STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

Internet: ct.gov/csc

Daniel F. Caruso
Chairman

October 10, 2008

Carrie L. Larson, Esq.
Pullman and Comley, LLC
90 State House Square
Hartford, CT 06103-3702

RE: **EM-POCKET-164-080926** – Youghiogheny Communications-Northeast, LLC d/b/a Pocket Communications notice of intent to modify an existing telecommunications facility located at 99 Day Hill Road, Windsor, Connecticut.

Dear Attorney Larson:

The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice dated September 25, 2008, including the placement of all necessary equipment and shelters within the tower compound. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Thank you for your attention and cooperation.

Very truly yours,

S. Derek Phelps
Executive Director

SDP/CDM/cm

c: The Honorable Donald Trinks, Mayor, Town of Windsor
Eric Barz, Town Planner, Town of Windsor
Christopher B. Fisher, Cuddy & Feder

STATE OF CONNECTICUT

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Daniel F. Caruso
Chairman

September 29, 2008

The Honorable Donald Trinks
Mayor
Town of Windsor
Town Hall
275 Broad Street
Windsor, CT 06095-0472

RE: **EM-POCKET-164-080926** – Youghiogheny Communications-Northeast, LLC d/b/a Pocket Communications notice of intent to modify an existing telecommunications facility located at 99 Day Hill Road, Windsor, Connecticut.

Dear Mayor Trinks:

The Connecticut Siting Council (Council) received this request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

If you have any questions or comments regarding this proposal, please call me or inform the Council by October 14, 2008.

Thank you for your cooperation and consideration.

Very truly yours,

S. Derek Phelps
Executive Director

SDP/jb

Enclosure: Notice of Intent

c: Eric Barz, Town Planner, Town of Windsor
Peter Souza, Town Manager, Town of Windsor

PULLMAN & COMLEY, LLC
ATTORNEYS AT LAW

CARRIE L. LARSON
90 State House Square
Hartford, CT 06103-3702
p (860) 424-4312
f (860) 424-4370

www.pullcom.com

EM-POCKET-164-080926

September 25, 2008

ORIGINAL

Via Federal Express

S. Derek Phelps, Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Re: Notice of Exempt Modification
AT&T Telecommunications Facility
99 Day Hill Road, Windsor, Connecticut

Dear Mr. Phelps:

Youghiogheny Communications-Northeast, LLC, doing business as Pocket Communications ("Pocket"), intends to install antennas and appurtenant equipment at the existing 170-foot monopole facility owned by AT&T and located at 99 Day Hill Road, Windsor, Connecticut ("Facility"). Pocket Communications provides prepaid, flat rate wireless voice and data services to more than a quarter of a million subscribers. Pocket is licensed by the Federal Communications Commission (FCC) to provide PCS wireless telecommunications service in the State of Connecticut, which includes the area to be served by the proposed installation. This installation constitutes an exempt modification pursuant to the Public Utility Environmental Standards Act, Connecticut General Statutes Section 16-50g et. seq. (PUESA), and Section 16-50j-72(b)(2) of the Regulations of the Connecticut State Agencies adopted pursuant to PUESA. In accordance with R.C.S.A. Section 16-50j-73, a copy of this notice has been sent to Peter P. Souza, Town Manager, Town of Windsor.

The existing Facility consists of a 170-foot self-supporting monopole tower capable of supporting multiple carriers within a fenced compound. The coordinates for the Facility are **Lat: 41°-52'-16" and Long: 72°–40'-16".** The tower is located behind the town garage building, approximately 200 feet south of Day Hill Road in the central portion of Windsor. The Facility is roughly 2,100 feet west of Interstate 91 (see Site Map, attached as Exhibit A). The tower currently supports Sprint antennas at the one hundred thirty five foot (135') level centerline AGL (above ground level), Nextel antennas at the one hundred sixty foot level (160') AGL, and AT&T antennas at the one hundred seventy foot level (170') AGL. Town of Windsor municipal whip style and dish antennas are also on the tower; located at the one hundred forty two (142'), one hundred forty five (145') and one hundred fifty foot (150') levels AGL. Pocket proposes to install three Kathrein 742-213 flush mount antennas on the tower at the one hundred twenty foot centerline (120') AGL, and a Nortel CDMA Micro BTS 3231 cabinet, mounted on an "H-

Frame," contained within a six foot by six foot (6'-0" x 6'-0") lease area. A small GPS antenna will be mounted to the H-Frame. An ice bridge will run from the lease area to the tower. Utilities will be run via a proposed underground conduit from an existing utility backboard, within the compound (See Design Drawings and Equipment Specifications, attached as Exhibits B and C respectively).

For the following reasons, the proposed modifications to the Day Hill Road Facility meet the exempt modification criteria set forth in R.C.S.A. Section 16-50j-72(b)(2):

1. The proposed modification will not increase the height of the tower as Pocket's antennas will be installed at a center line height of approximately 120 feet.

2. The installation of Pocket's equipment and shelter will not require an extension of the site boundaries.

3. The proposed modifications will not increase the noise levels at the existing Facility by six decibels or more.

4. The operation of the additional antennas will not increase the total radio frequency (RF) power density, measured at the site boundary, to a level at or above the standard adopted by the Connecticut Department of Environmental Protection as set forth in Section 22a-162 of the Connecticut General Statutes and MPE limits established by the Federal Communications Commission. The worst-case RF power density calculations for the proposed Pocket antennas would be 11.61% of the FCC standard (see general power density calculations table, attached as Exhibit D).

Also attached, Exhibit E, is a structural analysis confirming that the tower can support the existing and proposed antennas and associated equipment.

For the foregoing reasons, Pocket respectfully submits that the proposed antenna installation and equipment at the Windsor Facility constitutes an exempt modification under R.C.S.A. Section 16-50j-72(b)(2)

Respectfully Submitted,

Carrie L. Larson

cc: Peter P. Souza, Town Manager, (Town of Windsor is also underlying property owner)

Exhibit A

Site Map

Pocket Site HFCT1444A

99 Day Hill Road

Windsor, Connecticut

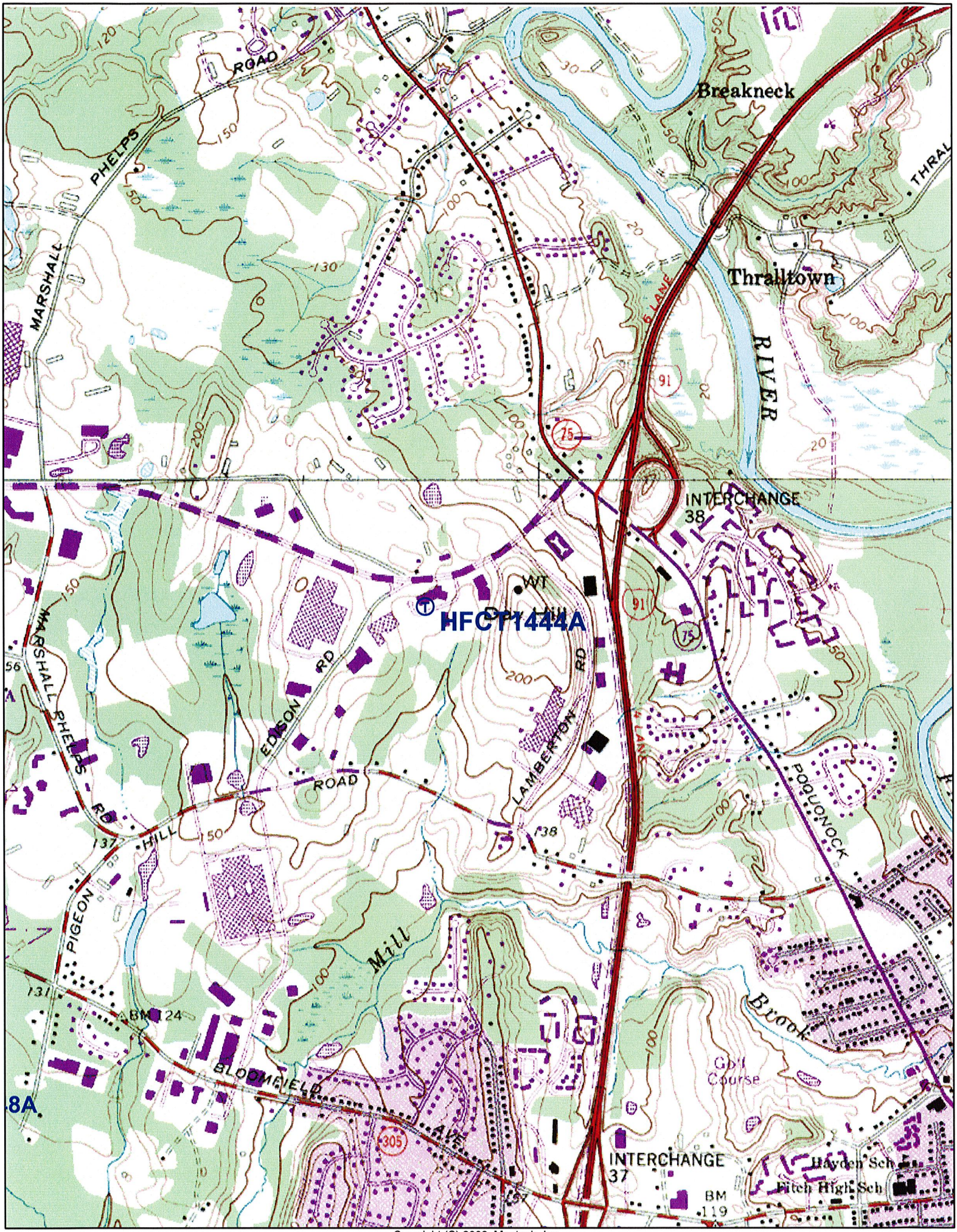


Exhibit B

Design Drawings

Pocket Site HFCT1444A

99 Day Hill Road

Windsor, Connecticut

PROJECT INFORMATION

TOWER OWNER:	AT&T TOWERS 15 EAST MIDLAND AVENUE PARAMUS, NJ 07652
OWNER SITE ID#:	10071331
APPLICANT:	YOUGHIOGHENY COMMUNICATIONS-NORTHEAST LLC 2819 NW LOOP 410 SAN ANTONIO, TX 78230
SITE ADDRESS:	99 DAY HILL ROAD WINDSOR, CT 06095
COUNTY:	HARTFORD
LATITUDE:	41.8714
LONGITUDE:	-72.6706
STRUCTURE HEIGHT:	170' AGL
ZONING CLASSIFICATION:	N/A
ZONING JURISDICTION:	CONNECTICUT SITING COUNCIL
POWER COMPANY	CL&P 1-860-947-2121
TELEPHONE COMPANY:	AT&T 1-888-727-8368
DESIGN FIRM:	URS CORPORATION AES 500 ENTERPRISE DRIVE, SUITE 3B ROCKY HILL, CT 06067 PHONE: 860-529-8882

DRAWING INDEX

STRUCTURAL REVIEW

A TOWER ANALYSIS HAS NOT BEEN PERFORMED FOR THE PREPARATION OF THESE PLANS. AS OF THE ISSUANCE OF THESE DRAWINGS, THE EXISTING TOWER HAS NOT BEEN EVALUATED FOR REPLACEMENT/ADDITION OF ANTENNAS, COAX CABLES AND EQUIPMENT. NO WORK SHALL OCCUR ON THIS TOWER PRIOR TO THE ISSUANCE OF A PASSING STRUCTURAL TOWER ANALYSIS. A COPY OF THE TOWER ANALYSIS SHALL BE FORWARDED TO URS CORPORATION. ALL REINFORCEMENT (IF REQUIRED) SHALL BE PERFORMED PRIOR TO ANY WORK UNDER THIS CONTRACT BEING PERFORMED.

APPROVALS

_____ REAL ESTATE

_____ RF

_____ OPS/CONSTRUCTION

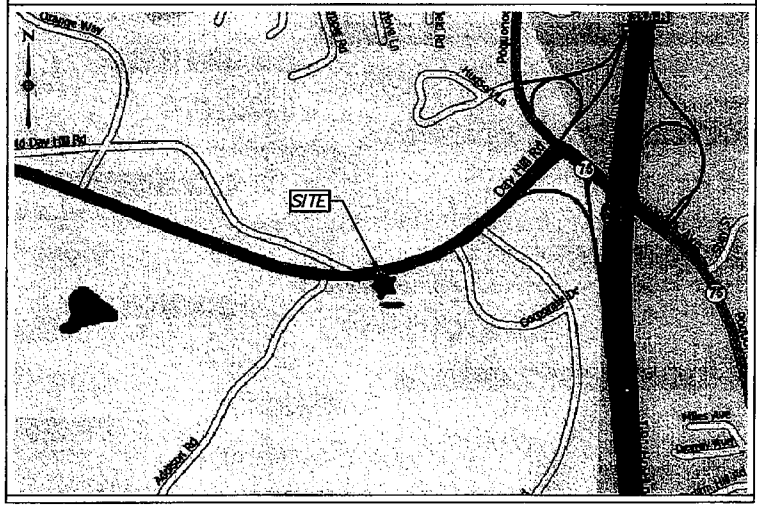
_____ LEGAL/COMPLIANCE

_____ NET DESIGN

pocket™
SMART WIRELESS

HFCT1444
99 DAY HILL ROAD
170' MONOPOLE

LOCATION MAP



DRIVING DIRECTIONS

FROM HARTFORD:
TAKE I-91 NORTH TO EXIT 38 SOUTH ROUTE 75 (POQUONOCK AVENUE) 0.2 MILE TO DAY HILL ROAD EXIT/RAMP. STAY RIGHT ON DAY HILL EXIT. 0.5 MILE TO 99 DAY HILL ROAD. TOWN OF WINDSOR MUNICIPAL FACILITIES ON LEFT. MONOPOLE IS BEHIND BUILDING.

APPLICABLE BUILDING CODES AND STANDARDS

CONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.

BUILDING CODE:
CONNECTICUT STATE BUILDING CODE
- 2003 INTERNATIONAL BUILDING CODE
- 2003 INTERNATIONAL PLUMBING CODE
- 2003 INTERNATIONAL MECHANICAL CODE
- 2003 INTERNATIONAL EXISTING BUILDING CODE
- 2005 CONNECTICUT SUPPLEMENT

ELECTRICAL CODE:
- 2005 NATIONAL ELECTRICAL CODE

CONNECTICUT STATE FIRE SAFETY CODE
- 2003 INTERNATIONAL FIRE CODE

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

AMERICAN CONCRETE INSTITUTE (ACI) 318, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), MANUAL OF STEEL CONSTRUCTION, ASD, NINTH EDITION

TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-F, STRUCTURAL STANDARD FOR STRUCTURAL ANTENNA TOWER AND ANTENNA SUPPORTING STRUCTURES:

TIA 607, COMMERCIAL BUILDING GROUNDING AND BONDING REQUIREMENTS FOR TELECOMMUNICATIONS

INSTITUTE FOR ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE) 81, GUIDE FOR MEASURING EARTH RESISTIVITY, GROUND IMPEDANCE, AND EARTH SURFACE POTENTIALS OF A GROUND SYSTEM

IEEE 1100 (1999) RECOMMENDED PRACTICE FOR POWERING AND GROUNDING OF ELECTRONIC EQUIPMENT

IEEE C62.41, RECOMMENDED PRACTICES ON SURGE VOLTAGES IN LOW VOLTAGE AC POWER CIRCUITS (FOR LOCATION CATEGORY "C3" AND "HIGH SYSTEM EXPOSURE")

TELCORDIA GR-1275 GENERAL INSTALLATION REQUIREMENTS

TELCORDIA GR-1503 COAXIAL CABLE CONNECTIONS

ANSI T1.311, FOR TELECOM - DC POWER SYSTEMS - TELECOM, ENVIRONMENTAL PROTECTION

FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

SITE NOTES

1. THIS SITE IS UNMANNED AND IS RESTRICTED TO OUTDOOR EQUIPMENT. IT WILL BE USED FOR THE TRANSMISSION OF RADIO SIGNALS FOR THE PURPOSE OF PROVIDING PUBLIC CELLULAR SERVICE.
2. POCKET COMMUNICATIONS CERTIFIES THAT THIS TELEPHONE EQUIPMENT FACILITY WILL BE SERVICED ONLY BY POCKET COMMUNICATIONS EMPLOYEES AND THE WORK ASSOCIATED WITH ANY EQUIPMENT CANNOT BE PERFORMED BY HANDICAPPED PERSONS. THIS FACILITY WILL BE FREQUENTED ONLY BY SERVICE PERSONNEL FOR REPAIR PURPOSES ONLY. THIS FACILITY IS EXEMPT FROM THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA) APPENDIX B, SECTION 4.11.(5)(B)
3. NO POTABLE WATER SUPPLY IS TO BE PROVIDED AT THIS LOCATION.
4. NO WASTE WATER WILL BE GENERATED AT THIS LOCATION.
5. NO SOLID WASTE WILL BE GENERATED AT THIS LOCATION.
6. POCKET COMMUNICATIONS MAINTENANCE CREW (TYPICALLY ONE PERSON) WILL MAKE AN AVERAGE OF ONE TRIP PER MONTH AT ONE HOUR PER VISIT.

CALL before you DIG
FOR CT 1-800-922-4455

NO.	DATE	REVISIONS	BY
A	09/19/08	ISSUED FOR REVIEW	JCF

pocket SMART WIRELESS

PROJECT NAME: HFCT1444, 99 DAY HILL ROAD
SHEET: TITLE SHEET

URS
URS CORPORATION AES
500 ENTERPRISE DRIVE
ROCKY HILL, CT. 06067
1-(860)-529-8882

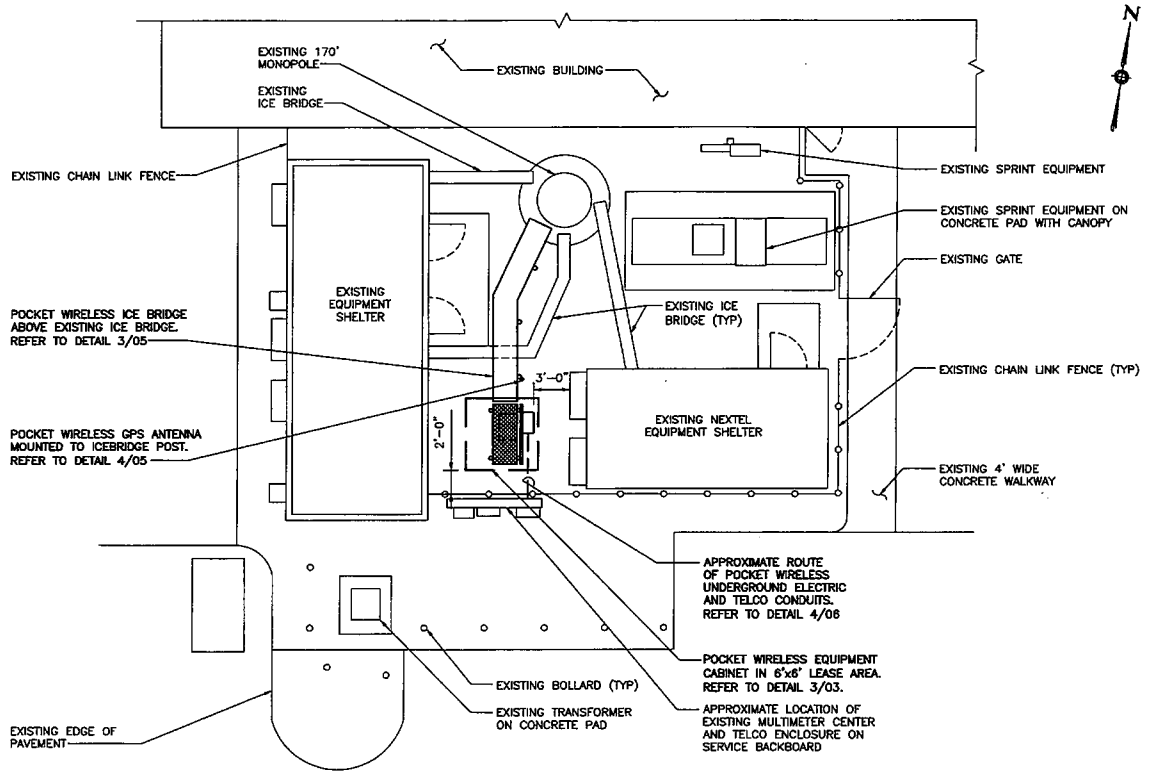
CHECKED BY: JCF
DRAWN BY: KAP
DATE: 09/19/08
URS JOB NUMBER: PC1037/36923957
DRAWING NUMBER: 01

CONSTRUCTION NOTES

1. FIELD VERIFICATION: CONTRACTOR SHALL FIELD VERIFY SCOPE OF WORK, POCKET COMMUNICATIONS ANTENNA MOUNT LOCATION AND ANTENNAS TO BE INSTALLED.
2. COORDINATION OF WORK: CONTRACTOR SHALL COORDINATE RF WORK AND PROCEDURES WITH POCKET COMMUNICATIONS.
3. GRAVEL SURFACE IN AREAS OF COMPOUND THAT ARE DISTURBED DURING CONSTRUCTION SHALL BE REPLACED TO ORIGINAL CONDITION BY CONTRACTOR.

GENERAL NOTES

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
   CONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
   OWNER – POCKET COMMUNICATIONS
   OEM – ORIGINAL EQUIPMENT MANUFACTURER
2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO BECOME FAMILIAR WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER AND THE ENGINEER.
3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK.
4. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
6. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
7. CONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, AND GROUNDING CABLES AS SHOWN ON THE SITE PLAN
8. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
9. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
10. CONTRACTOR TO OBTAIN REQUIRED NOTICE TO PROCEED DOCUMENTS FROM THE TOWER OWNER BEFORE COMMENCING CONSTRUCTION.



1/02 COMPOUND PLAN
SCALE: 1" = 10'-0"

NOTE:
REFER TO DRAWING 06 FOR ADDITIONAL UTILITY INFORMATION

SITE PLAN INFORMATION

THIS SITE PLAN DRAWING WAS COMPILED FROM DATA PROVIDED BY GRAPEVINE SOLUTIONS AND AVAILABLE EXISTING DRAWINGS OF THE SUBJECT AREA.

NO.	DATE	REVISIONS	BY
A	09/19/08	ISSUED FOR REVIEW	JCF

pocket. BROADBAND WIRELESS

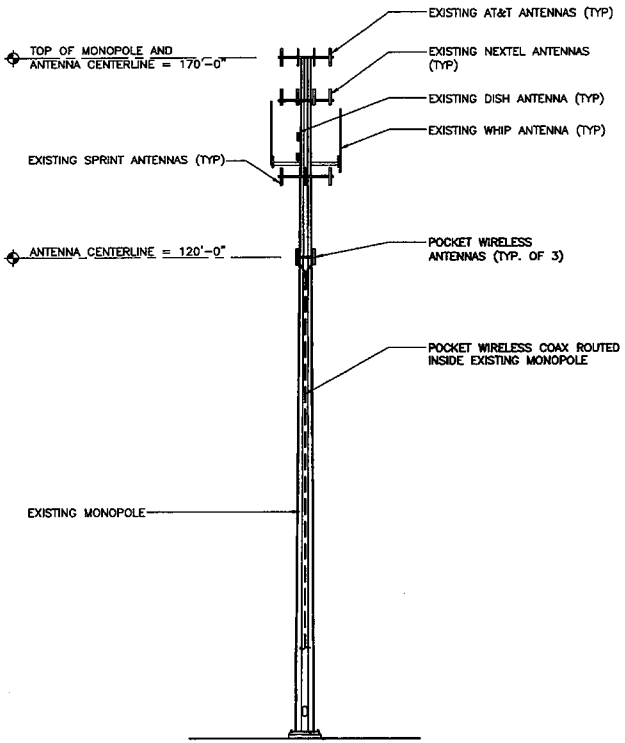
PROJECT NAME: HFCT1444, 99 DAY HILL ROAD

SHEET: COMPOUND PLAN AND NOTES

URS
URS CORPORATION AES
500 ENTERPRISE DRIVE
ROCKY HILL, CT. 06067
1-(860)-529-8882

CHECKED BY: JCF
DRAWN BY: KAP
DATE: 09/19/08
URS JOB NUMBER: PC1037/36923957
DRAWING NUMBER: 02

A TOWER ANALYSIS HAS NOT BEEN PERFORMED FOR THE PREPARATION OF THESE PLANS. AS OF THE ISSUANCE OF THESE DRAWINGS, THE EXISTING TOWER HAS NOT BEEN EVALUATED FOR REPLACEMENT/ADDITION OF ANTENNAS, COAX CABLES AND EQUIPMENT. NO WORK SHALL OCCUR ON THIS TOWER PRIOR TO THE ISSUANCE OF A PASSING STRUCTURAL TOWER ANALYSIS. A COPY OF THE TOWER ANALYSIS SHALL BE FORWARDED TO URS CORPORATION. ALL REINFORCEMENT (IF REQUIRED) SHALL BE PERFORMED PRIOR TO ANY WORK UNDER THIS CONTRACT BEING PERFORMED.



1/03 TOWER ELEVATION
SCALE: 1" = 15'-0"

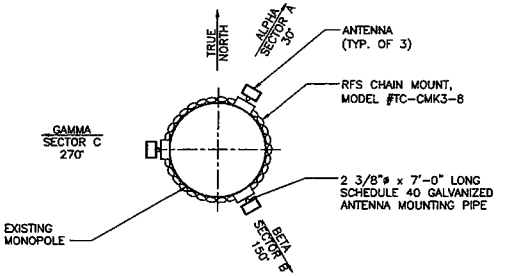
ANTENNA KEY

	# ANTENNAS PER SECTOR	ANTENNA NUMBER	COAX COLOR CODE	ANTENNA VENDOR	MODEL NUMBER	AZIMUTH	C/L HEIGHT	MECHANICAL DOWNTILT*	ELECTRICAL DOWNTILT*	COAX SIZE	CABLES PER ANTENNA	COAX MANUFACTURER
ALPHA	1	A-1	(1) RED BAND	KATHREIN	742 213	30°	120'-0"	0°	0°	1 5/8"ø	2 @ 150'	RFS
BETA	1	B-1	(1) BLUE BAND	KATHREIN	742 213	150°	120'-0"	0°	0°	1 5/8"ø	2 @ 150'	RFS
GAMMA	1	C-1	(1) GREEN BAND	KATHREIN	742 213	270°	120'-0"	0°	0°	1 5/8"ø	2 @ 150'	RFS

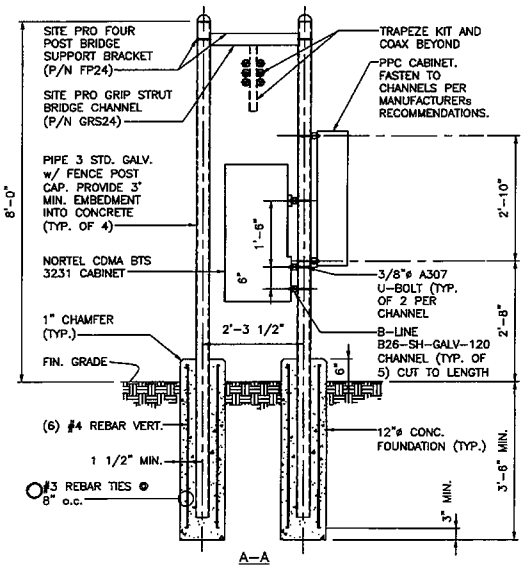
*REFER TO RFDS ANTENNA SHEET FOR FINAL TILT AND AZIMUTHS

TOWER NOTES:
1. FOR DETAILED TOWER INFORMATION, REFER TO TOWER ERECTION DRAWINGS BY OTHERS. THE TOWER SHOWN ON THIS SHEET IS SHOWN FOR GENERAL CONFIGURATION PURPOSES ONLY.
2. ANTENNA CONFIGURATION IS SUBJECT TO CHANGE. VERIFY ANTENNA HEIGHT, DOWN-TILT, AND AZIMUTH WITH PROJECT MANAGER PRIOR TO CONSTRUCTION.

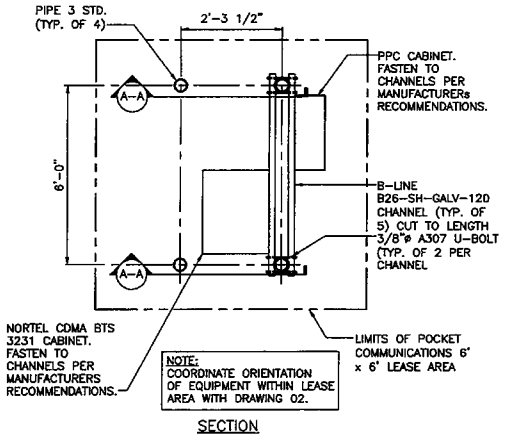
ANTENNA NOTES:
1. ALL COAX SHALL BE COLOR CODED AT THE ANTENNA AND AT THE EQUIPMENT CABINET.
2. (2) COLOR BANDS DENOTES TRANSMIT. TRANSMITS TO BE CONNECTED TO THE +45 PORTS OF THE ANTENNAS.
3. PRIOR TO ORDERING ANY ANTENNAS OR COAX, CONTRACTOR SHALL CONTACT POCKETS CONSTRUCTION MANAGER AND OBTAIN APPROVAL FOR MATERIALS LISTED. CONTRACTOR IS SOLELY RESPONSIBLE FOR THIS COORDINATION.
4. ANTENNA CONFIGURATION IS SUBJECT TO CHANGE. VERIFY ANTENNA HEIGHT, DOWN-TILT, AND AZIMUTH WITH PROJECT MANAGER PRIOR TO CONSTRUCTION.



2/03 ANTENNA SECTOR PLAN
SCALE: N.T.S.



A-A ELEVATION



NOTE: COORDINATE ORIENTATION OF EQUIPMENT WITHIN LEASE AREA WITH DRAWING 02.

SECTION

3/03 CABINET SUPPORT FRAME
SCALE: N.T.S.

NO.	DATE	REVISIONS	BY
A	09/19/08	ISSUED FOR REVIEW	JCF

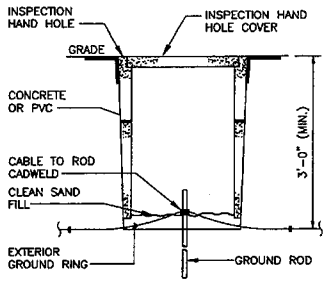
pocket. SMART WIRELESS

PROJECT NAME: HFCT1444, 99 DAY HILL ROAD

SHEET: TOWER ELEVATION, ANTENNA PLAN AND DETAILS

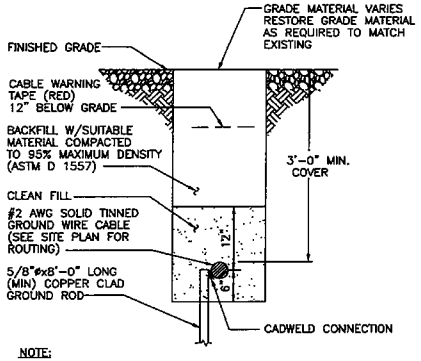
URS
URS CORPORATION AES
500 ENTERPRISE DRIVE
ROCKY HILL, CT. 06067
1-(860)-529-8882

CHECKED BY: JCF
DRAWN BY: KAP
DATE: 09/19/08
URS JOB NUMBER: PC1037/36923957
DRAWING NUMBER: 03



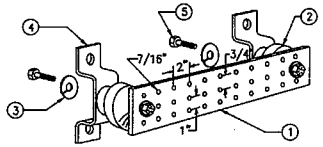
NOTE:
INSPECTION HAND HOLE MAY BE CONCRETE OR PVC AND SHALL BE A MINIMUM OF 8" IN WIDTH/DIAMETER

7/04 GROUND ROD WITH INSPECTION HANDHOLE
SCALE: N.T.S.



NOTE:
1. WHERE EXISTING UTILITIES ARE LIKELY TO BE ENCOUNTERED, CONTRACTOR SHALL HAND DIG AND PROTECT EXISTING UTILITIES.
2. CADWELD GROUND ROD TO GROUND RING AFTER GROUND ROD HAS BEEN DRIVEN INTO PLACE

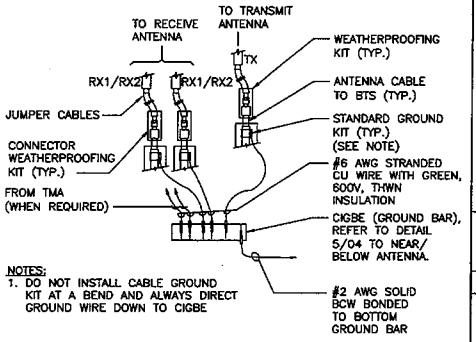
6/04 EGR DETAIL
SCALE: N.T.S.



LEGEND

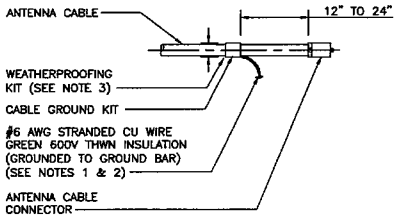
1- COPPER GROUND BAR, 1/4"x 4"x 20", NEWTON INSTRUMENT CO. CAT. NO. B-6142 OR EQUAL. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION. (ACTUAL GROUND BAR SIZE WILL VARY BASED ON NUMBER OF GROUND CONNECTIONS)
2- INSULATORS, NEWTON INSTRUMENT CAT. NO. 3061-4 OR EQUAL
3- 5/8" LOCK WASHERS, NEWTON INSTRUMENT CO. CAT. NO. 3015-B OR EQUAL
4- WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. CAT NO. A-6056 OR EQUAL
5- 5/8-11 X 1" HHCS BOLTS, NEWTON INSTRUMENT CO. CAT NO. 3012-1 OR EQUAL

5/04 MASTER/EQUIPMENT GROUND BAR DETAIL
SCALE: N.T.S.



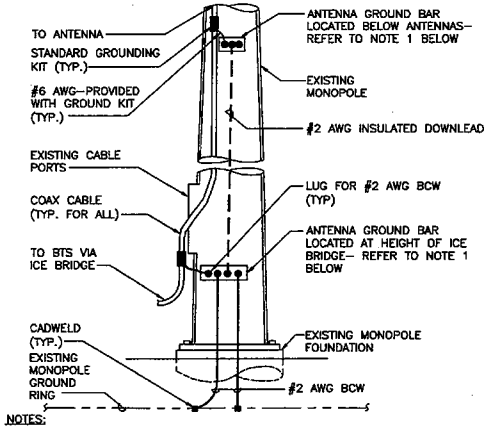
NOTES:
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO CIGBE

4/04 CONNECTION OF GROUND WIRE TO GROUND BAR
SCALE: N.T.S.



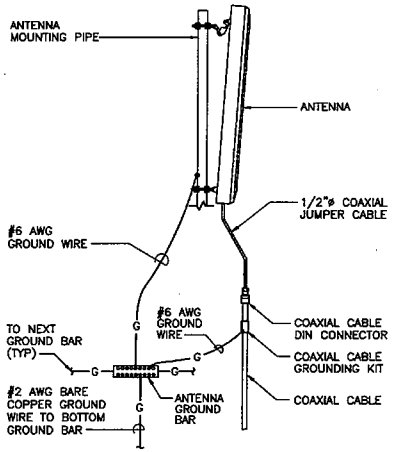
NOTES:
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
3. WEATHER PROOFING SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.

3/04 CONNECTION OF CABLE GROUND KIT TO ANTENNA CABLE
SCALE: N.T.S.



NOTES:
1. NUMBER OF GROUND BARS MAY VARY DEPENDING ON THE TYPE OF TOWER, ANTENNA LOCATION & CONNECTION ORIENTATION. PROVIDE AS REQUIRED.
2. NO WELDING OR DRILLING SHALL BE ALLOWED ON THE MONOPOLE.
3. DO NOT INSTALL ANTENNA GROUND KIT ON CABLE BEND (TYP.)

2/04 MONOPOLE - ANTENNA CABLE GROUNDING
SCALE: N.T.S.



1/04 TYPICAL ANTENNA GROUNDING DETAIL
SCALE: N.T.S.

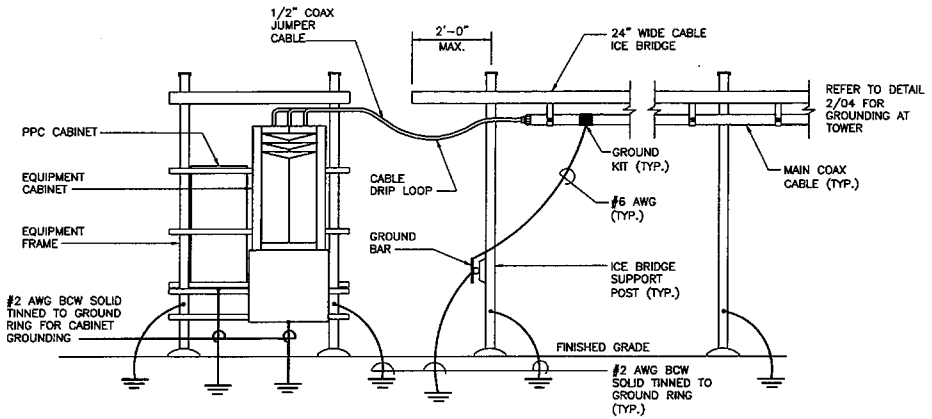
NO.	DATE	REVISIONS	BY
A	09/19/08	ISSUED FOR REVIEW	JCF

pocket. SMART WIRELESS

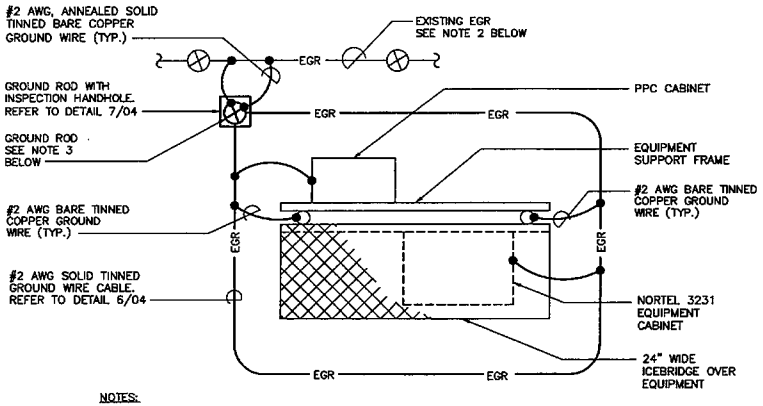
PROJECT NAME: HFCT1444, 99 DAY HILL ROAD
SHEET: GROUNDING DETAILS

URS
URS CORPORATION AES
500 ENTERPRISE DRIVE
ROCKY HILL, CT. 06067
1-(860)-529-8882

CHECKED BY: JCF
DRAWN BY: KAP
DATE: 09/19/08
URS JOB NUMBER: PC1037/36923957
DRAWING NUMBER: 04



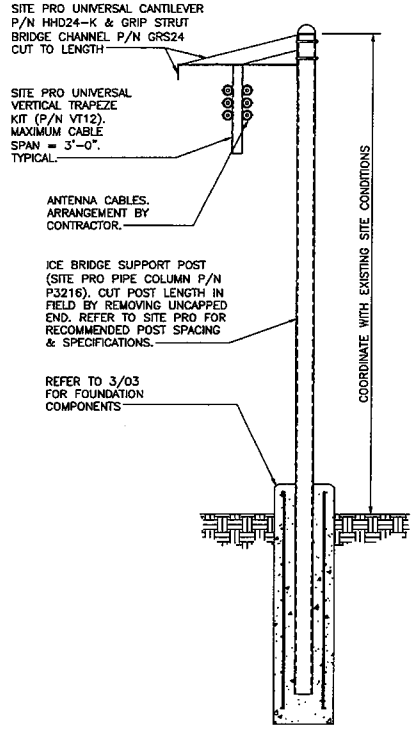
1 / 05 **GROUNDING AT EQUIPMENT CABINET**
SCALE: N.T.S.



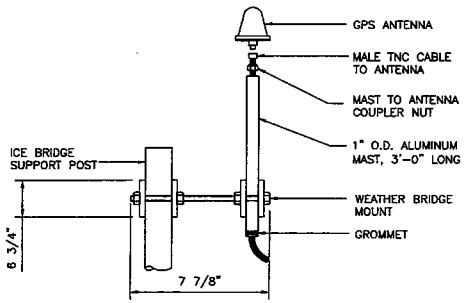
NOTES:

1. SEE SHEET 02 FOR EQUIPMENT ORIENTATION AND LOCATION.
2. EXISTING EGR, VERIFY LOCATION IN FIELD. CONTRACTOR SHALL HAND DIG AND LOCATE EXISTING EGR. IF ANY DAMAGE IS CAUSED TO EXISTING EGR, THE CONTRACTOR SHALL REPAIR THE DAMAGE AT HIS OWN COST TO THE SATISFACTION OF RESPECTIVE CELL ENGINEERS.
3. GROUNDING ELECTRODE SHALL BE 5/8" DIA. x 8'-0"L. COPPER CLAD STEEL ROD. ADJUST LOCATION OF GROUNDING ELECTRODE IF SOIL CONDITION IS NOT CONDUCTIVE (GRAVEL, SANDY SOIL, ROCKS). SPACING OF GROUNDING ELECTRODES SHALL NOT BE LESS THAN 8' O.C. ELECTRODES SHALL BE DRIVEN ONLY WITH PROPER DRIVER SLEEVE TO PREVENT MUSHROOMING TOP OF ROD. WHEN ROCK BOTTOM IS ENCOUNTERED, THE ELECTRODE SHALL BE DRIVEN AT AN OBLIQUE ANGLE NOT TO EXCEED 45° FROM THE VERTICAL AWAY FROM STRUCTURES. TOP OF GROUNDING ELECTRODE SHALL BE MIN. 3'-6" BELOW FINISH GRADE. IF IT IS IMPRACTICAL TO DRIVE THE 8'-0" GROUND ROD, CONTRACTOR SHALL INSTALL THE GROUND ROD HORIZONTALLY IN A TRENCH AWAY FROM STRUCTURE, NOT LESS THEN 36" BELOW FINISHED GRADE. UNDER NO CIRCUMSTANCES SHALL THE GROUND ROD BE CUT OR MODIFIED TO ACCOMMODATE VERTICAL INSTALLATION INTO LEDGE. REFER TO THE NEC 2005, ARTICLE #250 FOR MORE INFORMATION ON GROUNDING.

2 / 05 **EQUIPMENT GROUNDING PLAN**
SCALE: N.T.S.



3 / 05 **ICE BRIDGE DETAIL**
SCALE: N.T.S.



4 / 05 **GPS MOUNTING DETAIL**
SCALE: N.T.S.

NOTES:

1. LOCATION OF ANTENNA MUST HAVE A CLEAR VIEW OF SOUTHERN SKY AND CANNOT HAVE ANY BLOCKAGES EXCEEDING 25% OF A SURFACE AREA OF A HEMISPHERE AROUND THE GPS ANTENNA.
2. ALL GPS ANTENNA LOCATIONS MUST BE ABLE TO RECEIVE CLEAR SIGNALS FROM A MINIMUM OF 4 SATELLITES. VERIFY WITH HANDHELD GPS BEFORE FINAL LOCATION OF GPS ANTENNA.

NO.	DATE	REVISIONS	BY
A	09/19/08	ISSUED FOR REVIEW	JCF

pocket. SMART WIRELESS

PROJECT NUMBER: HFCT1444, 99 DAY HILL ROAD

SHEET: GROUNDING PLAN AND DETAILS

URS

URS CORPORATION AES
600 ENTERPRISE DRIVE
ROCKY HILL, CT. 06067
1-(860)-529-8882

CHECKED BY: JCF
DRAWN BY: KAP
DATE: 09/19/08
URS JOB NUMBER: PC1037/36923957
DRAWING NUMBER: 05

PANEL SSC

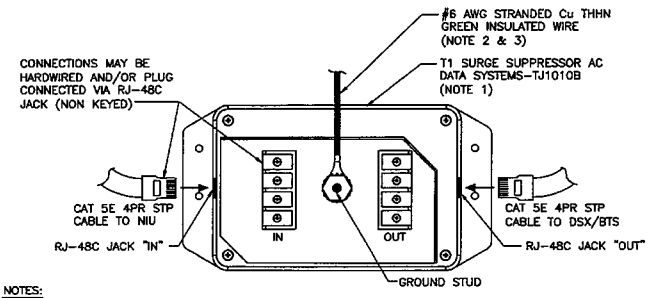
LOAD DESCRIPTION	LOAD (kVA)	BRKR SIZE	CCT NO.	PHASE A	PHASE B	CCT NO.	BRKR SIZE	LOAD (kVA)	LOAD DESCRIPTION
BTS CABINET	2.5	30/2	1			2	30/2	2.2	BTS CABINET
	2.5		3			4		2.2	
LIGHTING	1.9	10/1	5			6	20/1	0.2	GFI OUTLET
SPACE	–	–	7			8	–	–	SPACE
SPACE	–	–	9			10	–	–	SPACE
SPACE	–	–	11			12	–	–	SPACE
SPACE	–	–	13			14	–	–	SPACE
SPACE	–	–	15			16	–	–	SPACE
SPACE	–	–	17			18	–	–	SPACE
SPACE	–	–	19			20	–	–	SPACE
SPACE	–	–	21			22	–	–	SPACE
SPACE	–	–	23			24	–	–	SPACE
LOAD SUB–TOTAL	6.9	LOAD TOTAL		11.5 kVA				4.6	LOAD SUB–TOTAL

100A MCB, 120/208/240V, 1ø, 3 WIRE, 65,000 AIC		
TOTAL CONNECTED LOAD	11.5 KW	
25% OF LARGEST CONT. LOAD	1.25 KW	
TOTAL LOADS	12.75 KW	
NOTE: ALL NON–OPTIONAL BREAKERS PROVIDED BY SSC MFR		

1/06 PANEL SCHEDULE
SCALE: N.T.S.

GENERAL ELECTRIC NOTES:

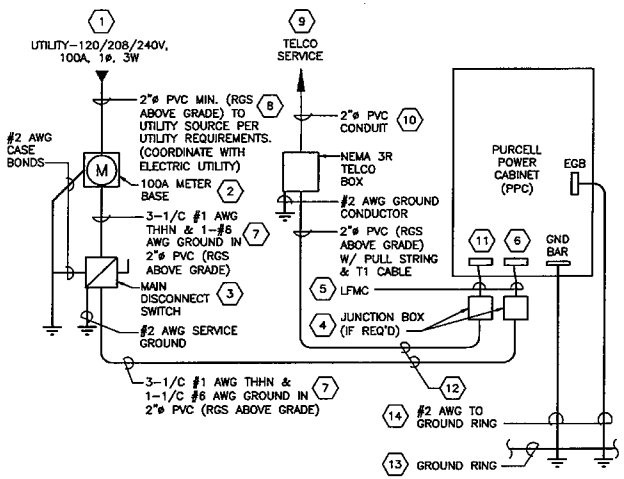
1. ALL ELECTRICAL AND GROUNDING WORK SHALL BE PERFORMED IN ACCORDANCE WITH PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.
2. CONDUIT ROUTINGS ARE SCHEMATIC, CONTRACTOR SHALL VERIFY ROUTING AND LENGTHS PRIOR TO CONSTRUCTION.
3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC AND TELCORDIA.
4. THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
5. THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES, AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY.



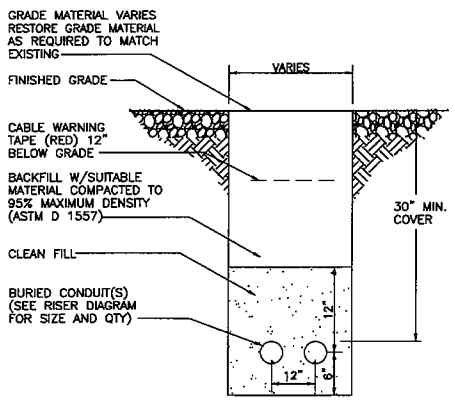
NOTES:

1. MOUNT T1–TVSS UNIT ON EQUIPMENT FRAME HOUSING THE DSX UNIT. USE APPROPRIATE STAINLESS STEEL BOLTS WITH FLAT WASHERS AND A LOCK WASHER ON THE NUT SIDE. THE TVSS MAY BE LOCATED ON THE TELCO BACKBOARD. REFER TO MANUFACTURER'S INSTRUCTIONS.
2. ATTACH RING TERMINAL FROM SUPPLIED GROUND CONDUCTOR TO TVSS GROUND STUD SECURELY FASTEN WITH SUPPLIED WASHER AND NUT. REFER TO MANUFACTURER'S INSTRUCTIONS. FOR PROPER PERFORMANCE, THE GROUND CONDUCTOR LENGTH SHOULD BE LIMITED WITH NO SHARP BENDS ON COILS.
3. WHEN TVSS IS MOUNTED ON EQUIPMENT FRAME, BOND THE GROUND CONDUCTOR TO THE EQUIPMENT FRAME GROUND. ENSURE PROPER GROUNDING SURFACES. WHEN TVSS IS MOUNTED ON THE TELCO BACK BOARD, BOND THE GROUND CONDUCTOR TO THE TELCO (BOARD) GROUND BAR OR NEAREST GROUND BAR.

3/06 TVSS DETAIL
SCALE: N.T.S.



2/06 POWER, TELCO, GROUND SINGLE LINE DIAGRAM FOR OUTDOOR CABINET
SCALE: N.T.S.



ELECTRICAL/TELEPHONE TRENCH DETAIL NOTES:

1. THE CLEAN FILL SHALL PASS THROUGH A 3/8" MESH SCREEN AND SHALL NOT CONTAIN SHARP STONES. OTHER BACKFILL SHALL NOT CONTAIN ASHES, CINDERS, SHELLS, FROZEN MATERIAL, LOOSE DEBRIS OR STONES LARGER THAN 2" IN MAXIMUM DIMENSION. THE TRENCH SHALL BE BACKFILLED IMMEDIATELY FOLLOWING PLACEMENT OF THE CONDUITS.
2. WHERE EXISTING UTILITIES ARE LIKELY TO BE ENCOUNTERED, CONTRACTOR SHALL HAND DIG AND PROTECT EXISTING UTILITIES.

4/06 TYPICAL ELECTRICAL/ TELEPHONE TRENCH DETAIL
SCALE: N.T.S.

REFERENCE NOTES:

1. ELECTRICAL DEMARCATION POINT. ELECTRICAL CONTRACTOR TO COORDINATE WITH LOCAL UTILITY COMPANY FOR SERVICE TO METER.
2. CONTRACTOR TO SUPPLY AND INSTALL A 100A, 120/208/240V 1ø, 3W METER BASE. METER BASE TO BE NEMA 3R RATED AND ACCEPTABLE TO LOCAL UTILITY. PROVIDE WITH MECHANICALLY ATTACHED ENGRAVED IDENTIFICATION LABEL INDICATING "POCKET COMMUNICATIONS METER".
3. CONTRACTOR TO SUPPLY AND INSTALL NEMA 3R 100A FUSIBLE DISCONNECT SWITCH WITH LOCKABLE HANDLE. PROVIDE WITH TWO (2) 100A FUSES. AIC RATING TO COORDINATE WITH LOCAL UTILITY REQUIREMENTS. PROVIDE WITH MECHANICALLY ATTACHED ENGRAVED IDENTIFICATION LABEL INDICATING "POCKET COMMUNICATIONS SERVICE DISCONNECT".
4. WEATHER TIGHT NEMA 3R JUNCTION BOX (IF REQUIRED). SIZE TO NEC CODE FOR APPLICATION.
5. LIQUID TIGHT FLEXIBLE METALLIC CONDUIT W/ WEATHER TIGHT FITTINGS AND SUPPORTS. SIZE AND CONTENTS TO MATCH ASSOCIATED USE (POWER OR TELCO) SEE NOTE #5 BELOW
6. UTILITY POWER ENTRY INTO CABINET. COORDINATE TERMINATION WITH CABINET MANUFACTURER.
7. CONTRACTOR SHALL SUPPLY AND INSTALL 2" GRC. AFG AND PVC 36" BFG C/W 3–#1 & 1–#6G AWG THHN FOR UTILITY SERVICE.
8. CONTRACTOR SHALL SUPPLY AND INSTALL 2" GRC. AFG AND PVC 36" BFG C/W 3–#1 & 1–#6G, AWG THHN FOR UTILITY SERVICE.
9. TELCO DEMARCATION POINT. ELECTRICAL CONTRACTOR TO COORDINATE WITH LOCAL TELCO FOR SERVICE TO TELCO BOX OR CABINET.
10. CONTRACTOR TO SUPPLY AND INSTALL (1) 2" GRC AFG AND PVC 36" BFG C/W PULL CORDS FOR TELCO SERVICE TO CABINET TERMINATION POINT.
11. TELCO SERVICE ENTRY INTO CABINET. COORDINATE TERMINATION WITH CABINET MANUFACTURER.
12. CONTRACTOR TO ARRANGE AND PAY FOR UNDERGROUND UTILITY LOCATION SURVEYS FOR ALL TRENCHING. REUSE NATIVE BACKFILL AND RE–INSTATE TO ORIGINAL CONDITION. INSTALL 6" WIDE METALLIC LINED RED PLASTIC MARK TAPE 8" ABOVE ALL BURIED CONDUIT.
13. PORTION OF EXTERIOR GROUND RING
14. (1) #2 SOLID BARE TINNED COPPER EQUIPMENT GROUND CONDUCTOR BONDED TO 5/8"x8' COPPER CLAD STEEL GROUNDING ELECTRODES. LOCATE GROUNDING ELECTRODE ADJACENT TO CABINET. BOND GROUNDING ELECTRODE SYSTEM TO CABINET GROUND RING.

NOTES:

1. CONTRACTOR SHALL PROVIDE 100 AMP, SINGLE PHASE, 120/208/240 VAC, 60 HZ ELECTRIC SERVICE FOR SITE
2. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY BEFORE THE START OF CONSTRUCTION. POWER AND TELCO CONDUIT SHALL BE PROVIDED AND INSTALLED PER UTILITY REQUIREMENTS.
3. FOR COMPLETE INTERNAL WIRING AND ARRANGEMENT REFER TO DRAWINGS PROVIDED BY AC OR TELCO PANEL MANUFACTURER.
4. ALL SERVICE EQUIPMENT AND INSTALLATIONS SHALL COMPLY WITH THE N.E.C. AND UTILITY COMPANY AND LOCAL CODE REQUIREMENTS.
5. CONTRACTOR SHALL INSTALL SUFFICIENT LENGTHS OF LFMC (NOT EXCEEDING 6'–0") INCLUDING ALL CONDUIT FITTINGS (NUTS, REDUCING BUSHINGS, ELBOWS, COUPLINGS, ETC.) NECESSARY FOR CONNECTION FROM IMC CONDUIT TO THE PURCELL POWER CABINET, (PPC).
6. CONTRACTOR SHALL PROVIDE ELECTRICAL SERVICE EQUIPMENT WITH FAULT CURRENT RATINGS GREATER THAN THE AVAILABLE FAULT CURRENT FROM THE POWER UTILITY.
7. CONTRACTOR SHALL VERIFY THAT THE MAIN BONDING JUMPER AND GROUNDING ELECTRODE CONDUCTOR IS INSTALLED PROPERLY IN MAIN DISCONNECT SWITCH.

NO.	DATE	REVISIONS	BY
A	06/19/08	ISSUED FOR REVIEW	JCF

pocket. SMART WIRELESS

PROJECT NAME: HFCT1444, 98 DAY HILL ROAD

SHEET: ELECTRICAL DETAILS

URS
URS CORPORATION AES
500 ENTERPRISE DRIVE
ROCKY HILL, CT. 06067
1-(860)-529-8882

CHECKED BY: JCF
DRAWN BY: KAP
DATE: 09/19/08
URS JOB NUMBER: PC1037/36923957
DRAWING NUMBER: 06

Exhibit C

Equipment Specifications

Pocket Site HFCT1444A

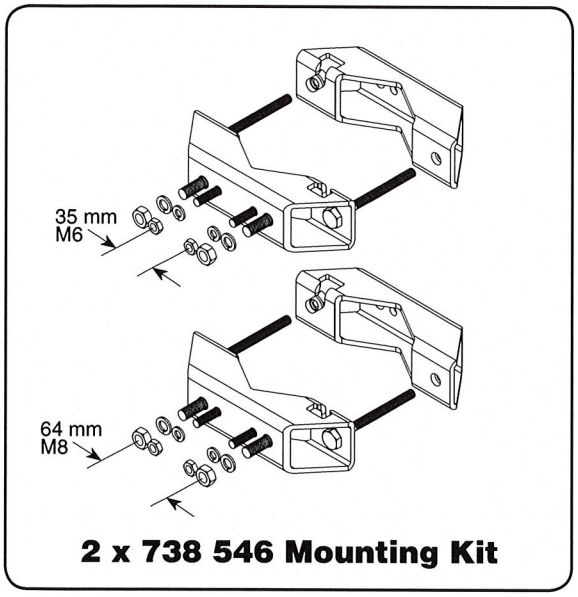
99 Day Hill Road

Windsor, Connecticut

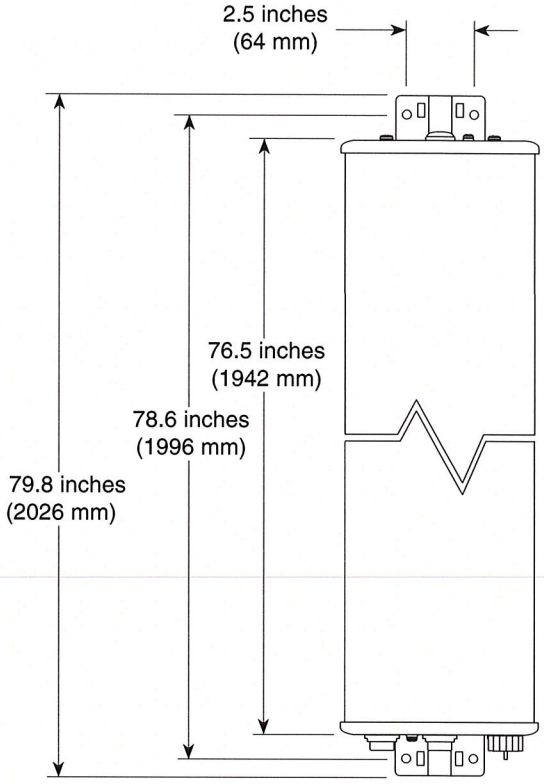
KATHREIN
SCALA DIVISION

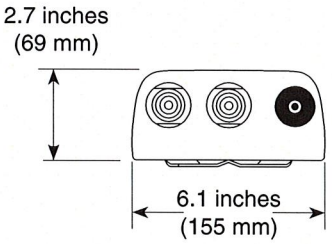
742 213

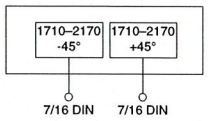
65° Panel Antenna



2 x 738 546 Mounting Kit







Mounting Options:

Model	Description
2 x 738 546	Mounting Kit for 2 to 4.6 inch (50 to 115 mm) OD mast.
737 978	Tilt Kit for use with the above mounting kit, 0–11 degrees downtilt angle. (requires 2 x 738 546 Mounting Kit)
742 263	Three-panel Sector Mounting Kit (120 deg. ea.) for 3.5 inch (89 mm) OD mast.

Order Information:

Model	Description
742 213	Antenna with 7/16 DIN connectors 0°–6° adjustable electrical downtilt

All specifications are subject to change without notice. The latest specifications are available at www.kathrein-scala.com.

Kathrein Inc., Scala Division Post Office Box 4580 Medford, OR 97501 (USA) Phone: (541) 779-6500 Fax: (541) 779-3991
Email: communications@kathrein.com Internet: www.kathrein-scala.com

KATHREIN
SCALA DIVISION

742 213

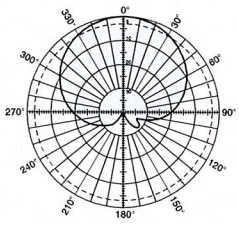
65° Panel Antenna

Kathrein's X-polarized adjustable electrical downtilt antennas offer the wireless carrier the ability to tailor polarization diversity sites for optimum performance. Using variable downtilt, only a few models need be procured to accommodate the needs of widely varying conditions. Remotely controlled downtilt is available as a retrofitable option.

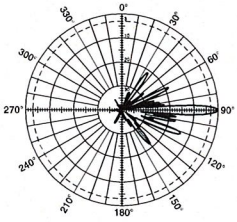
- 0-6° downtilt range.
- UV resistant pulltruded fiberglass radome.
- DC Grounded metallic parts for impulse suppression.
- No moving electrical connections.
- Wideband vector dipole technology.
- Optional remote downtilt Control.
- Will accomodate future 3G / UMTS applications.

General specifications:

Frequency range	1710–2170 MHz
VSWR	< 1.5:1
Impedance	50 ohms
Intermodulation (2x20w)	IM3: <-150 dBc
Polarization	+45° and -45°
Front-to-back ratio (180°±30°)	>30 dB (co-polar) >25 dB (total power)
Maximum input power	300 watts per input (at 50°C)
Electrical downtilt continuously adjustable	0–6 degrees
Connector	2 x 7/16 DIN female
Isolation	>30 dB
Cross polar ratio Main direction 0° Sector ±60°	 25 dB (typical) >10 dB
Weight	22 lb (10 kg)
Dimensions	76.5 x 6.1 x 2.7 inches (1942 x 155 x 69 mm)
Equivalent flat plate area	4.62 ft² (0.429 m²)
Wind survival rating*	120 mph (200 kph)
Shipping dimensions	87.2 x 6.8 x 3.6 inches (2214 x 172 x 92 mm)
Shipping weight	24.3 lb (11 kg)
Mounting	Fixed and tilt mount options are available for 2 to 4.6 inch (50 to 115 mm) OD masts.
See reverse for order information.	



Horizontal pattern
±45°- polarization



Vertical pattern
±45°- polarization

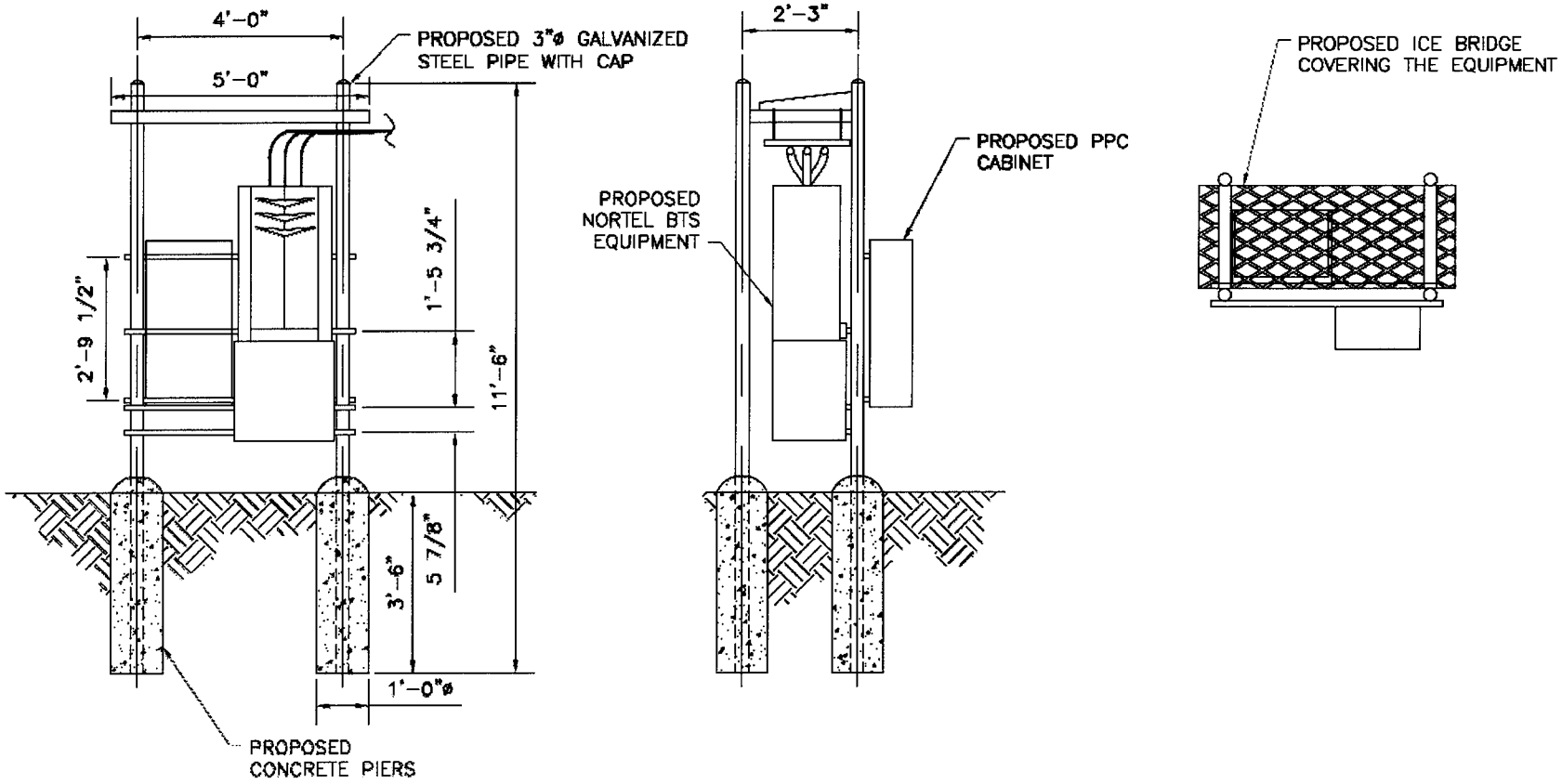
Specifications:	**1710–1880 MHz**	**1850–1990 MHz**	**1920–2170 MHz**
Gain	19 dBi	19.2 dBi	19.5 dBi
+45° and -45° polarization horizontal beamwidth	67° (half-power)	65° (half-power)	63° (half-power)
+45° and -45° polarization vertical beamwidth	4.7° (half-power)	4.5° (half-power)	4.3° (half-power)
Vertical Pattern–sidelobe suppression for first side-lobe above main beam	0° 2° 4° 6° T 18 17 15 15 dB	0° 2° 4° 6° T 18 18 17 15 dB	0° 2° 4° 6° T 18 18 17 15 dB

RoHS Lead-Free

10642-H
936.2074/h

*Mechanical design is based on environmental conditions as stipulated in EIA-222-F (June 1996) and/or ETS 300 019-1-4 which include the static mechanical load imposed on an antenna by wind at maximum velocity. See the Engineering Section of the catalog for further details.

Kathrein Inc., Scala Division Post Office Box 4580 Medford, OR 97501 (USA) Phone: (541) 779-6500 Fax: (541) 779-3991
Email: communications@kathrein.com Internet: www.kathrein-scala.com



Pocket/Youghiogheny Communications – Northeast, LLC
Rack Detail

>BUSINESS MADE **SIMPLE**

NORTEL

CDMA BTS 3231 AWS 1.7/2.1 GHz (Outdoor/Indoor)

CDMA BTS 3231

Industry's Highest Capacity AWS Micro BTS

The CDMA BTS 3231 is the latest extension to Nortel Networks BTS (Base Transceiver Station) portfolio providing the ideal solution for urban, sub-urban and rural deployments. The CDMA BTS 3231 is a 3-carrier, 3-sector outdoor/indoor BTS operating at the AWS band of 1.7/2.1 GHz supporting IS-95, 1XRTT and 1xEV-DO simultaneously. BTS 3231 provides flexible deployments solutions including floor, rack, and wall mount options. The power consumption of BTS3231 is industry leading consuming only 630W for 3C3S. The BTS 3231 is also very light at 240lbs making it easy to transport to hard to reach locations such as the top of a high rise building.

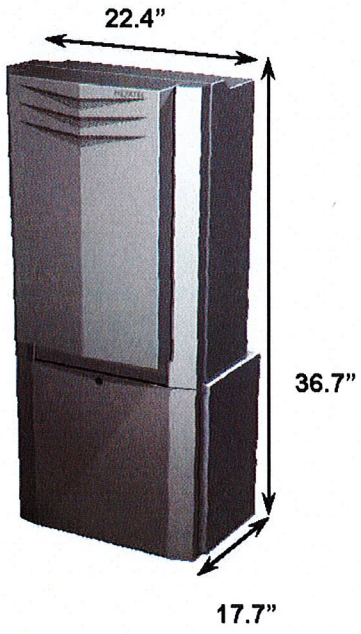


Exhibit D

Power Density Calculations

Pocket Site HFCT1444A

99 Day Hill Road

Windsor, Connecticut

C Squared Systems, LLC
920 Candia Road
Manchester, NH 03109
Phone: (603) 657 9702
E-mail:
support@csquaredsystems.com

Calculated Radio Frequency Emissions

CT-1444

99 Day Hill Road, Windsor, CT

Table of Contents

List of Tables

1. Introduction

The purpose of this report is to investigate compliance with applicable FCC regulations for the proposed Pocket antennas installed on the existing tower at 99 Day Hill Road, Windsor, CT.

These calculations assume that the antennas are operating at 100 percent capacity, that all antenna channels are transmitting simultaneously, and that the radio transmitters are operating at full power. Obstructions (trees, buildings etc.) that would normally attenuate the signal are not taken into account. As a result, the predicted signal levels are much more conservative (higher) than the actual signal levels will be from the finished installation.

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter (mW/cm^2). The number of mW/cm^2 emitted is called the power density. The general population exposure limit for the cellular band is 0.567-0.593 mW/cm^2, and the general population exposure limit for the PCS/AWS band is 1.0 mW/cm^2. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

The FCC general population / uncontrolled limits set the maximum exposure to which most people may be subjected. General population / uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

Higher exposure limits are permitted under the occupational / controlled exposure category, but only for persons who are exposed as a consequence of their employment and who have been made fully aware of the potential for exposure (through training), and they must be able to exercise control over their exposure. General population / uncontrolled limits are five times more stringent than the levels that are acceptable for occupational, or radio frequency trained individuals."

The FCC describes exposure to radio frequency (RF) energy in terms of percentage of maximum permissible exposure (MPE) with 100% being the maximum allowed. Rather than the FCC presenting the user specification in terms of complex power density figures over a specified surface area, this MPE measure is particularly useful, and even more so when considering that power density limits actually vary by frequency because of the different absorptive properties of the human body at different frequencies.

MPE limits are specified as time-averaged exposure limits. This means that exposure can be averaged over 30 minutes for general population / uncontrolled exposure (or 6 minutes for occupational / controlled exposure). However, for the case of exposure of the general public, time averaging is usually not applied because of uncertainties over exact exposure conditions and difficulty in controlling time of exposure. Therefore, the typical conservative approach is to assume that any RF exposure to the general public will be continuous.

Finally, it should be noted that the MPE limits adopted by the FCC for both general population / uncontrolled exposure and for occupational / controlled exposure incorporate a substantial margin of safety and have been established to be well below levels generally accepted as having the potential to cause adverse health effects.

2. FCC Guidelines for Evaluating RF Radiation Exposure Limits

In 1985, the FCC established rules to regulate radio frequency (RF) exposure from FCC licensed antenna facilities. In 1996, the FCC updated these rules, which were further amended in August 1997 by OET Bulletin 65 Edition 97-01. These new rules include limits for Maximum Permissible Exposure (MPE) for transmitters operating between 300 kHz and 100 GHz. The FCC MPE limits are based on exposure limits recommended by the National Council on Radiation Protection and Measurements (NCRP), the exposure limits developed by the Institute of Electrical and Electronics Engineers, Inc., (IEEE) and adopted by the American National Standards Institute (ANSI).

Attachment B contains excerpts from OET Bulletin 65 and defines the Maximum Exposure Limit. As shown in these excerpts, each frequency band has different exposure limits, requiring power density to be reported as a percent of Maximum Permissible Exposure (MPE) when dealing with carriers transmitting in different frequency bands.

3. RF Exposure Prediction Methods

The emission field calculation results displayed in the following figures were generated using the following formula as outlined in FCC bulletin OET 65:

$$\text{Power Density} = \left(\frac{EIRP}{\pi \times R^2} \right) \times \text{Off Beam Loss}$$

Where:

EIRP = Effective Isotropic Radiated Power

R = Radial Distance = $\sqrt{(H^2 + V^2)}$

H = Horizontal Distance from antenna

V = Vertical Distance from bottom of antenna

Off Beam Loss is determined by the selected antenna patterns

4. Calculation Results

Table 1 below outlines the power density information for the site. Information for carriers other than Pocket was obtained from current CSC database except where otherwise noted[1].

Carrier	Number of Trans.	Effective Radiated Power (ERP) Per Transmitter (Watts)	Antenna Height (Feet)	Operating Frequency (MHz)	Total ERP (Watts)	Power Density (mw/cm^2)	Limit	%MPE
Nextel	9	100	160	851	900	0.0126	0.5673	2.23%
Sprint	N/A	N/A	135	N/A	N/A	0.0295	1.0000	2.95%
Bloomfield PD	1	31.623	142	4.9 GHz	32	0.0006	1.0000	0.06%
Municipal Ant 1	3	100	150	450	300	0.0048	0.3000	1.60%
Municipal Ant 2	3	100	150	450	300	0.0048	0.3000	1.60%
Municipal MW 1	1	0.1	145	23 GHz	0.1	0.0000	1.0000	0.00%
Municipal MW 2	1	0.1	150	23 GHz	0.1	0.0000	1.0000	0.00%
Cingular GSM	3	427	170	1900	1,281	0.0159	1.0000	1.59%
Cingular UMTS	1	500	170	880	500	0.0062	0.5867	1.06%
Pocket	3	631	120	2130-2133.75	1,893	0.0052	1.0000	0.52%
							Total	11.61%

Table 1: Proposed Carrier Information

The calculated result for the cumulative %MPE is 11.61%.

Please note that for distances of 100 feet or less, a nominal 10 dB of attenuation due to antenna pattern is assumed. Also, as noted in the introduction, obstructions (trees, buildings etc.) that would normally attenuate the signal are not taken into account. As a result, the predicted signal levels are more conservative (higher) than the actual signal levels will be from the finished installation.

[1] CSC database for Sprint-Nextel contained information for only the centerline, power density and %MPE. It did not include the remaining information concerning number of transmitters, frequency and Total ERP. The reported cumulative %MPE in this analysis includes the sprint %MPE value previously reported by Sprint and on record with the CSC.

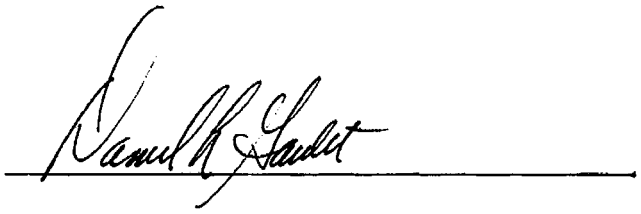
5. Conclusion

The above analysis verifies that emissions from the proposed site will be well below the maximum power density levels as outlined by the FCC in the OET Bulletin 65 Ed. 97-01. Even when using conservative methods, the cumulative power density from the proposed transmit antennas at the existing facility is well below the limits for the general public. The highest expected percent of Maximum Permissible Exposure at the base of the tower is 11.61% of the FCC limit.

Please note that for distances of 100 feet or less, a nominal 10 dB of attenuation due to antenna pattern is assumed. Also, as noted in the introduction, obstructions (trees, buildings etc.) that would normally attenuate the signal are not taken into account. As a result, the predicted signal levels are more conservative (higher) than the actual signal levels will be from the finished installation.

6. Statement of Certification

I certify to the best of my knowledge that the statements in this report are true and accurate. The calculations follow guidelines set forth in ANSI/IEEE Std. C95.3, ANSI/IEE Std. C95.1 and FCC OET Bulletin 65 Edition 97-01.



September 25, 2008
Date

Daniel l. Goulet
C Squared Systems, LLC

Attachment A: References

OET Bulletin 65 - Edition 97-01 - August 1997 Federal Communications Commission Office of Engineering & Technology

ANSI C95.1-1982, American National Standard Safety Levels With Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 300 kHz to 100 GHz. IEEE-SA Standards Board

IEEE Std C95.3-1991 (Reaff 1997), IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave. IEEE-SA Standards Board

Attachment B: FCC Limits For Maximum Permissible Exposure (MPE)

(A) Limits for Occupational/Controlled Exposure

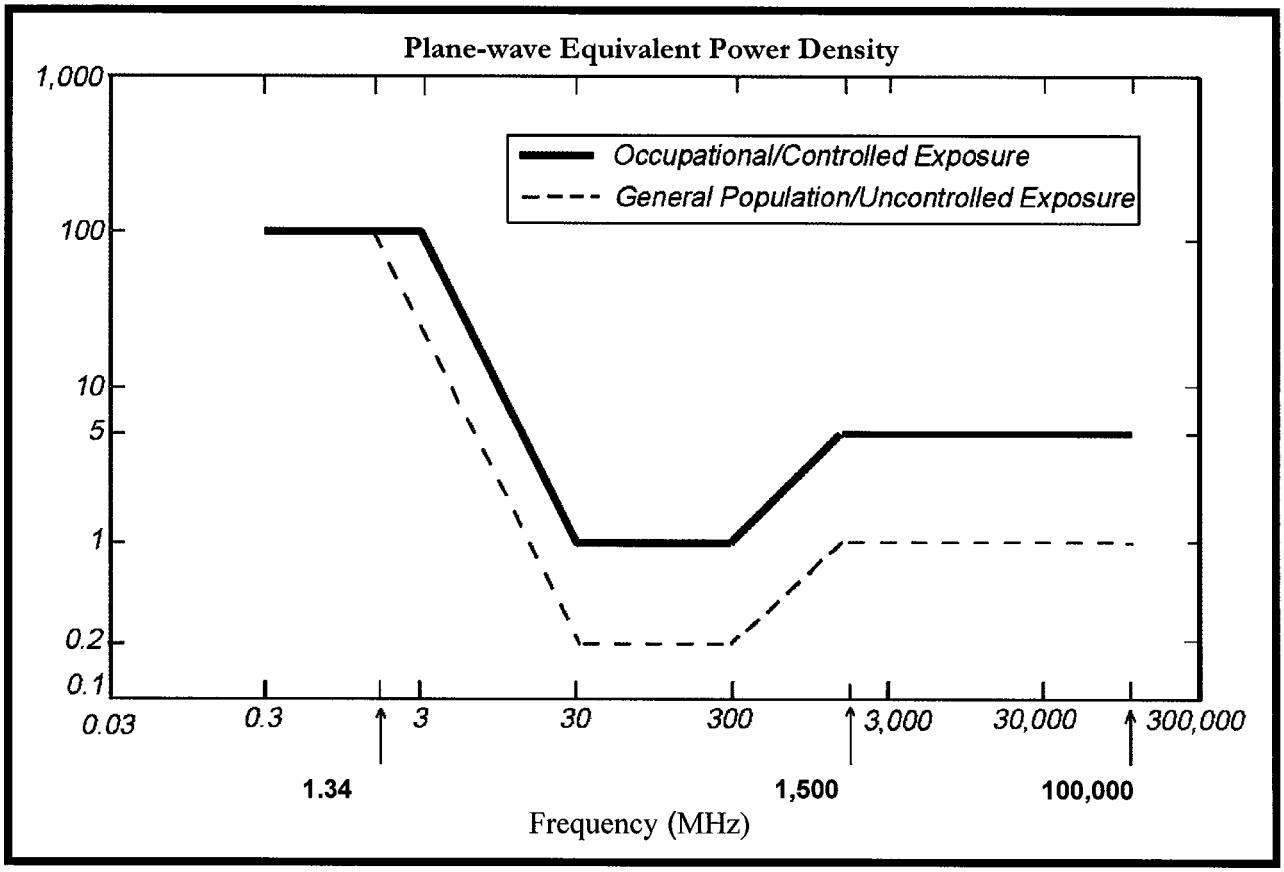
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	($900/f^2$)*	6
30-300	61.4	0.163	1.0	6
300-1500	-	-	f/300	6
1500-100,000	-	-	5	6

(B) Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	($180/f^2$)*	30
30-300	27.5	0.073	0.2	30
300-1500	-	-	f/1500	30
1500-100,000	-	-	1.0	30

f = frequency in MHz * Plane-wave equivalent power density

NOTE 1: Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.
NOTE 2: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.



• FCC Limits for Maximum Permissible Exposure (MPE)

Exhibit E

Structural Analysis
Pocket Site HFCT1444A
99 Day Hill Road
Windsor, Connecticut

at&t
Glynn Walker
AT&T Mobility
5405 Windward Pkwy.
Alpharetta, GA 30004
(770) 708-6122

GPD ASSOCIATES
Kevin Clements
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kclements@gpdgroup.com

GPD# 2008263.94
August 13, 2008

STRUCTURAL ANALYSIS REPORT

AT&T DESIGNATION:	**Site USID:**	**14489**
	Site FA:	**10092836**
	Site Name:	**Windsorday Hill**
YOUGHIOGHENY DESIGNATION:	**Site Name:**	**Windsorday Hill**
	Site Number	**CT-1444**
ANALYSIS CRITERIA:	**Codes:**	**TIA/EIA-222-F & 2003 IBC** **80-mph with 0" ice** **69-mph with 1/2" ice**
SITE DATA:		**99 Day Hill Road, Windsor, CT 06095, Hartford County** **Latitude 41° 52' 15.924" N, Longitude 72° 40' 14.159" W** **169' Summit Monopole**

Tony Avello

Digitally signed by Tony Avello
DN: cn=Tony Avello, o=ATT, ou=Construction Manager, email=tony.avello@wtengineering.com, c=US
Date: 2008.08.21 14:51:32 -05'00'

Mr. Walker,

GPD is pleased to submit this Structural Analysis Report to determine the structural integrity of the aforementioned tower. The purpose of the analysis is to determine the suitability of the tower with the addition of the following proposed loading configuration:

✓ Elev. 120' (3) Kathrein 742 213 Antenna, Pipe mounted, w/ (6) 1-5/8" internal coax

Based on our analysis we have determined the design of the **tower and its foundation are sufficient** for the proposed, existing, and reserved loadings as referenced in Appendix A.

We at GPD appreciate the opportunity of providing our continuing professional services to you and AT&T. If you have any questions please do not hesitate to call.

Respectfully submitted,

David Granger, P.E.
Connecticut #: 17557

STATE OF CONNECTICUT
DAVID S. GRANGER, P.E.
NO. 17557
LICENSED
PROFESSIONAL ENGINEER

SUMMARY & RESULTS

The purpose of this analysis was to verify whether the existing structure is capable of carrying the proposed loading configuration as specified by Youghiogheny Communications to AT&T. This report was commissioned by Mr. Glynn Walker of AT&T.

No geotechnical information was available or provided for this report. Therefore, the in place capacity of the foundation could not be verified. However, based on a comparison of the analysis base reactions and the original foundation design reactions, it is our opinion that the foundation will be adequate to support the proposed loading. A more thorough and accurate assessment of foundation capacity will require a site specific geotechnical report.

TOWER SUMMARY AND RESULTS

Member	Capacity	Results
Monopole	75.6%	Pass
Base Plate	35.1%	Pass
Anchor Bolts	65.0%	Pass
Foundation	66.3% of Original Design	Pass*

* Note: Foundation reactions are in comparison to Original Design reactions. The foundation is satisfactory if the foundation was properly designed and installed.

ANALYSIS METHOD

RISA Tower (Version 5.2.0.1), a commercially available software program, was used to create a three-dimensional model of the tower and calculate primary member stresses for various dead, live, wind, and ice load cases. Selected output from the analysis is included in Appendix B. The following table details the information provided to complete this structural analysis. This analysis is solely based on this information and being provided without the benefit of a site visit.

DOCUMENTS PROVIDED

Document	Remarks	Source
Preliminary Tower Summary	Youghiogheny Co-location document	G. Walker
Co-Location Application	Youghiogheny Application dated 5/21/08	G. Walker
Previous Analysis	GPD Associates Project #: 2008262.23, dated 5/9/08	Siterra
Tower Mapping	GPD Associates and Patriot Towers, Inc dated 4/9/08	GPD

ASSUMPTIONS

This structural analysis is based on the theoretical capacity of the members and is not a condition assessment of the monopole. This analysis is from information supplied, and therefore, its results are based on and are as accurate as that supplied data. GPD has made no independent determination, nor is it required to, of its accuracy. The following assumptions were made for this structural analysis.

1. The monopole shaft sizes and shape are considered accurate as supplied. The material grade is as per data supplied and/or as assumed and as stated in the materials section.
2. The antenna configuration is as supplied and/or as modeled in the analysis. It is assumed to be complete and accurate. All antennas, mounts, coax and waveguides are assumed to be properly installed and supported as per manufacturer requirements
3. Some assumptions are made regarding antennas and mount sizes and their projected areas based on best interpretation of data supplied and of best knowledge of antenna type and industry practice.
4. All mounts, if applicable, are considered adequate to support the loading. No actual analysis of the mount(s) is performed, this analysis is limited to analyzing the tower only.
5. The soil parameters are as per data supplied or as assumed and stated in the calculations. If no data is available, the foundation system is not verified. In the case of absent foundation data, it is the tower owner's responsibility to insure that the foundation system is adequate to support the structure with its new reactions.
6. The tower and structures have been properly maintained in accordance TIA Standard and/or with manufacturer's specifications.
7. All welds and connections are assumed to develop at least the member capacity, unless determined otherwise and explicitly stated in this report.
8. All prior structural modifications, if any, are assumed to be as per data supplied/available, to have been properly installed and to be fully effective.
9. All proposed coax are assumed to be internal to the monopole.
10. Tower Mounted Amplifiers are assumed to be installed behind antennas.
11. All existing loading was obtained from a recent tower mapping by GPD Associates and Patriot Towers, Inc. dated 4/9/08, the most recent structural analysis by GPD Associates dated 5/9/08, tower photos, and the submitted PTS and is assumed to be accurate.

If any of these assumptions are not valid or have been made in error, this analysis may be affected, and GPD Associates should be allowed to review any new information to determine its effect on the structural integrity of the tower.

DISCLAIMER OF WARRANTIES

GPD ASSOCIATES has performed a site visit to the tower to verify the member sizes or antenna/coax loading. If the existing conditions are not as represented on the tower elevation contained in this report, we should be contacted immediately to evaluate the significance of the discrepancy. This is not a condition assessment of the tower or foundation. This report does not replace a full tower inspection. The tower and foundations are assumed to have been properly fabricated, erected, maintained, in good condition, twist free, and plumb.

The engineering services rendered by GPD ASSOCIATES in connection with this Structural Analysis are limited to a computer analysis of the tower structure and theoretical capacity of its main structural members. All tower components have been assumed to only resist dead loads when no other loads are applied. No allowance was made for any damaged, bent, missing, loose, or rusted members (above and below ground). No allowance was made for loose bolts or cracked welds.

GPD ASSOCIATES does not analyze the fabrication of the structure (including welding). It is not possible to have all the very detailed information needed to perform a thorough analysis of every structural sub-component and connection of an existing tower. GPD ASSOCIATES provides a limited scope of service in that we cannot verify the adequacy of every weld, plate connection detail, etc. The purpose of this report is to assess the feasibility of adding appurtenances usually accompanied by transmission lines to the structure.

It is the owners responsibility to determine the amount of ice accumulation, if any, that should be considered in the structural analysis.

The attached sketches are a schematic representation of the analyzed tower. If any material is fabricated from these sketches, the contractor shall be responsible for field verifying the existing conditions, proper fit, and clearance in the field. Any mentions of structural modifications are reasonable estimates and should not be used as a precise construction document. Precise modification drawings are obtainable from GPD ASSOCIATES, but are beyond the scope of this report.

Miscellaneous items such as antenna mounts ect., have not been designed or detailed as a part of our work. We recommend that material of adequate size and strength be purchased from a reputable tower manufacturer.

GPD ASSOCIATES makes no warranties, expressed and/or implied, in connection with this report and disclaims any liability arising from material, fabrication, and erection of this tower. GPD ASSOCIATES will not be responsible whatsoever for, or on account of, consequential or incidental damages sustained by any person, firm, or organization as a result of any data or conclusions contained in this report. The maximum liability of GPD ASSOCIATES pursuant to this report will be limited to the total fee received for preparation of this report.

APPENDIX A

Tower Analysis Summary Form

Tower Analysis Summary Form

General Info

Site Name	Windsorday Hill
Site USID	14489
Site FA	10092836
Date of Analysis	8/13/2008
Company Performing Analysis	GPD

The information contained in this summary report is not to be used independently from the PE stamped tower analysis.

Tower Info	Description	Date
Tower Type (G, SST, MP)	MP	
Tower Height (top of steel AGL)	169	
Tower Manufacturer	Summit	
Tower Model	n/a	
Manufacturer Drawings	Summit, Job #: 12007	11/8/2000
Foundation Design	n/a	
Geotech Report	n/a	
Tower Mapping	GPD Associates and Patriot Towers, Inc.	4/9/2008
Previous Analysis	GPD Associates Project #: 2008262.23	5/9/2008

Design Parameters	
Design Code Used	EIA/TIA-222-F
Location of Tower (County, State)	Hartford County, CT
Basic Wind Speed (mph)	80-fastest
Ice Thickness (in)	0.5"
Structure Classification (I, II, III)	
Exposure Category (B, C, D)	
Topographic Category (1 to 5)	

Analysis Results (% Maximum Usage)

Existing Condition	
Tower	73.9%
Foundation	64.5%
Guy Wire	n/a

Note: Foundation capacities compared to Original Design.

Proposed Condition	
Tower	75.6%
Foundation	66.3%
Guy Wire	n/a

Note: Foundation capacities compared to Original Design.

Steel Yield Strength (ksi)

Pole	65
Base Plate	60
Anchor Rods	75

Note: Steel grades based upon previous analysis

Existing/Reserved

Antenna							Mount				Transmission Line		
Antenna Owner	Attachment Height (ft)	Quantity	Type	Model	EPA (ft²) each	Azimuth	Quantity	Type	Model	EPA (ft²) total	Quantity	Size	Attachment Leg/Face
Unknown	171	1	Omni	12' Omni	7.07			Top of tower			1	7/8"	Internal
AT&T Mobility	168	6	Panel	800 10121	5.46		1	13' Platform		24.80	12	1-5/8"	Internal
AT&T Mobility	168	6	TMA	LGP21401	shielded			on same mount					
Nextel	159	12	Panel	DB844H90E-XY	2.87		1	13' Platform		24.80	15	1-1/4"	Internal
Unknown	147	1	Dish	3' HP Dish	7.07		1	Pipe		shielded	1	3/8"	Internal
Unknown	143	1	Dish	3' HP Dish	7.07		1	Pipe		shielded	1	3/8"	Internal
Town of Bloomfield	140	1	Panel	WB2623CC (PTP 400)	2.04		1	18" Standoff		0.38	1	CAT5	Internal
Unknown	135	2	Omni	18' Omni	5.40		2	6' Standoffs		9.94	2	7/8"	Internal
Sprint	131	6	Panel	980H90T2E-M	3.80		1	13' Platform		24.80	6	1-1/4"	Internal
Unknown	79	2	GPS	GPS	0.17		2	2' Standoffs		1.36	2	1/2"	External
Unknown	52	1	GPS	GPS	0.17		1	3' Standoff		1.36	1	1/2"	External

Proposed

Antenna							Mount				Transmission Line		
Antenna Owner	Attachment Height (ft)	Quantity	Type	Model	EPA (ft²) each	Azimuth	Quantity	Type	Model	EPA (ft²) total	Quantity	Size	Attachment Leg/Face
Youghiogheny Communications	120	3	Panel	742 213	5.42		3	Pipe		shielded	6	1-5/8"	Internal

Future

Antenna							Mount				Transmission Line		
Antenna Owner	Attachment Height (ft)	Quantity	Type	Model	EPA (ft²) each	Azimuth	Quantity	Type	Model	EPA (ft²) total	Quantity	Size	Attachment Leg/Face
AT&T Mobility	168	6	Panel	800 10121	5.46			on same mount					

Note: Future Loading is in addition to Existing Loading.

Revision:1.2

Date: 12/15/06

APPENDIX B

RISA Tower Output File

Tower Input Data

There is a pole section.
This tower is designed using the TIA/EIA-222-F standard.
The following design criteria apply:

Tower is located in Hartford County, Connecticut.
Basic wind speed of 80 mph.
Nominal ice thickness of 0.5000 in.
Ice density of 56 pcf.
A wind speed of 69 mph is used in combination with ice.
Temperature drop of 50 °F.
Deflections calculated using a wind speed of 60 mph.
A non-linear (P-delta) analysis was used.
Pressures are calculated at each section.
Stress ratio used in pole design is 1.333.
Local bending stresses due to climbing loads, feedline supports, and appurtenance mounts are not considered.

Feed Line/Linear Appurtenances - Entered As Area

Description	*Face or Leg*	*Allow Shield*	*Component Type*	*Placement* *ft*	*Total Number*		C_AA_A *ft²/ft*	*Weight* *klf*
LDF5-50A (7/8 FOAM)	A	No	Inside Pole	169.00 - 8.00	1	No Ice	0.00	0.00
						1/2" Ice	0.00	0.00
LDF7-50A (1-5/8 FOAM)	A	No	Inside Pole	168.00 - 8.00	12	No Ice	0.00	0.00
						1/2" Ice	0.00	0.00
LDF6-50A (1-1/4 FOAM)	B	No	Inside Pole	159.00 - 8.00	15	No Ice	0.00	0.00
						1/2" Ice	0.00	0.00
LDF2-50A (3/8 FOAM)	B	No	Inside Pole	147.00 - 8.00	1	No Ice	0.00	0.00
						1/2" Ice	0.00	0.00
LDF2-50A (3/8 FOAM)	B	No	Inside Pole	143.00 - 8.00	1	No Ice	0.00	0.00
						1/2" Ice	0.00	0.00
Cat5E	B	No	Inside Pole	140.00 - 8.00	1	No Ice	0.00	0.00
						1/2" Ice	0.00	0.00
LDF5-50A (7/8 FOAM)	C	No	Inside Pole	135.00 - 8.00	2	No Ice	0.00	0.00
						1/2" Ice	0.00	0.00
LDF6-50A (1-1/4 FOAM)	C	No	Inside Pole	130.00 - 8.00	6	No Ice	0.00	0.00
						1/2" Ice	0.00	0.00
LDF7-50A (1-5/8 FOAM)	C	No	Inside Pole	120.00 - 8.00	6	No Ice	0.00	0.00
						1/2" Ice	0.00	0.00
LDF4-50A (1/2 FOAM)	C	No	CaAa (Out Of Face)	78.00 - 8.00	1	No Ice	0.06	0.00
						1/2" Ice	0.16	0.00
LDF4-50A (1/2 FOAM)	C	No	CaAa (Out Of Face)	78.00 - 8.00	1	No Ice	0.00	0.00
						1/2" Ice	0.00	0.00
LDF4-50A (1/2 FOAM)	C	No	CaAa (Out Of Face)	50.00 - 8.00	1	No Ice	0.00	0.00
						1/2" Ice	0.00	0.00

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
12' Omni	C	None		0.0000	174.00	No Ice	7.07	7.07	0.05
						1/2" Ice	7.79	7.79	0.10
Valmont 13' Platform w/o rails (GPD)	C	None		0.0000	168.00	No Ice	24.80	24.80	1.50
						1/2" Ice	26.20	26.20	2.50
(4) 800 10121	A	From Centroid-Leg	4.00 0.00 0.00	0.0000	168.00	No Ice 1/2" Ice	5.46 5.88	3.29 3.64	0.05 0.08
(4) 800 10121	B	From Centroid-Leg	4.00 0.00 0.00	0.0000	168.00	No Ice 1/2" Ice	5.46 5.88	3.29 3.64	0.05 0.08
(4) 800 10121	C	From Centroid-Leg	4.00 0.00 0.00	0.0000	168.00	No Ice 1/2" Ice	5.46 5.88	3.29 3.64	0.05 0.08
(2) LGP21401	A	From Centroid-Leg	4.00 0.00 0.00	0.0000	168.00	No Ice 1/2" Ice	0.00 0.00	0.23 0.31	0.01 0.02
(2) LGP21401	B	From Centroid-Leg	4.00 0.00 0.00	0.0000	168.00	No Ice 1/2" Ice	0.00 0.00	0.23 0.31	0.01 0.02
(2) LGP21401	C	From Centroid-Leg	4.00 0.00 0.00	0.0000	168.00	No Ice 1/2" Ice	0.00 0.00	0.23 0.31	0.01 0.02
Valmont 13' Platform w/o rails (GPD)	C	None		0.0000	159.00	No Ice	24.80	24.80	1.50
						1/2" Ice	26.20	26.20	2.50
(4) DB844H90E-XY	A	From Centroid-Leg	4.00 0.00 0.50	0.0000	159.00	No Ice 1/2" Ice	2.87 3.18	3.73 4.10	0.01 0.04
(4) DB844H90E-XY	B	From Centroid-Leg	4.00 0.00 0.50	0.0000	159.00	No Ice 1/2" Ice	2.87 3.18	3.73 4.10	0.01 0.04
(4) DB844H90E-XY	C	From Centroid-Leg	4.00 0.00 0.50	0.0000	159.00	No Ice 1/2" Ice	2.87 3.18	3.73 4.10	0.01 0.04
18" Standoff (1.5 std)	B	From Leg	0.75 0.00 0.00	0.0000	140.00	No Ice 1/2" Ice	0.38 0.48	0.95 1.21	0.01 0.02
PTP 400 Series	B	From Leg	1.50 0.00 0.00	0.0000	140.00	No Ice 1/2" Ice	2.04 2.24	0.53 0.65	0.01 0.02
Pirod 6' Side Mount Standoff (1)	A	From Face	3.00 0.00 0.00	0.0000	135.00	No Ice 1/2" Ice	4.97 6.12	4.97 6.12	0.07 0.13
Pirod 6' Side Mount Standoff (1)	B	From Face	3.00 0.00 0.00	0.0000	135.00	No Ice 1/2" Ice	4.97 6.12	4.97 6.12	0.07 0.13
18' Omni	A	From Face	6.00 0.00 9.00	0.0000	135.00	No Ice 1/2" Ice	5.40 7.23	5.40 7.23	0.07 0.11
18' Omni	B	From Face	6.00 0.00 9.00	0.0000	135.00	No Ice 1/2" Ice	5.40 7.23	5.40 7.23	0.07 0.11
Valmont 13' Platform w/o rails (GPD)	C	None		0.0000	130.00	No Ice	24.80	24.80	1.50
						1/2" Ice	26.20	26.20	2.50
(2) DB980H90T2E-M	A	From	4.00	0.0000	130.00	No Ice	3.80	2.19	0.01

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
		Centroid-Leg	0.00 1.00			1/2" Ice	4.18	2.56	0.03
(2) DB980H90T2E-M	B	From Centroid-Leg	4.00 0.00 1.00	0.0000	130.00	No Ice 1/2" Ice	3.80 4.18	2.19 2.56	0.01 0.03
(2) DB980H90T2E-M	C	From Centroid-Leg	4.00 0.00 1.00	0.0000	130.00	No Ice 1/2" Ice	3.80 4.18	2.19 2.56	0.01 0.03
742-213 w/Mount Pipe	A	From Leg	0.50 0.00 0.00	30.0000	120.00	No Ice 1/2" Ice	5.42 5.95	4.63 6.02	0.05 0.09
742-213 w/Mount Pipe	B	From Leg	0.50 0.00 0.00	30.0000	120.00	No Ice 1/2" Ice	5.42 5.95	4.63 6.02	0.05 0.09
742-213 w/Mount Pipe	C	From Leg	0.50 0.00 0.00	30.0000	120.00	No Ice 1/2" Ice	5.42 5.95	4.63 6.02	0.05 0.09
2'-0" - STANDOFF	A	From Face	1.00 0.00 0.00	0.0000	78.00	No Ice 1/2" Ice	1.36 2.45	1.36 2.45	0.02 0.04
2'-0" - STANDOFF	B	From Face	1.00 0.00 0.00	0.0000	78.00	No Ice 1/2" Ice	1.36 2.45	1.36 2.45	0.02 0.04
GPS	A	From Face	2.00 0.00 1.00	0.0000	78.00	No Ice 1/2" Ice	0.17 0.24	0.17 0.24	0.00 0.00
GPS	B	From Face	2.00 0.00 1.00	0.0000	78.00	No Ice 1/2" Ice	0.17 0.24	0.17 0.24	0.00 0.00
2'-0" - STANDOFF	C	From Leg	1.00 0.00 0.00	0.0000	50.00	No Ice 1/2" Ice	1.36 2.45	1.36 2.45	0.02 0.04
GPS	C	From Leg	2.00 0.00 2.00	0.0000	50.00	No Ice 1/2" Ice	0.17 0.24	0.17 0.24	0.00 0.00

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral ft / Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft		Aperture Area ft^2	Weight K
3' HP Dish	C	Paraboloid w/Shroud (HP)	From Face	0.50 0.00 0.00	0.0000		147.00	3.00	No Ice 1/2" Ice	7.07 7.47	0.00 0.04
3' HP Dish	C	Paraboloid w/Shroud (HP)	From Face	0.50 0.00 0.00	10.0000		143.00	3.00	No Ice 1/2" Ice	7.07 7.47	0.00 0.04

RISATower	Job: 14489 - Windsorday Hill	Page: 4 of 4
GPD Associates 520 South Main St. Suite 2531 Akron, OH 44311 Phone: (330) 572-2100 FAX: (330) 572-2101	Project: 2008263.94	Date: 14:46:34 08/13/08
	Client: AT&T Mobility	Designed by: mimiller

Section Capacity Table

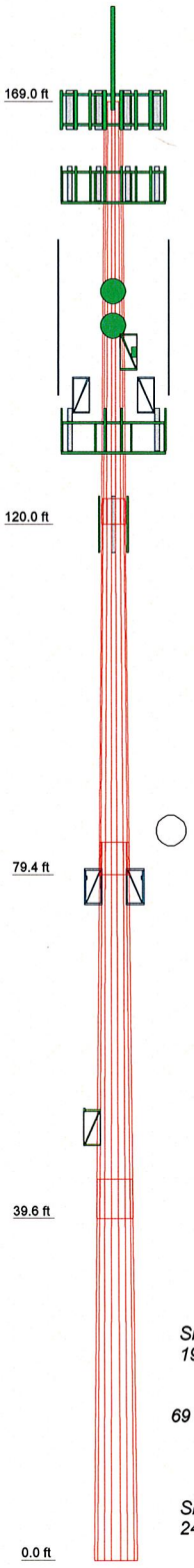
Section No.	Elevation ft	Component Type	Size	Critical Element	P K	SF*P_{allow} K	% Capacity	Pass Fail
L1	169 - 120	Pole	TP34.08x24.24x0.25	1	-9.22	1370.70	43.8	Pass
L2	120 - 79.42	Pole	TP42.24x32.9776x0.25	2	-14.97	1627.58	75.6	Pass
L3	79.42 - 39.58	Pole	TP50.24x40.943x0.375	3	-23.98	3026.14	59.1	Pass
L4	39.58 - 0	Pole	TP58.2x48.5302x0.375	4	-35.85	3535.69	66.4	Pass
							Summary	
						Pole (L2)	75.6	Pass
						RATING =	**75.6**	**Pass**

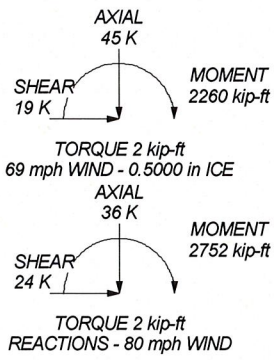
APPENDIX C

Tower Elevation Drawing

Section	1	2	3	4
Length (ft)	49.00	43.58	43.59	44.08
Number of Sides	18	18	18	18
Thickness (in)	0.2500	0.2500	0.3750	0.3750
Lap Splice (ft)	3.00	3.75	4.50	
Top Dia (in)	24.2400	32.9776	40.9430	48.5302
Bot Dia (in)	34.0800	42.2400	50.2400	58.2000
Grade	A572-65			
Weight (K)	3.8	4.4	8.0	9.5

25.7





DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
12' Omni	174	18' Omni	135
Valmont 13' Platform w/o rails (GPD)	168	Pirod 6' Side Mount Standoff (1)	135
(4) 800 10121	168	Pirod 6' Side Mount Standoff (1)	135
(4) 800 10121	168	(2) DB980H90T2E-M	130
(4) 800 10121	168	(2) DB980H90T2E-M	130
(2) LGP21401	168	Valmont 13' Platform w/o rails (GPD)	130
(2) LGP21401	168	(2) DB980H90T2E-M	130
(2) LGP21401	168	742-213 w/Mount Pipe	120
Valmont 13' Platform w/o rails (GPD)	159	742-213 w/Mount Pipe	120
(4) DB844H90E-XY	159	742-213 w/Mount Pipe	120
(4) DB844H90E-XY	159	GPS	78
(4) DB844H90E-XY	159	GPS	78
3' HP Dish	147	2'-0" - STANDOFF	78
3' HP Dish	143	2'-0" - STANDOFF	78
18" Standoff (1.5 std)	140	2'-0" - STANDOFF	50
PTP 400 Series	140	GPS	50
18' Omni	135		

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 ksi			

TOWER DESIGN NOTES

1. Tower is located in Hartford County, Connecticut.
2. Tower designed for a 80 mph basic wind in accordance with the TIA/EIA-222-F Standard.
3. Tower is also designed for a 69 mph basic wind with 0.50 in ice.
4. Deflections are based upon a 60 mph wind.
5. TOWER RATING: 75.6%

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Phone: (330) 572-2100
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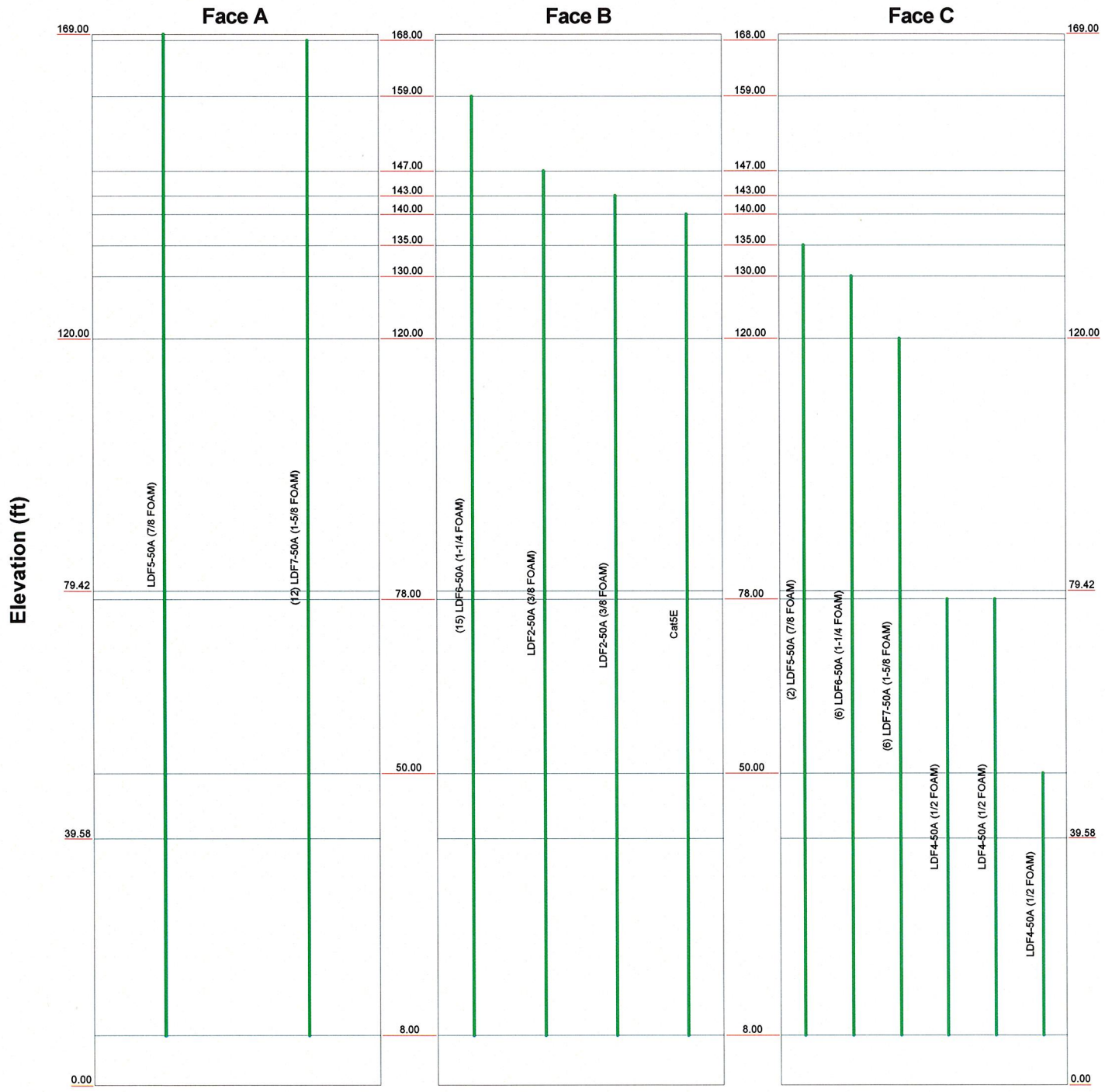
Job: ***14489 - Windsorday Hill***			
Project: ***2008263.94***			
Client: AT&T Mobility	Drawn by: mimiller	App'd:	
Code: TIA/EIA-222-F	Date: 08/13/08	Scale: NTS	
Path: \\AKRND1\Data\Telecom\2008263\94\RISA\14489 - Windsorday Hill.er		Dwg No. E-1	

Feedline Distribution Chart
0' - 169'

Round | Flat | App In Face | App Out Face | Truss Leg



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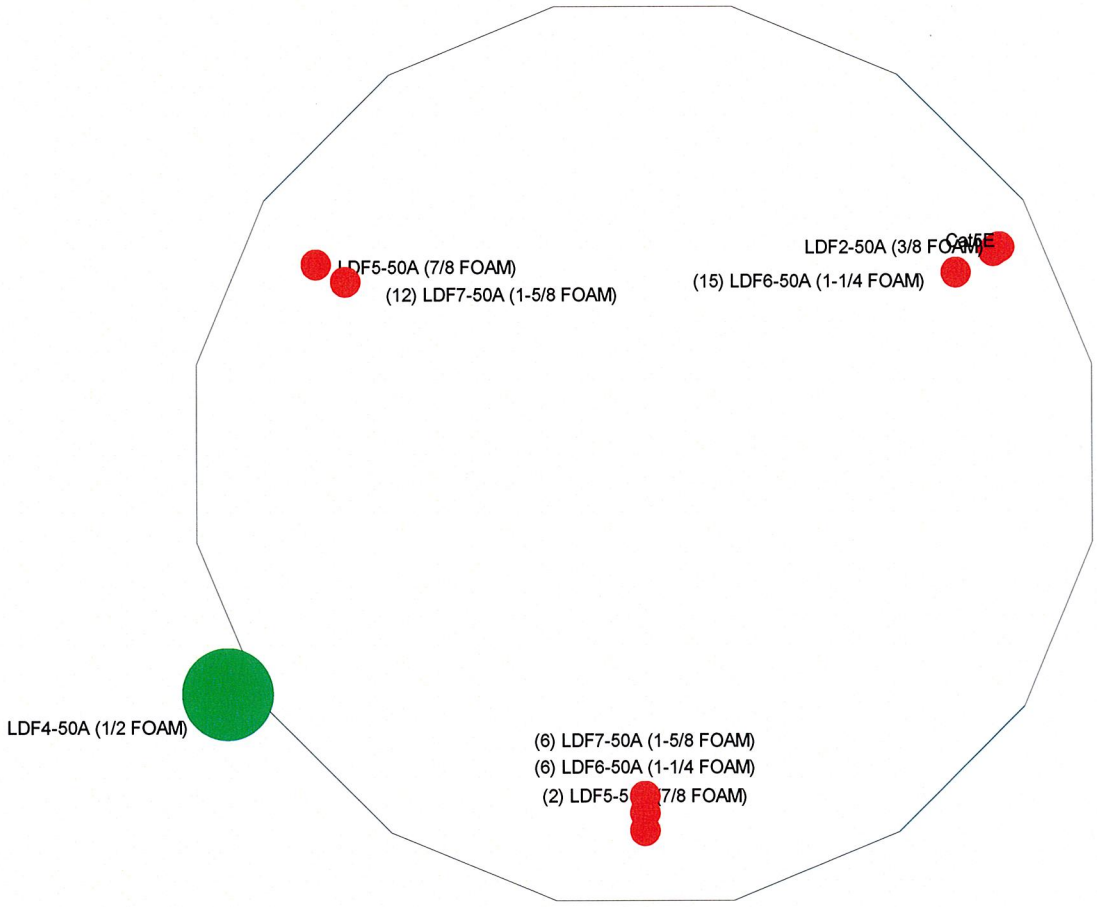
Path: \\AKRND1\Data\Telecom\2008263\94\RISA\14489 - Windsorday Hill.ed		Dwg No. E-7

Feedline Plan

Round Flat App In Face App Out Face



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Code: TIA/EIA-222-F	Date: 08/13/08	Scale: NTS	
Path: \\AKRND1\Data\Telecom\2008263\94\RISA\14489 - Windsorday Hill.er		Dwg No. E-7	

APPENDIX D

Anchor Bolt and Base Plate Analysis

Anchor Rod and Base Plate Stresses

14489 - Windsorday Hill

Overturning Moment =	2752.00	k*ft
Axial Force =	36.00	k
Shear Force =	24.00	k

Anchor Rods		
Pole Diameter =	58.2	in
Number of Rods =	16	
Rod Grade (Fy) =	75	ksi
Rod Circle =	64	in
Rod Diameter =	2.25	in
Net Tensile Area =	3.25	in^2
0 Degrees		
Max Tension on Rod =	88.97	kips
Max Compression on Rod =	93.47	kips
45 Degrees		
Max Tension on Rod =	126.75	kips
Max Compression on Rod =	131.25	kips
Allow. Rod Force =	195.00	kips
Anchor Rod Capacity =	65.0%	**OK**

Base Plate		
Plate Strength (Fy) =	60	ksi
Plate Thickness =	3.25	in
Plate Width =	63	in
Est. Dist. b/w Rods =	18	in
w_{calc} =	25.10	in
e =	1.775	in
w_{max} =	30.9	in
w =	25.10	in
S =	44.19	in^3
fb =	21.09	ksi
Fb =	60	ksi
Base Plate Capacity =	35.1%	**OK**