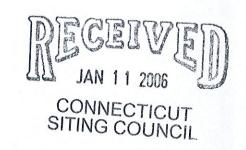
ORIGINAL





TS-T-MOBILE-006-060111

100 Filley Street, Bloomfield, CT 06002 860-692-7118 fax 860-692-7159 Karina.Fournier@t-mobile.com

January 11, 2006

BY HAND

Pamela B. Katz, Chairman and Members of the Siting Council Connecticut Siting Council Ten Franklin Square New Britain, CT 06051

RE:

Tower Sharing Request by T-Mobile

Lopus Road Beacon Falls, CT

Latitude: 41 25 57 / Longitude: 73 04 15

Dear Ms. Katz and Members of the Siting Council:

Pursuant to Connecticut General Statutes (C.G.S.) § 16-50aa, Omnipoint Communications, Inc. a.k.a. T-Mobile (formerly Voicestream Wireless Corp.) hereby requests an order from the Connecticut Siting Council ("Council") to approve the proposed ("Town of Beacon Falls MP"), in Beacon Falls, CT owned by the Town of Beacon Falls. T-Mobile and the Town of Beacon Falls have agreed to the shared use of the Town of Beacon Falls MP, as detailed below.

Town of Beacon Falls MP

The Town of Beacon Falls MP facility consists of a one hundred fifty foot high monopole ("Tower") owned and operated by the Town of Beacon Falls. T-Mobile proposes to locate antennas at a centerline mounting height of one hundred thirty five (135) feet. The equipment will be located within a compound at the base of the tower.

Town of Beacon Falls MP

As shown on the enclosed drawing of the Town of Beacon Falls MP, annexed hereto as Exhibit 1, T-Mobile proposes a shared use of the Facility by placing antennas on the tower and equipment needed to provide personal communications services ("PCS") within the existing site plan. T-Mobile will install nine (9) antennas at the one hundred thirty five (135) foot level of the Tower. Three (3) associated unmanned equipment cabinets will be located at the base of the tower.

Connecticut General Statutes § 16-50aa provides that, upon written request for shared use approval, an order approving such use shall be issued, "if the council finds that the proposed shared use of the facility is technically, legally, environmentally and economically feasible and meets public safety concerns." (C.G.S. § 16-50aa(c)(1).) Further, upon approval of such shared use, it is exclusive and no local zoning or land use approvals are required C.G.S. § 16-50x. Shared use of the Town of Beacon Falls MP satisfies the approval criteria set forth in C.G.S. § 16-50aa as follows:

- A. <u>Technical Feasibility</u> The Tower and compound were designed to accommodate multiple carriers. A structural analysis of the Tower with the proposed T-Mobile installation has been performed and is attached as Exhibit 2. The structural analysis concludes that, the tower can safely accommodate the proposed T-Mobile antennas. The proposed shared use of this Tower is technically feasible. Further there is sufficient room at the base of the facility, thus the site plan will not have to be altered.
- B. <u>Legal Feasibility</u> Pursuant to C.G.S. § 16-50aa, the Council has been authorized to issue an order approving shared use of the existing Town of Beacon Falls MP (C.G.S. § 16-50aa (C)(1)). Under the authority vested in the Council by C.G.S. § 16-50aa, an order by the Council approving the shared use of a tower would permit the Applicant to obtain a building permit for the proposed installation.
- C. <u>Environmental Feasibility</u> The proposed shared use would have a minimal environmental effect, for the following reasons:

- 1.) The proposed installation would have a de minimis visual impact, and would not cause any significant change or alteration in the physical or environmental characteristics of the existing facility,
- 2.) The proposed installation by T-Mobile would not increase the height of the tower nor expand the site plan at the Town of Beacon Falls MP and will be of minimal impact to the facility;
- 3.) The proposed installation would not increase the noise levels at the existing facility boundaries by six decibels or more;
- 4.) Operation of T-Mobile's antennas at this site would not exceed the total radio frequency electromagnetic radiation power density level adopted by the FCC and Connecticut Department of Health. The "worst case" exposure calculated for the operation of this facility for T-Mobile would be approximately 9.58% of the standard. See Radio Frequency Memo dated January 11, 2006, annexed hereto as Exhibit 3.
- 5.) The proposed shared use of the Town of Beacon Falls MP will not require any water or sanitary facilities, or generate any air emissions or discharges to water bodies. Further, the installation will not generate any traffic other than for periodic maintenance visits.
- D. <u>Economic Feasibility</u> The Applicant and the tower owner have agreed to share use of the Town of Beacon Falls MP on terms agreeable to both parties. The proposed tower sharing is therefore economically feasible.
- E. Public Safety As stated above and evidenced in the Radio Frequency Field Survey annexed hereto as Exhibit 3, the operation of T-Mobile's antennas at this site would not exceed the total radio frequency electromagnetic radiation power density level adopted by the FCC and Connecticut Department of Health. Further, the addition of T-Mobile's telecommunications service in the Beacon Falls area through shared use of the Town of Beacon Falls MPis expected to enhance the safety and welfare of local residents and travelers through the area resulting in an improvement to public safety in this area.

Conclusion

Town of Beacon Falls MP satisfies the criteria set forth in C.G.S. § 16-50aa, and advances the General Assembly's and the Siting Council's goal of preventing the proliferation of tower in the State of Connecticut. T-Mobile therefore requests the Siting Council issue an order approving the proposed shared use of the Town of Beacon Falls MP.

Respectfully submitted,

Karina Fournier Zoning Dept.

T-Mobile 100 Filley St.

Bloomfield, CT 06002

(860) 692-7118

cc: First Selectman, Susan Ann Cable

Exhibit 1

NOTE:

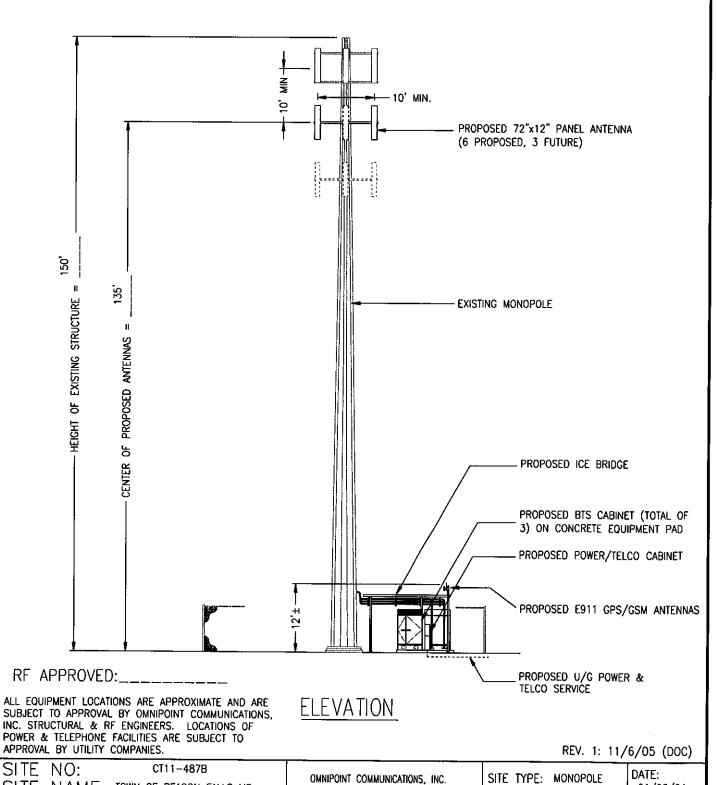
PER FCC MANDATE, ENHANCED EMERGENCY (E911) SERVICE IS REQUIRED TO MEET NATIONWIDE STANDARDS FOR WIRELESS COMMUNICATIONS SYSTEMS. OMNIPOINT COMMUNICATIONS, INC. IMPLEMENTATION REQUIRES DEPLOYMENT OF EQUIPMENT AND ANTENNAS GENERALLY DEPICTED ON THIS PLAN, ATTACHED TO OR MOUNTED IN CLOSE PROXIMITY TO THE BTS RADIO CABINETS. OMNIPOINT COMMUNICATIONS, INC. RESERVES THE RIGHT TO MAKE REASONABLE MODIFICATIONS TO E911 EQUIPMENT AND LOCATION AS TECHNOLOGY EVOLVES TO MEET REQUIRED SPECIFICATIONS.

SITE NAME: TOWN OF BEACON FALLS MP

LOPUS ROAD (NO #)

BEACON FALLS, CT

ADDRESS:



100 FILLEY STREET

BLOOMFIELD, CT 06002

01/23/04

SCALE: NTS

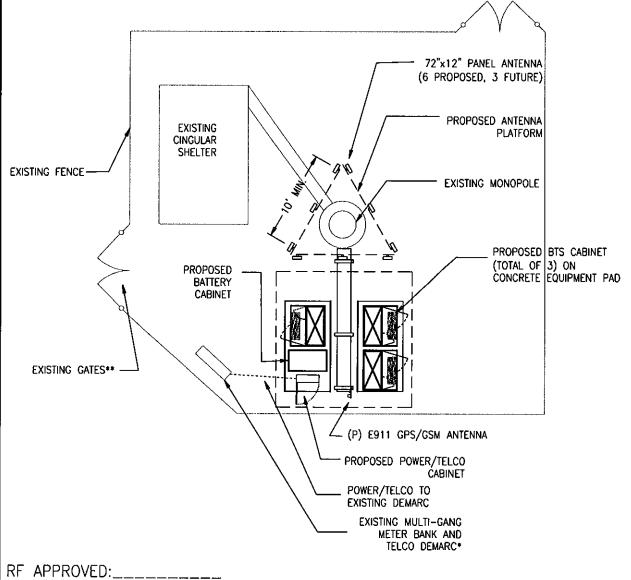
CO-LOCATE

DRAWN BY:

D. B. HILL

ALL EQUIPMENT LOCATIONS ARE APPROXIMATE AND ARE SUBJECT TO APPROVAL BY OMNIPOINT COMMUNICATIONS, INC. STRUCTURAL & RF ENGINEERS. LOCATIONS OF POWER & TELEPHONE FACILITIES ARE SUBJECT TO APPROVAL BY UTILITY COMPANIES.

IMPORTANT NOTE: ALL ITEMS LABELLED AS "EXISTING" ARE FUTURE BY CINGULAR WIRELESS. COMPOUND LAYOUT PER CINGULAR CD'S DATED 10/12/05. ALL PROPOSED ITEMS ARE PROPOSED COLOCATION ON THE FUTURE INSTALLATION.



ANTENNA AZIMUTHS:

SECTOR A=

SECTOR B=

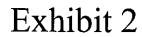
SECTOR C=

*EQUIPMENT SPECIFICATIONS AND UTILITY EASEMENTS AS REQUIRED BY TELCO AND POWER COMPANY.



REV. 1: 11/6/05 (DOC)

	CT11-487B TOWN OF BEACON FALLS MP	OMNIPOINT COMMUNICATIONS, INC.	SITE TYPE:	MONOPOLE CO-LOCATE	DATE: 01/23/04
ADDRESS:	LOPUS ROAD (NO #) BEACON FALLS, CT	100 FILLEY STREET BLOOMFIELD, CT 06002	DRAWN BY:	D. B. HILL	SCALE: NTS





Customer: TECTONIC
Description: 145' MONOPOLE

EEI Job Number: 13674



DESIGN INFORMATION

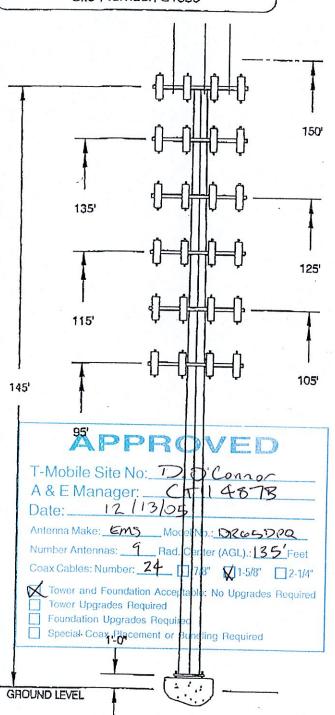
Designed By: N. UNGER

Design Date: 10/3/2005

Status: REVISION 0

SITE INFORMATION

Location: NEW HAVEN COUNTY, CT Site Name: BEACON FALLS Site Number: \$1690



ENGINEERED ENDEAVORS, INC.

7610 Jenther Drive • Mentor, Ohio 44060-4872 Phone: (440) 918-1101 • Phone: (888) 270-3855 Fax: (440) 918-1108 • www.engend.com

ANTENNA LOADING

- (12) 7770 PANEL ANTENNAS, (6) LGP2140X TMAS, (18) LGP13519 DIPLEXERS AND (3) OMNIDIRECTIONAL ANTENNAS MOUNTED ON A 12' LOW PROFILE PLATFORM AT 145' (CINGULAR)
- (12) ALP 9212 PANEL ANTENNAS MOUNTED ON A 12' LOW PROFILE PLATFORM AT 135' (FUTURE)
- (12) ALP 9212 PANEL ANTENNAS MOUNTED ON A 12' LOW PROFILE PLATFORM AT 125' (FUTURE)
- (12) ALP 9212 PANEL ANTENNAS MOUNTED ON A 12' LOW PROFILE PLATFORM AT 115' (FUTURE)
- (12) ALP 9212 PANEL ANTENNAS MOUNTED ON A 12' LOW PROFILE PLATFORM AT 105' (FUTURE)
- (12) ALP 9212 PANEL ANTENNAS MOUNTED ON A 12' LOW PROFILE PLATFORM AT 95' (FUTURE)

DESIGN CRITERIA

DESIGNED IN ACCORDANCE WITH THE TIA/EIA 222-F FOR 85 MPH FASTEST MILE WIND SPEED AND 1/2" RADIAL ICE (NON-SIMULTANEOUS)

DESIGN MEETS THE REQUIREMENTS OF SECTIONS 1609 AND 3108 OF THE 2000 AND 2003 INTERNATIONAL BUILDING CODES FOR 105 MPH 3-SECOND GUST WIND SPEED







T-Mobile USA Inc. 100 Filley St, Bloomfield, CT 06002-1853

Phone: (860) 692-7100 Fax: (860) 692-7159

Technical Memo

To: Christine Farrell

From: Farid Marbouh - Radio Frequency Engineer

cc: Jason Overbey

Subject: Power Density Report for CT11487B

Date: January 11, 2006

1. Introduction:

This report is the result of an Electromagnetic Field Intensities (EMF - Power Densities) study for the T-Mobile PCS antenna installation on a Monopole at Lopus Rd, Beacon Falls, 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 1935-1945 MHz frequency band.
- 2) The antenna array consists of three sectors, with 3 antennas per sector.
- 3) The model number for each antenna is EMS RR90-17-02DP.
- 4) The antenna center line height is 135 ft.
- 5) The maximum transmit power from any sector is 1676.18 Watts Effective Radiated Power (EiRP) assuming 8 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 PCS antenna installation on a Monopole at Lopus Rd, Beacon Falls, CT, is 0.0221 mW/cm^2. This value represents 2.21% of the Maximum Permissible Emission (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 7.37%. The combined Power Density for the site is 9.58% of the M.P.E. standard.

New England Market	T Mobile-	
Connecticut	L. T. MODITE.	
Worst Case Power Density		
Site:	CT11487B	
Site Address:	Lopus Rd	
Town:	Beacon Falls	
Tower Height:	150 ft.	
Tower Style:	Monopole	
Base Station TX output	20 W	
Number of channels	8	
Antenna Model	EMS RR90-17-02DP	
Cable Size	1 5/8 in. 155 ft. 135.0 ft. 1.6	
Cable Length		
Antenna Height		
Ground Reflection		
Frequency	1935.0 MHz	
Jumper & Connector loss	4.50 dB	
Antenna Gain	16.5 dBi	
Cable Loss per foot	0.0116 dB	
Total Cable Loss	1.7980 dB	
Total Attenuation	6.2980 dB	
Total EIRP per Channel	53.21 dBm	
(In Watts) Total EIRP per Sector	209.52 W	
(In Watts)	62.24 dBm	
(iii watts)	1676.18 W 10.2020	
Power Density (S) =	0.022098 mW/cm^2	
T-Mobile Worst Case % MPE =	2.2098%	
equation Used: $S = \frac{(1000)(grf)^2(Power)^*10^{(nsg10)}}{4\pi(R)^2}$ Office of Engineering and Technology (OET) B		

Co-Location Total				
Carrier	% of Standard			
Verizon				
Cingular PCS	2.1900 %			
Cingular Cellular	5.1800 %			
AT&T Wireless				
Nextel				
Total Excluding T-Mobile	7.3700 %			
T-Mobile	2.2098			
Total % MPE for Site	9.5798%			



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

January 13, 2006

The Honorable Susan Ann Cable First Selectman Town of Beacon Falls 10 Maple Avenue Beacon Falls. CT 06403

RE:

TS-T-MOBILE-006-060111 - Omnipoint Communications, Inc. (T-Mobile) request for an order to approve tower sharing at an existing telecommunications facility located at Lopus Road, Beacon Falls, Connecticut.

Dear Ms. Cable:

The Connecticut Siting Council (Council) received this request for tower sharing, pursuant to Connecticut General Statutes § 16-50aa.

The Council will consider this item at the next meeting scheduled for January 25, 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 January 24, 2006.

Thank you for your cooperation and consideration.

SDP/ap

Executive Director

Enclosure: Notice of Tower Sharing

c: Brian Herb, Zoning Enforcement Officer, Town of Beacon Falls



T · Mobile ·

Omnipoint Holdings, Inc. 100 Filley Street, Bloomfield, CT. 06002 Telephone: (860) 692-7100 Fax: (860) 692-7159

Recipient (s):	Phone Number (s):	Fax Number (s):
mike Perme		800-827-2750
THINC MAIN		
	After and the second se	

Date: 1 25 06

Pages: (including cover sheet)

Affected is the revised drawings.

Call me if you have any questions.

RECEIVED JAN 2 5 2006

CONNECTICUT SITING COUNCIL

Sender: Karra Faurie Sender's Direct Dial: 860-6927118

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11/4

