

**RACHEL A. SCHWARTZMAN**

Please Reply To: Bridgeport  
Writer's Direct Dial: (203) 337-4110  
E-Mail: rschwartzman@cohenandwolf.com

July 7, 2014

Attorney Melanie Bachman  
Acting Executive Director  
Connecticut Siting Council  
Ten Franklin Square  
New Britain, CT 06501

**Re: Notice of Exempt Modification  
AT&T Towers/MetroPCS co-location  
Site ID - CTHA514A  
224 Lovely Street, Avon, CT**

Dear Attorney Bachman:

This office represents MetroPCS Massachusetts, LLC ("MetroPCS") and has been retained to file exempt modification filings with the Connecticut Siting Council on its behalf.

In this case, AT&T Towers owns the existing monopole telecommunications tower and related facility at 224 Lovely Street, Avon, Connecticut (Latitude 41.799470/Longitude -72.88839). MetroPCS intends to replace three existing antennas with three proposed antennas and related equipment at this existing telecommunications facility in Avon ("Avon Facility"). Please accept this letter as notification, pursuant to R.C.S.A. §16-50j-73, of construction which constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to the Chairperson of Council, Mark W. Zacchio, and the property owner, St. Matthews Lutheran Church of Collinsville.

The existing Avon Facility consists of a 110 foot monopole tower.<sup>1</sup> MetroPCS plans to replace three existing antennas internally mounted with three new antennas and six TMAs (tower mounted amplifiers) also internally mounted at a centerline of 75 feet. (See the plans revised to May 21, 2014 attached hereto as Exhibit A). MetroPCS will also install an equipment cabinet, a backup battery cabinet, install coax cables, and reuse existing coax cables. The existing Avon Facility is structurally capable of supporting MetroPCS' proposed modifications, as indicated in the structural analysis dated June 12, 2014, and attached hereto as Exhibit B.

<sup>1</sup> The Avon Facility was approved at a height of 110 feet (Docket 373), which is consistent with this filing.

July 7, 2014  
CTHA514A  
Page 2

The planned modifications to the Avon Facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2).

1. The proposed modification will not increase the height of the tower. MetroPCS' existing antennas are at a centerline of 75 feet; the replacement antennas will be installed at the same 75 foot level. The enclosed tower drawing confirms that the proposed modification will not increase the height of the tower.

2. The proposed modifications will not require an extension on the site boundaries or lease area, as depicted on Sheet 2 of Exhibit A. MetroPCS' equipment will be located entirely within the existing compound area.

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

4. The operation of the replacement antennas will not increase the total radio frequency (RF) power density, measured at the base of the tower, to a level at or above the applicable standard. According to a Radio Frequency Emissions Analysis Report prepared by EBI dated June 30, 2014 T-Mobile's operations would add 2.189% of the FCC Standard. Therefore, the calculated "worst case" power density for the planned combined operation at the site including all of the proposed antennas would be 44.799% of the FCC Standard as calculated for a mixed frequency site as evidenced by the engineering exhibit attached hereto as Exhibit C.

For the foregoing reasons, MetroPCS respectfully submits that the proposed replacement antennas and equipment at the Avon Facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2). Upon acknowledgement of this exempt modification, MetroPCS shall commence construction approximately sixty days from the receipt of the Council's decision.

Sincerely,



Rachel A. Schwartzman, Esq.

cc: Town of Avon, Chairperson of Council, Mark W. Zacchio  
AT&T Towers  
St. Matthews Lutheran Church of Collinsville  
Sheldon Freinckle, NSS

# **EXHIBIT A**





**KEY PLAN**

N.T.S.

CONFIGURATION

**5F**

SUBMITTALS	
LE REV A	05.08.14
LE REV 0	05.21.14


**ATLANTIS GROUP**  
 1340 Centre Street  
 Suite 212  
 Newton, MA 02459  
 Office: 617-965-0789  
 Fax: 617-213-5056

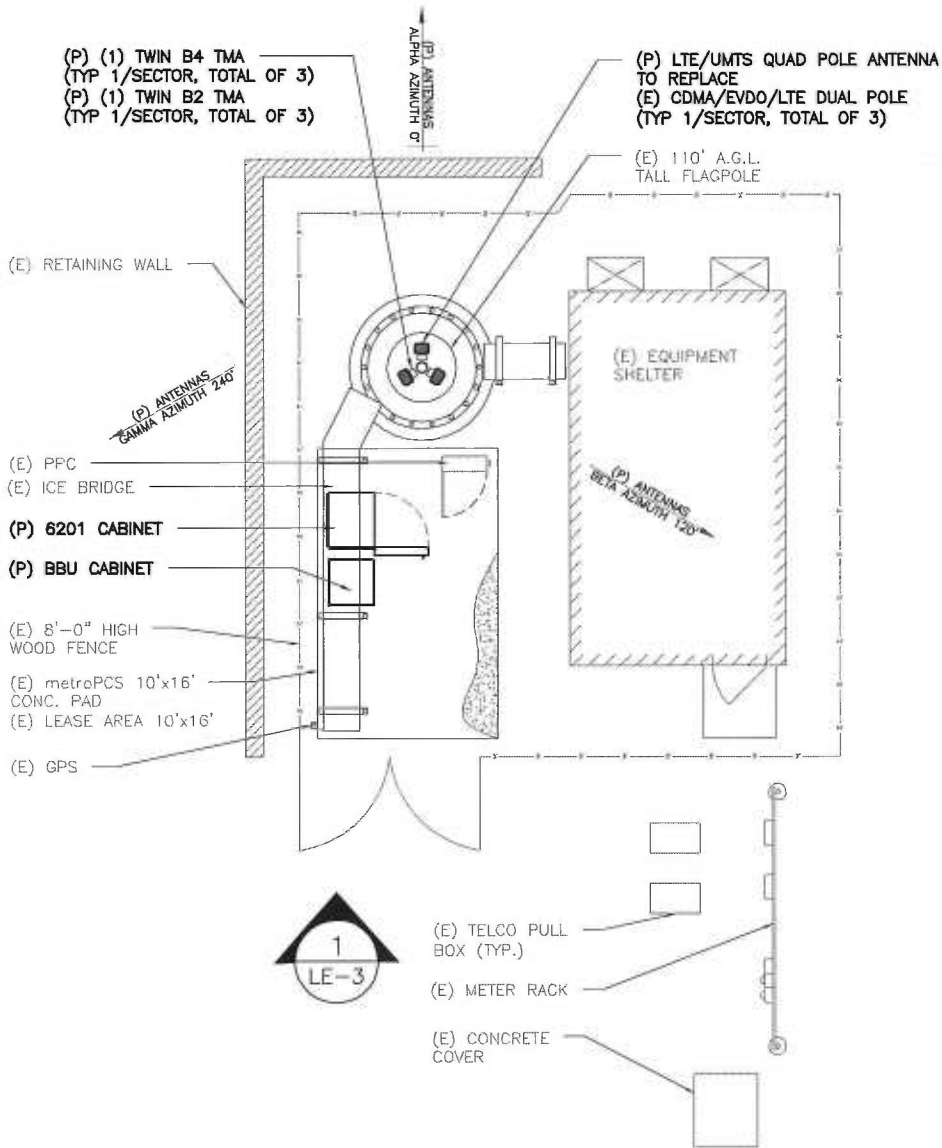
**LEASE EXHIBIT**  
 SITE NUMBER:  
 CTHA514A  
  
 SITE NAME:  
 AT&T AVON FLAGPOLE  
  
 SITE ADDRESS:  
 228 LOVELY STREET  
 AVON, CT

NORTHEAST SITE SOLUTIONS  
 54 MAIN STREET, UNIT 3  
 STURBRIDGE, MA 01566  
 (508) 434-5237  
  
 FOR  
  
 metroPCS WIRELESS, INC.  
 35 GRIFFIN ROAD SOUTH  
 BLOOMFIELD, CT 06002

DRAWN BY: MB

CHECKED BY: SM

PAGE 1 OF 3



ALL EQUIPMENT LOCATIONS ARE APPROXIMATE AND ARE SUBJECT TO APPROVAL BY LESSEE/LICENSEE'S STRUCTURAL & RF ENGINEERS. LOCATIONS OF POWER & TELEPHONE FACILITIES ARE SUBJECT TO APPROVAL BY UTILITY COMPANIES.

**SITE PLAN**

SCALE: N.T.S.



CONFIGURATION

**5F**

SUBMITTALS	
LE REV A	05.08.14
LE REV 0	05.21.14

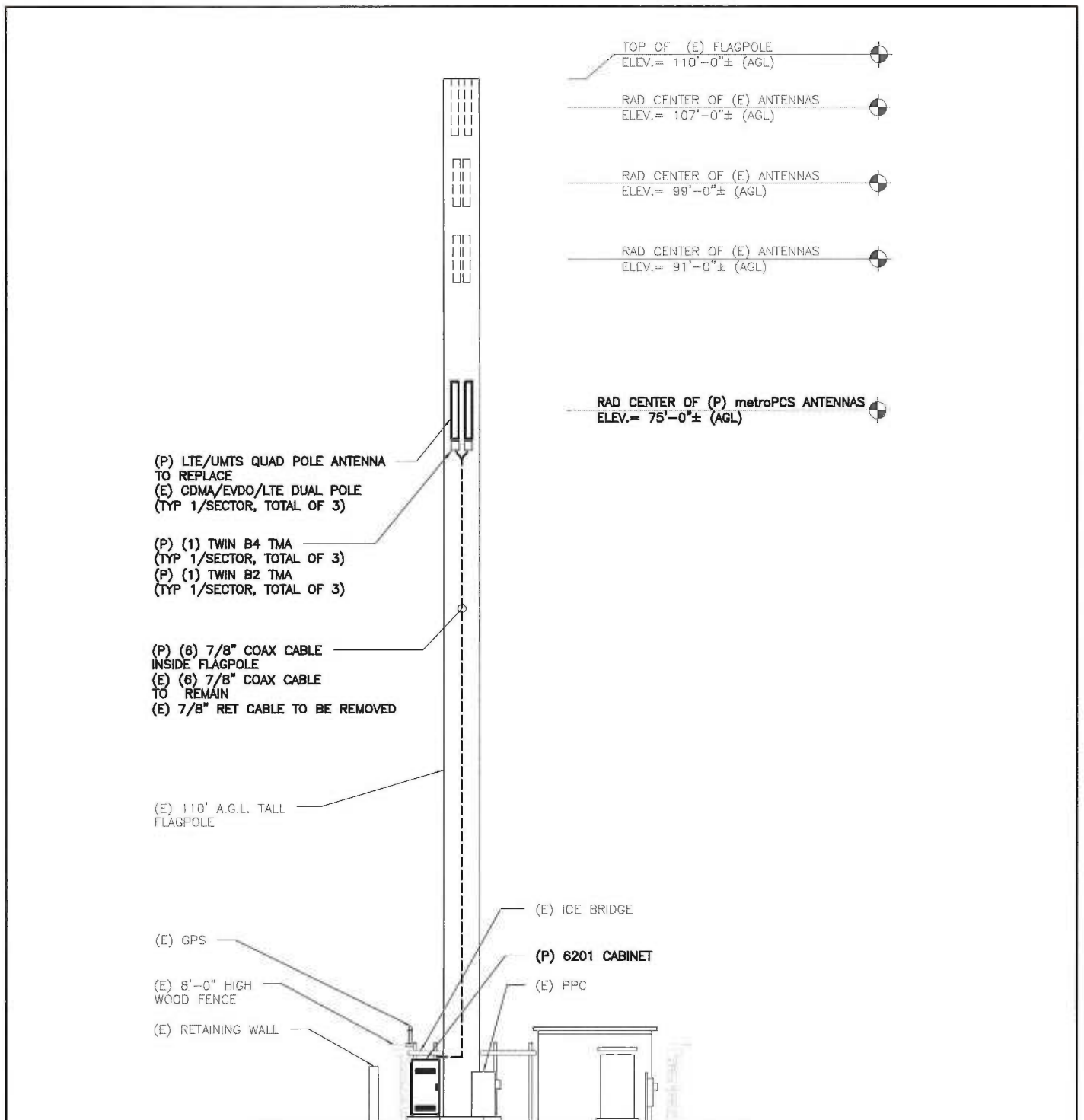
**ATLANTIS GROUP**  
 1340 Centre Street  
 Suite 212  
 Newton, MA 02459  
 Office: 617-965-0789  
 Fax: 617-213-5056

**LEASE EXHIBIT**  
 SITE NUMBER:  
 CTHA514A  
 SITE NAME:  
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 AVON, CT

NORTHEAST SITE SOLUTIONS  
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 STURBRIDGE, MA 01566  
 (508) 434-5237  
 FOR  
**metroPCS.**  
 metroPCS WIRELESS, INC.  
 35 GRIFFIN ROAD SOUTH  
 BLOOMFIELD, CT 06002

DRAWN BY: MB

CHECKED BY: SM



1 ELEVATION  
LE-3 N.T.S.

CONFIGURATION

5F

SUBMITTALS	
LE REV A	05.08.14
LE REV 0	05.21.14

**ATLANTIS GROUP**  
 1340 Centre Street  
 Suite 212  
 Newton, MA 02459  
 Office: 617-965-0789  
 Fax: 617-213-5056

**LEASE EXHIBIT**  
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NORTHEAST SITE SOLUTIONS  
 54 MAIN STREET, UNIT 3  
 STURBRIDGE, MA 01566  
 (508) 434-5237  
 FOR  
**metroPCS.**  
 metroPCS WIRELESS, INC.  
 35 GRIFFIN ROAD SOUTH  
 BLOOMFIELD, CT 06002  
 PAGE 3 OF 3

# **EXHIBIT B**





**AT&T Towers**

2300 Northlake Center Dr Ste 405  
Tucker, GA 30084

June 12, 2014

**B+T GRP**

1717 S. Boulder, Suite 300  
Tulsa, OK 74119

B+T No.: 88562.001.01

**STRUCTURAL ANALYSIS  
109' Monopole Tower**

AT&T DESIGNATION:	Site ID:	97421
	Site FA:	10117744
	Site Name:	Avon Lovely St
	AT&T Project:	Metro PCS Modification-Tower only 5/21/14

ANALYSIS CRITERIA:	Codes:	TIA/EIA-222-F (80 mph fastest mile) 2005 CT State Building Code
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SITE DATA:	224 Lovely Street, Avon, CT, Hartford County Latitude 41.798978°, Longitude -72.888372° Market MA/RI/VT/NH/ME/CT
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Ms. Julie Overman,

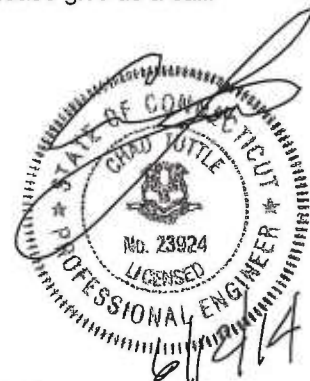
B+T Group is pleased to submit this Structural Analysis Report to determine the structural integrity of the aforementioned tower. The purpose of the analysis is to determine the suitability of the tower with the existing and proposed loading configuration detailed in the analysis report.

**Analysis Results**

Tower Stress Level with Proposed Equipment:	<b>63.1%</b>	<b>Pass</b>
Foundation Ratio with Proposed Equipment:	<b>35.5%</b>	<b>Pass</b>

We at B+T Group appreciate the opportunity of providing our continuing professional services to you and AT&T Towers. If you have any questions or need further assistance on this or any other project please give us a call.

Respectfully Submitted by:	B+T Engineering, Inc.
Analysis Prepared by:	Raul Ortiz Jr., E.I.T.
Analysis Reviewed by:	Chad E. Tuttle, P.E.



**AT&T Proprietary (Internal use Only)**  
Not for use or disclosure outside the AT&T companies  
except under written agreement



**ANALYSIS RESULTS:**

**Table 1 - Section Capacity (Summary)**

Elevation (ft)	% Capacity	Pass / Fail
63 - 40	24.9	Pass
40 - 0	<b>55.1</b>	Pass

**Table 2 - Tower Component Stresses vs. Capacity**

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Flange	40	53.1	<b>Pass</b>
1	Anchor Rods	Base	63.1	<b>Pass</b>
1	Base Plate	Base	46.8	<b>Pass</b>
1	Base Foundation	Base	35.5	<b>Pass</b>

<b>Structure Rating (max from all components) =</b>	<b>63.1%</b>
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Notes:

- 1) See additional documentation in "Appendix B - Calculations" for calculation supporting the % capacity consumed.

**Recommendations:**

N/A

**ANALYSIS PROCEDURE:**

**Table 3 - Documents Provided**

Document	Description	Date	Source
Tower Data	EEL, Project No. 16537	12/20/2010	Siterra
Foundation Information	EEL, Project No. 16537	1/11/2011	Siterra
Geotech Report	Information Not Available	N/A	N/A
Loading	B+T Group, Project No. 84524.001.0001; MOD LTE W3 041812	7/19/2012	On File
	Site Lease Application	5/21/2014	Siterra
	NOC2	6/4/2014	Sitera
Previous Structural Analysis	B+T Group, Project No. 84524.001.0001; MOD LTE W3 041812	7/19/2012	On File
	GPD Group, Project No. 2011265.80; MetroPCS Co-location 5-20-2011	8/2/2011	Siterra

**ANALYSIS METHOD:**

tnxTower, 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 B.

**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 specifications.
3. The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Appendix A of this report.
4. Mount areas and weights are assumed based on photographs provided.
5. Refer to the base level drawing for transmission line distribution.
6. Soil Properties were taken from the previous analysis by GPD Group.
7. Future loading was not considered. This is a stealth pole and there is no space for additional loading.
8. Existing loading was taken from the previous analysis.
9. Proposed loading was taken from the Site Lease Application.

If any of these assumptions have been made in error, B+T Group should be notified to determine the effect on the structural integrity of the tower.

**APPENDIX A**  
**TOWER ANALYSIS LOADING**





**APPENDIX B**  
**CALCULATIONS**

**DESIGNED APPURTENANCE LOADING**

TYPE	ELEVATION	TYPE	ELEVATION
P65-16-XLH-RR w/ Mount Pipe (ATI-E(Inside Shroud))	107	P65-16-XLH-RR w/ Mount Pipe (ATI-E(Inside Shroud))	91
P65-16-XLH-RR w/ Mount Pipe (ATI-E(Inside Shroud))	107	P65-16-XLH-RR w/ Mount Pipe (ATI-E(Inside Shroud))	91
P65-16-XLH-RR w/ Mount Pipe (ATI-E(Inside Shroud))	107	TT19-08BP111-001 (ATI-E(Inside Shroud))	91
TT19-08BP111-001 (ATI-E(Inside Shroud))	107	TT19-08BP111-001 (ATI-E(Inside Shroud))	91
TT19-08BP111-001 (ATI-E(Inside Shroud))	107	TT19-08BP111-001 (ATI-E(Inside Shroud))	91
TT19-08BP111-001 (ATI-E(Inside Shroud))	107	10'x36" Radome (E)	84
10'x36" Radome (E)	104	8'x36" Radome (E)	75
P65-16-XLH-RR w/ Mount Pipe (ATI-E(Inside Shroud))	99	APX16DWW 16DWVS w/ Mount Pipe (Metro PCS-P(Inside Shroud))	75
P65-16-XLH-RR w/ Mount Pipe (ATI-E(Inside Shroud))	99	APX16DWW 16DWVS w/ Mount Pipe (Metro PCS-P(Inside Shroud))	75
P65-16-XLH-RR w/ Mount Pipe (ATI-E(Inside Shroud))	99	APX16DWW 16DWVS w/ Mount Pipe (Metro PCS-P(Inside Shroud))	75
TTAW-07BP111-001 (ATI-E(Inside Shroud))	99	(2) KRY 112 71 (Metro PCS-P(Inside Shroud))	75
TTAW-07BP111-001 (ATI-E(Inside Shroud))	99	(2) KRY 112 71 (Metro PCS-P(Inside Shroud))	75
TTAW-07BP111-001 (ATI-E(Inside Shroud))	99	(2) KRY 112 71 (Metro PCS-P(Inside Shroud))	75
10'x36" Radome (E)	94	8'x36" Radome (E)	67
P65-16-XLH-RR w/ Mount Pipe (ATI-E(Inside Shroud))	91		

**MATERIAL STRENGTH**

GRADE	Fy	Fu	GRADE	Fy	Fu
A53-B-35	35 ksi	63 ksi			

**TOWER DESIGN NOTES**

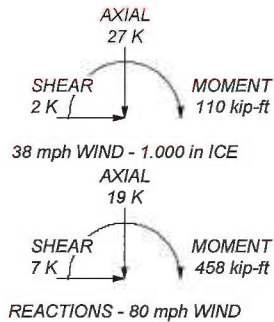
1. Tower is located in Hartford County, Connecticut.
2. Tower designed for a 80 mph basic wind in accordance with the TIA/EIA-222-F Standard.
3. Tower is also designed for a 38 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 50 mph wind.
5. TOWER RATING: 55.1%

Section	1	P36x3/8	23.000	A53-B-35	3.3
Section	2	P36x3/8	40.000		5.7
Section					9.0

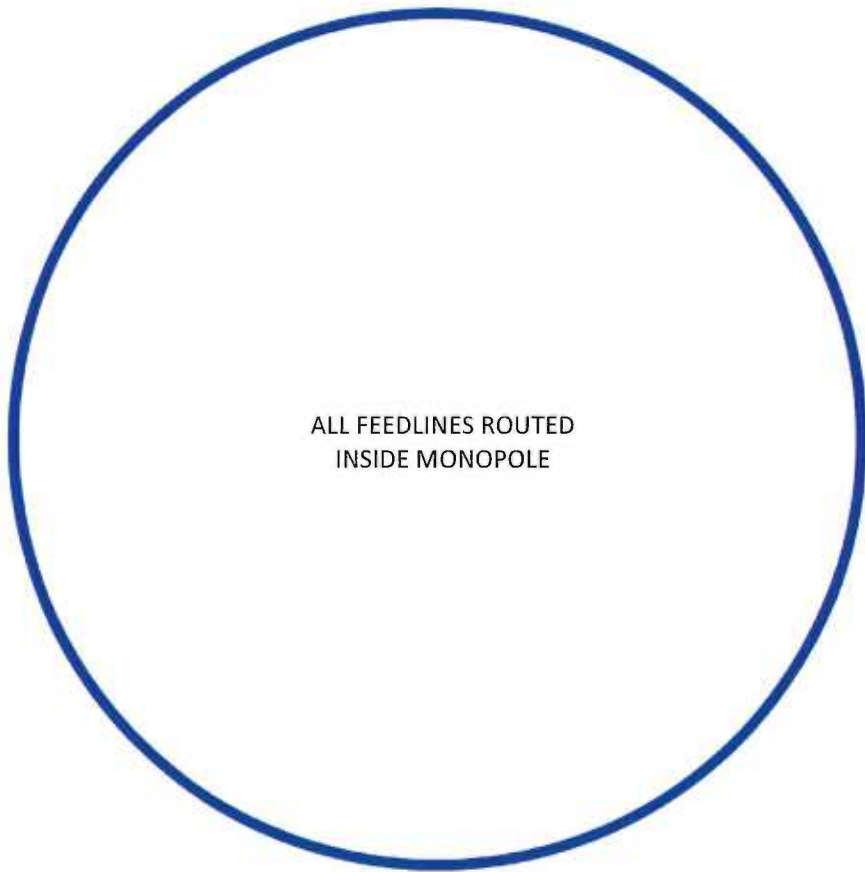
83.0 ft

40.0 ft

0.0 ft



<p><b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265</p>	<b>Job: 88562.001.01 - Avon Lovely St, CT (USID 9742)</b>		
	<b>Project: Metro PCS Modification-Tower only 5/21/14</b>		
	Client: AT&T Towers	Drawn by: Rortiz	App'd:
	Code: TIA/EIA-222-F	Date: 06/12/14	Scale: NTS
	Path:	Dwg No. E-1	



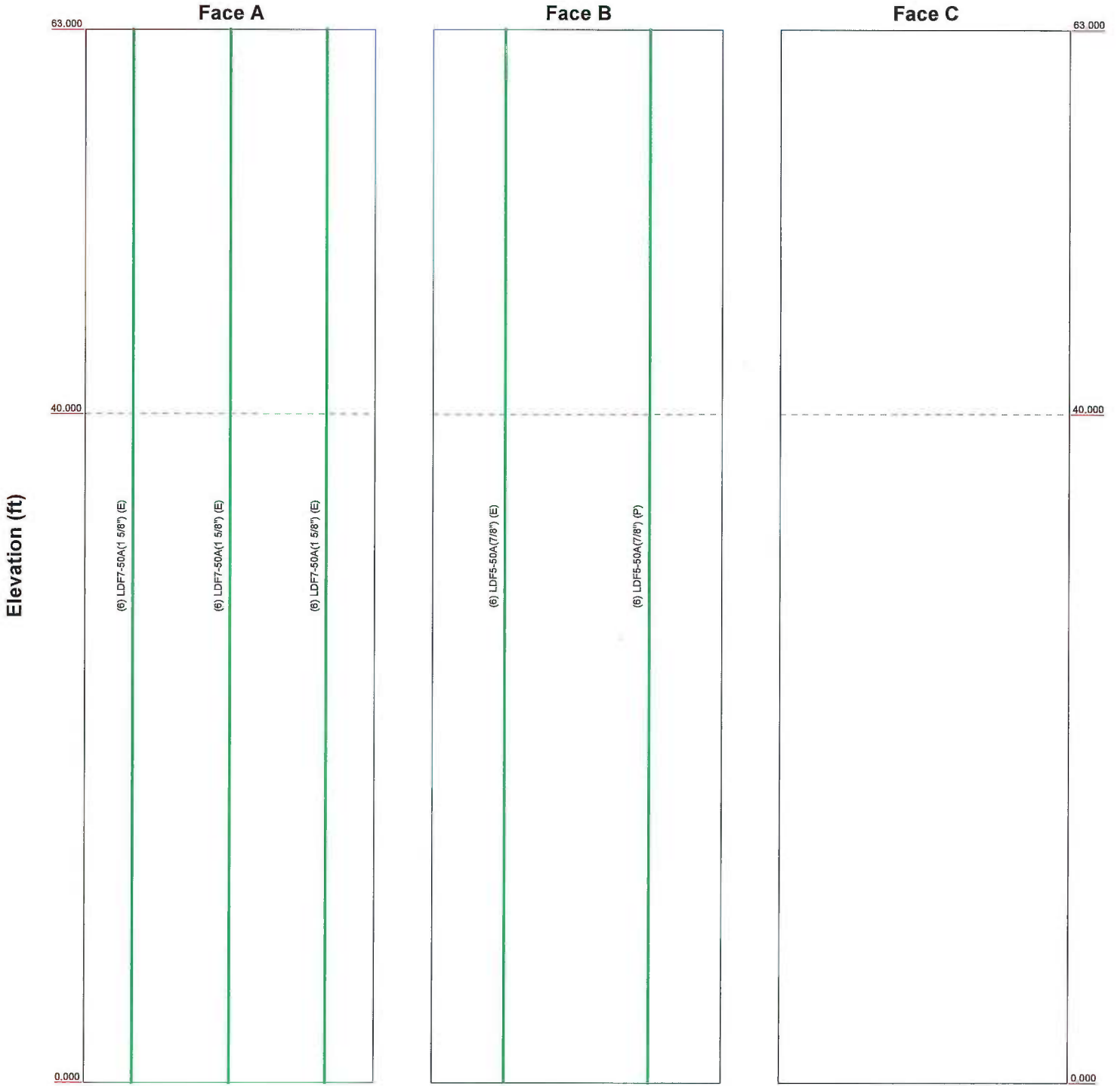
ALL FEEDLINES ROUTED  
INSIDE MONOPOLE

PROJECT NUMBER: 88562.001.01

# Feed Line Distribution Chart

## 0' - 63'

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

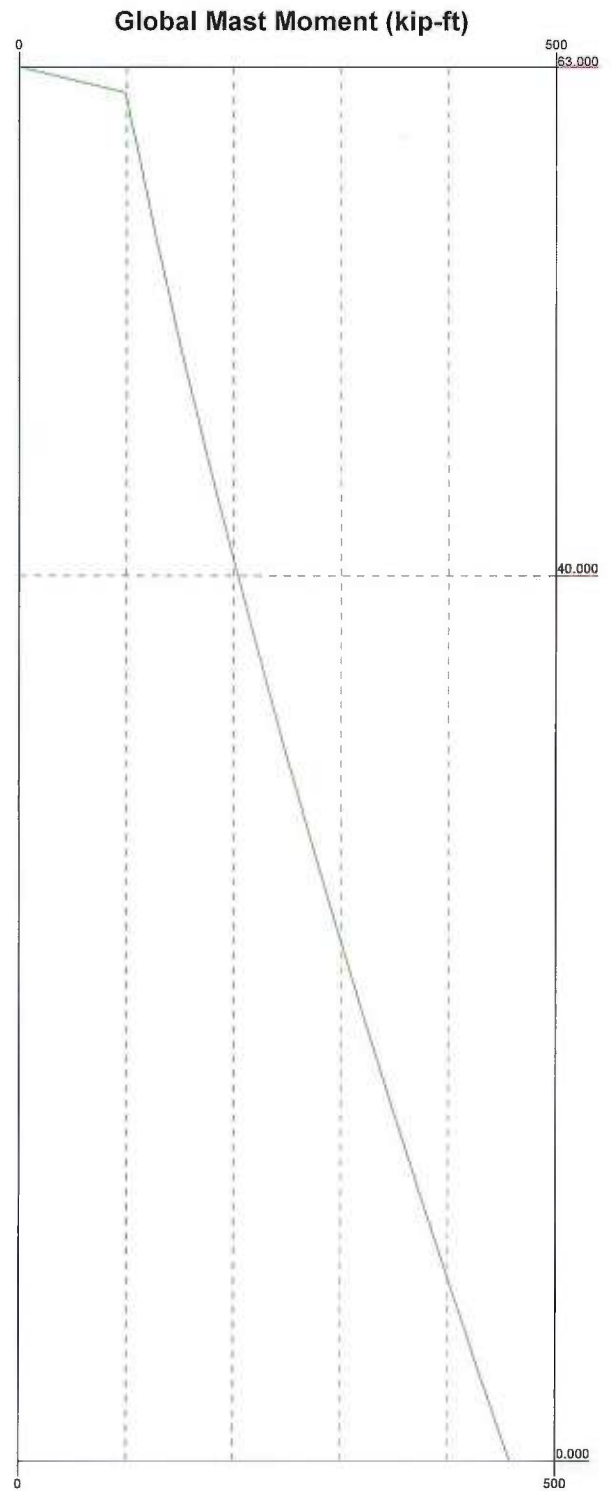
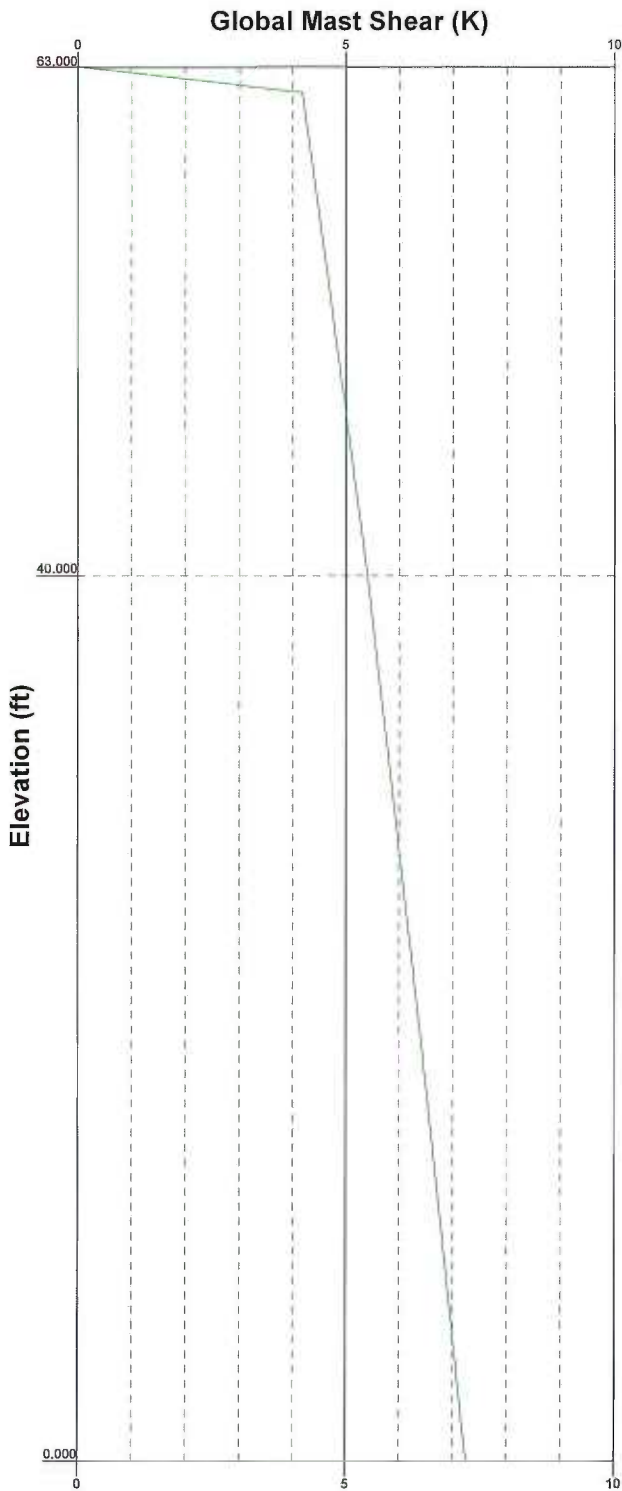



 <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job: 88562.001.01 - Avon Lovely St, CT (USID 9742)</b>		
	Project: <i>Metro PCS Modification-Tower only 5/21/14</i>		
	Client: AT&T Towers	Drawn by: Rortiz	App'd:
	Code: TIA/EIA-222-F	Date: 06/12/14	Scale: NTS
	Path:		Dwg No. E-7

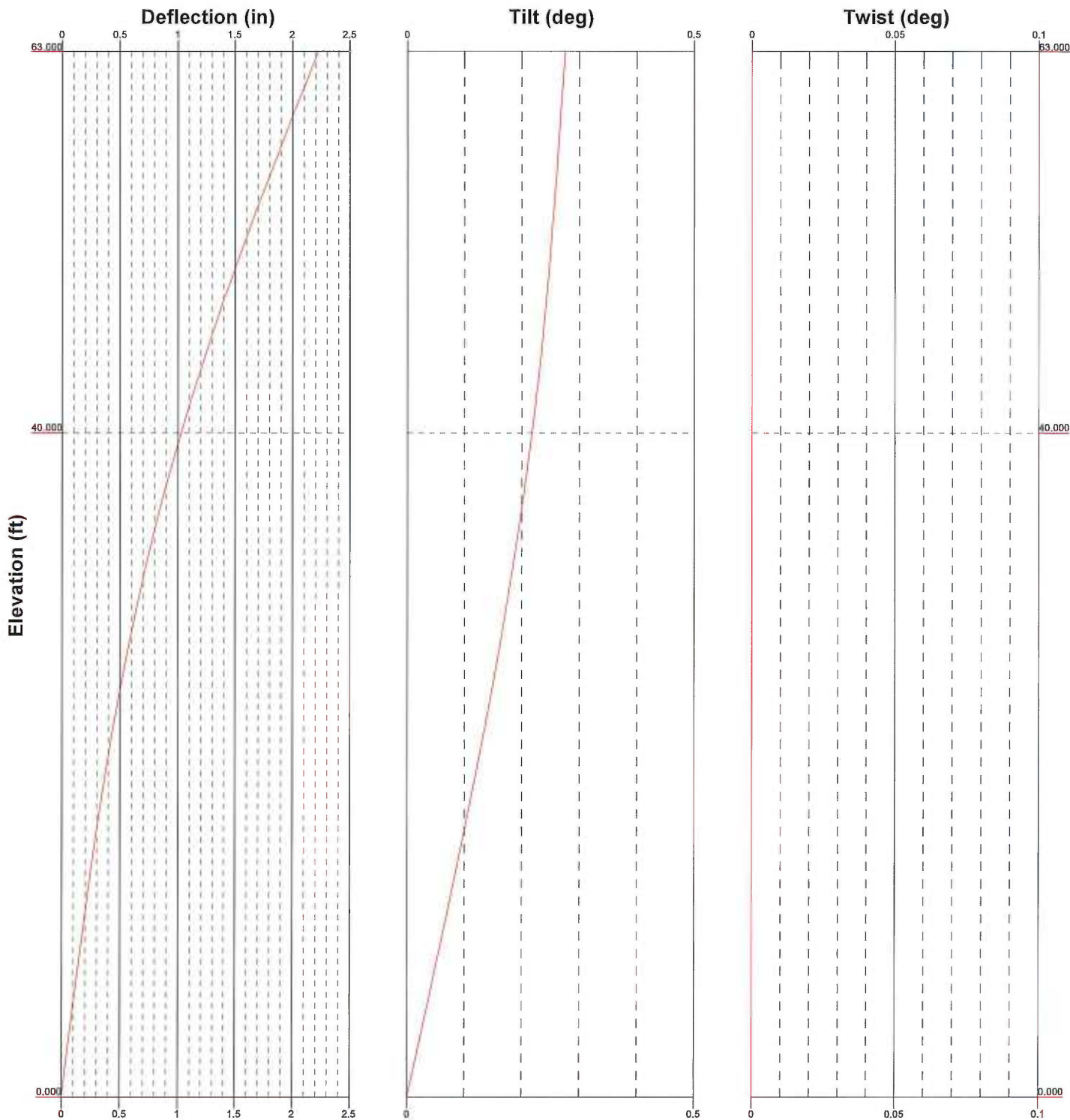



— Vx — Vz

— Mx — Mz



 <p><b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265</p>	<p>Job: <b>88562.001.01 - Avon Lovely St, CT (USID 9742)</b></p>		
	<p>Project: <b>Metro PCS Modification-Tower only 5/21/14</b></p>		
	<p>Client: <b>AT&amp;T Towers</b></p>	<p>Drawn by: <b>Rortiz</b></p>	<p>App'd:</p>
	<p>Code: <b>TIA/EIA-222-F</b></p>	<p>Date: <b>06/12/14</b></p>	<p>Scale: <b>NTS</b></p>
	<p>Path:</p>	<p>Dwg No. <b>E-4</b></p>	



 <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job: 88562.001.01 - Avon Lovely St, CT (USID 9742)</b>		
	Project: <i>Metro PCS Modification-Tower only 5/21/14</i>		
	Client: AT&T Towers	Drawn by: Rortiz	App'd:
	Code: TIA/EIA-222-F	Date: 06/12/14	Scale: NTS
	Path:	Dwg No. E-5	

<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b> 88562.001.01 - Avon Lovely St, CT (USID 97421)	<b>Page</b> 1 of 11
	<b>Project</b> Metro PCS Modification-Tower only 5/21/14	<b>Date</b> 09:02:06 06/12/14
	<b>Client</b> AT&T Towers	<b>Designed by</b> Rortiz

## Tower Input Data

There is a pole section.

This tower is designed using the TIA/EIA-222-F standard.

The following design criteria apply:

Tower is located in Hartford County, Connecticut.

Basic wind speed of 80 mph.

Nominal ice thickness of 1.000 in.

Ice thickness is considered to increase with height.

Ice density of 56.000 pcf.

A wind speed of 38 mph is used in combination with ice.

Temperature drop of 50.000 °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 pole design is 1.333.

Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

## Options

<ul style="list-style-type: none"> <li>Consider Moments - Legs</li> <li>Consider Moments - Horizontals</li> <li>Consider Moments - Diagonals</li> <li>Use Moment Magnification</li> <li>√ Use Code Stress Ratios</li> <li>√ Use Code Safety Factors - Guys</li> <li>√ Escalate Ice</li> <li>Always Use Max Kz</li> <li>Use Special Wind Profile</li> <li>Include Bolts In Member Capacity</li> <li>Leg Bolts Are At Top Of Section</li> <li>Secondary Horizontal Braces Leg</li> <li>Use Diamond Inner Bracing (4 Sided)</li> <li>Add IBC .6D+W Combination</li> </ul>	<ul style="list-style-type: none"> <li>Distribute Leg Loads As Uniform</li> <li>Assume Legs Pinned</li> <li>√ Assume Rigid Index Plate</li> <li>√ Use Clear Spans For Wind Area</li> <li>Use Clear Spans For KL/r</li> <li>Retension Guys To Initial Tension</li> <li>√ Bypass Mast Stability Checks</li> <li>√ Use Azimuth Dish Coefficients</li> <li>√ Project Wind Area of Appurt.</li> <li>Autocalc Torque Arm Areas</li> <li>SR Members Have Cut Ends</li> <li>Sort Capacity Reports By Component</li> <li>Triangulate Diamond Inner Bracing</li> <li>Use TIA-222-G Tension Splice Capacity Exemption</li> </ul>	<ul style="list-style-type: none"> <li>Treat Feedline Bundles As Cylinder</li> <li>Use ASCE 10 X-Brace Ly Rules</li> <li>Calculate Redundant Bracing Forces</li> <li>Ignore Redundant Members in FEA</li> <li>SR Leg Bolts Resist Compression</li> <li>All Leg Panels Have Same Allowable</li> <li>Offset Girt At Foundation</li> <li>√ Consider Feedline Torque</li> <li>Include Angle Block Shear Check</li> <li style="padding-left: 20px;">Poles</li> <li>√ Include Shear-Torsion Interaction</li> <li>Always Use Sub-Critical Flow</li> <li>Use Top Mounted Sockets</li> </ul>
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## Pole Section Geometry

Section	Elevation	Section Length	Pole Size	Pole Grade	Socket Length
	ft	ft			ft
L1	63.000-40.000	23.000	P36x3/8	A53-B-35 (35 ksi)	
L2	40.000-0.000	40.000	P36x3/8	A53-B-35 (35 ksi)	

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A <sub>f</sub>	Adjust. Factor A <sub>r</sub>	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals	Double Angle Stitch Bolt Spacing Horizontal
ft	ft <sup>2</sup>	in					in	in
L1 63.000-40.000				1	1	1		
L2 40.000-0.000				1	1	1		

<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b> 88562.001.01 - Avon Lovely St, CT (USID 97421)	<b>Page</b> 2 of 11
	<b>Project</b> Metro PCS Modification-Tower only 5/21/14	<b>Date</b> 09:02:06 06/12/14
	<b>Client</b> AT&T Towers	<b>Designed by</b> Rortiz

**Feed Line/Linear Appurtenances - Entered As Round Or Flat**

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Total Number	Number Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight klf
*@*										

**Feed Line/Linear Appurtenances - Entered As Area**

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Total Number		C <sub>AAA</sub> ft <sup>2</sup> /ft	Weight klf		
LDF7-50A(1 5/8") (E)	A	No	Inside Pole	63.000 - 0.000	6	No Ice	0.000	0.001		
						1/2" Ice	0.000	0.001		
						1" Ice	0.000	0.001		
						2" Ice	0.000	0.001		
						4" Ice	0.000	0.001		
*@*										
LDF7-50A(1 5/8") (E)	A	No	Inside Pole	63.000 - 0.000	6	No Ice	0.000	0.001		
						1/2" Ice	0.000	0.001		
						1" Ice	0.000	0.001		
						2" Ice	0.000	0.001		
						4" Ice	0.000	0.001		
*@*										
LDF7-50A(1 5/8") (E)	A	No	Inside Pole	63.000 - 0.000	6	No Ice	0.000	0.001		
						1/2" Ice	0.000	0.001		
						1" Ice	0.000	0.001		
						2" Ice	0.000	0.001		
						4" Ice	0.000	0.001		
*@*										
LDF5-50A(7/8") (E)	B	No	Inside Pole	63.000 - 0.000	6	No Ice	0.000	0.000		
						1/2" Ice	0.000	0.000		
						1" Ice	0.000	0.000		
						2" Ice	0.000	0.000		
						4" Ice	0.000	0.000		
*@*										
LDF5-50A(7/8") (P)	B	No	Inside Pole	63.000 - 0.000	6	No Ice	0.000	0.000		
						1/2" Ice	0.000	0.000		
						1" Ice	0.000	0.000		
						2" Ice	0.000	0.000		
						4" Ice	0.000	0.000		
*@*										

**Feed Line/Linear Appurtenances Section Areas**

Tower Section	Tower Elevation ft	Face	A <sub>R</sub> ft <sup>2</sup>	A <sub>F</sub> ft <sup>2</sup>	C <sub>AAA</sub> In Face ft <sup>2</sup>	C <sub>AAA</sub> Out Face ft <sup>2</sup>	Weight K
L1	63.000-40.000	A	0.000	0.000	0.000	0.000	0.339
		B	0.000	0.000	0.000	0.000	0.091
		C	0.000	0.000	0.000	0.000	0.000
L2	40.000-0.000	A	0.000	0.000	0.000	0.000	0.590
		B	0.000	0.000	0.000	0.000	0.158
		C	0.000	0.000	0.000	0.000	0.000



<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b> 88562.001.01 - Avon Lovely St, CT (USID 97421)	<b>Page</b> 3 of 11
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### Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A <sub>R</sub> ft <sup>2</sup>	A <sub>F</sub> ft <sup>2</sup>	C <sub>AA</sub> In Face ft <sup>2</sup>	C <sub>AA</sub> Out Face ft <sup>2</sup>	Weight K
L1	63.000-40.000	A	1.055	0.000	0.000	0.000	0.000	0.339
		B		0.000	0.000	0.000	0.000	0.091
		C		0.000	0.000	0.000	0.000	0.000
L2	40.000-0.000	A	1.000	0.000	0.000	0.000	0.000	0.590
		B		0.000	0.000	0.000	0.000	0.158
		C		0.000	0.000	0.000	0.000	0.000

### Feed Line Center of Pressure

Section	Elevation ft	CP <sub>X</sub> in	CP <sub>Z</sub> in	CP <sub>X</sub> Ice in	CP <sub>Z</sub> Ice in
L1	63.000-40.000	0.000	0.000	0.000	0.000
L2	40.000-0.000	0.000	0.000	0.000	0.000

### Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C <sub>AA</sub> Front ft <sup>2</sup>	C <sub>AA</sub> Side ft <sup>2</sup>	Weight K
8'x36" Radome (E)	C	None		0.000	67.000	No Ice	19.200	1.400
						1/2" Ice	19.939	1.613
						1" Ice	20.689	1.835
						2" Ice	22.222	2.306
						4" Ice	25.422	3.358
8'x36" Radome (E)	C	None		0.000	75.000	No Ice	19.200	1.400
						1/2" Ice	19.939	1.613
						1" Ice	20.689	1.835
						2" Ice	22.222	2.306
						4" Ice	25.422	3.358
10'x36" Radome (E)	C	None		0.000	84.000	No Ice	24.000	1.721
						1/2" Ice	24.872	1.979
						1" Ice	25.756	2.247
						2" Ice	27.556	2.812
						4" Ice	31.289	4.070
10'x36" Radome (E)	C	None		0.000	94.000	No Ice	24.000	1.721
						1/2" Ice	24.872	1.979
						1" Ice	25.756	2.247
						2" Ice	27.556	2.812
						4" Ice	31.289	4.070
10'x36" Radome (E)	C	None		0.000	104.000	No Ice	24.000	1.721
						1/2" Ice	24.872	1.979
						1" Ice	25.756	2.247
						2" Ice	27.556	2.812
						4" Ice	31.289	4.070
*@*								
P65-16-XLH-RR w/ Mount Pipe	A	From Leg	1.000 0.000	0.000	107.000	No Ice	0.000	0.079
						1/2" Ice	0.000	0.144

<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b> 88562.001.01 - Avon Lovely St, CT (USID 97421)	<b>Page</b> 4 of 11
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Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C <sub>AA</sub> Front ft <sup>2</sup>	C <sub>AA</sub> Side ft <sup>2</sup>	Weight K
(AT&T-E(Inside Shroud))			0.000			1" Ice 0.000	0.000	0.218
						2" Ice 0.000	0.000	0.393
						4" Ice 0.000	0.000	0.886
P65-16-XLH-RR w/ Mount Pipe	B	From Leg	1.000	0.000	107.000	No Ice 0.000	0.000	0.079
(AT&T-E(Inside Shroud))			0.000			1/2" Ice 0.000	0.000	0.144
						1" Ice 0.000	0.000	0.218
						2" Ice 0.000	0.000	0.393
						4" Ice 0.000	0.000	0.886
P65-16-XLH-RR w/ Mount Pipe	C	From Leg	1.000	0.000	107.000	No Ice 0.000	0.000	0.079
(AT&T-E(Inside Shroud))			0.000			1/2" Ice 0.000	0.000	0.144
						1" Ice 0.000	0.000	0.218
						2" Ice 0.000	0.000	0.393
						4" Ice 0.000	0.000	0.886
TT19-08BP111-001	A	From Leg	1.000	0.000	107.000	No Ice 0.000	0.000	0.016
(AT&T-E(Inside Shroud))			0.000			1/2" Ice 0.000	0.000	0.022
						1" Ice 0.000	0.000	0.029
						2" Ice 0.000	0.000	0.049
						4" Ice 0.000	0.000	0.118
TT19-08BP111-001	B	From Leg	1.000	0.000	107.000	No Ice 0.000	0.000	0.016
(AT&T-E(Inside Shroud))			0.000			1/2" Ice 0.000	0.000	0.022
						1" Ice 0.000	0.000	0.029
						2" Ice 0.000	0.000	0.049
						4" Ice 0.000	0.000	0.118
TT19-08BP111-001	C	From Leg	1.000	0.000	107.000	No Ice 0.000	0.000	0.016
(AT&T-E(Inside Shroud))			0.000			1/2" Ice 0.000	0.000	0.022
						1" Ice 0.000	0.000	0.029
						2" Ice 0.000	0.000	0.049
						4" Ice 0.000	0.000	0.118
*@*								
P65-16-XLH-RR w/ Mount Pipe	A	From Leg	1.000	0.000	99.000	No Ice 0.000	0.000	0.079
(AT&T-E(Inside Shroud))			0.000			1/2" Ice 0.000	0.000	0.144
						1" Ice 0.000	0.000	0.218
						2" Ice 0.000	0.000	0.393
						4" Ice 0.000	0.000	0.886
P65-16-XLH-RR w/ Mount Pipe	B	From Leg	1.000	0.000	99.000	No Ice 0.000	0.000	0.079
(AT&T-E(Inside Shroud))			0.000			1/2" Ice 0.000	0.000	0.144
						1" Ice 0.000	0.000	0.218
						2" Ice 0.000	0.000	0.393
						4" Ice 0.000	0.000	0.886
P65-16-XLH-RR w/ Mount Pipe	C	From Leg	1.000	0.000	99.000	No Ice 0.000	0.000	0.079
(AT&T-E(Inside Shroud))			0.000			1/2" Ice 0.000	0.000	0.144
						1" Ice 0.000	0.000	0.218
						2" Ice 0.000	0.000	0.393
						4" Ice 0.000	0.000	0.886
TTAW-07BP111-001	A	From Leg	1.000	0.000	99.000	No Ice 0.000	0.000	0.018
(AT&T-E(Inside Shroud))			0.000			1/2" Ice 0.000	0.000	0.023
						1" Ice 0.000	0.000	0.031
						2" Ice 0.000	0.000	0.051
						4" Ice 0.000	0.000	0.120
TTAW-07BP111-001	B	From Leg	1.000	0.000	99.000	No Ice 0.000	0.000	0.018
(AT&T-E(Inside Shroud))			0.000			1/2" Ice 0.000	0.000	0.023
						1" Ice 0.000	0.000	0.031
						2" Ice 0.000	0.000	0.051
						4" Ice 0.000	0.000	0.120
TTAW-07BP111-001	C	From Leg	1.000	0.000	99.000	No Ice 0.000	0.000	0.018
(AT&T-E(Inside Shroud))			0.000			1/2" Ice 0.000	0.000	0.023
						1" Ice 0.000	0.000	0.031

<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b> 88562.001.01 - Avon Lovely St, CT (USID 97421)	<b>Page</b> 5 of 11
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	<b>Client</b> AT&T Towers	<b>Designed by</b> Rortiz

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C <sub>AA</sub> Front ft <sup>2</sup>	C <sub>AA</sub> Side ft <sup>2</sup>	Weight K	
						2" Ice	0.000	0.000	0.051
						4" Ice	0.000	0.000	0.120
*@*						No Ice	0.000	0.000	0.079
P65-16-XLH-RR w/ Mount Pipe (AT&T-E(Inside Shroud))	A	From Leg	1.000 0.000 0.000	0.000	91.000	1/2" Ice	0.000	0.000	0.144
						1" Ice	0.000	0.000	0.218
						2" Ice	0.000	0.000	0.393
						4" Ice	0.000	0.000	0.886
P65-16-XLH-RR w/ Mount Pipe (AT&T-E(Inside Shroud))	B	From Leg	1.000 0.000 0.000	0.000	91.000	No Ice	0.000	0.000	0.079
						1/2" Ice	0.000	0.000	0.144
						1" Ice	0.000	0.000	0.218
						2" Ice	0.000	0.000	0.393
						4" Ice	0.000	0.000	0.886
P65-16-XLH-RR w/ Mount Pipe (AT&T-E(Inside Shroud))	C	From Leg	1.000 0.000 0.000	0.000	91.000	No Ice	0.000	0.000	0.079
						1/2" Ice	0.000	0.000	0.144
						1" Ice	0.000	0.000	0.218
						2" Ice	0.000	0.000	0.393
						4" Ice	0.000	0.000	0.886
TT19-08BP111-001 (AT&T-E(Inside Shroud))	A	From Leg	1.000 0.000 0.000	0.000	91.000	No Ice	0.000	0.000	0.016
						1/2" Ice	0.000	0.000	0.022
						1" Ice	0.000	0.000	0.029
						2" Ice	0.000	0.000	0.049
						4" Ice	0.000	0.000	0.118
TT19-08BP111-001 (AT&T-E(Inside Shroud))	B	From Leg	1.000 0.000 0.000	0.000	91.000	No Ice	0.000	0.000	0.016
						1/2" Ice	0.000	0.000	0.022
						1" Ice	0.000	0.000	0.029
						2" Ice	0.000	0.000	0.049
						4" Ice	0.000	0.000	0.118
TT19-08BP111-001 (AT&T-E(Inside Shroud))	C	From Leg	1.000 0.000 0.000	0.000	91.000	No Ice	0.000	0.000	0.016
						1/2" Ice	0.000	0.000	0.022
						1" Ice	0.000	0.000	0.029
						2" Ice	0.000	0.000	0.049
						4" Ice	0.000	0.000	0.118
*@*						No Ice	0.000	0.000	0.061
APX16DWV_16DWVS w/ Mount Pipe (Metro PCS-P(Inside Shroud))	A	From Leg	1.000 0.000 0.000	0.000	75.000	1/2" Ice	0.000	0.000	0.110
						1" Ice	0.000	0.000	0.165
						2" Ice	0.000	0.000	0.298
						4" Ice	0.000	0.000	0.683
APX16DWV_16DWVS w/ Mount Pipe (Metro PCS-P(Inside Shroud))	B	From Leg	1.000 0.000 0.000	0.000	75.000	No Ice	0.000	0.000	0.061
						1/2" Ice	0.000	0.000	0.110
						1" Ice	0.000	0.000	0.165
						2" Ice	0.000	0.000	0.298
						4" Ice	0.000	0.000	0.683
APX16DWV_16DWVS w/ Mount Pipe (Metro PCS-P(Inside Shroud))	C	From Leg	1.000 0.000 0.000	0.000	75.000	No Ice	0.000	0.000	0.061
						1/2" Ice	0.000	0.000	0.110
						1" Ice	0.000	0.000	0.165
						2" Ice	0.000	0.000	0.298
						4" Ice	0.000	0.000	0.683
(2) KRY 112 71 (Metro PCS-P(Inside Shroud))	A	From Leg	1.000 0.000 0.000	0.000	75.000	No Ice	0.000	0.000	0.013
						1/2" Ice	0.000	0.000	0.018
						1" Ice	0.000	0.000	0.025
						2" Ice	0.000	0.000	0.044
						4" Ice	0.000	0.000	0.111
(2) KRY 112 71 (Metro PCS-P(Inside Shroud))	B	From Leg	1.000 0.000 0.000	0.000	75.000	No Ice	0.000	0.000	0.013
						1/2" Ice	0.000	0.000	0.018
						1" Ice	0.000	0.000	0.025

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Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C <sub>AA</sub> Front ft <sup>2</sup>	C <sub>SA</sub> Side ft <sup>2</sup>	Weight K	
						2" Ice	0.000	0.000	0.044
						4" Ice	0.000	0.000	0.111
(2) KRY 112 71	C	From Leg	1.000	0.000	75.000	No Ice	0.000	0.000	0.013
(Metro PCS-P(Inside Shroud))			0.000			1/2" Ice	0.000	0.000	0.018
			0.000			1" Ice	0.000	0.000	0.025
						2" Ice	0.000	0.000	0.044
						4" Ice	0.000	0.000	0.111
*@*									

## Load Combinations

Comb. No.	Description
1	Dead Only
2	Dead+Wind 0 deg - No Ice
3	Dead+Wind 30 deg - No Ice
4	Dead+Wind 60 deg - No Ice
5	Dead+Wind 90 deg - No Ice
6	Dead+Wind 120 deg - No Ice
7	Dead+Wind 150 deg - No Ice
8	Dead+Wind 180 deg - No Ice
9	Dead+Wind 210 deg - No Ice
10	Dead+Wind 240 deg - No Ice
11	Dead+Wind 270 deg - No Ice
12	Dead+Wind 300 deg - No Ice
13	Dead+Wind 330 deg - No Ice
14	Dead+Ice+Temp
15	Dead+Wind 0 deg+Ice+Temp
16	Dead+Wind 30 deg+Ice+Temp
17	Dead+Wind 60 deg+Ice+Temp
18	Dead+Wind 90 deg+Ice+Temp
19	Dead+Wind 120 deg+Ice+Temp
20	Dead+Wind 150 deg+Ice+Temp
21	Dead+Wind 180 deg+Ice+Temp
22	Dead+Wind 210 deg+Ice+Temp
23	Dead+Wind 240 deg+Ice+Temp
24	Dead+Wind 270 deg+Ice+Temp
25	Dead+Wind 300 deg+Ice+Temp
26	Dead+Wind 330 deg+Ice+Temp
27	Dead+Wind 0 deg - Service
28	Dead+Wind 30 deg - Service
29	Dead+Wind 60 deg - Service
30	Dead+Wind 90 deg - Service
31	Dead+Wind 120 deg - Service
32	Dead+Wind 150 deg - Service
33	Dead+Wind 180 deg - Service
34	Dead+Wind 210 deg - Service
35	Dead+Wind 240 deg - Service
36	Dead+Wind 270 deg - Service
37	Dead+Wind 300 deg - Service
38	Dead+Wind 330 deg - Service



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### Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	63 - 40	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	14	-18.715	0.000	0.000
			Max. M <sub>x</sub>	5	-12.748	-204.212	0.000
			Max. M <sub>y</sub>	2	-12.748	0.000	204.212
			Max. V <sub>y</sub>	5	5.415	-204.212	0.000
			Max. V <sub>x</sub>	2	-5.415	0.000	204.212
			Max. Torque	3	0.000	0.000	0.000
L2	40 - 0	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	14	-26.985	0.000	0.000
			Max. M <sub>x</sub>	5	-19.259	-458.307	0.000
			Max. M <sub>y</sub>	2	-19.259	0.000	458.307
			Max. V <sub>y</sub>	5	7.257	-458.307	0.000
			Max. V <sub>x</sub>	2	-7.257	0.000	458.307
			Max. Torque	3	0.000	0.000	-0.000

### Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	14	26.985	0.000	0.000
	Max. H <sub>x</sub>	11	19.262	7.250	0.000
	Max. H <sub>z</sub>	2	19.262	0.000	7.250
	Max. M <sub>x</sub>	2	458.307	0.000	7.250
	Max. M <sub>z</sub>	5	458.307	-7.250	0.000
	Max. Torsion	7	0.000	-3.625	-6.279
	Min. Vert	1	19.262	0.000	0.000
	Min. H <sub>x</sub>	5	19.262	-7.250	0.000
	Min. H <sub>z</sub>	8	19.262	0.000	-7.250
	Min. M <sub>x</sub>	8	-458.307	0.000	-7.250
	Min. M <sub>z</sub>	11	-458.307	7.250	0.000
	Min. Torsion	3	-0.000	-3.625	6.279

### Tower Mast Reaction Summary

Load Combination	Vertical K	Shear <sub>x</sub> K	Shear <sub>z</sub> K	Overturning Moment, M <sub>x</sub> kip-ft	Overturning Moment, M <sub>z</sub> kip-ft	Torque kip-ft
Dead Only	19.262	0.000	0.000	0.000	0.000	0.000
Dead+Wind 0 deg - No Ice	19.262	0.000	-7.250	-458.307	0.000	0.000
Dead+Wind 30 deg - No Ice	19.262	3.625	-6.279	-396.905	-229.153	0.000
Dead+Wind 60 deg - No Ice	19.262	6.279	-3.625	-229.153	-396.905	-0.000
Dead+Wind 90 deg - No Ice	19.262	7.250	0.000	0.000	-458.307	0.000
Dead+Wind 120 deg - No Ice	19.262	6.279	3.625	229.153	-396.905	0.000
Dead+Wind 150 deg - No Ice	19.262	3.625	6.279	396.905	-229.153	-0.000
Dead+Wind 180 deg - No Ice	19.262	0.000	7.250	458.307	0.000	0.000
Dead+Wind 210 deg - No Ice	19.262	-3.625	6.279	396.905	229.153	0.000
Dead+Wind 240 deg - No Ice	19.262	-6.279	3.625	229.153	396.905	-0.000
Dead+Wind 270 deg - No Ice	19.262	-7.250	0.000	0.000	458.307	0.000
Dead+Wind 300 deg - No Ice	19.262	-6.279	-3.625	-229.153	396.905	0.000
Dead+Wind 330 deg - No Ice	19.262	-3.625	-6.279	-396.905	229.153	-0.000

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Load Combination	Vertical K	Shear <sub>x</sub> K	Shear <sub>y</sub> K	Overturning Moment, M <sub>x</sub> kip-ft	Overturning Moment, M <sub>y</sub> kip-ft	Torque kip-ft
Dead+Ice+Temp	26.985	0.000	0.000	0.000	0.000	0.000
Dead+Wind 0 deg+Ice+Temp	26.985	0.000	-1.716	-109.787	0.000	0.000
Dead+Wind 30 deg+Ice+Temp	26.985	0.858	-1.486	-95.079	-54.894	0.000
Dead+Wind 60 deg+Ice+Temp	26.985	1.486	-0.858	-54.894	-95.079	0.000
Dead+Wind 90 deg+Ice+Temp	26.985	1.716	0.000	0.000	-109.787	0.000
Dead+Wind 120 deg+Ice+Temp	26.985	1.486	0.858	54.894	-95.079	0.000
Dead+Wind 150 deg+Ice+Temp	26.985	0.858	1.486	95.079	-54.894	0.000
Dead+Wind 180 deg+Ice+Temp	26.985	0.000	1.716	109.787	0.000	0.000
Dead+Wind 210 deg+Ice+Temp	26.985	-0.858	1.486	95.079	54.894	0.000
Dead+Wind 240 deg+Ice+Temp	26.985	-1.486	0.858	54.894	95.079	0.000
Dead+Wind 270 deg+Ice+Temp	26.985	-1.716	0.000	0.000	109.787	0.000
Dead+Wind 300 deg+Ice+Temp	26.985	-1.486	-0.858	-54.894	95.079	0.000
Dead+Wind 330 deg+Ice+Temp	26.985	-0.858	-1.486	-95.079	54.894	0.000
Dead+Wind 0 deg - Service	19.262	0.000	-2.832	-179.030	0.000	0.000
Dead+Wind 30 deg - Service	19.262	1.416	-2.453	-155.044	-89.515	0.000
Dead+Wind 60 deg - Service	19.262	2.453	-1.416	-89.515	-155.044	0.000
Dead+Wind 90 deg - Service	19.262	2.832	0.000	0.000	-179.030	0.000
Dead+Wind 120 deg - Service	19.262	2.453	1.416	89.515	-155.044	0.000
Dead+Wind 150 deg - Service	19.262	1.416	2.453	155.044	-89.515	0.000
Dead+Wind 180 deg - Service	19.262	0.000	2.832	179.030	0.000	0.000
Dead+Wind 210 deg - Service	19.262	-1.416	2.453	155.044	89.515	0.000
Dead+Wind 240 deg - Service	19.262	-2.453	1.416	89.515	155.044	0.000
Dead+Wind 270 deg - Service	19.262	-2.832	0.000	0.000	179.030	0.000
Dead+Wind 300 deg - Service	19.262	-2.453	-1.416	-89.515	155.044	0.000
Dead+Wind 330 deg - Service	19.262	-1.416	-2.453	-155.044	89.515	0.000

## Solution Summary

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
1	0.000	-19.262	0.000	0.000	19.262	0.000	0.000%
2	0.000	-19.262	-7.250	0.000	19.262	7.250	0.000%
3	3.625	-19.262	-6.279	-3.625	19.262	6.279	0.000%
4	6.279	-19.262	-3.625	-6.279	19.262	3.625	0.000%
5	7.250	-19.262	0.000	-7.250	19.262	0.000	0.000%
6	6.279	-19.262	3.625	-6.279	19.262	-3.625	0.000%
7	3.625	-19.262	6.279	-3.625	19.262	-6.279	0.000%
8	0.000	-19.262	7.250	0.000	19.262	-7.250	0.000%
9	-3.625	-19.262	6.279	3.625	19.262	-6.279	0.000%
10	-6.279	-19.262	3.625	6.279	19.262	-3.625	0.000%
11	-7.250	-19.262	0.000	7.250	19.262	0.000	0.000%
12	-6.279	-19.262	-3.625	6.279	19.262	3.625	0.000%
13	-3.625	-19.262	-6.279	3.625	19.262	6.279	0.000%
14	0.000	-26.985	0.000	0.000	26.985	0.000	0.000%
15	0.000	-26.985	-1.716	0.000	26.985	1.716	0.000%
16	0.858	-26.985	-1.486	-0.858	26.985	1.486	0.000%
17	1.486	-26.985	-0.858	-1.486	26.985	0.858	0.000%
18	1.716	-26.985	0.000	-1.716	26.985	0.000	0.000%
19	1.486	-26.985	0.858	-1.486	26.985	-0.858	0.000%
20	0.858	-26.985	1.486	-0.858	26.985	-1.486	0.000%
21	0.000	-26.985	1.716	0.000	26.985	-1.716	0.000%
22	-0.858	-26.985	1.486	0.858	26.985	-1.486	0.000%
23	-1.486	-26.985	0.858	1.486	26.985	-0.858	0.000%
24	-1.716	-26.985	0.000	1.716	26.985	0.000	0.000%
25	-1.486	-26.985	-0.858	1.486	26.985	0.858	0.000%
26	-0.858	-26.985	-1.486	0.858	26.985	1.486	0.000%
27	0.000	-19.262	-2.832	0.000	19.262	2.832	0.000%



<b>tnxTower</b>  <b>B+T Group</b> 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	<b>Job</b> 88562.001.01 - Avon Lovely St, CT (USID 97421)	<b>Page</b> 9 of 11
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	<b>Client</b> AT&T Towers	<b>Designed by</b> Rortiz

Load Comb.	Sum of Applied Forces				Sum of Reactions		% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
28	1.416	-19.262	-2.453	-1.416	19.262	2.453	0.000%
29	2.453	-19.262	-1.416	-2.453	19.262	1.416	0.000%
30	2.832	-19.262	0.000	-2.832	19.262	0.000	0.000%
31	2.453	-19.262	1.416	-2.453	19.262	-1.416	0.000%
32	1.416	-19.262	2.453	-1.416	19.262	-2.453	0.000%
33	0.000	-19.262	2.832	0.000	19.262	-2.832	0.000%
34	-1.416	-19.262	2.453	1.416	19.262	-2.453	0.000%
35	-2.453	-19.262	1.416	2.453	19.262	-1.416	0.000%
36	-2.832	-19.262	0.000	2.832	19.262	0.000	0.000%
37	-2.453	-19.262	-1.416	2.453	19.262	1.416	0.000%
38	-1.416	-19.262	-2.453	1.416	19.262	2.453	0.000%

### Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.00000001	0.00000001
2	Yes	4	0.00000001	0.00001067
3	Yes	4	0.00000001	0.00008058
4	Yes	4	0.00000001	0.00008058
5	Yes	4	0.00000001	0.00001067
6	Yes	4	0.00000001	0.00008058
7	Yes	4	0.00000001	0.00008058
8	Yes	4	0.00000001	0.00001067
9	Yes	4	0.00000001	0.00008058
10	Yes	4	0.00000001	0.00008058
11	Yes	4	0.00000001	0.00001067
12	Yes	4	0.00000001	0.00008058
13	Yes	4	0.00000001	0.00008058
14	Yes	4	0.00000001	0.00000001
15	Yes	4	0.00000001	0.00016653
16	Yes	4	0.00000001	0.00016782
17	Yes	4	0.00000001	0.00016782
18	Yes	4	0.00000001	0.00016653
19	Yes	4	0.00000001	0.00016782
20	Yes	4	0.00000001	0.00016782
21	Yes	4	0.00000001	0.00016653
22	Yes	4	0.00000001	0.00016782
23	Yes	4	0.00000001	0.00016782
24	Yes	4	0.00000001	0.00016653
25	Yes	4	0.00000001	0.00016782
26	Yes	4	0.00000001	0.00016782
27	Yes	4	0.00000001	0.00000001
28	Yes	4	0.00000001	0.00000866
29	Yes	4	0.00000001	0.00000866
30	Yes	4	0.00000001	0.00000001
31	Yes	4	0.00000001	0.00000866
32	Yes	4	0.00000001	0.00000866
33	Yes	4	0.00000001	0.00000001
34	Yes	4	0.00000001	0.00000866
35	Yes	4	0.00000001	0.00000866
36	Yes	4	0.00000001	0.00000001
37	Yes	4	0.00000001	0.00000866
38	Yes	4	0.00000001	0.00000866

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### Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	63 - 40	2.226	27	0.273	0.000
L2	40 - 0	1.028	27	0.217	0.000

### Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
107.000	P65-16-XLH-RR w/ Mount Pipe	27	2.226	0.273	0.000	43900
104.000	10'x36" Radome	27	2.226	0.273	0.000	43900
99.000	P65-16-XLH-RR w/ Mount Pipe	27	2.226	0.273	0.000	43900
94.000	10'x36" Radome	27	2.226	0.273	0.000	43900
91.000	P65-16-XLH-RR w/ Mount Pipe	27	2.226	0.273	0.000	43900
84.000	10'x36" Radome	27	2.226	0.273	0.000	43900
75.000	8'x36" Radome	27	2.226	0.273	0.000	43900
67.000	8'x36" Radome	27	2.226	0.273	0.000	43900

### Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	63 - 40	5.698	5	0.700	0.000
L2	40 - 0	2.631	5	0.556	0.000

### Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
107.000	P65-16-XLH-RR w/ Mount Pipe	5	5.698	0.700	0.000	17152
104.000	10'x36" Radome	5	5.698	0.700	0.000	17152
99.000	P65-16-XLH-RR w/ Mount Pipe	5	5.698	0.700	0.000	17152
94.000	10'x36" Radome	5	5.698	0.700	0.000	17152
91.000	P65-16-XLH-RR w/ Mount Pipe	5	5.698	0.700	0.000	17152
84.000	10'x36" Radome	5	5.698	0.700	0.000	17152
75.000	8'x36" Radome	5	5.698	0.700	0.000	17152
67.000	8'x36" Radome	5	5.698	0.700	0.000	17152

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### Compression Checks

### Pole Design Data

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	F <sub>a</sub> ksi	A in <sup>2</sup>	Actual P K	Allow. P <sub>a</sub> K	Ratio P/P <sub>a</sub>
L1	63 - 40 (1)	P36x3/8	23.000	0.000	0.0	20.896	41.970	-12.748	876.992	0.015
L2	40 - 0 (2)	P36x3/8	40.000	0.000	0.0	20.896	41.970	-19.259	876.992	0.022

### Pole Bending Design Data

Section No.	Elevation ft	Size	Actual M <sub>x</sub> kip-ft	Actual f <sub>bx</sub> ksi	Allow. F <sub>bx</sub> ksi	Ratio f <sub>bx</sub> /F <sub>bx</sub>	Actual M <sub>y</sub> kip-ft	Actual f <sub>by</sub> ksi	Allow. F <sub>by</sub> ksi	Ratio f <sub>by</sub> /F <sub>by</sub>
L1	63 - 40 (1)	P36x3/8	204.212	6.624	20.896	0.317	0.000	0.000	20.896	0.000
L2	40 - 0 (2)	P36x3/8	458.307	14.866	20.896	0.711	0.000	0.000	20.896	0.000

### Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V K	Actual f <sub>v</sub> ksi	Allow. F <sub>v</sub> ksi	Ratio f <sub>v</sub> /F <sub>v</sub>	Actual T kip-ft	Actual f <sub>vt</sub> ksi	Allow. F <sub>vt</sub> ksi	Ratio f <sub>vt</sub> /F <sub>vt</sub>
L1	63 - 40 (1)	P36x3/8	5.415	0.258	14.000	0.018	0.000	0.000	14.000	0.000
L2	40 - 0 (2)	P36x3/8	7.257	0.346	14.000	0.025	0.000	0.000	14.000	0.000

### Pole Interaction Design Data

Section No.	Elevation ft	Ratio P/P <sub>a</sub>	Ratio f <sub>bx</sub> /F <sub>bx</sub>	Ratio f <sub>by</sub> /F <sub>by</sub>	Ratio f <sub>v</sub> /F <sub>v</sub>	Ratio f <sub>vt</sub> /F <sub>vt</sub>	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	63 - 40 (1)	0.015	0.317	0.000	0.018	0.000	0.332 ✓	1.333	H1-3+VT ✓
L2	40 - 0 (2)	0.022	0.711	0.000	0.025	0.000	0.734 ✓	1.333	H1-3+VT ✓

### Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	SF*P <sub>allow</sub> K	% Capacity	Pass Fail
L1	63 - 40	Pole	P36x3/8	1	-12.748	1169.030	24.9	Pass
L2	40 - 0	Pole	P36x3/8	2	-19.259	1169.030	55.1	Pass
Summary								
Pole (L2)							55.1	Pass
RATING =							55.1	Pass

## Stiffened or Unstiffened, Interior Flange Plate - Any Bolt Material TIA Rev F

### Site Data

USID#: 97421  
 Site Name: Avon Lovely St  
 County: Hartford

### Reactions

Moment:	204.212	ft-kips
Axial:	12.748	kips
Shear:	5.415	kips
Exterior Flange Run, T+Q:	0	kips

Manufacturer: Other

Elevation: 40 feet

### Bolt Data

Qty:	12		
Diam:	1	Bolt Fu:	120
Bolt Material:	A325	Bolt Fy:	92
N/A:		Bolt Fty:	44.00
N/A:			
Circle:	32		

### Interior Flange Bolt Results

Maximum Bolt Tension: 24.5 Kips, Ext. T=Interior T  
 Allowable Tension: 46.1 Kips  
 Bolt Stress Ratio: 53.1% **Pass**

### Plate Data

Plate Outer Diam:	35.25	in
Plate Inner Diam:	27	in (Hole @ Ctr)
Thick:	1.25	in
Grade:	50	ksi
Effective Width:	7.50	in

### Interior Flange Plate Results

Controlling Bolt Axial Force: 26.6 Kips, Ext. C= Interior C  
 Plate Stress: 22.1 ksi  
 Allowable Plate Stress: 50.0 ksi  
 Plate Stress Ratio: 44.3% **Pass**

### Flexural Check

### Stiffener Data (Welding at Both Sides)

Config:	0	*
Weld Type:		
Groove Depth:		in **
Groove Angle:		degrees
Fillet H. Weld:		<-- Disregard
Fillet V. Weld:		in
Width:		in
Height:		in
Thick:		in
Notch:		in
Grade:		ksi
Weld str.:		ksi

n/a

### Stiffener Results

Horizontal Weld : n/a  
 Vertical Weld: n/a  
 Plate Flex+Shear, fb/Fb+(fv/Fv)^2: n/a  
 Plate Tension+Shear, ft/Ft+(fv/Fv)^2: n/a  
 Plate Comp. (AISC Bracket): n/a

### Pole Results

Pole Punching Shear Check: n/a

### Pole Data

Pole OuterDiam:	36	in
Thick:	0.375	in
Pole Inner Diam:	35.25	in
Grade:	35	ksi
# of Sides:	0	"0" IF Round
Fu	63	ksi

### Stress Increase Factor

ASIF:	1.333
-------	-------



\* 0 = none, 1 = every bolt, 2 = every 2 bolts, 3 = 2 per bolt

\*\* Note: for complete joint penetration groove welds the groove depth must be exactly 1/2 the stiffener thickness for calculation purposes



## Square, Stiffened / Unstiffened Base Plate, Any Rod Material - Rev. F /G

**Assumptions:** 1) Rod groups at corners. Total # rods divisible by 4. Maximum total # of rods = 48 (12 per Corner).  
 2) Rod Spacing = Straight Center-to-Center distance between any (2) adjacent rods (same corner)  
 3) Clear space between bottom of leveling nut and top of concrete **not** exceeding (1)\*(Rod Diameter)

Site Data		
USID#:	97421	
Site Name:	Avon Lovely St	
County:	Hartford	
Anchor Rod Data		
Qty:	4	
Diam:	2.25	in
Rod Material:	A615-J	
Yield, Fy:	75	ksi
Strength, Fu:	100	ksi
Bolt Circle:	43	in

Plate Data		
W=Side:	42.5	in
Thick:	2.25	in
Grade:	50	ksi
Clip Distance:	6	in

Stiffener Data (Welding at both sides)		
Configuration:	Unstiffened	
Weld Type:		**
Groove Depth:		in **
Groove Angle:		degrees
Fillet H. Weld:		<-- Disregard
Fillet V. Weld:		in
Width:		in
Height:		in
Thick:		in
Notch:		in
Grade:		ksi
Weld str.:		ksi
Clear Space between Stiffeners at B.C.		in

Pole Data		
Diam:	36	in
Thick:	0.375	in
Grade:	35	ksi
# of Sides:	0	"0" IF Round

Stress Increase Factor	
ASD ASIF:	1.333

\*\* Note: for complete joint penetration groove welds the groove depth must be exactly 1/2 the stiffener thickness for calculation purposes

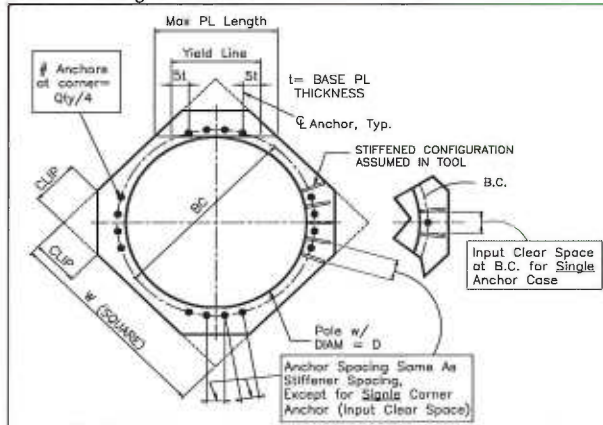
Base Reactions		
TIA Revision:	F	
Unfactored Moment, M:	458	ft-kips
Unfactored Axial, P:	19	kips
Unfactored Shear, V:	7	kips

**Anchor Rod Results**  
 TIA F --> Maximum Rod Tension: 123.1 Kips  
 Allowable Tension: 195.0 Kips  
 Anchor Rod Stress Ratio: 63.1% **Pass**

**Base Plate Results**  
 Base Plate Stress: 23.4 ksi  
 Allowable PL Bending Stress: 50.0 ksi  
 Base Plate Stress Ratio: 46.8% **Pass**

PL Ref. Data	
Yield Line (in):	23.52
Max PL Length:	24.10

**N/A - Unstiffened Stiffener Results**  
 Horizontal Weld : N/A  
 Vertical Weld: N/A  
 Plate Flex+Shear,  $f_b/F_b + (f_v/F_v)^2$ : N/A  
 Plate Tension+Shear,  $f_t/F_t + (f_v/F_v)^2$ : N/A  
 Plate Comp. (AISC Bracket): N/A  
**Pole Results**  
 Pole Punching Shear Check: N/A



Site No.: 97421  
 Site Name: Avon Lovely St, CT



**Monopole Drilled Pier**

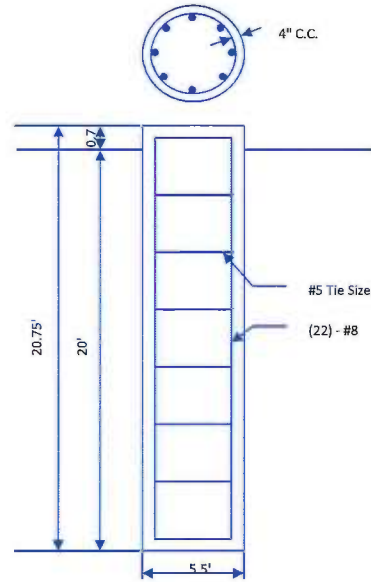
**Input**

**Criteria**  
 TIA Revision: F  
 ACI 318 Revision: 2002  
 Seismic Category: B

**Forces**  
 Compression: 24.7 kips  
 Shear: 9.1 kips  
 Moment: 595.4 k-ft  
 Swelling Force: 0 kips

**Foundation Dimensions**  
 Pier Diameter: 5.5 ft  
 Ext. above grade: 0.75 ft  
 Depth below grade: 20 ft

**Material Properties**  
 Number of Rebar: 22  
 Rebar Size: 8  
 Tie Size: 5  
 Rebar tensile strength: 60 ksi  
 Concrete Strength: 4000 psi  
 Ultimate Concrete Strain: 0.003 in/in  
 Clear Cover to Ties: 4 in



Soil Profile: Soil

Layer	Thickness (ft)	From (ft)	To (ft)	Unit Weight (pcf)	Cohesion (psf)	Friction Angle (deg)	Ultimate Uplift Skin Friction (ksf)	Ultimate Comp. Skin Friction (ksf)	Ultimate Bearing Capacity (ksf)	SPT 'N' Counts
1	3	0	3	110	0	0	0	0	0	
2	6	3	9	110		32			0	
3	9	9	18	55		32			0	
4	2	18	20	55		34			0	

**Analysis Results**

**Soil Lateral Capacity**  
 Depth to Zero Shear: 4.87 ft  
 Max Moment, Mu: 492.01 k-ft  
 Soil Safety Factor: 6.89  
 Safety Factor Req'd: 2  
 RATING: 29.0%

**Soil Axial Capacity**  
 Skin Friction (k): 69.62 kips  
 End Bearing (k): 0.00 kips  
 Comp. Capacity (k), φCn: 69.62 kips  
 Comp. (k), Cu: 24.70 kips  
 RATING: 35.5%

**Concrete/Steel Check**  
 Mu (from soil analysis) 639.61 k-ft  
 φMn 2215.09 k-ft  
 RATING: 28.9%

rho provided 0.51  
 rho required 0.33 OK

Rebar Spacing 6.96  
 Spacing required 16.00 OK

Dev. Length required 14.79  
 Dev. Length provided 37.95 OK

**Overall Foundation Rating: 35.5%**



# **EXHIBIT C**

RADIO FREQUENCY EMISSIONS ANALYSIS REPORT  
EVALUATION OF HUMAN EXPOSURE POTENTIAL  
TO NON-IONIZING EMISSIONS

MetroPCS / T-Mobile Existing Facility

Site ID: CTHA514A

AT&T Avon Flagpole  
228 Lovely Street  
Avon, CT 06001

**June 30, 2014**

**EBI Project Number: 62143690**

June 30, 2014

MetroPCS / T-Mobile USA  
Attn: Jason Overbey, RF Manager  
35 Griffin Road South  
Bloomfield, CT 06002

Re: Emissions Values for Site: **CTHA514A - AT&T Avon Flagpole**

EBI Consulting was directed to analyze the proposed MetroPCS / T-Mobile facility located at 228 Lovely Street, Avon, CT, for the purpose of determining whether the emissions from the Proposed MetroPCS / T-Mobile Antenna Installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01 and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ( $\mu\text{W}/\text{cm}^2$ ). The number of  $\mu\text{W}/\text{cm}^2$  calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) – (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ( $\mu\text{W}/\text{cm}^2$ ). The general population exposure limit for the cellular band is  $567 \mu\text{W}/\text{cm}^2$ , and the general population exposure limit for the PCS and AWS bands is  $1000 \mu\text{W}/\text{cm}^2$ . 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.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Additional details can be found in FCC OET 65.

## CALCULATIONS

Calculations were done for the proposed MetroPCS / T-Mobile Wireless antenna facility located at 228 Lovely Street, Avon, CT, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since MetroPCS / T-Mobile is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, the actual antenna pattern gain value in the direction of the sample area was used. For this report the sample point is a 6 foot person standing at the base of the tower

For all calculations, all equipment was calculated using the following assumptions:

- 1) 2 GSM channels (1935.000 MHz—to 1945.000 MHz) were considered for each sector of the proposed installation.
- 2) 2 UMTS channels (2110.000 MHz to 2120.000 MHz / 2140.000 MHz to 2145.000 MHz) were considered for each sector of the proposed installation.
- 3) 2 LTE channels (2110.000 MHz to 2120.000 MHz / 2140.000 MHz to 2145.000 MHz) were considered for each sector of the proposed installation.
- 4) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
- 5) For the following calculations the sample point was the top of a six foot person standing at the base of the tower. The actual gain in this direction was used per the manufactures supplied specifications.
- 6) The antenna used in this modeling is the Ericsson AIR21 for LTE, UMTS and GSM. This is based on feedback from the carrier with regards to anticipated antenna selection. This antenna has a 15.6 dBd gain value at its main lobe. Actual antenna gain values were used for all calculations as per the manufacturers specifications.

- 7) The antenna mounting height centerline of the proposed antennas is **75 feet** above ground level (AGL).
- 8) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.

All calculations were done with respect to uncontrolled / general public threshold limits.

Site ID	CTH4514A - AT&T Avon Flagpole
Site Address	228 Lovely Street, Avon, CT 06001
Site Type	Monopole

Sector 1																	
Antenna Number	Antenna Make	Antenna Model	Status	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBd)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage
1a	Ericsson	AIR21 B4A/B2P	Active	AWS - 2100 MHz	LTE	60	2	120	-3.95	75	69	None	0	0	48.326044	3.649128	0.36491%
1b	Ericsson	AIR21 B4A/B2P	Not Used					0	-3.95	75	69	None	0	0	0	0	0.00000%
2a	Ericsson	AIR21 B2A / B4P	Active	PCS - 1950 MHz	GSM / UMTS	30	2	60	-3.95	75	69	1-5/8"	0	0	24.163022	1.824564	0.18246%
2b	Ericsson	AIR21 B2A / B4P	Passive	AWS - 2100 MHz	UMTS	30	2	60	-3.95	75	69	1-5/8"	0	0	24.163022	1.824564	0.18246%
															Sector total Power Density Value: 0.730%		

Sector 2																	
Antenna Number	Antenna Make	Antenna Model	Status	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBd)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage
1a	Ericsson	AIR21 B4A/B2P	Active	AWS - 2100 MHz	LTE	60	2	120	-3.95	75	69	None	0	0	48.326044	3.649128	0.36491%
1b	Ericsson	AIR21 B4A/B2P	Not Used					0	-3.95	75	69	None	0	0	0	0	0.00000%
2a	Ericsson	AIR21 B2A / B4P	Active	PCS - 1950 MHz	GSM / UMTS	30	2	60	-3.95	75	69	1-5/8"	0	0	24.163022	1.824564	0.18246%
2b	Ericsson	AIR21 B2A / B4P	Passive	AWS - 2100 MHz	UMTS	30	2	60	-3.95	75	69	1-5/8"	0	0	24.163022	1.824564	0.18246%
															Sector total Power Density Value: 0.730%		

Sector 3																	
Antenna Number	Antenna Make	Antenna Model	Status	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBd)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage
1a	Ericsson	AIR21 B4A/B2P	Active	AWS - 2100 MHz	LTE	60	2	120	-3.95	75	69	None	0	0	48.326044	3.649128	0.36491%
1b	Ericsson	AIR21 B4A/B2P	Not Used					0	-3.95	75	69	None	0	0	0	0	0.00000%
2a	Ericsson	AIR21 B2A / B4P	Active	PCS - 1950 MHz	GSM / UMTS	30	2	60	-3.95	75	69	1-5/8"	0	0	24.163022	1.824564	0.18246%
2b	Ericsson	AIR21 B2A / B4P	Passive	AWS - 2100 MHz	UMTS	30	2	60	-3.95	75	69	1-5/8"	0	0	24.163022	1.824564	0.18246%
															Sector total Power Density Value: 0.730%		

Site Composite MPE %	
Carrier	MPE %
T-Mobile	2.189%
AT&T	42.610%
Total Site MPE %	44.799%



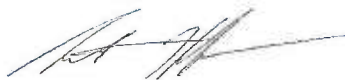
## Summary

All calculations performed for this analysis yielded results that were well within the allowable limits for general public exposure to RF Emissions.

The anticipated Maximum Composite contributions from the MetroPCS / T-Mobile facility are **2.189%** (**0.730% from each sector**) of the allowable FCC established general public limit considering all three sectors simultaneously sampled at the ground level.

The anticipated composite MPE value for this site assuming all carriers present is **44.799%** of the allowable FCC established general public limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite values calculated were well within the allowable 100% threshold standard per the federal government.



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