

New Cingular Wireless PCS, LLC

500 Enterprise Drive Rocky Hill, Connecticut 06067-3900

Phone: (860) 513-7636 Fax: (860) 513-7190

March 14, 2006

EM-CING-028-060314



Ms. Pam Katz, Chairman, and
Members of the Council
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

Re: Notice of Exempt Modification – Existing State Police Telecommunications Tower Facility at Windham Avenue and Munn Road, Colchester, Connecticut

Dear Chairman Katz and Members of the Council:

New Cingular Wireless PCS, LLC ("Cingular") intends to install telecommunications antennas and associated equipment at an existing multicarrier telecommunications tower at 112 Munn Road in Colchester, Connecticut. Cingular operates under licenses issued by the Federal Communications Commission ("FCC") to provide cellular and PCS mobile telephone service in New London County, which includes the area to be served by Cingular's proposed installation.

Please accept this letter as notification to the Council, 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 is being sent to the 1st Selectman of Colchester.

Existing Facility

The Colchester facility is located off Windham Avenue and Munn Road between CT Routes 85 and 16. Site coordinates (NAD83) are N41° 35' 33" and W72° 19' 18".

The facility is owned and operated by the Connecticut State Police, 1111 Country Club Road, Middletown, Connecticut.

The Colchester facility was initially approved by local P&Z, and it has since been the subject of several exempt modifications, most recently EM-VER -028-041206. At the present time the tower is utilized by Verizon and several public safety entities, including the State Police and the FBI.

The facility consists of a 320 foot self-supporting lattice tower within a fenced compound.

Proposed Modifications.

As shown on the attached drawings and as further described below, Cingular proposes to install up to 12 Powerwave 7770 dual band panel antennas or their equivalent, approximately 55 inches in height, with antenna centerlines at 200 feet above ground level. Cingular also proposes to place an 11' 6" x 20' equipment shelter inside the footprint of the existing fence at the base of the tower.

Attached to this Notice are a site location map, a site plan, tower profile, and a structural analysis report that shows the tower will be structurally capable of supporting the proposed Cingular telecommunications equipment once recommended modifications are complete.

Statutory Considerations

The changes to the Colchester tower facility do not constitute a modification 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) because they will not result in any substantial adverse environmental effect.

- 1. The height of the overall structure will be unaffected.
- 2. The proposed changes will not affect the property boundaries. All new construction will take place within the existing fence.
- 3. The proposed additions will not increase the noise level at the existing facility by six decibels or more.
- 4. Operation of the additional antennas will not increase the total radio frequency electromagnetic radiation power density, measured at the tower base, to or above the standard adopted by the State of Connecticut and the FCC. The "worst-case" exposure calculation in accordance with FCC OET Bulletin No. 65 (1997) for a point of interest at the base of the tower in relation to the operation of the proposed antenna array is as follows:

Company	Centerline Height (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density [†] (mW/cm ²)	Standard Limits (mW/cm²)	Percent of Limit
Cingular	200	880-894	6	296	0.0160	0.5867	2.72
Cingular	200	1930-1935 1965-1970	3	427	0.0115	1.0000	1.15
Existing RF Emissions per Council Records *						40.01	
TOTAL						11 to 1 to 1 to 1	43.9%

- * Power density value from the application in EM-VER-028-041206.
- Please note that the standard power density equation provided by the Council in its memo of January 22, 2001 incorporates a ground reflection factor of 2.56 (i.e., the square of 1.6) as described in FCC OET Bulletin No. 65.

As the table demonstrates, the cumulative "worst-case" exposure would be approximately 44% of the ANSI/IEEE standard, as calculated for mixed frequency sites. Total power density levels resulting from Cingular's use of the tower facility would thus be within applicable standards.

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

Please feel free to call Tim Burks at (860) 989-0001 or Christopher Fisher, Esq. at (914) 761-1300 with questions concerning this notice. Thank you for your consideration in this matter.

Respectfully yours,

Steven Levine

Real Estate Consultant

Enclosures

cc: Honorable Jenny Contois, 1st Selectman, Town of Colchester

Michele G. Briggs, Manager of Real Estate

Christopher B. Fisher, Esq.



STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC SAFETY

1111 Country Club Road Middletown, CT 06457-9294

February 24, 2006

Connecticut Siting Council Ten Franklin Square New Britain, CT 06051

Town of Colchester Planning, Zoning, Building Departments 127 Norwich Avenue Colchester, CT 06415

Re:

Letter of Authorization

Location:

State Police Tower

Windham Road/Munn Road

Colchester, CT 06415

To Whom It May Concern:

I hereby authorize New Cingular Wireless PCS, LLC to seek and obtain all necessary federal, state and local permits and approvals for construction, operation and maintenance of a wireless communications installation on our property at Windham Road/Munn Road, Colchester, CT 06415

All expenses associated with permitting of Cingular's proposed wireless communications facility at the above location shall be the sole responsibility of Cingular Wireless.

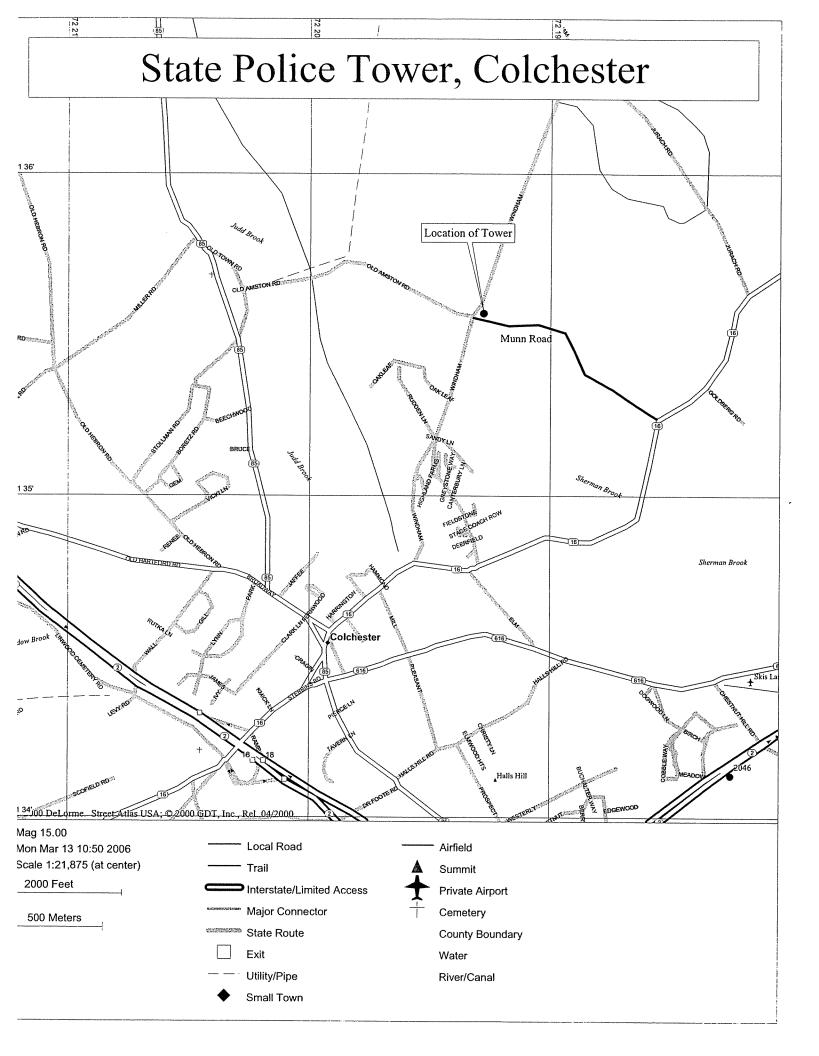
Signature of Owner/Authority:

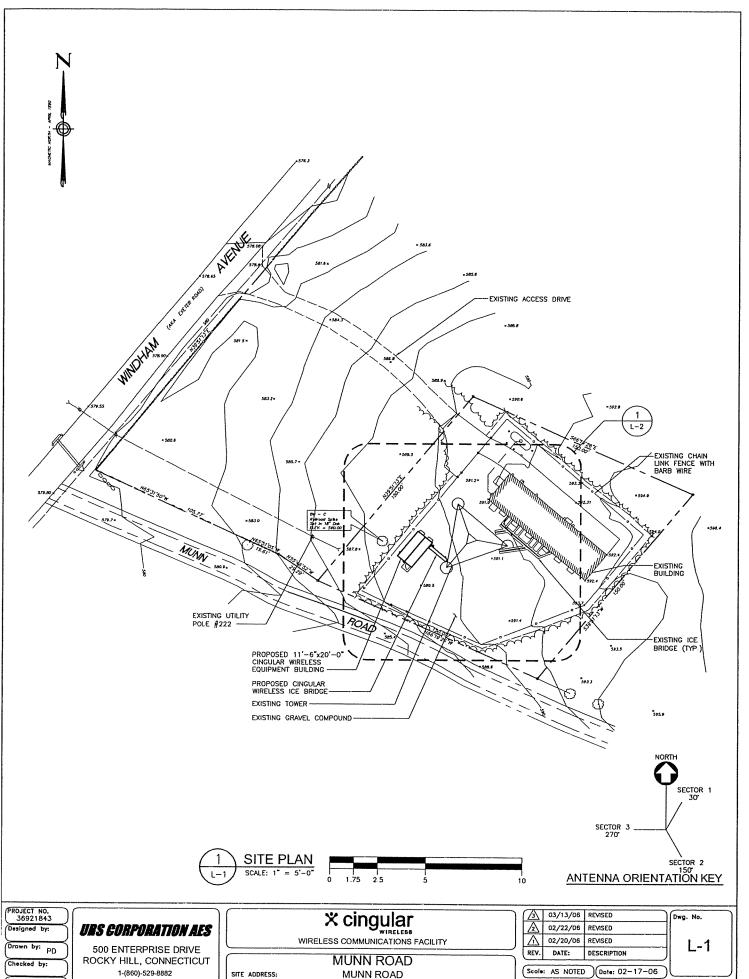
Printed Name:

Title:

Date:

CUBLIC SAFTEY (IRECTION

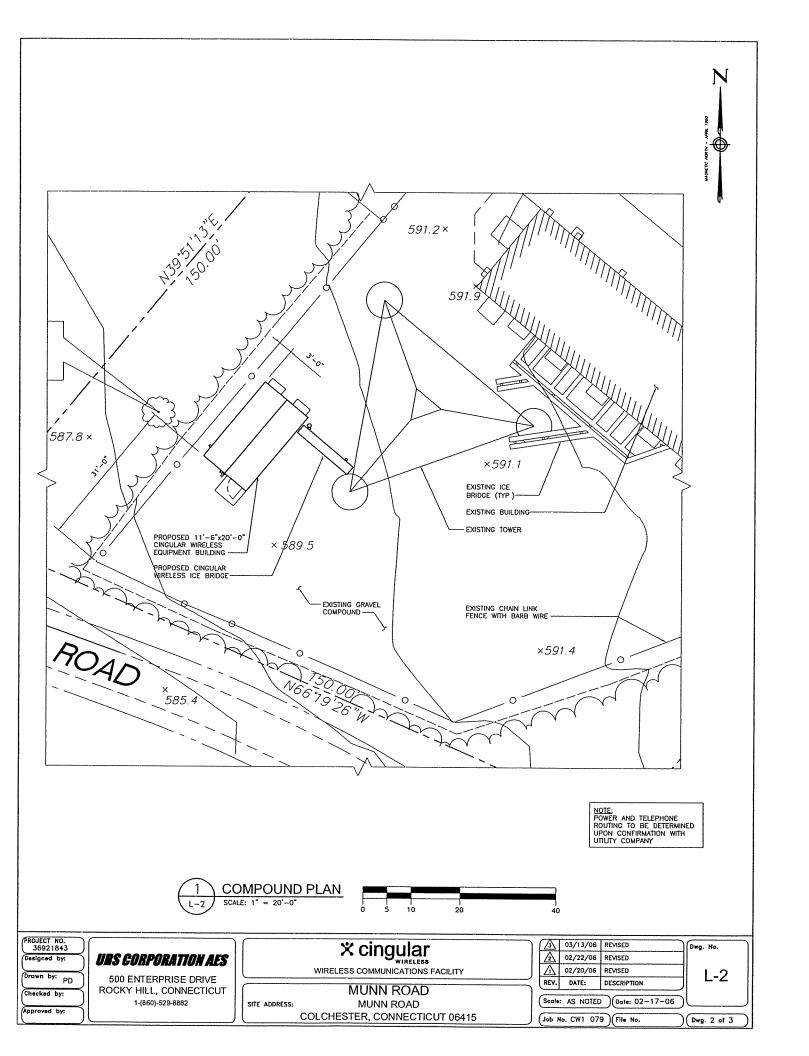


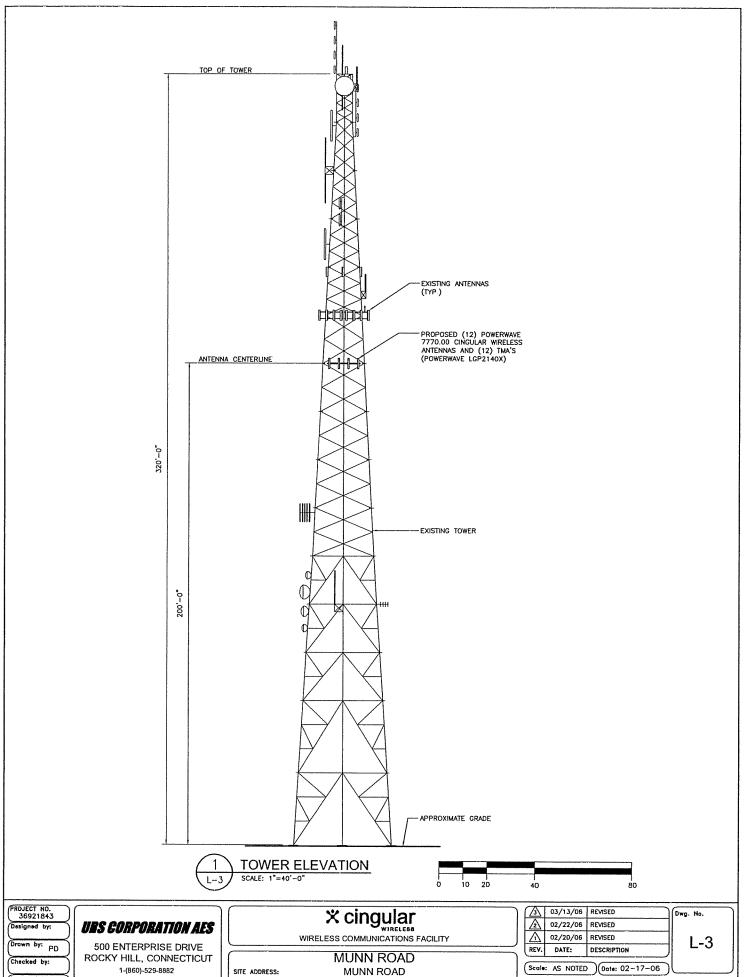


MUNN ROAD COLCHESTER, CONNECTICUT 06415

Job No. CW1 079 File No.

Dwg. 1 of 3





1-(860)-529-8882

MUNN ROAD
MUNN ROAD
COLCHESTER, CONNECTICUT 06415

Scale: AS NOTED Date: 02-17-06 Job No. CW1 079 File No.

Dwg. 3 of 3

DETAILED STRUCTURAL ANALYSIS AND EVALUATION WITH PROPOSED REINFORCEMENT OF 320' SELF SUPPORTING LATTICE TOWER FOR NEW ANTENNA ARRANGEMENT

Connecticut State Police 112 Munn Road Colchester, Connecticut

prepared for



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

prepared by



URS CORPORATION 500 ENTERPRISE DR, SUITE 3B ROCKY HILL, CT 06067 TEL. 860-529-8882

> 36921843.00008 CW1-079

March 14, 2006

1. EXECUTIVE SUMMARY

This report summarizes the structural analysis of the existing 320' self-supporting lattice tower structure located at 112 Munn Road in Colchester, Connecticut. The analysis was conducted in accordance with the TIA/EIA-222-F standard for wind velocity of 90 mph concurrent with ½" ice. The antenna loading considered in the analysis consists of all existing and proposed antennas, transmission lines, and ancillary items as outlined in the Introduction Section of this report. The proposed Cingular Wireless modification is as follows:

Proposed Antenna and Mount	Carrier	Antenna Center Elevation
Install (12) Powerwave 7770.00 antennas, (12) Powerwave LPG21401 TMA's and (12) Powerwave LPG13519 Diplexers on (3) new T-Arms with (24) 1 5/8" coax cables stacked (12) on (12).	Cingular Wireless (Proposed)	@ 200'

The results of the analysis indicate that the existing tower structure is not in compliance with the proposed loading conditions. The tower is not considered structurally adequate under the TIA/EIA-222-F wind load specified above and the existing and proposed antenna loadings. Reinforcement of the tower is considered feasible to meet the TIA/EIA-222-F wind load specified above with all existing and proposed antenna loads. Recommended modifications are outlined in greater detail in section 4 and 6 of this report. With reinforcement, the tower sway is 0.75 degrees, and the tower twist is 0.42 degrees. These are within the Connecticut State Police specification of 0.75 degrees for twist and sway.

This analysis is based on:

- 1) The tower structure's theoretical capacity, not including any assessment of the condition of the tower.
- Tower geometry and structural member sizes taken from original construction drawings (Rohn File #: 43233AE) prepared by Rohn Industries, Inc., approved May 10, 2001.
- 3) Antenna and mount configuration as specified on the following page of this report.
- 4) Coax cable orientation as specified in section 6 of this report.

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 assumption of the antenna and mount configuration. Notify the engineer in writing immediately if any of the information in this report is found to be other than specified.

If you should have any questions, please call.

Sincerely,

URS Corporation

Richard & Sambor, P.E. Manager Facilities Design

RAS/jek

cc: AA, DR, IA – URS

CF/Book

ELINATING THE SECOND

2. INTRODUCTION

The subject tower is located at 112 Munn Road in Colchester, Connecticut. The structure is a 320' self-supporting lattice tower structure designed by Rohn Industries, Inc.

The tower geometry and structure member sizes were taken from the original construction drawings (Rohn File #: 43233AE) prepared by Rohn Industries, Inc., approved May 10, 2001.

The inventory is summarized in the table below:

he inventory is summarized in the table below:					
- Antenna Type	Carrier	2 Mount	Antenna Centedine Elevation	. 21 ⊌Cáble	
(1) PD128 antenna	(existing)	Side Arm Mount	320'	(1) 7/8" coax cable	
(1) PD128 antenna	(existing)	Side Arm Mount	318'	(1) 7/8" coax cable	
(1) 8 FT dish	(existing)	Dish Mount	315'	(1) 7/8" coax cable	
(3) 6 FT dishes	(existing)	(3) Dish Mount	308'	(3) EW63 coax cables	
(1) DB224 antenna	(existing)	Side Arm Mount	294'	(1) 7/8" coax cable	
(1) PD320 antenna	(existing)	Side Arm Mount	292'	(1) 7/8" coax cable	
(1) DB809 antenna	(existing)	Side Arm Mount	285'	(1) 1 5/8" coax cable	
(1) OGT9 antenna	(existing)	Side Arm Mount	275'	(1) 1 5/8" coax cable	
(1) PD440 antenna	(existing)	Side Arm Mount	257'	(1) 7/8" coax cable	
(1) PD128 antenna	(existing)	Side Arm Mount	250'	(1) 7/8" coax cable	
(1) PD320 antenna	(existing)	Side Arm Mount	243'	(1) 7/8" coax cable	
(6) DB844 antennas and (6) DB948F85T2E-M antennas	Verizon (existing)	(3) T-Arms	220'	(12) 1 5/8" coax cables	
(12) Powerwave 7770.00 antennas, (12) LPG21401 TMA's and (12) LPG13519 Diplexers	Cingular (proposed)	(3) T-Arms	200'	(24) 1 5/8" coax cables	
(1) BA1012 antenna	(existing)	Side Arm Mount	140'	(1) 7/8" coax cable	
(1) PD688S antenna	(existing)	Side Arm Mount	140'	(1) 7/8" coax cable	
(1) 6 FT dish	(reserved)	Dish Mount	115'	(1) EW63 coax cable	
(1) PD156S antenna	(existing)	Flush Mount	138'	(1) 7/8" coax cable	
(1) 6 FT dish	(reserved)	Dish Mount	115'	(1) EW63 coax cable	
(1) 2 FT dish	(existing)	Dish Mount	112'	(1) EW108 coax cable	
(1) 6 FT dish	(existing)	Dish Mount	105'	(1) EW65 coax cable	
(1) PD458 antenna	(existing)	Side Arm Mount	105'	(1) 7/8" coax cable	
(1) DB437 antenna	(existing)	Side Arm Mount	100'	(1) 7/8" coax cable	
(1) 6 FT dish	(existing)	Dish Mount	97'	(1) 7/8" coax cable	
(1) 4 FT dish	(existing)	Dish Mount	90'	(1) 7/8" coax cable	

This structural analysis of the communications tower was performed by URS Corporation (URS) for Cingular Wireless. The purpose of this analysis was to investigate the structural integrity of the existing tower with its existing and proposed antenna loads. This analysis was conducted to evaluate stress on the tower and the effect of forces to the foundation of the tower resulting from existing and proposed antenna arrangements.

3. ANALYSIS METHODOLOGY AND LOADING CONDITIONS

The structural analysis was done in accordance with TIA/EIA-222-F, Structural Standard for Steel Antenna Towers and Antenna Supporting Structures; 2003 IBC with the 2005 Connecticut State Building Code Supplement; and the American Institute of Steel Construction (AISC) Manual of Steel Construction, Allowable Stress Design (ASD).

The analysis was conducted using ERI Tower 3.0. One load condition was evaluated as shown below which was compared to allowable stresses according to AISC and TIA/EIA.

Load Condition 1 = 90 mph (fastest mile) Wind Load (with ice) + Ice Load + Tower Dead Load

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

4. FINDINGS AND EVALUATION

The calculated stresses on the tower structure were evaluated to compare with the allowable stress in accordance with AISC. The results of the analysis indicate that the existing tower structure is not in compliance with the proposed loading conditions. The tower is not considered structurally adequate under the TIA/EIA-222-F wind load specified above and the existing and proposed antenna loadings. Reinforcement of the tower is considered feasible to meet the TIA/EIA-222-F wind load specified above with all existing and proposed antenna loads. Several Redundant Diagonals and Redundant Horizontals are overstressed. We recommend replacing the overstressed members.

		Overstressed Members	
Section	Redundant Diagonal 1	Redundant Diagonal 2	Redundant Horizontal 28
0'30'			Rohn 2 EH
30'-60'	Rohn 1.5 STD	Rohn 2 STD	
100'—120'	Rohn 1.5 STD	•••	

For recommended member sizes see drawing SK-1 in section 6 of this report.

With reinforcement, the tower sway is 0.75 degrees, and the tower twist is 0.42 degrees. These are within the Connecticut State Police specification of 0.75 degrees for twist and sway. No further analysis was performed on the anchor bolts and foundation since the calculated reactions at the top of the foundation were below the original design.

5. CONCLUSIONS

The results of the analysis indicate that the existing tower structure is not in compliance with the proposed loading conditions. The tower is not considered structurally adequate under the TIA/EIA-222-F wind load specified above and the existing and proposed antenna loadings. Reinforcement of the tower is considered feasible to meet the TIA/EIA-222-F wind load specified above with all existing and proposed antenna loads. Recommended modifications are outlined in greater detail in section 4 and 6 of this report. With reinforcement, the tower sway is 0.75 degrees, and the tower twist is 0.42 degrees. These are within the Connecticut State Police specification of 0.75 degrees for twist and sway.

Limitations/Assumptions:

This report is based on the following:

- 1. Tower inventory as listed in this report.
- Tower is properly installed and maintained.
- 3. All members are as specified in the original design documents and are in good condition.
- All required members are in place.
- 5. All bolts are in place and are properly tightened.
- Tower is in plumb condition.
- 7. All member protective coatings are in good condition.
- 8. All tower members were properly designed, detailed, fabricated, and installed and have been properly maintained since erection.
- Foundations were properly constructed to support original design loads as specified in the original design documents.

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

- A. Adding antennas
- B. Removing/replacing antennas
- C. Adding coaxial cables

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.

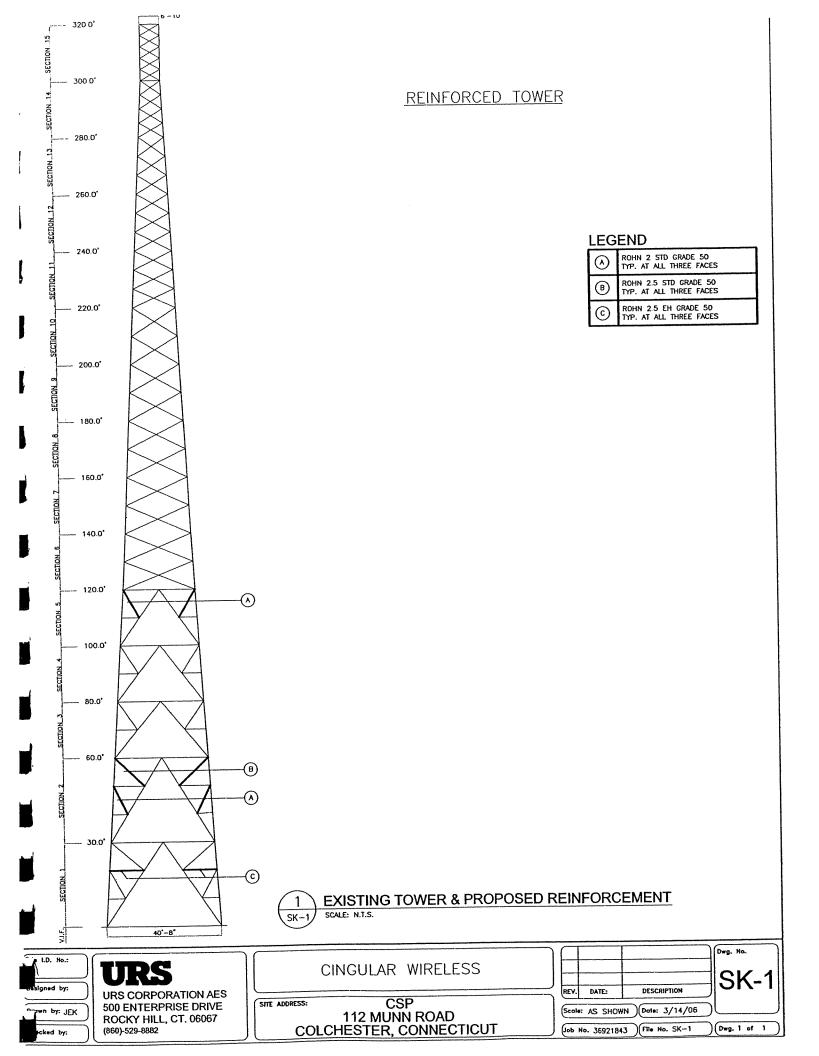
Ongoing and Periodic Inspection and Maintenance:

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.

The owner shall refer to TIA/EIA-222-F 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 be 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.

6. DRAWINGS AND DATA

SK-1 EXISTING TOWER WITH REINFORCEMENT





New Cingular Wireless PCS, LLC

500 Enterprise Drive Rocky Hill, Connecticut 06067-3900

Phone: (860) 513-7636 Fax: (860) 513-7190

March 14, 2006

Honorable Jenny Contois 1st Selectman, Town of Colchester Town Hall, 127 Norwich Avenue Colchester, Connecticut 06415

Re: Notice of Exempt Modification – Existing State Police Telecommunications Tower Facility at Windham Avenue and Munn Road, Colchester, Connecticut

Dear Ms. Contois:

New Cingular Wireless PCS, LLC ("Cingular") intends to install telecommunications antennas and associated equipment at an existing multicarrier telecommunications tower at 112 Munn Road in Colchester, Connecticut.

The facility is owned and operated by the Connecticut State Police, 1111 Country Club Road, Middletown, Connecticut.

A Notice of Exempt Modification has been filed with the Connecticut Siting Council as required by Regulations of Connecticut State Agencies ("R.C.S.A.") Section 16-50j-73. Please accept this letter as notification to the Town of Colchester 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 attached letter fully sets forth the Cingular proposal. However, if you have any questions or require any further information on the plans for the site or the Siting Council's procedures, please contact the undersigned or Mr. Derek Phelps, Executive Director of the Connecticut Siting Council, at (860) 827-2935.

Sincerely,

Steven Levine

Real Estate Consultant

Enclosure