

# 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](mailto:siting.council@ct.gov)

Internet: [ct.gov/csc](http://ct.gov/csc)

Daniel F. Caruso  
Chairman

December 11, 2007

Thomas J. Regan, Esq.  
Brown Rudnick Berlack Israels LLP  
185 Asylum Street, CityPlace I  
Hartford, CT 06103-3402

RE: **EM-SPRINT-NEXTEL-034a-071120** - Sprint Nextel Corporation notice of intent to modify an existing telecommunications facility located at 303 Boxwood Lane, Danbury, Connecticut.

Dear Attorney Regan:

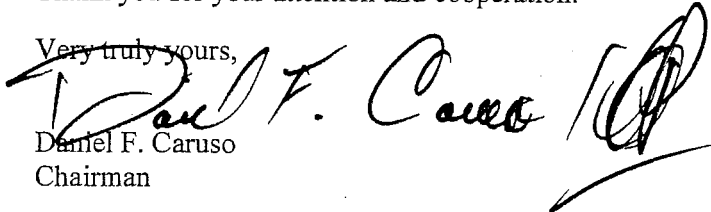
At a public meeting held on November 29, 2007, the Connecticut Siting Council (Council) acknowledged your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice dated November 20, 2007, including the placement of all necessary equipment and shelters within the tower compound. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Thank you for your attention and cooperation.

Very truly yours,

  
Daniel F. Caruso  
Chairman

DFC/MP/laf

c: The Honorable Mark D. Boughton, Mayor, City of Danbury  
Dennis Elpern, City Planner, City of Danbury  
Western Connecticut State University

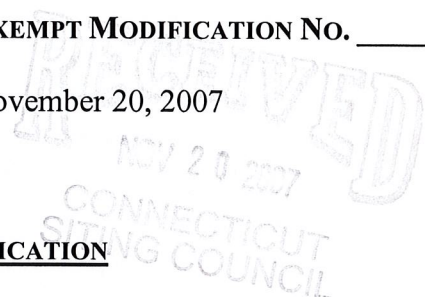


CONNECTIONICUT SITING COUNCIL  
Affirmative Action / Equal Opportunity Employer

CONNECTICUT SITING COUNCIL

In re:

Sprint Nextel Corporation's Notice to Make an	:	EXEMPT MODIFICATION NO. _____
Exempt Modification to an Existing Facility at	:	
303 Boxwood Lane, Danbury, Connecticut.	:	November 20, 2007



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 Danbury of Sprint's intent to make an exempt modification to an existing lattice tower (the "Tower") located on the campus of Western Connecticut State University at 303 Boxwood Lane in Danbury, Connecticut. Specifically, Sprint plans to remove nine of twelve existing iDEN network antennas and replace them with six new iDEN antennas and three WiMAX antennas. 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 undertaking an upgrade to its wireless communications system in Connecticut. As part of the upgrade, Sprint is implementing WiMAX technology to enable enhanced wireless data communications. In order to accomplish the upgrade at this site, Sprint

plans to add three WiMAX antennas and install additional WiMAX-related electronic equipment at the base of the Tower.

The Tower is a 100-foot lattice tower located on the campus of Western Connecticut State University at 303 Boxwood Lane in Danbury, Connecticut (latitude 41° 23' 41.93" N, longitude 73° 29' 12.27" W). The Tower is owned by Western Connecticut State University, which also locates its antennas on the Tower. Currently, Sprint has twelve iDEN network antennas on the Tower with an antenna centerline at 99 feet and six CDMA network antennas with an antenna centerline at 89 feet. Sprint's iDEN and CDMA equipment cabinets are located at the base of the Tower in separate equipment shelters within the existing compound. A site plan with the Tower specifications is attached.

Sprint plans to remove nine of its twelve existing iDEN antennas. Sprint will then install six new iDEN dual pole panel antennas (two per sector) and three WiMAX dual pole antennas (one per sector). The new antennas will have the same antenna centerline as the old antennas — 99 feet. To analyze whether the Tower can support these changes, Sprint commissioned Armor Tower to perform a structural analysis of the Tower. According to the structural analysis, dated November 19, 2007, "the proposed antenna configuration will not exceed the structural supporting capabilities of the tower and as such will be a structurally acceptable loading for the tower."

Sprint will also install a WiMAX radio cabinet inside its existing iDEN shelter at the base of the Tower and a global positioning antenna (GPS) on the existing equipment building.

Therefore, no increase in the size of the compound will be necessary. Furthermore, excluding


brief, minor, construction-related noise during the removal and replacement of the antennas and the installation of the equipment cabinet, Sprint's changes to the Tower will not increase the noise levels at the site.

The addition of the new iDEN antennas and WiMAX antennas will not adversely impact the health and safety of the surrounding community or the people working on the Tower. The total radio frequency exposure measured around the Tower will be well below the National Council on Radiation Protection and Measurements' ("NCRP") standard adopted by the Federal Communications Commission ("FCC"). The worst-case power density analysis for the WiMAX antennas, measured at the base of the Tower, indicates that the WiMAX antennas will emit 6.1825% of the NCRP's standard for maximum permissible exposure, and the new iDEN antennas 12.2807%. A cumulative power density analysis indicates that together, all of the antennas on the Tower will emit only 19.7732% of the NCRP's standard for maximum permissible exposure. Therefore, the power density levels will be well below the FCC mandated radio frequency exposure limits in all locations around the Tower, even with extremely conservative assumptions. The power density analysis is attached.

In conclusion, Sprint's proposed plan to remove nine of twelve existing iDEN antennas and replace them with three WiMAX antennas and six new iDEN antennas, as well as to install WiMAX associated 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  
Brown Rudnick Berlack Israels LLP  
185 Asylum Street, CityPlace I  
Hartford, CT 06103-3402  
Email - [tregan@brownrudnick.com](mailto:tregan@brownrudnick.com)  
Phone - 860.509.6522  
Fax - 860.509.6622

# 40245586 v1 - MERCIECM - 025064/0015

**DIG ALERT:**  
CALL FOR UNDERGROUND UTILITIES PRIOR TO DIGGING:  
1-800-922-4455

**EMERGENCY:**  
CALL 911

# Sprint Nextel Corp.

## DANBURY

PROPOSED UNMANNED WIRELESS TELECOMMUNICATION SITE

**SITE NUMBER: CT01YC357/CT1009**

**303 BOXWOOD LANE  
DANBURY, CT 06811**

**FAIRFIELD COUNTY, CONNECTICUT**

**SITE TYPE: LATTICE TOWER**

**infinigy**  
engineering  
300 Great Oaks Boulevard  
Suite 312, Albany, NY 12203  
Office #: (518) 690-0790  
Fax #: (518) 690-0793

**TRANSCEND  
WIRELESS, LLC.**

479 ROUTE 17 NORTH,  
2ND FLOOR  
MAHWAH, NJ 07430

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0	SUBMITTED FOR REVIEW	0/0	11/14/07
No.	Submitted / Revision	Appr'd	Date

Drawn: SSB Date: 11/14/07  
Designed: DW Date: 11/14/07  
Checked: DW Date: 11/14/07

Project Number  
204-008

Project Title

**DANBURY**

303 BOXWOOD LANE  
DANBURY, CT 06811

Prepared For



Drawing Scale:  
AS NOTED  
Date:  
11/14/07

Drawing Title

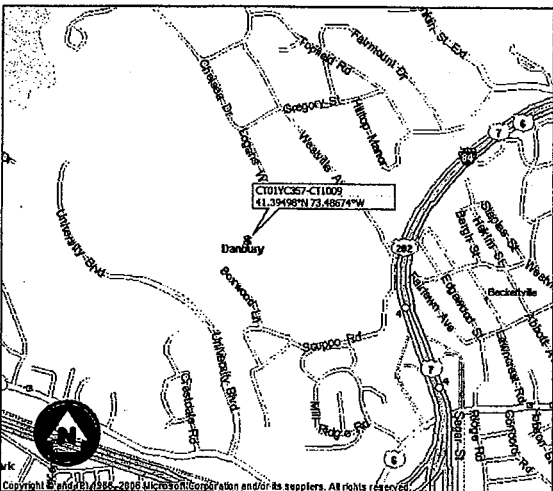
**TITLE PAGE**

Drawing Number

**T1**

MINOR MODIFICATION OF EXISTING WIRELESS COMMUNICATION SYSTEM CONSISTING OF ADDITION OF EQUIPMENT CABINET(S), SWAPPING OF EXISTING ANTENNAS, ADDITION OF ASSOCIATED CABLES & ADDITION OF A GPS ANTENNA. NO WATER OR SEWER IS REQUIRED. THE SITE IS UNMANNED AND NOT FOR HUMAN HABITATION.

**PROJECT DESCRIPTION:**



VICINITY MAP: (NOT TO SCALE)

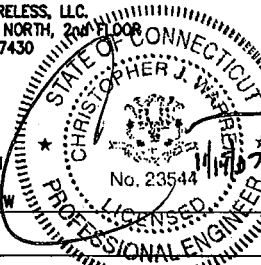
TAKE I-84 TO EXIT 4, AT THE END OF THE RAMP TURN LEFT ONTO US-202, ROAD NAME CHANGES TO LAKE AVE. TURN LEFT ONTO SHANNON RIDGE ROAD, THEN TURN LEFT ONTO FAIRLAWN AVE. BEAR LEFT ONTO WESTVILLE AVE, ROAD NAME CHANGES TO WESTVILLE AVE EXT. TURN LEFT TO SCUPPO ROAD, THEN RIGHT ONTO BOXWOOD LANE. ARRIVE AT SITE: 303 BOXWOOD LANE.

**DRIVING DIRECTIONS:**

SHEET #	TITLE	REV.#	DATE
T1	TITLE PAGE	0	11/13/07
SC-1	OVERALL SITE LAYOUT	0	11/13/07
SC-2	TOWER ELEVATION	0	11/13/07

**SHEET INDEX:**

**SITE NAME:** DANBURY  
**SITE NUMBER:** CT01YC357/CT1009  
**SITE ADDRESS:** 303 BOXWOOD LANE DANBURY, CT 06811  
**SITE OWNER:** WESTERN CONNECTICUT STATE UNIVERSITY 303 BOXWOOD LANE DANBURY, CT 06811  
**TAX MAP:** F-14  
**CURRENT ZONING:** COMMERCIAL MDL-00  
**APPLICANT:** SPRINT CROSSROADS CORPORATE CENTER INTERNATIONAL BLVD, SUITE 800 MAHWAH, NJ 07495  
**APPLICANT REPRESENTATIVE:** TRANSCEND WIRELESS, LLC. 479 ROUTE 17 NORTH, 2ND FLOOR MAHWAH, NJ 07430  
**CENTERLINE:** ±99' AGL  
**GROUND ELEVATION:** ±730.4' AMSL  
**LATITUDE (NAD 83):** 41° 23' 41.93"N  
**LONGITUDE (NAD 83):** 73° 29' 12.27" W



**PROJECT INDEX:**

**infinigy**  
engineering & architecture

300 Great Oaks Boulevard  
Suite 312, Albany, NY 12203  
Office #: (518) 860-0790  
Fax #: (518) 690-0793

**TRANSCEND WIRELESS, LLC.**

479 ROUTE 17 NORTH,  
2ND FLOOR  
MAHWAH, NJ 07430

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No.	Submittal / Revision	App'd	Date

0 SUBMITTED FOR REVIEW DWG 11/14/07  
No. Submittal / Revision App'd Date

Drawn: SKB Date: 11/14/07

Designed: BAF Date: 11/14/07

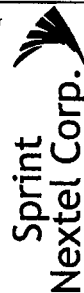
Checked: BZF Date: 11/14/07

Project Number  
204-008

Project Title  
**DANBURY**

303 BOXWOOD LANE  
DANBURY, CT 06811

Prepared For



Drawing Scale:  
AS NOTED

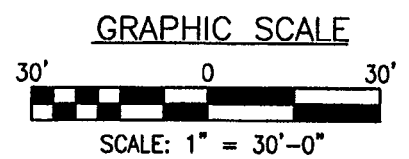
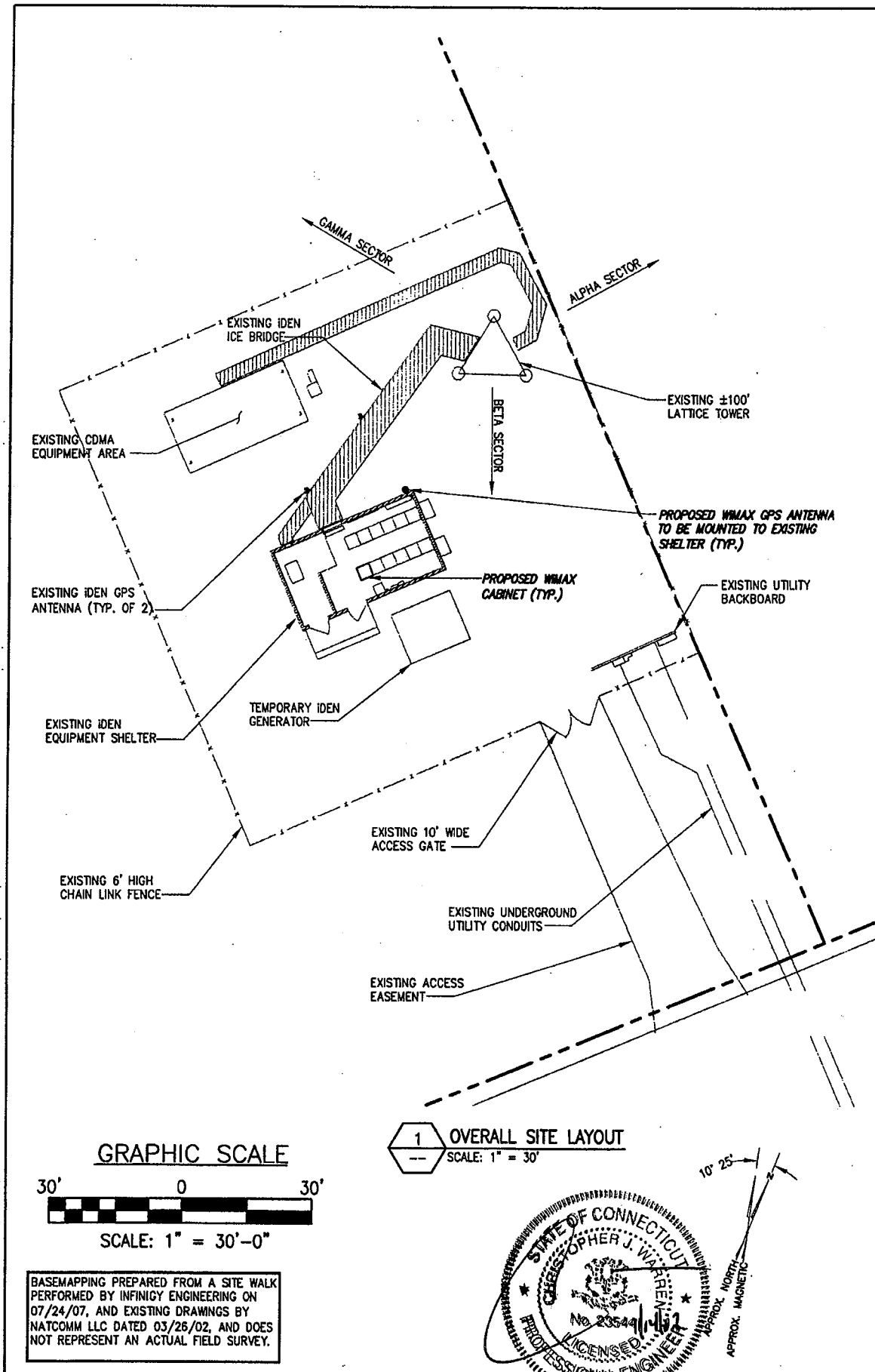
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11/14/07

Drawing Title

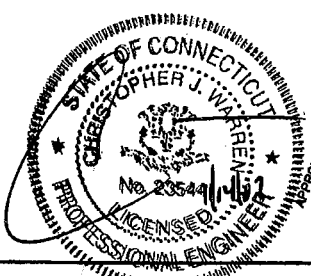
**OVERALL SITE LAYOUT**

Drawing Number

**SC-1**

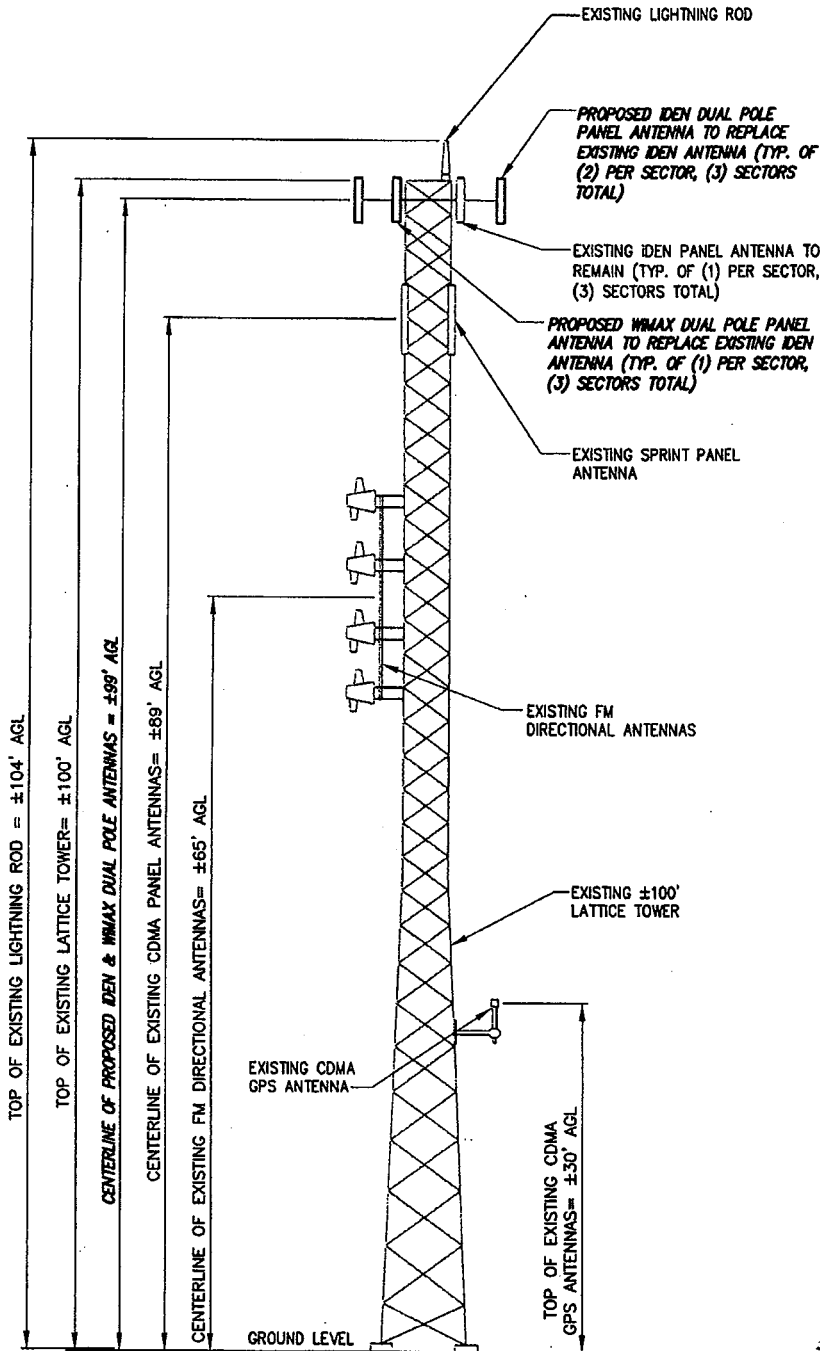


**1 OVERALL SITE LAYOUT**  
SCALE: 1" = 30'



BASEMAPPING PREPARED FROM A SITE WALK PERFORMED BY INFINIGY ENGINEERING ON 07/24/07, AND EXISTING DRAWINGS BY NATCOMM LLC DATED 03/25/02, AND DOES NOT REPRESENT AN ACTUAL FIELD SURVEY.

INFINIGY ENGINEERING DID NOT PERFORM A STRUCTURAL ANALYSIS FOR THE PROPOSED WORK AT TIME OF ISSUANCE OF THESE DRAWINGS AND ACCEPTS NO LIABILITY FOR THE STRUCTURAL INTEGRITY OF THE PROPOSED OR EXISTING INSTALLATION. STRUCTURAL ANALYSIS TO BE COMPLETED PRIOR TO START OF CONSTRUCTION.



**1** LATTICE TOWER ELEVATION  
NOT TO SCALE

**infinigy**  
engineering  
300 Great Oaks Boulevard  
Suite 312, Albany, NY 12203  
Office #: (518) 680-0790  
Fax #: (518) 680-0793

**TRANSCEND  
WIRELESS, LLC.**

479 ROUTE 17 NORTH,  
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MAHWAH, NJ 07430

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No.	Submittal / Revision	App'd	Date
Drawn:	SKB	Date:	11/14/07
Designed:	DJW	Date:	11/14/07
Checked:	DJW	Date:	11/14/07

Project Number  
204-006

Project Title  
**DANBURY**

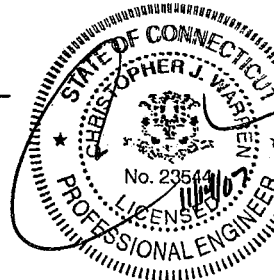
303 BOXWOOD LANE  
DANBURY, CT 06811

Prepared For  
**Sprint  
Nextel Corp.**

Drawing Scale:  
AS NOTED  
Date:  
11/14/07

Drawing Title  
**TOWER  
ELEVATION  
& DETAILS**

Drawing Number  
**SC-2**





# ARMOR TOWER

November 19, 2007

Darren Weber  
Infinigy Engineering  
300 Great Oaks Blvd, Suite 312  
Albany, NY 12203

RE: Sprint/Nextel  
CT01YC357-CT1009  
Danbury, CT

Darren,

In consideration of Nextel's proposed antenna change-out, the following is submitted.

The subject tower is a 100' self-supporting tower that has Sprint antennas, Nextel antennas, as well as the University FM antenna. Recently, the tower has been structurally modified to support the Sprint antenna loading. Nextel is proposing to change their antennas to (2) iDEN antennas and (1) WiMAX Dual Pole antenna for each of the three sectors. One existing iDEN antenna per sector will remain.

Based on these supplied facts, it is our carefully considered opinion that the proposed antenna configuration will not exceed the structural supporting capabilities of the tower and as such will be a structurally acceptable loading for the tower.

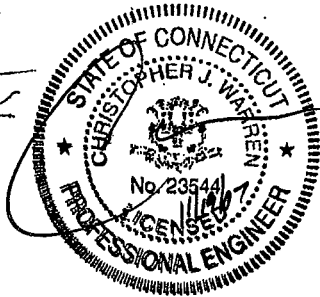
If you have any questions concerning this review, please contact us.

Sincerely,

ARMOR TOWER, INC.



Patrick Botimer  
Structural Engineer



CT01YC357 (WCSU, Boxwood Lane Ext., Danbury, CT) - Siting Council Power Density Calculations													
Sprint Nextel Directional Antennas ESMR - 2657 MHz 99'													
Note: Power densities are in mW/ cm <sup>2</sup>													
Power density													
calculated at													
base of tower													
% of CT Standard													
Transmitters:	Frequency in MHz	CT Standard mW/ cm <sup>2</sup>	Number of Channels	ERP (W) per channel	Centerline of Tx antennas AGL (ft.)**	Power density calculated at base of tower							
WiMAX	2657	1.0000	3	562	99	0.0618252	6.1825%						
Nextel	851	0.5673	19	100	99	0.0696725	12.2807%						
From previous filings:per CSC power density data base													
Sprint													
WCI (WCSU)													
0.0300%													
1.2800%													
19.7732%													
Total % of CT Standard													