PULLMAN & COMLE
ATTORNEYS AT LAW

EM-POCKET-062-081211

ORIGINAL

ARRIE L. LARSON
) State House Square
Hartford, CT 06103-3702
p (860) 424-4312
f (860) 424-4370

www.pullcom.com

December 10, 2008

Via Federal Express

S. Derek Phelps, Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Re: Notice of Exempt Modification
Crown Castle USA, Inc. Telecommunications Facility
2755 State Street, Hamden, Connecticut

Dear Mr. Phelps:

Youghiogheny Communications-Northeast, LLC, doing business as Pocket Communications ("Pocket"), intends to install antennas and appurtenant equipment at the existing 120-foot PIROD self supporting lattice tower facility owned by Crown Castle USA, Inc. and located at 2755 State Street, Hamden, Connecticut ("Facility"). Pocket Communications provides prepaid, flat rate wireless voice and data services to more than a quarter of a million subscribers. Pocket is licensed by the Federal Communications Commission (FCC) to provide PCS wireless telecommunications service in the State of Connecticut, which includes the area to be served by the proposed installation. This installation constitutes an exempt modification pursuant to the Public Utility Environmental Standards Act, Connecticut General Statutes Section 16-50g et. seq. (PUESA), and Section 16-50j-72(b)(2) of the Regulations of the Connecticut State Agencies adopted pursuant to PUESA. In accordance with R.C.S.A. Section 16-50j-73, a copy of this notice has been sent to Craig B. Henrici, Mayor, Town of Hamden.

The existing Facility consists of a 120-foot PIROD self supporting lattice tower capable of supporting multiple carriers within a fenced compound. The coordinates for the Facility are **Lat: 41°-21'-21" and Long: 72°–53'-25".** The tower is located in the northeast corner of Hamden, roughly 2,200 feet south of the North Haven town line. The Facility is approximately 150 feet east of State Street. Interstate 91 is roughly one mile to the east and Whitney Avenue is roughly one mile to the west (see Site Map, attached as Exhibit A). The tower currently supports AT&T antennas at the one hundred ten foot (110') level centerline AGL (above ground level), and Sprint antennas at the one hundred twenty foot level (120') AGL. Per the specifications of the structural report and as detailed in the Proposed Structural Modification Drawings (see attached Exhibit F), modifications will be made to insure the structural integrity and proper capacity for the tower. Pocket proposes to install three RFS APXV18-206517S-C flush mount antennas on the tower at the one hundred foot centerline (100') AGL, and a Nortel

CDMA Micro BTS 3231 cabinet, mounted on an "H-Frame," contained within a six foot by six foot (6'-0" x 6'-0") lease area. A small GPS antenna will be mounted to the H-Frame. An ice bridge will run from the lease area to the tower. Utilities will be run via a proposed underground conduit from an existing utility backboard, within the compound (See Design Drawings and Equipment Specifications, attached as Exhibits B and C respectively).

For the following reasons, the proposed modifications to the State Street Facility meet the exempt modification criteria set forth in R.C.S.A. Section 16-50j-72(b)(2):

1. The proposed modification will not increase the height of the tower as Pocket's antennas will be installed at a center line height of approximately 100 feet.

2. The installation of Pocket's equipment and shelter will not require an extension of the site boundaries.

3. The proposed modifications will not increase the noise levels at the existing Facility by six decibels or more.

4. The operation of the additional antennas will not increase the total radio frequency (RF) power density, measured at the site boundary, to a level at or above the standard adopted by the Connecticut Department of Environmental Protection as set forth in Section 22a-162 of the Connecticut General Statutes and MPE limits established by the Federal Communications Commission. The worst-case RF power density calculations for the proposed Pocket antennas would be 41.17% of the FCC standard (see general power density calculations table, attached as Exhibit D).

Also attached, Exhibit E, is a structural analysis confirming that the tower can support the existing and proposed antennas and associated equipment. As mentioned above, modifications to the initial structural analysis are attached as Exhibit F, which Pocket has committed to undertake.

For the foregoing reasons, Pocket respectfully submits that the proposed antenna installation and equipment at the Hamden Facility constitutes an exempt modification under R.C.S.A. Section 16-50j-72(b)(2).

Respectfully Submitted,

Carrie L. Larson

cc: Craig B. Henrici, Mayor
Amodio Self Storit, underlying property owner

Exhibit A

Site Map

Pocket Site NHCT0024A

2755 State Street

Hamden, Connecticut

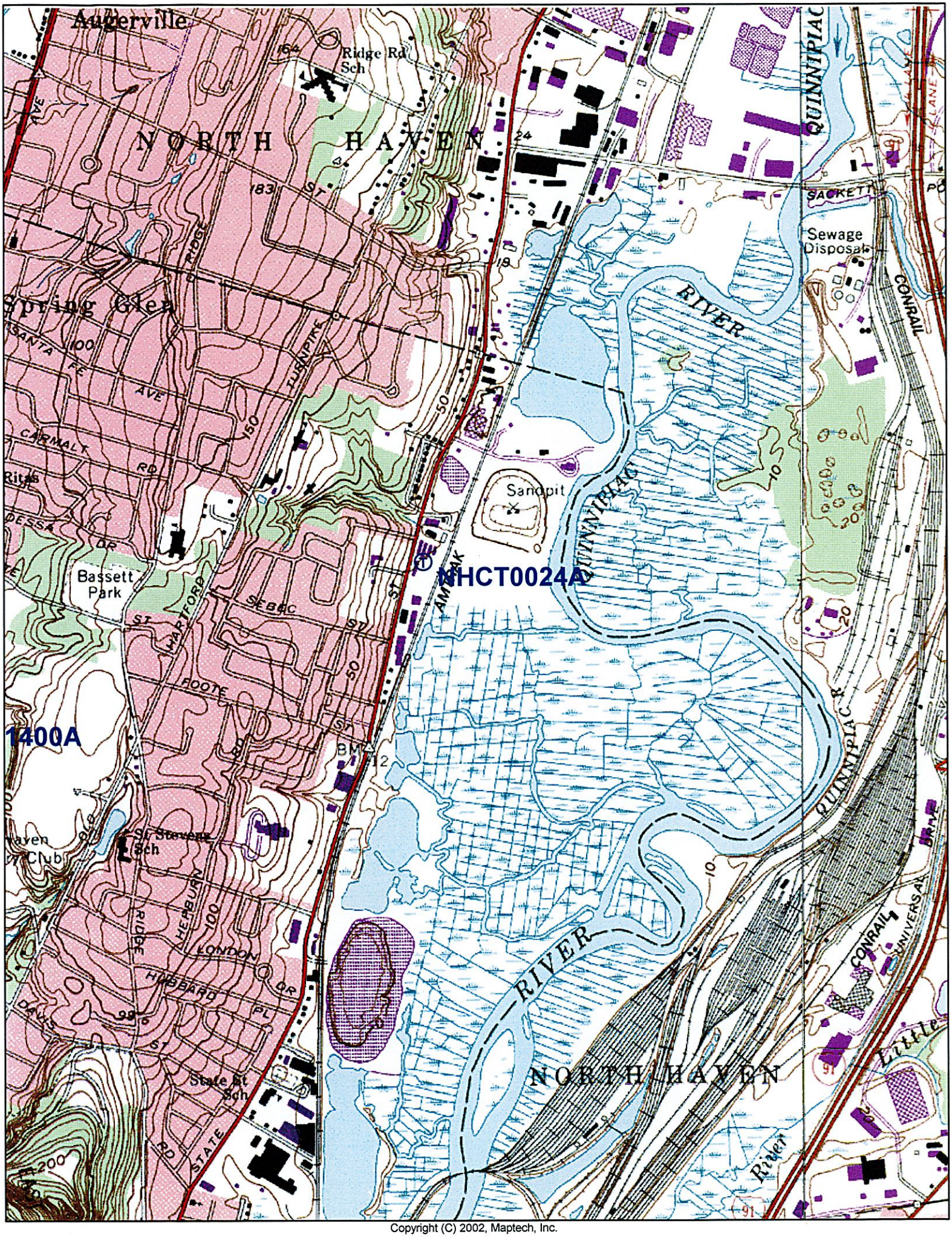


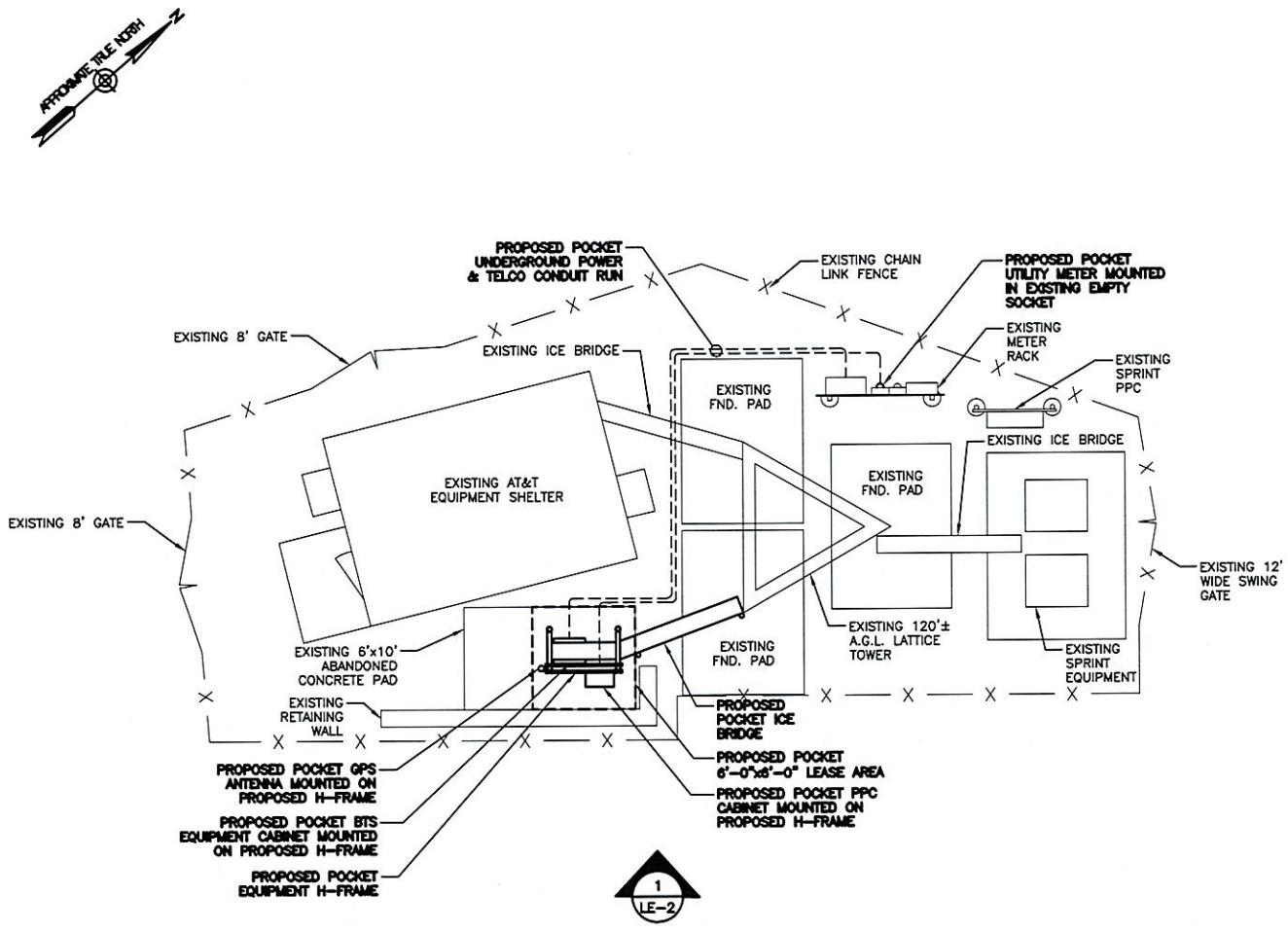
Exhibit B

Design Drawings

Pocket Site NHCT0024A

2755 State Street

Hamden, Connecticut



COMPOUND PLAN 1

SCALE: N.T.S.

APPROX. COAX RUN
130'

APPROVALS

SITE OWNER	DATE
CONSTRUCTION MANAGER	DATE
R.F ENGINEER	DATE
SITE ACQUISITION	DATE

THE ABOVE PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION AS INDICATED. ALL CONSTRUCTION DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND ANY CHANGES OR MODIFICATIONS THEY MAY IMPOSE.

MAXTON
50 Eastman St.
South Easton, MA 02375
Phone: (508) 936-6363
Fax: (508) 936-6365

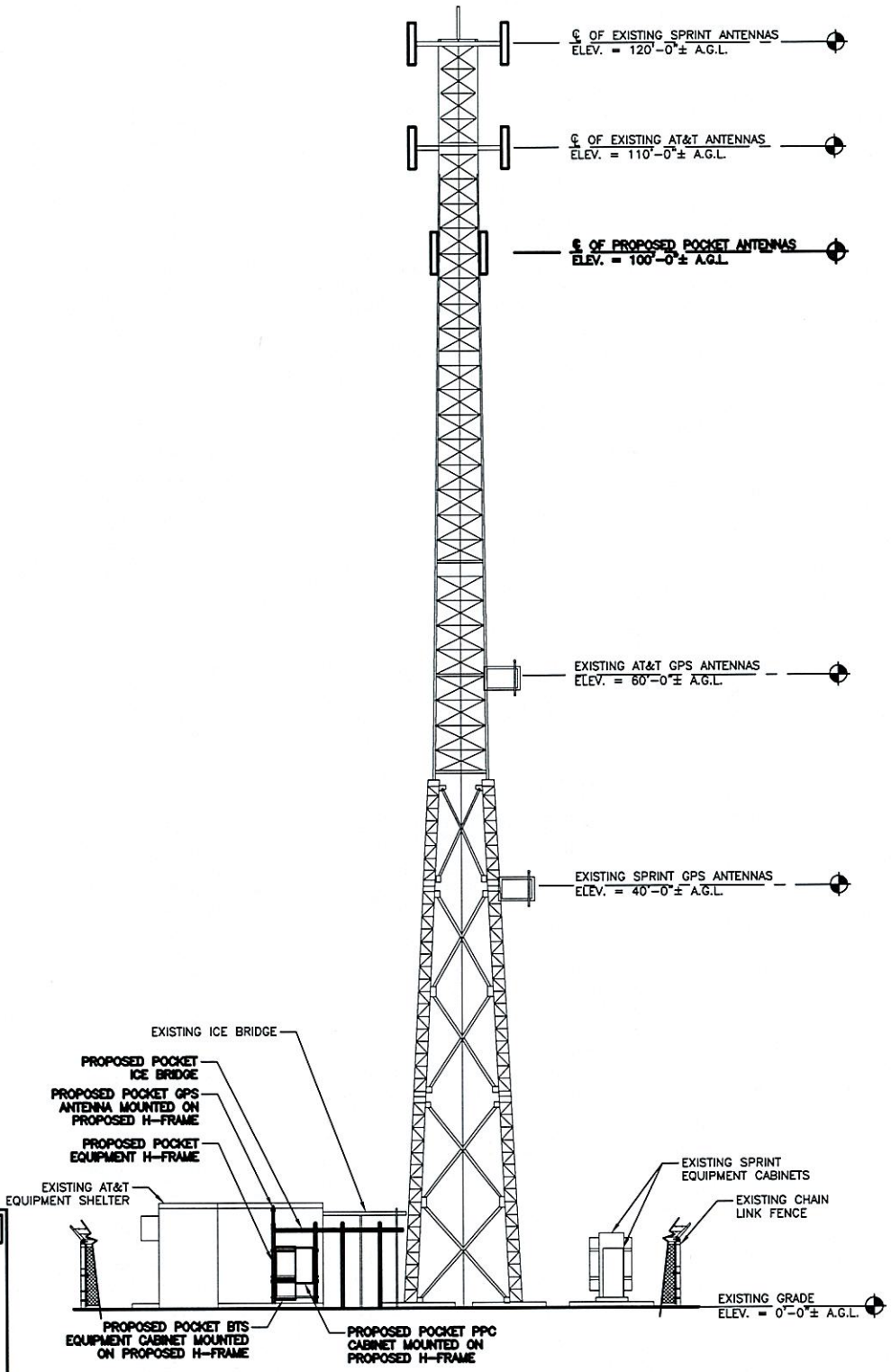
BAY STATE DESIGN
Bay State Design Associates, Inc.
Architects • Engineers
70 Tower Office Park
Woburn, MA 01801
Phone: 781-932-2467
Fax: 781-932-9771

PREPARED FOR:

pocket SMART WIRELESS

Pocket Communications
P.O. Box 5936
San Antonio, TX 78201

SITE NUMBER: NHCT0024A		DRAWN BY: DR	PROJECT NUMBER: 2882.
SITE NAME: NH-024A HAMDEN, CT		CHECKED BY: JP	SHEET: LE-1
SITE ADDRESS: 2755 STATE STREET HAMDEN, CT		DATE: 12/9/08	



ELEVATION 1

SCALE: N.T.S.

APPROVALS

SITE OWNER	DATE
CONSTRUCTION MANAGER	DATE
R.F ENGINEER	DATE
SITE ACQUISITION	DATE

THE ABOVE PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL CONSTRUCTION DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND ANY CHANGES OR MODIFICATIONS THEY MAY IMPOSE.

MAXTON
50 Eastman St.
South Easton, MA 02375
Phone: (508) 936-6363
Fax: (508) 936-6395

BAY STATE DESIGN
Bay State Design Associates, Inc.
Architects • Engineers
70 Tower Office Park
Woburn, MA 01801
Phone: 781-932-2467
Fax: 781-932-9771

PREPARED FOR:

pocket SMART WIRELESS

Pocket Communications
P.O. Box 5936
San Antonio, TX 78201

SITE NUMBER: NHCT0024A		DRAWN BY: DR	PROJECT NUMBER: 2882.
SITE NAME: NH-024A HAMDEN, CT		CHECKED BY: JP	SHEET: LE-2
SITE ADDRESS: 2755 STATE STREET HAMDEN, CT		DATE: 12/9/08	

Exhibit C

Equipment Specifications

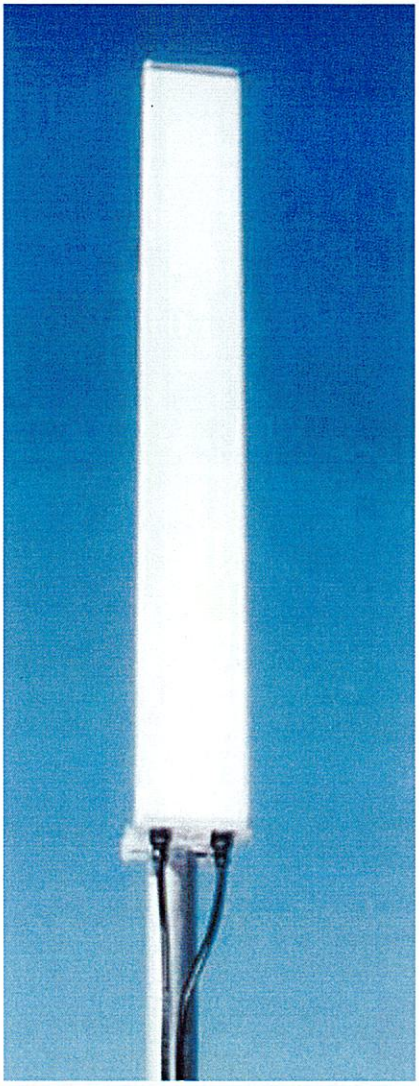
Pocket Site NHCT0024A

2755 State Street

Hamden, Connecticut

Product Description

This variable tilt antenna provides exceptional suppression of all upper sidelobes at all downtilt angles. It also features null fill and a wide downtilt range with optional remote tilt.



Features/Benefits

- Variable electrical downtilt - provides enhanced precision in controlling intercell interference. The tilt is infield adjustable 0-10 deg.
- High Suppression of all Upper Sidelobes (Typically <-20dB).
- Optional remote tilt - can be retrofitted.
- Broadband design.
- Dual polarization.
- Low profile for low visual impact.

Technical Features

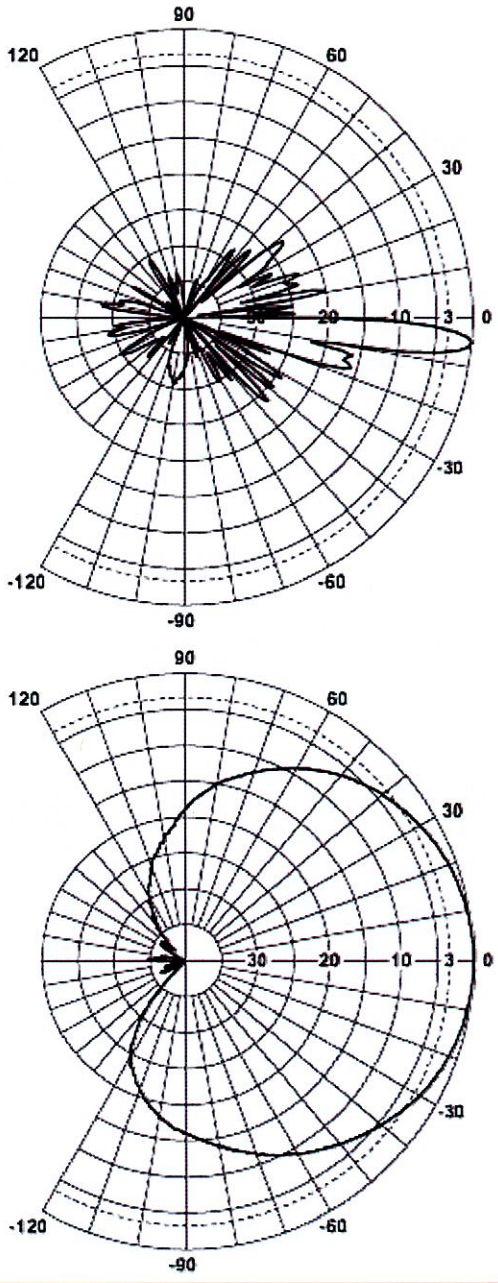
Frequency Band	3G/UMTS (Single, Broad, Dual and Triple-Band)
Horizontal Pattern	Directional
Antenna Type	Panel Dual Polarized
Electrical Down Tilt Option	Variable

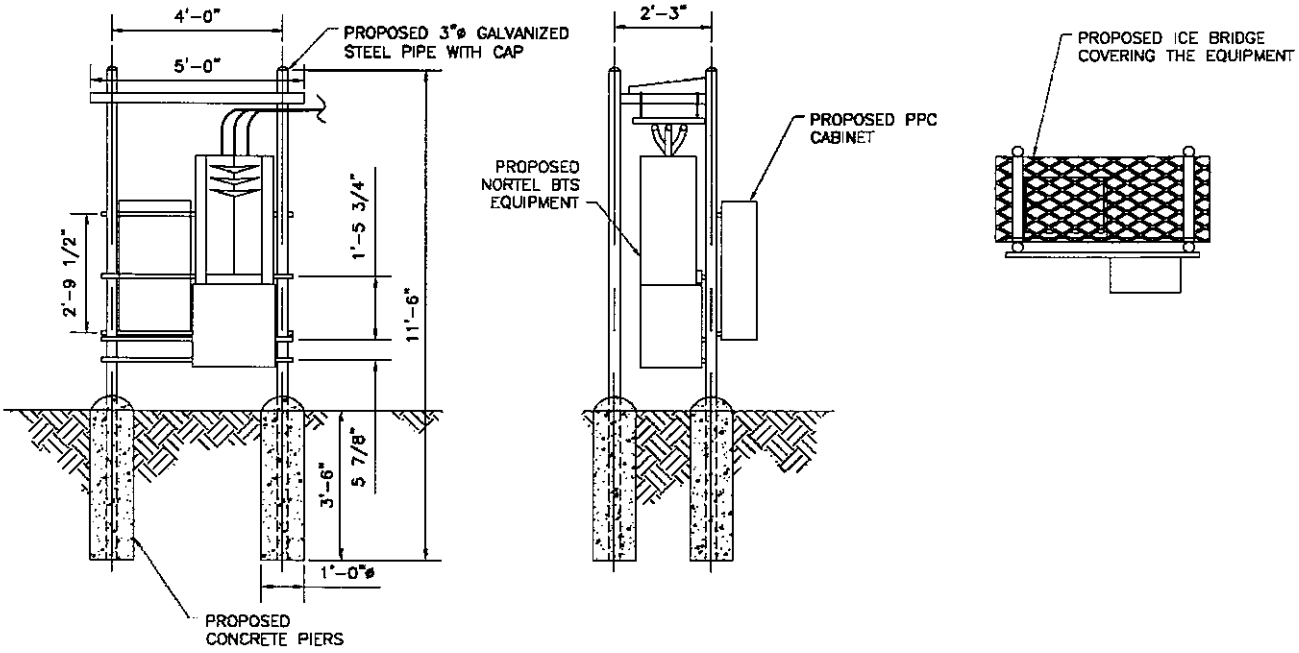
Technical Data Sheet	APXV18-206517S-C

Gain, dBi (dBd)	18.8 (16.7) , 19.0 (16.9)
Frequency Range, MHz	1710-1900, 1900-2170
Connector Type	(2) 7-16 DIN Female
Connector Location	Bottom
Mount Type	Downtilt
Electrical Downtilt, deg	0-10
Horizontal Beamwidth, deg	67 , 63
Mounting Hardware	APM40-2
Rated Wind Speed, km/h (mph)	160 (100)
VSWR	< 1.5:1
Vertical Beamwidth, deg	5.0 , 4.6
Upper Sidelobe Suppression, dB	>17 , >18 all (Typically >20)
Polarization	Dual pol +/-45°
Front-To-Back Ratio, dB	>30
Maximum Power Input, W	300
Isolation between Ports, dB	>30
Lightning Protection	Direct Ground
3rd Order IMP @ 2 x 43 dBm, dBc	>150
7th Order IMP @ 2x46 dBm, dBc	>170
Impedance, Ohms	50
Overall Length, m (ft)	1.85 (6.06)
Mounting Hardware Weight, kg (lb)	3.4 (7.5)
Dimensions - HxWxD, mm (in)	1850 x 175 x 80 (72.0 x 6.8 x 3.15)
Weight w/o Mtg Hardware, kg (lb)	12 (26.4)
Weight w/ Mtg Hardware, kg (lb)	14.8 (32.5)
Radiating Element Material	Brass
Radome Color	Light Grey RAL7035
Radome Material	Fiberglass
Mounting Hardware Material	Diecasted Aluminum
Reflector Material	Aluminum
Max Wind Loading Area, m² (ft²)	0.31 (3.3)
Survival Wind Speed, km/h (mph)	200 (125)
Maximum Thrust @ Rated Wind, N (lbf)	558 (125)
Front Thrust @ Rated Wind, N (lbf)	558 (125)
Shipping Weight, kg (lb)	18.3 (39.8)
Packing Dimensions, HxWxD, mm (in)	2021 x 260 x 200 (79.5 x 10.2 x 7.8)
Packing Dimensions - HxWxD, m (ft)	2.0 x 0.26 x 0.2 (6.6 x 0.85 x 0.65)

Notes

For additional mounting information please click "External Document Link" below.





Pocket/Youghiogheny Communications – Northeast, LLC
Rack Detail

>BUSINESS MADE **SIMPLE**

NORTEL

CDMA BTS 3231 AWS 1.7/2.1 GHz (Outdoor/Indoor)

CDMA BTS 3231

Industry's Highest Capacity AWS Micro BTS

The CDMA BTS 3231 is the latest extension to Nortel Networks BTS (Base Transceiver Station) portfolio providing the ideal solution for urban, sub-urban and rural deployments. The CDMA BTS 3231 is a 3-carrier, 3-sector outdoor/indoor BTS operating at the AWS band of 1.7/2.1 GHz supporting IS-95, 1XRTT and 1xEV-DO simultaneously. BTS 3231 provides flexible deployments solutions including floor, rack, and wall mount options. The power consumption of BTS3231 is industry leading consuming only 630W for 3C3S. The BTS 3231 is also very light at 240lbs making it easy to transport to hard to reach locations such as the top of a high rise building.

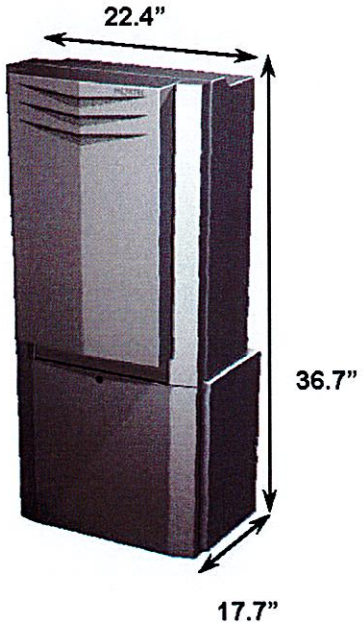


Exhibit D

Power Density Calculations

Pocket Site NHCT0024A

2755 State Street

Hamden, Connecticut

C Squared Systems, LLC
920 Candia Road
Manchester, NH 03109
Phone: (603) 657 9702
E-mail:
support@csquaredsystems.com

Calculated Radio Frequency Emissions

NHCT0024

2755 State St, Hamden, CT

Table of Contents

List of Tables

1. Introduction

The purpose of this report is to investigate compliance with applicable FCC regulations for the proposed Pocket antennas to be installed on the existing tower at 2755 State St, Hamden, CT.

These calculations assume that the antennas are operating at 100 percent capacity, that all antenna channels are transmitting simultaneously, and that the radio transmitters are operating at full power. Obstructions (trees, buildings etc.) that would normally attenuate the signal are not taken into account. As a result, the predicted signal levels are much more conservative (higher) than the actual signal levels will be from the finished installation.

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter (mW/cm^2). The number of mW/cm^2 emitted is called the power density. The general population exposure limit for the cellular band is 0.567-0.593 mW/cm^2, and the general population exposure limit for the PCS/AWS band is 1.0 mW/cm^2. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

The FCC general population / uncontrolled limits set the maximum exposure to which most people may be subjected. General population / uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

Higher exposure limits are permitted under the occupational / controlled exposure category, but only for persons who are exposed as a consequence of their employment and who have been made fully aware of the potential for exposure (through training), and they must be able to exercise control over their exposure. General population / uncontrolled limits are five times more stringent than the levels that are acceptable for occupational, or radio frequency trained individuals."

The FCC describes exposure to radio frequency (RF) energy in terms of percentage of maximum permissible exposure (MPE) with 100% being the maximum allowed. Rather than the FCC presenting the user specification in terms of complex power density figures over a specified surface area, this MPE measure is particularly useful, and even more so when considering that power density limits actually vary by frequency because of the different absorptive properties of the human body at different frequencies.

MPE limits are specified as time-averaged exposure limits. This means that exposure can be averaged over 30 minutes for general population / uncontrolled exposure (or 6 minutes for occupational / controlled exposure). However, for the case of exposure of the general public, time averaging is usually not applied because of uncertainties over exact exposure conditions and difficulty in controlling time of exposure. Therefore, the typical conservative approach is to assume that any RF exposure to the general public will be continuous.

Finally, it should be noted that the MPE limits adopted by the FCC for both general population / uncontrolled exposure and for occupational / controlled exposure incorporate a substantial margin of safety and have been established to be well below levels generally accepted as having the potential to cause adverse health effects.

2. FCC Guidelines for Evaluating RF Radiation Exposure Limits

In 1985, the FCC established rules to regulate radio frequency (RF) exposure from FCC licensed antenna facilities. In 1996, the FCC updated these rules, which were further amended in August 1997 by OET Bulletin 65 Edition 97-01. These new rules include limits for Maximum Permissible Exposure (MPE) for transmitters operating between 300 kHz and 100 GHz. The FCC MPE limits are based on exposure limits recommended by the National Council on Radiation Protection and Measurements (NCRP), the exposure limits developed by the Institute of Electrical and Electronics Engineers, Inc., (IEEE) and adopted by the American National Standards Institute (ANSI).

Attachment B contains excerpts from OET Bulletin 65 and defines the Maximum Exposure Limit. As shown in these excerpts, each frequency band has different exposure limits, requiring power density to be reported as a percent of Maximum Permissible Exposure (MPE) when dealing with carriers transmitting in different frequency bands.

3. RF Exposure Prediction Methods

The emission field calculation results displayed in the following figures were generated using the following formula as outlined in FCC bulletin OET 65:

$$\text{Power Density} = \left(\frac{EIRP}{\pi \times R^2}\right) \times \text{Off Beam Loss}$$

Where:

EIRP = Effective Isotropic Radiated Power

R = Radial Distance = $\sqrt{(H^2 + V^2)}$

H = Horizontal Distance from antenna

V = Vertical Distance from bottom of antenna

Off Beam Loss is determined by the selected antenna patterns

4. Calculation Results

Table 1 below outlines the power density information for the site. All information for carriers other than Pocket was obtained from current CSC database.

Carrier	Number of Trans.	Effective Radiated Power (ERP) Per Transmitter (Watts)	Antenna Height (Feet)	Operating Frequency (MHz)	Total ERP (Watts)	Power Density (mw/cm^2)	Limit	%MPE
Sprint CDMA	11	136.5	120	1,963	1,502	0.0375	1.0000	3.75%
AT&T GSM	20	250	110	880	5,000	0.1486	0.5867	25.33%
AT&T UMTS	1	500	110	1,935	500	0.0149	1.0000	1.49%
AT&T GSM	3	427	110	1,930	1,281	0.0381	1.0000	3.81%
Pocket	3	631	100	2130-2133.75	1,893	0.0681	1.0000	6.81%
							Total	41.17%

Table 1: Proposed Carrier Information

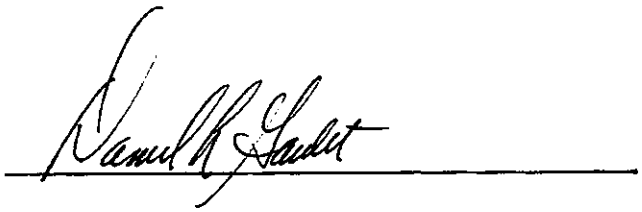
5. Conclusion

The above analysis verifies that emissions from the proposed site will be well below the maximum power density levels as outlined by the FCC in the OET Bulletin 65 Ed. 97-01. Even when using conservative methods, the cumulative power density from the proposed transmit antennas at the existing facility is well below the limits for the general public. The highest expected percent of Maximum Permissible Exposure at the base of the tower is 41.17% of the FCC limit.

As noted in the introduction, obstructions (trees, buildings etc.) that would normally attenuate the signal are not taken into account. As a result, the predicted signal levels are more conservative (higher) than the actual signal levels will be from the finished installation.

6. Statement of Certification

I certify to the best of my knowledge that the statements in this report are true and accurate. The calculations follow guidelines set forth in ANSI/IEEE Std. C95.3, ANSI/IEE Std. C95.1 and FCC OET Bulletin 65 Edition 97-01.



December 3, 2008
Date

Daniel l. Goulet
C Squared Systems, LLC

Attachment A: References

OET Bulletin 65 - Edition 97-01 - August 1997 Federal Communications Commission Office of Engineering & Technology

ANSI C95.1-1982, American National Standard Safety Levels With Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 300 kHz to 100 GHz. IEEE-SA Standards Board

IEEE Std C95.3-1991 (Reaff 1997), IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave. IEEE-SA Standards Board

Attachment B: FCC Limits For Maximum Permissible Exposure (MPE)

(A) Limits for Occupational/Controlled Exposure

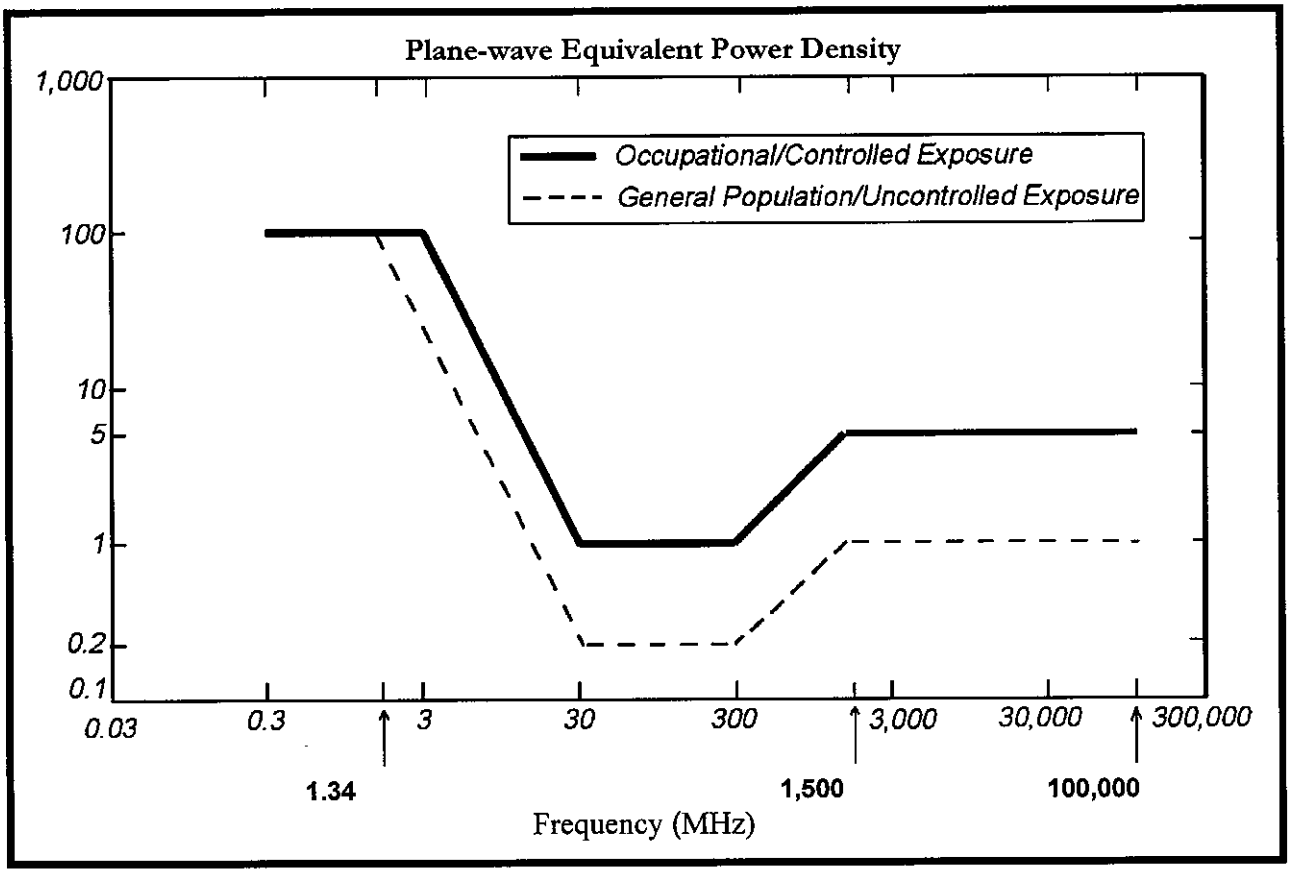
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	($900/f^2$)*	6
30-300	61.4	0.163	1.0	6
300-1500	-	-	f/300	6
1500-100,000	-	-	5	6

(B) Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	($180/f^2$)*	30
30-300	27.5	0.073	0.2	30
300-1500	-	-	f/1500	30
1500-100,000	-	-	1.0	30

f = frequency in MHz * Plane-wave equivalent power density

NOTE 1: Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.
NOTE 2: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.



• FCC Limits for Maximum Permissible Exposure (MPE)

Exhibit E

Structural Analysis

Pocket Site NHCT0024A

2755 State Street

Hamden, Connecticut

GPD ASSOCIATES

Date: **November 10, 2008**

Danielle Garder
Crown Castle USA Inc.
9105 Monroe Rd. – Suite 150
Charlotte, NC 28270
(704) 321-3815

GPD Associates
520 South Main St. Suite 2531
Akron, OH 44311
(641) 210-0751
dpalkovic@gpdgroup.com

Subject:	**Structural Analysis Report**	
Carrier Designation:	***Youghiogheny* Co-Locate**	
	Carrier Site Number:	NHCT0024A
	Carrier Site Name:	NHCT0024A
Crown Castle Designation:	**Crown Castle BU Number:**	876312
	Crown Castle Site Name:	Monotowese Amodio Self Store
	Crown Castle JDE Job Number:	110614
	Crown Castle Work Order Number:	233164
Engineering Firm Designation:	**GPD Associates Project Number:**	2008279.90
Site Data:	**2755 State St., Hamden, Connecticut 06473, New Haven County**	
	Latitude *41° 21' 19.67"*, Longitude *-72° 53' 25.13"*	
	120 Foot – PiROD Self Support Tower	

Dear Ms. Danielle Gardner,

GPD Associates is pleased to submit this **"Structural Analysis Report"** to determine the structural integrity of the above mentioned 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 305626, in accordance with application 69484, revision 2.

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:

LC1: Existing + Reserved + Proposed Equipment **Insufficient Capacity**
Note: See Table I and Table II for the proposed and existing/reserved loading, respectively.

The analysis has been performed in accordance with the TIA/EIA-222-F standard and all local code requirements based upon a wind speed of 85 mph fastest mile.

All modifications and equipment proposed in this report shall be installed in accordance with the attached drawings by GPD Associates (Project #: 2008281.30, dated 11/10/08, see Appendix D) for the determined available structural capacity to be effective.

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

Respectfully submitted by:

David B. Granger P.E.
Connecticut # 17557

RISA Tower Report - version 5.3.0.1

TABLE OF CONTENTS

1) INTRODUCTION

This tower is a 120 ft Self Support tower designed by PiROD in November of 1997. The tower was originally designed for a wind speed of 90 mph per TIA/EIA-222-F.

The 120' tower is supported on three legs and has seven major sections. It has a triangular cross section made of bolted connections from 0' – 50' and welded connections from 50' – 120', with an "X" frame configuration. The tower is fabricated with PiROD truss legs and angle diagonals from 0' – 50' and solid round legs and diagonals from 50' – 120'.

Modifications designed by GPD Associates (Project #: 2008281.30, dated 11/10/08) of adding tie rods to the PiROD truss legs from 0' – 20', adding horizontal redundants to the solid round legs from 70' – 90', and installing additional concrete to the foundations. These modifications have been considered in this analysis.

2) ANALYSIS CRITERIA

The structural analysis was performed for this tower in accordance with the requirements of TIA/EIA-222-F Structural Standards for Steel Antenna Towers and Antenna Supporting Structures using a fastest mile wind speed of 85 mph with no ice, 73.6 mph with 0.5 inch ice thickness and 60 mph under service loads.

Table 1 - Proposed Antenna and Cable Information

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)	Note
100	100	3	RFS Celwave	APXV18-206517S-C	6	1-5/8	1

Notes:
1) See Appendix B for the proposed coax layout.

Table 2 - Existing and Reserved Antenna and Cable Information

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)	Note
120	120	3	KMW	KMDAPS2050000	6	1-5/8	2,3
		1	Andrew	VHLP2-23-2WH	1	1/2	
		3	KMW	AM-X-WM-17-65-00T			
		4	Decibel	DB950F40T2E-M	6	1-1/4	3
		2	Decibel	DB950G65E-M			
		1		13' Low Profile Platform			
110	112	3	Powerwave	7770.00	12	1-5/8	2
		6	Powerwave	LGP21403 TMAs			
		6	Powerwave	7770.00			
		6	Powerwave	LGP21403 TMAs			
	110	3		12' Lightweight T-Frame			
60	61	1	Kathrein	738-449	2	1/2	2
		1	Trimble	BULLET III			
40	41	1	Trimble	BULLET III	1	1/2	

Notes:
2) Reserved Equipment
3) Both Existing and MLA loadings were considered, the MLA loading was found to control this analysis.

Table 3 - Design Antenna and Cable Information

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
120	120	6		Panel Antennas	6	1-5/8
120	120	1		10'-6" LP Platform		
100	100	12		ALP9212	12	1-5/8
100	100	3		T-Frames		

3) ANALYSIS PROCEDURE

Table 4 - Documents Provided

Document	Remarks	Reference	Source
Original Tower Drawings	PiROD File # A-113604, dated 11/4/97	Doc ID # 1611638	Crown DMZ
Foundation Drawings	PiROD File # A-113604, dated 11/4/97	Doc ID # 1611716	Crown DMZ
Geotechnical Report	Dr. Clarence Welti., dated 9/20/96	Doc ID # 1529742	Crown DMZ
Previous Analysis	GPD job # 2007287.88, dated 11/30/07	Doc ID # 2161477	Crown DMZ
Modification Drawings	Project #: 2008281.30, dated 11/10/08	J. Cheronis	GPD

3.1) Analysis Method

RISATower (version 5.3.0.1), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A.

3.2) Assumptions

1) Tower and structures were built in accordance with the manufacturer's specifications.
2) The tower and structures have been maintained in accordance with the manufacturer's specification.
3) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.
4) When applicable, transmission cables are considered as structural components for calculating wind loads as allowed by TIA/EIA-222-F.

This analysis may be affected if any assumptions are not valid or have been made in error. GPD Associates should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 5 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
T1	120 - 110	Leg	1 1/2	3	10.26	35.15	29.2	Pass
		Diagonal	5/8	14	-1.83	4.48	40.9	Pass
		Horizontal	5/8	30	-0.15	1.86	8.3	Pass
		Top Girt	3/4	5	-0.55	3.85	14.3	Pass
		Bottom Girt	3/4	7	-0.69	3.85	17.9	Pass
T2	110 - 90	Leg	1 3/4	39	45.32	58.59	77.4	Pass
		Diagonal	3/4	50	-3.90	7.69	50.7	Pass
		Horizontal	3/4	59	-0.73	3.16	23.1	Pass
		Top Girt	7/8	41	-1.17	7.14	16.4	Pass
		Bottom Girt	7/8	44	-2.21	5.51	40.1	Pass
T3	90 - 70	Leg	2	101	-101.36	114.63	88.4	Pass
		Diagonal	7/8	110	-5.08	11.74	43.2	Pass
		Horizontal	7/8	188	-1.58	5.31	29.8	Pass
		Secondary Horizontal	1 1/4	119	-1.76	18.39	9.5	Pass
		Top Girt	1	105	-1.00	9.34	10.7	Pass
		Bottom Girt	1	107	-2.55	7.43	34.3	Pass
T4	70 - 50	Leg	2 1/2	203	-157.51	164.50	95.8	Pass
		Diagonal	7/8	261	-6.13	11.59	52.9	Pass
		Horizontal	7/8	260	-1.73	4.26	40.7	Pass
		Top Girt	1	207	-1.85	7.46	24.8	Pass
		Bottom Girt	1	209	-1.72	6.07	28.3	Pass
T5	50 - 40	Leg	Pirod 105245	267	-154.92	184.67	83.9	Pass
		Diagonal	L2 1/2x2 1/2x3/16	274	-5.32	12.14	43.8	Pass
T6	40 - 20	Leg	Pirod 105217	276	-177.02	184.67	95.9	Pass
		Diagonal	L2 1/2x2 1/2x3/16	286	-4.05	10.46	38.7	Pass
T7	20 - 0	Leg	PiRod 105217 Modified	291	-196.63	279.07	70.5	Pass
		Diagonal	L2 1/2x2 1/2x3/16	295	-4.58	7.58	60.4	Pass
							Summary	
						Leg (T6)	95.9	Pass
						Diagonal (T7)	60.4	Pass
						Horizontal (T4)	40.7	Pass
						Secondary Horizontal (T3)	9.5	Pass
						Top Girt (T4)	24.8	Pass
						Bottom Girt (T2)	40.1	Pass
						Bolt Checks	59.3	Pass
						Rating =	95.9	Pass

Table 6 - Tower Component Stresses vs. Capacity - LC1

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
	Anchor Rods		53.3 %	Pass
1	Base Foundation (Compression)		92.4 %	Pass
1	Base Foundation (Uplift)		94.5 %	Pass

Notes:
1) See Additional Calculations in Appendix C for documentation supporting the % capacity shown

Structure Rating (max from all components) =	95.9%

4.1) Recommendations

The design of the existing tower and its foundations will be satisfactory for the proposed loading once the modifications by GPD Associates (Project #: 2008281.30, dated 11/10/08) are installed.

5) DISCLAIMER OF WARRANTIES

GPD ASSOCIATES has not performed a site visit to the tower to verify the member sizes or antenna/coax loading. If the existing conditions are not as represented on the tower elevation contained in this report, we should be contacted immediately to evaluate the significance of the discrepancy. This is not a condition assessment of the tower or foundation. This report does not replace a full tower inspection. The tower and foundations are assumed to have been properly fabricated, erected, maintained, in good condition, twist free, and plumb.

The engineering services rendered by GPD ASSOCIATES in connection with this Structural Analysis are limited to a computer analysis of the tower structure and theoretical capacity of its main structural members. All tower components have been assumed to only resist dead loads when no other loads are applied. No allowance was made for any damaged, bent, missing, loose, or rusted members (above and below ground). No allowance was made for loose bolts or cracked welds.

GPD ASSOCIATES does not analyze the fabrication of the structure (including welding). It is not possible to have all the very detailed information needed to perform a thorough analysis of every structural sub-component and connection of an existing tower. GPD ASSOCIATES provides a limited scope of service in that we cannot verify the adequacy of every weld, plate connection detail, etc. The purpose of this report is to assess the feasibility of adding appurtenances usually accompanied by transmission lines to the structure.

It is the owner's responsibility to determine the amount of ice accumulation, if any, that should be considered in the structural analysis.

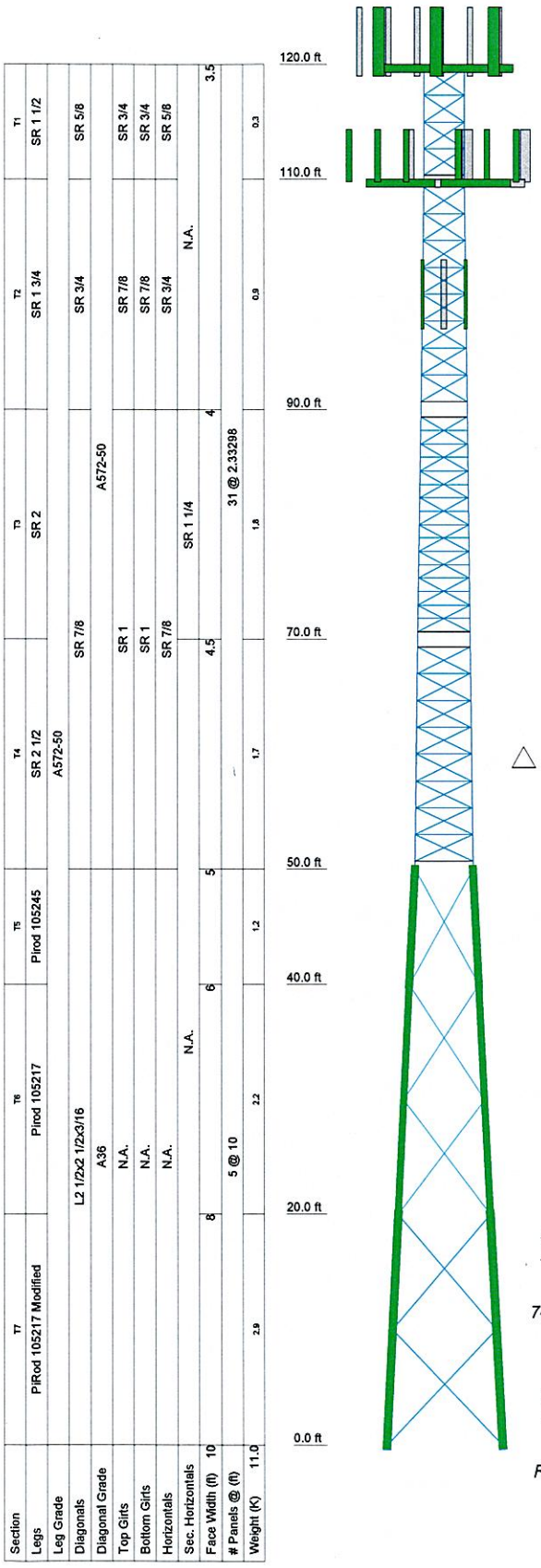
The attached sketches are a schematic representation of the analyzed tower. If any material is fabricated from these sketches, the contractor shall be responsible for field verifying the existing conditions, proper fit, and clearance in the field. Any mentions of structural modifications are reasonable estimates and should not be used as a precise construction document. Precise modification drawings are obtainable from GPD ASSOCIATES, but are beyond the scope of this report.

Miscellaneous items such as antenna mounts etc. have not been designed or detailed as a part of our work. We recommend that material of adequate size and strength be purchased from a reputable tower manufacturer.

GPD ASSOCIATES makes no warranties, expressed and/or implied, in connection with this report and disclaims any liability arising from material, fabrication, and erection of this tower. GPD ASSOCIATES will not be responsible whatsoever for, or on account of, consequential or incidental damages sustained by any person, firm, or organization as a result of any data or conclusions contained in this report. The maximum liability of GPD ASSOCIATES pursuant to this report will be limited to the total fee received for preparation of this report.

APPENDIX A

RISA TOWER OUTPUT



DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
PiROD 13' Low Profile Platform	120	(3) 7770.00	110
(3) FV65-14-00NA2	120	(3) 7770.00	110
(3) FV65-14-00NA2	120	(4) LGP2140X	110
(3) FV65-14-00NA2	120	(4) LGP2140X	110
PiROD 12' Lightweight T-Frame (GPD)	110	(4) LGP2140X	110
		APXV18-206517S-C w/ Mount Pipe	100
PiROD 12' Lightweight T-Frame (GPD)	110	APXV18-206517S-C w/ Mount Pipe	100
		APXV18-206517S-C w/ Mount Pipe	100
PiROD 12' Lightweight T-Frame (GPD)	110	BULLET III	60
(3) 7770.00	110	738-454	60
		BULLET III	40

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi	A36	36 ksi	58 ksi

TOWER DESIGN NOTES

1. Tower is located in New Haven 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: 95.9%

MAX. CORNER REACTIONS AT BASE:
DOWN: 203 K
UPLIFT: -175 K
SHEAR: 16 K

AXIAL 29 K
SHEAR 24 K
MOMENT 1671 kip-ft
TORQUE 4 kip-ft
74 mph WIND - 0.5000 in ICE

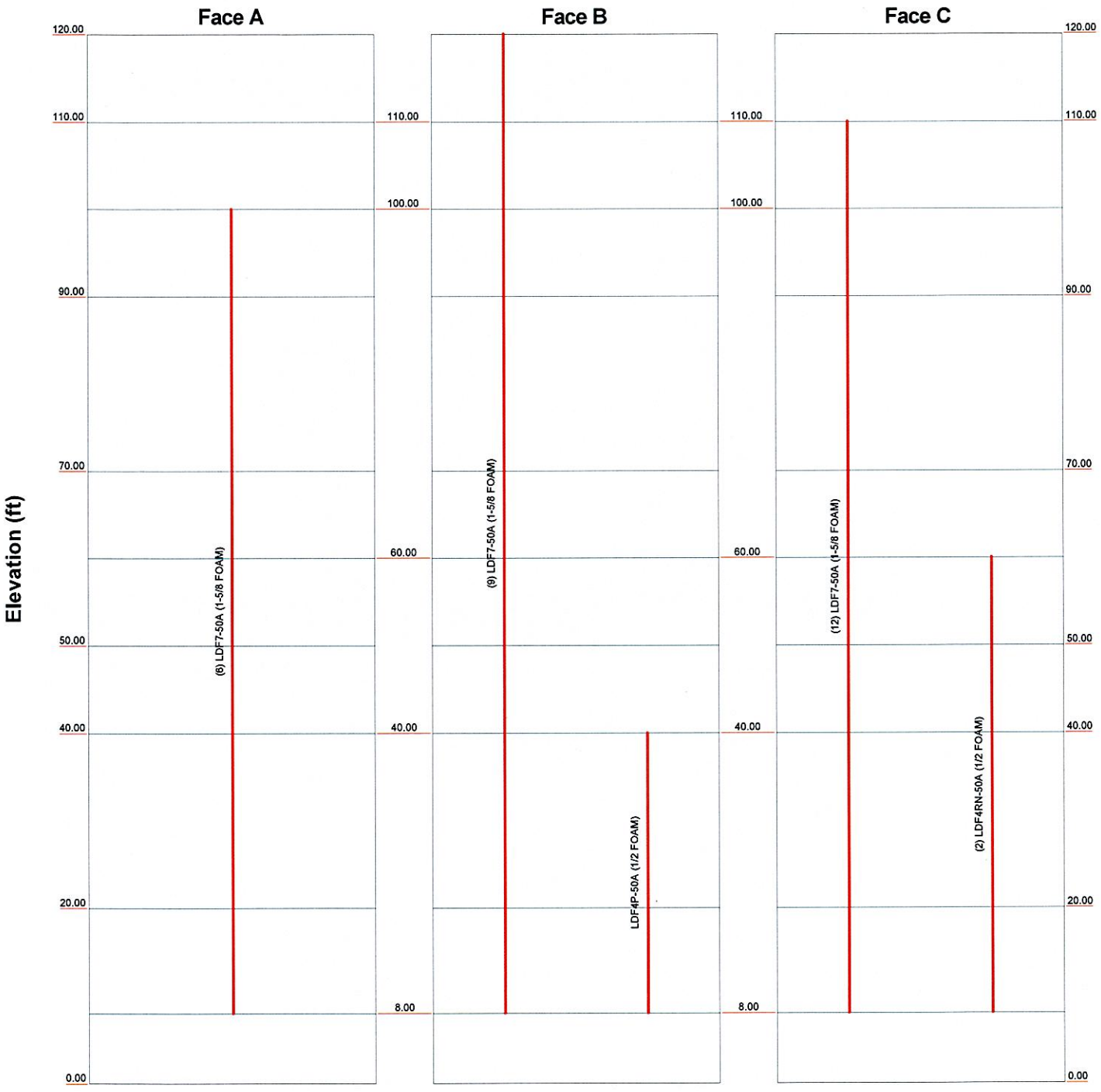
AXIAL 16 K
SHEAR 17 K
MOMENT 1289 kip-ft
TORQUE 3 kip-ft
REACTIONS - 85 mph WIND

GPD GROUP
GPD Group
1801 Watermark Drive - Suite 150
Columbus, OH 43215
Phone: (614)-210-0751
FAX: (614)-210-0752

Job: ***Monotowese Amodio Self Store - BU# 876312***			
Project: ***2008279.90***			
Client: Crown Castle	Drawn by: Dan Palkovic	App'd:	
Code: TIA/EIA-222-F	Date: 11/10/08	Scale: NTS	
Path: G:\Telecom\2008281\30\RISA\876312.eri		Dwg No. E-1	

Feedline Distribution Chart
0' - 120'

Round | Flat | App In Face | App Out Face | Truss Leg



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Project: ***2008279.90***			
Client: Crown Castle	Drawn by: Dan Palkovic	App'd:	
Code: TIA/EIA-222-F	Date: 11/10/08	Scale: NTS	
Path: G:\Telecom\2008281\30\RISA\876312.eri		Dwg No. E-7	

RISATower	Job: Monotowese Amodio Self Store - BU# 876312	Page: 1 of 4
GPD Group 1801 Watermark Drive - Suite 150 Columbus, OH 43215 Phone: (614)-210-0751 FAX: (614)-210-0752	Project: 2008279.90	Date: 14:41:56 10/30/08
	Client: Crown Castle	Designed by: Dan Palkovic

Tower Input Data

The main tower is a 3x free standing tower with an overall height of 120.00 ft above the ground line.
The base of the tower is set at an elevation of 0.00 ft above the ground line.
The face width of the tower is 3.50 ft at the top and 10.00 ft at the base.
This tower is designed using the TIA/EIA-222-F standard.
The following design criteria apply:

Tower is located in New Haven County, Connecticut.
Basic wind speed of 85 mph.
Nominal ice thickness of 0.5000 in.
Ice density of 56 pcf.
A wind speed of 74 mph is used in combination with ice.
Temperature drop of 50 °F.
Deflections calculated using a wind speed of 50 mph.
A non-linear (P-delta) analysis was used.
Pressures are calculated at each section.
Stress ratio used in tower member design is 1.333.
Local bending stresses due to climbing loads, feedline supports, and appurtenance mounts are not considered.

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight klf
LDF7-50A (1-5/8 FOAM)	B	No	Ar (Leg)	120.00 - 8.00	0.0000	0.09	9	6	1.0000	1.9800		0.00
LDF4P-50A (1/2 FOAM)	B	No	Ar (Leg)	40.00 - 8.00	0.0000	0.09	1	1	1.0000	1.0000		0.00
LDF7-50A (1-5/8 FOAM)	C	No	Ar (Leg)	110.00 - 8.00	0.0000	0.09	12	6	1.0000	1.9800		0.00
LDF4RN-50A (1/2 FOAM)	C	No	Ar (Leg)	60.00 - 8.00	0.0000	0.09	2	2	1.0000	0.6300		0.00
LDF7-50A (1-5/8 FOAM)	A	Yes	Ar (CfAe)	100.00 - 8.00	0.0000	0.3	6	3	1.0000	1.9800		0.00

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft Vert ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
PiROD 13' Low Profile Platform	C	None		0.0000	120.00	No Ice	15.70	15.70	1.30
						1/2" Ice	20.10	20.10	1.76
(3) FV65-14-00NA2	B	From Face	3.06 -2.57 2.00	-40.0000	120.00	No Ice	8.40	5.28	0.03
						1/2" Ice	8.95	5.74	0.08
(3) FV65-14-00NA2	C	From Face	3.94 0.69 2.00	10.0000	120.00	No Ice	8.40	5.28	0.03
						1/2" Ice	8.95	5.74	0.08
(3) FV65-14-00NA2	A	From Face	3.76 -1.37 2.00	-20.0000	120.00	No Ice	8.40	5.28	0.03
						1/2" Ice	8.95	5.74	0.08
PiROD 12' Lightweight	A	From Leg	1.73	30.0000	110.00	No Ice	10.20	2.94	0.25

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft Vert ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
T-Frame (GPD)			1.00 0.00			1/2" Ice	16.20	4.96	0.35
PiROD 12' Lightweight	B	From Leg	1.73	30.0000	110.00	No Ice	10.20	2.94	0.25
T-Frame (GPD)			1.00 0.00			1/2" Ice	16.20	4.96	0.35
PiROD 12' Lightweight	C	From Leg	1.73	30.0000	110.00	No Ice	10.20	2.94	0.25
T-Frame (GPD)			1.00 0.00			1/2" Ice	16.20	4.96	0.35
(3) 7770.00	A	From Leg	3.46	30.0000	110.00	No Ice	5.88	2.93	0.04
			2.00 2.00			1/2" Ice	6.31	3.27	0.07
(3) 7770.00	B	From Leg	3.46	30.0000	110.00	No Ice	5.88	2.93	0.04
			2.00 2.00			1/2" Ice	6.31	3.27	0.07
(3) 7770.00	C	From Leg	3.46	30.0000	110.00	No Ice	5.88	2.93	0.04
			2.00 2.00			1/2" Ice	6.31	3.27	0.07
(4) LGP2140X	A	From Leg	3.46	30.0000	110.00	No Ice	0.00	0.37	0.02
			2.00 2.00			1/2" Ice	0.00	0.48	0.02
(4) LGP2140X	B	From Leg	3.46	30.0000	110.00	No Ice	0.00	0.37	0.02
			2.00 2.00			1/2" Ice	0.00	0.48	0.02
(4) LGP2140X	C	From Leg	3.46	30.0000	110.00	No Ice	0.00	0.37	0.02
			2.00 2.00			1/2" Ice	0.00	0.48	0.02
BULLET III	A	From Leg	0.00	0.0000	60.00	No Ice	0.10	0.10	0.00
			0.00 1.00			1/2" Ice	0.18	0.18	0.00
738-454	A	From Leg	0.00	0.0000	60.00	No Ice	0.02	0.02	0.00
			0.00 1.00			1/2" Ice	0.05	0.05	0.00
BULLET III	A	From Leg	0.00	0.0000	40.00	No Ice	0.10	0.10	0.00
			0.00 1.00			1/2" Ice	0.18	0.18	0.00
APXV18-206517S-C w/	A	From Leg	0.00	60.0000	100.00	No Ice	5.40	4.70	0.05
Mount Pipe			0.00 0.00			1/2" Ice	5.96	5.86	0.09
APXV18-206517S-C w/	B	From Leg	0.00	60.0000	100.00	No Ice	5.40	4.70	0.05
Mount Pipe			0.00 0.00			1/2" Ice	5.96	5.86	0.09
APXV18-206517S-C w/	C	From Leg	0.00	60.0000	100.00	No Ice	5.40	4.70	0.05
Mount Pipe			0.00 0.00			1/2" Ice	5.96	5.86	0.09

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	120 - 110	6.468	34	0.4898	0.0816
T2	110 - 90	5.420	34	0.4783	0.0658
T3	90 - 70	3.446	34	0.4069	0.0418
T4	70 - 50	1.880	34	0.2917	0.0247
T5	50 - 40	0.815	34	0.1839	0.0129

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T6	40 - 20	0.481	34	0.1322	0.0082
T7	20 - 0	0.105	34	0.0477	0.0030

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
120.00	PiROD 13' Low Profile Platform	34	6.468	0.4898	0.0816	106961
110.00	PiROD 12' Lightweight T-Frame (GPD)	34	5.420	0.4783	0.0658	49017
100.00	APXV18-206517S-C w/ Mount Pipe	34	4.398	0.4508	0.0526	17292
60.00	BULLET III	34	1.282	0.2364	0.0183	9094
40.00	BULLET III	34	0.481	0.1322	0.0082	11959

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	120 - 110	22.162	23	1.6079	0.2379
T2	110 - 90	18.736	23	1.5794	0.1920
T3	90 - 70	12.169	23	1.3782	0.1422
T4	70 - 50	6.782	23	1.0186	0.0929
T5	50 - 40	3.005	23	0.6572	0.0503
T6	40 - 20	1.791	23	0.4780	0.0318
T7	20 - 0	0.400	15	0.1757	0.0116

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
120.00	PiROD 13' Low Profile Platform	23	22.162	1.6079	0.2379	37499
110.00	PiROD 12' Lightweight T-Frame (GPD)	23	18.736	1.5794	0.1920	17159
100.00	APXV18-206517S-C w/ Mount Pipe	23	15.361	1.5049	0.1665	6025
60.00	BULLET III	23	4.673	0.8360	0.0708	2719
40.00	BULLET III	23	1.791	0.4780	0.0318	3390

Bolt Design Data

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load K	Ratio Load / Allowable	Allowable Ratio	Criteria
T1	120	Leg	A325N	0.6250	4	2.87	12.89	0.223 ✔	1.333	Bolt DS
T2	110	Leg	A325N	0.6250	5	10.18	12.89	0.790 ✔	1.333	Bolt DS
T4	70	Leg	A325N	1.0000	6	24.01	34.52	0.696 ✔	1.333	Bolt Tension
T5	50	Leg	A325N	1.0000	6	23.65	34.56	0.684 ✔	1.333	Bolt Tension

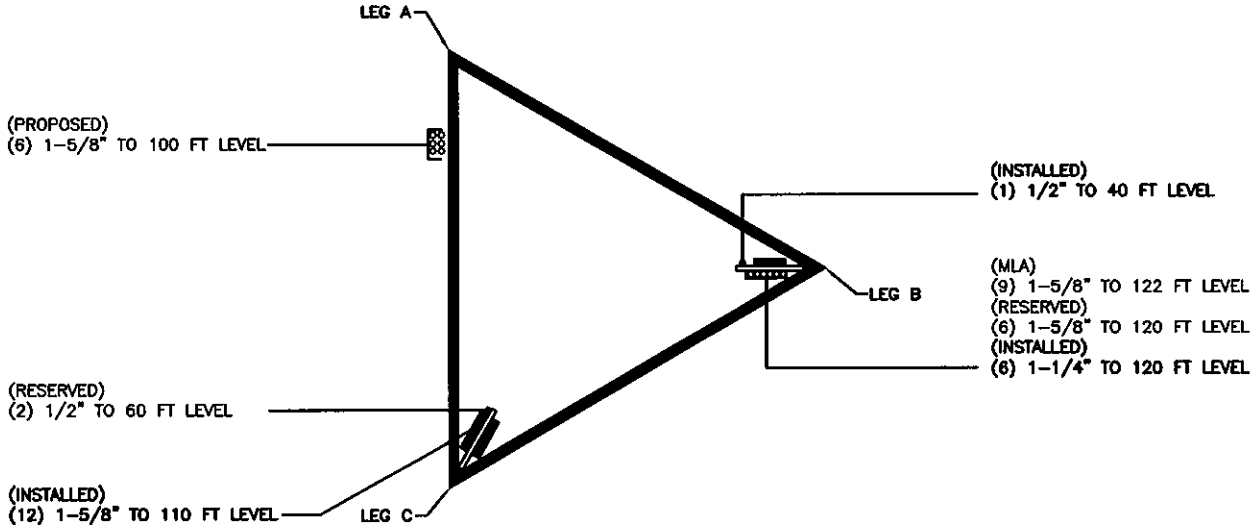
Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load K	Ratio Load / Allowable	Allowable Ratio	Criteria
		Diagonal	A325N	1.0000	1	5.03	9.52	0.529 ✔	1.333	Member Bearing
T6	40	Leg	A325N	1.0000	6	26.23	34.56	0.759 ✔	1.333	Bolt Tension
		Diagonal	A325N	1.0000	1	3.67	9.52	0.386 ✔	1.333	Member Bearing
T7	20	Leg	A354-BD	1.0000	6	28.14	38.88	0.724 ✔	1.333	Bolt Tension
		Diagonal	A325N	1.0000	1	5.48	9.52	0.576 ✔	1.333	Member Bearing

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	$SF*P_{allow}$ K	% Capacity	Pass Fail
T1	120 - 110	Leg	1 1/2	3	10.26	35.15	29.2	Pass
		Diagonal	5/8	14	-1.83	4.48	40.9	Pass
		Horizontal	5/8	30	-0.15	1.86	8.3	Pass
		Top Girt	3/4	5	-0.55	3.85	14.3	Pass
		Bottom Girt	3/4	7	-0.69	3.85	17.9	Pass
T2	110 - 90	Leg	1 3/4	39	45.32	58.59	77.4	Pass
		Diagonal	3/4	50	-3.90	7.69	50.7	Pass
		Horizontal	3/4	59	-0.73	3.16	23.1	Pass
		Top Girt	7/8	41	-1.17	7.14	16.4	Pass
		Bottom Girt	7/8	44	-2.21	5.51	40.1	Pass
T3	90 - 70	Leg	2	101	-101.36	114.63	88.4	Pass
		Diagonal	7/8	110	-5.08	11.74	43.2	Pass
		Horizontal	7/8	188	-1.58	5.31	29.8	Pass
		Secondary Horizontal	1 1/4	119	-1.76	18.39	9.5	Pass
		Top Girt	1	105	-1.00	9.34	10.7	Pass
		Bottom Girt	1	107	-2.55	7.43	34.3	Pass
T4	70 - 50	Leg	2 1/2	203	-157.51	164.50	95.8	Pass
		Diagonal	7/8	261	-6.13	11.59	52.9	Pass
		Horizontal	7/8	260	-1.73	4.26	40.7	Pass
		Top Girt	1	207	-1.85	7.46	24.8	Pass
		Bottom Girt	1	209	-1.72	6.07	28.3	Pass
T5	50 - 40	Leg	Pirod 105245	267	-154.92	184.67	83.9	Pass
		Diagonal	L2 1/2x2 1/2x3/16	274	-5.32	12.14	43.8	Pass
T6	40 - 20	Leg	Pirod 105217	276	-177.02	184.67	95.9	Pass
		Diagonal	L2 1/2x2 1/2x3/16	286	-4.05	10.46	38.7	Pass
T7	20 - 0	Leg	PiRod 105217 Modified	291	-196.63	279.07	70.5	Pass
		Diagonal	L2 1/2x2 1/2x3/16	295	-4.58	7.58	60.4	Pass
							Summary	
						Leg (T6)	95.9	Pass
						Diagonal (T7)	60.4	Pass
						Horizontal (T4)	40.7	Pass
						Secondary Horizontal (T3)	9.5	Pass
						Top Girt (T4)	24.8	Pass
						Bottom Girt (T2)	40.1	Pass
						Bolt Checks	59.3	Pass
						RATING =	**95.9**	**Pass**

APPENDIX B

BASE LEVEL DRAWING



BUSINESS UNIT: 876312 TOWER ID: C_BASELEVEL

APPENDIX C

ADDITIONAL CALCULATIONS

1801 Watermark Drive.Suite 150. Columbus, Ohio 43215 • PHONE 614-210-0751 • FAX 614-210-0752

GPD GROUP
Engineers . Architects . Planners

Job 20082813.0 Calculated By DJF Date 10/30/08

Sheet No. 1 Of _____ Checked By _____ Date _____

Foundation Analysis

Additional concrete added per leg: (Areas CAD measured)

C = (46.1667 ft²)(6 ft)(.150 kcf) = 41.6 k → controls

B = (46.8958 ft²)(6 ft)(.150 kcf) = 42.2 k

A = (47.7083 ft²)(6 ft)(.150 kcf) = 42.9 k

(6 ft ↑ depth)

RISA Reactions:
Compression = 203 k
Uplift = 175 k

Uplift Capacity

Allowable Uplift per pile = 20 k × 6 piles = 120 k

Wt. of concrete = 41.6 k + (9.5')(7')(4')(.150 kcf) = 81.5 k
(existing)

Capacity = 120 k + $\frac{81.5\text{ k}}{1.25}$ = 185.2 k

Uplift Capacity = $\frac{175\text{ k}}{185.2\text{ k}}$ = 94.5 %

Compressive Capacity

Allowable Compression per pile = 47.5 k × 6 piles = 285 k

Capacity = 285 k − $\frac{81.5\text{ k}}{1.25}$ = 219.8 k

Compressive Capacity = $\frac{203\text{ k}}{219.8\text{ k}}$ = 92.4 %

APPENDIX D

MODIFICATION DESIGN DRAWINGS

Exhibit F

Structural Modification Drawings

Pocket Site NHCT0024A

2755 State Street

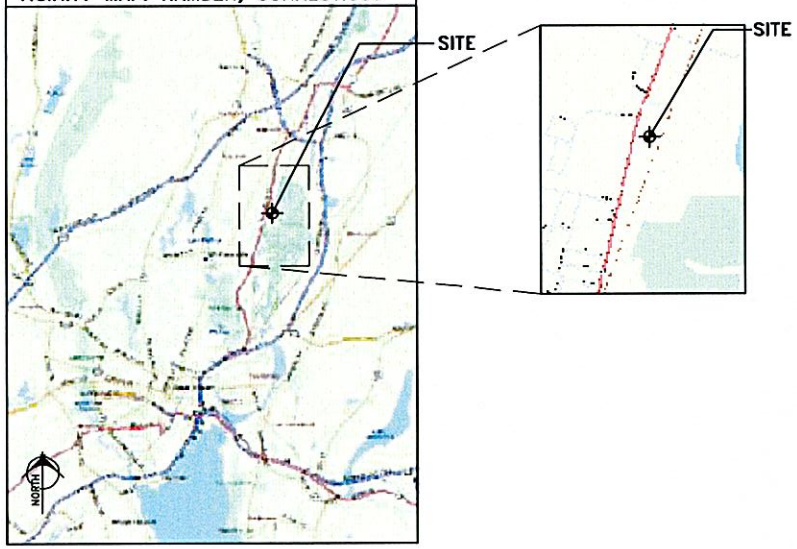
Hamden, Connecticut

MONOTOWESE AMODIO SELF STORE

BU #: 876312

EXISTING 120' PiROD SELF SUPPORT TOWER

VICINITY MAP: HAMDEN, CONNECTICUT



PROJECT SUMMARY	
TOWER OWNER:	CROWN CASTLE
TOWER TYPE:	SELF SUPPORT TOWER
GOVERNING CODE:	EIA/TIA-222-F
SITE ADDRESS:	2755 STATE STREET HAMDEN, CONNECTICUT 06473
LATITUDE:	41° 21' 19.67"
LONGITUDE:	72° 53' 25.13"
OWNER CONTACT:	MS. DANIELLE GARDNER 9105 MONROE RD., SUITE 150 CHARLOTTE, NC 28270 (704) 321-3815

PROJECT OVERVIEW:
THE LISTED DRAWINGS REPRESENT REQUIRED MODIFICATIONS TO THE TOWER LEGS AND FOUNDATIONS.

DATE	REVISION	DRAWING INDEX
-		TITLE SHEET
-		N-1 PROJECT NOTES
-		S-1 TOWER ELEVATION & MODIFICATION DETAILS
-		S-2 ADDITIONAL SECTIONS & DETAILS
-		F-1 FOUNDATION MODIFICATIONS & PARTIAL SITE PLAN

TOWER OWNER

CROWN CASTLE

2000 CORPORATE DRIVE, CANONSBURG, PA 15317
724-416-2000

ENGINEERS

GLAUS PYLE SCHOMER BURNS & DEHAVEN INC.
GPD ASSOCIATES
520 South Main Street, Suite 2531 Akron, Ohio 44311
330-572-2100 , Fax 330-572-2102

SITE NAME:
MONOTOWESE AMODIO SELF STORE

SITE NUMBER:
BU #: 876312

GPD JOB NUMBER:
2008281.30

DATE : 11/10/08

REVISION 0

GENERAL NOTES

1. THE FOLLOWING DRAWINGS REPRESENT MODIFICATIONS TO THE EXISTING TOWER. THE MODIFICATIONS ARE BASED ON GPD ASSOCIATES STRUCTURAL REPORT (JOB#: 2008281.30, DATED OCTOBER 10, 2008). ALL MODIFICATIONS MUST BE INSTALLED TO BRING THE TOWER INTO CONFORMANCE WITH EIA/TIA-222-F.

2. THESE MODIFICATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF TIA/EIA-222-F AND ASC. MATERIALS AND SERVICES PROVIDED BY THE CONTRACTOR SHALL CONFORM TO THE ABOVE MENTIONED CODES AND THE CONTRACT SPECIFICATIONS.

3. ALL ORIGINAL TOWER INFORMATION WAS OBTAINED IN THE FORM OF THE ORIGINAL TOWER DRAWINGS BY PIROD INC. (FILE #: A-113804, DATED NOVEMBER 4, 1997).

4. THIS DESIGN ASSUMES THE TOWER AND FOUNDATIONS HAVE BEEN WELL MAINTAINED, IN GOOD CONDITION, AND ARE WITHOUT DEFECT. BENT MEMBERS, CORRODED MEMBERS, LOOSE BOLTS, CRACKED WELDS AND OTHER MEMBER DEFECTS HAVE NOT BEEN CONSIDERED. THE TOWER IS ASSUMED TO BE PLUMB AND THE SITE IS ASSUMED TO BE LEVEL. THIS DESIGN IS BEING PROVIDED WITHOUT THE BENEFIT OF A SITE VISIT BY GPD ASSOCIATES. CONTRACTOR SHALL PERFORM COMPLETE CONDITION ASSESSMENT PRIOR TO ORDERING ANY REINFORCING MATERIALS. CONTRACTOR SHALL SUPPLY CONDITION ASSESSMENT TO ENGINEER FOR REVIEW. SEE CONTRACTOR NOTES.

5. MANUFACTURER TOLERANCES, FIELD ADJUSTMENTS, INCORRECT STACKING, AND TEMPERATURE CAN CAUSE DIMENSION DISCREPANCIES. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL DIMENSIONS PRIOR TO ORDERING MATERIALS. ALL FIELD MEASUREMENTS MUST BE REPORTED TO ENGINEER.

6. ALL EXISTING PAINTED/GALVANIZED SURFACES DAMAGED DURING REPAIR INCLUDING AREAS UNDER STIFFENER PLATES SHALL BE WIRE BRUSHED CLEAN, REPAIRED BY COLD GALVANIZING BRUSH APPLIED PAINT (ZINC OR EQUAL), AND REPAINTED TO MATCH THE EXISTING FINISH (IF APPLICABLE).

7. LOADINGS:

WIND LOADS:
FASTEST MILE WIND SPEED (PER TIA/EIA-222-F) 86 MPH
(NEW HAVEN COUNTY, CONNECTICUT)

8. STRUCTURAL STEEL:

ALL TRUSS LEG SPECIFICATIONS ARE PER PIROD, P/N REFERS TO STANDARD PIROD PART NUMBER. CONTRACTOR TO VERIFY PART NUMBERS WITH PIROD. ALL HARDWARE SHALL BE GALVANIZED BY PIROD PRIOR TO DELIVERY.

STEEL SPECIFICATIONS
LATEST EDITION OF AISC

MATERIAL	
SOLID ROUNDS	ASTM A572 (GR 50)
BOLTS	ASTM A325 (U.N.O.)
NUTS	LOCKING (STRUCTURAL GRADE)
WASHERS	OVERSIZED (STRUCTURAL GRADE)
HOT DIPPED GALVANIZING	ASTM A123
PAINT	MATCH EXISTING FINISH IF TOWER IS PAINTED

9. ALL MATERIAL UTILIZED FOR THIS PROJECT MUST BE NEW AND FREE OF ANY DEFECTS. ANY MATERIAL SUBSTITUTIONS, INCLUDING BUT NOT LIMITED TO ALTERED SIZES AND/OR STRENGTHS, MUST BE APPROVED BY THE OWNER AND ENGINEER IN WRITING.

10. PROVIDE STRUCTURAL STEEL SHOP DRAWINGS TO ENGINEER FOR APPROVAL PRIOR TO FABRICATION.

11. ALL BOLTS SHALL BE TIGHTENED UTILIZING THE AISC "TURN-OF-THE-NUT METHOD".

12. THE ENGINEER (GPD ASSOCIATES) SHALL HAVE POST INSTALLATION OBSERVATION FOR TOWER. CONTRACTOR SHALL COORDINATE W/ ENGINEER (GPD ASSOCIATES) BEFORE POURING CONCRETE AND AFTER INSTALLATION OF MODIFICATIONS. INSTALLATION OF PROPOSED LOADING WITHOUT ENGINEER APPROVAL IS PROHIBITED.

CONTRACTOR NOTES

1. GENERAL CONTRACTOR SHALL ACKNOWLEDGE IN WRITING TO CROWN CASTLE AND GPD ASSOCIATES THAT THEY HAVE OBTAINED, UNDERSTAND, AND WILL FOLLOW CROWN CASTLE STANDARDS OF PRACTICE, CONSTRUCTION GUIDELINES, ALL PRODUCT LIMITATIONS, AND INSTALLATION PROCEDURES USED ON SITE, AND PROPOSED MODIFICATIONS DESCRIBED. SAFETY PROCEDURES ARE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. COORDINATE SAFETY PROCEDURES WITH CROWN CASTLE. RECEIPT OF ACKNOWLEDGMENT MUST OCCUR PRIOR TO BEGINNING CONSTRUCTION OR CLIMBING. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO PROVIDE THIS DOCUMENTATION FOR CROWN CASTLE AND GPD ASSOCIATES ON COMPANY LETTERHEAD AND THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OBTAIN THIS DOCUMENTATION FROM LOWER TIER SUBCONTRACTORS (ON SUBCONTRACTOR LETTERHEAD) AND DELIVER IT TO CROWN CASTLE AND GPD ASSOCIATES.

2. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING ANY PROBLEMS WITH ACCESS, INTERFERENCE, ETC. SHALL BE RESOLVED PRIOR TO MOBILIZATION. THE CONTRACTOR MUST VISIT THE SITE PRIOR TO ORDERING ANY MATERIAL AND MUST RESOLVE ALL ISSUES WITH THE OWNER PREVENTING A CONTINUOUS INSTALLATION. CONTRACTOR SHALL NOTE ALL ANTENNAS, MOUNTS, COAX, LIGHTING, CLIMBING SUPPORTS, STEP BOLTS, AND ANY OTHER TOWER APPURTENANCES IN THE REGION OF THE MODIFICATIONS. (SEE GENERAL NOTES #4 & #6, THIS SHEET).

3. CONTRACTOR IS RESPONSIBLE FOR TEMPORARILY REMOVING ALL COAX, T-BRACKETS, ANTENNA MOUNTS, AND ANY OTHER TOWER APPURTENANCE THAT MAY INTERFERE WITH THE TOWER MODIFICATIONS. ALL TOWER APPURTENANCES MUST BE REPLACED AND/OR RESTORED TO ITS ORIGINAL LOCATION. ANY CARRIER DOWNTIME MUST BE COORDINATED WITH THE TOWER OWNER IN WRITING.

4. SOME ATTACHMENTS MAY REQUIRE CUSTOM MODIFICATIONS TO PROPERLY FIT THE MODIFIED REGION OF THE STRUCTURE. THESE CUSTOMIZATIONS ARE DESIGNED BY OTHERS AND MUST BE APPROVED BY THE ENGINEER PRIOR TO REMOVING SUCH ATTACHMENTS. ANY CARRIER DOWNTIME MUST BE COORDINATED WITH THE TOWER OWNER IN WRITING.

5. CONTRACTOR SHALL ONLY WORK WITHIN THE LIMITS OF THE TOWER OWNER'S PROPERTY AND APPROVED EASEMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY WORK IS WITHIN THESE BOUNDARIES. ANY WORK OUTSIDE THESE BOUNDARIES SHALL BE APPROVED IN WRITING BY THE LAND OWNER PRIOR TO MOBILIZATION. CONSTRUCTION STAKING AND BOUNDARY MARKING IS BY OTHERS NOT GPD.

6. WORK SHALL ONLY BE PERFORMED DURING CALM DRY DAYS (WINDS LESS THEN 10-MPH). CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY LOCAL TOWER SHORING, TEMPORARY GLOBAL TOWER SHORING, AND ALL SHORING OF SURROUNDING BUILDINGS, ROADS, AND OTHER OUTDOOR SITE CONSTRUCTIONS. ALL SHORING, TEMPORARY BRACING, AND TEMPORARY SUPPORTS ARE THE RESPONSIBILITY OF THE CONTRACTOR.

7. ALL PIROD INSTALLATION GUIDELINES AND RECOMMENDATIONS SHALL BE FOLLOWED. DEVIATION FROM THESE GUIDELINES IS UNACCEPTABLE AND REQUIRES WRITTEN APPROVAL FROM ENGINEER.

8. MODIFICATIONS SHOWN SHALL BE INSTALLED ON ALL THREE (3) TOWER LEGS/FACES.

WELD NOTES

1. ALL CUTTING AND WELDING ACTIVITIES SHALL BE CONDUCTED IN ACCORDANCE WITH THE LATEST CCUSA POLICY "CUTTING AND WELDING SAFETY PLAN" (DOC #: EHS-PLN-10013) ON AN ONGOING BASIS THROUGHOUT THE DURATION OF THE PROJECT.

2. WELDING CERTIFICATES MUST BE PROVIDED PRIOR TO WELDING CONTRACTOR BEGINNING WORK ON SITE. CERTIFICATE WILL BE ASKED FOR AS PART OF INSPECTION PROCESS. ALL WELDING SHOULD BE PERFORMED BY AN AWS QUALIFIED WELDER WHO HAS EXPERIENCE WITH GALVANIZED SURFACES AND IN ACCORDANCE WITH AWS/ANSI D1.1 AND ANSI Z 49.1 OR LATEST EDITIONS.

3. OXY FUEL GAS WELDING OR BRAZING IS STRICTLY PROHIBITED.

4. INSTALL 3000° (NFPA 701) FIRE BLANKET AROUND ALL COAX.

5. MOMC SPLATTER AND SPARKS SHALL BE ANTICIPATED GIVEN THE PREVIOUSLY GALV. SURFACE.

6. COAX IS FLAMMABLE AND CAN CATCH FIRE IF PROPER PRECAUTIONS ARE NOT MADE TO SHIELD COAX FROM ALL WELDING PROCEDURES. ALL COAX SHALL BE SHIELDED AT AND BELOW EACH WELDING PROCEDURE AND ELEVATION.

7. WELDING ON A GALVANIZED SURFACE SHOULD BE DONE WITH EXTREME CAUTION. IF THE WELD MATERIAL IS CONTAMINATED WITH ZINC IT DOES NOT PROVIDE A STRUCTURAL WELD.

8. FUMES CREATED FROM WELDING ON A PREVIOUSLY GALV. SURFACE CAN BE HAZARDOUS.

9. PRIOR TO WELDING, ALL SURFACES SHALL BE PROPERLY GROUND TO REMOVE GALVANIZING.

10. ALL FIELD WELDS SHALL BE TOUCHED UP WITH A GALVANIZING PAINT REPAIR (ZRC OR APPROVED EQUIVALENT).

FOUNDATION NOTES

1. CONTRACTOR SHALL NOTIFY THE FOLLOWING 5 BUSINESS DAYS PRIOR TO FOUNDATION CONSTRUCTION IN ORDER TO COORDINATE THE VISUAL INSPECTION BY GPD:
-DANIELLE BARDNER (CROWN CASTLE) 704-331-3015
-AARON CHERKIS (GPD ASSOCIATES) 330-672-2137
-DAN PAVKOVIC (GPD ASSOCIATES) 814-218-0734

2. EXISTING FOUNDATION INFORMATION BASED UPON FOUNDATION DRAWINGS BY PIROD, INC. (FILE NO. A-113804 DATED NOVEMBER 4, 1997).

3. CONCRETE WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES, SAFETY REGULATIONS AND UNLESS OTHERWISE NOTED, THE LATEST REVISION OF ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE". PROCEDURES FOR THE PROTECTION OF EXCAVATIONS, EXISTING CONSTRUCTION AND UTILITIES SHALL BE ESTABLISHED PRIOR TO FOUNDATION INSTALLATION.

4. MAXIMUM SIZE OF AGGREGATE SHALL NOT EXCEED SIZE SUITABLE FOR INSTALLATION METHOD UTILIZED OR 1/3 CLEAR DISTANCE BEHIND OR BETWEEN REINFORCING. MAXIMUM SIZE MAY BE INCREASED TO 2/3 CLEAR DISTANCE PROVIDED WORKABILITY AND METHODS OF CONSOLIDATION SUCH AS VIBRATING WILL PREVENT HONEYCOMBS OR VOIDS.

5. WELDING IS PROHIBITED ON REINFORCING STEEL AND EMBEDMENTS.

6. CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI IN 28 DAYS. ALL FOUNDATIONS SHALL REST ON FIRM UNDISTURBED SOIL FREE FROM WATER AND ORGANIC MATTER. CONTRACTOR SHALL COMPACT SUBGRADE AS REQUIRED.

7. REINFORCEMENT SHALL BE DEFORMED AND CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60 UNLESS OTHERWISE NOTED. SPLICES IN REINFORCEMENT SHALL NOT BE ALLOWED UNLESS OTHERWISE INDICATED.

8. MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE 3 INCHES UNLESS OTHERWISE NOTED. APPROVED SPACERS SHALL BE USED TO INSURE A 3 INCH MINIMUM COVER OF REINFORCEMENT. ALL REINFORCING SHALL BE EQUALLY SPACED UNLESS NOTED OTHERWISE.

9. PROVIDE #6 3'-0" X 3'-0" CORNER BARS AT ALL PLACES WHERE DIRECTION OF REINFORCEMENT CHANGES.

10. SOIL INFORMATION IS BASED ON A GEOTECHNICAL REPORT BY DR. CLARENCE WELTI (DATED SEPTEMBER 20, 1984). IF SOIL CONDITIONS ENCOUNTERED ARE DIFFERENT FROM REFERENCED GEOTECHNICAL REPORT, NOTIFY ENGINEER IMMEDIATELY.
A) ALLOWABLE BEARING = 3,000 PSF AT 3'
B) UNIT WEIGHT OF SOIL = 130 PCF FROM 0' - 6'
C) GROUNDWATER AT 6'
D) ALLOWABLE FRICTION = 4,000 PSF AT 10.5'
E) INTERNAL FRICTION ANGLE = 35°

11. CONTRACTOR SHALL OBTAIN AND BECOME FAMILIAR WITH THE REFERENCED GEOTECHNICAL REPORT. CONTRACTOR SHALL IMPLEMENT ALL RECOMMENDATIONS CONTAINED IN THE REFERENCED GEOTECHNICAL REPORT.

12. BACKFILL SHALL BE CLEAN, FREE OF DEBRIS, AND ORGANIC FREE. CONTRACTOR SHALL BRING IN CLEAN FILL AS REQUIRED. (MIN. UNIT WEIGHT = 120 PCF).

13. ALL BACKFILL SHALL BE CONTROLLED-COMPACTED, PLACED IN A MAXIMUM OF 8" LIFTS, MOISTURE CONDITIONED TO WITHIN THREE PERCENT OF OPTIMUM MOISTURE, AND COMPACTED TO 95% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY.

14. CARE SHALL BE TAKEN DURING INSTALLATION OF DOWELS SO THAT EXISTING REINFORCING STEEL AND ANCHOR BOLTS ARE NOT DAMAGED. CONTRACTOR SHALL USE X-RAY OR OTHER ENGINEER APPROVED NON-DESTRUCTIVE MEANS TO LOCATE EXISTING REINFORCING STEEL AND ANCHOR BOLTS. CONTACT ENGINEER IMMEDIATELY IF EXISTING STEEL IS ENCOUNTERED.

15. CONTRACTOR SHALL OBTAIN AND BECOME FAMILIAR WITH SIKA BONDING AGENT INSTALLATION PROCEDURES AND RECOMMENDATIONS.

16. PRIOR TO APPLICATION OF BONDING AGENT, CLEAN FACE OF EXISTING FOUNDATION BY MECHANICAL MEANS SUCH THAT IT IS FREE FROM ALL DIRT, DEBRIS, AND FOREIGN MATTER.

17. CONTRACTOR SHALL SECURE SITE BACK TO EXISTING CONDITION UNDER SUPERVISION OF OWNER. ALL FENCE, STONE, GEOFABRIC, GROUNDING, AND SURROUNDING GRADE SHALL BE REPLACED AND RESTORED AS REQUIRED TO ACHIEVE OWNER APPROVAL. POSITIVE DRAINAGE AWAY FROM TOWER SITE SHALL BE MAINTAINED.

18. ALL GROUNDING SHALL ACHIEVE 5Ω OR LESS RESISTANCE UPON COMPLETION. ALL GROUNDING ENCOUNTERED SHALL BE RELOCATED 3'-0" BEYOND FOUNDATION. ALL GROUNDING SHALL BE CONTINUOUS AND COORDINATED WITH OWNER. GROUNDING DESIGN AND ENGINEERING BY OTHERS.

19. CONTRACTOR TO VERIFY LOCATION OF ALL EXISTING PUBLIC AND PRIVATE UTILITIES PRIOR TO EXCAVATION. IF NECESSARY UTILITIES SHALL BE RELOCATED PRIOR TO FOUNDATION MODIFICATION. UTILITIES SHALL NOT BE ENCASED IN CONCRETE.

20. EQUIPMENT PAD, SHELTER, AND ICE BRIDGE SUPPORT BY OTHERS NOT GPD. CONTRACTOR SHALL TAKE GREAT CARE AND ALL NECESSARY PROVISIONS WHEN SHORING IS REQUIRED.

GPD ASSOCIATES

BU# 876312

REV.	DATE	DESCRIPTION

CROWN CASTLE
MONOTOWESE AMODIO SELF STORE
HAMDEN, CONNECTICUT 06473

PROJECT NOTES

	DATE
DESIGNED DJP	10/31/08
DRAWN BS	11/4/08
CHECKED BP	11/7/2008

JOB NO.
2008281.30

N-1

ANTENNA LOADING SCHEDULE

ELEV.	STATUS	ANTENNAS	MOUNTS	COAX
120'*	EXISTING	(4) DB856F40T2E-M	(1) 13' LP PLATFORM	(8) 1-1/4"
	EXISTING	(2) DB809B65E-M		
	RESERVED	(3) AM-X-WM-17-65-00T		(8) 1-5/8"
	RESERVED	(3) RMDAPS2000000		
	RESERVED	(1) WILP2-33-2WH		(1) 1/2"
110'	EXISTING	(6) 7770.00	(3) 12' LT. WT. T-FRAMES	(12) 1-5/8"
	EXISTING	(6) LGP21403 TMA'S		
	RESERVED	(3) 7770.00		
	RESERVED	(6) LGP21403 TMA'S		
100'	PROPOSED	(3) APXV19-206517B-C		(6) 1-5/8"
60'	RESERVED	(1) 738-446		(3) 1/2"
	RESERVED	(1) BULLET III		
40'	INSTALLED	(1) BULLET III		(1) 1/2"

* BOTH THE EXISTING AND MLA LOADINGS WERE CONSIDERED, IN THE ASSOCIATED ANALYSIS THE MLA LOADING CONTROLLED.

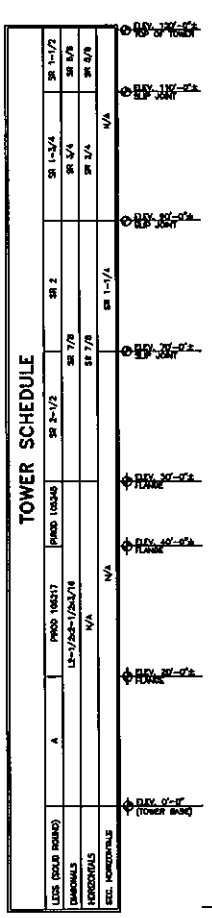
SOLID ROUND LEG MODIFICATION SCHEDULE

ELEVATION	EXISTING MEMBER SIZE	NEW MEMBER SIZE	NOTES
70' - 90'	N/A	SR 1-1/4	INSTALL NEW HORIZONTAL REDUNDANT BRACING. REFER TO DETAIL 1/S-1.

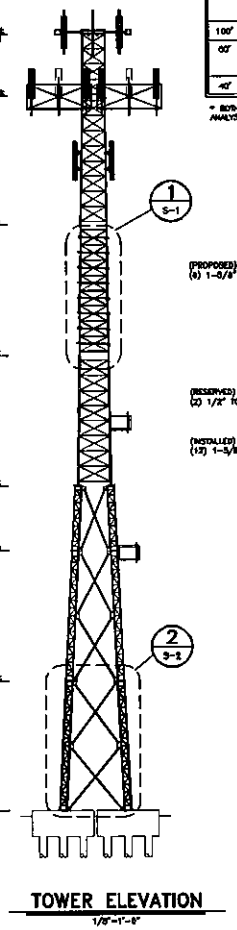
TRUSS LEG SCHEDULE

MEMBER	ELEVATION	LEG ASSEMBLY NUMBER	TIE ROD PART NO.	ASSEMBLY NUMBER
A	0' - 20'	105217	127388	156024

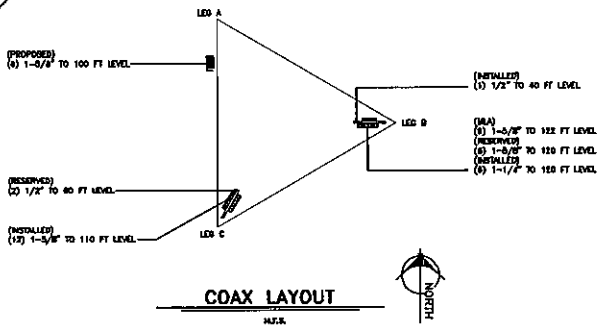
NOTE: CONTRACTOR SHALL VERIFY ALL ASSEMBLY PART NUMBERS WITH PROD (REFERENCE ENGINEERING FILE # A-113484, DATED NOVEMBER 4, 1997) PRIOR TO PURCHASE AND DELIVERY. ALL PROD HARDWARE MUST BE INSTALLED AS SHOWN ON SHEET S-2.



INDICATES MODIFIED MEMBER

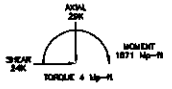


TOWER ELEVATION
1/8"=1'-0"

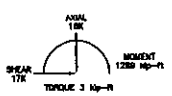


COAX LAYOUT
N.T.S.

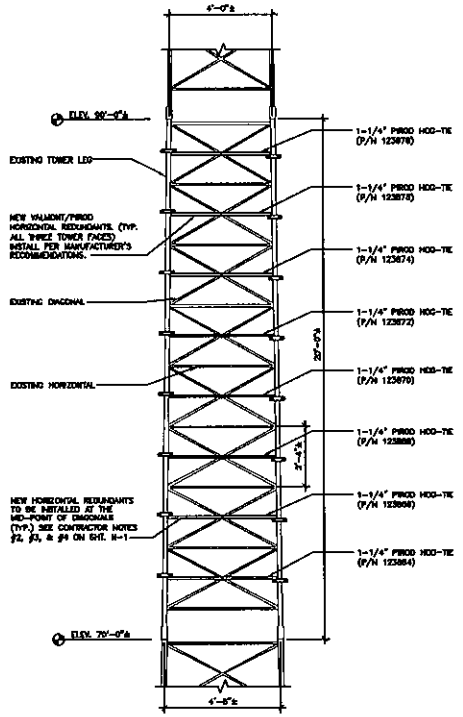
BASE REACTIONS PER ATTIR MODIFICATIONS
MAX PIER FORCES
DOWN: 202K
UPLIFT: 175K
SHEAR: 18K



76 MPH WIND - 1.23" ICE



REACTIONS - 90 MPH WIND



DETAIL 1
1/2" = 1'-0"

GPD ASSOCIATES

BU# 876312

REV.	DATE	DESCRIPTION

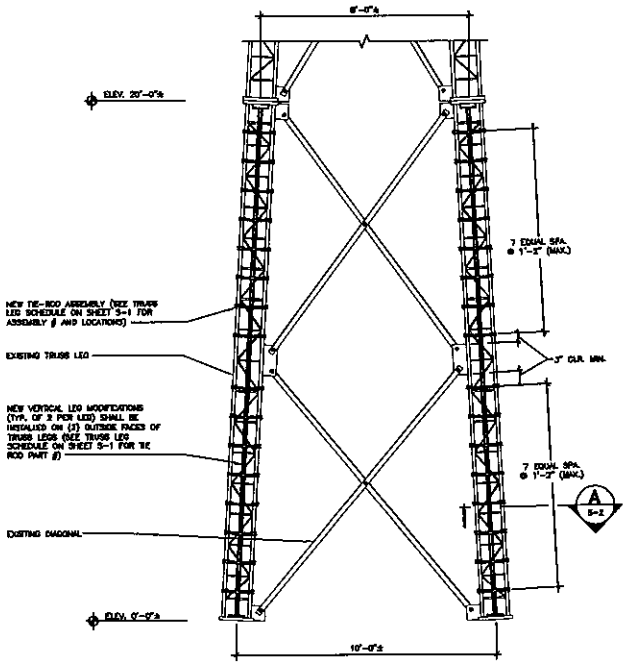
CROWN CASTLE
MONOTOWESE AMODIO SELF STORE
HAMDEN, CONNECTICUT 06473

TOWER ELEVATION & MODIFICATION DETAILS

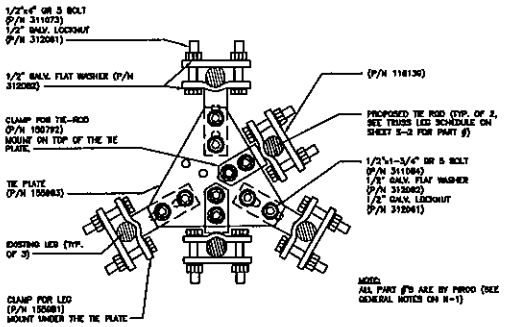
	DATE
DESIGNED DP	10/30/08
DRAWN JRS	11/01/08
CHECKED BP	11/10/08

JOB NO. 2008281.30

S-1



DETAIL 2 S-1
1/2" = 1'-0"



TYPICAL BUILT UP LATTICE LEG CROSS SECTION A S-2
N.T.S.

GPD ASSOCIATES

BU# 876312

REV.	DATE	DESCRIPTION

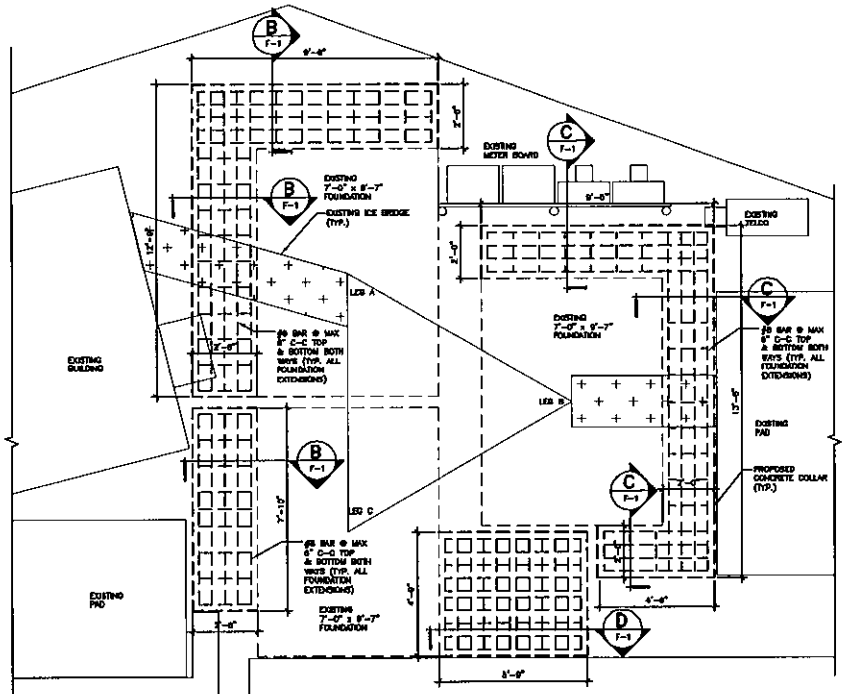
CROWN CASTLE
MONOTOWESE AMODIO SELF STORE
HAMDEN, CONNECTICUT 06473

ADDITIONAL SECTIONS & DETAILS

	DATE
DESIGNED DP	10/30/08
DRAWN JRS	11/4/08
CHECKED DP	11/7/08

JOB NO. 2008281.30

S-2

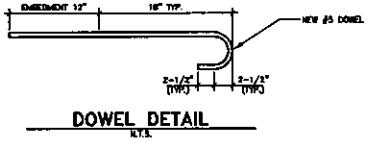


PARTIAL SITE PLAN

1/2" = 1'-0"

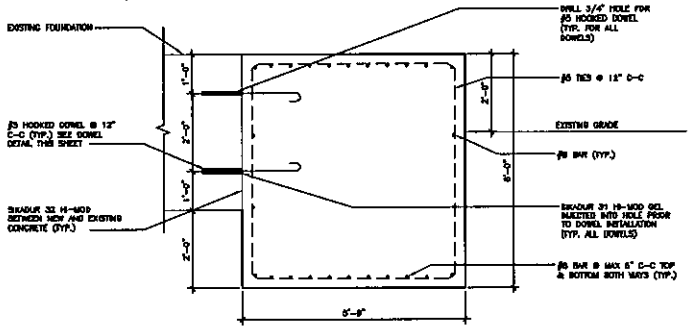
ALL SITE LAYOUT INFORMATION IS PER CROWN CASTLE. FOUNDATION MODIFICATIONS WERE DESIGNED WITHOUT THE PRIVILEGE OF A SITE VISIT BY THE ENGINEER. CONTRACTOR SHALL VERIFY ALL SITE DIMENSIONS AND UTILITY LOCATIONS PRIOR TO MOBILIZING. (SEE CONTRACTOR NOTES AND GENERAL NOTES ON SHEET N-1).

NORTH



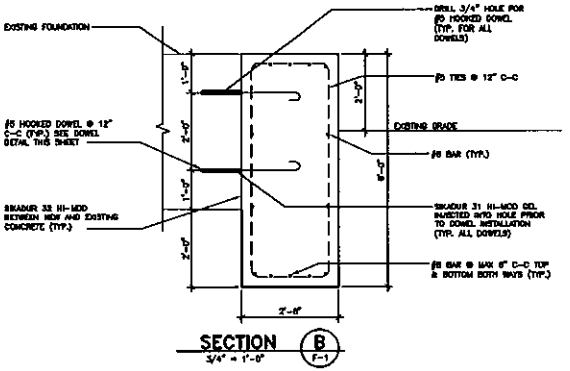
DOWEL DETAIL

N.T.S.



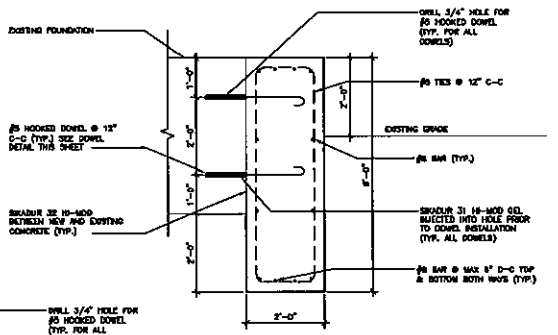
SECTION D

3/4" = 1'-0"



SECTION B

3/4" = 1'-0"



SECTION C

3/4" = 1'-0"

CPD ASSOCIATES

BU# 876312

REV.	DATE	DESCRIPTION

CROWN CASTLE
MONOTOWESE AMODIO SELF STORE
HAMDEN, CONNECTICUT 06473

FOUNDATION MODIFICATIONS & PARTIAL SITE PLAN

	DATE
DESIGNED DP	10/30/08
DRAWN RS	11/6/08
CHECKED BF	11/10/08

JOB NO. 2008281.30

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