

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@po.state.ct.us

www.ct.gov/csc

May 10, 2006

The Honorable Patricia A. Murphy
Mayor
Town of New Milford
Town Hall
10 Main Street
New Milford, CT 06776

RE: **EM-ALLTEL-096-060510** – Alltel Newco, LLC (Alltel) notice of intent to modify an existing telecommunications facility located at 586 Danbury Road, New Milford, Connecticut.

Dear Mayor Murphy:

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.

The Council will consider this item at the next meeting scheduled for Wednesday, May 17, 2006 at 1:30 p.m. in Hearing Room One, Ten Franklin Square, New Britain, Connecticut.

If you have any questions or comments regarding this proposal, please call me or inform the council by May 16, 2006.

Thank you for your cooperation and consideration.

Very truly yours,

S. Derek Phelps
Executive Director

SDP/ap

Enclosure: Notice of Intent



SITE QUEST, LTD

30200

3867 W. Market St. #309, Akron, OH 44333 Ph: 330.670.1316 Fax: 330.668.1300

EM-ALLTEL-096-060510

May 8, 2006

RECEIVED
MAY 10 2006

CONNECTICUT
SITING COUNCIL

Ms. Pamela B. Katz, P.E., Chairman
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

Dear Chairman Katz:

Pursuant to Connecticut General Statutes ("C.G.S.") § 16-50-aa, ALLTEL Newco, LLC ("ALLTEL") respectfully requests Siting Council approval for the removal and replacement of the existing radio equipment and antennas at an existing tower site. This application is considered to be an exempt modification.

The following is the site name and address being applied for and attachments to this Application:

- 1) Candlewood site (20 copies) - (New Milford - 586 Danbury Rd.)
with attachments:
 - Narrative
 - Appendix 'A': Partial Compound Site Plan
 - Appendix 'B': Structural Analysis
 - Appendix 'C': RFE report
- 2) Application Fee (Check No. 1640)

ALLTEL respectfully requests approval of these modifications and is looking forward to working with the Siting Council on the conversion of this site in Litchfield County. Should you have any questions, comments and/or need any additional information, please don't hesitate to call.

Respectfully Submitted,

Clayton M. Pitchure
Projects Manager

STATE OF CONNECTICUT SITING COUNCIL NARRATIVE

- I. Ownership Transfer
In the process of the Cingular and AT&T wireless merger, the FCC license for the "A" band of the cellular radio frequencies for Litchfield County, CT were sold and purchased by ALLTEL Communications, Inc. and known as ALLTEL Newco, LLC. This transfer requires the conversion of the existing GSM radio equipment to be replaced by the new CDMA radio equipment.

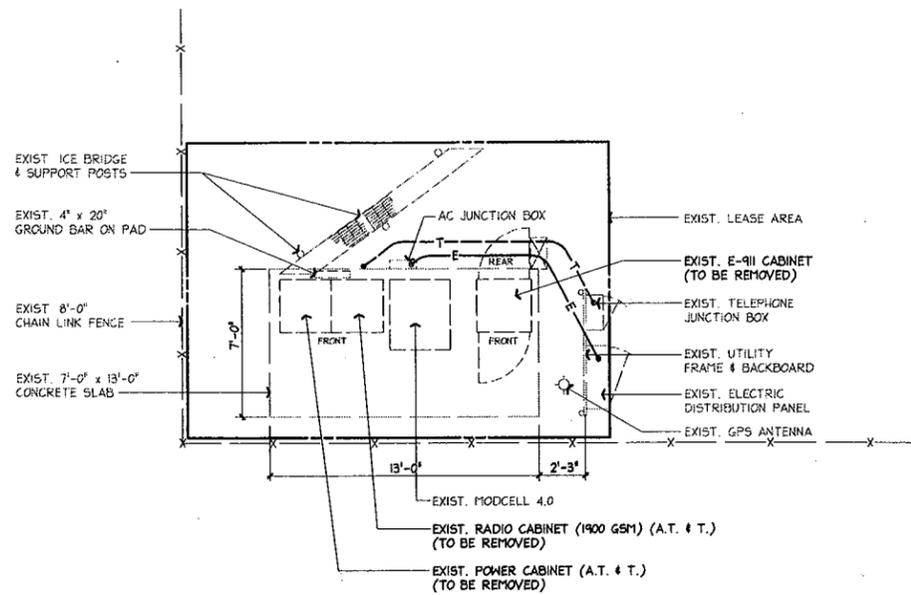
- II. Purpose of Application
This application is being made for an exempt modification for the removal and replacement of the existing radio equipment. The existing radio equipment is mounted on an exterior cast-in-place concrete slab. In this particular case, the existing radio and power cabinets will be completely removed. The new set of radio and power cabinets will be installed in their place. A partial compound site plan has been included in Appendix "A" of this application to indicate the exact placement of equipment.

- III. Antennas and Tower
This application does require the changing of antennas on the antenna structure. Since the antenna structure is a 'Flag Pole' stealth type installation, the antennas are concealed within the shroud at the top of the pole. Therefore, there is no additional increase in wind load area. Even though there, essentially, is not an increase in loading, we have still provided an up to date analysis to include the proper loading. This Analysis can be seen in Appendix 'B' of this Application.

- IV. Environmental
The installation of the new radio equipment will require additional radio channels and adjustment of the power output of all channels. We have computed the overall radio frequency emissions (RFE) and have included a summary of the ALLTEL and the total RFE for the entire site in Appendix "C". The total RFE for general population is 9.67% of the total as allowed by the FCC. This total is substantially less than permissible.

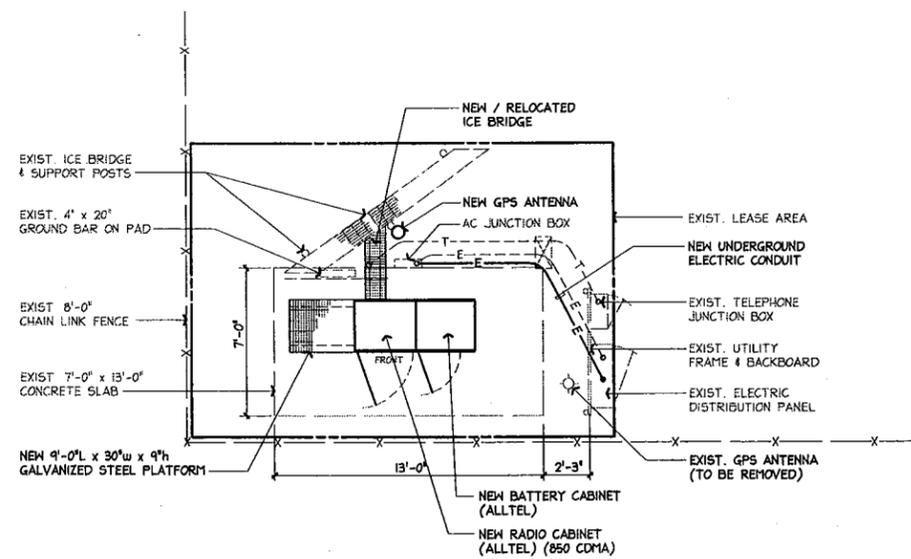
Appendix A

Partial Site Plan



EXISTING LEASE AREA & EQUIPMENT PLAN

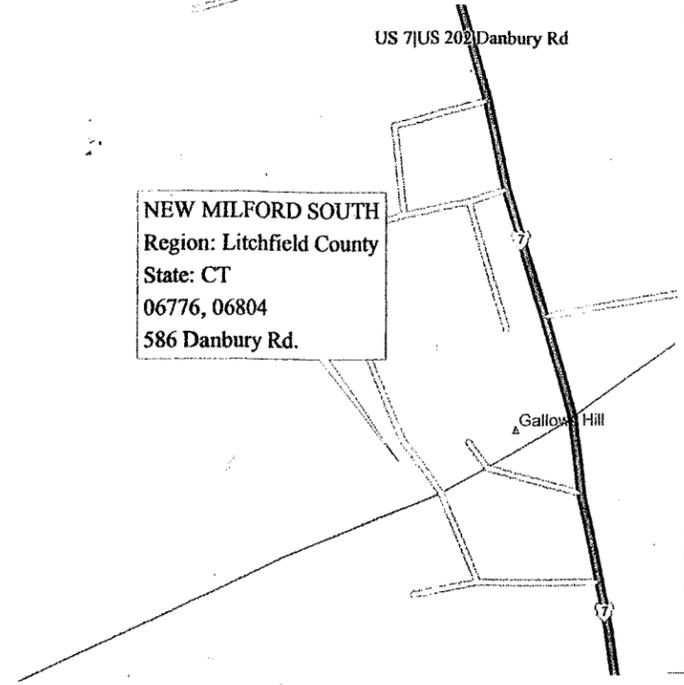
SCALE: 1/4" = 1'-0"



NEW LEASE AREA & EQUIPMENT PLAN

SCALE: 1/4" = 1'-0"

NEW MILFORD SOUTH
Region: Litchfield County
State: CT
06776, 06804
586 Danbury Rd.



LOCATION MAP

SITE DATA

ALLTEL Newco, LLC Site Name: Candlewood, CT cell site
Connecticut Siting Council ID Name: New Milford - 586 Danbury Road
Site/Tower Owner: T-Mobile
Site Manager: T-Mobile
Ms. Rebecca Smiley
4 Sylvan Way
Parsippany, NJ 07054
Phone: 973:898.8588
Site Address: 586 Danbury Road
New Milford, CT
Litchfield County



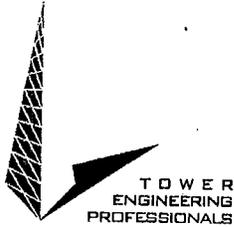
Rev. No.	Description	Date

CANDLEWOOD CELL SITE
LEASE AREA AND EQUIPMENT PLANS AND NOTES

JOB. No.
30207

0-1

Tower Structural Analysis



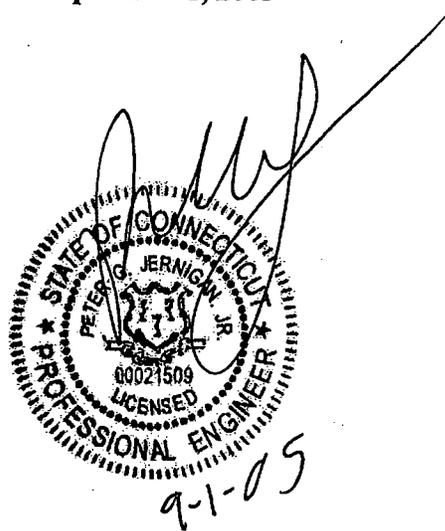
STRUCTURAL ANALYSIS REPORT

**CANDLEWOOD
100-ft STEALTH FLAGPOLE**

NEW MILFORD, LITCHFIELD COUNTY, CONNECTICUT

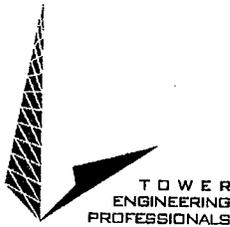
TEP # 05614

September 1, 2005



Prepared For:

**ALLTEL COMMUNICATIONS
10005 MONROE ROAD
MATTHEWS, NC 28105**



1.0 ASSIGNMENT

Subject – Structural analysis of the tower

Location – 586 Danbury Road, New Milford, Litchfield County, CT 06776
Latitude: N41° 57' 57"± Longitude: W073° 07' 13"±

Purpose – The objective of the analysis was to determine if the tower would meet the ANSI/TIA/EIA-222-F-1996 standard.

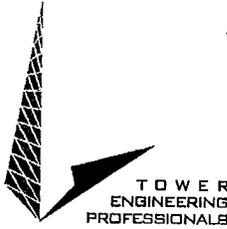
2.0 SCOPE OF SERVICES

- 1) Perform an antenna mapping of the tower
- 2) Conduct a structural analysis of the tower
- 3) Prepare a report of findings and conclusions

3.0 PARTICIPATING PERSONNEL

Carrier Representative: Mr. Mike Sanchez
Alltel Communications (Alltel)
10005 Monroe Road
Matthews, NC 28105
(704) 845-7708

Consulting Engineers: Mr. Pete Jernigan, P.E.
Mr. Michael L. Gardner, EI
Tower Engineering Professionals, Inc. (TEP)
3703 Junction Boulevard
Raleigh, NC 27603-5263
(919) 661-6351



4.0 BACKGROUND INFORMATION

Alltel requested that TEP conduct a structural analysis of the tower. The analysis was to determine if the tower would meet the ANSI/TIA/EIA-222-F-1996 standard with additional antennas installed. The structure is a 100-ft stealth flagpole.

TEP utilized the following information to complete the analysis:

- 1) Field notes recorded by TEP during the July 26, 2005 site visit
- 2) Tower design drawings by Paul J. Ford and Company dated August 21, 2001, job no. 31900-067
- 3) Assembly drawings by Stealth Network Technologies, Inc. dated August 31, 2000, job no. VOIC-00657A-02R1
- 4) Correspondence from Alltel indicating the proposed appurtenance loads

5.0 INVESTIGATION

Analyzed Antennas – See the appendix for a schedule of antennas and transmission lines considered in the analysis.

Codes and Standards – The structural analysis was performed in accordance with the ANSI/TIA/EIA-222-F-1996, Structural Standards for Steel Antenna Towers and Antenna Supporting Structures dated June 1996 and the 2003 International Building Code.

Wind Loading – Two load combinations were considered in this analysis:

- 1) A 100-mph 3-second gust (80-mph fastest-mile) wind was applied for stress analysis.
- 2) A 100-mph 3-second gust (80-mph fastest-mile) wind was applied with 1/2-in radial ice for stress analysis. Note a 25-percent reduction in wind load was considered per the TIA standard for this load combination.

Provisions of This Analysis

- 1) The tower and foundation were constructed according to manufacturer's requirements.
- 2) The tower has been maintained according to the manufacturer's specifications.
- 3) The structural integrity of the tower and tower components has not been compromised.
- 4) The antenna and coax load is as described in the appendix of this report.
- 5) All unused antennas, mounts, coax, hardware, and appurtenances shall be removed.
- 6) The information provided by Alltel was assumed accurate and complete.
- 7) This analysis report is not a construction document.

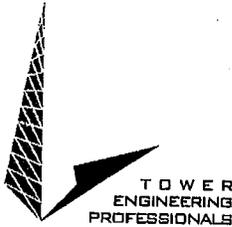


6.0 RESULTS – It is the opinion of Tower Engineering Professionals, Inc. that:

- 1) The superstructure will meet the TIA standard for structural capacity.
- 2) The substructure will meet the TIA standard for structural capacity. This opinion is based upon a comparison between the design reactions and analysis reactions.

7.0 RECOMMENDATIONS – TEP recommends the following:

- 1) If the load differs from that described in the appendix of this report, or the provisions of this analysis are found to be invalid, another structural analysis should be performed.



8.0 APPENDIX

Tower Map: (proposed antennas are in bold italic type)

Height (ft)	Mount	Description / Model	Coax	Coax Location
94 Sprint	(2) Close Mounts	(2) Panel Antennas Hubert+Suhner 1319.41.0069	(4) 7/8	Inside Pole
83 Alltel	(2) Close Mounts ¹	(2) Panel Antennas ¹ Allgon 7250.02	(4) 7/8 ¹	Inside Pole
83 <i>Alltel</i>	<i>(1) Close Mount</i>	<i>(1) Panel Antenna</i> <i>Antel BXA-80063/4 FP</i>	<i>(1) 7/8</i>	<i>Inside Pole</i>

¹ – Existing appurtenance to be removed and replaced with proposed

Superstructure Results:

Height AGL (ft)	Stress Ratio at Design Wind (combined bending+axial)	Shaft Deflection at Service Wind (ft)	Shaft Rotation at Service Wind (deg)
100	0.00	1.95	2.62
94	0.00	1.72	2.62
83	0.25	1.23	2.51
77	0.69	1.00	1.77
74	0.91	0.91	1.27
48.5	0.35	0.41	0.95
0	0.61	0.00	0.00

Substructure Results:

Item	Design Reactions (kip or kip-ft)	Analysis Reactions (kip or kip-ft)	Ratio
Total horizontal	9.0	5.0	0.56
Total vertical	7.0	4.5	0.64
Total OTM	500.0	307.2	0.61

Antennas for Concealment Configurations
Slant +/- 45° Dual Polarized, Panel 63°/113 dBd

BXA-80063/4 _ FP

When ordering, replace * _ * with connector type.

Mechanical specifications

Length 1205 mm 47.4 in
Width 286 mm 11.2 in
Depth 174 mm 6.8 in
Weight 4.5 Kg 9.9 lbs

Antenna consists of aluminum alloy with brass ferrules covered by a UV safe fiberglass radome.

Mounting

U-Bolt brackets included for mounting on pipe. See notes to drawings regarding minimum diameters of mounting pipe and cones in radome.

Equipment requirements

Due to limited space in concealed configurations, it is necessary to order 90 degree elbow connectors for jumper cables.

Electrical specifications

Frequency Range 806-900 MHz
Impedance 50 Ohms
Connector N (D)
VSWR 1.5
Polarization Slant
Isolation Between Ports 30 dB
Gain 12.5 dB
Power Rating 500 W
Half Power Angle 30°
E-Plane 6
H-Plane 6
Electrical Down Tilt 0°
Null Fill 5°

Lightning Protection Direct Ground

Also available for 900 MHz. Consult your sales director for more information.

Elongated connectors (NE-EDIN) cannot be used with this antenna model.

Patented Dipole Design, U.S. Patent No. 5,406,605

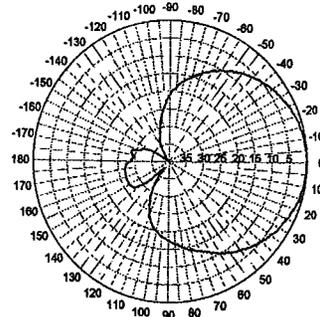
Power handling limited by connector only. Maximum is indicated on connector.

Antenna is designed to be used in a 3-antenna array. The mounting weight listed above is for a single antenna.

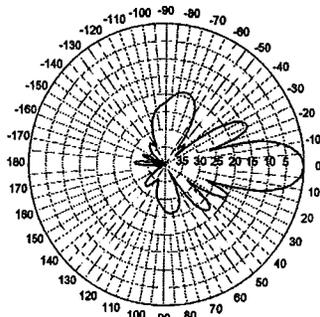
Improvements in technical specifications may occur without notice.

Radiation-pattern¹⁾

Typical 3-antenna array using three BXA-80063/4 _ FP antennas



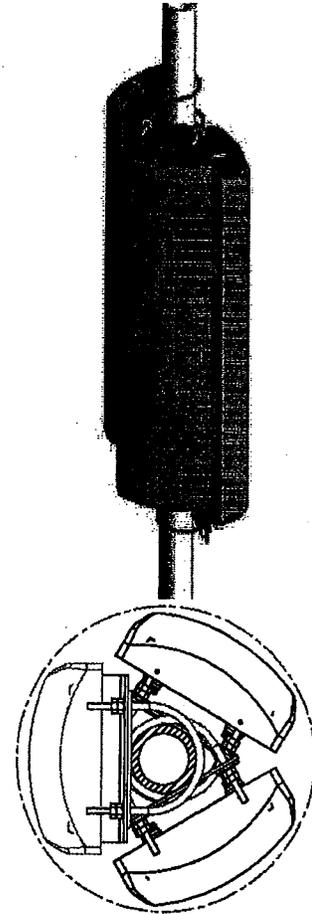
Horizontal



Vertical

Radiation patterns for all antennas are measured with the antenna mounted on a fiberglass pole.

Mounting on a metal pole will typically improve the Front-to-Back Ratio.



The BXA-80063/4 _ FP can be used in a 3-Antenna Array with the following specifications

Outside Diameter of Mounting Pipe		Inside Diameter of Concealment Radome	
101.6 mm	4 in	457.2 mm	18 in
127.0 mm	5 in	482.6 mm	19 in
152.4 mm	6 in	508.0 mm	20 in

806-900 MHz



Revision Date: 9/1/04

Radio Frequency Emissions (RFE) Summary

