COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF NEW CINGULAR WIRELESS PCS, LLC	)
FOR ISSUANCE OF A CERTIFICATE OF PUBLIC	)
CONVENIENCE AND NECESSITY TO CONSTRUCT	)
A WIRELESS COMMUNICATIONS FACILITY NEAR	)CASE: **2009-00258**
SCUDDY MOUNTAIN PINE ROAD, VICCO	)
PERRY COUNTY, KENTUCKY, 41773	)

SITE NAME: HAPPY (252G0128)

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 Perry 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 Scuddy Mountain Pine Road, Vicco, Kentucky 41773 (37° 11' 54.60" North Latitude, 83° 4' 44.97" West Longitude (NAD 83)), in an area entirely within Perry County. The property in which the WCF will be located is currently owned by Michael and Debra Combs, pursuant to that Deed of record in Deed Book 221, Page 293 in the Office of the Perry County Clerk. The proposed WCF will consist of a 300 foot self-support tower with an approximately 10-foot tall lightning arrestor attached to the top of the tower for a total height of 310 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 Terracon Consultants, of Louisville, Kentucky, dated February 3, 2009 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 Approval of Application dated June 9, 2009 and is also attached as **Exhibit G**.

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. Based on the review of Federal Emergency Management Agency Flood Insurance Rate Maps, the licensed, professional land surveyor has noted

in **Exhibit B** that the Flood Insurance Rate Map (FIRM) No. 21193CINDOA dated August 2, 2006 indicates that the proposed WCF is not located within any flood hazard area.

12. Personnel directly responsible for the design and construction of the proposed WCF are well qualified and experienced**.** Project Manager for the site is Roy Johnson, of MPM, Inc.

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

14. Applicant has notified every person of the proposed construction who, according to the records of the Perry 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 Perry 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 Perry 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 Hazard Herald).

17. The site of the proposed WCF is located in an undeveloped area near Vicco, 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 Determination of No Hazard KAZC Approval
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 Notice
Exhibit L	Copy of Posted Notices
Exhibit M	Map of Search Area
Exhibit N	Miscellaneous

Exhibit A

Commonwealth of Kentucky
Trey Grayson, Secretary of State

7/22/2008

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.

Trey Grayson
Secretary of State
Commonwealth of Kentucky
67612/0481848

Delaware

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.

Harriet Smith Windsor

Harriet Smith Windsor, Secretary

2445544 8100

040770586

AUTHENTICATION: 3434823

DATE: 10-25-04

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

CERTIFICATE OF AMENDMENT TO THE CERTIFICATE OF FORMATION OF AT&T WIRELESS PCS, LLC

1. The name of the limited liability company is AT&T Wireless PCS, LLC (the "Company").

2. The Certificate of Formation of the Company is amended by deleting the first paragraph in its entirety and replacing it with a new first paragraph to read as follows:

   "**FIRST:** The name of the limited liability company is New Cingular Wireless PCS, LLC."

3. The Certificate of Amendment shall be effective at 7:30 p.m. EDT on October 26, 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

By: [signature]
Name: Joanne Todaro
Title: Assistant Secretary

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.

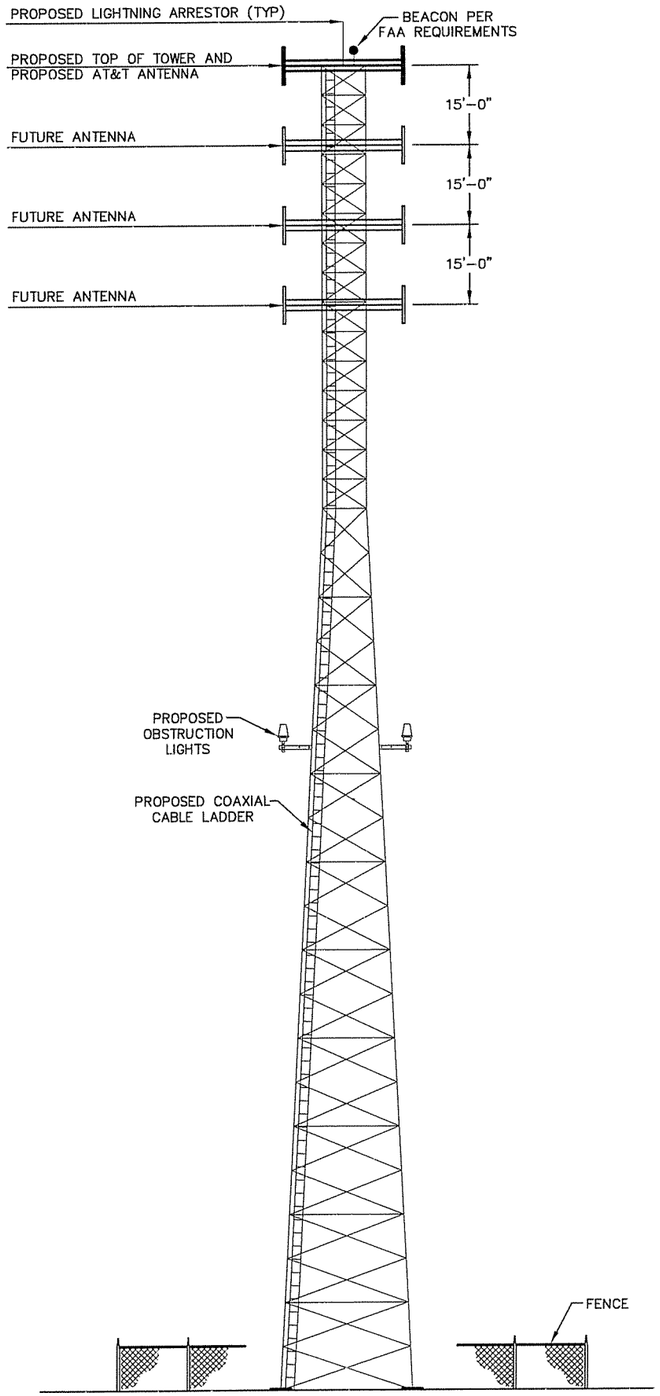
DATED this 7 day of September, 1999.

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

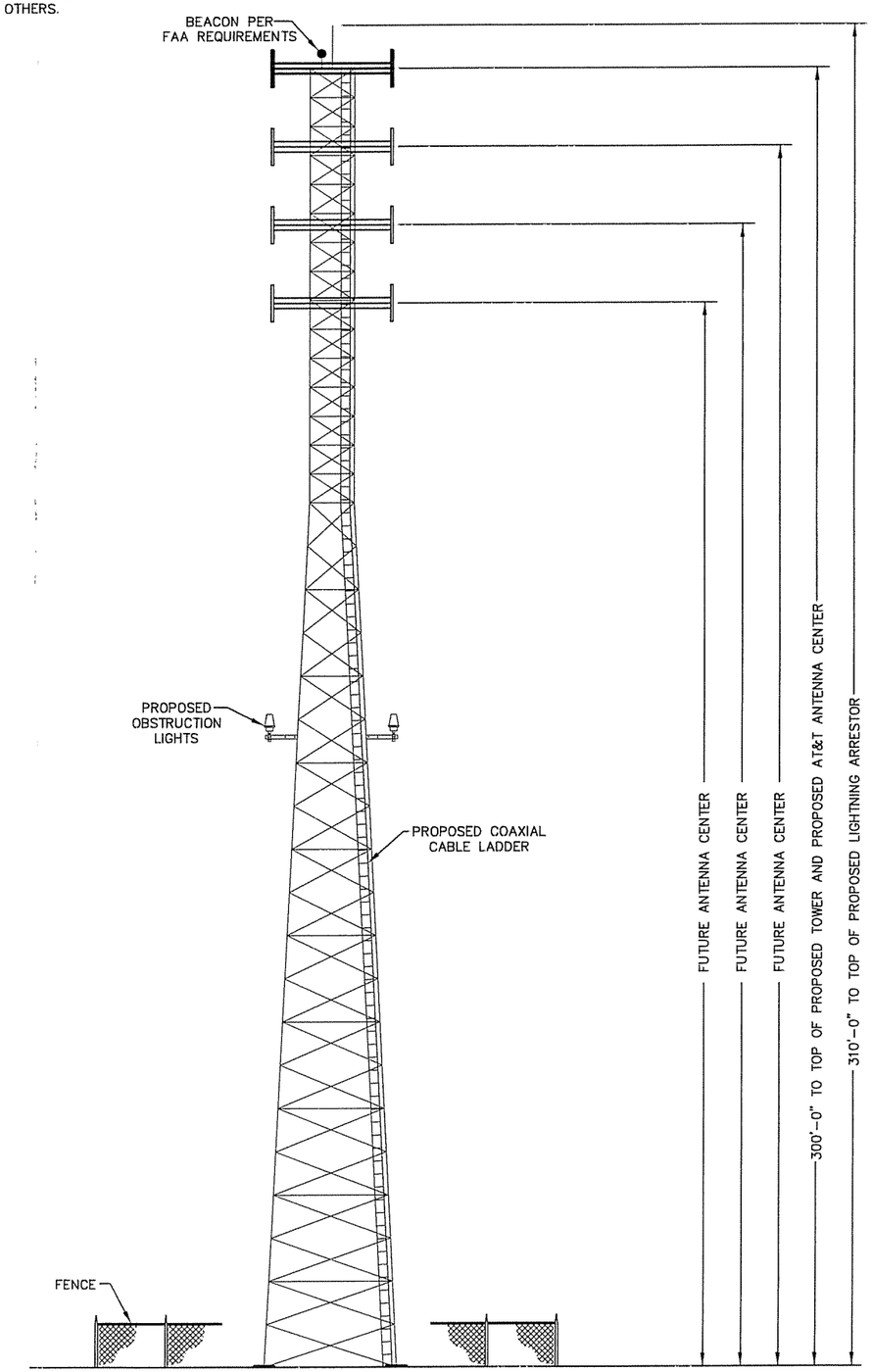
Mark U. Thomas, Vice President

Exhibit B

NOTE:
THE ELEVATIONS SHOWN ON THIS SHEET ARE FOR PICTORIAL PURPOSES ONLY. THIS DESIGN WAS PROVIDED BY OTHERS. REFER TO TOWER PLANS FOR TOWER DESIGN.



NORTH ELEVATION
NOT TO SCALE



SOUTH ELEVATION
NOT TO SCALE

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BTM Engineering, Inc.
3001 TAYLOR SPRINGS DRIVE
LOUISVILLE, KENTUCKY 40220
(502) 459-8402 PHONE
(502) 459-8427 FAX

STATE OF KENTUCKY
WOODROW W MARCUM IR
13602
LICENSED
PROFESSIONAL ENGINEERS

SITE NAME: HAPPY

SITE ID NUMBER: 252G0128

SITE ADDRESS: SCUDDY MOUNTAIN PINE RD VICCO, KY 41773

LATITUDE: 37° 11' 54.603"N
LONGITUDE: 83° 04' 44.974"W

TAX MAP NUMBER: 167

PARCEL NUMBER: 13

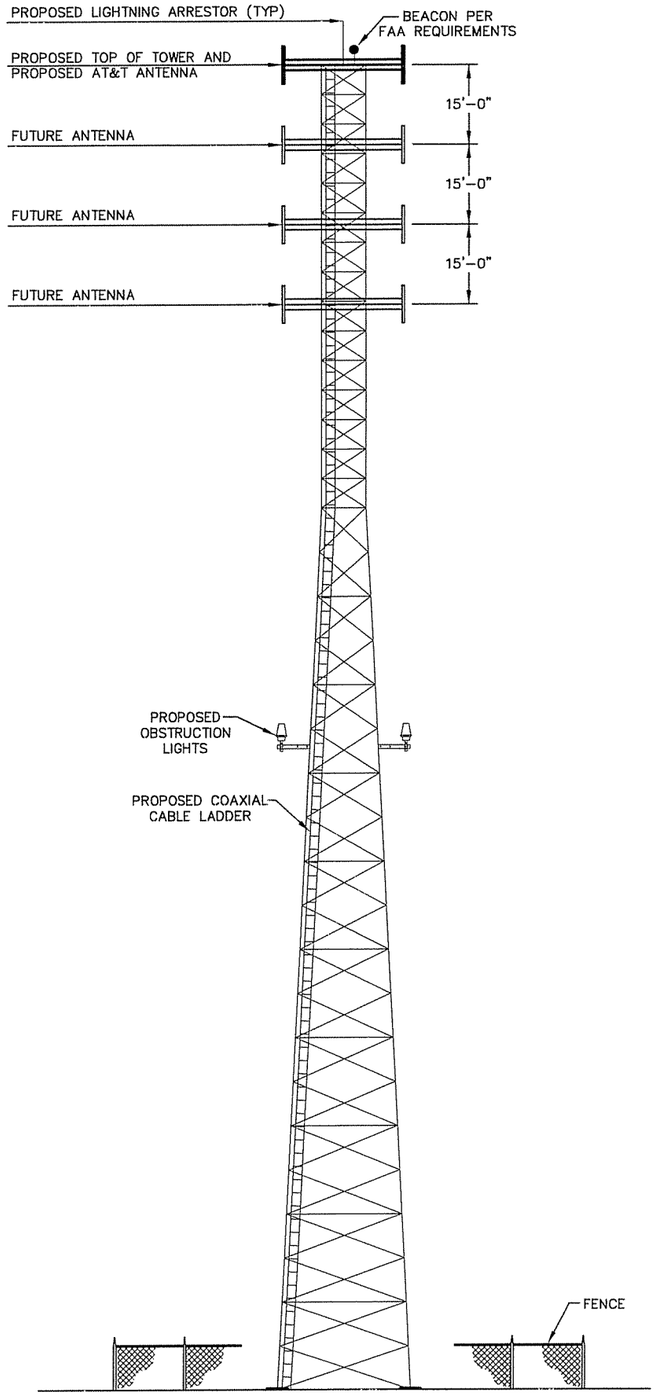
SOURCE OF TITLE: DEED BOOK 221, PAGE 293

PROPERTY OWNER:
MICHAEL & DEBRA COMBS
PO BOX 383
VICCO, KY 41773

NO.	REVISION/ISSUE	DATE
1	ISSUE FOR COMMENT	01/27/09
2	ISSUE FOR ZONING	07/21/09

TITLE: NORTH & SOUTH ELEVATIONS

SHEET: Z-5

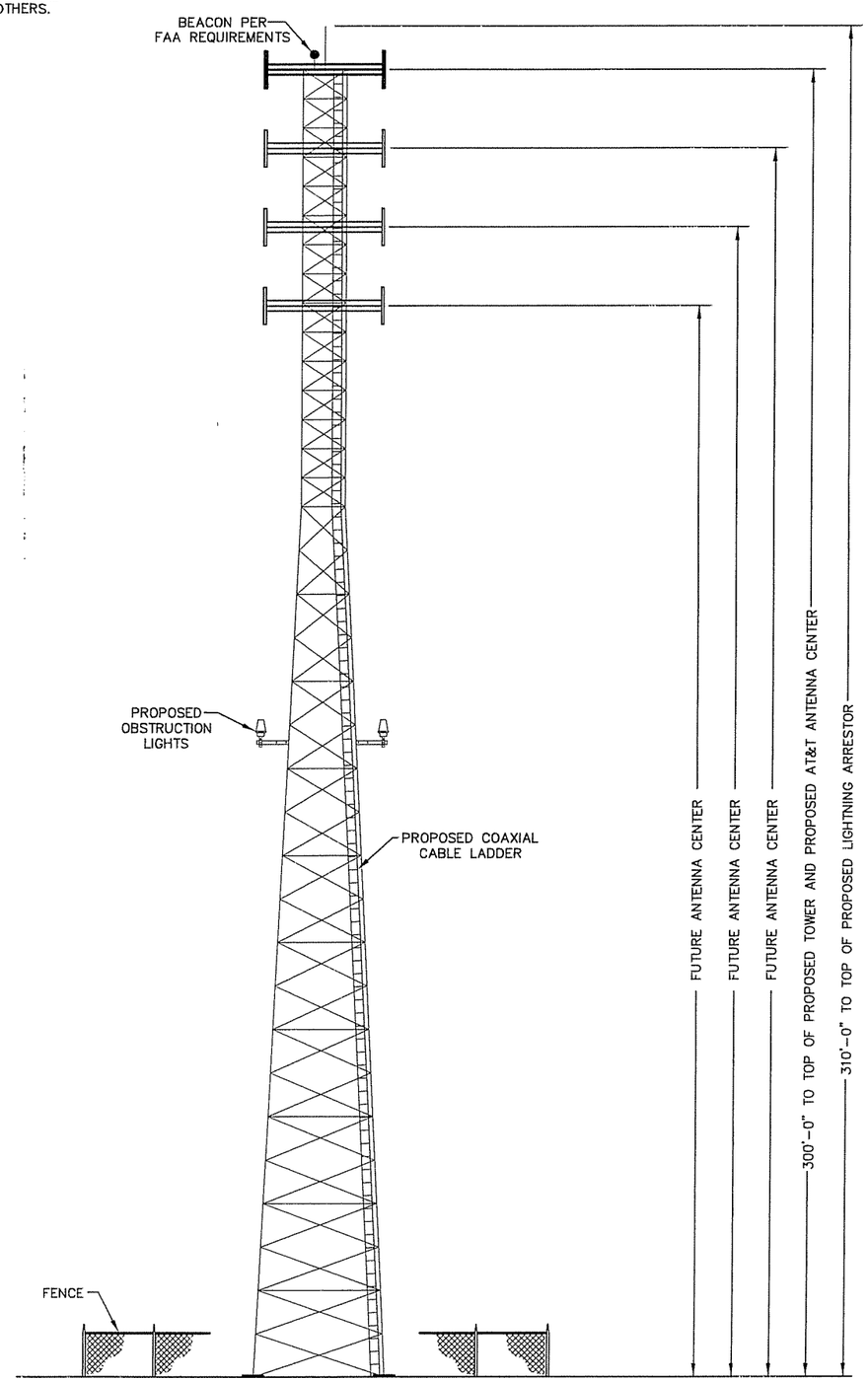


EAST ELEVATION

NOT TO SCALE

NOTE:

THE ELEVATIONS SHOWN ON THIS SHEET ARE FOR PICTORIAL PURPOSES ONLY. THIS DESIGN WAS PROVIDED BY OTHERS. REFER TO TOWER PLANS FOR TOWER DESIGN.



WEST ELEVATION

NOT TO SCALE

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(502) 459-8402 PHONE
(502) 459-8427 FAX

STATE OF KENTUCKY
WOODROW W MARCUM JR
13602
LICENSED PROFESSIONAL ENGINEERS

SITE NAME: HAPPY

SITE ID NUMBER: 252G012B

SITE ADDRESS: SCUDDY MOUNTAIN PINE RD
VICCO, KY 41773

LATITUDE: 37° 11' 54.603"N
LONGITUDE: 83° 04' 44.974"W

TAX MAP NUMBER: 167

PARCEL NUMBER: 13

SOURCE OF TITLE: DEED BOOK 221, PAGE 293

PROPERTY OWNER:
MICHAEL & DEBRA COMBS
PO BOX 383
VICCO, KY 41773

NO.	REVISION/ISSUE	DATE
1	ISSUE FOR COMMENT	01/27/09
2	ISSUE FOR ZONING	07/21/09

TITLE: EAST & WEST ELEVATIONS

SHEET: Z-6

Exhibit C

SITE PLAN NOTES

1. THE PROPOSED DEVELOPMENT IS FOR A 300 FOOT SELF-SUPPORT TOWER AND MULTIPLE EQUIPMENT LOCATIONS. THE LOCATION IS SCUDDY MOUNTAIN PINE RD, VICCO, KY 41773.

2. THE TOWER WILL BE ACCESSED BY A PROPOSED STABILIZED DRIVE FROM AN EXISTING ASPHALT ROADWAY (SR 15) WHICH IS A PUBLIC RIGHT OF WAY. WATER, SANITARY SEWER, AND WASTE COLLECTIONS SERVICES ARE NOT REQUIRED FOR THE PROPOSED DEVELOPMENT.

3. CENTERLINE OF PROPOSED TOWER GEOGRAPHIC LOCATIONS:
   LATITUDE: 37° 11' 54.603"N 1966407.11 N
   LONGITUDE: 83° 04' 44.974"W 2418212.69 E

4. REMOVE ALL VEGETATION, CLEAN AND GRUBB LEASE AREA (WHERE REQUIRED).

5. FINISH GRADING TO PROVIDE EFFECTIVE DRAINAGE WITH A SLOPE OF NO LESS THAN ONE EIGHTH INCH (1/8") PER FOOT FLOWING AWAY FROM EQUIPMENT FOR A MINIMUM DISTANCE OF SIX FEET (6') IN ALL DIRECTIONS.

6. LOCATE ALL U.G. UTILITIES PRIOR TO ANY CONSTRUCTION.

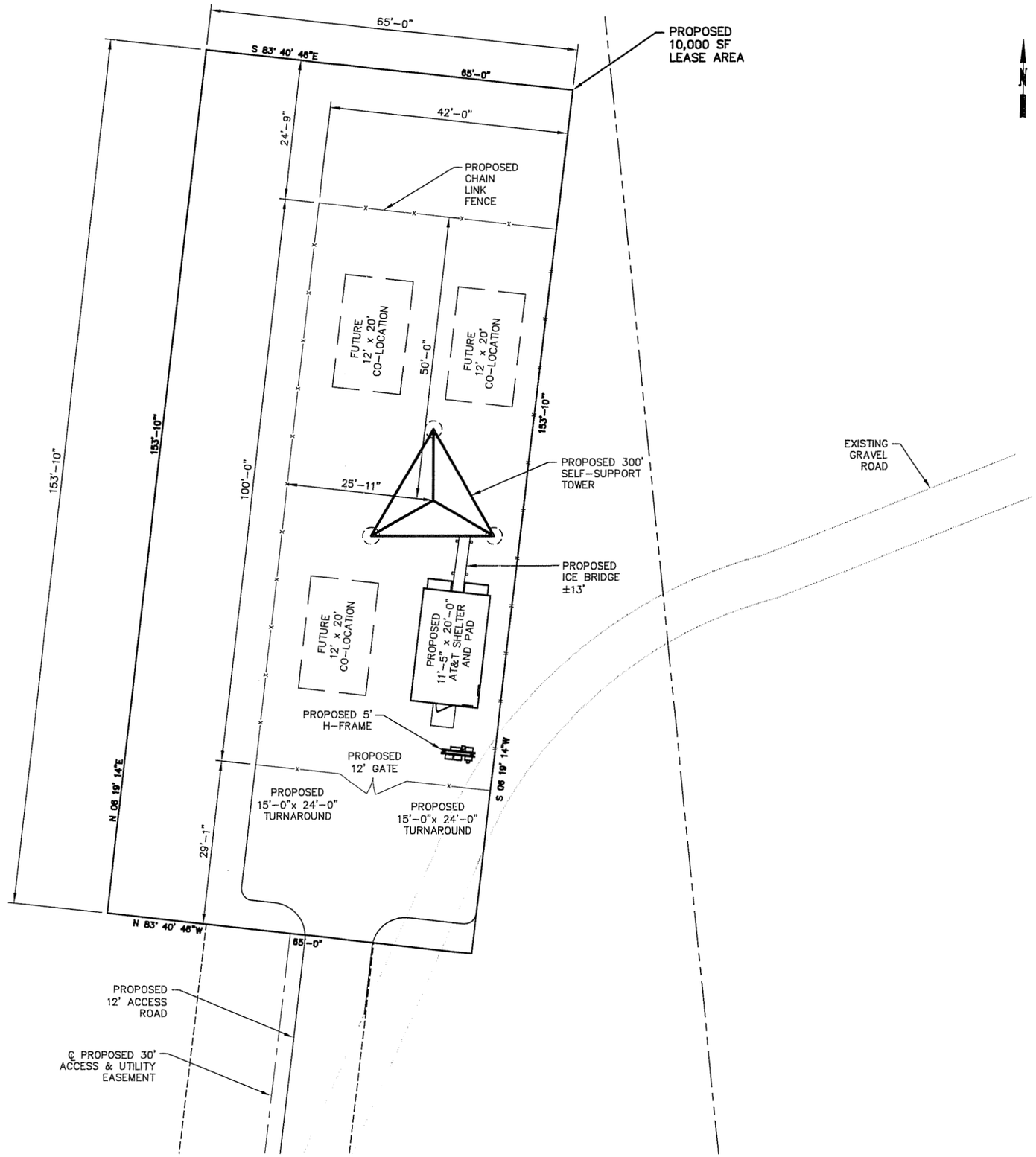
7. COMPOUND FINISHED SURFACE TO BE FENCED

UNDERGROUND UTILITIES
CALL 2 WORKING DAYS
BEFORE YOU DIG
INDIANA 1-800-382-5544
KENTUCKY 1-800-752-6007
OR DIAL 811
UTILITIES PROTECTION SERVICE
NON-MEMBERS MUST CALL DIRECTLY

LEGEND

- E — EXISTING OVERHEAD ELECTRIC
- T — EXISTING OVERHEAD TELEPHONE
- UE — EXISTING UNDERGROUND ELECTRIC
- UT — EXISTING UNDERGROUND TELEPHONE
- UE — UE — PROPOSED UNDERGROUND ELECTRIC
- UT — UT — PROPOSED UNDERGROUND TELEPHONE
- x — x — FENCE LINE
- POWER POLE
- TELE. PED — TELEPHONE PEDESTAL
- WATER VALVES
- FIRE HYDRANTS
- BOLLARDS

GRAPHIC SCALE
10 5 0 5 10 20 40
(IN FEET)
1 inch = 20 ft.



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(502) 459-8402 PHONE
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STATE OF KENTUCKY
WOODROW W MARCUM JR
13602
LICENSED PROFESSIONAL ENGINEERS

SITE NAME: HAPPY

SITE ID NUMBER: 252G0128

SITE ADDRESS: SCUDDY MOUNTAIN PINE RD VICCO, KY 41773

LATITUDE: 37° 11' 54.603"N
LONGITUDE: 83° 04' 44.974"W

TAX MAP NUMBER: 167

PARCEL NUMBER: 13

SOURCE OF TITLE: DEED BOOK 221, PAGE 293

PROPERTY OWNER:
MICHAEL & DEBRA COMBS
PO BOX 383
VICCO, KY 41773

NO.	REVISION/ISSUE	DATE
1	ISSUE FOR COMMENT	01/27/09
2	ISSUE FOR ZONING	07/21/09

TITLE: SITE LAYOUT

SHEET: Z-3

SITE PLAN NOTES

1. THE PROPOSED DEVELOPMENT IS FOR A 300 FOOT SELF-SUPPORT TOWER AND MULTIPLE EQUIPMENT LOCATIONS. THE LOCATION IS SCUDDY MOUNTAIN PINE RD, VICCO, KY 41773.

2. THE TOWER WILL BE ACCESSED BY A PROPOSED STABILIZED DRIVE FROM AN EXISTING ASPHALT ROADWAY (SR 15) WHICH IS A PUBLIC RIGHT OF WAY. WATER, SANITARY SEWER, AND WASTE COLLECTIONS SERVICES ARE NOT REQUIRED FOR THE PROPOSED DEVELOPMENT.

3. CENTERLINE OF PROPOSED TOWER GEOGRAPHIC LOCATIONS:
   LATITUDE: 37° 11' 54.603"N 1966407.11 N
   LONGITUDE: 83° 04' 44.974"W 2418212.69 E

4. REMOVE ALL VEGETATION, CLEAN AND GRUBB LEASE AREA (WHERE REQUIRED).

5. FINISH GRADING TO PROVIDE EFFECTIVE DRAINAGE WITH A SLOPE OF NO LESS THAN ONE EIGHTH INCH (1/8") PER FOOT FLOWING AWAY FROM EQUIPMENT FOR A MINIMUM DISTANCE OF SIX FEET (6') IN ALL DIRECTIONS.

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7. COMPOUND FINISHED SURFACE TO BE FENCED

UNDERGROUND UTILITIES
CALL 2 WORKING DAYS
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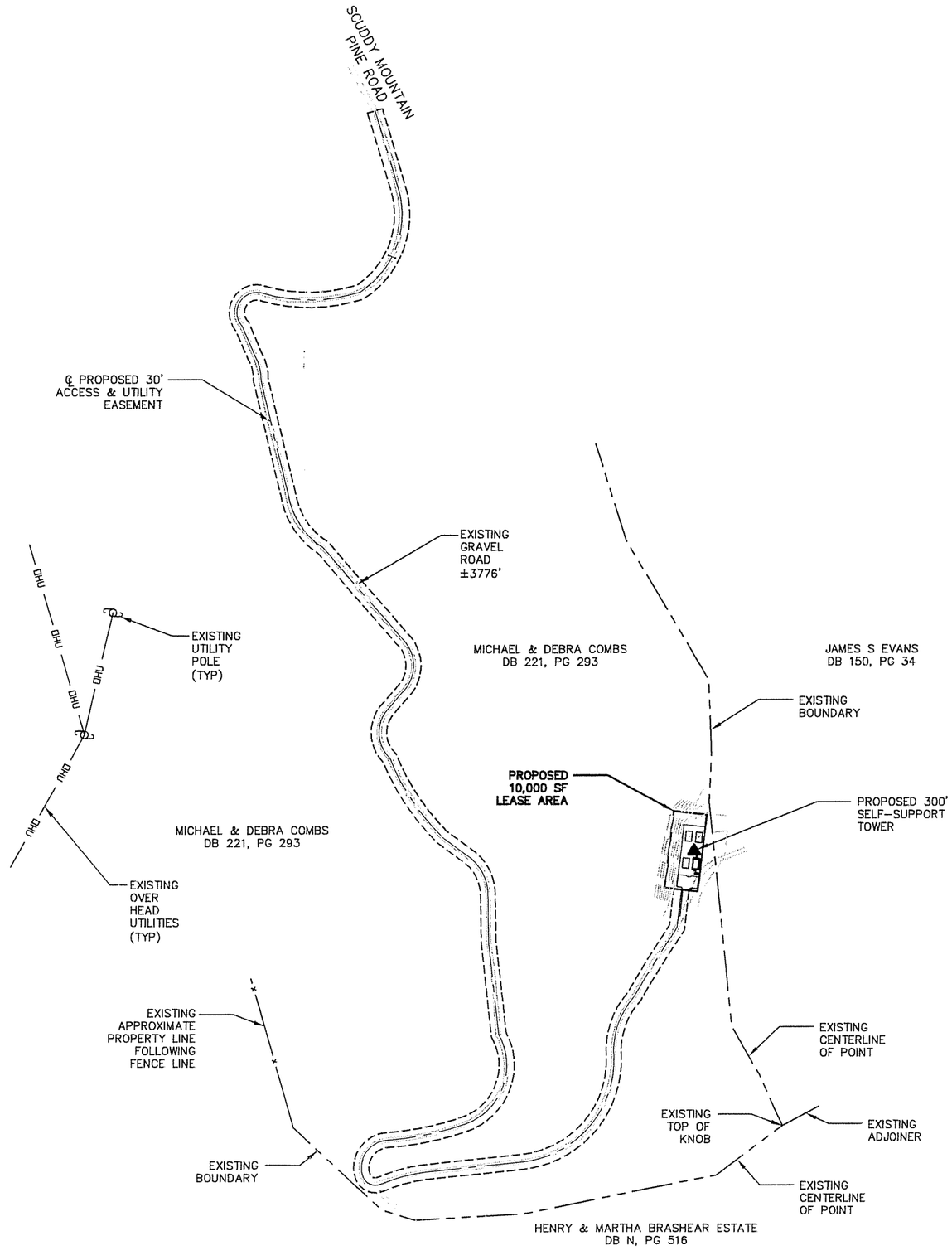
INDIANA 1-800-382-5544
KENTUCKY 1-800-752-6007
OR DIAL 811
UTILITIES PROTECTION SERVICE
NON-MEMBERS MUST CALL DIRECTLY

LEGEND

- E — EXISTING OVERHEAD ELECTRIC
- T — EXISTING OVERHEAD TELEPHONE
- UE — EXISTING UNDERGROUND ELECTRIC
- UT — EXISTING UNDERGROUND TELEPHONE
- UE UE — PROPOSED UNDERGROUND ELECTRIC
- UT UT — PROPOSED UNDERGROUND TELEPHONE
- x x — FENCE LINE
- POWER POLE
- TELE. PED — TELEPHONE PEDESTAL
- WATER VALVES
- FIRE HYDRANTS
- BOLLARDS

GRAPHIC SCALE
250 0 125 250
1 INCH = 250 FT.



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(502) 459-8402 PHONE
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STATE OF KENTUCKY
WOODROW W MARCUM JR
13602
LICENSED PROFESSIONAL ENGINEERS

SITE NAME: HAPPY

SITE ID NUMBER: 252G0128

SITE ADDRESS: SCUDDY MOUNTAIN PINE RD VICCO, KY 41773

LATITUDE: 37° 11' 54.603"N
LONGITUDE: 83° 04' 44.974"W

TAX MAP NUMBER: 167

PARCEL NUMBER: 13

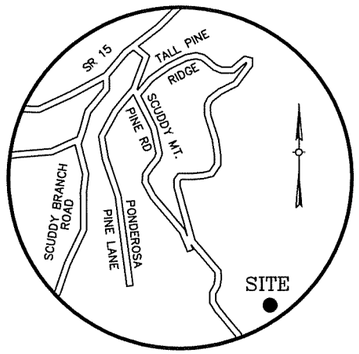
SOURCE OF TITLE: DEED BOOK 221, PAGE 293

PROPERTY OWNER:
MICHAEL & DEBRA COMBS
PO BOX 383
VICCO, KY 41773

NO.	REVISION/ISSUE	DATE
1	ISSUE FOR COMMENT	01/27/09
2	ISSUE FOR ZONING	07/21/09

TITLE: OVERALL SITE LAYOUT

SHEET: Z-2



LOCATION MAP
VICCO, PERRY CO., KY
NOT TO SCALE

LEGEND

- DHU — EXISTING OVERHEAD UTILITIES
- x — x — FENCE LINE
- SURVEY LINE
- APPROXIMATE DEED LINE
- UTILITY POLE
- SET #5 REBAR WITH CAP STAMPED "J CHARLES #3152" UNLESS OTHERWISE NOTED

LEGAL DESCRIPTIONS

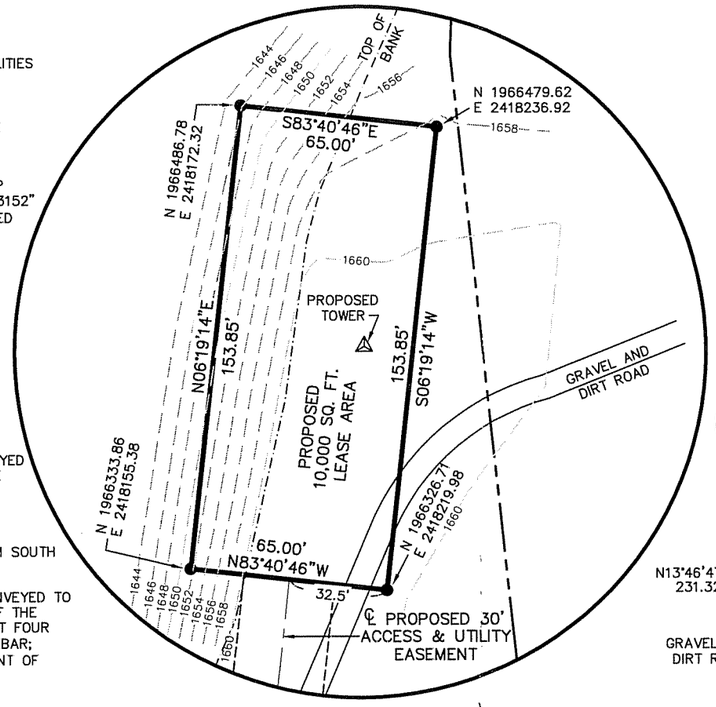
THIS IS THE DESCRIPTION FOR AT&T, FOR AN AREA TO BE LEASED FROM A TRACT OF LAND CONVEYED TO MICHAEL AND DEBRA COMBS BY DEED OF RECORD IN DEED BOOK 221, PAGE 293 IN THE OFFICE OF THE COUNTY CLERK OF PERRY COUNTY, KENTUCKY AND FURTHER DESCRIBED AS FOLLOWS:

DESCRIPTION OF PROPOSED LEASE AREA AND EASEMENT

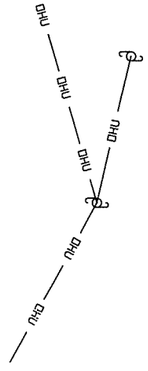
NOTE: ALL BEARINGS AND DISTANCES ARE BASED ON KENTUCKY STATE PLANE COORDINATE SYSTEM SOUTH ZONE

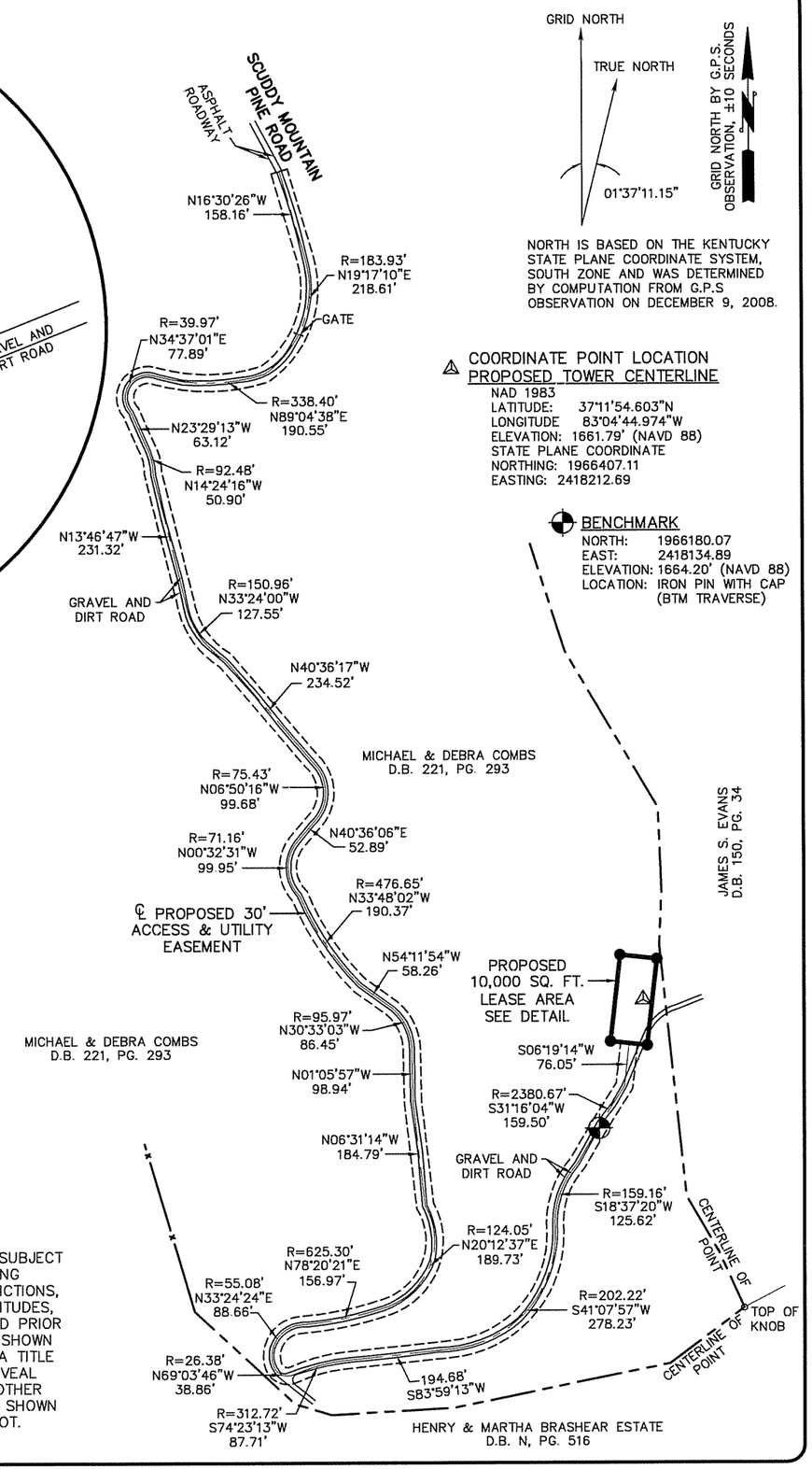
BEGINNING AT A REBAR SET ON THE WEST SIDE OF THE PROPERTY LINE OF A TRACT OF LAND CONVEYED TO MICHAEL AND DEBRA COMBS BY DEED OF RECORD IN DEED BOOK 221, PAGE 293 IN THE OFFICE OF THE COUNTY CLERK OF PERRY COUNTY, KENTUCKY; THENCE WITH THE PROPOSED LEASE AREA THE NEXT FOUR CALLS, S83°40'46"E, 65.00 FEET TO A SET REBAR; THENCE S06°19'14"W, 153.85 FEET TO A SET REBAR; THENCE N83°40'46"W, 65.00 FEET TO A SET REBAR; THENCE N06°19'14"E, 153.85 FEET TO THE POINT OF BEGINNING AND CONTAINING 10,000 SQUARE FEET.

ALSO, THE RIGHT TO USE FOR ACCESS AND UTILITIES FOR THE ABOVE DESCRIBED LEASE AREA, A 30 FOOT WIDE EASEMENT THE CENTERLINE DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHWEST CORNER OF THE AFOREDESCRIBED LEASE AREA; THENCE S83°40'46"E, 32.50 FEET TO THE TRUE POINT OF BEGINNING; THENCE WITH THE CENTERLINE OF A 30 FOOT WIDE EASEMENT AND FOLLOWING AN EXISTING GRAVEL AND DIRT ROAD THE FOLLOWING 27 CALLS, S06°19'14"W, 76.05 FEET TO A POINT; THENCE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 2380.67 FEET AND A CHORD OF S31°16'04"W, 159.50 FEET TO A POINT; THENCE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 159.16 FEET AND A CHORD OF S18°37'20"W, 125.62 FEET TO A POINT; THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 202.22 FEET AND A CHORD OF S41°07'57"W, 278.23 FEET TO A POINT; THENCE S83°59'13"W, 194.68 FEET TO A POINT; THENCE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 312.72 FEET AND A CHORD OF S74°23'13"W, 87.71 FEET TO A POINT; THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 26.38 FEET AND A CHORD OF N69°03'46"W, 38.86 FEET TO A POINT; THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 55.08 FEET AND A CHORD OF N33°24'24"E, 88.66 FEET TO A POINT; THENCE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 625.30 FEET AND A CHORD OF N78°20'21"E, 156.97 FEET TO A POINT; THENCE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 124.05 FEET AND A CHORD OF N20°12'37"E, 189.73 FEET TO A POINT; THENCE N06°31'14"W, 184.79 FEET TO A POINT; THENCE N01°05'57"W, 98.94 FEET TO A POINT; THENCE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 95.97 FEET AND A CHORD OF N30°33'03"W, 86.45 FEET TO A POINT; THENCE N54°11'54"W, 58.26 FEET TO A POINT; THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 476.65 FEET AND A CHORD OF N33°48'02"W, 190.37 FEET TO A POINT; THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 71.16 FEET AND A CHORD OF N00°32'31"W, 99.95 FEET TO A POINT; THENCE N40°36'06"E, 52.89 FEET TO A POINT; THENCE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 75.43 FEET AND A CHORD OF N06°50'16"W, 99.68 FEET TO A POINT; THENCE N40°36'17"W, 234.52 FEET TO A POINT; THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 150.96 FEET AND A CHORD OF N33°24'00"W, 127.55 FEET TO A POINT; THENCE N13°46'47"W, 231.32 FEET TO A POINT; THENCE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 92.48 FEET AND A CHORD OF N14°24'16"W, 50.90 FEET TO A POINT; THENCE N23°29'13"W, 63.12 FEET TO A POINT; THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 39.97 FEET AND A CHORD OF N34°37'01"E, 77.89 FEET TO A POINT; THENCE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 338.40 FEET AND A CHORD OF N89°04'38"E, 190.55 FEET TO A POINT; THENCE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 183.93 FEET AND A CHORD OF N19°17'10"E, 218.61 FEET TO A POINT; THENCE N16°30'26"W, 158.16 FEET TO THE TERMINATION OF SAID EASEMENT CENTERLINE AT THE END OF THE ASPHALT ROADWAY KNOW AS SCUDDY MOUNTAIN PINE ROAD.



DETAIL
SCALE: 1"=50'





GRID NORTH
TRUE NORTH
01°37'11.15"
GRID NORTH BY G.P.S. OBSERVATION, ±10 SECONDS

NORTH IS BASED ON THE KENTUCKY STATE PLANE COORDINATE SYSTEM, SOUTH ZONE AND WAS DETERMINED BY COMPUTATION FROM G.P.S OBSERVATION ON DECEMBER 9, 2008.

⚠ COORDINATE POINT LOCATION
PROPOSED TOWER CENTERLINE
NAD 1983
LATITUDE: 37°11'54.603"N
LONGITUDE 83°04'44.974"W
ELEVATION: 1661.79' (NAVD 88)
STATE PLANE COORDINATE
NORTHING: 1966407.11
EASTING: 2418212.69

BENCHMARK
NORTH: 1966180.07
EAST: 2418134.89
ELEVATION: 1664.20' (NAVD 88)
LOCATION: IRON PIN WITH CAP (BTM TRAVERSE)

LAND SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAT AND SURVEY WERE MADE UNDER MY SUPERVISION, AND THAT THE ANGULAR AND LINEAR MEASUREMENTS AS WITNESSED BY MONUMENTS SHOWN HEREON ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

JOHN M. THOMAS, PLS #3259 — DATE 7-21-09

OWNER APPROVAL — DATE

OWNER APPROVAL — DATE

AT&T APPROVAL — DATE

GRAPHIC SCALE
250 0 125 250
1 INCH = 250 FT.

FLOOD PLAIN CERTIFICATION

I HAVE REVIEWED THE FLOOD INSURANCE RATE MAPS (FIRM) MAP NO. 21193CIND0A DATED AUGUST 2, 2006 AND THE LEASE AREA DOES NOT APPEAR TO BE IN A FLOOD PRONE AREA.

NOTE

1. THIS SURVEY IS SUBJECT TO ALL EXISTING EASEMENTS, RESTRICTIONS, EXCEPTIONS, SERVITUDES, RIGHT OF WAYS AND PRIOR LEASES WHETHER SHOWN HEREON OR NOT. A TITLE REPORT MAY REVEAL EASEMENTS OR OTHER DEFECTS WHETHER SHOWN HEREON OR NOT.

at&t

nsoro
It's just good business.

BTM ENGINEERING, INC.
3001 TAYLOR SPRINGS DRIVE
LOUISVILLE, KENTUCKY 40220
(502) 459-8402 PHONE
(502) 459-8427 FAX

STATE OF KENTUCKY
JOHN M. THOMAS 3259
LICENSED PROFESSIONAL LAND SURVEYOR

SITE NAME: HAPPY
SITE I.D.: 252G012B
SITE ADDRESS: SCUDDY MOUNTAIN PINE ROAD VICCO, PERRY CO., KY 41773
LEASE AREA: 10,000 SQ. FT.
PROPERTY OWNER: MICHAEL & DEBRA COMBS BOX 383 VICCO, KY 41773
TAX MAP NUMBER: 167
PARCEL NUMBER: 13
SOURCE OF TITLE: DEED BOOK 221, PAGE 293
LATITUDE: 37° 11' 54.603"N
LONGITUDE: 83° 04' 44.974"W

NO.	REVISION/ISSUE	DATE

TITLE: COMMUNICATIONS SITE SURVEY

SHEET: C-2

Exhibit D

ROHN™
Products LLC

6718 W. Plank Road
Peoria, IL 61604 USA
Phone 309-697-4400
FAX 309-697-5612
Toll Free 800-727-ROHN

PURCHASER: AMERICAN TOWER CORPORATION

NAME OF PROJECT: HAPPY, PERRY COUNTY, KENTUCKY
300 FT. MODEL SSVMW TOWER

FILE NUMBER: 0606405

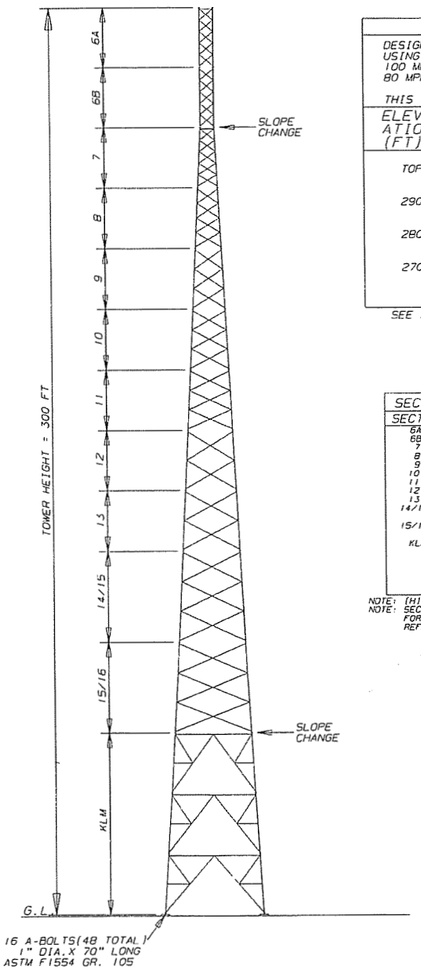
DRAWING NUMBER: A090562

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: _____

DATE: 7/8/09

STATE OF KENTUCKY
HABIB JIRJI AZOURI
20322
REGISTERED PROFESSIONAL ENGINEER



TOWER DESIGN LOADING

DESIGN WIND LOAD PER 2006 INTERNATIONAL BUILDING CODE (IBC)
USING ANSI/TIA/EIA-222-F-1996 IN ACCORDANCE WITH SECTION 3108.4
100 MPH 3-SECOND GUST WIND SPEED (1/2" RADIAL ICE LOAD)
80 MPH FASTEST-MILE WIND SPEED (1/2" RADIAL ICE LOAD)

THIS TOWER IS DESIGNED TO SUPPORT THE FOLLOWING LOADS:

ELEV-ATION (FT)	ANTENNA TYPE	LINE SIZE (NOM)
TOP	EPA(NO ICE) = 115.0 SQFT EPA(WITH ICE) = 135.0 SQFT	(12) 1-5/8"
290	EPA(NO ICE) = 115.0 SQFT EPA(WITH ICE) = 135.0 SQFT	(12) 1-5/8"
280	EPA(NO ICE) = 115.0 SQFT EPA(WITH ICE) = 135.0 SQFT	(12) 1-5/8"
270	EPA(NO ICE) = 115.0 SQFT EPA(WITH ICE) = 135.0 SQFT	(12) 1-5/8"

SEE STRESS ANALYSIS FOR A COMPLETE LISTING OF ALL LOADS ON TOWER

SECTION MEMBER SCHEDULE

SECTION	LEG	BRACE
6A	PIPE3.0STD	L1.75X3/16
6B	PIPE4.0E.H	L 2X2X1/4
7	PIPE5.0E.H	L 3X3X3/16
8	PIPE5.0E.H	L 3X3X3/16
9	PIPE5.0EHS	L 2 3X3/16
10	PIPE6.0E.H	L 2.5X3/16
11	PIPE5.0E.H	L 3X3X3/16
12	PIPE8.0EHS	L 3X3X1/4
13	PIPE8.0E.H	L3-1/2X1/4
14/15	PIPE8.0E.H	L3-1/2X1/4 L 4X4X1/4
15/16	PIPE10.E.H	L 4X4X1/4 L 4X4X5/16
KLM	PIPE10.E.H	PIPE2.5STD PIPE2.5STD(H) PIPE2.5STD PIPE2.5STD(H) PIPE3.0STD PIPE4.0STD(H)

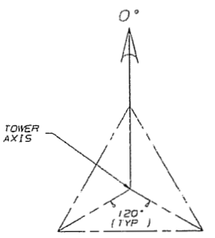
NOTE: (H) REPRESENTS THE HORIZONTAL BRACE
NOTE: SECTION NUMBERS ARE FOR REFERENCE ONLY FOR NOMINAL FACE WIDTH DIMENSIONS. REFER TO STRESS ANALYSIS.

TUBULAR MEMBER PROPERTIES

MEMBER	SIZE	
	O.D. (IN)	THICK. (IN)
PIPE2.5STD	2.875	0.203
PIPE 3 STD	3.500	0.216
PIPE 4 E.H	4.500	0.337
PIPE 5 E.H	5.563	0.375
PIPE 6 EHS	6.625	0.340
PIPE 6 E.H	6.625	0.432
PIPE 8 EHS	8.625	0.375
PIPE 8 E.H	8.625	0.500
PIPE10.E.H	10.750	0.500

GENERAL NOTES

1. ROHN COMMUNICATION TOWER DESIGNS CONFORM TO ANSI/TIA/EIA-222-F UNLESS OTHERWISE SPECIFIED UNDER TOWER DESIGN LOADING.
2. THE DESIGN LOADING CRITERIA INDICATED HAS BEEN PROVIDED TO ROHN AND 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.
3. ANTENNAS AND LINES LISTED IN TOWER DESIGN LOADING TABLE ARE PROVIDED BY OTHERS UNLESS OTHERWISE SPECIFIED.
4. TOWER 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 TOWER.
5. WORK SHALL BE IN ACCORDANCE WITH ANSI/TIA/EIA-222-F, "STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES".
6. THE MINIMUM YIELD STRENGTH OF STRUCTURAL STEEL MEMBERS SHALL BE 50 KSI, EXCEPT AS NOTED BELOW.
   ANGLE BRACES L1.75X3/16 THRU L 3X3X3/16 SHALL BE 36 KSI.
   STRUCTURAL PLATES SHALL BE 36 KSI.
7. FIELD CONNECTIONS SHALL BE BOLTED. NO FIELD WELDS SHALL BE ALLOWED.
8. STRUCTURAL BOLTS SHALL CONFORM TO ASTM A-325, EXCEPT WHERE NOTED.
9. PAL NUTS SHALL BE PROVIDED FOR ALL TOWER BOLTS.
10. STRUCTURAL STEEL AND CONNECTION BOLTS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION, IN ACCORDANCE WITH ANSI/TIA/EIA-222-F.
11. ALL HIGH STRENGTH BOLTS ARE TO BE TIGHTENED TO A "SNUGTIGHT CONDITION AS DEFINED IN THE NOVEMBER 13, 1985, AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS". NO OTHER MINIMUM BOLT TENSION OR TORQUE VALUES ARE REQUIRED.
12. PURCHASER SHALL VERIFY THE INSTALLATION IS IN CONFORMANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS FOR OBSTRUCTION MARKING AND LIGHTING.
13. TOLERANCE ON TOWER STEEL HEIGHT IS EQUAL TO PLUS 1% OR MINUS 1/2".
14. DESIGN ASSUMES THAT, AS A MINIMUM, MAINTENANCE AND INSPECTION WILL BE PERFORMED OVER THE LIFE OF THE STRUCTURE IN ACCORDANCE WITH ANSI/TIA/EIA-222-F.
15. DESIGN ASSUMES LEVEL GRADE AT TOWER SITE.
16. FOUNDATIONS SHALL BE DESIGNED TO SUPPORT THE REACTIONS SHOWN FOR THE CONDITIONS EXISTING AT THE SITE.



TOWER CONFIGURATION
N.T.S.

TOWER REACTIONS

COMPRESSION =	514.7 KIPS
TENSION =	437.5 KIPS
TOTAL SHEAR =	78.5 KIPS
O.T.M. =	13658.2 FT-KIPS

SITE HAPPY

COUNTY PERRY, KY

No.	Revision Description	Date	Rev. By	Chd By	Appd By

ROHN

Scale: NONE	By	Date
Drawn:	DWG	07/06/09
Checked:	MA	7/6/09
App. Eng.:	MA	7/6/09
Parent File:	59255EH	

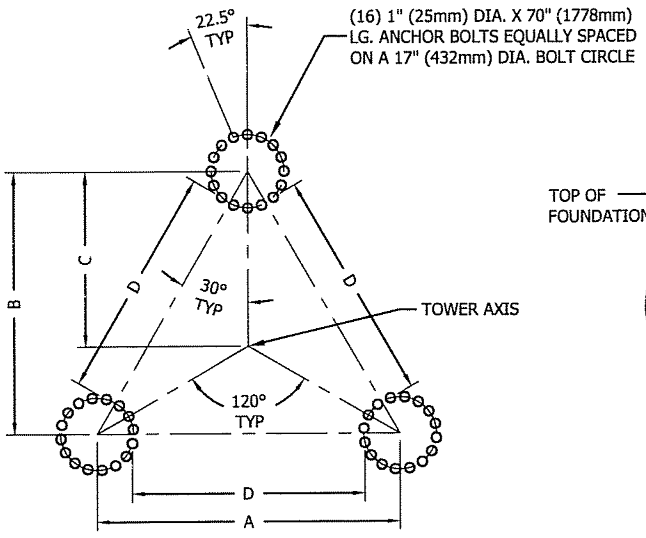
300' SSVMW TOWER DESIGN
FOR
AMERICAN TOWER

ENG. FILE: 060-6405

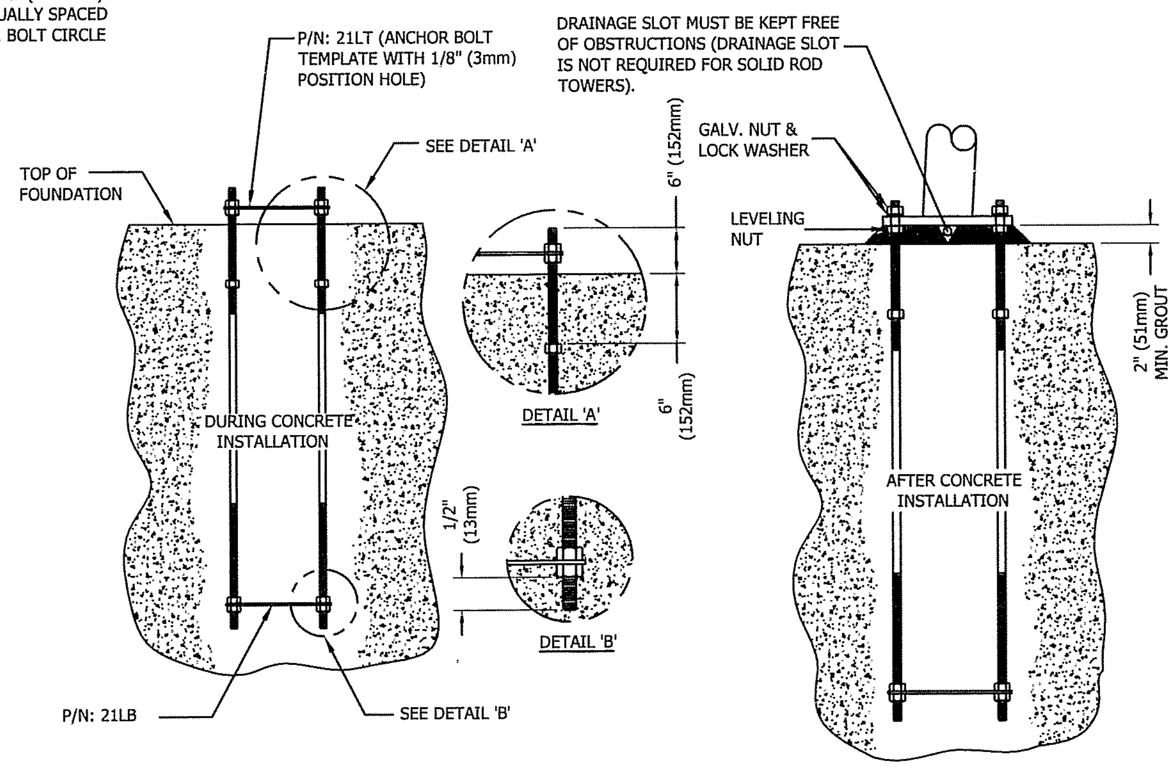
DWG. NO.: A090562

SHEET 1 OF 1

REV.



PLAN VIEW (NTS)



A	B	C	D
32'-10" (10.008M)	28'-5 3/16" (8.666M)	18'-11 1/2" (5.779M)	31'-5 1/2" (9.589M)

ANCHOR BOLT INSTALLATION TOLERANCES

1. FACE SPREAD DIMENSION CENTER-TO-CENTER OF ANCHOR BOLT CIRCLES - PLUS OR MINUS 1/16" (2mm) OR 1/16"(2mm) PER 20 FT. (6m) OF FACE SPREAD.
2. MAXIMUM DIFFERENCE BETWEEN ANY TWO FOUNDATION ELEVATIONS - 1/2" (13mm).
3. CONCRETE DIMENSIONS - PLUS OR MINUS 1" (25mm).
4. DEPTH OF FOUNDATION - PLUS 3" (76mm) OR MINUS 0".
5. DRILLED FOUNDATIONS OUT OF PLUMB - 1.0 DEGREE.
6. REINFORCING STEEL PLACEMENT - PER A.C.I. 301.
7. PROJECTION OF EMBEDMENTS - PLUS OR MINUS 1/8" (3mm).
8. VERTICAL EMBEDMENTS OUT OF PLUMB -1/2 DEGREE.
9. MAXIMUM DISTANCE FROM CENTERLINE OF ANCHOR BOLTS TO CENTERLINE OF FOUNDATION - 1/24 OF PIER DIAMETER UP TO A MAXIMUM OF 2" (50mm).
10. ANCHOR BOLT SPACING - 1/16" (2mm).
11. ANCHOR BOLT CIRCLE ORIENTATION - 1/4 DEGREE.
12. ANCHOR BOLT CIRCLE DIAMETER - PLUS OR MINUS 1/16" (2mm).

!!! WARNING !!!
- ENSURE DIMENSION 'D' IS CORRECT ON ALL FACES PRIOR TO PLACING CONCRETE.

- AFTER ANCHOR BOLTS ARE INSTALLED AND CONCRETE HAS TAKEN ITS INITIAL SET, ANCHOR BOLTS MUST NOT BE MOVED, BENT OR REALIGNED IN ANY MANNER. A NUT LOCKING DEVICE MUST BE INSTALLED ON ALL ANCHOR BOLTS.

NOTES

1. ALL ANCHOR BOLTS MUST MEET OR EXCEED REQUIREMENTS OF A.S.T.M. F1554-S2, S5 GRADE 105.
2. GROUT TO BE 5000 PSI MIN. ULTIMATE STRENGTH/7 DAY NON-SHRINKING AND NON-METALLIC.
3. SPECIAL CARE MUST BE TAKEN WHEN LIFTING ANCHOR BOLT CLUSTER, IN ORDER TO PREVENT ANCHOR BOLT TEMPLATE DISTORTION.
4. ANCHOR BOLT ASSEMBLY MUST BE ADEQUATELY SUPPORTED AND RESTRAINED TO PREVENT MOVEMENT OF THE CLUSTER DURING CONCRETE INSTALLATION.
5. IT IS THE RESPONSIBILITY OF THE FOUNDATION CONTRACTOR TO VERIFY THAT THE CORRECT ANCHOR BOLT TEMPLATE AND FOUNDATION SHOWN ON RESPECTIVE SITE DRAWINGS ARE BEING USED.
6. IT IS THE RESPONSIBILITY OF THE FOUNDATION DESIGN ENGINEER TO INSURE THAT THE ANCHORAGES PROVIDED ARE COMPATIBLE WITH THE PROPOSED FOUNDATION DESIGNS AND THAT THE CAPACITIES OF THE ANCHORAGES ARE NOT LIMITED BY THE STRENGTH OF THE FOUNDATIONS.

FILE NO. Standard-SSV

REVISIONS				
REV.	DESCRIPTION	DWN	CHK	APP

DWG REFERENCE

ROHN PRODUCTS
6718 WEST PLANK ROAD
PEORIA, IL 61604
TOLL FREE 800-727-ROHN

ANCHOR BOLT LAYOUT
1" [25mm]Ø BOLTS (48H3283)

DWN: JWS	CHK'D: JDM	DATE: Jun/20/2008
ENG'R: HA		
DRAWING NO: B080594		REV: 0

TowerSoft
ENGINEERING SOFTWARE
TSTower - v 3.9.0 Tower Analysis Program
(c) 1997-2006 TowerSoft www.TSTower.com

ROHN Products
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Peoria, Illinois

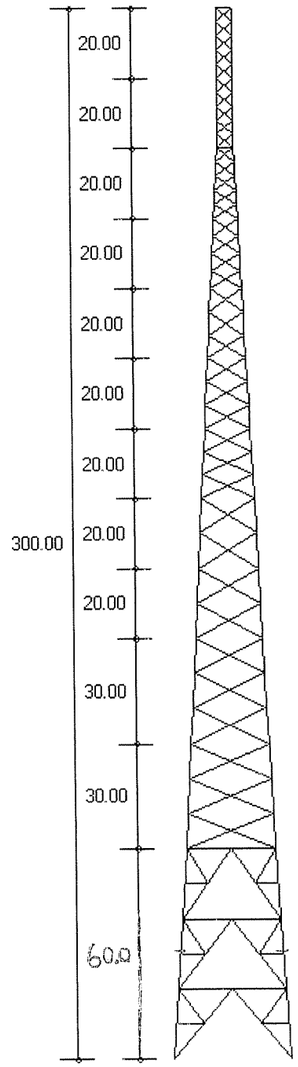
File: W:\Jobs\2009\060-6405\060-6405.out
Contract: 060-6405
Project: 300' SSVMW TOWER DESIGN
Date and Time: 7/06/2009 11:50:00 AM

Revision:
Site: HAPPY
Engineer: FAD/DWG

DESIGN SPECIFICATION

Design Standard: TIA/EIA-222-F-1996
Basic Wind speed = 80.0 (mph)
Service Wind speed = 50.0 (mph)
Ice thickness = 0.50 (in)

Sct.	Length (ft)	Top Width (in)	Bot Width (in)
1	20.00	363.98	393.98
2	20.00	333.98	363.98
3	20.00	303.98	333.98
4	30.00	264.96	303.98
5	30.00	227.99	264.96
6	20.00	203.90	227.99
7	20.00	179.88	203.90
8	20.00	154.87	179.88
9	20.00	130.96	154.87
10	20.00	107.05	130.96
11	20.00	81.97	107.05
12	20.00	57.95	81.97
13	20.00	56.65	57.95
14	20.00	56.30	56.65



MAXIMUM BASE REACTIONS

	Bare	Iced
Download (Kips)	510.1	514.7
Uplift (Kips)	437.5	401.7
Shear (Kips)	49.4	49.9

TOTAL SHEAR: 78.5 K
O.T.M: 13658.2 IK

(48) 1" ø x 70" LG A. BOLTS

File: W:\Jobs\2009\060-6405\060-6405.out
Contract: 060-6405
Project: 300' SSVMW TOWER DESIGN
Date and Time: 7/06/2009 11:50:00 AM

Revision:
Site: HAPPY
Engineer: FAD/DWG

Section A: PROJECT DATA

Project Title:	300' SSVMW TOWER DESIGN
Customer Name:	AMERICAN TOWER
Site:	HAPPY
Contract No.:	060-6405
Revision:	
Engineer:	FAD/DWG
Date:	Jul 6 2009
Time:	11:50:00 AM
Design Standard:	TIA/EIA-222-F-1996

GENERAL DESIGN CONDITIONS

Start Wind direction:	0.00 (Deg)
End Wind direction:	330.00 (Deg)
Increment wind direction:	30.00 (Deg)
Elevation above ground:	0.00(ft)
Gust Response Factor Gh:	1.09
Material Density:	490.1(lbs/ft^3)
Young's Modulus:	29000.0(ksi)
Poisson Ratio:	0.3
Weight Multiplier:	1.25
Allowable Stress Incr. Factor:	1.333
Increase allowable stress:	Yes

WIND ONLY CONDITIONS:

Basic Wind Speed:	80.00(mph)

WIND AND ICE CONDITIONS:

Basic Wind Speed:	80.00(mph)
Ice Thickness:	0.50(in)
Ice density:	56.19(lbs/ft^3)
Wind pressure reduction for iced conditions:	0.75

WIND ONLY SERVICEABILITY CONDITIONS:

Operational Wind Speed:	50.00(mph)

Analysis performed using: TowerSoft Finite Element Analysis Program

TowerSoft ENGINEERING SOFTWARE

TSTower - v 3.9.0 Tower Analysis Program
(c) 1997-2006 TowerSoft www.TSTower.com

ROHN Products

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Peoria, Illinois

File: W:\Jobs\2009\060-6405\060-6405.out
Contract: 060-6405
Project: 300' SSVMW TOWER DESIGN
Date and Time: 7/06/2009 11:50:00 AM

Revision:
Site: HAPPY
Engineer: FAD/DWG

Section B: STRUCTURE GEOMETRY

TOWER GEOMETRY

Cross-Section	Height (ft)	Tot Height (ft)	# of Section	Bot Width (in)	Top Width (in)
Triangular	300.00	300.00	14	393.98	56.30

SECTION GEOMETRY

Sec #	Sec. Name	Elevation Bottom (ft)	Elevation Top (ft)	Widths Bottom (in)	Widths Top (in)	Masses Legs (lbs)	Masses Brcg. (lbs)	Masses Sec.Brc (lbs)	Masses Int.Brc (lbs)	Masses Sect. (lbs)	Masses Database (lbs)	Brcg. Clear. (in)
14	R-6N	280.00	300.00	57	56	569	526	0	0	1095	1060	0.787
13	R-6N	260.00	280.00	58	57	1125	747	0	0	1873	1887	0.787
12	R-7N	240.00	260.00	82	58	1562	680	0	0	2242	2127	0.787
11	R-8N	220.00	240.00	107	82	1562	677	0	0	2240	2246	0.787
10	R-9N	200.00	220.00	131	107	1714	824	0	0	2538	2544	0.787
9	R-10N	180.00	200.00	155	131	2150	941	0	0	3091	3100	0.787
8	R-11N	160.00	180.00	180	155	2150	1290	0	0	3441	3448	0.787
7	R-12N	140.00	160.00	204	180	2482	1386	0	0	3868	3880	0.787
6	R-13N	120.00	140.00	228	204	3262	1777	0	0	5039	5053	0.787
5	R-14N/15N	90.00	120.00	265	228	4894	3109	0	0	8003	5207	0.787
4	R-15/16NHMW	60.00	90.00	304	265	6176	4438	0	0	10614	7352	0.787
3	R-MWK } 60' SEC	40.00	60.00	334	304	4120	1607	511	567	6805	7264	0.787
2	R-MWL } 60' SEC	20.00	40.00	364	334	4120	1693	688	719	7221	7463	0.787
1	R-MWM } 60' SEC	0.00	20.00	394	364	4120	2336	779	987	8222	8302	0.787
Total Mass:						40006	22033	1978	2273	66290	60935	

PANEL GEOMETRY

Sec#	Pnl#	Type	SecBrcg	Mid. Horiz Continuous	Horiz	Height (ft)	Bottom Width (in)	Top Width (in)	Plan Bracing	Hip Bracing	Gusset Plate Area (ft^2)	Gusset Plate Weight (lbs)
14	5	X	(None)		Yes	4.0	56.4	56.3	(None)	(None)	0.000	0.00
14	4	X	(None)		None	4.0	56.4	56.4	(None)	(None)	0.000	0.00
14	3	X	(None)		None	4.0	56.5	56.4	(None)	(None)	0.000	0.00
14	2	X	(None)		None	4.0	56.6	56.5	(None)	(None)	0.000	0.00
14	1	X	(None)		None	4.0	56.7	56.6	(None)	(None)	0.000	0.00
13	5	X	(None)		None	4.0	56.9	56.7	(None)	(None)	0.000	0.00
13	4	X	(None)		None	4.0	57.2	56.9	(None)	(None)	0.000	0.00
13	3	X	(None)		None	4.0	57.4	57.2	(None)	(None)	0.000	0.00
13	2	X	(None)		None	4.0	57.7	57.4	(None)	(None)	0.000	0.00
13	1	X	(None)		None	4.0	58.0	57.7	(None)	(None)	0.000	0.00
12	5	X	(None)		Yes	4.0	62.8	58.0	(None)	(None)	0.000	0.00
12	4	X	(None)		None	4.0	67.6	62.8	(None)	(None)	0.000	0.00
12	3	X	(None)		None	4.0	72.4	67.6	(None)	(None)	0.000	0.00
12	2	X	(None)		None	4.0	77.2	72.4	(None)	(None)	0.000	0.00
12	1	X	(None)		None	4.0	82.0	77.2	(None)	(None)	0.000	0.00
11	4	X	(None)		None	5.0	88.2	82.0	(None)	(None)	0.000	0.00
11	3	X	(None)		None	5.0	94.5	88.2	(None)	(None)	0.000	0.00
11	2	X	(None)		None	5.0	100.8	94.5	(None)	(None)	0.000	0.00
11	1	X	(None)		None	5.0	107.0	100.8	(None)	(None)	0.000	0.00
10	3	X	(None)		None	6.7	115.0	107.0	(None)	(None)	0.000	0.00
10	2	X	(None)		None	6.7	123.0	115.0	(None)	(None)	0.000	0.00
10	1	X	(None)		None	6.7	131.0	123.0	(None)	(None)	0.000	0.00
9	3	X	(None)		None	6.7	138.9	131.0	(None)	(None)	0.000	0.00

9	2	X	(None)	None	6.7	146.9	138.9	(None)	(None)	0.000	0.00
9	1	X	(None)	None	6.7	154.9	146.9	(None)	(None)	0.000	0.00
8	3	X	(None)	None	6.7	163.2	154.9	(None)	(None)	0.000	0.00
8	2	X	(None)	None	6.7	171.5	163.2	(None)	(None)	0.000	0.00
8	1	X	(None)	None	6.7	179.9	171.5	(None)	(None)	0.000	0.00
7	2	X	(None)	None	10.0	191.9	179.9	(None)	(None)	0.000	0.00
7	1	X	(None)	None	10.0	203.9	191.9	(None)	(None)	0.000	0.00
6	2	X	(None)	None	10.0	215.9	203.9	(None)	(None)	0.000	0.00
6	1	X	(None)	None	10.0	228.0	215.9	(None)	(None)	0.000	0.00
5	3	X	(None)	None	10.0	240.3	228.0	(None)	(None)	0.000	0.00
5	2	X	(None)	None	10.0	252.6	240.3	(None)	(None)	0.000	0.00
5	1	X	(None)	None	10.0	265.0	252.6	(None)	(None)	0.000	0.00
4	3	X	(None)	None	10.0	278.0	265.0	(None)	(None)	0.000	0.00
4	2	X	(None)	None	10.0	291.0	278.0	(None)	(None)	0.000	0.00
4	1	X	(None)	None	10.0	304.0	291.0	(None)	(None)	0.000	0.00
3	1	K	2-Subdiv.	Yes	20.0	334.0	304.0	2-Subdiv.	2-Subdiv.	0.000	0.00
2	1	K	2-Subdiv.	Yes	20.0	364.0	334.0	2-Subdiv.	2-Subdiv.	0.000	0.00
1	1	K	2-Subdiv.	Yes	20.0	394.0	364.0	2-Subdiv.	2-Subdiv.	0.000	0.00

MEMBER PROPERTIES

Sec/ Pnl	Type	Description	Steel Grade	Conn. Type	Bolt #-Size	Bolt Grade	End Dist.	Edge Dist.	Gusset Thick.	Bolt Space	Dble Member Spacing Mem.	Dble Member Spacing Stitch Bolt
					(in)		(in)	(in)	(in)	(in)	(in)	(ft)
14/5	Leg	PIPE 3.500x0.216	A572 gr.50	Tension	4-0.875	A325X						
14/5	Diag	L1 3/4x1 3/4x3/16	A36	Bolted	1-0.625	A325X	0.938	0.940	0.250	1.875		
14/5	Horiz	L1 3/4x1 3/4x3/16	A36	Bolted	1-0.625	A325X	0.938	0.940	0.250	1.875		
14/4	Leg	PIPE 3.500x0.216	A572 gr.50	Tension	4-0.875	A325X						
14/4	Diag	L1 3/4x1 3/4x3/16	A36	Bolted	1-0.625	A325X	0.938	0.940	0.250	1.875		
14/3	Leg	PIPE 3.500x0.216	A572 gr.50	Tension	4-0.875	A325X						
14/3	Diag	L1 3/4x1 3/4x3/16	A36	Bolted	1-0.625	A325X	0.938	0.940	0.250	1.875		
14/2	Leg	PIPE 3.500x0.216	A572 gr.50	Tension	4-0.875	A325X						
14/2	Diag	L1 3/4x1 3/4x3/16	A36	Bolted	1-0.625	A325X	0.938	0.940	0.250	1.875		
14/1	Leg	PIPE 3.500x0.216	A572 gr.50	Tension	4-0.875	A325X						
14/1	Diag	L1 3/4x1 3/4x3/16	A36	Bolted	1-0.625	A325X	0.938	0.940	0.250	1.875		
13/5	Leg	PIPE 4.500x0.337	A572 gr.50	Tension	4-1.000	A325X						
13/5	Diag	L2x2x1/4	A36	Bolted	1-0.625	A325X	0.938	1.190	0.250	1.875		
13/4	Leg	PIPE 4.500x0.337	A572 gr.50	Tension	4-1.000	A325X						
13/4	Diag	L2x2x1/4	A36	Bolted	1-0.625	A325X	0.938	1.190	0.250	1.875		
13/3	Leg	PIPE 4.500x0.337	A572 gr.50	Tension	4-1.000	A325X						
13/3	Diag	L2x2x1/4	A36	Bolted	1-0.625	A325X	0.938	1.190	0.250	1.875		
13/2	Leg	PIPE 4.500x0.337	A572 gr.50	Tension	4-1.000	A325X						
13/2	Diag	L2x2x1/4	A36	Bolted	1-0.625	A325X	0.938	1.190	0.250	1.875		
13/1	Leg	PIPE 4.500x0.337	A572 gr.50	Tension	4-1.000	A325X						
13/1	Diag	L2x2x1/4	A36	Bolted	1-0.625	A325X	0.938	1.190	0.250	1.875		
12/5	Leg	PIPE 5.563x0.375	A572 gr.50	Tension	6-1.000	A325X						
12/5	Diag	L2x2x3/16	A36	Bolted	1-0.625	A325X	0.938	1.190	0.250	1.875		
12/5	Horiz	L1 3/4x1 3/4x3/16	A36	Bolted	1-0.625	A325X	0.938	0.940	0.250	1.875		
12/4	Leg	PIPE 5.563x0.375	A572 gr.50	Tension	6-1.000	A325X						
12/4	Diag	L2x2x3/16	A36	Bolted	1-0.625	A325X	0.938	1.190	0.250	1.875		
12/3	Leg	PIPE 5.563x0.375	A572 gr.50	Tension	6-1.000	A325X						
12/3	Diag	L2x2x3/16	A36	Bolted	1-0.625	A325X	0.938	1.190	0.250	1.875		
12/2	Leg	PIPE 5.563x0.375	A572 gr.50	Tension	6-1.000	A325X						
12/2	Diag	L2x2x3/16	A36	Bolted	1-0.625	A325X	0.938	1.190	0.250	1.875		

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12/1	Leg	PIPE 5.563x0.375	A572 gr.50	Tension	6-1.000	A325X			
12/1	Diag	L2x2x3/16	A36	Bolted	1-0.625	A325X	0.938	1.190	0.250	1.875
11/4	Leg	PIPE 5.563x0.375	A572 gr.50	Tension	6-1.000	A325X			
11/4	Diag	L2x2x3/16	A36	Bolted	1-0.625	A325X	0.938	1.190	0.250	1.875
11/3	Leg	PIPE 5.563x0.375	A572 gr.50	Tension	6-1.000	A325X			
11/3	Diag	L2x2x3/16	A36	Bolted	1-0.625	A325X	0.938	1.190	0.250	1.875
11/2	Leg	PIPE 5.563x0.375	A572 gr.50	Tension	6-1.000	A325X			
11/2	Diag	L2x2x3/16	A36	Bolted	1-0.625	A325X	0.938	1.190	0.250	1.875
11/1	Leg	PIPE 5.563x0.375	A572 gr.50	Tension	6-1.000	A325X			
11/1	Diag	L2x2x3/16	A36	Bolted	1-0.625	A325X	0.938	1.190	0.250	1.875
10/3	Leg	PIPE 6.625x0.340	A572 gr.50	Tension	6-1.000	A325X			
10/3	Diag	L2 1/2x2 1/2x3/16	A36	Bolted	1-0.625	A325X	0.938	1.063	0.250	1.875
10/2	Leg	PIPE 6.625x0.340	A572 gr.50	Tension	6-1.000	A325X			
10/2	Diag	L2 1/2x2 1/2x3/16	A36	Bolted	1-0.625	A325X	0.938	1.063	0.250	1.875
10/1	Leg	PIPE 6.625x0.340	A572 gr.50	Tension	6-1.000	A325X			
10/1	Diag	L2 1/2x2 1/2x3/16	A36	Bolted	1-0.625	A325X	0.938	1.063	0.250	1.875
9/3	Leg	PIPE 6.625x0.432	A572 gr.50	Tension	6-1.000	A325X			
9/3	Diag	L2 1/2x2 1/2x3/16	A36	Bolted	1-0.625	A325X	0.938	1.063	0.250	1.875
9/2	Leg	PIPE 6.625x0.432	A572 gr.50	Tension	6-1.000	A325X			
9/2	Diag	L2 1/2x2 1/2x3/16	A36	Bolted	1-0.625	A325X	0.938	1.063	0.250	1.875
9/1	Leg	PIPE 6.625x0.432	A572 gr.50	Tension	6-1.000	A325X			
9/1	Diag	L2 1/2x2 1/2x3/16	A36	Bolted	1-0.625	A325X	0.938	1.063	0.250	1.875
8/3	Leg	PIPE 6.625x0.432	A572 gr.50	Tension	8-1.000	A325X			
8/3	Diag	L3x3x3/16	A36	Bolted	1-0.750	A325X	1.125	1.440	0.375	2.250
8/2	Leg	PIPE 6.625x0.432	A572 gr.50	Tension	8-1.000	A325X			
8/2	Diag	L3x3x3/16	A36	Bolted	1-0.750	A325X	1.125	1.440	0.375	2.250
8/1	Leg	PIPE 6.625x0.432	A572 gr.50	Tension	8-1.000	A325X			
8/1	Diag	L3x3x3/16	A36	Bolted	1-0.750	A325X	1.125	1.440	0.375	2.250
7/2	Leg	PIPE 8.625x0.375	A572 gr.50	Tension	8-1.000	A325X			
7/2	Diag	L3x3x1/4	A529 gr.50	Bolted	1-0.750	A325X	1.125	1.440	0.375	2.250
7/1	Leg	PIPE 8.625x0.375	A572 gr.50	Tension	8-1.000	A325X			
7/1	Diag	L3x3x1/4	A529 gr.50	Bolted	1-0.750	A325X	1.125	1.440	0.375	2.250
6/2	Leg	PIPE 8.625x0.500	A572 gr.50	Tension	10-1.000	A325X			
6/2	Diag	L3 1/2x3 1/2x1/4	A529 gr.50	Bolted	1-0.750	A325X	1.125	1.380	0.375	2.250
6/1	Leg	PIPE 8.625x0.500	A572 gr.50	Tension	10-1.000	A325X			
6/1	Diag	L3 1/2x3 1/2x1/4	A529 gr.50	Bolted	1-0.750	A325X	1.125	1.380	0.375	2.250
5/3	Leg	PIPE 8.625x0.500	A572 gr.50	Tension	10-1.000	A325X			
5/3	Diag	L3 1/2x3 1/2x1/4	A529 gr.50	Bolted	1-0.750	A325X	1.125	1.380	0.375	2.250
5/2	Leg	PIPE 8.625x0.500	A572 gr.50	Tension	8-1.000	A325X			
5/2	Diag	L3 1/2x3 1/2x1/4	A529 gr.50	Bolted	1-0.750	A325X	1.125	1.380	0.375	1.875
5/1	Leg	PIPE 8.625x0.500	A572 gr.50	Tension	8-1.000	A325X			
5/1	Diag	L4x4x1/4	A529 gr.50	Bolted	1-0.750	A325X	1.125	1.438	0.375	1.875
4/3	Leg	PIPE 10.750x0.500	A572 gr.50	Tension	12-1.000	A325X			
4/3	Diag	L4x4x1/4	A529 gr.50	Bolted	1-0.750	A325X	1.125	1.438	0.375	2.250
4/2	Leg	PIPE 10.750x0.500	A572 gr.50	Tension	12-1.000	A325X			
4/2	Diag	L4x4x5/16	A529 gr.50	Bolted	1-0.750	A325X	1.125	1.438	0.375	2.250
4/1	Leg	PIPE 10.750x0.500	A572 gr.50	Tension	12-1.000	A325X			
4/1	Diag	L4x4x5/16	A529 gr.50	Bolted	1-0.750	A325X	1.125	1.438	0.375	2.250
3/1	Leg	PIPE 10.750x0.500	A572 gr.50	Tension	12-1.000	A325X			

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3/1	Diag	PIPE 2.875x0.203	A572 gr.50Bolted	3-0.750	A325X	1.125	1.437	0.375	2.250
3/1	Horiz	PIPE 2.875x0.203	A572 gr.50Bolted	2-0.750	A325X	1.125	1.437	0.375	2.250
3/1	SecD1	PIPE 2.375x0.154	A572 gr.50Bolted	1-0.625	A325X	1.181	0.949	0.250	1.875
3/1	SecH1	PIPE 1.900x0.145	A572 gr.50Bolted	1-0.625	A325X	1.181	0.949	0.250	1.875
3/1	HipD1	PIPE 2.875x0.203	A572 gr.50Bolted	1-0.625	A325X	1.181	1.437	0.250	1.875
3/1	HipH1	PIPE 1.900x0.145	A572 gr.50Bolted	1-0.625	A325X	1.181	0.949	0.250	1.875
3/1	PlanH1	PIPE 2.375x0.154	A572 gr.50Bolted	1-0.625	A325X	1.181	1.189	0.000	1.875
2/1	Leg	PIPE 10.750x0.500	A572 gr.50Tension	12-1.000	A325X				
2/1	Diag	PIPE 2.875x0.203	A572 gr.50Bolted	3-0.750	A325X	1.125	1.437	0.375	2.250
2/1	Horiz	PIPE 2.875x0.203	A572 gr.50Bolted	2-0.750	A325X	1.125	1.437	0.375	2.250
2/1	SecD1	PIPE 2.375x0.218	A572 gr.50Bolted	1-0.625	A325X	1.181	1.189	0.250	1.875
2/1	SecH1	PIPE 1.900x0.145	A572 gr.50Bolted	1-0.625	A325X	1.181	0.949	0.250	1.875
2/1	HipD1	PIPE 2.875x0.203	A572 gr.50Bolted	1-0.625	A325X	1.181	1.437	0.250	1.875
2/1	HipH1	PIPE 1.900x0.145	A572 gr.50Bolted	1-0.625	A325X	1.181	0.949	0.250	1.875
2/1	PlanH1	PIPE 2.875x0.203	A572 gr.50Bolted	1-0.625	A325X	1.181	1.437	0.000	1.875
1/1	Leg	PIPE 10.750x0.500	A572 gr.50Tension	16-1.000	A325X				
1/1	Diag	PIPE 3.500x0.216	A572 gr.50Bolted	3-0.750	A325X	1.125	1.750	0.375	2.250
1/1	Horiz	PIPE 3.500x0.216	A572 gr.50Bolted	2-0.750	A325X	1.125	1.750	0.375	2.250
1/1	SecD1	PIPE 2.375x0.218	A572 gr.50Bolted	1-0.625	A325X	1.181	1.189	0.250	1.875
1/1	SecH1	PIPE 2.375x0.154	A572 gr.50Bolted	1-0.625	A325X	1.181	0.949	0.250	1.875
1/1	HipD1	PIPE 3.500x0.216	A572 gr.50Bolted	1-0.625	A325X	1.181	1.752	0.250	1.875
1/1	HipH1	PIPE 1.900x0.145	A572 gr.50Bolted	1-0.625	A325X	1.181	0.949	0.250	1.875
1/1	PlanH1	PIPE 3.500x0.216	A572 gr.50Bolted	1-0.625	A325X	1.181	1.752	0.000	1.875

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Section D: TRANSMISSION LINE DATA

Transmission Lines Position

No.	Bot El (ft)	Top El (ft)	Desc.	Radius (ft)	Az.	Orient.	No.	No. of Rows	Part of Face	Vert. Antenna
1	0.00	300.00	3/8 CABLE	18.95	60.00	0.00	1	1		Yes-OutNo
2	270.00	296.00	LDF7P-50A	2.14	60.00	10.00	12	1		Yes-OutNo
3	0.00	290.00	LDF7P-50A	14.74	300.00	250.00	12	1		Yes-OutNo
4	0.00	280.00	LDF7P-50A	14.74	180.00	130.00	12	1		Yes-OutNo
5	0.00	270.00	LDF7P-50A	14.74	60.00	10.00	24	2		Yes-OutNo

Transmission Lines Details

No.	Desc.	Width (in)	Depth (in)	Unit Mass (lb/ft)	Line Spacing (in)	Row Spacing (in)
1	3/8 CABLE	0.38	0.38	1.00	2.750	2.750
2	LDF7P-50A	2.01	2.01	0.92	2.250	2.500
3	LDF7P-50A	2.01	2.01	0.92	2.250	2.500
4	LDF7P-50A	2.01	2.01	0.92	2.250	2.500
5	LDF7P-50A	2.01	2.01	0.92	2.250	2.500

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Section E: LADDER DATA

Ladder Position

No.	Bot El (ft)	Top El (ft)	Width (in)	Height (in)	Az.	Radius (ft)	Orient.	Part Of Face
1	0.00	300.00	35.00	48.00	60.00	14.74	10.00	No
2	0.00	290.00	35.00	48.00	300.00	14.74	250.00	No
3	0.00	280.00	35.00	48.00	180.00	14.74	130.00	No

Ladder Details

No.	Rung Desc.	Rail Desc.
1	(None)	L1 1/2x1 1/2x1/8
2	(None)	L1 1/2x1 1/2x1/8
3	(None)	L1 1/2x1 1/2x1/8

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Section F: POINT LOAD DATA

Structure Azimuth from North:0.00

POINT LOADS

No.	Description	Elev. (ft)	Radius (ft)	Azim. (Deg)	Orient. (Deg)	Vertical Offset (ft)	Tx Line	Comments
1	EPA=115.00/135.00	296.00	0.00	0.0	0.0	0.00		
2	EPA=115.00/135.00	290.00	0.00	0.0	0.0	0.00		
3	EPA=115.00/135.00	280.00	0.00	0.0	0.0	0.00		
4	EPA=115.00/135.00	270.00	0.00	0.0	0.0	0.00		

POINT LOADS WIND AREAS AND WEIGHTS

No.	Description	Frontal Bare Area (ft^2)	Lateral Bare Area (ft^2)	Frontal Iced Area (ft^2)	Lateral Iced Area (ft^2)	Weight Bare (Kips)	Weight Iced (Kips)
1	EPA=115.00/135.00	115.00	115.00	135.00	135.00	2.00	3.00
2	EPA=115.00/135.00	115.00	115.00	135.00	135.00	2.00	3.00
3	EPA=115.00/135.00	115.00	115.00	135.00	135.00	2.00	3.00
4	EPA=115.00/135.00	115.00	115.00	135.00	135.00	2.00	3.00

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Contract: 060-6405
Project: 300' SSVMW TOWER DESIGN
Date and Time: 7/06/2009 11:50:00 AM

Revision:
Site: HAPPY
Engineer: FAD/DWG

Section H: STRUCTURE DISPLACEMENT DATA

Load Combination Max Envelope

Wind Direction Maximum displacements

Node	Elev. (ft)	N-S Disp (in)	W-E Disp (in)	Vert.Disp (in)	N-S Rot (Deg)	W-E Rot (Deg)	Twist (Deg)
135	300.0	50.8	-50.1	-0.2	2.01	1.99	0.01
132	296.0	49.1	-48.5	-0.2	2.03	-2.01	-0.02
129	292.0	47.4	-46.8	-0.2	2.01	-1.99	-0.02
126	288.0	45.7	-45.1	-0.2	2.03	-2.01	-0.02
123	284.0	44.0	-43.4	-0.2	1.98	-1.96	-0.03
120	280.0	42.3	-41.8	-0.2	1.97	-1.95	-0.01
117	276.0	40.7	-40.1	-0.2	1.93	-1.91	0.02
114	272.0	39.1	-38.5	-0.2	1.90	1.88	0.01
111	268.0	37.5	-37.0	-0.2	1.86	-1.84	-0.01
108	264.0	35.9	-35.4	-0.2	1.78	-1.76	0.03
105	260.0	34.4	-33.9	-0.2	1.73	-1.71	0.00
102	256.0	33.0	-32.5	-0.2	1.65	-1.64	-0.03
99	252.0	31.6	-31.1	-0.2	1.62	-1.60	0.00
96	248.0	30.2	-29.8	-0.2	1.55	-1.53	-0.02
93	244.0	28.9	-28.5	-0.2	1.52	1.50	0.00
90	240.0	27.7	-27.3	-0.2	1.44	-1.43	-0.02
87	235.0	26.1	-25.8	-0.2	1.39	-1.37	0.01
84	230.0	24.7	-24.3	-0.2	1.32	1.30	-0.02
81	225.0	23.3	-23.0	-0.2	1.27	-1.25	0.01
78	220.0	22.0	-21.6	-0.2	1.19	-1.17	-0.02
75	213.3	20.3	-20.0	-0.2	1.11	-1.10	0.02
72	206.7	18.8	-18.5	-0.1	1.05	-1.04	-0.01
69	200.0	17.3	-17.0	-0.1	0.98	-0.96	0.02
66	193.3	15.9	-15.7	-0.1	0.94	0.93	0.00
63	186.7	14.6	-14.4	-0.1	0.87	-0.86	0.02
60	180.0	13.4	-13.2	-0.1	0.83	-0.82	0.00
57	173.3	12.3	-12.0	-0.1	0.76	-0.75	-0.02
54	166.7	11.2	-11.0	-0.1	0.73	-0.72	0.00
51	160.0	10.2	-10.0	-0.1	0.65	0.64	-0.01
48	150.0	8.8	-8.6	-0.1	0.59	-0.58	-0.01
45	140.0	7.6	-7.4	-0.1	0.53	-0.52	0.01
42	130.0	6.5	-6.3	-0.1	0.49	-0.48	-0.01
39	120.0	5.4	-5.3	-0.1	0.44	-0.43	0.01
36	110.0	4.5	-4.4	-0.1	0.39	0.39	-0.01
33	100.0	3.7	-3.6	-0.1	0.35	-0.34	0.01
30	90.0	3.0	-2.9	-0.1	0.30	0.30	-0.01
27	80.0	2.3	-2.3	-0.1	0.27	-0.27	0.00
24	70.0	1.7	-1.7	-0.1	0.23	-0.22	-0.01
20	60.0	1.3	-1.2	-0.1	0.17	-0.16	0.00
14	40.0	0.6	0.6	0.0	0.10	0.10	0.00
8	20.0	0.1	0.1	0.0	0.03	0.03	0.00
3	0.0	0.0	0.0	0.0	0.00	0.00	0.00

Load Combination Wind Only - Serviceability

Wind Direction Maximum displacements

Node	Elev. (ft)	N-S Disp (in)	W-E Disp (in)	Vert.Disp (in)	N-S Rot (Deg)	W-E Rot (Deg)	Twist (Deg)
135	300.0	19.8	-19.6	-0.1	0.78	-0.78	0.00

132	296.0	19.2	-18.9	-0.1	0.80	-0.79	0.01
129	292.0	18.5	-18.3	-0.1	0.79	-0.78	-0.01
126	288.0	17.8	-17.6	-0.1	0.79	-0.79	-0.01
123	284.0	17.2	-17.0	-0.1	0.77	-0.77	0.01
120	280.0	16.5	-16.3	-0.1	0.77	-0.76	-0.01
117	276.0	15.9	-15.7	-0.1	0.75	-0.75	-0.01
114	272.0	15.3	-15.1	-0.1	0.74	-0.73	0.00
111	268.0	14.6	-14.4	-0.1	0.73	-0.72	0.00
108	264.0	14.0	-13.8	-0.1	0.70	-0.69	0.01
105	260.0	13.4	-13.3	-0.1	0.68	-0.67	0.00
102	256.0	12.9	-12.7	-0.1	0.65	-0.64	0.01
99	252.0	12.3	-12.2	-0.1	0.63	-0.63	0.00
96	248.0	11.8	-11.6	-0.1	0.61	-0.60	-0.01
93	244.0	11.3	-11.1	-0.1	0.59	-0.59	0.00
90	240.0	10.8	-10.6	-0.1	0.56	0.56	-0.01
87	235.0	10.2	-10.1	-0.1	0.54	-0.54	0.00
84	230.0	9.6	-9.5	-0.1	0.51	0.51	-0.01
81	225.0	9.1	-9.0	-0.1	0.49	-0.49	0.00
78	220.0	8.6	-8.5	-0.1	0.46	0.46	-0.01
75	213.3	7.9	-7.8	-0.1	0.44	-0.43	0.01
72	206.7	7.3	-7.2	-0.1	0.41	0.40	0.00
69	200.0	6.8	-6.7	-0.1	0.38	-0.38	0.01
66	193.3	6.2	-6.1	-0.1	0.37	-0.36	0.00
63	186.7	5.7	-5.6	-0.1	0.34	-0.34	-0.01
60	180.0	5.2	-5.2	-0.1	0.32	0.32	0.00
57	173.3	4.8	-4.7	-0.1	0.30	-0.29	-0.01
54	166.7	4.4	-4.3	-0.1	0.29	-0.28	0.00
51	160.0	4.0	-3.9	-0.1	0.26	-0.25	0.01
48	150.0	3.4	-3.4	-0.1	0.23	-0.23	0.00
45	140.0	3.0	-2.9	-0.1	0.21	-0.20	0.00
42	130.0	2.5	-2.5	-0.1	0.19	-0.19	0.00
39	120.0	2.1	-2.1	-0.1	0.17	-0.17	0.00
36	110.0	1.8	-1.7	-0.1	0.15	-0.15	0.00
33	100.0	1.4	-1.4	-0.1	0.14	-0.13	0.00
30	90.0	1.2	-1.1	-0.1	0.12	-0.12	0.00
27	80.0	0.9	-0.9	0.0	0.11	-0.10	0.00
24	70.0	0.7	-0.7	0.0	0.09	-0.09	0.00
20	60.0	0.5	-0.5	0.0	0.07	-0.06	0.00
14	40.0	0.2	0.2	0.0	0.04	-0.04	0.00
8	20.0	0.1	0.1	0.0	0.01	0.01	0.00
3	0.0	0.0	0.0	0.0	0.00	0.00	0.00

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Project: 300' SSVMW TOWER DESIGN
Date and Time: 7/06/2009 11:50:00 AM

Revision:
Site: HAPPY
Engineer: FAD/DWG

Section L: STRENGTH ASSESSMENT SORTED DATA

Load Combination — Max Envelope
Wind Direction — Maximum

Sec	Pnl	Elev (ft)	MType	Desc.	Len (ft)	kl/r	Gov. comp. cap. (Kips)	Gov. tens. cap. (Kips)	Max Compr. (Kips)	Max Tens. (Kips)	Asses. Ratio
14	5	296.00	Leg	PIPE 3.500x0.216	4.00	37.2	78.0	89.3	0.7	0.5	0.01
14	4	292.00	Leg	PIPE 3.500x0.216	4.00	41.5	76.2	89.3	3.3	1.6	0.04
14	3	288.00	Leg	PIPE 3.500x0.216	4.00	41.5	76.2	89.3	8.9	6.4	0.12
14	2	284.00	Leg	PIPE 3.500x0.216	4.00	41.5	76.2	89.3	17.9	14.4	0.23
14	1	280.00	Leg	PIPE 3.500x0.216	4.00	35.1	78.9	89.3	27.7	23.9	0.35
13	5	276.00	Leg	PIPE 4.500x0.337	4.00	36.8	154.6	176.5	40.0	34.5	0.26
13	4	272.00	Leg	PIPE 4.500x0.337	4.00	36.8	154.6	176.5	56.0	50.0	0.36
13	3	268.00	Leg	PIPE 4.500x0.337	4.00	36.8	154.6	176.5	71.0	64.0	0.46
13	2	264.00	Leg	PIPE 4.500x0.337	4.00	36.8	154.6	176.5	91.5	83.2	0.59
13	1	260.00	Leg	PIPE 4.500x0.337	4.00	36.8	154.6	176.5	110.4	101.6	0.71
12	5	256.00	Leg	PIPE 5.563x0.375	4.01	23.5	227.6	244.6	126.8	117.5	0.56
12	4	252.00	Leg	PIPE 5.563x0.375	4.01	26.2	225.1	244.6	137.6	127.7	0.61
12	3	248.00	Leg	PIPE 5.563x0.375	4.01	26.2	225.1	244.6	147.2	136.8	0.65
12	2	244.00	Leg	PIPE 5.563x0.375	4.01	26.2	225.1	244.6	156.5	145.5	0.70
12	1	240.00	Leg	PIPE 5.563x0.375	4.01	22.1	228.9	244.6	165.0	153.5	0.72
11	4	235.00	Leg	PIPE 5.563x0.375	5.01	30.0	221.3	244.6	173.9	161.8	0.79
11	3	230.00	Leg	PIPE 5.563x0.375	5.01	32.7	218.6	244.6	183.1	170.3	0.84
11	2	225.00	Leg	PIPE 5.563x0.375	5.01	32.7	218.6	244.6	191.8	178.3	0.88
11	1	220.00	Leg	PIPE 5.563x0.375	5.01	28.7	222.7	244.6	200.2	186.0	0.90
10	3	213.33	Leg	PIPE 6.625x0.340	6.68	33.8	238.8	268.7	210.0	195.0	0.88
10	2	206.67	Leg	PIPE 6.625x0.340	6.68	36.1	236.2	268.7	220.9	205.0	0.94
10	1	200.00	Leg	PIPE 6.625x0.340	6.68	32.7	240.1	268.7	232.0	214.9	0.97
9	3	193.33	Leg	PIPE 6.625x0.432	6.68	34.2	298.7	276.6	242.4	224.3	0.81
9	2	186.67	Leg	PIPE 6.625x0.432	6.68	36.5	295.3	276.6	253.1	233.8	0.86
9	1	180.00	Leg	PIPE 6.625x0.432	6.68	33.1	300.3	276.6	263.2	242.8	0.88
8	3	173.33	Leg	PIPE 6.625x0.432	6.68	34.2	298.7	336.7	273.2	251.5	0.91
8	2	166.67	Leg	PIPE 6.625x0.432	6.68	36.5	295.3	336.7	282.9	259.9	0.96
8	1	160.00	Leg	PIPE 6.625x0.432	6.68	33.1	300.3	336.7	292.3	268.1	0.97
7	2	150.00	Leg	PIPE 8.625x0.375	10.02	39.6	335.8	368.8	304.8	278.7	0.91
7	1	140.00	Leg	PIPE 8.625x0.375	10.02	38.7	337.3	368.8	319.4	291.4	0.95
6	2	130.00	Leg	PIPE 8.625x0.500	10.02	40.1	439.5	461.0	334.8	304.3	0.76
6	1	120.00	Leg	PIPE 8.625x0.500	10.02	40.1	439.5	461.0	349.6	316.6	0.80
5	3	110.00	Leg	PIPE 8.625x0.500	10.02	41.7	435.6	461.0	364.8	329.1	0.84
5	2	100.00	Leg	PIPE 8.625x0.500	10.02	41.7	435.6	368.8	379.4	341.1	0.92
5	1	90.00	Leg	PIPE 8.625x0.500	10.02	41.7	435.6	368.8	394.3	353.1	0.96
4	3	80.00	Leg	PIPE 10.750x0.500	10.02	33.1	574.8	553.2	409.0	364.4	0.71
4	2	70.00	Leg	PIPE 10.750x0.500	10.02	33.1	574.8	553.2	424.2	375.5	0.74
4	1	60.00	Leg	PIPE 10.750x0.500	10.02	33.1	574.8	553.2	438.6	386.0	0.76
3	1	40.00	Leg	PIPE 10.750x0.500	20.05	31.8	578.4	553.2	448.0	390.5	0.77
2	1	20.00	Leg	PIPE 10.750x0.500	20.05	31.8	578.4	553.2	471.6	406.7	0.82
1	1	0.00	Leg	PIPE 10.750x0.500	20.05	31.8	578.4	644.5	494.9	422.2	0.86
14	5	296.00	Diag	L1 3/4x1 3/4x3/16	6.17	100.6	10.7	6.5	1.0	1.1	0.17
14	4	292.00	Diag	L1 3/4x1 3/4x3/16	6.17	100.7	10.7	6.5	2.0	2.0	0.30
14	3	288.00	Diag	L1 3/4x1 3/4x3/16	6.18	100.7	10.6	6.5	3.1	3.1	0.48
14	2	284.00	Diag	L1 3/4x1 3/4x3/16	6.18	100.8	10.6	6.5	4.2	4.2	0.64
14	1	280.00	Diag	L1 3/4x1 3/4x3/16	6.19	100.9	10.6	6.5	4.5	4.5	0.69
13	5	276.00	Diag	L2x2x1/4	6.20	90.6	12.3	9.1	6.4	6.3	0.70
13	4	272.00	Diag	L2x2x1/4	6.21	90.8	12.3	9.1	6.6	6.7	0.74

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13	3	268.00	Diag	L2x2x1/4	6.23	91.0	12.3	9.1	7.8	7.7	0.85
13	2	264.00	Diag	L2x2x1/4	6.25	91.2	12.3	9.1	8.8	8.8	0.98
13	1	260.00	Diag	L2x2x1/4	6.26	91.4	12.3	9.1	9.1	9.1	1.00
12	5	256.00	Diag	L2x2x3/16	6.43	94.5	12.3	6.8	5.0	5.0	0.73
12	4	252.00	Diag	L2x2x3/16	6.75	98.5	12.3	6.8	4.8	4.8	0.71
12	3	248.00	Diag	L2x2x3/16	7.07	102.5	12.0	6.8	4.7	4.7	0.68
12	2	244.00	Diag	L2x2x3/16	7.40	106.6	11.5	6.8	4.6	4.6	0.67
12	1	240.00	Diag	L2x2x3/16	7.74	110.7	11.0	6.8	4.5	4.5	0.66
11	4	235.00	Diag	L2x2x3/16	8.68	122.4	9.4	6.8	4.5	4.5	0.66
11	3	230.00	Diag	L2x2x3/16	9.11	129.3	8.5	6.8	4.5	4.5	0.66
11	2	225.00	Diag	L2x2x3/16	9.55	136.4	7.6	6.8	4.5	4.5	0.66
11	1	220.00	Diag	L2x2x3/16	10.00	143.5	6.9	6.8	4.5	4.5	0.66
10	3	213.33	Diag	L2 1/2x2 1/2x3/16	11.41	130.0	10.6	6.8	5.3	5.3	0.78
10	2	206.67	Diag	L2 1/2x2 1/2x3/16	11.95	137.0	9.6	6.8	5.4	5.4	0.79
10	1	200.00	Diag	L2 1/2x2 1/2x3/16	12.51	144.0	8.6	6.8	5.5	5.5	0.81
9	3	193.33	Diag	L2 1/2x2 1/2x3/16	13.07	151.2	7.8	6.8	5.7	5.6	0.82
9	2	186.67	Diag	L2 1/2x2 1/2x3/16	13.65	158.4	7.1	6.8	5.8	5.8	0.85
9	1	180.00	Diag	L2 1/2x2 1/2x3/16	14.23	165.7	6.5	6.8	5.9	5.9	0.91
8	3	173.33	Diag	L3x3x3/16	14.84	143.5	10.5	8.2	5.7	5.7	0.70
8	2	166.67	Diag	L3x3x3/16	15.46	149.9	9.6	8.2	5.9	5.9	0.72
8	1	160.00	Diag	L3x3x3/16	16.09	156.5	8.9	8.2	6.1	6.1	0.75
7	2	150.00	Diag	L3x3x1/4	18.44	179.2	8.9	12.2	7.4	7.4	0.83
7	1	140.00	Diag	L3x3x1/4	19.29	188.0	8.1	12.2	7.7	7.6	0.95
6	2	130.00	Diag	L3 1/2x3 1/2x1/4	20.15	168.2	11.9	12.2	8.0	8.0	0.67
6	1	120.00	Diag	L3 1/2x3 1/2x1/4	21.03	176.0	10.9	12.2	8.3	8.3	0.77
5	3	110.00	Diag	L3 1/2x3 1/2x1/4	21.93	184.1	9.9	12.2	8.4	8.4	0.85
5	2	100.00	Diag	L3 1/2x3 1/2x1/4	22.85	192.2	9.1	12.2	8.7	8.7	0.96
5	1	90.00	Diag	L4x4x1/4	23.77	172.6	13.0	12.2	9.1	9.0	0.74
4	3	80.00	Diag	L4x4x1/4	24.74	178.6	12.1	12.2	8.8	8.7	0.73
4	2	70.00	Diag	L4x4x5/16	25.73	188.6	13.4	15.3	9.1	9.2	0.68
4	1	60.00	Diag	L4x4x5/16	26.73	196.2	12.4	15.3	9.6	9.5	0.77
3	1	40.00	Diag	PIPE 2.875x0.203	24.38	142.1	16.8	50.6	13.4	13.4	0.80
2	1	20.00	Diag	PIPE 2.875x0.203	25.11	147.1	15.6	50.6	13.5	13.5	0.86
1	1	0.00	Diag	PIPE 3.500x0.216	25.88	123.8	29.0	53.0	13.6	13.6	0.47
14	5	296.00	Horiz	L1 3/4x1 3/4x3/16	4.69	145.1	5.9	6.5	0.8	0.8	0.13
12	5	256.00	Horiz	L1 3/4x1 3/4x3/16	4.83	143.9	6.0	6.5	1.1	0.9	0.18
3	1	40.00	Horiz	PIPE 2.875x0.203	12.67	151.6	14.7	35.3	7.9	7.5	0.54
2	1	20.00	Horiz	PIPE 2.875x0.203	13.92	167.4	12.1	35.3	8.3	8.1	0.69
1	1	0.00	Horiz	PIPE 3.500x0.216	15.17	149.6	19.8	35.3	8.8	8.5	0.44
3	1	40.00	SecH1	PIPE 1.900x0.145	6.33	122.0	10.7	12.3	6.7	6.7	0.63
3	1	40.00	SecD1	PIPE 2.375x0.154	11.52	175.7	7.0	12.3	6.8	6.8	0.97
3	1	40.00	HipH1	PIPE 1.900x0.145	6.33	122.0	10.7	12.3	0.2	0.2	0.02
3	1	40.00	HipD1	PIPE 2.875x0.203	15.12	191.7	9.2	12.3	0.2	0.2	0.02
3	1	40.00	PlanH1	PIPE 2.375x0.154	12.67	193.1	5.8	12.3	0.1	0.1	0.01
2	1	20.00	SecH1	PIPE 1.900x0.145	6.96	134.0	8.8	12.3	7.1	7.1	0.80
2	1	20.00	SecD1	PIPE 2.375x0.218	11.84	185.5	8.6	12.3	6.6	6.6	0.77
2	1	20.00	HipH1	PIPE 1.900x0.145	6.96	134.0	8.8	12.3	0.2	0.2	0.02
2	1	20.00	HipD1	PIPE 2.875x0.203	15.95	202.1	8.3	12.3	0.2	0.2	0.02
2	1	20.00	PlanH1	PIPE 2.875x0.203	13.92	176.3	10.9	12.3	0.1	0.1	0.01
1	1	0.00	SecH1	PIPE 2.375x0.154	7.58	117.8	12.3	12.3	7.4	7.4	0.60
1	1	0.00	SecD1	PIPE 2.375x0.218	12.19	190.9	8.1	12.3	6.5	6.5	0.80
1	1	0.00	HipH1	PIPE 1.900x0.145	7.58	146.1	7.5	12.3	0.2	0.2	0.03
1	1	0.00	HipD1	PIPE 3.500x0.216	16.81	173.9	12.3	12.3	0.2	0.2	0.01
1	1	0.00	PlanH1	PIPE 3.500x0.216	15.17	156.9	12.3	12.3	0.1	0.1	0.01

File: W:\Jobs\2009\060-6405\060-6405.out
Contract: 060-6405
Project: 300' SSVMW TOWER DESIGN
Date and Time: 7/06/2009 11:50:00 AM

Revision:
Site: HAPPY
Engineer: FAD/DWG

Section N: LEG REACTION DATA

Load Combination — Max Envelope
Wind Direction — Maximum

Force-Y Download (Kips)	Force-Y Uplift (Kips)	Shear-X (Kips)	Shear-Z (Kips)	Max Shear (Kips)
514.74	437.55			49.86

File: W:\Jobs\2009\060-6405\060-6405.out
Contract: 060-6405
Project: 300' SSVMW TOWER DESIGN
Date and Time: 7/06/2009 11:50:00 AM

Revision:
Site: HAPPY
Engineer: FAD/DWG

Section O: TOWER FOUNDATION DATA

Load Combination: Max Envelope
Wind Direction: Maximum

Axial Load (Kips)	Shear Load-X (Kips)	Shear Load-Z (Kips)	Total Shear (Kips)	Moment-X (Kipsft)	Moment-Y (Kipsft)	Moment-Z (Kipsft)	Total Moment (Kipsft)
89.33	-78.54	0.00	78.54	0.01	0.08	13658.19	13658.19
89.33	-78.54	0.00	78.54	0.01	0.08	13658.19	13658.19

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IRVING, TX 75063
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273411 - HAPPY KY, KY

PROJECT DESCRIPTION:

PRIMARY FOUNDATION DESIGN FOR A 300' "ROHN" SELF-SUPPORTING TOWER.

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: 273411

SITE NAME: HAPPY KY, KY

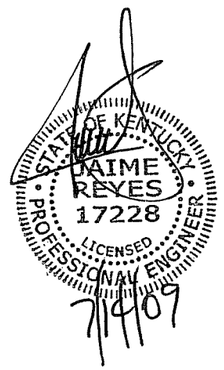
SITE ADDRESS: SCUDDY MTN PINE RD.
VICCO, KY 41773

PROPERTY OWNER: AMERICAN TOWER CORPORATION

ATC JOB NUMBER: 43711272A

DATE: 7/14/09

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	DRILLED PIER FOUNDATION DETAILS	0
A-2	BAR LIST FOR REINFORCING STEEL AND GENERAL NOTES	0

FABRICATION DRAWING INDEX		
DRAWING NUMBER	DRAWING TITLE	REVISION

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CORPORATION

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

PROJECT SUMMARY

CUSTOMER	SITE NUMBER	SITE NAME	ATC JOB NUMBER	SITE ADDRESS	DATE	DRAWING NUMBER	REVISION
OPERATIONS STRUCTURAL	273411	HAPPY KY, KY	43711272A	SCUDDY MTN PINE RD. VICCO, KY 41773	7/14/09	BOM	0

BILL OF MATERIALS

QUANTITY REQUIRED	QUANTITY SHIPPED	PART NUMBER	DESCRIPTION	LENGTH	DRAWING NUMBER	WEIGHT (lbs)	COMMENTS
			REBARS				
150		---	#5 REBAR GRADE 40	13'-6"	A-1, A-2	2112	
60		---	#10 REBAR GRADE 60	43'-0"	A-1, A-2	11102	

TOTAL WEIGHT: 13214

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. KENTUCKY BUILDING CODE 2007 AND 2006 INTERNATIONAL 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 70/7460-1K.

BOLT TIGHTENING PROCEDURE

1. TIGHTEN FLANGE BOLTS BY AISC - "TURN OF THE NUT" METHOD, USING THE CHART BELOW:

BOLT LENGTHS UP TO AND INCLUDING FOUR DIA.

3/4"	BOLTS UP TO AND INCLUDING 4.0 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
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.

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 KENTUCKY BUILDING CODE 2007 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 KENTUCKY BUILDING CODE 2007 AND IBC 2006, SECTION 1704. UNLESS THE FABRICATOR IS APPROVED BY THE BUILDING OFFICIAL TO PERFORM SUCH WORK WITHOUT THE SPECIAL INSPECTIONS

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(972) 999-8940 Fax
NYSE: AMT

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	PP	7/14/09

SITE NUMBER:
273411

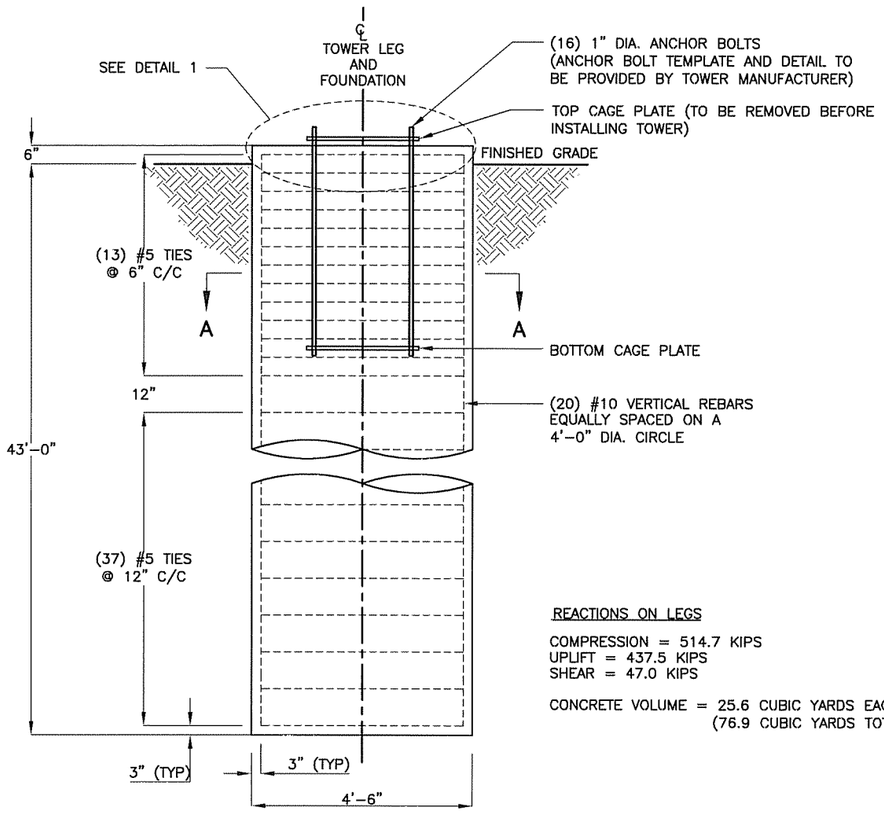
SITE NAME:
HAPPY KY, KY

SITE ADDRESS:
SCUDDY MTN PINE RD.
VICCO, KY 41773

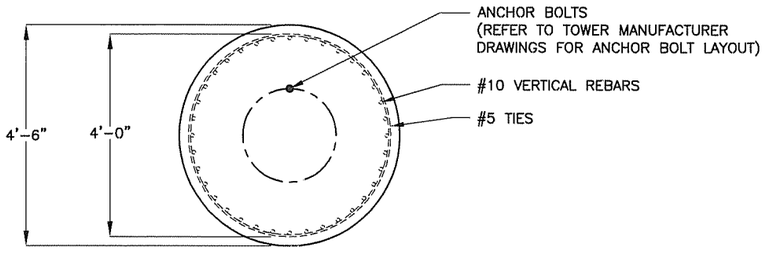
DRAWN BY:	PP
CHECKED BY:	AS
DATE DRAWN:	7/14/09
ATC JOB NO:	43711272A

SHEET TITLE:
IBC GENERAL NOTES

SHEET NUMBER:	REV #:
IGN	0



ELEVATION

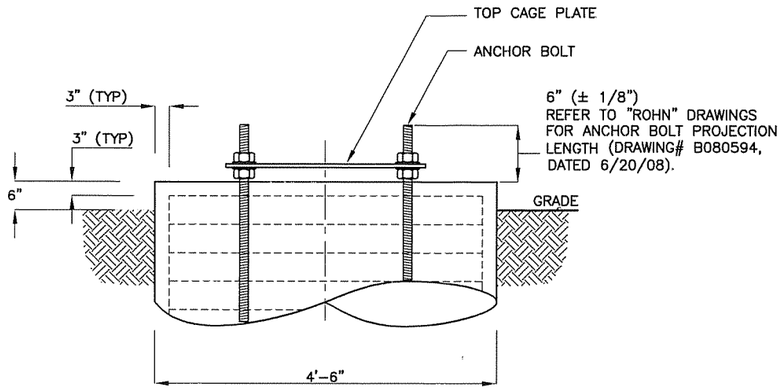


A–A

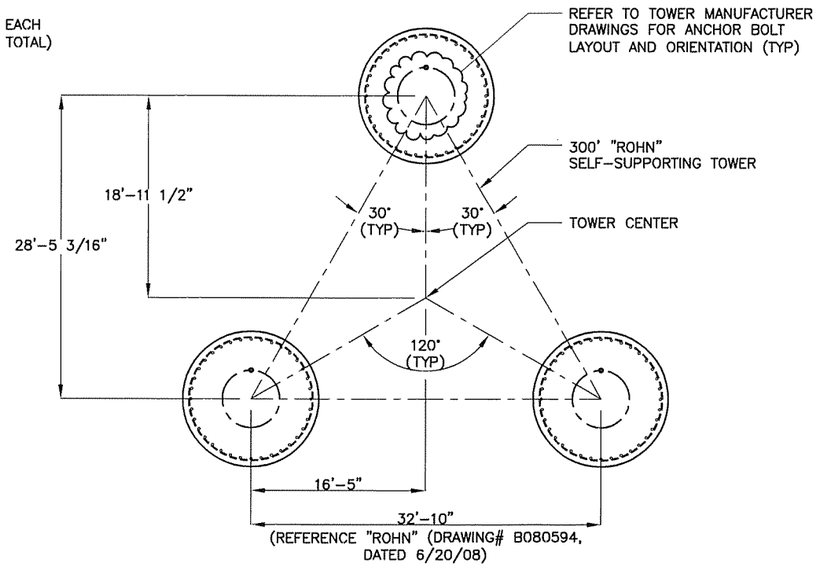
REACTIONS ON LEGS

COMPRESSION = 514.7 KIPS
UPLIFT = 437.5 KIPS
SHEAR = 47.0 KIPS

CONCRETE VOLUME = 25.6 CUBIC YARDS EACH
(76.9 CUBIC YARDS TOTAL)



DETAIL 1



PLAN VIEW

NOTES

1. FOUNDATION DESIGNED FOR A "ROHN" 300' SELF–SUPPORTING TOWER (ENG FILE# 060–6405, DWG# A090562, DATED 7/8/09). REFERENCE TOWER MANUFACTURER DRAWINGS FOR ANCHOR BOLT INSTALLATION REQUIREMENTS.
2. FOUNDATION DESIGN REACTIONS WERE OBTAINED FROM TOWER MANUFACTURER DESIGN DRAWINGS (ENG# 060–6405, DRAWING# A090562, DATED 7/8/09).
3. FOUNDATION DESIGN WAS BASED ON SOIL REPORT PROVIDED BY "TERRACON" WITH PROJECT# 57087360, DATED 2/3/09. REFERENCE THE SOIL REPORT FOR ADDITIONAL CONSIDERATIONS AND REQUIREMENTS.
4. CONCRETE SLUMP: 6"~8"
5. LEAVING PIER HOLES OPEN OVERNIGHT IS NOT ALLOWED.
6. ELEVATION AT THE TOPS OF ALL PIERS TO BE WITHIN ± 1/4" OF EACH OTHER.
7. DUE TO THE PRESENCE OF EXISTING FILL MATERIALS (FILLS INCLUDE CLAY, COAL, SHALE AND SANDSTONE FRAGMENTS) FROM THE GRADE TO APPROX. 28' BELOW THE GRADE SURFACE, THE USE OF TEMPORARY STEEL CASING AND/OR SLURRY METHOD WILL BE REQUIRED.
8. HIGHLY WEATHERED SHALE WAS ENCOUNTERED AT APPROX. 28.5' BELOW GRADE SURFACE, THE USE OF HEAVY TOOLS/EQUIPMENT AND ROCK BITS WILL BE REQUIRED.

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NYSE AMT

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	PP	7/14/09

SITE NUMBER:
273411

SITE NAME:
HAPPY KY, KY

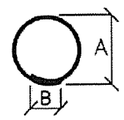
SITE ADDRESS:
SCUDDY MTN PINE RD.
VICCO, KY 41773

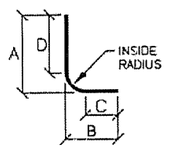
DRAWN BY:	PP
CHECKED BY:	AS
DATE DRAWN:	7/14/09
ATC JOB NO:	43711272A

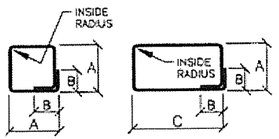
SHEET TITLE:
DRILLED PIER FOUNDATION DETAILS (PRIMARY DESIGN)

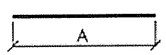
SHEET NUMBER:	REV #:
A–1	0

QTY REQ'D	REBAR SIZE	LENGTH	TOTAL WEIGHT (LBS)	TYPE	BENDING DIAGRAM
-	-	-	-	ROUND TIE	A: 4'-0", B: 1'-1"
150	#5	13 '-6"	2112		
-	-	-	-	90° BEND VERTICAL	A, B, C, D, INSIDE RAD.
-	-	-	-	SQUARE OR RECTANGULAR TIE	A, B, C, INSIDE RAD.
-	-	-	-	STRAIGHT	A: 43 '-0"
60	#10	43 '-0"	11102		









GENERAL FOUNDATION CONSTRUCTION NOTES

1. ALL REBAR (HORIZONTAL & VERTICAL) SHALL BE SECURELY WIRE TIED TO PREVENT DISPLACEMENT DURING POURING OF CONCRETE.
2. CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS.
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 0".
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.
7. TOP LEVELS OF ALL THREE PIERS FROM EACH OTHER: PLUS OR MINUS 1/4"

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REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	PP	7/14/09

SITE NUMBER:
273411
SITE NAME:
HAPPY KY, KY
SITE ADDRESS:
SCUDDY MTN PINE RD.
VICCO, KY 41773

DRAWN BY:	PP
CHECKED BY:	AS
DATE DRAWN:	7/14/09
ATC JOB NO:	43711272A

SHEET TITLE:
BAR LIST FOR REINFORCING STEEL AND GENERAL NOTES

SHEET NUMBER: A-2
REV #: 0

Exhibit E

February 3, 2009

Nsoro MasTec, LLC
10830 Penion Drive
Louisville, Kentucky 40299

Attention: Greg Taylor

Re: Geotechnical Engineering Report
Proposed 350' Self Supporting Tower
Site Name: Happy
Site Number: 252G0128
Vicco, Perry County, Kentucky
Terracon Project No. 57087360

Dear Mr. Taylor:

The results of our subsurface exploration are attached. The purpose of this exploration was to obtain information on subsurface conditions at the proposed project site and, based on this information, to provide recommendations regarding the design and construction of foundations for the proposed tower.

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

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

Sincerely,
Terracon

Shaikh Z. Rahman, EIT.
Project Engineer

Timothy G. LaGrow, P.E.
Kentucky No. 17758

STATE OF KENTUCKY
TIMOTHY G. LaGROW
17758
REGISTERED
PROFESSIONAL ENGINEER

n:\Projects\2008\57087360\G57087360.doc

Attachments: Geotechnical Engineering Report

Copies: Roy Johnson, Medley's Project Management, 3605 Mattingly Road, Buckner, Kentucky 40010 (4 hard copies, 1 pdf)

TABLE OF CONTENTS

GEOTECHNICAL ENGINEERING REPORT

PROPOSED HAPPY TOWER
TALL PINE RIDGEROAD
VICCO, PERRY COUNTY, KENTUCKY

TERRACON PROJECT NO. 57087360
February 3, 2009

1.0 INTRODUCTION

The purpose of this report is to describe the subsurface conditions encountered in the boring, analyze and evaluate the test data, and provide recommendations regarding the design and construction of foundations and earthwork for the proposed tower. One (1) boring extending to a depth of about 60½ feet below the existing ground surface was drilled at the site. An individual boring log and a boring location plan are included with this report.

2.0 PROJECT DESCRIPTION

Terracon understands the proposed project will consist of the construction of a 350-foot self supporting tower. Exact tower loads are not available, but based on our past experience are anticipated to be as follows:

Vertical Load:	1,050 kips
Horizontal Shear:	125 kips
Uplift:	825 kips

A small, lightly loaded equipment building will also be constructed. Wall and floor loads for this building are not anticipated to exceed 1 kip per linear foot and 100 pounds per square foot, respectively. At the time of the site visit, the property was a gently to moderately sloping grass covered hilltop that was reportedly surface minded for coal. The proposed 154-foot by 65-foot tower leasehold area is located on the edge of the hilltop. Existing grades within the proposed site reportedly vary between about El. 1646 to El. 1662. However, existing grades within roughly the eastern half of the site (where the tower will be built) reportedly vary between about El. 1658 to 1662. Based on existing topography, and assuming the entire site will not be graded, less than 3 feet of cut/fill is anticipated.

3.0 EXPLORATION PROCEDURES

3.1 Field Exploration

The subsurface exploration consisted of drilling and sampling one boring at the site to a depth of about 60½ feet below existing grade. The boring was advanced at the center of the tower as staked by the project surveyor. The surface elevation shown on the boring log was obtained from the site plan prepared by BTM Engineering, Inc. The location and elevation of

the boring should be considered accurate only to the degree implied by the means and methods used to define them.

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

Auger refusal was encountered at a depth of about 37½ feet. Below this depth, the boring was advanced into the refusal materials using a diamond bit attached to the outer barrel of a double core barrel. The inner barrel collected the cored material as the outer barrel was rotated at high speeds to cut the rock. The barrel was retrieved to the surface upon completion of each drill run. Once the core samples were retrieved, they were placed in a box and logged. The rock was later classified by an engineer and the "percent recovery" and rock quality designation (RQD) were determined.

The "percent recovery" is the ratio of the sample length retrieved to the drilled length, expressed as a percent. An indication of the actual in-situ rock quality is provided by calculating the sample's RQD. The RQD is the percentage of the length of broken cores retrieved which have core segments at least 4 inches in length compared to each drilled length. The RQD is related to rock soundness and quality as illustrated below:

Table 1 – Rock Quality Designation (RQD)

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

A field log of the boring was prepared by a subcontract driller. This log included visual classifications of the materials encountered during drilling as well as the driller's interpretation of the subsurface conditions between samples. The final boring log included with this report represents an interpretation of the driller's field log and a visual classification of the soil samples made by the Geotechnical Engineer.

3.2 Laboratory Testing

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

A rock core sample was tested for unconfined compressive strength and density. Results of these tests are provided on the boring log at the appropriate horizon.

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

4.0 EXPLORATORY FINDINGS

4.1 Subsurface Conditions

Conditions encountered at the boring location are indicated on the boring log. Stratification boundaries on the boring log represent the approximate location of changes in soil types and the transition between materials may be gradual. Water levels shown on the boring log represent the conditions only at the time of our exploration. Based on the results of the boring, subsurface conditions on the project site can be generalized as follows.

The boring was drilled in a reclaimed surface coal mine area and encountered existing fill extending to a depth of about 28½ feet below grade. The fill consisted of clay, coal, shale and sandstone fragments and exhibited an erratic consistency (density) based on standard penetration test (N) values in the range of about 7 to over 50 blows per foot (bpf). The presence of rock fragments within the fill most likely inflated the higher N-values and therefore these values may not accurately represent the true consistency or density of the fill.

Below about 28 ½ feet, the profile transitions into weathered shale to auger refusal at about 37 ½ feet below grade. The weathered shale exhibited a relatively hard soil consistency based on N-values in excess of 50 bpf. However, due to past mining activities, we are uncertain whether the weathered shale represents the top of undisturbed ground, or the base of the existing fill, therefore it has been classified as possible fill.

Below 37 ½ feet, rock coring techniques were employed to sample the refusal materials. The core sample consisted of moderate to slightly weathered, very thin to thin bedded

sandstone with shale laminations. The bedrock at the site appears to be relatively continuous as evidenced by core recoveries of over 95 percent. Bedrock quality is considered fair to good as defined by RQD values between 65 and 80 percent. Coring operations were terminated at a depth of approximately 60 ½ feet below grade.

4.2 Site Geology

A review of the Geologic Map of the Vicco Quadrangle, Kentucky published by the United States Geological Survey (1965) indicates that the site is underlain by the Breathitt formation. This formation consists of sandstone, siltstone, shale and coal.

4.3 Groundwater Conditions

No groundwater was encountered during the auger drilling portion of the borehole. Water was used to advance the borehole during rock coring operations. The introduction of water into the borehole precluded obtaining accurate groundwater level readings at the time of drilling operations. Long term observation of the groundwater level in monitoring wells, sealed from the influence of surface water, would be required to obtain accurate groundwater levels on the site.

It should be recognized that fluctuations of the groundwater table may occur due to seasonal variations in the amount of rainfall, runoff and other factors not evident at the time the boring was performed. Therefore, groundwater levels during construction or at other times in the life of the structure may be higher or lower than the levels indicated on the boring log. The possibility of groundwater level fluctuations should be considered when developing the design and construction plans for the project.

5.0 ENGINEERING RECOMMENDATIONS

Based on the encountered subsurface conditions, drilled pier foundations are suitable for support of the proposed tower. The site is covered with about 37½ feet of existing fill. Documentation regarding the placement of the fill was not available as of this writing; therefore, we consider the existing fill as uncontrolled. A shallow foundation to support the tower is not recommended due to the uncertainties associated with uncontrolled fill and the potential of excessive settlement under the estimated tower load. The lightly loaded equipment building can be supported on drilled piers, or on shallow spread footings if remedial measures are performed and the risk for excess future settlement is acceptable. Drilled pier and shallow foundation recommendations are presented in the following paragraphs.

5.1 Tower Foundation

Drilled Pier Alternative: Based on the results of the boring, the following tower foundation design parameters have been developed:

Table 2 - Drilled Pier Foundation Design Parameters

Depth * (feet)	Description **	Allowable Skin Friction (psf)	Allowable End Bearing Pressure (psf)	Allowable Passive Pressure (psf)	Internal Angle of Friction (Degree)	Cohesion (psf)	Lateral Subgrade Modulus (pci)	Strain, ε_{50} (in/in)
0 - 3	Topsoil and Fill	Ignore	Ignore	Ignore	-	-	Ignore	Ignore
3 – 29	Fill	300	Ignore	750	0	750	60	0.01
29 – 38	Weathered Shale, possible fill	750	Ignore	4,000	0	4,000	300	0.004
38 – 60	Sandstone	3,000 ***	20,000	6,000	0	60,000 ***	3,000	0.00001

* Pier inspection is recommended to adjust pier length if variable soil/rock conditions are encountered.
** A total unit weight of 120 and 150 pcf can be estimated for the existing fill/shale and sandstone, respectively.
*** The pier should be embedded a minimum of 3 feet into sandstone to mobilize these higher rock strength parameters. Furthermore, it is assumed the rock socket will be extended using coring techniques rather than blasting/shooting.

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

The upper 3 feet of fill should be ignored due to the potential affects of frost action and construction disturbance. To avoid a reduction in lateral and uplift resistance caused by variable subsurface conditions and or bedrock depths, we recommend that drawings instruct the contractor to notify the engineer if subsurface conditions significantly different than encountered in our boring are disclosed during drilled pier installation. Under these circumstances, it may be necessary to adjust the overall length of the pier. To facilitate these adjustments and assure that the pier is embedded in suitable materials, it is recommended that a Terracon representative observe the drilled pier excavation.

If a bedrock socket is required, it is recommended that a minimum pier length and minimum competent rock socket length be stated on the design drawings. Competent rock was

encountered in our boring below a depth of about 38 feet, but could vary between tower legs or if the tower is moved from the location of our boring, or if significant grade changes occur at the site. If the tower center is moved more than 25 feet, our office should be notified to review our recommendations and determine whether an additional boring is required. To facilitate pier length adjustments that may be necessary because of variable rock conditions, it is recommended that a Terracon representative observe the drilled pier excavation.

Although our boring was able to penetrate the existing fill and highly weathered shale, there is a possibility that larger diameter drilled pier equipment will refuse on this material at higher elevations than shown in our boring. The contractor should recognize the hardness of the material and be prepared to use rock teeth or other means to extend through these layers.

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

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

5.2 Equipment Building Foundations

The site is covered with over 28 feet of existing fill that appears to be uncontrolled. Foundations supported on uncontrolled fill have the potential for excessive total and differential settlement. The risk of excessive settlement cannot be eliminated without removing the fill in its entirety or supporting the building on deep foundations. Both of these options would be expensive.

Supporting equipment on shallow foundations can be considered if the owner is willing to accept the risk for excessive settlement, or able to design to accommodate the on-going settlement. To reduce the risk for differential settlement caused by near-surface anomalies, we recommend the existing fill beneath the building pad be undercut to a depth of about 4 feet below finish floor elevation, extending 5 feet outside the building footprint. After fill undercutting, the exposed subgrade should be proofrolled in the presence of a geotechnical engineer to his representative. Any soft or weak areas delineated by proofroll observation should be removed. The undercut areas should be backfilled with compacted engineered fill as outlined in the 'Site Preparation' section of this report.

After recommended fill undercutting and backfilling, the proposed equipment building may be supported on shallow footings bearing on compacted engineered fill extending to suitable existing fill. The equipment building foundations should be dimensioned using a net allowable soil bearing pressure of 1,500 pounds per square foot (psf). In using net allowable soil pressures for footing dimensioning, the weight of the footings and backfill over the footings need not be considered. Furthermore, the footings should be at least 12 inches wide and a minimum of 2.0 feet square.

The geotechnical engineer or a qualified representative should observe the foundation excavations to verify that the bearing materials are suitable for support of the proposed loads. If, at the time of such observation, any soft soils are encountered at the design foundation elevation, the excavations should be extended downward so that the footings rest on stiff soils. If it is inconvenient to lower the footings, the proposed footing elevations may be re-established by backfilling after the undesirable material has been removed.

The recommended soil bearing value should be considered an upper limit, and any value less than that listed above would be acceptable for the foundation system. The foundation settlement will depend upon the variations within the subsurface soil profile, the structural loading conditions, the embedment depth of the footings, the thickness of existing and compacted fill, and the quality of the earthwork operations. Because of the uncertainties associated with the existing fill, Terracon can not accurately estimate settlements under the above design scenario. Footings should be placed at a depth of 2.0 feet, or greater, below finished exterior grade for protection against frost damage.

5.3 Parking and Drive Areas

We understand the drive that accesses the site will be surfaced with crushed stone. Parking and drive areas that are surfaced with crushed stone should have a minimum thickness of 6 inches and be properly placed and compacted as outlined herein. The crushed stone should meet Kentucky Transportation Cabinet specifications and applicable local codes.

A paved section consisting only of crushed graded aggregate base course should be considered a high maintenance section. Regular care and maintenance is considered essential to the longevity and use of the section. Site grades should be maintained in such a manner as to allow for adequate surface runoff. Any potholes, depressions or excessive rutting that may develop should be repaired as soon as possible to reduce the possibility of degrading the soil subgrade.

5.4 Site Preparation

Site preparation should begin with the removal of any topsoil, loose, soft or otherwise unsuitable materials from the construction area. The geotechnical engineer should evaluate

the actual stripping depth, along with any soft soils that require undercutting at the time of construction.

Any fill and backfill placed on the site should consist of approved materials that are free of organic matter and debris. Suitable fill materials should consist of well graded crushed stone below the tower foundation and well graded crushed stone or low plasticity cohesive soil elsewhere. Low-plasticity cohesive soil should have a liquid limit of less than 45 percent and a plasticity index of less than 25 percent. The on-site existing fill is currently not recommended for reuse due to its variable nature and potential for excessive particle size. It is recommended that during construction any potential on-site soils and/or off-site soils be further tested and evaluated prior to their use as fill. Fill should not contain frozen material and it should not be placed on a frozen subgrade.

Soil fill should be placed and compacted in lifts of 9 inches or less in loose thickness. Fill placed below structures or used to provide lateral resistance should be compacted to at least 98 percent of the material's maximum standard Proctor dry density (ASTM D-698). Cohesive fill should be placed, compacted, and maintained at moisture contents within minus 1 to plus 3 percent of the optimum value determined by the standard Proctor test.

The geotechnical engineer should be retained to monitor fill placement on the project and to perform field density tests as each lift of fill is placed in order to evaluate compliance with the design requirements. Standard Proctor and Atterberg limits tests should be performed on the representative samples of fill materials before their use on the site.

6.0 GENERAL COMMENTS

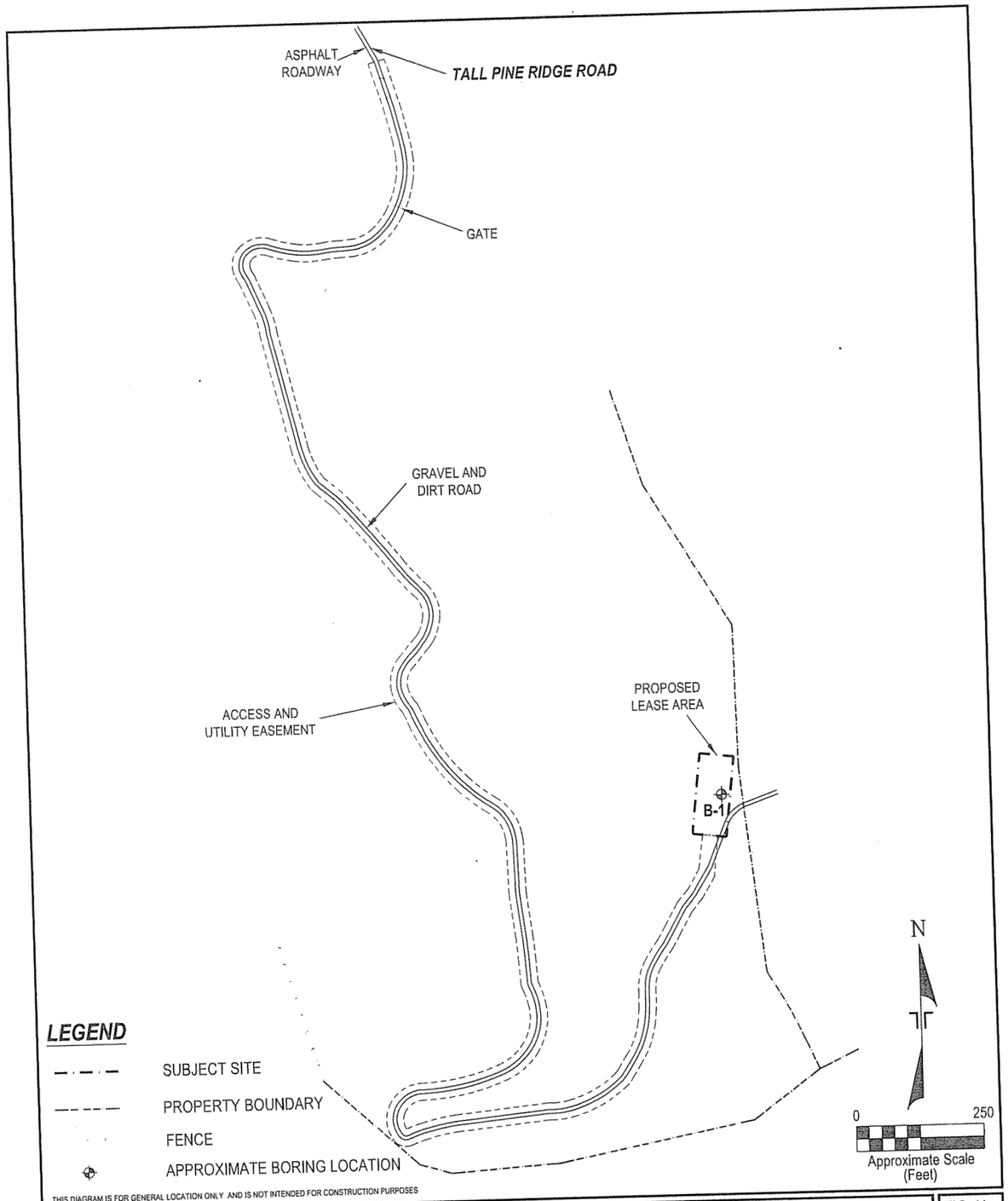
Terracon should be retained to review the final design plans and specifications so comments can be made regarding interpretation and implementation of our geotechnical recommendations in the design and specifications. Terracon also should be retained to provide testing and observation during excavation,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

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

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

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

APPENDIX



THIS DIAGRAM IS FOR GENERAL LOCATION ONLY AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Mngr:	SZR
Drawn By:	SEG
Checked By:	MRF/SZR
Approved By:	BNK

Project No.	57087360
Scale:	AS SHOWN
File No.	GEO57087360-1
Date:	JANUARY 2009

Terracon
Consulting Engineers and Scientists
4545 Bishop Lane, Suite 101 Louisville, KY 40218
(502) 456-1256 (502) 456-1278

BORING LOCATION DIAGRAM
GEOTECHNICAL ENGINEERING REPORT
HAPPY TOWER
TALL PINE RIDGE ROAD
VICCO, PERRY COUNTY, KENTUCKY

FIG. No. 1

File: W:\Jobs\2009\060-6405\060-6405.out
Contract: 060-6405 Revision:
Project: 300' SSVMW TOWER DESIGN Site: HAPPY
Date and Time: 7/06/2009 11:50:00 AM Engineer: FAD/DWG

3/1	Diag	PIPE 2.875x0.203	A572 gr.50	Bolted	3-0.750	A325X	1.125	1.437	0.375	2.250
3/1	Horiz	PIPE 2.875x0.203	A572 gr.50	Bolted	2-0.750	A325X	1.125	1.437	0.375	2.250
3/1	SecD1	PIPE 2.375x0.154	A572 gr.50	Bolted	1-0.625	A325X	1.181	0.949	0.250	1.875
3/1	SecH1	PIPE 1.900x0.145	A572 gr.50	Bolted	1-0.625	A325X	1.181	0.949	0.250	1.875
3/1	HipD1	PIPE 2.875x0.203	A572 gr.50	Bolted	1-0.625	A325X	1.181	1.437	0.250	1.875
3/1	HipH1	PIPE 1.900x0.145	A572 gr.50	Bolted	1-0.625	A325X	1.181	0.949	0.250	1.875
3/1	PlanH1	PIPE 2.375x0.154	A572 gr.50	Bolted	1-0.625	A325X	1.181	1.189	0.000	1.875
2/1	Leg	PIPE 10.750x0.500	A572 gr.50	Tension	12-1.000	A325X				
2/1	Diag	PIPE 2.875x0.203	A572 gr.50	Bolted	3-0.750	A325X	1.125	1.437	0.375	2.250
2/1	Horiz	PIPE 2.875x0.203	A572 gr.50	Bolted	2-0.750	A325X	1.125	1.437	0.375	2.250
2/1	SecD1	PIPE 2.375x0.218	A572 gr.50	Bolted	1-0.625	A325X	1.181	1.189	0.250	1.875
2/1	SecH1	PIPE 1.900x0.145	A572 gr.50	Bolted	1-0.625	A325X	1.181	0.949	0.250	1.875
2/1	HipD1	PIPE 2.875x0.203	A572 gr.50	Bolted	1-0.625	A325X	1.181	1.437	0.250	1.875
2/1	HipH1	PIPE 1.900x0.145	A572 gr.50	Bolted	1-0.625	A325X	1.181	0.949	0.250	1.875
2/1	PlanH1	PIPE 2.875x0.203	A572 gr.50	Bolted	1-0.625	A325X	1.181	1.437	0.000	1.875
1/1	Leg	PIPE 10.750x0.500	A572 gr.50	Tension	16-1.000	A325X				
1/1	Diag	PIPE 3.500x0.216	A572 gr.50	Bolted	3-0.750	A325X	1.125	1.750	0.375	2.250
1/1	Horiz	PIPE 3.500x0.216	A572 gr.50	Bolted	2-0.750	A325X	1.125	1.750	0.375	2.250
1/1	SecD1	PIPE 2.375x0.218	A572 gr.50	Bolted	1-0.625	A325X	1.181	1.189	0.250	1.875
1/1	SecH1	PIPE 2.375x0.154	A572 gr.50	Bolted	1-0.625	A325X	1.181	0.949	0.250	1.875
1/1	HipD1	PIPE 3.500x0.216	A572 gr.50	Bolted	1-0.625	A325X	1.181	1.752	0.250	1.875
1/1	HipH1	PIPE 1.900x0.145	A572 gr.50	Bolted	1-0.625	A325X	1.181	0.949	0.250	1.875
1/1	PlanH1	PIPE 3.500x0.216	A572 gr.50	Bolted	1-0.625	A325X	1.181	1.752	0.000	1.875

File: W:\Jobs\2009\060-6405\060-6405.out
Contract: 060-6405
Project: 300' SSVMW TOWER DESIGN
Date and Time: 7/06/2009 11:50:00 AM

Revision:
Site: HAPPY
Engineer: FAD/DWG

Section D: TRANSMISSION LINE DATA

Transmission Lines Position

No.	Bot El (ft)	Top El (ft)	Desc.	Radius (ft)	Az.	Orient.	No.	No. of Rows	Part of Face	Vert.	Antenna
1	0.00	300.00	3/8 CABLE	18.95	60.00	0.00	1	1		Yes-Out	No
2	270.00	296.00	LDF7P-50A	2.14	60.00	10.00	12	1		Yes-Out	No
3	0.00	290.00	LDF7P-50A	14.74	300.00	250.00	12	1		Yes-Out	No
4	0.00	280.00	LDF7P-50A	14.74	180.00	130.00	12	1		Yes-Out	No
5	0.00	270.00	LDF7P-50A	14.74	60.00	10.00	24	2		Yes-Out	No

Transmission Lines Details

No.	Desc.	Width (in)	Depth (in)	Unit Mass (lb/ft)	Line Spacing (in)	Row Spacing (in)
1	3/8 CABLE	0.38	0.38	1.00	2.750	2.750
2	LDF7P-50A	2.01	2.01	0.92	2.250	2.500
3	LDF7P-50A	2.01	2.01	0.92	2.250	2.500
4	LDF7P-50A	2.01	2.01	0.92	2.250	2.500
5	LDF7P-50A	2.01	2.01	0.92	2.250	2.500

File: W:\Jobs\2009\060-6405\060-6405.out
Contract: 060-6405
Project: 300' SSVMW TOWER DESIGN
Date and Time: 7/06/2009 11:50:00 AM

Revision:
Site: HAPPY
Engineer: FAD/DWG

Section E: LADDER DATA

Ladder Position

No.	Bot El (ft)	Top El (ft)	Width (in)	Height (in)	Az.	Radius (ft)	Orient.	Part Of Face
1	0.00	300.00	35.00	48.00	60.00	14.74	10.00	No
2	0.00	290.00	35.00	48.00	300.00	14.74	250.00	No
3	0.00	280.00	35.00	48.00	180.00	14.74	130.00	No

Ladder Details

No.	Rung Desc.	Rail Desc.
1	(None)	L1 1/2x1 1/2x1/8
2	(None)	L1 1/2x1 1/2x1/8
3	(None)	L1 1/2x1 1/2x1/8

File: W:\Jobs\2009\060-6405\060-6405.out
Contract: 060-6405
Project: 300' SSVMW TOWER DESIGN
Date and Time: 7/06/2009 11:50:00 AM

Revision:
Site: HAPPY
Engineer: FAD/DWG

Section F: POINT LOAD DATA

Structure Azimuth from North:0.00

POINT LOADS

No.	Description	Elev. (ft)	Radius (ft)	Azim. (Deg)	Orient. (Deg)	Vertical Offset (ft)	Tx Line	Comments
1	EPA=115.00/135.00	296.00	0.00	0.0	0.0	0.00		
2	EPA=115.00/135.00	290.00	0.00	0.0	0.0	0.00		
3	EPA=115.00/135.00	280.00	0.00	0.0	0.0	0.00		
4	EPA=115.00/135.00	270.00	0.00	0.0	0.0	0.00		

POINT LOADS WIND AREAS AND WEIGHTS

No.	Description	Frontal Bare Area (ft^2)	Lateral Bare Area (ft^2)	Frontal Iced Area (ft^2)	Lateral Iced Area (ft^2)	Weight Bare (Kips)	Weight Iced (Kips)
1	EPA=115.00/135.00	115.00	115.00	135.00	135.00	2.00	3.00
2	EPA=115.00/135.00	115.00	115.00	135.00	135.00	2.00	3.00
3	EPA=115.00/135.00	115.00	115.00	135.00	135.00	2.00	3.00
4	EPA=115.00/135.00	115.00	115.00	135.00	135.00	2.00	3.00

TowerSoft ENGINEERING SOFTWARE

TSTower - v 3.9.0 Tower Analysis Program
(c) 1997-2006 TowerSoft www.TSTower.com

ROHN Products

Licensed to: ROHN Products LLC
Peoria, Illinois

File: W:\Jobs\2009\060-6405\060-6405.out
Contract: 060-6405
Project: 300' SSVMW TOWER DESIGN
Date and Time: 7/06/2009 11:50:00 AM

Revision:
Site: HAPPY
Engineer: FAD/DWG

Section H: STRUCTURE DISPLACEMENT DATA

Load Combination — Max Envelope

Wind Direction — Maximum displacements

Node	Elev. (ft)	N-S Disp (in)	W-E Disp (in)	Vert.Disp (in)	N-S Rot (Deg)	W-E Rot (Deg)	Twist (Deg)
135	300.0	50.8	-50.1	-0.2	2.01	1.99	0.01
132	296.0	49.1	-48.5	-0.2	2.03	-2.01	-0.02
129	292.0	47.4	-46.8	-0.2	2.01	-1.99	-0.02
126	288.0	45.7	-45.1	-0.2	2.03	-2.01	-0.02
123	284.0	44.0	-43.4	-0.2	1.98	-1.96	-0.03
120	280.0	42.3	-41.8	-0.2	1.97	-1.95	-0.01
117	276.0	40.7	-40.1	-0.2	1.93	-1.91	0.02
114	272.0	39.1	-38.5	-0.2	1.90	1.88	0.01
111	268.0	37.5	-37.0	-0.2	1.86	-1.84	-0.01
108	264.0	35.9	-35.4	-0.2	1.78	-1.76	0.03
105	260.0	34.4	-33.9	-0.2	1.73	-1.71	0.00
102	256.0	33.0	-32.5	-0.2	1.65	-1.64	-0.03
99	252.0	31.6	-31.1	-0.2	1.62	-1.60	0.00
96	248.0	30.2	-29.8	-0.2	1.55	-1.53	-0.02
93	244.0	28.9	-28.5	-0.2	1.52	1.50	0.00
90	240.0	27.7	-27.3	-0.2	1.44	-1.43	-0.02
87	235.0	26.1	-25.8	-0.2	1.39	-1.37	0.01
84	230.0	24.7	-24.3	-0.2	1.32	1.30	-0.02
81	225.0	23.3	-23.0	-0.2	1.27	-1.25	0.01
78	220.0	22.0	-21.6	-0.2	1.19	-1.17	-0.02
75	213.3	20.3	-20.0	-0.2	1.11	-1.10	0.02
72	206.7	18.8	-18.5	-0.1	1.05	-1.04	-0.01
69	200.0	17.3	-17.0	-0.1	0.98	-0.96	0.02
66	193.3	15.9	-15.7	-0.1	0.94	0.93	0.00
63	186.7	14.6	-14.4	-0.1	0.87	-0.86	0.02
60	180.0	13.4	-13.2	-0.1	0.83	-0.82	0.00
57	173.3	12.3	-12.0	-0.1	0.76	-0.75	-0.02
54	166.7	11.2	-11.0	-0.1	0.73	-0.72	0.00
51	160.0	10.2	-10.0	-0.1	0.65	0.64	-0.01
48	150.0	8.8	-8.6	-0.1	0.59	-0.58	-0.01
45	140.0	7.6	-7.4	-0.1	0.53	-0.52	0.01
42	130.0	6.5	-6.3	-0.1	0.49	-0.48	-0.01
39	120.0	5.4	-5.3	-0.1	0.44	-0.43	0.01
36	110.0	4.5	-4.4	-0.1	0.39	0.39	-0.01
33	100.0	3.7	-3.6	-0.1	0.35	-0.34	0.01
30	90.0	3.0	-2.9	-0.1	0.30	0.30	-0.01
27	80.0	2.3	-2.3	-0.1	0.27	-0.27	0.00
24	70.0	1.7	-1.7	-0.1	0.23	-0.22	-0.01
20	60.0	1.3	-1.2	-0.1	0.17	-0.16	0.00
14	40.0	0.6	0.6	0.0	0.10	0.10	0.00
8	20.0	0.1	0.1	0.0	0.03	0.03	0.00
3	0.0	0.0	0.0	0.0	0.00	0.00	0.00

Load Combination — Wind Only - Serviceability

Wind Direction — Maximum displacements

Node	Elev. (ft)	N-S Disp (in)	W-E Disp (in)	Vert.Disp (in)	N-S Rot (Deg)	W-E Rot (Deg)	Twist (Deg)
135	300.0	19.8	-19.6	-0.1	0.78	-0.78	0.00

132	296.0	19.2	-18.9	-0.1	0.80	-0.79	0.01
129	292.0	18.5	-18.3	-0.1	0.79	-0.78	-0.01
126	288.0	17.8	-17.6	-0.1	0.79	-0.79	-0.01
123	284.0	17.2	-17.0	-0.1	0.77	-0.77	0.01
120	280.0	16.5	-16.3	-0.1	0.77	-0.76	-0.01
117	276.0	15.9	-15.7	-0.1	0.75	-0.75	-0.01
114	272.0	15.3	-15.1	-0.1	0.74	-0.73	0.00
111	268.0	14.6	-14.4	-0.1	0.73	-0.72	0.00
108	264.0	14.0	-13.8	-0.1	0.70	-0.69	0.01
105	260.0	13.4	-13.3	-0.1	0.68	-0.67	0.00
102	256.0	12.9	-12.7	-0.1	0.65	-0.64	0.01
99	252.0	12.3	-12.2	-0.1	0.63	-0.63	0.00
96	248.0	11.8	-11.6	-0.1	0.61	-0.60	-0.01
93	244.0	11.3	-11.1	-0.1	0.59	-0.59	0.00
90	240.0	10.8	-10.6	-0.1	0.56	0.56	-0.01
87	235.0	10.2	-10.1	-0.1	0.54	-0.54	0.00
84	230.0	9.6	-9.5	-0.1	0.51	0.51	-0.01
81	225.0	9.1	-9.0	-0.1	0.49	-0.49	0.00
78	220.0	8.6	-8.5	-0.1	0.46	0.46	-0.01
75	213.3	7.9	-7.8	-0.1	0.44	-0.43	0.01
72	206.7	7.3	-7.2	-0.1	0.41	0.40	0.00
69	200.0	6.8	-6.7	-0.1	0.38	-0.38	0.01
66	193.3	6.2	-6.1	-0.1	0.37	-0.36	0.00
63	186.7	5.7	-5.6	-0.1	0.34	-0.34	-0.01
60	180.0	5.2	-5.2	-0.1	0.32	0.32	0.00
57	173.3	4.8	-4.7	-0.1	0.30	-0.29	-0.01
54	166.7	4.4	-4.3	-0.1	0.29	-0.28	0.00
51	160.0	4.0	-3.9	-0.1	0.26	-0.25	0.01
48	150.0	3.4	-3.4	-0.1	0.23	-0.23	0.00
45	140.0	3.0	-2.9	-0.1	0.21	-0.20	0.00
42	130.0	2.5	-2.5	-0.1	0.19	-0.19	0.00
39	120.0	2.1	-2.1	-0.1	0.17	-0.17	0.00
36	110.0	1.8	-1.7	-0.1	0.15	-0.15	0.00
33	100.0	1.4	-1.4	-0.1	0.14	-0.13	0.00
30	90.0	1.2	-1.1	-0.1	0.12	-0.12	0.00
27	80.0	0.9	-0.9	0.0	0.11	-0.10	0.00
24	70.0	0.7	-0.7	0.0	0.09	-0.09	0.00
20	60.0	0.5	-0.5	0.0	0.07	-0.06	0.00
14	40.0	0.2	0.2	0.0	0.04	-0.04	0.00
8	20.0	0.1	0.1	0.0	0.01	0.01	0.00
3	0.0	0.0	0.0	0.0	0.00	0.00	0.00

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Contract: 060-6405
Project: 300' SSVMW TOWER DESIGN
Date and Time: 7/06/2009 11:50:00 AM

Revision:
Site: HAPPY
Engineer: FAD/DWG

Section L: STRENGTH ASSESSMENT SORTED DATA
Load Combination Max Envelope
Wind Direction Maximum

Sec	Pnl	Elev (ft)	MType	Desc.	Len (ft)	kl/r	Gov. comp. cap. (Kips)	Gov. tens. cap. (Kips)	Max Compr. (Kips)	Max Tens. (Kips)	Asses. Ratio
14	5	296.00	Leg	PIPE 3.500x0.216	4.00	37.2	78.0	89.3	0.7	0.5	0.01
14	4	292.00	Leg	PIPE 3.500x0.216	4.00	41.5	76.2	89.3	3.3	1.6	0.04
14	3	288.00	Leg	PIPE 3.500x0.216	4.00	41.5	76.2	89.3	8.9	6.4	0.12
14	2	284.00	Leg	PIPE 3.500x0.216	4.00	41.5	76.2	89.3	17.9	14.4	0.23
14	1	280.00	Leg	PIPE 3.500x0.216	4.00	35.1	78.9	89.3	27.7	23.9	0.35
13	5	276.00	Leg	PIPE 4.500x0.337	4.00	36.8	154.6	176.5	40.0	34.5	0.26
13	4	272.00	Leg	PIPE 4.500x0.337	4.00	36.8	154.6	176.5	56.0	50.0	0.36
13	3	268.00	Leg	PIPE 4.500x0.337	4.00	36.8	154.6	176.5	71.0	64.0	0.46
13	2	264.00	Leg	PIPE 4.500x0.337	4.00	36.8	154.6	176.5	91.5	83.2	0.59
13	1	260.00	Leg	PIPE 4.500x0.337	4.00	36.8	154.6	176.5	110.4	101.6	0.71
12	5	256.00	Leg	PIPE 5.563x0.375	4.01	23.5	227.6	244.6	126.8	117.5	0.56
12	4	252.00	Leg	PIPE 5.563x0.375	4.01	26.2	225.1	244.6	137.6	127.7	0.61
12	3	248.00	Leg	PIPE 5.563x0.375	4.01	26.2	225.1	244.6	147.2	136.8	0.65
12	2	244.00	Leg	PIPE 5.563x0.375	4.01	26.2	225.1	244.6	156.5	145.5	0.70
12	1	240.00	Leg	PIPE 5.563x0.375	4.01	22.1	228.9	244.6	165.0	153.5	0.72
11	4	235.00	Leg	PIPE 5.563x0.375	5.01	30.0	221.3	244.6	173.9	161.8	0.79
11	3	230.00	Leg	PIPE 5.563x0.375	5.01	32.7	218.6	244.6	183.1	170.3	0.84
11	2	225.00	Leg	PIPE 5.563x0.375	5.01	32.7	218.6	244.6	191.8	178.3	0.88
11	1	220.00	Leg	PIPE 5.563x0.375	5.01	28.7	222.7	244.6	200.2	186.0	0.90
10	3	213.33	Leg	PIPE 6.625x0.340	6.68	33.8	238.8	268.7	210.0	195.0	0.88
10	2	206.67	Leg	PIPE 6.625x0.340	6.68	36.1	236.2	268.7	220.9	205.0	0.94
10	1	200.00	Leg	PIPE 6.625x0.340	6.68	32.7	240.1	268.7	232.0	214.9	0.97
9	3	193.33	Leg	PIPE 6.625x0.432	6.68	34.2	298.7	276.6	242.4	224.3	0.81
9	2	186.67	Leg	PIPE 6.625x0.432	6.68	36.5	295.3	276.6	253.1	233.8	0.86
9	1	180.00	Leg	PIPE 6.625x0.432	6.68	33.1	300.3	276.6	263.2	242.8	0.88
8	3	173.33	Leg	PIPE 6.625x0.432	6.68	34.2	298.7	336.7	273.2	251.5	0.91
8	2	166.67	Leg	PIPE 6.625x0.432	6.68	36.5	295.3	336.7	282.9	259.9	0.96
8	1	160.00	Leg	PIPE 6.625x0.432	6.68	33.1	300.3	336.7	292.3	268.1	0.97
7	2	150.00	Leg	PIPE 8.625x0.375	10.02	39.6	335.8	368.8	304.8	278.7	0.91
7	1	140.00	Leg	PIPE 8.625x0.375	10.02	38.7	337.3	368.8	319.4	291.4	0.95
6	2	130.00	Leg	PIPE 8.625x0.500	10.02	40.1	439.5	461.0	334.8	304.3	0.76
6	1	120.00	Leg	PIPE 8.625x0.500	10.02	40.1	439.5	461.0	349.6	316.6	0.80
5	3	110.00	Leg	PIPE 8.625x0.500	10.02	41.7	435.6	461.0	364.8	329.1	0.84
5	2	100.00	Leg	PIPE 8.625x0.500	10.02	41.7	435.6	368.8	379.4	341.1	0.92
5	1	90.00	Leg	PIPE 8.625x0.500	10.02	41.7	435.6	368.8	394.3	353.1	0.96
4	3	80.00	Leg	PIPE 10.750x0.500	10.02	33.1	574.8	553.2	409.0	364.4	0.71
4	2	70.00	Leg	PIPE 10.750x0.500	10.02	33.1	574.8	553.2	424.2	375.5	0.74
4	1	60.00	Leg	PIPE 10.750x0.500	10.02	33.1	574.8	553.2	438.6	386.0	0.76
3	1	40.00	Leg	PIPE 10.750x0.500	20.05	31.8	578.4	553.2	448.0	390.5	0.77
2	1	20.00	Leg	PIPE 10.750x0.500	20.05	31.8	578.4	553.2	471.6	406.7	0.82
1	1	0.00	Leg	PIPE 10.750x0.500	20.05	31.8	578.4	644.5	494.9	422.2	0.86
14	5	296.00	Diag	L1 3/4x1 3/4x3/16	6.17	100.6	10.7	6.5	1.0	1.1	0.17
14	4	292.00	Diag	L1 3/4x1 3/4x3/16	6.17	100.7	10.7	6.5	2.0	2.0	0.30
14	3	288.00	Diag	L1 3/4x1 3/4x3/16	6.18	100.7	10.6	6.5	3.1	3.1	0.48
14	2	284.00	Diag	L1 3/4x1 3/4x3/16	6.18	100.8	10.6	6.5	4.2	4.2	0.64
14	1	280.00	Diag	L1 3/4x1 3/4x3/16	6.19	100.9	10.6	6.5	4.5	4.5	0.69
13	5	276.00	Diag	L2x2x1/4	6.20	90.6	12.3	9.1	6.4	6.3	0.70
13	4	272.00	Diag	L2x2x1/4	6.21	90.8	12.3	9.1	6.6	6.7	0.74

13	3	268.00	Diag	L2x2x1/4	6.23	91.0	12.3	9.1	7.8	7.7	0.85
13	2	264.00	Diag	L2x2x1/4	6.25	91.2	12.3	9.1	8.8	8.8	0.98
13	1	260.00	Diag	L2x2x1/4	6.26	91.4	12.3	9.1	9.1	9.1	1.00
12	5	256.00	Diag	L2x2x3/16	6.43	94.5	12.3	6.8	5.0	5.0	0.73
12	4	252.00	Diag	L2x2x3/16	6.75	98.5	12.3	6.8	4.8	4.8	0.71
12	3	248.00	Diag	L2x2x3/16	7.07	102.5	12.0	6.8	4.7	4.7	0.68
12	2	244.00	Diag	L2x2x3/16	7.40	106.6	11.5	6.8	4.6	4.6	0.67
12	1	240.00	Diag	L2x2x3/16	7.74	110.7	11.0	6.8	4.5	4.5	0.66
11	4	235.00	Diag	L2x2x3/16	8.68	122.4	9.4	6.8	4.5	4.5	0.66
11	3	230.00	Diag	L2x2x3/16	9.11	129.3	8.5	6.8	4.5	4.5	0.66
11	2	225.00	Diag	L2x2x3/16	9.55	136.4	7.6	6.8	4.5	4.5	0.66
11	1	220.00	Diag	L2x2x3/16	10.00	143.5	6.9	6.8	4.5	4.5	0.66
10	3	213.33	Diag	L2 1/2x2 1/2x3/16	11.41	130.0	10.6	6.8	5.3	5.3	0.78
10	2	206.67	Diag	L2 1/2x2 1/2x3/16	11.95	137.0	9.6	6.8	5.4	5.4	0.79
10	1	200.00	Diag	L2 1/2x2 1/2x3/16	12.51	144.0	8.6	6.8	5.5	5.5	0.81
9	3	193.33	Diag	L2 1/2x2 1/2x3/16	13.07	151.2	7.8	6.8	5.7	5.6	0.82
9	2	186.67	Diag	L2 1/2x2 1/2x3/16	13.65	158.4	7.1	6.8	5.8	5.8	0.85
9	1	180.00	Diag	L2 1/2x2 1/2x3/16	14.23	165.7	6.5	6.8	5.9	5.9	0.91
8	3	173.33	Diag	L3x3x3/16	14.84	143.5	10.5	8.2	5.7	5.7	0.70
8	2	166.67	Diag	L3x3x3/16	15.46	149.9	9.6	8.2	5.9	5.9	0.72
8	1	160.00	Diag	L3x3x3/16	16.09	156.5	8.9	8.2	6.1	6.1	0.75
7	2	150.00	Diag	L3x3x1/4	18.44	179.2	8.9	12.2	7.4	7.4	0.83
7	1	140.00	Diag	L3x3x1/4	19.29	188.0	8.1	12.2	7.7	7.6	0.95
6	2	130.00	Diag	L3 1/2x3 1/2x1/4	20.15	168.2	11.9	12.2	8.0	8.0	0.67
6	1	120.00	Diag	L3 1/2x3 1/2x1/4	21.03	176.0	10.9	12.2	8.3	8.3	0.77
5	3	110.00	Diag	L3 1/2x3 1/2x1/4	21.93	184.1	9.9	12.2	8.4	8.4	0.85
5	2	100.00	Diag	L3 1/2x3 1/2x1/4	22.85	192.2	9.1	12.2	8.7	8.7	0.96
5	1	90.00	Diag	L4x4x1/4	23.77	172.6	13.0	12.2	9.1	9.0	0.74
4	3	80.00	Diag	L4x4x1/4	24.74	178.6	12.1	12.2	8.8	8.7	0.73
4	2	70.00	Diag	L4x4x5/16	25.73	188.6	13.4	15.3	9.1	9.2	0.68
4	1	60.00	Diag	L4x4x5/16	26.73	196.2	12.4	15.3	9.6	9.5	0.77
3	1	40.00	Diag	PIPE 2.875x0.203	24.38	142.1	16.8	50.6	13.4	13.4	0.80
2	1	20.00	Diag	PIPE 2.875x0.203	25.11	147.1	15.6	50.6	13.5	13.5	0.86
1	1	0.00	Diag	PIPE 3.500x0.216	25.88	123.8	29.0	53.0	13.6	13.6	0.47
14	5	296.00	Horiz	L1 3/4x1 3/4x3/16	4.69	145.1	5.9	6.5	0.8	0.8	0.13
12	5	256.00	Horiz	L1 3/4x1 3/4x3/16	4.83	143.9	6.0	6.5	1.1	0.9	0.18
3	1	40.00	Horiz	PIPE 2.875x0.203	12.67	151.6	14.7	35.3	7.9	7.5	0.54
2	1	20.00	Horiz	PIPE 2.875x0.203	13.92	167.4	12.1	35.3	8.3	8.1	0.69
1	1	0.00	Horiz	PIPE 3.500x0.216	15.17	149.6	19.8	35.3	8.8	8.5	0.44
3	1	40.00	SecH1	PIPE 1.900x0.145	6.33	122.0	10.7	12.3	6.7	6.7	0.63
3	1	40.00	SecD1	PIPE 2.375x0.154	11.52	175.7	7.0	12.3	6.8	6.8	0.97
3	1	40.00	HipH1	PIPE 1.900x0.145	6.33	122.0	10.7	12.3	0.2	0.2	0.02
3	1	40.00	HipD1	PIPE 2.875x0.203	15.12	191.7	9.2	12.3	0.2	0.2	0.02
3	1	40.00	PlanH1	PIPE 2.375x0.154	12.67	193.1	5.8	12.3	0.1	0.1	0.01
2	1	20.00	SecH1	PIPE 1.900x0.145	6.96	134.0	8.8	12.3	7.1	7.1	0.80
2	1	20.00	SecD1	PIPE 2.375x0.218	11.84	185.5	8.6	12.3	6.6	6.6	0.77
2	1	20.00	HipH1	PIPE 1.900x0.145	6.96	134.0	8.8	12.3	0.2	0.2	0.02
2	1	20.00	HipD1	PIPE 2.875x0.203	15.95	202.1	8.3	12.3	0.2	0.2	0.02
2	1	20.00	PlanH1	PIPE 2.875x0.203	13.92	176.3	10.9	12.3	0.1	0.1	0.01
1	1	0.00	SecH1	PIPE 2.375x0.154	7.58	117.8	12.3	12.3	7.4	7.4	0.60
1	1	0.00	SecD1	PIPE 2.375x0.218	12.19	190.9	8.1	12.3	6.5	6.5	0.80
1	1	0.00	HipH1	PIPE 1.900x0.145	7.58	146.1	7.5	12.3	0.2	0.2	0.03
1	1	0.00	HipD1	PIPE 3.500x0.216	16.81	173.9	12.3	12.3	0.2	0.2	0.01
1	1	0.00	PlanH1	PIPE 3.500x0.216	15.17	156.9	12.3	12.3	0.1	0.1	0.01

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Contract: 060-6405
Project: 300' SSVMW TOWER DESIGN
Date and Time: 7/06/2009 11:50:00 AM

Revision:
Site: HAPPY
Engineer: FAD/DWG

Section N: LEG REACTION DATA

Load Combination — Max Envelope
Wind Direction — Maximum

Force-Y Download (Kips)	Force-Y Uplift (Kips)	Shear-X (Kips)	Shear-Z (Kips)	Max Shear (Kips)
514.74	437.55			49.86

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Contract: 060-6405
Project: 300' SSVMW TOWER DESIGN
Date and Time: 7/06/2009 11:50:00 AM

Revision:
Site: HAPPY
Engineer: FAD/DWG

Section 0: TOWER FOUNDATION DATA

Load Combination: Max Envelope
Wind Direction: Maximum

Axial Load (Kips)	Shear Load-X (Kips)	Shear Load-Z (Kips)	Total Shear (Kips)	Moment-X (Kipsft)	Moment-Y (Kipsft)	Moment-Z (Kipsft)	Total Moment (Kipsft)
89.33	-78.54	0.00	78.54	0.01	0.08	13658.19	13658.19
89.33	-78.54	0.00	78.54	0.01	0.08	13658.19	13658.19

LOG OF BORING NO. B-1

CLIENT: Nsoro MasTec, LLC

SITE: Tall Pine Ridge Road, Vicco, Kentucky

PROJECT: 350' Self Supporting Tower, Happy Site

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES RECOVERY, in.	SAMPLES SPT - N ** BLOWS / ft.	TESTS WATER CONTENT, %	TESTS DRY UNIT WT pcf	TESTS UNCONFINED STRENGTH, psf
	Approx. Surface Elev.: 1662 ft									
	FILL (MINE SPOIL) CLAY, COAL, SHALE AND SANDSTONE FRAGMENTS, black to brown, medium stiff to hard			1	SS	18	37			
				2	SS	16	9-50/4"	20		
		5		3	SS	18	7	20		
				4	SS	18	44			
		10								
				5	SS	7	10-50/1"			
		15								
				6	SS	18	41			
		20								
				7	SS	18	56			
		25								
				8	SS	1	50/1"			
		30								
				9	SS	3	50/3"			
		35								
	28.5 1633.5 **SHALE**, possible fill, highly weathered, gray									

Continued Next Page

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

*Calibrated Hand Penetrometer
**CME 140H SPT automatic hammer

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▽	▼
WL	N/E	

Terracon

BORING STARTED	1-19-09		
BORING COMPLETED	1-19-09		
RIG	CME 55	FOREMAN	RC
APPROVED	BNK	JOB #	57087360

LOG OF BORING NO. B-1

CLIENT **Nsoro MasTec, LLC**

SITE **Tall Pine Ridge Road**
Vicco, Kentucky

PROJECT **350' Self Supporting Tower**
Happy Site

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES RECOVERY, in.	SAMPLES SPT - N ** BLOWS / ft.	TESTS WATER CONTENT, %	TESTS DRY UNIT WT pcf	TESTS UNCONFINED STRENGTH, psf
	SHALE, possible fill, highly weathered, gray									
	37.5 1624.5									
	auger refusal at 37.5 feet **SANDSTONE**, slightly to moderately weathered, brown, well cemented, very thin to thin bedded	40		R-1	DB	96%	RQD 80%		150	3625 psi
		45		R-2	DB	100%	RQD 65%			
		50		R-3	DB	99%	RQD 65%			
	with shale laminations below 56 feet	55								
	60.5 1601.5	60								
	Coring terminated at 60.5 feet									

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

*Calibrated Hand Penetrometer
**CME 140H SPT automatic hammer

WATER LEVEL OBSERVATIONS, ft		
WL	▽	▼
WL	▼	▼
WL	N/E	

Terracon

BORING STARTED	1-19-09		
BORING COMPLETED	1-19-09		
RIG	CME 55	FOREMAN	RC
APPROVED	BNK	JOB #	57087360

BOREHOLE 99 57087360 BORING LOGS.GPJ TERRACON.GDT 2/4/09

GENERAL NOTES

DRILLING & SAMPLING SYMBOLS:

SS:	Split Spoon - 1-3/8" I.D., 2" O.D., unless otherwise noted	HS:	Hollow Stem Auger
ST:	Thin-Walled Tube - 2" O.D., unless otherwise noted	PA:	Power Auger
RS:	Ring Sampler - 2.42" I.D., 3" O.D., unless otherwise noted	HA:	Hand Auger
DB:	Diamond Bit Coring - 4", N, B	RB:	Rock Bit
BS:	Bulk Sample or Auger Sample	WB:	Wash Boring or Mud Rotary

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

WATER LEVEL MEASUREMENT SYMBOLS:

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

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

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

CONSISTENCY OF FINE-GRAINED SOILS

Unconfined Compressive Strength, Qu, psf	Standard Penetration or N-value (SS) Blows/Ft.	Consistency
< 500	0 - 1	Very Soft
500 – 1,000	2 - 4	Soft
1,000 – 2,000	4 - 8	Medium Stiff
2,000 – 4,000	8 - 15	Stiff
4,000 – 8,000	15 - 30	Very Stiff
8,000+	> 30	Hard

RELATIVE DENSITY OF COARSE-GRAINED SOILS

Standard Penetration or N-value (SS) Blows/Ft.	Relative Density
0 – 3	Very Loose
4 – 9	Loose
10 – 29	Medium Dense
30 – 49	Dense
> 50	Very Dense

RELATIVE PROPORTIONS OF SAND AND GRAVEL

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

RELATIVE PROPORTIONS OF FINES

Descriptive Term(s) of other constituents	Percent of Dry Weight
Trace	< 5
With	5 – 12
Modifiers	> 12

GRAIN SIZE TERMINOLOGY

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

PLASTICITY DESCRIPTION

Term	Plasticity Index
Non-plastic	0
Low	1-10
Medium	11-30
High	> 30

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GENERAL NOTES

Sedimentary Rock Classification

DESCRIPTIVE ROCK CLASSIFICATION:

Sedimentary rocks are composed of cemented clay, silt and sand sized particles. The most common minerals are clay, quartz and calcite. Rock composed primarily of calcite is called limestone; rock of sand size grains is called sandstone, and rock of clay and silt size grains is called mudstone or claystone, siltstone, or shale. Modifiers such as shaly, sandy, dolomitic, calcareous, carbonaceous, etc. are used to describe various constituents. Examples: sandy shale; calcareous sandstone.

LIMESTONE	Light to dark colored, crystalline to fine-grained texture, composed of $CaCo_3$, reacts readily with HCl.
DOLOMITE	Light to dark colored, crystalline to fine-grained texture, composed of $CaMg(CO_3)_2$, harder than limestone, reacts with HCl when powdered.
CHERT	Light to dark colored, very fine-grained texture, composed of micro-crystalline quartz ($Si0_2$), brittle, breaks into angular fragments, will scratch glass.
SHALE	Very fine-grained texture, composed of consolidated silt or clay, bedded in thin layers. The unlaminated equivalent is frequently referred to as siltstone, claystone or mudstone.
SANDSTONE	Usually light colored, coarse to fine texture, composed of cemented sand size grains of quartz, feldspar, etc. Cement usually is silica but may be such minerals as calcite, iron-oxide, or some other carbonate.
CONGLOMERATE	Rounded rock fragments of variable mineralogy varying in size from near sand to boulder size but usually pebble to cobble size (½ inch to 6 inches). Cemented together with various cementing agents. Breccia is similar but composed of angular, fractured rock particles cemented together.

PHYSICAL PROPERTIES:

DEGREE OF WEATHERING

Slight	Slight decomposition of parent material on joints. May be color change.
Moderate	Some decomposition and color change throughout.
High	Rock highly decomposed, may be extremely broken.

HARDNESS AND DEGREE OF CEMENTATION

Limestone and Dolomite:

Hard	Difficult to scratch with knife.
Moderately Hard	Can be scratched easily with knife, cannot be scratched with fingernail.
Soft	Can be scratched with fingernail.

Shale, Siltstone and Claystone

Hard	Can be scratched easily with knife, cannot be scratched with fingernail.
Moderately Hard	Can be scratched with fingernail.
Soft	Can be easily dented but not molded with fingers.

Sandstone and Conglomerate

Well Cemented	Capable of scratching a knife blade.
Cemented	Can be scratched with knife.
Poorly Cemented	Can be broken apart easily with fingers.

BEDDING AND JOINT CHARACTERISTICS

Bed Thickness	Joint Spacing	Dimensions
Very Thick	Very Wide	> 10′
Thick	Wide	3′ - 10′
Medium	Moderately Close	1′ - 3′
Thin	Close	2″ - 1′
Very Thin	Very Close	.4″ - 2″
Laminated	—	.1″ - .4″

Bedding Plane	A plane dividing sedimentary rocks of the same or different lithology.
Joint	Fracture in rock, generally more or less vertical or transverse to bedding, along which no appreciable movement has occurred.
Seam	Generally applies to bedding plane with an unspecified degree of weathering.

SOLUTION AND VOID CONDITIONS

Solid	Contains no voids.
Vuggy (Pitted)	Rock having small solution pits or cavities up to ½ inch diameter, frequently with a mineral lining.
Porous	Containing numerous voids, pores, or other openings, which may or may not interconnect.
Cavernous	Containing cavities or caverns, sometimes quite large.

Terracon

UNIFIED SOIL CLASSIFICATION SYSTEM

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests[A]					Soil Classification	
					Group Symbol	Group Name[B]
Coarse Grained Soils More than 50% retained on No. 200 sieve	Gravels More than 50% of coarse fraction retained on No. 4 sieve	Clean Gravels Less than 5% fines[C]	$Cu \geq 4$ and $1 \leq Cc \leq 3^E$		GW	Well-graded gravel[F]
			$Cu < 4$ and/or $1 > Cc > 3^E$		GP	Poorly graded gravel[F]
		Gravels with Fines More than 12% fines[C]	Fines classify as ML or MH		GM	Silty gravel[F,G,H]
			Fines classify as CL or CH		GC	Clayey gravel[F,G,H]
	Sands 50% or more of coarse fraction passes No. 4 sieve	Clean Sands Less than 5% fines[D]	$Cu \geq 6$ and $1 \leq Cc \leq 3^E$		SW	Well-graded sand[I]
			$Cu < 6$ and/or $1 > Cc > 3^E$		SP	Poorly graded sand[I]
		Sands with Fines More than 12% fines[D]	Fines classify as ML or MH		SM	Silty sand[G,H,I]
			Fines Classify as CL or CH		SC	Clayey sand[G,H,I]
Fine-Grained Soils 50% or more passes the No. 200 sieve	Silts and Clays Liquid limit less than 50	inorganic	PI > 7 and plots on or above "A" line[J]		CL	Lean clay[K,L,M]
			PI < 4 or plots below "A" line[J]		ML	Silt[K,L,M]
		organic	Liquid limit - oven dried / Liquid limit - not dried	< 0.75	OL	Organic clay[K,L,M,N] / Organic silt[K,L,M,O]
	Silts and Clays Liquid limit 50 or more	inorganic	PI plots on or above "A" line		CH	Fat clay[K,L,M]
			PI plots below "A" line		MH	Elastic Silt[K,L,M]
		organic	Liquid limit - oven dried / Liquid limit - not dried	< 0.75	OH	Organic clay[K,L,M,P] / Organic silt[K,L,M,Q]
Highly organic soils	Primarily organic matter, dark in color, and organic odor				PT	Peat

[A] Based on the material passing the 3-in. (75-mm) sieve

[B] If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.

[C] Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt, GP-GC poorly graded gravel with clay.

[D] Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay

[E] $Cu = D_{60}/D_{10}$ $\quad Cc = \dfrac{(D_{30})^2}{D_{10} \times D_{60}}$

[F] If soil contains ≥ 15% sand, add "with sand" to group name.

[G] If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

[H] If fines are organic, add "with organic fines" to group name.

[I] If soil contains ≥ 15% gravel, add "with gravel" to group name.

[J] If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.

[K] If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.

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

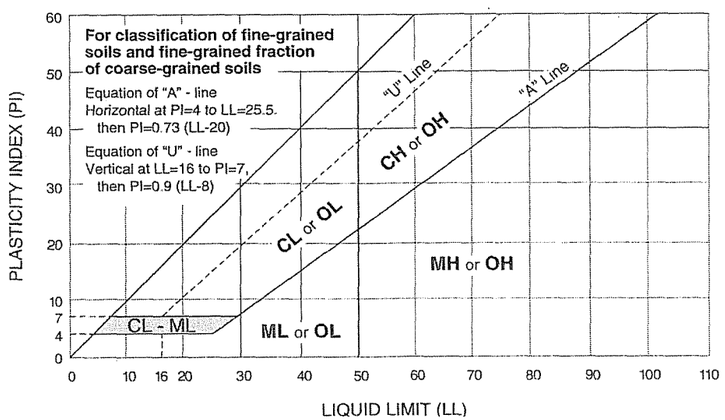
[M] If soil contains ≥ 30% plus No. 200, predominantly gravel, add "gravelly" to group name.

[N] PI ≥ 4 and plots on or above "A" line.

[O] PI < 4 or plots below "A" line.

[P] PI plots on or above "A" line.

[Q] PI plots below "A" line.



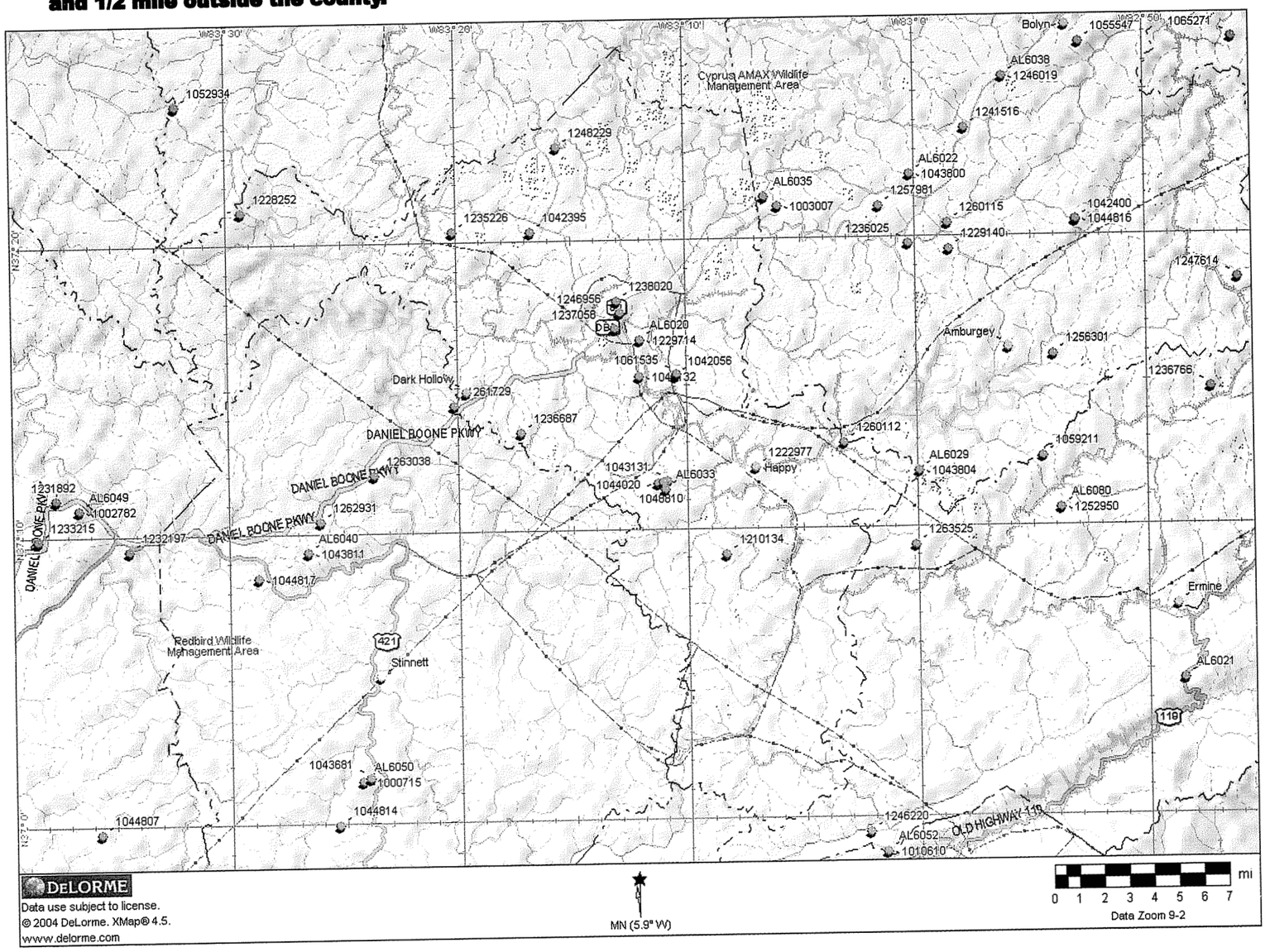
Terracon

Form 111—6/98

Exhibit F

Existent Towers within Perry County and 1/2 mile outside the county.

at&t



Competing Utilities, Corporations or Persons

American Towers

Crown Communication

SBA Towers

Verizon

Sprint / Nextel

T-Mobile

Bluegrass Cellular

Shared Sites

Exhibit G

Federal Aviation Administration
Air Traffic Airspace Branch, ASW-520
2601 Meacham Blvd.
Fort Worth, TX 76137-0520

Aeronautical Study No.
2009-ASO-834-OE

Issued Date: 04/30/2009

Muayyad Mustafa (pm)
AT&T Mobility - South
5601 Legacy Dr.
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 Happy
Location:	Jeff, KY
Latitude:	37-11-54.60N NAD 83
Longitude:	83-04-44.97W
Heights:	360 feet above ground level (AGL) 2022 feet above mean sea level (AMSL)

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

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)

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

This determination expires on 10/30/2010 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 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.

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 our office at (847) 294 8084. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2009-ASO-834-OE.

Signature Control No: 619941-109265903 (DNE)
Carole Bernacchi
Technician

Attachment(s)
Frequency Data

Frequency Data for ASN 2009-ASO-834-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	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

KENTUCKY AIRPORT ZONING COMMISSION
90 Airport Road, Bldg 400
FRANKFORT, KY
www.transportation.ky.gov/aviation
502 564-4480

Steven Beshear
Governor

June 9, 2009

APPROVAL OF APPLICATION

APPLICANT:
A T & T MOBILITY LLC
MS LISA GLASS
5310 MARYLAND WAY
BRENTWOOD, TN 37027

SUBJECT: AS-097-K20-2009-029

STRUCTURE:	Antenna Tower
LOCATION:	Vicco, KY
COORDINATES:	37° 11' 54.60" N / 83° 4' 44.97" W
HEIGHT:	360' AGL/2022'AMSL

The Kentucky Airport Zoning Commission has approved your application for a permit to construct 360'AGL/ 2022'AMSL Antenna Tower near Vicco, KY 37° 11' 54.60" N / 83° 4' 44.97" W.

This permit is valid for a period of 18 Month(s) from its date of issuance. If construction is not completed within said 18-Month period, this permit shall lapse and be void, and no work shall be performed without the issuance of a new permit.

A copy of the approved application is enclosed for your files.

Dual Obstruction Lighting is required.

John Houlihan
Administrator

Exhibit H

ULS License

Cellular License - KNKN841 - NEW CINGULAR WIRELESS PCS, LLC

Call Sign	KNKN841	Radio Service	CL - Cellular
Status	Active	Auth Type	Regular

Market

Market	CMA452 - Kentucky 10 - Powell	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

02/05/1997

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
5601 LEGACY DRIVE, MS: A-3
PLANO, TX 75024
ATTN KELLYE E. ABERNATHY

P:(469)229-7422
F:(469)229-7297
E:KELLYE.E.ABERNATHY@CINGULAR.COM

Contact

AT&T MOBILITY LLC
DAVID C JATLOW
11760 US HIGHWAY 1
NORTH PALM BEACH, FL 33408

P:(202)255-1679
F:(561)279-2097
E:DAVID.JATLOW@CINGULAR.COM

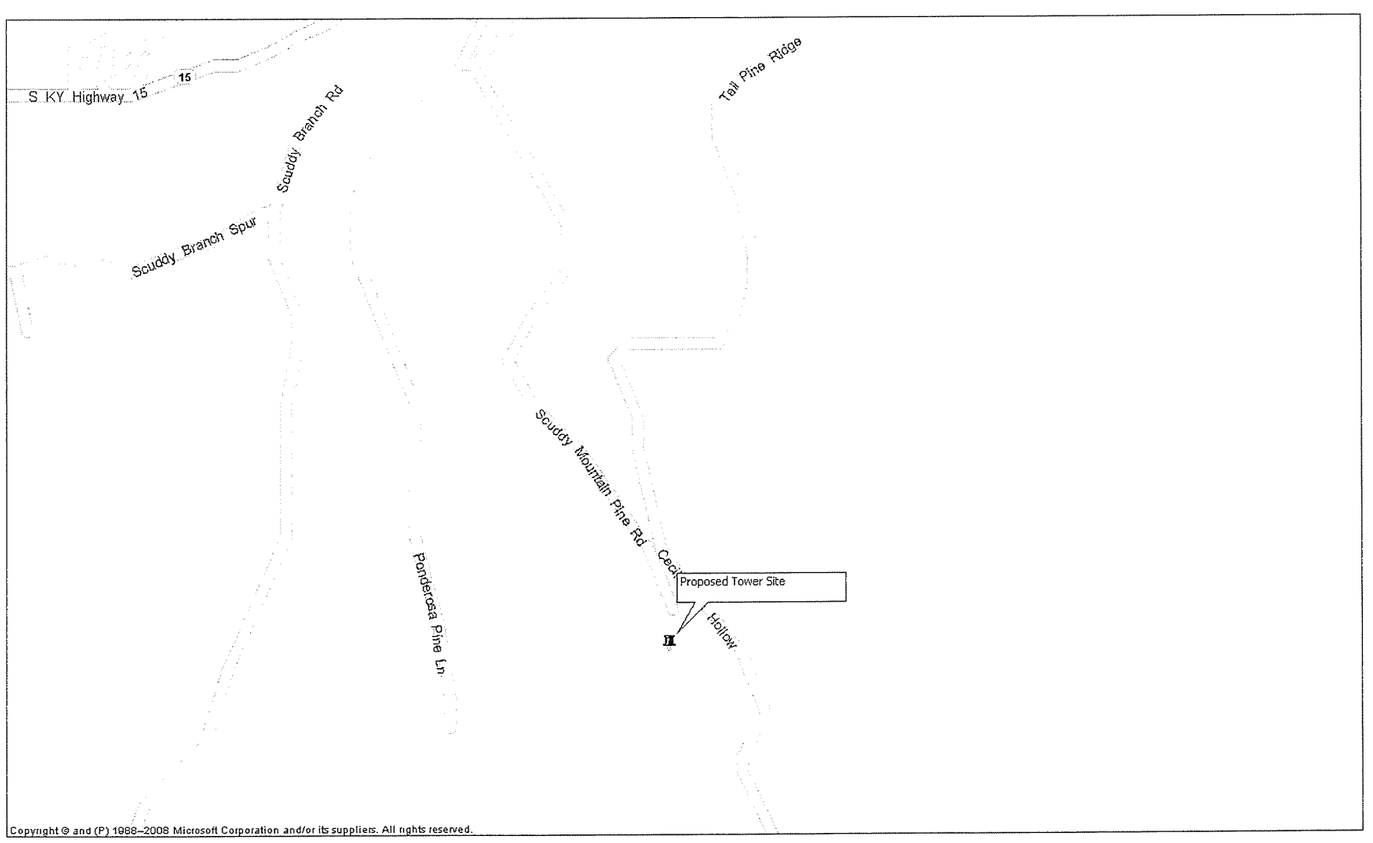
Ownership and Qualifications

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.

Exhibit I



Directions to Site: From Hazard at the corner of State Route 451 (Main Street) and State Route 15B, proceed South on State Route 15B approximately 9.5 miles to Scuddy Mountain Pine Road and turn right. Follow Scuddy Mountain Pine Road to Site at end.

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

Market: Lexington
Cell Site Number: 252G0128
Cell Site Name: Happy, KY
Fixed Asset Number: 10128746

OPTION AND LEASE AGREEMENT

THIS OPTION AND LEASE AGREEMENT ("**Agreement**"), dated as of the latter of the signature dates below (the "**Effective Date**"), is entered into by Michael Combs and his wife, Debra Combs, owners, having a mailing address of PO Box 383, Vicco, KY 41773 (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, GA 30004 (hereinafter referred to as "**Tenant**").

BACKGROUND

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

The parties agree as follows:

1. **OPTION TO LEASE.**

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

(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.

(c) In consideration of Landlord granting Tenant the Option, Tenant agrees to pay Landlord the sum of [redacted] within thirty (30) business days of the Effective Date. The Option will be for an initial term of one (1) year commencing on the Effective Date (the "**Initial Option Term**") and may be renewed by Tenant for an additional one (1) year upon written notification to Landlord and the payment of an additional [redacted] no later than ten (10) days prior to the expiration date of the Initial Option Term.

(d) The Option may be sold, assigned or transferred at any time by Tenant to Tenant's parent company or member if Tenant is a limited liability company or any affiliate or subsidiary of, or partner in, Tenant

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

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

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

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

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

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

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

4. 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 [redacted] (**"Rent"**), at the address set forth above, on or before the fifth (5^{th}) 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.

(b) In year one (1) of each Extension Term, the monthly Rent will increase by [redacted] 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.

5. APPROVALS.

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

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

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

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

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

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

7. **INSURANCE.**

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

8. **INTERFERENCE.**

(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.

12. **ACCESS.** At all times throughout the Term of this Agreement, and at no additional charge to Tenant, Tenant and its employees, agents, and subcontractors, will have twenty-four (24) hour per day, seven (7) day per week pedestrian and vehicular access 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, $500.00 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.

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, to the extent reasonable, restore the Premises to its condition at the commencement of the Agreement, reasonable wear and tear and loss by casualty or other causes beyond Tenant's control excepted. Notwithstanding the foregoing, Tenant will not be responsible for the replacement of any trees, shrubs or other vegetation, nor will Tenant be required to remove from the Premises or the Property any structual steel or any foundations or underground utilities.

14. **MAINTENANCE/UTILITIES.**

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

(b) Tenant will be responsible for paying on a monthly or quarterly basis all utilities charges for electricity, telephone service or any other utility used or consumed by Tenant on the Premises. In the event Tenant cannot secure its own metered electrical supply, Tenant will have the right, at its own cost and expense, to submeter from the Landlord. When submetering is required under this Agreement, Landlord will read the meter and provide Tenant with an invoice and usage data on a monthly basis. Landlord agrees that it will not include a markup on the utility charges. Landlord further agrees to provide the usage data and invoice on forms provided by Tenant and to send such forms to such address and/or agent designated by Tenant. Tenant will remit payment within thirty days of receipt of the usage data and required forms. Failure by Landlord to perform this function will limit utility fee recovery by Landlord to a 12-month period. If Tenant submeters electricity from Landlord,

Landlord agrees to give Tenant at least 24 hours advanced notice of any planned interruptions of said electricity. Landlord acknowledges that Tenant provides a communication service which requires electrical power to operate and must operate twenty-four (24) hour per day, seven (7) day per week . If the interruption is for an extended period of time, in Tenant's reasonable determination, the Landlord agrees to allow Tenant the right to bring in a temporary source of power for the duration of the interruption. Landlord will fully cooperate with any utility company requesting an easement over, under and across the Property in order for the utility company to provide service to the Tenant. Landlord will not be responsible for interference with, interruption of or failure, beyond the reasonable control of Landlord, of such services to be furnished or supplied by Landlord.

15. DEFAULT AND RIGHT TO CURE.

(a) The following will be deemed a default by Tenant and a breach of this Agreement: (i) 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-five (45) days after receipt of written notice from Tenant specifying the failure. No such failure, however, will be deemed to exist if Landlord has commenced to cure the default within such period and provided such efforts are prosecuted to completion with reasonable diligence. Delay in curing a default will be excused if due to causes beyond the reasonable control of Landlord. If Landlord remains in default beyond any applicable cure period, Tenant will have the right to exercise any and all rights available to it under law and equity, including the right to cure Landlord's default and to deduct the costs of such cure from any monies due to Landlord from Tenant.

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

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:

New Cingular Wireless PCS, LLC
Attn: Network Real Estate Administration
Re: Cell Site #: 252G0128; Cell Site Name: Happy, KY
Fixed Asset No: 10128746

12555 Cingular Way, Suite 1300
Alpharetta, GA 30004

With a required copy of the notice sent to the address above to AT&T Legal at:

New Cingular Wireless PCS, LLC
Attn: AT&T Legal Department
Re: Cell Site #: 252G0128; Cell Site Name: Happy, KY
Fixed Asset No: 10128746
1025 Lenox Park Blvd.
5th Floor
Atlanta, GA 30319

If to Landlord: Michael A. Combs
PO Box 383
Vicco, KY 41773

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.

19. 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 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.**

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

(b) If at any time after the Effective Date, Landlord receives a bona fide written offer from a third party seeking an assignment of the rental stream associated with this Agreement (**"Purchase Offer"**), Landlord shall immediately furnish Tenant with a copy of the Purchase Offer, together with a representation that the Purchase Offer is valid, genuine and true in all respects. Tenant shall have the right within thirty (30) days after it receives such copy and representation to match the Purchase Offer and agree in writing to match the terms of the Purchase Offer. Such writing shall be in the form of a contract substantially similar to the Purchase Offer. If

Tenant chooses not to exercise this right of first refusal or fails to provide written notice to Landlord within the thirty (30) day period, Landlord may assign the rental stream pursuant to the Purchase Offer, subject to the terms of this Agreement (including without limitation the terms of this Subparagraph 22(B), to the person or entity that made the Purchase Offer provided that (i) the assignment is on the same terms contained in the Purchase Offer 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. MISCELLANEOUS.

(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. Either party may record this 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 duplicative, 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.

(g) **Estoppel.** Either party will, at any time upon twenty (20) business days prior written notice 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.

[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"

By: Michael Combs
Print Name: Michael Combs
Its: Owner
Date: 12/1/08

By: Debra Combs
Print Name: Debra Combs
Its: Owner
Date: 12-1-08

Erica L. Clark
Print Name: ERICA L. CLANTON

Lisa K. Glass
Print Name: LISA K. GLASS

"TENANT"

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

By:
Print Name: William Plantz
Its: Executive Director-Network of New Cingular Wireless, PCS, LLC
Date: 4/26/09

[ACKNOWLEDGMENTS APPEAR ON THE NEXT PAGE]

FOR INDIVIDUAL:

Name: Michael and Debra Combs

STATE OF KENTUCKY
COUNTY OF PERRY

On this 1st day of Dec., 2008, before me personally appeared Michael and Debra Combs, to me known (or proved to me on the basis of satisfactory evidence) to be the person described in and who executed the foregoing instrument, and acknowledged that such person executed the same as such person's free act and deed.

Paulette Hunt
Name:
Notary Public

My Commission Expires: 10-4-09

[NOTARIAL SEAL]

STATE OF TENNESSEE
COUNTY OF WILLIAMSON

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, 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, a Delaware limited liability company.

Witness my hand and seal, at office in BRENTWOOD, TN, this the 26TH day of JANUARY, 2009.

Erica L. Clanton
Name: ERICA L. CLANTON
Notary Public

My Commission Expires: MAY 8, 2012

[NOTARIAL SEAL]

ERICA L. CLANTON
STATE OF TENNESSEE NOTARY PUBLIC
DAVIDSON COUNTY, TENN.
My Commission Expires MAY 8, 2012

EXHIBIT 1

DESCRIPTION OF PREMISES
Page 1 of 4

to the Agreement dated JANUARY 26th, 2009, by and between Michael Combs and Debra Combs, owners, as Landlord, and New Cingular Wireless PCS, LLC, a Delaware limited liability company, as Tenant.

The Premises are described and/or depicted as follows in the books of the Perry County Clerk in Deed Book 221 Page 293.

TRACT NO. 1 (John M. Mullins Tract)

Beginning on a chestnut 20 inches in diameter on the South side of the right of way of the L & N Railroad up Carrs Fork; thence S 44 40 W 334 feet to a beech stump 15 inches in diameter; thence N 57 55 W 224 feet to a fence post in line of the L & N right of way; thence with said right of way S 32 13 W 165.3 feet to a stake; S 25 18 W 412 feet to a stake; thence leaving the L & N right of way and running up a small drain with the lines of Henry Brashear, S 55 29 E 18.96 feet to a stake; thence S 40 25 E 90 feet to a stake; thence S 76 00 E 173.03 feet to a stake; thence S 70 00 E 147.18 feet to a stake; thence S 42 45 E 84.73 feet to a stake; thence S 24 20 E 98.19 feet to a stake; thence S 37 00 E 156.97 feet to a stake; thence S 29 30 E 121.45 feet to a stake; thence S 88 00 E 67.06 feet to a

stake; thence S 57 50 E 104.50 feet to a stake; thence S 1 30 E 45.87 feet to a stake; thence S 36.50 E 109.37 feet to a stake; thence S 39 15 E 176.50 feet to a stake; thence S 37 55 E 101.26 feet to a stake, 5 feet from a 20 inch beech which bears S 52 45 W, and on the fifth line of the John Lusk 150 acre survey, patent #9962; thence with the lines of same and also the lines of James Evans N 12 15 W 768.39 feet to a stake, 3 feet from sour wood stump, marked, old pointer which bears S 16 15 W and 21 feet from a 15 inch beech, marked pointer, which bears N 36 00 E; thence N 87 45 E 681.92

Exhibit 1
page 2 of 4

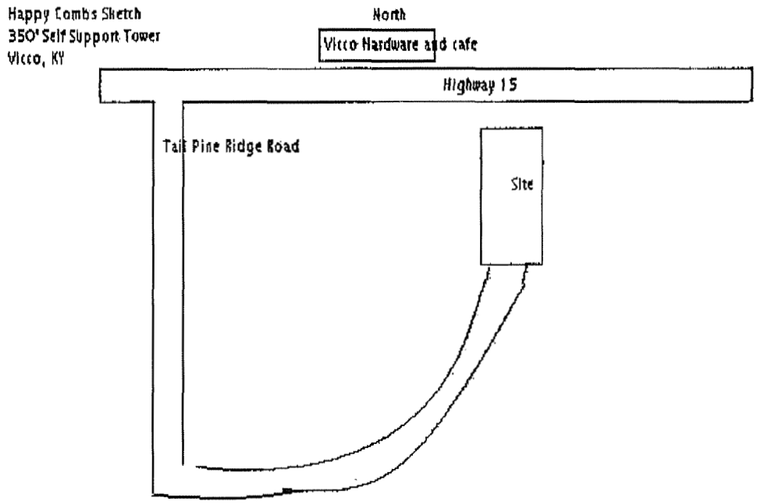
feet to a stake which is 7 feet from a 12 inch beech pointer which bears S 61 00 W, and 5 feet from a 14 inch hickory pointer which bears N 51 00 W; thence down the crest of the point and with the lines of James Evans N 25 00 W 80.18 feet to a stake; thence N 56 30 W 85.18 feet to a stake; thence N 52 50 W 95.21 feet to a stake; thence N 23 30 W 99.48 feet to a stake; thence N 10 30 W 144.08 feet to a stake; thence N 8 10 W 128.95 feet to a stake; thence N 5 00 W 138.27 feet to a stake; thence N 18 00 W 114 feet to a stake in the line of the L & N right of way and with said right of way N 73 32 W 391 feet to a stake; thence N 88 32 W 242 feet to a stake; thence leaving said right of way S 31 50 E 108.27 feet to the beginning, containing 30 acres more or less. It is the intention of this deed to convey all of that portion of said tract which is situated S of the Carrs Fork Spur of the L & N Railroad on which the truck scales and scale house is located with the exception of the small tract where the old orchard was situated and which small parcial was excluded from the survey of this boundary herein set forth.

Exhibit 1
page 3 of 4

TRACT NO. 2 (Martha J. Brashear and Henry B. Brashear tract)

Beginning at a stake in the line of John M. Mullins 30 acre surface tract; thence S 57 25 W 198.9 feet to a stake; thence S 57 41 W 195.7 feet to a stake; thence S 43 41 W 199.2 feet to a stake near the mouth of Scuddy Creek and up the branch with its meanders; thence S 50 24 E 199.2 feet to a stake; thence S 22 01 E 195.7 feet to a stake; thence S 22 52 E 72.2 feet to a stake in school house lot with the line of same, N 82 01 E 58.7 feet to a stake; thence S 25 30 E 125.3 feet to a stake; thence S 14 03 W 158.9 feet to a stake; thence S 45 17 W 121.3 feet to a stake; thence N 57 09 W 44.0 feet to a stake in Scuddy Branch, and up said branch with its meanders, S 15 15 W 234.6 feet to a stake; thence S 14 21 W 199.2 feet to a stake; thence S 40 49 W 199.4 feet to a stake in point by Falls; thence S 49 25 E 182.3 feet to a stake; thence S 43 31 E 190.8 feet to a stake; thence S 59 44 E 117.5 feet to a stake; thence 12 feet left of 24 inch white oak; thence S 76 40 E 174.3 feet to a stake in edge of woods; thence S 84 30 E 154.3 feet to a stake; thence S 83 13 E 100.4 feet to a stake; thence S 45 05 E 141.0 feet to a stake 5 feet right of 15 inch beech; thence S 49 02 E 168.4 feet to a tack in four inch chestnut oak stump; thence S 23 13 E 125.04 feet to a stake; thence S 28 44 E 132.3 feet to a stake; thence S 78 25 E 143.02 feet to a stake; thence S 85 08 E 199.7 feet to a stake by 8 inch chestnut; thence N 82 05 E 105.5 feet to a stake; thence N 77 46 E 187.1 feet to a stake; thence N 72 35 E 83.05 feet to a stake on Lusk line; thence N 5 49 W 82.3 feet to a stake; thence N 6 40 W 174.1 feet to a stake; thence N 6 04 W 93.8 feet to a stake; thence N 5 31 W 136.03 feet to a stake; thence N 5 06 W 196.0 feet to a stake; thence N 5 06 W 133.3 feet to a stake; thence N 10 36 W 194.4 feet to a stake; thence N 16 59 W 162.4 feet to a stake; thence N 29 02 W 154.5 feet to a stake; thence N 13 24 W 173.8 feet to a stake by 20

inch beech corner to John M. Mullins; thence N 47 10 W 164.8 feet to a stake; thence N 41 06 W 176.5 feet to a stake, N 41 02 W 150.0 feet to a stake; thence N 37 31 W 179.3 feet to a stake; thence N 30 27 W 191.2 feet to a stake; thence N 33 16 W 182.7 feet to a stake; thence N 77 39 W 194.3 feet to a stake; thence N 66 51 W 117.6 feet to a stake; thence N 59 05 W 116.3 feet to the beginning, containing 63.54 acres more or less. It is the intention of the first party to convey that certian tract on which the old Scuddy Temple is located.



Not to Scale

Notes:

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

Exhibit J

(1) TAX MAP 167, PARCEL 13
MICHAEL & DEBORAH COMBS
BOX 383
VICCO, KY 41773

(2) TAX MAP 167, PARCEL 13
MICHAEL & DEBORAH COMBS
BOX 383
VICCO, KY 41773

(3) TAX MAP 167, PARCEL 13.01
HENRY & MARTHA BRASHEAR ESTATE
C/O EUNICE COLLINS
2819 NEWBURG ROAD
LOUISVILLE, KY 40205

(4) TAX MAP 167, PARCEL 6
R L BRASHEAR ESTATE
C/O EUNICE COLLINS
2819 NEWBURG ROAD
LOUISVILLE, KY 40205

(5) TAX MAP 167, PARCEL 7
JULIA M. LEWIS (BRASHEAR)
PO BOX 379
HAPPY, KY 41746

(6) TAX MAP 167, PARCEL 8
JULIA M. LEWIS (BRASHEAR)
PO BOX 379
HAPPY, KY 41746

(7) TAX MAP 167, PARCEL 9
CHRISTINE NAPIER
PO BOX 481
VICCO, KY 41773

(8) TAX MAP 167, PARCEL 10
PAULETTA JENT
PO BOX 282
VICCO, KY 41773

(9) TAX MAP 167, PARCEL 11
CRYSTAL JENT
PO BOX 313
VICCO, KY 41773

(10) TAX MAP 167, PARCEL 13.08
FARRELL & PAMELA HOSKINS
PO BOX 072
VICCO, KY 41773

(11) TAX MAP 167, PARCEL 13.09
GRETA THOMPSON
PO BOX 42
HAPPY, KY 41746

(12) TAX MAP 167, PARCEL 13.11
CHARLES & NAOMI ANDERSON
PO BOX 114
SASSAFRAS, KY 41759

(13) TAX MAP 167, PARCEL 13.03
RODNEY & MAMIE WATTS
PO BOX 38
VICCO, KY 41773

(14) TAX MAP 167, PARCEL 13.07
DONNIE SHIVELY
PO BOX 295
VICCO, KY 41773

(15) TAX MAP 167, PARCEL 13.12
JIMMY DARYN & CRYSTAL PIGMAN
650 OLD MILL ROAD
BONNYMAN, KY 41719

(16) TAX MAP 167, PARCEL 13.06
BENJAMIN & DONNA SUE BEGLEY
PO BOX 4150
FRANKFORT, KY 40604

(17) TAX MAP 167, PARCEL 60
JAMES S. EVANS
PO BOX 67
HAPPY, KY 41746

(18) TAX MAP 167, PARCEL 23
HENRY & MARTHA BRASHEAR ESTATE
C/O EUNICE B. COLLINS
2819 NEWBURG ROAD
LOUISVILLE, KY 40205

(19) TAX MAP 167, PARCEL 23.01
LONNIE STANDAFER
BOX 34
HAPPY, KY 41764

(20) TAX MAP 167, PARCEL 24
CHRISTINE NAPIER
PO BOX 481
VICCO, KY 41773

GENERAL NOTE:

ALL INFORMATION SHOWN HEREON WAS OBTAINED FROM THE RECORDS OF PERRY COUNTY, KY PROPERTY VALUATION ADMINISTRATION OFFICE ON 12/9/08. THE PROPERTY VALUATION ADMINISTRATION RECORDS MAY NOT REFLECT THE CURRENT OWNERS AND ADDRESS DUE TO THE INACCURACIES AND TIME LAPSE IN UPDATING FILES. THE COUNTY PROPERTY VALUATION ADMINISTRATION EXPRESSLY DISCLAIMS ANY WARRANTY FOR THE CONTENT AND ANY ERRORS CONTAINED IN THEIR FILES.

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(502) 459-8402 PHONE
(502) 459-8427 FAX

STATE OF KENTUCKY
JOHN M. THOMAS
3259
LICENSED PROFESSIONAL LAND SURVEYOR

SITE NAME: HAPPY

SITE I.D.: 252G012B

SITE ADDRESS: SCUDDY MOUNTAIN PINE ROAD
VICCO, PERRY CO., KY 41773

LEASE AREA: 10,000 SQ. FT.

PROPERTY OWNER:
MICHAEL & DEBRA COMBS
BOX 383
VICCO, KY 41773

TAX MAP NUMBER: 167

PARCEL NUMBER: 13

SOURCE OF TITLE: DEED BOOK 221, PAGE 293

LATITUDE: 37° 11' 54.603"N
LONGITUDE: 83° 04' 44.974"W

NO.	REVISION/ISSUE	DATE

TITLE: 500' RADIUS OWNER LIST

SHEET: C-1A