

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

www.ct.gov/csc

August 20, 2013

Julie D. Kohler, Esq.
Cohen and Wolf, P.C.
1115 Broad Street
Bridgeport, CT 06604

RE: **EM-T-MOBILE-034-130726** – T-Mobile Northeast LLC notice of intent to modify an existing telecommunications facility located at 7 West View Drive, Danbury, Connecticut.

Dear Attorney Kohler:

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 with the following conditions:

- Any deviation from the proposed modification as specified in this notice and supporting materials with the Council shall render this acknowledgement invalid;
- Any material changes to this modification as proposed shall require the filing of a new notice with the Council;
- Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;
- The validity of this action shall expire one year from the date of this letter; and
- The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration.

The proposed modifications including the placement of all necessary equipment and shelters within the tower compound are to be implemented as specified here and in your notice dated July 25, 2013. 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. Thank you for your attention and cooperation.

Very truly yours,

Melanie A. Bachman
Acting Executive Director

MAB/CDM/jb

c: The Honorable Mark D. Boughton, Mayor, City of Danbury
Dennis Elpern, City Planner, City of Danbury
Robert Kaufman



RACHEL A. SCHWARTZMAN

Please Reply To: Bridgeport
Writer's Direct Dial: (203) 337-4110
E-Mail: rschwartzman@cohenandwolf.com

April 23, 2015

Attorney Melanie Bachman
Acting Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06501

**Re: EM-T-MOBILE-034-130726
T-Mobile Site ID CT11923C
7 West View, Danbury, CT
Notice of Construction Completion**

Dear Attorney Bachman:

The Connecticut Siting Council ("Council") acknowledged the above referenced T-Mobile Northeast LLC ("T-Mobile") notice of exempt modification on August 20, 2013. T-Mobile hereby notifies the Council that construction of the acknowledged modifications were complete as of December 16, 2013.

Please don't hesitate to contact me with any questions.

Sincerely,



Rachel A. Schwartzman

cc: Samuel Simons, T-Mobile
Mark Richard, T-Mobile
Robert Stanford, Vertical Development, LLC
Julie Kohler, Esq.

RACHEL A. SCHWARTZMAN

Please Reply To: Bridgeport
Writer's Direct Dial: (203) 337-4110
E-Mail: rschwartzman@cohenandwolf.com

December 23, 2014

Via Electronic and Overnight Mail

Attorney Melanie Bachman
Acting Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

**Re: T-Mobile Exempt Modification Compliance Filings
Connecticut Siting Council Audit Letter dated November 3, 2014
Request For Extension of Time**

Dear Attorney Bachman:

T-Mobile Northeast, LLC ("T-Mobile") respectfully requests a 60-day extension of time to March 2, 2015 to respond to the Council's request, dated November 3, 2014, for exempt modification compliance data. The attached spreadsheet provides a list of the sites for which T-Mobile seeks a requested extension.

T-Mobile is actively compiling all of the requested information but needs additional time to provide the necessary documentation.

Please do not hesitate to let me know if you have any questions.

Sincerely,



Rachel A. Schwartzman, Esq.

RAS/lcc
Enclosure

cc: Samuel Simons, T-Mobile Northeast, LLC (via electronic mail)
Mark Richard, T-Mobile Northeast, LLC (via electronic mail)
Robert Stanford, Vertical Development, LLC (via electronic mail)
Julie Kohler, Esq.

EM/TS #	Address	Town	Council Additional Conditions	Compliance with Council Additional Conditions Received	Notice of Completion Received	Decision Date
EM-T-MOBILE-043-130222	1455 Forbes Street	East Hartford	Yes	No	No	3/12/2013
EM-T-MOBILE-057-130220	150 Butternut Hollow Road	Greenwich	N/A	N/A	No	3/12/2013
EM-T-MOBILE-135-130318	555 Main Street	Stamford	Yes	No	No	4/9/2013
EM-T-MOBILE-006-130528	60 Rice Lane	Beacon Falls	Yes	No	No	6/26/2013
EM-T-MOBILE-002-130529	401 Wakelee Avenue	Ansonia	N/A	N/A	No	6/27/2013
EM-T-MOBILE-004-130531	81 Montevideo Road	Avon	N/A	N/A	No	7/9/2013
EM-T-MOBILE-034-130531A	41 Padanaram Road	Danbury	Yes	No	No	7/9/2013
EM-T-MOBILE-034-130531B	303 Boxwood Lane	Danbury	N/A	N/A	No	7/9/2013
EM-T-MOBILE-091-130531A	302 Ball Pond Road	New Fairfield	N/A	N/A	No	7/9/2013
EM-T-MOBILE-091-130531B	37 Titicus Mountain Road	New Fairfield	N/A	N/A	No	7/9/2013
EM-T-MOBILE-148-130531	90 N. Plains Industrial Road	Wallingford	N/A	N/A	No	7/9/2013
EM-T-MOBILE-101-130611	125 Washington Avenue	North Haven	N/A	N/A	No	7/10/2013
EM-T-MOBILE-009-130611	38 Spring Hill Lane	Bedel	Yes	No	No	7/11/2013
EM-T-MOBILE-017-130611	2 Wallis Street	Bristol	Yes	No	No	7/12/2013
EM-T-MOBILE-110-130621	335 S. Washington Street	Plainville	N/A	N/A	No	7/12/2013
EM-T-MOBILE-033-130719	179 Shumple Road	Cromwell	Yes	No	No	8/7/2013
EM-T-MOBILE-049-130718	1 Ecology Drive	Enfield	N/A	N/A	No	8/7/2013
EM-T-MOBILE-014-130724	405 Brushy Plain Road	Brainford	Yes	No	No	8/13/2013
EM-T-MOBILE-017-130729	985 Farmington Avenue	Bristol	N/A	N/A	No	8/20/2013
EM-T-MOBILE-034-130726	7 West View Drive	Danbury	N/A	N/A	No	8/20/2013
EM-T-MOBILE-166-130726	Andrews Road	Wolcott	Yes	No	No	8/20/2013
EM-T-MOBILE-166-130816	Route 322/Meridian Road	Wolcott	N/A	N/A	No	9/3/2013
EM-T-MOBILE-080-130903	11 West Peak Drive	Meriden	Yes	No	No	9/18/2013



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December 24, 2014

Rachel A. Schwartzman, Esq.
Cohen and Wolf, P.C.
P.O. Box 1821
Bridgeport, CT 06601

RE:	EM-T-MOBILE-004-130531	81 Montevideo Road	Avon
	EM-T-MOBILE-009-130611	38 Spring Hill Lane	Bethel
	EM-T-MOBILE-014-130724	405 Brushy Plain Road	Branford
	EM-T-MOBILE-017-130611	2 Willis Street	Bristol
	EM-T-MOBILE-017-130729	985 Farmington Avenue	Bristol
	EM-T-MOBILE-033-130719	179 Shunpike Road	Cromwell
	EM-T-MOBILE-034-130531A	41 Padanaram Road	Danbury
	EM-T-MOBILE-034-130531B	303 Boxwood Lane	Danbury
	EM-T-MOBILE-034-130726	7 West View Drive	Danbury
	EM-T-MOBILE-043-130222	1455 Forbes Street	East Hartford
	EM-T-MOBILE-049-130718	1 Ecology Drive	Enfield
	EM-T-MOBILE-057-130220	150 Butternut Hollow Road	Greenwich
	EM-T-MOBILE-080-130903	11 West Peak Drive	Meriden
	EM-T-MOBILE-091-130531A	302 Ball Pond Road	New Fairfield
	EM-T-MOBILE-091-130531B	37 Titicus Mountain Road	New Fairfield
	EM-T-MOBILE-101-130611	125 Washington Avenue	North Haven
	EM-T-MOBILE-110-130621	335 S. Washington Street	Plainville
	EM-T-MOBILE-135-130318	555 Main Street	Stamford
	EM-T-MOBILE-148-130531	90 N. Plains Industrial Road	Wallingford
	EM-T-MOBILE-166-130726	Andrews Road	Wolcott
	EM-T-MOBILE-166-130816	Route 322/Meridian Road	Wolcott

Dear Attorney Schwartzman:

The Connecticut Siting Council (Council) is in receipt of your letter dated December 23, 2014, submitted on behalf of T-Mobile, requesting an extension of time to submit a notice of completion of construction and associated post modification inspection reports for the above-referenced exempt modifications.

The Council hereby grants a 60-day extension of time to submit a notice of completion of construction and associated post modification inspection reports for the above-referenced exempt modifications to March 2, 2015.

This extension is granted with the understanding that the Council will be notified should T-Mobile need additional time beyond 60 days to submit a notice of completion and associated post modification inspection reports or decide not to proceed with construction.



Thank you for your attention to this matter.

Sincerely,

A handwritten signature in dark ink, appearing to read "Melanie A. Bachman". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Melanie A. Bachman
Acting Executive Director

MAB/cm

RACHEL A. SCHWARTZMAN

Please Reply To: Bridgeport
Writer's Direct Dial: (203) 337-4110
E-Mail: rschwartzman@cohenandwolf.com

February 27, 2015

Via Electronic and Overnight Mail

Attorney Melanie Bachman
Acting Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06501

**Re: T-Mobile Notice of Completion Filings (Third Quarter Audit)
Connecticut Siting Council Letters, dated November 3, 2014 and February 20, 2015
Request for Extension of Time**

Dear Attorney Bachman:

T-Mobile Northeast, LLC ("T-Mobile") respectfully requests an additional two-month extension of time to respond to the Council's request for notice of completion of construction and associated post-modification inspection reports for the following sites:

EM-T-MOBILE-049-130724, 1 Ecology Drive, Enfield (Site ID CT11534A)
EM-T-MOBILE-014-130724 405, Brushy Plains Road, Branford (Site ID NH102C)
EM-T-MOBILE-080-130903, 11 West Peak Drive, Meriden (Site ID11132B)
EM-T-MOBILE-034-130531A, 41 Padnaram Road, Danbury (CT11896A)
EM-T-MOBILE-091-130531A, 302 Ball Pond Road, New Fairfield (CT11797A)
EM-T-MOBILE-009-130611, 38 Spring Hill Road, Bethel (CT11115F)
EM-T-MOBILE-017-130611, 2 Willis Street, Bristol (CT11270C)
EM-T-MOBILE-034-130726, 7 West View, Danbury (CT11923C)
EM-T-MOBILE-166-130816, Route 322 aka Meridan Road aka 347 East Street,
Wolcott (CT11494B)
EM-T-MOBILE-004-130531, 81 Montevideo Road, Avon (CT11284A)
EM-T-MOBILE-033-130719, 179 Shunpike Road, Cromwell (CT11059C)
EM-T-MOBILE-166-130726, Andrew Road, Wolcott (CT11403A)

T-Mobile has filed the appropriate compliance filings for several third quarter sites, but needs additional time to provide the requested information for the above-referenced sites. T-Mobile has diligently obtained much of the required documentation, and is working with its vendors and engineers to obtain the proper closeout records. T-Mobile continues to actively compile the requested information, but needs additional time to do so.

Please do not hesitate to let me know if you have any questions.

Sincerely,



Rachel A. Schwartzman

RAS/lcc

cc: Samuel Simons, T-Mobile Northeast, LLC (via electronic mail)
Mark Richard, T-Mobile Northeast, LLC (via electronic mail)
Robert Stanford, Vertical Development, LLC (via electronic mail)
Julie Kohler, Esq. (via electronic mail)



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VIA ELECTRONIC AND FIRST CLASS MAIL

March 2, 2015

Rachel A. Schwartzman, Esq.
Cohen and Wolf, P.C.
1115 Broad Street
Bridgeport, CT 06604

RE: EM-T-MOBILE-049-130724, 1 Ecology Drive, Enfield
EM-T-MOBILE-014-130724405, Brushy Plains Road, Branford
EM-T-MOBILE-080-130903, 11 West Peak Drive, Meriden
EM-T-MOBILE-034-130531A, 41 Padnaram Road, Danbury
EM-T-MOBILE-091-130531A, 302 Ball Pond Road, New Fairfield
EM-T-MOBILE-009-130611, 38 Spring Hill Road, Bethel
EM-T-MOBILE-017-130611, 2 Willis Street, Bristol
EM-T-MOBILE-034-130726, 7 West View, Danbury
EM-T-MOBILE-166-130816, Route 322 aka Meriden Road aka 347 East Street, Wolcott
EM-T-MOBILE-004-130531, 81 Montevideo Road, Avon
EM-T-MOBILE-033-130719, 179 Shunpike Road, Cromwell
EM-T-MOBILE-166-130726, Andrew Road, Wolcott

Dear Attorney Schwartzman:

The Connecticut Siting Council (Council) is in receipt of your letter dated February 27, 2015, submitted on behalf of T-Mobile Northeast, LLC, requesting an extension of time to submit a notice of completion of construction and associated post modification inspection reports for the above-referenced exempt modifications.

The Council hereby grants a 60-day extension of time, until May 2, 2015, to submit a notice of completion of construction and associated post modification inspection reports for the above-referenced exempt modifications.

This extension is granted with the understanding that the Council will be notified should T-Mobile Northeast, LLC need additional time beyond 60 days to submit a notice of completion and associated post modification inspection reports or decide not to proceed with construction.

Thank you for your attention to this matter.

Sincerely,

Melanie A. Bachman
Acting Executive Director

MAB/cm



JULIE D. KOHLER

PLEASE REPLY TO: Bridgeport
WRITER'S DIRECT DIAL: (203) 337-4157
E-Mail Address: jkohler@cohenandwolf.com

July 25, 2013

Attorney Melanie Bachman
Acting Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

**Re: Notice of Exempt Modification
Robert J. Kaufman/T-Mobile co-location
Site ID CT11923C
7 West View Drive, Danbury**

Dear Attorney Bachman:

This office represents T-Mobile Northeast LLC ("T-Mobile") and has been retained to file exempt modification filings with the Connecticut Siting Council on its behalf.

In this case, Robert J. Kaufman owns the existing lattice telecommunications tower and related facility at 7 West View Drive, Danbury Connecticut (coordinates 41 23 45.6/ -73 25 25.6794). T-Mobile intends to replace six antennas and related equipment at this existing telecommunications facility in Danbury ("Danbury Facility"). Please accept this letter as notification, pursuant to R.C.S.A. § 16-50j-73, of construction which constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to the Mayor, Mark D. Boughton. Robert J. Kaufman is also the property owner.

The existing Danbury Facility consists of a 100 foot tall lattice structure. T-Mobile plans to replace six antennas at a centerline of 50 feet. (See the plans dated July 25, 2013 attached hereto as Exhibit A). T-Mobile will also remove three TMAs (tower mounted amplifiers) and install fiber cable. The existing Facility is structurally capable of supporting T-Mobile's proposed modifications, as indicated in the structural analysis dated July 12, 2013 and attached hereto as Exhibit B.

The planned modifications to the Danbury Facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2).

1. The proposed modification will not increase the height of the tower. T-Mobile's

July 25, 2013
Site ID CT11923C
Page 2

replacement antennas will be installed at the 50 foot level. The enclosed tower drawing confirms that the proposed modification will not increase the height of the tower.

2 . The installation of the T-Mobile replacement equipment in the existing compound, as reflected on the attached site plan, will not require an extension of the site boundaries. T-Mobile's proposed equipment will be located entirely within the existing compound area.

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

4 . The operation of the replacement antennas will not increase the total radio frequency (RF) power density, measured at the base of the tower, to a level at or above the applicable standard. According to a Radio Frequency Emissions Analysis Report prepared by EBI dated July 23, 2013 T-Mobile's operations would add 5.384% of the FCC Standard. Therefore, the calculated "worst case" power density for the planned combined operation at the site including all of the proposed antennas would be 8.984% of the FCC Standard as calculated for a mixed frequency site as evidenced by the engineering exhibit attached hereto as Exhibit C.

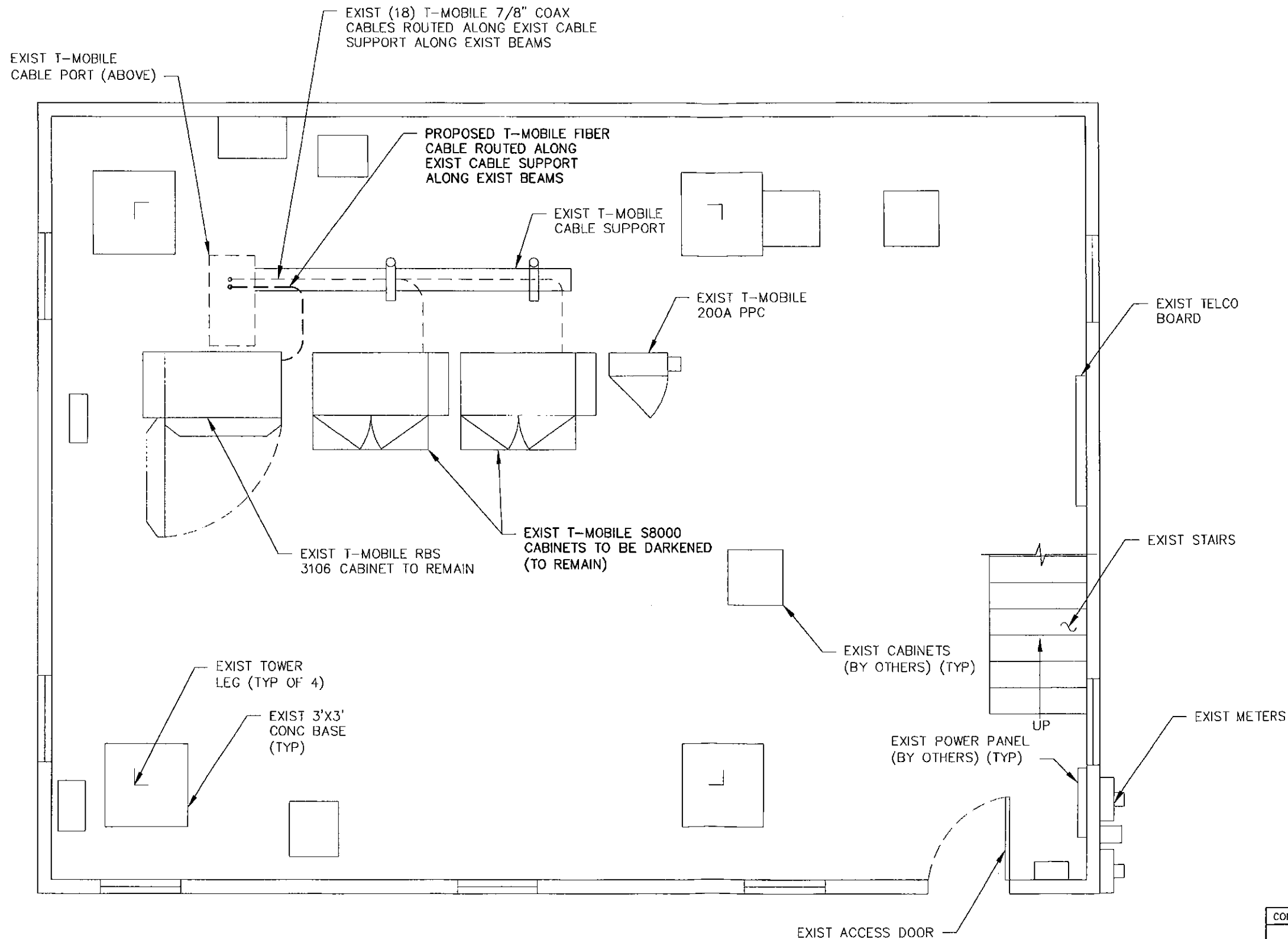
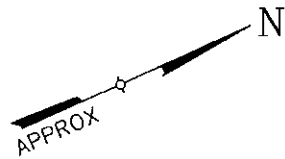
For the foregoing reasons, T-Mobile respectfully submits that the proposed replacement antennas and equipment at the Danbury Facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,


Julie D. Kohler, Esq.

cc: City of Danbury, Mayor, Mark D. Boughton
Robert J. Kaufman
Jamie Ford, HSS

EXHIBIT A



STRUCTURAL NOTE:
REFER TO STRUCTURAL ANALYSIS BY TECTONIC
ENGINEERING DATED 7/12/13 FOR VERIFICATION OF
TOWER STRUCTURE STABILITY.

1
L-1

SITE PLAN

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



CONFIGURATION
2C

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• PLANNING • SURVEYING
• ENGINEERING • CONSTRUCTION
MANAGEMENT

TECTONIC Engineering & Surveying
Consultants P.C.

1279 Route 300
Newburgh, NY 12550
Phone: (845) 567-6656
Fax: (845) 567-8703

T-Mobile

NORTHEAST LLC.

T-MOBILE NORTHEAST, LLC. PHONE: (973) 686-6500
4 SYLVAN DRIVE
PARSIPPANY, NJ 07054

APPROVALS

T-MOBILE _____
LANDLORD _____
RF _____
CONSTRUCTION _____

PROJECT NUMBER 6644.CT11923C DESIGNED BY TN

REV	DATE	REVISION	DRAWN BY
Δ	4/10/13	FOR COMMENT	SW
Δ	07/25/13	REVISED PER SA	AS

ISSUED BY _____ DATE _____

SITE INFORMATION

CT11923C
CT923/W. VIEW DR_GT
7 WEST VIEW DRIVE
DANBURY, CT 06810

SHEET TITLE

SITE PLAN

SHEET NUMBER

L-1

T/EXIST
TOWER
EXTENSION
135'-0"± AGL

EXIST WHIP ANTENNA
(BY OTHERS) (TYP)

T/EXIST LATTICE TOWER
100'-0"± AGL

T/REPLACEMENT
T-MOBILE ANTENNAS
52'-4"± AGL

REPLACEMENT
T-MOBILE ANTENNAS
50'-0"± AGL

EXIST DISH ANTENNA
(BY OTHERS TYP)

EXIST (18) T-MOBILE
7/8" COAX CABLES

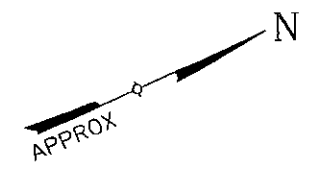
PROPOSED T-MOBILE
FIBER CABLE ROUTED
UP TOWER LEG TO
REPLACEMENT ANTENNAS

EXIST T-MOBILE RBS
3106 CABINET TO
REMAIN (BEYOND)

EXIST T-MOBILE S8000 CABINETS TO
BE DARKENED (TO REMAIN) (BEYOND)

EXIST GRADE

1
L-2
ELEVATION
SCALE: 1/16" = 1'-0"



EXIST (1) T-MOBILE
TMA TO BE REMOVED
& (1) TMA TO REMAIN

EXIST T-MOBILE GAMMA
SECTOR ANTENNA TO BE
REPLACED (TYP OF 2)

EXIST 110' HIGH
LATTICE TOWER

EXIST (1) T-MOBILE
TMA TO BE REMOVED
& (1) TMA TO REMAIN

EXIST T-MOBILE ALPHA
SECTOR ANTENNA TO BE
REPLACED (TYP OF 2)

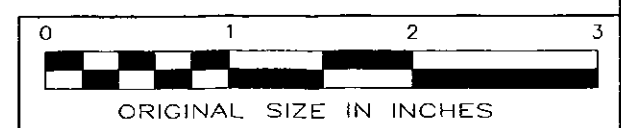
EXIST (1) T-MOBILE
TMA TO BE REMOVED
& (1) TMA TO REMAIN

EXIST T-MOBILE BETA
SECTOR ANTENNA TO
BE REPLACED (TYP OF 2)

EXIST T-MOBILE
EMPTY PIPE MOUNT
(TYP)

2
L-2
ANTENNA PLAN
SCALE: 3/16" = 1'-0"

CONFIGURATION
2C



STRUCTURAL NOTE:
REFER TO STRUCTURAL ANALYSIS BY TECTONIC
ENGINEERING DATED 7/12/13 FOR VERIFICATION OF
TOWER STRUCTURE STABILITY.

TECTONIC

• PLANNING

• SURVEYING

• ENGINEERING

• CONSTRUCTION
MANAGEMENT

TECTONIC Engineering & Surveying
Consultants P.C.

1279 Route 300
Newburgh, NY 12550
Phone: (845) 567-6656
Fax: (845) 567-8703

• T-Mobile •

NORTHEAST LLC.

T-MOBILE NORTHEAST, LLC.

4 SYLVAN DRIVE
PARSONS, NJ 07054

PHONE (973) 686-6500

APPROVALS			
T-MOBILE			
LANDLORD			
RF			
CONSTRUCTION			
PROJECT NUMBER	DESIGNED BY		
6644.CT11923C	TN		
REV	DATE	REVISION	DRAWN BY
Δ	4/10/13	FOR COMMENT	SW
Δ	07/25/13	REVISED PER SA	AS

ISSUED BY	DATE

SITE INFORMATION

CT11923C
CT923/W. VIEW DR_GT
7 WEST VIEW DRIVE
DANBURY, CT 06810

SHEET TITLE

ELEVATION &
ANTENNA PLAN

SHEET NUMBER

L-2

EXHIBIT B

STRUCTURAL ANALYSIS

SUMMARY REPORT

T-MOBILE UPGRADE

EXISTING 100 FEET SELF-SUPPORTING TOWER

**T-MOBILE SITE: CT11923C; CT923/W.VIEW DRIVE GT
7 WEST VIEW DRIVE,
DANBURY, CT**

JULY 12, 2013

TEC W.O. 6644.CT11923C

TECTONIC

Practical Solutions, Exceptional Service

STRUCTURAL ANALYSIS REPORT**Project Information**

W.O. Number:	6644.11923C	Report Date:	7/12/2013
Client:	T-Mobile	Revision:	0
Site Name:	CT923 / W. View Drive GT		
Owner:	Steven T, LLC		
Site Address:	7 West View Drive	FCC Regulation Number:	1204508
City, State:	Danbury, CT 06810	County:	Fairfield

Structure Information

Structure Type:	Self-Supporting Tower	Manufacturer:	Unknown
Structure Height:	100 ft.	Year Built:	Unknown
Original Drawings:	Structure: No	Foundation:	No
Previous Analysis:	Yes		
Documents provided:			
	<u>Item</u>	<u>By</u>	<u>No.</u> <u>Date</u>
	Structural Analysis Report (28 pages)	Pier Structural Engineering	2695 2/23/09
	RFDS v3.0	T-Mobile	CT11923C 3/28/13
	Tower Mapping Report (34 pages)	Vertical Solutions	130578 7/3/13
	Foundation Mapping Report (8 pages)	Vertical Solutions	130578 7/3/13
	Geotechnical Investigation Report - Rev 1	Tectonic	6644.CT11923C 7/12/13

Inspection

Type:	Tower Climb	Date:	6/11/2013
General Condition:			
	Tower: Good		
	Foundation: Good		
Observations:	None		
Finish:	Galvanized	Condition:	Intact

Proposed Installation

T-Mobile is proposing to upgrade its existing installation by replacing existing panel antennas with newer model antennas, and removing three (3) existing TMA's. The final configuration upon the upgrade will be as follows:

Antennas:

Height (ft.)	Carrier	Qty	Manuf.	Model	Mount	Leg (s)
50	T-Mobile	6	Ericsson	AIR21 B2A/B4P	(3) 10' Sector Frames	A,B,D
		3	Unknown	TMA's		

Cables:

Height (ft.)	Qty	Nom. Size	Location	Comments
50	16	7/8"	Face AB	Existing to remain
50	8	7/8"	Face AD	Existing to remain
50	1	Fiber Trunk line	Face AD	To be stacked on existing

Analysis Criteria

Design Standard: ANSI/TIA/EIA-222-F-1996

	<u>Capacity (no ice)</u>	<u>Capacity w/ ice</u>	<u>Service</u>
Wind Speed:	85 mph	74 mph	50 mph
Basic Ice Thickness:	0 inch	0.5 inch	0 inch

Assumptions:

1. The tower was designed, manufactured, and constructed in accordance with the approved tower drawings.
2. The tower reinforcement has been completed in accordance with the previous analysis report referenced above.
3. The foundation was designed and constructed based on site-specific geotechnical information.
4. Tower leg members and bracings members conforms to ASTM A36 grade steel.
5. Anchor Bolts conforms to ASTM A354 Grade BC steel.

W.O. Number: 6644.11923C
Client: T-Mobile
Site Name: CT923 / W. View Drive GT

Report Date: 7/12/2013
Revision: 0

Analysis Results

Element	% Usage
Legs	66%
Diagonals	66%
Horizontals	59%
Anchor Bolts	21%

Foundation Reactions:

<u>Tower Base</u>	<u>Current Analysis</u>
Vertical	77 kips
Uplift	61 kips
Shear (total)	12 kips

Conclusions

Based on our analysis, the existing tower has adequate capacity to support the proposed T-Mobile upgrade as described herein in accordance with current code requirements.


Based on our analysis, the existing foundation is adequate to support the proposed T-Mobile upgrade.

This report and the structural analysis performed are based on the information referenced above. If the existing conditions are not as represented in this report, the design engineer should be immediately notified prior to construction. Any further changes to the antenna configuration or other appurtenances should be reviewed with respect to their effect on structural loads prior to implementation.

Prepared by: Kenneth Widman, EIT
Structural Engineer

Reviewed by: Vinod Ramesh, EIT
Structural Engineer

Approved by:


Edward N. Iamiceli, P.E.
Project Manager



Date:

7/12/13

EXHIBIT C



EBI Consulting

environmental | engineering | due diligence

RADIO FREQUENCY EMISSIONS ANALYSIS REPORT EVALUATION OF HUMAN EXPOSURE POTENTIAL TO NON-IONIZING EMISSIONS

T-Mobile Existing Facility

Site ID: CT11923C

W. View Drive
7 West View Drive
Danbury CT 06810

July 23, 2013

EBI Project Number: 62138524

July 23, 2013

T-Mobile USA
Attn: Jason Overbey, RF Manager
35 Griffin Road South
Bloomfield, CT 06002

Re: Emissions Values for Site: **CT11923C - W. View Drive**

EBI Consulting was directed to analyze the proposed T-Mobile facility located at 7 West View Drive, Danbury CT, for the purpose of determining whether the emissions from the Proposed T-Mobile Antenna Installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01 and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The number of $\mu\text{W}/\text{cm}^2$ calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) – (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The general population exposure limit for the cellular band is $567 \mu\text{W}/\text{cm}^2$, and the general population exposure limit for the PCS band is $1000 \mu\text{W}/\text{cm}^2$. 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.



Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed T-Mobile Wireless antenna facility located at 7 West View Drive, Danbury CT, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-Mobile is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, the actual antenna pattern gain value in the direction of the sample area was used. For this report the sample point is a 6 foot person standing at the base of the tower

For all calculations, all equipment was calculated using the following assumptions:

- 1) 2 GSM channels (1940.000 MHz—to 1950.000 MHz) were considered for each sector of the proposed installation.
- 2) 2 UMTS channels (2110.000 MHz to 2120.000 MHz / 2140.000 MHz to 2145.000 MHz) were considered for each sector of the proposed installation
- 3) 2 LTE channels (2110.000 MHz to 2120.000 MHz / 2140.000 MHz to 2145.000 MHz) were considered for each sector of the proposed installation
- 4) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation 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.
- 5) For the following calculations the sample point was the top of a six foot person standing at the base of the tower. The actual gain in this direction was used per the manufactures supplied specifications.
- 6) The antenna used in this modeling is the Ericsson AIR21 for LTE, UMTS and GSM. This is based on feedback from the carrier with regards to anticipated antenna selection. This antenna has a 15.6 dBi gain value at its main lobe. Actual antenna gain values were used for all calculations as per the manufacturers specifications

- 7) The antenna mounting height centerline of the proposed antennas is **50 feet** above ground level (AGL)
- 8) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.

All calculation were done with respect to uncontrolled / general public threshold limits

Site ID	CT11923C - W. View Drive
Site Address	7 West View Drive, Danbury CT 06810
Site Type	Self Support Tower

Sector 1																	
Antenna Number	Antenna Make	Antenna Model	Status	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBd)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage
1a	Ericsson	AIR21 B4A/B2P	Active	AWS - 2100 MHz	LTE	60	2	120	-3.95	50	44	None	0	0	48.326044	8.973913	0.89739%
1b	Ericsson	AIR21 B4A/B2P	Not Used	-	-	-	-	0	-3.95	50	44	None	0	0	0	0	0.00000%
2a	Ericsson	AIR21 B2A / B4P	Active	PCS - 1950 MHz	GSM / UMTS	30	2	60	-3.95	50	44	1-5/8"	0	0	24.163022	4.486957	0.44870%
2b	Ericsson	AIR21 B2A / B4P	Passive	AWS - 2100 MHz	UMTS	30	2	60	-3.95	50	44	1-5/8"	0	0	24.163022	4.486957	0.44870%
Sector total Power Density Value:															1.795%		
Sector 2																	
Antenna Number	Antenna Make	Antenna Model	Status	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBd)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage
1a	Ericsson	AIR21 B4A/B2P	Active	AWS - 2100 MHz	LTE	60	2	120	-3.95	50	44	None	0	0	48.326044	8.973913	0.89739%
1b	Ericsson	AIR21 B4A/B2P	Not Used	-	-	-	-	0	-3.95	50	44	None	0	0	0	0	0.00000%
2a	Ericsson	AIR21 B2A / B4P	Active	PCS - 1950 MHz	GSM / UMTS	30	2	60	-3.95	50	44	1-5/8"	0	0	24.163022	4.486957	0.44870%
2b	Ericsson	AIR21 B2A / B4P	Passive	AWS - 2100 MHz	UMTS	30	2	60	-3.95	50	44	1-5/8"	0	0	24.163022	4.486957	0.44870%
Sector total Power Density Value:															1.795%		
Sector 3																	
Antenna Number	Antenna Make	Antenna Model	Status	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBd)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage
1a	Ericsson	AIR21 B4A/B2P	Active	AWS - 2100 MHz	LTE	60	2	120	-3.95	50	44	None	0	0	48.326044	8.973913	0.89739%
1b	Ericsson	AIR21 B4A/B2P	Not Used	-	-	-	-	0	-3.95	50	44	None	0	0	0	0	0.00000%
2a	Ericsson	AIR21 B2A / B4P	Active	PCS - 1950 MHz	GSM / UMTS	30	2	60	-3.95	50	44	1-5/8"	0	0	24.163022	4.486957	0.44870%
2b	Ericsson	AIR21 B2A / B4P	Passive	AWS - 2100 MHz	UMTS	30	2	60	-3.95	50	44	1-5/8"	0	0	24.163022	4.486957	0.44870%
Sector total Power Density Value:															1.795%		

Site Composite MPE %	
Carrier	MPE %
T-Mobile	5.384%
On Site composite Measurement for all other carriers. Per CSC MPE Database	3.600%
Total Site MPE %	8.984%



Summary

All calculations performed for this analysis yielded results that were well within the allowable limits for general public exposure to RF Emissions.

The anticipated Maximum Composite contributions from the T-Mobile facility are **5.384% (1.795% from each sector)** of the allowable FCC established general public limit considering all three sectors simultaneously.

The anticipated composite MPE value for this site assuming all carriers present is **8.984%** of the allowable FCC established general public limit. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite values calculated were within the allowable 100% threshold standard per the federal government.

Scott Heffernan

RF Engineering Director

EBI Consulting

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