STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
www.ct.gov/csc

December 11, 2008

Steven L. Levine
Real Estate Consultant
New Cingular Wireless PCS, LLC
500 Enterprise Drive
Rocky Hill, CT 06067-3900

RE: **EM-CING-028-081110B-** New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at Lot 13 (aka 856 Middletown Road), Colchester, Connecticut.

Dear Mr. Levine:

The Connecticut Siting Council (Council) hereby acknowledges 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 10, 2008, including the placement of all necessary equipment and shelters within the tower compound. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

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

Thank you for your attention and cooperation.

Very truly yours,

S. Derek Phelps
Executive Director

SDP/CDM/laf

c: The Honorable Linda M. Riley Hodge, First Selectman, Town of Colchester
Christopher Beauchemin, Town Planner, Town of Colchester
Kenneth C. Baldwin, Esq., Robinson & Cole LLP

Code Administration
Building Official
Fire Marshal
Wetlands Enforcement

Planning and Zoning
Planning Director
Zoning Enforcement
Town Engineer

November 26, 2008

ORIGINAL

Honorable Daniel F. Caruso, Chairman
and Member of the Connecticut Sitting Council
Connecticut Sitting Council
10 Franklin Square
New Britain, CT 06051

Re: **EM-CING-028-08110A**-New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 600 Old Hartford Road, Colchester, Connecticut.

Re: **EM-CING-028-08100B**-New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at Lot 13 (aka 856 Middletown Road), Colchester, Connecticut.

On behalf of the Town of Colchester, we have no concerns or comments regarding the above proposals.

Thank you.

Sincerely,

Terry Phillips
Assistant to Adam Turner
Colchester Town Planner

Cc: Linda Hodge, 1st Selectman, Town of Colchester
Adam Turner, Town Planner, Town of Colchester

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

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

E-Mail: siting.council@ct.gov

Internet: ct.gov/csc

Daniel F. Caruso
Chairman

November 14, 2008

The Honorable Linda M. Riley Hodge
First Selectman
Town of Colchester
Town Hall
127 Norwich Avenue
Colchester, CT 06415

RE: **EM-CING-028-081110B-** New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at Lot 13 (aka 856 Middletown Road), Colchester, Connecticut.

Dear Ms. Hodge:

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.

If you have any questions or comments regarding this proposal, please call me or inform the Council by November 28, 2008.

Thank you for your cooperation and consideration.

Very truly yours,

S. Derek Phelps
Executive Director

SDP/jb

Enclosure: Notice of Intent

c: Christopher Beauchemin, Town Planner, Town of Colchester

EM-CING-028-081110B

The new at&t Your world. Delivered. Cingular raising the bar℠

Cingular Wireless PCS, LLC
Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7636
Fax: (860) 513-7190

Steven L. Levine
Real Estate Consultant

ORIGINAL

RECEIVED
NOV 10 2008
CONNECTICUT
SITING COUNCIL

HAND DELIVERED

November 10, 2008

Honorable Daniel F. Caruso, Chairman,
and Members of the Connecticut Siting Council
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

Re: New Cingular Wireless PCS, LLC notice of intent to modify an existing tele-communications facility located at Lot 13 (aka 856) Middletown Road, Colchester (owner, Verizon)

Dear Chairman Caruso and Members of the Council:

In order to accommodate technological changes, implement Uniform Mobile Telecommunications System ("UMTS") capability, and enhance system performance in the State of Connecticut, New Cingular Wireless PCS, LLC ("AT&T") plans to modify the equipment configurations at many of its existing cell sites. Please accept this letter and attachments as notification, pursuant to R.C.S.A. Section 16-50j-73, of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2). In compliance with R.C.S.A. Section 16-50j-73, a copy of this letter and attachments is being sent to the chief elected official of the municipality in which the affected cell site is located.

UMTS technology offers services to mobile computer and phone users anywhere in the world. Based on the Global System for Mobile (GSM) communication standard, UMTS is the planned worldwide standard for mobile users. UMTS, fully implemented, gives computer and phone users high-speed access to the Internet as they travel. They have the same capabilities even when they roam, through both terrestrial wireless and satellite transmissions.

Attached is a summary of the planned modifications, including power density calculations reflecting the change in AT&T's operations at the site. Also included is documentation of the structural sufficiency of the tower to accommodate the revised antenna configuration.

The changes to the facility do not constitute modifications as defined in Connecticut General

Statutes ("C.G.S.") Section 16-50i(d) because the general physical characteristics of the facility will not be significantly changed or altered. Rather, the planned changes to the facility fall squarely within those activities explicitly provided for in R.C.S.A. Section 16-50j-72(b)(2).

1. The height of the overall structure will be unaffected. Modifications to the existing site include all or some of the following as necessary to bring the site into conformance with the plan:

- Replacement of existing panel antennas with new antennas or, installation of additional antennas of a size required to accommodate UMTS.
- Installation of small tower mount amplifiers ("TMA's") and/or diplexers to the platform on which the panel antennas are mounted to enhance signal reception.
- Installation of additional or larger coaxial cables as required.
- Installation of an additional equipment cabinet in existing shelters, or on existing or enlarged concrete pads.
- Radome enlargement for flagpole and "stick" structures to accommodate larger antennas and additional associated equipment.

None of these modifications will extend the height of the tower.

2. The proposed changes will not extend the site boundaries. There will be no effect on the site compound other than some enlarged equipment pads as may be noted in the attachments.

3. The proposed changes will not increase the noise level at the existing facility by six decibels or more.

4. Radio frequency power density may increase due to use of one or more GSM channel for UMTS transmissions. However, the changes will not increase the calculated "worst case" power density for the combined operations at the site to a level at or above the applicable standard for uncontrolled environments as calculated for a mixed frequency site.

For the foregoing reasons, New Cingular Wireless respectfully submits that the proposed changes at the referenced site constitute exempt modifications under R.C.S.A. Section 16-50j-72(b)(2).

Please feel free to call me at (860) 513-7636 with questions concerning this matter. Thank you for your consideration.

Sincerely,

Steven L. Levine
Real Estate Consultant

Attachments

NEW CINGULAR WIRELESS
Equipment Modification

Lot 13 (aka 856) Middletown Road, Colchester
Site Number 2033
Exempt Modification approved 3/04

Tower Owner/Manager: Verizon

Equipment Configuration: Monopole

Current and/or Approved: Twelve CSS DUO-1417-8686 panel antennas @ 160 ft AGL
Six TMA's and three combiners @ 160 ft
Twelve runs 1 5/8 inch coax cable
Equipment Shelter

Planned Modifications: Remove existing antennas and TMA's
Install six Powerwave 7770 antennas (or equivalent) @ 160 ft
Install six TMA's and six diplexers @ 160 ft

Power Density:

Worst-case calculations for existing wireless operations at the site indicate a radio frequency electromagnetic radiation power density, measured at ground level beside the tower, of approximately 6.2 % of the standard adopted by the FCC. As depicted in the second table below, the total radio frequency electromagnetic radiation power density following proposed modifications would be approximately 8.8 % of the standard.

Existing

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm^2)	Standard Limits (mW/cm^2)	Percent of Limit
Other Users *							3.59
Cingular GSM*	160	1900 Band	2	427	0.0120	1.0000	1.20
Cingular GSM*	160	880 - 894	2	296	0.0083	0.5867	1.42
Total							6.2%

* Per CSC records

Proposed

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm^2)	Standard Limits (mW/cm^2)	Percent of Limit
Other Users *							3.59
Cingular UMTS	160	880 - 894	1	500	0.0070	0.5867	1.20
Cingular GSM*	160	1900 Band	2	427	0.0120	1.0000	1.20
Cingular GSM*	160	880 - 894	4	296	0.0166	0.5867	2.83
Total							8.8%

* Per CSC records

Structural information:

The attached structural analysis for Cingular's installation on this tower in 2004 accounts for 12 CSS antennas, 6 TMA's, 3 combiners, and 12 lines 1 5/8 inch coax in the Cingular equipment inventory. Additionally, AT&T (old) had 6 antennas and 12 lines coax included in the 2004 structural analysis; these items have since been decommissioned and removed.

As shown on the attached loading comparison, the *original configuration represents both greater weight and greater wind loading* than the proposed new array of 6 Powerwave antennas, 6 TMA's, 6 diplexers, and 12 lines 1 5/8 inch coax, and with the AT&T (old) equipment removed.

Accordingly, Cingular's 2004 structural is still valid for assessing the structural impacts of the proposed equipment modifications and demonstrates that there is adequate structural capacity to accommodate the proposed Cingular modifications.

Loading Comparison - 2033 - Colchester

		QTY	Length	Width	Depth	Weight	Sail Area	Total Sail Area (sq in)	Total Weight (lbs)
Existing (per 2005 structural analysis)									
Antennas - Cingular	CSS DUO 1417-8686	12	48	14	9	30.8	672	8,064	370
TMAs - Cingular	ADC CG1900W850	6	11.7	11.3	2.8	15.4	132.21	793	92
Combiners - Cingular	CSS DBC-750	3	7.9	6.6	1.3	4.9	52.14	156	15
coax - Cingular	1 5/8 inch	12	160			0.8	0		1,536
Antennas - old AT&T	Allgon 7250 on T-arms	6	61	6	2	15	366	2,196	90
coax - old AT&T	1.25 inch	12	170			0.69			1,408
								11,210	**3,510**
Proposed -- AT&T (old) equipment removed									
Antennas	Powerwave 7770	6	55	11	5	35	605	3,630	210
TMAs	Powerwave LGP 21401	6	14	9	2.7	19	126	756	114
Diplexers	Powerwave LGP 13519	6	4.4	6.3	3	5.3	27.72	166	32
coax	twelve 1 5/8 inch	12	160			0.8	0		1,536
								4,552	**1,892**

Antennas						
	CSS DUO 1417-8686	48	14	9	30.8	672
	Powerwave 7770	55	11	5	35	605
	APL 8013	52	13	1	8.2	676
	DAPA 58000	53	6	3	11	318
	Allgon 7250	61	6	2	15	366
TMAs	ADC CG1900W850	11.7	11.3	2.8	15.4	132.21
	Powerwave LGP 21401	14	9	2.7	19	126
Diplexers	CSS DBC-750	7.9	6.6	1.3	4.9	52.14
	Powerwave LGP 13519	4.4	6.3	3	5.3	27.72
	Powerwave LGP 21903	4.4	6.3	3	5.3	27.72
coax	7/8 inch				.34 / ft	
	1 1/4 inch				.69 / ft	
	1 5/8 inch				.8 / ft	

The new at&t Your world. Delivered. cingular raising the bar

New Cingular Wireless PCS, LLC
500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7636
Fax: (860) 513-7190

Steven L. Levine
Real Estate Consultant

November 10, 2008

Linda M. Hodge, 1st Selectman
Town of Colchester
Town Hall, 127 Norwich Ave.
Colchester, CT 06415

Re: Telecommunications Facility – Lot 13 (aka 856) Middletown Road

Dear Ms. Hodge:

In order to accommodate technological changes, implement Uniform Mobile Telecommunications System ("UMTS") capability, and enhance system performance in the State of Connecticut, New Cingular Wireless PCS, LLC ("Cingular") will be changing its equipment configuration at certain cell sites.

As required by Regulations of Connecticut State Agencies ("R.C.S.A.") Section 16-50j-73, the Connecticut Siting Council has been notified of the changes and will review Cingular's proposal. Please accept this letter as notification under Section 16-50j-73 of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2).

The accompanying letter to the Siting Council fully describes Cingular's proposal for the referenced cell site. However, if you have any questions or require any further information on our plans or the Siting Council's procedures, please call me at (860) 513-7636 or Mr. Derek Phelps, Executive Director, Connecticut Siting Council at (860) 827-2935.

Sincerely,

Steven L. Levine
Real Estate Consultant

Enclosure

2233

DETAILED STRUCTURAL ANALYSIS AND EVALUATION OF 180' EXISTING MONOPOLE FOR NEW ANTENNA ARRANGEMENT

Colchester Communications Facility
856 Middletown Road
Colchester, Connecticut

Prepared for

cingular WIRELESS

Cingular Wireless
500 Enterprise Drive, Suite 3A
Rocky Hill, CT 06067

Prepared by

URS

URS CORPORATION AES
795 BROOK STREET, BUILDING 5
ROCKY HILL, CT 06067
TEL 860-529-8882

CW1 027
369917740.00000

March 4, 2004

1. EXECUTIVE SUMMARY

This report summarizes the structural analysis of the existing 180' monopole for Cingular Wireless at 856 Middletown Road in Colchester, Connecticut. The analysis was conducted in accordance with the TIA/EIA-222-F standard for wind velocity of 85 mph and 85 mph concurrent with ½" ice with reduction. The antenna loading considered in the analysis consists of all existing and proposed antennas, transmission lines, and ancillary items as outlined on the following page of this report.

The results of the analysis indicate the structure to be in compliance with the loading conditions and the material and member sizes for the monopole and foundation. **The monopole is considered structurally feasible with the TIA/EIA-222-F wind load classification specified above and all the existing and proposed antenna loading.** The proposed Cingular Wireless addition consists of:

Antenna and Mount	Carrier	Antenna Center
(12) CSS DUO 1417-8686 antennas with (6) ClearGain TMA's and (3) CSS dual-band combiners on low profile platform with (12) 1 5/8" coaxial cable within the monopole	Cingular Wireless	@ 160' elevation

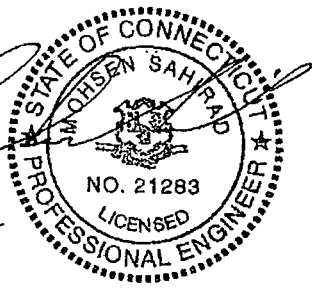
This analysis is based on:

1) Tower's theoretical structural capacity not including structural condition assessment or reduction for residual stress fatigue caused by manufacturing or installation process.
2) Tower structure and foundation design documents prepared by Engineered Endeavors Inc., job number 11294-P01, signed and sealed October 31, 2003.
3) Antenna inventory as specified on the following page of this report.
4) TIA/EIA-222-F wind load classification.

This report is only valid as per the assumptions and data utilized in this report for antenna inventory, mounts and associated cables. The user of this report shall field verify the assumptions of antenna and mount configurations. Notify the engineer in writing immediately if any of the assumptions found in this report are other than specified.

If you should have any questions, please call.

Sincerely,
URS Corporation AES



Mohsen Sahirad, P.E.
Senior Structural Engineer

MS/ddm

cc: Michelle Briggs – Cingular Wireless
Doug Roberts, AIA – URS
I.A., A.A. - URS
CF/Book

2. INTRODUCTION

A structural analysis of this existing 180' communications monopole was performed by URS Corporation AES (URS) for Cingular Wireless. The monopole is located at 856 Middletown Road in Colchester, Connecticut.

The structure is self-supporting and was designed by Engineered Endeavors Inc., job number 11294-P01, signed and sealed October 31, 2003.

This analysis was conducted to evaluate twist (rotation), sway (deflection), and stress on the monopole. The analysis was also used to find the effect of the forces to the foundation resulting from the antenna arrangement listed below:

Antenna and Mount Configuration:

ANTENNA & MOUNT DESCRIPTION	CARRIER	CENTERLINE ELEVATION
(12) DB844H90 antennas on low-profile platform with (12) 1 5/8" coaxial cables within the monopole	Verizon Wireless (existing)	@ 180'
(6) Allgon 7250.03 antennas on (3) T-arm mounts with (12) 1 5/8" coaxial cables within the monopole	AT&T Wireless (existing)	@ 170'
(12) CSS DUO 1417-8686 antennas with (6) ClearGain TMA's and (3) CSS dual-band combiners on low profile platform with (12) 1 5/8" coaxial cable within the monopole	**Cingular Wireless (proposed)**	**@ 160'**
(1) GPS antenna and mount with (1) 7/8" coaxial cable within the monopole	Verizon Wireless (existing)	@ 75'

Note:
1. **This analysis is based on the assumption that all carrier antenna cables are to be placed within the monopole unless otherwise noted. Porthole may be required. Installation of porthole shall be done per manufacturer suggestion.**
2. **Physical verification may be required to ensure that adequate space is available inside the monopole.**

3. ANALYSIS METHODOLOGY AND LOADING CONDITIONS

Methodology:

The structural analysis was done in accordance with TIA/EIA-222-F June 1996, Structural Standard for Steel Antenna Towers and Antenna Supporting Structures, the American Institute of Steel Construction (AISC) and the Manual of Steel Construction; Allowable Stress Design (ASD).

The analysis was conducted using ERI Tower 3.0. Two load conditions were evaluated as shown below which were compared to allowable stresses according to AISC and TIA/EIA. The two load combinations were investigated in ERI Tower 3.0 to determine the stress, sway and rotation.

Load Condition 1 = 85 mph Wind Load (without ice) + Tower Dead Load
Load Condition 2 = 74 mph Wind Load (with ice) + Ice Load + Tower Dead Load

The TIA/EIA standard permits one-third increase in allowable stresses for towers and monopoles less than 700 feet tall. For purposes of this analysis, allowable stresses of the monopole members were increased by one-third in computing the load capacity.

4. FINDINGS AND EVALUATION

Combined axial and bending stresses on the monopole structure were evaluated to compare with allowable stresses in accordance with AISC. In all cases, calculated stresses under the proposed loading were less than allowable stresses. Additionally, the monopole structure foundation was found to be adequate.

5. CONCLUSIONS

Our analysis determined that the monopole and its foundation will support the proposed antenna loading based upon the information from the tower design documents provided by Engineered Endeavors Inc., job number 11294-P01, signed and sealed October 31, 2003

Detailed analysis for the proposed antenna arrangement and load condition is provided in Appendix A.

Limitations/Assumptions

1. This report is based on the following:
2. Tower inventory as listed in this report.
3. Tower is properly installed and maintained.
4. All members were as specified in the original design documents and are in good condition.
5. All required members are in place.
6. All steel structural members manufactured and installed in accordance with AISC quality control requirements
7. All bolts are in place and are properly tightened.
8. Tower is in plumb condition.
9. Protective coatings are in good condition
10. All tower members were properly designed, detailed, fabricated, and installed and have been properly maintained since erection.
11. Foundations were properly constructed to support original design loads as specified in the original design documents.
12. All co-axial cable is installed within the monopole.

URS is not responsible for any modifications completed prior to or hereafter, which URS is not or was not directly involved. Modifications include but are not limited to:

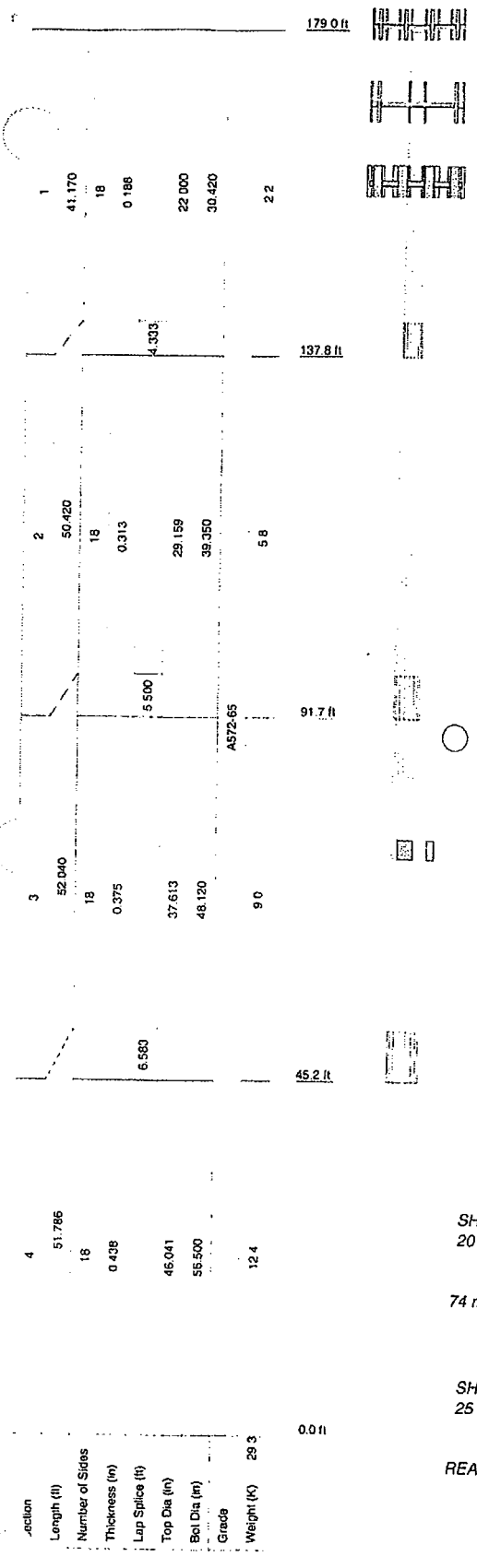
1. Adding or relocating antennas and platform

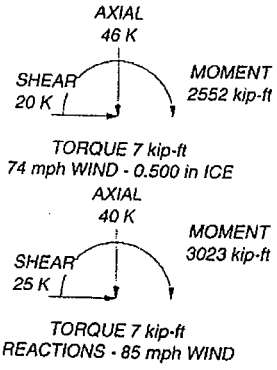
URS hereby states that this document represents the entire report and that it assumes no liability for any factual changes that may occur after the date of this report. All representations, recommendations, and conclusions are based upon information contained and set forth herein. If you are aware of any information which conflicts with that which is contained herein, or you are aware of any defects arising from original design, material, fabrication, or erection deficiencies, you should disregard this report and immediately contact URS. URS disclaims all liability for any representation, recommendation, or conclusion not expressly stated herein.

Ongoing and Periodic Inspection and Maintenance:

1. After the Contractor has successfully completed the installation and the work has been accepted, the owner will be responsible for the ongoing and periodic inspection and maintenance of the tower.

2. The owner shall refer to TIA/EIA-222-F, Section 14 and Annex E for recommendations for maintenance and inspection. The frequency of the inspection and maintenance intervals is to be determined by the owner based upon actual site and environmental conditions. It is recommended that a complete and thorough inspection of the entire tower structural system is performed at least yearly and more frequently as conditions warrant. According to TIA/EIA-222-F section 14.1, Note 1: It is recommended that the structure be inspected after severe wind and/or ice storms or other extreme loading conditions.





APPURTENANCES

TYPE	ELEVATION	TYPE	ELEVATION
(4) DB844H90 (VZW)	180	(4) DUO1417-8686 w/Mount Pipe (Cingular)	160
(4) DB844H90 (VZW)	180		
(4) DB844H90 (VZW)	180	(2) ClearGain TMA (Cingular)	160
PiROD 13' Low Profile Platform (Monopole) (VZW)	180	(2) ClearGain TMA (Cingular)	160
		(2) ClearGain TMA (Cingular)	160
(2) 7250.03 w/Mount Pipe (AWS)	170	CSS Dual Band Combiner (Cingular)	160
(2) 7250.03 w/Mount Pipe (AWS)	170	CSS Dual Band Combiner (Cingular)	160
(2) 7250.03 w/Mount Pipe (AWS)	170	CSS Dual Band Combiner (Cingular)	160
Generic T-Arm Mount (AWS)	170	PiROD 13' Low Profile Platform (Monopole) (Cingular)	160
Generic T-Arm Mount (AWS)	170		
Generic T-Arm Mount (AWS)	170	GPS Antenna	75
(4) DUO1417-8686 w/Mount Pipe (Cingular)	160	GPS Antenna	75
(4) DUO1417-8686 w/Mount Pipe (Cingular)	160		

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 ksi			

TOWER DESIGN NOTES

1. Tower designed for a 85 mph basic wind in accordance with the TIA/EIA-222-F Standard.
2. Tower is also designed for a 74 mph basic wind with 0.50 in ice.
3. Deflections are based upon a 50 mph wind.
4. Weld together tower sections have flange connections.
5. Connections use galvanized A325 bolts, nuts and locking devices.
6. Installation per TIA/EIA-222-F and AISC Specifications.
7. Tower members are "hot dipped" galvanized in accordance with ASTM A123 and ASTM A153 Standards.
8. TOWER RATING: 70.6%

URS Corp. AES
795 Brook Street
Rocky Hill, CT 06067
Phone: (860) 529-8882
FAX: (860) 529-5566

Job: 180' Monopole			
Project: Colchester Communications Facility			
Client: Cingular Wireless	Drawn by: Daniel D. McClure	App'd:	
Code: TIA/EIA-222-F	Date: 03/03/04	Scale: NTS	
Path: P:\Telecom\F12\tower analyses\Colchester - 180' Monopole on		Dwg No. E-1	