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

May 20, 2009

Thomas J. Regan, Esq.
Brown Rudnick LLP
CityPlace I, 185 Asylum Street
Hartford, CT 06103

RE: **EM-T-MOBILE-007-090417** - T-Mobile USA, Inc. notice of intent to modify an existing telecommunications facility located at 1657 Berlin Turnpike, Berlin, Connecticut.

Dear Attorney Regan:

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 April 17, 2009, 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/MP/laf

c: The Honorable Adam P. Salina, Mayor, Town of Berlin
Denise McNair, Interim Town Manager, Town of Berlin
Hellyn Riggins, Town Planner, Town of Berlin
Berlin Volunteer Fire Department

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www.ct.gov/csc

April 22, 2009

The Honorable Adam P. Salina
Mayor
Town of Berlin
240 Kensington Road
Kensington, CT 06037

RE: **EM-T-MOBILE-007-090417** - Omnipoint Communications, as subsidiary of T-Mobile USA, Inc., notice of intent to modify an existing telecommunications facility located at 1657 Berlin Turnpike, Berlin, Connecticut.

Dear Mayor Salina:

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 May 6, 2009.

Thank you for your cooperation and consideration.

Very truly yours,

S. Derek Phelps
Executive Director

SDP/jb

Enclosure: Notice of Intent

c: Hellyn Riggins, Town Planner, Town of Berlin
Denise McNair, Interim Town Manager, Town of Berlin

THOMAS J. REGAN
Direct Dial: (860) 509-6522
tregan@brownrudnick.com

BROWNRUDNICK
CityPlace I
185 Asylum
Street
Hartford
Connecticut
06103
tel 860.509.6500
fax 860.509.6501

Via Hand Delivery

April 17, 2009

Daniel F. Caruso, Chairman
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

RE: T-Mobile USA, Inc - Exempt Modification

Dear Mr. Caruso:

On behalf of T-Mobile USA, Inc., enclosed for filing are an original and five (5) copies of a Notice to Make an Exempt Modification to an Existing Facility for each of the following:

1. Berlin @ 1657 Berlin Turnpike;
2. Bloomfield @ 30 Brae Burnie Lane;
3. Bloomfield @ 1021 Blue Hills Avenue;
4. New Britain @ 1 Hartford Square Street.

I have also enclosed a sixth copy of each Notice which I would like to have date-stamped and returned to the courier delivering this package.

Also enclosed are four (4) checks in the amount of $500.00 each to cover the filing fee. If you have any questions, please feel free to contact me.

Very truly yours,

BROWN RUDNICK LLP

By: _____
Thomas J. Regan

TJR/bh
Enclosures

40258812 v1 - 025064/0016

cc/encls: via 1st Class Mail:

Adam P. Salina, Mayor
Town of Berlin
240 Kensington Road
Berlin, CT 06037

Sydney T. Schulman, Mayor
Bloomfield Town Hall
800 Bloomfield Avenue
Bloomfield, CT 06002

Timothy Stewart, Mayor
New Britain City Hall
27 West Main Street
New Britain, CT 06051

CONNECTICUT SITING COUNCIL

EM-T-MOBILE-007-090417

ORIGINAL

In re:

T-Mobile USA, Inc. Notice to Make an Exempt Modification to an Existing Facility at 1657 Berlin Turnpike, Berlin, Connecticut.

: **EXEMPT MODIFICATION NO. _____**

: April 17, 2009

RECEIVED
APR 17 2009
CONNECTICUT
SITING COUNCIL

NOTICE OF EXEMPT MODIFICATION

Pursuant to Conn. Agencies Regs. §§ 16-50j-73 and 16-50j-72(b), T-Mobile USA, Inc. ("T-Mobile") hereby gives notice to the Connecticut Siting Council ("Council") and the Town of Berlin of T-Mobile's intent to make an exempt modification to an existing monopole (the "Tower") located at 1657 Berlin Turnpike, in Berlin, Connecticut. Specifically, T-Mobile plans to upgrade its wireless system in Connecticut by implementing its Universal Mobile Telecommunications System ("UMTS"). UMTS is a third-generation ("3G") technology that utilizes a code division multiple access ("CDMA") base to allow for fast and large data transfers. To accomplish this upgrade, T-Mobile must modify its antenna and equipment configurations at many of its existing sites.

Once the UMTS upgrade is complete, T-Mobile will operate on a more unified communication system, allowing international wireless telephones to function world-wide. Furthermore, UMTS will enhance Global Positioning System ("GPS") navigation capabilities and provide emergency responders with more advanced tracking capabilities. The proposed UMTS technology is compatible with the existing second-generation ("2G") Global System for Mobile Communication ("GSM") currently on the Tower and the proposed upgrade is expected

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HARTFORD, CT 06103
(860) 509-6500

to enhance the existing 2G system. In order to accomplish the upgrade at this site, T-Mobile plans to add UMTS technology, update existing GMS technology and install associated equipment at the base of the tower.

Under the Council's regulations (Conn. Agencies Regs. § 16-50j-72(b)), T-Mobile's plans do not constitute a modification subject to the Council's review because T-Mobile will not change the height of the Tower, will not extend the boundaries of the compound, will not increase the noise levels at the site, and will not increase the total radio frequency electromagnetic radiation power density at the site to levels above applicable standards.

The Tower is a 180-foot monopole located at 1657 Berlin Turnpike in Berlin, Connecticut (41.6062, -72.7497). There are multiple carriers on the Tower. The Tower is owned by the Town of Berlin Volunteer Fire Department. Currently, T-Mobile has 6 antennas and 6 Tower Mounted Amplifiers ("TMA") located on the Tower with a centerline of 160 feet. A site plan with Tower specifications is attached.

T-Mobile plans re-align its existing antennas and remove and replace its 6 existing TMA. T-Mobile proposes to dedicate 3 antennas to GSM technology and 3 antennas to UMTS technology. The 6 existing TMA will be replaced with 3 new GSM Twin TMA and 3 UMTS Twin TMA. The existing antennas and proposed TMA will have the same centerline– 160 feet. To confirm the Tower can support these changes, T-Mobile commissioned Armor Tower to perform a structural analysis of the Tower (attached). According to the structural analysis, dated April 8, 2009: "... the tower is capable of supporting the proposed modifications" (Page 1, Structural Assessment).

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In addition, T-Mobile proposes to mount an UMTS equipment cabinet on the handrail of the existing platform, with a Remote Radio Unit mounted on the UMTS equipment cabinet. T-Mobiles plans to utilize its 12 existing coax cables. T-Mobile also proposes to install power wiring and telephone wiring to run inside the existing conduit to the proposed UMTS equipment cabinet.

Therefore, excluding brief, minor, construction-related noise during the addition of the antennas and the installation of the equipment cabinet, T-Mobile's changes to the Tower will not increase noise levels at the site.

The proposed antennas and TMA will not adversely impact the health and safety of the surrounding community or the people working on the Tower. The total radio frequency exposure measured around the Tower will be well below the National Council on Radiation Protection and Measurements' ("NCRP") standard adopted by the Federal Communications Commission ("FCC"). The worst-case power density analysis measured at the base of the Tower indicates that T-Mobile's antennas will emit 2.98% of the NCRP's standard for maximum permissible exposure. A cumulative power density analysis indicates that together, all of the antennas on the Tower will emit only 37.04% of the NCRP's standard for maximum permissible exposure. Therefore, the power density levels will be well below the FCC mandated radio frequency exposure limits in all locations around the Tower, even with extremely conservative assumptions. The power density analysis is attached.

In conclusion, T-Mobile's proposed plan to re-align its existing antennas and remove and replace existing TMA at this site does not constitute a modification subject to the Council's jurisdiction because T-Mobile will not increase the height of the Tower, will not extend the boundaries of the site, will not increase the noise levels at the site, and the total radio frequency

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electromagnetic radiation power density will stay within all applicable standards. *See* Conn. Agencies Regs. § 16-50j-72.

T-Mobile USA, Inc.

By: _____

Thomas J. Regan
Brown Rudnick LLP
185 Asylum Street, CityPlace I
Hartford, CT 06103-3402
Email - tregan@brownrudnick.com
Phone - 860.509.6522
Fax - 860.509.6622

Certificate of Service

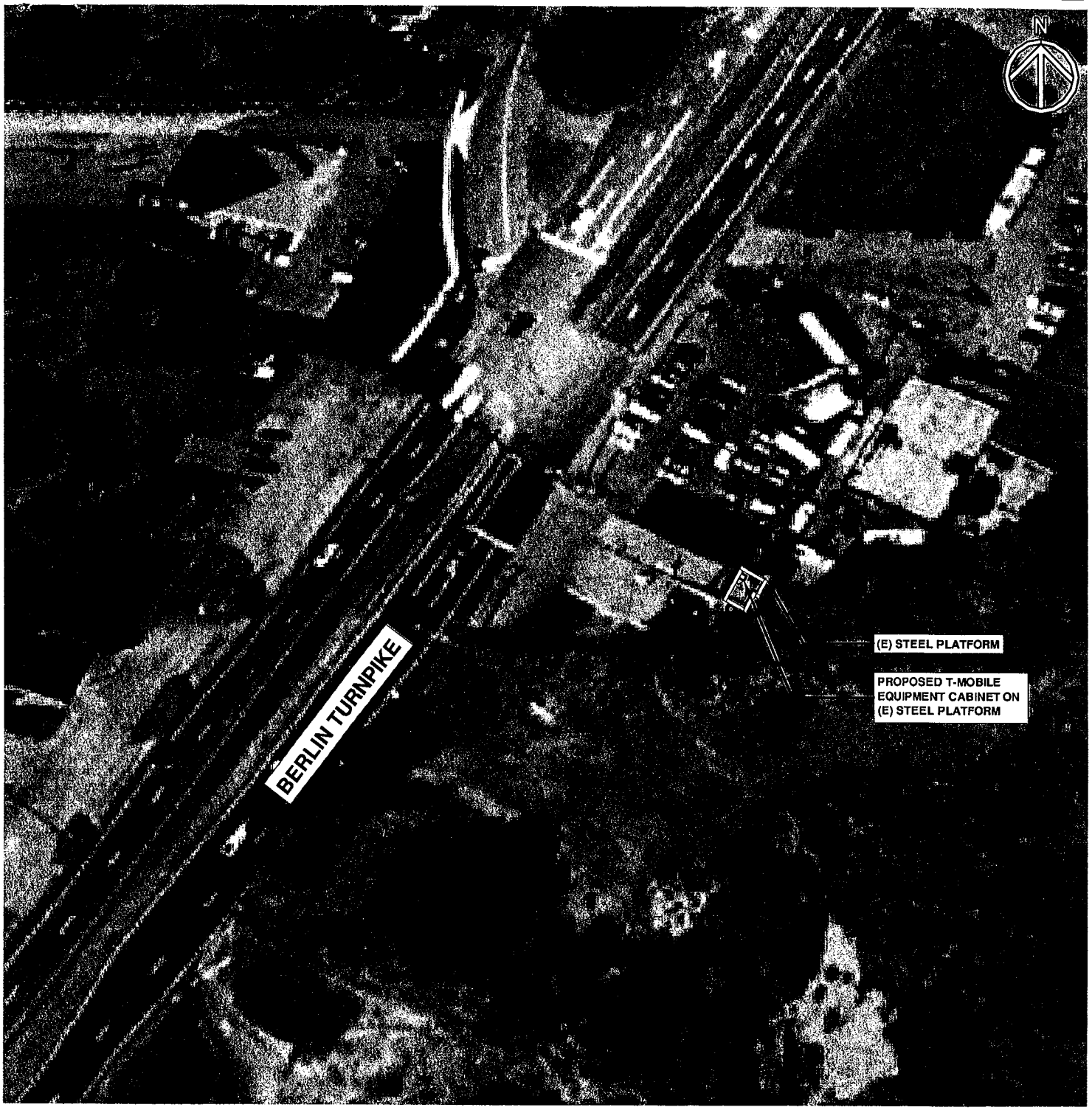
This is to certify that on this 17 day of April, 2009, the foregoing Notice of Exempt Modification was sent, via first class mail, to the following:

Town of Berlin
Mayor Adam P. Salina
240 Kensington Road
Berlin, CT 06037

By: _____
Thomas J. Regan

40258832 v1 - 025064/0016

BROWN RUDNICK LLP
CITYPLACE I
185 ASYLUM STREET
HARTFORD, CT 06103
(860) 509-6500



SITE PLAN

SCALE: 1"=100'-0"

5 0 5 10 15

ALL EQUIPMENT LOCATIONS ARE APPROXIMATE AND ARE SUBJECT TO APPROVAL BY LESSEE/LICENSEE'S STRUCTURAL & RF ENGINEERS. LOCATIONS OF POWER & TELEPHONE FACILITIES ARE SUBJECT TO APPROVAL BY UTILITY COMPANIES.

TRANSCEND WIRELESS, LLC
10 INDUSTRIAL AVE.
MAHWAH, NJ 0740
OFFICE: (210) 316-2085
FAX:(210) 684-0066

FOR

OMNIPOINT COMMUNICATIONS, INC. DBA T-MOBILE USA, INC
35 GRIFIN ROAD SOUTH
BLOOMFIEL, CT 06002
OFFICE: (860) 692-7100
FAX:(860) 692-7159

ATLANTIS GROUP
15 Cypress St., Suite 300
Newton Centre, MA 02459
Office: 617-965-0789
Fax: 617-663-6032

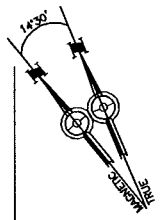
SITE NUMBER:	CTHA231A
SITE NAME:	1657 BERLIN TURNPIKE
ADDRESS:	1657 BERLIN TURNPIKE BERLIN, CT 06037
DRAWN BY	G.C.

REVISION	DATE
0: FINAL	03-13-09
A: REVIEW	01-22-09

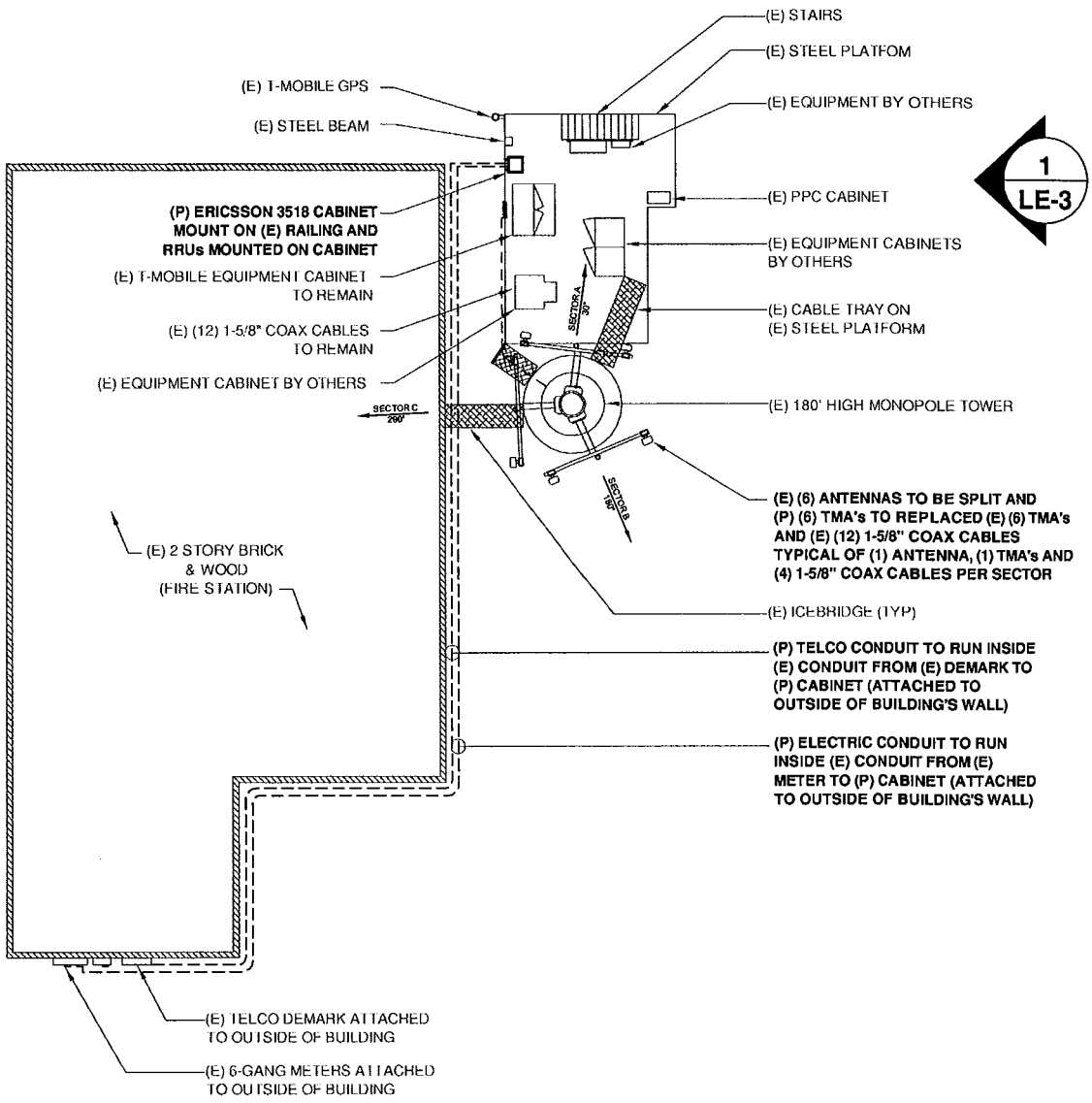
APPROVALS

Site Owner	Date
Construction Manager	Date
RF Engineer	Date
Site Acquisition	Date

The above parties hereby approve and accept these documents and authorize the contractor to proceed with the construction described herein, all construction documents are subject to review by the local building department and any changes or modifications they may impose.



BERLIN TURNPIKE



ANTENNA AZIMUTHS:
SECTOR A= 30°
SECTOR B= 180°
SECTOR C= 290°

ALL EQUIPMENT LOCATIONS ARE APPROXIMATE AND ARE SUBJECT TO APPROVAL BY LESSEE/LICENSEE'S STRUCTURAL & RF ENGINEERS. LOCATIONS OF POWER & TELEPHONE FACILITIES ARE SUBJECT TO APPROVAL BY UTILITY COMPANIES.

PLAN

SCALE: 1" = 16'–0"

8 0 8 16 24

TRANSCEND WIRELESS, LLC
10 INDUSTRIAL AVE.
MAHWAH, NJ 0740
OFFICE: (210) 316-2085
FAX:(210) 684-0066

FOR

OMNIPOINT COMMUNICATIONS, INC.
DBA T-MOBILE USA, INC
35 GRIFIN ROAD SOUTH
BLOOMFIEL, CT 06002
OFFICE: (860) 692-7100
FAX:(860) 692-7159

ATLANTIS GROUP
15 Cypress St., Suite 300
Newton Centre, MA 02459
Office: 617-965-0789
Fax: 617-663-6032

SITE NUMBER:	
CTHA231A	
SITE NAME:	
1657 BERLIN TURNPIKE	
ADDRESS:	
1657 BERLIN TURNPIKE BERLIN, CT 06037	
DRAWN BY	
G.C.	
0: FINAL	03-13-09
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APPROVALS

Site Owner	Date
Construction Manager	Date
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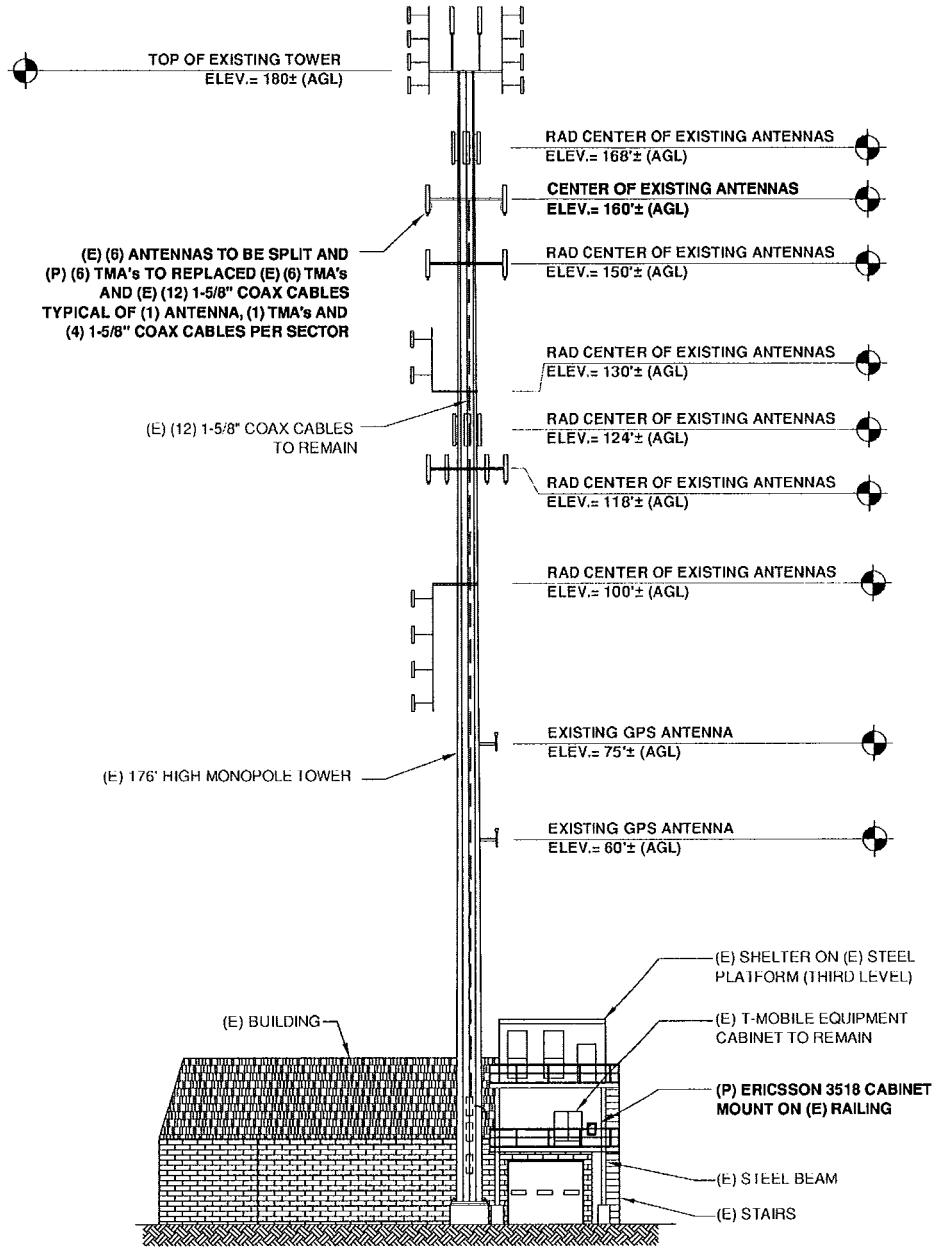

ELEVATION

SCALE: 1" = 30'-0"

15 0 15 30 45

ALL EQUIPMENT LOCATIONS ARE APPROXIMATE AND ARE SUBJECT TO APPROVAL BY LESSEE/LICENSEE'S STRUCTURAL & RF ENGINEERS. LOCATIONS OF POWER & TELEPHONE FACILITIES ARE SUBJECT TO APPROVAL BY UTILITY COMPANIES.

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Site Owner	Date
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Site Acquisition	Date

The above parties hereby approve and accept these documents and authorize the contractor to proceed with the construction described herein, all construction documents are subject to review by the local building department and any changes or modifications they may impose.

ARMOR TOWER

April 8, 2009

Mr. Hans Fiedler
T-Mobile USA
35 Griffin Road South
Bloomfield, CT 06002

Re: CTHA231A – Berlin Fire Department site
1657 Berlin Turnpike, Berlin, CT 06037

Dear Mr. Fiedler:

Armor Tower has performed a structural assessment of the monopole communications installation at the above referenced address. This assessment is exclusively based on the T-Mobile RFDS dated 2/18/09, Atlantis Group's lease exhibit dated 3/13/09, on three structural analyses dated 2005, 2006 and 2008 and on pictures (all provided by Atlantis).

T-Mobile proposes:
-Remove six existing ddTMAs. Replace with three RFS Twin PCS TMAs (19 lb. wt. each) and three RFS twin AWS TMAs (13 lb. each) at 160' AGL.
-Reuse twelve existing 1-5/8" transmission lines, two to each antenna.

-Install one new RBS 3518 equipment cabinet (61 lb.) on the handrail of the existing platform. The cabinet may be mounted using a RBS 3518 pole mount bracket. To do so, crossover pipe clamps could be used to mount a vertical 2" Sch 40 galvanized pipe to the horizontal handrail and mid-rail or parallel pipe clamps can mount the pipe to an existing vertical pipe. The pole mount clamps to a minimum of 2.375" OD, therefore the handrail vertical posts cannot be directly used.

The monopole was analyzed in 2008 for Pocket Wireless. The analysis indicated that the monopole had significant reserve capacity. Including in the analyzed loading were nine DR65-19-00DPQ antennas for T-Mobile. Those exceed the loading of the proposed configuration. Therefore the tower is capable of supporting the proposed modifications.

The proposed equipment cabinet is light and will not significantly affect the loading. The original CDs show that T-Mobile was allotted space for 3 cabinets. Currently only one cabinet is installed. Therefore the platform is capable of supporting the proposed loading.

No conclusions, expressed or implied, shall indicate that Armor Tower has made an evaluation of the original design, materials, fabrication, or potential erection deficiencies. In addition, the conclusions expressed herein are based upon the information contained within the aforementioned documents. Any information contrary to that assumed for the purpose of preparing this assessment could alter the findings and conclusions as stated.

We appreciate the opportunity to provide our professional services to Atlantis Group and T-Mobile, and if we can be of further assistance, please do not hesitate to contact us.

Sincerely,
ARMOR TOWER, INC.

Derek Hartzell
Armor Tower, Inc

T-Mobile

T-Mobile USA Inc.
35 Griffin Rd South, Bloomfield, CT 06002-1853
Phone: (860) 692-7100
Fax: (860) 692-7159

Technical Memo

To: Transcend
From: Farid Marbouh - Radio Frequency Engineer
cc: Jason Overbey
Subject: Power Density Report for CTHA231A
Date: April 10, 2009

1. Introduction:

This report is the result of an Electromagnetic Field Intensities (EMF - Power Densities) study for the T-Mobile antenna installation on a Monopole at 1657 Berlin Turnpike, Berlin, CT. This study incorporates the most conservative consideration for determining the practical combined worst case power density levels that would be theoretically encountered from locations surrounding the transmitting location.

2. Discussion:

The following assumptions were used in the calculations:

1) The emissions from T-Mobile transmitters are in the (1935-1944.8), (2140-2145), (2110-2120)MHz frequency Band.
2) The antenna array consists of three sectors, with 2 antennas per sector.
3) The model number for GSM antenna is APXV18-209014-C.
3) The model number for UMTS antenna is APXV18-209014-C.
4) GSM antenna center line height is 160 ft.
4) UMTS antenna center line height is 160 ft.
5) The maximum transmit power from any GSM sector is 1610.35 Watts Effective Radiated Power (EiRP) assuming 8 channels per sector.
5) The maximum transmit power from any UMTS sector is 1606.53 Watts Effective Radiated Power (EiRP) assuming 2 channels per sector.
6) All the antennas are simultaneously transmitting and receiving, 24 hours a day.
7) Power levels emitting from the antennas are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
8) The average ground level of the studied area does not change significantly with respect to the transmitting location.

Equations given in "FCC OET Bulletin 65, Edition 97-01" were then used with the above information to perform the calculations.

3. Conclusion:

Based on the above worst case assumptions, the power density calculation from the T-Mobile antenna installation on a Monopole at 1657 Berlin Turnpike, Berlin, CT, is 0.02976 mW/cm^2. This value represents 2.976% of the Maximum Permissible Exposure (MPE) standard of 1 milliwatt per square centimeter (mW/cm^2) set forth in the FCC/ANSI/IEEE C95.1-1991. Furthermore, the proposed antenna location for T-Mobile will not interfere with existing public safety communications, AM or FM radio broadcasts, TV, Police Communications, HAM Radio communications or any other signals in the area.
The combined Power Density from other carriers is 34.06%. The combined Power Density for the site is 37.036% of the M.P.E. standard.

Connecticut Market

T-Mobile

Worst Case Power Density

Site:	**CTHA231A**
Site Address:	**1657 Berlin Turnpike**
Town:	**Berlin**
Tower Height:	**180 ft.**
Tower Style:	**Monopole**

GSM Data		**UMTS Data**	
Base Station TX output	20 W	**Base Station TX output**	40 W
Number of channels	8	**Number of channels**	2
Antenna Model	APXV18-209014-C	**Antenna Model**	APXV18-209014-C
Cable Size	1 5/8 in.	**Cable Size**	1 5/8 in.
Cable Length	170 ft.	**Cable Length**	170 ft.
Antenna Height	160.0 ft.	**Antenna Height**	160.0 ft.
Ground Reflection	1.6	**Ground Reflection**	1.6
Frequency	1945.0 MHz	**Frequency**	2.1 GHz
Jumper & Connector loss	4.50 dB	**Jumper & Connector loss**	1.50 dB
Antenna Gain	16.5 dBi	**Antenna Gain**	16.5 dBi
Cable Loss per foot	0.0116 dB	**Cable Loss per foot**	0.0116 dB
Total Cable Loss	1.9720 dB	**Total Cable Loss**	1.9720 dB
Total Attenuation	6.4720 dB	**Total Attenuation**	3.4720 dB
Total EIRP per Channel	53.04 dBm	**Total EIRP per Channel**	59.05 dBm
(In Watts)	201.29 W	**(In Watts)**	803.27 W
Total EIRP per Sector	62.07 dBm	**Total EIRP per Sector**	62.06 dBm
(In Watts)	1610.35 W	**(In Watts)**	1606.53 W
nsg	10.0280	**nsg**	13.0280
Power Density (S) =	**0.014897 mW/cm^2**	**Power Density (S) =**	**0.014862 mW/cm^2**
T-Mobile Worst Case % MPE =		**2.9759%**	

Equation Used :

$$S = \frac{(1000)(grf)^2 (Power) * 10^{(nsg/10)}}{4\pi (R)^2}$$

Office of Engineering and Technology (OET) Bulletin 65, Edition 97-01, August 1997

Co-Location Total (From CSC power density data base)

Carrier	**% of Standard**
Verizon	17.8300 %
Cingular	4.9800 %
Sprint	8.6700 %
AT&T Wireless	
Nextel	
MetroPCS	
Other Antenna Systems	2.5800 %
Total Excluding T-Mobile	**34.0600 %**
T-Mobile	2.9759
Total % MPE for Site	**37.0359%**