrade should be avoided to the extent practical. The site should also be graded to prevent ponding of surface water on the prepared subgrades or in excavations. If the subgrade should become frozen, desiccated, saturated, or disturbed, the affected material should be removed or these materials should be scarified, moisture conditioned, and recompacted.

As a minimum, all temporary excavations should be sloped or braced as required by Occupational Health and Safety Administration (OSHA) regulations to provide stability and safe working conditions. Temporary excavations will probably be required during grading operations. The grading contractor, by his contract, is usually responsible for designing and constructing stable, temporary excavations and should shore, slope or bench the sides of the excavations as required, to maintain stability of both the excavation sides and bottom. All excavations should comply with applicable local, state and federal safety regulations, including the current OSHA Excavation and Trench Safety Standards.

The geotechnical engineer should be retained during the construction phase of the project to observe earthwork and to perform necessary tests and observations during subgrade preparation; proof-rolling; placement and compaction of controlled compacted fills; backfilling of excavations into the completed subgrade, and just prior to construction of foundations.

Geotechnical Engineering Report Proposed 180' Monopole Telecommunication Tower I Hopkinsville, Kentucky January 15, 2010 Terracon Project Number 18107302



4.0 GENERAL COMMENTS

Terracon should be retained to review the final design plans and specifications so comments can be made regarding interpretation and implementation of our geotechnical recommendations in the design and specifications. Terracon also should be retained to provide observation and testing services during grading, excavation, foundation construction and other earth-related construction phases of the project.

The analysis and recommendations presented in this report are based upon the data obtained from the boring performed at the indicated location and from other information discussed in this report. This report does not reflect variations that may occur across the site, or due to the modifying effects of weather. The nature and extent of such variations may not become evident until during or after construction. If variations appear, we should be immediately notified so that further evaluation and supplemental recommendations can be provided.

The scope of services for this project does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

This report has been prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted geotechnical engineering practices. No warranties, either express or implied, are intended or made. Site safety, excavation support, and dewatering requirements are the responsibility of others. In the event that changes in the nature, design, or location of the project as outlined in this report are planned, the conclusions and recommendations contained in this report shall not be considered valid unless Terracon reviews the changes and either verifies or modifies the conclusions of this report in writing.

APPENDIX



\bigcap	LOG OF BOR	RING	NC). E	3-1					Pa	age 1 of 1
CLI	ENT Neoro LLC										
SIT	E Site #083G0235	PRO	JEC	T		180)' Mon	opole	Towe	er	
	Hopkinsville, Kentucky	Longbow Site									
					SAN	APLES	3			TESTS	
GRAPHIC LOG	DESCRIPTION Approx. Surface Elev.: 591 ft	DEPTH, ft.	USCS SYMBOL	NUMBER	ТҮРЕ	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	ATTERBERG LIMITS
	0.2 \ <u>TOPSOIL</u>										
	<u>FAT CLAY</u> , trace fine roots, brown, stiff, moist		СН	1	SS		10			4000*	LL=51 PL=27 PI=24
	3.5 587.5	-			00	0004	DOD				
	AUGER REFUSAL <u>LIMESTONE</u> , slightly, & occasionally, moderately weathered, with shale seams & partings, light to medium gray, hard, thin bedded vertical fracture from 3.5 to 4.3 ft. diagonal fracture at 6.2 ft.			K-1	DR	96%	82%				
	diagonal fracture at 16 ft. 18.5 572.5 CORING TERMINATED										
KAUON.G											
The	e stratification lines represent the approximate boundary lines			deneration	-	-		*(Calibra	ted Hand	Penetrometer
bet	ween soil and rock types: in-situ, the transition may be gradual.	an an an a				ROP		тдрт	FD	1	1_7_10
						BOR			FTER)	1_7_10
		36		276 A		BUR		Tet			N EI/IC
Y WL				1999		APP	ROVE	D	SV	IOB #	18107302

Field Exploration Description

The boring was drilled at the near the tower center as staked in the field by the owner's representative. The approximate boring location is shown on the enclosed boring location plan. The surface elevation shown on the boring log was obtained from the site plan prepared by Sharondale Surveying, Inc.

Drilling was performed using a truck mounted rotary drill rig. Hollow stem augers were initially used to advance the borehole. One soil sample was obtained by the split-barrel sampling procedure. In the split-barrel sampling procedure, the number of blows required to advance a standard 2-inch O.D. split-barrel sampler the last 12 inches of the typical total 18-inch penetration by means of a 140-pound hammer with a free fall of 30 inches, is the standard penetration resistance value (N). This value is used to estimate the in-situ relative density of cohesionless soils and the consistency of cohesive soils. The sampling depths and penetration distance, plus the standard penetration resistance values, are shown on the boring log. The samples were sealed and returned to the laboratory for testing and classification.

Auger refusal was encountered at a depth of about 3 ½ feet. Below this depth, the boring was advanced into the refusal materials using a diamond bit attached to the outer barrel of a double core barrel. The inner barrel collected the cored material as the outer barrel was rotated at high speeds to cut the rock. The barrel was retrieved to the surface upon completion of each drill run. Once the core samples were retrieved, they were placed in a box and logged. The rock was later classified by an engineer and the "percent recovery" and rock quality designation (RQD) were determined.

The "percent recovery" is the ratio of the sample length retrieved to the drilled length, expressed as a percent. An indication of the actual in-situ rock quality is provided by calculating the sample's Rock Quality Designation (RQD), which is the ratio of the cumulative length of 4-inch or longer cores (discounting mechanical breaks) to the drilled length. The percent recovery and RQD are related to rock soundness and quality as illustrated below:

Relation of RQD and In-situ Rock Quality				
RQD (%)	Rock Quality			
90 - 100	Excellent			
75 - 90	Good			
50 - 75	Fair			
25 - 50	Poor			
0 -25	Very Poor			

A field log of the boring was prepared by the drill crew. This log included visual classifications of the materials encountered during drilling as well as the driller's interpretation of the subsurface conditions between samples. The final boring log included with this report represents an interpretation of the field log and includes modifications based on laboratory observation and tests of the samples.

The soil samples were classified in the laboratory based on visual observation, texture and plasticity. The descriptions of the soils indicated on the boring log are in general accordance with the enclosed General Notes and the Unified Soil Classification System. Estimated group symbols according to the Unified Soil Classification System are given on the boring log. A brief description of this classification system is attached to this report.

Classification and descriptions of rock core samples are in general accordance with the enclosed General Notes, and are based on visual and tactile observations. Petrographic analysis of thin sections may indicate other rock types. Percent recovery and rock quality designation (RQD) were calculated for these samples and are noted at their depths of occurrence on the boring log.

Laboratory Testing

The laboratory testing program consisted of performing water content tests and one Atterberg Limits test on the available soil sample. A calibrated hand penetrometer was used to estimate the approximate unconfined compressive strength of the sample. The calibrated hand penetrometer has been correlated with unconfined compression tests and provides a better estimate of soil consistency than visual examination alone. Information from these tests was used in conjunction with field penetration test data to evaluate soil strength in-situ, volume change potential, and soil classification. Results of these tests are provided on the boring log at the appropriate horizon.

GENERAL NOTES

DRILLING & SAMPLING SYMBOLS:

- SS: Split Spoon $-1-\frac{3}{8}$ " I.D., 2" O.D., unless otherwise noted
- ST: Thin-Walled Tube - 2" O.D., unless otherwise noted

Ring Sampler - 2.42" I.D., 3" O.D., unless otherwise noted

- PA: Power Auger
- HA: Hand Auger

HS:

DB: Diamond Bit Coring - 4", N, B

RS:

BS: Bulk Sample or Auger Sample

- RB: Rock Bit
- WB: Wash Boring or Mud Rotary

Hollow Stem Auger

The number of blows required to advance a standard 2-inch O.D. split-spoon sampler (SS) the last 12 inches of the total 18-inch penetration with a 140-pound hammer falling 30 inches is considered the "Standard Penetration" or "N-value".

WATER LEVEL MEASUREMENT SYMBOLS:

WL:	Water Level	WS:	While Sampling	N/E:	Not Encountered
WCI:	Wet Cave in	WD:	While Drilling		
DCI:	Dry Cave in	BCR:	Before Casing Removal		
AB	After Boring	ACR:	After Casing Removal		

Water levels indicated on the boring logs are the levels measured in the borings at the times indicated. Groundwater levels at other times and other locations across the site could vary. In pervious soils, the indicated levels may reflect the location of groundwater. In low permeability soils, the accurate determination of groundwater levels may not be possible with only short-term observations.

DESCRIPTIVE SOIL CLASSIFICATION: Soil classification is based on the Unified Classification System. Coarse Grained Soils have more than 50% of their dry weight retained on a #200 sieve; their principal descriptors are: boulders, cobbles, gravel or sand. Fine Grained Soils have less than 50% of their dry weight retained on a #200 sieve; they are principally described as clays if they are plastic, and silts if they are slightly plastic or non-plastic. Major constituents may be added as modifiers and minor constituents may be added according to the relative proportions based on grain size. In addition to gradation, coarse-grained soils are defined on the basis of their in-place relative density and fine-grained soils on the basis of their consistency.

CONSISTENCY OF FINE-GRAINED SOILS

RELATIVE DENSITY OF COARSE-GRAINED SOILS

Unconfined Compressive Strength, Qu, psf	<u>Standard Penetration</u> or N-value (SS) <u>Blows/Ft.</u>	<u>Consistency</u>	<u>Standard Penetration</u> or N-value (SS) <u>Blows/Ft.</u>	<u>Ring Sampler (RS)</u> <u>Blows/Ft.</u>	Relative Density
< 500	<2	Very Soft	0-3	0-6	Very Loose
500 – 1,000	2-3	Soft	4 – 9	7-18	Loose
1,001 – 2,000	4-6	Medium Stiff	10 – 29	19-58	Medium Dense
2,001 - 4,000	7-12	Stiff	30 – 49	59-98	Dense
4,001 - 8,000	13-26	Very Stiff	50+	99+	Very Dense
8.000+	26+	Hard			-

RELATIVE PROPORTIONS OF SAND AND GRAVEL

Descriptive Term(s) of other	Percent of
Constituents	Dry Weight
Trace	< 15
With	15 — 29
Modifier	> 30

8,000+

DELATIVE DEODODITIONO OF FINES

RELATIVE PROPORTION	15 OF FINES
Descriptive Term(s) of other	Percent of
Constituents	Dry Weight
Trace	< 5
With	5 – 12
Modifiers	> 12

GRAIN SIZE TERMINOLOGY

<u>Major Component</u> of Sample	Particle Size			
Boulders	Over 12 in. (300mm)			
Cobbles	12 in. to 3 in. (300mm to 75 mm)			
Gravel	3 in. to #4 sieve (75mm to 4.75 mm)			
Sand	#4 to #200 sieve (4.75mm to 0.075mm			
Silt or Clay	Passing #200 Sieve (0.075mm)			

PLASTICITY DESCRIPTION

Term	<u>Plasticity</u> Index	
Non-plastic	0	
Low	1-10	
Medium	11-30	
High	30+	

나는 같은 문문 문문을 받는					Bara d	Soil Classification
Criteria for Assig	ning Group Symbols	and Group Name	s Using Laboratory Test	ts^	Group Symbol	Group Name ^B
	Gravels:	Clean Gravels:	$Cu \ge 4$ and $1 \le Cc \le 3^{E}$		GW	Well-graded gravel F
	More than 50% of	Less than 5% fines ^c	Cu < 4 and/or 1 > Cc > 3 ^E		GP	Poorly graded gravel F
	coarse fraction rotained an	Gravels with Fines:	Fines classify as ML or MH		GM	Silty gravel F,G, H
Coarse Grained Soils:	No. 4 sieve	More than 12% fines ^c	Fines classify as CL or CH	****	GC	Clayey gravel F,G,H
on No. 200 sieve	Sands: 50% or more of coarse fraction passes No. 4 sieve	Clean Sands:	$Cu \ge 6$ and $1 \le Cc \le 3^{E}$		SW	Well-graded sand
01110.200 3670		Less than 5% fines ^D	Cu < 6 and/or 1 > Cc > 3 ^E	SP	Poorly graded sand	
		Sands with Fines: More than 12% fines ^D	Fines classify as ML or MH		SM	Silty sand G,H,I
			Fines Classify as CL or CH		SC	Clayey sand G,H,I
		Inorganic:	PI > 7 and plots on or above "A" line ^J		CL	Lean clay K,L,M
	Silts and Clays:		PI < 4 or plots below "A" line ^J		ML	Silt ^{KL,M}
	Liquid limit less than 50	Organic	Liquid limit - oven dried	.0.75	OI	Organic clay K.L.M.N
Fine-Grained Soils:		Organic.	Liquid limit - not dried	0.75	UL	Organic silt KLM,0
No. 200 sieve		Inorganic	PI plots on or above "A" line		СН	Fat clay KLM
	Silts and Clays:	morganic.	PI plots below "A" line		MH	Elastic Silt K.L.M
	Liquid limit 50 or more	Organic	Liquid limit - oven dried	0.75	ОЧ	Organic clay K.L.M.P
		organic.	Liquid limit - not dried	0.75	On	Organic silt K.L.M.Q
Highly organic soils:	Primaril	y organic matter, dark in	color, and organic odor		PT	Peat
 ^A Based on the material p ^B If field sample contained or boulders, or both" to g ^C Gravels with 5 to 12% fi gravels with 5 to 12% fi 	assing the 3-in. (75-mm) s d cobbles or boulders, or b group name. nes require dual symbols: well-graded gravel with cla	ieve oth, add "with cobbles GW-GM well-graded av. GP-GM poody	 ^H If fines are organic, add "\ ^I If soil contains ≥ 15% grav ^J If Atterberg limits plot in si ^K If soil contains 15 to 29% gravel "whichever is pred 	with organ vel, add " haded are plus No.	nic fines" to with grave ea, soil is a 200, add "	o group name. I" to group name. a CL-ML, silty clay. with sand" or "with

gravel," whichever is predominant. graded gravel with silt, GP-GC poorly graded gravel with clay. ^D Sands with 5 to 12% fines require dual symbols: SW-SM well-graded

^L If soil contains ≥ 30% plus No. 200 predominantly sand, add "sandy" to group name.

^M If soil contains ≥ 30% plus No. 200, predominantly gravel, add "gravelly" to group name. N Pl \geq 4 and plots on or above "A" line.

- ^o PI < 4 or plots below "A" line.
 ^P PI plots on or above "A" line.
- ^Q PI plots below "A" line.



sand with silt, SP-SC poorly graded sand with clay

^E Cu = D₆₀/D₁₀ Cc = $\frac{(D_{30})^2}{D_{10} \times D_{60}}$

sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded



GENERAL NOTES

Sedimentary Rock Classification

DESCRIPTIVE ROCK CLASSIFICATION:

	Sedimentary rocks are composed of cemented clay, silt and sand sized particles. The most common minerals are clay, quartz and calcite. Rock composed primarily of calcite is called limestone; rock of sand size grains is called sandstone, and rock of clay and silt size grains is called mudstone or claystone, siltstone, or shale. Modifiers such as shaly, sandy, dolomitic, calcareous, carbonaceous, etc. are used to describe various constituents. Examples: sandy shale; calcareous sandstone.
LIMESTONE	Light to dark colored, crystalline to fine-grained texture, composed of CaCo ₂ ; reacts readily with HCl.
DOLOMITE	Light to dark colored, crystalline to fine-grained texture, composed of CaMg(CO ₃) ₂ , harder than limestone, reacts with HCI when powdered.
CHERT	Light to dark colored, very fine-grained texture, composed of micro-crystalline quartz (Si0 ₂), brittle, breaks into angular fragments, will scratch glass.
SHALE	Very fine-grained texture, composed of consolidated slit or clay, bedded in thin layers. The unlaminated equivalent is frequently referred to as slitstone, claystone or mudstone.
SANDSTONE	Usually light colored, coarse to fine texture, composed of cemented sand size grains of quartz, feldspar, etc. Cement usually is silica but may be such minerals as calcite, iron-oxide, or some other carbonate.
CONGLOMERATE	Rounded rock fragments of variable mineralogy varying in size from near sand to boulder size but usually pebble to cobble size (1/2 inch to 6 inches). Cemented together with various comen- ting agents. Breccia is similar but composed of angular, fractured rock particles comented logether.

PHYSICAL PROPERTIES:

DEGREE OF WEATHERING

BEDDING AND JOINT CHARACTERISTICS

Slight	Slight decomposition of parent material on joints. May be color change.	Bed Thickness Very Thick Thick	Joint Spacing Very Wide Wide	Dimensions > 10' 3' - 10'
Moderate	Some decomposition and color change throughout.	Medium Thin Very Thin	Moderately Close Close Verv Close	1' - 3' 2" - 1' 4" - 2"
High	Rock highly decomposed, may be ex-	Laminated		.1"
	tremely broken.	Bedding Plane	A plane dividing sedi the same or differen	mentary rocks of nt lithology,
HARDNESS AND	DEGREE OF CEMENTATION	Joint	Fracture in rock, generally more or	
Limestone and Do	plomite:		less vertical or transverse to bedding, along which no appreciable move.	
Hard	Difficult to scratch with knife.		ment has occurred.	
Moderately Hard	Can be scratched casily with knife, cannot be scratched with fingernail.	Seam	Generally applies to with an unspecif	bedding plane led degree of
Soft	Can be scratched with fingernall.		weathering.	
Shale, Siltstone a	nd Claystone		1100.000 (at all a sub-sub-sub-sub-sub-sub-	
Hard	Can be scratched easily with knife,	SOLUTION AND VOID CONDITIONS		
	cannot be scratched with fingernail.	Salid	Contains no voids.	
Moderately Hard	Can be scratched with fingernail.	Vuggy (Pitted)	Rock having small cavities up to 1/2 ind quently with a mine	solution pits or ch diameter, fre- ant liping
Soft	Can be easily dented but not molded with fingers.	Porous	Containing numerou other openings, wh	s voids, pores, or ich may or may
Sandstone and Conglomerate			not interconnect.	
Well Cemented	Capable of scratching a knife blade.	Cavernous	Containing cavities of times quite large.	or caverns, some-
Cemented	Can be scratched with knife.			
Poorly Cemented	Can be broken apart easily with lingers.			
-				con_

Exhibit F



Competing Utilities, Corporations or Persons

American Towers
Crown Communication
SBA Towers
Verizon
Sprint / Nextel
T-Mobile
Bluegrass Cellular
Shared Sites
Cricket
Pegasus Towers ,

Exhibit G



Federal Aviation Administration Air Traffic Airspace Branch, ASW-520 2601 Meacham Blvd. Fort Worth, TX 76137-0520 Aeronautical Study No. 2010-ASO-294-OE

Issued Date: 04/06/2010

Lottie Thompson American Tower-Schaumburg, IL 1101 Perimeter Drive Schaumburg, IL 60173

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

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

Structure:	Antenna Tower Longbow, KY 273937
Location:	Hopkinsville, KY
Latitude:	36-53-09.40N NAD 83
Longitude:	87-31-25.73W
Heights:	185 feet above ground level (AGL)
	776 feet above mean sea level (AMSL)

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

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

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

___X__ Within 5 days after the construction reaches its greatest height (7460-2, Part II)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking and/or lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

While the structure does not constitute a hazard to air navigation, it would be located within or near a military training area and/or route.

This determination expires on 10/06/2011 unless:

- (a) extended, revised or terminated by the issuing office.
- (b) 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.

Frequency Data for ASN 2010-ASO-294-OE

LOW	HIGH	FREQUENCY		ERP
FREQUENCY	FREQUENCY	UNIT	ERP	UNIT
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	dBW
935	940	MHz	1000	W
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

Exhibit H

ULS License Cellular License - KNKA576 - NEW CINGULAR WIRELESS PCS, LLC

PA This license has pending applications: 0004078789

Five Year Buildout Date			
Effective	03/16/2010	Cancellation	
Grant	08/15/2006	Expiration	10/01/2016
Dates			
Submarket	0	Phase	2
Market	CMA209 - Clarksville- Hopkinsville, TN/KY	Channel Block	В
Market			
Status	Active	Auth Type	Regular
Call Sign	KNKA576	Radio Service	CL - Cellular

09/03/1992

Control Points

 1
 2627 Brick Church Pike, Nashville, TN

 P: (615)262-6841

Licensee

FRN	0003291192	Туре	Limited Liability Company
Licensee			
NEW CINGULAR 5601 LEGACY D PLANO, TX 7502 ATTN FCC Grou	WIRELESS PCS, LLC RIVE, MS: A-3 24 p	P: (469)229-74 F:(469)229-729 E:LG5201@ATT	71 97 .COM

Contact

Ownership and Qualifications

Radio Service Mobile Type

Regulatory Status Common Carrier Interconnected Yes

Alien Ownership

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

Exhibit I

Prepared by: Briggs Law Office, PSC (502) 412-9222





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Market: <u>SOUTH/TN-KY</u> Cell Site Number: <u>083G0235</u> Cell Site Name: NAS <u>Longbow</u> Fixed Asset Number:10118444

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OPTION AND LEASE AGREEMENT

THIS OPTION AND LEASE AGREEMENT ("Agreement"), dated as of the latter of the signature dates below (the "Effective Date"), is entered into by Northwest Baptist Church of Christian County, Inc., a Kentucky corporation, having a mailing address of 2755 Princeton Road, Hopkinsville, Kentucky 42240 hereinafter referred to as "Landlord") and New Cingular Wireless PCS, LLC, a Delaware limited liability company, having a mailing address of 12555 Cingular Way, Alpharetta, Georgia 30004 (hereinafter referred to as "Tenant").

BACKGROUND

Landlord owns or controls that certain plot, parcel or tract of land, together with all rights and privileges arising in connection therewith, located on Princeton Rd., in the County of Christian, State of Kentucky (collectively, the "**Property**"). Tenant desires to use a portion of the Property in connection with its federally licensed communications business. Landlord desires to grant to Tenant the right to use a portion of the Property in accordance with this Agreement.

The parties agree as follows:

1. OPTION TO LEASE.

(a) Landlord grants to Tenant an option (the "**Option**") to lease a certain portion of the Property containing approximately 10,000 square feet including the air space above such room/cabinet/ground space as described on attached **Exhibit 1**, together with unrestricted access for Tenant's uses from the nearest public right-of-way along the Property to the Premises as described on the attached **Exhibit 1** (collectively, the "**Premises**").

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

(d) The Option may be sold, assigned or transferred at any time by Tenant to Tenant's parent company or member if Tenant is a limited liability company or any affiliate or subsidiary of, or partner in, Tenant or its parent company or member, or to any third party agreeing to be subject to the terms hereof. Otherwise, the Option may not be sold, assigned or transferred without the written consent of Landlord, such consent not to be unreasonably withheld, conditioned or delayed. From and after the date the Option has been sold, assigned or

transferred by Tenant to a third party agreeing to be subject to the terms hereof, Tenant shall immediately be released from any and all liability under this Agreement, including the payment of any rental or other sums due, without any further action.

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

(f) If during the Initial Option Term or any extension thereof, or during the term of this Agreement if the Option is exercised, Landlord decides to subdivide, sell, or change the status of the zoning of the Premises, Property or any of Landlord's contiguous, adjoining or surrounding property (the "Surrounding Property," which includes (without limitation) the remainder of the structure) or in the event of foreclosure, Landlord shall immediately notify Tenant in writing. Any sale of the Property shall be subject to Tenant's rights under this Agreement. Landlord agrees that during the Initial Option Term or any extension thereof, or during the Term of this Agreement if the Option is exercised, Landlord shall not initiate or consent to any change in the zoning of the Premises, Property or Surrounding Property or impose or consent to any other restriction that would prevent or limit Tenant from using the Premises for the uses intended by Tenant as hereinafter set forth in this Agreement.

2. **PERMITTED USE.** Tenant may use the Premises for the transmission and reception of communications signals and the installation, construction, maintenance, operation, repair, replacement and upgrade of its communications fixtures and related equipment, cables, accessories and improvements, which may include a suitable support structure, associated antennas, equipment shelters or cabinets and fencing and any other items necessary to the successful and secure use of the Premises (collectively, the "Communication Facility"), as well as the right to test, survey and review title on the Property; Tenant further has the right but not the obligation to add, modify and/or replace equipment in order to be in compliance with any current or future federal, state or local mandated application, including, but not limited to, emergency 911 communication services, at no additional cost to Tenant or Landlord (collectively, the "Permitted Use"). Landlord and Tenant agree that any portion of the Communication Facility that may be conceptually described on Exhibit 1 will not be deemed to limit Tenant's Permitted Use. If Exhibit 1 includes drawings of the initial installation of the Communication Facility, Landlord's execution of this Agreement will signify Landlord's approval of Exhibit 1. For a period of ninety (90) days following the start of construction, Landlord grants Tenant, its subtenants, licensees and sublicensees, the right to use such portions of Landlord's contiguous, adjoining or Surrounding Property as described on Exhibit 1 as may reasonably be required during construction and installation of the Communications Facility. Tenant has the right to install and operate transmission cables from the equipment shelter or cabinet to the antennas, electric lines from the main feed to the equipment shelter or cabinet and communication lines from the main entry point to the equipment shelter or cabinet, and to make Property improvements, alterations, upgrades or additions appropriate for Tenant's use ("Tenant Changes"). Tenant Changes include the right to construct a fence around the Premises and undertake any other appropriate means to secure the Premises at Tenant's expense. Tenant agrees to comply with all applicable governmental laws, rules, statutes and regulations, relating to its use of the Communication Facility on the Property. Tenant has the right to modify, supplement, replace, upgrade, expand the equipment, increase the number of antennas or relocate the Communication Facility within the Premises at any time during the term of this Agreement. Tenant will be allowed to make such alterations to the Property in order to accomplish Tenant's Changes or to insure that Tenant's Communication Facility complies with all applicable federal, state or local laws, rules or regulations.

3. <u>TERM.</u>

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

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

(c) If, at least sixty (60) days prior to the end of the fourth (4^{th}) extended term, either Landlord or Tenant has not given the other written notice of its desire that the term of this Agreement end at the expiration of the fourth (4^{th}) extended term, then upon the expiration of the fourth (4^{th}) extended term this Agreement shall continue in force upon the same covenants, terms and conditions for a further term of one (1) year, and for annual terms thereafter until terminated by either party by giving to the other written notice of its intention to so terminate at least six (6) months prior to the end of any such annual term. Monthly rental during such annual terms shall be equal to the rent paid for the last month of the fourth (4^{th}) extended term. If Tenant remains in possession of the Premises after the termination of this Agreement then Tenant will be deemed to be occupying the Premises on a month to month basis (the "Holdover Term"), subject to the terms and conditions of this Agreement.

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

4. <u>RENT.</u>

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(a) Commencing on the first day of the month following the date that Tenant commences construction (the "Rent Commencement Date"), Tenant will pay the Landlord a monthly rental payment of the second second

(b) In year one (1) of each Extension Term, the monthly Rent will increase by **Extended to the set of the set**

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

5. APPROVALS.

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

(b) Tenant has the right to obtain a title report or commitment for a leasehold title policy from a title insurance company of its choice and to have the Property surveyed by a surveyor of Tenant's choice. In the event Tenant determines, in its sole discretion, due to the title report results or survey results, that the condition of the Premises is unsatisfactory, Tenant will have the right to terminate this Agreement upon notice to Landlord.

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

6. <u>TERMINATION</u>. This Agreement may be terminated, without penalty or further liability, as follows:
 (a) by either party on thirty (30) days prior written notice, if the other party remains in default under Paragraph 15 of this Agreement after the applicable cure periods;

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

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

(d) by Tenant upon sixty (60) days prior written notice to Landlord for any reason, so long as Tenant pays Landlord a termination fee equal to three (3) months Rent, at the then current rate, provided, however, that no such termination fee will be payable on account of the termination of this Agreement by Tenant under any one or more of Paragraphs 5(b), 6(a), 6(b), 6(c), 8, 11(d), 18, 19 or 23(j) of this Agreement.

7. INSURANCE.

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Tenant will carry during the Term, at its own cost and expense, the following insurance: (i) "All Risk" property insurance for its property's replacement cost; (ii) commercial general liability insurance with a minimum limit of liability of Two Million Five Hundred Thousand Dollars \$2,500,000 combined single limit for bodily injury or death/property damage arising out of any one occurrence; and (iii) Workers' Compensation Insurance as required by law. The coverage afforded by Tenant's commercial general liability insurance shall apply to Landlord as an additional insured, but only with respect to Landlord's liability arising out of its interest in the Property.

8. <u>INTERFERENCE.</u>

(a) Where there are existing radio frequency user(s) on the Property, the Landlord will provide Tenant with a list of all existing radio frequency user(s) on the Property to allow Tenant to evaluate the potential for interference. Tenant warrants that its use of the Premises will not interfere with existing radio frequency user(s) on the Property so disclosed by Landlord, as long as the existing radio frequency user(s) operate and continue to operate within their respective frequencies and in accordance with all applicable laws and regulations.

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

(c) Landlord will not use, nor will Landlord permit its employees, tenants, licensees, invitees or agents to use, any portion of the Property in any way which interferes with the Communication Facility, the operations of Tenant or the rights of Tenant under this Agreement. Landlord will cause such interference to cease within twenty-four (24) hours after receipt of notice of interference from Tenant. In the event any such interference does not cease within the aforementioned cure period then the parties acknowledge that Tenant will suffer irreparable injury, and therefore, Tenant will have the right, in addition to any other rights that it may have at law or in equity, for Landlord's breach of this Agreement, to elect to enjoin such interference or to terminate this Agreement upon notice to Landlord.

9. INDEMNIFICATION.

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

(b) Landlord agrees to indemnify, defend and hold Tenant harmless from and against any and all injury, loss, damage or liability (or any claims in respect of the foregoing), costs or expenses (including

- 4

8-10-07 2007 Option Land Lease

reasonable attorneys' fees and court costs) arising directly from the actions or failure to act of Landlord or its employees or agents, or Landlord's breach of any provision of this Agreement, except to the extent attributable to the negligent or intentional act or omission of Tenant, its employees, agents or independent contractors.

(c) Notwithstanding anything to the contrary in this Agreement, Tenant and Landlord each waives any claims that each may have against the other with respect to consequential, incidental or special damages.

10. WARRANTIES.

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

(b) Landlord represents and warrants that: (i) Landlord solely owns the Property as a legal lot in fee simple, or controls the Property by lease or license; (ii) the Property is not encumbered by any liens, restrictions, mortgages, covenants, conditions, easements, leases, or any other agreements of record or not of record, which would adversely affect Tenant's Permitted Use and enjoyment of the Premises under this Agreement; (iii) as long as Tenant is not in default then Landlord grants to Tenant sole, actual, quiet and peaceful use, enjoyment and possession of the Premises; (iv) Landlord's execution and performance of this Agreement will not violate any laws, ordinances, covenants or the provisions of any mortgage, lease or other agreement binding on the Landlord; and (v) if the Property is or becomes encumbered by a deed to secure a debt, mortgage or other security interest, Landlord will provide promptly to Tenant a mutually agreeable Subordination, Non-Disturbance and Attornment Agreement.

11. ENVIRONMENTAL.

(a) Landlord represents and warrants that the Property is free of hazardous substances as of the date of this Agreement, and, to the best of Landlord's knowledge, the Property has never been subject to any contamination or hazardous conditions resulting in any environmental investigation, inquiry or remediation. Landlord and Tenant agree that each will be responsible for compliance with any and all environmental and industrial hygiene laws, including any regulations, guidelines, standards, or policies of any governmental authorities regulating or imposing standards of liability or standards of conduct with regard to any environmental or industrial hygiene condition or other matters as may now or at any time hereafter be in effect, that are now or were related to that party's activity conducted in or on the Property.

(b) Landlord and Tenant agree to hold harmless and indemnify the other from, and to assume all duties, responsibilities and liabilities at the sole cost and expense of the indemnifying party for, payment of penalties, sanctions, forfeitures, losses, costs or damages, and for responding to any action, notice, claim, order, summons, citation, directive, litigation, investigation or proceeding which is related to (i) the indemnifying party's failure to comply with any environmental or industrial hygiene law, including without limitation any regulations, guidelines, standards or policies of any governmental authorities regulating or imposing standards of liability or standards of conduct with regard to any environmental or industrial hygiene conditions that arise out of or are in any way related to the condition of the Property and activities conducted by the party thereon, unless the environmental conditions are caused by the other party.

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

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

12. <u>ACCESS.</u> At all times throughout the Term of this Agreement, and at no additional charge to Tenant, Tenant and its employees, agents, and subcontractors, will have twenty-four (24) hour per day, seven (7) day per week pedestrian and vehicular access to and over the Property, from an open and improved public road to the Premises, for the installation, maintenance and operation of the Communication Facility and any utilities serving the Premises. Landlord grants to Tenant an easement for such access and Landlord agrees to provide to Tenant such codes, keys and other instruments necessary for such access at no additional cost to Tenant. Landlord acknowledges that in the event Tenant cannot access the Premises, Tenant shall incur significant damage. If Landlord fails to provide the access granted by this Paragraph 12, such failure shall be a default under this Lease. . Upon Tenant's request, Landlord will execute a separate recordable easement evidencing this right. In the event any public utility is unable to use the access or easement provided to Tenant then the Landlord agrees to grant additional access or an easement either to Tenant or to the public utility, for the benefit of Tenant, at no cost to Tenant.

13. <u>**REMOVAL/RESTORATION.</u>** All portions of the Communication Facility brought onto the Property by Tenant will be and remain Tenant's personal property and, at Tenant's option, may be removed by Tenant at any time during the Term. Landlord covenants and agrees that no part of the Communication Facility constructed, erected or placed on the Premises by Tenant will become, or be considered as being affixed to or a part of, the Property, it being the specific intention of the Landlord that all improvements of every kind and nature constructed, erected or placed by Tenant on the Premises will be and remain the property of the Tenant and may be removed by Tenant at any time during the Term. Within one hundred twenty (120) days of the termination of this Agreement, Tenant will remove all of Tenant's above-ground improvements and Tenant will, to the extent reasonable, restore the Premises to its condition at the commencement of the Agreement, reasonable wear and tear and loss by casualty or other causes beyond Tenant's control excepted. Notwithstanding the foregoing, Tenant will not be responsible for the replacement of any trees, shrubs or other vegetation, nor will Tenant be required to remove from the Premises or the Property any structural steel or any foundations or underground utilities.</u>

14. MAINTENANCE/UTILITIES.

(a) Tenant will keep and maintain the Premises in good condition, reasonable wear and tear and damage from the elements excepted. Landlord will maintain and repair the Property and access thereto, in good and tenantable condition, subject to reasonable wear and tear and damage from the elements.

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

15. DEFAULT AND RIGHT TO CURE.

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

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

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

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

If to Tenant:	New Cingular Wireless PCS, LLC Attn: Network Real Estate Administration Re: Cell Site #083G0235; Cell Site Name NAS Longbow Fixed Asset No: 10118444 12555 Cingular Way, Suite 1300 Alpharetta, GA 30004
With a copy to: Name	New Cingular Wireless PCS, LLC Attn: Legal Department Re: Cell Site # 083G0235; Cell Site Name NAS Longbow Fixed Asset No:10118444 1025 Lenox Park Blvd, NE 5th Floor Atlanta, GA 30319-5309
With a copy to: Name	AT&T Mobility Engineering Office
	7

2007 Option Land Lease

8-10-07

Attn: Real Estate Department Re: Cell Site # 083G0235; Cell Site Name NAS Longbow Fixed Asset No: 10118444 5310 Maryland Way Brentwood, TN 37027

If to Landlord:	Northwest Baptist Church
	2755 Princeton Road
	Hopkinsville, KY 42240

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

- (b) In the event of a change in ownership, transfer or sale of the Property, within ten (10) days of such transfer, Landlord will send the below documents (in section 17(b)(i) to Tenant. In the event Tenant does not receive such appropriate documents, Tenant shall not be responsible for any failure to pay the current landlord
 - a. Old deed to Property
 - b. New deed to Property
 - c. Bill of Sale or Transfer
 - d. Copy of current Tax Bill
 - e. New W-9

(i)

- f. New Payment Direction Form
- g. Full contact information for new Landlord including all phone numbers

18. <u>CONDEMNATION.</u> In the event Landlord receives notification of any condemnation proceedings affecting the Property, Landlord will provide notice of the proceeding to Tenant within forty-eight (48) hours. If a condemning authority takes all of the Property, or a portion sufficient, in Tenant's sole determination, to render the Premises unsuitable for Tenant, this Agreement will terminate as of the date the title vests in the condemning authority. The parties will each be entitled to pursue their own separate awards in the condemnation proceeds, which for Tenant will include, where applicable, the value of its Communication Facility, moving expenses, prepaid Rent, and business dislocation expenses, provided that any award to Tenant will not diminish Landlord's recovery. Tenant will be entitled to reimbursement for any prepaid Rent on a prorata basis.

19. <u>CASUALTY.</u> Landlord will provide notice to Tenant of any casualty affecting the Property within fortyeight (48) hours of the casualty. If any part of the Communication Facility or Property is damaged by fire or other casualty so as to render the Premises unsuitable, in Tenant's sole determination, then Tenant may terminate this Agreement by providing written notice to the Landlord, which termination will be effective as of the date of such damage or destruction. Upon such termination, Tenant will be entitled to collect all insurance proceeds payable to Tenant on account thereof and to be reimbursed for any prepaid Rent on a prorata basis. If notice of termination is given, or if Landlord or Tenant undertake to rebuild the Communications Facility, Landlord aggress to use its reasonable efforts to permit Tenant to place temporary transmission and reception facilities on the Property at no additional Rent until such time as Tenant is able to activate a replacement transmission facility at another location or the reconstruction of the Communication Facility is completed.

20. <u>WAIVER OF LANDLORD'S LIENS.</u> Landlord waives any and all lien rights it may have, statutory or otherwise, concerning the Communication Facility or any portion thereof. The Communication Facility shall be deemed personal property for purposes of this Agreement, regardless of whether any portion is deemed real or

personal property under applicable law, and Landlord consents to Tenant's right to remove all or any portion of the Communication Facility from time to time in Tenant's sole discretion and without Landlord's consent.

21. TAXES. Landlord shall be responsible for payment of all ad valorem taxes levied upon the lands, improvements and other property of Landlord. Tenant shall be responsible for all taxes levied upon Tenant's leasehold improvements (including Tenant's equipment building and tower) on the Premises. Landlord shall provide Tenant with copies of all assessment notices on or including the Premises immediately upon receipt, but in no event later than thirty (30) days after receipt by Landlord. If Landlord fails to provide such notice within such time frame, Landlord shall be responsible for all increases in taxes for the year covered by the assessment. Tenant shall have the right to contest, in good faith, the validity or the amount of any tax or assessment levied against the Premises by such appellate or other proceedings as may be appropriate in the jurisdiction, and may defer payment of such obligations, pay same under protest, or take such other steps as Tenant may deem appropriate. This right shall include the ability to institute any legal, regulatory or informal action in the name of Landlord, Tenant, or both, with respect to the valuation of the Premises. Landlord shall cooperate in the institution and prosecution of any such proceedings and will execute any documents required therefore. The expense of any such proceedings shall be borne by Tenant and any refunds or rebates secured as a result of Tenant's action shall belong to Tenant.

22. SALE OF PROPERTY/RIGHT OF FIRST REFUSAL.

If Landlord, at any time during the Term of this Agreement, decides to sell, subdivide or rezone any of the Premises, all or any part of the Property or Surrounding Property, to a purchaser other than Tenant, Landlord shall promptly notify Tenant in writing, and such sale, subdivision or rezoning shall be subject to this Agreement and Tenant's rights hereunder. Landlord agrees not to sell, lease or use any areas of the Property or Surrounding Property for the installation, operation or maintenance of other wireless communications facilities if such installation, operation or maintenance would interfere with Tenant's Permitted Use or communications equipment as determined by radio propagation tests performed by Tenant in its sole discretion, any such testing to be at the expense of Landlord or Landlord's prospective purchaser, and not Tenant. If the radio frequency propagation tests demonstrate levels of interference unacceptable to Tenant, Landlord shall be prohibited from selling, leasing or using any areas of the Property or the Surrounding Property for purposes of any installation, operation or maintenance of any other wireless communications facility or equipment. Landlord shall not be prohibited from the selling, leasing or use of any of the Property or the Surrounding Property for non-wireless communication use. In the event the Property is transferred, the new landlord shall have a duty at the time of such transfer to provide Tenant with a completed IRS Form W-9, or its equivalent, and other related paper work to effect a transfer in Rent to the new landlord. The provisions of this Paragraph 22 shall in no way limit or impair the obligations of Landlord under Paragraph 8 above.

(b) If at any time after the Effective Date, Landlord receives a bona fide written offer from a third party seeking an assignment of the rental stream associated with this Agreement ("**Purchase Offer**"), Landlord shall immediately furnish Tenant with a copy of the Purchase Offer, together with a representation that the Purchase Offer is valid, genuine and true in all respects. Tenant shall have the right within thirty (30) days after it receives such copy and representation to match the Purchase Offer and agree in writing to match the terms of the Purchase Offer. Such writing shall be in the form of a contract substantially similar to the Purchase Offer. If Tenant chooses not to exercise this right of first refusal or fails to provide written notice to Landlord within the thirty (30) day period, Landlord may assign the rental stream pursuant to the Purchase Offer, subject to the terms of this Agreement (including without limitation the terms of this Subparagraph 22(B), to the person or entity that made the Purchase Offer provided that (i) the assignment is on the same terms contained in the Purchase Offer. If such third party modifies the Purchase Offer or the assignment does not occur within such ninety (90) day period, Landlord shall re-offer to Tenant, pursuant to the procedure set forth in this subparagraph 22(b), the assignment on the terms set forth in the Purchase Offer, as amended. The right of first refusal hereunder shall (i) survive any transfer of all or any part of the Property or assignment of all or any part of the Agreement; (ii) bind and inure to

then the Agreement may be terminated by either party on ten (10) business days prior written notice to the other party hereto.

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(k) **Counterparts.** This Agreement may be executed in two (2) or more counterparts, all of which shall be considered on and the same agreement and shall become effective when one or more counterparts have been signed by each of the parties. It being understood that all parties need not sign the same counterpart.

[SIGNATURES APPEAR ON THE NEXT PAGE]

8-10-07 2007 Option Land Lease

- 3. The portion of the land being leased to Tenant (the "Premises") is described in Exhibit 1 annexed hereto.
- 4. This Memorandum of Lease is not intended to amend or modify, and shall not be deemed or construed as amending or modifying, any of the terms, conditions or provisions of the Agreement, all of which are hereby ratified and affirmed. In the event of a conflict between the provisions of this Memorandum of Lease and the provisions of the Agreement, the provisions of the Agreement shall control. The Agreement shall be binding upon and inure to the benefit of the parties and their respective heirs, successors, and assigns, subject to the provisions of the Agreement.

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

"LANDLORD"

By:

Joseph Dale Turner, Trustee

"LANDLORD"

By: Kerry Joseph Trotee

"LANDLORD"

By: Anthony William Borneman, Trustee

"TENANT"

New Cingular Wireless PCS, LLC, Delaware limited liability company

By: AT&T Mobility Corporation, Its: Manager

LANDLORD

STATE OF Kentucky COUNTY OF Christian

On this <u>t</u> day of <u>Decord</u>, before me personally appeared Joseph Dale Turner, to me known (or proved to me on the basis of satisfactory evidence) to be the person described in and who executed the foregoing instrument as <u>Trustee</u> for <u>Northwest Baptist Church</u> and acknowledged that such person executed the same in such capacity as such person's free act and deed.

Name Tone Ann Notary Public My Commission Expires:

[NOTARIAL SEAL]

STATE OF Kentucky COUNTY OF Christian

On this 6 day of 20 0 before me personally appeared Kerry Joseph Groves, to me known (or proved to me on the basis of satisfactory evidence) to be the person described in and who executed the foregoing instrument as _Trustee for _Northwest Baptist Church and acknowledged that such person executed the same in such capacity as such person's free act and deed.

-Samet Ann Tacker Name: Notary Public 1 My Commission Expires:

[NOTARIAL SEAL]

STATE OF Kentucky COUNTY OF Christian

On this day of ______, 2009 before me personally appeared Anthony William Borneman, to me known (or proved to me on the basis of satisfactory evidence) to be the person described in and who executed the foregoing instrument as _Trustee for _Northwest Baptist Church_ and acknowledged that such person executed the same in such capacity as such person's free act and deed.

Name: Sand Notary Public My Commission Expires:

[NOTARIAL SEAL]

STATE OF TENNESSEE COUNTY OF WILLIAMSON) ss

Personally appeared before me, a Notary Public in and for the above jurisdiction, the within named Daniel Toth, 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 he is the Manager of Real Estate and Construction of New Cingular Wireless PCS, LLC, a Delaware limited liability company, by AT&T Mobility Corporation, its Manager, the within named bargainor, and that in such capacity, he, being authorized so to do, executed the foregoing Option and Lease Agreement for the purposes therein contained, on behalf of the said New Cingular Wireless PCS, LLC.

TENANT

Witness my hand and seal, this the 10^{TH} day of $\underline{DEC}_{,20}$, 20^{09} . Érrie L. Cla NOTARY PUBLIC My commission expires: MAY 8, 2012 STATE OF TENNESSEE [NOTARIAL SEAL] NOTARY PUBLIC COV 14 My Commission Expires MAY 8, 2012 8-10-07

2007 Option Land Lease
EXHIBIT 1

DESCRIPTION OF PREMISES Page _1_ of <u>3</u>

to the Agreement dated <u>DECEMBER [02009</u>, by and between Northwest Baptist Church of Christian County, Inc.., a Kentucky corporation, as Landlord, and New Cingular Wireless PCS, LLC_, a Delaware limited liability company, as Tenant.

The Premises are described and/or depicted as follows:

Notes:

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- This Exhibit may be replaced by a land survey and/or construction drawings of the Premises once received by Tenant.
 Any setback of the Premises from the Property's boundaries shall be the distance required by the applicable governmental authorities.
 Width of access road shall be the width required by the applicable governmental authorities, including police and fire departments.
 The type, number and mounting positions and locations of antennas and transmission lines are illustrative only. Actual types, numbers and mounting positions may vary from what is shown above.



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Exhibit J



Plot date: MARCH 23, 2010

1301 Clear Springs Trace | Suite 205 | Louisville, Kentucky 40223 Telephone [502] 412-9222 | Facsimile [866] 333-4563 todd@briggslawoffice.net

> TODD R. BRIGGS also admitted in Colorado

Notice of Proposed Construction Wireless Telecommunications Facility

Arnold Farms, Inc. P.O. Box 1173 Hopkinsville, KY 42241

Via Certified Mail Return Receipt Requested

Dear Landowner:

New Cingular Wireless PCS, LLC is applying to the Kentucky Public Service Commission (the "Commission") for a Certificate of Public Convenience and Necessity to construct and operate a new wireless telecommunications facility located at 2755 Princeton Road, Hopkinsville, Kentucky 42240. A map showing the location is attached. The proposed facility will include a 180 foot monopole tower, plus related ground facilities.

This notice is being sent to you because the Christian County Property Valuation Administrator's records indicate that you own property that is within a 500' radius of the proposed tower site <u>OR</u> is contiguous to the property on which the tower is to be constructed.

The Commission invites your comments regarding the proposed construction and wants you to be aware of your right to intervene in the Commission's proceedings on this application. Your comments and request for intervention should be addressed to: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to case number 2010-00031 in any correspondence.

Sincerely,

Juli K By

Todd R. Briggs Counsel for New Cingular Wireless PCS, LLC

1301 Clear Springs Trace | Suite 205 | Louisville, Kentucky 40223 Telephone [502] 412-9222 | Facsimile [866] 333-4563 todd@briggslawoffice.net

> TODD R. BRIGGS also admitted in Colorado

Notice of Proposed Construction Wireless Telecommunications Facility

Macauley L. Arthur 110 East 6th Street Hopkinsville, KY 42240

Via Certified Mail Return Receipt Requested

Dear Landowner:

New Cingular Wireless PCS, LLC is applying to the Kentucky Public Service Commission (the "Commission") for a Certificate of Public Convenience and Necessity to construct and operate a new wireless telecommunications facility located at 2755 Princeton Road, Hopkinsville, Kentucky 42240. A map showing the location is attached. The proposed facility will include a 180 foot monopole tower, plus related ground facilities.

This notice is being sent to you because the Christian County Property Valuation Administrator's records indicate that you own property that is within a 500' radius of the proposed tower site \underline{OR} is contiguous to the property on which the tower is to be constructed.

The Commission invites your comments regarding the proposed construction and wants you to be aware of your right to intervene in the Commission's proceedings on this application. Your comments and request for intervention should be addressed to: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to case number <u>2010-00031</u> in any correspondence.

Sincerely,

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Todd R. Briggs Counsel for New Cingular Wireless PCS, LLC

1301 Clear Springs Trace | Suite 205 | Louisville, Kentucky 40223 Telephone [502] 412-9222 | Facsimile [866] 333-4563 todd@briggslawoffice.net

> TODD R. BRIGGS also admitted in Colorado

Notice of Proposed Construction Wireless Telecommunications Facility

Bobby N. Carter, Sr. 3150 Dawson Springs Road Hopkinsville, KY 42240

Via Certified Mail Return Receipt Requested

Dear Landowner:

New Cingular Wireless PCS, LLC is applying to the Kentucky Public Service Commission (the "Commission") for a Certificate of Public Convenience and Necessity to construct and operate a new wireless telecommunications facility located at 2755 Princeton Road, Hopkinsville, Kentucky 42240. A map showing the location is attached. The proposed facility will include a 180 foot monopole tower, plus related ground facilities.

This notice is being sent to you because the Christian County Property Valuation Administrator's records indicate that you own property that is within a 500' radius of the proposed tower site \underline{OR} is contiguous to the property on which the tower is to be constructed.

The Commission invites your comments regarding the proposed construction and wants you to be aware of your right to intervene in the Commission's proceedings on this application. Your comments and request for intervention should be addressed to: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to case number <u>2010-00031</u> in any correspondence.

Sincerely,

Man 1 By

Todd R. Briggs Counsel for New Cingular Wireless PCS, LLC

1301 Clear Springs Trace | Suite 205 | Louisville, Kentucky 40223 Telephone [502] 412-9222 | Facsimile [866] 333-4563 todd@briggslawoffice.net

> TODD R. BRIGGS also admitted in Colorado

Notice of Proposed Construction Wireless Telecommunications Facility

Arthur Hancock, Trustee 2760 Princeton Road Hopkinsville, KY 42240

Via Certified Mail Return Receipt Requested

Dear Landowner:

New Cingular Wireless PCS, LLC is applying to the Kentucky Public Service Commission (the "Commission") for a Certificate of Public Convenience and Necessity to construct and operate a new wireless telecommunications facility located at 2755 Princeton Road, Hopkinsville, Kentucky 42240. A map showing the location is attached The proposed facility will include a 180 foot monopole tower, plus related ground facilities.

This notice is being sent to you because the Christian County Property Valuation Administrator's records indicate that you own property that is within a 500' radius of the proposed tower site <u>OR</u> is contiguous to the property on which the tower is to be constructed.

The Commission invites your comments regarding the proposed construction and wants you to be aware of your right to intervene in the Commission's proceedings on this application. Your comments and request for intervention should be addressed to: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to case number 2010-00031 in any correspondence.

Sincerely,

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Todd R. Briggs Counsel for New Cingular Wireless PCS, LLC

1301 Clear Springs Trace | Suite 205 | Louisville, Kentucky 40223 Telephone [502] 412-9222 | Facsimile [866] 333-4563 todd@briggslawoffice.net

> TODD R. BRIGGS also admitted in Colorado

Notice of Proposed Construction Wireless Telecommunications Facility

Lucian A. Hill, Jr. 2750 Princeton Road Hopkinsville, KY 42240

Via Certified Mail Return Receipt Requested

Dear Landowner:

New Cingular Wireless PCS, LLC is applying to the Kentucky Public Service Commission (the "Commission") for a Certificate of Public Convenience and Necessity to construct and operate a new wireless telecommunications facility located at 2755 Princeton Road, Hopkinsville, Kentucky 42240. A map showing the location is attached. The proposed facility will include a 180 foot monopole tower, plus related ground facilities.

This notice is being sent to you because the Christian County Property Valuation Administrator's records indicate that you own property that is within a 500' radius of the proposed tower site \underline{OR} is contiguous to the property on which the tower is to be constructed.

The Commission invites your comments regarding the proposed construction and wants you to be aware of your right to intervene in the Commission's proceedings on this application. Your comments and request for intervention should be addressed to: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to case number 2010-00031 in any correspondence.

Sincerely,

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Todd R. Briggs Counsel for New Cingular Wireless PCS, LLC

1301 Clear Springs Trace | Suite 205 | Louisville, Kentucky 40223 Telephone [502] 412-9222 | Facsimile [866] 333-4563 todd@briggslawoffice.net

> TODD R. BRIGGS also admitted in Colorado

Notice of Proposed Construction Wireless Telecommunications Facility

E. Wayne Mosley P.O. Box 444 Vidalia, GA 30474

Via Certified Mail Return Receipt Requested

Dear Landowner:

New Cingular Wireless PCS, LLC is applying to the Kentucky Public Service Commission (the "Commission") for a Certificate of Public Convenience and Necessity to construct and operate a new wireless telecommunications facility located at 2755 Princeton Road, Hopkinsville, Kentucky 42240. A map showing the location is attached. The proposed facility will include a 180 foot monopole tower, plus related ground facilities.

This notice is being sent to you because the Christian County Property Valuation Administrator's records indicate that you own property that is within a 500' radius of the proposed tower site \underline{OR} is contiguous to the property on which the tower is to be constructed.

The Commission invites your comments regarding the proposed construction and wants you to be aware of your right to intervene in the Commission's proceedings on this application. Your comments and request for intervention should be addressed to: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to case number <u>2010-00031</u> in any correspondence.

Sincerely,

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Todd R. Briggs Counsel for New Cingular Wireless PCS, LLC

1301 Clear Springs Trace | Suite 205 | Louisville, Kentucky 40223 Telephone [502] 412-9222 | Facsimile [866] 333-4563 todd@briggslawoffice.net

> TODD R. BRIGGS also admitted in Colorado

Notice of Proposed Construction Wireless Telecommunications Facility

Curleene W. Toby 2785 Princeton Road Hopkinsville, KY 42240

Via Certified Mail Return Receipt Requested

Dear Landowner:

New Cingular Wireless PCS, LLC is applying to the Kentucky Public Service Commission (the "Commission") for a Certificate of Public Convenience and Necessity to construct and operate a new wireless telecommunications facility located at 2755 Princeton Road, Hopkinsville, Kentucky 42240. A map showing the location is attached. The proposed facility will include a 180 foot monopole tower, plus related ground facilities.

This notice is being sent to you because the Christian County Property Valuation Administrator's records indicate that you own property that is within a 500' radius of the proposed tower site <u>OR</u> is contiguous to the property on which the tower is to be constructed.

The Commission invites your comments regarding the proposed construction and wants you to be aware of your right to intervene in the Commission's proceedings on this application. Your comments and request for intervention should be addressed to: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to case number 2010-00031 in any correspondence.

Sincerely,

Mild + By

Todd R. Briggs Counsel for New Cingular Wireless PCS, LLC

Exhibit K

1301 Clear Springs Trace | Suite 205 | Louisville, Kentucky 40223 Telephone [502] 412-9222 | Facsimile [866] 333-4563 todd@briggslawoffice.net

> TODD R. BRIGGS also admitted in Colorado

Via Certified Mail Return Receipt Requested

Honorable Steve Tribble Christian County Judge Executive 515 Weber Street Hopkinsville, Kentucky 42240

RE: Notice of Proposal to Construct Wireless Telecommunications Facility Kentucky Public Service Commission--Case No. 2010-00031

Dear Judge Tribble:

New Cingular Wireless PCS, LLC is applying to the Kentucky Public Service Commission (the "Commission") for a Certificate of Public Convenience and Necessity to construct and operate a new wireless telecommunications facility located at 2755 Princeton Road, Hopkinsville, Kentucky 42240. A map showing the location is attached. The proposed facility will include a 250 foot self-support tower, plus related ground facilities.

You have a right to submit comments regarding the proposed construction to the Commission or to request intervention in the Commission's proceedings on this application.

Your comments and request for intervention should be addressed to: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to case number <u>2010-00031</u> in any correspondence.

Sincerely,

All IL By

Todd R. Briggs Counsel for New Cingular Wireless PCS, LLC

Exhibit L

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Please refer to Commission's Case #2010-00031 in your correspondence.	Briggs Law Office, PSC 1301 Clear Springs TraceExecutive Director Public Service Commission 211 Sower Boulevard P.O. Box 615 Frankfort, KY 40602	on this site. If you have any questions please contact:	New Cingular Wireless PCS, LLC proposes to construct a telecommunications	PUBLIC NOTICE
Please refer to Commission's Case #2010-00031 in your correspondence.	Briggs Law Office, PSC 1301 Clear Springs Trace Suite 205 Louisville, KY 40223 (502) 412-9222 Brankfort, KY 40602	near this site. If you have any questions please contact	New Cingular Wireless PCS, LL proposes to construct a telecommunications	PUBLIC NOTOT

Exhibit M



Exhibit N



AT&T Mobility 5310 Maryland Way Brentwood, TN 37627 www.att.com

Byron Horn RF Design Engineer TN/KY 5310 Maryland Way Brentwood, TN 37027 Phone: 615-221-3731

March 25, 2010

To Whom It May Concern:

Dear Sir or Madam:

This letter is to state that there is no more suitable location reasonably available from which adequate service can be provided in the area of the proposed Longbow site. There are no collocation opportunities available as there are no suitable structures that can accommodate our equipment located within the site's search area.

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Byron Horn RF Design Engineer

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ATST Mobility 5310 Maryland Way Brentwood, TN 37027

www.att.com

Byron Horn RF Design Engineer TN/KY 5310 Maryland Way Brentwood, TN 37027 Phone: 615-221-3731

March 25, 2010

To Whom It May Concern:

Dear Sir or Madam:

This letter is to serve as documentation that the proposed AT&T site called Longbow, to be located in Christian County, KY at Latitude 36-52-56 North, Longitude 87-31-39 West, has been designed, and will be built and operated in accordance with all applicable FCC and FAA regulations.

Byron Hom

Byron Horn RF Design Engineer



AT&T Mobility 5310 Maryland Way Brentwood, TN 37027 www.ait.com

Byron Horn RF Design Engineer TN/KY 5310 Maryland Way Brentwood, TN 37027 Phone: 615-221-3731

March 25, 2010

To Whom It May Concern:

Dear Sir or Madam:

This letter is to state the need of the proposed AT&T site called Longbow, to be located in Christian County, KY. The Longbow site is necessary to improve coverage and eliminate interference in Christian County. This site will improve the coverage and reduce interference on Princeton Rd Hwy 90, Hopkinsville bypass, the northwest part of Hopkinsville, and the surrounding area. Our closest existing site to this area is 2.5 miles away; thus, there is currently no dominant server in this area. This lack of a dominant server causes many quality issues for the customers. Currently customers in this area experience dropped calls and may experience poor call quality or areas of no service. With the addition of this site, the customers in this area of Christian County will experience improved reliability, better in-building coverage, and improved access to emergency 911 services.

Byon Hon

Byron Horn RF Design Engineer