STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

Internet: ct.gov/csc

Daniel F. Caruso
Chairman

March 14, 2011

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

RE: **EM-SPRINT-NEXTEL-143-110204** – Sprint Nextel Corporation notice of intent to modify an existing telecommunications facility located at 1925-1931 East Main Street, Torrington, Connecticut.

Dear Attorney Regan:

The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies with the following conditions:

- Any deviation from the proposed modification as specified in this notice and supporting materials with 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;
- Not less than 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 February 4, 2011. 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,

Linda Roberts LHB

Linda Roberts
Executive Director

LR/CDM/laf

c: The Honorable Ryan J. Bingham, Mayor, City of Torrington
Martin Connor, City Planner, City of Torrington
SBA, Inc.

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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Daniel F. Caruso
Chairman

February 22, 2011

The Honorable Ryan J. Bingham
Mayor
City of Torrington
Municipal Building
140 Main Street
Torrington, CT 06790-5245

RE: **EM-SPRINT-NEXTEL-143-110204** – Sprint Nextel Corporation notice of intent to modify an existing telecommunications facility located at 1925-1931 East Main Street, Torrington, Connecticut.

Dear Mayor Bingham:

The Connecticut Siting Council (Council) received this request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

If you have any questions or comments regarding this proposal, please call me or inform the Council by March 8, 2011.

Thank you for your cooperation and consideration.

Very truly yours,

Linda Roberts

Linda Roberts
Executive Director

LR/jbw

Enclosure: Notice of Intent

c: Martin Connor, City Planner, City of Torrington

EM-SPRINT-NEXTEL-143-110204

CONNECTICUT SITING COUNCIL

In re:		
Sprint Nextel Corporation's Notice to Make an Exempt Modification to an Existing Facility at 1925-1931 East Main Street, Torrington Connecticut.	:	**EXEMPT MODIFICATION NO.**
	:	
	:	February 4, 2011

NOTICE OF EXEMPT MODIFICATION

Pursuant to Conn. Agencies Regs. §§ 16-50j-73 and 16-50j-72(b), Sprint Nextel Corporation ("Sprint") hereby gives notice to the Connecticut Siting Council ("Council") and the City of Torrington of Sprint's intent to make an exempt modification to an existing monopole tower (the "Tower") located at 1925-1931 East Main Street in Torrington, Connecticut. Specifically, Sprint plans to remove and replace existing antennas and install Tower Mounted Amplifiers ("TMA"). Under the Council's regulations (Conn. Agencies Regs. § 16-50j-72(b)), Sprint's plans do not constitute a modification subject to the Council's review because Sprint will not change the height of the tower, will not extend the boundaries of the compound, will not increase the noise levels at the site, and will not increase the total radio frequency electromagnetic radiation power density at the site to levels above applicable standards.

Sprint is currently upgrading its existing installations throughout Connecticut. This upgrade is designed to enhance the performance of Sprint's network. Upon completion of the upgrades to Sprint's network, it will offer improved voice and data communications to residents and travelers in Connecticut. In order to accomplish the upgrade at this site, Sprint plans to remove and replace existing antennas, install TMA and install related electronic equipment at the base of the Tower.

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

The Tower is a 155-foot monopole tower located at 1925-1931 East Main Street in Torrington, Connecticut (latitude 41.82 N, longitude -73.08 W). The Tower is owned by SBA. Multiple carriers are currently located on the Tower. Presently, Sprint has 6 antennas spread over three sectors with a centerline at 155 feet installed on the Tower. Sprint's base station equipment is located adjacent to the base of the Tower. A site plan with the Tower specifications is attached.

Sprint's plans to remove and replace 3 of its existing antennas with 3 upgraded antennas (one per sector) and install 1 TMA. The TMA will be installed in the gamma sector. The new antennas and TMA will have the same centerline as the existing antennas – 155 feet. Sprint will continue to utilize its existing coax cables. To confirm that the Tower can support these changes, Sprint commissioned FDH Engineering Inc. to perform a structural analysis of the Tower (attached). According to the structural analysis dated October 14, 2010, "...the foundation should have the necessary capacity to support the existing and proposed loading" (Page 3, Structural Analysis Report).

Within the existing compound Sprint will install one MCPA cabinet on its existing steel frame located on the existing 20′ by 8′ 6″ (approximately) concrete pad. Hence, no increase in the size of the compound is necessary. Excluding brief, minor, construction-related noise during the addition of the antennas and dishes and the installation of the equipment cabinets, the proposed changes to the Tower will not increase noise levels at the site.

The addition of the new antennas and the TMA will not adversely impact the health and safety of the surrounding community or the people working on the Tower. The total radio frequency exposure measured around the Tower will be below the National Council on Radiation

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Protection and Measurements' ("NCRP") standard adopted by the Federal Communications Commission ("FCC"). A cumulative power density analysis indicates that together, all of the antennas on the Tower will emit 31.35% of the NCRP's standard for maximum permissible exposure. Therefore, the power density levels will be below the FCC mandated radio frequency exposure limits in all locations around the Tower, even with extremely conservative assumptions. The power density analysis is attached.

In conclusion, Sprint's proposed plan to remove and replace antennas, install 1 TMA and associated base station equipment does not constitute a modification subject to the Council's jurisdiction because Sprint will not increase the height of the Tower, will not extend the boundaries of the site, will not increase the noise levels at the site, and the total radio frequency electromagnetic radiation power density will stay within all applicable standards. *See* Conn. Agencies Regs. § 16-50j-72.

SPRINT NEXTEL CORPORATION

By: _____

Thomas J. Regan
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185 Asylum Street, CityPlace I
Hartford, CT 06103-3402
Email - tregan@brownrudnick.com
Phone - 860.509.6522
Fax - 860.509.6501

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Certificate of Service

This is to certify that on this 4th day of February, 2011, the foregoing Notice of Exempt Modification was sent, via first class mail, to the following:

City of Torrington
Mayor Ryan Bingham
140 Main Street
Torrington, CT 06790

By: _____
Thomas J. Regan

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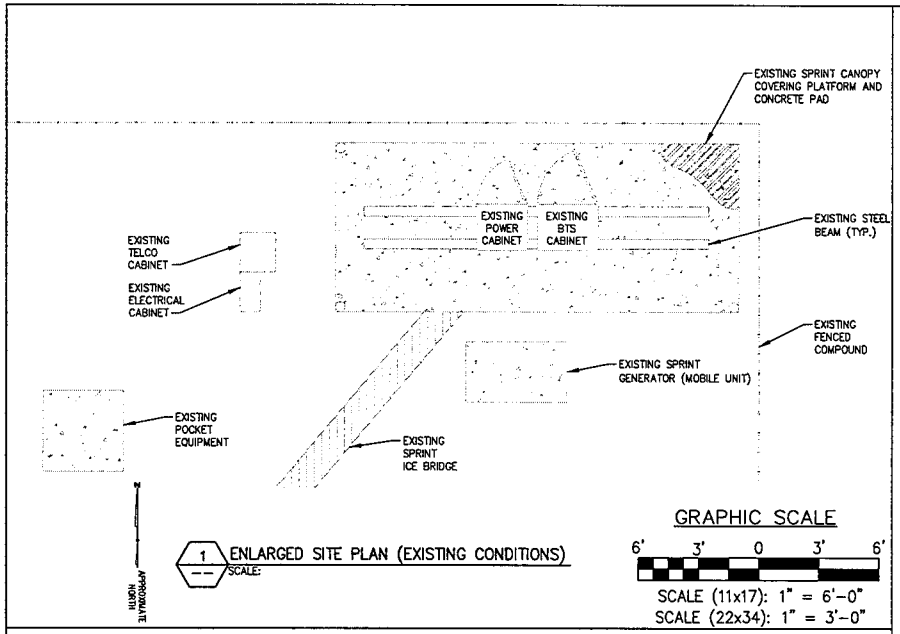
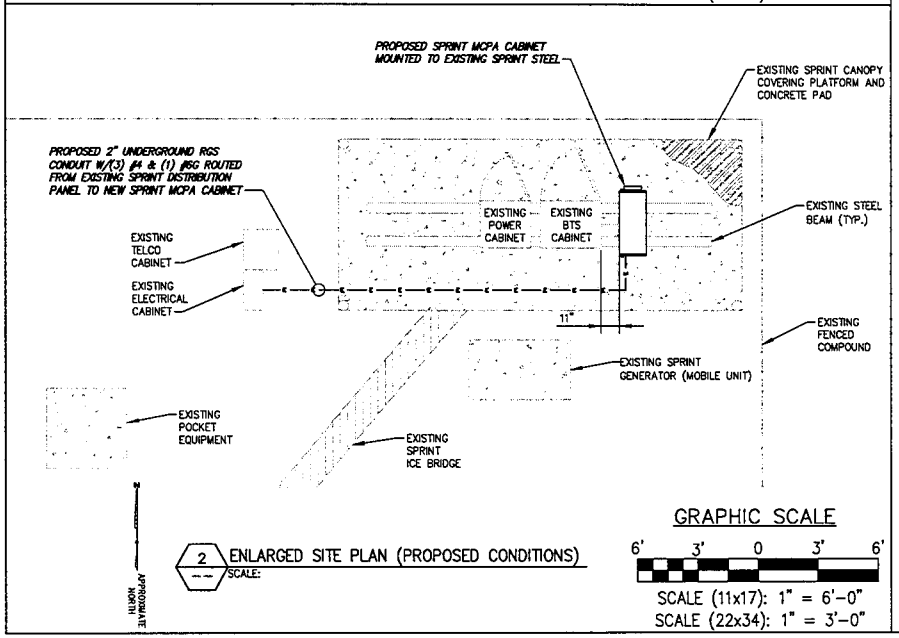
BROWN RUDNICK LLP
CITYPLACE I
185 ASYLUM STREET
HARTFORD, CT 06103
(860) 509-6500



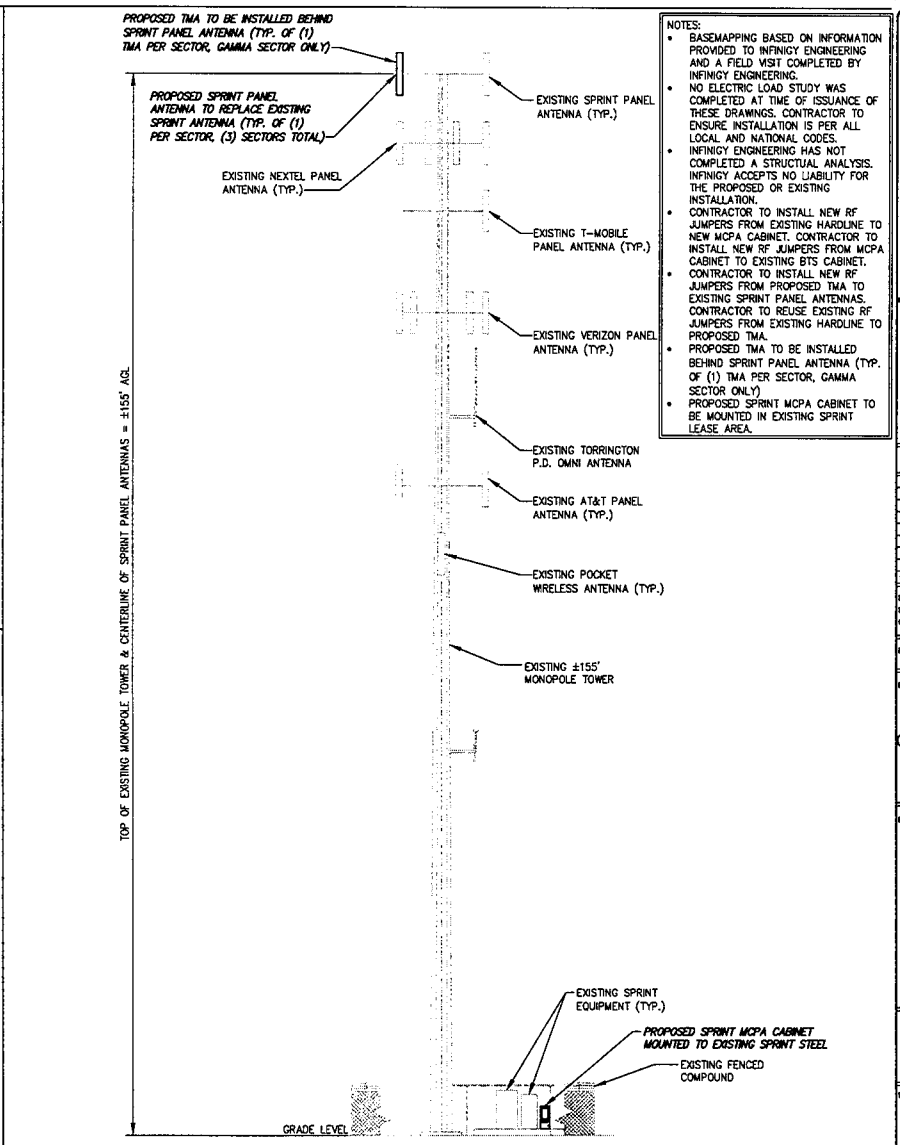
1 ENLARGED SITE PLAN (EXISTING CONDITIONS)
SCALE:

GRAPHIC SCALE
6' 3' 0 3' 6'
SCALE (11x17): 1" = 6'-0"
SCALE (22x34): 1" = 3'-0"



2 ENLARGED SITE PLAN (PROPOSED CONDITIONS)
SCALE:

GRAPHIC SCALE
6' 3' 0 3' 6'
SCALE (11x17): 1" = 6'-0"
SCALE (22x34): 1" = 3'-0"



3 TOWER ELEVATION
NO SCALE

NOTES:
- BASEMAPPING BASED ON INFORMATION PROVIDED TO INFINIGY ENGINEERING AND A FIELD VISIT COMPLETED BY INFINIGY ENGINEERING.
- NO ELECTRIC LOAD STUDY WAS COMPLETED AT TIME OF ISSUANCE OF THESE DRAWINGS. CONTRACTOR TO ENSURE INSTALLATION IS PER ALL LOCAL AND NATIONAL CODES.
- INFINIGY ENGINEERING HAS NOT COMPLETED A STRUCTUAL ANALYSIS. INFINIGY ACCEPTS NO LIABILITY FOR THE PROPOSED OR EXISTING INSTALLATION.
- CONTRACTOR TO INSTALL NEW RF JUMPERS FROM EXISTING HARDLINE TO NEW MCPA CABINET. CONTRACTOR TO INSTALL NEW RF JUMPERS FROM MCPA CABINET TO EXISTING BTS CABINET.
- CONTRACTOR TO INSTALL NEW RF JUMPERS FROM PROPOSED TMA TO EXISTING SPRINT PANEL ANTENNAS. CONTRACTOR TO REUSE EXISTING RF JUMPERS FROM EXISTING HARDLINE TO PROPOSED TMA.
- PROPOSED TMA TO BE INSTALLED BEHIND SPRINT PANEL ANTENNA (TYP. OF (1) TMA PER SECTOR, GAMMA SECTOR ONLY)
- PROPOSED SPRINT MCPA CABINET TO BE MOUNTED IN EXISTING SPRINT LEASE AREA.

infinigy engineering & surveying
11 HERBERT DRIVE
LATHAM, NY 12110
OFFICE: (518) 690-0790
FAX: (518) 690-0793

No.	Submittal / Revision	Appr'd	Date
1	REVISED PER CLIENT	SHB	9/30/10
0	ISSUED FOR REVIEW	BPM	9/9/10

Drawn: BPM Date: 9/9/10
Designed: SJB Date: 9/9/10
Checked: SJB Date: 9/9/10

Project Number
159-016

Project Title
CT33XC112
CALLICOON 3 / SBA TOWERS
1925-1931 E MAIN ST.
TORRINGTON, CT 06790

Prepared For
Sprint
Together with Nextel.
8 AIRLINE DRIVE SUITE 105
ALBANY, NY 12205

Drawing Scale:
AS NOTED
Date:
9/30/10

Drawing Title
EQUIPMENT PLAN & BUILDING ELEVATION

Drawing Number
LE

FDH Engineering, Inc., 2730 Rowland Rd. Raleigh, NC 27615, Ph. 919.755.1012, Fax 919.755.1031

Structural Analysis for SBA Network Services, Inc.

153 ft Monopole

SBA Site Name: Torrington
SBA Site ID: CT01499-S

FDH Project Number 10-10033E S1

Prepared By:

Krystyn Wagner, EI
Project Engineer

Reviewed By:

Christopher M. Murphy, PE
President
CT PE License No. 25842

FDH Engineering, Inc.
2730 Rowland Rd.
Raleigh, NC 27615
(919) 755-1012
info@fdh-inc.com

October 14, 2010

Prepared pursuant to ANSI/TIA-222-G Structural Standard for Antenna Supporting Structures and Antennas

TABLE OF CONTENTS

EXECUTIVE SUMMARY

At the request of SBA Network Services, Inc., FDH Engineering, Inc. performed a structural analysis of the monopole located in Torrington, CT to determine whether the tower is structurally adequate to support both the existing and proposed loads, pursuant to the *Structural Standard for Antenna Supporting Structures and Antennas, ANSI/TIA-222-G.* Information pertaining to the existing/proposed antenna loading, current tower geometry, and member sizes was obtained from Fred A. Nudd Corporation (Project No. 7783) original design drawings dated August 18, 2000, Vertical Structures, Inc. (Job No. 2003-007-015) structural analysis and modification drawings dated September 9, 2003, and SBA Network Services, Inc.

The *basic design wind speed* per the *ANSI/TIA-222-G* standard is 100 mph without ice and 40 MPH with 1" radial ice. Ice is considered to increase in thickness with height.

Conclusions

With the current and proposed antennas from Sprint in place at 153 ft, the tower meets the requirements of the *ANSI/TIA-222-G* standard provided the **Recommendation** below is satisfied. Furthermore, provided the foundation was designed and constructed to support the original design reactions (see Fred A. Nudd Project No. 7783), the foundation should have the necessary capacity to support the existing and proposed loading. For a more detailed description of the analysis of the tower, see the **Results** section of this report.

Our structural analysis has been performed assuming all information provided to FDH Engineering, Inc. is accurate (i.e. the steel data, tower layout, existing antenna loading, and proposed antenna loading) and that the tower has been properly erected and maintained per the original design drawings.

Recommendation

To ensure the requirements of the *ANSI/TIA-222-G* standard are met with the existing and proposed loading in place, we have the following recommendation:

1. The proposed TMA should be installed directly behind the proposed panel antennas.

APPURTENANCE LISTING

The proposed and existing antennas with their corresponding cables/coax lines are shown in **Table 1**. *If the actual layout determined in the field deviates from this layout, FDH Engineering, Inc. should be contacted to perform a revised analysis.*

Table 1 – Appurtenance Loading

Existing Loading:

Antenna No.	Antenna Elevation (ft)	Description	Coax and Lines [1]	Carrier	Mount Elevation (ft)	Mount Type
1-6	153[2]	(6) Decibel DB980H90E-M	(6) 1-5/8"	Sprint	153	(1) Low Profile Platform
7-18	143	(12) Decibel DB844H90E-XY	(12) 1-1/4"	Nextel	143	(1) Low Profile Platform
19-24	133	(6) EMS RR90-17-02DP	(12) 1-5/8"	T-Mobile	133	(1) Low Profile Platform
25-36	123	(6) Antel LPA-80063/6CF (6) Decibel DB950F65E-M	(12) 1-5/8"	Verizon	123	(1) Low Profile Platform
37	110	(1) 10' Omni	(1) 1/2"	Torrington PD	105	(1) Standoff
38-46	95[3]	(6) Powerwave 7770.00 (3) CSS DUO1417-8686 (6) Powerwave LGP17201 TMAs (6) Powerwave LGP21903 Diplexers	(12) 1-5/8"	Cingular	95	(1) Low Profile Platform
47-49	85[4]	(3) RFS APXV18-206517S-C	(6) 1-5/8"	Pocket	85	Flush
50	70	(1) GPS	(1) 1/2"	Sprint	70	Direct

1 The existing coax is located inside the pole's shaft, unless otherwise noted.
2 The loading for Sprint at 153 ft will be altered. See the proposed loading below.
3 Cingular's coax to 95 ft are installed outside the monopole shaft in a single row.
4 The coax for Pocket to 85 ft are installed outside the monopole shaft in a single row.

Proposed Loading:

Antenna No.	Antenna Elevation (ft)	Description	Coax and Lines	Carrier	Mount Elevation (ft)	Mount Type
1-6	153[1]	(6) Andrew HBX-9014DS-R2M (1) Powerwave OS-1991-22W TMA	(6) 1-5/8"	Sprint	153	(1) Low Profile Platform

1 This represents the final configuration for Sprint at 153 ft. According to information provided by SBA, Sprint will remove the existing (6) Decibel antennas and install (6) Andrew HBX-9014DS-R2M antennas and (1) Powerwave OS-1991-22W TMA at 153 ft.

RESULTS

Based on information obtained from the original design drawings, the yield strength of steel for individual members was as follows:

Table 2 - Material Strength

Member Type	Yield Strength
Tower Shaft Sections	65 ksi
Flange Plate	50 ksi
Flange Bolts	Fu = 125 ksi
Base Plate	50 ksi
Anchor Bolts	Fu = 125 ksi

Table 3 displays the summary of the ratio (as a percentage) of force in the member to their capacities. Values greater than 100% indicate locations where the maximum force in the member exceeds its capacity. **Table 4** displays the maximum foundation reactions.

If the assumptions outlined in this report differ from actual field conditions, FDH Engineering, Inc. should be contacted to perform a revised analysis. Furthermore, as no information pertaining to the allowable twist and sway requirements for the existing or proposed appurtenances was provided, deflection and rotation were not taken into consideration when performing this analysis.

See the **Appendix** for detailed modeling information.

Table 3 – Summary of Working Percentage of Structural Components

Section No.	Elevation ft	Component Type	Size	% Capacity	Pass Fail
L1	153 - 150	Pole	TP26.25x24x0.25	1.2	Pass
		Flange Bolts	(18) 1/2" ø Bolts on a 27" BC	5.4	Pass
		Flange Plate	1/2" thick x 30" round PL	2.6	Pass
L2	150 - 110	Pole	TP35.25x26.25x0.25	29.7	Pass
L3	110 - 65	Pole	TP45.375x33.625x0.3125	54.4	Pass
L4	65 - 21	Pole	TP55.275x43.34x0.3125	77.5	Pass
L5	21 - 0	Pole	TP60x52.9791x0.375	67.6	Pass
		Anchor Bolts	(18) 2" ø Bolts on a 67" BC	61.1	Pass
		Base Plate	1.5" thick x 73" round PL	90.3	Pass

Table 4 – Maximum Base Reactions

Base Reactions	Current Analysis* *(ANSI/TIA-222-G)*	Original Design *(TIA/EIA-222-F)*
Axial	50 k	---
Shear	36 k	31 k
Moment	3,665 k-ft	3,692 k-ft

* Current analysis reactions are within an allowable factor of 1.35 when the original design reactions are based on an allowable stress design per *ANSI/TIA-222-G.*

GENERAL COMMENTS

This engineering analysis is based upon the theoretical capacity of the structure. It is not a condition assessment of the tower and its foundation. It is the responsibility of SBA Network Services, Inc. to verify that the tower modeled and analyzed is the correct structure (with accurate antenna loading information) modeled. If there are substantial modifications to be made or the assumptions made in this analysis are not accurate, FDH Engineering, Inc. should be notified immediately to perform a revised analysis.

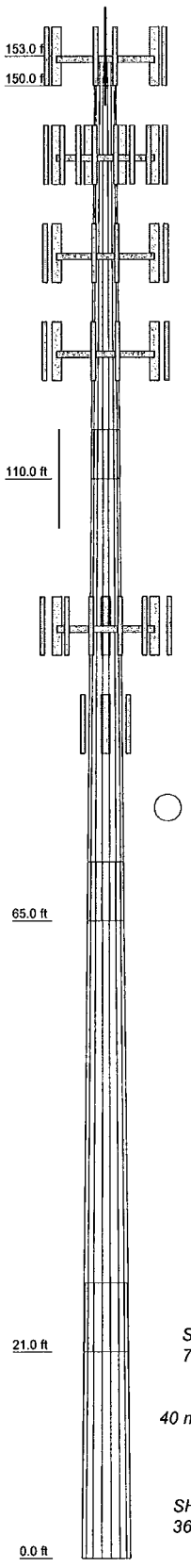
LIMITATIONS

All opinions and conclusions are considered accurate to a reasonable degree of engineering certainty based upon the evidence available at the time of this report. All opinions and conclusions are subject to revision based upon receipt of new or additional/updated information. All services are provided exercising a level of care and diligence equivalent to the standard and care of our profession. No other warranty or guarantee, expressed or implied, is offered. Our services are confidential in nature and we will not release this report to any other party without the client's consent. The use of this engineering work is limited to the express purpose for which it was commissioned and it may not be reused, copied, or distributed for any other purpose without the written consent of FDH Engineering, Inc.

APPENDIX

Section	1	2	3	4	5
Length (ft)	3.00	40.00	50.00	50.00	28.00
Number of Sides	18	18	18	18	18
Thickness (in)	0.2500	0.2500	0.3125	0.3125	0.3750
Socket Length (ft)		5.00	6.00	7.00	
Top Dia (in)	24.0000	26.2500	33.6250	43.3400	52.9791
Bot Dia (in)	26.2500	35.2500	45.3750	55.2750	60.0000
Grade	A572-65				
Weight (K)	0.2	3.3	6.6	8.3	6.4

24.7



DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
(2) Andrew HBX-9014DS-R2M w/ Mount Pipe (Sprint)	153	Platform Mount [LP 303-1] (Verizon)	123
		10' whip (Torrington PD)	105
(2) Andrew HBX-9014DS-R2M w/ Mount Pipe (Sprint)	153	Side Mount Standoff (1) (Torrington PD)	105
(2) Andrew HBX-9014DS-R2M w/ Mount Pipe (Sprint)	153	(2) Diplexer - Powerwave LGP21903 (Cingular)	95
TMA - Powerwave OS-1991-22W (Sprint)	153	(2) Diplexer - Powerwave LGP21903 (Cingular)	95
Platform Mount [LP 403-1] (Sprint)	153	(2) Diplexer - Powerwave LGP21903 (Cingular)	95
Lightning Rod	153		
Empty Pipe Mount	153	Platform Mount [LP 303-1] (Cingular)	95
Empty Pipe Mount	153	DUO1417-8686 w/Mount Pipe (Cingular)	95
Empty Pipe Mount	153		
(4) DB844H90E-XY w/Mount Pipe (Nextel)	143	DUO1417-8686 w/Mount Pipe (Cingular)	95
(4) DB844H90E-XY w/Mount Pipe (Nextel)	143	DUO1417-8686 w/Mount Pipe (Cingular)	95
(4) DB844H90E-XY w/Mount Pipe (Nextel)	143	(2) TMA - Powerwave LGP17201 (Cingular)	95
Platform Mount [LP 403-1] (Nextel)	143	(2) TMA - Powerwave LGP17201 (Cingular)	95
(2) RR90-17-02DP w/Mount Pipe (T-Mobile)	133	(2) Powerwave 7770 w/ Mount Pipe (Cingular)	95
(2) RR90-17-02DP w/Mount Pipe (T-Mobile)	133	(2) Powerwave 7770 w/ Mount Pipe (Cingular)	95
(2) RR90-17-02DP w/Mount Pipe (T-Mobile)	133	(2) Powerwave 7770 w/ Mount Pipe (Cingular)	95
Platform Mount [LP 403-1] (T-Mobile)	133		
(2) Antel LPA-80063/6CF w/ Mount Pipe (Verizon)	123	(2) TMA - Powerwave LGP17201 (Cingular)	95
(2) Antel LPA-80063/6CF w/ Mount Pipe (Verizon)	123	Empty Pipe Mount	95
(2) Antel LPA-80063/6CF w/ Mount Pipe (Verizon)	123	Empty Pipe Mount	95
(2) DB950F65E-M w/Mount Pipe (Verizon)	123	Empty Pipe Mount	95
(2) DB950F65E-M w/Mount Pipe (Verizon)	123	RFS APXV18-206517S-C w/ Mount Pipe (Pocket)	85
(2) DB950F65E-M w/Mount Pipe (Verizon)	123	RFS APXV18-206517S-C w/ Mount Pipe (Pocket)	85
		RFS APXV18-206517S-C w/ Mount Pipe (Pocket)	85
		GPS	70

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 ksi			

TOWER DESIGN NOTES

1. Tower is located in Litchfield County, Connecticut.
2. Tower designed for Exposure C to the TIA-222-G Standard.
3. Tower designed for a 100 mph basic wind in accordance with the TIA-222-G Standard.
4. Tower is also designed for a 40 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Structure Class II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 77.5%

ALL REACTIONS ARE FACTORED

AXIAL 100 K

SHEAR 7 K *MOMENT 764 kip-ft*

TORQUE 0 kip-ft

40 mph WIND - 1.0000 in ICE

AXIAL 50 K

SHEAR 36 K *MOMENT 3665 kip-ft*

TORQUE 1 kip-ft

REACTIONS - 100 mph WIND

FDH ENGINEERING

FDH Engineering, Inc.
2730 Rowland Road
Raleigh, North Carolina
Phone: (919) 755-1012
FAX: (919) 755-1031

Tower Analysis

Job: *Torrington CT01499-S*		
Project: *10-10033E S1*		
Client: SBA	Drawn by: Krystyn Wagner	App'd:
Code: TIA-222-G	Date: 10/14/10	Scale: NTS
Path:		Dwg No. E-1

GIANT SOLUTIONS LLC

Electomagnetic Exposure Analysis
Sprint
CT33XC112
December 14, 2010

Executive Summary:
A power density study has been performed utilizing the transmit power of all proposed transceiver equipment to be installed on the tower. This theoretical result has been combined with empirical data recorded during a field survey of the existing installed transmitters (see below). This report takes into consideration the cumulative effect of both the proposed Sprint transmitting elements and the existing transmitting elements currently located on the tower. This report assumes a worse case scenario of all new elements radiating from the same point in space simultaneously. Careful review of the data indicates that the site, as is and as proposed, is in compliance with applicable Federal standards for Maximum Permissible Exposure levels for RF power density.

Background:
FCC 96-326 is the standard FCC guideline for power density. The guidelines are given in terms of mW/cm^2 and the maximum limits are termed 'Maximum Permissible Exposure' (MPE) for both occupational (controlled) and general (uncontrolled) cases. Because these guidelines are based upon the same limits as those in the American National Standards Institute/Institute of Electrical and Electronics Engineering (ANSI/IEEE) guidelines, they also include the safety factors of 10 and 50 for occupational and general public scenarios respectively.

Additionally, FCC Bulletin OET 65 is the standard for evaluating compliance with FCC guidelines. GIANT Solutions has adopted these methods and procedures and others based on sound engineering practice to ensure that the theoretical calculations performed to complete this analysis will over-predict field strength levels at ground distances close to the transmitting elements. A more realistic approach to calculating power densities at areas near the base of the tower was utilized by taking advantage of the relative gain patterns of the directional antennas being proposed by Sprint. Directional antennas focus energy toward the horizon. This results in a pattern of losses and gains relative to the direction of propagation due to elevation angle changes. Equation 6 from OET 65 was utilized in conjunction with the antenna vertical gain patterns to predict the field strength levels at various points away from the base of the tower. This equation takes into consideration a four-fold increase in power density by assuming a 100% reflection of incoming radiation at the ground level.

$$S=\frac{1.65\times ERP\times G}{\Pi\times R^2}$$

Where:
S = Power density in microwatts per centimeter squared.
ERP = Effective Radiated Power in microwatts (uW).
R = Straight-line distance between antenna centerline and head level in centimeters (cm).
$\Pi = 3.14$
G = Relative numeric gain of the antenna at specified angle of declination such that

$$G=10^{(dB/10)}$$

and, ***dB*** = relative antenna gain in dB (available from the antenna manufacturer).

Sprint has provided to GIANT Solutions the following information for the proposed installation required for analysis of these transmitting elements. These parameters were utilized to calculate the maximum exposure levels in and around the compound for the proposed installation.

- PCS B-Band, 2 carriers, 16 W per carrier. On Gamma sector, adding a Cellextender that will increase the signal's power by 6 dB.

With this information, the signal's power was calculated to increase by 48 W per carrier.

This site currently has several antennas installed. Applicable transmit parameters for all existing equipment was unavailable, thus a field study was conducted to determine existing exposure levels. The details and results of the field study are included at the end of this report.

Power density levels were calculated for the additional Sprint transmitting equipment utilizing the methods and procedures previously referenced at a transmitting height of 150' AGL. These values were then compared to the applicable Maximum Permissible Exposure limits for General Population /Uncontrolled and Occupation/Controlled exposure[1]. The ratio of the calculated value to the maximum permissible exposure value was then computed to analyze the results as a percentage of the maximum allowable levels. For example, an antenna operating in the frequency range of 1900 MHz with a calculated value of power density equal to 0.03 mW/cm^2 would be operating at 3% of the allowable General Public standard which is defined as $1mW/cm^2$. These values were then summed to analyze the combined effect of all proposed transmitting equipment.

[1] FCC Bulletin OET 65 Table 1

These calculated values were then added to the RF exposure measurements from the field survey to get the total combined field strength of the existing and proposed equipment.

Areas closest to the transmitting elements surrounding the site compound were considered for this report. Points further away from surveyed areas will see a decrease in power density due to the attenuation of radio waves traveling through free space.

Results of the cumulative total indicate that no area accessible to the general public will exceed 31.351% of the maximum permissible limit for General Public/Uncontrolled access. **This is 3.19 times less than the allowed maximum.** This is based on the highest measured level in the area as described below. As indicated previously, a conservative approach was taken in calculating the power density levels at the site since it is unlikely that all of the transmitters at the site will be transmitting simultaneously at maximum power. The actual levels experienced at the site will likely be lower.

RF Exposure Measurements

Site Name: CT33XC112
Date Collected: 12/2/2010
Time: 19:37 pm – 19:45 pm
Survey Meter: *Model #NARDA BN 2251/02*
Serial # L-0098
Date of Last Calibration: 1/2010
Calibration Due: 1/2013
Operator: David Renyak

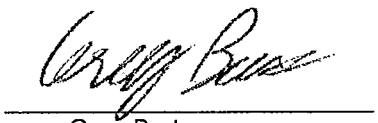
Measurements were made at this facility utilizing the above-referenced Narda Meter. This equipment is designed to measure cumulative RF fields over the 3MHz – 40 GHz spectrum band. Due to the wide band nature of the measuring device the minimum detectable level for occupational exposure is approximately 5% of the allowed threshold. Site data provided for this facility indicates a number of transmitters operating at the site and through visual inspection it was determined that there were no AM transmitters present. As a result, it was assumed that all existing elements were transmitting in the spectrum band measured. The weather was clear and the operating temperature was approximately 50 degrees F.

The test equipment was set to read percent of the total exposure limit as defined by the Federal Communications Commission Regulations ("FCC") for Exposure limits.

The unit was then carried around the tower site, collecting data. The data was taken over a period of approximately 8 minutes, and included the area directly around the antenna site. Measurements were taken in all accessible areas including portions of a wooded area.

Multiple trips were made around the compound looking for the largest signals to contribute to the 31% of the standard being displayed on the monitor. Logged data was collected around the tower as well as spatial averaging to provide an additional means of data comparison. Emitted signals fluctuated between 0% and 31% of the FCC general public/uncontrolled standard for human exposure in the areas accessible to the public.

Based upon these measurements, there were no instances when the measured data indicated that the site, as operating at the time of measurement, was not in full compliance with all applicable FCC RF exposure guidelines.



Greg Burt
RF Engineer

12/14/2010

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tregan@brownrudnick.com

Via Hand Delivery

February 4, 2011

ORIGINAL

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

RE: Notice of Exempt Modification /Torrington @ 1925-1931 East Main Street

Dear Mr. Caruso:

On behalf of Sprint Nextel Corporation ("Sprint"), enclosed for filing are an original and five (5) copies of Sprint's Notice of Exempt Modification for a Facility located at the above-referenced site.

I also enclose herewith a check in the amount of $625.00 representing the filing fee.

I would appreciate it if you would date-stamp the enclosed copy of this transmittal letter and return it to the courier delivering this package.

If you have any questions, please feel free to contact me.

Very truly yours,

BROWN RUDNICK LLP

By: Thomas J. Regan
Thomas J. Regan

Enclosures

cc w/ encl. via 1st Class Mail – Mayor Ryan Bingham

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