COHEN and WOLF P.C.
ATTORNEYS AT LAW

RACHEL A. SCHWARTZMAN

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

April 29, 2015

ORIGINAL

RECEIVED
APR 30 2015
Connecticut Siting Council

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

Re: EM-T-MOBILE-017-130611
T-Mobile Site ID CT11270C
2 Willis Street, Bristol, CT
Notice of Compliance with Conditions and 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 July 12, 2013.

The Council imposed the following condition in its acknowledgment:

- The coax cables shall be installed as specified in the Structural Analysis Report prepared by Centek Engineering dated April 29, 2013 and stamped by Carlo Centore;

- Within 45 days following completion of the antenna installation, T-Mobile shall provide documentation certified by a professional engineer that its installation complied with the recommendations of the structural analysis.

The attached PE Closeout Letter, dated April 28 2015, provides evidence of compliance with the conditions outlined by the Council.

In addition, T-Mobile hereby notifies the Council that construction of the acknowledged modifications were complete as of November 6, 2013.

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

Sincerely,

Rachel A. Schwartzman, Esq.

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

CENTEK engineering

Centered on Solutions℠

April 28, 2015

Mr. Sam Simons
T-Mobile
35 Griffin Road South
Bloomfield, CT 06002

Re: Existing Telecommunications Facility Tower Certification Letter

Project:	**T-Mobile CT11270C** 2 Willis Street, Bristol, CT
Tower Owner:	**Northeast Utilities** 107 Selden Street, Berlin, CT
Engineer:	**Centek Engineering** 63-2 North Branford Road, Branford, CT

Centek Project No.: 15091.000

CSC Exempt Mod Reference No.: EM-T-Mobile-017-130611

Dear Mr. Simons,

We are providing this "Existing Telecommunications Facility Tower Certification Letter" with regard to the antenna upgrade by T-Mobile at the above referenced project.

The following are the basis for substantiating compliance with the Centek Engineering structural analysis report (Centek Project No. 13103.000 Rev-1) dated April 29, 2013:

- ❑ Review of the Centek Engineering structural analysis report dated 04/29/2013 Rev-1.
- ❑ Review of the Centek Engineering structural analysis report dated 09/16/2013 Rev-3.
- ❑ Photo documentation reviewed by Centek personnel of the coax installation on 04/28/2015 which determined all coax lines were installed in general compliance with the recommendations of the structural analysis report prepared by Centek Engineering on 04/29/2013.

The structural analysis prepared by Centek Engineering demonstrates the tower will not exceed 100 percent of the post construction structural rating. The work under this Contract has been reviewed and found, to the Engineer's best knowledge, information and belief, to be completed in general compliance with the documents referenced above.

Sincerely,

Carlo F. Centore, PE
Principal ~ Structural Engineer

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

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, 1Ecology Drive, Enfield
EM-T-MOBILE-014-130724 405, Brushy Plains Road, Branford
EM-T-MOBILE-080-130903, 11West Peak Drive, Meriden
EM-T-MOBILE-034-130531A, 41Padnaram 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

COHEN and WOLF P.C.
ATTORNEYS AT LAW

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.

COHEN and WOLF P.C.
ATTORNEYS AT LAW

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)

1115 Broad Street
P.O. Box 1821
Bridgeport, CT 06601-1821
Tel: (203) 368-0211
Fax: (203) 394-9901

158 Deer Hill Avenue
Danbury, CT 06810
Tel: (203) 792-2771
Fax: (203) 791-8149

320 Post Road West
Westport, CT 06880
Tel: (203) 222-1034
Fax: (203) 227-1373

657 Orange Center Road
Orange, CT 06477
Tel: (203) 298-4066
Fax: (203) 298-4068

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

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.

Sincerley,

Melanie A. Bachman
Acting Executive Director

MAB/cm

COHEN and WOLF P.C.
ATTORNEYS AT LAW

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 Montevidco 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	Bethel	Yes	No	No	7/11/2013
EM-T-MOBILE-017-130611	2 Willis 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 Shunpike 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	Branford	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

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
Ten Franklin Square, New Britain, CT 06051
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E-Mail: siting.council@ct.gov
www.ct.gov/csc

July 12, 2013

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

RE: **EM-T-MOBILE-017-130611** – T-Mobile Northeast LLC notice of intent to modify an existing telecommunications facility located at 2 Willis Street, Bristol, 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:

- The coax cables shall be installed as specified in the Structural Analysis Report prepared by Centek Engineering dated April 29, 2013 and stamped by Carlo Centore;
- Within 45 days following completion of the antenna installation, T-Mobile shall provide documentation certified by a professional engineer that its installation complied with the recommendations of the structural analysis;
- 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 June 10, 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 Arthur J. Ward, Mayor, City of Bristol
William J. Veits, Planner Commission Chairman, City of Bristol
Robert D. Gray, CL&P

COHEN and WOLF P.C.
ATTORNEYS AT LAW

EM-T-MOBILE-017-130611

JULIE D. KOHLER

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

June 10, 2013

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

Re: Notice of Exempt Modification
CL&P/T-Mobile co-location
Site ID CT11270C
2 Willis Street, Bristol CT

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, the Connecticut Light & Power Company ("CL&P") owns the existing electric transmission tower and related facility at 2 Willis Street, Bristol Connecticut (latitude 41.64880 / longitude 72.94740). T-Mobile intends to replace six antennas and related equipment at this existing telecommunications facility in Bristol ("Bristol 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 Arthur J. Ward and the property owner, CL&P.

The existing Bristol Facility consists of a 130 foot tall transmission line lattice structure. The facility currently supports the equipment of T-Mobile, Northeast Utilities, and the State Police.

T-Mobile plans to replace six antennas at an elevation of 125 feet. (See the plans revised to April 22, 2013 attached hereto as Exhibit A). T-Mobile will also upgrade one of its equipment cabinets within the existing compound area near the base of the structure, as well as install hybrid line and reuse existing coax cables. The existing Facility is structurally capable of supporting T-Mobile' proposed modifications, as indicated in the structural analysis dated April 29, 2013 and attached hereto as Exhibit B. CL&P has reviewed and approved T-Mobile's proposed modifications, as evidenced by the letter dated June 10, 2013, attached hereto as

Exhibit C.

The planned modifications to the Bristol 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 replacement antennas will be installed at the 125 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 May 13, 2013 T-Mobile's operations would add 0.736% 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 45.566% of the FCC Standard as calculated for a mixed frequency site as evidenced by the engineering exhibit attached hereto as Exhibit D.

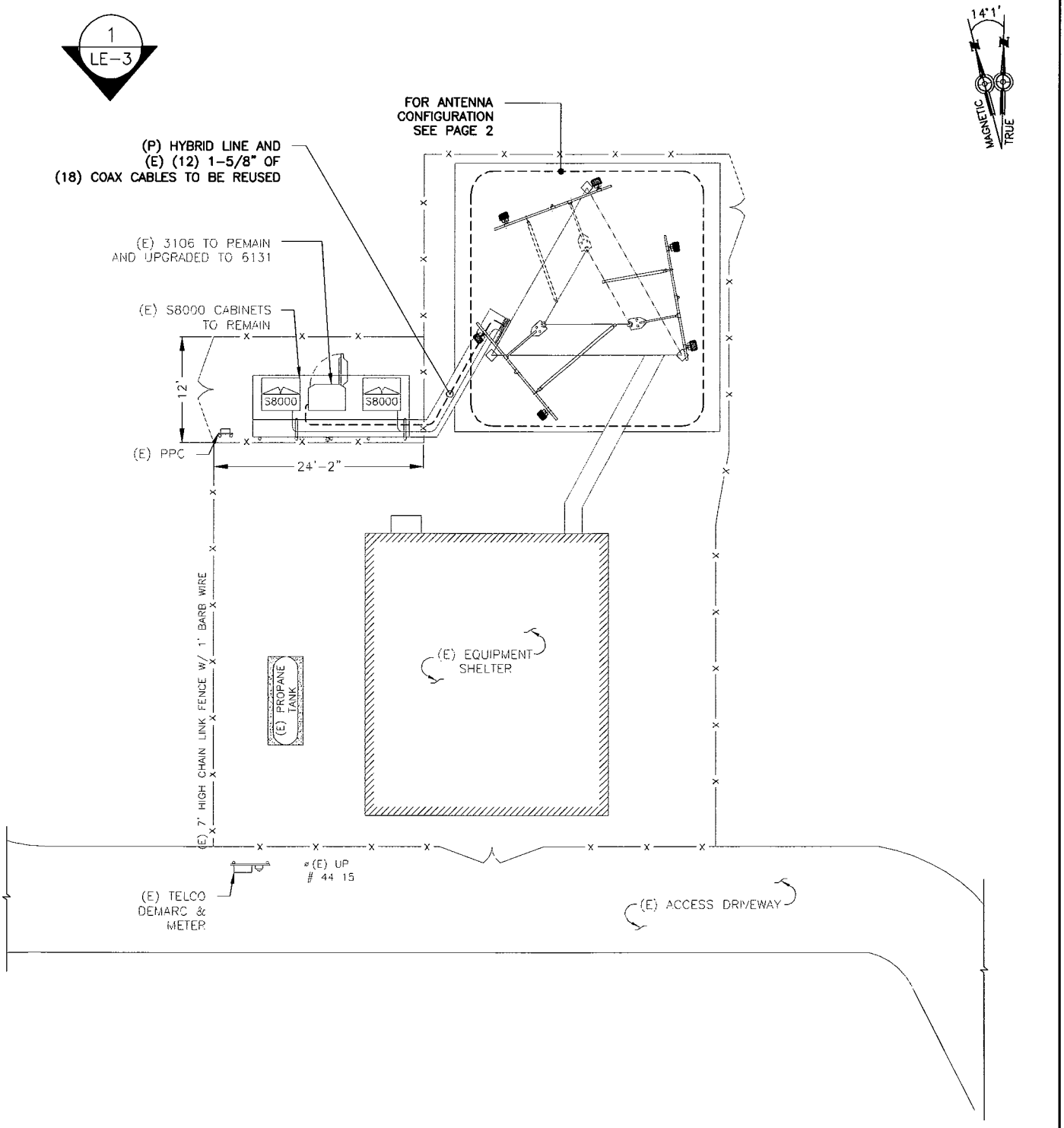
For the foregoing reasons, T-Mobile respectfully submits that the proposed replacement antennas and equipment at the Bristol Facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,

Julie D. Kohler, Esq.

cc: City of Bristol, Mayor Arthur J. Ward
Connecticut Light & Power Company
Scott Chase, Northeast Site Solutions

EXHIBIT A



COMPOUND PLAN

SCALE: 1/16" = 1'-0"

1
LE-1

Configuration
2C

SUBMITTALS	
LE REV A	04.22.13

ATLANTIS GROUP
1340 Centre Street
Suite 203
Newton, MA 02459
Office: 617-965-0789
Fax: 617-213-5056

LEASE EXHIBIT

SITE NUMBER:
CT11270C

SITE NAME:
CL&P BRISTOL

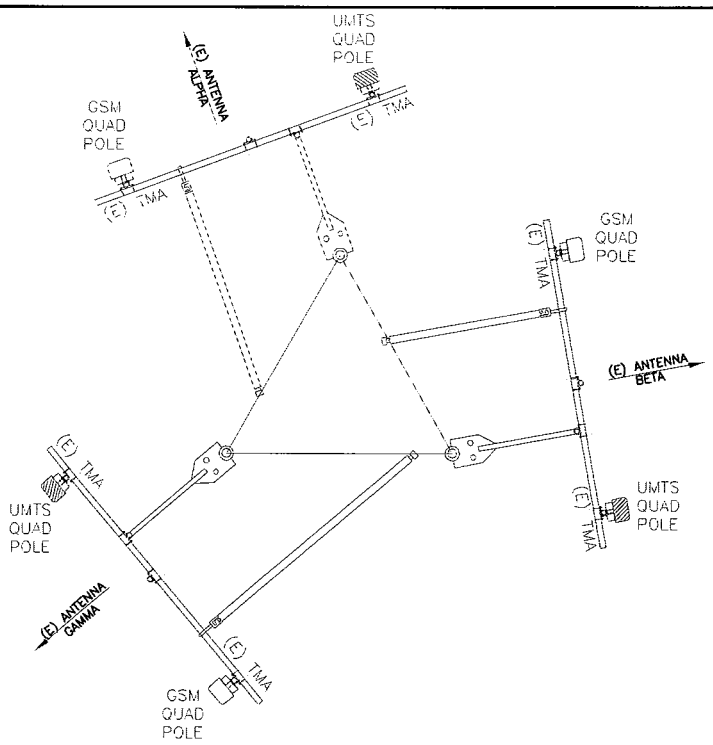
SITE ADDRESS:
2 WILLIS STREET
BRISTOL, CT 06010

NORTHEAST TOWERS
199 BRICKYARD ROAD
FARMINGTON, CT 06032
OFFICE: (860) 677-1999

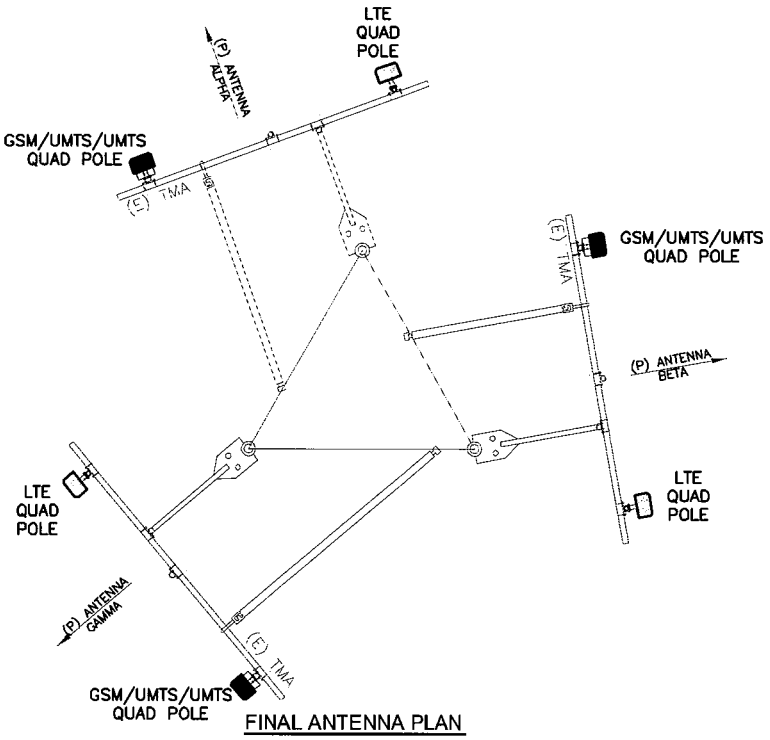
FOR

T-MOBILE NORTHEAST, LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002
OFFICE: (860) 692-7100
FAX: (860) 692-7159

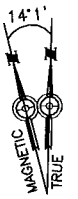
DRAWN BY: SB | CHECKED BY: SM



EXISTING ANTENNA PLAN



FINAL ANTENNA PLAN



Configuration

2C

SUBMITTALS	
LE REV A	04.22.13

ATLANTIS GROUP
1340 Centre Street
Suite 203
Newton, MA 02459
Office: 617-965-0789
Fax: 617-213-5056

LEASE EXHIBIT

SITE NUMBER:
CT11270C

SITE NAME:
CL&P BRISTOL

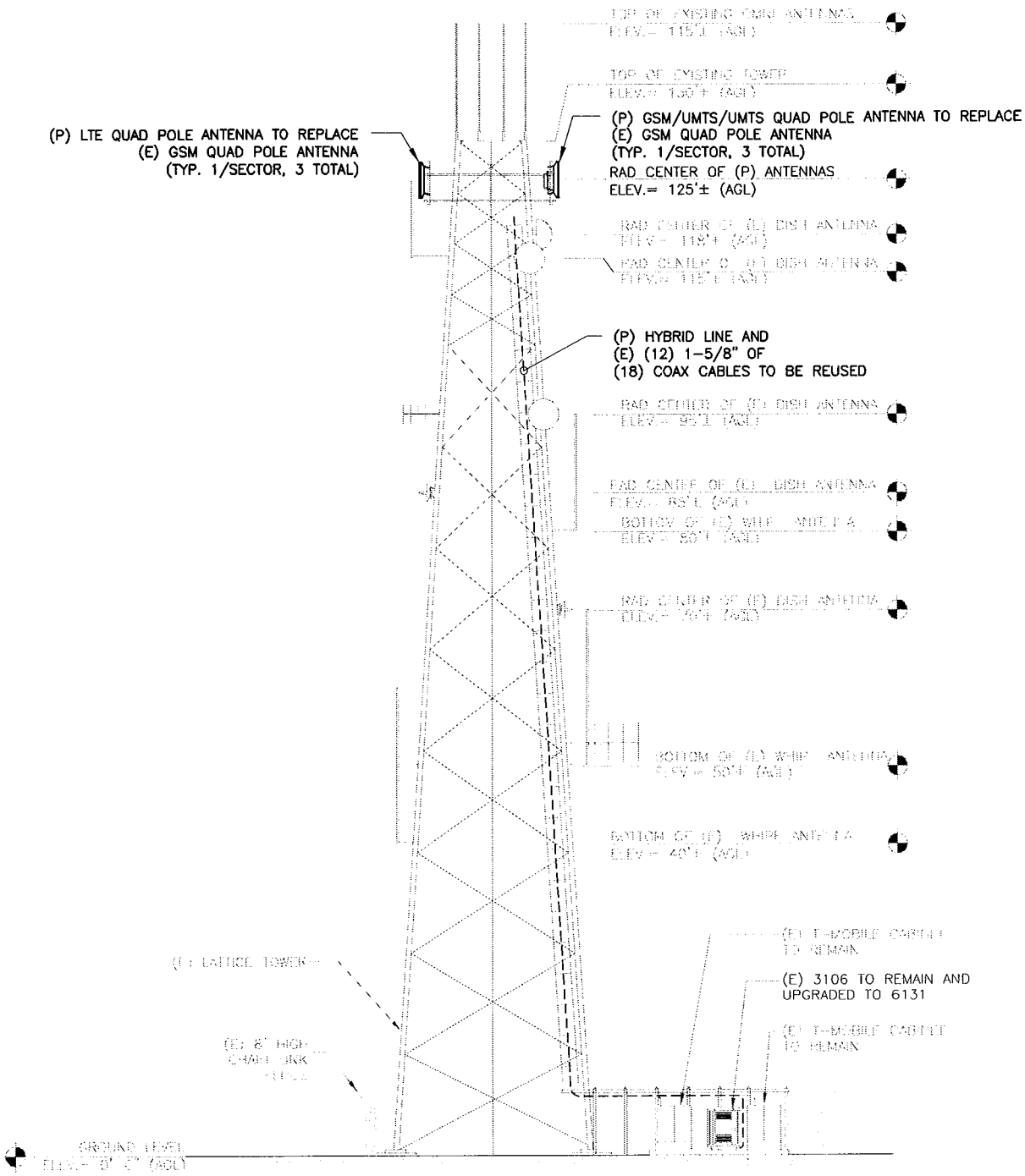
SITE ADDRESS:
2 WILLIS STREET
BRISTOL, CT 06010

NORTHEAST TOWERS
199 BRICKYARD ROAD
FARMINGTON, CT 06032
OFFICE: (860) 677-1999

FOR

T-MOBILE NORTHEAST, LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002
OFFICE: (860) 692-7100
FAX: (860) 692-7159

DRAWN BY: SB | CHECKED BY: SM



NORTH ELEVATION

SCALE: 1" = 20'-0"

1
LE-3

Configuration

2C

SUBMITTALS	
LE REV A	04.22.13
LE REV 0	05.15.13

ATLANTIS GROUP
1340 Centre Street
Suite 203
Newton, MA 02459
Office: 617-965-0789
Fax: 617-213-5056

LEASE EXHIBIT

SITE NUMBER:
CT11270C

SITE NAME:
CL&P BRISTOL

SITE ADDRESS:
2 WILLIS STREET
BRISTOL, CT 06010

NORTHEAST TOWERS
199 BRICKYARD ROAD
FARMINGTON, CT 06032
OFFICE: (860) 677-1999

FOR

T-MOBILE NORTHEAST, LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002
OFFICE: (860) 692-7100
FAX: (860) 692-7159

DRAWN BY: SB | CHECKED BY: SM

EXHIBIT B

CENTEK engineering

Centered on Solutions℠

Structural Analysis Report

130-ft Existing Radian ROHN SSMW
Lattice Tower

Proposed T-Mobile
Antenna Upgrade

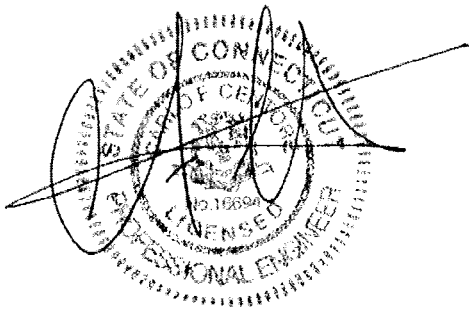
T-Mobile Site Ref: CT11270C

NU Tower - South Mountain

2 Willis Street
Bristol, CT

Centek Project No. 13103

~~Date: April 26, 2013~~
Rev. 1: April 29, 2013



Prepared for:

T-Mobile Towers
4 Sylvan Way
Parsippany, NJ 07054

63-2 North Branford Road, Branford, CT 06405 203.488.0580 Fax 203.488.8587 www.CentekEng.com

Introduction

The purpose of this report is to summarize the results of the non-linear, P-Δ structural analysis of the antenna upgrade proposed by T-Mobile on the existing lattice tower owned and operated by Northeast Utilities System (NEU) located in Bristol, CT.

The host tower is a 130-ft, three-legged, tapered steel self-support lattice tower originally designed and manufactured by Radian; file no: 0603415 signed and sealed December 6, 2006 and subsequently revised on December 20, 2006. The tower geometry, structure member sizes and foundation system information were taken from the aforementioned Radian design report.

Antenna and appurtenance information were obtained a previous structural analysis report prepared by Centek Engineering, Inc. - project no. 12128, signed and sealed November 8, 2012 and a T-Mobile RF data sheet.

The tower consists of seven (7) tapered steel pipe leg sections conforming to ASTM A572-50. Horizontal and diagonal lateral support bracing consists of pipe construction conforming to ASTM A572-50. Inner bracing and redundant bracing consists of ASTM A36 steel angle construction. The vertical tower sections are connected by bolted flange plates while the pipe legs and bracing are connected by bolted and welded gusset connections. The tower face width is 8.50-ft at the top and 22.54-ft at the bottom.

T-Mobile proposes the removal of six (6) panel antennas and three (3) Tower Mounted Amplifiers (TMA's) and the installation of six (6) panel antennas mounted on three (3) existing 10-ft ROHN boom gates. Refer to the Antenna and Appurtenance Summary below for a detailed description of the proposed antenna and appurtenance configuration.

Antenna and Appurtenance Summary

The existing, proposed and future loads considered in this analysis consist of the following:

- EXISTING:
  Antennas: One (1) Lightning rod leg mounted to the top of the existing tower with a base elevation of 130-ft above the existing tower base plate
- NEU (Existing):
  Antennas: Two (2) RFS PD458-1 Omni antennas, three (3) RFS PD220, one (1) DB806D-Y, (1) 12-ft x 3in. ∅ Omni antenna, one (1) 21-ft x3in. ∅ Omni antenna and one (1) Sinclair SC229-SFXSN Omni antenna pipe mounted with a base elevation of 130-ft above the existing tower base.
  Coax Cables: Ten (10) 7/8" ∅ coax cables
- NEU (Existing):
  Antennas: One (1) Dish mount assembly, one (1) 6ft-8in. x 4in. pipe mount and one (1) 6-ft ∅ Microwave Dish with a RAD center elevation of 115-ft above the existing tower base.
  Coax Cables: One (1) E60 Elliptical coax cable.
- NEU (Existing):
  Antennas: Two (2) Celwave 1142-2B Omni antennas on two (2) 4-ft side arms with base elevations of 115-ft and 113-ft above the existing tower base plate
  Coax Cables: One (1) 1/2" ∅ and one (1) 7/8" ∅ coax cables.

- CSP TROOP H (Existing):
  Antennas: Two (2) Kathrein AP11-850/105N panel antennas on one (1) 4-ft side arm with RAD center elevations of 105-ft and 104-ft above the existing tower base plate
  Coax Cables: Two (2) 7/8" ∅ coax cables.

- NEU (Existing):
  Antennas: One (1) Dish mount assembly, one (1) 6ft-8in. x 4in. pipe mount and one (1) 6-ft ∅ Microwave Dish with RAD center elevation of 107-ft above the existing tower base plate
  Coax Cables: One (1) E65 elliptical ∅ coax cable.

- NEU (Existing):
  Antennas: One (1) Andrew/Decibel DB205-A Dipole antenna on (1) 4-ft side arm with a RAD center elevation of 98-ft above the existing tower base.
  Coax Cables: One (1) 7/8" ∅ coax cable.

- NEU (Existing):
  Antennas: One (1) Dish mount assembly, one (1) 6ft-8in. x 4in. pipe mount and one (1) 6-ft ∅ Microwave Dish with a RAD center elevation of 96-ft above the existing tower base plate
  Coax Cables: One (1) E60 elliptical ∅ coax cable.

- NEU (Existing):
  Antennas: One (1) Dish mount assembly, one (1) 6ft-8in. x 4in. pipe mount and one (1) 8-ft ∅ Microwave Dish with a RAD center elevation of 86-ft above the existing tower base plate
  Coax Cables: One (1) E60 elliptical ∅ coax cable.

- NEU (Existing):
  Antennas: One (1) Celwave 1142-2B Omni antenna mounted on (1) 4-ft side arm with a base elevation of 84-ft above the existing tower base plate.
  Coax Cables: One (1) 1/2" ∅ coax cable.

- NEU (Existing):
  Antennas: One (1) 2-ft YAGI antenna pipe mounted with a RAD center elevation of 84-ft above the existing tower base plate.
  Coax Cables: One (1) 7/8" ∅ coax cable.

- CT Transit Authority (Reserved):
  Antennas: Three (3) 20-ft x 3in. ∅ Omni antennas [1] (one TX upright, two RX inverted) and one (1) Tower Top Amplifier (TTA) mounted to Leg A on (1) 10-ft T-Arm (Valmont P/N EUSF-10-24) with an elevation of 75-ft above the existing tower base.

  Antennas: Three (3) 20-ft x 3in. ∅ Omni antennas [1] (one TX upright, two RX inverted) and one (1) Tower Top Amplifier (TTA) mounted to Leg B on (1) 10-ft T-Arm (Valmont P/N EUSF-10-24) with an elevation of 70-ft above the existing tower base.

  Coax Cables: Six (6) 1-5/8" ∅ and two (2) 1/2" ∅ coax cables routed within a waveguide ladder to be located on Tower Face B, adjacent to Leg B. Refer to feed-line plan within Section 3 of this report for location.

  Note 1: Antenna make and model to be confirmed by CT Transit Authority.

- NEU (Existing):
  Antennas: One (1) Dish mount assembly, one (1) 5ft-8in. x 4in. pipe mount and one (1) 4-ft ∅ Microwave Dish with a RAD center elevation of 71-ft above the existing tower base plate
  Coax Cables: One (1) E65 elliptical ∅ coax cable.
- NEU (Existing):
  Antennas: (1) Diamond X-500A Omni antenna mounted on one (1) 4-ft side arm with a base elevation of 65-ft above the existing tower base.
  Coax Cables: None/Disconnected.
- NEU (Existing):
  Antennas: One (1) Andrew/Decibel DB212-1 Dipole antenna mounted on one (1) 3-ft side arm with a RAD center elevation of 58-ft above the existing tower base.
  Coax Cables: One (1) 1/2" ∅ coax cable.
- NEU (Existing):
  Antennas: One (1) Andrew/Decibel DB212-1 Dipole antenna mounted on one (1) 4-ft side arm with a RAD center elevation of 54-ft above the existing tower base.
  Coax Cables: One (1) 1/2" ∅ coax cable.
- NEU (Existing):
  Antennas: One (1) DB230-2B Yagi antenna mounted on one (1) 4-ft side arm with a RAD center elevation of 46-ft above the existing tower base.
  Coax Cables: One (1) 1/2" ∅ coax cable.
- NEU (Existing):
  Antennas: One (1) DB222-C 2-Bay Dipole antenna mounted on one (1) 4-ft side arm with a base elevation of 43-ft above the existing tower base.
  Coax Cables: One (1) 1/2" ∅ coax cable.
- NEU (Existing):
  Antennas: One (1) set of Wind Speed cups mounted to the tower leg with a RAD center elevation of 42-ft above the existing tower base.
  Coax Cables: N/A
- **T-MOBILE (Existing to be Removed)**
  Antennas: Three (3) RFS APX-16DWV-16DWVS-E-ACU, three (3) RFS APX16PV16PVL5ACN panel antennas and three (3) TMA's mounted on (3) existing 10-ft ROHN boom gates with a RAD center elevation of 125-ft above the existing tower base.
- **T-MOBILE (Existing to Remain)**
  Antennas: Three (3) TMA's mounted on (3) existing 10-ft ROHN boom gates with a RAD center elevation of 125-ft above the existing tower base.
  Coax Cables: Twelve (12) 1-1/4" ∅ and six (6) 1-5/8" ∅ coax cables.
- **T-MOBILE (Proposed)**
  Antennas: Six (6) Ericsson AIR21 panel antennas mounted on (3) existing 10-ft ROHN boom gates with a RAD center elevation of 125-ft above the existing tower base.
  Coax Cables: One (1) 1-5/8" ∅ fiber line.

Primary Assumptions Used in the Analysis

- The tower structure's theoretical capacity not including any assessment of the condition of the tower.
- The tower carries the horizontal and vertical loads due to the weight of antennas, ice load and wind.
- Tower is properly installed and maintained.
- Tower is in plumb condition.
- Tower loading for antennas and mounts as listed in this report.
- All bolts are appropriately tightened providing the necessary connection continuity.
- All welds are fabricated with ER-70S-6 electrodes.
- All members are assumed to be as specified in the original tower design documents or reinforcement drawings.
- All members are "hot dipped" galvanized in accordance with ASTM A123 and ASTM A153 Standards.
- All member protective coatings are in good condition.
- All tower members were properly designed, detailed, fabricated, installed and have been properly maintained since erection.
- Any deviation from the analyzed antenna loading will require a new analysis for verification of structural adequacy.
- **All coax cables routed as specified within Section 3 of this report.**

Analysis

The existing tower was analyzed using a comprehensive computer program entitled tnxTower. The program analyzes the tower, considering the worst case loading condition. The tower is considered as loaded by concentric forces along the tower shaft, and the model assumes that the shaft members are subjected to bending, axial, and shear forces.

The existing tower was analyzed for 85 mph basic wind speed (fastest mile) with no ice and 85mph with ½ inch accumulative ice to determine stresses in members as per guidelines of Northeast Utilities Substation Standard (NU SUB-090), TIA/EIA-222-F-96 entitled "Structural Standards for Steel Antenna Towers and Antenna Supporting Structures", the American Institute of Steel Construction (AISC) and the Manual of Steel Construction; Allowable Stress Design (ASD).

Tower Loading

Tower loading was determined by the basic wind speed as applied to projected surface areas with modification factors per TIA/EIA-222-F, gravity loads of the tower structure and its components, and the application of ½" radial ice on the tower structure and its components.

Basic Wind Speed:	Hartford; v = 80 mph (fastest mile)	*[Section 16 of TIA/EIA-222-F-96]*
	NU SUB-090; v = 85 mph (fastest mile)	*[Northeast Utilities Substation Standard 090]*
	Bristol; v = 95 mph (3 second gust) equivalent to v = 77.5 mph (fastest mile)	*[Appendix K of the 2005 CT Building Code Supplement]*
	NUS–090 wind speed controls	
Load Cases:	Load Case 1; 85 mph wind speed w/ no ice plus gravity load – used in calculation of tower stresses and rotation. This load case typically controls the design of monopole towers.	*[Northeast Utilities Substation Standard 090]*
	Load Case 2; 85 mph wind speed w/ ½" radial ice plus gravity load – used in calculation of tower stresses. This load case typically controls the design of lattice towers.	*[Northeast Utilities Substation Standard 090]*
	Load Case 3; Seismic – not checked	*[Section 1614.5 of State Bldg. Code 2005] does not control in the design of this structure type*

Tower Capacity

Tower stresses were calculated utilizing the structural analysis software tnxTower. Allowable stresses were determined based on Table 5 of the TIA/EIA code with a 1/3 increase per Section 3.1.1.1 .

Calculated stresses were found to be within allowable limits. In Load Case 2, per tnxTower "Section Capacity Table", this tower was found to be at **79.4%** of its total capacity.

A summary of tower member percentage of capacity values are provided below:

Tower Section	Elevation	Stress Ratio (percentage of capacity)	Result
Leg (T6)	20.00'-40.00'	79.2%	**PASS**
Diagonal (T4)	60.00'-80.00'	79.4%	**PASS**
Horizontal (T5)	40.00'-60.00'	57.7%	**PASS**
Top Girt (T5)	40.00'-60.00'	47.3%	**PASS**
Inner Bracing (T4)	60.00'-80.00'	6.7%	**PASS**
Bolts (T7)	0.00'-20.00'	58.9%	**PASS**

- The tower deflection (sway) and twist were found to be within allowable limits.

Deflection (degrees)	Proposed	Allowable	Result
Sway (Tilt)	0.4283	0.5	**PASS**
Twist	0.0862	0.5	**PASS**
Combined	0.4369	0.5	**PASS**

Foundation and Anchors

The existing foundation consists of a monolithic reinforced concrete pad bearing directly on existing sub grade. The sub-grade conditions used in the analysis of the existing foundation were obtained from the aforementioned manufacturers original design documents; Radian; file no: 0603415. Tower legs are connected to the foundation by means of (8) 1" ∅, ASTM F1554-S2,S5 Grade 105 anchor bolts per leg, embedded into the concrete foundation structure.

Review of the foundation and anchor design consisted of verification of applied loads obtained from the tower design calculations and code checks of allowable stresses:

- The tower reactions developed from the governing Load Case 2 were used in the verification of the existing foundation system:

Load Effect	Proposed Tower Reactions
Leg Shear	31 kips
Leg Compression	219 kips
Leg Uplift	174 kips
Base Moment	3968 ft-kips
Base Shear	53 kips

- The anchor bolts were found to be within allowable limits:

Tower Section	Component	Stress Ratio (% capacity)	Result
Anchor Bolts	Tension	46.6%	**PASS**

- The foundation was found to be within allowable limits.

Foundation Type	Design Limit	Allowable Limit/FS	Proposed Loading	Result
Existing Foundation				
Monolithic Pad	Bearing Pressure	6.00 ksf	1.53 ksf	**PASS**
	OTM (2)	2.00 (3)	2.29 (3)	**PASS**

Note 2: OTM denotes 'Overturning Moment'.
Note 3: Minimum required Factor of Safety (FS) of 2.0 required per IBC 2003/2005 CSBC Section 3108.4.2.

Conclusion

This analysis shows that the subject tower **is adequate** to support the proposed antenna installation.

The analysis is based, in part, on the information provided to this office by T-Mobile. If the existing conditions are different than the information in this report, Centek Engineering, Inc. must be contacted for resolution of any potential issues.

Please feel free to call with any questions or comments.

Respectfully Submitted by:

Carlo F. Centore, PE
Principal ~ Structural Engineer

STATE OF CONNECTICUT
CARLO F. CENTORE
No. 16884
LICENSED
PROFESSIONAL ENGINEER

Prepared by:

Harry M. Rocheville, Jr.
Junior Engineer

EXHIBIT C

Northeast Utilities System

107 Selden Street, Berlin, CT 06037

Northeast Utilities Service Company
P.O. Box 270
Hartford, CT 06141-0270
(860) 665-5000

June 10, 2013

T-Mobile
4 Sylvan Way
Parsippany, NJ 07054

Re: Site Permitting Authorization
Willis Street, CT

Dear T-Mobile,

Authorization is hereby given to T-Mobile employees and its duly authorized agents and independent contractors (hereinafter collectively referred to as " T-Mobile"), to apply for any and all local municipal, state and federal licenses, permits and approvals, including but not limited to Connecticut Siting Council, building permits, zoning variances, zoning special exceptions, site plan and subdivision approvals, driveway, wetlands and terrain alteration permits, which are or may be necessary or required for T-Mobile to construct, operate and maintain a wireless communications system (PCS System), and/or antenna site on the following property over which The Connecticut Light & Power Company (CL&P) has property rights:

CT 11270C (site location)
Bristol, Connecticut

The foregoing authorization is given subject to the following conditions:

1. This authorization shall be nonexclusive. Nothing herein shall prevent or restrict CL&P from authorizing any other person or entity to apply for any similar licenses, permits or approvals to construct, operate and maintain any other communication system or facility of any type on the property at any time.

2. This authorization shall not obligate CL&P to pay for or reimburse any costs or expenses or to provide any assistance of any kind in connection with any applications, or bind or obligate CL&P to agree or be responsible for any on-site or off-site improvements, development restrictions, impact fees or assessments, capital improvement charges, bonds or other security, or any other fee, assessment, charge or expense imposed or required as a condition of any license, permit or approval. T-Mobile shall be solely and fully responsible for all fees, charges costs and expenses of any kind in connection with any applications. CL&P agrees to reasonably cooperate with T-Mobile in signing such applications or other similar documents as may be required in order for T-Mobile to apply for any license, permit or approval.

3. This authorization shall not be deemed or construed to grant or transfer to T-Mobile any interest in the property, whatsoever, and shall not in any respect obligate or require CL&P to sell, lease or license the Property to T-Mobile or otherwise allow T-Mobile to use or occupy the property for any purpose, regardless of whether any licenses, permits and approvals applied for by T-Mobile for the property are granted. T-Mobile understands and acknowledges T-Mobile's sole risk and without any enforceable expectation that the property will be made available for T-Mobile's use.

4. T-Mobile shall be required to supply to CL&P, free of charge and contemporaneous with T-Mobile 's filing of same, a complete copy of any and all applications, plans, reports and other public filings made by T-Mobile with any local, municipal, state or federal governmental or regulatory officer, agency board, bureau, commission or other person or body for any licenses, permits or approvals for the property, and to keep CL&P fully informed on a regular basis of the status of T-Mobile 's applications.

5. This authorization shall automatically expire six (6) months after the date of this letter, unless extended in writing by mutual agreement of CL&P and T-Mobile.

Very truly yours,

Salvatore Giuliano, Manager

R E & Property Management

AGREED TO on behalf of
T-Mobile

By: _____
Duly Authorized

Date: 6.10.13

Site Location: Willis Street, Bristol, CT

EXHIBIT D

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

T-Mobile Existing Facility

Site ID: CT11270C

CL&P Bristol
2 Willis Street
Bristol, CT 06010

May 13, 2013

21 B Street · Burlington, MA 01803 · Tel: (781) 273.2500 · Fax: (781) 273.3311

EBI Consulting
environmental | engineering | due diligence

May 13, 2013

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

Re: Emissions Values for Site: **CT11270C - CL&P Bristol**

EBI Consulting was directed to analyze the proposed T-Mobile facility located at 2 Willis Street, Bristol, 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 97-01and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter (μW/cm2). The number of μW/cm2 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 (μW/cm2). The general population exposure limit for the cellular band is 567 μW/cm2, and the general population exposure limit for the PCS band is 1000 μW/cm2. 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 2 Willis Street, Bristol, 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 (1935.000 MHz—to 1945.000 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 dBd 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 **125 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	CT11270C - CL&P Bristol
Site Addresss	2 Willis Street, Bristol, CT 06010
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	125	119	None	0	0	48.326044	1.226855	0.12269%
1b	Ericsson	AIR21 B4A/B2P	Not Used	-	-			0	-3.95	125	119	None	0	0	0	0	0.00000%
2a	Ericsson	AIR21 B2A / B4P	Active	PCS - 1950 MHz	GSM / UMTS	30	2	60	-3.95	125	119	1-5/8"	0	0	24.163022	0.613428	0.06134%
2B	Ericsson	AIR21 B2A / B4P	Passive	AWS - 2100 MHz	UMTS	30	2	60	-3.95	125	119	1-5/8"	0	0	24.163022	0.613428	0.06134%
														Sector total Power Density Value:		0.245%	

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	125	119	None	0	0	48.326044	1.226855	0.12269%
1b	Ericsson	AIR21 B4A/B2P	Not Used	-	-			0	-3.95	125	119	None	0	0	0	0	0.00000%
2a	Ericsson	AIR21 B2A / B4P	Active	PCS - 1950 MHz	GSM / UMTS	30	2	60	-3.95	125	119	1-5/8"	0	0	24.163022	0.613428	0.06134%
28	Ericsson	AIR21 B2A / B4P	Passive	AWS - 2100 MHz	UMTS	30	2	60	-3.95	125	119	1-5/8"	0	0	24.163022	0.613428	0.06134%
														Sector total Power Density Value:		0.245%	

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	125	119	None	0	0	48.326044	1.226855	0.12269%
1b	Ericsson	AIR21 B4A/B2P	Not Used	-	-			0	-3.95	125	119	None	0	0	0	0	0.00000%
2a	Ericsson	AIR21 B2A / B4P	Active	PCS - 1950 MHz	GSM / UMTS	30	2	60	-3.95	125	119	1-5/8"	0	0	24.163022	0.613428	0.06134%
28	Ericsson	AIR21 B2A / B4P	Passive	AWS - 2100 MHz	UMTS	30	2	60	-3.95	125	119	1-5/8"	0	0	24.163022	0.613428	0.06134%
														Sector total Power Density Value:		0.245%	

Site Composite MPE %	
Carrier	MPE %
T-Mobile	0.736%
CL&P	44.680%
Amateur Radio	0.150%
Total Site MPE %	**45.566%**

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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 **0.736% (0.245% from each sector)** of the allowable FCC established general public limit considering all three sectors simultaneously sampled at the ground level.

The anticipated composite MPE value for this site assuming all carriers present is **45.566%** of the allowable FCC established general public limit sampled at the ground level. 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 well within the allowable 100% threshold standard per the federal government

Scott Heffernan
RF Engineering Director

EBI Consulting
21 B Street
Burlington, MA 01803