



**QC Development**  
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February 5, 2015

Melanie A. Bachman  
Acting Executive Director  
Connecticut Siting Council  
10 Franklin Square  
New Britain, CT 06051

**Notice of Exempt Modification – New Cingular Wireless PCS, LLC (AT&T)**  
**1330 Chopsey Hill Road, Bridgeport, CT 06606 – CT5093**  
**N 41-13-10**  
**W 73-12-08**

Dear Ms. Bachman:

AT&T currently maintains nine (9) antennas at the 165-foot level of the existing 240-foot Self Support Tower at 1330 Chopsey Hill Road, Bridgeport, CT. The tower is owned by American Tower. The property is owned by Cell Tower Lease Acquisition LLC. AT&T now intends to replace three (3) of its existing antennas with three (3) new CCI LTE 2300 MHz WCS band antennas. These antennas would be installed at the 165-foot level of the tower. AT&T also intends to install three (3) Ericsson LTE 2300 MHz WCS band remote radio units, add one (1) Raycap surge unit and swap three (3) of the existing nine (9) Powerwave TMAs with new CCI TMAs.

This facility was approved by the Planning and Zoning Commission of the City of Bridgeport on August 11, 1986. This approval included no condition(s) that could feasibly be violated by this modification, including total facility height or mounting restrictions. This modification therefore complies with the aforementioned approval.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies § 16-50j-73, for construction that 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 Mayor Joseph Ganim for the City of Bridgeport, as well as the property owner and the tower owner.

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

1. The proposed modifications will not result in an increase in the height of the existing structure.
2. The proposed modifications will not require the extension of the site boundary.
3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading.

For the foregoing reasons, AT&T respectfully submits that the proposed modifications to the above-referenced telecommunications facility constitute an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Please feel free to call me at (860) 670-9068 with any questions regarding this matter. Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read 'MR', with a long horizontal line extending to the right.

Mark Roberts  
QC Development  
Consultant for AT&T

#### Attachments

- cc: Mayor Joseph Ganim - as elected official (via e-mail)  
American Tower - as tower owner (via e-mail)  
Cell Tower Lease Acquisition LLC - as property owner (via e-mail)

## Power Density

### Existing Loading on Tower

Carrier	# of Channels	ERP/Ch (W)	Antenna Centerline Height (ft)	Power Density (mW/cm <sup>2</sup> )	Freq. Band (MHz <sup>**</sup> )	Limit S (mW/cm <sup>2</sup> )	%MPE
Other Carriers*							7.26%
AT&T LTE	1	500	165	0.0071	734	0.4893	0.15%
AT&T LTE	1	500	165	0.0071	1900	1.0000	0.07%
AT&T GSM	1	500	165	0.0071	880	0.5867	0.12%
AT&T UMTS	1	427	165	0.0061	1900	1.0000	0.06%
Site Total							7.66%

\*Per CSC Records (available upon request, includes calculation formulas)

\*\* If a range of frequencies are used, such as 880-894, enter the lowest value, i.e. 880

### Proposed Loading on Tower

Carrier	# of Channels	ERP/Ch (W)	Antenna Centerline Height (ft)	Power Density (mW/cm <sup>2</sup> )	Freq. Band (MHz <sup>**</sup> )	Limit S (mW/cm <sup>2</sup> )	%MPE
Other Carriers*							7.26%
AT&T LTE	2	1791	165	0.0510	2300	1.0000	0.51%
AT&T LTE	2	1104	165	0.0314	734	0.4893	0.64%
AT&T LTE	2	2203	165	0.0627	1900	1.0000	0.63%
AT&T GSM	2	492	165	0.0140	880	0.5867	0.24%
AT&T UMTS	2	419	165	0.0119	880	0.5867	0.20%
AT&T UMTS	2	817	165	0.0232	1900	1.0000	0.23%
Site Total							9.71%

\*Per CSC Records (available upon request, includes calculation formulas)

\*\* If a range of frequencies are used, such as 880-894, enter the lowest value, i.e. 880

Note: Proposed Loading may also include corrections to certain Existing Loading values



**AMERICAN TOWER®**  
CORPORATION

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## Structural Analysis Report

**Structure** : 240 ft Self Supported Tower  
**GTP Site Name** : Tartaglia, CT  
**GTP Site Number** : CT-5035  
**Engineering Number** : 64831821  
**Proposed Carrier** : AT&T Mobility  
**Carrier Site Name** : Beardsley  
**Carrier Site Number** : CT5093  
**Site Location** : 1000 Trumbull Avenue  
Bridgeport, CT 06606-0000  
41.21884900, -73.20170100  
**County** : Fairfield  
**Date** : January 7, 2016  
**Max Usage** : 97%  
**Result** : Pass

Reviewed by:  
Scott Wirgau, PE  
Structural Team Leader

Prepared By:  
Robert D. Barrett, E.I.  
Structural Engineer I

*Robert D. Barrett*



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COA: PEC.0001553



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## Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 240 ft self supported tower to reflect the change in loading by AT&T Mobility.

## Supporting Documents

<b>Tower Drawings</b>	Rohn Drawing #C880400RI, dated March 3, 1988
<b>Foundation Drawing</b>	Mapping by FDH Project #10-12269E N1, dated January 17, 2011
<b>Geotechnical Report</b>	Soiltesting Job #G96-1987-87, dated January 6, 1988
<b>Modifications</b>	Centek Job #10001.CO78, dated December 6, 2010 GlenMartin Drawing #GM-07602, dated February 21, 2013

## Analysis

The tower was analyzed using American Tower Corporation's tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

<b>Basic Wind Speed:</b>	110 mph (3-Second Gust)
<b>Basic Wind Speed w/ Ice:</b>	50 mph (3-Second Gust) w/ 3/4" radial ice concurrent
<b>Code:</b>	ANSI/TIA-222-G / 2003 IBC w/ 2005 CT Supplement & 2009 CT Amendment
<b>Structure Class:</b>	II
<b>Exposure Category:</b>	C
<b>Topographic Category:</b>	1
<b>Spectral Response:</b>	$S_s = 0.21, S_1 = 0.06$
<b>Site Class:</b>	D - Stiff Soil

## Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

If you have any questions or require additional information, please contact American Tower via email at [Engineering@americantower.com](mailto:Engineering@americantower.com). Please include the American Tower site name, site number, and engineering number in the subject line for any questions.



**Existing and Reserved Equipment**

Elevation <sup>1</sup> (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
240.0	240.0	1	10' Omni	Empty Side Arm	(1) 1" Conduit (1) 1 1/4" Coax	--
		1	Beacon			
		1	Lightning Rod			
230.0	230.0	2	8' Omni	Side Arms	(2) 7/8" Coax	--
223.0	223.0	1	12' Omni	Side Arm	(1) 1 1/4" Coax	
202.0	202.0	3	Ericsson RRUS-11	Sector Frames	(7) 1 5/8" Coax	T-Mobile
		3	Commscope LNX-6515DS-VTM			
		3	Ericsson KRY 112 144-1			
		3	Ericsson AIR21 B4A/B2P			
		3	Ericsson AIR21 B2A/B4P			
196.0	196.0	1	3' Yagi	Leg	(1) 7/8" Coax	--
187.0	187.0	2	2' HP Dish	Leg	(4) 1/2" Coax	Clearwire
		1	Andrew VHLP800-11-DW1			
180.6	180.6	3	DragonWave A-ANT-11G-2C	Sector Frames	(6) 5/16" Coax (3) 1 1/4" Hybriflex (3) 1/2" Ethernet (2) 2" Conduit (1) 1.625" Hybrid	Sprint Nextel
		3	RFS APXVTM14-C-I20			
		3	Alcatel-Lucent TD-RRH8x20-25			
		1	PCTEL GPS-TMG-HR-26NCM			
		3	Samsung DAP Heads			
		3	Argus LLPX310R			
		3	Alcatel-Lucent 800MHz 2/50W			
		6	Alcatel-Lucent 1900MHz 2x40W			
		1	RFS APXV9ERR18-C-A20			
		2	RFS APXVSPP18-C-A20			
174.0	174.0	2	Andrew 950F65T4E-M	Leg	(6) 1 5/8" Coax	--
		4	5' x 5" x 2" Panel			
165.0	165.0	1	20' Omni	Sector Frames	(1) 1 1/4" Coax  (12) 1 5/8" Coax (2) 0.78" 8 AWG 6 (1) 0.39" Fiber Trunk	AT&T Mobility
		9	Powerwave LGP21401			
		12	Powerwave LGP21901			
		3	Powerwave P65-16-XLH-RR			
		3	Powerwave 7770			
		6	Ericsson RRUS 11			
		1	Raycap DC6-48-60-18-8F			
152.0	155.0	6	Andrew CBC78-DF	Sector Frames	(12) 1 5/8" Coax (2) 1 5/8" Hybrid	Verizon
		2	RFS DB-T1-6Z-8AB-OZ			
		3	ALU RH_2x60-PCS			
		3	ALU RH_2x60-700			
		3	ALU RH_2x60-AWS			
		3	Kathrein 800 10734V01			
		6	Commscope HBXX-6516DS-A2M			
		3	Antel BXA-80063/6BF			



**Existing and Reserved Equipment (Continued)**

Elevation <sup>1</sup> (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
140.0	140.0	3	Small Side Lights	Leg	-	--
118.0	118.0	1	10' Omni	Side Arm	(1) 7/8" Coax	
108.0	108.0	1	10' Omni	Side Arm	(1) 1 1/4" Coax	
80.0	80.0	-	-	Empty Side Arm	-	
22.0	22.0	1	3' Dish	Leg	(1) 0.24" Cat 5	
20.0	20.0	1	GPS	Leg	(1) 1/2" Coax	Verizon
8.0	8.0	1	GPS	Side Arm	(1) 1/2" Coax	T-Mobile

**Equipment to be Removed**

Elevation <sup>1</sup> (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
165.0	165.0	3	Powerwave 7770	-	-	AT&T Mobility
		3	TMA			

**Proposed Equipment**

Elevation <sup>1</sup> (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
165.0	165.0	3	CCI DTMABP7819VG12A	Sector Frames	(2) 0.78" 8 AWG 6 (1) 0.39" Fiber Trunk	AT&T Mobility
		3	Commscope SBNHH-1D65A			
		1	Raycap DC6-48-60-18-8F			
		3	Ericsson RRUS-32			
		6	Powerwave 7020			

<sup>1</sup>Mount elevation is defined as height above bottom of steel structure to the bottom of mount, RAD elevation is defined as center of antenna above ground level (AGL).

Install proposed coax stacked on top of existing AT&T Mobility coax.





**Structure Usages**

Structural Component	Controlling Usage	Pass/Fail
Legs	49%	Pass
Diagonals	97%	Pass
Horizontals	91%	Pass
Anchor Bolts*	45%	Pass
Leg Bolts	42%	Pass

\*Includes a factor of safety of 2 or greater

**Foundations\***

Reaction Component	Analysis Reactions	% of Usage
Uplift (Kips)	321.0	71%
Axial (Kips)	382.3	66%

\*Includes a factor of safety of 2 or greater

The structure base reactions resulting from this analysis were found to be acceptable through analysis based on geotechnical and foundation information, therefore no modification or reinforcement of the foundation will be required.

**Deflection, Twist and Sway\***

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Twist (°)	Sway (Rotation) (°)
187.0	2' HP Dish	Clearwire	0.109	0.011	0.044
	2' HP Dish				
	Andrew VHLP800-11-DW1				
180.6	DragonWave A-ANT-11G-2C	Sprint Nextel	0.102		
	DragonWave A-ANT-11G-2C				
	DragonWave A-ANT-11G-2C				
165.0	Powerwave 7020	AT&T Mobility	0.086		
	CCI DTMABP7819VG12A				
	Raycap DC6-48-60-18-8F				
	Ericsson RRUS-32				
	Commscope SBNHH-1D65A				
22.0	3' Dish	--	0.008	0.002	0.023

\*Deflection, Twist and Sway was evaluated considering a design wind speed of 60 mph (3-Second Gust) per ANSI/TIA-222-G



## **Standard Conditions**

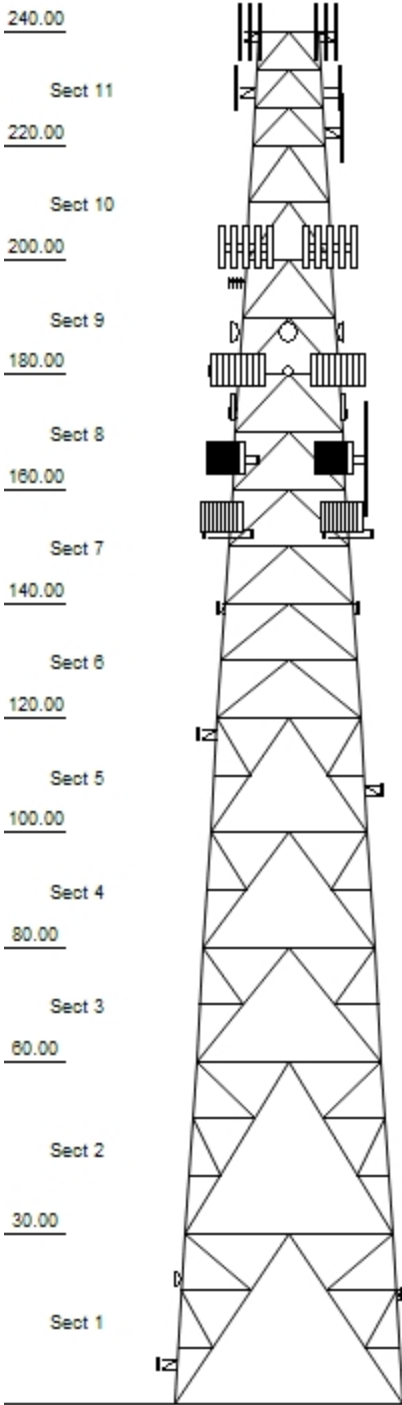
All engineering services are performed on the basis that the information used is current and correct. This information may consist of, but is not necessary limited, to:

- Information supplied by the client regarding the structure itself, antenna, mounts and feed line loading on the structure and its components, or other relevant information.
  
- Information from drawings in the possession of American Tower Corporation, or generated by field inspections or measurements of the structure.

It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that all structures were constructed in accordance with the drawings and specifications and that their capacity has not significantly changed from the "as new" condition.

Unless explicitly agreed by both the client and American Tower Corporation, all services will be performed in accordance with the current revision of ANSI/TIA -222. The design basic wind speed will be determined based on the minimum basic wind speed as prescribed in ANSI/TIA-222. Although every effort is taken to ensure that the loading considered is adequate to meet the requirements of all applicable regulatory entities, we can provide no assurance to meet any other local and state codes or requirements. If wind and ice loads or other relevant parameters are to be different from the minimum values recommended by the codes, the client shall specify the exact requirement.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. A.T. Engineering Service, PLLC is not responsible for the conclusions, opinions and recommendations made by others based on the information we supply.



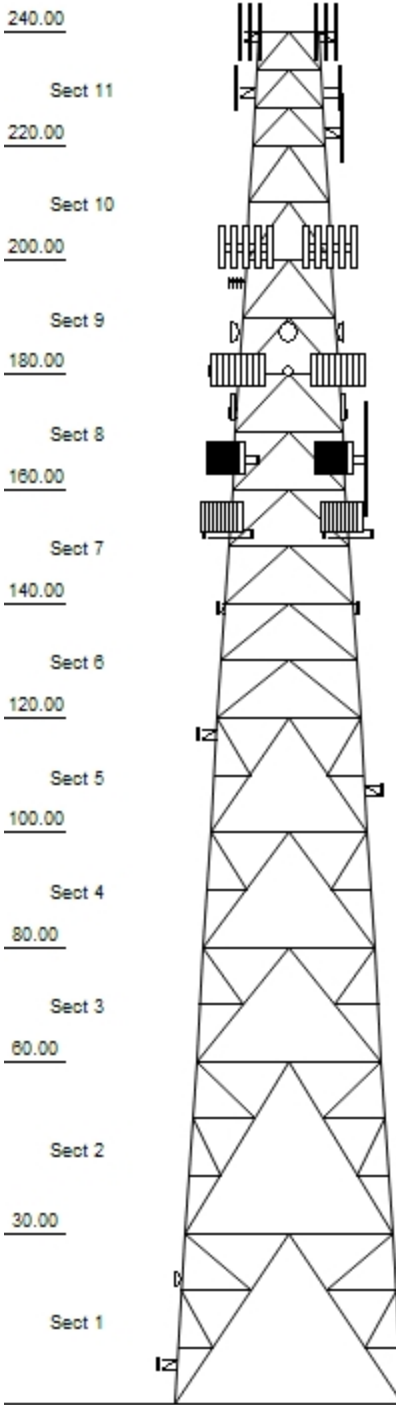
© 2007 - 2016 by ATC IP LLC. All rights reserved.  
 Loads: 110 mph no ice  
 50 mph w / 3/4" radial ice  
 Site Class: D Ss: 0.21 S1: 0.06  
 60 mph Serviceability

Uplift 320.99 k Moment 12,144.38 Moment Ice 3,158.18 k-ft  
 Vert 382.28 k Tot Down 103.78 k Tot Down Ice 249.49 k  
 Horiz 55.05 k Tot Shear 92.99 k Tot Shear Ice 24.51 k

Job Information		
Tower : CT-5035	Location : Tartaglia, CT	
Code : ANSI/TIA-222-G	Shape : Triangle	Base Width : 40.33 ft
Client : AT&T Mobility		Top Width : 10.93 ft

Sections Properties			
Section	Leg Members	Diagonal Members	Horizontal Members
1	PX 50 ksi 10" DIA PIPE	PST 50 ksi 3" DIA PIPE	PST 50 ksi 3-1/2" DIA PIPE
2 - 3	PX 50 ksi 10" DIA PIPE	PST 50 ksi 3" DIA PIPE	PST 50 ksi 3" DIA PIPE
4	PX 50 ksi 8" DIA PIPE	PST 50 ksi 3" DIA PIPE	PST 50 ksi 3" DIA PIPE
5	PX 50 ksi 8" DIA PIPE	PST 50 ksi 2-1/2" DIA PIPE	PST 50 ksi 2-1/2" DIA PIPE
6	PX 50 ksi 8" DIA PIPE	PST 50 ksi 3" DIA PIPE	PST 50 ksi 2-1/2" DIA PIPE
7 - 8	PX 50 ksi 8" DIA PIPE	PST 50 ksi 2-1/2" DIA PIPE	PST 50 ksi 2-1/2" DIA PIPE
9 - 10	PX 50 ksi 8" DIA PIPE	PST 50 ksi 2-1/2" DIA PIPE	PST 50 ksi 2" DIA PIPE
11	PX 50 ksi 8" DIA PIPE	PST 50 ksi 2" DIA PIPE	PST 50 ksi 2" DIA PIPE

Discrete Appurtenance			
Elev (ft)	Type	Qty	Description
240.00	Straight Arm	1	Empty Round Side Arm
240.00	Whip	1	10' Omni
240.00	Whip	1	Beacon
240.00	Whip	1	Lightning Rod
230.00	Whip	1	8' Omni
230.00	Whip	1	8' Omni
230.00	Straight Arm	3	Round Side Arm
223.00	Straight Arm	1	Round Side Arm
223.00	Whip	1	12' Omni
202.00	Panel	3	Ericsson RRUS-11
202.00	Panel	3	Commscope LNX-6515DS-VTM
202.00	Panel	3	Ericsson KRY 112 144-1
202.00	Panel	3	Ericsson AR21 B4/B2P
202.00	Panel	3	Ericsson AR21 B2/B4P
202.00	Mounting Frame	3	Round Sector Frame
196.00	Yagi	1	3' Yagi
187.00	Dish	1	2' HP Dish
187.00	Dish	1	2' HP Dish
187.00	Dish	1	Andrew VHLP800-11-DW1
180.60	Dish	1	DragonWave A-ANT-11G-2C
180.60	Dish	1	DragonWave A-ANT-11G-2C
180.60	Panel	3	RFS APXVTM14-C-I20
180.60	Panel	3	Alcatel-Lucent TD-RRH8x20-25
180.60	Panel	1	PCTEL GPS-TMG-HR-26NCM
180.60	Dish	1	DragonWave A-ANT-11G-2C
180.60	Panel	3	Samsung DAP Heads
180.60	Panel	3	Argus LLPX310R
180.60	Panel	3	Alcatel-Lucent 800 MHz 2/50W
180.60	Panel	6	Alcatel-Lucent 1900 MHz 2x40W
180.60	Panel	1	RFS APXV9ERR18-C-A20
180.60	Panel	2	RFS APXVSP18-C-A20
180.60	Mounting Frame	3	Flat Light Sector Frame
174.00	Panel	2	Andrew 950F65T4E-M
174.00	Panel	4	5' x 5" x 2" Panel
165.00	Panel	9	Powerwave LGP21401
165.00	Panel	3	CCI DTMABP7819VG12A
165.00	Panel	12	Powerwave LGP21901
165.00	Panel	3	Commscope SBNHH-1D65A
165.00	Panel	3	Powerwave P65-16-XLH-RR
165.00	Panel	1	Raycap DC6-48-60-18-8F
165.00	Mounting Frame	3	Round Sector Frame
165.00	Whip	1	20' Omni
165.00	Panel	3	Powerwave 7770
165.00	Panel	3	Ericsson RRUS-32
165.00	Panel	6	Ericsson RRUS 11
165.00	Panel	1	Raycap DC6-48-60-18-8F
165.00	Panel	6	Powerwave 7020
152.00	Panel	6	Andrew CBC78-DF
152.00	Panel	2	RFS DB-T1-6Z-8AB-0Z
152.00	Panel	3	ALU RH_2x60-PCS



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Job Information		
Tower : CT-5035	Location : Tartaglia, CT	
Code : ANSI/TIA-222-G	Shape : Triangle	Base Width : 40.33 ft
Client : AT&T Mobility		Top Width : 10.93 ft

152.00	Panel	3	ALU RH 2x60-700
152.00	Panel	3	ALU RH 2x60-AWS
152.00	Panel	3	Kathrein 800 10734V01
152.00	Panel	6	Commscope HBXX-6516DS-A2M
152.00	Mounting Frame	3	Flat Light Sector Frame
152.00	Panel	3	Antel BXA-80063/6BF
140.00	Whip	3	Small Side Lights
118.00	Straight Arm	1	Round Side Arm
118.00	Whip	1	10' Omni
108.00	Straight Arm	1	Round Side Arm
108.00	Whip	1	10' Omni
80.00	Straight Arm	1	Empty Round Side Arm
22.00	Dish	1	3' Dish
20.00	Whip	1	GPS
8.00	Straight Arm	1	Round Side Arm
8.00	Whip	1	GPS

**Linear Appurtenance**

Elev (ft)		Qty	Description
From	To		
0.000	240.00	1	1" Conduit
0.000	240.00	1	1 1/4" Coax
0.000	230.00	2	7/8" Coax
0.000	223.00	1	1 1/4" Coax
0.000	202.00	1	Waveguide
0.000	202.00	7	1 5/8" Coax
0.000	196.00	1	7/8" Coax
0.000	187.00	4	1/2" Coax
0.000	180.60	1	Waveguide
0.000	180.60	6	5/16" Coax
0.000	180.60	2	2" Conduit
0.000	180.60	3	1/2" Ethernet
0.000	180.60	1	1.625" Hybrid
0.000	180.60	3	1 1/4" Hybriflex
0.000	174.00	1	Waveguide
0.000	174.00	6	1 5/8" Coax
0.000	165.00	1	Waveguide
0.000	165.00	12	1 5/8" Coax
0.000	165.00	1	1 1/4" Coax
0.000	165.00	2	0.78" 8 AWG 6
0.000	165.00	2	0.78" 8 AWG 6
0.000	165.00	1	0.39" Fiber Trunk
0.000	165.00	1	0.39" Fiber Trunk
0.000	152.00	1	Waveguide
0.000	152.00	1	1 5/8" Hybrid
0.000	152.00	1	1 5/8" Hybrid
0.000	152.00	12	1 5/8" Coax
0.000	118.00	1	7/8" Coax
0.000	108.00	1	1 1/4" Coax
0.000	22.000	1	0.24" Cat 5
0.000	20.000	1	1/2" Coax
0.000	8.000	1	1/2" Coax

Uplift 320.99 k Moment 12,144.38 Moment Ice 3,158.18 k-ft  
 Vert 382.28 k Tot Down 103.78 k Tot Down Ice 249.49 k  
 Horiz 55.05 k Tot Shear 92.99 k Tot Shear Ice 24.51 k

Site Number: CT-5035  
 Site Name: Tartaglia, CT  
 Customer: AT&T Mobility

Code: ANSI/TIA-222-G  
 Engineering Number: 64831821

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### Analysis Parameters

Location:	Fairfield County, CT		
Code:	ANSI/TIA-222-G	Height (ft):	240
Shape:	Triangle	Base Elevation (ft):	0.00
Tower Manufacturer:	Rohn	Bottom Face Width (ft):	40.33
Tower Type:	Self Support	Top Face Width (ft):	10.93

### Ice & Wind Parameters

Structure Class:	II	Design Windspeed Without Ice:	110 mph
Exposure Category:	C	Design Windspeed With Ice:	50 mph
Topographic Category:	1	Operational Windspeed:	60 mph
Crest Height:	0.0 ft	Design Ice Thickness:	0.75 in

### Seismic Parameters

Analysis Method:	Equivalent Modal Analysis & Equivalent Lateral Force Methods		
Site Class:	D - Stiff Soil		
Period Based on Rayleigh Method (sec):	0.68		
$T_L$ (sec):	6	p:	1.3
$S_s$ :	0.207	$S_1$ :	0.065
$F_a$ :	1.600	$F_v$ :	2.400
$S_{ds}$ :	0.221	$S_{d1}$ :	0.104
		$C_s$ :	0.051
		$C_{s, Max}$ :	0.051
		$C_{s, Min}$ :	0.030

### Load Cases

1.2D + 1.6W Normal	110 mph Normal to Face with No Ice
1.2D + 1.6W 60 deg	110 mph 60 degree with No Ice
1.2D + 1.6W 90 deg	110 mph 90 degree with No Ice
0.9D + 1.6W Normal	110 mph Normal to Face with No Ice (Reduced DL)
0.9D + 1.6W 60 deg	110 mph 60 deg with No Ice (Reduced DL)
0.9D + 1.6W 90 deg	110 mph 90 deg with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi Normal	50 mph Normal with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 60 deg	50 mph 60 degree with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 90 deg	50 mph 90 degree with 0.75 in Radial Ice
(1.2 + 0.2Sds) * DL + E Normal	Seismic Normal
(1.2 + 0.2Sds) * DL + E 60 deg	Seismic 60 degree
(1.2 + 0.2Sds) * DL + E 90 deg	Seismic 90 degree
(0.9 - 0.2Sds) * DL + E Normal	Seismic (Reduced DL) Normal
(0.9 - 0.2Sds) * DL + E 60 deg	Seismic (Reduced DL) 60 degree
(0.9 - 0.2Sds) * DL + E 90 deg	Seismic (Reduced DL) 90 degree
1.0D + 1.0W Service Normal	Serviceability - 60 mph Wind Normal
1.0D + 1.0W Service 60 deg	Serviceability - 60 mph Wind 60 degree
1.0D + 1.0W Service 90 deg	Serviceability - 60 mph Wind 90 degree

Site Number: CT-5035

Code: ANSI/TIA-222-G

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Site Name: Tartaglia, CT

Engineering Number: 64831821

1/7/2016 1:42:52 PM

Customer: AT&T Mobility

### Tower Loading

**Discrete Appurtenance Properties** 1.2D + 1.6W

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K <sub>a</sub>	Orient. Factor	Vert. Ecc.(ft)	M <sub>u</sub> (lb-ft)	Q <sub>z</sub> (psf)	F <sub>a</sub> (WL) (lb)	P <sub>a</sub> (DL) (lb)
240.0	Lightning Rod	1	10	1.0	4.0	3.0	3.0	1.00	1.00	0.0	0.0	40.07	54	14
240.0	10' Omni	1	25	3.0	10.0	3.0	3.0	1.00	1.00	0.0	0.0	40.07	163	36
240.0	Beacon	1	70	4.5	3.0	18.0	18.0	1.00	1.00	0.0	0.0	40.07	245	101
240.0	Empty Round Side	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	40.07	283	216
230.0	8' Omni	1	40	2.4	8.0	4.0	4.0	1.00	1.00	0.0	0.0	39.71	130	58
230.0	8' Omni	1	40	2.4	8.0	3.0	3.0	1.00	1.00	0.0	0.0	39.71	130	58
230.0	Round Side Arm	3	150	5.2	0.0	0.0	0.0	1.00	0.67	0.0	0.0	39.71	564	648
223.0	12' Omni	1	40	3.6	12.0	4.0	4.0	1.00	1.00	0.0	0.0	39.45	193	58
223.0	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	39.45	279	216
202.0	Ericsson KRY 112	3	11	0.4	0.6	6.1	2.7	0.80	0.50	0.0	0.0	38.64	26	48
202.0	Ericsson RRUS-11	3	51	2.8	1.6	17.0	7.2	0.80	0.50	0.0	0.0	38.64	176	219
202.0	Ericsson AIR21	3	90	6.1	4.7	12.0	8.0	0.80	0.71	0.0	0.0	38.64	542	389
202.0	Ericsson AIR21	3	90	6.1	4.7	12.1	7.9	0.80	0.70	0.0	0.0	38.64	538	389
202.0	Commscope LNX-	3	50	11.4	8.0	11.9	7.1	0.80	0.70	0.0	0.0	38.64	1011	217
202.0	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	38.64	1141	1296
196.0	3' Yagi	1	10	3.0	3.0	36.0	3.0	1.00	1.00	0.0	0.0	38.40	156	14
187.0	2' HP Dish	1	90	4.0	2.0	0.0	0.0	1.00	0.79	0.0	0.0	38.02	162	130
187.0	2' HP Dish	1	90	4.0	2.0	0.0	0.0	1.00	0.97	0.0	0.0	38.02	199	130
187.0	Andrew VHLP800-11-	1	121	16.7	4.1	0.0	0.0	1.00	1.00	0.0	0.0	38.02	864	174
180.6	PCTEL GPS-TMG-HR-	1	1	0.1	0.4	3.2	3.2	0.80	1.00	0.0	0.0	37.74	4	1
180.6	Samsung DAP Heads	3	33	1.8	1.4	11.6	5.3	0.80	0.50	0.0	0.0	37.74	112	143
180.6	Alcatel-Lucent 800	3	64	2.4	1.6	13.0	12.2	0.80	0.50	0.0	0.0	37.74	148	276
180.6	Alcatel-Lucent 1900	6	44	3.8	1.9	17.3	13.0	0.80	0.50	0.0	0.0	37.74	472	380
180.6	Argus LLPX310R	3	29	4.3	3.5	11.8	4.5	0.80	0.63	0.0	0.0	37.74	333	124
180.6	DragonWave A-ANT-	1	27	4.7	2.2	0.0	0.0	0.80	0.61	0.0	0.0	37.74	117	39
180.6	DragonWave A-ANT-	1	27	4.7	2.2	0.0	0.0	0.80	1.00	0.0	0.0	37.74	193	39
180.6	DragonWave A-ANT-	1	27	4.7	2.2	0.0	0.0	0.80	0.55	0.0	0.0	37.74	106	39
180.6	Alcatel-Lucent TD-	3	70	4.7	2.2	18.6	6.7	0.80	0.67	0.0	0.0	37.74	390	302
180.6	RFS APXVTM14-C-I20	3	56	6.3	4.7	12.6	6.3	0.80	0.66	0.0	0.0	37.74	515	242
180.6	RFS APXVSPP18-C-	2	57	8.0	6.0	11.8	7.0	0.80	0.71	0.0	0.0	37.74	468	164
180.6	RFS APXV9ERR18-C-	1	62	8.0	6.0	11.8	7.9	0.80	0.71	0.0	0.0	37.74	234	89
180.6	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.0	37.74	1385	1728
174.0	5' x 5" x 2" Panel	4	30	3.3	5.0	5.0	2.0	1.00	0.74	0.0	0.0	37.44	491	173
174.0	Andrew 950F65T4E-	2	16	4.8	5.0	11.0	7.0	1.00	0.90	0.0	0.0	37.44	435	45
165.0	Powerwave	12	6	0.2	0.5	4.0	3.0	0.80	0.50	0.0	0.0	37.03	48	95
165.0	Powerwave 7020	6	2	0.4	0.4	8.3	2.4	0.80	0.50	0.0	0.0	37.03	48	19
165.0	CCI	3	19	1.0	0.9	10.6	3.8	0.80	0.50	0.0	0.0	37.03	59	83
165.0	Powerwave	9	14	1.1	1.2	9.2	2.6	0.80	0.50	0.0	0.0	37.03	199	183
165.0	Raycap DC6-48-60-	1	20	1.1	2.0	9.7	9.7	0.80	1.00	0.0	0.0	37.03	45	29
165.0	Raycap DC6-48-60-	1	20	1.1	2.0	9.7	9.7	0.80	1.00	0.0	0.0	37.03	45	29
165.0	Ericsson RRUS-32	3	51	2.7	2.2	12.1	6.8	0.80	0.50	0.0	0.0	37.03	163	219
165.0	Ericsson RRUS 11	6	51	2.8	1.6	17.0	7.2	0.80	0.50	0.0	0.0	37.03	337	438
165.0	Powerwave 7770	3	35	5.5	4.6	11.0	5.0	0.80	0.65	0.0	0.0	37.03	432	151
165.0	Commscope SBNHH-	3	41	5.9	4.6	11.9	7.1	0.80	0.69	0.0	0.0	37.03	490	177
165.0	20' Omni	1	55	6.0	20.0	4.0	4.0	0.80	1.00	0.0	0.0	37.03	242	79
165.0	Powerwave P65-16-	3	53	8.1	6.0	12.0	6.0	0.80	0.67	0.0	0.0	37.03	658	229
165.0	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	37.03	1093	1296
152.0	Andrew CBC78-DF	6	7	0.4	0.7	5.9	2.6	0.80	0.50	3.0	161.0	36.54	54	57
152.0	ALU RH_2x60-PCS	3	46	1.8	1.6	11.2	8.2	0.80	0.50	3.0	329.2	36.54	110	199
152.0	ALU RH_2x60-AWS	3	44	1.9	1.7	11.2	7.3	0.80	0.50	3.0	336.4	36.54	112	190
152.0	ALU RH_2x60-700	3	57	2.2	1.8	12.0	9.0	0.80	0.50	3.0	386.5	36.54	129	247
152.0	RFS DB-T1-6Z-8AB-	2	7	4.8	2.0	24.0	10.0	0.80	0.50	3.0	572.5	36.54	191	19
152.0	Commscope HBXX-	6	31	5.4	4.2	12.0	6.5	0.80	0.67	3.0	2598.9	36.54	866	264
152.0	Kathrein 800	3	24	5.7	4.4	11.9	3.9	0.80	0.62	3.0	1257.9	36.54	419	105



Site Number: CT-5035

Code: ANSI/TIA-222-G

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Site Name: Tartaglia, CT

Engineering Number: 64831821

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Customer: AT&T Mobility

### Tower Loading

152.0	Antel BXA-80063/6BF	3	19	7.3	5.7	11.2	5.3	0.80	0.66	3.0	1717.0	36.54	572	83
152.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.0	36.39	1336	1728
140.0	Small Side Lights	3	45	2.0	1.0	8.0	8.0	1.00	1.00	0.0	0.0	35.77	292	194
118.0	10' Omni	1	8	0.1	1.0	2.0	2.0	1.00	1.00	0.0	0.0	34.50	6	12
118.0	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	34.50	244	216
108.0	10' Omni	1	8	0.1	1.0	2.0	2.0	1.00	1.00	0.0	0.0	33.87	6	12
108.0	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	33.87	240	216
80.00	Empty Round Side	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	31.79	225	216
22.00	3' Dish	1	100	6.1	3.0	0.0	0.0	1.00	0.64	0.0	0.0	24.23	129	144
20.00	GPS	1	10	1.0	1.0	9.0	6.0	1.00	1.00	0.0	0.0	23.75	32	14
8.00	GPS	1	10	1.0	1.0	9.0	6.0	1.00	1.00	0.0	0.0	22.38	30	14
8.00	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	22.38	158	216
<b>Totals</b>		<b>168</b>	<b>10671</b>	<b>732.7</b>										

### Discrete Appurtenance Properties 0.9D + 1.6W

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K <sub>a</sub>	Orient. Factor	Vert. Ecc.(ft)	M <sub>u</sub> (lb-ft)	Q <sub>z</sub> (psf)	F <sub>a</sub> (WL) (lb)	P <sub>a</sub> (DL) (lb)
240.0	Lightning Rod	1	10	1.0	4.0	3.0	3.0	1.00	1.00	0.0	0.0	40.07	54	8
240.0	10' Omni	1	25	3.0	10.0	3.0	3.0	1.00	1.00	0.0	0.0	40.07	163	20
240.0	Beacon	1	70	4.5	3.0	18.0	18.0	1.00	1.00	0.0	0.0	40.07	245	57
240.0	Empty Round Side	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	40.07	283	122
230.0	8' Omni	1	40	2.4	8.0	4.0	4.0	1.00	1.00	0.0	0.0	39.71	130	32
230.0	8' Omni	1	40	2.4	8.0	3.0	3.0	1.00	1.00	0.0	0.0	39.71	130	32
230.0	Round Side Arm	3	150	5.2	0.0	0.0	0.0	1.00	0.67	0.0	0.0	39.71	564	365
223.0	12' Omni	1	40	3.6	12.0	4.0	4.0	1.00	1.00	0.0	0.0	39.45	193	32
223.0	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	39.45	279	122
202.0	Ericsson KRY 112	3	11	0.4	0.6	6.1	2.7	0.80	0.50	0.0	0.0	38.64	26	27
202.0	Ericsson RRUS-11	3	51	2.8	1.6	17.0	7.2	0.80	0.50	0.0	0.0	38.64	176	123
202.0	Ericsson AIR21	3	90	6.1	4.7	12.0	8.0	0.80	0.71	0.0	0.0	38.64	542	219
202.0	Ericsson AIR21	3	90	6.1	4.7	12.1	7.9	0.80	0.70	0.0	0.0	38.64	538	219
202.0	Commscope LNX-	3	50	11.4	8.0	11.9	7.1	0.80	0.70	0.0	0.0	38.64	1011	122
202.0	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	38.64	1141	729
196.0	3' Yagi	1	10	3.0	3.0	36.0	3.0	1.00	1.00	0.0	0.0	38.40	156	8
187.0	2' HP Dish	1	90	4.0	2.0	0.0	0.0	1.00	0.79	0.0	0.0	38.02	162	73
187.0	2' HP Dish	1	90	4.0	2.0	0.0	0.0	1.00	0.97	0.0	0.0	38.02	199	73
187.0	Andrew VHLP800-11-	1	121	16.7	4.1	0.0	0.0	1.00	1.00	0.0	0.0	38.02	864	98
180.6	PCTEL GPS-TMG-HR-	1	1	0.1	0.4	3.2	3.2	0.80	1.00	0.0	0.0	37.74	4	0
180.6	Samsung DAP Heads	3	33	1.8	1.4	11.6	5.3	0.80	0.50	0.0	0.0	37.74	112	80
180.6	Alcatel-Lucent 800	3	64	2.4	1.6	13.0	12.2	0.80	0.50	0.0	0.0	37.74	148	156
180.6	Alcatel-Lucent 1900	6	44	3.8	1.9	17.3	13.0	0.80	0.50	0.0	0.0	37.74	472	214
180.6	Argus LLPX310R	3	29	4.3	3.5	11.8	4.5	0.80	0.63	0.0	0.0	37.74	333	69
180.6	DragonWave A-ANT-	1	27	4.7	2.2	0.0	0.0	0.80	0.61	0.0	0.0	37.74	117	22
180.6	DragonWave A-ANT-	1	27	4.7	2.2	0.0	0.0	0.80	1.00	0.0	0.0	37.74	193	22
180.6	DragonWave A-ANT-	1	27	4.7	2.2	0.0	0.0	0.80	0.55	0.0	0.0	37.74	106	22
180.6	Alcatel-Lucent TD-	3	70	4.7	2.2	18.6	6.7	0.80	0.67	0.0	0.0	37.74	390	170
180.6	RFS APXVTM14-C-I20	3	56	6.3	4.7	12.6	6.3	0.80	0.66	0.0	0.0	37.74	515	136
180.6	RFS APXVSP18-C-	2	57	8.0	6.0	11.8	7.0	0.80	0.71	0.0	0.0	37.74	468	92
180.6	RFS APXV9ERR18-C-	1	62	8.0	6.0	11.8	7.9	0.80	0.71	0.0	0.0	37.74	234	50
180.6	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.0	37.74	1385	972
174.0	5' x 5" x 2" Panel	4	30	3.3	5.0	5.0	2.0	1.00	0.74	0.0	0.0	37.44	491	97
174.0	Andrew 950F65T4E-	2	16	4.8	5.0	11.0	7.0	1.00	0.90	0.0	0.0	37.44	435	25
165.0	Powerwave	12	6	0.2	0.5	4.0	3.0	0.80	0.50	0.0	0.0	37.03	48	53
165.0	Powerwave 7020	6	2	0.4	0.4	8.3	2.4	0.80	0.50	0.0	0.0	37.03	48	11
165.0	CCI	3	19	1.0	0.9	10.6	3.8	0.80	0.50	0.0	0.0	37.03	59	47
165.0	Powerwave	9	14	1.1	1.2	9.2	2.6	0.80	0.50	0.0	0.0	37.03	199	103

Site Number: CT-5035

Code: ANSI/TIA-222-G

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Site Name: Tartaglia, CT

Engineering Number: 64831821

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Customer: AT&T Mobility

### Tower Loading

165.0	Raycap DC6-48-60-	1	20	1.1	2.0	9.7	9.7	0.80	1.00	0.0	0.0	37.03	45	16
165.0	Raycap DC6-48-60-	1	20	1.1	2.0	9.7	9.7	0.80	1.00	0.0	0.0	37.03	45	16
165.0	Ericsson RRUS-32	3	51	2.7	2.2	12.1	6.8	0.80	0.50	0.0	0.0	37.03	163	123
165.0	Ericsson RRUS 11	6	51	2.8	1.6	17.0	7.2	0.80	0.50	0.0	0.0	37.03	337	246
165.0	Powerwave 7770	3	35	5.5	4.6	11.0	5.0	0.80	0.65	0.0	0.0	37.03	432	85
165.0	Commscope SBNHH-	3	41	5.9	4.6	11.9	7.1	0.80	0.69	0.0	0.0	37.03	490	99
165.0	20' Omni	1	55	6.0	20.0	4.0	4.0	0.80	1.00	0.0	0.0	37.03	242	45
165.0	Powerwave P65-16-	3	53	8.1	6.0	12.0	6.0	0.80	0.67	0.0	0.0	37.03	658	129
165.0	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	37.03	1093	729
152.0	Andrew CBC78-DF	6	7	0.4	0.7	5.9	2.6	0.80	0.50	3.0	161.0	36.54	54	32
152.0	ALU RH_2x60-PCS	3	46	1.8	1.6	11.2	8.2	0.80	0.50	3.0	329.2	36.54	110	112
152.0	ALU RH_2x60-AWS	3	44	1.9	1.7	11.2	7.3	0.80	0.50	3.0	336.4	36.54	112	107
152.0	ALU RH_2x60-700	3	57	2.2	1.8	12.0	9.0	0.80	0.50	3.0	386.5	36.54	129	139
152.0	RFS DB-T1-6Z-8AB-	2	7	4.8	2.0	24.0	10.0	0.80	0.50	3.0	572.5	36.54	191	11
152.0	Commscope HBXX-	6	31	5.4	4.2	12.0	6.5	0.80	0.67	3.0	2598.9	36.54	866	149
152.0	Kathrein 800	3	24	5.7	4.4	11.9	3.9	0.80	0.62	3.0	1257.9	36.54	419	59
152.0	Antel BXA-80063/6BF	3	19	7.3	5.7	11.2	5.3	0.80	0.66	3.0	1717.0	36.54	572	47
152.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.0	36.39	1336	972
140.0	Small Side Lights	3	45	2.0	1.0	8.0	8.0	1.00	1.00	0.0	0.0	35.77	292	109
118.0	10' Omni	1	8	0.1	1.0	2.0	2.0	1.00	1.00	0.0	0.0	34.50	6	6
118.0	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	34.50	244	122
108.0	10' Omni	1	8	0.1	1.0	2.0	2.0	1.00	1.00	0.0	0.0	33.87	6	6
108.0	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	33.87	240	122
80.00	Empty Round Side	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	31.79	225	122
22.00	3' Dish	1	100	6.1	3.0	0.0	0.0	1.00	0.64	0.0	0.0	24.23	129	81
20.00	GPS	1	10	1.0	1.0	9.0	6.0	1.00	1.00	0.0	0.0	23.75	32	8
8.00	GPS	1	10	1.0	1.0	9.0	6.0	1.00	1.00	0.0	0.0	22.38	30	8
8.00	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	22.38	158	122
<b>Totals</b>		<b>168</b>	<b>10671</b>	<b>732.7</b>										

### Discrete Appurtenance Properties 1.2D + 1.0Di + 1.0Wi

Elevation (ft)	Description	Qty	Ice Wt (lb)	Ice EPA (sf)	Length (ft)	Width (in)	Depth (in)	K <sub>a</sub>	Orient. Factor	Vert. Ecc.(ft)	M <sub>u</sub> (lb-ft)	Q <sub>z</sub> (psf)	F <sub>a</sub> (WL) (lb)	P <sub>a</sub> (DL) (lb)
240.0	Lightning Rod	1	70	1.9	4.0	3.0	3.0	1.00	1.00	0.0	0.0	8.28	14	86
240.0	10' Omni	1	167	6.0	10.0	3.0	3.0	1.00	1.00	0.0	0.0	8.28	42	206
240.0	Beacon	1	294	4.2	3.0	18.0	18.0	1.00	1.00	0.0	0.0	8.28	29	369
240.0	Empty Round Side	1	227	8.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	8.28	57	308
230.0	8' Omni	1	179	4.9	8.0	4.0	4.0	1.00	1.00	0.0	0.0	8.20	34	224
230.0	8' Omni	1	154	4.5	8.0	3.0	3.0	1.00	1.00	0.0	0.0	8.20	31	195
230.0	Round Side Arm	3	227	8.0	0.0	0.0	0.0	1.00	0.67	0.0	0.0	8.20	113	923
223.0	12' Omni	1	242	8.4	12.0	4.0	4.0	1.00	1.00	0.0	0.0	8.15	58	300
223.0	Round Side Arm	1	226	8.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	8.15	56	307
202.0	Ericsson KRY 112	3	28	0.6	0.6	6.1	2.7	0.80	0.50	0.0	0.0	7.98	5	109
202.0	Ericsson RRUS-11	3	140	3.5	1.6	17.0	7.2	0.80	0.50	0.0	0.0	7.98	28	539
202.0	Ericsson AIR21	3	264	7.2	4.7	12.0	8.0	0.80	0.71	0.0	0.0	7.98	83	1015
202.0	Ericsson AIR21	3	264	7.2	4.7	12.1	7.9	0.80	0.70	0.0	0.0	7.98	82	1015
202.0	Commscope LNX-	3	321	13.1	8.0	11.9	7.1	0.80	0.70	0.0	0.0	7.98	150	1193
202.0	Round Sector Frame	3	677	31.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	7.98	321	2655
196.0	3' Yagi	1	102	9.4	3.0	36.0	3.0	1.00	1.00	0.0	0.0	7.93	63	125
187.0	2' HP Dish	1	225	5.1	2.0	0.0	0.0	1.00	0.79	0.0	0.0	7.85	27	292
187.0	2' HP Dish	1	225	5.1	2.0	0.0	0.0	1.00	0.97	0.0	0.0	7.85	33	292
187.0	Andrew VHLP800-11-	1	466	19.2	4.1	0.0	0.0	1.00	1.00	0.0	0.0	7.85	128	589
180.6	PCTEL GPS-TMG-HR-	1	11	0.3	0.4	3.2	3.2	0.80	1.00	0.0	0.0	7.80	2	14
180.6	Samsung DAP Heads	3	86	2.1	1.4	11.6	5.3	0.80	0.50	0.0	0.0	7.80	17	334
180.6	Alcatel-Lucent 800	3	156	2.7	1.6	13.0	12.2	0.80	0.50	0.0	0.0	7.80	21	608

Site Number: CT-5035

Code: ANSI/TIA-222-G

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Site Name: Tartaglia, CT

Engineering Number: 64831821

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Customer: AT&T Mobility

**Tower Loading**

180.6	Alcatel-Lucent 1900	6	172	4.0	1.9	17.3	13.0	0.80	0.50	0.0	0.0	7.80	64	1300
180.6	Argus LLPX310R	3	138	5.2	3.5	11.8	4.5	0.80	0.63	0.0	0.0	7.80	52	518
180.6	DragonWave A-ANT-	1	126	6.0	2.2	0.0	0.0	0.80	0.61	0.0	0.0	7.80	19	158
180.6	DragonWave A-ANT-	1	126	6.0	2.2	0.0	0.0	0.80	1.00	0.0	0.0	7.80	32	158
180.6	DragonWave A-ANT-	1	126	6.0	2.2	0.0	0.0	0.80	0.55	0.0	0.0	7.80	17	158
180.6	Alcatel-Lucent TD-	3	164	6.7	2.2	18.6	6.7	0.80	0.67	0.0	0.0	7.80	72	640
180.6	RFS APXVTM14-C-I20	3	204	8.5	4.7	12.6	6.3	0.80	0.66	0.0	0.0	7.80	90	774
180.6	RFS APXVSP18-C-	2	260	9.3	6.0	11.8	7.0	0.80	0.71	0.0	0.0	7.80	70	651
180.6	RFS APXV9ERR18-C-	1	274	9.3	6.0	11.8	7.9	0.80	0.71	0.0	0.0	7.80	35	343
180.6	Flat Light Sector	3	705	33.2	0.0	0.0	0.0	0.75	0.67	0.0	0.0	7.80	332	2827
174.0	5' x 5" x 2" Panel	4	108	4.3	5.0	5.0	2.0	1.00	0.74	0.0	0.0	7.74	84	546
174.0	Andrew 950F65T4E-	2	181	7.2	5.0	11.0	7.0	1.00	0.90	0.0	0.0	7.74	86	442
165.0	Powerwave	12	18	0.4	0.5	4.0	3.0	0.80	0.50	0.0	0.0	7.65	13	277
165.0	Powerwave 7020	6	18	0.6	0.4	8.3	2.4	0.80	0.50	0.0	0.0	7.65	10	132
165.0	CCI	3	53	1.4	0.9	10.6	3.8	0.80	0.50	0.0	0.0	7.65	11	205
165.0	Powerwave	9	48	1.6	1.2	9.2	2.6	0.80	0.50	0.0	0.0	7.65	37	546
165.0	Raycap DC6-48-60-	1	101	2.5	2.0	9.7	9.7	0.80	1.00	0.0	0.0	7.65	13	125
165.0	Raycap DC6-48-60-	1	101	2.5	2.0	9.7	9.7	0.80	1.00	0.0	0.0	7.65	13	125
165.0	Ericsson RRUS-32	3	115	3.7	2.2	12.1	6.8	0.80	0.50	0.0	0.0	7.65	29	451
165.0	Ericsson RRUS 11	6	137	3.5	1.6	17.0	7.2	0.80	0.50	0.0	0.0	7.65	54	1060
165.0	Powerwave 7770	3	170	6.6	4.6	11.0	5.0	0.80	0.65	0.0	0.0	7.65	67	638
165.0	Commscope SBNHH-	3	199	7.0	4.6	11.9	7.1	0.80	0.69	0.0	0.0	7.65	75	746
165.0	20' Omni	1	373	15.2	20.0	4.0	4.0	0.80	1.00	0.0	0.0	7.65	79	461
165.0	Powerwave P65-16-	3	245	9.4	6.0	12.0	6.0	0.80	0.67	0.0	0.0	7.65	99	919
165.0	Round Sector Frame	3	669	31.0	0.0	0.0	0.0	0.75	0.67	0.0	0.0	7.65	304	2623
152.0	Andrew CBC78-DF	6	24	0.7	0.7	5.9	2.6	0.80	0.50	3.0	31.5	7.55	11	181
152.0	ALU RH_2x60-PCS	3	100	2.7	1.6	11.2	8.2	0.80	0.50	3.0	63.2	7.55	21	393
152.0	ALU RH_2x60-AWS	3	112	2.5	1.7	11.2	7.3	0.80	0.50	3.0	56.8	7.55	19	434
152.0	ALU RH_2x60-700	3	139	2.8	1.8	12.0	9.0	0.80	0.50	3.0	64.4	7.55	21	541
152.0	RFS DB-T1-6Z-8AB-	2	150	5.7	2.0	24.0	10.0	0.80	0.50	3.0	87.4	7.55	29	364
152.0	Commscope HBXX-	6	244	7.9	4.2	12.0	6.5	0.80	0.67	3.0	491.9	7.55	164	1803
152.0	Kathrein 800	3	153	6.7	4.4	11.9	3.9	0.80	0.62	3.0	192.7	7.55	64	570
152.0	Antel BXA-80063/6BF	3	189	8.5	5.7	11.2	5.3	0.80	0.66	3.0	259.2	7.55	86	694
152.0	Flat Light Sector	3	702	33.0	0.0	0.0	0.0	0.75	0.67	0.0	0.0	7.52	318	2814
140.0	Small Side Lights	3	86	0.9	1.0	8.0	8.0	1.00	1.00	0.0	0.0	7.39	16	341
118.0	10' Omni	1	21	0.4	1.0	2.0	2.0	1.00	1.00	0.0	0.0	7.13	2	27
118.0	Round Side Arm	1	221	7.8	0.0	0.0	0.0	1.00	1.00	0.0	0.0	7.13	48	301
108.0	10' Omni	1	20	0.4	1.0	2.0	2.0	1.00	1.00	0.0	0.0	7.00	2	26
108.0	Round Side Arm	1	220	7.8	0.0	0.0	0.0	1.00	1.00	0.0	0.0	7.00	46	300
80.00	Empty Round Side	1	218	7.7	0.0	0.0	0.0	1.00	1.00	0.0	0.0	6.57	43	298
22.00	3' Dish	1	245	7.1	3.0	0.0	0.0	1.00	0.64	0.0	0.0	5.01	19	318
20.00	GPS	1	38	0.8	1.0	9.0	6.0	1.00	1.00	0.0	0.0	4.91	4	49
8.00	GPS	1	38	0.8	1.0	9.0	6.0	1.00	1.00	0.0	0.0	4.62	3	49
8.00	Round Side Arm	1	208	7.4	0.0	0.0	0.0	1.00	1.00	0.0	0.0	4.62	29	286
<b>Totals</b>		<b>168</b>	<b>29791</b>	<b>1091.6</b>										

**Discrete Appurtenance Properties** 1.0D + 1.0W Service

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K <sub>a</sub>	Orient. Factor	Vert. Ecc.(ft)	M <sub>u</sub> (lb-ft)	Q <sub>z</sub> (psf)	F <sub>a</sub> (WL) (lb)	P <sub>a</sub> (DL) (lb)
240.0	Lightning Rod	1	10	1.0	4.0	3.0	3.0	1.00	1.00	0.0	0.0	11.92	10	10
240.0	10' Omni	1	25	3.0	10.0	3.0	3.0	1.00	1.00	0.0	0.0	11.92	30	25
240.0	Beacon	1	70	4.5	3.0	18.0	18.0	1.00	1.00	0.0	0.0	11.92	46	70
240.0	Empty Round Side	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	11.92	53	150
230.0	8' Omni	1	40	2.4	8.0	4.0	4.0	1.00	1.00	0.0	0.0	11.81	24	40
230.0	8' Omni	1	40	2.4	8.0	3.0	3.0	1.00	1.00	0.0	0.0	11.81	24	40

Site Number: CT-5035

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### Tower Loading

230.0	Round Side Arm	3	150	5.2	0.0	0.0	0.0	1.00	0.67	0.0	0.0	11.81	105	450
223.0	12' Omni	1	40	3.6	12.0	4.0	4.0	1.00	1.00	0.0	0.0	11.74	36	40
223.0	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	11.74	52	150
202.0	Ericsson KRY 112	3	11	0.4	0.6	6.1	2.7	0.80	0.50	0.0	0.0	11.50	5	33
202.0	Ericsson RRUS-11	3	51	2.8	1.6	17.0	7.2	0.80	0.50	0.0	0.0	11.50	33	152
202.0	Ericsson AIR21	3	90	6.1	4.7	12.0	8.0	0.80	0.71	0.0	0.0	11.50	101	270
202.0	Ericsson AIR21	3	90	6.1	4.7	12.1	7.9	0.80	0.70	0.0	0.0	11.50	100	270
202.0	Commscope LNX-	3	50	11.4	8.0	11.9	7.1	0.80	0.70	0.0	0.0	11.50	188	151
202.0	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	11.50	212	900
196.0	3' Yagi	1	10	3.0	3.0	36.0	3.0	1.00	1.00	0.0	0.0	11.42	29	10
187.0	2' HP Dish	1	90	4.0	2.0	0.0	0.0	1.00	0.79	0.0	0.0	11.31	30	90
187.0	2' HP Dish	1	90	4.0	2.0	0.0	0.0	1.00	0.97	0.0	0.0	11.31	37	90
187.0	Andrew VHLP800-11-	1	121	16.7	4.1	0.0	0.0	1.00	1.00	0.0	0.0	11.31	161	121
180.6	PCTEL GPS-TMG-HR-	1	1	0.1	0.4	3.2	3.2	0.80	1.00	0.0	0.0	11.23	1	1
180.6	Samsung DAP Heads	3	33	1.8	1.4	11.6	5.3	0.80	0.50	0.0	0.0	11.23	21	99
180.6	Alcatel-Lucent 800	3	64	2.4	1.6	13.0	12.2	0.80	0.50	0.0	0.0	11.23	27	192
180.6	Alcatel-Lucent 1900	6	44	3.8	1.9	17.3	13.0	0.80	0.50	0.0	0.0	11.23	88	264
180.6	Argus LLPX310R	3	29	4.3	3.5	11.8	4.5	0.80	0.63	0.0	0.0	11.23	62	86
180.6	DragonWave A-ANT-	1	27	4.7	2.2	0.0	0.0	0.80	0.61	0.0	0.0	11.23	22	27
180.6	DragonWave A-ANT-	1	27	4.7	2.2	0.0	0.0	0.80	1.00	0.0	0.0	11.23	36	27
180.6	DragonWave A-ANT-	1	27	4.7	2.2	0.0	0.0	0.80	0.55	0.0	0.0	11.23	20	27
180.6	Alcatel-Lucent TD-	3	70	4.7	2.2	18.6	6.7	0.80	0.67	0.0	0.0	11.23	72	210
180.6	RFS APXVTM14-C-I20	3	56	6.3	4.7	12.6	6.3	0.80	0.66	0.0	0.0	11.23	96	168
180.6	RFS APXVSPP18-C-	2	57	8.0	6.0	11.8	7.0	0.80	0.71	0.0	0.0	11.23	87	114
180.6	RFS APXV9ERR18-C-	1	62	8.0	6.0	11.8	7.9	0.80	0.71	0.0	0.0	11.23	43	62
180.6	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.0	11.23	258	1200
174.0	5' x 5" x 2" Panel	4	30	3.3	5.0	5.0	2.0	1.00	0.74	0.0	0.0	11.14	91	120
174.0	Andrew 950F65T4E-	2	16	4.8	5.0	11.0	7.0	1.00	0.90	0.0	0.0	11.14	81	31
165.0	Powerwave	12	6	0.2	0.5	4.0	3.0	0.80	0.50	0.0	0.0	11.02	9	66
165.0	Powerwave 7020	6	2	0.4	0.4	8.3	2.4	0.80	0.50	0.0	0.0	11.02	9	13
165.0	CCI	3	19	1.0	0.9	10.6	3.8	0.80	0.50	0.0	0.0	11.02	11	58
165.0	Powerwave	9	14	1.1	1.2	9.2	2.6	0.80	0.50	0.0	0.0	11.02	37	127
165.0	Raycap DC6-48-60-	1	20	1.1	2.0	9.7	9.7	0.80	1.00	0.0	0.0	11.02	8	20
165.0	Raycap DC6-48-60-	1	20	1.1	2.0	9.7	9.7	0.80	1.00	0.0	0.0	11.02	8	20
165.0	Ericsson RRUS-32	3	51	2.7	2.2	12.1	6.8	0.80	0.50	0.0	0.0	11.02	30	152
165.0	Ericsson RRUS 11	6	51	2.8	1.6	17.0	7.2	0.80	0.50	0.0	0.0	11.02	63	304
165.0	Powerwave 7770	3	35	5.5	4.6	11.0	5.0	0.80	0.65	0.0	0.0	11.02	80	105
165.0	Commscope SBNHH-	3	41	5.9	4.6	11.9	7.1	0.80	0.69	0.0	0.0	11.02	91	123
165.0	20' Omni	1	55	6.0	20.0	4.0	4.0	0.80	1.00	0.0	0.0	11.02	45	55
165.0	Powerwave P65-16-	3	53	8.1	6.0	12.0	6.0	0.80	0.67	0.0	0.0	11.02	122	159
165.0	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	11.02	203	900
152.0	Andrew CBC78-DF	6	7	0.4	0.7	5.9	2.6	0.80	0.50	3.0	29.9	10.87	10	40
152.0	ALU RH_2x60-PCS	3	46	1.8	1.6	11.2	8.2	0.80	0.50	3.0	61.2	10.87	20	138
152.0	ALU RH_2x60-AWS	3	44	1.9	1.7	11.2	7.3	0.80	0.50	3.0	62.5	10.87	21	132
152.0	ALU RH_2x60-700	3	57	2.2	1.8	12.0	9.0	0.80	0.50	3.0	71.9	10.87	24	172
152.0	RFS DB-T1-6Z-8AB-	2	7	4.8	2.0	24.0	10.0	0.80	0.50	3.0	106.5	10.87	35	13
152.0	Commscope HBXX-	6	31	5.4	4.2	12.0	6.5	0.80	0.67	3.0	483.3	10.87	161	184
152.0	Kathrein 800	3	24	5.7	4.4	11.9	3.9	0.80	0.62	3.0	233.9	10.87	78	73
152.0	Antel BXA-80063/6BF	3	19	7.3	5.7	11.2	5.3	0.80	0.66	3.0	319.3	10.87	106	58
152.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.0	10.83	248	1200
140.0	Small Side Lights	3	45	2.0	1.0	8.0	8.0	1.00	1.00	0.0	0.0	10.64	54	135
118.0	10' Omni	1	8	0.1	1.0	2.0	2.0	1.00	1.00	0.0	0.0	10.27	1	8
118.0	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	10.27	45	150
108.0	10' Omni	1	8	0.1	1.0	2.0	2.0	1.00	1.00	0.0	0.0	10.08	1	8
108.0	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	10.08	45	150
80.00	Empty Round Side	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	9.46	42	150
22.00	3' Dish	1	100	6.1	3.0	0.0	0.0	1.00	0.64	0.0	0.0	7.21	24	100
20.00	GPS	1	10	1.0	1.0	9.0	6.0	1.00	1.00	0.0	0.0	7.07	6	10
8.00	GPS	1	10	1.0	1.0	9.0	6.0	1.00	1.00	0.0	0.0	6.66	6	10

Site Number: CT-5035  
Site Name: Tartaglia, CT  
Customer: AT&T Mobility

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**Tower Loading**

8.00	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	6.66	29	150
	Totals	168	10671	732.7										

Site Number: CT-5035

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### Tower Loading

#### Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	Pct In Block	Spread On Faces	Bundling Arrangement	Cluster Dia (in)	Out Of Zone	Spacing (in)	Orientation Factor	Ka Override
0.00	240.0	1 1/4" Coax	1	1.55	0.63	0	2	Individual	0.00	N	1.00	1.00	0.01
0.00	240.0	1" Conduit	1	1.30	1.68	0	2	Individual	0.00	N	1.00	1.00	0.01
0.00	230.0	7/8" Coax	2	1.09	0.33	0	3	Individual	0.00	N	1.00	1.00	0.01
0.00	223.0	1 1/4" Coax	1	1.55	0.63	0	2	Individual	0.00	N	1.00	1.00	0.01
0.00	202.0	1 5/8" Coax	7	1.98	0.82	0	3	Individual	0.00	N	1.00	1.00	0.00
0.00	202.0	Waveguide	1	1.50	6.00	0	3	Individual	0.00	N	1.00	1.00	0.00
0.00	196.0	7/8" Coax	1	1.09	0.33	0	3	Individual	0.00	N	1.00	1.00	0.01
0.00	187.0	1/2" Coax	4	0.63	0.15	0	1	Individual	0.00	N	1.00	1.00	0.01
0.00	180.6	1 1/4" Hybriflex	3	1.54	1.00	67	2	Block	0.00	N	0.25	1.00	0.55
0.00	180.6	1.625" Hybrid	1	1.63	1.61	0	2	Individual	0.00	N	1.00	1.00	0.01
0.00	180.6	1/2" Ethernet	3	0.50	0.14	0	2	Individual	0.00	N	1.00	1.00	0.01
0.00	180.6	2" Conduit	2	2.38	3.65	0	1	Individual	0.00	N	1.00	1.00	0.00
0.00	180.6	5/16" Coax	6	0.32	0.04	0	2	Individual	0.00	N	1.00	1.00	0.28
0.00	180.6	Waveguide	1	1.50	6.00	0	2	Individual	0.00	N	1.00	1.00	0.00
0.00	174.0	1 5/8" Coax	6	1.98	0.82	0	1	Individual	0.00	N	1.00	1.00	0.28
0.00	174.0	Waveguide	1	1.50	6.00	0	1	Individual	0.00	N	1.00	1.00	0.00
0.00	165.0	0.39" Fiber Trunk	1	0.39	0.06	0	3	Individual	0.00	N	1.00	1.00	0.01
0.00	165.0	0.39" Fiber Trunk	1	0.39	0.06	0	3	Individual	0.00	N	1.00	1.00	0.01
0.00	165.0	0.78" 8 AWG 6	2	0.78	0.59	0	Lin App	Individual	0.00	N	1.00	1.00	0.01
0.00	165.0	0.78" 8 AWG 6	2	0.78	0.59	0	Lin App	Individual	0.00	N	1.00	1.00	0.01
0.00	165.0	1 1/4" Coax	1	1.55	0.63	0	2	Individual	0.00	N	1.00	1.00	0.01
0.00	165.0	1 5/8" Coax	12	1.98	0.82	50	3	Block	0.00	N	0.25	1.00	0.54
0.00	165.0	Waveguide	1	1.50	6.00	0	3	Individual	0.00	N	1.00	1.00	0.00
0.00	152.0	1 5/8" Coax	12	1.98	0.82	50	3	Block	0.00	N	0.25	1.00	0.54
0.00	152.0	1 5/8" Hybrid	1	1.98	1.30	0	3	Individual	0.00	N	1.00	1.00	0.00
0.00	152.0	1 5/8" Hybrid	1	1.98	1.30	0	3	Individual	0.00	N	1.00	1.00	0.01
0.00	152.0	Waveguide	1	1.50	6.00	0	3	Individual	0.00	N	1.00	1.00	0.00
0.00	118.0	7/8" Coax	1	1.09	0.33	0	2	Individual	0.00	N	1.00	1.00	0.01
0.00	108.0	1 1/4" Coax	1	1.55	0.63	0	2	Individual	0.00	N	1.00	1.00	0.01
0.00	22.00	0.24" Cat 5	1	0.24	0.04	0	Lin App	Individual	0.00	N	1.00	1.00	0.01
0.00	20.00	1/2" Coax	1	0.63	0.15	0	3	Individual	0.00	N	1.00	1.00	0.01
0.00	8.00	1/2" Coax	1	0.63	0.15	0	3	Individual	0.00	N	1.00	1.00	0.00



Site Number: CT-5035  
 Site Name: Tartaglia, CT  
 Customer: AT&T Mobility

Code: ANSI/TIA-222-G  
 Engineering Number: 64831821

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### Force/Stress Summary

Section: 1		1		Bot Elev (ft): 0.00				Height (ft): 30.000								
		Pu		Len	Bracing %			Fy	Phic	Pn	Num	Shear		Bear	Use	
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls
LEG	PX - 10" DIA PIPE	-330.38	1.2D + 1.6W	30.08	33	33	33	32.8	50.0	669.65	0	0	0.00	0.00	49	Member X
HORIZ	PST - 3-1/2" DIA PIP	-17.92	1.2D + 1.6W 90	18.29	100	100	100	163.8	50.0	22.56	2	0	0.00	42.31	79	Member X
DIAG	PST - 3" DIA PIPE	-35.35	1.2D + 1.6W 90	36.16	32	32	32	0.0	0.0	41.40	3	0	0.00	60.65	85	User Input

		Pu		Fy	Fu	Phit	Pn	Num	Num	Shear	Bear	Use	Controls
Max Tension Member		(kip)	Load Case	(ksi)	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	(kip)	%	Controls
LEG	PX - 10" DIA PIPE	275.02	0.9D + 1.6W 60	50	65	724.50	0	0	0.00	0.00	37		Member
HORIZ	PST - 3-1/2" DIA PIP	18.51	1.2D + 1.6W 90	50	65	120.60	2	0	0.00	33.93	54		Bolt Bear
DIAG	PST - 3" DIA PIPE	33.32	1.2D + 1.6W 90	50	65	100.35	3	0	0.00	52.65	63		Bolt Bear

Max Splice Forces		Pu		phiRnt	Use	Num	Bolt Type
		(kip)	Load Case	(kip)	%	Bolts	
Top Tension		273.11	0.9D + 1.6W 60	0.00	0	0	
Top Compression		328.40	1.2D + 1.6W	0.00	0		
Bot Tension		325.02	0.9D + 1.6W 60	726.84	45	12	1" A193-B7
Bot Compression		383.41	1.2D + 1.6W	0.00	0		

Section: 2		2		Bot Elev (ft): 30.00				Height (ft): 30.000								
		Pu		Len	Bracing %			Fy	Phic	Pn	Num	Shear		Bear	Use	
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls
LEG	PX - 10" DIA PIPE	-271.26	1.2D + 1.6W	30.08	33	33	33	32.8	50.0	669.65	0	0	0.00	0.00	40	Member X
HORIZ	PST - 3" DIA PIPE	-17.31	1.2D + 1.6W 90	16.41	96	96	96	163.0	50.0	18.95	2	0	0.00	40.44	91	Member X
DIAG	PST - 3" DIA PIPE	-38.54	1.2D + 1.6W 90	35.15	31	31	31	112.7	50.0	39.62	3	0	0.00	60.65	97	Member X

		Pu		Fy	Fu	Phit	Pn	Num	Num	Shear	Bear	Use	Controls
Max Tension Member		(kip)	Load Case	(ksi)	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	(kip)	%	Controls
LEG	PX - 10" DIA PIPE	222.82	0.9D + 1.6W 60	50	65	724.50	0	0	0.00	0.00	30		Member
HORIZ	PST - 3" DIA PIPE	18.17	1.2D + 1.6W 90	50	65	100.35	2	0	0.00	32.43	56		Bolt Bear
DIAG	PST - 3" DIA PIPE	35.97	1.2D + 1.6W 90	50	65	100.35	3	0	0.00	52.65	68		Bolt Bear

Max Splice Forces		Pu		phiRnt	Use	Num	Bolt Type
		(kip)	Load Case	(kip)	%	Bolts	
Top Tension		221.01	0.9D + 1.6W 60	0.00	0	0	
Top Compression		269.35	1.2D + 1.6W	0.00	0		
Bot Tension		273.11	0.9D + 1.6W 60	654.24	42	12	1 A325
Bot Compression		328.40	1.2D + 1.6W	0.00	0		

Site Number: CT-5035  
 Site Name: Tartaglia, CT  
 Customer: AT&T Mobility

Code: ANSI/TIA-222-G  
 Engineering Number: 64831821

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### Force/Stress Summary

Section: 3		3		Bot Elev (ft): 60.00				Height (ft): 20.000							
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing %			Fy (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG	PX - 10" DIA PIPE	-230.71	1.2D + 1.6W	20.05	50	50	50	33.1	50.0	668.58	0	0	0.00	0.00	34 Member X
HORIZ	PST - 3" DIA PIPE	-15.83	1.2D + 1.6W 90	15.16	100	100	100	156.9	50.0	20.47	2	0	0.00	40.44	77 Member X
DIAG	PST - 3" DIA PIPE	-28.45	1.2D + 1.6W 90	25.88	48	48	48	128.5	50.0	30.49	3	0	0.00	50.54	93 Member X
Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls			
LEG	PX - 10" DIA PIPE	188.80	0.9D + 1.6W 60	50	65	724.50	0	0	0.00	0.00	26	Member			
HORIZ	PST - 3" DIA PIPE	16.62	1.2D + 1.6W 90	50	65	100.35	2	0	0.00	32.43	51	Bolt Bear			
DIAG	PST - 3" DIA PIPE	26.50	1.2D + 1.6W 90	50	65	100.35	3	0	0.00	43.80	60	Bolt Bear			
Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type								
Top Tension		187.12	0.9D + 1.6W 60	0.00	0	0									
Top Compression		228.94	1.2D + 1.6W	0.00	0										
Bot Tension		221.01	0.9D + 1.6W 60	654.24	34	12	1 A325								
Bot Compression		269.35	1.2D + 1.6W	0.00	0										

Section: 4		4		Bot Elev (ft): 80.00				Height (ft): 20.000							
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing %			Fy (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG	PX - 8" DIA PIPE	-191.36	1.2D + 1.6W	20.06	50	50	50	41.8	50.0	506.95	0	0	0.00	0.00	37 Member X
HORIZ	PST - 3" DIA PIPE	-14.57	1.2D + 1.6W 90	13.83	100	100	100	143.2	50.0	24.58	2	0	0.00	40.44	59 Member X
DIAG	PST - 3" DIA PIPE	-27.26	1.2D + 1.6W 90	25.11	48	48	48	124.7	50.0	32.40	3	0	0.00	50.54	84 Member X
Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls			
LEG	PX - 8" DIA PIPE	154.57	0.9D + 1.6W 60	50	65	576.00	0	0	0.00	0.00	26	Member			
HORIZ	PST - 3" DIA PIPE	14.95	1.2D + 1.6W 90	50	65	100.35	2	0	0.00	32.43	46	Bolt Bear			
DIAG	PST - 3" DIA PIPE	25.57	1.2D + 1.6W 90	50	65	100.35	3	0	0.00	43.80	58	Bolt Bear			
Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type								
Top Tension		152.96	0.9D + 1.6W 60	0.00	0	0									
Top Compression		189.71	1.2D + 1.6W	0.00	0										
Bot Tension		187.12	0.9D + 1.6W 60	654.24	29	12	1 A325								
Bot Compression		228.94	1.2D + 1.6W	0.00	0										

Site Number: CT-5035  
 Site Name: Tartaglia, CT  
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### Force/Stress Summary

Section: 5		5		Bot Elev (ft): 100.0				Height (ft): 20.000							
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing %			Fy (ksi)	Phic (kip)	Pn (Bolts)	Num (Holes)	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG	PX - 8" DIA PIPE	-150.80	1.2D + 1.6W	20.05	50	50	50	41.8	50.0	507.00	0	0	0.00	0.00	29 Member X
HORIZ	PST - 2-1/2" DIA PIP	-13.46	1.2D + 1.6W 90	12.58	98	98	98	156.3	50.0	15.75	2	0	0.00	38.00	85 Member X
DIAG	PST - 2-1/2" DIA PIP	-27.29	1.2D + 1.6W 90	24.33	48	48	48	0.0	0.0	28.20	3	0	0.00	47.50	96 User Input

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn (Bolts)	Num (Holes)	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG	PX - 8" DIA PIPE	118.80	0.9D + 1.6W 60	50	65	576.00	0	0	0.00	0.00	20	Member
HORIZ	PST - 2-1/2" DIA PIP	14.21	1.2D + 1.6W 90	50	65	76.68	2	0	0.00	30.48	46	Bolt Bear
DIAG	PST - 2-1/2" DIA PIP	25.73	1.2D + 1.6W 90	50	65	76.68	3	0	0.00	41.17	62	Bolt Bear

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num (Bolts)	Bolt Type
Top Tension		117.38	0.9D + 1.6W 60	0.00	0	0	
Top Compression		149.31	1.2D + 1.6W	0.00	0		
Bot Tension		152.96	0.9D + 1.6W 60	654.24	23	12	1 A325
Bot Compression		189.71	1.2D + 1.6W	0.00	0		

Section: 6		6		Bot Elev (ft): 120.0				Height (ft): 20.000							
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing %			Fy (ksi)	Phic (kip)	Pn (Bolts)	Num (Holes)	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG	PX - 8" DIA PIPE	-130.27	1.2D + 1.6W	10.03	100	100	100	41.8	50.0	507.00	0	0	0.00	0.00	25 Member X
HORIZ	PST - 2-1/2" DIA PIP	-12.46	0.9D + 1.6W 90	11.96	100	100	100	151.6	50.0	16.75	2	0	0.00	31.67	74 Member X
DIAG	PST - 3" DIA PIPE	-17.67	1.2D + 1.6W 90	16.08	96	96	96	159.7	50.0	19.75	3	0	0.00	50.54	89 Member X

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn (Bolts)	Num (Holes)	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG	PX - 8" DIA PIPE	98.02	1.2D + 1.6W 60	50	65	576.00	0	0	0.00	0.00	17	Member
HORIZ	PST - 2-1/2" DIA PIP	13.10	1.2D + 1.6W 90	50	65	76.68	2	0	0.00	25.33	51	Bolt Bear
DIAG	PST - 3" DIA PIPE	16.67	0.9D + 1.6W 90	50	65	100.35	3	0	0.00	43.80	38	Bolt Bear

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num (Bolts)	Bolt Type
Top Tension		83.30	0.9D + 1.6W 60	0.00	0	0	
Top Compression		109.27	1.2D + 1.6W	0.00	0		
Bot Tension		117.38	0.9D + 1.6W 60	436.16	27	8	1 A325
Bot Compression		149.31	1.2D + 1.6W	0.00	0		

Site Number: CT-5035  
 Site Name: Tartaglia, CT  
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### Force/Stress Summary

Section: 7		7		Bot Elev (ft): 140.0				Height (ft): 20.000								
		Pu		Len	Bracing %			Fy	Phic	Pn	Num	Shear		Bear	Use	
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls
LEG	PX - 8" DIA PIPE	-90.89	1.2D + 1.6W	10.03	100	100	100	41.8	50.0	507.00	0	0	0.00	0.00	17	Member X
HORIZ	PST - 2-1/2" DIA PIP	-10.74	1.2D + 1.6W 90	10.71	100	100	100	135.8	50.0	20.89	2	0	0.00	31.67	51	Member X
DIAG	PST - 2-1/2" DIA PIP	-16.03	1.2D + 1.6W 90	15.12	100	100	100	0.0	0.0	23.40	3	0	0.00	47.50	68	User Input

		Pu		Fy	Fu	Phit	Pn	Num	Num	Shear	Bear	Use	Controls
Max Tension Member		(kip)	Load Case	(ksi)	(ksi)	(kip)	Bolts	Holes		(kip)	(kip)	%	
LEG	PX - 8" DIA PIPE	64.51	1.2D + 1.6W 60	50	65	576.00	0	0		0.00	0.00	11	Member
HORIZ	PST - 2-1/2" DIA PIP	11.30	1.2D + 1.6W 90	50	65	76.68	2	0		0.00	25.33	44	Bolt Bear
DIAG	PST - 2-1/2" DIA PIP	15.03	1.2D + 1.6W 90	50	65	76.68	3	0		0.00	41.17	36	Bolt Bear

Max Splice Forces		Pu		phiRnt	Use	Num	Bolt Type
		(kip)	Load Case	(kip)	%	Bolts	
Top Tension		52.40	0.9D + 1.6W 60	0.00	0	0	
Top Compression		71.39	1.2D + 1.6W	0.00	0		
Bot Tension		83.30	0.9D + 1.6W 60	436.16	19	8	1 A325
Bot Compression		109.27	1.2D + 1.6W	0.00	0		

Section: 8		8		Bot Elev (ft): 160.0				Height (ft): 20.000								
		Pu		Len	Bracing %			Fy	Phic	Pn	Num	Shear		Bear	Use	
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls
LEG	PX - 8" DIA PIPE	-56.71	1.2D + 1.6W	10.03	100	100	100	41.8	50.0	507.00	0	0	0.00	0.00	11	Member X
HORIZ	PST - 2-1/2" DIA PIP	-7.26	1.2D + 1.6W 90	9.464	100	100	100	119.9	50.0	26.77	2	0	0.00	31.67	27	Member X
DIAG	PST - 2-1/2" DIA PIP	-11.61	1.2D + 1.6W 90	14.20	96	96	96	172.9	50.0	12.88	3	0	0.00	47.50	90	Member X

		Pu		Fy	Fu	Phit	Pn	Num	Num	Shear	Bear	Use	Controls
Max Tension Member		(kip)	Load Case	(ksi)	(ksi)	(kip)	Bolts	Holes		(kip)	(kip)	%	
LEG	PX - 8" DIA PIPE	41.19	0.9D + 1.6W 60	50	65	576.00	0	0		0.00	0.00	7	Member
HORIZ	PST - 2-1/2" DIA PIP	7.69	1.2D + 1.6W 90	50	65	76.68	2	0		0.00	25.33	30	Bolt Bear
DIAG	PST - 2-1/2" DIA PIP	10.83	1.2D + 1.6W 90	50	65	76.68	3	0		0.00	41.17	26	Bolt Bear

Max Splice Forces		Pu		phiRnt	Use	Num	Bolt Type
		(kip)	Load Case	(kip)	%	Bolts	
Top Tension		28.56	0.9D + 1.6W 60	0.00	0	0	
Top Compression		41.99	1.2D + 1.6W	0.00	0		
Bot Tension		52.40	0.9D + 1.6W 60	436.16	12	8	1 A325
Bot Compression		71.39	1.2D + 1.6W	0.00	0		

Site Number: CT-5035  
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### Force/Stress Summary

Section: 9		9		Bot Elev (ft): 180.0				Height (ft): 20.000								
		Pu		Len	Bracing %			Fy	Phic	Pn	Num	Shear		Bear	Use	
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls
LEG	PX - 8" DIA PIPE	-30.88	1.2D + 1.6W	10.03	100	100	100	41.8	50.0	507.00	0	0	0.00	0.00	6	Member X
HORIZ	PST - 2" DIA PIPE	-4.48	1.2D + 1.6W 90	8.214	100	100	100	125.2	50.0	15.41	2	0	0.00	24.02	29	Member X
DIAG	PST - 2-1/2" DIA PIP	-7.82	1.2D + 1.6W 90	13.35	100	100	100	169.2	50.0	13.45	3	0	0.00	47.50	58	Member X

		Pu		Fy	Fu	Phit	Pn	Num	Num	Shear	Bear	Use	Controls
Max Tension Member		(kip)	Load Case	(ksi)	(ksi)	(kip)	Bolts	Holes		(kip)	(kip)	%	
LEG	PX - 8" DIA PIPE	19.49	1.2D + 1.6W 60	50	65	576.00	0	0	0.00	0.00	3		Member
HORIZ	PST - 2" DIA PIPE	4.76	1.2D + 1.6W 90	50	65	48.15	2	0	0.00	19.22	24		Bolt Bear
DIAG	PST - 2-1/2" DIA PIP	7.24	1.2D + 1.6W 90	50	65	76.68	3	0	0.00	41.17	17		Bolt Bear

Max Splice Forces		Pu		phiRnt	Use	Num	Bolt Type	
		(kip)	Load Case	(kip)	%	Bolts		
Top Tension		12.70	0.9D + 1.6W 60	0.00	0	0		
Top Compression		20.92	1.2D + 1.6W	0.00	0			
Bot Tension		28.56	0.9D + 1.6W 60	436.16	7	8	1 A325	
Bot Compression		41.99	1.2D + 1.6W	0.00	0			

Section: 10		10		Bot Elev (ft): 200.0				Height (ft): 20.000								
		Pu		Len	Bracing %			Fy	Phic	Pn	Num	Shear		Bear	Use	
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls
LEG	PX - 8" DIA PIPE	-14.01	1.2D + 1.6W	10.02	100	100	100	41.8	50.0	507.06	0	0	0.00	0.00	2	Member X
HORIZ	PST - 2" DIA PIPE	-2.13	1.2D + 1.6W 90	7.026	100	100	100	107.1	50.0	20.80	2	0	0.00	24.02	10	Member X
DIAG	PST - 2-1/2" DIA PIP	-4.38	1.2D + 1.6W 90	12.55	100	100	100	159.1	50.0	15.20	3	0	0.00	47.50	28	Member X

		Pu		Fy	Fu	Phit	Pn	Num	Num	Shear	Bear	Use	Controls
Max Tension Member		(kip)	Load Case	(ksi)	(ksi)	(kip)	Bolts	Holes		(kip)	(kip)	%	
LEG	PX - 8" DIA PIPE	7.74	1.2D + 1.6W 60	50	65	576.00	0	0	0.00	0.00	1		Member
HORIZ	PST - 2" DIA PIPE	2.35	1.2D + 1.6W 90	50	65	48.15	2	0	0.00	19.22	12		Bolt Bear
DIAG	PST - 2-1/2" DIA PIP	3.87	1.2D + 1.6W 90	50	65	76.68	3	0	0.00	41.17	9		Bolt Bear

Max Splice Forces		Pu		phiRnt	Use	Num	Bolt Type	
		(kip)	Load Case	(kip)	%	Bolts		
Top Tension		3.82	0.9D + 1.6W 60	0.00	0	0		
Top Compression		7.89	1.2D + 1.6W	0.00	0			
Bot Tension		12.70	0.9D + 1.6W 60	436.16	3	8	1 A325	
Bot Compression		20.92	1.2D + 1.6W	0.00	0			

Site Number: CT-5035  
 Site Name: Tartaglia, CT  
 Customer: AT&T Mobility

Code: ANSI/TIA-222-G  
 Engineering Number: 64831821

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 1/7/2016 1:42:53 PM

### Force/Stress Summary

Section: 11 11		Bot Elev (ft): 220.0		Height (ft): 20.000								
<b>Max Compression Member</b>		Pu (kip)	Load Case	Len (ft)	Bracing % X Y Z	Fy (ksi)	PhiC Pn Num (kip) Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG	PX - 8" DIA PIPE	-4.66	1.2D + 1.6W	6.68	100 100 100	27.8	50.0 544.30	0	0	0.00	0.00	0 Member X
HORIZ	PST - 2" DIA PIPE	-1.15	1.2D + 1.6W	6.130	100 100 100	93.5	50.0 25.42	2	0	0.00	24.02	4 Member X
DIAG	PST - 2" DIA PIPE	-2.31	1.2D + 1.6W 90	9.288	100 100 100	141.6	50.0 12.05	3	0	0.00	36.04	19 Member X
<b>Max Tension Member</b>		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	PhiT Pn Num (kip) Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls	
LEG	PX - 8" DIA PIPE	1.48	1.2D + 1.6W 60	50	65	576.00	0	0	0.00	0.00	0 Member	
HORIZ	PST - 2" DIA PIPE	1.40	1.2D + 1.6W 90	50	65	48.15	2	0	0.00	19.22	7 Bolt Bear	
DIAG	PST - 2" DIA PIPE	1.96	1.2D + 1.6W 90	50	65	48.15	3	0	0.00	31.23	6 Bolt Bear	
<b>Max Splice Forces</b>		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type					
Top Tension		0.00		0.00	0	0						
Top Compression		0.80	1.2D + 1.0Di +	0.00	0							
Bot Tension		3.82	0.9D + 1.6W 60	436.16	1	8	1 A325					
Bot Compression		7.89	1.2D + 1.6W	0.00	0							



Site Name: Tartaglia, CT  
 Site Number: CT-5035  
 Engineering Number: 64831821  
 Engineer: R. Barrett  
 Date: 1/7/2016

Program Last Updated: 5/13/2014  
 American Tower Corporation

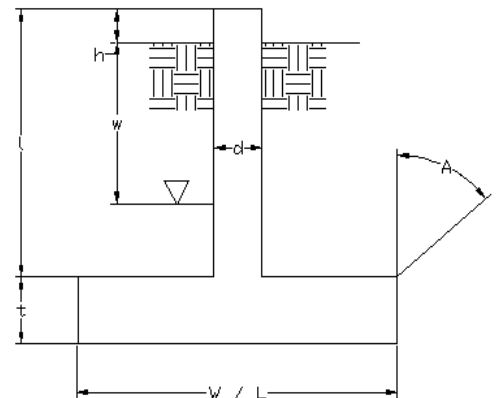
**Design Base Loads (Factored) per TIA-222-G**

Foundation Mapped:	Y
Moment ( $M_u$ ):	0.0 k-ft
Shear/Leg ( $V_u$ ):	55.1 k
Compression/Leg ( $P_u$ ):	382.3 k
Uplift/Leg ( $T_u$ ):	321.0 k
Tower Type (GT / SST):	SST
Diameter of Prismatic Portion of Pier (d):	0.0 ft
Depth to Base of Foundation (l + t - h):	6.1 ft
Pier Height Above Ground (h):	0.00 ft
Length / Width of Pad (w):	22.0 ft
Thickness of Pad (t):	6.10 ft
Depth Below Ground Surface to Water Table (w):	99.0 ft
Unit Weight of Concrete:	150.0 pcf
Unit Weight of Water:	62.4 pcf
Unit Weight of Soil Above Water Table:	110.0 pcf
Unit Weight of Soil Below Water Table:	55.0 pcf
Friction Angle of Uplift from Top of Pad:	30 Degrees
Friction Angle of Uplift from Base of Pad:	30 Degrees
Uplift Angle Started at Top or Base of Pad (T/B):	T
Ultimate Skin Friction:	0 psf
Ultimate Compressive Bearing Pressure:	3000 psf
Capacity Increase (Due to Transient Loads):	1.00
Bearing Strength Reduction Factor ( $\phi_s$ ):	0.75
Uplift Strength Reduction Factor ( $\phi_s$ ):	0.75

**Axial Capacities and Design Moment**

Considering Uplift Starting at Top of Pad

Volume of Concrete:	4044.4 ft <sup>3</sup>
Depth to Uplift Starting Point:	0.0 ft
Soil Volume Above Mat:	0.0 ft <sup>3</sup>
Soil Volume Around Mat Edges:	0.0 ft <sup>3</sup>
Soil Volume Around Mat Corners:	0.0 ft <sup>3</sup>
Volume of Soil:	0.0 ft <sup>3</sup>
Weight of Concrete (Bouyancy Considered):	606.7 k
Nominal Uplift Capacity per Leg ( $\phi_s T_n$ ):	455.0 k
Nominal Compressive Capacity per Leg ( $\phi_s P_n$ ):	1089.0 k
$P_u$ :	720.6 k
$T_u / \phi_s T_n$ :	0.71 Result: OK
$P_u / \phi_s P_n$ :	0.66 Result: OK





City of Bridgeport  
**Zoning Department**  
**PLANNING AND ECONOMIC DEVELOPMENT**

45 Lyon Terrace • Bridgeport, Connecticut 06604  
Telephone (203) 576-7217  
Fax (203) 576-7213

1330 Chopsy Hill Rd. & E&F Development Co.,  
800 Trumbull Ave. owner  
N/E corner  
Lot: 481.56' x 459.47' x  
711.29' x 419.50'

Waive reg. pro. the business use of prop. in an  
A-RES. ZONE & waive reg. pro. a structure exceed.  
35' in height to permit the erection of a 300'  
high radio station tower, accessory transmission  
equip. bldg.

PUBLIC HEARING, Monday, August 11, 1986 GRANTED  
CONDITIONALLY, subject to the following:

1. The develop. of the subj. prop. shall be substantially in accord with the plans submitted & held on file in the Zoning Department.
2. The petitioner shall file plans & applications for the issuance of a Cert. of Zoning Compl. & a Bldg. Permit.
3. All construction shall conform with the req'ts. of the Basic Bldg. Code of the State of CT.

~~Notice of Variance~~  
~~Signed 8/21/86~~  
Notice of Variance signed 11/19/86





# WIRELESS COMMUNICATIONS FACILITY

## CT5093 - LTE 3C

### BEARDSLEY

#### 1330 CHOPSEY HILL ROAD

#### BRIDGEPORT, CT 06606

### GENERAL NOTES

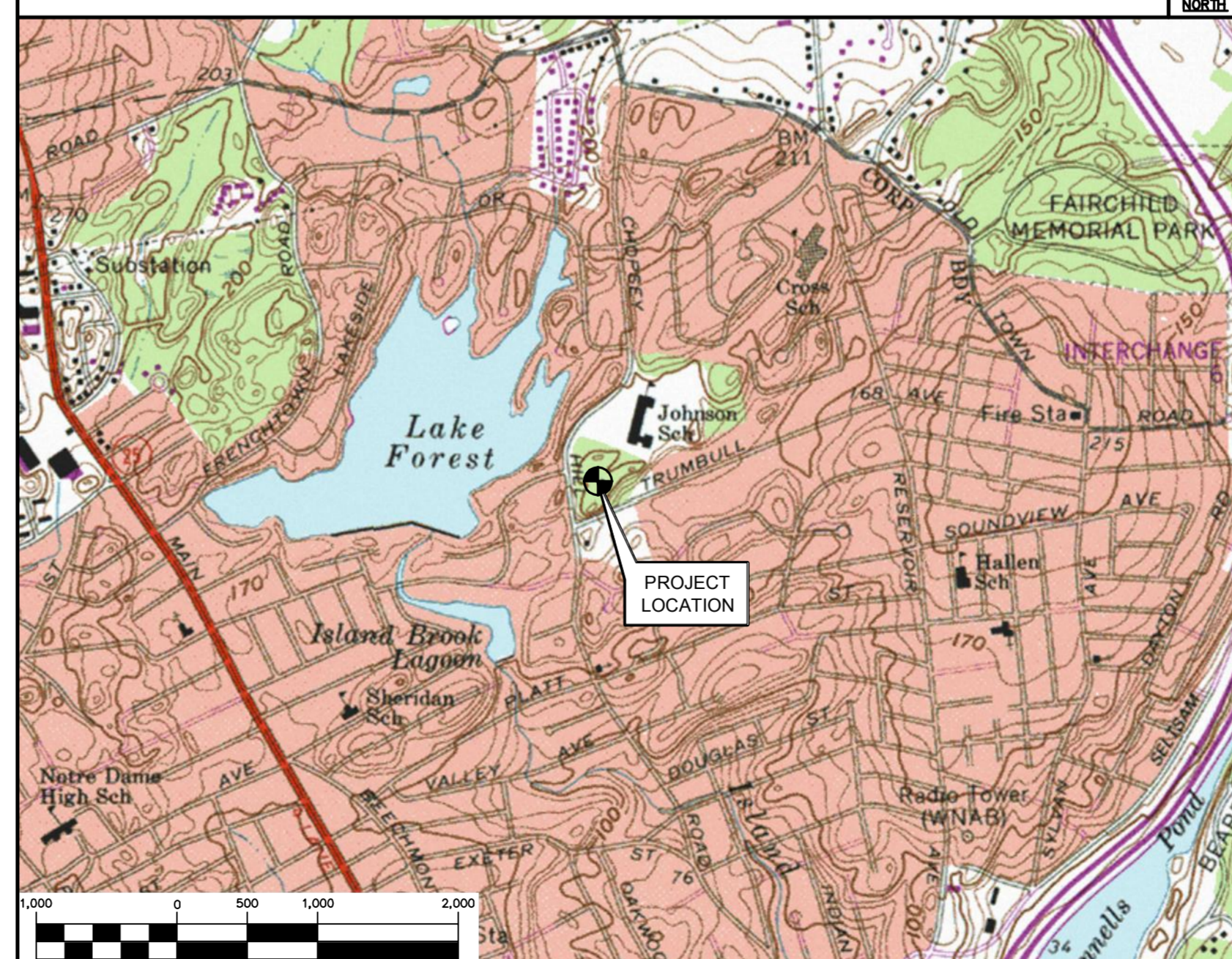
1. ALL WORK SHALL BE IN ACCORDANCE WITH THE 2003 INTERNATIONAL BUILDING CODE AS MODIFIED BY THE 2005 CONNECTICUT SUPPLEMENT AND 2009 AMENDMENTS, INCLUDING THE TA/EIA-222 REVISION "F" "STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND SUPPORTING STRUCTURES," 2005 CONNECTICUT FIRE SAFETY CODE AND 2009 AMENDMENTS, NATIONAL ELECTRICAL CODE AND LOCAL CODES.
2. THE COMPOUND, TOWER, PRIMARY GROUND RING, ELECTRICAL SERVICE TO THE METER BANK AND TELEPHONE SERVICE TO THE DEMARCATION POINT ARE PROVIDED BY SITE OWNER. AS BUILT FIELD CONDITIONS REGARDING THESE ITEMS SHALL BE CONFIRMED BY THE CONTRACTOR. SHOULD ANY FIELD CONDITIONS PRECLUDE COMPLIANCE WITH THE DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND SHALL NOT PROCEED WITH ANY AFFECTED WORK.
3. CONTRACTOR SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS IN THE CONTRACT DOCUMENT SET. CONTRACTOR SHALL COORDINATE ALL WORK SHOWN IN THE SET OF DRAWINGS. THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF DRAWINGS TO ALL SUBCONTRACTORS AND ALL RELATED PARTIES. THE SUBCONTRACTORS SHALL EXAMINE ALL THE DRAWINGS AND SPECIFICATIONS FOR THE INFORMATION THAT AFFECTS THEIR WORK.
4. CONTRACTOR SHALL PROVIDE A COMPLETE BUILD-OUT WITH ALL FINISHES, STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS AND PROVIDE ALL ITEMS AS SHOWN OR INDICATED ON THE DRAWINGS OR IN THE WRITTEN SPECIFICATIONS.
5. CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR AND EQUIPMENT TO COMPLETE THE WORK AND FURNISH A COMPLETED JOB ALL IN ACCORDANCE WITH LOCAL AND STATE GOVERNING AUTHORITIES AND OTHER AUTHORITIES HAVING LAWFUL JURISDICTION OVER THE WORK.
6. CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND ALL INSPECTIONS REQUIRED AND SHALL ALSO PAY FEES REQUIRED FOR THE GENERAL CONSTRUCTION, PLUMBING, ELECTRICAL AND HVAC. PERMITS SHALL BE PAID FOR BY THE RESPECTIVE SUBCONTRACTORS.
7. CONTRACTOR SHALL MAINTAIN A CURRENT SET OF DRAWINGS AND SPECIFICATIONS ON SITE AT ALL TIMES AND INSURE DISTRIBUTION OF NEW DRAWINGS TO SUBCONTRACTORS AND OTHER RELEVANT PARTIES AS SOON AS THEY ARE MADE AVAILABLE. ALL OLD DRAWINGS SHALL BE MARKED VOID AND REMOVED FROM THE CONTRACT AREA. THE CONTRACTOR SHALL FURNISH AN 'AS-BUILT' SET OF DRAWINGS TO OWNER UPON COMPLETION OF PROJECT.
8. LOCATION OF EQUIPMENT, AND WORK SUPPLIED BY OTHERS THAT IS DIAGRAMMATICALLY INDICATED ON THE DRAWINGS SHALL BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR SHALL DETERMINE LOCATIONS AND DIMENSIONS SUBJECT TO STRUCTURAL CONDITIONS AND WORK OF THE SUBCONTRACTORS.
9. THE CONTRACTOR IS SOLELY RESPONSIBLE TO DETERMINE CONSTRUCTION PROCEDURE AND SEQUENCE, AND TO ENSURE THE SAFETY OF THE EXISTING STRUCTURES AND ITS COMPONENT PARTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, BRACING, UNDERPINNING, ETC. THAT MAY BE NECESSARY. MAINTAIN EXISTING BUILDING'S/PROPERTY'S OPERATIONS, COORDINATE WORK WITH BUILDING/PROPERTY OWNER.
10. DRAWINGS INDICATE THE MINIMUM STANDARDS, BUT IF ANY WORK SHOULD BE INDICATED TO BE SUBSTANDARD TO ANY ORDINANCES, LAWS, CODES, RULES, OR REGULATIONS BEARING ON THE WORK, THE CONTRACTOR SHALL INCLUDE IN HIS WORK AND SHALL EXECUTE THE WORK CORRECTLY IN ACCORDANCE WITH SUCH ORDINANCES, LAWS, CODES, RULES OR REGULATIONS WITH NO INCREASE IN COSTS.
11. ALL UTILITY WORK SHALL BE IN ACCORDANCE WITH LOCAL UTILITY COMPANY REQUIREMENTS AND SPECIFICATIONS.
12. ALL EQUIPMENT AND PRODUCTS PURCHASED ARE TO BE REVIEWED BY CONTRACTOR AND ALL APPLICABLE SUBCONTRACTORS FOR ANY CONDITION PER MFR.'S RECOMMENDATIONS. CONTRACTOR TO SUPPLY THESE ITEMS AT NO COST TO OWNER OR CONSTRUCTION MANAGER.
13. ANY AND ALL ERRORS, DISCREPANCIES, AND 'MISSED' ITEMS ARE TO BE BROUGHT TO THE ATTENTION OF THE AT&T CONSTRUCTION MANAGER DURING THE BIDDING PROCESS BY THE CONTRACTOR. ALL THESE ITEMS ARE TO BE INCLUDED IN THE BID. NO 'EXTRA' WILL BE ALLOWED FOR MISSED ITEMS.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE SAFETY FROM THE TIME THE JOB IS AWARDED UNTIL ALL WORK IS COMPLETE AND ACCEPTED BY THE OWNER.
15. CONTRACTOR TO REVIEW ALL SHOP DRAWINGS AND SUBMIT COPY TO ENGINEER FOR APPROVAL. DRAWINGS MUST BEAR THE CHECKER'S INITIALS BEFORE SUBMITTING TO THE CONSTRUCTION MANAGER FOR REVIEW.
16. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, ANGLES, AND EXISTING CONDITIONS AT THE SITE, PRIOR TO FABRICATION AND/OR INSTALLATION OF ANY WORK IN THE CONTRACT AREA.
17. COORDINATION, LAYOUT, FURNISHING AND INSTALLATION OF CONDUIT AND ALL APPURTENANCES REQUIRED FOR PROPER INSTALLATION OF ELECTRICAL AND TELECOMMUNICATION SERVICE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
18. ALL EQUIPMENT AND PRODUCTS PURCHASED ARE TO BE REVIEWED BY CONTRACTOR AND ALL APPLICABLE SUB-CONTRACTORS FOR ANY CONDITION PER THE MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR TO SUPPLY THESE ITEMS AT NO COST TO OWNER OR CONSTRUCTION MANAGER.
19. ALL DAMAGE CAUSED TO ANY EXISTING STRUCTURE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE HELD LIABLE FOR ALL REPAIRS REQUIRED FOR EXISTING STRUCTURES IF DAMAGED DURING CONSTRUCTION ACTIVITIES.
20. THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" AT LEAST 48 HOURS PRIOR TO ANY EXCAVATIONS AT 1-800-922-4455. ALL UTILITIES SHALL BE IDENTIFIED AND CLEARLY MARKED PRIOR TO ANY EXCAVATION WORK. CONTRACTOR SHALL MAINTAIN AND PROTECT MARKED UTILITIES THROUGHOUT PROJECT COMPLETION.
21. CONTRACTOR SHALL COMPLY WITH OWNERS ENVIRONMENTAL ENGINEER ON ALL METHODS AND PROVISIONS FOR ALL EXCAVATION ACTIVITIES INCLUDING SOIL DISPOSAL. ALL BACKFILL MATERIALS TO BE PROVIDED BY THE CONTRACTOR.

### SITE DIRECTIONS

<b>FROM:</b> 500 ENTERPRISE DRIVE ROCKY HILL, CONNECTICUT	<b>TO:</b> 1320 CHOPSEY HILL ROAD BRIDGEPORT, CT
<ol style="list-style-type: none"> <li>1. TURN LEFT ONTO CAPITOL BLVD 0.3 mi</li> <li>2. TURN LEFT ONTO WEST STREET 0.3 mi</li> <li>3. TAKE RAMP LEFT FOR I-91 S 9.7 mi</li> <li>4. AT EXIT 17, TAKE RAMP RIGHT FOR CT-15 SOUTH TOWARD NEW HAVEN 30.2 mi</li> <li>5. AT EXIT 52, TAKE RAMP RIGHT FOR CT-8 SOUTH TOWARD BRIDGEPORT 1.9 mi</li> <li>6. AT EXIT 7, TAKE RAMP FOR CT-127/WHITE PLAINS ROAD 0.3 mi</li> <li>7. STAY STRAIGHT TO GO ONTO OLD TOWN ROAD 0.6 mi</li> <li>8. OLD TOWN ROAD BECOMES TRUMBULL AVENUE 0.6 mi</li> <li>9. TURN RIGHT ONTO CHOPSEY HILL ROAD 0.1 mi</li> <li>10. END AT 1320 CHOPSEY HILL ROAD (ON RIGHT) 0.0 mi</li> </ol>	

### VICINITY MAP

SCALE: 1" = 1000'



### PROJECT SUMMARY

1. THE PROPOSED SCOPE OF WORK CONSISTS OF A MODIFICATION TO THE EXISTING UNMANNED TELECOMMUNICATIONS FACILITY INCLUDING THE FOLLOWING:
  - A. REMOVE AND REPLACE EXISTING GSM 850 ANTENNA FOR PROPOSED LTE ANTENNA, (1) PER SECTOR.
  - B. INSTALL (3) NEW RRUS-32 MOUNTED BY ANTENNA ON EXISTING TOWER.

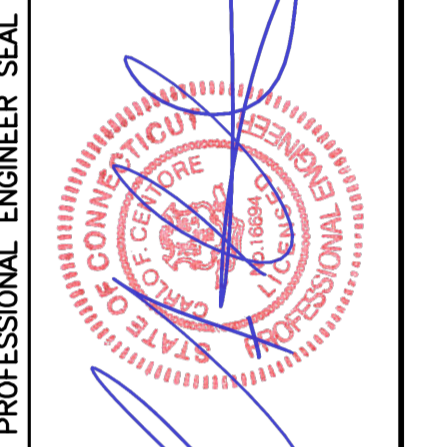
### PROJECT INFORMATION

AT&T SITE NUMBER:	CT5093
AT&T SITE NAME:	BEARDSLEY
SITE ADDRESS:	1330 CHOPSEY HILL ROAD BRIDGEPORT, CT 06606
PROPERTY OWNER:	AMERICAN TOWER CORP. 116 HUNTINGTON AVE., 11TH FLOOR BOSTON, MA 02116
LESSEE/APPLICANT:	AT&T MOBILITY 500 ENTERPRISE DRIVE, SUITE 3A ROCKY HILL, CT 06067
CONTACT PERSON:	TIM BURKS SAI COMMUNICATIONS (860) 989-0001
ENGINEER:	CENTEK ENGINEERING, INC. 63-2 NORTH BRANFORD RD. BRANFORD, CT. 06405
PROJECT COORDINATES:	LATITUDE: 41°-13'-10" N LONGITUDE: 73°-12'-08" W GROUND ELEVATION: ±150' AMSL

### SHEET INDEX

SHT. NO.	DESCRIPTION	REV.
T-1	TITLE SHEET	1
N-1	NOTES AND SPECIFICATIONS	0
C-1	PLANS, ELEVATION AND DETAILS	1
C-2	LTE 3C EQUIPMENT DETAILS AND ELEVATIONS	1
E-1	LTE SCHEMATIC DIAGRAM AND NOTES	0
E-2	LTE WIRING DIAGRAM	0
E-3	TYPICAL ELECTRICAL DETAILS	0

REV.	1	0	01/21/16	07/07/16	DATE	DRAWN BY:CHK'D BY:DESCRIPTION	CONSTRUCTION DRAWINGS - ISSUED FINAL	CONSTRUCTION DRAWINGS - ISSUED FOR CLIENT REVIEW
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**CENTEK engineering**  
 Centek on Solutions  
 (203) 486-0080  
 (203) 486-9387 Fax  
 632 North Branford Road  
 Branford, CT 06405  
 www.CentekEng.com

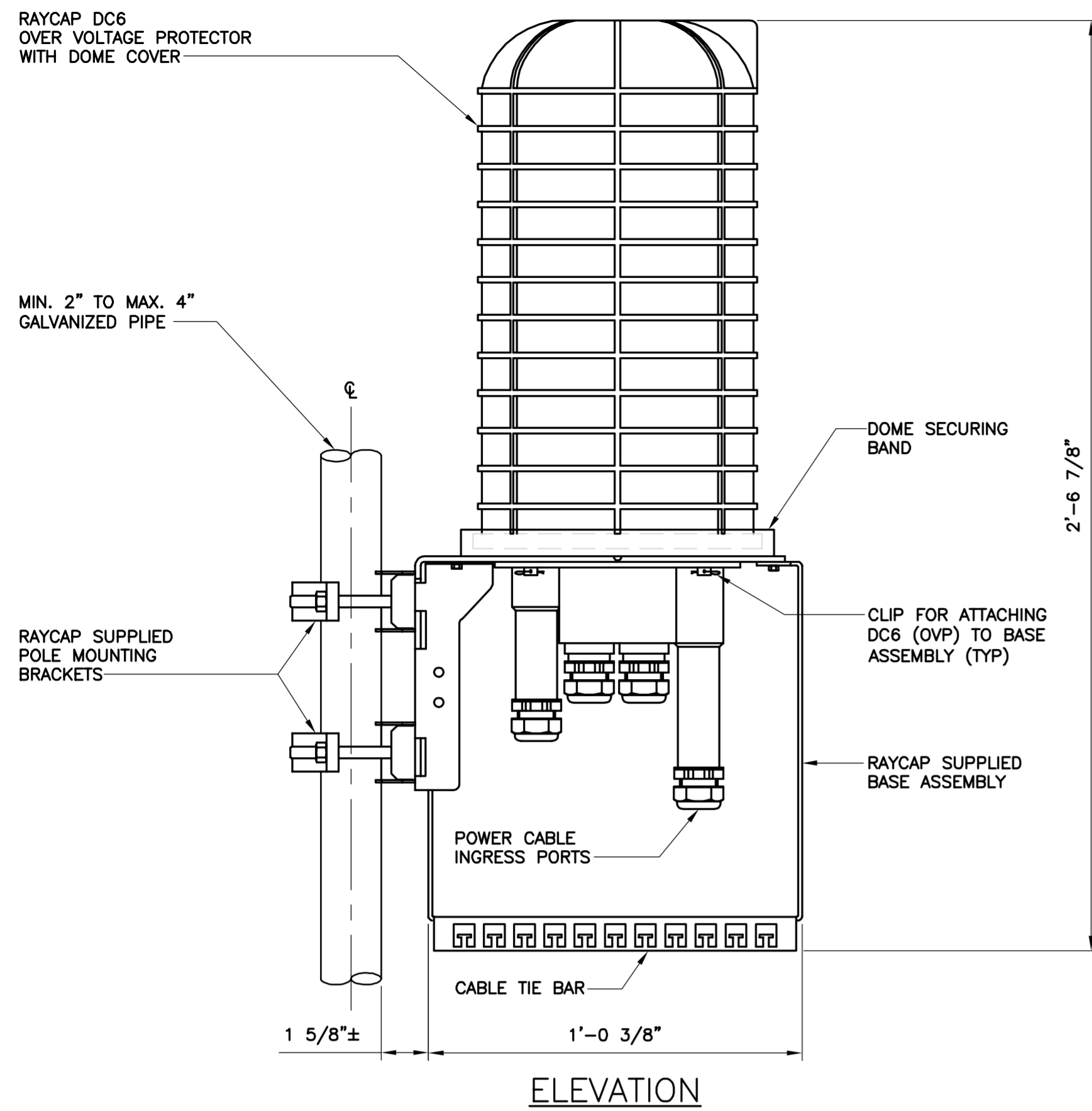
**AT&T MOBILITY**  
 WIRELESS COMMUNICATIONS FACILITY  
**BEARDSLEY**  
**SITE NUMBER: CT5093 - LTE3C**  
**1330 CHOPSEY HILL ROAD**  
**BRIDGEPORT, CT 06606**

DATE: 01/05/16  
 SCALE: AS NOTED  
 JOB NO. 15267.001

TITLE SHEET

T-1





**NOTES:**

1. RAYCAP VIA AT&T SUPPLIES THE DC6 OVER VOLTAGE PROTECTOR AND PIPE MOUNTING BRACKETS. SUBCONTRACTOR SHALL SUPPLY THE PIPE.

**1** RAYCAP DC6 MOUNTING DETAIL  
N-1  
SCALE: 3" = 1'-0"

**NOTES AND SPECIFICATIONS**

**DESIGN BASIS**

GOVERNING CODE: 2003 INTERNATIONAL BUILDING CODE (IBC) AS MODIFIED BY THE 2005 CONNECTICUT STATE BUILDING CODE AND 2009 AMENDMENTS.

**1. DESIGN CRITERIA:**

- WIND LOAD: PER EIA/TIA 222 F-96 (ANTENNA MOUNTS): 90 MPH (FASTEST MILE), EQUIVALENT TO 110 MPH (3 SECOND GUST).
- BUILDING CLASSIFICATION: II (BASED ON IBC TABLE 1604.5)
- BASIC WIND SPEED (OTHER STRUCTURE): 105 MPH (3 SECOND GUST) (EXPOSURE B/IMPORTANCE FACTOR 1.0 BASED ON ASCE 7-02) PER 2003 INTERNATIONAL BUILDING CODE (IBC) AS MODIFIED BY THE 2005 CONNECTICUT SUPPLEMENT AND 2009 AMENDMENT.
- SEISMIC LOAD (DOES NOT CONTROL): PER ASCE 7-95 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES.

**GENERAL NOTES:**

1. ALL CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE GOVERNING BUILDING CODE.
2. DRAWINGS INDICATE THE MINIMUM STANDARDS, BUT IF ANY WORK SHOULD BE INDICATED TO BE SUBSTANDARD TO ANY ORDINANCES, LAWS, CODES, RULES, OR REGULATIONS BEARING ON THE WORK, THE CONTRACTOR SHALL INCLUDE IN HIS WORK AND SHALL EXECUTE THE WORK CORRECTLY IN ACCORDANCE WITH SUCH ORDINANCES, LAWS, CODES, RULES OR REGULATIONS WITH NO INCREASE IN COSTS.
3. BEFORE BEGINNING THE WORK, THE CONTRACTOR IS RESPONSIBLE FOR MAKING SUCH INVESTIGATIONS CONCERNING PHYSICAL CONDITIONS (SURFACE AND SUBSURFACE) AT OR CONTIGUOUS TO THE SITE WHICH MAY AFFECT PERFORMANCE AND COST OF THE WORK.
4. DIMENSIONS AND DETAILS SHALL BE CHECKED AGAINST EXISTING FIELD CONDITIONS.
5. THE CONTRACTOR SHALL VERIFY AND COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS, SLEEVES AND ANCHOR BOLTS AS REQUIRED BY ALL TRADES.
6. ALL DIMENSIONS, ELEVATIONS, AND OTHER REFERENCES TO EXISTING STRUCTURES, SURFACE, AND SUBSURFACE CONDITIONS ARE APPROXIMATE. NO GUARANTEE IS MADE FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. THE CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS, ELEVATIONS, ANGLES WITH EXISTING CONDITIONS AND WITH ARCHITECTURAL AND SITE DRAWINGS BEFORE PROCEEDING WITH ANY WORK.
7. AS THE WORK PROGRESSES, THE CONTRACTOR SHALL NOTIFY THE OWNER OF ANY CONDITIONS WHICH ARE IN CONFLICT OR OTHERWISE NOT CONSISTENT WITH THE CONSTRUCTION DOCUMENTS AND SHALL NOT PROCEED WITH SUCH WORK UNTIL THE CONFLICT IS SATISFACTORILY RESOLVED.
8. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PROVIDING AND MAINTAINING ADEQUATE SHORING, BRACING, AND BARRICADES AS MAY BE REQUIRED FOR THE PROTECTION OF EXISTING PROPERTY, CONSTRUCTION WORKERS, AND FOR PUBLIC SAFETY.
9. THE CONTRACTOR IS SOLELY RESPONSIBLE TO DETERMINE CONSTRUCTION PROCEDURE AND SEQUENCE, AND TO ENSURE THE SAFETY OF THE EXISTING STRUCTURES AND ITS COMPONENT PARTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, BRACING, UNDERPINNING, ETC. THAT MAY BE NECESSARY. MAINTAIN EXISTING SITE OPERATIONS, COORDINATE WORK WITH NORTHEAST UTILITIES
10. THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER FOUNDATION REMEDIATION WORK IS COMPLETE. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE AND TO ENSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, TEMPORARY BRACING, GUYS OR TIEDOWNS, WHICH MIGHT BE NECESSARY.
11. ALL DAMAGE CAUSED TO ANY EXISTING STRUCTURE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE HELD LIABLE FOR ALL REPAIRS REQUIRED FOR EXISTING STRUCTURES IF DAMAGED DURING CONSTRUCTION ACTIVITIES.
12. SHOP DRAWINGS, CONCRETE MIX DESIGNS, TEST REPORTS, AND OTHER SUBMITTALS PERTAINING TO STRUCTURAL WORK SHALL BE FORWARDED TO THE OWNER FOR REVIEW BEFORE FABRICATION AND/OR INSTALLATION IS MADE. SHOP DRAWINGS SHALL INCLUDE ERECTION DRAWINGS AND COMPLETE DETAILS OF CONNECTIONS AS WELL AS MANUFACTURER'S SPECIFICATION DATA WHERE APPROPRIATE. SHOP DRAWINGS SHALL BE CHECKED BY THE CONTRACTOR AND BEAR THE CHECKER'S INITIALS BEFORE BEING SUBMITTED FOR REVIEW.
13. NO DRILLING WELDING OR TAPING ON CL&P OWNED EQUIPMENT.
14. REFER TO DRAWING T1 FOR ADDITIONAL NOTES AND REQUIREMENTS.

**STRUCTURAL STEEL**

1. ALL STRUCTURAL STEEL IS DESIGNED BY ALLOWABLE STRESS DESIGN (ASD)
  - A. STRUCTURAL STEEL (W SHAPES)---ASTM A992 (FY = 50 KSI)
  - B. STRUCTURAL STEEL (OTHER SHAPES)---ASTM A36 (FY = 36 KSI)
  - C. STRUCTURAL HSS (RECTANGULAR SHAPES)---ASTM A500 GRADE B, (FY = 46 KSI)
  - D. STRUCTURAL HSS (ROUND SHAPES)---ASTM A500 GRADE B, (FY = 42 KSI)
  - E. PIPE---ASTM A53 (FY = 35 KSI)
  - F. CONNECTION BOLTS---ASTM A325-N
  - G. U-BOLTS---ASTM A36
  - H. ANCHOR RODS---ASTM F 1554
  - I. WELDING ELECTRODE---ASTM E 70XX
2. CONTRACTOR TO REVIEW ALL SHOP DRAWINGS AND SUBMIT COPY TO ENGINEER FOR APPROVAL. DRAWINGS MUST BEAR THE CHECKER'S INITIALS BEFORE SUBMITTING TO THE ENGINEER FOR REVIEW. SHOP DRAWINGS SHALL INCLUDE THE FOLLOWING: SECTION PROFILES, SIZES, CONNECTION ATTACHMENTS, REINFORCING, ANCHORAGE, SIZE AND TYPE OF FASTENERS AND ACCESSORIES. INCLUDE ERECTION DRAWINGS, ELEVATIONS AND DETAILS.
3. STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST PROVISIONS OF AISC MANUAL OF STEEL CONSTRUCTION.
4. PROVIDE ALL PLATES, CLIP ANGLES, CLOSURE PIECES, STRAP ANCHORS, MISCELLANEOUS PIECES AND HOLES REQUIRED TO COMPLETE THE STRUCTURE.
5. FIT AND SHOP ASSEMBLE FABRICATIONS IN THE LARGEST PRACTICAL SECTIONS FOR DELIVERY TO SITE.
6. INSTALL FABRICATIONS PLUMB AND LEVEL, ACCURATELY FITTED, AND FREE FROM DISTORTIONS OR DEFECTS.
7. AFTER ERECTION OF STRUCTURES, TOUCHUP ALL WELDS, ABRASIONS AND NON-GALVANIZED SURFACES WITH A 95% ORGANIC ZINC RICH PAINT IN ACCORDANCE WITH ASTM 780.
8. ALL STEEL MATERIAL (EXPOSED TO WEATHER) SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT DIPPED GALVANIZED) COATINGS" ON IRONS AND STEEL PRODUCTS.
9. ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC COATING (HOT-DIP) ON IRON AND STEEL HARDWARE".
10. THE ENGINEER SHALL BE NOTIFIED OF ANY INCORRECTLY FABRICATED, DAMAGED OR OTHERWISE MISFITTING OR NON CONFORMING MATERIALS OR CONDITIONS TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE ENGINEER REVIEW.
11. CONNECTION ANGLES SHALL HAVE A MINIMUM THICKNESS OF 1/4 INCHES.
12. STRUCTURAL CONNECTION BOLTS SHALL CONFORM TO ASTM A325. ALL BOLTS SHALL BE 3/4" DIAMETER MINIMUM AND SHALL HAVE A MINIMUM OF TWO BOLTS, UNLESS OTHERWISE ON THE DRAWINGS.
13. LOCK WASHER ARE NOT PERMITTED FOR A325 STEEL ASSEMBLIES.
14. SHOP CONNECTIONS SHALL BE WELDED OR HIGH STRENGTH BOLTED.
15. MILL BEARING ENDS OF COLUMNS, STIFFENERS, AND OTHER BEARING SURFACES TO TRANSFER LOAD OVER ENTIRE CROSS SECTION.
16. FABRICATE BEAMS WITH MILL CAMBER UP.
17. LEVEL AND PLUMB INDIVIDUAL MEMBERS OF THE STRUCTURE TO AN ACCURACY OF 1:500, BUT NOT TO EXCEED 1/4" IN THE FULL HEIGHT OF THE COLUMN.
18. COMMENCEMENT OF STRUCTURAL STEEL WORK WITHOUT NOTIFYING THE ENGINEER OF ANY DISCREPANCIES WILL BE CONSIDERED ACCEPTANCE OF PRECEDING WORK.
19. INSPECTION AND TESTING OF ALL WELDING AND HIGH STRENGTH BOLTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING LABORATORY.
20. FOUR COPIES OF ALL INSPECTION TEST REPORTS SHALL BE SUBMITTED TO THE ENGINEER WITHIN TEN (10) WORKING DAYS OF THE DATE OF INSPECTION.

**PAINT NOTES**

**PAINTING SCHEDULE:**

**1. ANTENNA PANELS:**

- A. SHERWIN WILLIAMS POLANE-B
- B. COLOR TO BE MATCHED WITH EXISTING TOWER STRUCTURE.

**2. COAXIAL CABLES:**

- A. ONE COAT OF DTM BONDING PRIMER (2-5 MILS. DRY FINISH)
- B. TWO COATS OF DTM ACRYLIC PRIMER/FINISH (2.5-5 MILS. DRY FINISH)
- C. COLOR TO BE FIELD MATCHED WITH EXISTING STRUCTURE.

**EXAMINATION AND PREPARATION:**

1. DO NOT APPLY PAINT IN SNOW, RAIN, FOG OR MIST OR WHEN RELATIVE HUMIDITY EXCEEDS 85%. DO NOT APPLY PAINT TO DAMP OR WET SURFACES.
2. VERIFY THAT SUBSTRATE CONDITIONS ARE READY TO RECEIVE WORK. EXAMINE SURFACE SCHEDULED TO BE FINISHED PRIOR TO COMMENCEMENT OF WORK. REPORT ANY CONDITION THAT MAY POTENTIALLY AFFECT PROPER APPLICATION.
3. TEST SHOP APPLIED PRIMER FOR COMPATIBILITY WITH SUBSEQUENT COVER MATERIALS.
4. PERFORM PREPARATION AND CLEANING PROCEDURE IN STRICT ACCORDANCE WITH COATING MANUFACTURER'S INSTRUCTIONS FOR EACH SUBSTRATE CONDITION.
5. CORRECT DEFECTS AND CLEAN SURFACES WHICH AFFECT WORK OF THIS SECTION. REMOVE EXISTING COATINGS THAT EXHIBIT LOOSE SURFACE DEFECTS.
6. IMPERVIOUS SURFACE: REMOVE MILDEW BY SCRUBBING WITH SOLUTION OF TRI-SODIUM PHOSPHATE AND BLEACH. RINSE WITH CLEAN WATER AND ALLOW SURFACE TO DRY.
7. ALUMINUM SURFACE SCHEDULED FOR PAINT FINISH: REMOVE SURFACE CONTAMINATION BY STEAM OR HIGH-PRESSURE WATER. REMOVE OXIDATION WITH ACID ETCH AND SOLVENT WASHING. APPLY ETCHING PRIMER IMMEDIATELY FOLLOWING CLEANING.
8. FERROUS METALS: CLEAN UNGALVANIZED FERROUS METAL SURFACES THAT HAVE NOT BEEN SHOP COATED; REMOVE OIL, GREASE, DIRT, LOOSE MILL SCALE, AND OTHER FOREIGN SUBSTANCES. USE SOLVENT OR MECHANICAL CLEANING METHODS THAT COMPLY WITH THE STEEL STRUCTURES PAINTING COUNCIL'S (SSPC) RECOMMENDATIONS. TOUCH UP BARE AREAS AND SHOP APPLIED PRIME COATS THAT HAVE BEEN DAMAGED. WIRE BRUSH, CLEAN WITH SOLVENTS RECOMMENDED BY PAINT MANUFACTURER, AND TOUCH UP WITH THE SAME PRIMER AS THE SHOP COAT.
9. GALVANIZED SURFACES: CLEAN GALVANIZED SURFACES WITH NON-PETROLEUM-BASED SOLVENTS SO SURFACE IS FREE OF OIL AND SURFACE CONTAMINANTS. REMOVE PRETREATMENT FROM GALVANIZED SHEET METAL FABRICATED FROM COIL STOCK BY MECHANICAL METHODS.
10. ANTENNA PANELS: REMOVE ALL OIL, DUST, GREASE, DIRT, AND OTHER FOREIGN MATERIAL TO ENSURE ADEQUATE ADHESION. PANELS MUST BE WIPED WITH METHYL ETHYL KETONE (MEK).
11. COAXIAL CABLES: REMOVE ALL OIL, DUST, GREASE, DIRT, AND OTHER FOREIGN MATERIAL TO ENSURE ADEQUATE ADHESION.

**CLEANING:**

1. COLLECT WASTE MATERIAL, WHICH MAY CONSTITUTE A FIRE HAZARD, PLACE IN CLOSED METAL CONTAINERS AND REMOVE DAILY FROM SITE.

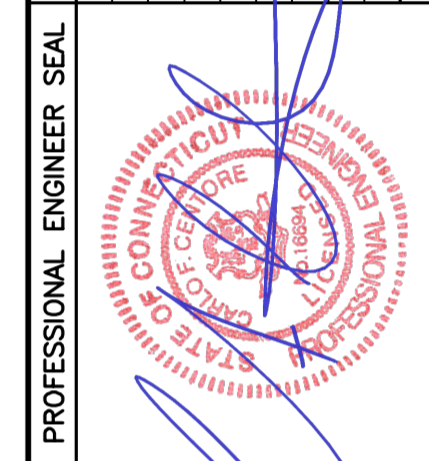
**APPLICATION:**

1. APPLY PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
2. DO NOT APPLY FINISHES TO SURFACES THAT ARE NOT DRY.
3. APPLY EACH COAT TO UNIFORM FINISH.
4. APPLY EACH COAT OF PAINT SLIGHTLY DARKER THAN PRECEDING COAT UNLESS OTHERWISE APPROVED.
5. SAND METAL LIGHTLY BETWEEN COATS TO ACHIEVE REQUIRED FINISH.
6. VACUUM CLEAN SURFACES FREE OF LOOSE PARTICLES. USE TACK CLOTH JUST PRIOR TO APPLYING NEXT COAT.
7. ALLOW APPLIED COAT TO DRY BEFORE NEXT COAT IS APPLIED.

**COMPLETED WORK:**

1. SAMPLES: PREPARE 24" x 24" SAMPLE AREA FOR REVIEW.
2. MATCH APPROVED SAMPLES FOR COLOR, TEXTURE AND COVERAGE. REMOVE REFINISH OR REPAINT WORK NOT IN COMPLIANCE WITH SPECIFIED REQUIREMENTS.

CONSTRUCTION DRAWINGS -	ISSUED FOR CLIENT REVIEW
HMR	DRAWN BY/CHK'D BY/DESCRIPTION
CAC	DATE
0	01/07/16
REV	



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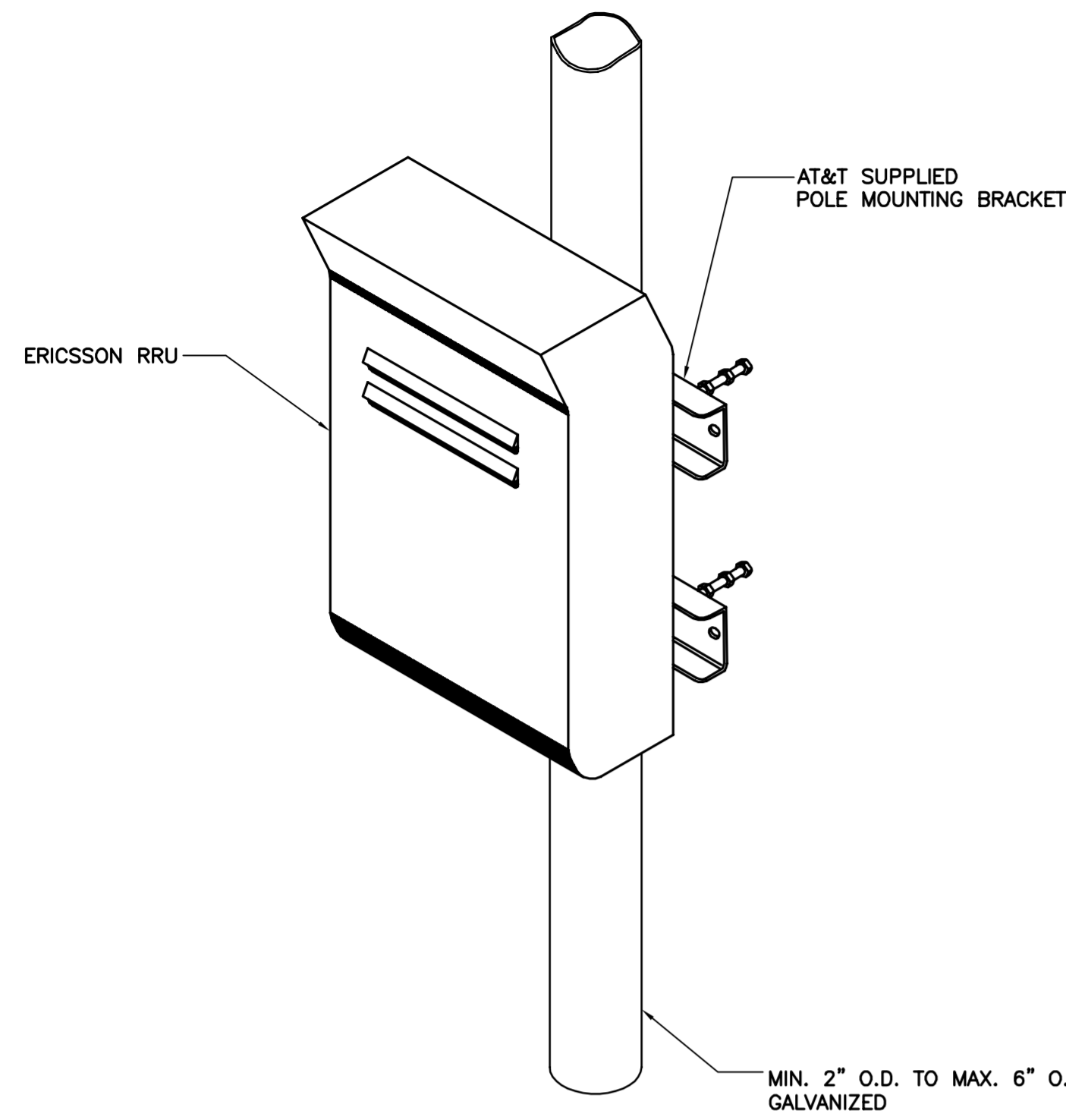
AT&T MOBILITY  
WIRELESS COMMUNICATIONS FACILITY  
**BEARDSLEY**  
SITE NUMBER: CT5093 - LTE3C  
1330 CHOPSEY HILL ROAD  
BRIDGEPORT, CT 06606

DATE: 01/05/16  
SCALE: AS NOTED  
JOB NO. 15267.001

NOTES AND SPECIFICATIONS

**N-1**  
Sheet No. 2 of 7



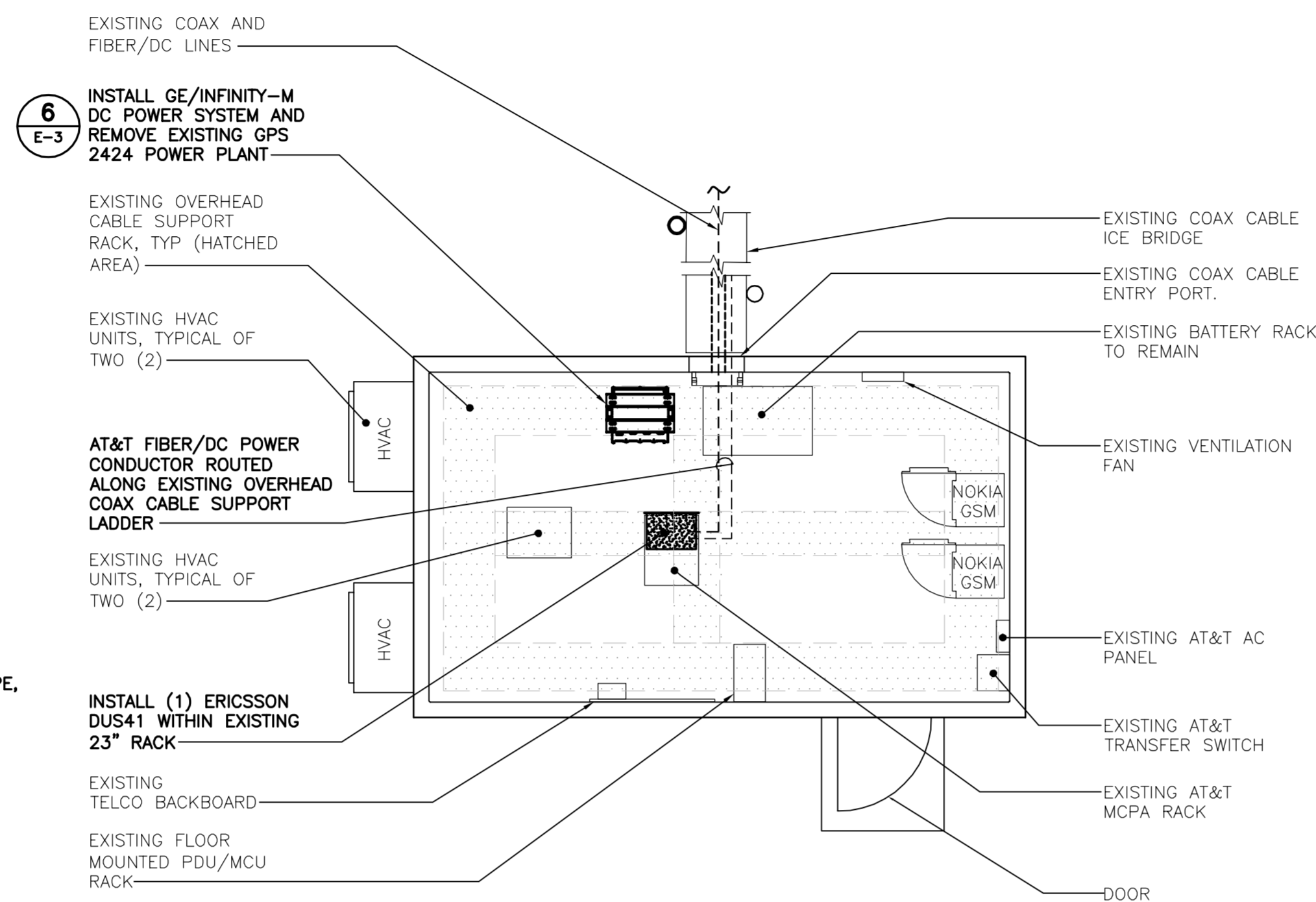


ISOMETRIC VIEW

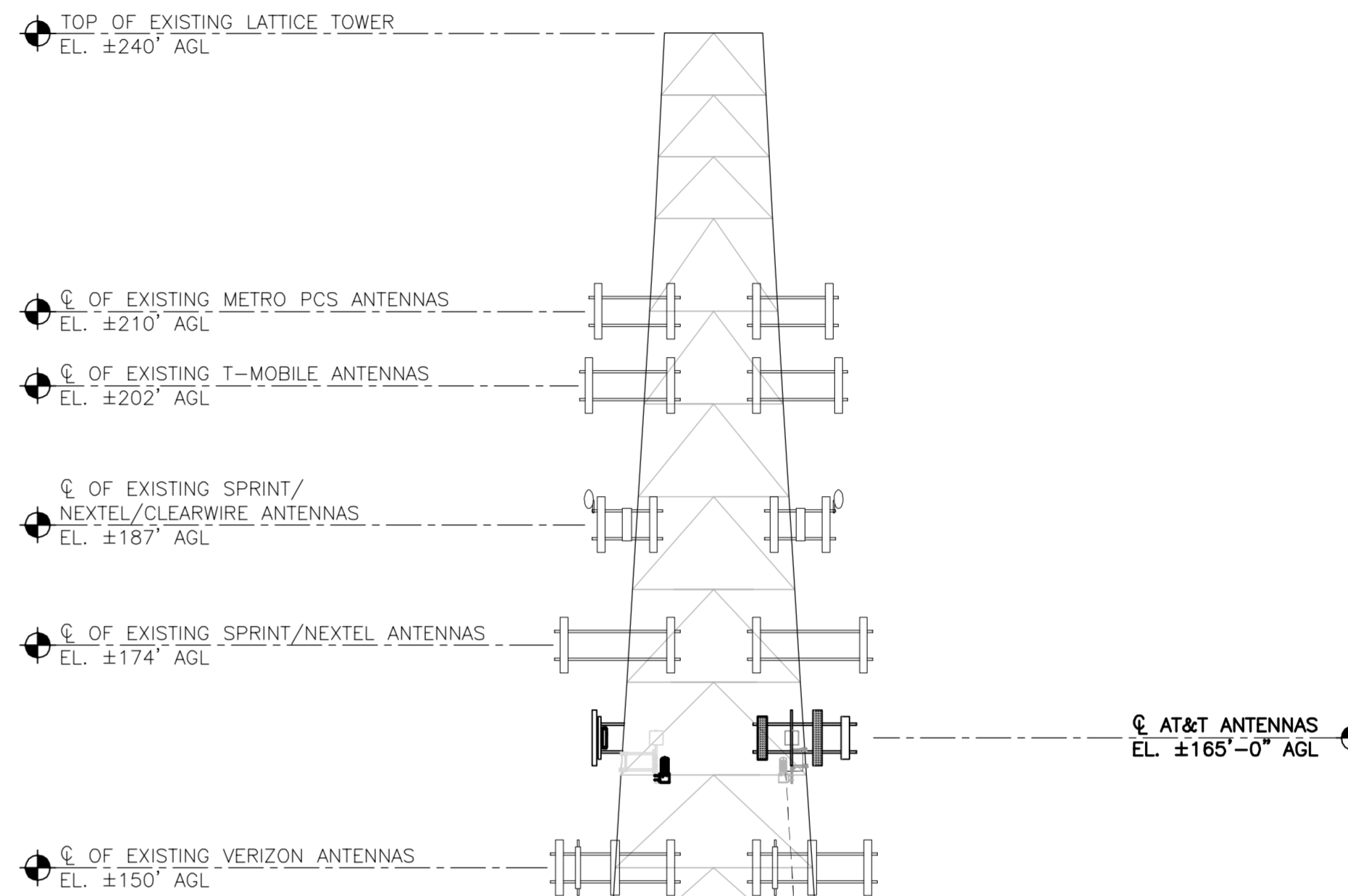
NOTES:

1. AT&T SHALL SUPPLY RRU, AND RRU POLE-MOUNTING BRACKET. CONTRACTOR SHALL SUPPLY POLE/PIPE AND INSTALL ALL MOUNTING HARDWARE INCLUDING ERICSSON RRU POLE-MOUNTING BRACKET. CONTRACTOR SHALL INSTALLS RRU AND MAKES CABLE TERMINATIONS.
3. NO PAINTING OF THE RRU OR SOLAR SHIELD IS ALLOWED.

3 TYPICAL RRU MOUNTING DETAILS  
SCALE: NTS



2 EQUIPMENT BUILDING FLOOR PLAN  
SCALE: 1/4" = 1'-0"

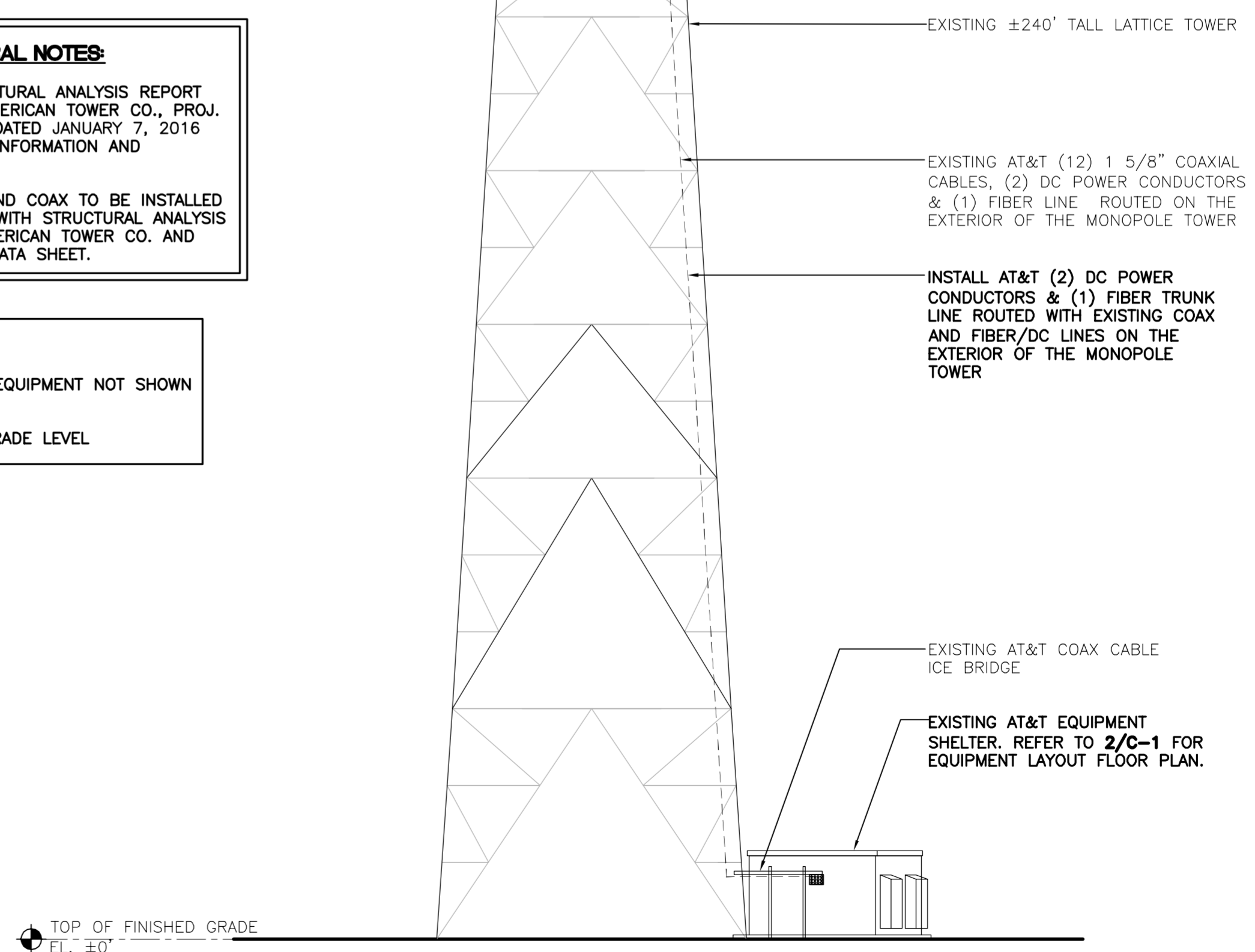


TOWER STRUCTURAL NOTES:

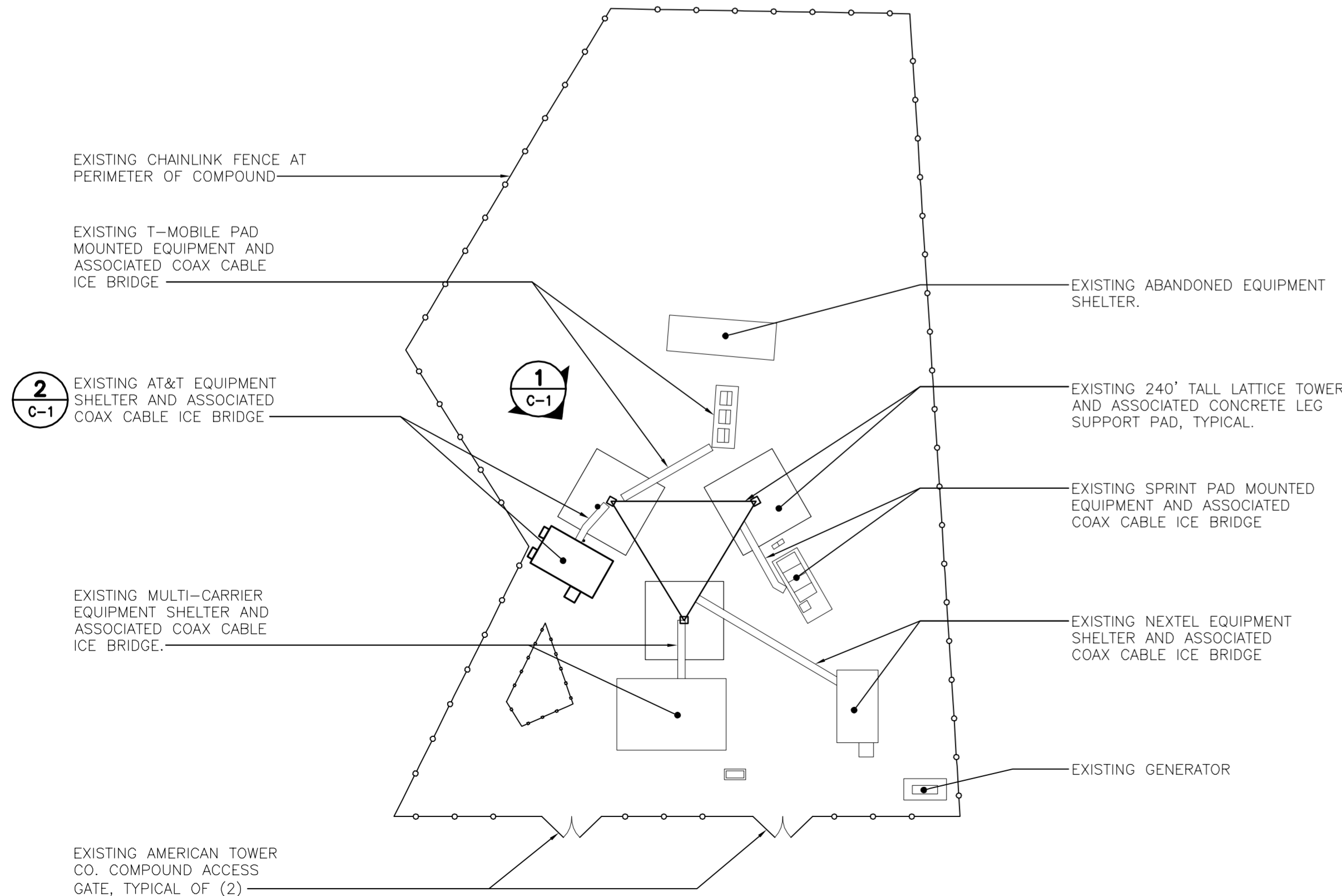
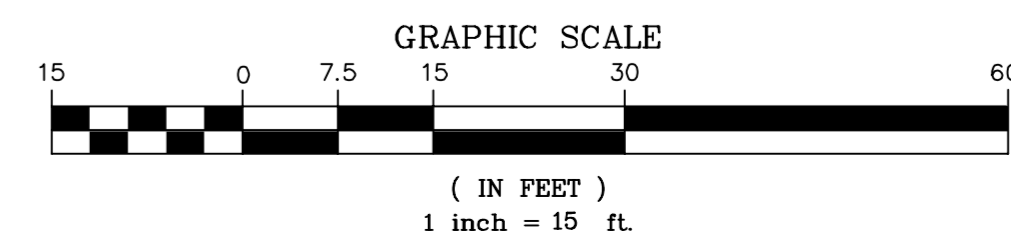
1. REFER TO STRUCTURAL ANALYSIS REPORT PREPARED BY AMERICAN TOWER CO., PROJ. NO. 64831821, DATED JANUARY 7, 2016 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
2. ALL ANTENNAS AND COAX TO BE INSTALLED IN ACCORDANCE WITH STRUCTURAL ANALYSIS PROVIDED BY AMERICAN TOWER CO. AND FINAL AT&T RF DATA SHEET.

NOTES:

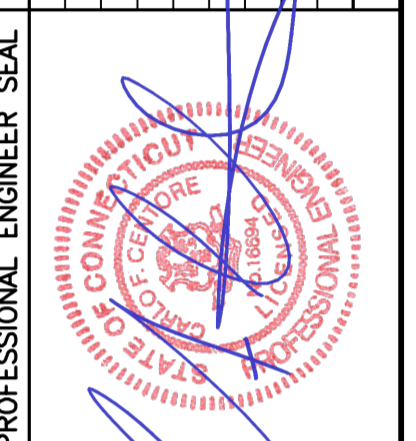
1. OTHER CARRIER EQUIPMENT NOT SHOWN FOR CLARITY.
2. AGL = ABOVE GRADE LEVEL



1 EAST ELEVATION  
SCALE: 1" = 15'-0"



4 COMPOUND PLAN  
SCALE: 1" = 30'-0"



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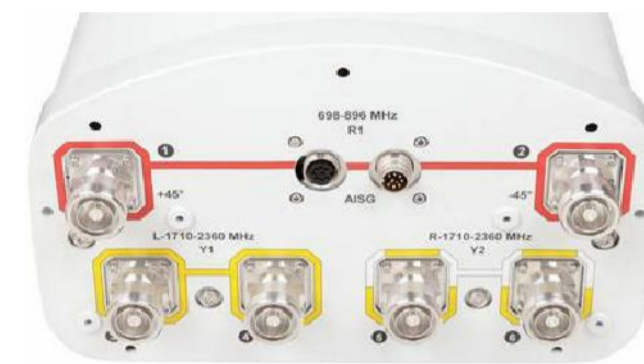
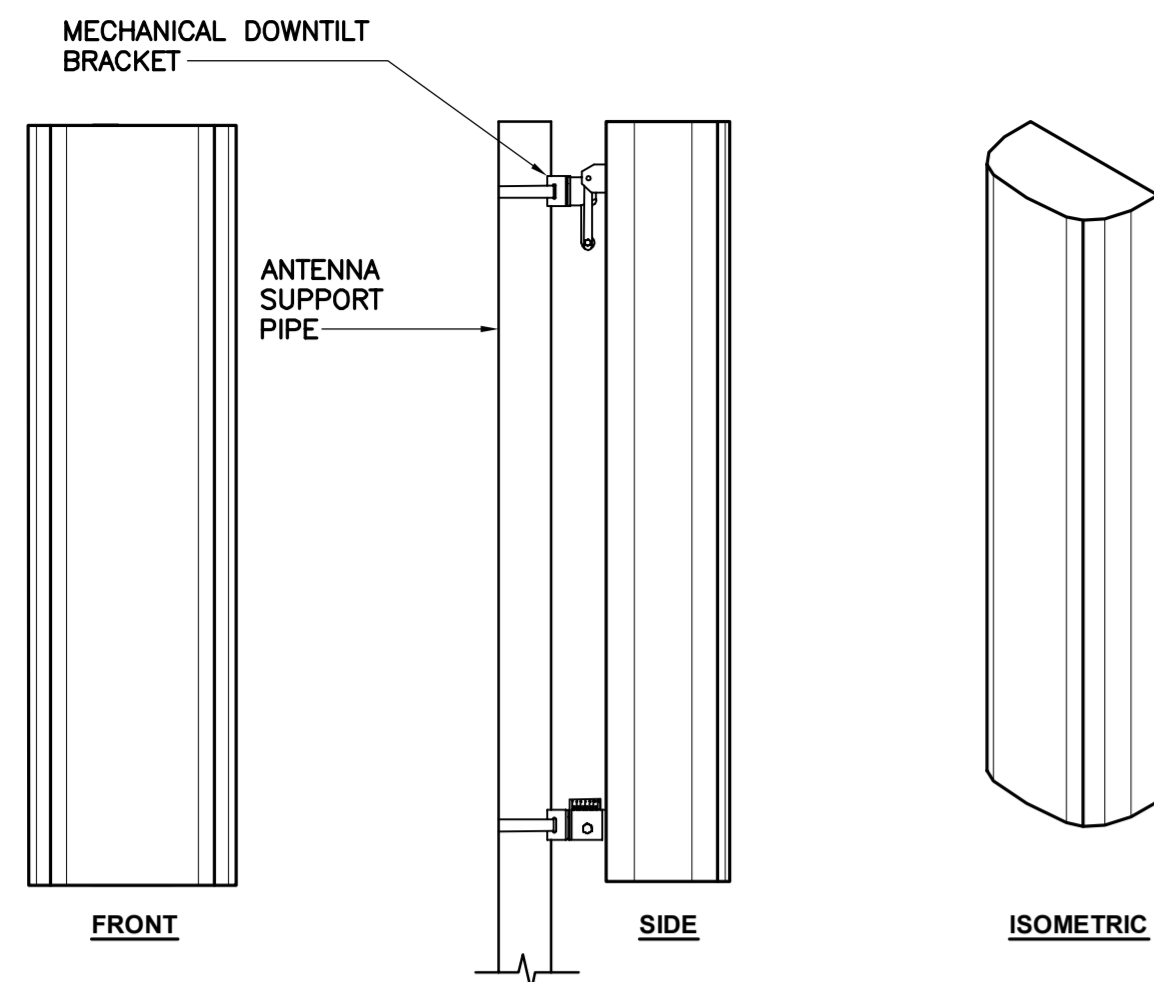
DATE: 01/05/16  
SCALE: AS NOTED  
JOB NO. 15267.001

PLANS, ELEVATION AND DETAILS

C-1  
Sheet No. 3 of 7

REV.	DATE	BY	CHK'D	DESCRIPTION
1	01/21/16	CAG		CONSTRUCTION DRAWINGS - ISSUED FINAL
0	07/07/16	CAG		CONSTRUCTION DRAWINGS - ISSUED FOR CLIENT REVIEW

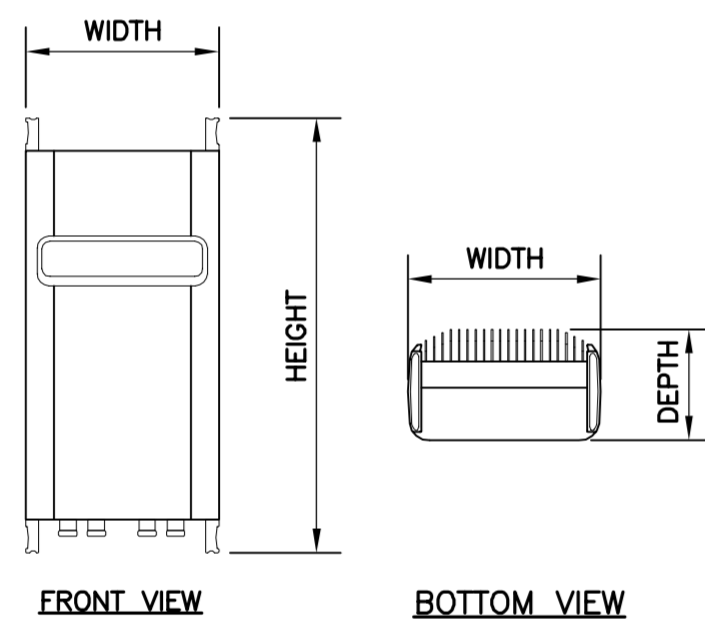




ALPHA/BETA/GAMMA ANTENNA		
EQUIPMENT	DIMENSIONS	WEIGHT
MAKE: COMMSCOPE MODEL: SBNHH-1D65A	55.6"H x 11.9"W x 7.1"D	33.5-LBS

### 5 PROPOSED ANTENNA DETAIL

- SCALE: NTS
- NOTES:
- INSTALL ANTENNA TO EXISTING PIPE MUST USING MANUFACTURERS SUPPLIED BRACKETS AND MOUNTING HARDWARE
  - SET MECHANICAL DOWNTILT TO VALUE SPECIFIED IN LATEST RFDS

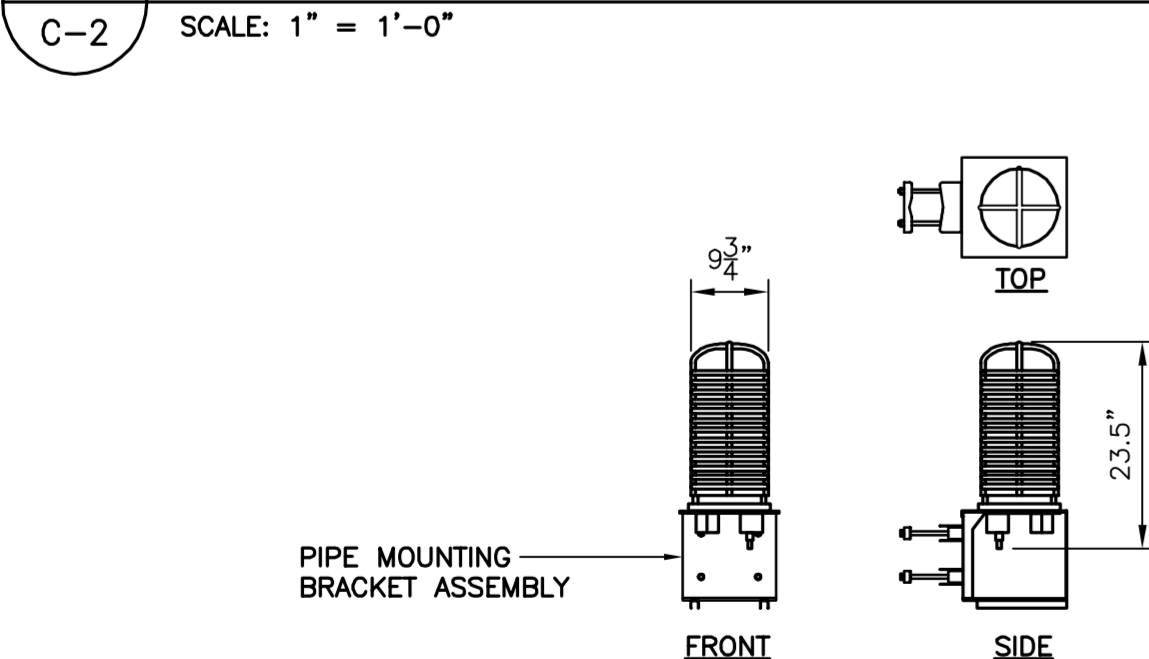


RRU (REMOTE RADIO UNIT)			
EQUIPMENT	DIMENSIONS	WEIGHT	CLEARANCES
MAKE: ERICSSON MODEL: RRUS 32	27.17"H x 12.05"W x 7.01"D	52.91 LBS.	ABOVE: 16" MIN. BELOW: 12" MIN. FRONT: 36" MIN.

NOTES:

- CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION WITH AT&T CONSTRUCTION MANAGER PRIOR TO ORDERING.

### 7 ERICSSON RRUS A2 DETAIL



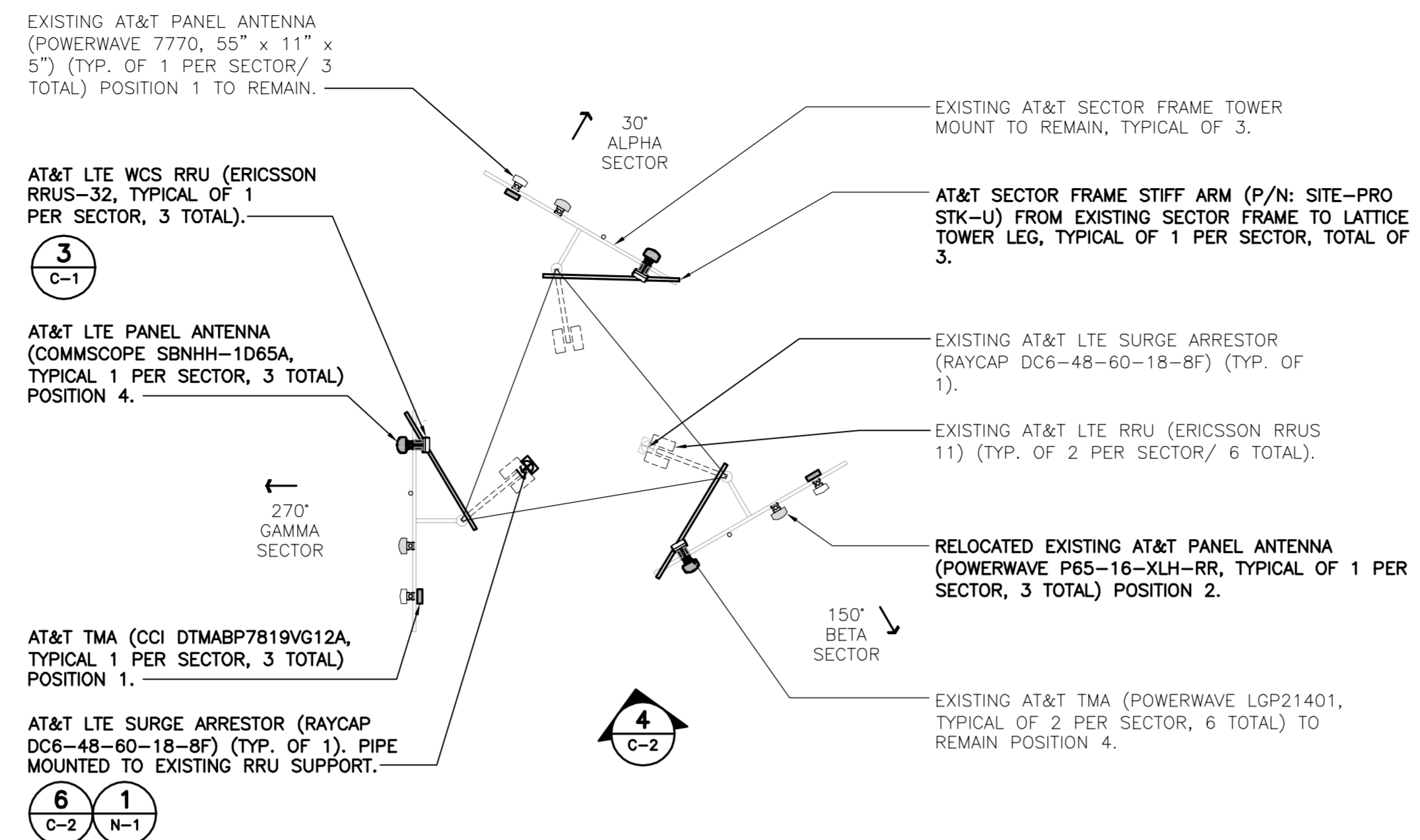
SITE TYPE	ARRESTOR MAKE/MODEL	QTY REQUIRED	ARRESTOR LOCATION	WEIGHT
	MAKE: RAYCAP (SQUID) MODEL: DC6-48-60-18-8F	(1) PER SITE	TOWER, ADJACENT TO AT&T ANTENNAS AND RRUS.	20 LBS. (WITHOUT MOUNT)

NOTES:

- CONTRACTOR TO COORDINATE FINAL SURGE ARRESTOR MODEL SELECTION(S) WITH AT&T CONSTRUCTION MANAGER PRIOR TO ORDERING.
- CONTRACTOR TO INSTALL ARRESTOR IN CONFORMANCE WITH MANUFACTURERS RECOMMENDATIONS.

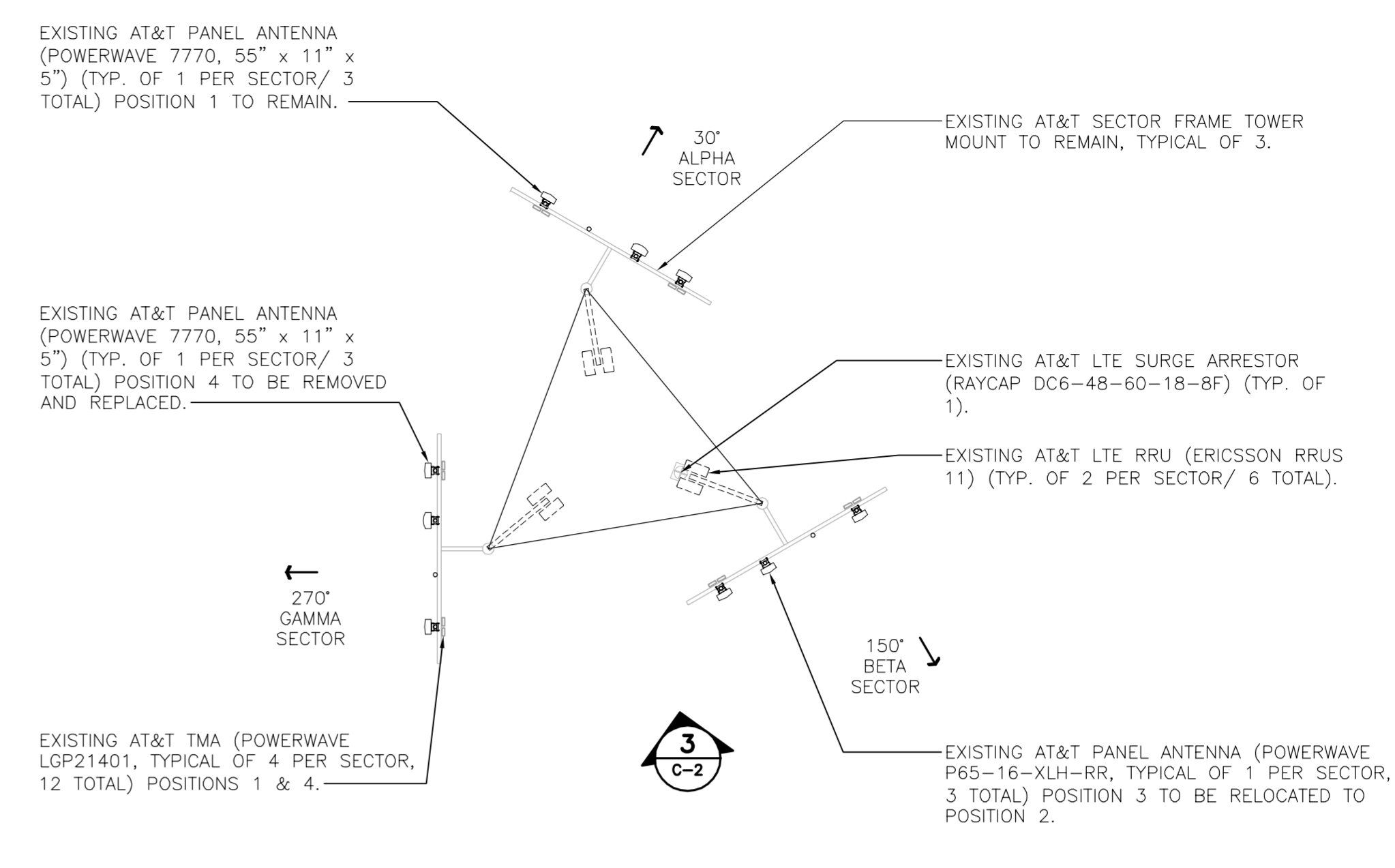
### 6 SURGE ARRESTOR DETAIL

SCALE: NTS



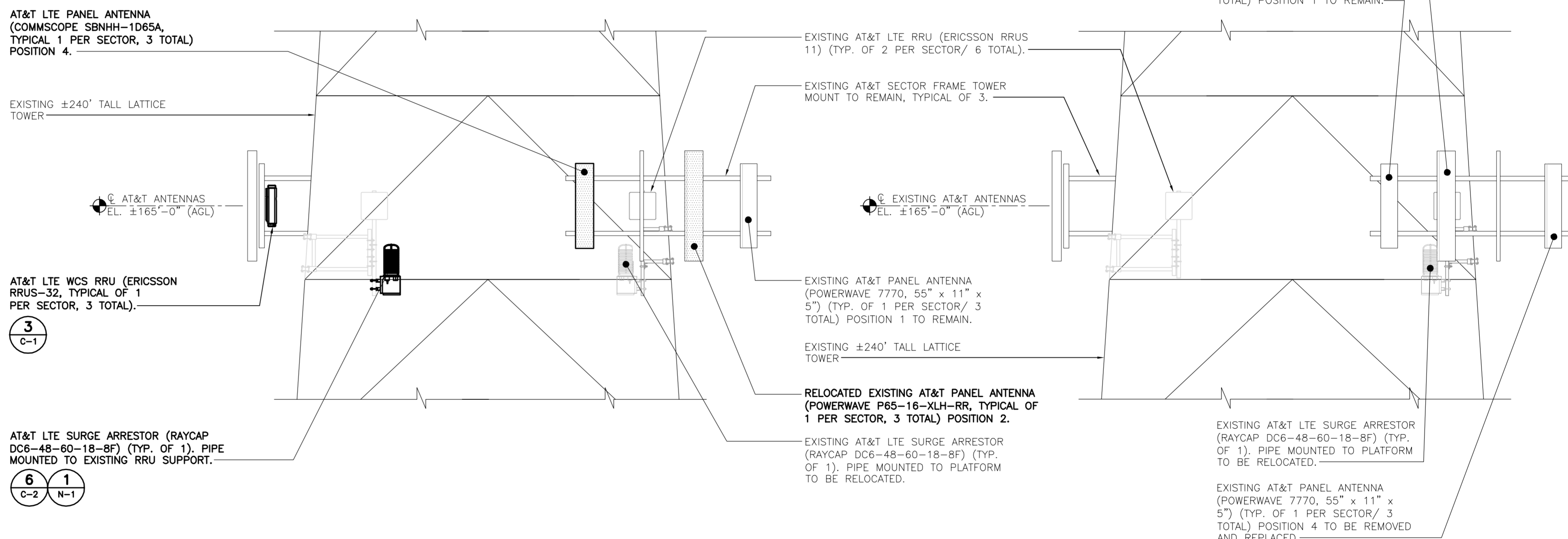
### 2 PROPOSED ANTENNA PLAN

SCALE: 1/8" = 1'-0" NORTH



### 1 EXISTING ANTENNA PLAN

SCALE: 1/8" = 1'-0" NORTH



### 4 PROPOSED ANTENNA PLAN

SCALE: 1/2" = 1'-0" NORTH

NOTE:

- TOWER MOUNTED AMPLIFIERS (TMA), NOT SHOWN FOR CLARITY.

### 3 EXISTING ANTENNA PLAN

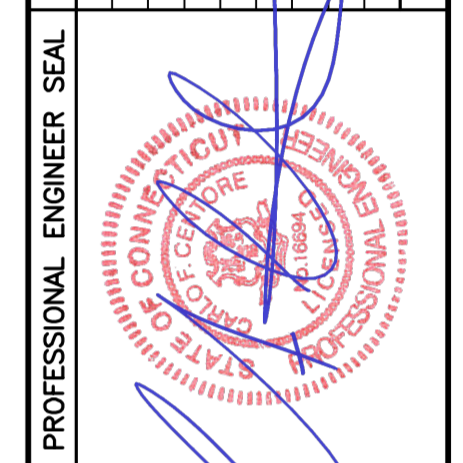
SCALE: 1/4" = 1'-0" NORTH

NOTE:

- TOWER MOUNTED AMPLIFIERS (TMA), NOT SHOWN FOR CLARITY.

- NOTES:
- PROVIDE MOUNTING PIPES, CROSOVERS & ASSOCIATED HARDWARE TO COMPLETE THE PROPOSED UPGRADE.
  - REFER TO AMERICAN TOWER CORP. STRUCTURAL REPORT AND FINAL AT&T RF DATA SHEET PRIOR TO INSTALLATION OF TOWER MOUNTED LTE RELATED ANTENNAS, CABLES AND RELATED EQUIPMENT
  - COORDINATE ANTENNA CENTERLINE ELEVATION, RRU/SURGE ARRESTOR MOUNTING ELEVATION, ATTACHMENT HARDWARE WITH AMERICAN TOWER, CO.

REV.	DATE	BY	CHK'D	DESCRIPTION
1	01/21/16	CAC		
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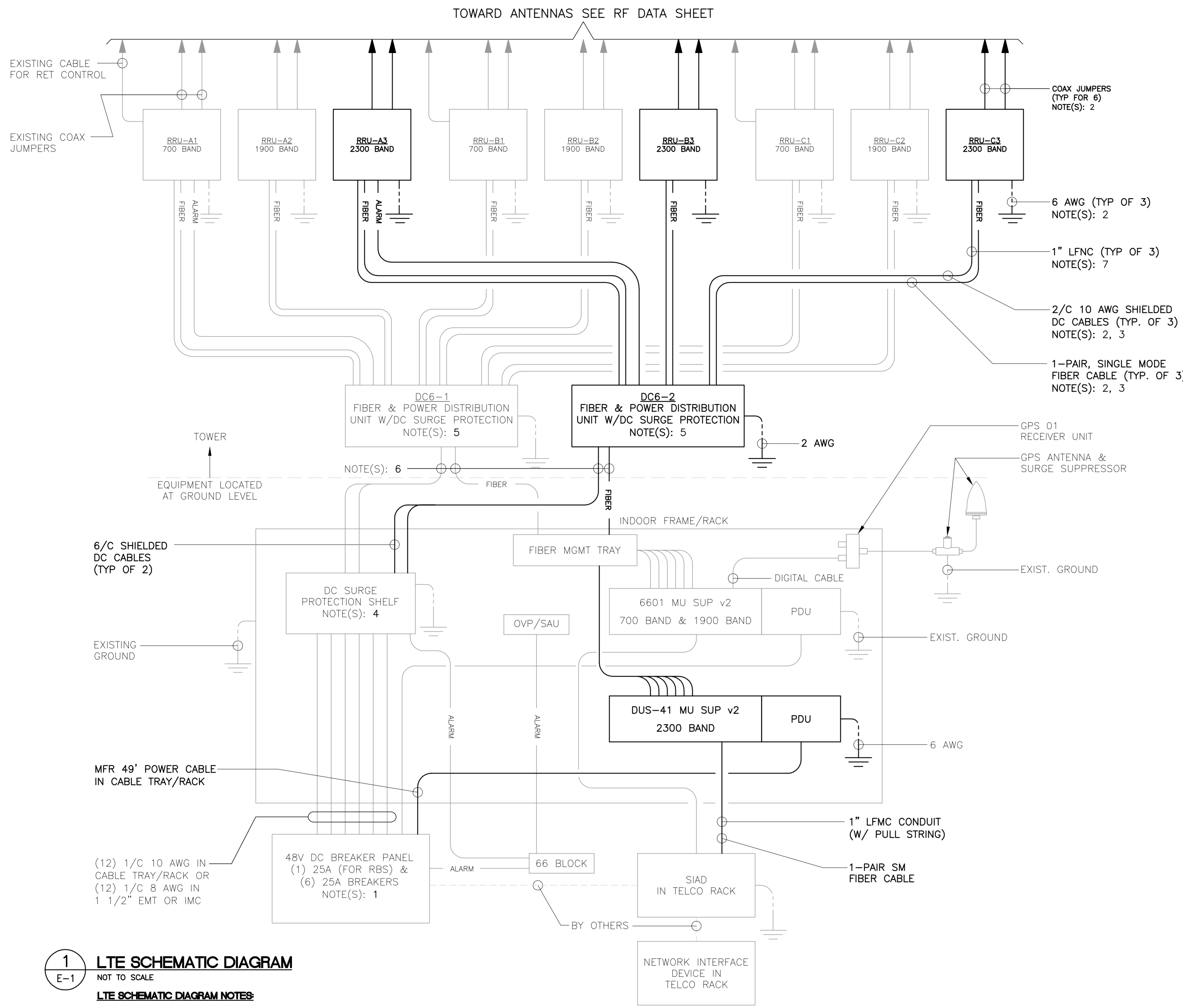
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LTE 3C EQUIPMENT  
 DETAILS AND  
 ELEVATIONS

**C-2**  
 Sheet No. 4 of 7





**1** LTE SCHEMATIC DIAGRAM  
E-1  
NOT TO SCALE

- LTE SCHEMATIC DIAGRAM NOTES:**
- BREAKERS TO BE TAGGED AND LOCKED OUT. A 20A (MIN.) OR 30A (MAX.) BREAKER FOR RRUs MAY BE SUBSTITUTED FOR THE RECOMMENDED 25A BREAKER. SIZE 12 CONDUCTORS MAY BE USED ONLY WITH 20A BREAKERS.
  - LEAVE COILED AND PROTECTED UNTIL TERMINATED.
  - DC AND FIBER CABLE SHALL BE ROUTED WITH THE EXISTING COAX CABLE.
  - DC SURGE PROTECTION SHELF SHALL BE RAYCAP DCx-48-60-RM.
  - FIBER & DC DISTRIBUTION BOX W/DC SURGE PROTECTION SHALL BE RAYCAP DC6-48-60-18-8F. SEE DETAIL 1410 OR 1410B FOR INTERNAL WIRING DIAGRAM.
  - SUPPORT FIBER & DC POWER CABLES WITH SNAP-IN HANGERS SPACED NO GREATER THAN 3 FEET APART ON TOWER. SUPPORT FIBER AND DC POWER CABLES INSIDE MONOPOLE WITH CABLE HOISTING GRIPS AT 250 FT MAXIMUM INTERVALS. DRESS CABLES TO PREVENT CONTACT WITH ENTRANCE AND EXIT OPENINGS.
  - CONDUIT TO BE USED ON A TOWER IF THE RRU IS MORE THAN 10' FROM THE DISTRIBUTION UNITS. MAX CABLE LENGTH IS 16 FEET.
  - SINGLE-CONDUCTOR DC POWER CABLES SHALL BE TELCOFLEX® OR KS24194™, COPPER, UL LISTED RHH NON-HALOGEN, LOW SMOKE WITH BRAIDED COVER, TYPE TC (1/0 AND LARGER). UNLESS OTHERWISE NOTED, STRANDING SHALL BE CLASS B (TYPE III) FOR CABLES SIZES 14, 12 & 10 AWG AND CLASS I (TYPE IV) FOR SIZES 8 AWG AND LARGER. CABLES SHALL BE COLOR CODED RED FOR +24V, BLUE FOR -48V AND GRAY FOR 24V AND 48V RETURN CONDUCTORS. MULTI-CONDUCTOR DC POWER CABLES SHALL BE COPPER, CLASS B STRANDING WITH FLAME RETARDANT PVC JACKET, TYPE TC, UL LISTED FOR 90°C DRY/75°C WET INSTALLATION.
  - GROUNDING WIRES SHALL BE COPPER, GREEN THHN/THWN UL LISTED FOR 90°C DRY/75°C WET INSTALLATION. MINIMUM SIZE IS 6AWG UNLESS NOTED OTHERWISE.

**ELECTRICAL NOTES**

- PRIOR TO START OF CONSTRUCTION CONTRACTOR SHALL COORDINATE WITH OWNER FOR ALL CONSTRUCTION STANDARDS AND SPECIFICATIONS, AND ALL MANUFACTURER DOCUMENTATION FOR ALL EQUIPMENT TO BE INSTALLED.
- INSTALL ALL EQUIPMENT IN ACCORDANCE WITH LOCAL BUILDING CODE, NATIONAL ELECTRIC CODE, OWNER AND MANUFACTURER'S SPECIFICATIONS.
- CONNECT ALL NEW EQUIPMENT TO EXISTING TELCO AS REQUIRED BY MANUFACTURER.
- MAINTAIN ALL CLEARANCES REQUIRED BY NEC AND EQUIPMENT MANUFACTURER.
- PRIOR TO INSTALLATION CONTRACTOR SHALL MEASURE EXISTING ELECTRICAL LOAD AND VERIFY EXISTING AVAILABLE CAPACITY FOR PROPOSED INSTALLATION. IF INADEQUATE CAPACITY IS AVAILABLE, CONTRACTOR SHALL COORDINATE WITH LOCAL ELECTRIC UTILITY COMPANY TO UPGRADE EXISTING ELECTRIC SERVICE.
- CONTRACTOR SHALL INSPECT EXISTING GROUNDING AND LIGHTNING PROTECTION SYSTEM AND ENSURE THAT IT IS IN COMPLIANCE WITH NEC, AND SITE OWNER'S SPECIFICATIONS. THE RESULTS OF THIS INSPECTION SHALL BE PRESENTED TO OWNERS REPRESENTATIVE, AND ANY DEFICIENCIES SHALL BE CORRECTED.
- ALL TRANSMISSION TOWER SITES CONTAIN AN EXTENSIVE BURIED GROUNDING SYSTEM. ALL GROUNDING WORK MUST BE COORDINATED WITH, AND APPROVED BY, THE TOWER OWNER'S SITE REPRESENTATIVE. ALL OF THE TOWER OWNER'S SPECIFICATIONS MUST BE STRICTLY FOLLOWED.
- PROVIDE AND INSTALL GROUND KITS FOR ALL NEW COAXIAL CABLES AND BOND TO EXISTING OWNERS GROUNDING SYSTEM PER OWNERS SPECIFICATIONS AND NEC.
- ALL CONDUCTORS SHALL BE TYPE THWN (INT. APPLICATION) AND XHHW (EXT. APPLICATION), 75 DEGREE C, 600 VOLT INSULATION, SOFT ANNEALED STRANDED COPPER. #10 AWG AND SMALLER SHALL BE SPLICED USING ACCEPTABLE SOLDERLESS PRESSURE CONNECTORS. #8 AWG AND LARGER SHALL BE SPLICED USING COMPRESSION SPLIT-BOLT TYPE CONNECTORS, #12 AWG SHALL BE THE MINIMUM SIZE CONDUCTOR FOR LINE VOLTAGE BRANCH CIRCUITS. REFER TO PANEL SCHEDULE FOR BRANCH CIRCUIT CONDUCTOR SIZE(S). CONDUCTORS SHALL BE COLOR CODED FOR CONSISTENT PHASE IDENTIFICATION.
- MINIMUM BENDING RADIUS FOR CONDUCTORS SHALL BE 12 TIMES THE LARGEST DIAMETER OF BRANCH CIRCUIT CONDUCTOR.
- THE ENTIRE ELECTRICAL INSTALLATION SHALL BE MADE IN STRICT ACCORDANCE WITH ALL LOCAL, STATE AND NATIONAL CODES AND REGULATIONS WHICH MAY APPLY AND NOTHING IN THE DRAWINGS OR SPECIFICATIONS SHALL BE INTERPRETED AS AN INFRINGEMENT OF SUCH CODES OR REGULATIONS.
- THE ELECTRICAL CONTRACTOR IS TO BE RESPONSIBLE FOR THE COMPLETE INSTALLATION AND COORDINATION OF THE ENTIRE ELECTRICAL SERVICE. ALL ACTIVITIES TO BE COORDINATED THROUGH OWNER'S REPRESENTATIVE, DESIGN ENGINEER AND OTHER AUTHORITIES HAVING JURISDICTION OF TRADES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND PAY ALL FEES AS MAY BE REQUIRED FOR THE ELECTRICAL WORK AND FOR SCHEDULING OF ALL INSPECTIONS AS MAY BE REQUIRED BY THE LOCAL AUTHORITY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE SITE AND/OR BUILDING OWNER FOR NEW AND/OR DEMOLITION WORK INVOLVED.
- THE CONTRACTOR SHALL GUARANTEE ALL NEW WORK FOR A PERIOD OF ONE YEAR FROM THE ACCEPTANCE DATE BY THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING WARRANTIES FROM ALL EQUIPMENT MANUFACTURERS FOR SUBMISSION TO THE OWNER.
- DRAWINGS INDICATE GENERAL ARRANGEMENT OF WORK INCLUDED IN CONTRACT. CONTRACTOR SHALL WITHOUT EXTRA CHARGE, MAKE MODIFICATIONS TO THE LAYOUT OF THE WORK TO PREVENT CONFLICT WITH WORK OF OTHER TRADES AND FOR THE PROPER INSTALLATION OF WORK. CHECK ALL DRAWINGS AND VISIT JOB SITE TO VERIFY SPACE AND TYPE OF EXISTING CONDITIONS IN WHICH WORK WILL BE DONE, PRIOR TO SUBMITTAL OF BID.
- ALL NON-CURRENT CARRYING PARTS OF THE ELECTRICAL AND TELEPHONE CONDUIT SYSTEMS SHALL BE MECHANICALLY AND ELECTRICALLY CONNECTED TO PROVIDE AN INDEPENDENT RETURN PATH TO THE EQUIPMENT GROUNDING SOURCES.
- GROUNDING SYSTEM WILL BE IN ACCORDANCE WITH THE LATEST ACCEPTABLE EDITION OF THE NATIONAL ELECTRICAL CODE AND REQUIREMENTS PER LOCAL INSPECTOR HAVING JURISDICTION.
- EACH EQUIPMENT GROUND CONDUCTOR SHALL BE SIZED IN ACCORDANCE WITH THE N.E.C. ARTICLE 250-122. (MIN. #12 AWG).
- CONTRACTOR SHALL PROVIDE A CELLULAR GROUNDING SYSTEM WITH THE MAXIMUM AC RESISTANCE TO GROUND OF 5 OHM BETWEEN ANY POINT ON THE GROUNDING SYSTEM AS MEASURED BY 3-POINT GROUNDING TEST. (REFER TO SECTION 16960).

**TESTS BY INDEPENDENT ELECTRICAL TESTING FIRM**

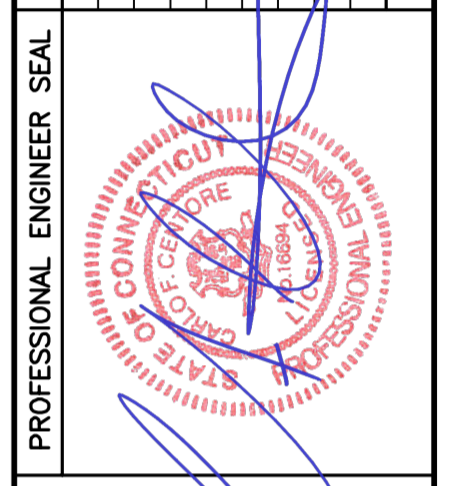
- CONTRACTOR SHALL RETAIN THE SERVICES OF A LOCAL INDEPENDENT ELECTRICAL TESTING FIRM (WITH MINIMUM 5 YEARS COMMERCIAL EXPERIENCE IN THE ELECTRICAL TESTING INDUSTRY) AS SPECIFIED BY OWNER TO PERFORM:
 

TEST 1: RESISTANCE TO GROUND TEST ON THE CELLULAR GROUNDING SYSTEM.

THE TESTING FIRM SHALL INCLUDE THE FOLLOWING INFORMATION WITH THE REPORT:

  - TESTING PROCEDURE INCLUDING THE MAKE AND MODEL OF TEST EQUIPMENT.
  - CERTIFICATION OF TESTING EQUIPMENT CALIBRATION WITHIN SIX (6) MONTHS OF DATE OF TESTING. INCLUDE CERTIFICATION LAB ADDRESS AND TELEPHONE NUMBER.
  - GRAPHICAL DESCRIPTION OF TESTING METHOD ACTUALLY IMPLEMENTED.
- TESTING SHALL BE PERFORMED IN THE PRESENCE AND TO THE SATISFACTION OF OWNERS CONSTRUCTION REPRESENTATIVE. TESTING DATA SHALL BE INITIALED AND DATED BY THE CONSTRUCTION AND INCLUDED WITH THE WRITTEN REPORT/ANALYSIS.
- THE CONTRACTOR SHALL FORWARD SIX (6) COPIES OF THE INDEPENDENT ELECTRICAL TESTING FIRM REPORT/ANALYSIS TO ENGINEER A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO THE JOB TURNOVER.
- CONTRACTOR TO PROVIDE A MINIMUM OF ONE (1) WEEK NOTICE TO OWNER AND ENGINEER FOR ALL TESTS REQUIRING WITNESSING.

0	01/07/16	DATE	CAC	HMR	CONSTRUCTION DRAWINGS - ISSUED FOR CLIENT REVIEW
0		REV			DRAWN BY/CHK'D BY/DESCRIPTION



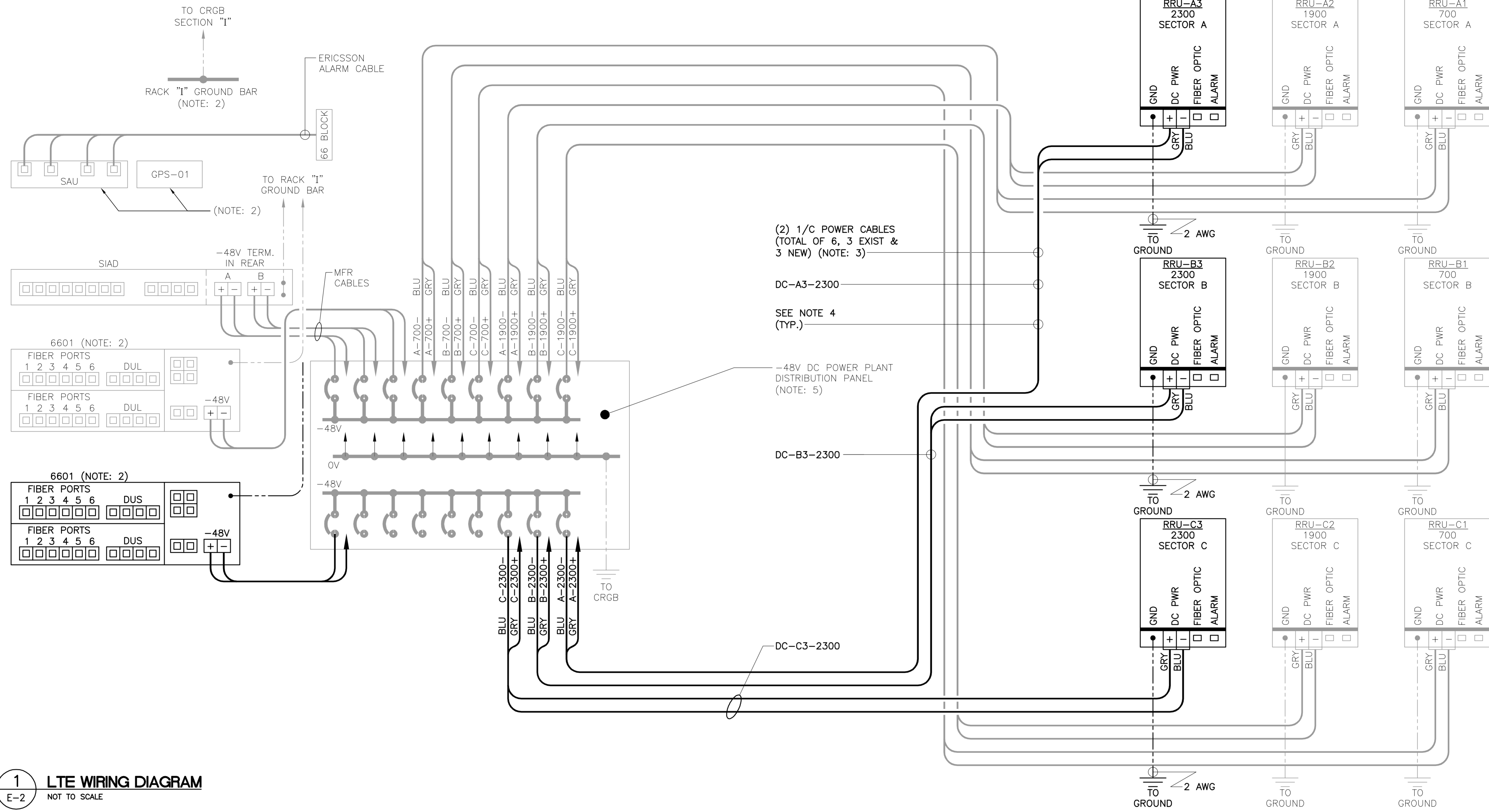
**CEN TEK engineering**  
Centered on Solutions  
(203) 498-0380  
(203) 498-3387  
652 North Branford Road  
Branford, CT 06405  
www.CenTekEng.com

AT&T MOBILITY  
WIRELESS COMMUNICATIONS FACILITY  
**BEARDSLEY**  
SITE NUMBER: CT5093 - LTE3C  
1330 CHOPSEY HILL ROAD  
BRIDGEPORT, CT 06606

DATE: 01/05/16  
SCALE: AS NOTED  
JOB NO. 15267.001

LTE SCHEMATIC DIAGRAM AND NOTES



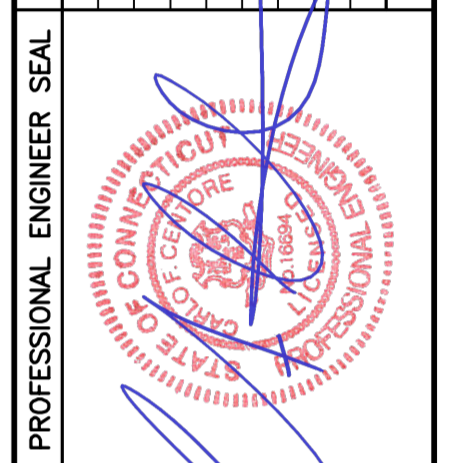


**1 LTE WIRING DIAGRAM**  
E-2 NOT TO SCALE

**LTE WIRING DIAGRAM NOTES:**

1. LABEL THE DC POWER CABLES AT BOTH ENDS OF EVERY WIRE AND IN ANY PULL BOX IF USED. LABEL SHALL BE DURABLE, SELF ADHESIVE, WRAPPED LONGITUDINALLY ALONG THE CABLE AND STATE THE SECTOR, FREQUENCY BAND AND POLARITY; I.E. "A-2300+". CABLE AND WIRE LABELS SHOWN ARE REPRESENTATIVE AND MAY BE MODIFIED AS DIRECTED BY AT&T.
2. INSTALL ON BASEBAND EQUIPMENT RACK.
3. MAXIMUM CABLE LENGTH IS 49 FEET WITHOUT SURGE PROTECTION AT RRU. INCREASE CONDUCTOR SIZE TO 10 OR 8 AWG WHERE BREAKER RATING IS GREATER THAN 20A.
4. CABLE GROUND WIRE AND SHIELD DRAIN WIRE TO BE LEFT UN-TERMINATED AT RRU AND DC POWER PLANT.
5. SEE LTE SCHEMATIC DIAGRAM DETAIL 1/E-1 FOR BREAKER RATING.

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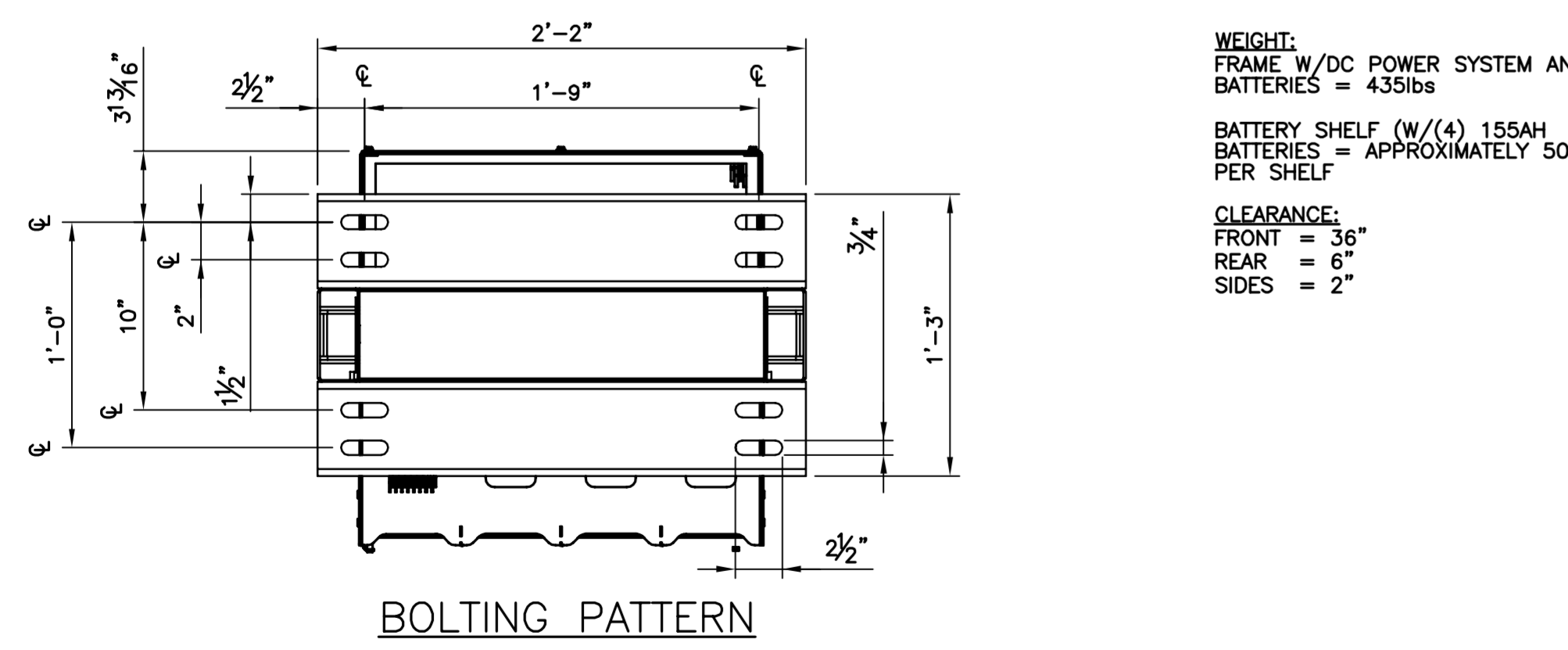
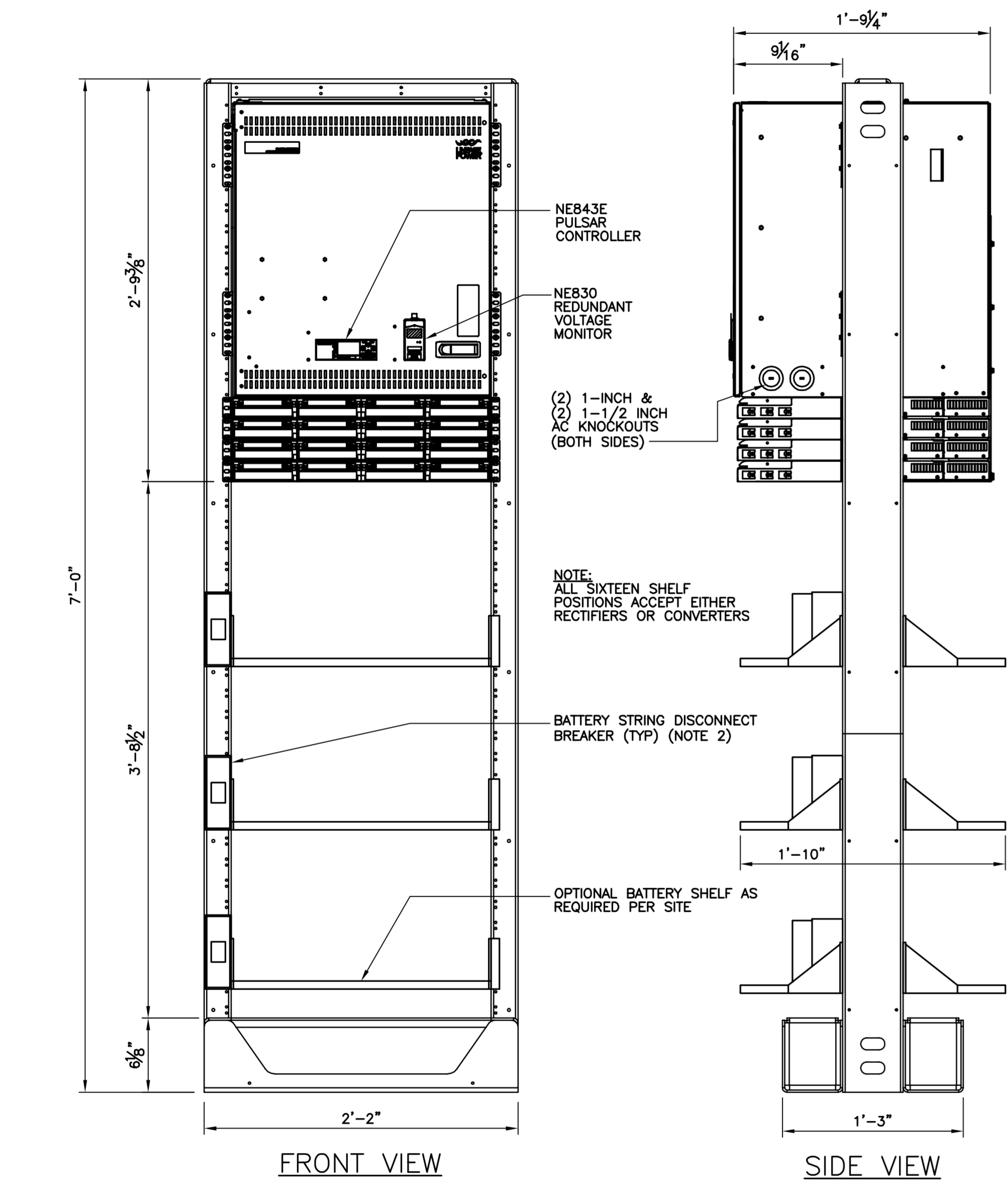
**CENTEK engineering**  
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2031 488-0380 Fax  
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632 North Branford Road  
Branford, CT 06405  
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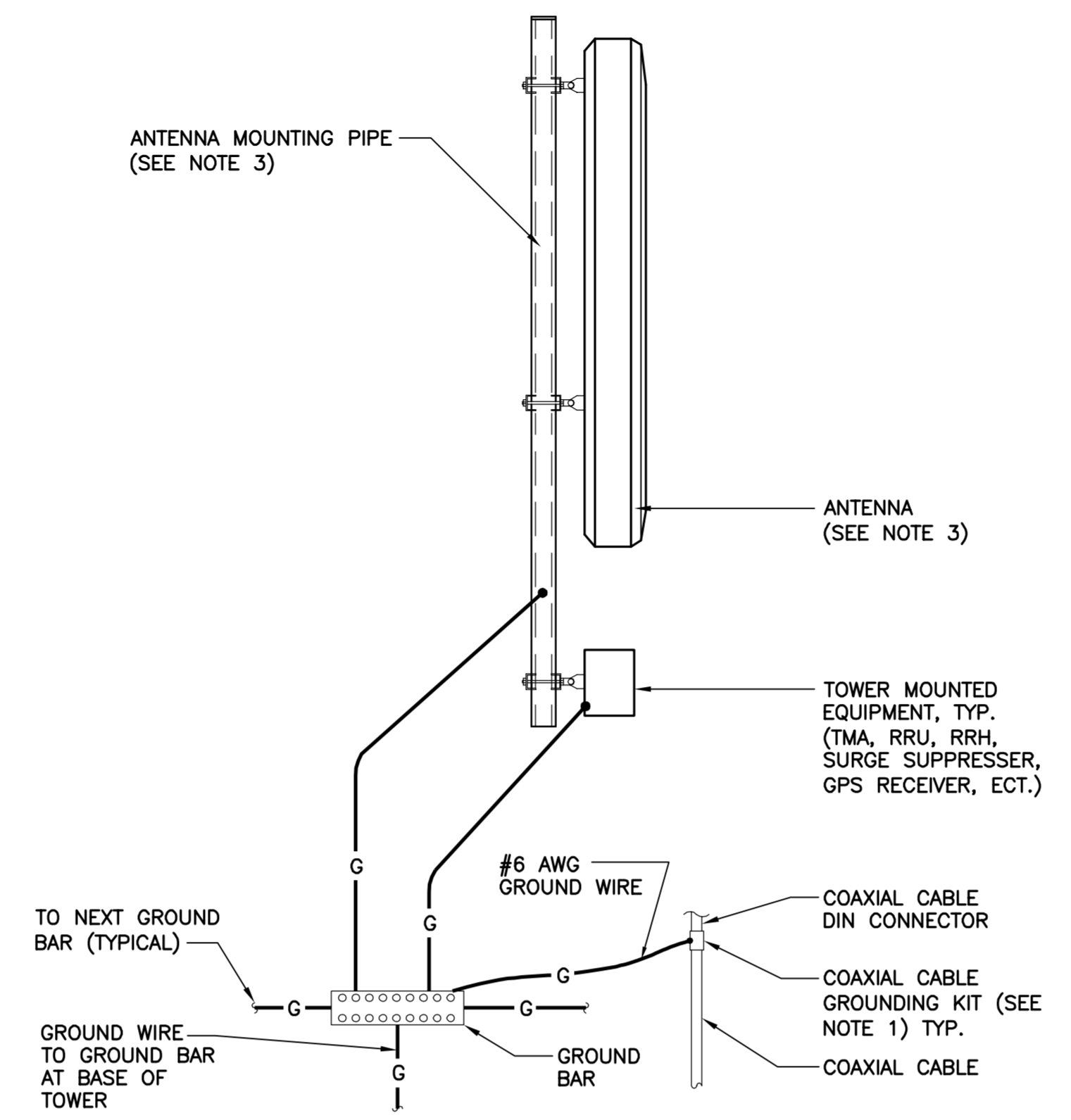
LTE WIRING DIAGRAM





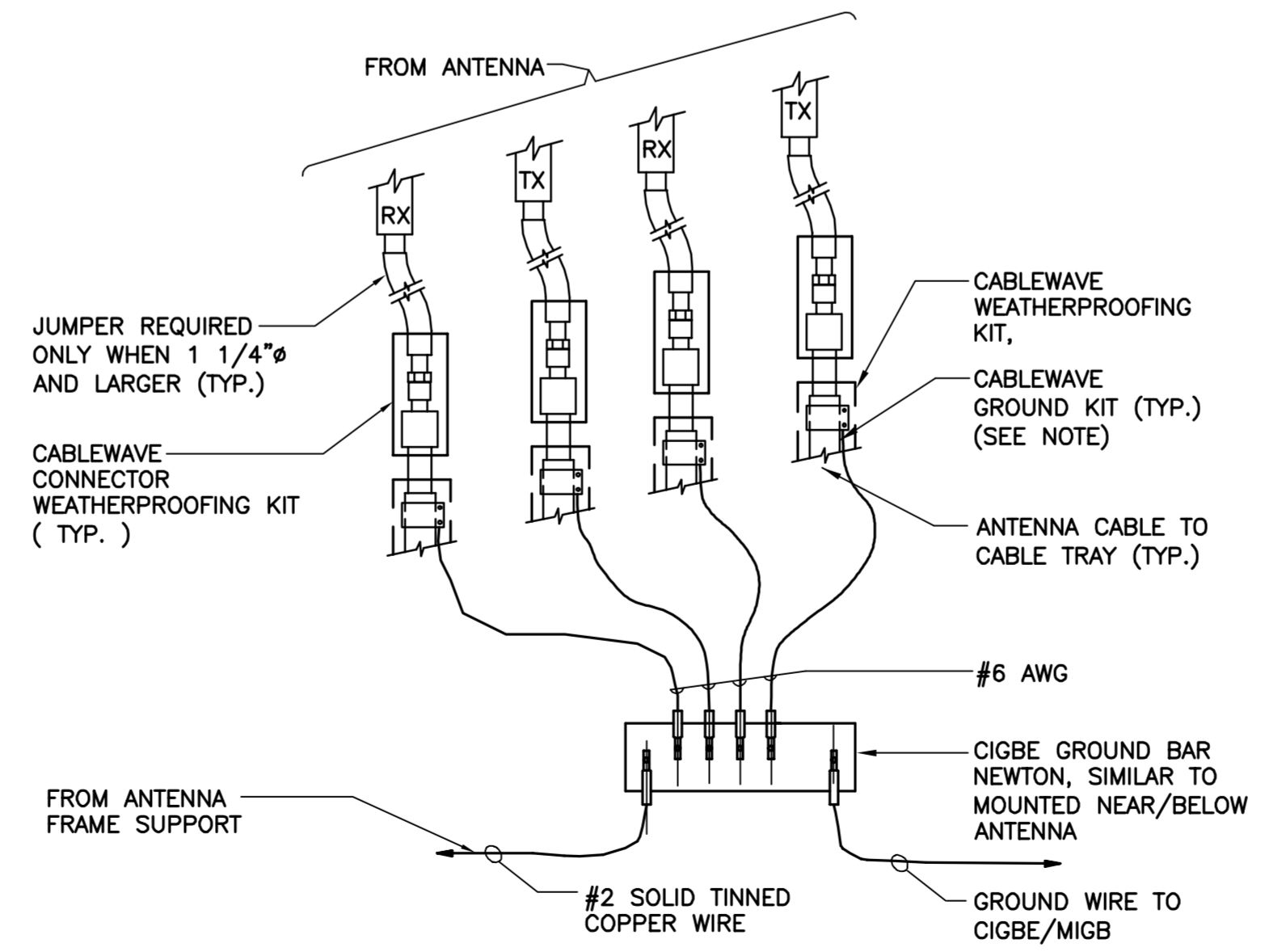
**6 GE/INFINITY-M DC POWER SYSTEM DETAIL**  
E-3 NOT TO SCALE

- NOTES:**
1. GE/LINEAGE FLOOR ANCHOR KIT (P/N: 847135688) MAY BE USED UNLESS LOCAL REQUIREMENTS GOVERN.
  2. DISCONNECT MAY BE MOUNTED TO EITHER SIDE OF TRAY OR DIRECTLY TO FRAMEWORK.



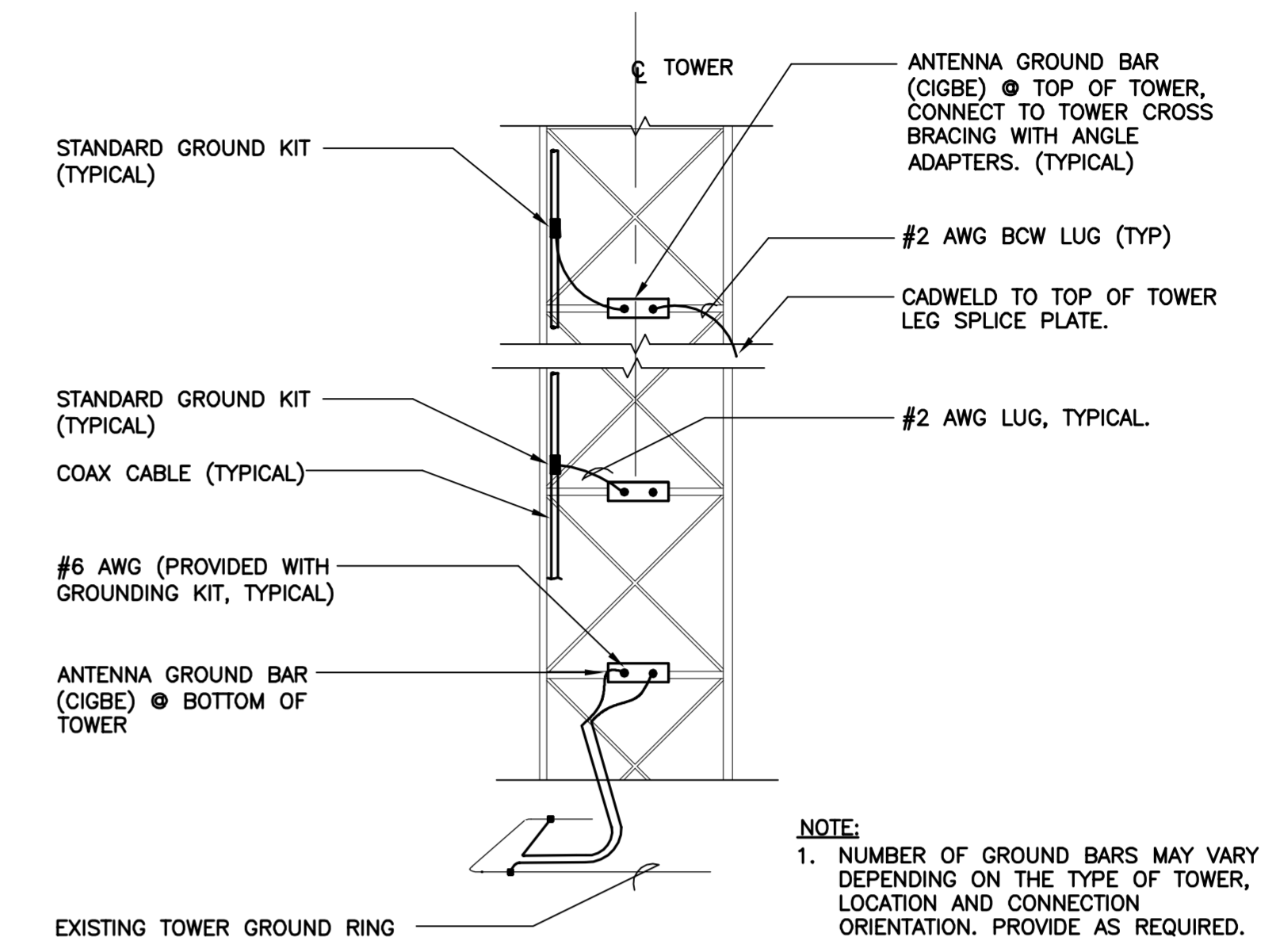
- NOTES:**
1. BOND COAXIAL CABLE GROUND KITS TO EACH OWNER'S GROUND BAR ALONG ENTIRE COAX RUN FROM ANTENNA TO SHELTER.
  2. BOND ALL EQUIPMENT TO GROUND PER NEC AND MANUFACTURERS SPECIFICATIONS.
  3. DETAIL IS TYPICAL FOR ALL ANTENNA SECTORS, INCLUDING GPS ANTENNA.

**2 TYPICAL ANTENNA GROUNDING DETAIL**  
E-3 NOT TO SCALE

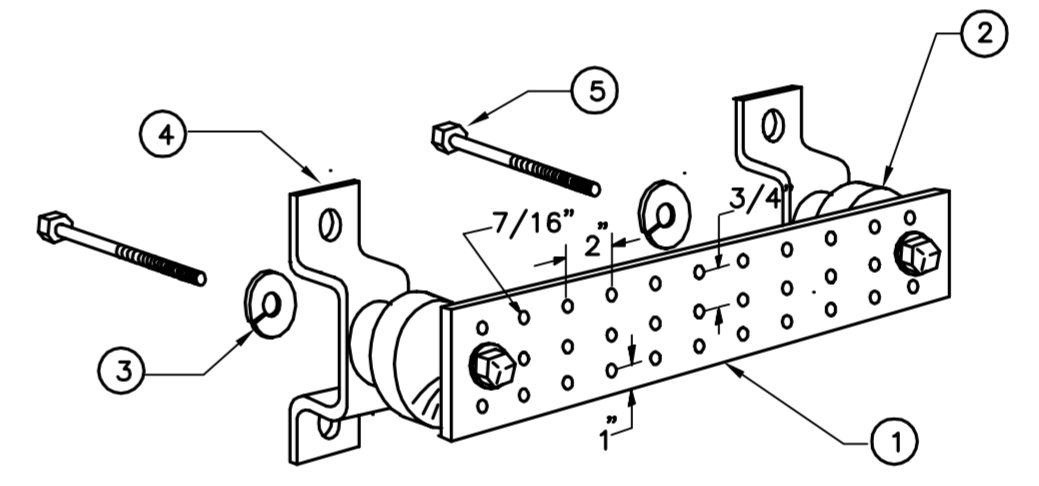


- NOTE:**
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO CIGBE

**5 CONNECTION OF GROUND WIRES TO GROUND BAR**  
E-3 NOT TO SCALE

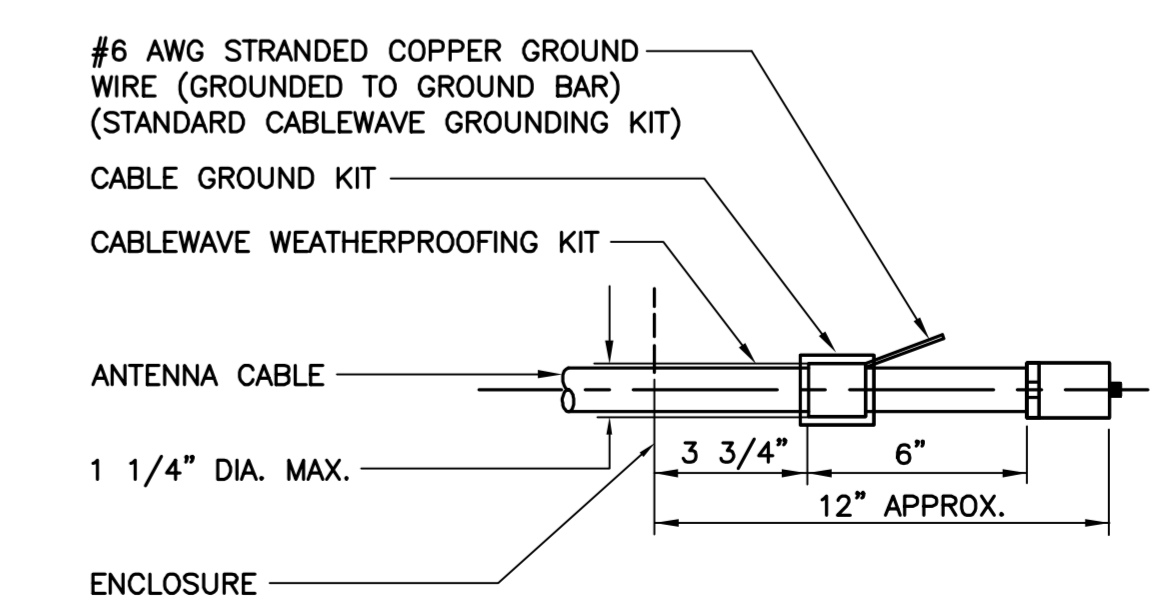


**1 ANTENNA CABLE GROUNDING - LATTICE**  
E-2 NOT TO SCALE



- LEGEND**
1. TINNED COPPER GROUND BAR, 1/4"x 4"x 20", NEWTON INSTRUMENT CO. HOLE CENTERS TO MATCH NEMA DOUBLE LUG .
  2. INSULATORS, NEWTON INSTRUMENT CAT. NO. 2. 3061-4.
  3. 5/8" LOCK WASHERS, NEWTON INSTRUMENT CO. CAT. NO. 3015-8.
  4. WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. CAT. NO. A-6056.
  5. STAINLESS STEEL SECURITY SCREWS.

**3 GROUND BAR DETAIL**  
E-3 NOT TO SCALE



- NOTE:**
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.

**4 ANTENNA CABLE GROUNDING DETAIL**  
E-3 NOT TO SCALE

PROFESSIONAL ENGINEER SEAL	CONSTRUCTION DRAWINGS - ISSUED FOR CLIENT REVIEW
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<b>AT&amp;T MOBILITY</b> WIRELESS COMMUNICATIONS FACILITY <b>BEARDSLEY</b> SITE NUMBER: CT5093 - LTE3C 1330 CHOPSEY HILL ROAD BRIDGEPORT, CT 06606	
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SCALE: AS NOTED	
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TYPICAL ELECTRICAL DETAILS	
<b>E-3</b>	
Sheet No. Z of Z	