

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

Web Site: www.ct.gov/csc

November 21, 2003

Stephen J. Humes, Esq.
LeBoeuf, Lamb, Greene & MacRae LLP
Goodwin Square
225 Asylum Street, 13th Floor
Hartford, CT 06103

RE: **EM-T-MOBILE-064-031104** - Omnipoint Communications, Inc. notice of intent to modify an existing telecommunications facility located at 92 Weston Street, Hartford, Connecticut.

Dear Attorney Humes:

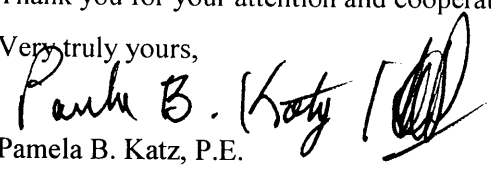
At a public meeting held on November 20, 2003, the Connecticut Siting Council (Council) acknowledged your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice dated November 4, 2003. 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. 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.

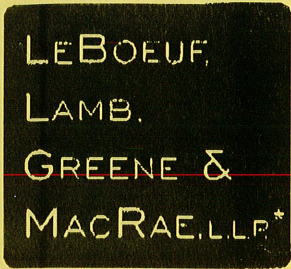
Thank you for your attention and cooperation.

Very truly yours,


Pamela B. Katz, P.E.
Chairman

PBK/laf

c: Honorable Eddie A. Perez, Mayor, City of Hartford
Robert A. LaPorte, Chairman of City Plan Com., City of Hartford
Thomas F. Flynn III, Nextel Communications Inc.
Christopher B. Fisher, Esq., Cuddy & Feder LLP
Thomas J. Regan, Esq., Brown, Rudnick, Berlack Israels



Goodwin Square
 225 Asylum Street, 13th Floor
 Hartford, CT 06103
 Tel: (860) 293-3500
 Fax: (860) 293-3555

FAX
 TRANSMISSION

TRANSMISSION PROBLEMS: (860) 293-3722

FROM: Roger J. Cirella	ID#: 5344	DATE: November 14, 2003
TEL: (860) 293-3722	PAGES: 1 of 2	CLIENT/MATTER NO.: 07687-00307

TO:	COMPANY:	FAX NO.:	CONFIRMING TELEPHONE NO.:
Michael Perone	Connecticut Siting Council	(860) 827-2950	(860) 827-2935

Comments/Message:

Page 2 Exhibit E Power Density Calculations
 92 Weston Street
 Hartford, CT

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New England Market



Connecticut

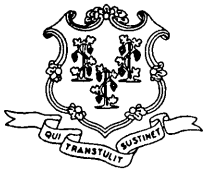
Worst Case Power Density

Site:	CT11062
Site Address:	92 Weston Street
Town:	Hartford
Tower Height:	110 ft.
Tower Style:	Monopole
Base Station TX output	20 W
Number of channels	8
Antenna Model	EMS RR90-17-02DP
Cable Size	7/8 in.
Cable Length	90 ft.
Antenna Height	80.0 ft.
Ground Reflection	1.6
Frequency	1935.0 MHz
Jumper & Connector loss	4.50 dB
Antenna Gain	16.5 dBi
Cable Loss per foot	0.0186 dB
Total Cable Loss	1.6740 dB
Total Attenuation	6.1740 dB
Total EIRP per Channel (In Watts)	53.34 dBm 215.59 W
Total EIRP per Sector (In Watts)	62.37 dBm 1724.73 W
nsg	10.3260
Power Density (S) =	0.069100 mW/cm²
Voicestream Worst Case % MPE =	6.9100%
Equation Used :	$S = \frac{(1000(9rf))^2 (Power) * 10^{(nsg/10)}}{4 \pi (R)^2}$
	<i>Office of Engineering and Technology (OET) Bulletin 65, Edition 97-01, August 1997</i>

Co-Location Total	
Carrier	% of Standard
Verizon	
Cingular	
Sprint PCS	11.5700 %
AT&T Wireless	3.4400 %
Nextel	
Total Excluding Voicestream	15.0100 %
Voicestream	6.9100
Total % MPE for Site	21.9200%

EM-T-MOBILE-064-031104
92 Weston Street
Hartford 11/7/03





STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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

E-Mail: siting.council@po.state.ct.us

Web Site: www.state.ct.us/esc/index.htm

November 5, 2003

Honorable Eddie A. Perez
Mayor
City of Hartford
Municipal Building
550 Main Street
Hartford, CT 06103

RE: **EM-T-MOBILE-064-031104** - Omnipoint Communications, Inc. notice of intent to modify an existing telecommunications facility located at 92 Weston Street, Hartford, Connecticut.

Dear Mayor Perez:

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.

The Council will consider this item at the next meeting scheduled for November 20, 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,

SDP/RKE

S. Derek Phelps
Executive Director

SDP/laf

Enclosure: Notice of Intent

c: Robert A. LaPorte, Chairman of City Plan Com., City of Hartford

LEBOEUF, LAMB, GREENE &
L.L.P.

A LIMITED LIABILITY PARTNERSHIP INCLUDING PROFESSIONAL CORPORATION S

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WASHINGTON, DC.
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SAN FRANCISCO

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HARTFORD, CT 06103

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WRITER'S DIRECT DIAL: (860) 293-3744

WRITER'S DIRECT FACSIMILE: (860) 241-1344

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(A LONDON-BASED
MULTINATIONAL PARTNERSHIP)

PARIS

BRUSSELS

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RIYADH
(AFFILIATED OFFICE)

TASHKENT

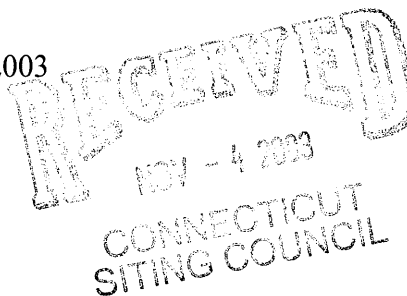
BISHKEK

ALMATY

BEIJING

November 4, 2003

Pamela Katz, Chairman
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051



Re: Notice of Exempt Modification
92 Weston Street, Hartford, Connecticut

Dear Chairman Katz and Members of the Council:

Please be advised that LeBoeuf, Lamb, Greene & MacRae, L.L.P. represents Omnipoint Communications, Inc., a subsidiary of T-Mobile USA, Inc. (hereinafter T-Mobile) in the above-referenced matter. T-Mobile intends to add one S8000 cabinet and one antenna to its existing six-antenna array currently mounted on an existing platform on the existing monopole tower facility at 92 Weston Street in Hartford. Please accept this letter as notification, pursuant to R.C.S.A. § 16-50j-73, of construction that 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 Hartford City Manager, Lee Erdmann.

Background

T-Mobile holds the "A block" "Wideband PCS" license for the 2-GHz PCS frequencies for the greater New York City area, including the entire State of Connecticut. T-Mobile is licensed by the Federal Communications Commission (FCC) to provide PCS wireless telecommunications service in the State of Connecticut, which includes the area to be served by the proposed installation.

Discussion

The existing facility consists of a one hundred ten foot (110') monopole tower (see drawing attached as Exhibit B) and surrounding compound. The coordinates for the site are **Lat: 41°-47-12.20** and **Long: 72°-39-44.24**. The tower is in the northeast corner of Hartford. The tower is approximately eight hundred eleven feet (811') West of Interstate 91 South, roughly three hundred sixty-two feet (362') east of Weston Road, and approximately one thousand one hundred six feet (1,106') south of Jennings Road.

T-Mobile's proposal calls for the addition of one (1) antenna to its existing six (6) antenna array, creating a total of seven (7) antennas. The proposed configuration is a cluster of three sectors mounted on an existing low profile platform at the eighty foot (80') centerline above ground level ("AGL"). The model number for the new antenna is Algon 7250. A new structural analysis of the tower has been completed and is attached as Exhibit D. As stated in the structural analysis, the existing tower structure is capable of supporting the proposed T-Mobile installation. One new Nortel S8000 equipment cabinet will be installed. A 5' 0" x 5'0" concrete pad will be installed to support the proposed cabinet. Utilities will be run via underground conduit from those currently in place.

The planned modifications to the Orange 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 T-Mobile's approved antennas on the tower and will not extend the boundaries of the existing compound area. The enclosed tower drawings confirm that the planned changes will not increase the overall height of the tower.
2. The installation of T-Mobile equipment, as reflected on the attached site plan, will not require an extension of the site boundaries.
3. The proposed modification to the facility will not increase the noise levels at the existing facility by six decibels or more. T-Mobile's equipment is self-contained and requires no additional heating, ventilation or cooling equipment.
4. The operation of the additional antennas will not increase the total radio frequency (RF) power density, measured at the site boundary, to a level at or above the applicable standard. The "worst-case" RF power density calculations, for a point at the site boundary, are attached hereto as Exhibit F.

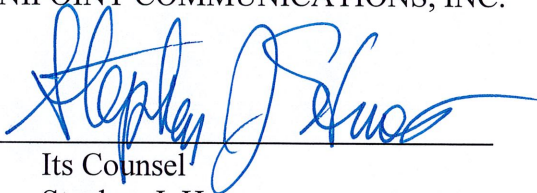
For the foregoing reasons, T-Mobile respectfully submits that the proposed addition of antennas and equipment at the Hartford facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Thank you for your consideration of this matter.

Respectfully submitted,

OMNIPOINT COMMUNICATIONS, INC.

By:



Its Counsel

Stephen J. Humes

cc: Hartford City Manager, Lee Erdmann

Exhibit A
Site Map

92 Weston Street
Hartford, Connecticut

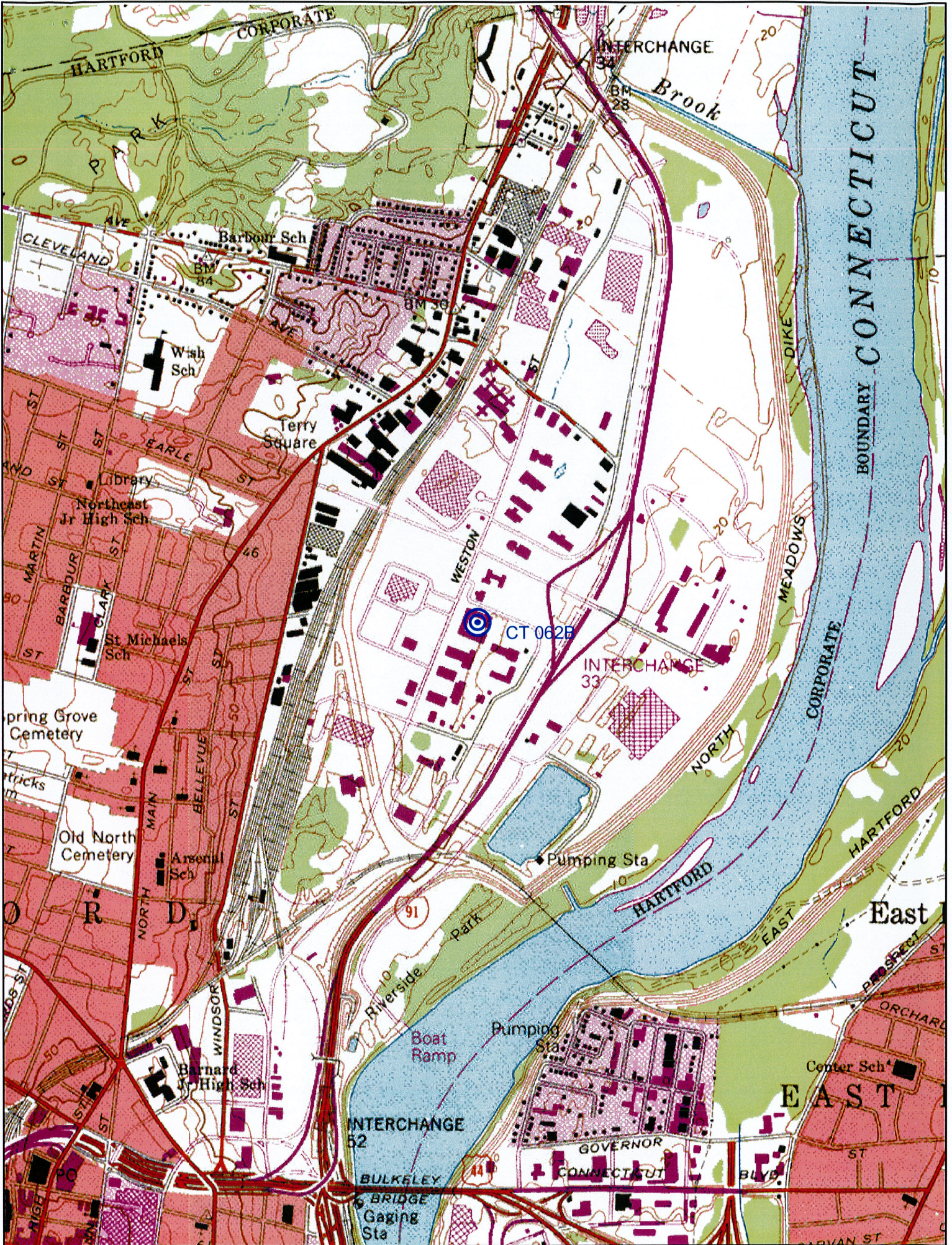
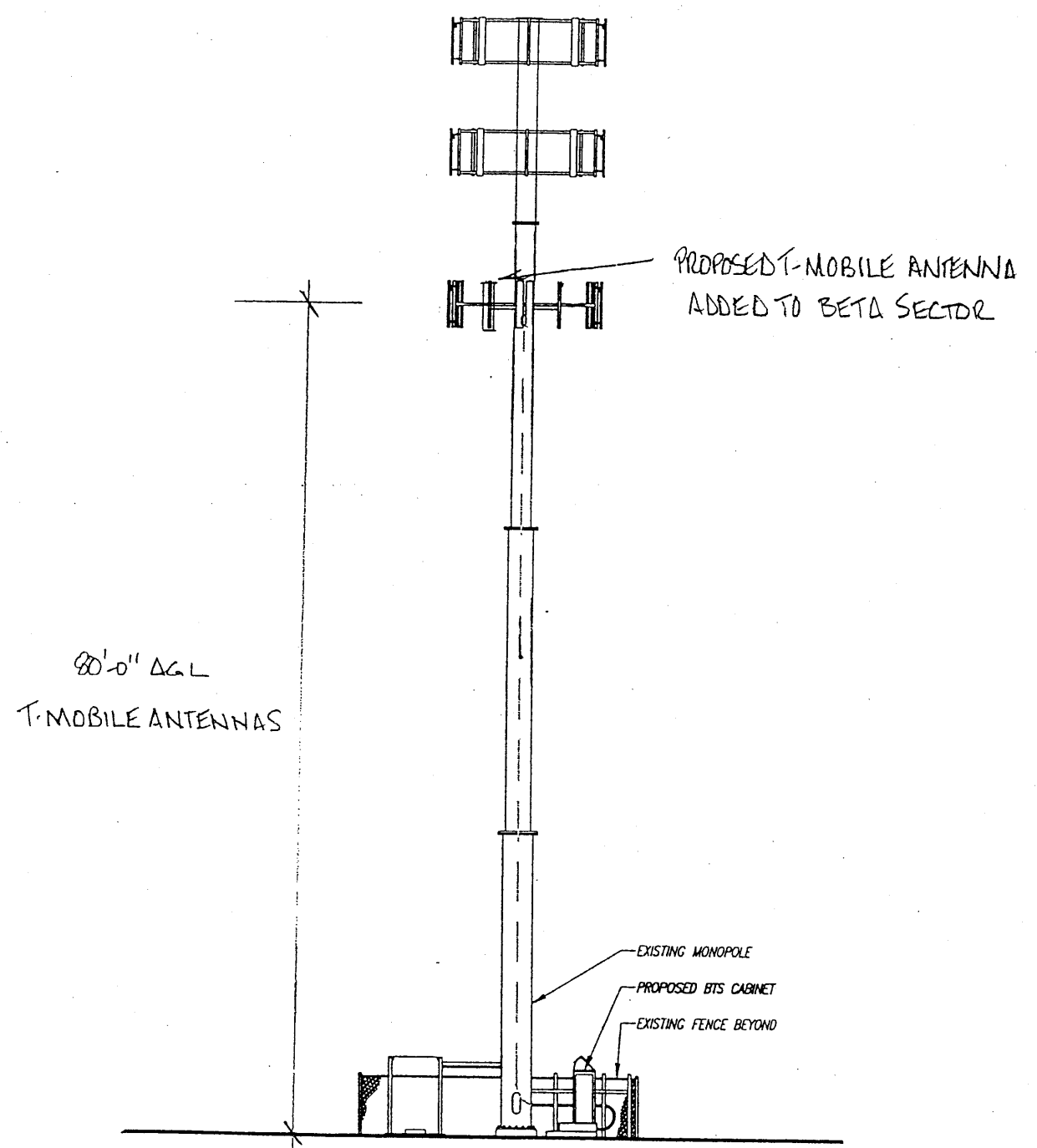


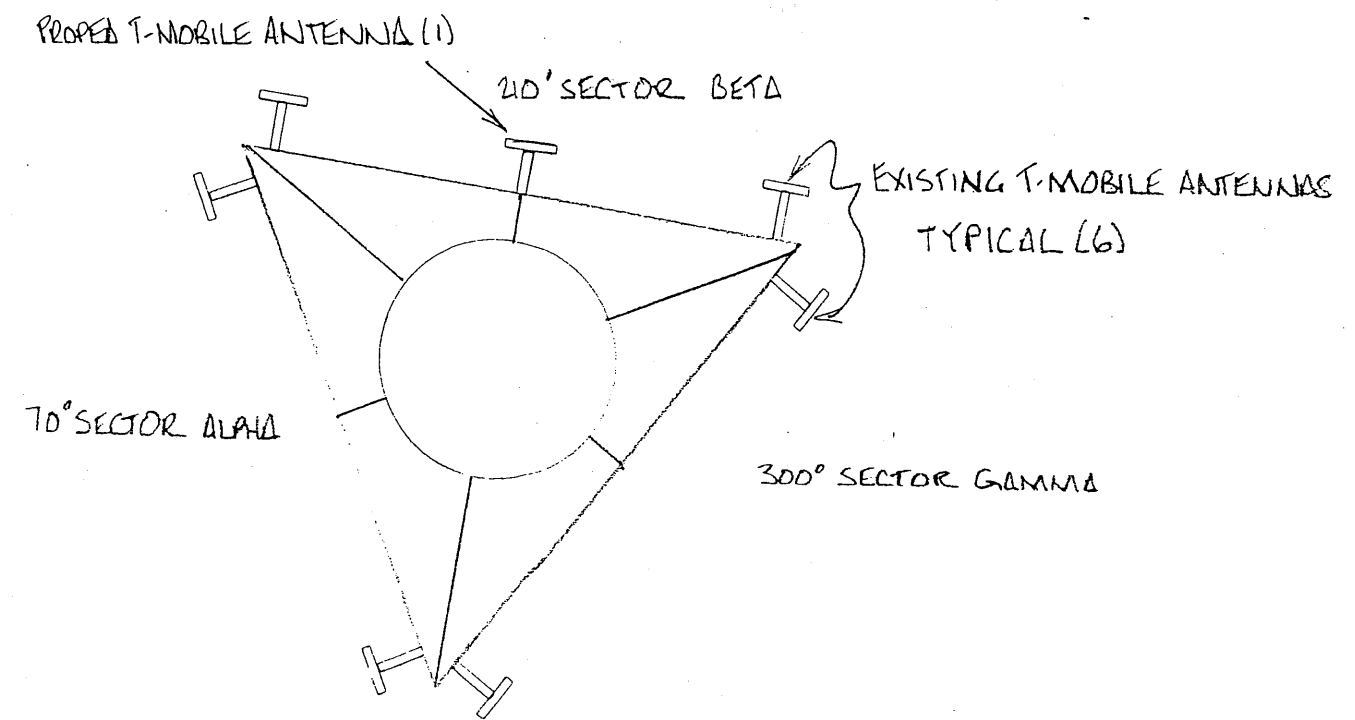
Exhibit B
Design Drawings

92 Weston Street
Hartford, Connecticut

NOTE:
 1. ALL PLAN INFORMATION SHOWN IS BASED ON AS-BUILT FIELD MEASUREMENTS FOR LEASE EXHIBIT. ALL PLAN INFORMATION MUST BE CONFIRMED FOR ANY OTHER USE.
 2. PER FCC MANDATE, ENHANCED EMERGENCY (E911) POSITION LOCATION EQUIPMENT IS REQUIRED TO MEET NATIONWIDE STANDARDS FOR WIRELESS COMMUNICATIONS SYSTEMS. VOICESTREAM RESERVES THE RIGHT TO INSTALL AND DESIGN THE LOCATION AND CONFIGURATION OF THE E911 EQUIPMENT AS REQUIRED.



MONOPOLE ELEVATION N.T.S.



ANTENNA ORIENTATION N.T.S.

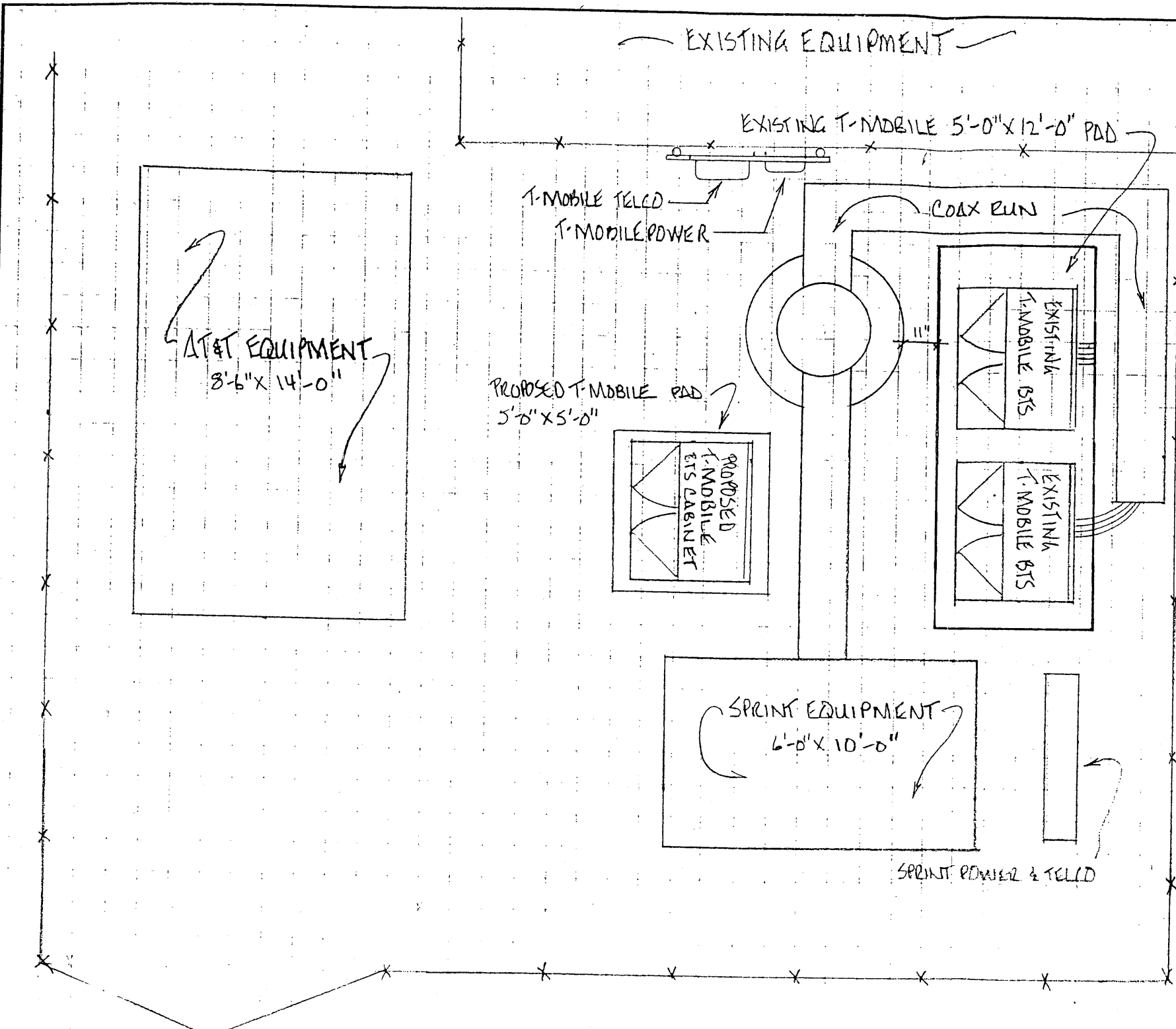


50 VISION BOULEVARD
 EAST PROVIDENCE, R.I. 02914
 OFFICE: (401)-588-5600
 FAX: (401)-588-5658

SITE: CT11062B
 SITE NAME: WINDSOR
 ADDRESS: 92 WESTON STREET
 HARTFORD CT

"LEASE EXHIBIT"

REVISIONS	DESIGNED BY:	DATE: 9-20-02
	DRAWN BY: MFB	SCALE: AS NOTED
	PM: JB	L-2
	FILE:	Sheet No.



NOTE:
 1. ALL PLAN INFORMATION SHOWN IS BASED ON AS-BUILT FIELD MEASUREMENTS FOR LEASE EXHIBIT. ALL PLAN INFORMATION MUST BE CONFIRMED FOR ANY OTHER USE.
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EQUIPMENT PLAN SCALE: 1/4" = 1'-0"



50 VISION BOULEVARD
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SITE: CT11062B
 SITE NAME: WINDSOR
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 HARTFORD CT

"LEASE EXHIBIT"

REVISIONS	DESIGNED BY:	DATE: 9.20.02
	DRAWN BY: MFB	SCALE: AS NOTED
	PM: JB	L-1
	FILE:	Sheet No.

Exhibit C
Equipment Specifications

92 Weston Street
Hartford, Connecticut

1 9 0 0 & 8 0 0 M H z D u a l P o l a r i z e d A n t e n n a

Electrical Specifications

	7250 (XM-1900-65-18.5i)	7691 (XM-1900-65-18i-A)
Gain	16.5 dBd (18.5 dBi)	16 dBd (18 dBi)
Polarization	linear, dual slant 45	linear, dual slant 45
VSWR, 50Ω	<1.3:1 (1850 MHz to 1990 MHz)	<1.4:1 (1850 MHz to 1990 MHz)
Horizontal 3dB beamwidth	65°	65°
Vertical 3dB beamwidth	5.5°	6.5°
Custom electrical downtilts	0°, 2°, & 4°	0° - 8°
40 degree cone Front-to-back ratio	>25 dB co-polar, >20 dB total power	>30 dB co-polar, >25 dB total power
Cross-polar discrimination, boresite	>20 dB	>20 dB
Polarization Quality Ratio	20 dB (3 dB beamwidth)/10 dB (forward sector)	>12 dB (forward sector)
Suppression of first upper side lobe	> 20 dB	>18 dB
First lower null fill	N/A	N/A
Maximum CW input power	500W total at 250W per input	500W total at 250W per input
Two tone intermodulation 3rd order	< -110 dBm for 2x10W (150 dBc at 2x40 dBm)	<-107 dBm for 2x20W (150 dBc at 2x43 dBm)
Isolation between ports	>30 dB	>30 dB

Mechanical Specifications

	7250 (XM-1900-65-18.5i)	7691 (XM-1900-65-18i-A)
Connector	7/16 DIN bottom and top mount	7/16 DIN bottom mount
Height	61.3" (1560 mm)	51" (1297 mm)
Width	6.3" (160 mm)	6.6" (167 mm)
Depth	2.2" (55 mm)	2.3" (58 mm)
Antenna Weight	15.4 lbs (7 kg)	9.46 lbs (4.3 kg)
Weight including tilt brackets	23.2 lbs (10.6 kg)	17.26 lbs (7.9 kg)
Survival wind speed	156 mph (70 m/s)	156 mph (70 m/s)
Maximum wind area	2.74 sq.ft (0.25 sq.m)	2.3 sq.ft (0.22 sq.m)
Frontal wind load @100mph	71.9 lbf (320 N)	70 lbf (310 N)

*All feed network components DC grounded for Lightning Protection

Pole mount and downtilt bracket to be pre-mounted and/or co-packed

Tilt Range

-0.6° to 13°

-0.6° to 13°

Comments

Gain is typical within frequency band.

Beamwidths are defined using total power.

Cross-polar discrimination is defined within -3 dB beamwidth.

Front-to-back ratio is defined within 20° from the backwards direction in any plane.

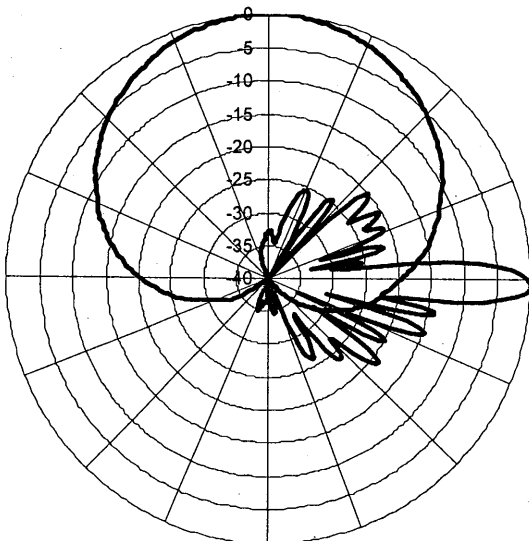
Sidelobe suppression and null fill is relative to peak of main beam.

Maximum input power is total input power, divided arbitrarily between inputs.

Frontal windload is calculated assuming the shape factor C=1

Radome color is NCS 2502-B (RAL 7035)(gray).

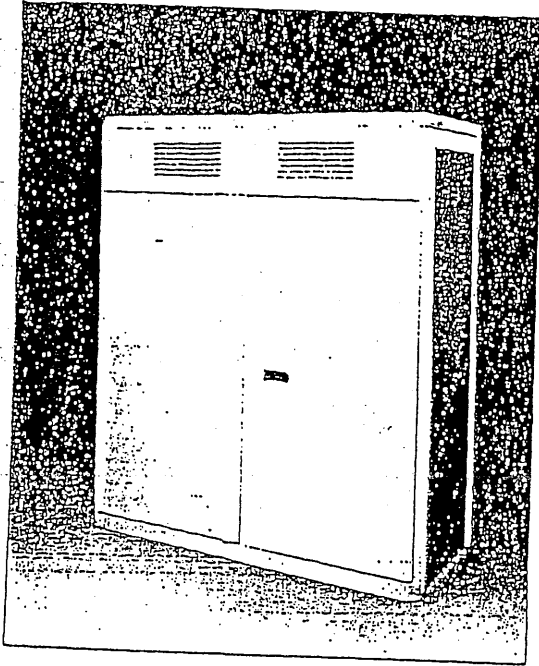
For a complete list of released models pertaining to gain, electrical downtilt and connector placement, please see the quick reference guide on page 19.



Typical Horizontal and Vertical 7691.00 Patterns



S8000 Outdoor Base Transceiver Station



Nortel's S8000 Outdoor Base Transceiver Station has been designed to meet the economic and performance requirements of network operators. Based on a highly integrated RF and digital design, the S8000 Outdoor Base Transceiver Station represents a major technology advancement and delivers all the benefits of a compact, modular, high quality and high performance product.

Nortel's S8000 Outdoor BTS: Radio Performance Leadership - Reduced Site Acquisition and Operating Costs

Installation

- The S8000 Outdoor Base Transceiver Station (BTS) offers compact packaging and requires minimal floor space, only .88 sq m (9.5 sq ft.). Front only access keeps total space required, including maintenance access, to only 1.8 sq m (19.4 sq ft.) per cabinet.

Transmission

- Integrated drop and insert connection to the Base Station Controller (BSC) and signaling concentration on the A-bis interface provide significant transmission cost reduction.
- Optional integrated digital microwave radio.

Maintenance

- Highly reliable technology, redundant architecture and integrated battery backup ensure high availability service.
- Front access and interconnections, as well as powerful fault detection, help reduce lifetime maintenance costs.

Industry leading performance

- New RF technology and advanced digital processing techniques provide very high receive sensitivity (-108 dBm guaranteed) and improved diversity gain (up to 6 dB). This provides higher resistance to interference, as well as, improved speech quality and cell coverage.
- Nortel's proven experience in frequency hopping, 1*3 frequency reuse, sophisticated microcellular handover algorithms and support of half-rate vocoders enables the operator to maximize use of available spectrum and deploy fewer cell sites.

Fast network deployment

- The S8000 BTS can be shipped fully equipped and tested, which provides fast network roll out to meet operator time to market requirements.

Modular and flexible configuration

- The S8000 supports eight transceivers (TRX) per cabinet in Omni and sectored configurations. The typical one cabinet S222 configuration may be expanded up to S332 or S422 without an additional cabinet.

• Frequency range		900 MHz GSM
		900 MHz GSM extended
		1800 MHz DCS
		1900 MHz PCS
• Receive sensitivity (guaranteed)		-108 dBm
• Dimensions	Height	1600 mm / 5 ft. 3 in.
	Width	1350 mm / 4 ft. 5 in.
	Depth	650 mm / 2 ft. 1 in.
• Weight	Fully equipped	600 kg / 1300 lbs.
• Capacity		8 TRX per cabinet
		up to 3 cabinets
		up to S888
• Configuration	Trisectorial	up to O16
	Omnidirectional	up to O16
• Amplifier output power		30 W (± 1.5 dB)
• Power control	Static	6 steps of 2 dB
	Dynamic	15 steps of 2 dB
• Frequency hopping		RF synthesized
• Supported vocoders		baseband
		Full rate
		Enhanced full rate
		Half rate
• Encryption algorithms		A5/1 A5/2
• Power supply		230V AC 50/60 Hz
• Power back-up		Integrated battery back-up plus optional battery cabinet allows provisioning up to 8 hours back-up time.
• Operating temperature range		-40°C to +50°C
		-40°F to +122°F

For more information,
please contact your local Nortel account representative.

In the USA:
Northern Telecom
2221 Lakeside Boulevard
Richardson TX 75082
USA
Telephone: 1-800-4 NORTEL
1-800-466-7838 or (214) 684-5935
<http://www.nortel.com/wireless>

In Canada:
Northern Telecom
2920 Matheson Boulevard East
Mississauga ON L4W 4M7
Canada
Telephone: 1-800-4 NORTEL

In the Caribbean and Latin America:
Northern Telecom (CALA) Corporation
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Sunrise FL 33323
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Singapore 1955
Telephone: (65) 287-2877

Nortel China Ltd.
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Hong Kong
Telephone (852) 2585 2888

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Maidenhead
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Nortel Matra Cellular
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1 place des Frères Montgolfier
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design as engineering or manufacturing
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NORTEL
NORTHERN TELECOM

Exhibit D
Structural Analysis

92 Weston Street
Hartford, Connecticut

1047 N. 204th Avenue
Elkhorn, NE 68022
Ph: 402-289-1888
Fax: 402-289-1861

SEMAAN ENGINEERING SOLUTIONS

110 ft Rohn Monopole Structural Analysis

OK
R/O
4/24/03

Prepared for:
Sprint Sites USA
535 East Crescent Ave
Ramsey, NJ 07446

Site: CT03XC064
T-Mobile
Hartford, CT



April 15, 2003

Voice Stream
CT-11062B
92 Weston Street
Hartford, CT

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

Re: Site Number CT03XC064 – Hartford, CT.

Dear Mr. Van Oudenaren:

We have completed the structural analysis for the existing monopole, located at the above referenced site. The purpose of this analysis is to determine that the existing monopole design is in conformance with the EIA/TIA-222-F standard and local building codes for the proposed antennae loads installation. Refer to the Review and Recommendations section at the end of this report for the analysis results.

Description of Structure:

The structure is a 110 ft Rohn Monopole.

Refer to Rohn drawing A963302 dated October 23, 1996 for a detailed description of the structure.

Method of analysis:

The tower was analyzed using Semaan Engineering Solutions' software suite for communication structures. The structural analysis is performed using the SAPS finite element engine. The method is 3D, non-linear, which accounts for the second order geometric effects due to the displacements. It also treats guys as exact cable elements and therefore is ideal for guyed towers. The analysis was performed in conformance with **EIA/TIA-222-F and local building codes for a basic wind speed of 80 mph and 1/2" radial ice with reduced wind speed.** Wind is applied to the structure, accessories and antennas.

Structure loading:

Per the loading sheet supplied, the analysis was performed using the following loading: (Proposed loading in bold)

Elev. (ft)	Qty.	Antennas and Mounts	Coax	Owner
107.0	9	Allgon 7184.05 Mounted On a Platform w/Rail	(9) 1-5/8	Sprint
97.0	9	Allgon 7184.14 Mounted On a Platform w/Rail	(9) 1-5/8	AT&T
80.0	5	Allgon 7250.01 Mounted On a Low Profile Platform	(10) 1-1/4	T-Mobile
80.0	2	RR90-17-00NP Mounted On a Low Profile Platform	(2) 1-1/4	T-Mobile

All new access holes shall be reinforced with welded rims that are compatible with the pole and to be sized and supplied by pole manufacturer.

All transmission lines are assumed running inside of pole shaft.

Results of Analysis:

Refer to the attached Computer Summary sheets for detailed analysis results.

Structure:

The existing monopole is structurally capable of supporting the existing and proposed antennas.

The maximum structure usage is: 96.0%.

Foundation:

Pole Reactions	Original Design Reactions	Current Analysis Reactions	% Of Design
Moment (ft-kips)	937.00	892.11	95.2
Shear (kips)	10.80	10.90	100.9

The reactions calculated from the analysis slightly exceed the ones indicated on the original structural design. However, upon reviewing the foundation documents, they were found to be adequate.

Review and Recommendations:

Based on the analysis results, the existing structure meets the requirements per the EIA/TIA-222-F standards for a basic wind speed of 80 mph and 1/2" radial ice with reduced wind speed.

SEMAAN ENGINEERING SOLUTIONS

1047 N.204th Avenue
 Elkhorn, NE 68022
 Phone: 402-289-1888
 Fax: 402-289-1861

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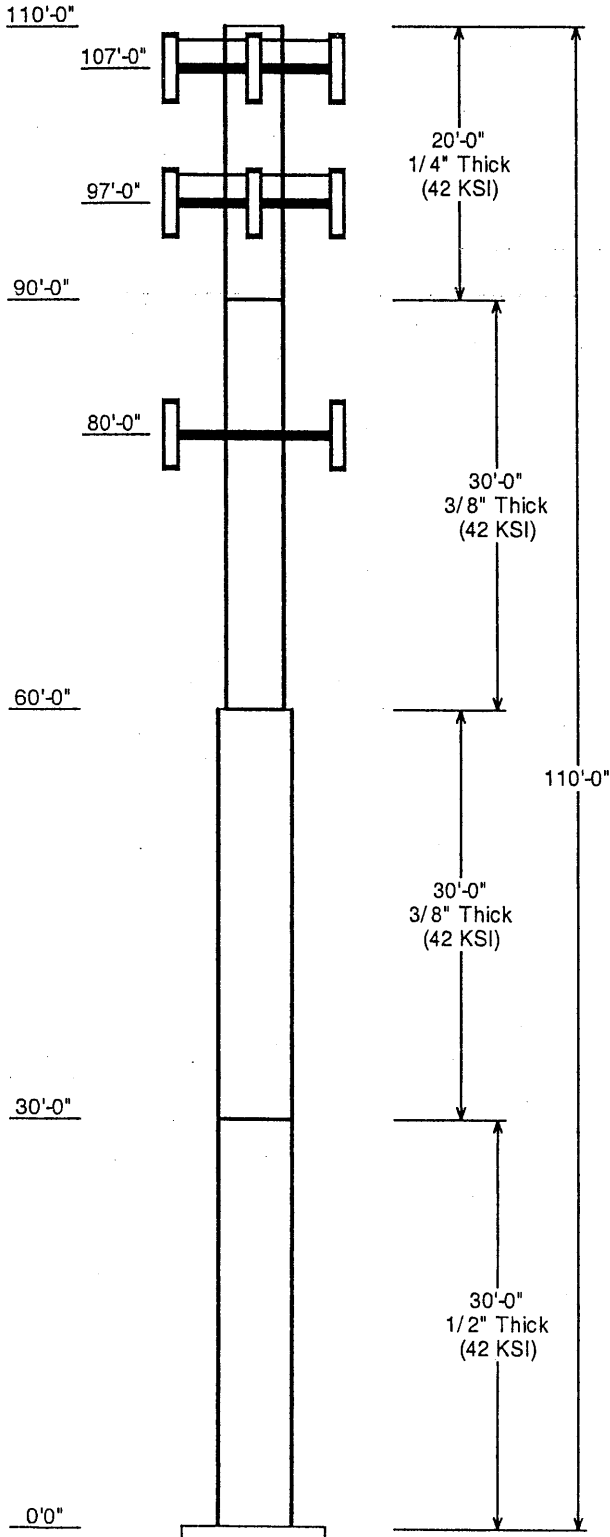
Job Information	
Pole :	CT03XC064
Description :	
Client :	Sprint Sites USA - NJ
Location :	Hartford, CT
Type :	Round
Base Elev (ft):	0.00
Height :(ft)	110.00
Taper:	0.000000 (in/ft)

Sections Properties								
Shaft Section	Length (ft)	Diameter (in)		Thick (in)	Joint Type	Overlap Length (in)	Taper (in/ft)	Steel Grade (ksi)
		Across Top	Across Bottom					
1	30.000	30.00	30.00	0.500		0.000	0.000000	42
2	30.000	30.00	30.00	0.375	Butt Joint	0.000	0.000000	42
3	30.000	24.00	24.00	0.375	Butt Joint	0.000	0.000000	42
4	20.000	24.00	24.00	0.250	Butt Joint	0.000	0.000000	42

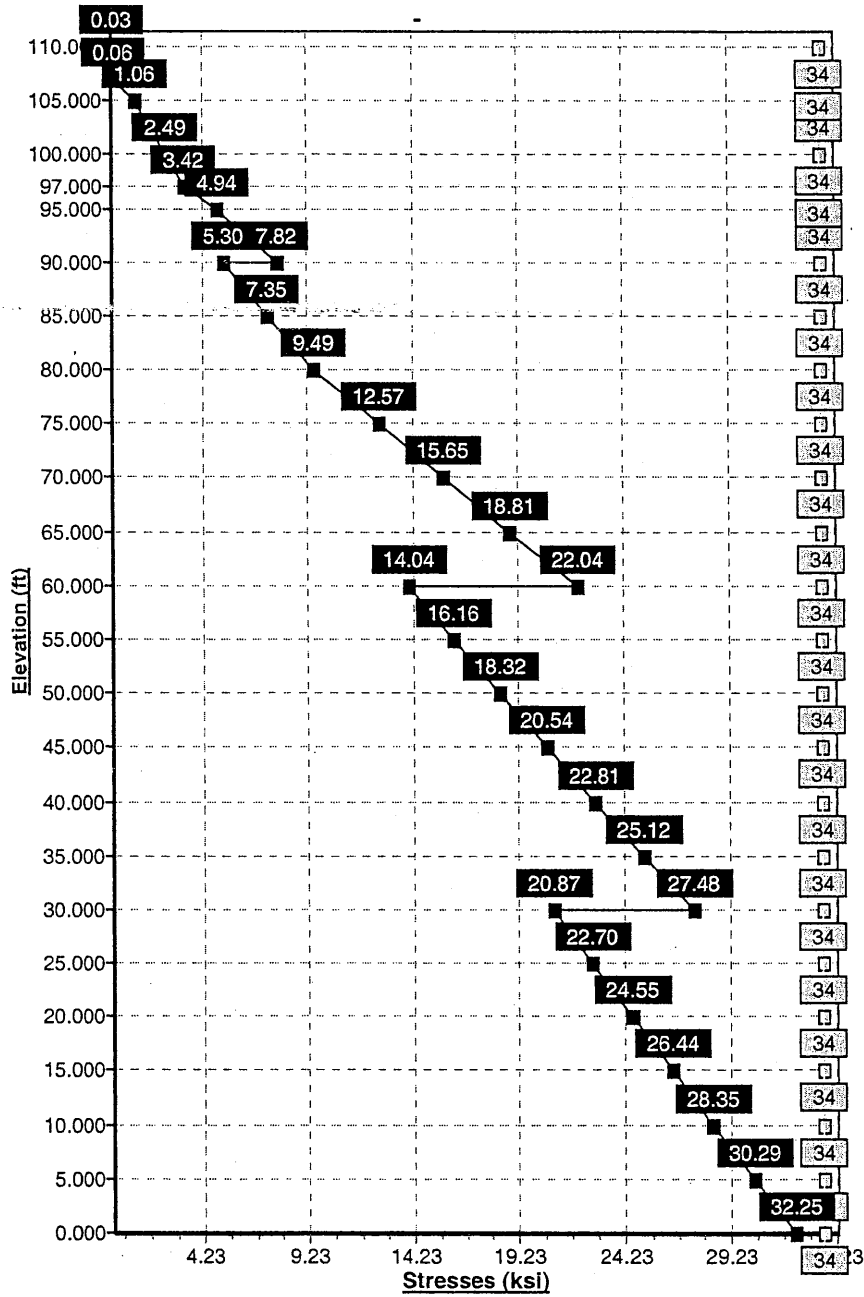
Discrete Appurtenance					
Attach Elev (ft)	Force Elev (ft)	Type	Qty	Description	
107.000	107.000	Panel	9	Allgon 7184.05	
107.000	108.500	Platform	1	Platform w/Rail	
97.000	97.000	Panel	9	Allgon 7184.14	
97.000	98.500	Platform	1	Platform w/Rail	
80.000	80.000	Platform	1	Low Profile Platform	
80.000	80.000	Panel	2	RR90-17-00NP	
80.000	80.000	Panel	5	Allgon 7250.01	

Load Cases / Deflections				
Load Case	Attach Elev (ft)	Translation (in)	Rotation (deg)	
<u>No Ice</u>	<u>No Ice Wind Speed = 80.00 mph w/ No Ice</u>			
	107.000	41.00	-2.887	
	97.000	34.98	-2.854	
	80.000	25.11	-2.657	
<u>Ice</u>	<u>Ice Wind Speed = 69.28 mph w/ Ice 0.50 in Thick</u>			
	107.000	34.67	-2.449	
	97.000	29.56	-2.420	
	80.000	21.20	-2.251	

Reactions			
Load Case	Moment (Kip-ft)	Shear (Kips)	Axial (Kips)
No Ice	892.113	10.900	-18.964
Ice	747.686	8.918	-24.035

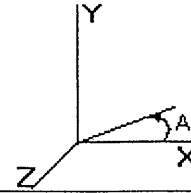


Load Case : No Ice



Pole : CT03XC064
 Location: Hartford, CT
 Height : 110.0 (ft)
 Shape : Round
 Base Dia : 30.00 (in)
 Taper : 0.000000 (in/ft)

Sprint Sites USA - NJ
 Base Elev : 0.000 (ft)
 Top Dia : 24.00 (in)



Shaft Section Properties

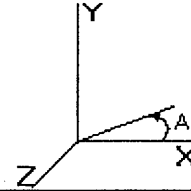
Sect Num	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint Len (in)	Weight (lb)	Bottom						Top						
							Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Taper (in/ft)
1	30.000	0.5000	42		0.00	4,730	30.00	0.000	46.34	5044.6	0.00	60.00	30.00	30.00	46.34	5044.6	0.00	60.00	0.00000
2	30.000	0.3750	42	Butt Joint	0.00	3,563	30.00	30.00	34.90	3831.8	0.00	80.00	30.00	60.00	34.90	3831.8	0.00	80.00	0.00000
3	30.000	0.3750	42	Butt Joint	0.00	2,841	24.00	60.00	27.83	1943.3	0.00	64.00	24.00	90.00	27.83	1943.3	0.00	64.00	0.00000
4	20.000	0.2500	42	Butt Joint	0.00	1,269	24.00	90.00	18.65	1316.2	0.00	96.00	24.00	110.0	18.65	1316.2	0.00	96.00	0.00000
Shaft Weight						12,404													

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	No Ice			Ice			Distance From Face (ft)	X Angle (deg)	Vert Ecc (ft)
			Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor			
107.0	Allgon 7184.05	9	10.00	2.890	0.67	24.00	3.360	0.67	0.000	0.00	0.000
107.0	Platform w/Rail	1	2500.00	35.850	1.00	3500.00	40.460	1.00	0.000	0.00	1.500
97.00	Allgon 7184.14	9	10.00	2.890	0.67	24.00	3.360	0.67	0.000	0.00	0.000
97.00	Platform w/Rail	1	2500.00	35.850	1.00	3500.00	40.460	1.00	0.000	0.00	1.500
80.00	Low Profile Platform	1	1300.00	25.550	1.00	2100.00	27.320	1.00	0.000	0.00	0.000
80.00	RR90-17-00NP	2	12.00	5.230	1.00	35.00	5.800	1.00	0.000	0.00	0.000
80.00	Allgon 7250.01	5	16.00	4.300	1.00	36.00	5.000	1.00	0.000	0.00	0.000
Totals		28	6584.00			9782.00			Number of Loadings : 7		

Pole : CT03XC064
 Location: Hartford, CT
 Height : 110.0 (ft)
 Shape : Round
 Base Dia : 30.00 (in)
 Taper : 0.000000 (in/ft)

Sprint Sites USA - NJ
 Base Elev : 0.000 (ft)
 Top Dia : 24.00 (in)



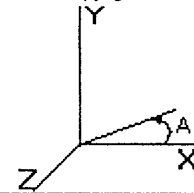
Segment Properties (Max Len : 5 ft)

Seg Elev (ft)	Description	Thick (in)	Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fy (ksi)	Fb (ksi)	Fa (ksi)	Weight (lb)
0.00		0.5000	30.000	46.338	5,044.6	0.00	60.00	42	34	34	0.0
5.00		0.5000	30.000	46.338	5,044.6	0.00	60.00	42	34	34	788.4
10.00		0.5000	30.000	46.338	5,044.6	0.00	60.00	42	34	34	788.4
15.00		0.5000	30.000	46.338	5,044.6	0.00	60.00	42	34	34	788.4
20.00		0.5000	30.000	46.338	5,044.6	0.00	60.00	42	34	34	788.4
25.00		0.5000	30.000	46.338	5,044.6	0.00	60.00	42	34	34	788.4
30.00	Top - Section 1	0.5000	30.000	46.338	5,044.6	0.00	60.00	42	34	34	788.4
30.00	Bot - Section 2	0.3750	30.000	34.901	3,831.8	0.00	80.00	42	34	34	
35.00		0.3750	30.000	34.901	3,831.8	0.00	80.00	42	34	34	593.8
40.00		0.3750	30.000	34.901	3,831.8	0.00	80.00	42	34	34	593.8
45.00		0.3750	30.000	34.901	3,831.8	0.00	80.00	42	34	34	593.8
50.00		0.3750	30.000	34.901	3,831.8	0.00	80.00	42	34	34	593.8
55.00		0.3750	30.000	34.901	3,831.8	0.00	80.00	42	34	34	593.8
60.00	Top - Section 2	0.3750	30.000	34.901	3,831.8	0.00	80.00	42	34	34	593.8
60.00	Bot - Section 3	0.3750	24.000	27.833	1,943.3	0.00	64.00	42	34	34	
65.00		0.3750	24.000	27.833	1,943.3	0.00	64.00	42	34	34	473.5
70.00		0.3750	24.000	27.833	1,943.3	0.00	64.00	42	34	34	473.5
75.00		0.3750	24.000	27.833	1,943.3	0.00	64.00	42	34	34	473.5
80.00		0.3750	24.000	27.833	1,943.3	0.00	64.00	42	34	34	473.5
85.00		0.3750	24.000	27.833	1,943.3	0.00	64.00	42	34	34	473.5
90.00	Top - Section 3	0.3750	24.000	27.833	1,943.3	0.00	64.00	42	34	34	473.5
90.00	Bot - Section 4	0.2500	24.000	18.653	1,316.2	0.00	96.00	42	34	33	
95.00		0.2500	24.000	18.653	1,316.2	0.00	96.00	42	34	33	317.4
97.00		0.2500	24.000	18.653	1,316.2	0.00	96.00	42	34	33	126.9
100.00		0.2500	24.000	18.653	1,316.2	0.00	96.00	42	34	33	190.4
105.00		0.2500	24.000	18.653	1,316.2	0.00	96.00	42	34	33	317.4
107.00		0.2500	24.000	18.653	1,316.2	0.00	96.00	42	34	33	126.9
110.00		0.2500	24.000	18.653	1,316.2	0.00	96.00	42	34	33	190.4

12,403.9

Pole : CT03XC064
 Location: Hartford, CT
 Height : 110.0 (ft)
 Shape : Round
 Base Dia : 30.00 (in)
 Taper : 0.000000 (in/ft)

Sprint Sites USA - NJ
 Base Elev : 0.000 (ft)
 Top Dia : 24.00 (in)



Load Case: No Ice 80 mph - No Ice 23 Iterations

Gust Response Factor : 1.69 Effective Wind Speed : 80.00 (mph)

Dead Load Factor : 1.00

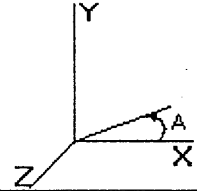
Wind Load Factor : 1.00

Shaft Forces

Seg Top Elev (ft)	Description	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Wind Force Z (lb)	Weight (lb)
0.00		1.00	16.38	27.68	200.00	0.590	0.00	0.000	0.000	0.00	0.00	0.0
5.00		1.00	16.38	27.68	200.00	0.590	5.00	12.500	7.375	204.21	0.00	788.4
10.00		1.00	16.38	27.68	200.00	0.590	5.00	12.500	7.375	204.21	0.00	788.4
15.00		1.00	16.38	27.68	200.00	0.590	5.00	12.500	7.375	204.21	0.00	788.4
20.00		1.00	16.38	27.68	200.00	0.590	5.00	12.500	7.375	204.21	0.00	788.4
25.00		1.00	16.38	27.68	200.00	0.590	5.00	12.500	7.375	204.21	0.00	788.4
30.00	Top - Section 1	1.00	16.38	27.68	200.00	0.590	5.00	12.500	7.375	204.21	0.00	788.4
35.00		1.01	16.66	28.15	201.69	0.590	5.00	12.500	7.375	207.67	0.00	593.8
40.00		1.05	17.31	29.25	205.57	0.590	5.00	12.500	7.375	215.74	0.00	593.8
45.00		1.09	17.90	30.25	209.06	0.590	5.00	12.500	7.375	223.13	0.00	593.8
50.00		1.12	18.44	31.17	212.23	0.590	5.00	12.500	7.375	229.95	0.00	593.8
55.00		1.15	18.95	32.04	215.14	0.590	5.00	12.500	7.375	236.29	0.00	593.8
60.00	Top - Section 2	1.18	19.43	32.84	217.83	0.590	5.00	12.500	7.375	242.24	0.00	593.8
65.00		1.21	19.88	33.60	176.27	0.590	5.00	10.000	5.900	198.28	0.00	473.5
70.00		1.24	20.31	34.32	178.15	0.590	5.00	10.000	5.900	202.52	0.00	473.5
75.00		1.26	20.71	35.00	179.91	0.590	5.00	10.000	5.900	206.55	0.00	473.5
80.00	Appertunance(s)	1.28	21.10	35.66	181.58	0.590	5.00	10.000	5.900	210.40	0.00	473.5
85.00		1.31	21.46	36.28	183.16	0.590	5.00	10.000	5.900	214.07	0.00	473.5
90.00	Top - Section 3	1.33	21.82	36.88	184.66	0.590	5.00	10.000	5.900	217.60	0.00	473.5
95.00		1.35	22.16	37.45	186.09	0.590	5.00	10.000	5.900	220.98	0.00	317.4
97.00	Appertunance(s)	1.36	22.29	37.67	186.64	0.590	2.00	4.000	2.360	88.92	0.00	126.9
100.00		1.37	22.49	38.00	187.46	0.590	3.00	6.000	3.540	134.55	0.00	190.4
105.00		1.39	22.80	38.54	188.77	0.590	5.00	10.000	5.900	227.39	0.00	317.4
107.00	Appertunance(s)	1.39	22.92	38.75	189.28	0.590	2.00	4.000	2.360	91.45	0.00	126.9
110.00		1.41	23.11	39.05	190.03	0.590	3.00	6.000	3.540	138.26	0.00	190.4
Totals:							110.00			4,731.24	0.00	12,403.9

Pole : CT03XC064
 Location: Hartford, CT
 Height : 110.0 (ft)
 Shape : Round
 Base Dia : 30.00 (in)
 Taper : 0.000000 (in/ft)

Sprint Sites USA - NJ
 Base Elev : 0.000 (ft)
 Top Dia : 24.00 (in)



Load Case: No Ice 80 mph - No Ice 23 Iterations

Gust Response Factor : 1.69 Effective Wind Speed : 80.00 (mph)

Dead Load Factor : 1.00

Wind Load Factor : 1.00

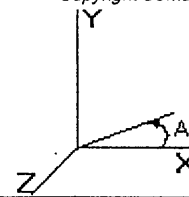
Discrete Appurtenance Forces

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Total CaAa (sf)	CaAa Factor	Horiz Ecc (ft)	Vert Ecc (ft)	X Angle (deg)	Wind Force X (lb)	Wind Force Z (lb)	Mom X (lb-ft)	Mom Y (lb-ft)	Mom Z (lb-ft)	Weight (lb)
80.00	Low Profile Platform	1	21.10	35.66	25.550	1.000	0.000	0.0	0.0	911.12	0.00	0.00	0.00	0.00	1300.0
80.00	RR90-17-00NP	2	21.10	35.66	10.460	1.000	0.000	0.0	0.0	373.01	0.00	0.00	0.00	0.00	24.0
80.00	Allgon 7250.01	5	21.10	35.66	21.500	1.000	0.000	0.0	0.0	766.70	0.00	0.00	0.00	0.00	80.0
97.00	Allgon 7184.14	9	22.29	37.67	17.349	0.667	0.000	0.0	0.0	653.67	0.00	0.00	0.00	0.00	90.0
97.00	Platform w/Rail	1	22.39	37.84	35.850	1.000	0.000	1.5	0.0	1356.71	0.00	0.00	0.00	2035.06	2500.0
107.00	Allgon 7184.05	9	22.92	38.75	17.349	0.667	0.000	0.0	0.0	672.26	0.00	0.00	0.00	0.00	90.0
107.00	Platform w/Rail	1	23.02	38.90	35.850	1.000	0.000	1.5	0.0	1394.72	0.00	0.00	0.00	2092.08	2500.0
										6,128.18	0.00				6,584.0

Pole : CT03XC064
 Location: Hartford, CT
 Height : 110.0 (ft)
 Shape : Round
 Base Dia : 30.00 (in)
 Taper : 0.000000 (in/ft)

Sprint Sites USA - NJ

Base Elev : 0.000 (ft)
 Top Dia : 24.00 (in)



Load Case: No Ice 80 mph - No Ice 23 Iterations

Gust Response Factor : 1.69 Effective Wind Speed : 80.00 (mph)

Dead Load Factor : 1.00

Wind Load Factor : 1.00

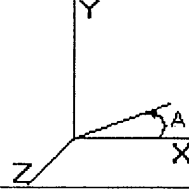
Applied Forces Summary

Seg Elev (ft)	X Coord (ft)	Z Coord (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Lateral FZ (lb)	Moment MX (lb-ft)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.00	0.00	0.00	204.21	788.40	0.00	0.00	0.00	0.00
10.00	0.00	0.00	204.21	788.40	0.00	0.00	0.00	0.00
15.00	0.00	0.00	204.21	788.40	0.00	0.00	0.00	0.00
20.00	0.00	0.00	204.21	788.40	0.00	0.00	0.00	0.00
25.00	0.00	0.00	204.21	788.40	0.00	0.00	0.00	0.00
30.00	0.00	0.00	204.21	788.40	0.00	0.00	0.00	0.00
35.00	0.00	0.00	207.67	593.80	0.00	0.00	0.00	0.00
40.00	0.00	0.00	215.74	593.80	0.00	0.00	0.00	0.00
45.00	0.00	0.00	223.13	593.80	0.00	0.00	0.00	0.00
50.00	0.00	0.00	229.95	593.80	0.00	0.00	0.00	0.00
55.00	0.00	0.00	236.29	593.80	0.00	0.00	0.00	0.00
60.00	0.00	0.00	242.24	593.80	0.00	0.00	0.00	0.00
65.00	0.00	0.00	198.28	473.54	0.00	0.00	0.00	0.00
70.00	0.00	0.00	202.52	473.54	0.00	0.00	0.00	0.00
75.00	0.00	0.00	206.55	473.54	0.00	0.00	0.00	0.00
80.00	0.00	0.00	2,261.22	1,877.54	0.00	0.00	0.00	0.00
85.00	0.00	0.00	214.07	473.54	0.00	0.00	0.00	0.00
90.00	0.00	0.00	217.60	473.54	0.00	0.00	0.00	0.00
95.00	0.00	0.00	220.98	317.36	0.00	0.00	0.00	0.00
97.00	0.00	0.00	2,099.30	2,716.95	0.00	0.00	0.00	2,035.06
100.00	0.00	0.00	134.55	190.42	0.00	0.00	0.00	0.00
105.00	0.00	0.00	227.39	317.36	0.00	0.00	0.00	0.00
107.00	0.00	0.00	2,158.42	2,716.95	0.00	0.00	0.00	2,092.08
110.00	0.00	0.00	138.26	190.42	0.00	0.00	0.00	0.00
Totals:			10,859.42	18,987.90	0.00	0.00	0.00	4,127.14

Pole : CT03XC064
 Location: Hartford, CT
 Height : 110.0 (ft)
 Shape : Round
 Base Dia : 30.00 (in)
 Taper : 0.000000 (in/ft)

Sprint Sites USA - NJ

Base Elev : 0.000 (ft)
 Top Dia : 24.00 (in)



Load Case: No Ice 80 mph - No Ice 23 Iterations

Gust Response Factor : 1.69 Effective Wind Speed : 80.00 (mph)

Dead Load Factor : 1.00

Wind Load Factor : 1.00

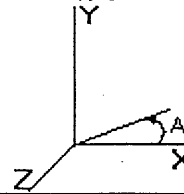
Calculated Forces and Deflections

Seg Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	X Deflect (in)	Z Deflect (in)	Total Deflect (in)	Rotation (deg)
0.00	10.900	18.964	0.000	0.000	0.000	892.113	0.000	0.000	0.000	0.000
5.00	10.769	18.132	0.000	0.000	0.000	837.613	-0.130	0.000	0.130	-0.244
10.00	10.627	17.304	0.000	0.000	0.000	783.768	-0.507	0.000	0.507	-0.472
15.00	10.474	16.480	0.000	0.000	0.000	730.635	-1.116	0.000	1.116	-0.686
20.00	10.311	15.660	0.000	0.000	0.000	678.266	-1.941	0.000	1.941	-0.885
25.00	10.139	14.844	0.000	0.000	0.000	626.711	-2.966	0.000	2.966	-1.069
30.00	9.959	14.032	0.000	0.000	0.000	576.014	-4.176	0.000	4.176	-1.238
35.00	9.778	13.414	0.000	0.000	0.000	526.219	-5.556	0.000	5.556	-1.394
40.00	9.587	12.797	0.000	0.000	0.000	477.329	-7.115	0.000	7.115	-1.580
45.00	9.380	12.183	0.000	0.000	0.000	429.396	-8.860	0.000	8.860	-1.748
50.00	9.160	11.575	0.000	0.000	0.000	382.495	-10.772	0.000	10.772	-1.899
55.00	8.928	10.970	0.000	0.000	0.000	336.695	-12.833	0.000	12.833	-2.032
60.00	8.684	10.369	0.000	0.000	0.000	292.057	-15.024	0.000	15.024	-2.149
65.00	8.491	9.883	0.000	0.000	0.000	248.639	-17.329	0.000	17.329	-2.249
70.00	8.294	9.397	0.000	0.000	0.000	206.187	-19.775	0.000	19.775	-2.416
75.00	8.086	8.915	0.000	0.000	0.000	164.719	-22.379	0.000	22.379	-2.552
80.00	5.753	7.133	0.000	0.000	0.000	124.291	-25.110	0.000	25.110	-2.657
85.00	5.525	6.664	0.000	0.000	0.000	95.528	-27.936	0.000	27.936	-2.738
90.00	5.290	6.197	0.000	0.000	0.000	67.904	-30.836	0.000	30.836	-2.798
95.00	5.056	5.888	0.000	0.000	0.000	41.454	-33.788	0.000	33.788	-2.838
97.00	2.826	3.278	0.000	0.000	0.000	29.306	-34.980	0.000	34.980	-2.854
100.00	2.683	3.094	0.000	0.000	0.000	20.829	-36.778	0.000	36.778	-2.870
105.00	2.440	2.788	0.000	0.000	0.000	7.415	-39.792	0.000	39.792	-2.885
107.00	0.148	0.183	0.000	0.000	0.000	0.443	-41.001	0.000	41.001	-2.887
110.00	0.138	0.000	0.000	0.000	0.000	0.000	-42.814	0.000	42.814	-2.887

Pole : CT03XC064
 Location : Hartford, CT
 Height : 110.0 (ft)
 Shape : Round
 Base Dia : 30.00 (in)
 Taper : 0.000000 (in/ft)

Sprint Sites USA - NJ

Base Elev : 0.000 (ft)
 Top Dia : 24.00 (in)



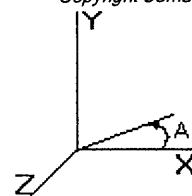
Load Case: No Ice	80 mph - No Ice	23 Iterations
Gust Response Factor : 1.69	Effective Wind Speed : 80.00 (mph)	
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

Calculated Stresses

Seg Elev (ft)	Applied Stresses							Allowable Stress (Fb) (ksi)	Allowable Stress (Fa) (ksi)	Stress Ratio
	Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)			
0.00	0.409	0.471	0.000	0.000	0.000	31.832	32.252	33.6	33.6	0.960
5.00	0.391	0.465	0.000	0.000	0.000	29.887	30.289	33.6	33.6	0.902
10.00	0.373	0.459	0.000	0.000	0.000	27.966	28.351	33.6	33.6	0.844
15.00	0.356	0.452	0.000	0.000	0.000	26.070	26.437	33.6	33.6	0.787
20.00	0.338	0.445	0.000	0.000	0.000	24.202	24.552	33.6	33.6	0.731
25.00	0.320	0.438	0.000	0.000	0.000	22.362	22.695	33.6	33.6	0.676
30.00	0.303	0.430	0.000	0.000	0.000	20.553	20.869	33.6	33.6	0.621
35.00	0.402	0.571	0.000	0.000	0.000	27.059	27.479	33.6	33.6	0.818
40.00	0.384	0.561	0.000	0.000	0.000	24.720	25.123	33.6	33.6	0.748
45.00	0.367	0.550	0.000	0.000	0.000	22.423	22.809	33.6	33.6	0.679
50.00	0.349	0.538	0.000	0.000	0.000	20.171	20.541	33.6	33.6	0.611
55.00	0.332	0.525	0.000	0.000	0.000	17.968	18.322	33.6	33.6	0.545
60.00	0.314	0.512	0.000	0.000	0.000	15.816	16.155	33.6	33.6	0.481
60.00	0.297	0.498	0.000	0.000	0.000	13.720	14.043	33.6	33.6	0.418
65.00	0.373	0.624	0.000	0.000	0.000	21.642	22.041	33.6	33.6	0.656
70.00	0.355	0.610	0.000	0.000	0.000	18.424	18.809	33.6	33.6	0.560
75.00	0.338	0.596	0.000	0.000	0.000	15.279	15.650	33.6	33.6	0.466
80.00	0.320	0.581	0.000	0.000	0.000	12.206	12.567	33.6	33.6	0.374
80.00	0.256	0.414	0.000	0.000	0.000	9.210	9.493	33.6	33.6	0.283
85.00	0.239	0.397	0.000	0.000	0.000	7.079	7.350	33.6	33.6	0.219
90.00	0.223	0.380	0.000	0.000	0.000	5.032	5.296	33.6	33.6	0.158
90.00	0.332	0.568	0.000	0.000	0.000	7.429	7.823	33.6	33.1	0.233
95.00	0.316	0.542	0.000	0.000	0.000	4.535	4.941	33.6	33.1	0.147
97.00	0.176	0.303	0.000	0.000	0.000	3.206	3.423	33.6	33.1	0.102
100.00	0.166	0.288	0.000	0.000	0.000	2.279	2.495	33.6	33.1	0.074
105.00	0.149	0.262	0.000	0.000	0.000	0.811	1.062	33.6	33.1	0.032
107.00	0.010	0.016	0.000	0.000	0.000	0.048	0.064	33.6	33.1	0.002
110.00	0.000	0.015	0.000	0.000	0.000	0.000	0.026	33.6	33.1	0.001

Pole : CT03XC064
 Location: Hartford, CT
 Height : 110.0 (ft)
 Shape : Round
 Base Dia : 30.00 (in)
 Taper : 0.000000 (in/ft)

Sprint Sites USA - NJ
 Base Elev : 0.000 (ft)
 Top Dia : 24.00 (in)



Load Case: Ice	80 mph - With Ice - Ice Thickness = 0.5 in	23 Iterations
Gust Response Factor : 1.69	Effective Wind Speed : 69.28 (mph)	
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

Shaft Forces

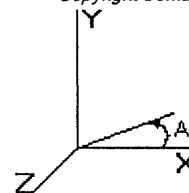
Seg Top Elev (ft)	Description	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Wind Force Z (lb)	Weight (lb)
0.00		1.00	12.28	20.76	173.20	0.590	0.00	0.000	0.000	0.00	0.00	0.0
5.00		1.00	12.28	20.76	173.20	0.590	5.00	12.917	7.621	158.25	0.00	881.5
10.00		1.00	12.28	20.76	173.20	0.590	5.00	12.917	7.621	158.25	0.00	881.5
15.00		1.00	12.28	20.76	173.20	0.590	5.00	12.917	7.621	158.25	0.00	881.5
20.00		1.00	12.28	20.76	173.20	0.590	5.00	12.917	7.621	158.25	0.00	881.5
25.00		1.00	12.28	20.76	173.20	0.590	5.00	12.917	7.621	158.25	0.00	881.5
30.00	Top - Section 1	1.00	12.28	20.76	173.20	0.590	5.00	12.917	7.621	158.25	0.00	881.5
35.00		1.01	12.49	21.11	174.66	0.590	5.00	12.917	7.621	160.93	0.00	686.9
40.00		1.05	12.98	21.93	178.03	0.590	5.00	12.917	7.621	167.19	0.00	686.9
45.00		1.09	13.42	22.69	181.05	0.590	5.00	12.917	7.621	172.91	0.00	686.9
50.00		1.12	13.83	23.38	183.79	0.590	5.00	12.917	7.621	178.20	0.00	686.9
55.00		1.15	14.21	24.02	186.31	0.590	5.00	12.917	7.621	183.12	0.00	686.9
60.00	Top - Section 2	1.18	14.57	24.63	188.64	0.590	5.00	12.917	7.621	187.73	0.00	686.9
65.00		1.21	14.91	25.20	192.65	0.590	5.00	10.417	6.146	154.89	0.00	548.3
70.00		1.24	15.23	25.74	194.27	0.590	5.00	10.417	6.146	158.21	0.00	548.3
75.00		1.26	15.53	26.25	195.80	0.590	5.00	10.417	6.146	161.36	0.00	548.3
80.00	Appertunance(s)	1.28	15.82	26.74	197.25	0.590	5.00	10.417	6.146	164.36	0.00	548.3
85.00		1.31	16.10	27.21	198.61	0.590	5.00	10.417	6.146	167.23	0.00	548.3
90.00	Top - Section 3	1.33	16.36	27.65	199.91	0.590	5.00	10.417	6.146	169.99	0.00	548.3
95.00		1.35	16.62	28.09	201.15	0.590	5.00	10.417	6.146	172.63	0.00	392.2
97.00	Appertunance(s)	1.36	16.72	28.25	201.63	0.590	2.00	4.167	2.458	69.47	0.00	156.9
100.00		1.37	16.86	28.50	202.34	0.590	3.00	6.250	3.687	105.11	0.00	235.3
105.00		1.39	17.10	28.90	203.47	0.590	5.00	10.417	6.146	177.64	0.00	392.2
107.00	Appertunance(s)	1.39	17.19	29.06	203.92	0.590	2.00	4.167	2.458	71.44	0.00	156.9
110.00		1.41	17.33	29.29	204.56	0.590	3.00	6.250	3.687	108.01	0.00	235.3
				Totals:			110.00			3,679.94	0.00	14,269.2

Pole : CT03XC064
 Location: Hartford, CT
 Height : 110.0 (ft)
 Shape : Round
 Base Dia : 30.00 (in)
 Taper : 0.000000 (in/ft)

Sprint Sites USA - NJ

Base Elev : 0.000 (ft)

Top Dia : 24.00 (in)



Load Case: Ice 80 mph - With Ice - Ice Thickness = 0.5 in 23 Iterations

Gust Response Factor : 1.69 Effective Wind Speed : 69.28 (mph)

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Discrete Appurtenance Forces

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Total CaAa (sf)	CaAa Factor	Horiz Ecc (ft)	Vert Ecc (ft)	X Angle (deg)	Wind Force X (lb)	Wind Force Z (lb)	Mom X (lb-ft)	Mom Y (lb-ft)	Mom Z (lb-ft)	Weight (lb)
80.00	Low Profile Platform	1	15.82	26.74	27.320	1.000	0.000	0.0	0.0	730.64	0.00	0.00	0.00	0.00	2100.0
80.00	RR90-17-00NP	2	15.82	26.74	11.600	1.000	0.000	0.0	0.0	310.23	0.00	0.00	0.00	0.00	70.0
80.00	Allgon 7250.01	5	15.82	26.74	25.000	1.000	0.000	0.0	0.0	668.59	0.00	0.00	0.00	0.00	180.0
97.00	Allgon 7184.14	9	16.72	28.25	20.170	0.667	0.000	0.0	0.0	569.95	0.00	0.00	0.00	0.00	216.0
97.00	Platform w/Rail	1	16.79	28.38	40.460	1.000	0.000	1.5	0.0	1148.31	0.00	0.00	0.00	1722.47	3500.0
107.00	Allgon 7184.05	9	17.19	29.06	20.170	0.667	0.000	0.0	0.0	586.16	0.00	0.00	0.00	0.00	216.0
107.00	Platform w/Rail	1	17.26	29.17	40.460	1.000	0.000	1.5	0.0	1180.48	0.00	0.00	0.00	1770.72	3500.0
										5,194.35	0.00				9,782.0

Pole : CT03XC064
 Location: Hartford, CT
 Height : 110.0 (ft)
 Shape : Round
 Base Dia : 30.00 (in)
 Taper : 0.000000 (in/ft)

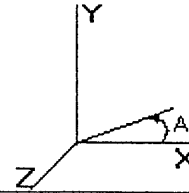
Sprint Sites USA - NJ

Base Elev : 0.000 (ft)
 Top Dia : 24.00 (in)

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Load Case: Ice

80 mph - With Ice - Ice Thickness = 0.5 in

23 Iterations

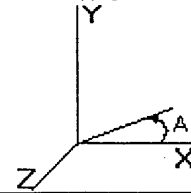
Gust Response Factor : 1.69 Effective Wind Speed : 69.28 (mph)
 Dead Load Factor : 1.00
 Wind Load Factor : 1.00

Applied Forces Summary

Seg Elev (ft)	X Coord (ft)	Z Coord (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Lateral FZ (lb)	Moment MX (lb-ft)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.00	0.00	0.00	158.25	881.51	0.00	0.00	0.00	0.00
10.00	0.00	0.00	158.25	881.51	0.00	0.00	0.00	0.00
15.00	0.00	0.00	158.25	881.51	0.00	0.00	0.00	0.00
20.00	0.00	0.00	158.25	881.51	0.00	0.00	0.00	0.00
25.00	0.00	0.00	158.25	881.51	0.00	0.00	0.00	0.00
30.00	0.00	0.00	158.25	881.51	0.00	0.00	0.00	0.00
35.00	0.00	0.00	160.93	686.91	0.00	0.00	0.00	0.00
40.00	0.00	0.00	167.19	686.91	0.00	0.00	0.00	0.00
45.00	0.00	0.00	172.91	686.91	0.00	0.00	0.00	0.00
50.00	0.00	0.00	178.20	686.91	0.00	0.00	0.00	0.00
55.00	0.00	0.00	183.12	686.91	0.00	0.00	0.00	0.00
60.00	0.00	0.00	187.73	686.91	0.00	0.00	0.00	0.00
65.00	0.00	0.00	154.89	548.33	0.00	0.00	0.00	0.00
70.00	0.00	0.00	158.21	548.33	0.00	0.00	0.00	0.00
75.00	0.00	0.00	161.36	548.33	0.00	0.00	0.00	0.00
80.00	0.00	0.00	1,873.82	2,898.33	0.00	0.00	0.00	0.00
85.00	0.00	0.00	167.23	548.33	0.00	0.00	0.00	0.00
90.00	0.00	0.00	169.99	548.33	0.00	0.00	0.00	0.00
95.00	0.00	0.00	172.63	392.16	0.00	0.00	0.00	0.00
97.00	0.00	0.00	1,787.73	3,872.86	0.00	0.00	0.00	1,722.47
100.00	0.00	0.00	105.11	235.29	0.00	0.00	0.00	0.00
105.00	0.00	0.00	177.64	392.16	0.00	0.00	0.00	0.00
107.00	0.00	0.00	1,838.08	3,872.86	0.00	0.00	0.00	1,770.72
110.00	0.00	0.00	108.01	235.29	0.00	0.00	0.00	0.00
Totals:			8,874.29	24,051.15	0.00	0.00	0.00	3,493.19

Pole : CT03XC064
 Location: Hartford, CT
 Height : 110.0 (ft)
 Shape : Round
 Base Dia : 30.00 (in)
 Taper : 0.000000 (in/ft)

Sprint Sites USA - NJ
 Base Elev : 0.000 (ft)
 Top Dia : 24.00 (in)



Load Case: Ice 80 mph - With Ice - Ice Thickness = 0.5 in 23 Iterations

Gust Response Factor : 1.69 Effective Wind Speed : 69.28 (mph)

Dead Load Factor : 1.00

Wind Load Factor : 1.00

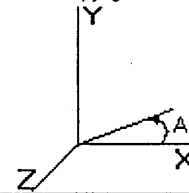
Calculated Forces and Deflections

Seg Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	X Deflect (in)	Z Deflect (in)	Total Deflect (in)	Rotation (deg)
0.00	8.918	24.035	0.000	0.000	0.000	747.686	0.000	0.000	0.000	0.000
5.00	8.838	23.123	0.000	0.000	0.000	703.099	-0.109	0.000	0.109	-0.205
10.00	8.747	22.214	0.000	0.000	0.000	658.910	-0.426	0.000	0.426	-0.397
15.00	8.646	21.308	0.000	0.000	0.000	615.176	-0.937	0.000	0.937	-0.576
20.00	8.535	20.405	0.000	0.000	0.000	571.947	-1.630	0.000	1.630	-0.744
25.00	8.415	19.504	0.000	0.000	0.000	529.274	-2.491	0.000	2.491	-0.899
30.00	8.286	18.605	0.000	0.000	0.000	487.200	-3.510	0.000	3.510	-1.042
35.00	8.158	17.901	0.000	0.000	0.000	445.769	-4.671	0.000	4.671	-1.174
40.00	8.020	17.197	0.000	0.000	0.000	404.982	-5.985	0.000	5.985	-1.332
45.00	7.870	16.496	0.000	0.000	0.000	364.880	-7.457	0.000	7.457	-1.475
50.00	7.707	15.798	0.000	0.000	0.000	325.532	-9.070	0.000	9.070	-1.603
55.00	7.532	15.102	0.000	0.000	0.000	287.000	-10.810	0.000	10.810	-1.716
60.00	7.346	14.410	0.000	0.000	0.000	249.342	-12.661	0.000	12.661	-1.816
65.00	7.202	13.852	0.000	0.000	0.000	212.611	-14.609	0.000	14.609	-1.902
70.00	7.055	13.294	0.000	0.000	0.000	176.604	-16.678	0.000	16.678	-2.044
75.00	6.896	12.739	0.000	0.000	0.000	141.332	-18.883	0.000	18.883	-2.161
80.00	4.926	9.909	0.000	0.000	0.000	106.852	-21.195	0.000	21.195	-2.251
85.00	4.747	9.362	0.000	0.000	0.000	82.224	-23.591	0.000	23.591	-2.321
90.00	4.561	8.818	0.000	0.000	0.000	58.491	-26.049	0.000	26.049	-2.372
95.00	4.376	8.432	0.000	0.000	0.000	35.687	-28.553	0.000	28.553	-2.407
97.00	2.427	4.637	0.000	0.000	0.000	25.213	-29.564	0.000	29.564	-2.420
100.00	2.313	4.406	0.000	0.000	0.000	17.931	-31.089	0.000	31.089	-2.434
105.00	2.120	4.021	0.000	0.000	0.000	6.364	-33.646	0.000	33.646	-2.447
107.00	0.118	0.230	0.000	0.000	0.000	0.354	-34.671	0.000	34.671	-2.449
110.00	0.108	0.000	0.000	0.000	0.000	0.000	-36.209	0.000	36.209	-2.449

Pole : CT03XC064
 Location: Hartford, CT
 Height : 110.0 (ft)
 Shape : Round
 Base Dia : 30.00 (in)
 Taper : 0.000000 (in/ft)

Sprint Sites USA - NJ

Base Elev : 0.000 (ft)
 Top Dia : 24.00 (in)



Load Case: Ice

80 mph - With Ice - Ice Thickness = 0.5 in

23 Iterations

Gust Response Factor : 1.69

Effective Wind Speed : 69.28 (mph)

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Calculated Stresses

Seg Elev (ft)	Applied Stresses							Allowable Stress (Fb) (ksi)	Allowable Stress (Fa) (ksi)	Stress Ratio
	Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)			
0.00	0.519	0.385	0.000	0.000	0.000	26.679	27.205	33.6	33.6	0.810
5.00	0.499	0.382	0.000	0.000	0.000	25.088	25.595	33.6	33.6	0.762
10.00	0.479	0.378	0.000	0.000	0.000	23.511	23.999	33.6	33.6	0.714
15.00	0.460	0.373	0.000	0.000	0.000	21.950	22.420	33.6	33.6	0.667
20.00	0.440	0.369	0.000	0.000	0.000	20.408	20.858	33.6	33.6	0.621
25.00	0.421	0.363	0.000	0.000	0.000	18.885	19.316	33.6	33.6	0.575
30.00	0.402	0.358	0.000	0.000	0.000	17.384	17.796	33.6	33.6	0.530
30.00	0.533	0.475	0.000	0.000	0.000	22.887	23.434	33.6	33.6	0.698
35.00	0.513	0.468	0.000	0.000	0.000	20.940	21.469	33.6	33.6	0.639
40.00	0.493	0.460	0.000	0.000	0.000	19.024	19.533	33.6	33.6	0.581
45.00	0.473	0.451	0.000	0.000	0.000	17.141	17.631	33.6	33.6	0.525
50.00	0.453	0.442	0.000	0.000	0.000	15.292	15.763	33.6	33.6	0.469
55.00	0.433	0.432	0.000	0.000	0.000	13.482	13.935	33.6	33.6	0.415
60.00	0.413	0.421	0.000	0.000	0.000	11.713	12.148	33.6	33.6	0.362
60.00	0.518	0.528	0.000	0.000	0.000	18.476	19.016	33.6	33.6	0.566
65.00	0.498	0.518	0.000	0.000	0.000	15.755	16.277	33.6	33.6	0.484
70.00	0.478	0.507	0.000	0.000	0.000	13.087	13.593	33.6	33.6	0.405
75.00	0.458	0.496	0.000	0.000	0.000	10.473	10.964	33.6	33.6	0.326
80.00	0.356	0.354	0.000	0.000	0.000	7.918	8.297	33.6	33.6	0.247
85.00	0.336	0.341	0.000	0.000	0.000	6.093	6.456	33.6	33.6	0.192
90.00	0.317	0.328	0.000	0.000	0.000	4.334	4.686	33.6	33.6	0.139
90.00	0.473	0.489	0.000	0.000	0.000	6.399	6.924	33.6	33.1	0.206
95.00	0.452	0.469	0.000	0.000	0.000	3.904	4.432	33.6	33.1	0.132
97.00	0.249	0.260	0.000	0.000	0.000	2.758	3.041	33.6	33.1	0.091
100.00	0.236	0.248	0.000	0.000	0.000	1.962	2.240	33.6	33.1	0.067
105.00	0.216	0.227	0.000	0.000	0.000	0.696	0.993	33.6	33.1	0.030
107.00	0.012	0.013	0.000	0.000	0.000	0.039	0.056	33.6	33.1	0.002
110.00	0.000	0.012	0.000	0.000	0.000	0.000	0.020	33.6	33.1	0.001

Pole : CT03XC064
 Location: Hartford, CT
 Height : 110.0 (ft)
 Shape : Round
 Base Dia : 30.00 (in)
 Taper : 0.000000 (in/ft)

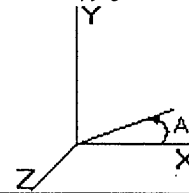
Sprint Sites USA - NJ

Base Elev : 0.000 (ft)
 Top Dia : 24.00 (in)

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Load Case: No Ice 80 mph - No Ice 23 Iterations

Gust Response Factor : 1.69 Effective Wind Speed : 80.00 (mph)

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Analysis Summary

Load Case	Reactions						Max Stresses			
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Combined Stress (ksi)	Allowable Stress (ksi)	Elev (ft)	Stress Ratio
No Ice	10.900	0.000	18.964	0.000	0.000	892.113	32.252	33.6	0.000	0.960
Ice	8.918	0.000	24.035	0.000	0.000	747.686	27.205	33.6	0.000	0.810

Exhibit E

Power Density Calculations

92 Weston Street

Hartford, Connecticut



T-Mobile USA Inc.
100 Filley St, Bloomfield, CT 06002-1853
Phone: (860) 692-7100
Fax: (860) 692-7159

Technical Memo

To: Stephen Humes
From: Hassan Syed - Radio Frequency Engineer
cc: Jason Overbey
Subject: Power Density Report for CT11062
Date: October 30, 2003

1. Introduction:

This report is the result of an Electromagnetic Field Intensities (EMF - Power Densities) study for the T-Mobile PCS antenna installation on a Monopole at 92 Weston Street, Hartford, CT. This study incorporates the most conservative consideration for determining the practical combined worst case power density levels that would be theoretically encountered from locations surrounding the transmitting location.

2. Discussion:

The following assumptions were used in the calculations:

- 1) The emissions from T-Mobile transmitters are in the 1935-1945 MHz frequency band.
- 2) The antenna array consists of three sectors, with a total of 7 antennas
- 3) The model numbers of antennas are Allgon 7250 & EMS RR90-17-02DP
- 4) The antenna center line height is 80 ft.
- 5) The maximum transmit power from any sector is 1724.73 Watts Effective Radiated Power (EIRP) assuming 8 channels per sector.
- 6) All the antennas are simultaneously transmitting and receiving, 24 hours a day.
- 7) Power levels emitting from the antennas 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.
- 8) The average ground level of the studied area does not change significantly with respect to the transmitting location

Equations given in "FCC OET Bulletin 65, Edition 97-01" were then used with the above information to perform the calculations.

3. Conclusion:

Based on the above worst case assumptions, the power density calculation from the T-Mobile PCS antenna installation on a Monopole at 92 Weston Street, Hartford, CT, is 0.0691 mW/cm^2 . This value represents 6.91% of the Maximum Permissible Emission (MPE) standard of 1 milliwatt per square centimeter (mW/cm^2) set forth in the FCC/ANSI/IEEE C95.1-1991. Furthermore, the proposed antenna location for T-Mobile will not interfere with existing public safety communications, AM or FM radio broadcasts, TV, Police Communications, HAM Radio communications or any other signals in the area. The combined Power Density from other carriers is 15.01%. The combined Power Density for the site is 21.92% of the M.P.E. standard.