



# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

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

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

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

January 4, 2002

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

RE: **TS-VER-097-011213** - Cellco Partnership d/b/a Verizon Wireless request for an order to approve tower sharing at an existing telecommunications facility located at 201 South Main Street, Newtown, Connecticut.

Dear Attorney Baldwin:

At a public meeting held January 3, 2002, the Connecticut Siting Council (Council) ruled that the shared use of this existing tower site is technically, legally, environmentally, and economically feasible and meets public safety concerns, and therefore, in compliance with General Statutes § 16-50aa, the Council has ordered the shared use of this facility to avoid the unnecessary proliferation of tower structures. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

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

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

The proposed shared use is to be implemented as specified in your letter dated December 12, 2001.

Thank you for your attention and cooperation.

Very truly yours,

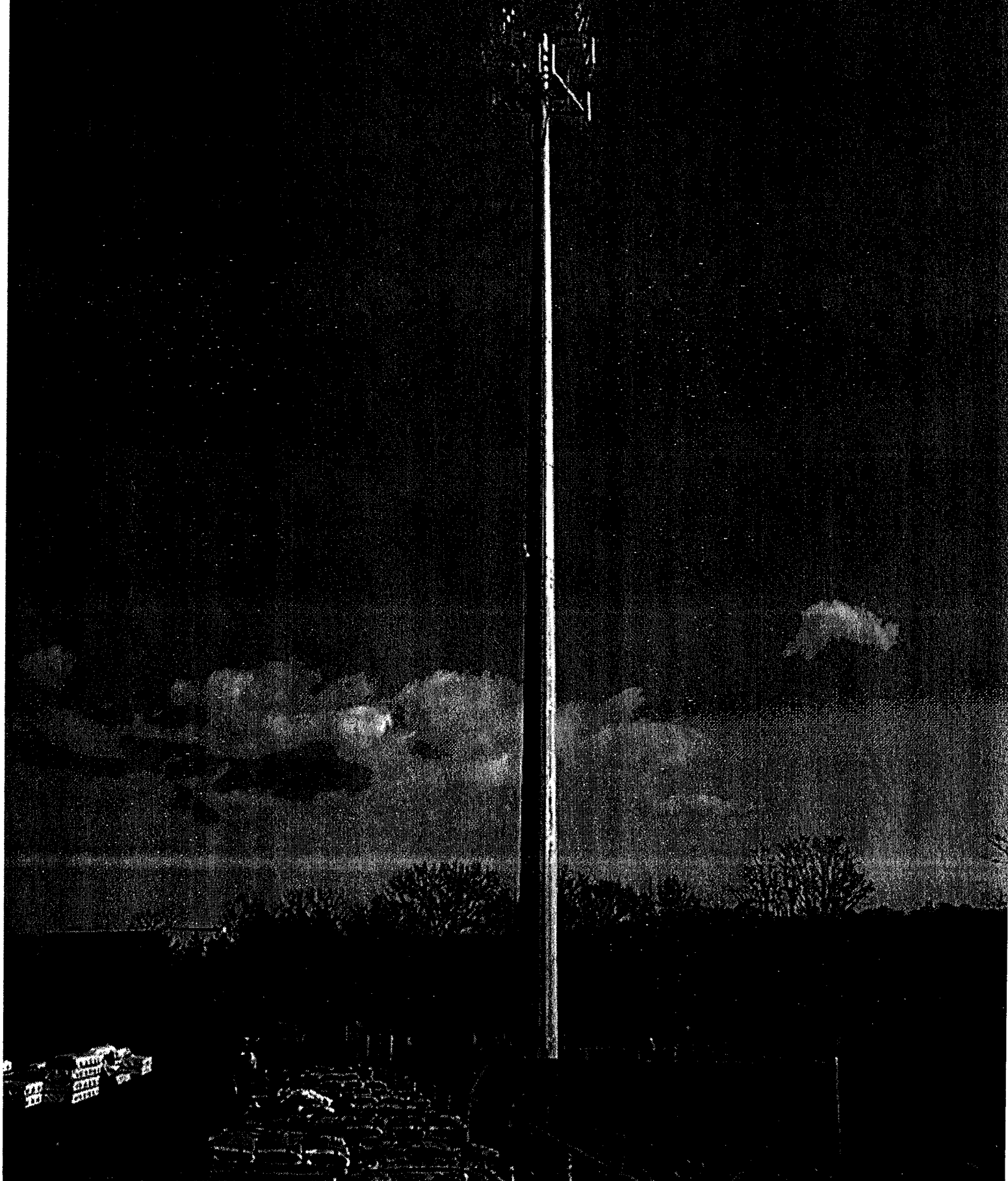


Mortimer A. Gelston  
Chairman

MAG/laf

- c: Honorable Herbert C. Rosenthal, First Selectman, Town of Newtown  
Gary Frenette, Zoning Enforcement Officer, Town of Newtown  
Stephen J. Humes, Esq., LeBoeuf, Lamb, Greene & MacRae  
Paul T. Tusch, Esq., Cacace, Tusch, & Santagata  
Christopher B. Fisher, Esq., Cuddy & Feder & Worby LLP

Verizon - 201 South Main Street, Newtown 12/20/01





STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL

Ten Franklin Square  
New Britain, Connecticut 06051  
Phone: (860) 827-2935  
Fax: (860) 827-2950

December 18, 2001

Honorable Herbert C. Rosenthal  
First Selectman  
Town of Newtown  
Town Hall  
45 Main Street  
Newtown, CT 06470

RE: **TS-VER-097-011213** - Cellco Partnership d/b/a Verizon Wireless request for an order to approve tower sharing at an existing telecommunications facility located at 201 South Main Street, Newtown, Connecticut.

Dear Mr. Rosenthal:

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

The Council will consider this item at the next meeting scheduled for January 3, 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,

A handwritten signature in cursive script that reads "Mortimer A. Gelston".

Mortimer A. Gelston  
Chairman

MAG/laf

Enclosure: Notice of Tower Sharing

c: Gary Frenette, Zoning Enforcement Officer, Town of Newtown

# ROBINSON & COLE LLP

HARTFORD • STAMFORD • GREENWICH • NEW YORK • BOSTON

LAW OFFICES  
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280 Trumbull Street  
Hartford, CT 06103-3597  
860-275-8200  
Fax 860-275-8299

Kenneth C. Baldwin  
860-275-8345  
kbaldwin@rc.com

DEC 13 2001  
December 12, 2001

*Via Airborne Express*

Mortimer A. Gelston  
Chairman  
Connecticut Siting Council  
10 Franklin Square  
New Britain, CT 06051

Re: **Request of Cellco Partnership d/b/a Verizon Wireless for an Order to Approve the Shared Use of a Tower Facility at 201 South Main Street, Newtown, Connecticut**

Dear Mr. Gelston:

Pursuant to Connecticut General Statutes §16-50aa, as amended, Cellco Partnership d/b/a Verizon Wireless ("Cellco") hereby requests an order from the Connecticut Siting Council ("Council") to approve the proposed shared use by Cellco of an existing VoiceStream Wireless ("VoiceStream") tower located at 201 South Main Street, Newtown, Connecticut. Cellco requests that the Council find that the proposed shared use of the tower satisfies the criteria stated in Connecticut General Statutes § 16-50aa and issue an order approving the proposed use.

## **Background**

The VoiceStream tower at 201 South Main Street was constructed pursuant to approvals from the Town of Newtown. The tower is a 150-foot self-supporting monopole structure within a 41' x 68' facility compound. The tower is currently owned and operated by VoiceStream and is shared by Sprint.

Cellco is licensed by the Federal Communications Commission (FCC) to provide cellular wireless telephone service in the State of Connecticut, which includes the area to be served by Cellco's proposed Newtown installation. Cellco and VoiceStream have agreed to the proposed shared use of this tower pursuant to mutually acceptable terms and conditions, and VoiceStream has authorized Cellco to act on its behalf to apply for all necessary local, state and federal permits, approvals, and authorizations which may be required for the proposed shared use of this facility.

Cellco proposes to install twelve (12) panel-type antennas at the 127-foot level on the tower. The radio transmission equipment associated with these antennas would be located in a new 12-foot by 30-foot equipment shelter which would be located near the base of the tower.

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

**A. Technical Feasibility.** The existing tower is structurally capable of supporting the proposed Cellco antennas. The proposed shared use of this tower therefore is technically feasible. A report verifying the structural integrity of the existing tower is attached to this filing.

**B. Legal Feasibility.** Under C.G.S. § 16-50aa, the Council has been authorized to issue orders approving the proposed shared use of an existing tower facility such as the facility at 201 South Main Street in Newtown. This authority complements the Council’s prior-existing authority under C.G.S. § 16-50p to issue orders approving the construction of new towers that are subject to the Council’s jurisdiction. In addition, § 16-50x(a) directs the Council to “give such consideration to other state laws and municipal regulations as it shall deem appropriate” in ruling on requests for the shared use of existing towers facilities. Under the statutory authority vested in the Council, an order by the Council approving the requested shared use would permit the Applicant to obtain a building permit for the proposed installations.

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

1. The proposed installations would have an insignificant incremental visual impact, and would not cause any significant change or alteration in the physical or environmental characteristics of the existing site. In particular, the proposed installations would not increase the height of the existing tower, and would not extend the boundaries of the tower site outside the limits of the existing site compound.
2. The proposed installations would not increase the noise levels at the existing facility by six decibels or more.
3. Operation of Cellco antennas at this site would not exceed the total radio frequency (RF) electromagnetic radiation power density level adopted by the Federal Communications Commission. The “worst-case” exposure calculated for operation of this facility (i.e., calculated at the base of the tower), would be 0.0162 mW/cm<sup>2</sup> (1.62% of the standard) for VoiceStream antennas; and 0.0256 mW/cm<sup>2</sup> (2.56% of the standard) for

# ROBINSON & COLE LLP

Mortimer A. Gelston

December 12, 2001

Page 3

Sprint antennas. Cellco would add  $0.0423 \text{ mW/cm}^2$  (7.26% of the standard), for a total of 11.44% of the standard as measured for mixed frequency sites.

4. The proposed installations, would not require any water or sanitary facilities, or generate air emissions or discharges to water or sanitary facilities, or generate air emissions or discharges to water bodies. After construction is complete the proposed installations would not generate any traffic other than periodic maintenance visits.

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

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

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

## **Conclusion**

For the reasons discussed above, the proposed shared use of the existing tower at 201 South Main Street in Newtown, Connecticut satisfies the criteria stated in C.G.S. § 16-50aa and advances the General Assembly's and the Siting Council's goal of preventing the proliferation of towers in Connecticut. The Applicant therefore requests that the Siting Council issue an order approving the proposed shared use.

Thank you for your consideration of this matter.

Very truly yours,



Kenneth C. Baldwin

KCB/kmd  
Attachments

cc: Herbert C. Rosenthal, First Selectman, Town of Newtown  
Sandy M. Carter

# Cellco Partnership

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

## WIRELESS COMMUNICATIONS FACILITY

NEWTOWN SOUTH  
201 SOUTH MAIN ST.

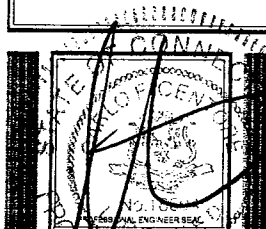
NEWTOWN, CONNECTICUT 06470

REVISIONS	
C0	11/29/01 SITING COUNCIL REVIEW
C1	11/28/01 SITING COUNCIL

Cellco Partnership  
d.b.a. **verizon** wireless

**NATCOMM**

Natcomm, LLC - Engineering Consultants  
83-2 North Branford Road  
Branford, Connecticut 06405  
Tel: (203) 488-5580  
Fax: (203) 488-6587  
Consulting Engineers - Project Management  
Civil - Structural - Mechanical - Electrical



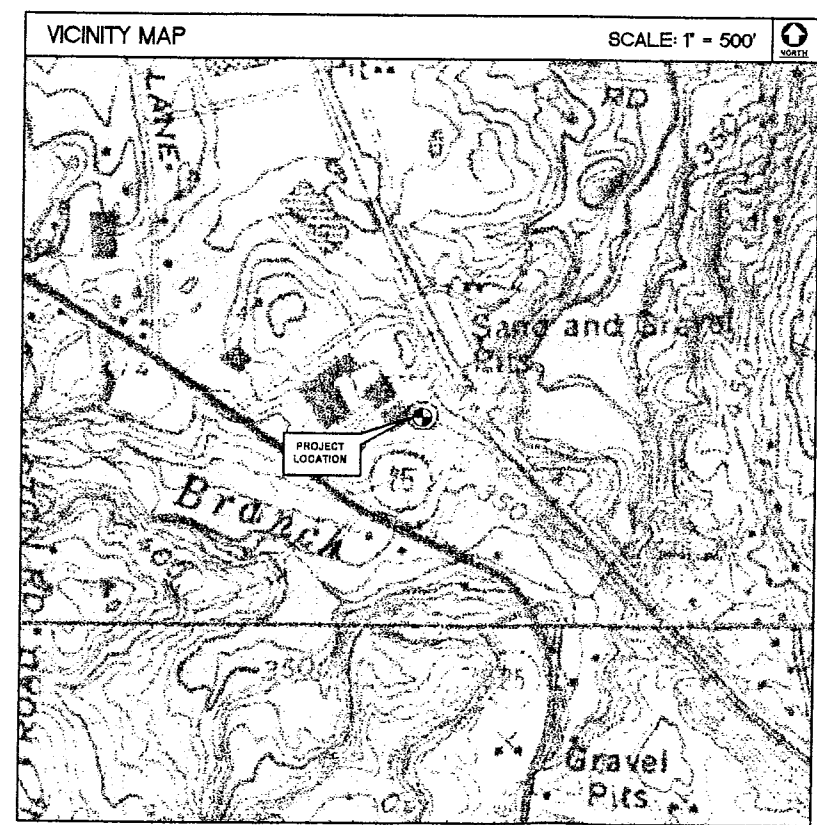
PROFESSIONAL ENGINEER  
NEWTOWN SOUTH  
201 SOUTH MAIN ST.  
NEWTOWN, CT. 06470

PROJECT NO: 446A  
DRAWN BY: DMD  
CHECKED BY: FJT  
SCALE: AS NOTED  
DATE: 11/09/01

TITLE SHEET

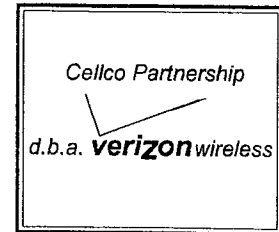
T-1  
DWG. 1 OF 2

PROJECT SUMMARY	
SITE NAME:	NEWTOWN SOUTH
SITE ADDRESS:	201 SOUTH MAIN STREET NEWTOWN, CT 06470
PROPERTY OWNER:	GEORGIA PACIFIC 201 SOUTH MAIN ST. NEWTOWN, CONNECTICUT
APPLICANT:	VERIZON WIRELESS 99-101 EAST RIVER DR. WEST HARTFORD, CT 06108
CENTER OF TOWER:	LATITUDE: 41-22-41.4 N LONGITUDE: 73-16-26.74 W GROUND ELEV.: 310' AMSL  INFORMATION BASED ON CT SITING COUNCIL
GENERAL NOTES	
1. PROPOSED AND EXISTING ANTENNA LOCATIONS AND HEIGHTS PROVIDED BY VERIZON WIRELESS.	
SITE DIRECTIONS	
FROM: 99-101 EAST RIVER DR., EAST HARTFORD, CT. TO: 201 SOUTH MAIN STREET, NEWTOWN, CT	
START OUT GOING EAST ON E RIVER DR TOWARDS US-5/E RIVER DR EXT. STAY STRAIGHT TO GO ONTO US-5/E RIVER RD EXT. TURN LEFT ONTO US-5/MAIN ST. TAKE THE I-84 W RAMP. MERGE ONTO US-6 W. STAY STRAIGHT TO GO ONTO I-84 W. TAKE THE I-84 W EXT. EXIT NUMBER 10 TOWARDS NEWTOWN/SANDY HOOK. TURN RIGHT ONTO CHURCH HILL RD./US-6. CHURCH HILL RD./US-6 BECOMES US-6. TURN LEFT ONTO S MAIN ST/CT-25.	



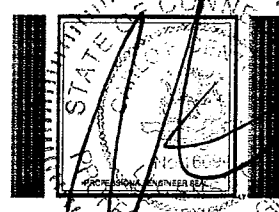
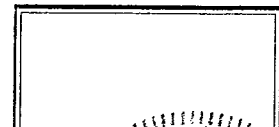
LEGEND		
SYMBOL	DESCRIPTION	
	SECTION OR DETAIL NUMBER SHEET WHERE DETAIL/SECTION OCCURS	
	ELEVATION NUMBER SHEET WHERE ELEVATION OCCURS	
SHEET INDEX		
SHT. NO.	DESCRIPTION	REV. NO.
T-1	TITLE SHEET	01
C-1	COMPOUND PLAN & TOWER ELEVATION	01

REVISIONS		
00	11/09/01	SITING COUNCIL REVIEW
01	11/28/01	SITING COUNCIL



Natcomm LLC - Engineering Consultants

Natcomm, L.L.C.  
 83-2 North Star Lane  
 Branford, Connecticut 06405  
 Tel: (203) 486-5540  
 Fax: (203) 486-5587  
 Consulting Engineers - Project Management  
 Civil - Structural - Mechanical - Electrical

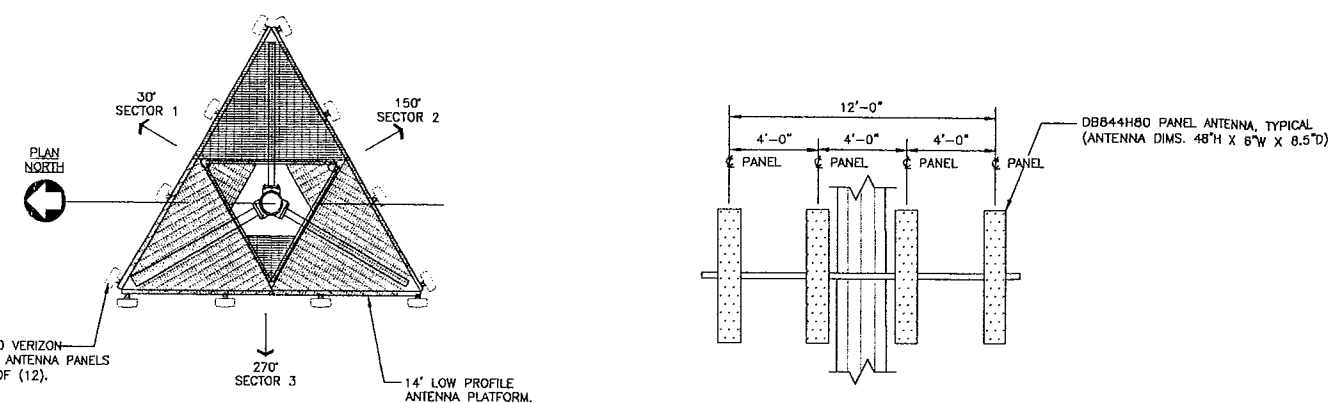


NEW TOWN SOUTH  
 201 SOUTH MAIN ST.  
 NEW TOWN, CT. 06470

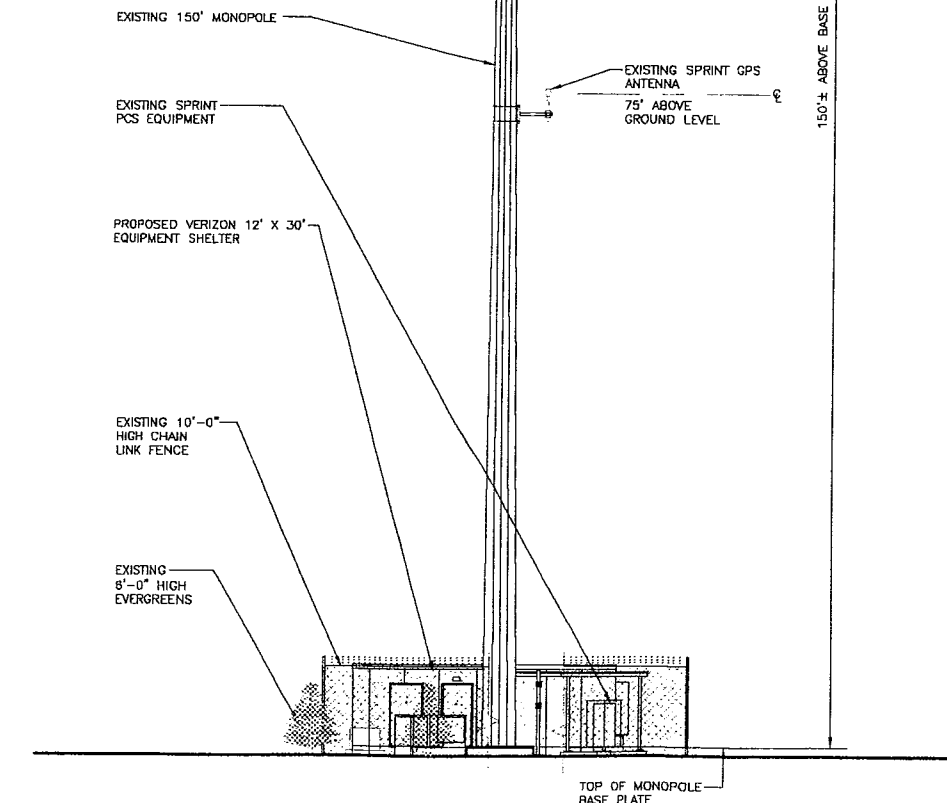
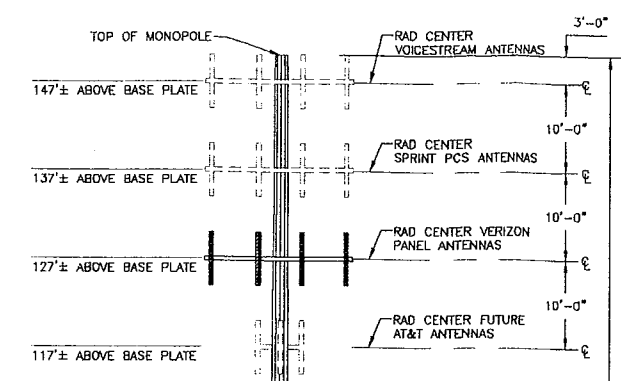
PROJECT NO:	446A
DRAWN BY:	DFB
CHECKED BY:	FJT
SCALE:	AS NOTED
DATE:	11/09/01

COMPOUND PLAN  
 AND ELEVATION

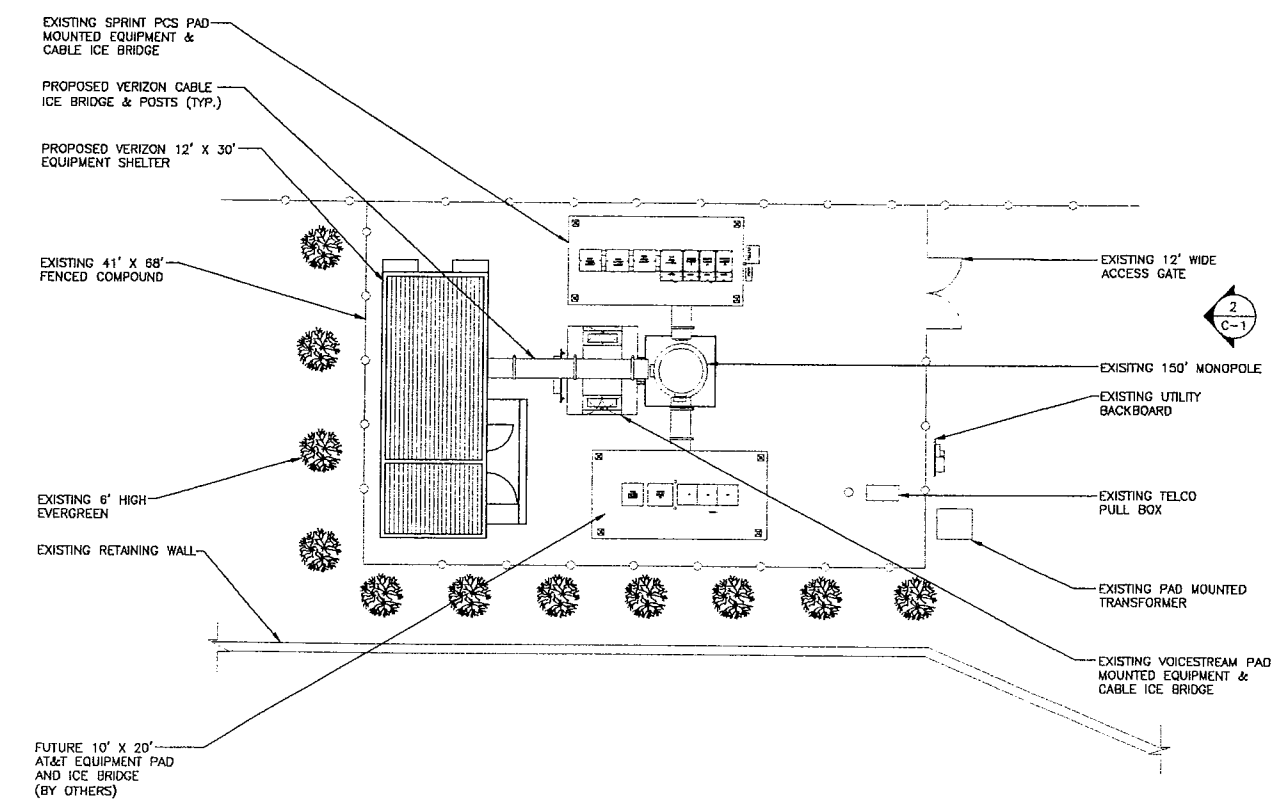
C-1  
 DWG. 2 OF 2



3 ANTENNA MOUNTING CONFIGURATION  
 C-1 NOT TO SCALE



2 ELEVATION  
 C-1 SCALE: 1"=10'-0"



1 COMPOUND PLAN  
 C-1 SCALE: 1"=10'-0"

446ACC01.dwg 11-21-01 8:42:14 am EST





## Tower Reanalysis Report

Proposal PR-2001-07-005

July 25, 2001

TP56 x 150' Tower  
CT-11-217A Newtown, CT  
PiRod Engineering File A-117711

Prepared for  
Natcomm LLC  
Attn: Frank Tomcak  
63-2 Branford Road  
Branford, CT 06405

Authorization Provided by  
Voicestream Wireless  
Attn: Sherry Sukow  
100 Filley Street  
Bloomfield, CT 06002

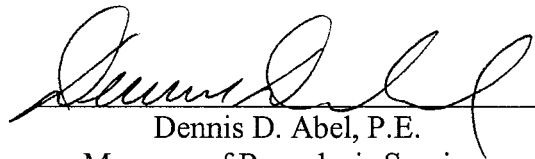
*J:\reanalysis\117\117711.doc*

July 25, 2001

## Tower Reanalysis Report Proposal PR-2001-07-005

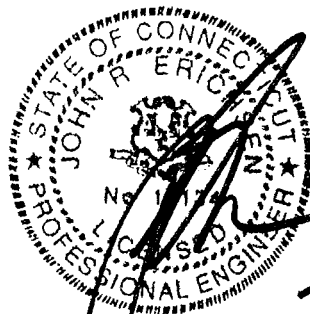
TP56 x 150' Tower  
CT-11-217A Newtown, CT  
PiRod Engineering File A-117711

Contact Person:



Dennis D. Abel, P.E.  
Manager of Reanalysis Services  
e-mail: dabel@pirod.com  
telephone extension: 5257

Completed under the Supervision and Approval by  
John R. Erichsen, P.E.  
Vice President of Operations  
e-mail: jerichsen@pirod.com  
telephone extension: 5221



7/21/01

1545 Pidco Drive, Plymouth, Indiana 46563

Phone: 219-936-4221

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Fax: 219-936-6458

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## 1.0 EXECUTIVE SUMMARY

This reanalysis was performed by PiRod to determine if the structure is capable of accommodating loading that is different than previous design specifications. This engineering report gives the tower history, details how the loading changes affect the tower, specifies feasible modifications, and proposes modification materials. PiRod's engineering study concludes that the tower complies without modification. See section 6.0 for details.

## 2.0 ASSUMPTIONS

**This engineering study is based on the theoretical capacity of the structure. It is not a condition assessment of the tower.** This report is being provided by PiRod without the benefit of an inspection by PiRod personnel and is based on information supplied by the customer to PiRod. PiRod has made no independent determination, nor is required to, of the accuracy of the information provided. Therefore, unless specifically informed to the contrary by the customer in writing, PiRod assumes the following:

1. The subsoil characteristics exist as stated on the tower drawing or stated elsewhere in this report;
2. The tower is erected and maintained in accordance with the manufacturer's plans and specifications and is plumb;
3. There is no damage, natural or manmade, to the structure, either gradual or sudden;
4. All connections and guy cables are properly installed;
5. The information concerning the components, existing and proposed, is accurate; and
6. There are no modifications to the tower itself, except as may be disclosed elsewhere in this report.

PiRod recommends that a condition assessment be performed by qualified personnel, preferably a structural engineer. Following is a list of the general areas that PiRod recommends to be inspected. Contact PiRod for a complete checklist.

<u>Tower Structure</u>	<u>Guyed Towers</u>	<u>Foundations</u>	<u>Appurtenances</u>
Tower Sections	Guy Cables	Cracking	Antennas
Bolted Connections	Turnbuckles	Drainage	Mounts
Welded Connections	Preforms	Spalling	Transmission Lines
Plumbness	Guy Lugs	Anchor Bolts	Line Brackets
Corrosion	Thimbles	Settling	Cable Hangers
Linearity	Torque Arms	Grounding	Lighting
Galvanization	Ice Clips	Grout	
Paint	Guy Tensions	Subsoil	
	Anchor Rods	Characteristics	
	Shackles	Erosion	
	Insulators		

### 3.0 TOWER HISTORY

Date of Origination: October 10, 2000  
 PiRod Model: TP56 x 150' Tower  
 Sold to: Voicestream Wireless  
 Original Wind Load Requirement: 85 mph per EIA/TIA-222-E  
 Original Ice Load Design: No ice and 1" ice with 25% load reduction

The original design is based on the following antenna loading. This may not truly represent the antennas that have actually been placed on the tower.

HEIGHT (FT)	ANTENNAS		ASSUMED CAAC (SQ.FT.)	MOUNTS		LINES	
	QTY.	MODEL		QTY	MODEL	QTY.	SIZE
Top	1	15' Lightning Rod Extender (PAT 806011)					
150'	12	RR90-17-XXDP		3	15' Universal T-Frames (2" x 50" pipes)	12	1-5/8"
140'	12	RR90-17-XXDP		1	13' Low Profile Platform (2" x 50" pipes)	12	1-5/8"
130'	12	RR90-17-XXDP		1	13' Low Profile Platform (2" x 50" pipes)	12	1-5/8"

For the structural analysis, the tower and foundation are assumed to exist as shown on the enclosed tower drawing, which is PiRod's latest revision.

### 4.0 CURRENT WIND LOAD REQUIREMENT

The TIA/EIA Standard is currently at version F. Fairfield County is designated as an 85 mph basic wind speed zone by the current TIA/EIA Standard. We have taken the opportunity to reanalyze this structure using the following wind speed and ice load condition.

<u>Wind Speed</u>	<u>Ice Load</u>	<u>EIA Standard</u>
85 mph	no ice	TIA/EIA-222-F
85 mph	1" ice with 25% wind load reduction	TIA/EIA-222-F

## 5.0 ANTENNA LOADING

The tower analysis uses the following antenna loading, which was supplied on July 17, 2001.

HEIGHT (FT)	ANTENNAS		ASSUMED CAAC (SQ.FT.)	MOUNTS		LINES	
	QTY.	MODEL		QTY.	MODEL	QTY.	SIZE
Existing Loading							
Top	1	15' Lightning Rod Extender (PAT 806011)					
150'	12	RR90-17-XXDP		3	15' Universal T-Frames (2" x 50" pipes)	24	1-5/8"
140'	9	DB980H		1	15' Low Profile Platform (2" x 72" pipes)	9	1-5/8"
Proposed Additional Loading							
130'	12	DB844H		1	13' Low Profile Platform (2" x 50" pipes)	12	1-5/8"

These antennas, mounts, and lines represent PiRod's understanding of the antenna loading required. Please contact PiRod if any discrepancies are evident. If different antennas, mounts, or lines are installed on this structure, this analysis is invalid. In the event it becomes necessary for the customer to supplement the information previously provided to PiRod for this analysis, the information must be supplied in writing.

## 6.0 RESULTS

With the antennas listed in section 5.0, the following modifications are required for the tower to comply with the indicated code and TIA/EIA Standard listed in section 4.0.

### **6.1 Tower Modifications**

The tower complies without modifications.

### **6.2 Foundation Modifications**

The foundation complies without modifications.

## **7.0 LIST OF APPENDICES**

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Reanalysis Parts Pricing Proposal

Main Tower Drawing, latest revision

151455-B

Note: The tower drawing included with this report is PiRod's latest revision and depicts the tower as we understand it to currently exist. It has not been updated to show the existing or proposed antenna loading or any modifications required as a result of this analysis.


**PIROD INC.**
**Reanalysis Parts Pricing Proposal**

**Proposal Number:** PR-2001-07-005  
**Engineering File:** A-117711  
**Customer:** Natcomm LLC  
**Site:** Newtown CT-11-217-A, Connecticut  
**Tower Model:** TP56 x 150'

**Customer Discount:** 15%

#	Qty.	Part Number	Description	Use At/For	Catalog Price	Discount	Discounted Price	Total
1	1	852206	Low Profile Mount, Clamp-On, 13', 12" to 54" Pole, No Antenna Mounting Pipes	130'	\$3,200.00	15%	\$2,720.00	\$2,720.00
2	12	860442	1/2" Bow-Tie w/ Hardware & Pipe (Single Level 3-1/2" Pipe New L.P.Top ) 50" Antenna Pipe	130'	\$55.00	15%	\$46.75	\$561.00
3	1	1000000	Updated Engineering Documentation		\$500.00	0%	\$500.00	\$500.00
<b>Total</b>								<b>\$3,781.00</b>

**Price Firm Until:** October 31, 2001  
**Terms:** Cash Before Shipment (or to be arranged at time of order)  
**Delivery:** 2 to 6 weeks from receipt of order (subject to production backlog)  
**Freight:** Prepaid and Add; F.O.B., Plymouth, Indiana

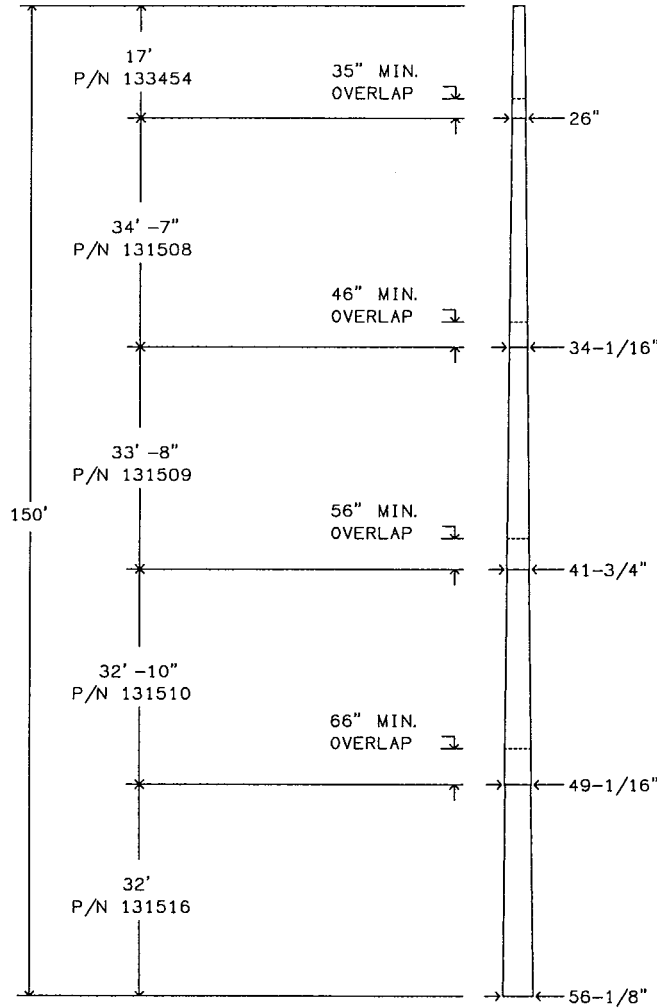
Notes: - Updated engineering documentation must be ordered with any modification materials.  
 - Part numbers given above 999999 are not actual part numbers, but are used for reference only.



TAPERED POLE SECTION DATA

SECTION					BOLT @ BOT **		
LENGTH	PART#	SIZE	WALL	WT. *	DIAM	LENGTH	#
17'	133454	26"	.2500"	1160#	1"	4-1/2"	5
37'-6"	131508	34"	.3125"	3900#			
37'-6"	131509	42"	.3750"	5875#			
37'-6"	131510	49"	.3750"	7040#			
37'-6"	131516	56"	.3750"	8155#			

\*THE WEIGHTS LISTED ARE THEORETICAL. THE ACTUAL WEIGHTS WILL VARY. ALL WEIGHTS SHOULD BE CONFIRMED IN THE FIELD PRIOR TO ERECTION.  
 \*\*ALL CONNECTION BOLTS ARE A-325.




SEE PAGE 2 OF THIS DRAWING FOR OPENING INFORMATION.

SEE PAGE 3 OF THIS DRAWING FOR CONNECTION BOLT TIGHTENING SPECIFICATIONS.

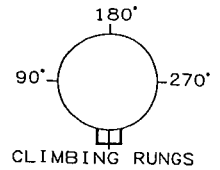
SEE PAGE 6 OF THIS DRAWING FOR BASE SECTION INSTALL.

REMOVABLE CLIMBING RUNGS

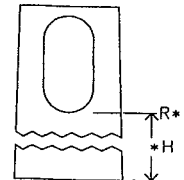
				VOICESTREAM WIRELESS CT-11-217-A NEWTON, CT TP56 X 150' ASSEMBLY DRAWING		
C REVISED BOCA NOTE - PG 3 & 4 B REVISED GENERAL AND FOUNDATION NOTES. A ADDED FOUNDATION PER SOIL REPORT	KWD 11/28/2000 WBR 11/16/2000 TAG 10/17/2000	APPROVED/ENG. APPROVED/FOUND. N/A	WBR 11/28/2000 N/A	 1545 Pidco Dr. Plymouth, IN 46563-0128 219-936-4221		
REV DESCRIPTION OF REVISIONS From: F1001206.DFT - 10/11/2000 12:12 Printed from: 1514551C.DWG - 10/11/2000 12:07 @ 07/17/2001 14:49	INI DATE ENG. FILE NO. A-117711- ARCHIVE F-1001206	DRAWN BY KWD	DRAWING NO. 151455-B PAGE 1 OF 7			

OPENINGS & BRACKETS WELDED TO POLE

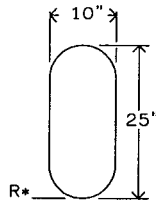
NOMINAL HT AGL	HEIGHT *H	TYP	DESCRIPTION	ANGL	ASSEMBLY DRAWING#
149'-6"	16'-5"	13	SAFETY CLIMB BRACKET	0°	
145'	11'-11"	22	4" X 16" RECT TUBULAR PORTHOLE	60°	
145'	11'-11"	22	4" X 16" RECT TUBULAR PORTHOLE	180°	
145'	11'-11"	22	4" X 16" RECT TUBULAR PORTHOLE	300°	
138'	4'-11"	22	4" X 16" RECT TUBULAR PORTHOLE	60°	
138'	4'-11"	22	4" X 16" RECT TUBULAR PORTHOLE	180°	
138'	4'-11"	22	4" X 16" RECT TUBULAR PORTHOLE	300°	
136'	2'-11"	19	PAD EYES FOR FUTURE PLATFORM	SEE>	121975-B
127'-9"	29'-3"	22	4" X 16" RECT TUBULAR PORTHOLE	60°	
127'-9"	29'-3"	22	4" X 16" RECT TUBULAR PORTHOLE	180°	
127'-9"	29'-3"	22	4" X 16" RECT TUBULAR PORTHOLE	300°	
125'-9"	27'-3"	19	PAD EYES FOR FUTURE PLATFORM	SEE>	121975-B
9'-10"	9'-10"	8	TRANS. LINE BRIDGE ATTACH BRACKET	90°	
9'-10"	9'-10"	8	TRANS. LINE BRIDGE ATTACH BRACKET	180°	
9'-10"	9'-10"	8	TRANS. LINE BRIDGE ATTACH BRACKET	270°	
9'-6"	9'-6"	13	SAFETY CLIMB BRACKET	0°	
7'-4"	7'-4"	2	10" X 25" OVAL PORTHOLE	90°	
7'-4"	7'-4"	2	10" X 25" OVAL PORTHOLE	180°	
7'-4"	7'-4"	2	10" X 25" OVAL PORTHOLE	270°	
6'-9"	6'-9"	7	GROUNDING PLATE	90°	
6'-9"	6'-9"	7	GROUNDING PLATE	180°	
6'-9"	6'-9"	7	GROUNDING PLATE	270°	
1'-6"	1'-6"	2	10" X 25" OVAL PORTHOLE	180°	
1'-3"	1'-3"	18	GROUNDING ANGLES (3)	SEE>	131093-B



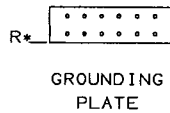
CLIMBING RUNGS  
THE ANGLE TO THE OPENING IS MEASURED CLOCKWISE FROM THE CENTER-LINE OF THE CLIMBING RUNGS WHEN LOOKING DOWN.



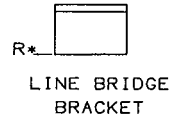
\* THE HEIGHT IN THE TABLE IS THE DISTANCE FROM THE BASE OF THE CURRENT POLE SECTION TO THE OPENING REFERENCE (R\*) AS SHOWN ON PAGE 2 OF THIS DRAWING.



TYPE 2 OPENING



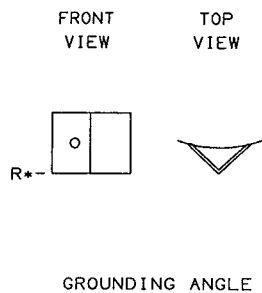
GROUNDING PLATE



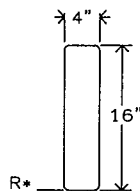
LINE BRIDGE BRACKET



SAFETY CLIMB BRACKET



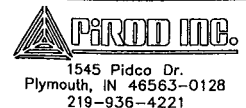
GROUNDING ANGLE



TYPE 22 OPENING

VOICESTREAM WIRELESS  
CT-11-217-A NEWTON, CT  
TP56 X 150' OPENINGS

APPROVED/ENG.	WBR 11/28/2000
APPROVED/FOUND.	N/A
DRAWN BY	KWD




From: F1001206.DFT - 10/11/2000 12:12  
Printed from: 15145520.DWG - 10/11/2000 12:07 @ 07/17/2001 14:49

ENG. FILE NO. A-117711-  
ARCHIVE F-1001206

DRAWING NO. 151455-B  
PAGE 2 OF 7


### GENERAL NOTES

1. TOWER DESIGN CONFORMS TO STANDARD EIA/TIA-222-F FOR 85 MPH BASIC WIND SPEED WITH NO ICE.  
TOWER DESIGN CONFORMS TO STANDARD EIA/TIA-222-F FOR 85 MPH BASIC WIND SPEED WITH 1.00" RADIAL ICE WITH LOAD DUE TO WIND REDUCED BY 25% WHEN CONSIDERED SIMULTANEOUSLY WITH ICE.  
THE TOWER DESIGN CONFORMS TO THE WIND AND SEISMIC CRITERIA OF THE 1996 BOCA BUILDING CODE.  
SEISMIC CRITERIA -  $A_v = 0.11$ ,  $A_g = 0.15$ , EXPOSURE GROUP I, PERFORMANCE CATAGORY C, SOIL PROFILE S1, SITE COEFFICIENT = 1.0, INVERTED PENDULUM STRUCTURE,  $R = 2.5$ ,  $C_d = 2.5$ , AND ANALYSIS PROCEDURE PER 1610.4.
2. NO TWIST AND SWAY LIMITATIONS SPECIFIED OR USED FOR THIS TOWER.
3. MATERIAL: (A) SOLID RODS CONFORM TO ASTM A-572 GRADE 50 REQUIREMENTS.  
(B) ANGLES CONFORM TO ASTM A-36 REQUIREMENTS.  
(C) PIPE CONFORMS TO ASTM A-53 TYPE E, GRADE B REQUIREMENTS. (MIN YIELD STRENGTH=42 KSI)  
(D) BASE FLANGE AND GUSSETS CONFORM TO ASTM A-572 GRADE 50 REQUIREMENTS. ALL OTHER PLATE CONFORMS TO ASTM A-36 REQUIREMENTS.  
(E) TAPERED POLES CONFORM TO ASTM A-572 GRADE 65 REQUIREMENTS.  
(F) ANCHOR BOLTS CONFORM TO ASTM A-687 REQUIREMENTS.
4. BASE REACTIONS PER EIA/TIA-222-F FOR 85 MPH BASIC WIND SPEED WITH NO ICE.  
TOTAL WEIGHT= 31.1 KIPS.  
MOMENT= 2347.0 KIP-FT.  
MAXIMUM SHEAR= 21.9 KIPS TOTAL.
5. BASE REACTIONS PER EIA/TIA-222-F FOR 85 MPH BASIC WIND SPEED WITH 1.00" RADIAL ICE:  
TOTAL WEIGHT= 37.4 KIPS.  
MOMENT= 1958.7 KIP-FT.  
MAXIMUM SHEAR= 17.9 KIPS TOTAL.
6. FINISH: ALL STRUCTURAL STEEL MEMBERS, ACCESORIES AND MOUNTS ARE FULLY GALVANIZED PER ASTM A123. ALL CONNECTION HARDWARE (BOLTS, NUTS WASHERS, ETC.) ARE FULLY GALVANIZED PER ASTM A153 OR ASTM B695 CLASS 50. ANCHOR BOLTS ARE PARTIALLY GALVANIZED PER ASTM A153 ON THE END PROTRUDING FROM THE CONCRETE.
7. ANTENNAS: 150' (12) EMS RR90-17 USING 1-5/8" LINES MOUNTED ON 15' UNIVERSAL T-FRAMES.  
140' (12) EMS RR90-17 USING 1-5/8" LINES MOUNTED ON A 13' LOW PROFILE PLATFORM.  
130' (12) EMS RR90-17 USING 1-5/8" LINES MOUNTED ON A 13' LOW PROFILE PLATFORM.
8. INSTALL BASE SECTION WITH MINIMUM OF 2" CLEARANCE ABOVE CONCRETE. SEE BASE SECTION PLACEMENT PAGE OF THIS DRAWING FOR MORE INFORMATION.
9. MIN. WELDS 5/16" UNLESS OTHERWISE SPECIFIED. ALL WELDING TO CONFORM TO AWS SPECIFICATIONS.
10. ALL BOLTS MUST BE IN PLACE WITH JAM NUTS PRIOR TO ERECTION OF THE STRUCTURE. ALL BOLTS AND NUTS MUST BE IN PLACE AND TIGHTENED BEFORE THE ADJOINING SECTION(S) ARE PLACED.
11. ALL A-325 BOLTS ARE TO BE TIGHTENED TO A SNUG TIGHT CONDITION AS DEFINED BY AISC SPECIFICATION UNLESS OTHERWISE NOTED. A MORE QUANTITATIVE ALTERNATIVE APPROACH TO ACHIEVING A SNUG TIGHT CONDITION IS TO TIGHTEN USING THE TORQUE VALUES FROM DRAWING 123107-A.
12. EIA GROUNDING FOR TOWER.
13. OUTSIDE CLIMB RUNGS WITH SAFETY CLIMB.

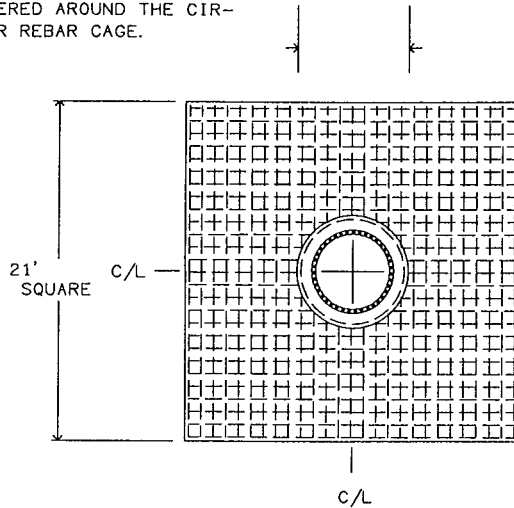
VOICESTREAM WIRELESS CT-11-217-A NEWTON, CT TP56 X 150' NOTES					
C	REVISED BOCA NOTE - PG 3 & 4	KWD	11/28/2000	APPROVED/ENG.	WBR 11/28/2000
B	REVISED GENERAL AND FOUNDATION NOTES.	WBR	11/16/2000	APPROVED/FOUND.	N/A
REV	DESCRIPTION OF REVISIONS	INI	DATE	DRAWN BY	KWD
From: F1001206.DFT - 10/11/2000 12:12 Printed from: 1514553C.DWG * 11/28/2000 14:05 @ 07/17/2001 14:49				ENG. FILE NO. A-117711- ARCHIVE F-1001206	
				DRAWING NO.	151455-B
				PAGE	3 OF 7

## FOUNDATION NOTES

1. THE FOUNDATION HAS BEEN DESIGNED IN ACCORDANCE WITH THE RECOMMENDATIONS FROM THE GEOTECHNICAL REPORT BY DR. CLARENCE WELTI, PE, PC, DATED 10/16/00.
2. CONCRETE TO BE 4000 PSI @ 28 DAYS. REINFORCING BAR TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. CONCRETE INSTALLATION TO CONFORM TO ACI-318 BUILDING REQUIREMENTS FOR REINFORCED CONCRETE. ALL CONCRETE TO BE PLACED AGAINST UNDISTURBED EARTH FREE OF WATER AND ALL FOREIGN OBJECTS AND MATERIALS. A MINIMUM OF THREE INCHES OF CONCRETE SHALL COVER ALL REINFORCEMENT. WELDING OF REBAR NOT PERMITTED.
3. A COLD JOINT IS PERMISSIBLE UPON CONSULTATION WITH PIROD. ALL COLD JOINTS SHALL BE COATED WITH BONDING AGENTS PRIOR TO SECOND POUR.
4. ALL FILL MATERIALS TO COMPLY WITH THE RECOMENDATIONS OF THE ABOVE REFERENCED GEOTECHNICAL REPORT. ALL FILL SHOULD BE PLACED IN LOOSE LEVEL LIFTS OF NO MORE THAN 12" THICK. FILL MATERIALS SHOULD BE CLEAN AND FREE OF ORGANIC AND FROZEN MATERIALS OR ANY OTHER DELETERIOUS MATERIALS. COMPACT FILL TO 95% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D1557.
5. GROUTING OF POLE BASE IS OPTIONAL. IF GROUT IS USED, DRAINAGE MUST BE PROVIDED FROM THE INTERIOR OF THE POLE. REFER TO DRAWING # 118492-B FOR BASE SECTION INSTALLATION.
6. BENDING, STRAIGHTENING OR REALIGNING (HOT OR COLD) OF THE ANCHOR BOLTS BY ANY METHOD IS PROHIBITED.
7. CROWN TOP OF FOUNDATION FOR PROPER DRAINAGE.
8. INSTALL BASE SECTION WITH MINIMUM OF 2" CLEARANCE ABOVE CONCRETE. SEE PAGE 8 OF THIS DRAWING FOR MORE INFORMATION.
9. THE FOUNDATION DESIGN CONFORMS TO THE 1996 BOCA BUILDING CODE REQUIREMENTS FOR SEISMIC DESIGN.

VOICESTREAM WIRELESS CT-11-217-A NEWTON, CT TP56 X 150' NOTES				 1545 Pidco Dr. Plymouth, IN 46563-0128 219-936-4221	
C	REVISED BOCA NOTE - PG 3 & 4	KWD	11/28/2000	APPROVED/ENG.	WBR 11/28/2000
B	REVISED GENERAL AND FOUNDATION NOTES.	WBR	11/16/2000	APPROVED/FOUND.	WBR 11/28/2000
A	ADDED FOUNDATION PER SOIL REPORT	TAG	10/17/2000		
REV	DESCRIPTION OF REVISIONS	INI	DATE	DRAWN BY	KWD
From: F1001206.DFT - 10/17/2000 08:42 Printed from: 1514554C.DWG * 11/28/2000 14:06 @ 07/17/2001 14:49				ENG. FILE NO. A-117711- ARCHIVE F-1001206	
				DRAWING NO. 151455-B PAGE 4 OF 7	

7' ROUND PIER,  
CENTERED AROUND THE CIR-  
CULAR REBAR CAGE.



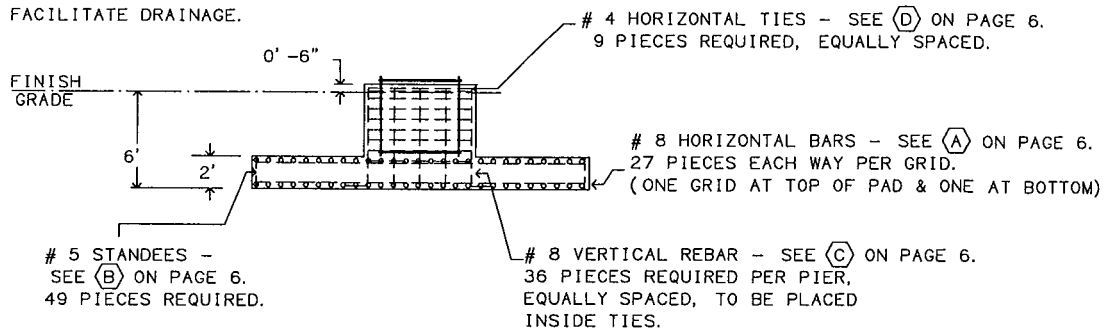
BASE FLANGE MUST BE CENTERED IN PIER  
WITHIN +/- 10% OF PIER DIAMETER.

ALL REBAR REQUIRES MINIMUM OF  
3" CONCRETE COVERAGE.

FOR ANCHOR STEEL IDENTIFICATION AND  
PLACEMENT INFORMATION, SEE PAGE 7.


FOR BASE SECTION INSTALLATION, SEE  
PAGE 8 OF THIS DRAWING

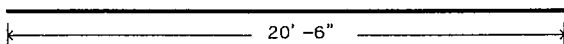
GROUTING OF POLE BASE IS OPTIONAL.  
IF GROUT IS USED, DRAINAGE MUST BE  
PROVIDED FROM THE INTERIOR OF POLE.  
CROWN TOP OF FOUNDATION TO  
FACILITATE DRAINAGE.



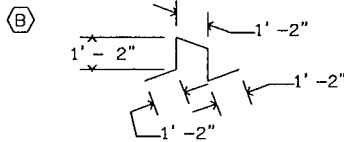
TOWER FOUNDATION

39.1 CUBIC YARDS CONCRETE REQUIRED  
FOR INSTALLATION SPECIFICATIONS AND  
ADDITIONAL INFORMATION, SEE PAGE 4  
OF THIS DRAWING.

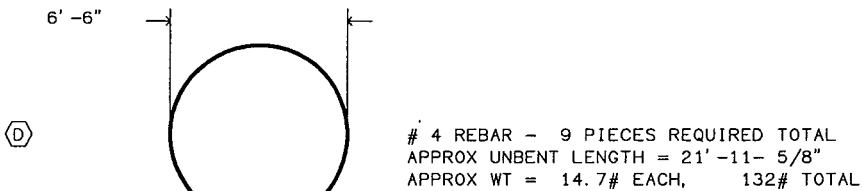
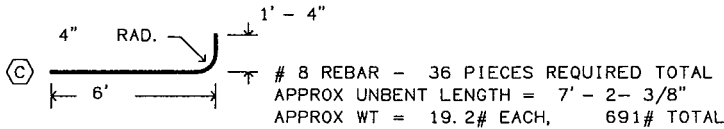
				VOICESTREAM WIRELESS CT-11-217-A NEWTON, CT TP56 X 150' BASE FOUNDATION	
		APPROVED/ENG.	WBR	11/28/2000	
		APPROVED/FOUND.	WBR	11/28/2000	
A	ADDED FOUNDATION PER SOIL REPORT	TAG	10/17/2000	 1545 Pidco Dr. Plymouth, IN 46563-0128 219-936-4221	
REV	DESCRIPTION OF REVISIONS	INI	DATE		
From: F1001206.DFT - 10/17/2000 08:42		ENG. FILE NO. A-117711-		DRAWING NO. 151455-B	
Printed from: 151455A.DWG - 10/17/2000 08:40 @ 07/17/2001 14:49		ARCHIVE F-1001206		PAGE 5 OF 7	

(A)  # 8 REBAR - 108 PIECES REQ. TOTAL  
APPROX WT = 54.7# EACH, 5908# TOTAL

REBAR SUPPORTS MAY CONSIST OF ANY ACCEPTABLE MEANS OF SECURELY SUPPORTING THE TOP REINFORCEMENT GRID ABOVE THE BOTTOM REINFORCEMENT GRID WHILE MAINTAINING A SEPARATION OF 1'-6" (OUTSIDE REBAR TO OUTSIDE REBAR).




# 5 REBAR - 49 PIECES REQUIRED TOTAL  
TYPE 26 STANDEE PLACED BETWEEN REBAR GRIDS ON NOMINAL 4' SPACING THROUGHOUT  
APPROX UNBENT LENGTH = 5'-11- 1/2"  
APPROX WT = 6.2# EACH, 304# TOTAL



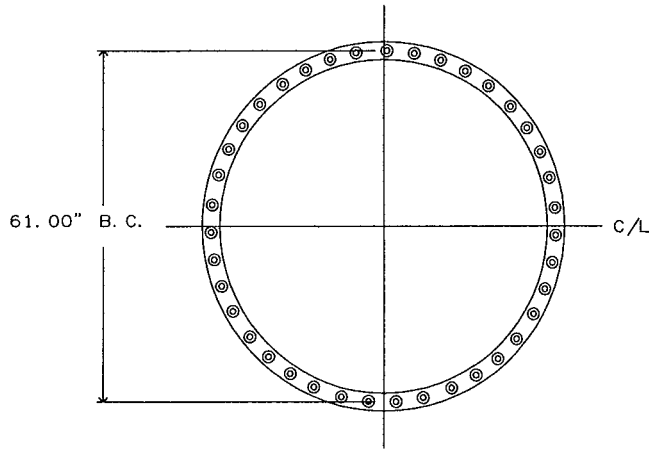
LAP DIMENSION: 1'-6- 1/2"  
PLACE REBAR RINGS SO THAT LAPS ON ADJACENT RINGS ARE 180 DEGREES APART. PLACE ONE RING AT TOP OF PAD AND TWO RINGS AT TOP OF PIER REBAR. EQUALLY SPACE REMAINING RINGS ALONG PIER.

REBAR DETAIL

TOTAL APPROX REBAR WEIGHT = 7035#  
REINFORCING BAR TO CONFORM TO  
ASTM A615 GRADE 60 SPECIFICATIONS.

				VOICESTREAM WIRELESS CT-11-217-A NEWTON, CT TP56 X 150' REBAR DETAIL			
		APPROVED/ENG.	WBR	11/28/2000		 1545 Pidco Dr. Plymouth, IN 46563-0128 219-936-4221	
		APPROVED/FOUND.	WBR	11/28/2000			
A	ADDED FOUNDATION PER SOIL REPORT	TAG	10/17/2000	DRAWN BY		KWD	
REV	DESCRIPTION OF REVISIONS	INI	DATE	ENG. FILE NO. A-117711-		DRAWING NO. 151455-B	
From: F1001206.DFT - 10/17/2000 08:42				ARCHIVE		PAGE 6 OF 7	
Printed from: 1514556A.DWG - 10/17/2000 08:40 @ 07/17/2001 14:49				F-1001206			

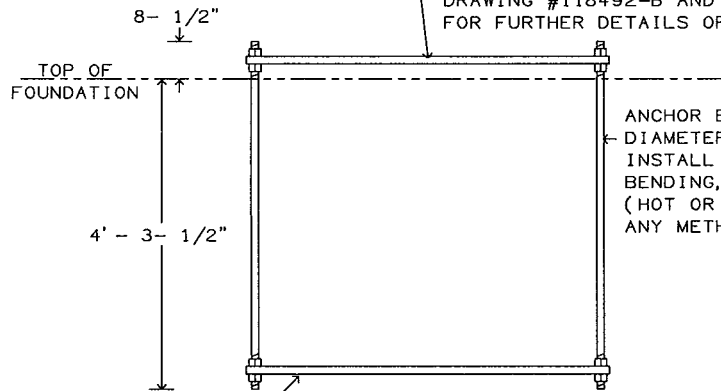
BASE FLANGE MUST BE CENTERED IN PIER  
WITHIN +/- 10% OF PIER DIAMETER.



0 DEG. REF.  
CLIMBING RUNG

GROUTING OF POLE BASE IS OPTIONAL C/L  
IF GROUT IS USED, DRAINAGE MUST BE  
PROVIDED FROM THE INTERIOR OF POLE.


FOUNDATION PLATE P/N 133118 MUST BE SECURELY  
DOUBLE-NUTTED TO ANCHOR BOLTS DURING CONCRETE  
INSTALLATION AND MUST BE LEVEL +/- 1/8\"/>



ANCHOR BOLT P/N 103183 - 39 REQUIRED  
DIAMETER= 1.25\"/>

PLATE P/N 133118 SECURELY DOUBLE-NUTTED TO ANCHOR  
BOLTS USED AS EMBEDMENT PLATE IN CONCRETE.

TOWER ANCHOR STEEL PLACEMENT

				VOICESTREAM WIRELESS CT-11-217-A NEWTON, CT TP56 X 150' ANCHOR STEEL	
				APPROVED/ENG.	WBR 11/28/2000
				APPROVED/FOUND.	WBR 11/28/2000
A	ADDED FOUNDATION PER SOIL REPORT	TAG	10/17/2000	 1545 Pidco Dr. Plymouth, IN 46563-0128 219-936-4221	
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Printed from: 1514557A.DWG - 10/17/2000 08:40 @ 07/17/2001 14:49				ENG. FILE NO.	A-117711-
				ARCHIVE	F-1001206
				DRAWING NO.	151455-B
				PAGE	7 OF 7