RECEIVED

COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

APR 27 2009

PUBLIC SERVICE

COMMISSION

In the Matter of:

<u>)160</u>

SITE NAME: STURGIS DT (135G0234)

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 Union County, Kentucky, which is outside the jurisdiction of a planning commission 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 11096 State Route 109, Sturgis, Kentucky 42459 (37° 32′ 59.02″ North Latitude, 88° 00′ 09.05″ West Longitude (NAD 83)), in an area entirely within Union County. The property in which the WCF will be located is currently owned by Sturgis Properties, LLC, pursuant to that Deed of record in Deed Book 329, Page 325 in the Office of the Union County Clerk. The proposed WCF will consist of a 195 foot monopole with an approximately 4-foot tall lightning arrestor attached to the top of the tower for a total height of 199 feet. The WCF will also include concrete foundations to accommodate the placement of a prefabricated equipment shelter. The WCF compound will be fenced and all access gates(s) will be secured. A detailed site development plan and survey, signed and sealed by a professional land surveyor registered in Kentucky is attached as **Exhibit B**.

- 6. A detailed description of the manner in which the WCF will be constructed is included in the site plan and a vertical tower profile signed and sealed by a professional engineer registered in Kentucky is attached as **Exhibit C**. Foundation design plans and a description of the standards according to which the tower was designed which have been signed and sealed by a professional engineer registered in Kentucky are attached as **Exhibit D**.
- 7. A geotechnical engineering report was performed at the WCF site by Tri-State Geosciences, LLC of Chattanooga, Tennessee, dated September 11, 2008 and is attached as **Exhibit E**. The name and address of the geotechnical engineering firm and the professional engineer registered in the Commonwealth of Kentucky who prepared the report is included as part of the exhibit.
- 8. A list of public utilities, corporations, and or persons with whom the proposed WCF is likely to compete with is attached as **Exhibit F**. Three maps of suitable scale showing the location of the proposed WCF as well as the location of any like facilities owned by others located anywhere within the map area are also included in **Exhibit F**.
- 9. The Federal Aviation Administration Determination of No Hazard to Air Navigation is attached as **Exhibit G**. The Kentucky Airport Zoning Commission Application for Permit to Construct or Alter a Structure was filed by the Applicant on April 9, 2009 and is also attached as **Exhibit G**. Approval from the KAZC will be forwarded once received.
- 10. The Applicant operates on frequencies licensed by the Federal Communications Commission pursuant to applicable federal requirements. Copies of the licenses are attached as **Exhibit H**. Appropriate FCC required signage will be posted on the site.

- 11. The licensed, professional land surveyor has noted in **Exhibit B** that Union County does not participate in the Flood Insurance Rate Map (FIRM) program. The site does not appear to be 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 Kathy Kelly-Jacobs, of Nsoro.
- 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 Union 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 Union 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 Union 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 (The Union County Advocate).
- 17. The site of the proposed WCF is located in a mixed-use area near Grangertown, 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 17300 Polo Fields Lane Louisville, KY 40245 (502) 254-9756 briggslo@bellsouth.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 17300 Polo Fields Lane

Louisville, KY 40245

Telephone 502-254-9756

Counsel for New Cingular Wireless PCS, LLC

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

Exhibit E Geotechnical Engineering Report

Exhibit F Competing Utilities List and Map of Like Facilities,

General Area

Exhibit G FAA Approval

KAZC Application

Exhibit H FCC Documentation

Exhibit I Directions to Site and Copy of Lease Agreement

Exhibit J Notification Listing and Copy of Property Owner

Notifications

Exhibit K Copy of County Judge Executive Notification

Exhibit L Copy of Posted Notice

Exhibit M Map of Search Area

Exhibit N Miscellaneous



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: 67612

Jurisdiction: Kentucky

Visit http://apps.sos.ky.gov/business/obdb/certvalidate.aspx_to 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 22nd day of July, 2008.



T767

Trey Grayson Secretary of State Commonwealth of Kentucky 67612/0481848



PAGE :

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 "AT&T 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.

2445544 8100 040770586



Warriet Smith Hundrand Harrier Smith Windson

AUTHENTICATION: 3434823

DAME. IN OC.ON

State of Delaware
Secretary of State
Division of Corporations
Delivered 11:20 AM 10/26/2004
FILED 11:07 AM 10/26/2004
CERTIFICATE OF AMENDMENT SRV 040770586 - 2445544 FILE

CERTIFICATE OF AMENDMENT SRV 040770586 - 2445544 TO THE CERTIFICATE OF FORMATION OF AT&T WIRELESS PCS, LLC

- 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]

IN WITNESS WHEREOF, AT&T Wireless PCS, LLC has caused this Certificate of Amendment to be executed by its duly authorized Manager this 26th day of October, 2004.

AT&T WIRELESS PCS, LLC

By: Cingular Wireless LLC, its Manager

XAME

litle: Assistant Secretam

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

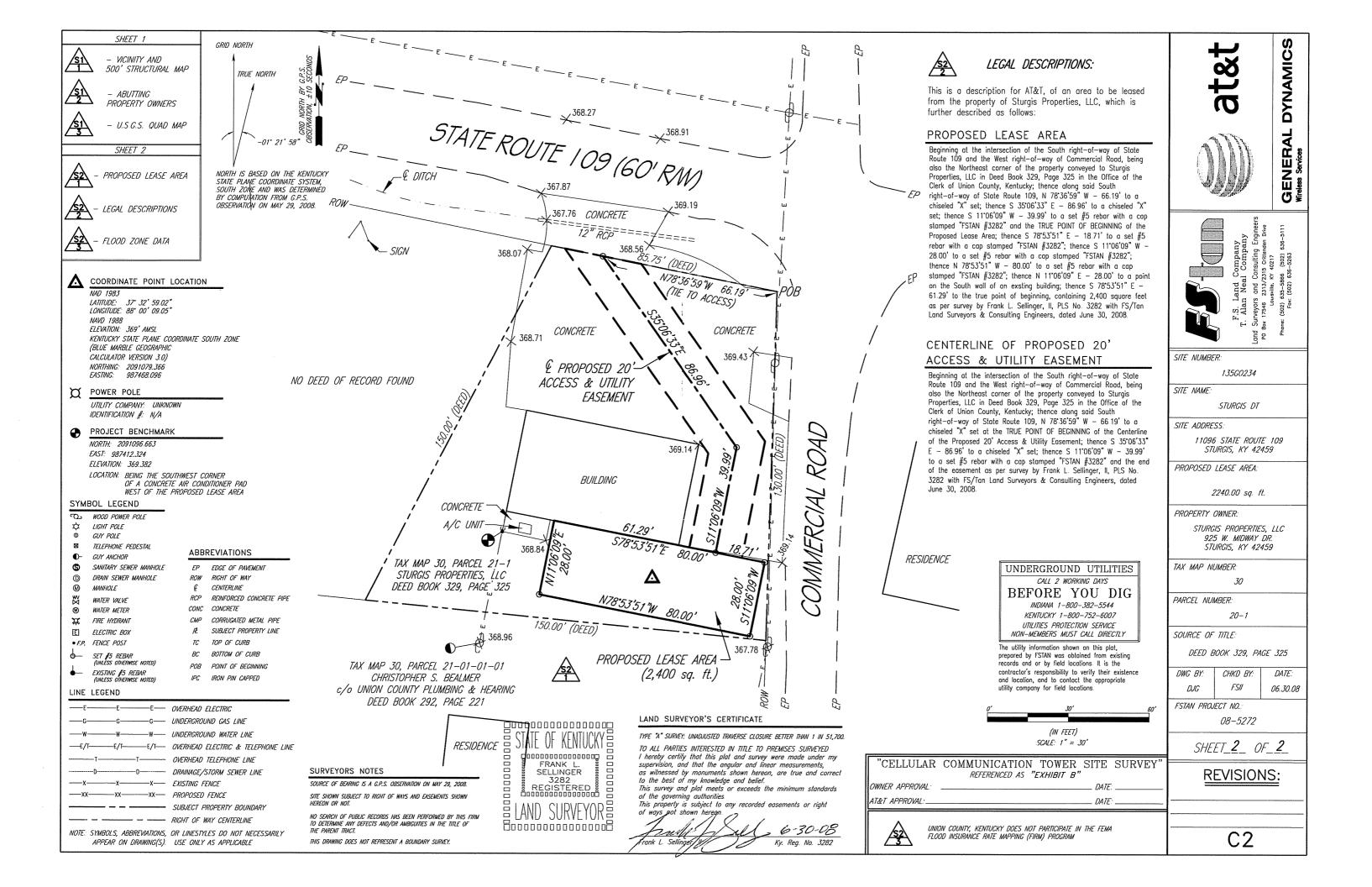
Corporation Trust Company.

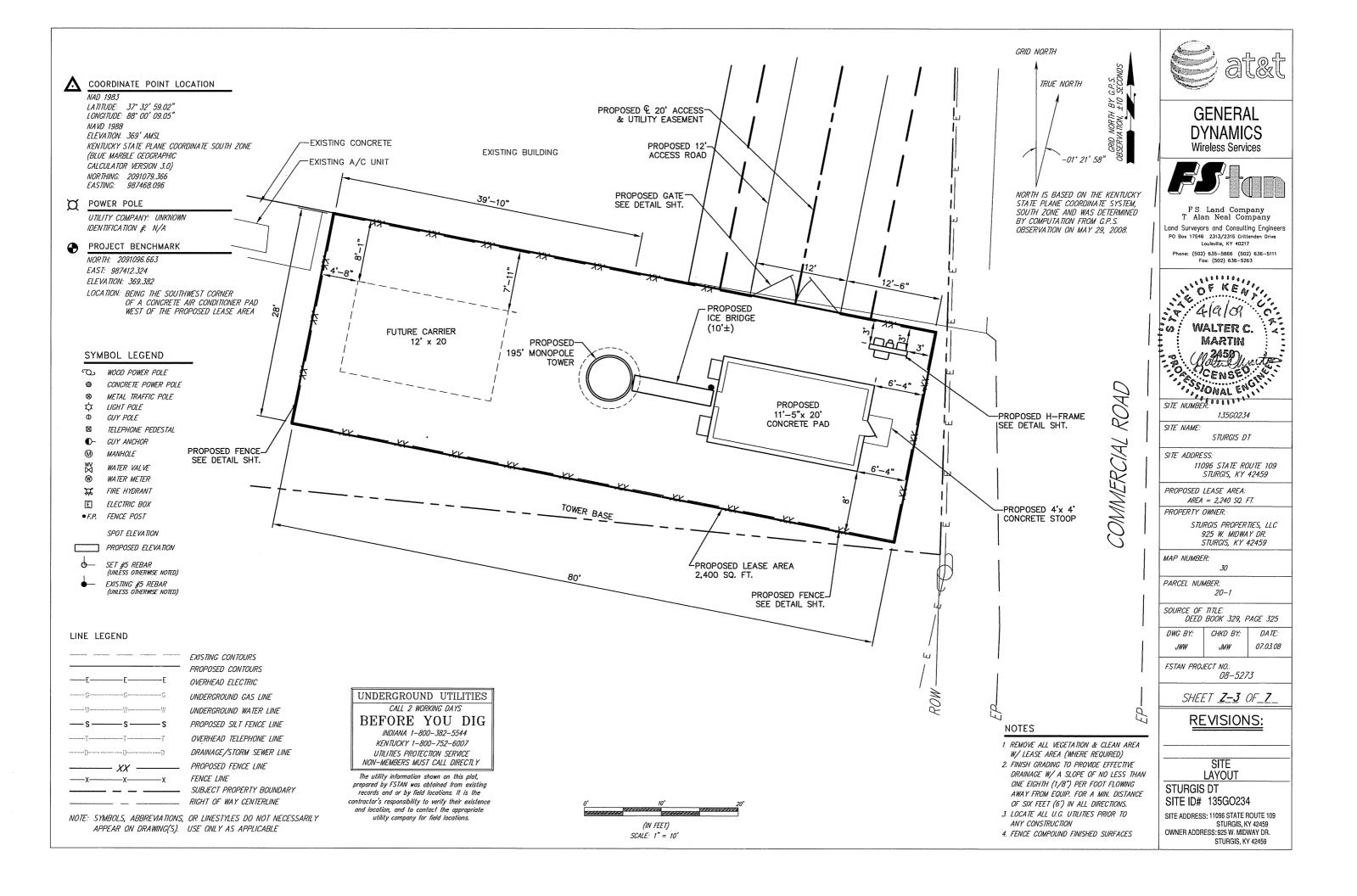
DATED this 7 day of September, 1999.

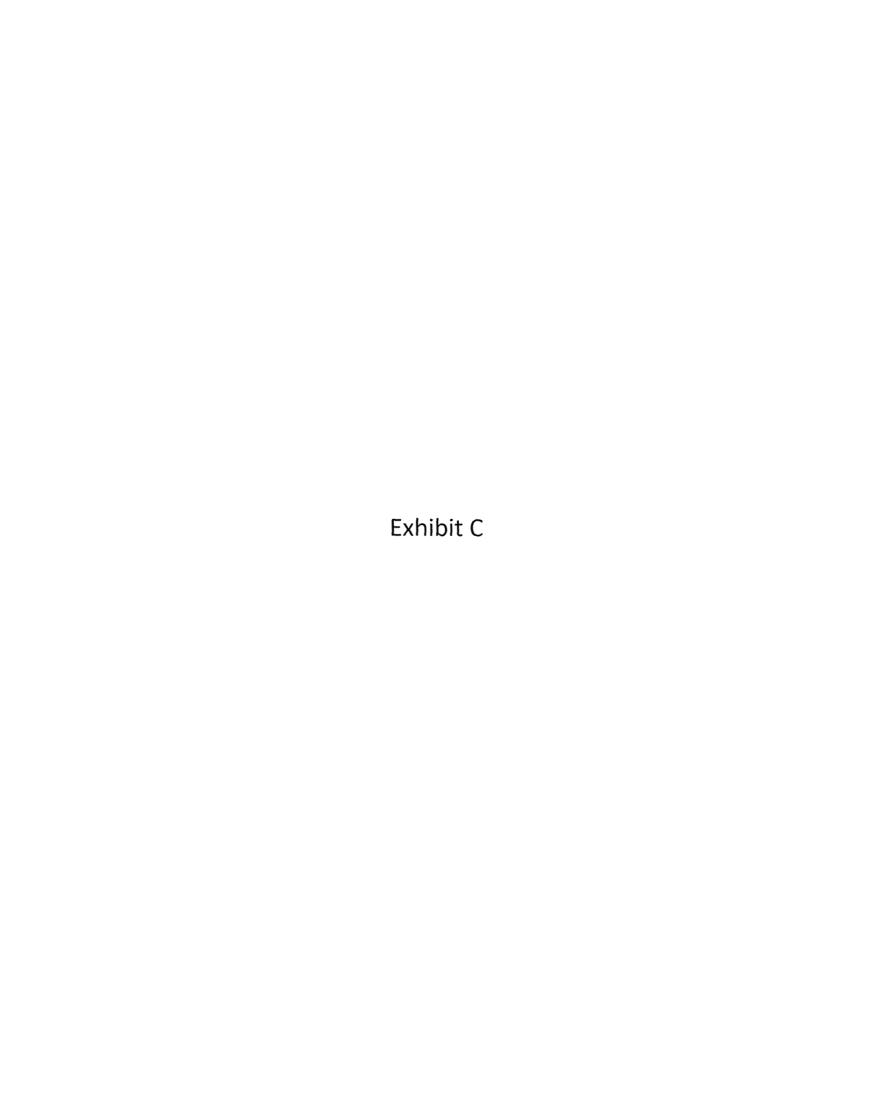
AT&T WIRELESS SERVICES, INC., As Authorized Person

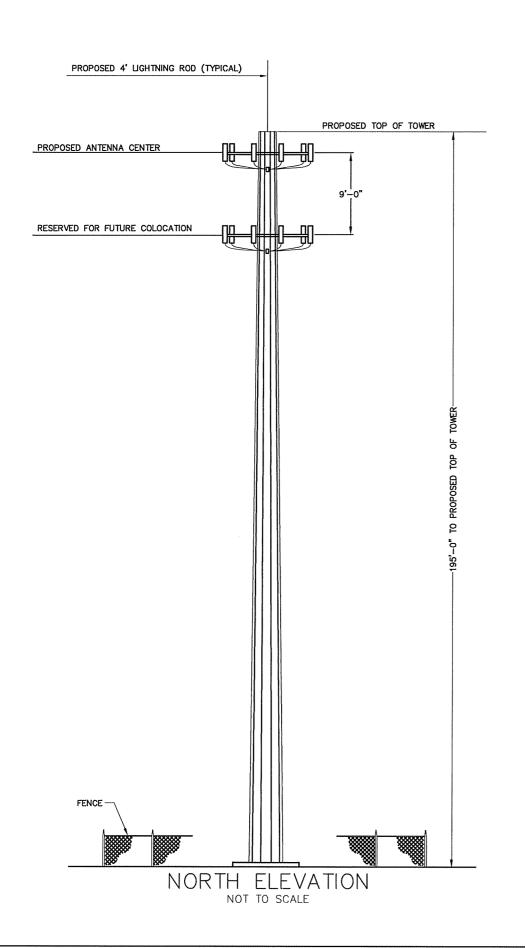
Mark U. Thomas, Vice President

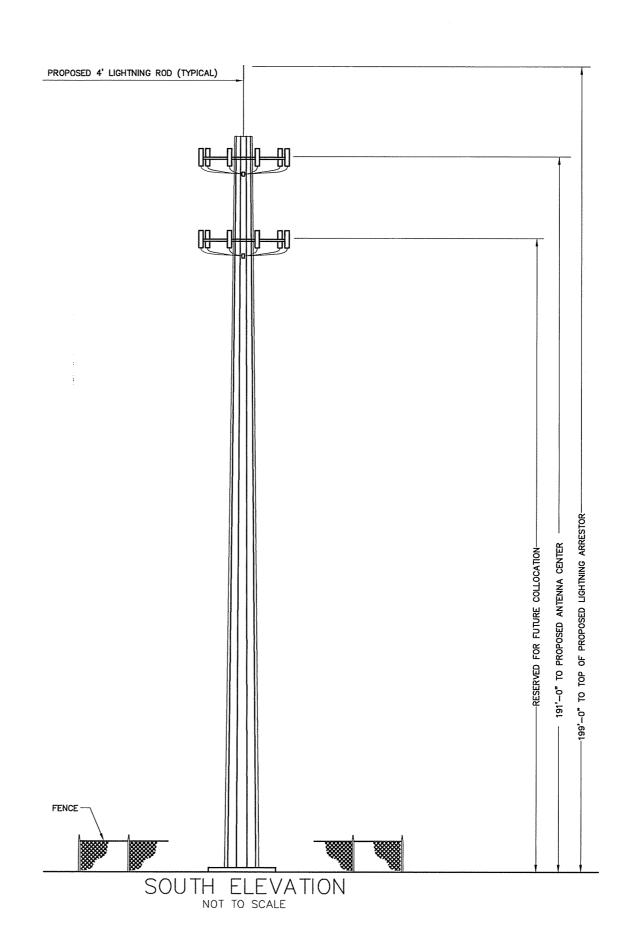
Exhibit B













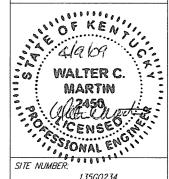
GENERAL DYNAMICS Wireless Services



F.S. Land Company T. Alan Neal Company

Land Surveyors and Consulting Engineers PO Box 17546 2313/2315 Crittenden Drive Louisville, KY 40217

Phone: (502) 635-5866 (502) 636-5111 Fax: (502) 636-5263



135G0234

SITE NAME:

STURGIS DT

SITE ADDRESS:

11096 STATE ROUTE 109 STURGIS, KY 42459

PROPOSED LEASE AREA: AREA = 2,240 SQ. FT.

PROPERTY OWNER:

STURGIS PROPERTIES, LLC 925 W. MIDWAY DR. STURGIS, KY 42459

MAP NUMBER:

30

PARCEL NUMBER: 20-1

SOURCE OF TITLE:

DEED BOOK 329, PAGE 325

DWG BY:

CHKD BY: JMW

DATE:

07.03.08

FSTAN PROJECT NO.: 08-5273

SHEET **Z-4** OF **7**

REVISIONS:

NORTH & SOUTH **ELEVATION** STURGIS DT SITE ID# 135GO234

SITE ADDRESS: 11096 STATE ROUTE 109 STURGIS, KY 42459 OWNER ADDRESS:925 W. MIDWAY DR. STURGIS, KY 42459





6718 W. Plank Road Peoria, IL 61604 USA Phone 309-697-4400 FAX 309-697-5612

FAX 309-697-5612 Toll Pres 800-727-ROHN

PURCHASER: AMERICAN TOWER CORPORATION

NAME OF PROJECT: STURGIS, UNION COUNTY, KENTUCKY

195 FT. TAPERED STEEL POLE

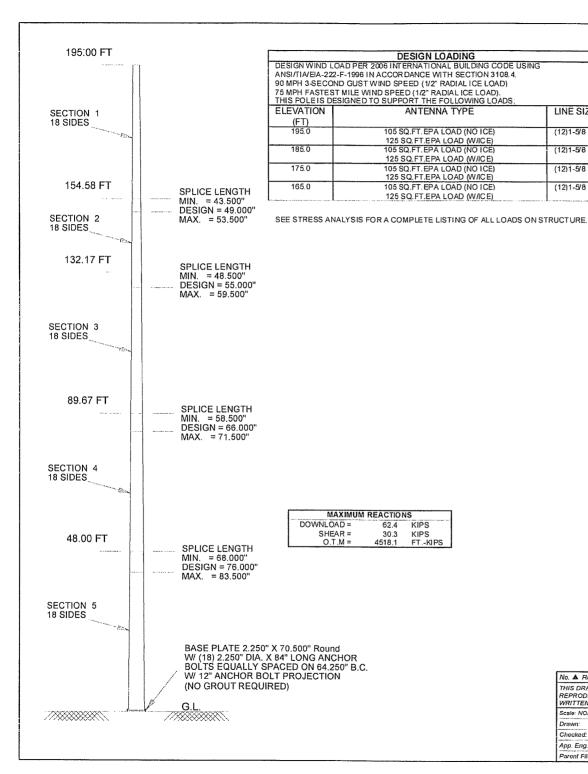
FILE NUMBER: 0606058

DRAWING NUMBER: A090275

I CERTIFY THAT THE ATTACHED DRAWING AND CALCULATIONS WERE PREPARED UNDER MY SUPERVISION IN ACCORDANCE WITH THE LOADING CRITERIA SPECIFIED BY THE PURCHASER AND THAT I AM A REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF KENTUCKY.

CERTIFIED BY

DATF.



GENERAL NOTES

- ROHN PRODUCTS POLE DESIGNS CONFORM TO ANSI/TIA/EIA-222-F UNLESS OTHERWISE SPECIFIED UNDER POLE DESIGN LOADING.
- THE DESIGN LOADING CRITERIA INDICATED HAS BEEN PROVIDED TO RADIAN.THE DESIGN LOADING CRITERIA HAS BEEN ASSUMED TO BE BASED ON SITE-SPECIFIC DATA IN ACCORDANCE WITH ANSI/TIA/EIA-222-F AND MUST BE VERIFIED BY OTHERS PRIOR TO INSTALLATION.
- ANTENNAS AND LINES LISTED IN POLE DESIGN LOADING TABLE ARE PROVIDED BY OTHERS UNLESS OTHERWISE SPECIFIED.
- POLE MEMBER DESIGN DOES NOT INCLUDE STRESSES DUE TO ERECTION SINCE ERECTION EQUIPMENT AND CONDITIONS ARE UNKNOWN. DESIGN ASSUMES COMPETENT AND QUALIFIED PERSONNEL WILL ERECT THE POLE.
- WORK SHALL BE IN ACCORDANCE WITH ANSI/TIA/EIA-222-F, "STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES"
- FIELD CONNECTIONS SHALL BE BOLTED. NO FIELD WELDS SHALL BE ALLOWED.
- STRUCTURAL BOLTS SHALL CONFORM TO ASTM A-325, EXCEPT WHERE NOTED
- A NUT LOCKING DEVICE SHALL BE PROVIDED FOR ALL STRUCTURAL BOLTS ON THE POLE.
- STRUCTURAL STEEL AND CONNECTION BOLTS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION, IN ACCORDANCE WITH ANSI/TIA/EIA-222-F
- ALL HIGH STRENGTH BOLTS ARE TO BE TIGHT ENED TO A "SNUGTIGHT" CONDITION AS DEFINED IN THE NOVEMBER 13, 1985, AISC "SPECIFICATION FOR STRUCT URAL JOINTS USING ASTM A325 OR A490 BOLTS", NO OTHER MINIMUM BOLT TENSION OR TORQUE VALUES ARE REQUIRED.
- PURCHASER SHALL VERIFY THE INSTALLATION IS IN CONFORMANCE WITH LOCAL STATE, AND FEDERAL REQUIREMENTS FOR OBSTRUCTION MARKING AND LIGHTING.
- 12 TO FRANCE ON POLE STEEL HEIGHT IS FOUAL TO PLUS 1% OR MINUS 12%
- DESIGN ASSUMES THAT, AS A MINIMUM, MAINTENANCE AND INSPECTION WILL BE 13. PERFORMED OVER THE LIFE OF THE STRUCTURE IN ACCORDANCE WITH ANSI/TIA/EIA-222-F
- DESIGN ASSUMES LEVEL GRADE AT POLE SITE.
- FOUNDATIONS SHALL BE DESIGNED TO SUPPORT THE REACTIONS SHOWN FOR THE CONDITIONS EXISTING AT THE SITE.
- DESIGN ASSUMES ALL PANEL ANTENNAS WITH MOUNTING FRAMES ARE MOUNTED SYMMETRICALLY
- DESIGN ASSUMES ALL TRANSMISSION LINES ARE ROUTED INTERNALLY
- POLE SHAFT CONFORMS TO ASTM A572 GRADE 65. POLE BASE PLATE STEEL CONFORMS TO ASTM A572 GRADE 50 WITH CHARPY IMPACT REQUIREMENTS. POLE ANCHOR BOLTS CONFORM TO ASTM A615 GR 75.

SECTION SCHEDULE												
SEC.	HEIGHT (FT)	DIAME	TER (IN)	WALL THICK.	Fy (KSI)	WEIGHT (KIPS)						
	(1.1)	BOT.	TOP	(IN)	(1/31)	(141-5)						
1	44.50	32.475	24.000	0.1875	65.0	2.680						
2	27.00	36.305	31.163	· 0.2500	65.0	2.588						
3	48.00	43.914	34.772	0.3750	65.0	8.029						
4	48.00	51.099	41.957	0.4375	65.0	11.081						
5	48.00	58.000	48.858	0.4375	65.0	13.966						

FOR POLYGONAL POLES DIAMETER IS MEASURED ACROSS FLATS.

SITE: STURGIS COUNTY: UNION, KY

LINE SIZE

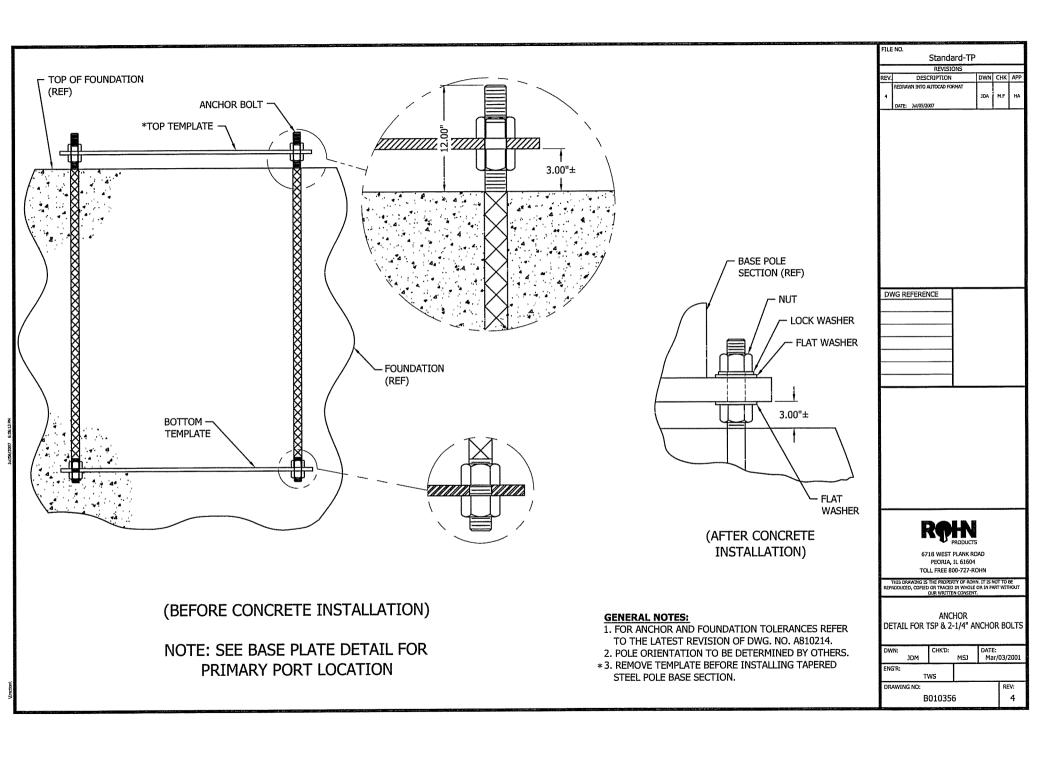
(12)1-5/8 in.

(12)1-5/8 in.

(12)1-5/8 in.

(12)1-5/8 in.

IVO. A Revision	Description			▲ Date ▲ Rev By ▲ Ckd By ▲ Appo	d By
	COPIED, OR TR.		ODUCTS. IT IS NOT TO BE OR PART WITHOUT OUR	ROHNPRODUCTSLL	C.
Scale: NONE	Ву	Date	195' TAPERED	STEEL POLE DESIGN FOR	
Drawn:	DWG 3/3	26/2009			
Checked:	114 3	127/69	America	an Tower Corporation	
App. Eng.:	119 31	27/09	ENG. FILE:	DWG. NO.: A090275	
Parent File:	5905	6FH'	060-6058	SHEET 1 OF 1	REV.





File: Customer: 606058 Site: 1 Cycle: 1 Design: 1 Engineer: don_g American Tower Corp.



Page: 1 03/26/2009 3:26 PM

Site: Type: STURGIS

POLE-TPR

Pole: Tapered Steel

S	U	Μ	M	I Z	Ĵ	R	Y	0	F	Α	Ν	Α	L	Y	S	Ι	S	R	Ε	S	U	L	T	S	

Conditions..... : 75 mph Basic Wind Speed (0.50" radial ice) 50 mph Operational

Building Code: ANSI/TIA/EIA-222-F-1996

Exposure : C Gust response factor:....: 1.69 Allowable Stress Increase: 1.33 Natural Frequency.....: 0.30 cps Resonant Velocity..... : 4.59 mph Pole Height....: 195.00 ft 🗸

Top Diameter....: 24.000 in / Bottom Diameter: 58.000 in , Embedment Depth: 0.00 ft

Pole Shape.....: 18-sided Polygon

Joint Type: Slip

Shaft Steel Weight.....: 37.117 kips

POLE SHAFT PROPERTIES:

Seq	Sect. Length (ft)	Wall Thickness [t] (in)		Mat'l Yield [Fy] (ksi)	Top Diameter [Dt] (in)	Bottom Diameter [Db] (in)	Slip Joint Overlap (in)	Taper (in/ft)	Steel Weight (kips)
1	44.500	0.18750		65	24.000	32.480	49.00	0.1906	2.680
2	27.000	0.25000	/	65	31.160	36.310	55.00	0.1907	2.588
3	48.000	0.37500		65	34.770	43.910	66.00	0.1904	8.029
4	48.000	0.43750	1	65	41.960	51.100	76.00	0.1904	11.081
5	48.000	0.43750		65	48.860	58.000	/	0.1904	12.740

Design Bend Radius = 4.0 * t inches

POLE SHAFT SECTION MAXIMUM FORCES AND MOMENTS:

				At Base of Secti	on		Max. Ratio	
Seq	Load Case	Sect. Elev. (ft.)	Axial Load (kips)	Bending Moment (ft-kips)	Horiz. Shear (kips)	Torsion (ft-Kips)	Actual Allowable [Ftot/Fb]	_
1	Combo008	150.50	11.4737	505.5815	19.1707	18.5400	0.8607	
2	Combo008	127.58	15.4018	980.9787	20.7296	18.5400	0.9454	/
3	Combo008	81.42	26.4285	2057.2924	24.0087	18.5400	0.8847	
4	Combo008	38.50	40.0392	3191.7722	27.1936	18.5400	0.8696	
5	Combo008	0.00	53.7283	4509.1704	30.1767	18.5400	0.9291	
	DESIGN REA	ACTIONS →	62.3545 54.4420	4518.0558 1910.3950	30.3368 13.4504	18.5400 8.2400	← ←	

SECTION PROPERTIES:

Seq	Weight (kips)	Location	Elev (ft)	Diam Across Flats (in)	Wall Thick [t] (in)	[W/t] Ratio	Diam/ Thick [D/t] Ratio	Area (in^2)	J (in^4)	I (in^4)
1	2.680	@Top	195.00	24.000	0.1875	20.81	128.00	14.17	2035.5	1015.2
		@Splice	154.58	31.700		28.05	169.07	18.75	4717.4	2352.8
		@Bot	150.50	32.480		28.78	173.23	19.22	5076.5	2531.9
2	2.588	@Top	154.58	31.160	0.2500	20.21	124.64	24.53	5936.0	2960.6
		@Splice	132.17	35.090		22.99	140.36	27.64	8500.2	4239.5
		@Bot	127.58	36.310		23.85	145.24	28.61	9424.8	4700.7
3	8.029	@Top	129.42	34.770	0.3750	14.59	92.72	40.94	12268.0	6118.7
		@Splice	86.92	42.860		18.39	114.29	50.57	23120.3	11531.4
		@Bot	81.42	43.910		18.88	117.09	51.82	24877.3	12407.7
4	11.081	@Top	86.50	41.960	0.4375	15.15	95.91	57.66	25181.7	12559.5
		@Splice	44.83	50.500		18.59	115.43	69.52	44133.8	22012.0
		@Bot	38.50	51.100		18.83	116.80	70.35	45739.8	22813.0
5	12.740	@Top	48.00	48.860	0.4375	17.93	111.68	67.24	39937.0	19918.8
		@Bot	0.00	58.000		21.61	132.57	79.93	67089.3	33461.2
Total	Shaft Steel	Weight $= 37.$	ll7 kips							



File: 606058 Site: 1 Cycle: 1 Design: 1 Engineer: don_g

Customer: American Tower Corp.

Site: STURGIS Type: POLE-TPR

PROPERTIES:

Pole: Tapered Steel

(@ Max Segment = 5.0 ft)

Page: 2 03/26/2009

3:26 PM

Node No.	Node Elev. (ft)	Diam. Across Flats (in)	Wall Thick [t] (in)	[W/t] Ratio	Diam/ Thick [D/t] Ratio	Area (in^2)	J (in^4)	I (in^4)
	105 000	0.4.00	0 1075	20.01	100.00		2225 5	
57	195.000	24.00	0.1875	20.81	128.00	14.17	2035.5	1015.2
56	190.958	24.77	0.1875	21.53	132.11	14.63	2239.5	1117.0
55	186.917	25.54	0.1875	22.26	136.22	15.09	2456.6	1225.3
54	182.875	26.31	0.1875	22.98	140.32	15.55	2687.4	1340.4
53	178.833	27.08	0.1875	23.70	144.43	16.00	2932.1	1462.4
52 51	174.792	27.85	0.1875 0.1875	24.43 25.15	148.54	16.46	3191.3	1591.7
51 50	170.750	28.62 29.39	0.1875	25.15	152.65 156.75	16.92 17.38	3465.4	1728.4 1872.7
49	166.708 162.667	30.16	0.1875	26.60	160.86	17.38	3754.7	2024.8
48	158.625	30.10	0.1875	27.33	164.97	18.30	4059.7 4380.7	2184.9
470	154.583	31.70	0.1875	28.05	169.08	18.75	4718.3	2353.3
470	134.363	31.70	0.1073	20.03	109.00	10.75	4/10.3	2333.3
471	154.583	31.16	0.2500	20.21	124.64	24.53	5936.4	2960.8
46	150.500	31.94	0.2500	20.76	127.76	25.14	6396.1	3190.1
45	148.667	32.29	0.2500	21.01	129.15	25.42	6610.2	3296.9
44	146.833	32.64	0.2500	21.26	130.55	25.70	6829.0	3406.0
43	145.000	32.99	0.2500	21.50	131.95	25.98	7052.6	3517.5
42	143.167	33.34	0.2500	21.75	133.35	26.25	7281.0	3631.5
41	141.333	33.69	0.2500	22.00	134.75	26.53	7514.3	3747.8
40	139.500	34.04	0.2500	22.24	136.15	26.81	7752.6	3866.6
39	137.667	34.39	0.2500	22.49	137.55	27.09	7995.8	3987.9
38	135.833	34.74	0.2500	22.74	138.95	27.36	8244.0	4111.8
37	134.000	35.09	0.2500	22.98	140.34	27.64	8497.4	4238.1
360	132.167	35.44	0.2500	23.23	141.74	27.92	8755.9	4367.0
26*	122 167	24 77	0.3750	14 50	00 70	40.04	12266.4	6117.0
36I	132.167	34.77 35.64	0.3750	14.59 15.00	92.72 95.05	40.94		6117.9 6596.4
35 34	127.583	36.36	0.3750	15.34	96.97	41.98	13225.7	
33	123.792 120.000	37.09	0.3750	15.68	98.90	42.84 43.69	14054.7 14917.7	7009.9 7440.3
32	116.208	37.81	0.3750	16.01	100.82	44.55	15815.2	7887.9
31	112.417	38.53	0.3750	16.35	100.02	45.41	16748.1	8353.2
30	108.625	39.25	0.3750	16.69	104.67	46.27	17717.0	8836.4
29	104.833	39.97	0.3750	17.03	106.60	47.13	18722.5	9337.9
28	101.042	40.70	0.3750	17.37	108.52	47.99	19765.3	9858.1
27	97.250	41.42	0.3750	17.71	110.45	48.85	20846.2	10397.2
26	93.458	42.14	0.3750	18.05	112.38	49.71	21965.8	10955.6
25	89.667	42.86	0.3750	18.39	114.30	50.57	23124.7	11533.6
240	86.917	43.39	0.3750	18.64	115.70	51.19	23990.4	11965.4
25I	89.667	41.96	0.4375	15.15	95.91	57.66	25181.7	12559.5
24	86.917	42.48	0.4375	15.36	97.11	58.38	26146.4	13040.7
23	84.167	43.01	0.4375	15.57	98.30	59.11	27135.6	13534.0
22	80.550	43.70	0.4375	15.85	99.88	60.07	28474.0	14201.6
21	76.933	44.38	0.4375	16.13	101.45	61.02	29855.5	14890.6
20	73.317	45.07	0.4375	16.40	103.02	61.98	31281.2	15601.7
19	69.700	45.76	0.4375	16.68	104.60	62.94	32751.6	16335.1
18	66.083	46.45	0.4375	16.96	106.17	63.89	34267.4	17091.1
17	62.467	47.14	0.4375	17.24	107.75	64.85	35829.0	17869.9
16	58.850	47.83	0.4375	17.51	109.32	65.81	37437.6	18672.2
15	55.233	48.52	0.4375	17.79	110.90	66.76	39093.6	19498.2
14	51.617	49.21	0.4375	18.07	112.47	67.72	40797.8	20348.1
13	48.000	49.89	0.4375	18.35	114.04	68.67	42550.5	21222.3
120	44.833	50.50	0.4375	18.59	115.42	69.51	44125.9	22008.1
13I	48.000	48.86	0.4375	17.93	111.68	67.24	39937.0	19918.8
12	44.833	49.46	0.4375	18.17	113.06	68.08	41447.7	20672,3
11	41.667	50.07	0.4375	18.42	114.44	68.91	42996.0	21444.5
10	37.500	50.86	0.4375	18.73	116.25	70.01	45091.2	22489.5
9	33.333	51.65	0.4375	19.05	118.06	71.12	47253.4	23567.9
8	29.167	52.45	0.4375	19.37	119.88	72.22	49483.7	24680.3
-								



File: 606058 Site: 1 Cycle: 1 Design: 1 Engineer: don_g

Customer: American Tower Corp.

Site: STURGIS Type: POLE-TPR

Pole: Tapered Steel

Page: 3 03/26/2009 3:26 PM

Node No.	Node Elev. (ft)	Diam. Across Flats (in)	Wall Thick [t] (in)	[W/t] Ratio	Diam/ Thick [D/t] Ratio	Area (in^2)	J (in^4)	I (in^4)
7	25.000	53.24	0.4375	19.69	121.69	73.32	51783.1	25827.1
6	20.833	54.03	0.4375	20.01	123.50	74.42	54152.6	27008.9
5	16.667	54.83	0.4375	20.33	125.32	75.52	56593.3	28226.3
4	12.500	55.62	0.4375	20.65	127.13	76.62	59106.3	29479.6
3	8.333	56.41	0.4375	20.97	128.94	77.73	61692.5	30769.5
2	4.167	57.21	0.4375	21.29	130.76	78.83	64353.2	32096.6
1	0.000	58.00	0.4375	21.61	132.57	79.93	67089.3	33461.2



File: Customer: 606058 Site: 1 Cycle: 1 Design: 1 Engineer: don_g

American Tower Corp.

Site: Type: STURGIS POLE-TPR

Pole: Tapered Steel

Page: 4 03/26/2009 3:26 PM

DISCRETE APPURTENANCE PROPERTIES

			Wei	ght	EPA			
	Elev.	Description	W/o Ice (kips)	W/ Ice (kips)	W/o Ice W (ft^2) (V/ Ice (ft^2) <u>Lines</u>	**	
/	195.00	105 SQ.FT. EPA LOAD (NO IC 125 SQ.FT. EPA LOAD (W/ IC		2.50	105.00	125.00 (12)	1-5/8 in.	_
	185.00	105 SQ.FT. EPA LOAD (NO IO 125 SQ.FT. EPA LOAD (W/ IO		2.50	105.00	125.00 (12)	1-5/8 in.	
(175.00	105 SQ.FT. EPA LOAD (NO IC 125 SQ.FT. EPA LOAD (W/ IC		2.50	105.00	125.00 (12)	1-5/8 in.	/
	165.00	105 SQ.FT. EPA LOAD (NO IC 125 SQ.FT. EPA LOAD (W/ IC	•	2.50	105.00	125.00 (12)	1-5/8 in.	
	1							



File: 606058 Site: 1 Cycle: 1 Design: 1 Engineer: don_g

Customer: American Tower Corp.

Site: STURGIS Type: POLE-TPR

Pole: Tapered Steel

PRESSURES

	Elev.		W/o Io	e	With	Ice	Operat:	ional
Seg.	(ft)	Kz	G _h qz	Cf	G _h ·qz	Cf	G _h ·qz	Cf
1-11	192.979	1.656	× 40.308	0.650	30.276	0.650	7 17.915	0.650
1-10	188.938	1.646	40.065	0.650	30.093	0.650	17.807	0.650
1-9	184.896	1.636	39.818	0.650	29.908	0.650	17.697	0.650
1-8	180.854	1.626	39.568	0.650	29.720	0.650	17.586	0.650
1-7	176.813	1.615	39.313	0.650	29.528	0.650	17.472	
1-6	170.813	1.605	39.054	0.650	29.334	0.650		0.650
1-5	168.729	1.594	38.791	0.650	29.136		17.357	0.650
1-4	164.688	1.583	38.523	0.650	28.935	0.650	17.240	0.650
1-3	160.646	1.572	38.250	0.650	28.730	0.650	17.121	0.650
1-3	156.604	1.560	37.973	0.650	28.522	0.650	17.000	0.650
1-2	152.542	1.549	37.689	0.650	28.309	0.650 0.650	16.877	0.650
2-12	152.542	1.549	37.689	0.650	28.309	0.650	16.751	0.650
							16.751	0.650
2-11 2-10	149.583 147.750	1.540 1.535	37.479 37.347	0.650 0.650	28.151 28.052	0.650	16.657	0.650
2-10	145.917	1.529	37.214	0.650	27.952	0.650	16.599	0.650
2-8	144.083	1.529	37.080	0.650	27.851	0.650	16.539	0.650
2-7	142.250	1.518	36.944	0.650	27.749	0.650 0.650	16.480	0.650
2-6	140.417	1.512	36.807	0.650	27.647	0.650	16.420	0.650
2-5	138.583	1.512	36.670	0.650	27.543	0.650	16.359	0.650
2-4	136.750	1.507	36.530	0.650	27.438	0.650	16.298	0.650
2-4	134.917	1.495	36.390	0.650	27.333		16.236	0.650
2-3	133.083	1.489	36.248	0.650	27.226	0.650	16.173	0.650
2-2	129.875	1.479	35.996	0.650	27.037	0.650	16.110	0.650
3-13	129.875	1.479	35.996	0.650	27.037	0.650 0.650	15.998	0.650
3-13	125.688	1.479	35.660	0.650	26.785	0.650	15.998	0.650
3-12	121.896	1.453	35.350	0.650	26.552	0.650	15.849 15.711	0.650
3-10	118.104	1.440	35.032	0.650	26.313	0.650	15.570	0.650
3-10	114.313	1.426	34.707	0.650	26.069	0.650	15.425	0.650
3-8	110.521	1.420	34.374	0.650	25.819	0.650	15.277	0.650
3-7	106.729	1.398	34.033	0.650	25.562	0.650	15.126	0.650
3-6	100.729	1.384	33.683	0.650	25.300	0.650	14.970	0.650 0.650
3-5	99.146	1.369	33.324	0.650	25.030	0.650	14.810	0,650
3-4	95.354	1.354	32.954	0.650	24.752	0.650	14.646	0.650
3-3	91.563	1.339	32.575	0.650	24.467	0.650	14.478	0.650
3-2	88.292	1.325	32.238	0.650	24.214	0.650	14.328	0.650
3-1	85.542	1.313	31.948	0.650	23.996	0.650	14.199	0.650
4-14	88.292	1.325	32.238	0.650	24.214	0.650	14.199	0.650
4-13	85.542	1.313	31.948	0.650	23.996	0.650	14.199	0.650
4-12	82.358	1.299	31.603	0.650	23.738	0.650	14.046	0.650
4-11	78.742	1.282	31.200	0.650	23.435	0.650	13.867	0.650
4-10	75.125	1.265	30.784	0.650	23.122	0.650	13.682	0.650
4-9	71.508	1.247	30.353	0.650	22.799	0.650	13.490	0.650
4-8	67.892	1.229	29.906	0.650	22.463	0.650	13.292	0.650
4-7	64.275	1.210	29.442	0.650	22.114	0.650	13.085	0.650
4-6	60.658	1.190	28.959	0.650	21.752	0.650	12.871	0.650
4-5	57.042	1.169	28.455	0.650	21.373	0.650	12.647	0.650
4-4	53.425	1.148	27.927	0.650	20.977	0.650	12.412	0.650
4-3	49.808	1,125	27.374	0.650	20.561	0.650	12.166	0.650
4-2	46.417	1.102	26.828	0.650	20.150	0.650	11.923	0.650
4-1	43.250	1.080	26.291	0.650	19.748	0.650	11.685	0.650
5-12	46.417	1.102	26.828	0.650	20.150	0.650	11.923	0.650
5-11	43.250	1.080	26,291	0.650	19.748	0.650	11.685	0.650
5-10	39.583	1.053	25.634	0.650	19.254	0.650	11.393	0.650
5-9	35.417	1.020	24.832	0.650	18.652	0.650	11.037	0.650
5-8	31.250	1.000	24.336	0.650	18.279	0.650	10.816	0.650
5-7	27.083	1.000	24.336	0.650	18.279	0.650	10.816	0.650
5-6	22.917	1.000	24.336	0.650	18.279	0.650	10.816	0.650
5-5	18.750	1.000	24.336	0.650	18.279	0.650	10.816	0.650
5-4	14.583	1.000	24.336	0.650	18.279	0.650	10.816	0.650
5-3	10.417	1.000	24.336	0.650	18.279	0.650	10.816	0.650
5-2	6.250	1.000	24.336	0.650	18.279	0.650	10.816	0.650
5-1	2.083	1.000	24.336	0.650	18.279	0.650	10.816	0.650
	2.303	2.000				0.000	U	3.030

Page: 5 03/26/2009 3:26 PM



Page: 6 03/26/2009

3:26 PM

File: 606058 Site: 1 Cycle: 1 Design: 1 Engineer: don_g

Customer: American Tower Corp.

Site: STURGIS
Type: POLE-TPR

Pole: Tapered Steel

MOMENTS, FORCES AND DEFLECTIONS

		AND DEFLEC	Momer		She				tional	
		Axial	МУ	Mz	۷y	٧z	Torsion	Deflection	Twist	Sway
Node	Elev.	(kips)	<u>(ft-k)</u>	(ft-k)	(kips)	(kips)	(ft-k)	(in)	(deg)	(deg)
57	195.000	1.934	0.00	1.80	0.00	4.36	4.245	71.549	0.094	3.402 /
56	190.958	2.204	18.70	1.81	0.00	4.58	4.245	68.670	0.091	3.396
55	186.917	3.443	38.45	2.84	0.00	7.01	6.618	65.800	0.089	3.383
54	182.875	4.624	68.71	3.78	0.00	9.23	8.758	62.944	0.085	3.360
53	178.833	5.066	108.57	3.91	0.00	9.68	9.004	60.112	0.081	3.327
52	174.792	7.158	150.47	5.91	0.00	13.83	13.528	57.313	0.077	3.283
51	170.750	7.576	210.24	5.93	0.00	14.08	13.528	54.554	0.072	3.227
50	166.708	9.056	271.17	7.25	0.00	16.67	16.422	51.848	0.067	3.160
49	162.667	10.292	343.26	8.22	0.00	18.64	18.540	49.204	0.061	3.080
48	158.625	10.786	423.81	8.25	0.00	18.90	18.540	46.633	0.055	2.988
47	154.583	11.474	505.51	8.28	0.00	19.17	18.540	44.143	0.050	2.886
46	150.500	12.046	589.34	8.31	0.00	19.37	18.540	41.699	0.045	2.823
45	148.667	12.318	627.42	8.32	0.00	19.49	18.540	40.623	0.043	2.781
44	146.833	12.591	665.74	8.33	0.00	19.61	18.540	39.563	0.042	2.738
43	145.000	12.865	704.30	8.35	0.00	19.74	18.540	38.519	0.040	2.694
42	143.167	13.142	743.10	8.36	0.00	19.86	18.540	37.493	0.038	2.649
41	141.333	13.421	782.15	8.37	0.00	19.99	18.540	36.484	0.037	2.603
40	139.500	13.701	821.43	8.38	0.00	20.12	18.540	35.493	0.035	2.556
39	137.667	13.983	860.95	8.39	0.00	20.24	18.540	34.519	0.034	2.509
38	135.833	14.267	900.71	8.41	0.00	20.37	18.540	33.565	0.032	2.460
37	134.000	14.553	940.71	8.42	0.00	20.50	18.540	32.629	0.031	2.412
36	132.167	15.402	980.94	8.43	0.00	20.73	18.540	31.711	0.030	2.362
35	127.583	16.505	1082.79	8.45	0.00	21.03	18.540	29.474	0.027	2.296
34	123.792	17.304	1168.40	8.48	0.00	21.30	18.540	27.679	0.025	2.221
33	120.000	18.112	1255.10	8.50	0.00	21.57	18.540	25.944	0.024	2.145
32	116.208	18.935	1342.91	8.52	0.00	21.85	18.540	24.270	0.022	2.068
31	112.417	19.769	1431.80	8.54	0.00	22.12	18.540	22.657	0.021	1.990
30	108.625	20.615	1521.78	8.56	0.00	22.41	18.540	21.107	0.020	1.912
29	104.833	21.475	1612.82	8.58	0.00	22.69	18.540	19.618	0.018	1.834
28	101.042	22.345	1704.93	8.60	0.00	22.97	18.540	18.192	0.017	1.756
27	97.250	23.224	1798.08	8.62	0.00	23.26	18.540	16.827	0.016	1.678
26	93.458	24.117	1892.28	8.64	0.00	23.55	18.540	15.525	0.015	1.599
25	89.667	25.187	1987.50	8.65	0.00	23.80	18.540	14.285	0.014	1.521
24	86.917	26.428	2057.27	8.67	0.00	24.01	18.540	13.418	0.013	1.486
24	86.917	26.428	2057.27	8.67	0.00	24.01	18.540	13.418	0.013	1.486
23	84.167	27.540	2127.74	8.68	0.00	24.25	18.540	12.572	0.012	1.451
22	80.550	28.528	2221.31	8.70	0.00	24.52	18.540	11.498	0.012	1.383
21	76.933	29.528	2315.79	8.71	0.00	24.80	18.540	10.475	0.011	1.316
20	73.317	30.538	2411.17	8.73	0.00	25.07	18.540	9.502	0.010	1.249
19	69.700	31.560	2507.42	8.74 8.76	0.00	25.35 25.62	18.540	8.581	0.009	1.183
18	66.083	32.598	2604.54		0.00		18.540	7.709		1.117
17	62.467	33.647	2702.51	8.77 8.78	0.00	25.89	18.540	6.887 6.114	800.0	1.051
16	58.850	34.707	2801.31 2900.92	8.79		26.17	18.540		0.007	0.986
15	55.233	35.782	3001.32	8.81	0.00	26.44 26.71	18.540	5.391	0.007	0.922
14	51.617	36.869			0.00		18.540	4.716	0.006	0.858
13	48.000	38.287	3102.48	8.82 8.83	0.00	26.96	18.540	4.089	0.006	0.795
12	44.833	40.039	3191.76			27.19	18.540	3.574	0.005	0.757
12	44.833	40.039	3191.76 3281.75	8.83 8.83	0.00 0.00	27.19	18.540	3.574 3.084	0.005	0.757
11	41.667	41.558				27.46	18.540		0.005	0.719
10	37.500	42.844	3401.05	8.85	0.00	27.75	18.540	2.489	0.004	0.643
9	33.333	44.148	3521.17	8.86	0.00	28.04	18.540	1.960	0.004	0.568
8	29.167	45.467	3642.06	8.86	0.00	28.33	18.540	1.495	0.003	0.494
7	25.000	46.801	3763.71	8.87	0.00	28.63	18.540	1.095	0.003	0.421
6	20.833	48.152	3886.11	8.88	0.00	28.93	18.540	0.758	0.002	0.349
5	16.667	49.521	4009.26 4133.14	8.88	0.00	29.24	18.540	0.484	0.002	0.277
4	12.500	50.907		8.89	0.00	29.54	18.540	0.272	0.001	0.207
3	8.333	52.309	4257.76	8.89	0.00	29.86	18.540	0.121	0.001	0.137
2	4.167 0.000	53.728	4383.10	8.89	0.00	30.18	18.540	0.031	0.000	0.068
1	0.000	53.728	4509.16	8.89	0.00	30.18	18.540	0.000	0.000	0.000



File: 606058 Site: 1 Cycle: 1 Design: 1 Engineer: don_g

Customer: American Tower Corp.

Site: STURGIS Type: POLE-TPR

Pole: Tapered Steel

ACTUAL AND ALLOWABLE STRESSES

			AC.	tual Stress	es		Allowable	Actual /	
	-	Axial	Bending	Shear	Torsion	Combined	Stress	Allowable	
	Elevation	[fa]	[fb]	[fv]	[ft]	[Ftot]	[Fb]	[Ftot/Fb]	
Node	(ft)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	Ratio	
57	195.000	0.136	0.000	0.608	0.303	1.583	52.000	0.0304	
56	190.958	0.151	2.526	0.619	0.284	3.101	52.000	0.0596	
55	186.917	0.228	4.883	0.919	0.416	5.610	52.000	0.1079	
54	182.875	0.297	8.217	1.174	0.519	9.005	52.000	0.1732	
53	178.833	0.317	12.249	1.197	0.503	12.905	52.000	0.2482	
52	174.792	0.435	16.041	1.662	0.714	16.982	52.000	0.3266	
51	170.750	0.448	21.211	1.646	0.676	22.029	51.689	0.4262	
50	166.708	0.521	25.930	1.898	0.778	26.854	51.075	0.5258	
49	162.667	0.577	31.153	2.067	0.834	32.125	50.461	0.6366	
48	158.625	0.590	36.555	2.044	0.793	37.468	49.847	0.7517	
470	154.583	0.612	41.490	2.023	0.754	42.376	49.233	0.8607	/
47I	154.583	0.468	32.414	1.547	0.588	33.089	52.000	0.6363	
46	150.500	0.479	35.949	1.524	0.560	36.606	52.000	0.7040	
45	148.667	0.485	37.437	1.517	0.547	38.090	52.000	0.7325	
44	146.833	0.490	38.867	1.510	0.536	39.516	52.000	0.7599	
43	145.000	0.495	40.241	1.504	0.524	40.888	52.000	0.7863	
42	143.167	0.501	41.563	1.497	0.513	42.207	52.000	0.8117	
41	141.333	0.506	42.833	1.491	0.503	43.476	52.000	0.8361	
40	139.500	0.511	44.054	1.485	0.492	44.697	52.000	0.8596	
39	137.667	0.516	45.229	1.479	0.482	45.872	52.000	0.8821	
38	135.833	0.521	46.360	1.473	0.473	47.002	52.000	0.9039	
37	134.000	0.527	47.448	1.468	0.463	48.091	52.000	0.9248	
360	132.167	0.552	48.495	1.469	0.454	49.160	52.000	0.9454	1
361	132.167	0.376	33.964	1.002	0.317	34.417	52.000	0.6619	
35	127.583	0.393	35.646	0.991	0.301	36.108	52.000	0.6944	
34	123.792	0.404	36.928	0.984	0.289	37.397	52.000	0.7192	
33	120.000	0.415	38.116	0.977	0.278	38.592	52.000	0.7422	
32	116.208	0.425	39.217	0.970	0.267	39.700	52.000	0.7635	
31	112.417	0.435	40.238	0.964	0.257	40.728	52.000	0.7832	
30	108.625	0.446	41.185	0.958	0.248	41.683	52.000	0.8016	
29	104.833	0.456	42.065	0.953	0.239	42.571	52.000	0.8187	
28	101.042	0.466	42.882	0.947	0.230	43.395	52.000	0.8345	
27	97.250	0.475	43.641	0.942	0.222	44.162	52.000	0.8493	
26	93.458	0.485	44.346	0.937	0.215	44.875	52.000	0.8630	
25	89.667	0.498	45.001	0.931	0.208	45.542	52.000	0.8758	
240	86.917	0.516	45.448	0.928	0.203	46.006	52.000	0.8847	/
25I	89.667	0.437	40.455	0.817	0.186	40.928	52.000	0.7871	
24	86.917	0.453	40.833	0.814	0.182	41.322	52.000	0.7947	
23	84.167	0.466	41.194	0.812	0.177	41.695	52.000	0.8018	
22	80.550	0.475	41.640	0.808	0.172	42.149	52.000	0.8106	
21	76,933	0.484	42.055	0.804	0.166	42.572	52.000	0.8187	
20	73.317	0.493	42.440	0.800	0.161	42.965	52.000	0.8262	
19	69.700	0.501	42.797	0.797	0.156	43.330	52.000	0.8333	
18	66.083	0.510	43.127	0.793	0.152	43.668	52.000	0.8398	
17	62.467	0.519	43.434	0.790	0.147	43.983	52.000	0.8458	
16	58.850	0.527	43.717	0.787	0.143	44.273	52.000	0.8514	
15	55.233	0.536	43.978	0.784	0.139	44.542	52.000	0.8566	
14	51.617	0.544	44.218	0.780	0.135	44.791	52.000	0.8614	
13	48.000	0.558	44.439	0.777	0.133	45.024	52.000	0.8658	
120	44.833	0.576	44.439	0.774	0.131	45.221	52.000	0.8696	1
120	CCO.FF	0.570	J. 010	0.774	V. 12U	77.44	52.000	0.0030	/
131	48.000	0.569	46.366	0.793	0.137	46.963	52.000	0.9031	
12	44.833	0.588	46.529	0.790	0.134	47.144	52.000	0.9066	
11	41.667	0.603	46.680	0.788	0.130	47.310	52.000	0.9098	
10	37.500	0.612	46.860	0.784	0.126	47.498	52.000	0.9134	
9	33.333	0.621	47.017	0.780	0.120	47.664	52.000	0.9166	
8	29.167	0.630	47.153	0.776	0.119	47.808	52.000	0.9194	
•	, _,				J			J. J. J. J	

Page: 7 03/26/2009 3:26 PM



File: 606058 Site: 1 Cycle: 1 Design: 1 Engineer: don_g

Customer: American Tower Corp.

Site: STURGIS
Type: POLE-TPR

Pole: Tapered Steel

Page: 8 03/26/2009 3:26 PM

			Act	ual Stress	Allowable	Actual /		
		Axial	Bending	Shear	Torsion	Combined	Stress	Allowable
	Elevation	[fa]	[fb]	[fv]	[ft]	[Ftot]	[Fb]	[Ftot/Fb]
Node	(ft)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	Ratio
7	25.000	0.638	47.269	0.773	0.115	47.932	52.000	0.9218
6	20.833	0.647	47.366	0.769	0.112	48.037	52.000	0.9238
5	16.667	0.656	47.446	0.766	0.109	48.126	52.000	0.9255
4	12.500	0.664	47.510	0.763	0.105	48.198	52.000	0.9269
3	8.333	0.673	47.560	0.760	0.102	48.256	52.000	0.9280
2	4.167	0.682	47.596	0.758	0.100	48.300	52.000	0.9289
1	0.000	0.672	47.619	0.747	0.097	48.314	52.000	0.9291 /



File: 606058 Site: 1 Cycle: 1 Design: 1 Engineer: don_g

Customer: American Tower Corp.

Site:

STURGIS Type: POLE-TPR

Pole: Tapered Steel

Page: 9 03/26/2009 3:26 PM

	SUMMARY OF	ASEPLATE DE	SIGN
PLATE		ANCHOR	RBOLTS
Pole Diameter at Base	= 58.00 in.	Size = 2	.25 in. X 84 in. Long /
Plate Diameter	= 70.50 in.	Grade = A	STM A615
Plate Thickness	= 2.25 in. /		,
Plate Weight (Black)	= 1157.13 lbs	No. Of Bolts = 1	8 /
Fy	= 50.00 ksi	Bolt Circle = 6	4.250 in.
Fu	= 65.00 ksi	Fy = 7	5.00 ksi

MAXIMUM POLE REACTIONS:

Axial = 62.35 kips

Moment = 4,518.06 ft-kips

Shear = 30.34 kipsTorsion = 18.54 ft-kips

ANCHOR BOLTS:

Axial = 150.7 kips/boltMoment = 2.1 in-kips/bolt

Shear = 2.1 kips/bolt

ANCHOR BOLT STRESS RATIO = 0.922 < 1.0 OK

PLATE:

Bolt Group Tension Capacity = 3,948.7 kips = 6,675.7 kipsPlate Tension Capacity = 12,069.4 kips Plate Shear Capacity

PLATE STRESS RATIO = 0.592 < 1.0 OK

Axial Capacity = 243.8 kips/bolt Moment Capacity = 105.2 in-kips/bolt

Shear Capacity = 182.8 kips/bolt



File: Customer: 606058 Site: 1 Cycle: 1 Design: 1 Engineer: don_g

Site:

American Tower Corp.

Type:

STURGIS

POLE-TPR Pole: Tapered Steel

Page: 10 03/26/2009 3:26 PM

NOTES

LOAD COMBINATIONS

Load Combo Description

Combo008

Dead Load + Wind Load no Ice @ 180 deg.

MISCELLANEOUS NOTES

Critical wind velocity is outside range where vortex shedding lock-in may occur. No further investigation required.

AMERICAN TOWER CORPORATION

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

273148 - STURGIS KY, KY

PROJECT DESCRIPTION: =

PRIMARY FOUNDATION DESIGN FOR A 195' "ROHN" 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: 273148

SITE NAME: STURGIS KY, KY

SITE ADDRESS: 11096 STATE ROUTE 109

STURGIS, KY 42459

PROPERTY OWNER: AMERICAN TOWER CORPORATION

ATC JOB NUMBER: 43206672A

DATE: 4/1/09

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 (PRIMARY DESIGN)	0			
A-2	BAR LIST FOR REINFORCING STEEL AND GENERAL NOTES	0			

MERICAN TOWER CORPORATION 8505 FREEPORT PARKWAY SUITE 135 (D)VING TY 75063

IRVING, TX 75063 PHONE: (972) 999-8900 / FAX: (972) 999-8940

3	DC	۱ ۱	\sim T	CI	. IR	AΛ	ЛΛ	D'	✓
_	RC	JJ	U I	O	リハ	/111	///	$\mathbf{\Gamma}$	1

		•					
CUSTOMER	SITE NUMBER	SITE NAME	ATC JOB NUMBER	SITE ADDRESS	DATE	DRAWING NUMBER	REVISION
OPERATIONS STRUCTURAL	273148	STURGIS KY, KY	43206672A	11096 STATE ROUTE 109 STURGIS, KY 42459	4/1/09	вом	0

BILL OF MATERIALS							
QUANTITY REQUIRED	QUANTITY SHIPPED	PART NUMBER	DESCRIPTION	LENGTH	DRAWING NUMBER	WEIGHT (lbs)	COMMENTS
			REBARS				
12			# 5 REBAR GRADE 40	21'-6"	A-1,A-2	269	
32			# 10 REBAR GRADE 60	7'-2 3/8"	A-1,A-2	991	
136			#9 REBAR GRADE 60	27'-6"	A-1,A-2	12716	

				The same of the sa			
				The second section of the second section secti			
7 (100 (100 (100 (100 (100 (100 (100 (10							
						1	
					THE PARTY OF THE P		

							PAGE 1 OF 1

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 FABRICATION.
- 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. 2006 INTERNATIONAL BUILDING CODE AND 2007 KENTUCKY BUILDING CODE.
- 3. ACI 318: AMERICAN CONCRETE INSTITUTE, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, 318-99.
- 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. 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

1. AS REQUIRED, CLEAN AND PAINT PROPOSED STEEL ACCORDING TO FAA ADVISORY CIRCULAR AC

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
7/8"	BOLTS UP TO AND INCLUDING 3.5 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
1"	BOLTS UP TO AND INCLUDING 4.0 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
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

	NOTIO OTENS CONTRACT EXCEPTING O DIA:	
3/4"	BOLTS 4.25 TO 6.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
7/8"	BOLTS 3.75 TO 7.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
1,,	BOLTS 4.25 TO 8.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
1-1/8"	BOLTS 4.75 TO 9.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
1-1/4"	BOLTS 5.25 TO 10.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
1-1/2"	BOLTS 6.25 TO 12.0 INCH LENGTH	+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

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

> a) STRUCTURAL WELDING b) HIGH STRENGTH BOLTS

2. THE INSPECTION AGENCY SHALL SUBMIT INSPECTION AND TEST REPORTS TO THE BUILDING DEPARTMENT, THE ENGINEER OF RECORD, AND THE OWNER IN ACCORDANCE WITH 2007 KENTUCKY BUILDING CODE AND IBC 2006, SECTION 1704. UNLESS THE FABRICATOR IS APPROVED BY THE BUILDING OFFICIAL TO PERFORM SUCH WORK WITHOUT THE SPECIAL INSPECTIONS.



STRUCTURAL ENGINEERING

8505 FREEPORT PARKWAY SUITE 135 IRVING, TX 75063 (972) 999-8900 Tel. (972) 999-8940 Fax MSE ANT

THESE DRIMINES AND/OR THE ACCOMPANYING SPECIFICATION AS INSTRUMENTS OF SERVICE, ARE THE EXCLUSIVE PROPERTY OF ALEXCOMPANYING SPECIFICATION AS INSTRUMENTS OF SERVICE, ARE THE EXCLUSIVE PROPERTY OF ALEXCOMPANYING AND THEIR USE AND PUBLICATION AS AND THE FOR MISCH THEY ARE PREPARED, RSISE, REPRODUCTION OF PUBLICATION BY ANY METHOD, IN WHOLE ON IN PARTY, IS PROMISSIED DICKET BY WRITTEN PERMISSION FROM ALEXCOMPONER CORPORATION THE TO THESE PLANS AND/OR SPECIPICATIONS SILL REMAIN WITH ALEXCOMP TOWER CORPORATION WITHOUT PREMISSION FROM ALEXCOMP AND ALE

REV.	DESCR	RIPTION	BY	DATE	:
<u></u>	FIRST	ISSUE	CH	4/1/	0§
Λ					
$\overline{\Lambda}$					
$\overline{\Lambda}$		***************************************			
$\overline{\Lambda}$				***************************************	
Λ					
〜					
$ \Delta$					

SITE NUMBER: 273148

SITE NAME:

STURGIS KY.

SITE ADDRESS: 11096 STATE ROUTE 109 STURGIS, KY 42459

DRAWN BY:	СН
CHECKED BY:	HY
DATE DRAWN:	4/1/09
ATC JOB NO:	43206672A

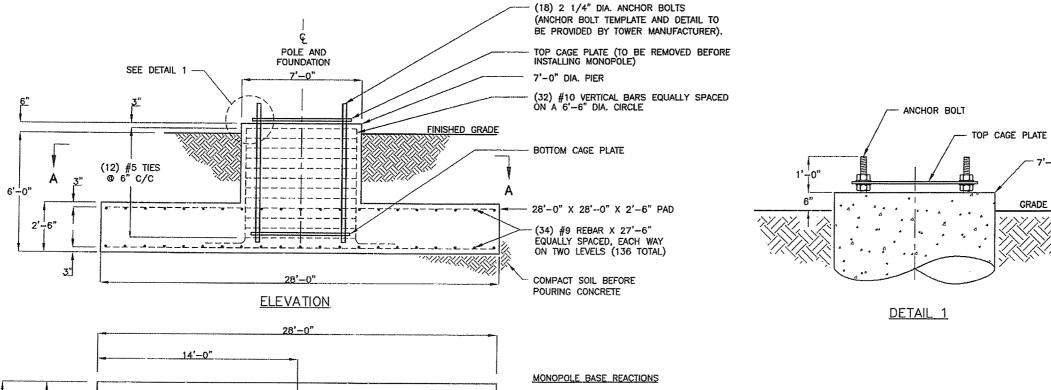
IBC GENERAL NOTES

REV. #

SHEET TITLE:

SHEET NUMBERS **IGN**

N.T.S.



MOMENT =4518.1 KIPS--FT SHEAR = 30.3 KIPS AXIAL = 62.4 KIPS CONCRETE VOLUME = 78.3 CUBIC YARDS 14'-0" ANCHOR BOLTS (REFER TO TOWER MANUFACTURER DRAWINGS FOR ANCHOR BOLT LAYOUT) - 7'-0" DIA. PIER - #10 VERTICAL BARS #5 TIES 28'-0" 28'-0" X 28'-0" X 2'-6" PAD - (34) #9 REBAR X 27'-6" EQUALLY SPACED, EACH WAY ON TWO LEVELS (136 TOTAL) 3"__ A-A

NOTES

- 1. FOUNDATION DESIGNED FOR A "ROHN" 195' MONOPOLE (ENG. FILE# 060-6058 DRAWING# A090275 DATED 3/27/09). REFERENCE "ROHN" DRAWINGS FOR ANCHOR BOLT INSTALLATION REQUIREMENTS.
- 2. FOUNDATION DESIGN WAS BASED ON SOIL REPORT PROVIDED BY TRI--STATE GEOSCIENCES, LLC WITH TSG PROJECT NUMBER OBCTCIVO304G DATED SEPTEMBER 11, 2008. REFERENCE THE SOIL REPORT FOR ADDITIONAL CONSIDERATIONS AND REQUIREMENTS.
- 3. CONCRETE SLUMP: 2"-4"
- 4. FOUNDATION DESIGN REACTIONS WERE OBTAINED FROM ROHN TOWER DESIGN DRAWINGS (ENG. FILE# 060-6058 DRAWING# A090275 DATED 3/27/09).

AND TOWNS

STRUCTURAL ENGINEERING 8505 FREEPORT PARKWAY SUITE 135 IRVING, TX 75063 (972) 999-8900 Tel. (972) 999-8840 Fax MYSE AUT

MISE AUT
THESE DRAWNES AND/OR THE ACCOMPANTING
SPECIFICATION AS INSTRUMENTS OF SERVICE,
AND THE EXCLUSIVE PROPERTY OF AMERICAN
TOWER COMPORATION AND THER USE AND
PUBLICATION SHALL BE RESTRICTED TO THE
ORGANAL SITE FOR WHICH THEY ARE PREPARED,
RELIES REPRODUCTION OR PLENCATION BY ANY
METHOD, BY MHOLE OR IN PART, IS PONHERIED
EXCEPT BY WEITHEN PERMISSION FROM AMERICAN
TOWER CORPORATION TITLE TO THESE
PLAIS AND/OR SPECIFICATIONS SHALL REMAIN
WITH AMERICAN TOWER CORPORATION WITHOUT
PREJUDICE AND VISUAL CONTACT WITH THEM
SHALL CONSTITUTE PRIMA FACE EVIDENCE
OF ACCEPTANCE OF THESE RESTRICTIONS.

7'-0" DIA. PIER

GRADE

		RIPTION		DATE 4/1/09	
ا لكِ	11101	10002		4/1/03	
\triangle					
\triangle					
\triangle					
$\overline{\Delta}$					
Δ					
Λ					
 ,					

SITE NUMBER: 273148

SITE NAME:

STURGIS KY,

SITE ADDRESS: 11096 STATE ROUTE 109 STURGIS, KY 42459

DRAWN BY:	CH HY 4/1/09 43206672A		
CHECKED BY:			
date drawn:			
ATC JOB NO:			

SHEET TITLE:

PIER AND PAD FOUNDATION DETAILS (PRIMARY DESIGN)

SHEET NUMBER: REV. #

			O LICT FOR I	CINCOPOLNO	errer /pie	D AND DAD COL	INDATION D	PIMARY DECICALLY		
QTY	BAR	тот	AL LENGTH	TOTAL	TYPE			RIMARY DESIGN)) NG DIAGRAM		
REQ'D.	SIZE		OF BAR	(LBS)		DIMENSION			Market St. Co.	
12	#5	2	11'~6"	269		A= 6'-6"				
						OVERLAP= 1'-1	n			
		1			1		\dashv ()) A		
Hapting of Others Printers - Hamilton		 		 	TIE		_ \			
THE SECRET OF SECRET SE		<u> </u>	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		4			OVER! AD		
			******************************		_			OVERLAP		
32	#10		7'-2 3/8"	991		A= 5'-3 1/2	2"		- Committee Comm	
				-	1	B= 1'-3"		١١		
							-	اا	5"	
				<u> </u>	-	RADIUS =5"			RADIU5	
		ļ			BENT				=	
								B		
								¥ <u>~</u>	*	
]					
	***************************************	<u> </u>			1					
										
136	مال	#9 27'-6" 12716		-	A= 27'-6"					
130	#9			4	A= 27-0					
			····				_	<u></u>		
			***		STRAIGHT			A		
						1		/	}	
			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		j	<u> </u>				
STANI	DARD R	FBAR	SIZES & V	VFIGHTS	1		STANDAR	RD REBAR HO	OK LENGTHS	
	LBS PE				SPEC	IAL NOTES	- 11 11 12/11	Υ		
BAR NO	.373		DIA. INCH	ES GRADE	+			90' HOOK	135' HOOKS 8"	
4	.667		.500			}		7"	10"	
5	1.04		.625	40		}		9"		
6	1.50		.750		1	ŀ		10"		
<del>-</del> 7	2.04		.875			t		1'-0"	***	
8	2.67		1.000	60		ŀ	<del></del>	1'-2"	***	
9	3.40	-	1.128			f		1'-4"	e1N4	
10	4.30		1.270			ľ		1'-5"	_	
								1		

### GENERAL FOUNDATION CONSTRUCTION NOTES

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



STRUCTURAL ENGINEERING 8505 FREEPORT PARKWAY SUITE 135 IRVING, TX 75063 (972) 999-8900 Tel. (972) 999-8940 Fox INSE AUT

THESE DRAWNOS AND/OR THE ACCOMPANION SPECIFICATION AS INSTRUMENTS OF SERVICE, ARE THE EXCLUSIVE PROPERTY OF AMERICAN TOWER CORPORATION AND THER USE AND PUBLICATION SHALL BE RESTRICTED TO THE ORIGINAL STEED FOR WHICH THEY ARE PREPARED, RUSES, REPRODUCTION OR PUBLICATION BY ANY METHOD, IN WHOLE OR IN PART, IS PORGISTED EXCEPT BY WISTIEN PERMISSION FROM AMERICAN TOWER CORPORATION TITLE TO THESE PLANS AND/OR SPECIFICATIONS SHALL REMAN WITH AMERICAN TOWER CORPORATION WITHOUT PREJUDICE AND VISUAL CONTACT WITH THEM SHALL CONSTITUTE PRIMA FACE EVIDEDICE SHALL CONTINUE THE FACE EVIDEDICE OF ACCEPTIONES OF THESE RESTRICTIONS.

				*****
REV.		RIPTION		DATE
$\triangle$	FIRST	ISSUE	CH	4/1/09
$\wedge$				
$\overline{\Lambda}$				
一				
$\forall$				
$\Delta$				
$\Delta$				
$  \wedge  $				

SITE NUMBER: 273148 SITE NAME:

STURGIS KY,

SITE ADDRESS: 11096 STATE ROUTE 109 STURGIS, KY 42459

KY

CH DRAWN BY: HY CHECKED BY: 4/1/09 ATC JOB NO: 43206672A

BAR LIST FOR REINFORCING STEEL AND GENERAL NOTES

REV. #

SHEET NUMBER:

SHEET TITLE:

N.T.S.





Geotechnical Exploration Self-Supporting Tower Sturgis, Union County, Kentucky Project No: 08CTCIV0304G

September 11, 2008

Prepared for:

Civil & Environmental Consultants, Inc. Ms. Lori Parker 405 Duke Drive, Suite 270 Franklin, TN 37067

Prepared by:

Tri-State Geosciences, LLC
A subsidiary of Gallet & Associates, Inc.

John D. Cannon, P.E.
Senior Geotechnical Engineer



### **EXECUTIVE SUMMARY**

This report presents the results of the *Geotechnical Exploration* performed for a self-supporting tower up to 280 feet high in Sturgis, Kentucky. The purpose of this study was to explore the general subsurface conditions of the subject site and determine the effect on design and construction of foundations, the proposed tower.

The field exploration program consisted of drilling and sampling one (1) Standard Penetration Test (SPT) boring. The subsurface exploration indicated that the soil at the site is suitable for support of shallow foundations or drilled piers provided that the design of foundations, site preparation and construction is in accordance with the recommendations presented in this report.

The boring encountered strata consisting of moist, very stiff clay (CH) to a depth of about 3.5 feet, then medium stiff to very stiff clayey silt to a boring termination depth of forty (40) feet. Based on SPT N-values and other laboratory test results, foundations may be designed for a maximum allowable bearing capacity of 2,500 psf based on the assumption minimum footing width will be 6 feet. The primary factor in determining size of shallow footings will likely be resistance to uplift during transient loading. An alternative to shallow foundations is drilled shafts bearing at a depth of 20 feet.

The development of the site as it relates to ancillary structures should include stripping and removal of vegetative cover, and any other deleterious materials that fall within the proposed construction area. After clearing and prior to placement of any fill, the exposed subgrade should be thoroughly proofrolled with a fully loaded tandem-axle dump truck or other similar equipment with pneumatic tires. Any soft or deflecting soils disclosed by proofrolling should be undercut and replaced with suitable properly compacted engineered fill.

It should be noted that this section is only intended to represent a brief summary of our findings, and is not a detailed account of all the information compiled in preparation of this report. For more detailed design recommendations and specific site conditions, we recommend reviewing this report in its entirety.





### TABLE OF CONTENTS

	Pac	<u> 1e</u>						
1.0 OBJECTIV	ES OF EXPLORATION	1						
2.0 PROJECT INFORMATION								
3.0 SCOPE OF EXPLORATION								
4.0 AREA AND SITE GEOLOGY								
5.0 SITE & SUBSURFACE CONDITIONS								
6.0 SITE PREPARATION RECOMMENDATIONS								
7.0 FOUNDATION RECOMMENDATIONS 7.1 FOUNDATION DESIGN 7.2 CONVENTIONAL FOUNDATIONS 7.3 DRILLED SHAFT FOUNDATIONS 7.4 LATERAL LOADS. 7.5 SEISMIC RECOMMENDATIONS								
8.0 BASIS OF RECOMMENDATIONS								
	<u>FIGURES</u>							
Figure 1 Figure 2	Site Location Map Boring Location Plan							
APPENDICES								
Appendix A Appendix B	Soil Boring Logs Field Exploratory Procedures							



Appendix C

Key to Test Data



### 1.0 OBJECTIVES OF EXPLORATION

The objective of the exploration was to obtain data on general subsurface conditions and to provide recommendations for design and construction of foundations. An assessment of site environmental conditions or for the presence of pollutants in the soil, surface water, or ground water of the site was beyond the scope of the geotechnical exploration.

### 2.0 PROJECT INFORMATION

The project site is located south of State Route 109 along Walter Omer Road in Sturgis, Union County, Kentucky, as shown on the Site Location Map, Figure 1. Based on the information provided by Civil & Environmental Consultants (CEC), the project will consist of a 240 – 280 foot self-supporting tower. Structural loading information was not available at the time of report preparation. We anticipate only minimal site grading will be required to achieve desired elevations. The tower is proposed to be constructed on a parcel 100 feet square. Ground surface elevation at the base will be approximately 364 feet (MSL).

### 3.0 SCOPE OF EXPLORATION

The scope of services for this exploration included a site reconnaissance and drilling one boring near the legs of the proposed tower location as shown on Figure 2. Soils were sampled at regular intervals using the Standard Penetration Test (SPT). The field test results are shown on the boring logs in Appendix A. The drilling and sampling were performed in general accordance with ASTM procedures summarized in Appendix B. The soil sampling was completed to a boring termination depth of 40 feet below ground level. Samples were delivered to our laboratory where they were visually classified by a member of our professional staff. Soil descriptions and other information are included on the Soil Boring Logs attached in Appendix A. Information on the logs represents our interpretation of the subsurface conditions based on field logs and visual classification of samples. Strata boundaries shown on the Soil Boring Log represent interfaces between soil layers that may not be as distinct in larger excavations as portrayed on the log.

### 4.0 AREA AND SITE GEOLOGY

Sturgis, Kentucky is located in the Western Highland Rim in the Interior Plateau. The Western Highland Rim is a hilly area that is bisected by the Tennessee River and the Cumberland River Valleys. It is much more wooded and rugged than the nearby agricultural plains. The extensive plains of interior plateau are interrupted in places by dissected uplands, knobs, a few deeply incised master streams, and large areas of karst. This region is mainly underlain by Mississipian-age through Ordovician-age limestone, calcareous shale, sandstone, siltstone and shale.

Geologic maps of the area indicate that beneath a surface layer of Quaternary alluvium, the bedrock underlying the site is the Pennsylvanian Age Carbondale Formation. Consisting primarily of siltstone and shale, the Carbondale Formation may include some locally prominent sandstone units, as well as many thin argillaceous limestone beds.

### 5.0 SITE & SUBSURFACE CONDITIONS

### **5.1 SITE CONDITIONS**

At the time of drilling, the site was open and grassed.





### 5.2 SUBSURFACE CONDITIONS

The boring was terminated at a boring termination depth of 40 feet. The soil profile consisted of a topsoil layer about six inches thick, followed by residual brownish olive very stiff clay (CH) to a depth of about 3.5 feet. This clay layer was underlain by medium stiff to very stiff clayey silt. Based on SPT data collected during soil sampling, the consistency was generally medium stiff to very stiff.

Residual soil develops from the in-place weathering of rock. The on-site residual soils were typically classified as brownish olive, very stiff clay. Based on the N values, the consistency of the soil ranged from medium stiff to very stiff.

### 5.3 GROUND WATER CONDITIONS

Groundwater was not observed in the boring. Although it is possible that perched (artificially elevated) groundwater may be encountered during construction, significant construction problems associated with groundwater are not anticipated.

Fluctuations in the ground-water level may occur because of variations in rainfall, evaporation, construction activity, surface run-off, and other factors. Perched water is commonly associated with a change of strata, such as the fill-residuum of soil-rock interface.

### 6.0 SITE PREPARATION RECOMMENDATIONS

It is possible that variations in soil conditions will be encountered during construction. To permit correlation between the anticipated subsurface conditions and the actual subsurface conditions encountered during the construction phase, we recommend that an engineer or qualified soils technician from TSG be retained for the construction phase of this project to perform continuous observation and review during the soils and foundation preparation. Should the project team choose to retain another firm to provide the construction phase services, this firm should carefully read our report and agree to sign on as the Geotechnical Engineer of Record and agree with the recommendations prior to start of work. Furthermore should this project be designed per IBC, the firm selected for the construction phase services and special inspection should NOT be under the contractor's contract. Per the Section 1704 of the IBC the owner is to contract directly with the firm providing Special Inspection.

The actual construction means and methods are the responsibility of the contractor(s). The following construction related items pertain to general site preparation for the foundation support and are **not** intended to address all possible construction related concerns.

Though no significant surface preparation is generally required in the area of the tower foundation itself, if grading is done for associated buildings or pavements, all vegetation, topsoil, roots, and any debris should be stripped and removed from the site. The subgrade should be proofrolled to identify any areas of instability. One of **TSG's** geotechnical engineers, and/or technicians should observe subgrades and proofrolling operations. Proofrolling should not be done after a period of wet weather to avoid degrading an otherwise acceptable subgrade. Proofrolling should be performed with a heavily loaded tandem axle dump truck or similar approved construction equipment. The equipment should make at least four passes over each section, with the last two passes perpendicular to the first two. Positive surface drainage should be maintained to prevent the accumulation of water on subgrades. If the exposed subgrades become excessively wet or frozen, or if conditions differ from those described previously in this report are encountered, the Geotechnical Engineer of record should be contacted.





Subgrade stabilization requirements will be refined during the grading process based on the performance of the subgrades during proofrolling.

It should be pointed out that the enclosed recommendations could be amended depending on the actual finish grade elevations. We request permission to evaluate the finish site plans and possibly amend our recommendations accordingly.

### 6.1 FILL SELECTION, PLACEMENT AND COMPACTION

All material to be used as fill should be evaluated, tested and approved by the geotechnical engineer. Residual soils in proposed cut areas across the site appear suitable for use as structural fill. Off-site borrow materials may be used as fill within the building and pavement areas provided the Liquid Limit (LL) and Plasticity Index (PI) do not exceed 60 and 30, respectively. The soil should also have a maximum dry density as determined by ASTM D-698 of at least 95 pcf).

The fill should be placed in thin loose lifts not exceeding 8 inches in thickness and compacted accordingly. Based on our experience with soils similar to those on this site and similar type of construction, we recommend that all engineered fill be compacted to 98 percent of the soil's maximum standard Proctor density value (ASTM D-698). Soil moisture should be maintained between one percent below and two percent above optimum moisture content (ASTM D-698) at the time of compaction. Failure to maintain moisture within these limits will be cause for test failure even if the required density has been obtained. The on-site soil has a tendency to absorb water and soften if placed and compacted below optimum moisture. Thus the grading contractor should be prepared to add moisture or aerate to reduce moisture as needed.

### 6.2 FOUNDATION EXCAVATIONS

The bottom surface of footing excavations may become loosened by bucket teeth, equipment movement, or other disturbance, requiring additional compaction effort. The foundation excavation should be observed by a geotechnical engineer or qualified representative from our office acting under the supervision of the geotechnical engineer to verify that all loose, soft or other undesirable material is removed and that the foundation bears on satisfactory compacted material. At the time of such inspection, it may be necessary to perform hand auger borings, a hand penetrometer probe and/or density tests in the base of the foundation excavation to verify that the above recommendations are adhered to. The necessary depth of penetration testing will be established during inspection.

If soft soils are encountered in footing excavations for incidental structures and it is inconvenient to lower the footing bearing elevation, the proposed footing elevation may be re-established by backfilling after the undesirable material has been removed. Lean concrete, compacted soil or densegraded base stone may be used to backfill the bottom of the excavation to the design bearing elevation. Fill materials other than concrete should be compacted to a dry density of at least 98 percent of the maximum standard Proctor density value (ASTM D-698) provided the footing is designed as outlined in this report. Open-graded (washed) stone should not be used for this purpose to limit water infiltration and softening of foundations subgrades. An only minor amount of additional undercutting is expected.

Exposure to the environment may weaken soils at the foundation bearing level if excavations remain open overnight. Therefore, concrete should be placed as soon as possible after excavations are made. Bearing soils softened by surface water intrusion or exposure must be removed from the foundation excavation bottom before placement of concrete. If the excavation must remain open overnight, or if rainfall becomes imminent while bearing soils are exposed, we recommend placing a 2- to 4-inch-





thick "mud-mat" of "lean" concrete on the bearing soils for protection. Foundation bearing areas should be level or suitably benched, and free of loose soil, water, and debris.

### 7.0 FOUNDATION RECOMMENDATIONS

These recommendations are based in part on the project information and soil conditions encountered, as well as past experience on projects involving similar soils and loading conditions. Changes in geometry, structural information, and finish subgrade elevations can have a significant effect on the applicability of the recommendations. For this reason, **TSG** should be given the opportunity to review this report when the final structural design has been completed.

### 7.1 FOUNDATION DESIGN

Considering the nature of the proposed project and the subsurface data encountered, we believe the subsurface conditions to be suitable for the use of either conventional shallow foundations or drilled piers for support of the tower.

### 7.2 CONVENTIONAL FOUNDATIONS

Based on the conditions encountered, conventional "shallow" foundations may be used if they bear on stiff residual soil at a minimum depth of 4 feet below the existing ground surface. Under sustained loads, a foundation bearing on stiff soil may be sized for a maximum bearing pressure of 2.5 kips per square foot (ksf) for static and transient loading conditions. This bearing value provides a minimum factor of safety of at least three (3).

Uplift forces will be resisted by the dead load of the structure, the buoyant weight of the foundation, and the buoyant weight of backfill above the foundation, considering the soil directly above the footing and extending out from the top edge at an angle of 30° below the vertical. An appropriate factor of safety should be applied to lateral and uplift forces calculated using these values.

### 7.3 DRILLED SHAFT FOUNDATIONS

The design of the foundations for drilled shafts bearing on stiff or better residual soil will utilize both end bearing and skin friction/adhesion along the circumference of the shaft. Based on 2.5 ksf bearing, allowable capacities for bearing and uplift resistance have been estimated for piers of varying diameters and depths and are provided in Appendix D. The figures are based on the conditions encountered in the boring and the assumption that a bearing depth of 20 feet is utilized. Figure 3 provides the allowable capacities for support of downward axial forces. These include components of adhesion between the soils and the concrete as well as bearing at the bottom of the pier. Figure 4 provides allowable uplift capacities that include only adhesion and friction between the concrete portions of the pier embedded into the weathered rock. The values shown on these charts provide a factor of safety of at least three (3) against shear failure.

The following notes are general recommendations for drilled pier construction:

• As the drilled pier hole is advanced, a temporary protective steel casing should be installed in the drilled hole. A properly designed steel casing will greatly reduce the possibility of sidewall collapse. Additionally, steel casing will reduce mud and water intrusion into the excavation and allow worker access for cleaning and observation of the bearing materials.





- The protective steel casing may be extracted as the concrete is placed. However, the contractor should maintain a sufficient volume of concrete inside the casing to prevent the intrusion of soil and water below the casing.
- In dry pier holes or where the water has been pumped out of the hole, we recommend the concrete be directed through a centering chute or tremie at the surface to limit contact with the reinforcing steel. This procedure will reduce side flow and segregation of the concrete.
- Concrete designed for higher slump ranges is recommended. A slump ranging from five (5) to seven (7) inches is recommended for dry pier construction where the protective casing is pulled. A slump of 7 to 8 inches is recommended for concrete placed by tremie or pumping methods. Concrete with slumps in these ranges is better suited to fill irregularities along the sides, bottom of the pier, and displace water as it is placed.

### 7.4 LATERAL LOADS

Lateral forces may be resisted by friction acting along the base on the foundation and by passive resistance acting against the face of the foundation, when the concrete is cast neat against the sidewalls of the excavation. A coefficient of friction (n) of 0.35 may be used to calculate the friction forces acting along the bottom of the mat. A passive pressure lateral earth pressure coefficient (Kp) of 3.0 may be used (c'= 200 psf,  $\Phi$ '=24°) for soil. The moist unit weight of the soil is estimated to be 110 pounds per cubic foot. Because of desiccation cracks and other near-surface effects, ignore the upper three feet of soil when calculating passive resistance. Appropriate factors of safety should be applied to each of these values.

If drilled piers are used to resist uplift and lateral anchor loads, the lateral resistance for the portion of the pier embedded in rock may be estimated by using a lateral modulus of subgrade reaction of 300 pci (psi per inch of deflection). This value can be used with the projected area of the length of the pier embedment into the rock to determine the lateral capacity. A typical allowable deflection for a laterally loaded pier is 0.25 inch. On this basis, a 3-foot diameter pier bearing 20 feet below the ground surface would have an ultimate lateral capacity of about 280 kips. We recommend applying a factor of safety of 3 to such values.

### 7.5 SEISMIC RECOMMENDATIONS

The site is located at latitude 37° 32'59.5" N and longitude 88° 00'10.4" W and is in Sturgis, Union County, Kentucky. Based on the 2006 International Building Code (IBC) and based on the provisions listed in the IBC, this site is classified as "Class C". Using the IBC information, the short and 1.0 second spectral accelerations were determined for ground motions with a 2 percent probability of exceedance in 50 years (Recurrence Interval of 2,475 years). The acceleration values were determined using IBC spectral acceleration data provided by the United States Geological Survey (USGS) Earthquake Hazards Program for Site Class B. Site coefficients were then used to modify the results per the IBC. The design spectral acceleration values are listed in the lower row of the table. These values were not determined by a site-specific seismic study, but were derived from interpolation of values provided by IBC.

The acceleration values were determined using IBC spectral acceleration data provided by the United States Geological Survey (USGS) Earthquake Hazards Program for Site Class B. These values were not determined by a site-specific seismic study, but were derived from interpolation of values provided by IBC.





The following spectral accelerations requirements indicate the following values:

IBC Design Value	0.2 Sec Period Spectral Response	1.0 Sec Period Spectral Response		
Horizontal Spectral Accelerations, (g) for Class B Sites	$S_s = 0.941$	$S_1 = 0.257$		
Site Coefficients	$F_a = 1.024$	$F_{v} = 1.543$		
Site Modified Spectral Accelerations (g) for Class C Sites	S _{MS} =0.964	S _{M1} =0.396		
Site Modified Design Spectral Accelerations, (g) for Class C Sites	$S_{DS} = 0.643$	$S_{D1.0} = 0.264$		

$$S_{DS} = (S_S) \times (F_a) \times (\frac{2}{3})$$
  $S_{D1} = (S_1) \times (F_{1}) \times (\frac{2}{3})$ 

### 8.0 BASIS OF RECOMMENDATIONS

The conclusions and recommendations presented in this report are based on currently accepted engineering principles and practices and on existing testing standards. The recommendations we have provided were developed from the information obtained from the field and laboratory programs that were performed at the specific locations and dates indicated on the boring logs. The nature and extent of variations throughout the geological profile may differ from the locations explored. If the location or structural characteristics of the proposed development should change, TSG should be retained prior to issue of contract documents to review this report and revise the provided recommendations if appropriate.

Due to the variation in subsurface conditions and the probability that the actual conditions during construction will differ from those encountered in the preparation of this report, TSG should be retained during the construction phase of the work to review and confirm actual field conditions. Should the project team choose to retain another firm to provide the construction phase services, this firm should carefully read our report and agree to sign on as the Geotechnical Engineer of Record and agree with the recommendations prior to start of work. Furthermore, should this project be designed per the IBC, the firm selected for the construction phase services and special inspection should NOT be under the contractor's contract. Per Section 1704 of the IBC the owner is to contract directly with the firm providing Special Inspection.

This report is for the exclusive use of Civil & Environmental Consultants, Inc. and associated designers and builders of the project described herein, and may only be applied to this specific project. The right to rely upon this report and the data within may not be assigned without TS Geosciences, LLC's written permission.





Our exploration services include storing the collected samples and making them available for inspection for a period of 30 days. The samples then are discarded unless requested otherwise.





### FIELD EXPLORATORY PROCEDURES

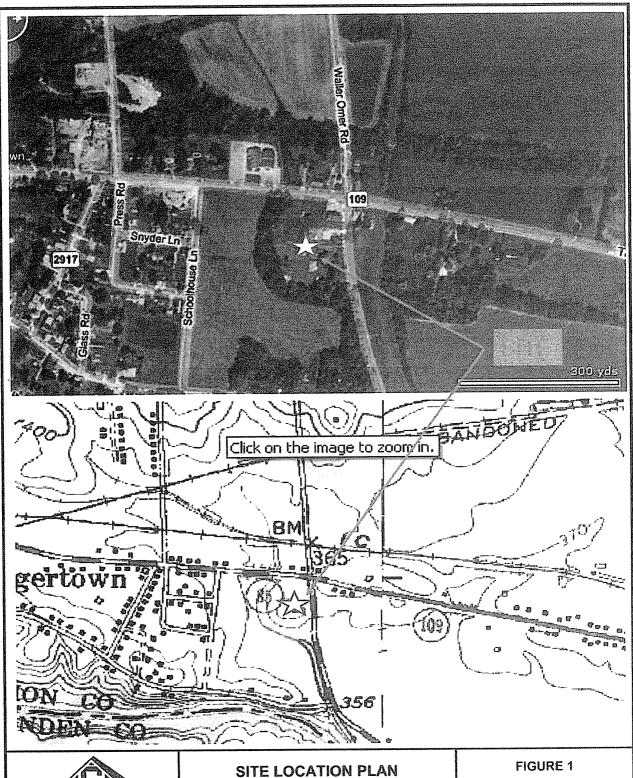
### Soil Test Boring and Standard Penetration Test (SPT) Sampling

All boring and sampling operations were conducted in general accordance with ASTM D 1586. The borings were advanced by mechanically turning steel, continuous flight, hollow-stem augers into the ground. At regular intervals (four in the upper 10 feet, then every 5 feet), soil samples were obtained with a standard 1.4-inch I.D., 2-inch O.D., split-tube sampler. The sampler was driven with a hammer that weights 140 pounds that is dropped 30 inches. The number of blows necessary to drive the sampler 18 inches is recorded in 3 increments of 6 inches each. The first increment is normally disregarded as the sampler may be penetrating loose cuttings. The number of hammer blows required to drive the sampler the final foot is considered to be the N-Value or standard penetration resistance. If denser soil or rock is encountered, more than 50 blows may be required to advance the sampler 6 inches. At 50 blows with less than 6 inches of penetration, the test is terminated at that depth. The N-Values provide information about the consistency of the underlying soil. Correlations and inferences can be made using these values to certain index properties of the insitu soil, such as strength, density, and settlement characteristics.

Representative portions of the soil samples obtained from the split-tube sampler were sealed in plastic bags and transported to our laboratory, where they were examined by our engineer to verify the driller's field classifications. Soil Boring Logs are attached, graphically showing the soil descriptions and penetration resistances.





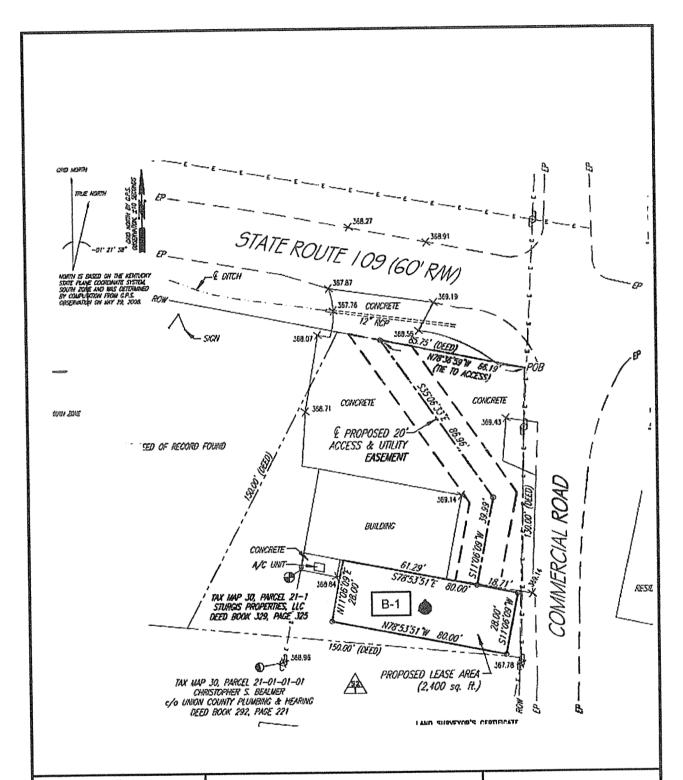




Tri-State Geosciences, LLC 6228 Bonny Oaks Dr. – Chattanooga, TN 37416 (423) 855-5563 fax (423) 855-5249 Project Name: Self Supporting Tower Location: Sturgis, Kentucky

For: CEC, Inc.
Project No: 08CTCIV0304G
Date: September 11, 2008

Not to Scale





Tri-State Geosciences, LLC 6228 Bonny Oaks Dr. – Chattanooga, TN 37416 (423) 855-5563 fax (423) 855-5249

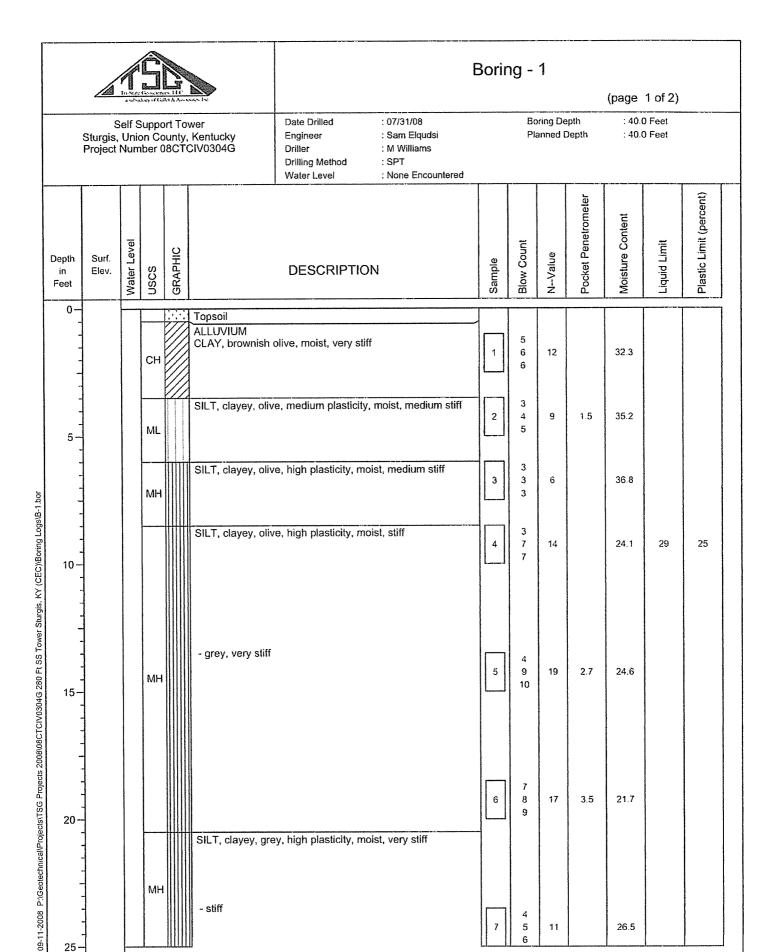
### **BORING LOCATION PLAN**

Project: Self Supporting Tower Sturgis, Kentucky

### FIGURE 2

For: CEC, Inc
Project No: 08CTCIV0304G
Date: September 11, 2008

Not to Scale



## **Important Information About Your**

# Geographical Engineering Report

. Sapsanta is parti emis autoriminale de anisma formata d'antificayis, costanta d'uns i de tas ille d'asportas

Die Kolleistrag alle mehrer as an wellind to held yn a manager, oan it sas i

### Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared solely for the client. No one except you should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. And no one — not even you — should apply the report for any purpose or project except the one originally contemplated.

### Read the Full Report

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

### A Geotechnical Engineering Report is Based on A Unique Set of Project-Specific Factors

Geotechnical engineers consider a number of unique, project-specific lactors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical engineering report that was:

- not prepared for you,
- not prepared for your project,
- on not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

 the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,

- elevation, configuration, location, orientation, or weight of the proposed structure,
- · composition of the design team, or
- project ownership.

As a general rule, always inform your geotechnical engineer of project changes—even minor ones—and request an assessment of their impact. Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.

### Subsurface Conditions Can Channe

A geotechnical engineering report is based on conditions that existed at the time the study was performed. Do not rely on a geotechnical engineering report whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. Always contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

### Most Geotechnical Findings Are Professional Onkions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ—sometimes significantly—from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

### A Report's Recommendations Are *Not* Final

Do not overrely on the construction recommendations included in your report. *Those recommendations are not final*, because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations only by observing actual

subsurface conditions revealed during construction. The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.

## A Geotechnical Engineering Report Is Subject to Misinterpretation

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

### Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should never be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, but recognize that separating logs from the report can elevate risk.

### Give Contractors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, but preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. Be sure contractors have sufficient time to perform additional study. Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

### **Read Responsibility Provisions Closely**

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that

have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations" many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

### Geoenvironmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform a geoenvironmental study differ significantly from those used to perform a geotechnical study. For that reason, a geotechnical engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. Unanticipated environmental problems have led to numerous project failures. If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. Do not rely on an environmental report prepared for someone else.

### Obtain Professional Assistance To Deal with Wold

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the express purpose of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, a number of mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.

### Rely, on Your ASFE-Member Geotechncial Engineer for Additional Assistance

Membership in ASFE/The Best People on Earth exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a construction project. Confer with you ASFE-member geotechnical engineer for more information.

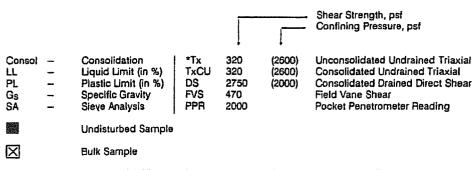


8811 Colesville Road/Suite G106, Silver Spring, MD 20910 Telephone: 301/565-2733 Facsimile: 301/589-2017 e-mail: info@asle.org www.asle.org

Copyright 2004 by ASFE, Inc. Duplication, reproduction, or copying of this document, in whole or in part, by any means whatsoever, is strictly prohibited, except with ASFE's specific written permission. Excepting, quoting, or otherwise extracting wording from this document is permitted only with the express written permission of ASFE, and only for purposes of scholarly research or book review. Only members of ASFE may use this document as a complement to or as an element of a geotechnical engineering report. Any other firm, individual, or other entity that so uses this document without being an ASFE member could be committing negligent or intentional (fraudulent) misrepresentation

MAJOR DIVISIONS					TYPICAL NAMES
MINDOIL DIA IDIOITO					III IOAL HAMES
D SOILS LARGER EVE	GRAVELS	CLEAN GRAVELS WITH LITTLE OR	GW	P.	
	MORE THAN HALF COARSE FRACTION IS	NO FINES	GP	8.0	GRAVEL SAND MIXTURES
	LARGER THAN NO. 4 SIEVE SIZE	GRAVELS WITH OVER 12% FINES	GM		SAND-SILT MIXTURES
GRAINED IN HALF IS L N #200 SIEVI			GC		CLAYEY GRAVELS, POORLY GRADED GRAVEL- SAND-CLAY MIXTURES
	SANDS MORE THAN HALF COARSE FRACTION IS SMALLER THAN NO.4 SIEVE SIZE	CLEAN SANDS WITH LITTLE OR	SW		WELL GRADED SANDS, GRAVELLY SANDS
COARSE MORE THA		NO FINES	SP	***	POORLY GRADED SANDS, GRAVELLY SANDS
ပ္မ		SANDS WITH OVER 12% FINES	SM	·!!·!:	SILTY SANDS, POORLY GRADED SAND-SILT MIXTURES
		•	SC	///	CLAYEY SANDS, POORLY GRADED SAND-CLAY MIXTURES
oʻ≘	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50			$\prod$	INORGANIC SILTS & VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS, OR CLAYEY SILTS W/ HIGH PLASTICITY
SOILS SMALLEF					INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY SANDS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
FINE GRAINED SOILS MORE THAN HALF IS SMALLER THAN #200 SIEVE					ORGANIC CLAYS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50				INORGANIC SILTS, MICACEOUS OR DIATOMACIOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS
					INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
₩ O					ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
	HIGHLY ORGANIC SOILS				PEAT AND OTHER HIGHLY ORGANIC SOILS

### **UNIFIED SOIL CLASSIFICATION SYSTEM**



Notes: (1) All strength tests on 2.8° or 2.4" diameter samples unless otherwise indicated

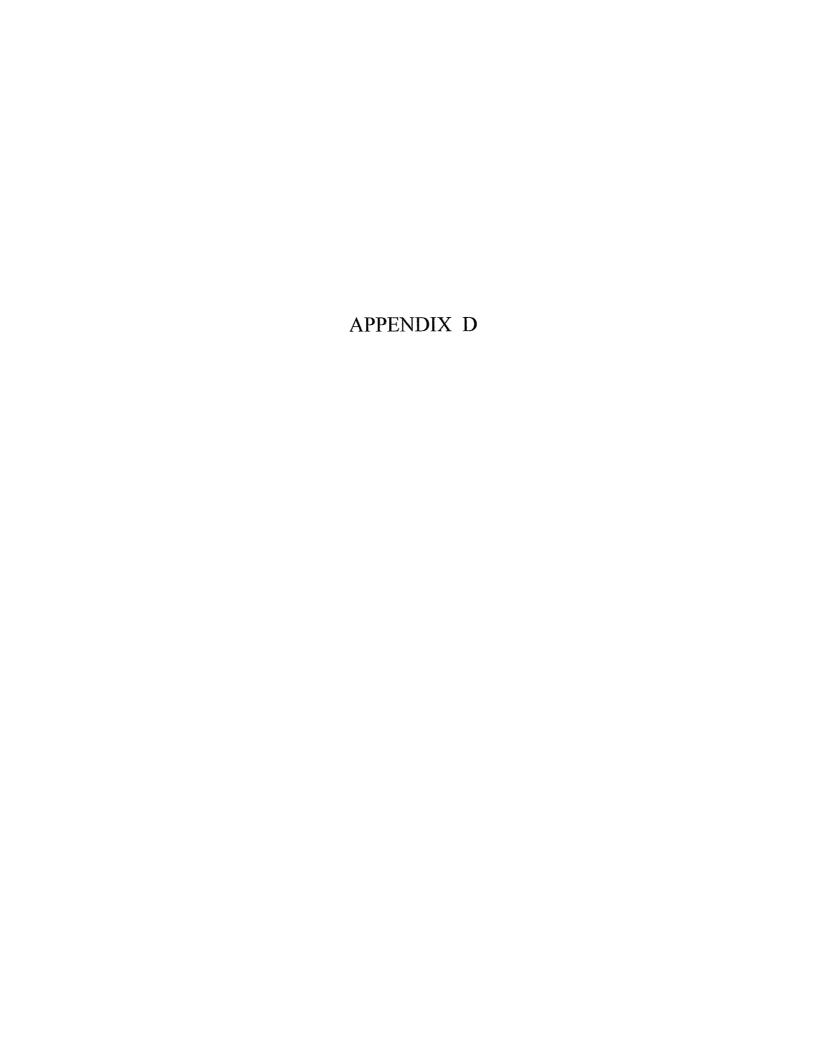
(2) * Indicates 1.4" diameter sample

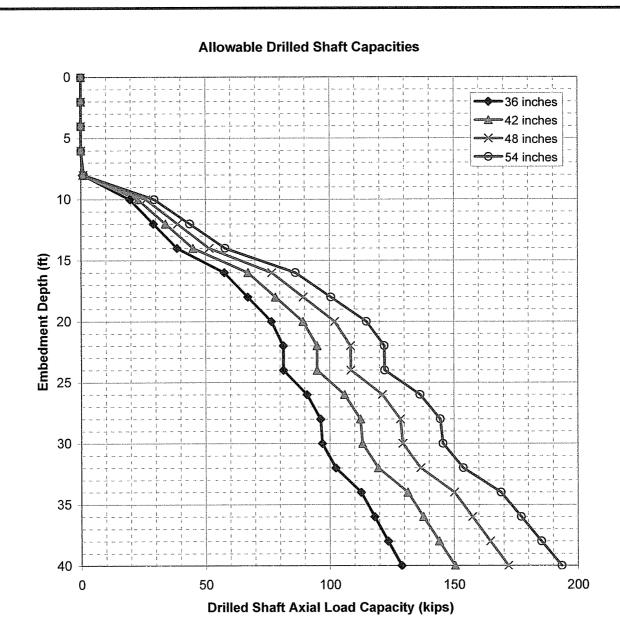
### **KEY TO TEST DATA**



PLATE

DRAWN JOB NUMBER APPROVED BY DATE REVISED DATE



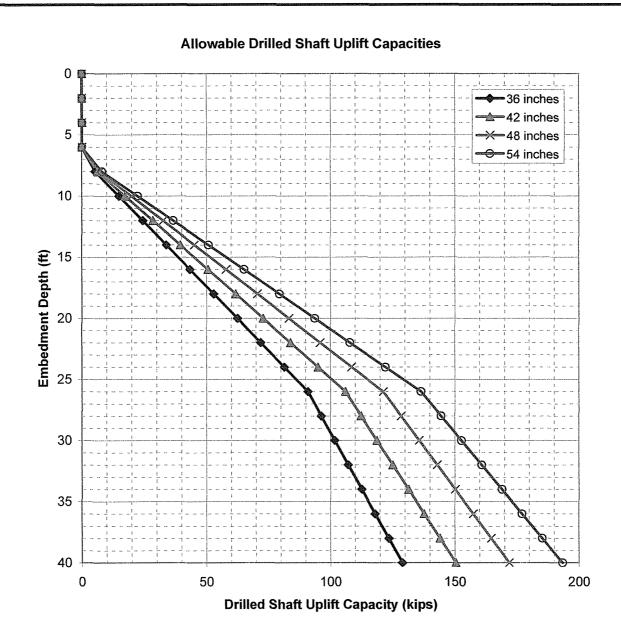


Passive resistance against the face of the pier may be used to resist lateral forces.



Tri-State Geosciences, LLC a subsidiary of Gallet & Associates, Inc. 6228 Bonny Oaks Drive Chattanooga, TN 37416 (423) 855-5563 Self Supporting Tower
Sturgis, Union County, Kentucky

For: CEC, Inc. FIGURE
Franklin, Tennessee 3



Passive resistance against the face of the pier may be used to resist lateral forces.



# **Tri-State Geosciences, LLC** a subsidiary of Gallet & Associates, Inc. 6228 Bonny Oaks Drive

Chattanooga, TN 37416 (423) 855-5563 Self Supporting Tower
Sturgis, Union County, Kentucky

For: CEC, Inc.

Franklin, Tennessee

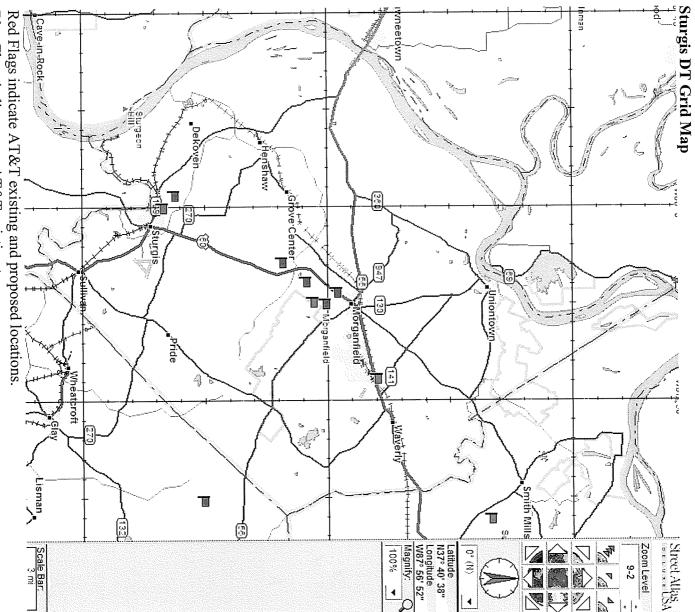
**FIGURE** 

4



### Competing Utilities, Corporations or Persons

American Tower
Crown Communication
SBA Towers
Verizon
Sprint / Nextel
T-Mobile
Bluegrass Cellular



Blue Flags indicate non-AT&T existing towers.







Issued Date: 02/19/2009

AT&T Mobility Muayyad Mustafa (JP) 5601 Legacy Drive, MS A-3 Plano, TX 75024

### ** 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 Sturgis

Location: Sturgis, KY

Latitude: 37-32-59.60N NAD 83

Longitude: 88-00-10.33W

Heights: 250 feet above ground level (AGL)

619 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

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

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be 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)

See attachment for additional condition(s) or information.

This determination expires on 08/19/2010 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.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE POSTMARKED OR DELIVERED TO THIS OFFICE AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE.

This determination is subject to review if an interested party files a petition that is received by the FAA on or before March 21, 2009. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted in triplicate to the Manager, Airspace and Rules Division - Room 423, Federal Aviation Administration, 800 Independence Ave., Washington, D.C. 20591.

This determination becomes final on March 31, 2009 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. For any questions regarding your petition, please contact Office of Airspace and Rules via telephone -- 202-267-8783 - or facsimile 202-267-9328.

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

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

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

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

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

If we can be of further assistance, please contact Fred Souchet, at (847)294-7458. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2008-ASO-3844-OE.

Signature Control No: 585078-108341319

Kevin P. Haggerty

Manager, Obstruction Evaluation Service

(DNH)

### Additional information for ASN 2008-ASO-3844-OE

This proposed a 250 ft. Antenna Tower would be located approximately 2.37 NM west of Sturgis Municipal Airport (TWT). It would exceed the obstruction standards of Title 14, Code of Federal Regulations, Part 77:

Section 77.23(a)(2) by 47 feet - a height that exceeds a specified height within three miles of the airport reference point, as applied to TWT.

The proposal was not circularized to the public for comments, as circularization is not required for structures that would exceed the above-cited standard and would be located outside and/or below the traffic pattern airspace. This does not affect the public's right to petition for review determinations regarding structures, which meet this criterion.

The proposed structure is located outside and/or below the traffic pattern airspace for all categories of aircraft that would normally utilize TWT.

Aeronautical study disclosed that the proposed structure would have no effect on any existing or proposed arrival, departure, or en route instrument flight rule (IFR) operations or procedures.

Study for possible visual flight rules (VFR) effect disclosed that the proposed structure would have no effect on any existing or proposed arrival or departure VFR operations or procedures. It would not conflict with airspace required to conduct normal VFR traffic pattern operations at TWT or any other known public use or military airports.

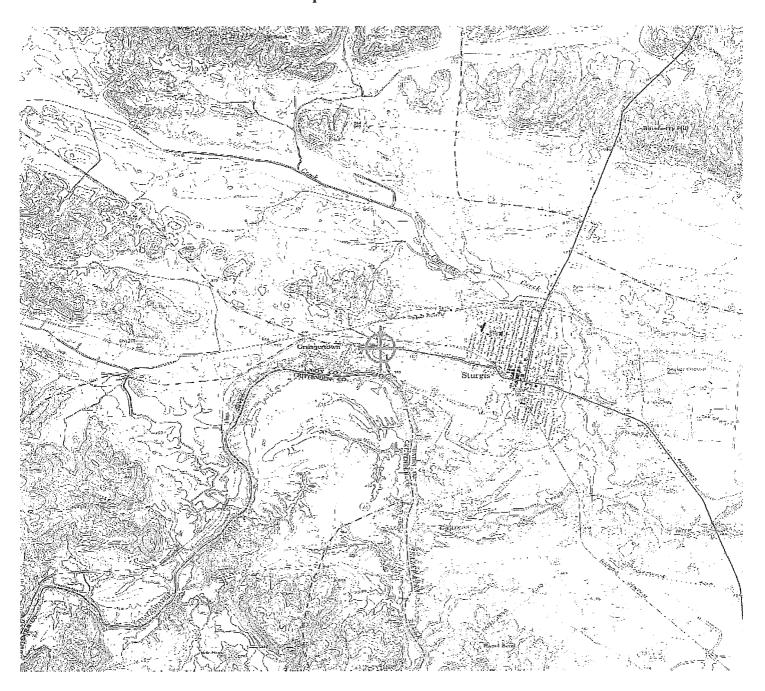
At 250 ft. AGL, the proposed structure would not have a substantial adverse effect on VFR en route flight operations. The proposed structure would be appropriately obstruction marked and/or lighted to make it more conspicuous to airmen should circumnavigation be necessary.

Therefore, it is determined that the proposed tower would not have a substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on any air navigation facility and would not be a hazard to air navigation.

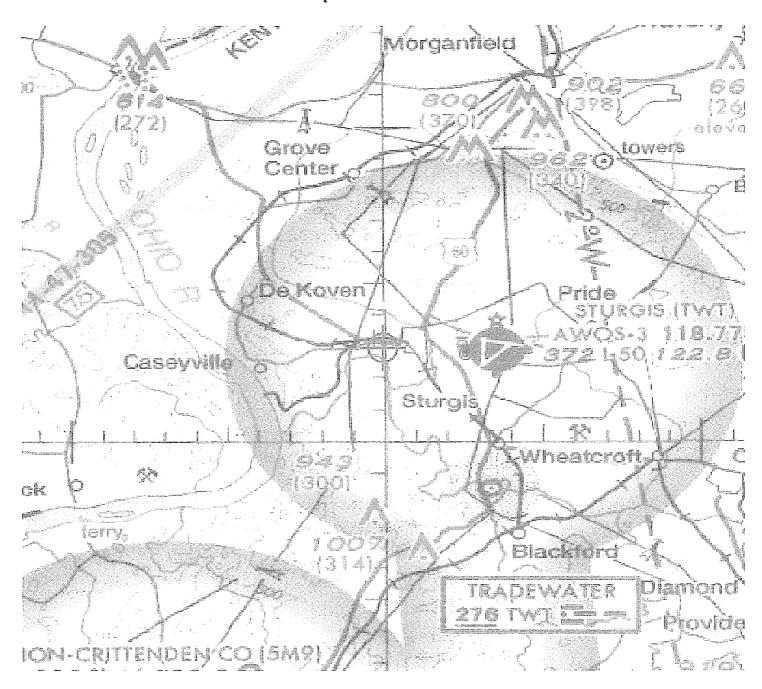
### Frequency Data for ASN 2008-ASO-3844-OE

LOW FREQUENCY	HIGH FREQUENCY	FREQUENCY UNIT	ERP	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	$\mathbf{W}$
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

### TOPO Map for ASN 2008-ASO-3844-OE



### Sectional Map for ASN 2008-ASO-3844-OE





Kentucky Transportation Cabinet, Kentucky Airport Zoning Commission, 200 Merci APPLICATION FOR PERMIT TO CONSTRUCT OR ALTERINSTRUCTIONS INCLUDED						
1. APPLICANT Name, Address, Telephone, Fax, etc. AT&T Attn: Lisa Glass 5310 Maryland Way Brentwood, TN 37027 (615) 221-3593  2. Representative of Applicant Name, Address, Telephone, Fax ReTel Brokerage Attn: Vicki Hollis 10830 Penion Drive Louisville, KY 40299 (502) 741-7943  3. Application for: New Construction Alteration Existing 4. Duration: Permanent Temporary (Months Days ) 5. Work Schedule. Start End 6. Type: Antenna Tower Crane Building Power Line Landfill Water Tank Other  7. Marking/Painting and/or Lighting Preferred: Red Lights and Paint Dual - Red & Medium Intensity White	9. Latitude: 37 ° 32 ' 59 60 "  10. Longitude: 88 ° 00 ' 10 33 "  11. Datum: NAD83 NAD27 Other  12. Nearest Kentucky City: Sturgis County Union  13. Nearest Kentucky public use or Military airport: Sturgis Municipal Airport  14. Distance from #13 to Structure: 1.55 NM  15. Direction from #13 to Structure: 261 degrees true  16. Site Elevation (AMSL): 369.00 Feet  17. Total Structure Height (AGL): 199.00 Feet  18. Overall Height (#16 + #17) (AMSL): 568.00 Feet  19. Previous FAA and/or Kentucky Aeronautical Study Number(s): 2008-ASO-3844-OE  20. Description of Location: (Attach USGS 7.5 minute Quadrangle Map or an Airport layout Drawing with the precise site marked and any certified survey)  See Map					
☐ White - High Intensity ☐ Other ☐ 2008-ASO-3844-OE						
8. FAA Aeronautical Study Number 2008-ASO-3044-01 21. Description of Proposal:						
Telecommunications Tower Site Name: Sturgis DT Site ID: 135P0234 Site Address: 11096 State Route 109, Sturgis, KY 42459						
22. Has a "NOTICE OF CONSTRUCTION OR ALTERATION" (FAA Form 7460-1) been filed with the Federal Aviation Administration?  □ No ☑ Yes, When June 25, 2008						
CERTIFICATION: I hereby certify that all the above statements made by me are true, complete and correct to the best of my knowledge and belief.						
Vicki Hollis, SAC  Printed Name and Title  Vicki Hollis, SAC  Signature  Vicki Hollis, SAC  Printed Name and Title						
Printed Name and Title  Signature  Date  PENALTIES: Persons failing to comply with Kentucky Revised Statutes (KRS 183.861 through 183.990) and Kentucky Administrative Regulations (602 KAR 050:Series) are liable for fines and/or imprisonment as set forth in KRS 183.990(3). Non-compliance with Federal Aviation Administration Regulations may result in further penalties.						
Commission Action:   Chairman, KAZC  Administrator, KAZC						
Approved Disapproved	Date					

### AT&T 1650 LYNDON FARMS COURT LOUISVILLE, KY 40223

1A Letter

Date: June 5, 2008 REVISED: June 30, 2008

FSTAN Project No: 08-5272

Site Name:

Sturgis DT

For Aeronautical Study No.

Location:

City

Sturgis, KY

County

Union

U.S.G.S. Quadrangle:

Dekoven, KY

(NAD 27)

**LATITUDE** 

37° 32' 58.85"

LONGITUDE

88° 00' 08.96"

(NAD 83)

LATITUDE LONGITUDE 37° 32' 59.02" 88° 00' 09.05"

SITE ELEVATION (NAVD 88)

369' ± AMSL

I Certify, to the best of my knowledge and belief, that the horizontal and vertical datum as established from the referenced U.S.G.S. Quadrangle, Dekoven, is accurate to 1A Reporting requirements of  $\pm$  20 feet horizontally and  $\pm$  3 vertically.

The horizontal datum (coordinates) are in terms of the North American Datum of 1927 (NAD 27) and 1983 (NAD 83) and expressed as degrees, minutes and seconds.

The vertical datum (heights) are in terms of the National Geodetic Vertical Datum of 1988 and are determined to the nearest foot.

Kentucky State Plane Coordinates (South Zone) were established with Trimble Global Positioning Systems (GPS) receivers. This site has ties to the National Geodetic Reference System established by the National Geodetic Survey, formerly the U.S. Coast & Geodetic Survey by measurements to PID Station "HA1260", designated as "STURGIS".

CONSULTANT

FRANK L.

FRANK L.

FRANK L.

FRANK L.

LICENSED

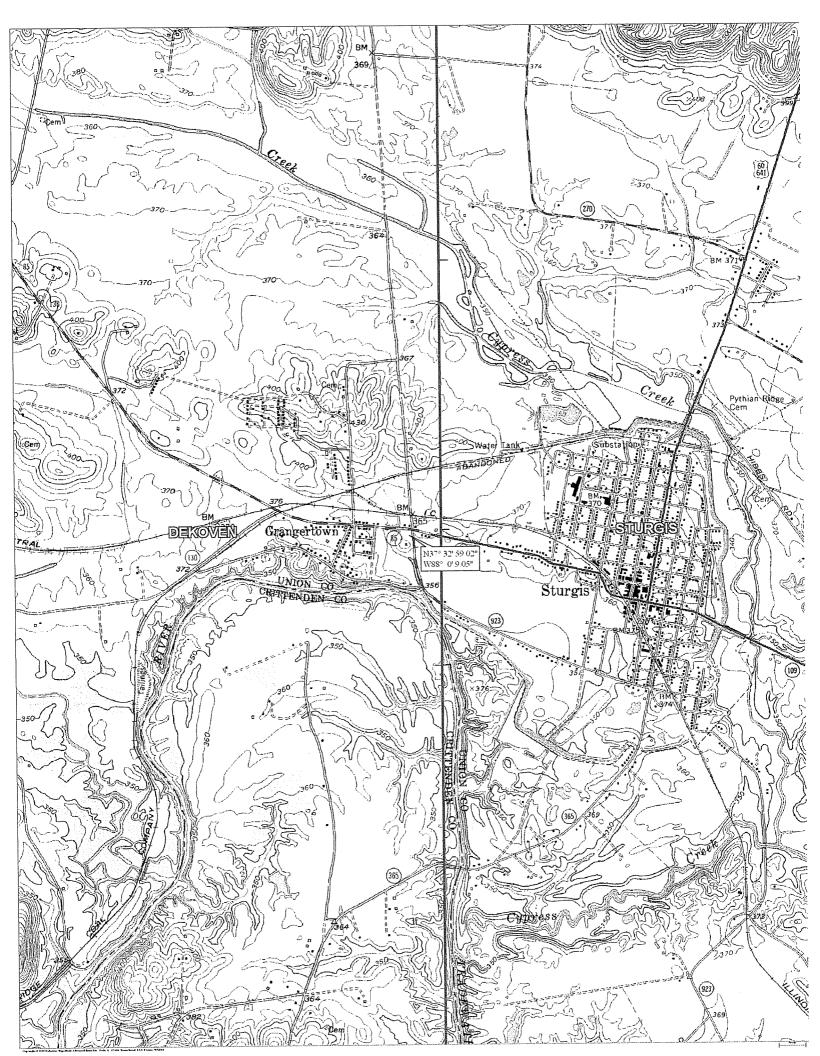
PROFESSIONAL

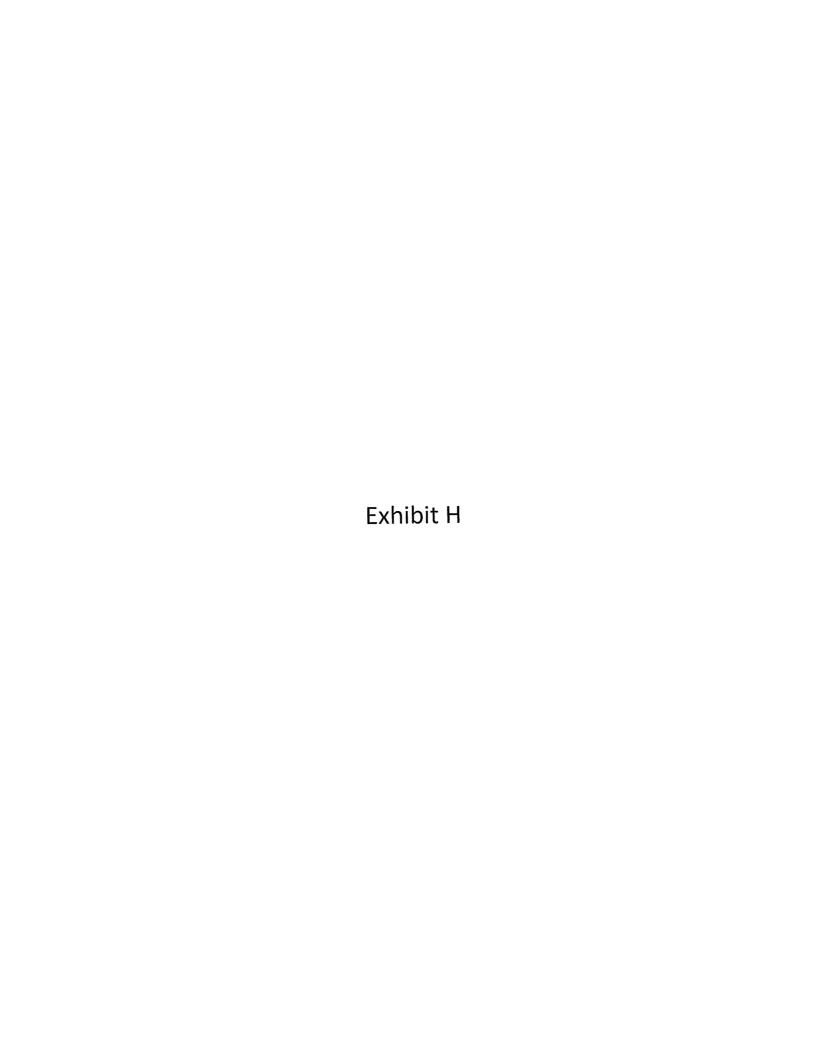
Frank L. Sellinger, II, KY PLS No. 3282

FSTAN Land Surveyors and Consulting Engineers 2313/2315 Crittenden Drive, Louisville, Ky. 40217

Phone: 502-635-5866

Fax: 502-636-5263





**ULS** License

#### Cellular License - KNKN674 - NEW CINGULAR WIRELESS PCS, LLC

Call Sign KNKN674 Radio Service CL - Cellular Status Active Auth Type Regular

Market

Market CMA444 - Kentucky 2 - Union Channel Block A Submarket 0 Phase 2

**Dates** 

Grant 08/21/2001 Expiration 10/01/2011

Effective 02/08/2007 Cancellation

**Five Year Buildout Date** 

12/05/1996

**Control Points** 

1 1650 Lyndon Farms Court, LOUISVILLE, KY

P: (502)329-4700

Licensee

FRN 0003291192 Type Limited Liability Company

Licensee

 NEW CINGULAR WIRELESS PCS, LLC
 P:(469)229-7422

 5601 LEGACY DRIVE, MS: A-3
 F:(469)229-7297

PLANO, TX 75024 E:KELLYE.E.ABERNATHY@CINGULAR.COM

ATTN KELLYE E. ABERNATHY

Contact

AT&T MOBILITY LLC P:(202)255-1679
DAVID C JATLOW F:(561)279-2097

11760 US HIGHWAY 1 E:DAVID.JATLOW@CINGULAR.COM

NORTH PALM BEACH, FL 33408

Ownership and Qualifications

Radio Service Type Mobile

Regulatory Status Common Carrier Interconnected Yes

**Alien Ownership** 

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

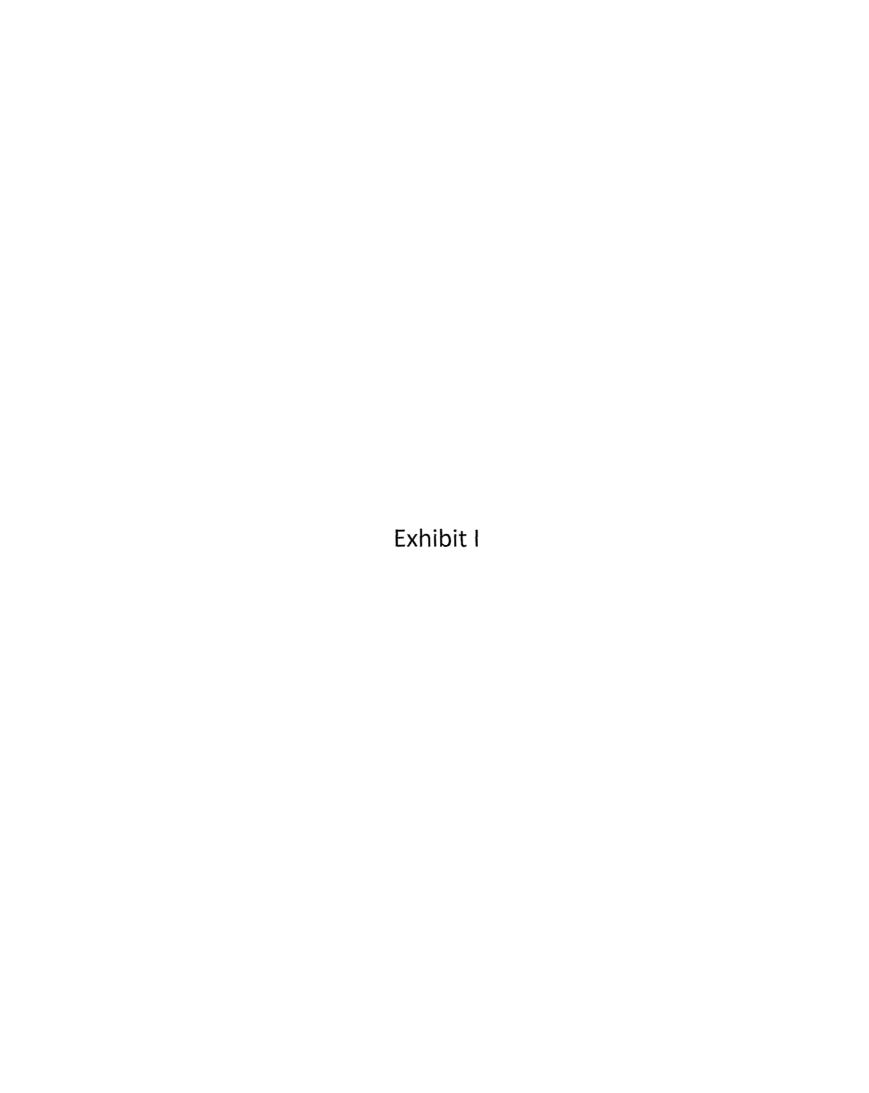
**Basic Qualifications** 

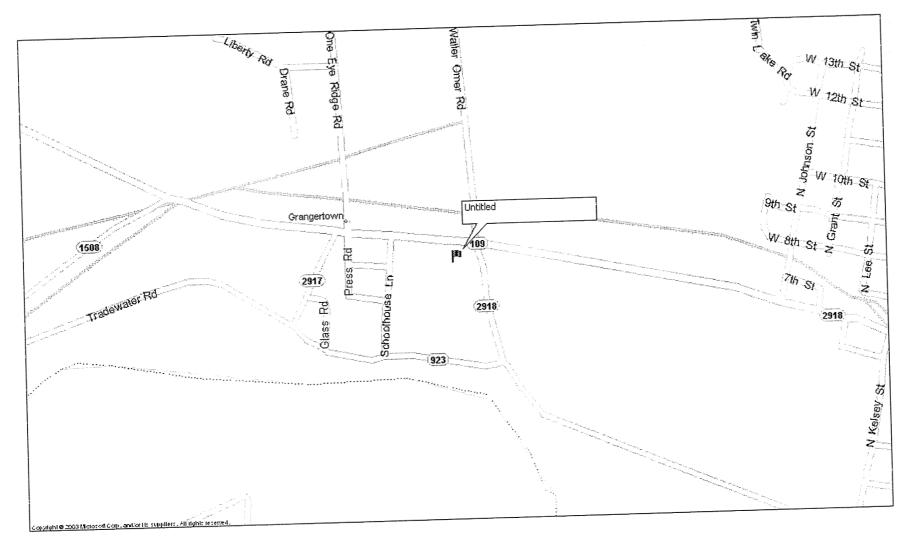
The Applicant answered "No" to each of the Basic Qualification questions.

Demographics

Race

Ethnicity Gender





Directions to Site: From Morganfield at the corner of State Route 60 and East Main Street, proceed South on State Route 60 approximately 10.5 miles to State Route 109. Turn Right onto State Route 109 and proceed approximately 1.0 mile to site on left.

Prepared by: Briggs Law Office, PSC (502) 254-9756

Market: South Region - Kentucky _____ Cell Site Number: 135PO234_____ Cell Site Name: Sturgis DT_____

Fixed Asset Number: 10128980

#### 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 Sturgis Properties, a limited liability company, having a mailing address of 925 W. Midway Drive, Sturgis KY 42459 (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, 30004hereinafter 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 at 11906 State Route 109, Sturgis KY 42459, in the County of Union, 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 2,240 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").
- (b) During the Option period and any extension thereof, and during the term of this Agreement, Tenant and its agents, engineers, surveyors and other representatives will have the right to enter upon the Property to inspect, examine, conduct soil borings, drainage testing, material sampling, radio frequency testing and other geological or engineering tests or studies of the Property (collectively, the "Tests"), to apply for and obtain licenses, permits, approvals, or other relief required of or deemed necessary or appropriate at Tenant's sole discretion for its use of the Premises and include, without limitation, applications for zoning variances, zoning ordinances, amendments, special use permits, and construction permits (collectively, the "Government Approvals"), initiate the ordering and/or scheduling of necessary utilities, and otherwise to do those things on or off the Property that, in the opinion of Tenant, are necessary in Tenant's sole discretion to determine the physical condition of the Property, the environmental history of the Property, Landlord's title to the Property and the feasibility or suitability of the Property for Tenant's Permitted Use, all at Tenant's expense. Tenant will not be liable to Landlord or any third party on account of any pre-existing defect or condition on or with respect to the Property, whether or not such defect or condition is disclosed by Tenant's inspection. Tenant will restore the Property to its condition as it existed at the commencement of the Option Term (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.

11/24/2008 14:43 6152213626 CINGULAR NETWORK-TN PAGE 02/16

- (c) In consideration of Landlord granting Tenant the Option, Tenant agrees to pay Landlord the sum of the Option will be for an initial term of twelve (12) months commencing on the Effective Date (the "Initial Option Term") and may be renewed by Tenant for an additional six (6) months upon written notification to Landlord and the payment of an additional days prior to the expiration date of the Initial Option Term. The Option plus renewal contained in this paragraph shall expire if Tenant does not execute Agreement within six months from the date of the Landowner signing this Agreement.
- (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.
- 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, sel, 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.
- PERMITTED USE. 2. 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 antennes, 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

11/24/2008 14:43 6152213626 CINGULAR NETWORK-TN PAGE 03/16

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. In the event Tenant desires to modify or upgrade the Communication Facility, and Tenant requires an additional portion of the Property (the "Additional Premises") for such modification or upgrade, Landlord agrees to lease to Tenant the Additional Premises, upon the same terms and conditions set forth herein, except that the Rent shall increase, in conjunction with the lease of the Additional Premises by a reasonable amount consistent with rental rates then charged for comparable portions of real property being in the same area. Landlord agrees to take such actions and enter into and deliver to Tenant such documents as Tenant reasonably requests in order to effect and memorialize the lease of the Additional Premises to Tenant.

#### 3. TERM.

- (a) The initial lease term will be five (5) years ("Initial Term"), commencing on the effective date of written notification by Tenant to Landlord of Tenant's exercise of the Option (the "Term Commencement Date"). The Initial Term will terminate on the fifth (5'") 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 (4th) 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 (4th) 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 (4th) 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. RENT.

- (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 ("Rent"), at the address set forth above, on or before the fifth (5") day of each calendar month in advance. In partial months occurring after the Rent Commencement Date, Rent will be prorated. The initial Rent payment will be forwarded by Tenant to Landlord within thirty (30) days after the Rent Commencement Date. Failure to pay the rent on time as set forth herein shall result in the Tenant paying a late charge of Ten Dollars (\$10.00) per day for each and every day the rent is late.
- (b) In year one (1) of each Extension Term, the monthly Rent will increase by over the Rent paid during the previous Term.
- (c) All charges payable under this Agreement such as utilities and taxes shall be billed by Landlord within one (1) year from the end of the calendar year in which the charges were incurred; any charges beyond such period shall not be billed by Landlord, and shall not be payable by Tenant. The foregoing shall not apply to monthly rent which is due and payable without a requirement that it be billed by Landlord. The provisions of the foregoing sentence shall survive the termination or expiration of this Agreement.

11/24/2008 14:43 6152213626 CINGULAR NETWORK-TN PAGE 04/16

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

Tenant will carry during the Term, at its owr 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. Prior to commencement of the term of the Lease, Tenant shall Deliver to Landlord a Certificate of Insurance which shall indicate compliance with the insurance requirements of this paragraph and shall stipulate that thirty (30) days advance written notice of cancellation or material change shall be given to Landlord.

#### 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 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.

- (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 or matters as may now or hereafter be in effect, or (ii) 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.
- ACCESS. At all times throughout the Term of this Agreement, and at no additional charge to Tenant, Tenant and its employees, agents, and subcontractors, will have twenty-four (24) hour per day, seven (7) day per week pedestrian and vehicular access 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. In connection with such default, in addition to any other rights or remedies available to Tenant under this Lease or at law or equity, Landlord shall pay Tenant, as liquidated damages and not as a penalty, \$100.00 per day in consideration of Tenant's damages, including, but not limited to, its lost profits, until Landlord cures such default. Landlord and Tenant agree that Tenant's damages in the event of a denial of access are difficult, if not impossible, to ascertain, and the liquidated damages set forth herein are a reasonable approximation of such damages. 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. Landlord and Tenant agree the Landlord shall not be responsible for any damages to Tenant for Tenants inability to access the subject property due to Acts of God or if access is prevented by means beyond the reasonable control of the Landlord. Landlord agrees to act with reasonable diligence to insure Tenant's continued access to the subject property.
- 13. REMOVAL/RESTORATION. All portions of the Communication Facility brought onto the Property by Tenant will be and remain Tenant's personal property and, at Tenant's option, may be removed by Tenant at any time during the Term. Landlord covenants and agrees that no part of the Communication Facility constructed, erected or placed on the Premises by Tenant will become, or be considered as being affixed to or a part of, the Property, it being the specific intention of the Landlord that all improvements of every kind and nature constructed, erected or placed by Tenant on the Premises will be and remain the property of the Tenant and may be removed by Tenant at any time during the Term. Within one hundred twenty (120) days of the termination of this Agreement, Tenant will remove all of Tenant's above-ground improvements and Tenant will,

11/24/2008 14:43 6152213626 CINGULAR NETWORK-TN PAGE 07/16

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 Fremises or the Property any structural steel or any foundations or underground utilities.

#### 14. MAINTENANCE/UTILITIES.

- (a) Tenant will keep and maintain the Premises in good condition, reasonable wear and tear and damage from the elements excepted. Landlord will maintain and repair the Property and access thereto, in good and tenantable condition, subject to reasonable wear and damage from the elements.
- 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 ar 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) non-payment 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-f ve (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 any monies due to Landlord from Tenant.

- ASSIGNMENT/SUBLEASE. Tenant will have the right to assign this Agreement or sublease the Premises and its rights herein, in whole or in part, without Landlord's consent. Upon notification to Landlord of such assignment, Tenant will be relieved of all future performance, liabilities and obligations under this Agreement. Any subsequent assignment/sublease must be made in writing and signed by the Tenant and subsequent Tenant with certified copy provided to the Landlord herein for recording in the County Court Clerk's Office if necessary. The subsequent Tenant shall be required to comply with all terms and conditions of the lease as contained herein and their acceptance of this lease shall obligate them to perform all functions contained in this lease and Subsequent Tenant waives any privity to contract defenses. After the initial assignment/sublease, no further assignment or sublets of the property shall be allowed without written consent of the Landlord and subsequent Tenant.
- 17. NOTICES. 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:

11/24/2008 14:43

New Cingular Wireless PCS, LLC

Attn: Network Real Estate Administration

Re: Cell Site #135PO234; Cell Site Name: Sturgis DT

Fixed Asset No: 10128980 12555 Cingular Way Alpharetta, GA 30004

With a copy to:

New Cingular Wireless PCS, LLC

Attn: AT&T Legal Department

Re: Cell Site #135PO234; Cell Site Name: Sturgis DT

Fixed Asset No: 10128980 1025 Lenox Park Blvd. 5th Floor Atlanta, GA 30319-5309

If to Landlord:

Sturgis Properties LLC

Attn: Rosanna Ratley, Manager

925 West Midway Dr. Sturgis, KY 42459

With a copy to:

Clay Ratley Attorney at Law 30 Public Square Leitchfield, KY 42754

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
  - (i) 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
    - f. New Payment Direction Form
    - g. Full contact information for new Landlord including all phone numbers
- 18. CONDEMNATION. In the event Landlord receives notification of any condemnation proceedings affecting the Property, Landlord will provide notice of the proceeding to Tenant within forty-eight (48) hours. If a condemning authority takes all of the Property, or a portion sufficient, in Tenant's sole determination, to render the Premises unsuitable for Tenant, this Agreement will terminate as of the date the title vests in the condemning authority. The parties will each be entitled to pursue their own separate awards in the condemnation proceeds, which for Tenant will include, where applicable, the value of its Communication Facility, moving expenses, prepaid Rent, and business dislocation expenses, 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.
- CASUALTY. Landlord will provide notice to Tenant of any casualty affecting the Property within forty-eight (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. WAIVER OF LANDLORD'S LIENS. Landlord waives any and all lien rights it may have, statutory or otherwise, concerning the Communication Facility or any portion thereof. The Communication Facility shall be deemed personal property for purposes of this Agreement, regardless of whether any portion is deemed real or personal property under applicable law, 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

11/24/2008 14:43 6152213626 CINGULAR NETWORK-TN PAGE 10/16

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
- 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 and (ii) the assignment occurs within ninety (90) days of Tenant's receipt of a copy of 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 the benefit of, Landlord and Tenant and their respective heirs, successors and assigns; (iii) run with the land; and (iv) terminate upon the expiration or earlier termination of this Agreement.

#### 23. <u>MISCELLANEOUS.</u>

- (a) Amendment/Waiver. This Agreement cannot be amended, modified or revised unless done in writing and signed by an authorized agent of the Landlord and an authorized agent of the Tenant. No provision may be waived except in a writing signed by both parties.
- (b) Memorandum/Short Form Lease. Either party will, at any time upon fifteen (15) business days prior written notice from the other, execute, acknowledge and deliver to the other a recordable Memorandum or Short Form of Lease at any time, in its absolute discretion.

- (c) Bind and Benefit. The terms and conditions contained in this Agreement will run with the Property and bind and inure to the benefit of the parties, their respective heirs, executors, administrators, successors and assigns.
- (d) Entire Agreement. This Agreement and the exhibits attached hereto, all being a part hereof, constitute the entire agreement of the parties hereto and will supersede all prior offers, negotiations and agreements with respect to the subject matter of this Agreement.
- (e) Governing Law. This Agreement will be governed by the laws of the state in which the Premises are located, without regard to conflicts of law.
- (f) Interpretation. Unless otherwise specified, the following rules of construction and interpretation apply: (i) captions are for convenience and reference only and in no way define or limit the construction of the terms and conditions hereof; (ii) use of the term "including" will be interpreted to mean "including but not limited to"; (iii) whenever a party's consent is required under this Agreement, except as otherwise stated in the Agreement or as same may be implicative, such consent will not be unreasonably withheld, conditioned or delayed; (iv) exhibits are an integral part of the Agreement and are incorporated by reference into this Agreement; (v) use of the terms "termination" or "expiration" are interchangeable; (vi) reference to a default will take into consideration any applicable notice, grace and cure periods; and (vii) to the extent there is any issue with respect to any alleged, perceived or actual ambiguity in this Agreement, the ambiguity shall not be resolved on the basis of who drafted the Agreement.
- from the other, execute, acknowledge and deliver to the other a statement in writing (i) certifying that this Agreement is unmodified and in full force and effect (or, if modified, stating the nature of such modification and certifying this Agreement, as so modified, is in full force and effect) and the date to which the Rent and other charges are paid in advance, if any, and (ii) acknowledging that there are not, to such party's knowledge, any uncured defaults on the part of the other party hereunder, or specifying such defaults if any are claimed. Any such statement may be conclusively relied upon by any prospective purchaser or encumbrance of the Premises. The requested party's failure to deliver such a statement within such time will be conclusively relied upon by the requesting party that (i) this Agreement is in full force and effect, without modification except as may be properly represented by the requesting party, (ii) there are no uncured defaults in either party's performance, and (iii) no more than one month's Rent has been paid in advance.
- (h) W-9. Landlord agrees to provide Tenant with a completed IRS Form W-9, or its equivalent, upon execution of this Agreement and at such other times as may be reasonably requested by Tenant.
- (i) No Electronic Signature/No Option. The submission of this Agreement to any party for examination or consideration does not constitute an offer, reservation of or option for the Premises based on the terms set forth herein. This Agreement will become effective as a binding Agreement only upon the handwritten legal execution, acknowledgment and delivery hereof by Landlord and Tenant.
- (j) Severability. If any term or condition of this Agreement is found unenforceable, the remaining terms and conditions will remain binding upon the parties as though said unenforceable provision were not contained herein. However, if the invalid, illegal or unenforceable provision materially affects this Agreement then the Agreement may be terminated by either party on ten (10) business days prior written notice to the other party hereto.
- (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.
- (i) Exclusive Use. Tenant understands that while its rights to use the Premises pursuant of the terms of this lease are exclusive, Tenant does not have the exclusive rights to use or occupy any portion of the Property including Adjoining Property owned by Landlord (including the Access Area) other than the Premises.
- (m) Security Measures. Landlord has no obligation to provide any security measures at the Premises. Tenant may provide reasonable security measures for Tenant's facilities, provided that such measures shall not limit Landlord's use of the Property in any way.
- (n) Mechanics/Materialman's Liens. Tenant shall pay, when due, all claims for labor or materials furnished or alleged to have been furnished to or for Tenant at or for the use of the Premises, which claims are or may be secured by mechanics' or materialmans' liens against the Premises or any interest therein. Tenant

shall give Landlord not less then ten (10) days notice prior to the commencement of any work on the premises. If Tenant in good faith contests the validity of any such lien, claim or demand, then Tenant shall at its sole expense defend itself and Landlord against the same and shall pay and satisfy any such adverse judgement that may be rendered thereon before the enforcement thereon against the Landlord or Premises. If Landlord shall require, Tenant shall furnish to Landlord a surety bond satisfactory to Landlord in an amount equal to such contested lien, claim or demand indemnifying Landlord against liability for the same and holding the Premises free from the effect of such lien or claim. In addition, Landlord may require Tenant to pay Landlord's attorney's fees and costs reasonable and necessarily incurred in participation in such action.

- (o) Vandalism. Landlord shall not be responsible for any damage cause by third party vandalism to Tenant's personal property installed upon the subject premises.
- (p) Signs. Tenant shall not place and signs on the subject premises without written consent of the Landlord unless required by law, local ordinance, FCC or FAA mandate.

[SIGNATURES APPEAR ON THE NEXT PAGE]

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

		"LANDLORD"
		Sturgis Properties LLC
	:  -  -	By Rosanna Ratley
		Print Name: Rosanna Ratley
		Its: MEMBER
	·	Date: 11-11-08
	<b>!</b>	
	:	
		"TENANT"
	;	and the second s
		New Cingular Wireless PCS, LLC,
	<del>1</del> 4	By: AT&T Mobility Corporation
		Its: Manager
		///////////////////////////////////////
		- 4111/2 MAZ
***************************************		By. Willem play
		Print Name: William Planz  Recurror Abrector  Its: Network Operations
		Date: 11/24/08
		ľ
	V -	

[ACKNOWLEDGMENTS APPEAR ON THE NEXT PAGE]

#### LANDLORD ACKNOWLEDGMENT

STATE OF KENTUCKY )
) ss:
COUNTY OF GRAYSON )
BE IT REMEMBERED, that on this 11th day of November, 200 before me, the subscriber, a
person authorized to take oaths in the State of Kentucky personally appeared Sturgis Properties by and thinough duly swom on his/her/their oath, deposed and made proof to my
satisfaction that he/she/they is/are the person(s) named in the within instrument; and I, having first made known
to him/her/them the contents thereof, he/she/they did acknowledge that he/she/they signed, sealed and delivered
the same as his/her/their voluntary act and deed for the purposes therein contained.
CHAY DATEY)
Notary Public: STATE AT LARGE
My Commission Expires: June 7, 2010
My Commission Expires. Signe 1, 8010
TENANT ACKNOWLEDGMENT
STATE OF TENNESSEE
COUNTY OFWILLIAMSON
Defens and Microse Dublic in and for the State and Courte of the State and Courte of
Before me, a Notary Public in and for the State and County aforementioned, personally appeared William Plantz, with whom I am personally acquainted (or proved to me on the basis of satisfactory evidence),
and who, upon oath, acknowledged such person to be Executive Director - Network of New Cingular Wireless
PCS,LLC, the within named bargainor, a Delaware limited liability company, and that such person as such
Executive Director - Network, executed the foregoing instrument for the purpose therein contained, by
personally signing the name of the limited liability company as New Cingular Wireless PCS, LLC.
promise of the familiary to the first of the familiary to the first of the familiary to the
Witness my hand and seal, at office in BRENTWOOD, TN, this the 24 Th day of NOVEMBER 2008.
Me & Clark
Notary Public: ERICA L. CLANTON
My Commission Expires: MAY 8, 2012
SINTE LOS

[NOTARIAL SEAL]

My Commission Expires MAY 8, 2012

Exhibit 1

#### **EXHIBIT 1**

DESCRIPTION OF PREMISES

Page 1 of 2

24 ele

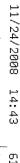
to the Agreement dated November 1+ 200 8 by and between Sturgis Properties a limited liability company as Landlord, and New Cingular Wireless PCS LLC a Deleware limited liability company as Tenant.

The Premises are described and/or depicted as follows:

Property Description and Site Sketch Attached

#### Notes:

- 1. This Exhibit may be replaced by a land survey and/or construction drawings of the Premises once received by Tenant.
- Any setback of the Precuises 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.



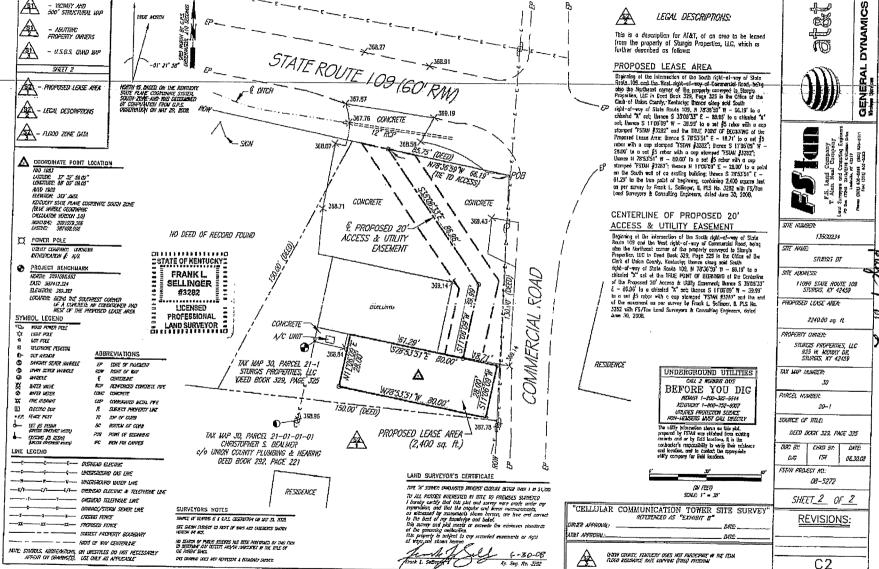
PAIN

R

K

TWORK-TN

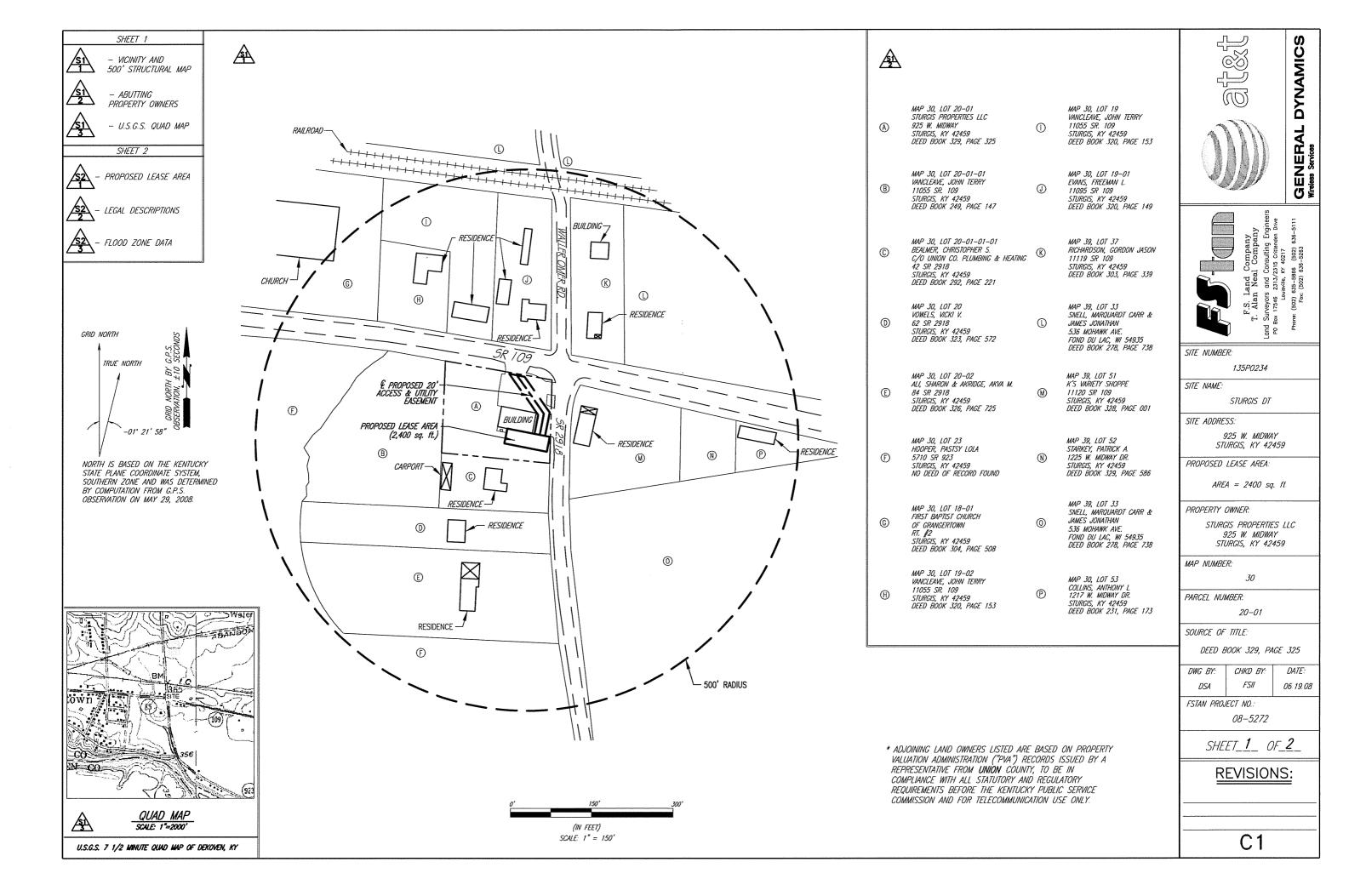
C2



SPEET 1

CRO KORTH





#### TODD R. BRIGGS

17300 POLO FIELDS LANE
LOUISVILLE, KENTUCKY 40245

TELEPHONE (502) 254-9756

FACSIMILE (502) 254-5717

## Notice of Proposed Construction Wireless Telecommunications Facility

Sharon & Akridge, Akva M. Ali 84 State Route 2918 Sturgis, KY 42459

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 11096 State Route 109, Sturgis, Kentucky 42459. A map showing the location is attached. The proposed facility will include a 195 foot monopole, plus related ground facilities.

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

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 2009-00160 in any correspondence.

Sincerely,

Todd R. Briggs

Counsel for New Cingular Wireless PCS, LLC

#### TODD R. BRIGGS

17300 POLO FIELDS LANE
LOUISVILLE, KENTUCKY 40245

TELEPHONE (502) 254-9756

FACSIMILE (502) 254-5717

## Notice of Proposed Construction Wireless Telecommunications Facility

Christopher S. Bealmer c/o Union Plumbing & Heating 42 State Route 2918 Sturgis, KY 42459

#### 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 11096 State Route 109, Sturgis, Kentucky 42459. A map showing the location is attached. The proposed facility will include a 195 foot monopole, plus related ground facilities.

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

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 2009-00160 in any correspondence.

Sincerely,

Todd R. Briggs

Counsel for New Cingular Wireless PCS, LLC

#### TODD R. BRIGGS

17300 POLO FIELDS LANE

LOUISVILLE, KENTUCKY 40245

TELEPHONE (502) 254-9756

FACSIMILE (502) 254-5717

## Notice of Proposed Construction Wireless Telecommunications Facility

First Bapist Church of Grangertown Route #2 Sturgis, KY 42459

#### 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 11096 State Route 109, Sturgis, Kentucky 42459. A map showing the location is attached. The proposed facility will include a 195 foot monopole, plus related ground facilities.

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

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 2009-00160 in any correspondence.

Sincerely,

Todd R. Briggs

Med negy

Counsel for New Cingular Wireless PCS, LLC

#### TODD R. BRIGGS

17300 POLO FIELDS LANE

LOUISVILLE, KENTUCKY 40245

TELEPHONE (502) 254-9756

FACSIMILE (502) 254-5717

## Notice of Proposed Construction Wireless Telecommunications Facility

Anthony L. Collins 1217 W. Midway Drive Sturgis, KY 42459

#### 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 11096 State Route 109, Sturgis, Kentucky 42459. A map showing the location is attached. The proposed facility will include a 195 foot monopole, plus related ground facilities.

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

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 2009-00160 in any correspondence.

Sincerely,

Mall LAN Todd R. Briggs

Counsel for New Cingular Wireless PCS, LLC

#### TODD R. BRIGGS

17300 POLO FIELDS LANE

#### LOUISVILLE, KENTUCKY 40245

TELEPHONE (502) 254-9756

FACSIMILE (502) 254-5717

## Notice of Proposed Construction Wireless Telecommunications Facility

Freeman Evans 11095 State Route 109 Sturgis, KY 42459

#### 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 11096 State Route 109, Sturgis, Kentucky 42459. A map showing the location is attached. The proposed facility will include a 195 foot monopole, plus related ground facilities.

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

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 2009-00160 in any correspondence.

Sincerely,

Todd R. Briggs

Melel KBy

Counsel for New Cingular Wireless PCS, LLC

#### TODD R. BRIGGS

17300 POLO FIELDS LANE

LOUISVILLE, KENTUCKY 40245

TELEPHONE (502) 254-9756

FACSIMILE (502) 254-5717

## Notice of Proposed Construction Wireless Telecommunications Facility

Patsy Lola Hooper 5710 State Route 923 Sturgis, KY 42459

#### 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 11096 State Route 109, Sturgis, Kentucky 42459. A map showing the location is attached. The proposed facility will include a 195 foot monopole, plus related ground facilities.

This notice is being sent to you because the Union County Property Valuation Administrator's records indicate that you own property that is within a 500' radius of the proposed tower site or contiguous to the property on which the tower is to be constructed

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 2009-00160 in any correspondence.

Sincerely,

Todd R. Briggs

Chil X By

Counsel for New Cingular Wireless PCS, LLC

#### TODD R. BRIGGS

17300 POLO FIELDS LANE

#### LOUISVILLE, KENTUCKY 40245

TELEPHONE (502) 254-9756

FACSIMILE (502) 254-5717

## Notice of Proposed Construction Wireless Telecommunications Facility

Gordon Jason Richardson 11119 State Route 109 Sturgis, KY 42459

#### 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 11096 State Route 109, Sturgis, Kentucky 42459. A map showing the location is attached. The proposed facility will include a 195 foot monopole, plus related ground facilities.

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

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 2009-00160 in any correspondence.

Sincerely,

Todd R. Briggs

MAR BY

Counsel for New Cingular Wireless PCS, LLC

#### TODD R. BRIGGS

17300 POLO FIELDS LANE

LOUISVILLE, KENTUCKY 40245

TELEPHONE (502) 254-9756

FACSIMILE (502) 254-5717

#### Notice of Proposed Construction Wireless Telecommunications Facility

K's Variety Shoppe 11120 State Route 109 Sturgis, KY 42459

#### 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 11096 State Route 109, Sturgis, Kentucky 42459. A map showing the location is attached. The proposed facility will include a 195 foot monopole, plus related ground facilities.

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

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 2009-00160 in any correspondence.

Sincerely,

Todd R. Briggs

Counsel for New Cingular Wireless PCS, LLC

#### TODD R. BRIGGS

17300 POLO FIELDS LANE

#### LOUISVILLE, KENTUCKY 40245

TELEPHONE (502) 254-9756

FACSIMILE (502) 254-5717

## Notice of Proposed Construction Wireless Telecommunications Facility

Marquardt Carr & James Jonathan Snell 536 Mohawk Ave Fond Du Lac, WI 54935

#### 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 11096 State Route 109, Sturgis, Kentucky 42459. A map showing the location is attached. The proposed facility will include a 195 foot monopole, plus related ground facilities.

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

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 2009-00160 in any correspondence.

Sincerely,

Todd R. Briggs

ldelasy

Counsel for New Cingular Wireless PCS, LLC

#### TODD R. BRIGGS

17300 POLO FIELDS LANE

LOUISVILLE, KENTUCKY 40245

TELEPHONE (502) 254-9756

FACSIMILE (502) 254-5717

## Notice of Proposed Construction Wireless Telecommunications Facility

Patrick A. Starkey 1225 W. Midway Drive Sturgis, KY 42459

#### 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 11096 State Route 109, Sturgis, Kentucky 42459. A map showing the location is attached. The proposed facility will include a 195 foot monopole, plus related ground facilities.

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

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 2009-00160 in any correspondence.

Sincerely,

Todd R. Briggs

Milney

Counsel for New Cingular Wireless PCS, LLC

#### TODD R. BRIGGS

17300 POLO FIELDS LANE

LOUISVILLE, KENTUCKY 40245

TELEPHONE (502) 254-9756

FACSIMILE (502) 254-5717

## Notice of Proposed Construction Wireless Telecommunications Facility

John Terry VanCleave 11055 State Route 109 Sturgis, KY 42459

#### 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 11096 State Route 109, Sturgis, Kentucky 42459. A map showing the location is attached. The proposed facility will include a 195 foot monopole, plus related ground facilities.

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

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 2009-00160 in any correspondence.

Sincerely,

Todd R. Briggs

Counsel for New Cingular Wireless PCS, LLC

When By

#### TODD R. BRIGGS

17300 POLO FIELDS LANE

LOUISVILLE, KENTUCKY 40245

TELEPHONE (502) 254-9756

FACSIMILE (502) 254-5717

## Notice of Proposed Construction Wireless Telecommunications Facility

Vicki V. Vowels 62 State Route 2918 Sturgis, KY 42459

#### 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 11096 State Route 109, Sturgis, Kentucky 42459. A map showing the location is attached. The proposed facility will include a 195 foot monopole, plus related ground facilities.

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

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 2009-00160 in any correspondence.

Sincerely,

Todd R. Briggs

Counsel for New Cingular Wireless PCS, LLC



#### TODD R. BRIGGS

17300 POLO FIELDS LANE

#### LOUISVILLE, KENTUCKY 40245

TELEPHONE (502) 254-9756

FACSIMILE (502) 254-5717

#### Via Certified Mail Return Receipt Requested

Honorable Jody Jenkins Union County Judge Executive P.O. Box 60 Morganfield, KY 42437-0060

RE: Notice of Proposal to Construct Wireless Telecommunications Facility Kentucky Public Service Commission--Case No. 2009-00160

Dear Judge Jenkins:

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 11096 State Route 109, Sturgis, Kentucky 42459. A map showing the location is attached. The proposed facility will include a 195 foot monopole, 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.

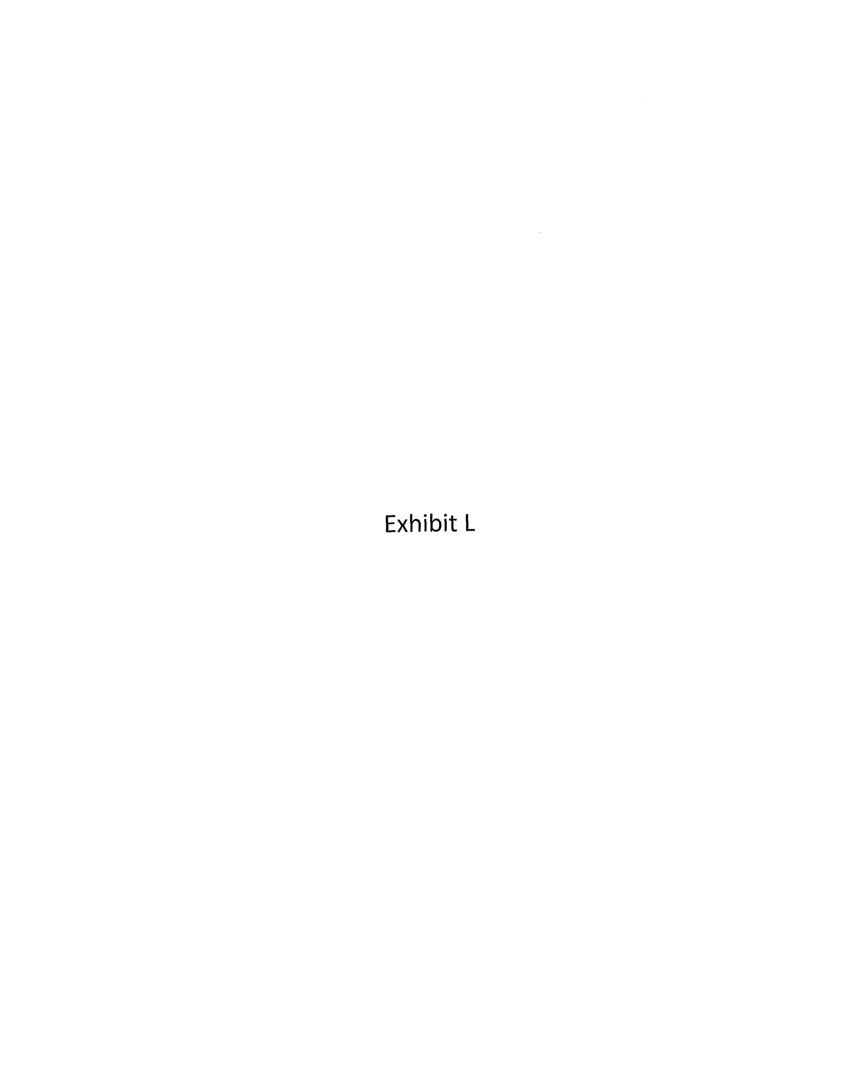
Your comments and request for intervention should be addressed to: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to case number 2009-00160 in any correspondence.

Sincerely,

Allery

Todd R. Briggs

Counsel for New Cingular Wireless PCS, LLC



## PUBLIC NOTICE

New Cingular Wireless PCS, LLC proposes to construct a telecommunications

# TOWER

on this site. If you have any questions please contact:

Briggs Law Office, PSC 17300 Polo Fields Lane Louisville, KY 40245 (502) 254-9756 Executive Director
Public Service Commission
211 Sower Boulevard
P.O. Box 615
Frankfort, KY 40602

Please refer to Commission's

Case #2009-00160

in your correspondence.

## PUBLIC NOTICE

New Cingular Wireless PCS, LLC proposes to construct a telecommunications

# TOWER

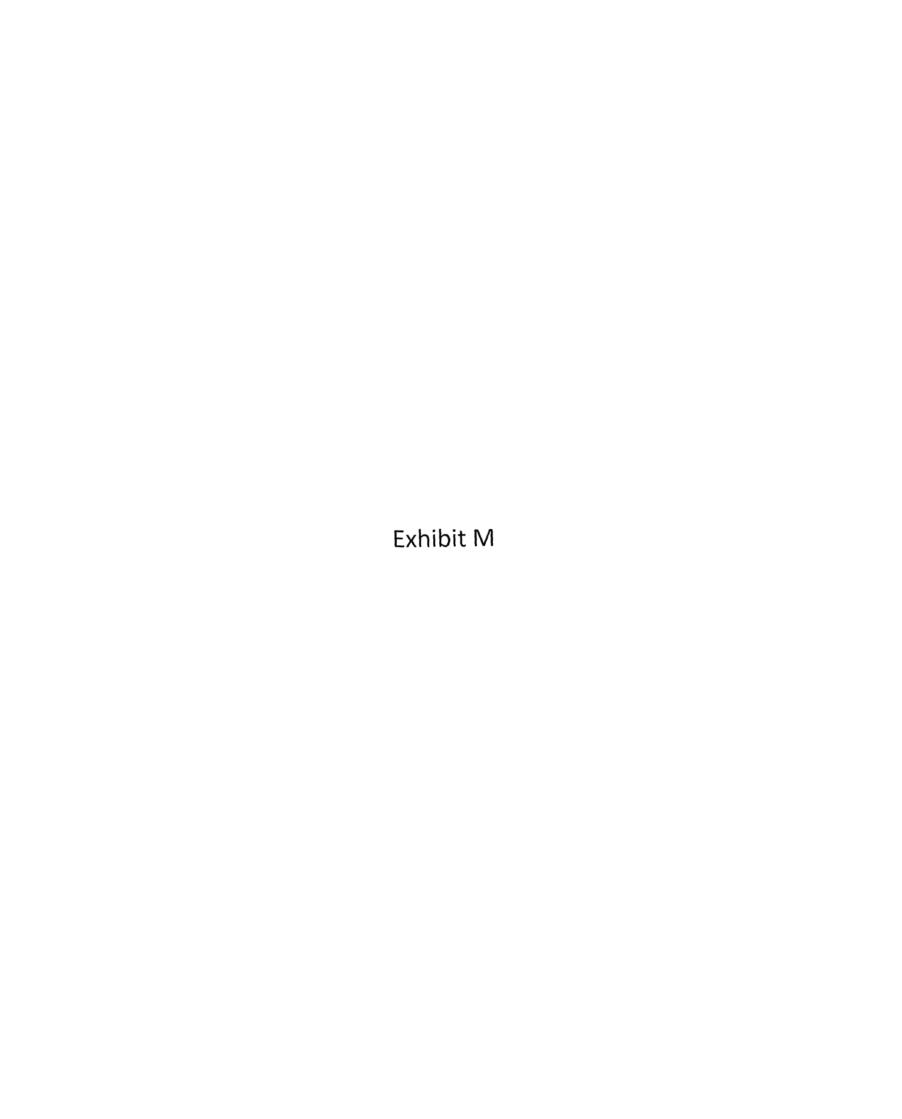
near this site. If you have any questions please contact:

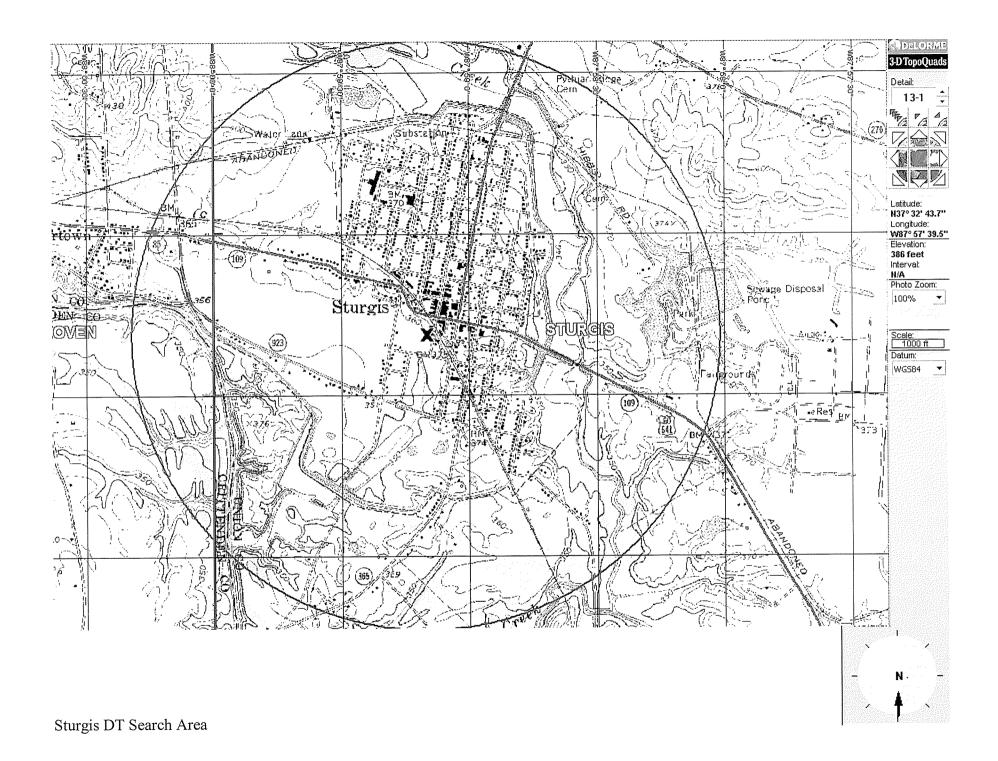
Briggs Law Office, PSC 17300 Polo Fields Lane Louisville, KY 40245 (502) 254-9756 Executive Director
Public Service Commission
211 Sower Boulevard
P.O. Box 615
Frankfort, KY 40602

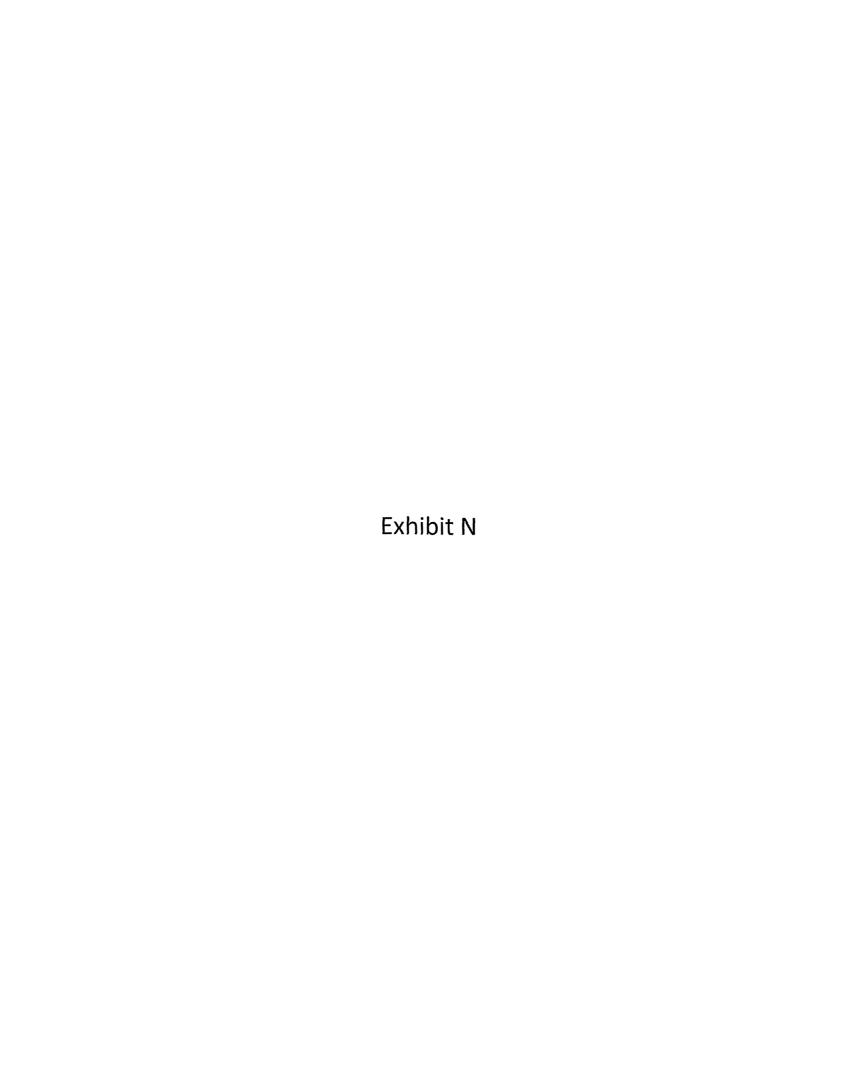
Please refer to Commission's

Case #2009-00160

in your correspondence.









AT&T Mobility 3231 N. Green River Rd. Evansville, JN 47715

#### Sherri A Lewis

RF Design Engineer - Kentucky 3231 North Green River Road Evansville, IN 47715 Phone: 812-457-3327

April 7, 2009

To Whom It May Concern:

Dear Sir or Madam:

This letter is to state the need of the proposed AT&T site called Sturgis DT, to be located in Union County, KY. The Sturgis DT site is necessary to improve coverage and eliminate interference in southern Union County. This site will improve the coverage and reduce interference on US Hwy 60, State Hwy 109, State Hwy 365, and the town of Sturgis. Our closest existing site to this area is over 7.5 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 high 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 Union County will experience improved reliability, better in-building coverage, and improved access to emergency 911 services.

Sherri A Lewis RF Design Engineer

Sant Les



AT&T Mobility 3231 N. Green River Rd. Evansville, IN 47715

#### Sherri A Lewis

RF Design Engineer - Kentucky 3231 North Green River Road Evansville, IN 47715 Phone: 812-457-3327

April 7, 2009

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 Sturgis DT site. There are no collocation opportunities available as there are no tall structures located within this site's search area.

Sherri A Lewis

RF Design Engineer

Sa-Alei



AT&T Mobility 3231 N. Green River Rd. Evansville, IN 47715

#### Sherri A Lewis

RF Design Engineer - Kentucky 3231 North Green River Road Evansville, IN 47715 Phone: 812-457-3327

April 7, 2009

To Whom It May Concern:

Dear Sir or Madam:

This letter is to serve as documentation that the proposed AT&T site called Sturgis DT, to be located in Union County, KY at Latitude 37-32-59.6 North, Longitude 088-00-10.33 West, has been designed, and will be built and operated in accordance with all applicable FCC and FAA regulations.

Sherri A Lewis

RF Design Engineer