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

July 11, 2008

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

RE: **EM-CING-019-080529** – New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 116 Grant Hill Road, Brooklyn, 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 May 27, 2008, including the placement of all necessary equipment and shelters within the tower compound with the following conditions:

- The tower is reinforced as specified per the drawings dated May 15, 2008 and sealed by J. Russell Hill, P.E. prior to the antenna installation to achieve a post-construction tower rating of not more than 100 percent.
- A signed letter from a Professional Engineer is submitted to the Council to certify that the modifications have been properly completed.

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/MP/cm

c: The Honorable Roger Engle, First Selectman, Town of Brooklyn
Chester Dobrowski, Zoning Enforcement Officer, Town of Brooklyn
Crown Castle

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

May 30, 2008

The Honorable Roger Engle
First Selectman
Town of Brooklyn
Town Hall
P. O. Box 356
Brooklyn, CT 06234-0356

RE: **EM-CING-019-080529** – New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 116 Grant Hill Road, Brooklyn, Connecticut.

Dear Mr. Engle:

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 June 13, 2008.

Thank you for your cooperation and consideration.

Very truly yours,

S. Derek Phelps
Executive Director

SDP/jb

Enclosure: Notice of Intent

c: Chester Dobrowski, Zoning Enforcement Officer, Town of Brooklyn

EM-CING-019-080529

The new at&t Your world. Delivered.

cingular raising the bar

ORIGINAL

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

HAND DELIVERED

May 27, 2008

RECEIVED
MAY 29 2008
CONNECTICUT
SITING COUNCIL

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 116 Grant Hill Road, Brooklyn (owner Crown Castle)

Dear Chairman Caruso and Members of the Council:

To enhance system performance in the State of Connecticut, New Cingular Wireless PCS, LLC ("Cingular") plans to "dual band" the referenced site. This involves installing new antennas and associated equipment at the cell site to enable transmissions in the 850 MHz band as well as the 1900 MHz band.

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.

Attached is a summary of the planned modifications, including power density calculations reflecting the change in Cingular'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 not be affected. 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 of similar size, shape, and weight, or, installation of additional antennas of similar size, shape, and weight.
- 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.

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 the addition of the 850 MHz 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, 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

CINGULAR WIRELESS
Dual Banding Equipment Modification

116 Grant Hill Road, Brooklyn
Site Number 5705
Former AT&T Site
Exempt Modifications approved 7-11-02 and 11-20-03

Tower Owner/Manager: Crown Castle

Equipment Configuration: Monopole

Current and/or Approved: Three Allgon 7250 Panel Antennas @ 127 ft c.l. (6 approved)
Three Decibel Products DB978QNB120E antennas @ 127 ft
Eighteen runs 1 1/4 inch coax cables

Planned Modifications: Remove existing antennas
Install 6 Powerwave 7770 antennas (or equivalent) @ 127 ft
Install six TMA's and six diplexers @ 127 ft
Remove six runs 1 ¼ inch coax

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 22.6 % 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 24.6 % 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 *							20.40
Cingular GSM	127	1900 Band	4	250	0.0223	1.0000	2.23
Total							22.6%

* 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 *							20.40
Cingular GSM	127	1900 Band	2	427	0.0190	1.0000	1.90
Cingular GSM	127	880 - 894	2	296	0.0132	0.5867	2.25
Total							24.6%

* Per CSC records

Structural information:

The attached structural analysis demonstrates that the tower and foundation will have sufficient structural capacity to accommodate the proposed modifications following completion of designated tower modifications. (Tower Engineering Professionals, dated 5/27/08) AT&T will not undertake the proposed equipment modifications until the required tower modifications have been completed. For this reason, we respectfully request that the Council give conditional approval for the proposed modifications.

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

May 27, 2008

Honorable Roger Engle
1st Selectman, Town of Brooklyn
Town Hall 4 Wolf Den Rd.
Brooklyn, Connecticut 06234-0356

Re: Telecommunications Facility – 116 Grant Hill Road, Brooklyn

Dear Mr. Engle:

To enhance system performance in the State of Connecticut, New Cingular Wireless PCS, LLC ("Cingular") plans to "dual band" the referenced site to enable transmissions in the 850 Mhz band as well as the 1900 MHz band. This involves changing Cingular's equipment configuration at the site.

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

Tower Engineering Professionals, Inc. (TEP)
3703 Junction Boulevard
Raleigh, NC 27603
(o) (919) 661-6351
kmmazur@tepgroup.net

TOWER ENGINEERING PROFESSIONALS

Date: **May 27, 2008**

Mr. Paul Brown
Crown Castle International
9105 Monroe Road, Suite 150
Charlotte, NC 28270

Subject:	**Modification Analysis Report**	**Revision 1**
Carrier Designation:	**AT&T Mobility Co-Locate**	
	Carrier Site Number:	5705
	Carrier Site Name:	Brooklyn-Grant Hill Road
Crown Castle Designation:	**Crown Castle BU Number:**	876390
	Crown Castle Site Name:	HAMPTON / BERNIER
	Crown Castle JDE Job Number:	99184
Engineering Firm Designation:	**TEP Project Number:**	***072655***
Site Data:	**116 Grant Hill Road**	
	Brooklyn, Windham County, CT 06234	
	Latitude 41°-*47'-30.53"*, Longitude 72°-*00'-53.27"*	
	150 Foot – Monopole Tower	

Dear Mr. Brown,

TEP is pleased to submit this **Modification Analysis Report** to determine the structural integrity of the aforementioned tower. This analysis has been performed in accordance with the Crown Castle Structural 'Statement of Work' and the terms of Crown Castle Purchase Order Number 286734, in accordance with application 57733, revision 4.

The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

LC4: Modified Structure w/ Existing + Reserved + Proposed — Sufficient Capacity
Note: See Table I and Table II for the proposed and existing/reserved loading.

This analysis has been performed in accordance with the TIA/EIA 222-F standard and the 2003 International Building Code based upon a wind speed of 85 mph fastest mile (105-mph 3-second gust).

We at TEP appreciate the opportunity of providing our continuing professional services to you and Crown Castle International. If you have any questions or need further assistance on this or any other projects please give us a call.

Respectfully submitted,

J. Russell Hill, P.E.

STATE OF CONNECTICUT
J. RUSSELL HILL
13532
LICENSED
PROFESSIONAL ENGINEER

5/27/2008

TABLE OF CONTENTS

1) INTRODUCTION

The subject tower is a 150-foot monopole tower manufactured by Engineering Endeavors Inc.

2) ANALYSIS CRITERIA

The existing, reserved, and proposed antennas, transmission lines, and mountings are shown in the following tables. The site is in Windham County, CT. The structural analysis was performed in accordance with the ANSI/TIA/EIA-222-F-1996 (TIA), Structural Standards for Steel Antenna Towers and Antenna Supporting Structures dated June 1996. The governing winds forces are derived from the TIA Standard using a fastest-mile wind speed of 85 mph (74 mph with 1/2" radial ice) for an Exposure C and Importance Factor of 1.00.

Table 1 – Proposed Antenna and Cable Information

Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount	Number of Feed Lines	Feed Line Size (in)
127 (Proposed)	6	Powerwave Technologies	7700.00	-[1]	3	1 1/4
127 (Proposed TME)	12	Powerwave Technologies	(6) LGP13519 (6) LGP 17201	-	-	-
127 (Reserved)	3	Powerwave Technologies	7700.00	-	-	-

[1] – Proposed antennas to be installed on existing mounts at 127-ft elevation

Table 2 – Existing and Reserved Antenna and Cable Information

Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount	Number of Feed Lines	Feed Line Size (in)
149 (Existing)	6	Decibel	DB980H90E-M	Low Profile Platform	6	1 5/8
149[2] (MLA)	9	EMS Wireless	FV65-14-00NA2	-	9	1 5/8
137 (Existing)	3	EMS Wireless	RR90-17-02DP	Low Profile Platform	6	1 5/8
137 (Existing TME)	6	Ericsson	KRY 112 71/2	-	-	-
137 (Reserved)	3	EMS Wireless	RR90-17-02DP	-	6	1 5/8
127[3] (Existing)	3 3	Decibel Allgon	DB978H120E-M 7250	(3) T-Frame Mounts	18[4]	1 1/4
127[3] (Reserved)	3	Allgon	7250	-	-	-

Table 2 – Existing and Reserved Antenna and Cable Information (continued)

Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount	Number of Feed Lines	Feed Line Size (in)
117 (Existing)	6 6	Antel Antel	LPA-80090/4CF LPA-185090/8CF	Low Profile Platform	12	1 5/8
76 (Existing GPS)	1	Lucent	KS24019-L112A	(1) Arm Mount	1	1/2
Unknown Elevation	-	-	-	-	3[5]	1/2

[2] – MLA loading exceeds existing and was used for the analysis
[3] – Existing and reserved antennas to be replaced by proposed configuration
[4] – Existing feed lines to be reused
[5] – The (3) ½ in. feed lines to unknown elevation were not included in the analysis

Table 3 – Design Antenna and Cable Information

Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount	Number of Feed Lines	Feed Line Size (in)
150	9	Unknown	DB980-H90	Low Profile Platform	-	-
140	12	DAPA	48000	Low Profile Platform	-	-
130	12	DAPA	48000	Low Profile Platform		
120	12	DAPA	48000	Low Profile Platform		

3) ANALYSIS PROCEDURE

Table 4 – Documents Provided

Document	Remarks	Crown Document ID
Geotechnical Report	Criscuolo Shepard Associates, PC, Project No. 999000.05, dated August 9, 1999, provided by Crown	1615347
Tower Manufacturer Drawings/Design/Specs	Engineering Endeavors, Inc., Drawing No. GS52059, dated February 22, 2000, provided by Crown	153303
Tower Foundation Drawings/Design/Specs	Engineering Endeavors, Inc., Project No. 6459, dated February 22, 2000, provided by Crown	1615410
Design Structural Analysis	Engineering Endeavors, Inc., Project No. 6459, dated February 22, 2000, provided by Crown	161581
Previous Structural Analysis Report	Tower Engineering Professionals, Inc., Project No. 072655 (Revision 0), dated January 3, 2008	2177934

3.1) Analysis Method

RISA Tower (version 5.1.2.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various dead, live, wind, and ice load cases. Selected output from the analysis is included in Appendix A.

3.2) Assumptions

1. This analysis does not include a grouted base plate.
2. All feed lines are installed in the locations noted on the cable routing drawing in *Appendix B*.
3. When applicable, feed lines were considered to be structural components for calculating wind loads, as allowed by the industry standard.
4. Information in the original design drawings and specifications that could not be verified by TEP is assumed to be correct. For this analysis, TEP will assume conformance with the original design drawings and specifications.
5. TEP shall assume that all tower components are in sufficient condition to carry their full design capacity.
6. Serviceability with respect to antenna twist, tilt, roll, or lateral translation, is not checked and is left to the carrier or tower owner to ensure conformance.

4) ANALYSIS RESULTS

Table 5 – Tower Component Stresses vs. Capacity – LC4

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	$SF*P_{allow}$ lb	% Capacity	Pass Fail
L1	150 - 123.404	Pole	TP22.8833x17x0.1875	1	-5262.85	48748.74	52.7	Pass
L2	123.404 - 88.9583	Pole	TP30.0026x21.7652x0.3125	2	-11003.30	182767.62	70.8	Pass
L3	88.9583 - 43.8828	Pole	TP39.2235x28.4516x0.375	3	-19492.10	492564.81	76.7	Pass
L4	43.8828 - 0	Pole	TP48x37.2934x0.4375	4	-32493.80	1156836.00	72.0	Pass
							Summary	
						Pole (L3)	76.7	Pass
						Base Plate	68.7	Pass
						RATING =	**76.7**	**Pass**

Notes	Component	Elevation (ft)	% Capacity	Pass/Fail
Individual Components:				
Notes:	**Component**	**Elevation**	**% Capacity**	**Pass/Fail**
	Anchor Bolts	0	69.0	Pass
1	Base Foundation	-	87.8	Pass
Structure Rating (max from all components) =				**87.8%**

*Notes:

1) See additional documentation in "Appendix C - Supporting Calculations" for calculations supporting the % capacity listed.

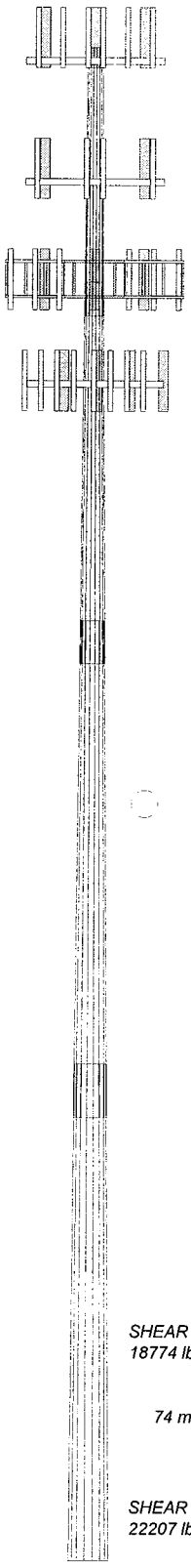
4.1) Recommendations

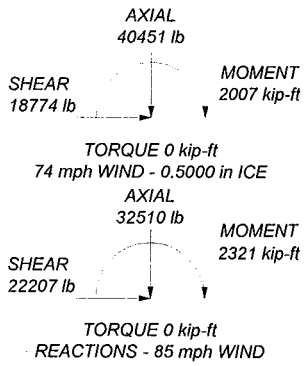
It should be noted that in order for the tower to pass in the current load scenario, the proposed and reserved coax must be configured as shown in Appendix B. In addition, the structural modifications depicted in the Modification Design Drawings – Appendix D must be completed.

APPENDIX A

RISA TOWER OUTPUT

Section	1	2	3	4
Length (ft)	26.60	37.80	49.33	49.29
Number of Sides	18	18	18	18
Thickness (in)	0.1875	0.3125	0.3750	0.4375
Lap Splice (ft)	3.36	4.25	5.40	
Top Dia (in)	17.0000	21.7652	28.4516	37.2934
Bot Dia (in)	22.8833	30.0026	39.2235	48.0000
Grade	A572-65			
Weight (lb) 20841.9	1064.0	3262.8	6685.0	9830.0





DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
PiROD 13' Low Profile Platform (Sprint)	149	7770.00 (Cingular - Reserved)	127
		7770.00 (Cingular - Reserved)	127
(3) FV65-14-00NA2 (Sprint MLA)	149	(2) LGP13519 (Cingular - Proposed)	127
(3) FV65-14-00NA2 (Sprint MLA)	149	(2) LGP13519 (Cingular - Proposed)	127
(3) FV65-14-00NA2 (Sprint MLA)	149	(2) LGP13519 (Cingular - Proposed)	127
PiROD 15' Low Profile Platform (Monopole) (T-Mobilie)	137	(2) LGP 17201 (Cingular - Proposed)	127
		(2) LGP 17201 (Cingular - Proposed)	127
(2) RR90-17-02DP (T-Mobilie - E+R)	137	(2) LGP 17201 (Cingular - Proposed)	127
(2) RR90-17-02DP (T-Mobilie - E+R)	137	PiROD 15' Low Profile Platform (Monopole) (Verizon)	117
(2) RR90-17-02DP (T-Mobilie - E+R)	137		
(2) KRY 112 71/2 (T-Mobile - E)	137	(2) LPA-80090/4CF	117
(2) KRY 112 71/2 (T-Mobile - E)	137	(2) LPA-80090/4CF	117
(2) KRY 112 71/2 (T-Mobile - E)	137	(2) LPA-80090/4CF	117
(3) 12' T-Arms (Cingular)	127	(2) LPA-185090/8CF	117
(2) 7770.00 (Cingular - Proposed)	127	(2) LPA-185090/8CF	117
(2) 7770.00 (Cingular - Proposed)	127	(2) LPA-185090/8CF	117
(2) 7770.00 (Cingular - Proposed)	127	18-in Standoff	76
7770.00 (Cingular - Reserved)	127	GPS	76

MATERIAL STRENGTH

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

TOWER DESIGN NOTES

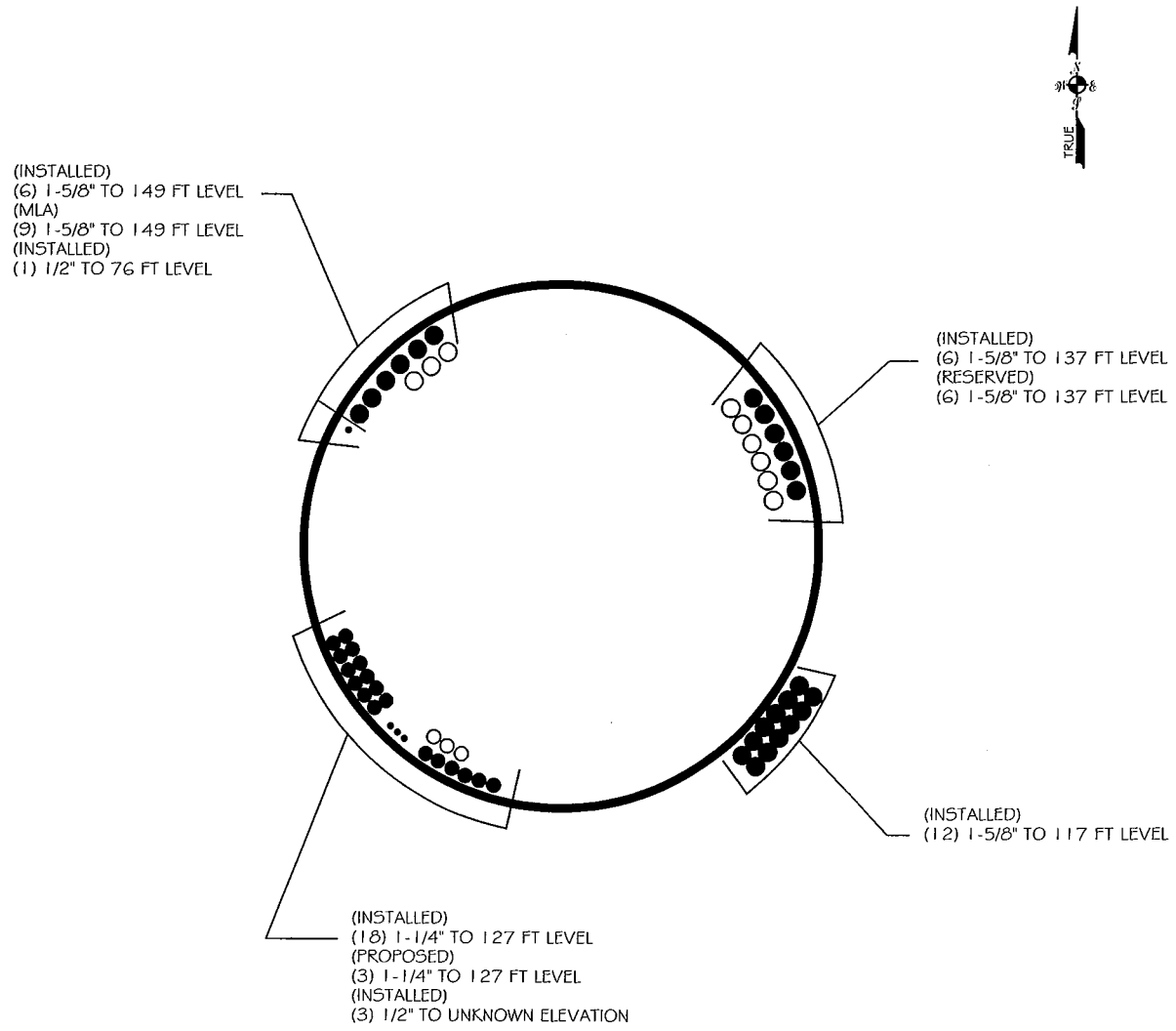
1. Tower is located in Windham County, Connecticut.
2. Tower designed for a 85 mph basic wind in accordance with the TIA/EIA-222-F Standard.
3. Tower is also designed for a 74 mph basic wind with 0.50 in ice.
4. Deflections are based upon a 50 mph wind.
5. TOWER RATING: 76.7%

Tower Engineering Professionals
3703 Junction Boulevard
Raleigh, NC 27603
Phone: (919) 661-6351
FAX: (919) 661-6350

Job: *Structural Analysis*			
Project: *BU# 876390*			
Client: Crown Castle International	Drawn by: kmazur	App'd:	
Code: TIA/EIA-222-F	Date: 05/15/08	Scale: NTS	
Path: H:\2007\2655_Hampton Bemie\Structures\Structural Modifications\RISA\876390.eri		Dwg No. E-1	

APPENDIX B

BASE LEVEL DRAWING



COAX PLAN

SCALE: N.T.S.

PREPARED BY:	PREPARED FOR:	PROJECT INFORMATION:	
TOWER ENGINEERING PROFESSIONALS 3703 JUNCTION BOULEVARD RALEIGH, NC 27603-5263 (919) 661-6351	CROWN CASTLE INTERNATIONAL Crown Castle USA Inc. 9105 MONROE ROAD, SUITE 150 CHARLOTTE, NC 28270	**HAMPTON / BERNIER SITE # 876390** 116 GRANT HILL ROAD BROOKLYN, CT 06234 (WINDHAM COUNTY)	REVISION: 0 TEP JOB #: 072655 SHEET NUMBER: **M-1**

APPENDIX D

MODIFICATION DESIGN DRAWINGS

STRUCTURAL MODIFICATION DRAWINGS

SITE NAME:

HAMPTON / BERNIER

BU NUMBER:

876390

SITE ADDRESS:

116 GRANT HILL ROAD
BROOKLYN, CT 06234
(WINDHAM COUNTY)

MODIFICATION PROVISIONS

THE MODIFICATIONS DEPICTED ON THESE DRAWINGS ARE BASED ON THE RECOMMENDATIONS OUTLINED IN THE STRUCTURAL ANALYSIS REPORT COMPLETED BY TOWER ENGINEERING PROFESSIONALS (TEP), TEP PROJECT NUMBER 072655, LC1 (REVISION 0, DATED JANUARY 2, 2008) AND LC4 (REVISION 0, DATED MAY 15, 2008). THIS REPORT WAS BASED ON A SPECIFIC ANTENNA AND COAX CONFIGURATION. SEE THE REPORT FOR THE ANTENNA AND COAX LOADING INFORMATION. ANY OTHER ANTENNA OR COAX CONFIGURATION REQUIRES REVIEW BY TEP. SATISFACTORY COMPLETION OF THE MODIFICATIONS INDICATED ON THESE DRAWINGS WILL RESULT IN THE STRUCTURE MEETING THE REQUIREMENTS OF THE SPECIFICATIONS UNDER WHICH THE STRUCTURAL WAS COMPLETED. CONTACT TEP FOR A FEE TO PERFORM THE POST CONSTRUCTION INSPECTION.

ATTENTION

TOWER ENGINEERING PROFESSIONALS DID NOT PERFORM AS-BUILT TOWER MEASUREMENTS. REFER TO THE TOWER DESIGN DRAWINGS BY ENGINEERED ENDEAVORS, INC. (PROJECT # 6459). THE CONTRACTOR SHALL FIELD VERIFY ALL: DIMENSIONS, MEASUREMENTS, QUANTITIES, PART NUMBERS AND COAX/ANTENNA PLACEMENTS PRIOR TO: BIDDING, ORDERING OF MATERIALS, AND CONSTRUCTION. CROWN CASTLE WELDING SPECIFICATIONS SHALL BE REVIEWED AND ADHERED TO BY CONTRACTOR.

INDEX OF SHEETS

PROJECT TEAM

TOWER MANUFACTURER:

NAME	ENGINEERED ENDEAVORS INC.
ADDRESS	7610 JENTHER DRIVE
CITY, STATE, ZIP	MENTOR, OH 44060
CONTACT	ENGINEERING DEPARTMENT
PHONE	(440) 918-1101

STRUCTURAL ENGINEER:

NAME	TOWER ENGINEERING PROFESSIONALS, INC.
ADDRESS	3703 JUNCTION BOULEVARD
CITY, STATE, ZIP	RALEIGH, NC 27603
CONTACT	J. RUSSELL HILL, P.E.
PHONE	(919) 661-6351

GEOTECHNICAL ENGINEER:

NAME	CRISCUOLO SHEPARD ASSOCIATES
ADDRESS	420 EAST MAIN STREET
CITY, STATE, ZIP	BRANFORD, CT 06405
CONTACT	LAWRENCE J. MARCIK, P.E.
PHONE	(203) 481-8749

PLANS PREPARED FOR:

CROWN CASTLE INTERNATIONAL

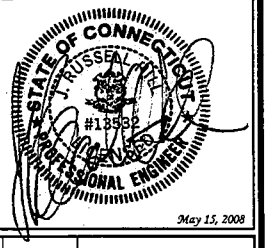
Crown Castle USA Inc.

9105 Monroe Road, Suite 150
Charlotte, NC 28720
Office: (704) 321-3845

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
3703 JUNCTION BOULEVARD
RALEIGH, NC 27603-5263
OFFICE: (919) 661-6351
FAX: (919) 661-6350

SEAL:



May 15, 2008

REV	DATE	ISSUED FOR:
0	05-15-08	MODIFICATION DESIGN

DRAWN BY: KMM | CHECKED BY: CGP

SHEET TITLE:

TITLE SHEET

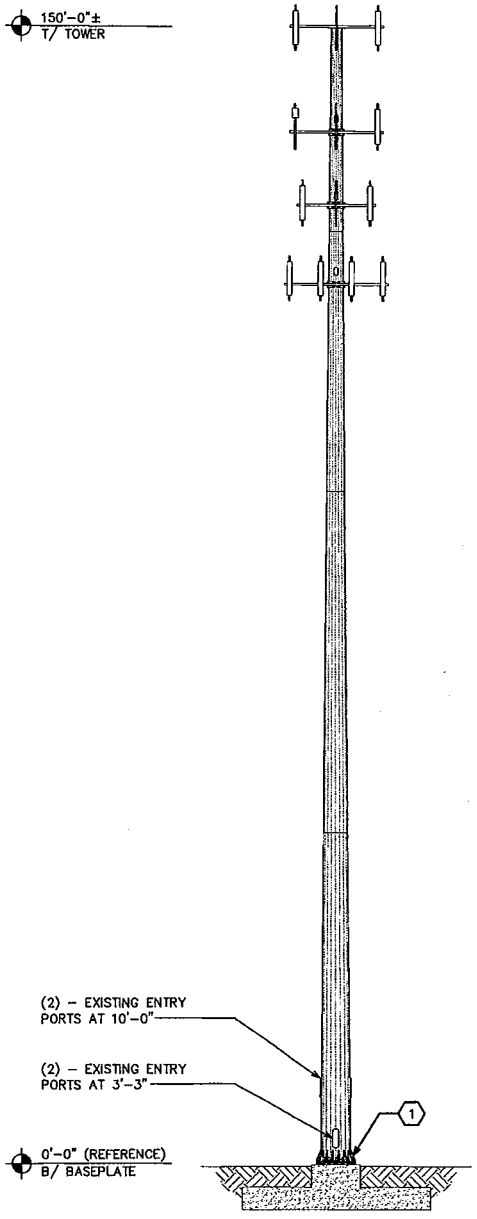
SHEET NUMBER: **T-1**

REVISION: **0**

TEP #: 072655

MODIFICATION SCHEDULE

NO.	MODIFICATION DESCRIPTION	ELEVATION (FT.)
1	PROPOSED BASE PLATE STIFFENERS. SEE SHEET S-2 FOR DETAILS.	0
2	POST CONSTRUCTION INSPECTION BY TEP. FEE SHALL BE $1,500.	–



TOWER ELEVATION

SCALE: 1/16" = 1'-0"

0 16 32

SCALE IN FEET

PLANS PREPARED FOR:

CROWN CASTLE INTERNATIONAL

Crown Castle USA Inc.

9105 Monroe Road, Suite 150
Charlotte, NC 28270
Office: (704) 321-3845

PROJECT INFORMATION:

HAMPTON / BERNIER
BU # 876390

116 GRANT HILL ROAD
BROOKLYN, CT 06234
(WINDHAM COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
3703 JUNCTION BOULEVARD
RALEIGH, NC 27603-5263
OFFICE: (919) 661-6351
FAX: (919) 661-6350

SEAL:

STATE OF CONNECTICUT
J. RUSSELL
PROFESSIONAL ENGINEER
May 15, 2008

REV.	DATE	MODIFICATION DESIGN ISSUED FOR:
0	05-15-08	

DRAWN BY: KMM | CHECKED BY: GSP

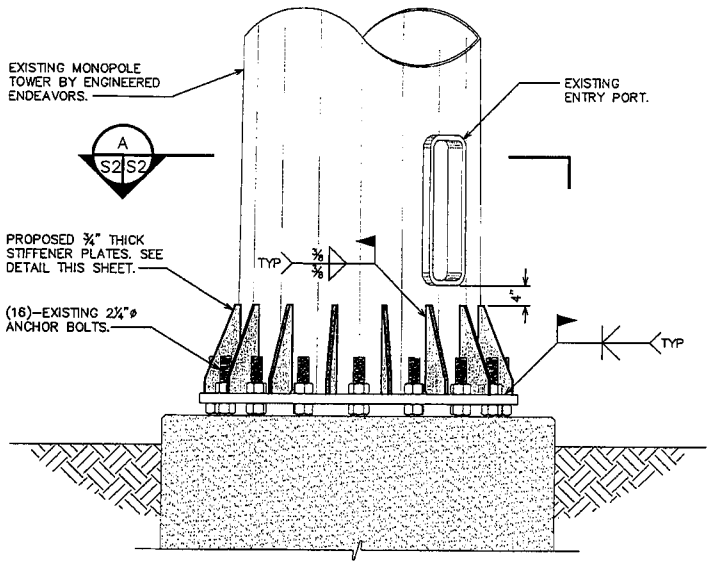
SHEET TITLE:

TOWER ELEVATION AND MODIFICATION SCHEDULE

SHEET NUMBER: **S-1**

REVISION: **0**

TEP # 072655



ELEVATION VIEW

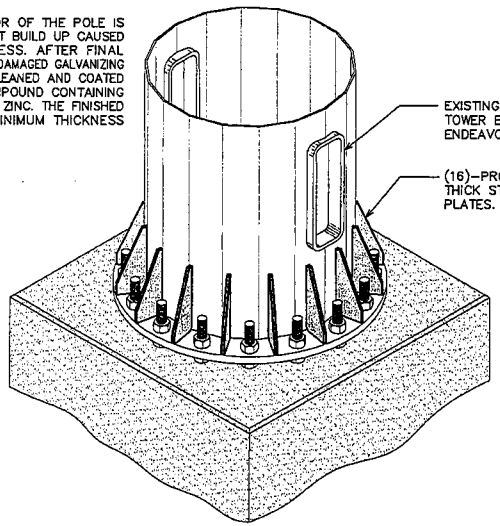
SCALE: ½" = 1'–0"

0 2 4

SCALE IN FEET

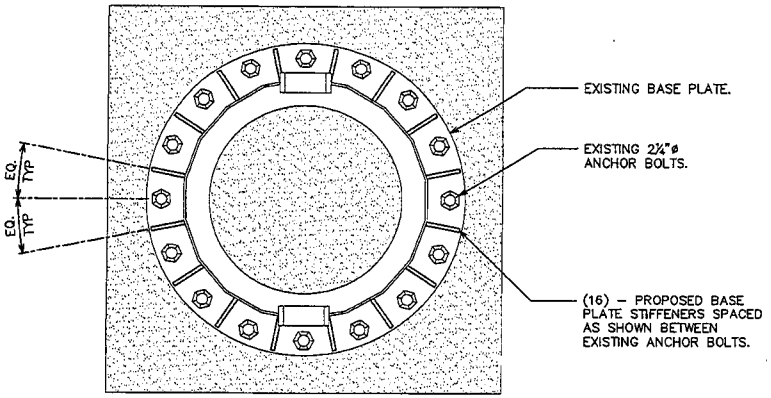
NOTE:

1. DAMAGE TO THE INTERIOR OF THE POLE IS EXPECTED FROM THE HEAT BUILD UP CAUSED BY THE WELDING PROCESS. AFTER FINAL INSPECTION, ALL AREAS OF DAMAGED GALVANIZING SHALL BE THOROUGHLY CLEANED AND COATED WITH A GALVANIZING COMPOUND CONTAINING A MINIMUM OF 95% PURE ZINC. THE FINISHED COATING SHALL BE A MINIMUM THICKNESS OF 3 MILS.



ISOMETRIC VIEW

SCALE: N.T.S.



SECTION

A
S2 S2

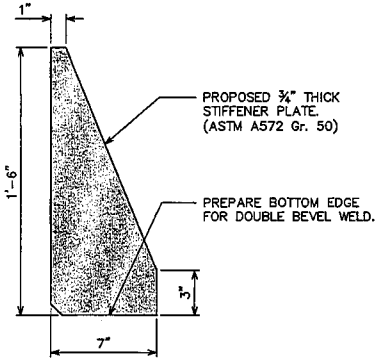
SCALE: ½" = 1'–0"

0 2 4

SCALE IN FEET

NOTE:

ALL CHAMFERS ¾".



STIFFENER PLATE DETAIL

SCALE: 1½" = 1'–0"

0 1 2

SCALE IN FEET

PLANS PREPARED FOR:

CROWN CASTLE INTERNATIONAL

Crown Castle USA Inc.

9105 Monroe Road, Suite 150
Charlotte, NC 28720
Office: (704) 321–3845

PROJECT INFORMATION:

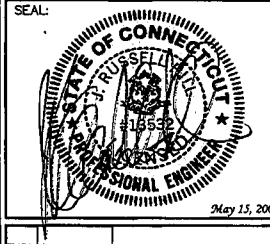
HAMPTON / BERNIER
BU # 876390

116 GRANT HILL ROAD
BROOKLYN, CT 06234
(WINDHAM COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
3703 JUNCTION BOULEVARD
RALEIGH, NC 27603-5263
OFFICE: (919) 661-6351
FAX: (919) 661-6350

SEAL:



REV	DATE	ISSUED FOR:
0	05-15-08	MODIFICATION DESIGN

DRAWN BY: KMM CHECKED BY: CGP

SHEET TITLE:

STIFFENER PLATE DETAILS

SHEET NUMBER: **S-2**

REVISION: **0**

TEP #: 072655

GENERAL NOTES:

1. ALL REFERENCES TO THE OWNER IN THESE DOCUMENTS SHALL BE CONSIDERED CROWN CASTLE OR IT'S DESIGNATED REPRESENTATIVE.
2. ALL WORK PRESENTED ON THESE DRAWINGS MUST BE COMPLETED BY THE CONTRACTOR UNLESS NOTED OTHERWISE. THE CONTRACTOR MUST HAVE CONSIDERABLE EXPERIENCE IN PERFORMANCE OF WORK SIMILAR TO THAT DESCRIBED HEREIN. BY ACCEPTANCE OF THIS ASSIGNMENT, THE CONTRACTOR IS ATTESTING THAT HE DOES HAVE SUFFICIENT EXPERIENCE AND ABILITY, THAT HE IS KNOWLEDGEABLE OF THE WORK TO BE PERFORMED AND THAT HE IS PROPERLY LICENSED AND PROPERLY REGISTERED TO DO THIS WORK IN THE STATE OF CONNECTICUT.
3. WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE, 2003 EDITION.
4. UNLESS SHOWN OR NOTED OTHERWISE ON THE CONTRACT DRAWINGS, OR IN THE SPECIFICATIONS, THE FOLLOWING NOTES SHALL APPLY TO THE MATERIALS LISTED HEREIN, AND TO THE PROCEDURES TO BE USED ON THIS PROJECT.
5. ALL HARDWARE ASSEMBLY MANUFACTURER'S INSTRUCTIONS SHALL BE FOLLOWED EXACTLY AND SHALL SUPERSEDE ANY CONFLICTING NOTES ENCLOSED HEREIN.
6. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO INSURE THE SAFETY OF THE STRUCTURE AND IT'S COMPONENT PARTS DURING ERECTION AND/OR FIELD MODIFICATIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF TEMPORARY BRACING, GUYS OR TIE DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER THE COMPLETION OF THE PROJECT.
7. ALL DIMENSIONS, ELEVATIONS, AND EXISTING CONDITIONS SHOWN ON THE DRAWINGS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO BEGINNING ANY MATERIALS ORDERING, FABRICATION OR CONSTRUCTION WORK ON THIS PROJECT. CONTRACTOR SHALL NOT SCALE CONTRACT DRAWINGS IN LIEU OF FIELD VERIFICATIONS. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND THE OWNER'S ENGINEER. THE DISCREPANCIES MUST BE RESOLVED BEFORE THE CONTRACTOR IS TO PROCEED WITH THE WORK. THE CONTRACT DOCUMENTS DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY THE OWNER AND/OR THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE PROTECTIVE MEASURES OR THE PROCEDURES.
8. ALL MATERIALS AND EQUIPMENT FURNISHED SHALL BE NEW AND OF GOOD QUALITY, FREE FROM FAULTS AND DEFECTS AND IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ANY AND ALL SUBSTITUTIONS MUST BE PROPERLY APPROVED AND AUTHORIZED IN WRITING BY THE OWNER AND ENGINEER PRIOR TO INSTALLATION. THE CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF THE MATERIALS AND EQUIPMENT BEING SUBSTITUTED.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR INSURING THAT THIS PROJECT AND RELATED WORK COMPLIES WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL SAFETY CODES AND REGULATIONS GOVERNING THIS WORK.
10. ACCESS TO THE PROPOSED WORK SITE MAY BE RESTRICTED. THE CONTRACTOR SHALL COORDINATE INTENDED CONSTRUCTION ACTIVITY, INCLUDING WORK SCHEDULE AND MATERIALS ACCESS, WITH THE RESIDENT LEASING AGENT FOR APPROVAL.
11. CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS FOR THIS PROJECT FROM ALL APPLICABLE GOVERNMENTAL AGENCIES.
12. ALL PERMITS THAT MUST BE OBTAINED ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
13. ALL WORK SHALL COMPLY TO LOCAL CODES AND THE ACI 318-99, "BUILDING REQUIREMENTS FOR STRUCTURAL CONCRETE".
14. 24 HOURS PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, THE CONTRACTOR MUST NOTIFY THE APPLICABLE JURISDICTIONAL (STATE, COUNTY OR CITY) ENGINEER.
15. THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL PIPES, DITCHES, AND OTHER DRAINAGE STRUCTURES FREE FROM OBSTRUCTION UNTIL WORK IS ACCEPTED BY THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES CAUSED BY FAILURE TO MAINTAIN DRAINAGE STRUCTURE IN OPERABLE CONDITION.
16. ALL MATERIALS AND WORKMANSHIP SHALL BE WARRANTED FOR ONE YEAR FROM ACCEPTANCE DATE.
17. ALL TOWER DIMENSIONS SHALL BE VERIFIED WITH THE PLANS (LATEST REVISION) PRIOR TO COMMENCING CONSTRUCTION. NOTIFY THE ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE DISCOVERED. THE OWNER SHALL HAVE A SET OF APPROVED PLANS AVAILABLE AT THE SITE AT ALL TIMES WHILE WORK IS BEING PERFORMED. A DESIGNATED RESPONSIBLE EMPLOYEE SHALL BE AVAILABLE FOR CONTACT BY GOVERNING AGENCY INSPECTORS.

STRUCTURAL STEEL NOTES:

1. THE FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AISC SPECIFICATION FOR MANUAL OF STEEL CONSTRUCTION, ALLOWABLE STRESS DESIGN, 9TH EDITION.
2. UNLESS OTHERWISE NOTED, ALL STRUCTURAL ELEMENTS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
   A. STRUCTURAL STEEL, ASTM DESIGNATION A36.
   B. ALL BOLTS, ASTM A325 TYPE I GALVANIZED HIGH STRENGTH BOLTS.
   C. ALL NUTS, ASTM A563 CARBON AND ALLOY STEEL NUTS.
   D. ALL WASHERS, ASTM F436 HARDENED STEEL WASHERS.
3. ALL CONNECTIONS NOT FULLY DETAILED ON THESE PLANS SHALL BE DETAILED BY THE STEEL FABRICATOR IN ACCORDANCE WITH AISC SPECIFICATION FOR MANUAL OF STEEL CONSTRUCTION, ALLOWABLE STRESS DESIGN, 9TH EDITION.
4. HOLES SHALL NOT BE FLAME CUT THRU STEEL UNLESS APPROVED BY THE ENGINEER.
5. HOT-DIP GALVANIZE ALL ITEMS UNLESS OTHERWISE NOTED, AFTER FABRICATION WHERE PRACTICABLE. GALVANIZING: ASTM A123, ASTM, A153/A153M OR ASTM A653/A653M, G90, AS APPLICABLE.
6. REPAIR DAMAGED SURFACES WITH GALVANIZING REPAIR METHOD AND PAINT CONFORMING TO ASTM A780 OR BY APPLICATION OF STICK OR THICK PASTED MATERIAL SPECIFICALLY DESIGNED FOR REPAIR OF GALVANIZING. CLEAN AREAS TO BE REPAIRED AND REMOVE SLAG FROM WELDS. HEAT SURFACES TO WHICH STICK OR PASTE MATERIAL IS APPLIED, WITH A TORCH TO A TEMPERATURE SUFFICIENT TO MELT THE METALLICS IN STICK OR PASTED; SPREAD MOLTEN MATERIAL UNIFORMLY OVER SURFACES TO BE COATED AND WIPE OFF EXCESS MATERIAL.
7. A NUT LOCKING DEVICE SHALL BE INSTALLED ON ALL PROPOSED AND/OR REPLACED BOLTS.
8. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH TO EXCLUDE THE THREADS FROM THE SHEAR PLANE.
9. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH SUCH THAT THE END OF THE BOLT BE AT LEAST FLUSH WITH THE FACE OF THE NUT. IT IS NOT PERMITTED FOR THE BOLT END TO BE BELOW THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETED.
10. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.

WELDING NOTES:

1. ALL WELDING SHALL BE IN ACCORDANCE WITH THE AWS D1.1/D1.1M: 2006 "STRUCTURAL WELDING CODE - STEEL".
2. ALL WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS.
3. CONTRACTOR SHALL RETAIN AN AWS CERTIFIED WELD INSPECTOR TO PERFORM VISUAL INSPECTIONS ON FIELD WELDS. A LETTER AND REPORT SHALL BE ISSUED TO THE CONTRACTOR. CONTRACTOR SHALL SUBMIT LETTER AND REPORT TO TOWER ENGINEERING PROFESSIONALS.
4. GRIND THE SURFACE ADJACENT TO THE WELD FOR A DISTANCE OF 2" MINIMUM ALL AROUND. GRIND THE SURFACE OF THE ROD TO BE INSTALLED FOR A DISTANCE OF 2" MINIMUM ALL AROUND THE AREA TO BE WELDED. ENSURE BOTH AREAS ARE 100% FREE OF ALL GALVANIZING. SURFACES TO BE WELDED SHALL BE FREE FROM SCALE, SLAG, RUST, MOISTURE, GREASE OR ANY OTHER FOREIGN MATERIAL THAT WOULD PREVENT PROPER WELDING.
5. DO NOT WELD IF THE TEMPERATURE OF THE STEEL IN THE VICINITY OF THE WELD AREA IS BELOW 0°F. WHEN THE TEMPERATURE IS BETWEEN 0°F AND 32°F, PREHEAT AND MAINTAIN THE STEEL IN THE VICINITY OF THE WELD AREA AT 70°F DURING THE WELDING PROCESS.
6. DO NOT WELD ON WET OR FROST-COVERED SURFACES AND PROVIDE ADEQUATE PROTECTION FROM HIGH WINDS.
7. FOR ALL WELDING, USE E70XX ELECTRODES.
8. AFTER FINAL INSPECTION, THE AREA OF THE WELDS, THE INSTALLATION AND ALL SURFACES DAMAGED BY WELDING OR GRINDING SHALL RECEIVE A COLD-GALVANIZED COATING. THIS COATING SHALL BE APPLIED BY BRUSH. THE GALVANIZING COMPOUND SHALL CONTAIN A MINIMUM OF 95% PURE ZINC. THE FINISHED COATING SHALL BE A MINIMUM THICKNESS OF 3 MILLS.

PLANS PREPARED FOR:

CROWN CASTLE INTERNATIONAL

Crown Castle USA Inc.

9105 Monroe Road, Suite 150
Charlotte, NC 28720
Office: (704) 321-3845

PROJECT INFORMATION:

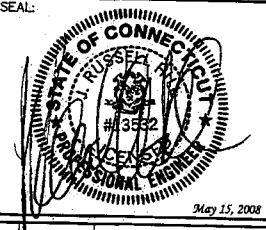
HAMPTON / BERNIER
BU # 876390

116 GRANT HILL ROAD
BROOKLYN, CT 06234
(WINDHAM COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
3703 JUNCTION BOULEVARD
RALEIGH, NC 27603-5263
OFFICE: (919) 661-6351
FAX: (919) 661-6350

SEAL:



May 15, 2008

REV	DATE	ISSUED FOR:
O	05-15-08	MODIFICATION DESIGN

DRAWN BY: KMM | CHECKED BY: CGP

SHEET TITLE:

PROJECT NOTES

SHEET NUMBER: **S-3**

REVISION: 0

TEP #: 072655