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.state.ct.us/csc/index.htm

May 9, 2002

Christopher B. Fisher, Esq.
Cuddy & Feder & Worby LLP
90 Maple Avenue
White Plains, NY 10601-5196

RE: **EM-AT&T-085-020422** - AT&T Wireless notice of intent to modify an existing telecommunications facility located at 88 Main Street, Monroe, Connecticut.

Dear Attorney Fisher:

At a public meeting held on May 7, 2002, 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 received April 22, 2002, and April 29, 2002. 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,

Mortimer A. Gelston
Chairman

MAG/RKE/laf

c: Honorable Andrew J. Nunn, First Selectman, Town of Monroe
Daniel A. Tuba, Planning Administrator, Town of Monroe
Stephen J. Humes, Esq., LeBoeuf, Lamb, Greene, & MacRae

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CUDDY & FEDER & WORBY LLP

90 MAPLE AVENUE
WHITE PLAINS, NEW YORK 10601-5196

(914) 761-1300
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300 SOUTH LAKE DRIVE
FISHKILL, NEW YORK 12524
(845) 896-2229
TELECOPIER (845) 896-3672

STAMFORD, CONNECTICUT
NORWALK, CONNECTICUT

NEIL J. ALEXANDER (also CT)
CHARLES T. BAZYDLO (also NJ)
THOMAS R. BEIRNE (also DC)
THOMAS M. BLOOMER
JOSEPH P. CARLUCCI
KENNETH J. DUBROFF
ROBERT FEDER
CHRISTOPHER B. FISHER (also CT)
ANTHONY B. GIOFFRE III (also CT)
SUSAN E.H. GORDON
KAREN G. GRANIK
JOSHUA J. GRAUER
WAYNE E. HELLER (also CT)
KENNETH F. JURIST
MICHAEL L. KATZ (also NJ)
JOSHUA E. KIMERLING (also CT)
DANIEL F. LEARY (also CT)
BARRY E. LONG

CUDDY & FEDER
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WILLIAM S. NULL
DAWN M. PORTNEY
ELISABETH N. RADOW
NEIL T. RIMSKY
RUTH E. ROTH
JENNIFER L. VAN TUYL
CHAUNCEY L. WALKER (also CA)
ROBERT L. WOLFE
DAVID E. WORBY

Of Counsel
MICHAEL R. EDELMAN
ANDREW A. GLICKSON (also CT)
ROBERT L. OSAR (also TX)
MARYANN M. PALERMO
ROBERT C. SCHNEIDER
LOUIS R. TAFFERA

April 29, 2002

VIA FEDERAL EXPRESS
David Martin
Siting Analyst I
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

Re: AT&T Wireless Notice of Exempt Modification
88 Main Street, Monroe, Connecticut
10 Sylvia Street, Branford, Connecticut
201 South Main Street, Newtown, Connecticut
59 McGuire Road, South Windsor, Connecticut

Dear Mr. Martin:

On behalf of AT&T Wireless, enclosed please find the additional information that you had requested with respect to the Notice of Exempt Modifications for the proposed facilities referenced above:

1. The latitude and longitude for the facility at 88 Main Street in the Town of Monroe is N 41-17-59, W 73-14-58.

2. Enclosed please find the structural report for the facility at 10 Sylvia Street in the Town of Branford. The report was conducted by Semaan Engineering and signed and sealed on page four by Alvin A. Kraft, PE, a Connecticut licensed engineer. The fenced-in perimeter of the tower compound at 10 Sylvia Street must be expanded to accommodate

the base-station equipment for AT&T and Verizon. The expanded compound will be on property already leased by VocieStream and does not extend the site boundaries.

3. Enclosed please find the structural report for the proposed facility at 201 Main Street in the Town of Monroe. The report was conducted by Semaan Engineering and signed and sealed on page four by Alvin A. Kraft, PE, a Connecticut licensed engineer.

4. The latitude and longitude for the facility at 67 McGuire Road in the Town of South Windsor is 41-48-10.77, 72-37-1.96. The site was mistakenly identified by our engineers as 59 McGuire Road; the correct address is 67 McGuire Road.

We would appreciate it if these matters were placed on the next available agenda for acknowledgment by the Council. Should you or the Council have any questions or require any additional information, please do not hesitate to contact us.

Very truly yours,

Linda Grant

Encls.
cc: Christopher B. Fisher, Esq.

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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Phone: (860) 827-2935 Fax: (860) 827-2950
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Web Site: www.state.ct.us/csc/index.htm

April 25, 2002

Via Facsimile

Mr. Christopher B. Fisher, Esq.
Cuddy & Feder & Worby
90 Maple Avenue
White Plains, NY 10601-5196

RE: **EM-AT&T-085-020422** AT&T Wireless PCS, LLC d/b/a AT&T Wireless notice of intent to modify an existing telecommunications facility located at 88 Main Street, Monroe, CT.

Dear Atty. Fisher:

For the above referenced filing, please provide the latitude and longitude coordinates for this site.

Thank you for your assistance in this matter.

Sincerely,

David Martin
Siting Analyst I

L:\SITING\DavidM\Correspondence\AT&T\020425Monroelet.doc

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/csc/index.htm

April 24, 2002

Honorable Andrew J. Nunn
First Selectman
Town of Monroe
Town Hall
7 Fan Hill Road
Monroe, CT 06468-1800

RE: **EM-AT&T-085-020422** – AT&T Wireless notice of intent to modify an existing telecommunications facility located at 88 Main Street, Monroe, Connecticut.

Dear Ms. Nunn:

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 May 7, 2002, 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/esc

Enclosure: Notice of Intent

c: Daniel A. Tuba, Planning Administrator, Town of Monroe

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NOTICE OF INTENT TO MODIFY AN EXISTING TELECOMMUNICATIONS FACILITY
88 MAIN STREET, MONROE, CONNECTICUT

Pursuant to the Public Utility Environmental Standards Act, Connecticut General Statutes § 16-50g et. seq. ("PUESA"), and Sections 16-50j-72(b) of the Regulations of Connecticut State Agencies adopted pursuant to the PUESA, AT&T Wireless PCS, LLC d/b/a AT&T Wireless ("AT&T Wireless") hereby notifies the Connecticut Siting Council of its intent to modify an existing facility located at 88 Main Street, Monroe, Connecticut (the "Main Street Facility"), owned by VoiceStream Wireless ("VoiceStream"). AT&T Wireless and VocieStream have agreed to share the use of the Main Street Facility as detailed below.

The Main Street Facility

The Main Street Facility consists of an approximately one hundred ninety-five (195) foot monopole (the "Tower") and associated equipment currently being used for wireless communications by VoiceStream. A chain link fence surrounds the Tower compound. The Tower is located at the Stepney Volunteer Fire Department and is surrounded by commercial properties.

AT&T Wireless' Facility

As shown on the enclosed plans prepared by Tectonic/Keyes Associates, including a site plan and tower elevation of the Main Street Facility, AT&T Wireless proposes shared use of the Facility by placing antennas on the Tower and equipment cabinets needed to provide personal communications services ("PCS") within the existing fenced compound. AT&T Wireless will install 6 panel antennas at approximately the 175 foot level of the Tower and associated equipment cabinets (2 proposed, 2 future, each 76" H x 30" W x 30" D) located on a concrete pad. As evidenced in the structural report prepared by Paul J. Ford and Company, annexed hereto as Exhibit A, AT&T has confirmed that the tower is structurally capable of supporting the addition of AT&T Wireless' antennas.

AT&T Wireless' Facility Constitutes An Exempt Modification

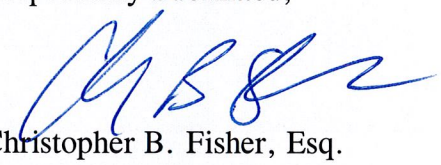
The proposed addition of AT&T Wireless' antennas and equipment to the Main Street Facility constitutes an exempt "modification" of an existing facility as defined in Connecticut General Statutes Section 16-50i(d) and Council regulations promulgated pursuant thereto. Addition of AT&T Wireless' antennas and equipment to the Tower will not result in an increase of the Tower's height nor extend the site boundaries. Further, there will be no increase in noise levels by six (6) decibels or more at the Tower site's boundary. As set forth in an Emissions Report prepared by Nader Soliman, Radio Frequency Engineer, annexed hereto as Exhibit B, the total radio frequency electromagnetic radiation power density at the Tower site's boundary will not

be increased to or above the standard adopted by the Connecticut Department of Environmental Protection as set forth in Section 22a-162 of the Connecticut General Statutes and MPE limits established by the Federal Communications Commission. For all the foregoing reasons, addition of AT&T Wireless' facility to the Tower constitutes an exempt modification which will not have a substantially adverse environmental effect.

Conclusion

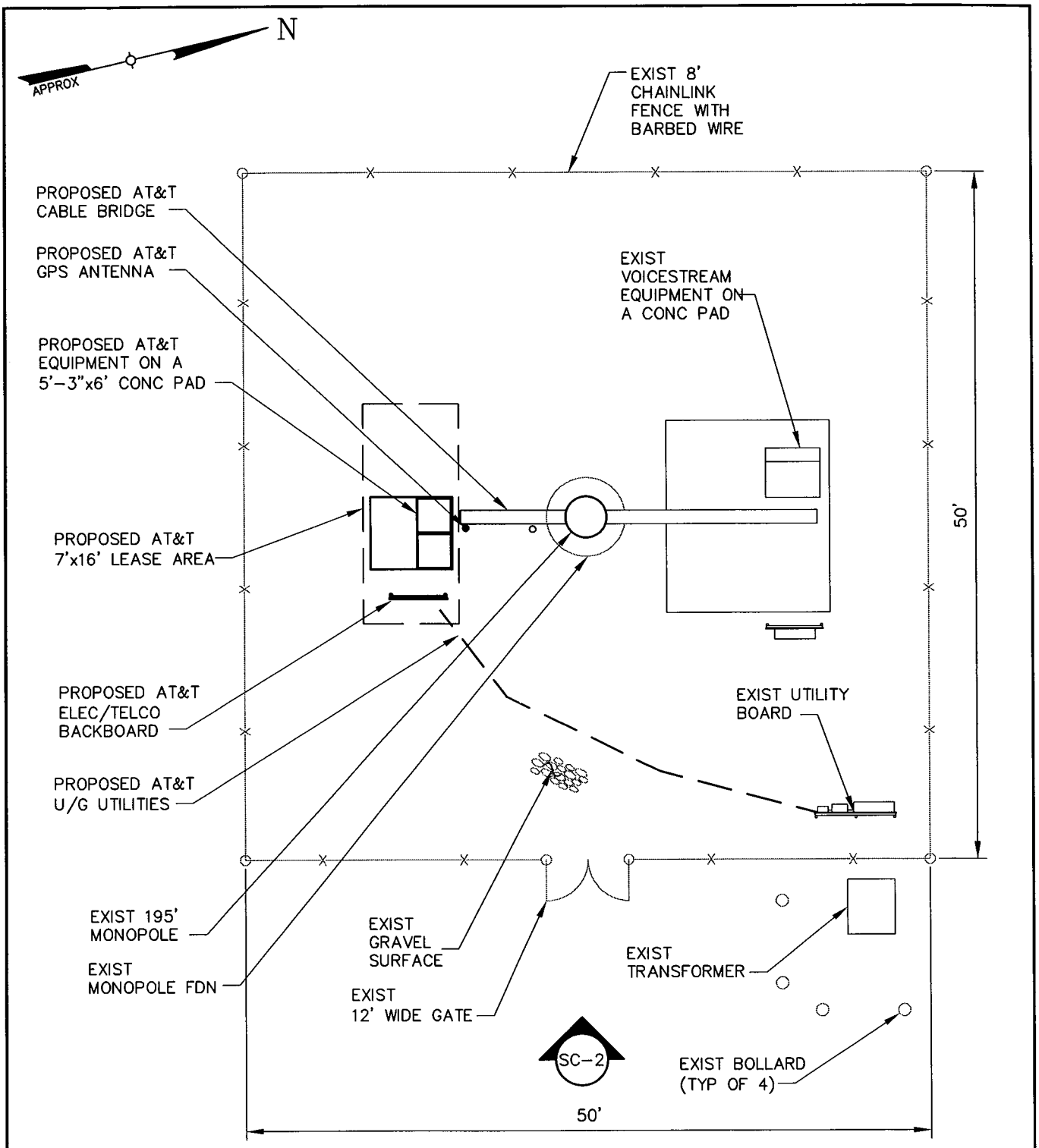
Accordingly, AT&T Wireless requests that the Connecticut Siting Council acknowledge that its proposed modification to the Main Street Facility meets the Council's exemption criteria.

Respectfully Submitted,

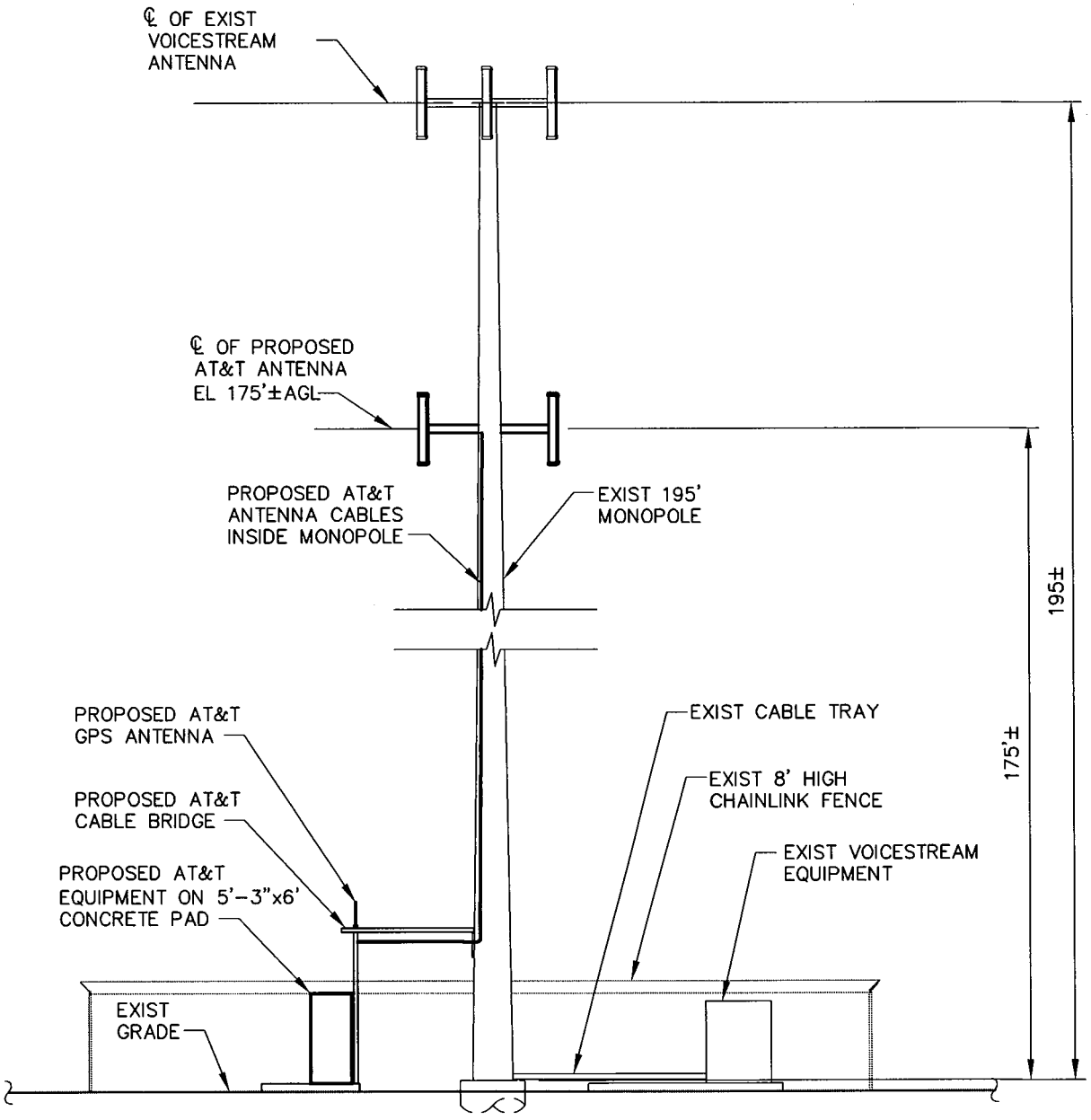


Christopher B. Fisher, Esq.
On behalf of AT&T Wireless

cc: Selectman Andrew Nunn
Harold Hewett, Bechtel



TECTONIC/KEYES ASSOCIATES 1344 SILAS DEANE HIGHWAY, SUITE 306 ROCKY HILL, CT 06067-1349 OFFICE (860)563-1341 FAX (860)257-8880	AT&T AT&T WIRELESS SERVICES, INC. 12 Omega Drive Second Floor Stamford, CT 06902	DRAWING TITLE: SITE DETAIL PLAN PROJECT INFORMATION: MONROE CT-189 88 MAIN STREET MONROE, CT PROPERTY OWNER: STEPNEY VOL FIRE DEPT 88 MAIN STREET MONROE, CT	DRAWING NO. **SC-1** REVISION NO. A — DRAWN BY: RPM DATE: 3/25/02 — CHECKED BY: MC SCALE: 1"=10' — APPROVED BY: JDF ISSUED FOR COMMENT — SHEET NO. 1 of 2 WORK ORDER #: 2650.CT189



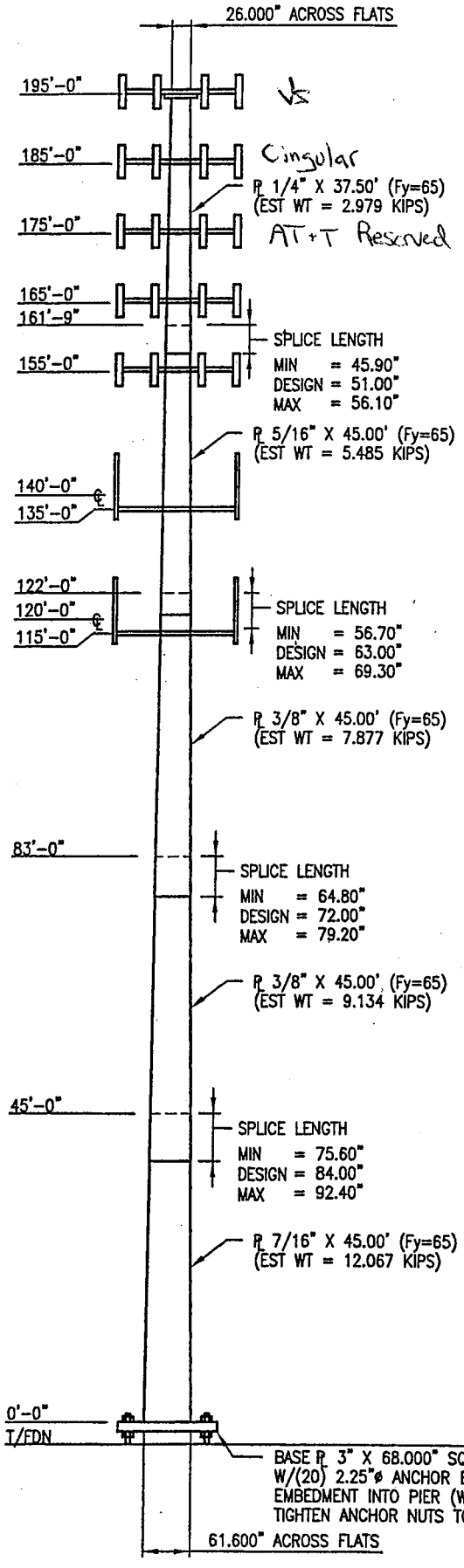
NOTE: FENCE FABRIC, GATE AND TRANSFORMER NOT SHOWN FOR CLARITY.

TECTONIC/KEYES ASSOCIATES 1344 SILAS DEANE HIGHWAY, SUITE 300 ROCKY HILL, CT 06067-1249 OFFICE (860)563-1244 FAX (860)257-8882	**AT&T** AT&T WIRELESS SERVICES, INC. 12 Omega Drive Second Floor Stamford, CT 06902	DRAWING TITLE: ELEVATION PROJECT INFORMATION: MONROE CT-189 88 MAIN STREET MONROE, CT PROPERTY OWNER: STEPNEY VOL FIRE DEPT 88 MAIN STREET MONROE, CT	DRAWING NO. **SC-2** REVISION NO. A — DRAWN BY: RPM DATE: 3/25/02 — CHECKED BY: MC SCALE: 1"=10' — APPROVED BY: JDF ISSUED FOR COMMENT — SHEET NO. 2 of 2 WORK ORDER #: 2650.CT189

SUMMIT MANUFACTURING, LLC

225 KIWANIS BOULEVARD, WEST HAZLETON, PA 18201
PHONE: (888) 847-6537 FAX: (888) 460-6885
VISIT US AT WWW.SUMMITMFG.COM

PAUL J. FORD AND COMPANY
STRUCTURAL ENGINEERS
250 East Broad Street, Suite 500, Columbus, Ohio 43215
(614) 221-6679 Fax: (614) 448-4105 www.PJFweb.com



JOB DATA			
Page 1 of 2		Job No.	29201-0505
By	MFP	Design No.	SUMMIT JOB #13880
Chk'd By		Date	05-04-2001
		Rev. No.	Rev. Date
Pole	195-FT MONOPOLE		
Site	CT-11-215-A, MONROE, CT		
Owner	VOICESTREAM WIRELESS		
Ref. No.			
Design	85 MPH / 74 MPH + 1/2" RADIAL ICE ACCORDING TO TIA/EIA-222-F 1996		

LOAD CASES		
CASE 1	85 MPH WITH NO ICE	DESIGN WIND
CASE 2	74 MPH WITH 1/2" RADIAL ICE	REDUCED WIND WITH ICE
CASE 3	50 MPH WITH NO ICE	OPERATIONAL WIND

POLE SPECIFICATIONS	
Pole Shape Type:	18-SIDED POLYGON
Taper:	0.196026 IN/FT
Shaft Steel:	ASTM A607 GRADE 65
Base PL Steel:	ASTM A572 GRADE 55 (55 KSI)
Anchor Bolts:	2 1/4"ø x 8'-0" LONG #18J ASTM A615 GRADE 75

ANTENNA LIST		
No.	Elev.	Description
-	TOP	5/8" LIGHTNING ROD
1-12	TOP	(12) EMS RR90-17-00DP PCS PANEL
-	TOP	(3) 14' T-ARM MOUNTS
13-24	185.00	(12) EMS RR90-17-00DP PCS PANEL
-	185.00	14' LOW PROFILE PLATFORM
25-36	175.00	(12) EMS RR90-17-00DP PCS PANEL
-	175.00	14' LOW PROFILE PLATFORM
37-48	165.00	(12) EMS RR90-17-00DP PCS PANEL
-	165.00	14' LOW PROFILE PLATFORM
49-60	155.00	(12) EMS RR90-17-00DP PCS PANEL
-	155.00	14' LOW PROFILE PLATFORM
61-62	140.00	(2) 10' WHIP ANTENNA
-	135.00	6-FT SIDE ARM MOUNT
63-64	120.00	(2) 10' WHIP ANTENNA
-	115.00	6-FT SIDE ARM MOUNT

STEP BOLTS FULL HEIGHT.
ANTENNA FEED LINES RUN INSIDE OF POLE.

STATE OF CONNECTICUT
KEVIN P. BAUMAN
No. 17891
LICENSED
PROFESSIONAL ENGINEER

Elevation	85 MPH WIND		50 MPH WIND	
	Lateral Deflection (Inches)	Rotation (sway) (degrees)	Lateral Deflection (Inches)	Rotation (sway) (degrees)
TOP	153.8	6.555	53.1	2.268

SHAFT SECTION DATA					
Shaft Section	Section Length (feet)	Plate Thickness (in.)	Lap Splice (in.)	Diameter Across Flats (inches) @ Top	@ Bottom
1	37.50	0.2500	51.00	26.000	33.351
2	45.00	0.3125	63.00	32.018	40.839
3	45.00	0.3750	72.00	39.185	48.006
4	45.00	0.3750	84.00	46.080	54.901
5	45.00	0.4375		52.779	61.600

NOTE: DIMENSIONS SHOWN DO NOT INCLUDE GALVANIZING TOLERANCES

BASE REACTIONS FOR FOUNDATION DESIGN

MOMENT =	5200 ft-kips
SHEAR =	38 kips
AXIAL =	58 kips

\TOWER\DRAWINGS\MONOPOLE\292-SUMM...\29201050SM001.DWG | 04-MAY-2001 | 10:19

SUMMIT MANUFACTURING, LLC

225 KIWANIS BOULEVARD, WEST HAZLETON, PA 18201
PHONE: (888) 847-6537 FAX: (888) 460-6885
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PAUL J. FORD AND COMPANY
STRUCTURAL ENGINEERS
250 East Broad Street, Suite 500, Columbus, Ohio 43215
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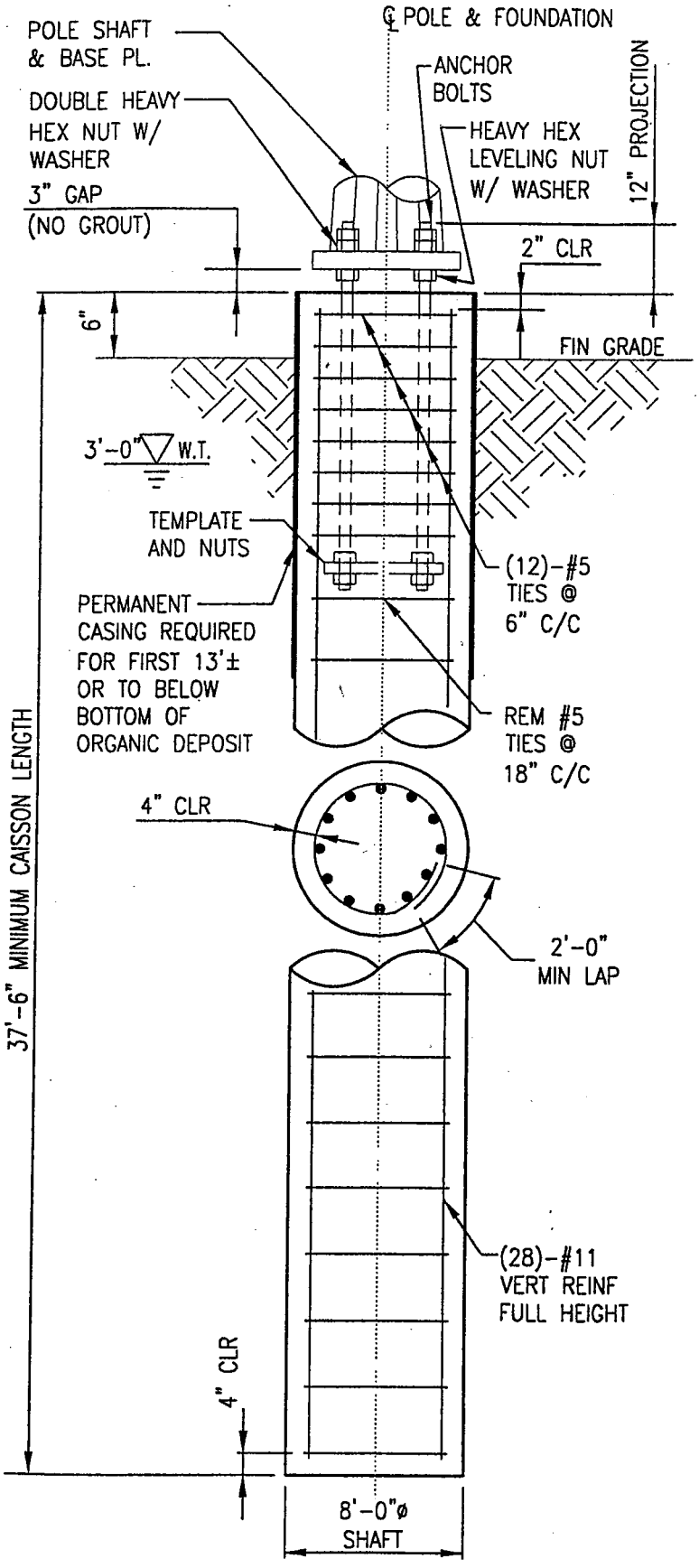


JOB DATA		
Page 2 of 2	Job No.	29201-0505
By KJS	Design No.	SUMMIT #13880
Chk'd By	Date	05-10-2001
	Rev. No. Rev. Date	
Pole	195-FT MONOPOLE	
Site	CT-11-215-A, MONROE, CT	
Owner	VOICESTREAM WIRELESS	
Ref. No.		
Design	85 MPH / 74 MPH + 1/2" RADIAL ICE ACCORDING TO TIA/EIA-222-F 1996	

THERE ARE TWO NOTCHES ON THE ANCHOR BOLT TEMPLATES LOCATED 180° APART. THE CONTRACTOR SHALL POSITION THE ANCHOR BOLTS AND TEMPLATES IN THE FOUNDATION PER THE SUMMIT MANUFACTURING ANCHOR BOLT TEMPLATE DRAWING.

NOTES:

1. ALL CONCRETE SHALL BE TYPE V, WITH A MINIMUM COMPRESSIVE STRENGTH OF 4500 PSI AT 28 DAYS. CONCRETE SHALL BE AIR ENTRAINED (6±1.5%). CONCRETE SHALL HAVE A MAXIMUM WATER/CEMENT RATIO OF 0.4. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH "THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", ACI 318, LATEST EDITION. FOUNDATION INSTALLATION SHALL BE IN ACCORDANCE WITH ACI 336, "STANDARD SPECIFICATIONS FOR THE CONSTRUCTION OF DRILLED PIERS", LATEST EDITION.

2. REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-615 (GRADE 60) EXCEPT THAT CAISSON TIES MAY BE ASTM A-615 (GRADE 40). ALL REINFORCING DETAILS SHALL CONFORM TO "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", ACI 315, LATEST EDITION, UNLESS DETAILED OTHERWISE ON THIS DRAWING.

3. SEE PAGE 1 FOR ANCHOR BOLT QUANTITY, SIZE, LENGTH, AND BOLT CIRCLE.

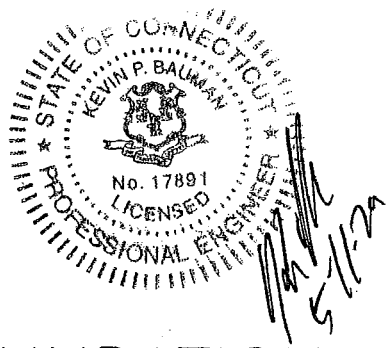
4. TOTAL CONCRETE = 70 CUBIC YARDS.

5. FOUNDATION DESIGN IS BASED UPON GEOTECHNICAL EXPLORATION REPORT
PREPARED BY: JAWORSKI GEOTECH, INC
REPORT NO.: 01129G
DATED: 02-15-2001

6. CONTRACTOR SHALL READ THE GEOTECHNICAL REPORT AND CONSULT THE GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION.

7. GEOTECHNICAL REPORT INDICATES GROUNDWATER WAS ENCOUNTERED AT 3'-0" BELOW GRADE.

8. THE FOUNDATION WAS DESIGNED USING THE FOLLOWING SERVICE LOADS:
MOMENT: 5200 FT-KIPS
SHEAR: 38 KIPS
AXIAL: 58 KIPS



CAISSON (DRILLED PIER) FOUNDATION

PJF_Pole (tm) - Monopole Design Program
Windows Version 3.00.0006 Fri May 11, 2001 - 12:15:18 pm
(c) 1993 to 2000 PAUL J. FORD AND COMPANY, Columbus, Ohio

Job No.....: 29201-0505 Design No: Summit #13880 Engineer : MFP
Description : 195-Ft Monopole - CT-11-215-A, MONROE, CT
Design..... : 85 mph / 74 mph + 1/2" radial ice Client: Summit Manufacturing, LLC (
Owner..... : VoiceStream Wireless Revision: Rev. Date :
Status..... : Final Design

S U M M A R Y O F A N A L Y S I S R E S U L T S

Pole Height.....: 195.00 ft
Top Diameter.....: 26.000 in
Bottom Diameter.....: 61.600 in
Pole Shape.....: 18-Sided Polygon
Splice Joint Type.....: Taper shaft - Slip Joint
Shaft Taper.....: 0.196026 (in/ft)
Shaft Steel Weight.....: 37.542 kips

POLE SHAFT PROPERTIES:

Shaft Section Number	Section Length (ft)	Wall Thickness [t] (in)	Steel Yield [Fy] (ksi)	Top Diameter [Dt] (in)	Bottom Diameter [Db] (in)	Slip Joint Overlap (in)
1.	37.500	0.25000	65	26.000	33.351	51.00
2.	45.000	0.31250	65	32.018	40.839	63.00
3.	45.000	0.37500	65	39.185	48.006	72.00
4.	45.000	0.37500	65	46.080	54.901	84.00
5.	45.000	0.43750	65	52.779	61.600	

POLE SHAFT SECTION MAXIMUM FORCES AND MOMENTS:

Shaft Section Number	Wind Load No.	Wind Speed (mph)	Radial Ice (in)	At Base of Section: Sect. Elev. (ft)	Axial Load (kips)	Horiz. Shear (kips)	Bending Moment (ft-kips)	Max. Ratio Actual/ Allowable [Ftot/Fb]
1.	1	85.0	0.00	161.75	9.997	15.336	295.695	0.3470
2.	1	85.0	0.00	122.00	19.151	22.893	1142.945	0.7020
3.	1	85.0	0.00	83.00	29.869	27.626	2201.604	0.8130
4.	1	85.0	0.00	45.00	41.784	31.485	3378.885	0.9522
5.	1	85.0	0.00	0.00	57.154	35.802	4921.109	0.8986
>> MAXIMUM BASE REACTIONS :					57.154	35.802	4921.109 <<	

POLE DEFLECTION AND ROTATION AT TOP AND AT HIGHEST MICROWAVE DISH ELEVATION:

Wind Load No.	Wind Speed (mph)	Radial Ice (in)	Location	Elev (ft)	Deflection (in)	Rotation (deg)	Max. Allowable Rotation Limit (deg)
1.	85.0	0.00	Top	195.00	153.822	6.555	
2.	73.6	0.50	Top	195.00	130.228	5.564	
3.	50.0	0.00	Top	195.00	53.092	2.268	

PJF_Pole (tm) - Monopole Design Program
Windows Version 3.00.0006 Fri May 11, 2001 - 12:15:18 pm

Job No.....: 29201-0505 Design No: Summit #13880 Engineer : MFP
Description : 195-Ft Monopole - CT-11-215-A, MONROE, CT
Design..... : 85 mph / 74 mph + 1/2" radial ice
Owner..... : VoiceStream Wireless Client: Summit Manufacturing, LLC (
Status..... : Final Design Revision: Rev. Date :

Segment Properties: (@ Max Segment = 10 ft)

Tube Segmt No.	Segment Feature Location	Segment Elev. (ft)	Diam. Across Flats (in)	Wall Thick [t] (in)	[W/t] Ratio	Diam/ Thick [D/t] Ratio	Area (in^2)	Ix (in^4)
1.	top	195.000	26.000	0.25000	16.57	104.00	20.43	1711.2
2.	<arm [1]>	195.000	26.000	0.25000	16.57	104.00	20.43	1711.2
3.	<arm [2]>	195.000	26.000	0.25000	16.57	104.00	20.43	1711.2
4.	<arm [3]>	195.000	26.000	0.25000	16.57	104.00	20.43	1711.2
5.		190.000	26.980	0.25000	17.27	107.92	21.21	1914.1
6.	<arm [4]>	185.000	27.960	0.25000	17.96	111.84	21.99	2132.4
7.	<arm [5]>	185.000	27.960	0.25000	17.96	111.84	21.99	2132.4
8.		180.000	28.940	0.25000	18.65	115.76	22.77	2366.8
9.	<arm [6]>	175.000	29.921	0.25000	19.34	119.68	23.54	2617.7
10.	<arm [7]>	175.000	29.921	0.25000	19.34	119.68	23.54	2617.7
11.		170.000	30.901	0.25000	20.03	123.60	24.32	2885.8
12.	<arm [8]>	165.000	31.881	0.25000	20.72	127.52	25.10	3171.6
13.	<arm [9]>	165.000	31.881	0.25000	20.72	127.52	25.10	3171.6
14.	top sec(2)	161.750	32.518	0.25000	21.17	130.07	25.60	3367.1
15.		160.000	32.361	0.31250	16.50	103.56	31.79	4123.7
16.	bot sec(1)	157.500	32.851	0.31250	16.77	105.12	32.27	4315.8
17.	<arm [10]>	155.000	33.341	0.31250	17.05	106.69	32.76	4513.7
18.	<arm [11]>	155.000	33.341	0.31250	17.05	106.69	32.76	4513.7
19.		150.000	34.321	0.31250	17.60	109.83	33.73	4927.6
20.		140.000	36.281	0.31250	18.71	116.10	35.68	5829.7
21.	<arm [12]>	135.000	37.262	0.31250	19.26	119.24	36.65	6319.3
22.	<arm [13]>	135.000	37.262	0.31250	19.26	119.24	36.65	6319.3
23.		130.000	38.242	0.31250	19.81	122.37	37.62	6835.7
24.	top sec(3)	122.000	39.810	0.31250	20.70	127.39	39.18	7719.0
25.		120.000	39.577	0.37500	16.85	105.54	46.66	9056.8
26.	bot sec(2)	116.750	40.214	0.37500	17.15	107.24	47.42	9505.5
27.	<arm [14]>	115.000	40.557	0.37500	17.31	108.15	47.83	9753.2
28.	<arm [15]>	115.000	40.557	0.37500	17.31	108.15	47.83	9753.2
29.		110.000	41.537	0.37500	17.77	110.77	48.99	10484.4
30.		100.000	43.497	0.37500	18.69	115.99	51.32	12054.6
31.		90.000	45.458	0.37500	19.61	121.22	53.66	13774.3
32.	top sec(4)	83.000	46.830	0.37500	20.26	124.88	55.29	15070.7
33.		80.000	46.668	0.37500	20.18	124.45	55.10	14913.7
34.	bot sec(3)	77.000	48.006	0.37500	20.81	128.02	56.69	16244.6
35.		70.000	48.628	0.37500	21.10	129.68	57.43	16889.5
36.		60.000	50.589	0.37500	22.02	134.90	59.76	19032.5
37.		50.000	52.549	0.37500	22.95	140.13	62.10	21349.6
38.	top sec(5)	45.000	53.529	0.37500	23.41	142.74	63.26	22575.5
39.		40.000	53.759	0.43750	19.90	122.88	74.04	26588.5
40.	bot sec(4)	38.000	54.901	0.43750	20.36	125.49	75.63	28333.7
41.		30.000	55.719	0.43750	20.69	127.36	76.76	29629.9
42.		20.000	57.680	0.43750	21.48	131.84	79.48	32894.9
43.		10.000	59.640	0.43750	22.27	136.32	82.21	36391.2
44.	base	0.000	61.600	0.43750	23.06	140.80	84.93	40126.8

Total Number of Antennas / Arms = 15

		[Gh] 1.69	[Kz] 1.584	No Ice:	[qz] (psf) 29.294	[qz] [Gh] (psf) 49.507	
[10]	155.000	155.000	0.0000	No Ice:	37.70	1833.39	216.00
	Description: (12) EMS RR90-17-00DP PCS Panel						
		[Gh] 1.69	[Kz] 1.556	No Ice:	[qz] (psf) 28.776	[qz] [Gh] (psf) 48.631	
[11]	155.000	155.000	2.0000	No Ice:	24.35	1184.16	1300.00
	Description: 14' Low Profile Platform						
		[Gh] 1.69	[Kz] 1.556	No Ice:	[qz] (psf) 28.776	[qz] [Gh] (psf) 48.631	
[12]	135.000	140.000	0.0000	No Ice:	5.00	236.19	40.00
	Description: (2) 10' Whip Antenna						
		[Gh] 1.69	[Kz] 1.511	No Ice:	[qz] (psf) 27.951	[qz] [Gh] (psf) 47.237	
[13]	135.000	135.000	0.0000	No Ice:	13.00	607.73	400.00
	Description: 6-Ft Side Arm Mount						
		[Gh] 1.69	[Kz] 1.496	No Ice:	[qz] (psf) 27.662	[qz] [Gh] (psf) 46.749	
[14]	115.000	120.000	0.0000	No Ice:	5.00	226.01	40.00
	Description: (2) 10' Whip Antenna						
		[Gh] 1.69	[Kz] 1.446	No Ice:	[qz] (psf) 26.747	[qz] [Gh] (psf) 45.202	
[15]	115.000	115.000	0.0000	No Ice:	13.00	580.52	400.00
	Description: 6-Ft Side Arm Mount						
		[Gh] 1.69	[Kz] 1.429	No Ice:	[qz] (psf) 26.423	[qz] [Gh] (psf) 44.655	

----------(END LOAD CASE 1 -- POLE SHAFT LOADS)------------------------------

PJF_Pole (tm) - Monopole Design Program
Windows Version 3.00.0006 Fri May 11, 2001 - 12:15:18 pm

Job No.....: 29201-0505 Design No: Summit #13880 Engineer : MFP
Description : 195-Ft Monopole - CT-11-215-A, MONROE, CT
Design..... : 85 mph / 74 mph + 1/2" radial ice
Owner..... : VoiceStream Wireless Client: Summit Manufacturing, LLC (
Status..... : Final Design Revision: Rev. Date :

POLE SHAFT SEGMENTS -- MOMENTS and DEFLECTIONS:

LOAD CASE 1: BASIC WIND VELOCITY = 85.00 mph

Segmnt Elev (ft)	[-------- MOMENTS (ft-kips) --------] From Ant/ Arm	From Shaft Wind	From P-Delta Effects	Total Moment	[--DEFLECTIONS (inch)-------] No P-Delta Effects	Total W/ P-Delta Effects	Total Rotation (deg)
195.00	0.039	0.000	0.000	0.039	144.776	153.822	6.555
195.00	0.039	0.000	0.000	0.039	144.776	153.822	6.555
195.00	0.039	0.000	0.000	0.039	144.776	153.822	6.555
195.00	0.039	0.000	0.147	0.186	143.481	152.443	6.555
190.00	16.215	1.110	1.161	18.485	137.009	145.552	6.548
185.00	32.391	4.110	2.165	38.665	131.841	140.047	6.528
185.00	32.391	4.110	2.467	38.968	130.551	138.674	6.528
180.00	64.436	9.053	4.887	78.377	124.120	131.827	6.491
175.00	96.482	15.992	7.017	119.491	119.007	126.382	6.435
175.00	96.482	15.992	7.600	120.074	117.736	125.028	6.435
170.00	144.148	24.978	11.403	180.529	111.418	118.301	6.357
165.00	191.814	36.059	14.624	242.497	106.424	112.983	6.258
165.00	191.814	36.059	15.475	243.348	105.188	111.667	6.258
161.75	232.781	44.400	18.514	295.695	101.502	107.742	6.182
160.00	254.840	49.265	20.688	324.793	99.068	105.151	6.142
157.50	286.352	56.675	22.910	365.937	96.652	102.579	6.084
155.00	317.865	64.630	25.173	407.668	94.253	100.025	6.021
155.00	317.865	64.630	26.340	408.835	93.064	98.760	6.021
150.00	395.979	82.217	33.017	511.213	87.185	92.502	5.883
140.00	552.205	124.171	46.984	723.360	75.881	80.472	5.557
135.00	631.499	148.618	52.763	832.881	71.545	75.859	5.375
135.00	631.499	148.618	54.219	834.337	70.484	74.730	5.375
130.00	713.832	175.430	61.780	951.043	65.272	69.186	5.182
122.00	845.565	223.338	74.043	1142.945	57.342	60.754	4.855
120.00	878.498	236.288	77.287	1192.073	55.440	58.732	4.778
116.75	932.749	258.153	82.186	1273.088	52.644	55.760	4.655
115.00	961.961	270.350	83.831	1316.142	51.725	54.783	4.588
115.00	961.961	270.350	85.471	1317.782	50.818	53.820	4.588
110.00	1048.327	306.888	93.906	1449.121	46.383	49.107	4.393
100.00	1221.058	387.446	110.852	1719.356	38.097	40.307	3.993
90.00	1393.789	478.133	127.660	1999.582	30.608	32.359	3.584
83.00	1514.701	547.718	139.186	2201.604	25.848	27.312	3.293
80.00	1566.520	579.082	144.281	2289.883	23.932	25.281	3.164
77.00	1618.339	611.365	149.290	2378.994	22.093	23.333	3.034
70.00	1739.251	690.276	160.592	2590.119	18.101	19.104	2.729
60.00	1911.982	811.696	175.602	2899.281	13.127	13.842	2.294
50.00	2084.713	943.288	188.978	3216.980	9.007	9.488	1.863
45.00	2171.079	1012.858	194.948	3378.885	7.265	7.649	1.649
40.00	2257.444	1084.891	200.694	3543.029	5.724	6.023	1.457
38.00	2291.991	1114.381	202.853	3609.225	5.160	5.429	1.382
30.00	2430.176	1236.145	210.629	3876.949	3.200	3.364	1.082
20.00	2602.907	1396.895	218.180	4217.981	1.413	1.484	0.714
10.00	2775.638	1567.427	222.982	4566.047	0.351	0.368	0.353
0.00	2948.369	1748.075	224.665	4921.109	0.000	0.000	0.000

---------(END LOAD CASE 1 -- MOMENTS AND DEFLECTIONS)----------

PJF_Pole (tm) - Monopole Design Program
Windows Version 3.00.0006 Fri May 11, 2001 - 12:15:18 pm
(c) 1993 to 2000 PAUL J. FORD AND COMPANY, Columbus, Ohio

Job No.....: 29201-0505 Design No: Summit #13880 Engineer : MFP
Description : 195-Ft Monopole - CT-11-215-A, MONROE, CT
Design..... : 85 mph / 74 mph + 1/2" radial ice
Owner..... : VoiceStream Wireless Client: Summit Manufacturing, LLC (
Status..... : Final Design Revision: Rev. Date :

M O N O P O L E B A S E P L A T E D E S I G N D E T A I L S

Shaft Shape .....:	18 Sided Polygon	Stress Increase ...:	1.333 Factor
Base Dia, DF ....:	61.600 Inches	Base Plate Shape ..:	Square
PT-to-PT, DP ....:	62.550 Inches		
Min Bolt Circle .:	68.800 Inches	Use Bolt Circle ...:	69.000 Inches

---

Base Reactions :	DESIGN	USER
Moment .....:	4921.11 Ft-Kips	4922.00 Ft-Kips
Axial Load .....:	57.15 Kips	57.50 Kips

Anchor Bolt Details :	DESIGN	USER
Number of Bolts .....:	20	20
Bolt Diameter .....:	2.250 Inches	2.250 Inches
Bolt Type .....:	#18J ASTM A615	#18J ASTM A615
Y-Distance .....:	12	12
Mom. of Inertia .....:	11833.60 In^4	11902.50 In^4
Bolt Tension, T .....:	171.67 Kips	171.20 Kips
Allowable Tension ...:	194.81 Kips	194.81 Kips
Bolt Compression, C .:	174.52 Kips	174.08 Kips

Base Plate Details :	DESIGN	USER
Plate Moment, MPL ...:	3141.44 In-Kips	3220.39 In-Kips
Bend Plane, W .....:	35.36 Inches	34.57 Inches
Plate Thickness, t ..:	3.113 Inches	3.000 Inches
Plate Width .....:	68.564 Inches	68.000 Inches
Plate Steel .....:	ASTM A572 GRADE 55 (55 KSI)	ASTM A572 GRADE 55 (55 KSI)
Gross Weight .....:	4150.00 Lbs	3933.90 Lbs
Net Weight .....:	3124.70 Lbs	2945.70 Lbs
Allowable Stress ....:	54.99 Ksi	54.99 Ksi
Actual Stress .....:	54.99 Ksi	62.11 Ksi
Act./Allow Ratio ....:	1.00	1.13

B A S E P L A T E D E S I G N S U M M A R Y

USE FOLLOWING SPECIFICATIONS:

Plate Thickness .....:	3.000 Inches	Number of Bolts ..:	20
Plate Width/Diameter :	68.000 Inches (Square)	Bolt Circle .....:	69.00 Inches
Plate Weight .....:	3.934 Kips	Bolt Diameter ....:	2.25 Inches
		Bolt Type .....:	#18J ASTM A615

RF Exposure Analysis for Proposed AT&T Wireless Antenna Facility

SITE ID: 913-010-189

April 3, 2002

Prepared by AT&T Wireless Services, Inc.
Nader Soliman **RF Engineer**

Table of Contents

1. Introduction

This report constitutes an RF exposure analysis for the proposed AT&T Wireless antenna facility to be located at *88 Main Street; Monroe, CT 06468.* This analysis uses site-specific engineering data to determine the predicted levels of radio frequency (RF) electromagnetic energy in the vicinity of the proposed facility and compares those levels with the Maximum Permissible Exposure (MPE) limits established by the Federal Communications Commission.

2. Site Data

Site Name: ***Monroe South***	
Number of simultaneously operating channels	16
Type of antenna	Allgon 7250.03
Power per channel (Watts ERP)	250.0 Watts
Height of antenna (feet AGL)	175.00 feet
Antenna Aperture Length	5 feet

3. RF Exposure Prediction

The following equations established by the FCC, in conjunction with the site data, were used to determine the levels of RF electromagnetic energy present in the vicinity of the proposed facility[1]:

$$PowerDensity = \frac{0.64 * N * EIRP(\theta)}{\pi * R^2} \ (mW/cm^2) \qquad \textit{Eq. 1-Far-field}$$

Where, ***N***= Number of channels, ***R***= distance in cm from the RC (Radiation Center) of antenna, and ***EIRP(θ)*** = The isotropic power expressed in milliwatts in the direction of prediction point. This is the correct equation for antennas which have their gain expressed in dBi, which is the usual case for the PCS bands.

$$PowerDensity = \frac{P_{in} / ch * N * 10^3}{2 * \pi * R * h * \alpha / 360} \ (mW/cm^2) \qquad \textit{Eq. 2-Near-field}$$

Where P_{in}/ch = Input power to antenna terminals in watts/ch, R = distance to center of radiation, h = aperture height in meters, α = 3 dB beam-width of horizontal pattern.

[1] RF exposure is measured and predicted in terms of power density in units of milliwatts (mW), a thousandth of a watt, or microwatts (μ W), a millionth of a watt, per square centimeter (cm^2). Data comparing predictive analysis with on site measurements has demonstrated that power density can be effectively predicted at given locations in the vicinity of a wireless antenna facility.

4. FCC Guidelines for Evaluating the Environmental Effects of RF Radiation

In 1985, the FCC established rules to regulate radio frequency (RF) exposure from FCC licensed antenna facilities. In 1996, the FCC updated these rules, which were further amended in August 1997 by a Second Memorandum Opinion and Order. These new rules represent a consensus of the federal agencies responsible for the protection of public health and the environment, including the Environmental Protection Agency (EPA), the Food and Drug Administration (FDA), the National Institute for Occupational Health and Safety (NIOSH), and the Occupational Safety and Health Administration (OSHA).

Under the laws that govern the delivery of wireless communications services in the United States, as amended by the Telecommunications Act of 1996, the FCC has exclusive jurisdiction over RF emissions from personal wireless antenna facilities, which include cellular, PCS, messaging and aviation sites. [2] Pursuant to its authority under federal law, the FCC has established rules to regulate the safety of emissions from these facilities.

5. Comparison with Standards

Exhibit A shows the levels of RF electromagnetic energy as one moves away from the antenna facility. As shown in Exhibit A, the maximum power density is 0.000479 mW/cm^2 which occurs at 140 feet from the antenna facility. The chart in exhibit A also shows that the power density is only 0.000050 mW/cm^2 at a distance of 4 feet. Table 1 below shows the Maximum Permissible Exposure (MPE) limits established by the FCC. There are different MPE limits for public/uncontrolled and occupational/controlled environments.

Table 1: Maximum Permissible Exposure limits for RF radiation

Frequency	***Public/Uncontrolled***	***Occupational/controlled***	***Maximum power density at Accessible location***
Cellular	.580 mW/cm^2	2.9 mW/cm^2	0.000479 mW/cm^2
PCS	1 mW/cm^2	5 mW/cm^2	

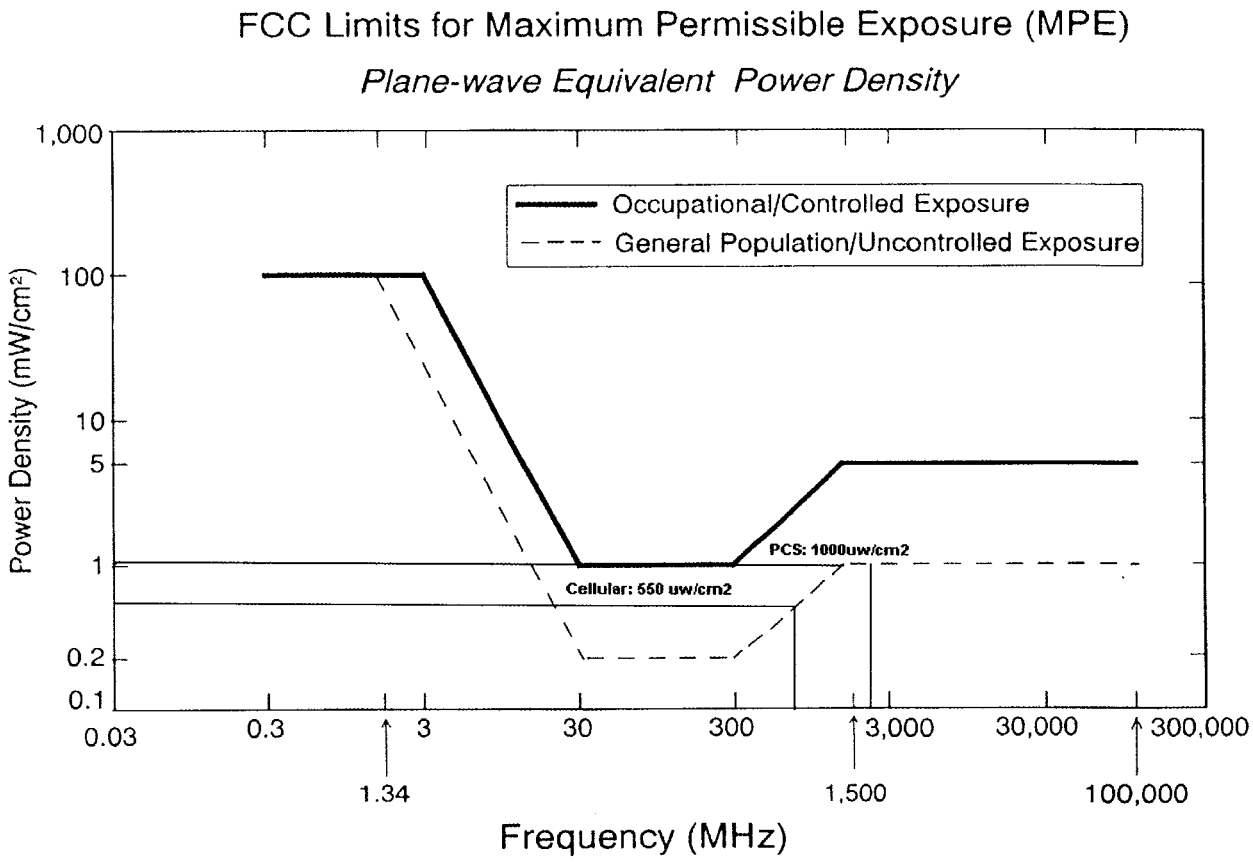
The maximum power density at the proposed facility represents only 0.05% of the public MPE limit for PCS frequencies.

6. Conclusion

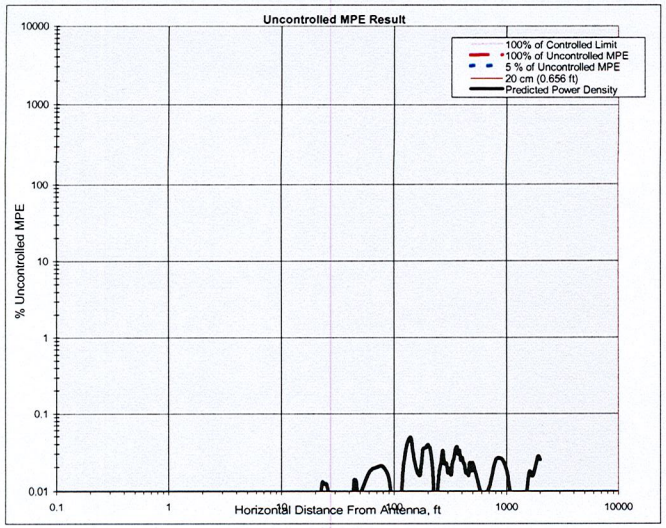
This analysis show that the maximum power density in accessible areas at this location is 0.000479 mW/cm^2, a level of RF energy that is well below the Maximum Permissible Exposure limit established by the FCC.

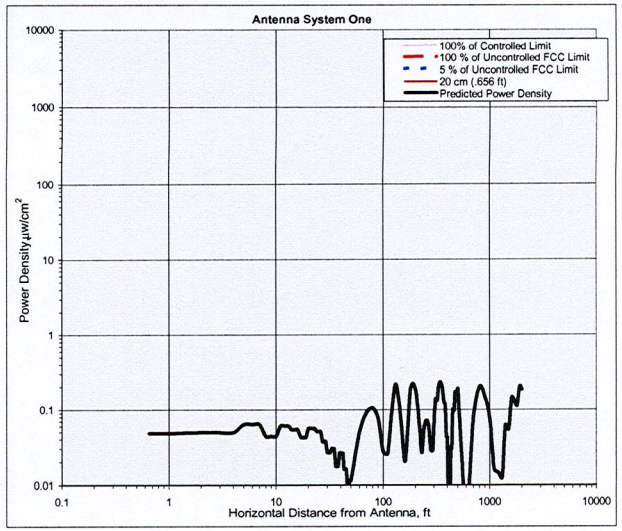
[2] 47 U.S. C. Section 332 (c) (7)(B)(iv) states that "[n]o State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the Commission's regulations concerning such emissions."

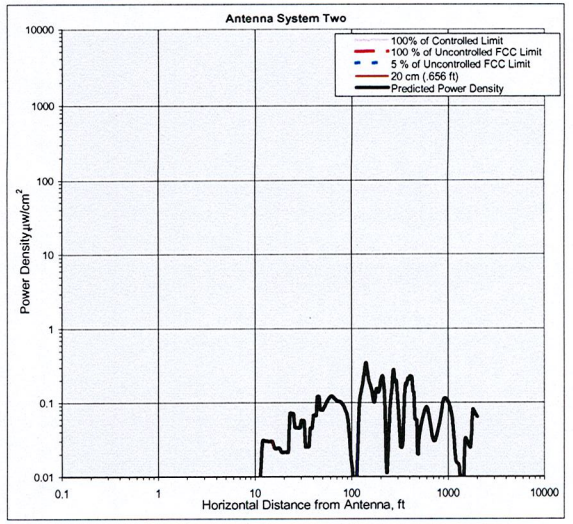
7. FCC Limits for Maximum Permissible Exposure



8. Exhibit A







Number of Antenna Systems: 2

Meets FCC Controlled Limits for The Antennas Systems.

Meets FCC Uncontrolled Limits for The Antenna Systems.

Meets 5% of FCC Uncontrolled Limits for The Antenna Systems.

No Further Maximum Permissible Exposure (MPE) Analysis Required.

	Power Density		@Horiz. Dist.
	mW/cm²	% of limit	feet
Maximum Power Density =	0.000479	0.05	140.00
2,089.67 times lower than the MPE limit for uncontrolled environment			
Composite Power (ERP) =	20,000.00	Watts	

Antenna System One

	units	Value
Frequency	MHz	1945.00
# of Channels	#	16
Max ERP/Ch	Watts	250.00
Max Pwr/Ch Into Ant.	Watts	5.86
(Center of Radiator)	feet	175.00
Calculation Point	feet	0.00
(above ground or		0.00
roof surface)		0.00
Antenna Model No.		Allgon 7250.03
Max Ant Gain	dBd	16.30
Down tilt	degrees	0.00
Miscellaneous Att.	dB	0.00
Height of aperture	feet	5.11
Ant HBW	degrees	65.00
Distance to Ant_{bottom}	feet	172.45
WOS?	Y/N?	n

Antenna System Two

	units	Value
Frequency	MHz	1865.20
# of Channels	#	16
Max ERP/Ch	Watts	250.00
Max Pwr/Ch Into Ant.	Watts	9.08
(Center of Radiator)	feet	195.00
Calculation Point	feet	0.00
(above ground or		0.00
roof surface)		0.00
Antenna Model No.		RR901702
Max Ant Gain	dBd	14.40
Down tilt	degrees	0.00
Miscellaneous Att.	dB	0.00
Height of aperture	feet	4.66
Ant HBW	degrees	90.00
Distance to Ant_{bottom}	feet	192.67
WOS?	Y/N?	n

Site ID: 913-010-189
Site Name: Monroe South
Site Location: 88 Main Street
Monroe, CT 06468

Performed By: Nader Soliman

Date: 4/3/02

Ant System ONE Owner: AT&T
Sector: 3
Azimuth: 0/120/240

Ant System TWO Owner: VoiceStream
Sector: 3
Azimuth 0/120/360

9. For Further Information

Additional information about the environmental impact of RF energy from personal wireless antenna facilities can be obtained from the Federal Communications Commission:

Dr. Robert Cleveland
Federal Communications Commission
Office of Engineering and Technology
Washington, DC 20554

RF Safety Program: 202-418-2464
Internet address: rfsafety@fcc.gov
RF Safety Web Site: www.fcc.gov/oet/rfsafety

10. References

[1] The Communications Act of 1934, as amended by the Telecommunications Act of 1996, 47 U.S.C. Section 332 (c)(7)(B)(iv).

[2] *Guidelines for Evaluating the Environmental Effects of Radio frequency Radiation*, Notice of Proposed Rulemaking, ET Docket 93-62, 8 FCC Rcd 2849 (1993).

[3] *Guidelines for Evaluating the Environmental Effects of Radio frequency Radiation*, Report and Order, ET Docket 93-62, FCC 96-326, adopted August 1, 1996. 61 Federal Register 41006 (1996).

[4] *Guidelines for Evaluating the Environmental Effects of Radio frequency Radiation*, Second Memorandum Opinion and Order, ET Docket 93-62, adopted August 25, 1997.

[5] *Evaluating Compliance with FCC Guidelines for Human Exposure to Radio frequency Electromagnetic Fields*, OET Bulletin 65, August, 1997.