

# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

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

E-Mail: [siting.council@po.state.ct.us](mailto:siting.council@po.state.ct.us)

Web Site: [www.state.ct.us/csc/index.htm](http://www.state.ct.us/csc/index.htm)

October 15, 2003

Kenneth C. Baldwin  
Robinson & Cole  
280 Trumbull Street  
Hartford, CT 06103-3597

RE: **TS-VER-066-030918** - Cellco Partnership d/b/a Verizon Wireless request for an order to approve tower sharing at an existing telecommunications facility located at 64 Hungerford Lane, Harwinton, Connecticut.

Dear Attorney Baldwin:

At a public meeting held October 14, 2003, the Connecticut Siting Council (Council) ruled that the shared use of this existing tower site is technically, legally, environmentally, and economically feasible and meets public safety concerns, and therefore, in compliance with General Statutes § 16-50aa, the Council has ordered the shared use of this facility to avoid the unnecessary proliferation of tower structures. 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.

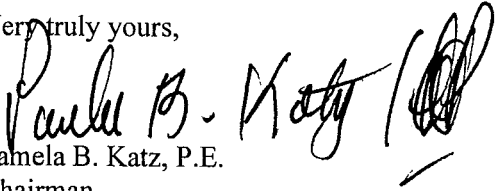
This decision is under the exclusive jurisdiction of the Council. Any additional change to this facility may require an explicit request to this agency pursuant to General Statutes § 16-50aa or notice pursuant to Regulations of Connecticut State Agencies Section 16-50j-73, as applicable. Such request or 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.

This decision applies only to this request for tower sharing and is not applicable to any other request or construction.

The proposed shared use is to be implemented as specified in your letter dated September 18, 2003.

Thank you for your attention and cooperation.

Very truly yours,

  
Pamela B. Katz, P.E.  
Chairman

PBK/laf

c: Honorable Marie M. Knudsen, First Selectman, Town of Harwinton  
William J. Tracy, Jr., Planning Chairman, Town of Harwinton  
Thomas J. Regan, Esq., Brown Rudnick Berlack Israels

280 Trumbull Street  
Hartford, CT 06103-3597  
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Fax (860) 275-8299  
kbaldwin@rc.com  
Direct (860) 275-8345

TS-VER-066-030918

September 18, 2003

*Via Hand Delivery*

**RECEIVED**  
SEP 18 2003  
CONNECTICUT  
SITING COUNCIL

Mr. S. Derek Phelps  
Executive Director  
Connecticut Siting Council  
10 Franklin Square  
New Britain, CT 06051

**Re: Request of Celco Partnership d/b/a Verizon Wireless for an Order to Approve the Shared Use of a Tower Facility at 64 Hungerford Lane, Harwinton, Connecticut**

Dear Mr. Phelps:

Pursuant to Connecticut General Statutes §16-50aa, as amended, Celco Partnership d/b/a Verizon Wireless ("Celco") hereby requests an order from the Connecticut Siting Council ("Council") to approve the proposed shared use by Celco of an existing Sprint Sites USA ("Sprint") tower located at 64 Hungerford Lane in Harwinton, Connecticut. Celco requests that the Council find that the proposed shared use of the tower satisfies the criteria stated in Connecticut General Statutes § 16-50aa and issue an order approving the shared use.

**Background**

The Sprint tower is a 180-foot monopole tower on a 35.2-acre parcel, owned by Buckley Broadcasting Corp. This tower was approved by the Town of Harwinton Zoning Commission on April 23, 2001 prior to the Council's jurisdiction over such facilities. Sprint PCS currently maintains antennas at the 180-foot level on the tower.

Cellco is licensed by the Federal Communications Commission (FCC) to provide PCS service to be served by Cellco's proposed Harwinton installation. Cellco and Sprint have agreed to the proposed shared use of this tower pursuant to mutually acceptable terms and conditions, and Sprint has authorized Cellco to act on



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HART1-1126299-1

S. Derek Phelps  
September 18, 2003  
Page 2

its behalf to apply for all necessary local, state and federal permits, approvals, and authorizations which may be required for the proposed shared use of this facility.

Cellco proposes to install twelve (12) panel-type antennas at the 170-foot level on the tower. Radio equipment associated with these antennas would be located in a new 12-foot by 30-foot equipment building which would be located near the base of the tower within the existing site compound. (See Site Plan included as Attachment 2.)

C.G.S. § 16-50aa(c)(1) provides that, upon written request for approval of a proposed shared use, "if the council finds that the proposed shared use of the facility is technically, legally, environmentally and economically feasible and meets public safety concerns, the council shall issue an order approving such shared use." The shared use of the tower satisfies those criteria as follows:

**A. Technical Feasibility.** The existing tower is structurally capable of supporting the proposed Cellco antennas. The proposed shared use of this tower therefore is technically feasible. (See Engineer's Certification included as Attachment 2.).

**B. Legal Feasibility.** Under C.G.S. § 16-50aa, the Council has been authorized to issue orders approving the proposed shared use of an existing tower facility such as the Sprint facility in Harwinton. This authority complements the Council's prior-existing authority under C.G.S. § 16-50p to issue orders approving the construction of new towers that are subject to the Council's jurisdiction. In addition, § 16-50x(a) directs the Council to "give such consideration to other state laws and municipal regulations as it shall deem appropriate" in ruling on requests for the shared use of existing towers facilities. Under the statutory authority vested in the Council, an order by the Council approving the requested shared use would permit the Applicant to obtain a building permit for the proposed installations.

**C. Environmental Feasibility.** The proposed shared use would have a minimal environmental effect, for the following reasons:

1. The proposed installations would have an insignificant incremental visual impact, and would not cause any significant change or alteration in the physical or environmental characteristics of the existing site. In particular, the proposed installations would not increase the height of the existing



S. Derek Phelps  
September 18, 2003  
Page 3

tower, and would not extend the boundaries of the tower site outside the limits of the tower compound.

2. The proposed installations would not increase the noise levels at the existing facility by six decibels or more.
3. Operation of the Sprint PCS and Cellco antennas at this site would not exceed the total radio frequency (RF) electromagnetic radiation power density level adopted by the Federal Communications Commission. The total power density emission levels for Sprint PCS and Cellco antennas would be 7.88% of the FCC standard, as measured for mixed frequency sites. (See Power Density Table included as Attachment 2.)
4. The proposed installations, would not require any water or sanitary facilities, or generate air emissions or discharges to water or sanitary facilities, or generate air emissions or discharges to water bodies. After construction is complete the proposed installations would not generate any traffic other than periodic maintenance visits.

The proposed use of this facility would therefore have a minimal environmental effect, and is environmentally feasible.

**E. Economic Feasibility.** As previously mentioned, Sprint and Cellco have entered into a mutual agreement to share the use of the tower on terms agreeable to the parties. The proposed tower sharing is therefore economically feasible.

**F. Public Safety Concerns.** As stated above, the tower is structurally capable of supporting the Cellco antennas. Cellco is not aware of any public safety concerns relative to the proposed sharing of the existing tower. In fact, the provision of new or improved phone service through shared use of the existing tower is expected to enhance the safety and welfare of area residents.

### **Conclusion**

For the reasons discussed above, the proposed shared use of the existing Sprint tower in Harwinton, Connecticut satisfies the criteria stated in C.G.S. § 16-

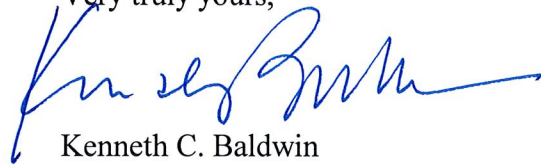


S. Derek Phelps  
September 18, 2003  
Page 4

50aa and advances the General Assembly's and the Siting Council's goal of preventing the proliferation of towers in Connecticut. The Applicant therefore requests that the Siting Council issue an order approving the proposed shared use.

Thank you for your consideration of this matter.

Very truly yours,



Kenneth C. Baldwin

KCB:cag

Attachments

cc: Marie Knudsen, Harwinton First Selectman  
Sandy M. Carter



Cellco Partnership

d.b.a. **verizon** wireless

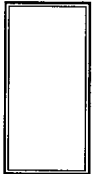
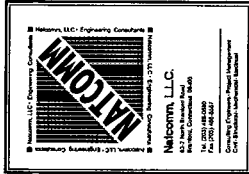
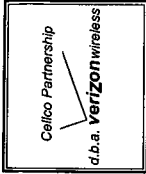
# WIRELESS COMMUNICATIONS FACILITY

HARWINTON-1

64 HUNGERFORD LANE

HARWINTON, CONNECTICUT 06791

REVISIONS	
NO.	DATE
1	01/11/06
2	01/11/06
3	01/11/06
4	01/11/06
5	01/11/06
6	01/11/06
7	01/11/06
8	01/11/06
9	01/11/06
10	01/11/06



PROJECT NO.:	00092
DRAWN BY:	KC
CHECKED BY:	AJ3
SCALE:	AS NOTED
DATE:	07/14/03

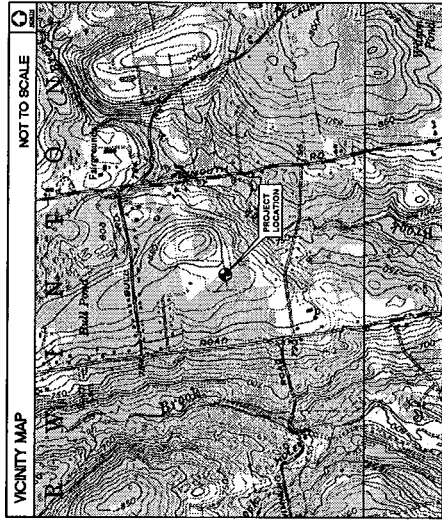
TITLE	SHEET
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T-1  
DWG. 1 OF 2

LEGEND	
SYMBOL	DESCRIPTION
	SPOT HEIGHT WITH ELEVATION OCCURS
	ELEVATION MARKER
	SPOT MARK ELEVATION OCCURS

SHEET INDEX	
SHT. NO.	DESCRIPTION
1-1	TITLE SHEET
C-1	COMPOUND PLAN AND ELEVATION



PROJECT SUMMARY	
SITE NAME:	HARWINTON-1
SITE ADDRESS:	64 HUNGERFORD LANE HARWINTON, CONNECTICUT 06791
PROPERTY OWNER:	503 EAST CASCADENT AVENUE RAMSEY, NJ 07448
LEASOR:	503 EAST CASCADENT AVENUE RAMSEY, NJ 07448
LESSEE:	CELLCO PARTNERSHIP 1000 JEFFERSON AVENUE EAST HARTFORD, CT 06108
APPLICANT:	CELLCO PARTNERSHIP 1000 JEFFERSON AVENUE EAST HARTFORD, CT 06108
CONTACT PERSON:	SANDY CARTER CELLCO PARTNERSHIP 1000 JEFFERSON AVENUE EAST HARTFORD, CT 06108
CENTER OF TOWER:	LATITUDE: 41° 45' 28.13" LONGITUDE: 72° 03' 28.29" GROUND ELEV.: 84.00' ASL COORDINATES WERE TAKEN USING A HMM FIELD GPS

GENERAL NOTES	
1.	PROPOSED AND EXISTING ANTENNA LOCATIONS AND HEIGHTS PROVIDED BY CELLCO PARTNERSHIP
FROM 80-103 EAST RIVER DR. EAST HARTFORD, CT	
TO 64 HUNGERFORD LN., HARWINTON, CT	

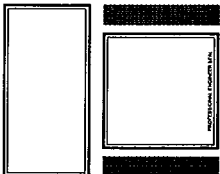
  

SITE DIRECTIONS	
START ON ROAD WEST ON 103-4	CONNECTICUT BLVD., DRIVE STRAIGHT TO 64 DRIV
TURN RIGHT ON 64 DRIV	TO 64 HUNGERFORD LANE
TURN LEFT ON 64 DRIV	TO 64 HUNGERFORD LANE
TURN RIGHT ON 64 DRIV	TO 64 HUNGERFORD LANE

REVISIONS	
NO.	DATE
01	01/20/03
02	01/20/03
03	01/20/03
04	01/20/03
05	01/20/03
06	01/20/03
07	01/20/03
08	01/20/03
09	01/20/03
10	01/20/03

Cellco Partnership  
d.b.a. Verizon Wireless

**NATCOM**  
NATCOM, LLC - Engineering Consulting  
1000 Corporate Center  
Natick, MA 01908  
Tel: 508-548-8888  
Fax: 508-548-8887  
www.natcomllc.com

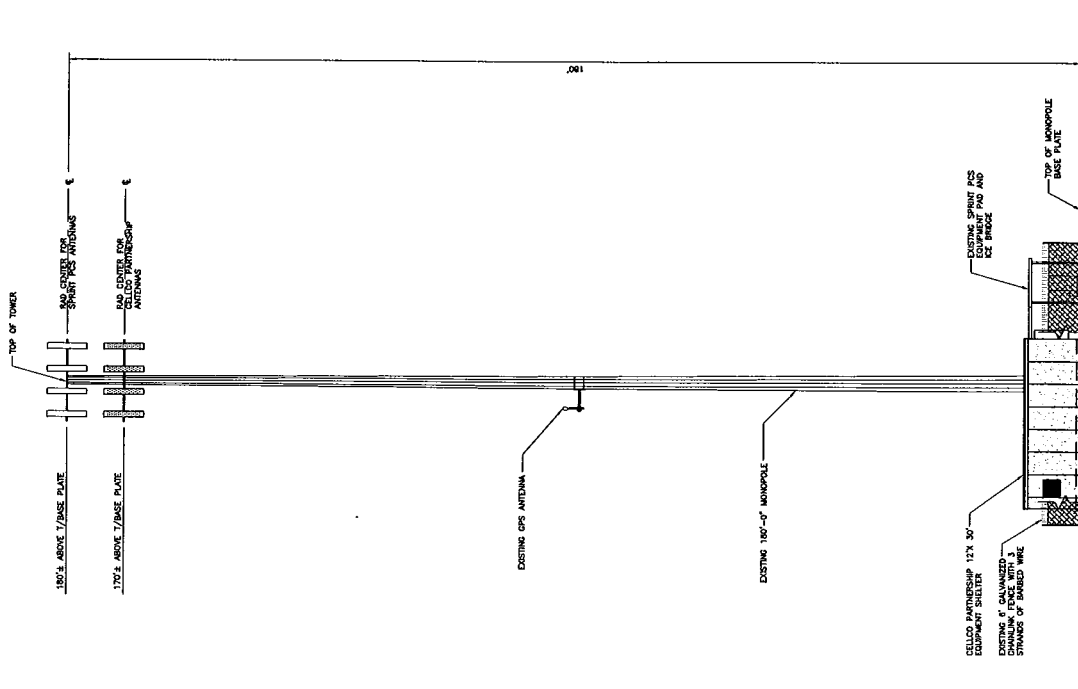


**HARWINTON-1**  
84 HUNGERFORD LANE  
HARWINTON, CT 06091

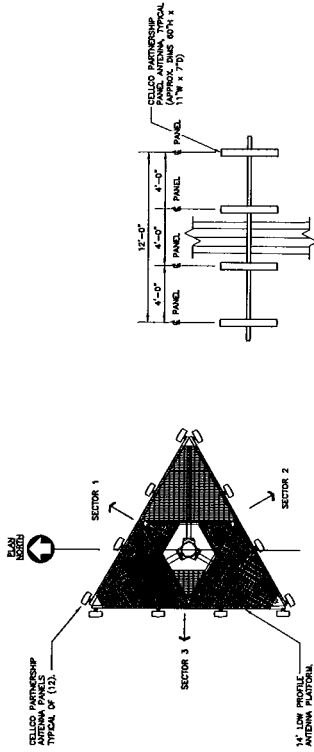
PROJECT NO: 03092  
DRAWN BY: KC  
CHECKED BY: AAJ  
SCALE: AS NOTED  
DATE: 07/14/03

COMPOUND  
PLAN AND  
ELEVATION

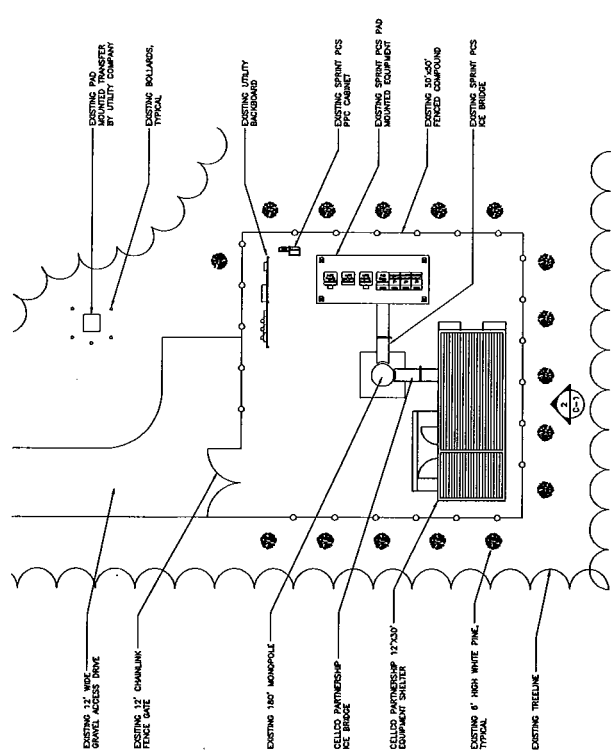
**C-1**  
DWG. 2 OF 2



2 ELEVATION  
C-1 SCALE: 1/4"=1'-0"



3 ANTENNA MOUNTING CONFIGURATION  
C-1 NOT TO SCALE



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

1047 N 204<sup>th</sup> Avenue  
Elkhorn, NE 68022  
402-289-1888  
Fax-289-1861

## SEMAAN ENGINEERING SOLUTIONS

August 26, 2003

Mr. Russ Van Oudenaren  
Sprint Sites USA  
535 East Crescent Ave  
Ramsey, NJ 07446

**Subject:**

Rational analysis for existing  
180 ft Monopole  
Proposed Carrier: Verizon  
**Site: CT33XC021**  
Harwinton, CT

Dear Mr. Van Oudenaren:

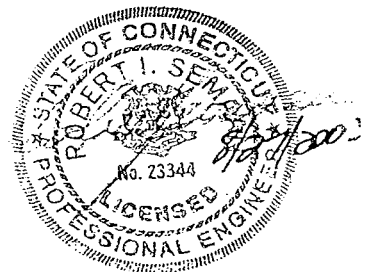
As requested, this rational analysis will evaluate the feasibility of adding the proposed antennas by Verizon Wireless to the structure at the above referenced site (no computer analysis performed).

The following is the structure and antenna information used in this rational analysis:

1. Original manufacturer documents by EEI, Job # 8428 dated April 16, 2001.
2. Existing and new antenna information as per Tower Loading Form, as supplied by Sprint Sites USA.

This existing structure is assumed to have been properly maintained with no structural defects. The original design is assumed to be adequate for the original loading.

The existing structure is a 178 ft monopole and was originally designed to support the following loads:





### **ORIGINAL ANTENNA LOADING**

Original design based on EIA/TIA-222-F – 85 Mph basic wind speed and ½” radial ice (reduction allowed).

- 178 ft – (12) DAPA 48000 panels with (12) 1-5/8 lines (inside) mounted on a low profile platform.
- 168 ft – (12) DAPA 48000 panels with (12) 1-5/8 lines (inside) mounted on a low profile platform.
- 158 ft – (12) DAPA 48000 panels with (12) 1-5/8 lines (inside) mounted on a low profile platform.
- 148 ft – (12) DAPA 48000 panels with (12) 1-5/8 lines (inside) mounted on a low profile platform.
- 138 ft – (12) DAPA 48000 panels with (12) 1-5/8 lines (inside) mounted on a low profile platform.
- 128 ft – (12) DAPA 48000 panels with (12) 1-5/8 lines (inside) mounted on a low profile platform.

### **EXISTING ANTENNA LOADING**

- 180 ft – (9) DB980H90E panels with (9) 1-5/8 lines (inside) mounted on a platform.

### **PROPOSED ANTENNA LOADING**

Present Code design based on EIA/TIA-222-F– 80 Mph basic wind speed and ½” radial ice (reduction allowed) for Litchfield County, CT.

- 170 ft – (12) DB950G85E-M panels with (12) 1-5/8 lines (inside) mounted on a platform.

Based on this rational analysis and the comparison of the original design loading vs. the proposed Verizon antenna loading, the structure is found to be structurally capable of supporting the antenna loading listed above and would meet the minimum requirements of EIA/TIA 222-F Standard. The foundation is assumed to match the structure capacity.

If you have any questions or require additional information, feel free to contact me at the above referenced phone number.

Robert Semaan, P.E., S.E.  
President

General Power Density

Site Name: Harwinton 1, CT  
 Cumulative Power Density

Operator	Operating Frequency (MHz)	Number of Trans.	ERP Per Trans. (watts)	Total ERP (watts)	Distance to Target (feet)	Calculated Power Density (mW/cm <sup>2</sup> )	Maximum Permissible Exposure (mW/cm <sup>2</sup> )	Fraction of MPE (%)
VZW	1900	3	494	1482	170	0.0184	1.0	1.84%
Sprint PCS	1950	11	494	5434	180	0.0603	1.0	6.03%

**Total Percentage of Maximum Permissible Exposure**

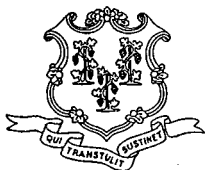
7.88%

\*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Part 1 based on NCRP Report 86, 1986 and generally on ANSI/IEEE C95.1-1992

MHz = Megahertz

mW/cm<sup>2</sup> = milliwatts per square centimeter

ERP = Effective Radiated Power



# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

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Web Site: [www.state.ct.us/csc/index.htm](http://www.state.ct.us/csc/index.htm)

September 22, 2003

Honorable Marie M. Knudsen  
First Selectman  
Town of Harwinton  
Town Hall  
100 Bentley Drive  
Harwinton, CT 06791

RE: **TS-VER-066-030918** - Cellco Partnership d/b/a Verizon Wireless request for an order to approve tower sharing at an existing telecommunications facility located at 64 Hungerford Lane, Harwinton, Connecticut.

Dear Ms. Knudsen:

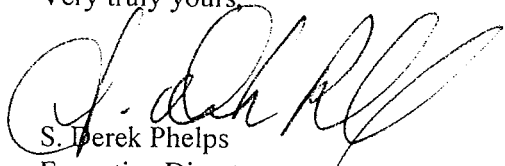
The Connecticut Siting Council (Council) received this request for tower sharing, pursuant to Connecticut General Statutes § 16-50aa.

The Council will consider this item at the next meeting scheduled for October 14, 2003, at 1:30 p.m. in Hearing Room One, Ten Franklin Square, New Britain, Connecticut.

Please call me or inform the Council if you have any questions or comments regarding this proposal.

Thank you for your cooperation and consideration.

Very truly yours,



S. Derek Phelps  
Executive Director

SDP/lid

Enclosure: Notice of Tower Sharing

c: William J. Tracy, Jr., Planning Chairman, Town of Harwinton

TS-VER-066-030918  
64 Hungerford Lane  
Harwinton 09/22/03

