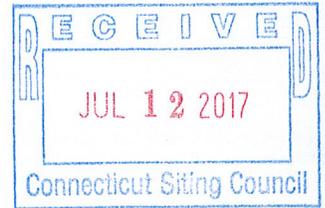




EM-AT&T-166-170712

July 5, 2017

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



ORIGINAL

Re: Notice of Exempt Modification – Antenna Swap
Property Address: 1233 Wolcott Road, Wolcott, CT 06716
Applicant: AT&T Mobility, LLC

Dear Ms. Bachman:

On behalf of AT&T, please accept this application as notification pursuant to R.C.S.A. §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. §16-50j-72(b) (2).

AT&T currently maintains a wireless telecommunications facility consisting of nine (9) wireless telecommunication antennas at an antenna center line height of 185-feet on an existing 350 – self-support lattice tower, owned by SBA COMMUNICATIONS CORPORATION 8051 CONGRESS AVENUE BOCA RATON, FL 33487 and located at 1233 Wolcott Road, Wolcott, CT 06716 AT&T now intends to REPLACE (3) EXISTING ANTENNAS, (1) PER SECTOR with (3) NEW ANTENNAS (1) PER SECTOR AND (3) RRUS-32 B2 TO REPLACE (3) EXISTING RRUS-11 (1) PER SECTOR.

This facility was approved the Application for a zoning permit # 3024 on November 22, 1991 by the Wolcott Planning and Zoning Commission granting a certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of telecommunications antennas, associated equipment, and building to provide Domestic Public Cellular radio Telecommunication service in the Connecticut- New England area. This approval included the following original conditions, including the total facility height or mounting restrictions. This modification complies with the aforementioned conditions.

1. Site plan and special permits approved by the Planning and Zoning Commission and variances granted by the Zoning Board of Appeals may have been approved or granted subject to conditions, which conditions are also conditions of approval of the zoning permit.
2. After completion of any construction and any improvements and prior to the use occupancy of the premises, a Certificate of Zoning Compliance must be obtained. Such Certificate of Zoning Compliance must also be obtained prior to any change of use of an existing premise. SEE ATTACHED.



The following is a list of subsequent decisions:

EM-AT&T-166-020626 - AT&T Wireless notice of intent to modify an existing telecommunications facility located at 1233 Wolcott Road, Wolcott, Connecticut.

EM-CING-166-040121 - Southwestern Bell Mobile Systems, LLC notice of intent to modify an existing telecommunications facility located at 1233 Wolcott Road, Wolcott, Connecticut.

EM-CING-132-134-152-165-166-070726 – New Cingular Wireless PCS, LLC notice of intent to modify existing telecommunications facilities located at 151 Sand Hill Road, South Windsor; 30 Old Country Road, Stafford; 53 Dayton Road, Waterford; 20 Spring Street, Windsor Locks; and 1233 Wolcott Road, Wolcott, Connecticut.

EM-AT&T-166-120601 – AT&T Mobility notice of intent to modify an existing telecommunications facility located at 1233 Wolcott Road, Wolcott, Connecticut.

[EM-CING-166-140826](#) - New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 1233 Wolcott Road, Wolcott, Connecticut. [Decision](#). [Extension Request and CSC Decision](#).

Please accept this letter pursuant to Regulation of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-510j-72(b) (2). In accordance with R.C.S.A., a copy of this letter is being sent to Mayor - Thomas G. Dunn and Zoning Inspector - David Kalinowski Town Hall 10 Kenea Ave. Wolcott, CT 06716. A copy of this letter is also being sent to SBA COMMUNICATIONS CORPORATION 8051 CONGRESS AVENUE BOCA RATON, FL 33487.

The planned modifications to AT&T's 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 tower. AT&T's replacement antennas will be installed at the 185-foot level of the 350-lattice tower.
2. The proposed modifications will not involve any changes to ground-mounted equipment and, therefore, will not require an extension of the site boundary.
3. The proposed modifications will not increase the noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the modified facility will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. A cumulative worst-case RF emissions calculation for AT&T's modified facility is provided in the RF Emissions Compliance Report, included in [Tab 2](#).
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.



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

Sincerely,

David Barbagallo

Enclosures
CC w/enclosures:

Mayor - Thomas G. Dunn and Zoning Inspector -
David Kalinowski Town of Wolcott
SBA COMMUNICATIONS CORPORATION- Tower Owner

DATE November 22, 1991

ZONING PERMIT FEE.....\$25.00

WOLCOTT PLANNING AND ZONING COMMISSION

DATE November 22, 1991

PERMIT NO. 3024

A zoning permit is hereby granted to AAT Communications Corp. Lessee
(Edward Gleary owner)

1233 1235 Wolcott Rd. To install a radio communications equipment storage building and antenna support structure.

authorizing building construction and site development activities in
accordance with Application for Zoning Permit# 3024

approved by the Zoning Enforcement Officer on November 22, 1991

Signed: *E. P. L...*

NOTE: 1. Site plan and Special Permits approved by the Planning and Zoning Commission and Variances granted by the Zoning Board of Appeals may have been approved or granted subject to conditions, which conditions are also conditions of approval of the Zoning Permit.

2. After completion of any construction and improvements and Prior to the use or occupancy of the premises, a Certificate of Zoning Compliance must be obtained. Such a Certificate of Zoning Compliance must also be obtained prior to a change of use of an existing premises.

1233 WOLCOTT RD

Location 1233 WOLCOTT RD

Mblu 119/ 3/ 7/ /

Acct# C0109000

Owner CLEARY EDWARD F

Assessment \$406,460

Appraisal \$580,640

PID 1226

Building Count 1

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2016	\$255,360	\$325,280	\$580,640
Assessment			
Valuation Year	Improvements	Land	Total
2016	\$178,760	\$227,700	\$406,460

Owner of Record

Owner CLEARY EDWARD F
Co-Owner
Address 50 BEACH RD
 WOLCOTT, CT 06716

Sale Price \$0
Certificate
Book & Page 192/ 18
Sale Date 02/28/1990
Instrument 25

Ownership History

Ownership History					
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
CLEARY EDWARD F	\$0		192/ 18	25	02/28/1990

Building Information

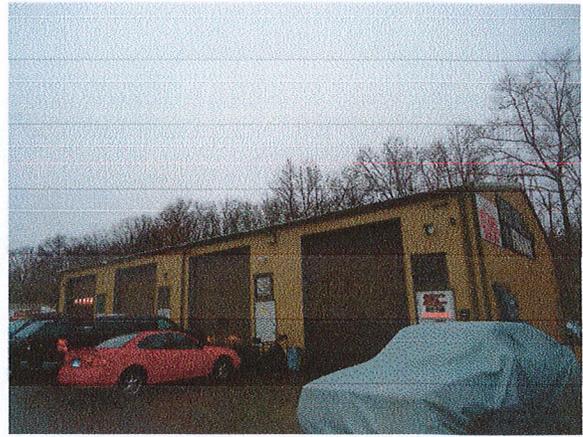
Building 1 : Section 1

Year Built: 1999
Living Area: 4,000
Replacement Cost: \$154,800
Building Percent 89
Good:
Replacement Cost
Less Depreciation: \$137,770

Building Attributes	
Field	Description

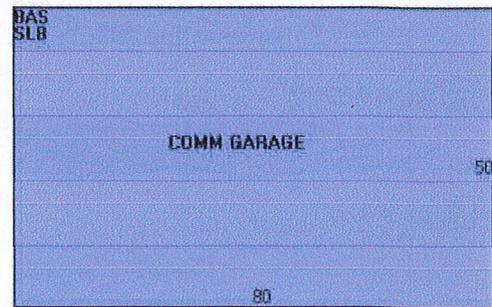
STYLE	Comm Garage
MODEL	Comm/Ind
Grade	D
Stories:	1
Occupancy	3
Exterior Wall 1	Pre-finish Metl
Exterior Wall 2	
Roof Structure	Gable
Roof Cover	Metal
Interior Wall 1	Minimum
Interior Wall 2	
Interior Floor 1	Concrete
Interior Floor 2	
Heating Fuel	Oil
Heating Type	Forced Hot Air
AC %	0
Foundation	Poured Conc
Bldg Use	Commercial
Total Rooms	0
Total Bedrms	0
Total Fixtures	0
Perimeter	260
SF Fin Bsmt	0
1st Floor Use:	
Heat/AC	NONE
Frame Type	STEEL
Baths/Plumbing	LIGHT
Ceiling/Wall	NONE
Rooms/Prtns	LIGHT
Wall Height	14
% Conn Wall	

Building Photo



(<http://images.vgsi.com/photos/WolcottCTPhotos//\00\01\12\49>).

Building Layout



Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	4,000	4,000
SLB	Slab	4,000	0
		8,000	4,000

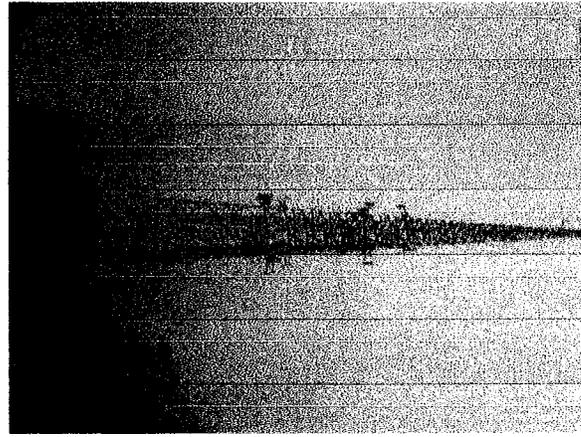
Building 1 : Section 1

Year Built: 1999
Living Area: 0
Replacement Cost: \$154,800
Building Percent Good: 89
Replacement Cost Less Depreciation: \$137,770

Building Attributes	
Field	Description

Style	Outbuildings
Model	
Grade:	
Stories	
Occupancy	
Exterior Wall 1	
Exterior Wall 2	
Roof Structure	
Roof Cover	
Interior Wall 1	
Interior Wall 2	
Interior Flr 1	
Interior Flr 2	
Heat Fuel	
Heat Type:	
AC Percent	
Total Bedrooms:	
Full Bthrms:	
Half Baths:	
Extra Fixtures	
Total Rooms:	
Bath Style:	
Kitchen Style:	
Num Kitchens	
Fireplace(s)	
% Attic Fin	
LF Dormer	
Foundation	
Bsmt Gar(s)	
Bsmt %	
SF FBM	
Fin Bsmt Qual	
Bsmt Access	

Building Photo



(<http://images.vgsi.com/photos/WolcottCTPhotos/\00\01\12\50>).

Building Layout

 Building Layout

Building Sub-Areas (sq ft)	Legend
No Data for Building Sub-Areas	

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code 201
Description Commercial
Zone GC
Neighborhood C150
Alt Land Appr No
Category

Land Line Valuation

Size (Acres) 6.04
Frontage
Depth
Assessed Value \$227,700
Appraised Value \$325,280

Outbuildings

Outbuildings						Legend
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
CELL	Cell	SH	Cell Shed	450 S.F.	\$60,750	1
CELL	Cell	SH	Cell Shed	200 S.F.	\$27,000	1
PAV1	Paving	AS	Asphalt	31500 S.F.	\$27,560	1
FN4	FENCE-8' CHAIN			240 L.F.	\$2,280	1

Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
2015	\$182,320	\$330,320	\$512,640
2014	\$182,320	\$330,320	\$512,640
2013	\$182,320	\$330,320	\$512,640

Assessment			
Valuation Year	Improvements	Land	Total
2015	\$127,630	\$231,220	\$358,850
2014	\$127,630	\$231,220	\$358,850
2013	\$127,630	\$231,220	\$358,850

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From: TrackingUpdates@fedex.com
To: David Barbagallo
Subject: FedEx Shipment 779578434367 Delivered
Date: Wednesday, July 12, 2017 10:08:11 AM

FedEx®

Your package has been delivered

Tracking # 779578434367

Ship date:
Fri, 7/7/2017

Dave Barbagallo
Smartlink LLC
KENSINGTON, CT 06037
US



Delivered

Delivery date:
Wed, 7/12/2017 10:03
am

SBA COMMUNICATIONS
CORPORATION
8051 CONGRESS AVENUE
BOCA RATON, FL 33487
US

Shipment Facts

Our records indicate that the following package has been delivered.

Tracking number:	779578434367
Status:	Delivered: 07/12/2017 10:03 AM Signed for By: B.HAMPTON
Signed for by:	B.HAMPTON
Delivery location:	BOCA RATON, FL
Delivered to:	Shipping/Receiving
Service type:	FedEx Express Saver
Packaging type:	FedEx Pak
Number of pieces:	1
Weight:	1.00 lb.
Special handling/Services:	Deliver Weekday
Standard transit:	7/12/2017 by 4:30 pm

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Subject: FedEx Shipment 779578376235 Delivered
Date: Tuesday, July 11, 2017 10:39:02 AM

FedEx®

Your package has been delivered

Tracking # 779578376235

Ship date:

Fri, 7/7/2017

Dave Barbagallo

Smartlink LLC

KENSINGTON, CT 06037

US

Delivery date:

Tue, 7/11/2017 10:36
am

Zoning Inspector - David
Kalinowski

Town of Wolcott

10 Kenea Ave.

WOLCOTT, CT 06716

US

 Delivered

Shipment Facts

Our records indicate that the following package has been delivered.

Tracking number:	779578376235
Status:	Delivered: 07/11/2017 10:36 AM Signed for By: P.PAUL
Signed for by:	P.PAUL
Delivery location:	WOLCOTT, CT
Delivered to:	Receptionist/Front Desk
Service type:	FedEx Express Saver
Packaging type:	FedEx Pak
Number of pieces:	1
Weight:	1.00 lb.
Special handling/Services:	Deliver Weekday
Standard transit:	7/12/2017 by 4:30 pm

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Subject: FedEx Shipment 779578341105 Delivered
Date: Tuesday, July 11, 2017 10:42:16 AM

FedEx®

Your package has been delivered

Tracking # 779578341105

Ship date:
Fri, 7/7/2017

Dave Barbagallo
Smartlink LLC
KENSINGTON, CT 06037
US


Delivered

Delivery date:
Tue, 7/11/2017 10:38
am

Mayor - Thomas G. Dunn
Town of Wolcott
10 Kenea Ave.
WOLCOTT, CT 06716
US

Shipment Facts

Our records indicate that the following package has been delivered.

Tracking number:	779578341105
Status:	Delivered: 07/11/2017 10:38 AM Signed for By: M.MORRONE
Signed for by:	M.MORRONE
Delivery location:	WOLCOTT, CT
Delivered to:	Receptionist/Front Desk
Service type:	FedEx Express Saver
Packaging type:	FedEx Envelope
Number of pieces:	1
Weight:	0.50 lb.
Special handling/Services:	Deliver Weekday
Standard transit:	7/12/2017 by 4:30 pm

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Thank you for your business.



CONSULTING GROUP, INC.

9221 Lyndon B. Johnson Freeway, #204, Dallas, TX 75243 ★ PHONE 972-231-8893 ★ FAX 1-866-364-8375
www.allprocgi.com ★ e-mail: info@allprocgi.com

**Tower Modification Design Report for
SBA Network Services, Inc.**



Existing 350' Self Support Tower

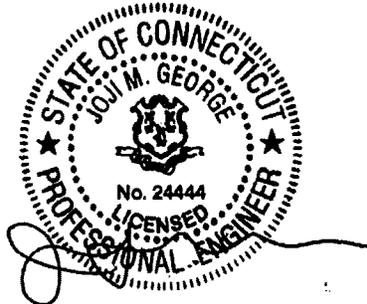
**SBA Site Name: Cleary Tower (Edward)
SBA Site ID: CT20021-A-08
Carrier Name: AT&T
Carrier Site ID/Name: CTL01111/Wolcott
App # 48036, v1**

**Site Location: 1233 Wolcott Road (Rt-69)
Wolcott, CT 06716
New Haven County
Latitude: 41.621581°
Longitude: -72.973633°**

**ACGI Job # 17-0832 Revise Wind Speed to 125 mph
Refer to Previous ACGI Job # 16-4376, dated 12/14/2016**

ANALYSIS RESULTS		
Tower Components	91.6 %	Pass w/ Modification
Tower Foundation	53.4 %	Sufficient

Prepared By:
Jingcheng Li, EIT
Staff Engineer



06/05/2017
Approved By:
Joji M. George, P.E.
CT PE # 24444

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1. ANALYSIS SUMMARY

The existing 350' Self-Supported Tower located in Wolcott, Connecticut was analyzed by Allpro Consulting Group, Inc. (ACGI) for the existing loads and the proposed AT&T antennas, dishes and coaxes as authorized by SBA Communication Corp. Based on the results of the analysis, the existing tower with below mentioned proposed and existing loading is found to be **in compliance** with TIA-222-G, *Structural Standards for Steel Antenna Towers and Antenna Supporting Structures* and IBC 2012, **after proposed modifications installed.**

2. SCOPE & SOURCE OF INFORMATION

The purpose of this structural analysis is to determine whether the existing structure is capable of supporting additional proposed loads.

SOURCE OF INFORMATION		
Tower Data:	FDH Engineering	Previous structural analysis by FDH Engineering, project #1462GQ1400, dated 04/09/2014.
	Allpro Consulting Group, Inc.	Previous structural analysis by Allpro Consulting Group, Inc., ACGI Job #16-4376, dated 12/14/2016.
Foundation Data:	AAT Communications	Foundation drawings, AAT Communications dated 12/22/2003.
Geotechnical Report:	Osman Pekin	Soil report by Osman Pekin, Ph.D., P.E. dated 12/12/1991.
Loading Data:	Allpro Consulting Group, Inc.	Previous structural analysis by Allpro Consulting Group, Inc., ACGI Job #16-4376, dated 12/14/2016.
	sbsite.com	SBA site summary dated 11/1/2016. Proposed final loading for AT&T as per sbsite.com, Application ID 48036, v1.
Authorization:	SBA Communication Corp.	

3. ANALYSIS METHODS & DATA

The analysis was performed in accordance with Telecommunication Industry Association specification TIA-222-G-Addendum 2. The tower was modeled using TNX Tower, a 3-D finite element program. TNX Tower is a general-purpose modeling, analysis, and design program created specifically for communication towers using the EIA-222-C, EIA-222-D, TIA/EIA-222-F or TIA-222-G standards. The 3-D model included the tower, with existing appurtenances and all proposed loads.

SITE DATA	
SBA Site Name:	Cleary Tower (Edward)
SBA Site Number:	CT20021-A-08
Carrier Site Name:	AT&T
City, State:	Wolcott, CT
County:	New Haven
Code Wind Load Requirement:	TIA-222-G & 2012 International Building Code (Ultimate wind speed of 125 mph 3 sec gust equivalent to Nominal design wind speed of 97 mph basic wind speed)
Wind Load Used:	TIA-222-G Code: <ul style="list-style-type: none"> • Basic wind speed of 97 mph (3 second gust wind speed) • Structure Class II. • Exposure Category B. • Topographic Category 1. • A wind speed of 50 mph is used in combination with 0.75 in ice thickness.
Seismic Requirement:	Spectral Response Acceleration at Short Period (S _s) is 0.186 g which less than 1.000 g. Therefore, no seismic check is required as per TIA-222-G section 2.7.3

TOWER DATA	
Tower Type:	Self-Supported Tower
Height:	350'
Cross Section:	Triangular
Steel Strength:	Legs – 50 ksi, Braces – 36ksi
Type of Foundation:	Pad and Pier for Foundation

TOWER HISTORY	
Tower Manufacturer / Model:	FWT, Inc.
Date of Original Design:	1992
Previous Modifications:	Unknown
Original Design Code Reqt:	EIA/TIA 222-E, 85mph basic wind speed without ice and 74 mph basic wind speed with 0.5" thick ice

4. CONCLUSIONS

RESULT SUMMARY		
MEMBER	% Capacity	Pass/Fail
Leg	42.5 %	Pass
Diagonal	52.6 %	Pass
Horizontal	45.8 %	Pass
Top Girt	2.3 %	Pass
Redundant Horizontal Bracing	91.7 %	Pass w/ Mod
Redundant Diagonal Bracing	65.4 %	Pass
Inner Bracing	0.9 %	Pass
Bolts	41.9 %	Pass

Load Type	Direction	Current Analysis (TIA-222-G)	Original Design (EIT/TIA-222-E)	% Capacity
Individual Foundation	Uplift	287 k	631 k	45.5%
	Compression	401 k	751 k	53.4%
	Horizontal	46 k	--	--

**Note: Foundation soil data available was not sufficient for the detail analysis of the foundation check. Therefore, reactions are compared based upon the original tower design. Foundation is estimated to be acceptable based on the tower member loads and stresses. However, it is recommended to locate the foundation data for rigorous analysis of the foundation.*

MAXIMUM DISH ROTATION AT SERVICE WIND SPEED Twist and Sway (deg), 10 dB degradation limit					
Elev. (ft)	MW Dish	Sway (deg)	Twist (deg)	Allowable (deg)	Result
212±	VHLP2-11	0.0843	0.0015	2.41	OK
165±	SPD3-2.4	0.0650	0.0008	1.61	OK

Upon installation of proposed modifications, maximum tower member stress is less than allowable, making it **in code compliance** under the TIA-222-G code and 2012 International Building Code (IBC 2012) requirements.

5.

ASSUMPTIONS

This analysis was completed based on the following assumptions:

- Tower has been properly maintained
- Tower erection was in accordance to manufacturer drawings
- Leg flanges have been properly designed by manufacturer to not be a limiting reaction
- Welds have been properly designed and installed by manufacturer to not be a limiting reaction
- Foundation was constructed in accordance to manufacturer drawings
- Foundation does not have structural damage
- Bolts have been properly tightened according to manufacturer specifications
- Appurtenance, mount and transmission line sizes and weights are best estimates using the tnxTower database and manufacturer information
- Metro PC's equipment at 222' are going to be removed prior to any installation for AT&T

6.

DISCLAIMER

Installation procedures and related loading are not within the scope of this analysis. A contractor experienced in similar work should perform all installation work. The engineering services provided by Allpro Consulting Group, Inc. (ACGI) are limited to the computer analysis and calculations of the structure with the proposed and existing loads. This analysis is considered void if the loading mentioned in this report is changed or is different as installed. It is assumed that the existing structure is properly maintained and is in good condition free of any defects. Scope of this analysis does not include existing connections, except as noted in this report.

ACGI does not make any warranties, expressed or implied in connection with this engineering analysis report and disclaims any liability arising from deficiencies or any existing conditions of the original structure. ACGI will not be responsible for consequential or incidental damages sustained by any parties as a result of any data or conclusions included in this Report. The maximum liability of ACGI pursuant to this report shall be limited to the consulting fee received for the preparation of the report.

7.

RECOMMENDATIONS

The existing tower is recommended for the final loading listed under Section 8 "Appurtenances Listing", after installing proposed tower modifications.

Modification Summary:

1. Reinforce existing Redundant Horizontals using same size angle steel members to make it C-Section. For Elevations:
20.0'-40.0

8.

APPURTENANCE LISTING

EXISTING LOAD DESCRIPTION					
ELEV (ft)	Qty	Antenna Description	Mount type & Qty	TX LINE (in)	TENANT
350±	1	Celwave PD200 Omni	(1) Star Mount w/(9) Standoffs	(1) 7/8"	LoJack
350±	1	101 Omni		(1) 1 1/4"	Marcus
320±	2	101 Omni	(2) 6' Standoffs	(2) 1 1/4"	Marcus
212±	3	Argus LLPX310R	(3) 10' T-Frames	(3) 5/16" (3) 5/8" (5) 1/2"	Clearwire
	3	BTS			
	1	MW dish VHLP2-11			
	1	MW dish VHLP2.5-11			
186±	3	Powerwave 7770 Panel	(3) 13.5' T-Frames	(12) 1-5/8" (2) 3/4" DC Power (1) 1/2" Fiber	AT&T
	6	KMW AM-X-16-65-00T Panel			
	3	Kathrein 800 Panel			
	6	CCI DTMABP7819VG12A TMA			
	6	Powerwave LGP 13519 Diplexer			
	1	Raycap DC6-48-60-18-8F Surge			
	6	Ericsson RRUS-11			
165±	3	SPD3-2.4 Radiowaves Dish	Pipe Mount	(6) 1/2"	Marcus
	3	SPD2-5.8 Radiowaves Dish	Pipe Mount		
158±	1	Decibel DB408 Omni	(1) 17" Standoff	(1) 7/8"	Wolcott
134±	3	APXVTM14-C-I20	(3) 15' T-Frames	(4) 1-1/4"	Sprint
	3	RFS APXVSPP18			
	3	RRH 1900 MHz			
	3	RRH 800 MHz			
	3	RRH TD-8x20-25			
	3	RRH 800 MHz Filter			
	4	RFS ACU-A20-N			

FINAL AT&T LOAD DESCRIPTION

<i>FEED (ft)</i>	<i>Qty</i>	<i>Antenna Description</i>	<i>Mount Type & Qty</i>	<i>TX LINE (in)</i>	<i>TENANT</i>
186±	3	Powerwave 7770 Antenna	(3) 13.5' T-Frames	(12) 1-5/8" (2) 3/4" DC Power (1) 1/2" Fiber	AT&T
	4	KMW AM-X-CD-16-65-00T-RET Antenna			
	2	Kathrein 800 10121 Antenna			
	3	CCI HPA-65R-BUU-H6 Antenna			
	6	CCI DTMAP7819VG12A TMA			
	4	Kathrein 860 10025 RET			
	3	Ericsson RRUS 11 Remote Radio			
	3	Ericsson RRUS 32 Remote Radio			
	6	Powerwave LGP 13519 Diplexer			
	1	Raycap DC6-48-60-18-8F Surge			

Notes:

1. ACGI should be notified of any discrepancies found in the data listed in this report.
2. Notify ACGI if any potential physical and other interference with existing antennas for a redesign

9. SUMMARY OF WORKING PERCENTAGE OF STRUCTURAL COMPONENTS

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
T1	350 - 340	Leg	2	3	-4.895	49.286	9.9	Pass
		Diagonal	L2x1 1/2x3/16	9	-1.536	10.578	14.5	Pass
		Top Girt	L3x3x1/4	4	-0.234	28.598	16.2 (b)	0.8
T2	340 - 320	Leg	2	21	-20.834	72.063	28.9	Pass
		Diagonal	L2x1 1/2x3/16	24	-2.138	11.821	18.1	Pass
T3	320 - 300	Leg	2 1/2	54	-33.964	112.346	30.2	Pass
		Diagonal	L2x2x3/16	75	-1.939	13.396	14.5	Pass
T4	300 - 280	Leg	3 1/4	81	-45.460	183.313	24.8	Pass
		Diagonal	L2-1/2x2-1/2x3/16	84	-1.909	13.743	13.9	Pass
T5	280 - 260	Leg	3 1/4	102	-58.178	183.313	31.7	Pass
		Diagonal	L2-1/2x2-1/2x3/16	105	-2.179	10.587	20.6	Pass
T6	260 - 240	Leg	3 1/2	123	-72.151	234.484	30.8	Pass
		Diagonal	L3x3x3/16	126	-2.548	14.077	18.1	Pass
T7	240 - 220	Leg	3 1/2	143	-86.183	306.641	28.1	Pass
		Diagonal	2L2 1/2x2 1/2x3/16x3/8	150	-3.363	25.906	13.0	Pass
		Horizontal	L2 1/2x2 1/2x3/16	145	-1.639	8.246	19.9	Pass
T8	220 - 200	Inner Bracing	L2 1/2x2 1/2x3/16	156	-0.012	7.609	0.6	Pass
		Leg	3 3/4	182	-103.442	368.015	28.1	Pass
		Diagonal	2L2 1/2x2 1/2x3/16x3/8	189	-4.447	21.697	20.5	Pass
		Horizontal	L2 1/2x2 1/2x3/16	184	-1.876	6.207	30.2	Pass
		Inner Bracing	L2 1/2x2 1/2x3/16	193	-0.013	5.772	0.7	Pass
T9	200 - 180	Leg	4	221	-123.878	434.236	28.5	Pass
		Diagonal	2L3x3x3/16x3/8	228	-6.369	31.077	20.5	Pass
		Horizontal	L3x3x3/16	223	-2.151	8.488	25.3	Pass
T10	180 - 160	Inner Bracing	L3x3x3/16	233	-0.017	7.941	0.7	Pass
		Leg	4 1/4	260	-149.342	505.220	29.6	Pass
		Diagonal	2L3x3x3/16x3/8	267	-7.451	26.796	27.8	Pass
		Horizontal	L3x3x3/16	262	-2.590	6.804	38.1	Pass
		Inner Bracing	L3x3x3/16	271	-0.018	6.396	0.8	Pass
T11	160 - 140	Leg	4 1/4	299	-176.923	505.220	35.0	Pass
		Diagonal	2L3x3x3/16x3/8	306	-8.415	22.745	37.0	Pass
		Horizontal	L3 1/2x3 1/2x1/4	301	-3.068	11.687	26.3	Pass
		Inner Bracing	L3 1/2x3 1/2x1/4	310	-0.021	11.050	0.7	Pass
T12	140 - 120	Leg	4 1/2	338	-198.707	580.902	34.2	Pass
		Diagonal	2L3x3x1/4x3/8	351	-12.301	31.774	38.7	Pass
		Horizontal	2L2 1/2x2 1/2x3/16x3/8	340	-3.446	13.682	25.2	Pass
		Redund Horz 1 Bracing	L2x2x3/16	368	-3.446	5.620	61.3	Pass
		Redund Diag 1 Bracing	L2-1/2x2-1/2x3/16	369	-2.341	6.069	38.6	Pass
		Inner Bracing	L3 1/2x3 1/2x1/4	361	-0.030	9.656	0.7	Pass
T13	120 - 100	Leg	4 3/4	383	-230.564	661.231	34.9	Pass
		Diagonal	2L3x3x1/4x3/8	396	-12.617	29.236	43.2	Pass
		Horizontal	2L2 1/2x2 1/2x3/16x3/8	385	-3.998	11.547	34.6	Pass
		Redund Horz 1 Bracing	L2x2x3/16	390	-3.998	4.748	84.2	Pass
		Redund Diag 1 Bracing	L2-1/2x2-1/2x3/16	414	-2.624	5.494	47.8	Pass



CT20021-A-08/Cleary Tower (Edward) -350' SST

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail	
T14	100 - 80	Inner Bracing	L4x4x1/4	407	-0.031	12.311	0.8	Pass	
		Leg	4 3/4	428	-260.450	661.231	39.4	Pass	
		Diagonal	2L3x3x1/4x3/8	441	-13.494	26.877	50.2	Pass	
		Horizontal	2L2 1/2x2 1/2x3/16x3/8	430	-4.517	9.860	45.8	Pass	
		Redund Horz 1 Bracing	L2x2x3/8	439	-4.517	7.521	60.1	Pass	
		Redund Diag 1 Bracing	L2-1/2x2-1/2x3/16	459	-2.879	4.968	57.9	Pass	
		T15	80 - 60	Inner Bracing	L4x4x1/4	453	-0.033	10.555	0.8
Leg	5			473	-292.377	746.168	39.2	Pass	
Diagonal	2L3 1/2x3 1/2x1/4x3/8			486	-13.960	38.284	36.5	Pass	
Horizontal	2L3x3x3/16x3/8			475	-5.070	15.048	33.7	Pass	
Redund Horz 1 Bracing	L2-1/2x2-1/2x3/16			484	-5.070	6.992	72.5	Pass	
Redund Diag 1 Bracing	L3x3x3/16			504	-3.152	7.925	39.8	Pass	
T16	60 - 40			Inner Bracing	2L3x3x3/16x3/8	496	-0.038	14.343	0.8
		Leg	5 1/4	518	-323.174	835.679	38.7	Pass	
		Diagonal	2L3 1/2x3 1/2x1/4x3/8	531	-14.922	35.293	42.3	Pass	
		Horizontal	2L3x3x3/16x3/8	520	-5.605	13.146	42.6	Pass	
		Redund Horz 1 Bracing	L2-1/2x2-1/2x3/16	525	-5.605	6.113	91.7	Pass	
		Redund Diag 1 Bracing	L3x3x3/16	549	-3.412	7.227	47.2	Pass	
		T17	40 - 20	Inner Bracing	2L3x3x3/16x3/8	542	-0.039	12.552	0.9
Leg	5 1/4			563	-355.579	835.679	42.5	Pass	
Diagonal	2L3 1/2x3 1/2x1/4x3/8			576	-15.309	32.545	47.0	Pass	
Horizontal	2L3 1/2x3 1/2x1/4x3/8			565	-6.166	24.167	25.5	Pass	
Redund Horz 1 Bracing	L2.5x2.5x3/16 + L2.5x2.5x3/16 (C-shape)			593	-6.166	26.168	23.6	Pass	
Redund Diag 1 Bracing	L3x3x3/16			594	-3.686	6.591	55.9	Pass	
T18	20 - 0			Inner Bracing	2L3 1/2x3 1/2x1/4x3/8	586	-0.045	23.141	0.7
		Leg	5 1/2	608	-387.140	929.740	41.6	Pass	
		Diagonal	2L3 1/2x3 1/2x1/4x3/8	621	-15.839	30.092	52.6	Pass	
		Horizontal	2L3 1/2x3 1/2x1/4x3/8	610	-6.714	21.456	31.3	Pass	
		Redund Horz 1 Bracing	L3x3x3/16	619	-6.714	8.374	80.2	Pass	
		Redund Diag 1 Bracing	L3x3x3/16	639	-3.950	6.043	65.4	Pass	
		Inner Bracing	2L3 1/2x3 1/2x1/4x3/8	631	-0.043	20.572	0.7	Pass	
							Summary		
							Leg (T17)	42.5	Pass
							Diagonal (T18)	52.6	Pass
							Horizontal (T14)	45.8	Pass
							Top Girt (T1)	2.3	Pass
							Redund Horz 1 Bracing (T16)	91.7	Pass
							Redund Diag 1 Bracing (T18)	65.4	Pass
							Inner Bracing (T16)	0.9	Pass
							Bolt Checks	41.9	Pass
							RATING =	91.7	Pass

APPENDIX



A BUSINESS OF FDH VELOCITEL

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info@sitesafe.com • www.sitesafe.com



**SmartLink, LLC on behalf of AT&T
Mobility, LLC
Site FA – 10041812
Site ID – CTL01111 (2051A06DSJ)
USID – 26036
Site Name – Wolcott-North
Site Compliance Report**

**1233 Wolcott Road
Wolcott, CT 06716**

Latitude: N41-37-17.66
Longitude: W72-58-25.08
Structure Type: Self-Support

Report generated date: July 5, 2017
Report by: Kevin Bernstetter II, EI
Customer Contact: David Barbagallo

**AT&T Mobility, LLC will be compliant when the
remediation recommended in Section 5.2 or
other appropriate remediation is implemented.**

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1 General Site Summary

1.1 Report Summary

AT&T Mobility, LLC	Summary
Access to Antennas Locked?	Yes
RF Sign(s) @ access point(s)	Unknown
RF Sign(s) @ antennas	None
Barrier(s) @ sectors	None
Max cumulative simulated RFE level on the Ground	<1% General Public Limit at Ground Level
FCC & AT&T Compliant?	Will Be Compliant

The following documents were provided by the client and were utilized to create this report:

RFDS: NEW-ENGLAND_CONNECTICUT_CTV1111_2017-LTE-Multi-Carrier_1xBBU-RRH-Add_mm093q_PTN_10041812_26036_04-13-2016_As-Built-In-Progress_v3.00

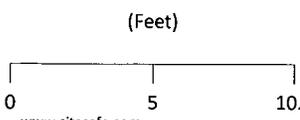
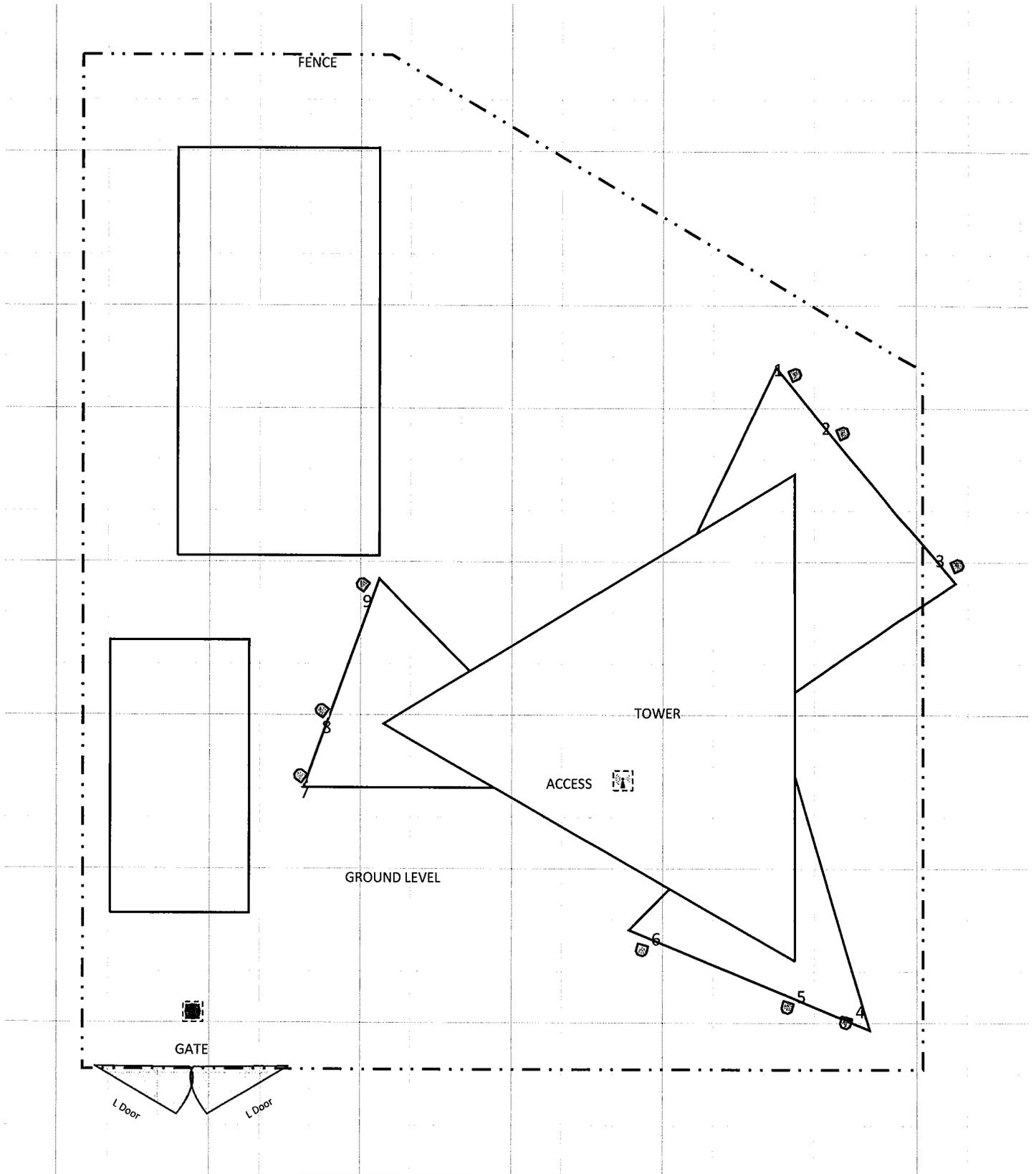
CD's: 10041812_AE201_170623_CTL01111_Rev3 MC

2 Scale Maps of Site

The following diagrams are included:

- Site Scale Map
- RF Exposure Diagram
- Elevation View

Site Scale Map For: Wolcott-North

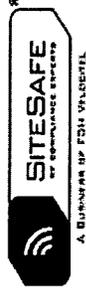


www.sitesafe.com
 Site Name: Wolcott-North
 7/5/2017 6:27:06 AM

Carrier Identification				
	AT&T MOBILITY LLC		VERIZON WIRELESS	
	T-MOBILE		SPRINT	
	UNKNOWN CARRIER			

Sign Legend					
	Caution 1		Caution 2		Notice 2
	Notice 1		Warning		Info 1
	Info 2				

Proposed Barriers/ Signs	
	Barrier



3 Antenna Inventory

The following antenna inventory on this and the following page, were obtained by the customer and were utilized to create the site model diagrams:

Ant ID	Operator	Antenna Make & Model	Type	TX Freq (MHz)	Az (Deg)	Hor BW (Deg)	Ant Len (ft)	Ant Gain (dBD)	2G GSM Radio(s)	3G UMTS Radio(s)	4G Radio(s)	Total ERP (Watts)	X	Y	Z AGL
1	AT&T MOBILITY LLC	KMW AM-X-CD-16-65-00T	Panel	850	23	63	6	13.86	0	2	0	269.2	66.4'	69.5'	182'
1	AT&T MOBILITY LLC	KMW AM-X-CD-16-65-00T	Panel	1900	23	67	6	15.26	0	2	0	1280.2	66.4'	69.5'	182'
2	AT&T MOBILITY LLC (Proposed)	CCI Antennas HPA-65R-BUU-H6	Panel	737	23	66.2	6	11.68	0	0	1	1475.7	70'	65.2'	182'
2	AT&T MOBILITY LLC (Proposed)	CCI Antennas HPA-65R-BUU-H6	Panel	1900	23	61.1	6	14.53	0	0	2	4842.1	70'	65.2'	182'
3	AT&T MOBILITY LLC (Decommissioned)	KMW AM-X-CD-16-65-00T	Panel	850	23	63	6	13.86	0	0	0	0	78.3'	55.5'	182'
4	AT&T MOBILITY LLC	KMW AM-X-CD-16-65-00T	Panel	850	153	63	6	13.86	0	2	0	467.8	70.2'	22'	182'
4	AT&T MOBILITY LLC	KMW AM-X-CD-16-65-00T	Panel	1900	153	67	6	15.26	0	2	0	1280.2	70.2'	22'	182'
5	AT&T MOBILITY LLC (Proposed)	CCI Antennas HPA-65R-BUU-H6	Panel	737	153	66.2	6	11.68	0	0	1	1475.7	65.8'	23.2'	182'
5	AT&T MOBILITY LLC (Proposed)	CCI Antennas HPA-65R-BUU-H6	Panel	1900	153	61.1	6	14.53	0	0	2	4842.1	65.8'	23.2'	182'
6	AT&T MOBILITY LLC (Decommissioned)	KMW AM-X-CD-16-65-00T	Panel	850	153	63	6	13.86	0	0	0	0	55'	27.3'	182'
7	AT&T MOBILITY LLC	KMW AM-X-CD-16-65-00T	Panel	850	263	63	6	13.86	0	2	0	338.9	29.6'	40.1'	182'
7	AT&T MOBILITY LLC	KMW AM-X-CD-16-65-00T	Panel	1900	263	67	6	15.26	0	2	0	1280.2	29.6'	40.1'	182'
8	AT&T MOBILITY LLC (Proposed)	CCI Antennas HPA-65R-BUU-H6	Panel	737	263	66.2	6	11.68	0	0	1	1475.7	31.2'	44.8'	182'
8	AT&T MOBILITY LLC (Proposed)	CCI Antennas HPA-65R-BUU-H6	Panel	1900	263	61.1	6	14.53	0	0	2	4842.1	31.2'	44.8'	182'
9	AT&T MOBILITY LLC (Decommissioned)	KMW AM-X-CD-16-65-00T	Panel	850	263	63	6	13.86	0	0	0	0	34.2'	54.1'	182'

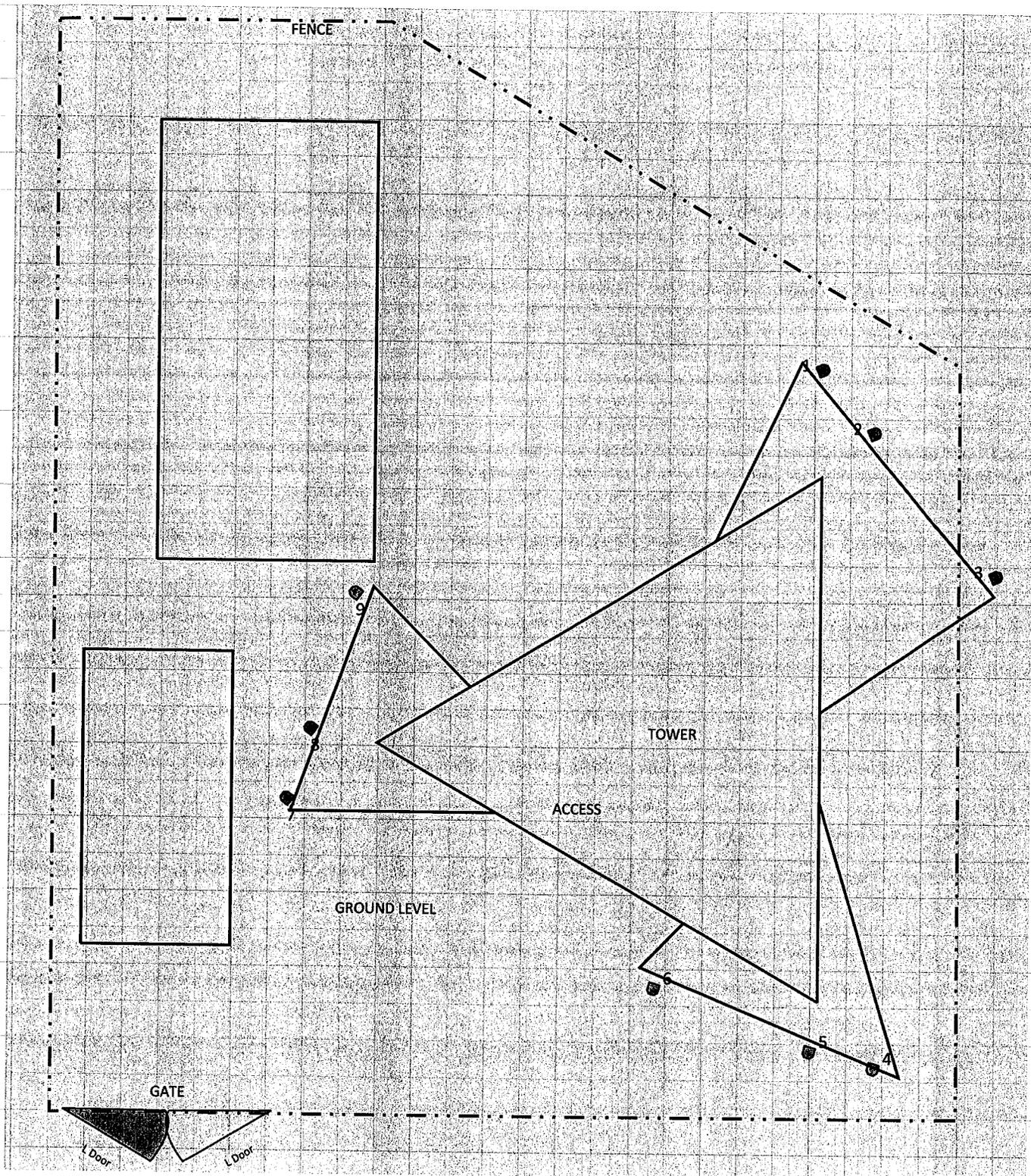
NOTE: X, Y and Z indicate relative position of the bottom of the antenna to the origin location on the site, displayed in the model results diagram. Specifically, the Z reference indicates the bottom of the antenna height above the ground level unless otherwise indicated. The distance to the bottom of the antenna is calculated by subtracting half of the length of the antenna from the antenna centerline. Effective Radiated Power (ERP) is provided by the operator or based on Sitesafe experience. The values used in the modeling may be greater than are currently deployed.

Note: Other operators exist on site but were not considered for this modeling as Sitesafe did not have updated information on them.

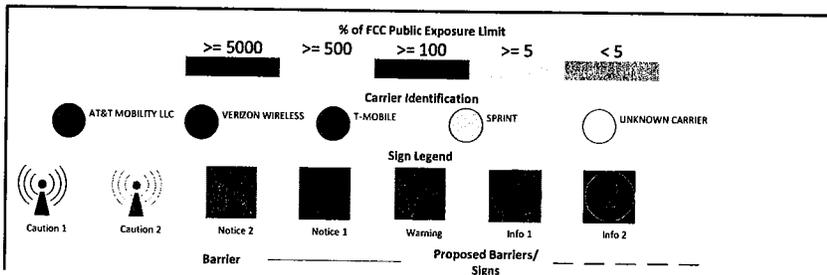
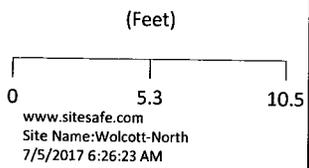
4 Emission Predictions

In the RF Exposure Simulations below all heights are reflected with respect to main site level. In most rooftop cases this is the height of the main rooftop and in other cases this can be ground level. Each different height area, rooftop, or platform level is labeled with its height relative to the main site level. Emissions are calculated appropriately based on the relative height and location of that area to all antennas.

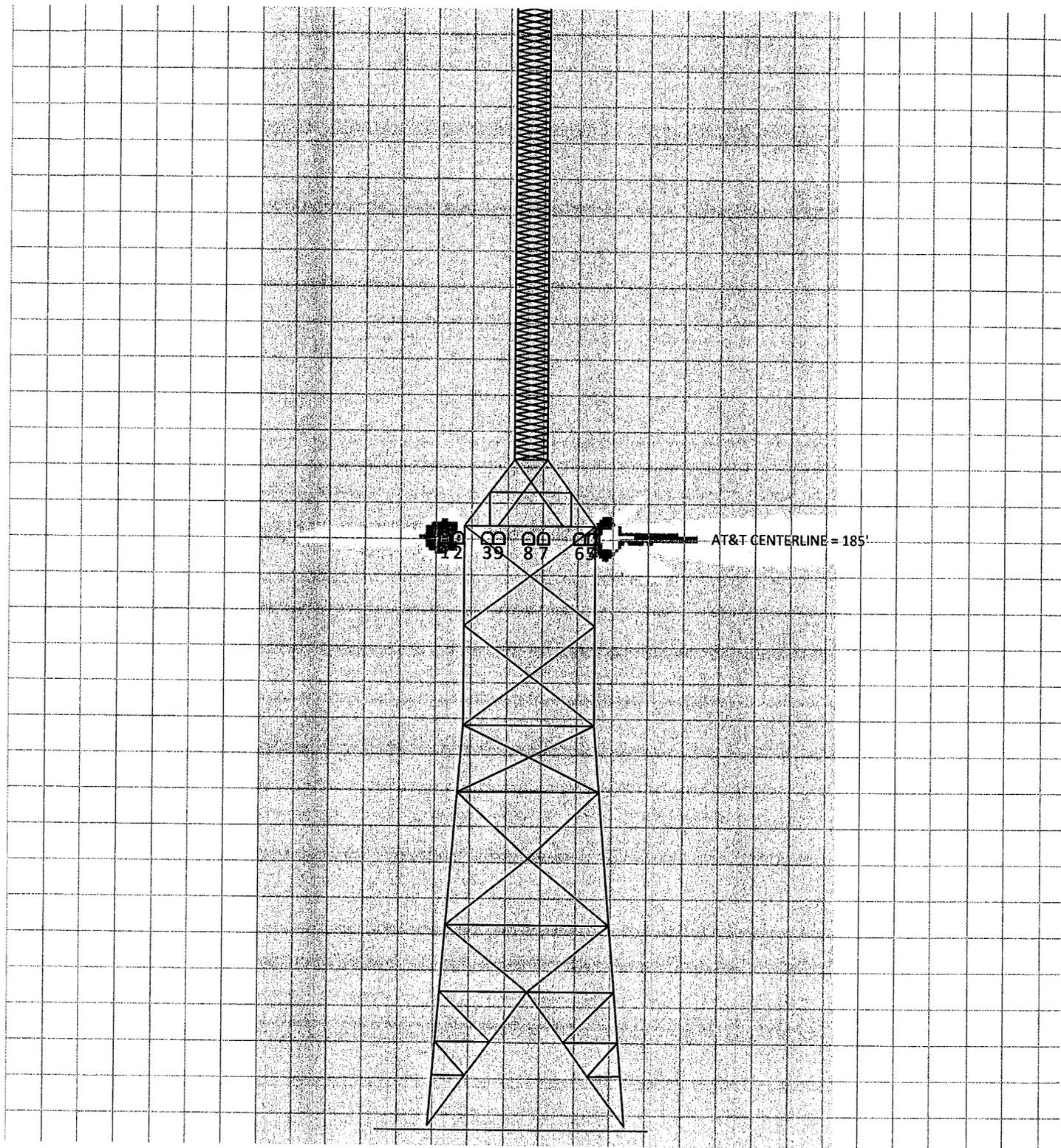
The Antenna Inventory heights are referenced to the same level.



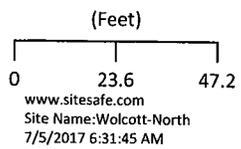
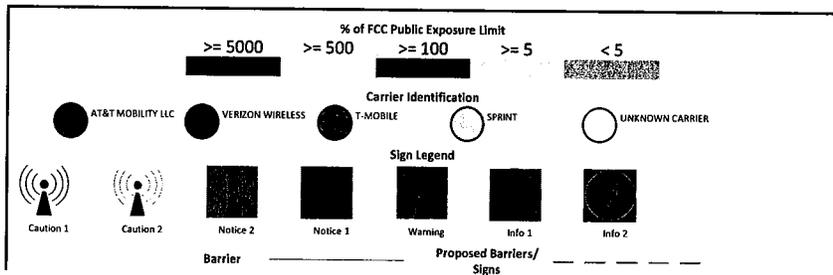
% of FCC Public Exposure Limit
Spatial average 0' - 6'



RF Exposure Simulation For: Wolcott-North Elevation View



% of FCC Public Exposure Limit
Spatial average 0' - 6'



5 Site Compliance

5.1 Site Compliance Statement

Upon evaluation of the cumulative RF emission levels from all operators at this site, RF hazard signage and antenna locations, Sitesafe has determined that:

AT&T Mobility, LLC will be compliant when the remediation recommended in Section 5.2 or other appropriate remediation is implemented.

The compliance determination is based on General Public RFE levels derived from theoretical modeling, RF signage placement, proposed antenna inventory and the level of restricted access to the antennas at the site. Any deviation from the AT&T Mobility, LLC's proposed deployment plan could result in the site being rendered non-compliant.

Modeling is used for determining compliance and the percentage of MPE contribution.

5.2 Actions for Site Compliance

Based on FCC regulations, common industry practice, and our understanding of AT&T Mobility, LLC RF Safety Policy requirements, this section provides a statement of recommendations for site compliance. Recommendations have been proposed based on our understanding of existing access restrictions, signage, and an analysis of predicted RFE levels.

AT&T Mobility, LLC will be made compliant if the following changes are implemented:

Site Access Location

Yellow caution 2 sign required at base of tower.

Gate Location

Information 1 sign required on the gate.

Notes:

- Signage may already exist on site. Sitesafe is recommending as a worst case scenario.

6 Reviewer Certification

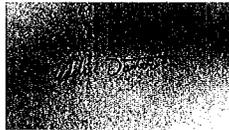
The reviewer whose signature appears below hereby certifies and affirms:

That I am an employee of Sitesafe, Inc., in Arlington, Virginia, at which place the staff and I provide RF compliance services to clients in the wireless communications industry; and

That I am thoroughly familiar with the Rules and Regulations of the Federal Communications Commission (FCC) as well as the regulations of the Occupational Safety and Health Administration (OSHA), both in general and specifically as they apply to the FCC Guidelines for Human Exposure to Radio-frequency Radiation; and

That I have thoroughly reviewed this Site Compliance Report and believe it to be true and accurate to the best of my knowledge as assembled by and attested to by Kevin Bernstetter II, EI.

July 5, 2017



Eddie Santoro

Appendix A – Statement of Limiting Conditions

Sitesafe has provided computer generated model(s) in this Site Compliance Report to show approximate dimensions of the site, and the model is included to assist the reader of the compliance report to visualize the site area, and to provide supporting documentation for Sitesafe's recommendations.

Sitesafe may note in the Site Compliance Report any adverse physical conditions, such as needed repairs, that Sitesafe became aware of during the normal research involved in creating this report. Sitesafe will not be responsible for any such conditions that do exist or for any engineering or testing that might be required to discover whether such conditions exist. Because Sitesafe is not an expert in the field of mechanical engineering or building maintenance, the Site Compliance Report must not be considered a structural or physical engineering report.

Sitesafe obtained information used in this Site Compliance Report from sources that Sitesafe considers reliable and believes them to be true and correct. Sitesafe does not assume any responsibility for the accuracy of such items that were furnished by other parties. When conflicts in information occur between data collected by Sitesafe provided by a second party and data collected by Sitesafe, the data will be used.

Appendix B – Regulatory Background Information

FCC Rules and Regulations

In 1996, the Federal Communication Commission (FCC) adopted regulations for the evaluating of the effects of RF emissions in 47 CFR § 1.1307 and 1.1310. The guideline from the FCC Office of Engineering and Technology is Bulletin 65 ("OET Bulletin 65"), *Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields*, Edition 97-01, published August 1997. Since 1996 the FCC periodically reviews these rules and regulations as per their congressional mandate.

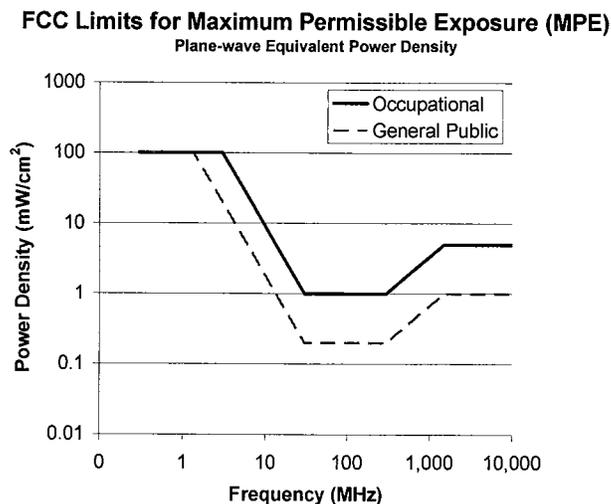
FCC regulations define two separate tiers of exposure limits: Occupational or "Controlled environment" and General Public or "Uncontrolled environment". The General Public limits are generally five times more conservative or restrictive than the Occupational limit. These limits apply to accessible areas where workers or the general public may be exposed to Radio Frequency (RF) electromagnetic fields.

Occupational or Controlled limits apply in situations in which persons are exposed as a consequence of their employment and where those persons exposed have been made fully aware of the potential for exposure and can exercise control over their exposure.

An area is considered a Controlled environment when access is limited to these aware personnel. Typical criteria are restricted access (i.e. locked or alarmed doors, barriers, etc.) to the areas where antennas are located coupled with proper RF warning signage. A site with Controlled environments is evaluated with Occupational limits.

All other areas are considered Uncontrolled environments. If a site has no access controls or no RF warning signage it is evaluated with General Public limits.

The theoretical modeling of the RF electromagnetic fields has been performed in accordance with OET Bulletin 65. The Maximum Permissible Exposure (MPE) limits utilized in this analysis are outlined in the following diagram:



Limits for Occupational/Controlled Exposure (MPE)

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

Limits for General Population/Uncontrolled Exposure (MPE)

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

f = frequency in MHz

*Plane-wave equivalent power density

OSHA Statement

The General Duty clause of the OSHA Act (Section 5) outlines the occupational safety and health responsibilities of the employer and employee. The General Duty clause in Section 5 states:

(a) Each employer –

- (1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;
- (2) shall comply with occupational safety and health standards promulgated under this Act.

(b) Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this Act which are applicable to his own actions and conduct.

OSHA has defined Radiofrequency and Microwave Radiation safety standards for workers who may enter hazardous RF areas. Regulation Standards 29 CFR § 1910.147 identify a generic Lock Out Tag Out procedure aimed to control the unexpected energization or start up of machines when maintenance or service is being performed.

Appendix C – Safety Plan and Procedures

The following items are general safety recommendations that should be administered on a site by site basis as needed by the carrier.

General Maintenance Work: Any maintenance personnel required to work immediately in front of antennas and / or in areas indicated as above 100% of the Occupational MPE limits should coordinate with the wireless operators to disable transmitters during their work activities.

Training and Qualification Verification: All personnel accessing areas indicated as exceeding the General Population MPE limits should have a basic understanding of EME awareness and RF Safety procedures when working around transmitting antennas. Awareness training increases a workers understanding to potential RF exposure scenarios. Awareness can be achieved in a number of ways (e.g. videos, formal classroom lecture or internet based courses).

Physical Access Control: Access restrictions to transmitting antennas locations is the primary element in a site safety plan. Examples of access restrictions are as follows:

- Locked door or gate
- Alarmed door
- Locked ladder access
- Restrictive Barrier at antenna (e.g. Chain link with posted RF Sign)

RF Signage: Everyone should obey all posted signs at all times. RF signs play an important role in properly warning a worker prior to entering into a potential RF Exposure area.

Assume all antennas are active: Due to the nature of telecommunications transmissions, an antenna transmits intermittently. Always assume an antenna is transmitting. Never stop in front of an antenna. If you have to pass by an antenna, move through as quickly and safely as possible thereby reducing any exposure to a minimum.

Maintain a 3 foot clearance from all antennas: There is a direct correlation between the strength of an EME field and the distance from the transmitting antenna. The further away from an antenna, the lower the corresponding EME field is.

Site RF Emissions Diagram: Section 4 of this report contains an RF Diagram that outlines various theoretical Maximum Permissible Exposure (MPE) areas at the site. The modeling is a worst case scenario assuming a duty cycle of 100% for each transmitting antenna at full power. This analysis is based on one of two access control criteria: General Public criteria means the access to the site is uncontrolled and anyone can gain access. Occupational criteria means the access is restricted and only properly trained individuals can gain access to the antenna locations.

Appendix D – RF Emissions

The RF Emissions Simulation(s) in this report display theoretical spatially averaged percentage of the Maximum Permissible Exposure for all systems at the site unless otherwise noted. These diagrams use modeling as prescribed in OET Bulletin 65 and assumptions detailed in Appendix E.

The key at the bottom of each RF Emissions Simulation indicates percentages displayed referenced to FCC General Public Maximum Permissible Exposure (MPE) limits. Color coding on the diagram is as follows:

- Areas indicated as Gray are predicted to be below 5% of the MPE limits. **Gray represents areas more than 20 times below the most conservative exposure limit.**
- Green represents areas are predicted to be between 5% and 100% of the MPE limits. **Green areas are accessible to anyone.**
- Blue represents areas predicted to exceed the General Public MPE limits but are less than Occupational limits. **Blue areas should be accessible only to RF trained workers.**
- Yellow represents areas predicted to exceed Occupational MPE limits. **Yellow areas should be accessible only to RF trained workers able to assess current exposure levels.**
- Red represents areas predicted to have exposure more than 10 times the Occupational MPE limits. **Red indicates that the RF levels must be reduced prior to access.** An RF Safety Plan is required which outlines how to reduce the RF energy in these areas prior to access.

Appendix E – Assumptions and Definitions

General Model Assumptions

In this site compliance report, it is assumed that all antennas are operating at **full power at all times**. Software modeling was performed for all transmitting antennas located on the site. Sitesafe has further assumed a 100% duty cycle and maximum radiated power.

The modeling is based on recommendations from the FCC's OET-65 bulletin with the following variances per AT&T guidance. Reflection has not been considered in the modeling, i.e. the reflection factor is 1.0. The near / far field boundary has been set to 1.5 times the aperture height of the antenna and modeling beyond that point is the lesser of the near field cylindrical model and the far field model taking into account the gain of the antenna.

The site has been modeled with these assumptions to show the maximum RF energy density. Areas modeled with exposure greater than 100% of the General Public MPE level may not actually occur, but are shown as a prediction that could be realized. Sitesafe believes these areas to be safe for entry by occupationally trained personnel utilizing appropriate personal protective equipment (in most cases, a personal monitor).

Use of Generic Antennas

For the purposes of this report, the use of "Generic" as an antenna model, or "Unknown" for an operator means the information about a carrier, their FCC license and/or antenna information was not provided and could not be obtained while on site. In the event of unknown information, Sitesafe will use our industry specific knowledge of equipment, antenna models, and transmit power to model the site. If more specific information can be obtained for the unknown measurement criteria, Sitesafe recommends remodeling of the site utilizing the more complete and accurate data. Information about similar facilities is used when the service is identified and associated with a particular antenna. If no information is available regarding the transmitting service associated with an unidentified antenna, using the antenna manufacturer's published data regarding the antenna's physical characteristics makes more conservative assumptions.

Where the frequency is unknown, Sitesafe uses the closest frequency in the antenna's range that corresponds to the highest Maximum Permissible Exposure (MPE), resulting in a conservative analysis.

Definitions

5% Rule – The rules adopted by the FCC specify that, in general, at multiple transmitter sites actions necessary to bring the area into compliance with the guidelines are the shared responsibility of all licensees whose transmitters produce field strengths or power density levels at the area in question in excess of 5% of the exposure limits. In other words, any wireless operator that contributes 5% or greater of the MPE limit in an area that is identified to be greater than 100% of the MPE limit is responsible taking corrective actions to bring the site into compliance.

Compliance – The determination of whether a site is safe or not with regards to Human Exposure to Radio Frequency Radiation from transmitting antennas.

Decibel (dB) – A unit for measuring power or strength of a signal.

Duty Cycle – The percent of pulse duration to the pulse period of a periodic pulse train. Also, may be a measure of the temporal transmission characteristic of an intermittently transmitting RF source such as a paging antenna by dividing average transmission duration by the average period for transmission. A duty cycle of 100% corresponds to continuous operation.

Effective (or Equivalent) Isotropic Radiated Power (EIRP) – The product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna.

Effective Radiated Power (ERP) – In a given direction, the relative gain of a transmitting antenna with respect to the maximum directivity of a half wave dipole multiplied by the net power accepted by the antenna from the connecting transmitter.

Gain (of an antenna) – The ratio of the maximum intensity in a given direction to the maximum radiation in the same direction from an isotropic radiator. Gain is a measure of the relative efficiency of a directional antennas as compared to an omni directional antenna.

General Population/Uncontrolled Environment – Defined by the FCC, as an area where exposure to RF energy may occur to persons who are **unaware** of the potential for exposure and who have no control of their exposure. General Population is also referenced as General Public.

Generic Antenna – For the purposes of this report, the use of "Generic" as an antenna model means the antenna information was not provided and could not be obtained while on site. In the event of unknown information, Sitesafe will use our industry specific knowledge of antenna models to select a worst case scenario antenna to model the site.

Isotropic Antenna – An antenna that is completely non-directional. In other words, an antenna that radiates energy equally in all directions.

Maximum Measurement – This measurement represents the single largest measurement recorded when performing a spatial average measurement.

Maximum Permissible Exposure (MPE) – The maximum levels of RF exposure a person may be exposed to without harmful effect and with acceptable safety factor.

Occupational/Controlled Environment – Defined by the FCC, as an area where Radio Frequency Radiation (RFR) exposure may occur to persons who are **aware** of the

potential for exposure as a condition of employment or specific activity and can exercise control over their exposure.

OET Bulletin 65 – Technical guideline developed by the FCC's Office of Engineering and Technology to determine the impact of Radio Frequency radiation on Humans. The guideline was published in August 1997.

OSHA (Occupational Safety and Health Administration) – Under the Occupational Safety and Health Act of 1970, employers are responsible for providing a safe and healthy workplace for their employees. OSHA's role is to promote the safety and health of America's working men and women by setting and enforcing standards; providing training, outreach and education; establishing partnerships; and encouraging continual process improvement in workplace safety and health. For more information, visit www.osha.gov.

Radio Frequency (RF) – The frequencies of electromagnetic waves which are used for radio communications. Approximately 3 kHz to 300 GHz.

Radio Frequency Exposure (RFE) – The amount of RF power density that a person is or might be exposed to.

Spatial Average Measurement – A technique used to average a minimum of ten (10) measurements taken in a ten (10) second interval from zero (0) to six (6) feet. This measurement is intended to model the average power density an average sized human will be exposed to at a location.

Transmitter Power Output (TPO) – The radio frequency output power of a transmitter's final radio frequency stage as measured at the output terminal while connected to a load.

Appendix F – References

The following references can be followed for further information about RF Health and Safety.

Sitesafe, Inc.

<http://www.sitesafe.com>

FCC Radio Frequency Safety

<http://www.fcc.gov/encyclopedia/radio-frequency-safety>

National Council on Radiation Protection and Measurements (NCRP)

<http://www.ncrponline.org>

Institute of Electrical and Electronics Engineers, Inc., (IEEE)

<http://www.ieee.org>

American National Standards Institute (ANSI)

<http://www.ansi.org>

Environmental Protection Agency (EPA)

<http://www.epa.gov/radtown/wireless-tech.html>

National Institutes of Health (NIH)

<http://www.niehs.nih.gov/health/topics/agents/emf/>

Occupational Safety and Health Agency (OSHA)

<http://www.osha.gov/SLTC/radiofrequencyradiation/>

International Commission on Non-Ionizing Radiation Protection (ICNIRP)

<http://www.icnirp.org>

World Health Organization (WHO)

<http://www.who.int/peh-emf/en/>

National Cancer Institute

<http://www.cancer.gov/cancertopics/factsheet/Risk/cellphones>

American Cancer Society (ACS)

http://www.cancer.org/docroot/PED/content/PED_1_3X_Cellular_Phone_Towers.asp?sitearea=PED

European Commission Scientific Committee on Emerging and Newly Identified Health Risks

http://ec.europa.eu/health/ph_risk/committees/04_scenihp/docs/scenihp_o_022.pdf

Fairfax County, Virginia Public School Survey

<http://www.fcps.edu/fts/safety-security/RFEESurvey/>

UK Health Protection Agency Advisory Group on Non-ionising Radiation

http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1317133826368

Norwegian Institute of Public Health

<http://www.fhi.no/dokumenter/545eea7147.pdf>



PROJECT: LTE MULTI-CARRIER
 SITE NUMBER: CTL01111
 FA NUMBER: 10041812
 PTN NUMBER: 2051A066KI
 PACE NUMBER: MRCTB018352
 SBA#: CT20021-A
 SITE NAME: WOLCOTT - WOLCOTT RD
 SITE ADDRESS: 1233 WOLCOTT ROAD
 WOLCOTT, CT 06716



550 COCHITUATE ROAD
 SUITE 550 13 AND 14
 FRAMINGHAM, MA 01701



1362 MELLON ROAD
 SUITE 140
 HANOVER, MD 21076



1100 E. WOODFIELD ROAD, SUITE 500
 SCHAUMBURG, ILLINOIS 60173
 TEL: 847-908-8400
 COA# PEC.0001444
 www.FullertonEngineering.com

PROJECT INFORMATION

SITE NAME: WOLCOTT - WOLCOTT RD
SITE NUMBER: CTL01111
SITE ADDRESS: 1233 WOLCOTT ROAD
 WOLCOTT, CT 06716
FA NUMBER: 10041812
PTN NUMBER: 2051A066KI
PACE NUMBER: MRCTB018352
USID NUMBER: 26036
SBA NUMBER: CT20021-A

APPLICANT: AT&T WIRELESS
 550 COCHITUATE ROAD SUITE 550 13 AND 14
 FRAMINGHAM, MA 01701

TOWER OWNER: SBA COMMUNICATIONS CORPORATION
 8051 CONGRESS AVENUE
 BOCA RATON, FL 33487

JURISDICTION: WOLCOTT, CT
COUNTY: NEW HAVEN
SITE COORDINATES FROM (RFDS)
LATITUDE: 41.621573°
LONGITUDE: -72.973632°
GROUND ELEV.: 977'
PROPOSED USE: TELECOMMUNICATIONS FACILITY

AT&T RF MANAGER: CAMERON SYME
PHONE: (508) 596-7146
EMAIL: cs6970@att.com

SCOPE OF WORK

LTE 1900 WILL BE MULTI-CARRIER AT THE SITE WITH BRONZE CONFIGURATION. PROPOSED MULTI-CARRIER PROJECT SCOPE HEREIN BASED ON RFDS ID # 1166203, VERSION 3.00 LAST UPDATED 10/11/16.

- (3) NEW ANTENNAS TO REPLACE (3) EXISTING ANTENNAS
- REMOVE (3) EXISTING RRUS-11
- (3) NEW RRUS-32 B2 UNITS
- (1) NEW XMU
- (1) NEW LTE DUS

- CONTRACTOR SHALL FURNISH ALL MATERIAL WITH THE EXCEPTION OF AT&T SUPPLIED MATERIAL.
- ALL MATERIAL SHALL BE INSTALLED BY THE CONTRACTOR, UNLESS STATED OTHERWISE.

APPLICABLE BUILDING CODES AND STANDARDS

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES.

BUILDING CODE: 2012 INTERNATIONAL BUILDING CODE
 2016 CONNECTICUT STATE BUILDING CODE SUPPLEMENT

ELECTRICAL CODE: 2014 NATIONAL ELECTRIC CODE

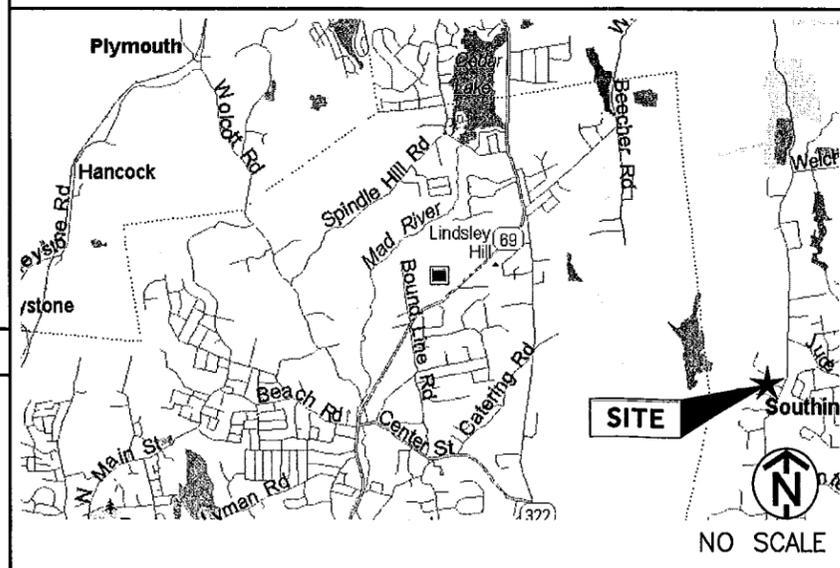
- FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.
- ADA ACCESS REQUIREMENTS ARE NOT REQUIRED.
- THIS FACILITY DOES NOT REQUIRE POTABLE WATER AND WILL NOT PRODUCE ANY SEWAGE

REV	DATE	DESCRIPTION	BY
0	10/26/16	90% REVIEW	KC
1	11/18/16	FOR PERMIT	KC
2	04/11/17	FOR CONSTRUCTION	KC
3	06/23/17	REVISION	MD

I HEREBY CERTIFY THAT THESE DRAWINGS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND CONTROL, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF COMPLY WITH THE REQUIREMENTS OF ALL APPLICABLE CODES.



SITE LOCATION MAP



DRAWING INDEX

TITLE	DESCRIPTION
T1	TITLE SHEET
SP1	NOTES AND SPECIFICATIONS
SP2	NOTES AND SPECIFICATIONS
A1	COMPOUND PLAN
A2	EQUIPMENT PLAN
A3	ELEVATIONS
A4	ANTENNA PLANS
A5	EQUIPMENT DETAILS
A5A	EQUIPMENT DETAILS
A6	ANTENNA & CABLE CONFIGURATION
A7	CABLE NOTES AND COLOR CODING
A8	GROUNDING DETAILS

PROJECT CONSULTANTS

PROJECT MANAGER: SMARTLINK
 85 RANGWAY ROAD, SUITE 102
 NORTH BILLERICA, MA 01862
CONTACT: RYAN BURGENDORFER (508) 665-8005
EMAIL: Ryan.Burgdorfer@Smartlinkllc.com

SITE ACQUISITION: SMARTLINK
 85 RANGWAY ROAD, SUITE 102
 NORTH BILLERICA, MA 01862
CONTACT: SHARON KEEFE (978) 930-3918
EMAIL: Sharon.Keefe@Smartlinkllc.com

ENGINEER/ARCHITECT: FULLERTON ENGINEERING
 1100 E. WOODFIELD ROAD, SUITE 500
 SCHAUMBURG, IL 60173
CONTACT: MILEN DIMITROV (847) 908-8439
EMAIL: MDimitrov@fullertonengineering.com

CONSTRUCTION: SMARTLINK
 85 RANGWAY ROAD, SUITE 102
 NORTH BILLERICA, MA 01862
CONTACT: MARK DONNELLY (617) 515-2080
EMAIL: mark.donnelly@smartlinkllc.com

DIRECTIONS

SCAN QR CODE FOR LINK TO SITE LOCATION MAP

NOTE: DRAWING SCALES ARE FOR 11"x17" SHEETS UNLESS OTHERWISE NOTED

SITE NAME
WOLCOTT - WOLCOTT RD

SITE NUMBER:
CTL01111

SITE ADDRESS
**1233 WOLCOTT ROAD
 WOLCOTT, CT 06716**

SHEET NAME
TITLE SHEET

SHEET NUMBER
T1

THESE DRAWINGS ARE THE PROPERTY OF FULLERTON ENGINEERING CONSULTANTS, INC. IT IS FOR THE EXCLUSIVE USE OF THIS PROJECT. ANY RE-USE OF THIS DRAWING WITHOUT THE EXPRESSED WRITTEN CONSENT OF FULLERTON ENGINEERING CONSULTANTS, INC. IS PROHIBITED.

GENERAL CONSTRUCTION

1. FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:
CONTRACTOR/CM - SMARTLINK
OWNER - AT&T WIRELESS
2. ALL SITE WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS AND AT&T PROJECT SPECIFICATIONS.
3. GENERAL CONTRACTOR SHALL VISIT THE SITE AND SHALL FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS, DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
4. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. GENERAL CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF WORK.
5. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
6. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
7. PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS THE MINIMUM REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND PREPARED BY THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
9. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE ENGINEER PRIOR TO PROCEEDING.
10. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFIRM TO ALL OSHA REQUIREMENTS AND THE LOCAL JURISDICTION.
11. GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER DISCIPLINES.
12. ERECTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT EXPERIENCED WORKMAN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST ACCEPTED PRACTICE. ALL MEMBERS SHALL BE LAID PLUMB AND TRUE AS INDICATED ON THE DRAWINGS.
13. SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH UL LISTED MATERIALS APPROVED BY LOCAL JURISDICTION. CONTRACTOR SHALL KEEP AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DEBRIS.
14. WORK PREVIOUSLY COMPLETED IS REPRESENTED BY LIGHT SHADED LINES AND NOTES. THE SCOPE OF WORK FOR THIS PROJECT IS REPRESENTED BY DARK SHADED LINES AND NOTES. CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY EXISTING CONDITIONS THAT DEVIATE FROM THE DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.
15. CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
16. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
17. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
18. GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND CONTRACTORS TO THE SITE AND/OR BUILDING.
19. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE SITE FOR THE DURATION OF CONSTRUCTION UNTIL JOB COMPLETION.

20. THE GENERAL CONTRACTOR SHALL MAINTAIN IN GOOD CONDITION ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES.
 21. THE GENERAL CONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2-A OR 2-A:10-B:C AND SHALL BE WITHIN 25 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF WHERE THE WORK IS BEING COMPLETED DURING CONSTRUCTION.
 22. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS SHALL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION, B) CONFINED SPACE, C) ELECTRICAL SAFETY, AND D) TRENCHING & EXCAVATION.
 23. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED, CAPPED, PLUGGED OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE RESPONSIBLE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.
 24. THE AREAS OF THE OWNER'S PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION.
 25. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE FEDERAL AND LOCAL JURISDICTION FOR EROSION AND SEDIMENT CONTROL.
 26. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUNDING. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
 27. THE SUBGRADE SHALL BE BROUGHT TO A SMOOTH UNIFORM GRADE AND COMPACTED TO 95 PERCENT STANDARD PROCTOR DENSITY UNDER PAVEMENT AND STRUCTURES AND 80 PERCENT STANDARD PROCTOR DENSITY IN OPEN SPACE. ALL TRENCHES IN PUBLIC RIGHT OF WAY SHALL BE BACKFILLED WITH FLOWABLE FILL OR OTHER MATERIAL PRE-APPROVED BY THE LOCAL JURISDICTION.
 28. ALL NECESSARY RUBBISH, STUMPS, DEBRIS, STICKS, STONES, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
 29. ALL BROCHURES, OPERATING AND MAINTENANCE MANUALS, CATALOGS, SHOP DRAWINGS, AND OTHER DOCUMENTS SHALL BE TURNED OVER TO THE GENERAL CONTRACTOR AT COMPLETION OF CONSTRUCTION AND PRIOR TO PAYMENT.
 30. CONTRACTOR SHALL SUBMIT A COMPLETE SET OF AS-BUILT REDLINES TO THE GENERAL CONTRACTOR UPON COMPLETION OF PROJECT AND PRIOR TO FINAL PAYMENT.
 31. CONTRACTOR SHALL LEAVE PREMISES IN A CLEAN CONDITION.
 32. THE PROPOSED FACILITY WILL BE UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SEWER SERVICE, AND IS NOT FOR HUMAN HABITAT (NO HANDICAP ACCESS REQUIRED).
 33. OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION, APPROXIMATELY 2 TIMES PER MONTH, BY AT&T TECHNICIANS.
 34. NO OUTDOOR STORAGE OR SOLID WASTE CONTAINERS ARE PROPOSED.
 35. ALL MATERIAL SHALL BE FURNISHED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST REVISION AT&T MOBILITY GROUNDING STANDARD "TECHNICAL SPECIFICATION FOR CONSTRUCTION OF GSM/GPRS WIRELESS SITES" AND "TECHNICAL SPECIFICATION FOR FACILITY GROUNDING". IN CASE OF A CONFLICT BETWEEN THE CONSTRUCTION SPECIFICATION AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN.
 36. CONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION. IF CONTRACTOR CANNOT OBTAIN A PERMIT, THEY MUST NOTIFY THE GENERAL CONTRACTOR IMMEDIATELY.
 37. CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
 38. INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND/OR DRAWINGS PROVIDED BY THE SITE OWNER. CONTRACTORS SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
 39. NO WHITE STROBE LIGHTS ARE PERMITTED. LIGHTING IF REQUIRED, WILL MEET FAA STANDARDS AND REQUIREMENTS.
- ANTENNA MOUNTING**
40. DESIGN AND CONSTRUCTION OF ANTENNA SUPPORTS SHALL CONFORM TO CURRENT ANSI/TIA-222 OR APPLICABLE LOCAL CODES.

41. ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS NOTED OTHERWISE.
 42. ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE", UNLESS NOTED OTHERWISE.
 43. DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A780.
 44. ALL ANTENNA MOUNTS SHALL BE INSTALLED WITH LOCK NUTS, DOUBLE NUTS AND SHALL BE TORQUED TO MANUFACTURER'S RECOMMENDATIONS.
 45. CONTRACTOR SHALL INSTALL ANTENNA PER MANUFACTURER'S RECOMMENDATION FOR INSTALLATION AND GROUNDING.
 46. ALL UNUSED PORTS ON ANY ANTENNAS SHALL BE TERMINATED WITH A 50-OHM LOAD TO ENSURE ANTENNAS PERFORM AS DESIGNED.
 47. PRIOR TO SETTING ANTENNA AZIMUTHS AND DOWNTILTS, ANTENNA CONTRACTOR SHALL CHECK THE ANTENNA MOUNT FOR TIGHTNESS AND ENSURE THAT THEY ARE PLUMB. ANTENNA AZIMUTHS SHALL BE SET FROM TRUE NORTH AND BE ORIENTED WITHIN +/- 5% AS DEFINED BY THE RFDS. ANTENNA DOWNTILTS SHALL BE WITHIN +/- 0.5% AS DEFINED BY THE RFDS. REFER TO ND-00246.
 48. JUMPERS FROM THE TMA'S MUST TERMINATE TO OPPOSITE POLARIZATION'S IN EACH SECTOR.
 49. CONTRACTOR SHALL RECORD THE SERIAL #, SECTOR, AND POSITION OF EACH ACTUATOR INSTALLED AT THE ANTENNAS AND PROVIDE THE INFORMATION TO AT&T.
 50. TMA'S SHALL BE MOUNTED ON PIPE DIRECTLY BEHIND ANTENNAS AS CLOSE TO ANTENNA AS FEASIBLE IN A VERTICAL POSITION.
- TORQUE REQUIREMENTS**
51. ALL RF CONNECTIONS SHALL BE TIGHTENED BY A TORQUE WRENCH.
 52. ALL RF CONNECTIONS, GROUNDING HARDWARE AND ANTENNA HARDWARE SHALL HAVE A TORQUE MARK INSTALLED IN A CONTINUOUS STRAIGHT LINE FROM BOTH SIDES OF THE CONNECTION.
A. RF CONNECTION BOTH SIDES OF THE CONNECTOR.
B. GROUNDING AND ANTENNA HARDWARE ON THE NUT SIDE STARTING FROM THE THREADS TO THE SOLID SURFACE. EXAMPLE OF SOLID SURFACE: GROUND BAR, ANTENNA BRACKET METAL.
- FIBER & POWER CABLE MOUNTING**
53. THE FIBER OPTIC TRUNK CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY. WHEN INSTALLING FIBER OPTIC TRUNK CABLES INTO A CABLE TRAY SYSTEM, THEY SHALL BE INSTALLED INTO AN INTER DUCT AND A PARTITION BARRIER SHALL BE INSTALLED BETWEEN THE 800 VOLT CABLES AND THE INTER DUCT IN ORDER TO SEGREGATE CABLE TYPES. OPTIC FIBER TRUNK CABLES SHALL HAVE APPROVED CABLE RESTRAINTS EVERY (80) SIXTY FEET AND SECURELY FASTENED TO THE CABLE TRAY SYSTEM. NFPA 70 (NEC) ARTICLE 770 RULES SHALL APPLY.
 54. THE TYPE TC-ER CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY AND SHALL BE SECURED AT INTERVALS NOT EXCEEDING (6) SIX FEET. AN EXCEPTION; WHERE TYPE TC-ER CABLES ARE NOT SUBJECT TO PHYSICAL DAMAGE, CABLES SHALL BE PERMITTED TO MAKE A TRANSITION BETWEEN CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY WHICH ARE SERVING UTILIZATION EQUIPMENT OR DEVICES, A DISTANCE (6) SIX FEET SHALL NOT BE EXCEEDED WITHOUT CONTINUOUS SUPPORTING. NFPA 70 (NEC) ARTICLES 336 AND 392 RULES SHALL APPLY.
 55. WHEN INSTALLING OPTIC FIBER TRUNK CABLES OR TYPE TC-ER CABLES INTO CONDUITS, NFPA 70 (NEC) ARTICLE 300 RULES SHALL APPLY.
- COAXIAL CABLE NOTES**
62. TYPES AND SIZES OF THE ANTENNA CABLE ARE BASED ON ESTIMATED LENGTHS. PRIOR TO ORDERING CABLE, CONTRACTOR SHALL VERIFY ACTUAL LENGTH BASED ON CONSTRUCTION LAYOUT AND NOTIFY THE PROJECT MANAGER IF ACTUAL LENGTHS EXCEED ESTIMATED LENGTHS.
 63. CONTRACTOR SHALL VERIFY THE DOWN-TILT OF EACH ANTENNA WITH A DIGITAL LEVEL.
 64. CONTRACTOR SHALL CONFIRM COAX COLOR CODING PRIOR TO CONSTRUCTION.
 65. ALL JUMPERS TO THE ANTENNAS FROM THE MAIN TRANSMISSION LINE SHALL BE 1/2" DIA. LDF AND SHALL NOT EXCEED 6'-0".

66. ALL COAXIAL CABLE SHALL BE SECURED TO THE DESIGNED SUPPORT STRUCTURE, IN AN APPROVED MANNER, AT DISTANCES NOT TO EXCEED 4'-0" OC.
 67. CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS REGARDING BOTH THE INSTALLATION AND GROUNDING OF ALL COAXIAL CABLES, CONNECTORS, ANTENNAS, AND ALL OTHER EQUIPMENT.
 68. CONTRACTOR SHALL GROUND ALL EQUIPMENT, INCLUDING ANTENNAS, RET MOTORS, TMA'S, COAX CABLES, AND RET CONTROL CABLES AS A COMPLETE SYSTEM. GROUNDING SHALL BE EXECUTED BY QUALIFIED WIREMEN IN COMPLIANCE WITH MANUFACTURER'S SPECIFICATION AND RECOMMENDATION.
 69. CONTRACTOR SHALL PROVIDE STRAIN-RELIEF AND CABLE SUPPORTS FOR ALL CABLE ASSEMBLIES, COAX CABLES, AND RET CONTROL CABLES. CABLE STRAIN-RELIEFS AND CABLE SUPPORTS SHALL BE APPROVED FOR THE PURPOSE. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
 70. CONTRACTOR TO VERIFY THAT EXISTING COAX HANGERS ARE STACKABLE SNAP IN HANGERS. IF EXISTING HANGERS ARE NOT STACKABLE SNAP IN HANGERS THE CONTRACTOR SHALL REPLACE EXISTING HANGERS WITH NEW SNAP IN HANGERS IF APPLICABLE.
- GENERAL CABLE AND EQUIPMENT NOTES**
71. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ANTENNA, TMA'S, DIPLEXERS, AND COAX CONFIGURATION, MAKE AND MODELS PRIOR TO INSTALLATION.
 72. ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER TOWER MANUFACTURER'S RECOMMENDATIONS.
 73. CONTRACTOR SHALL REFERENCE THE TOWER STRUCTURAL ANALYSIS/DESIGN DRAWINGS FOR DIRECTIONS ON CABLE DISTRIBUTION/ROUTING.
 74. ALL OUTDOOR RF CONNECTORS/CONNECTIONS SHALL BE WEATHERPROOFED, EXCEPT THE RET CONNECTORS, USING BUTYL TAPE AFTER INSTALLATION AND FINAL CONNECTIONS ARE MADE. BUTYL TAPE SHALL HAVE A MINIMUM OF ONE-HALF TAPE WIDTH OVERLAP ON EACH TURN AND EACH LAYER SHALL BE WRAPPED THREE TIMES. WEATHERPROOFING SHALL BE SMOOTH WITHOUT BUCKLING. BUTYL BLEEDING IS NOT ALLOWED.
 75. IF REQUIRED TO PAINT ANTENNAS AND/OR COAX:
A. TEMPERATURE SHALL BE ABOVE 50° F.
B. PAINT COLOR MUST BE APPROVED BY BUILDING OWNER/LANDLORD.
C. FOR REGULATED TOWERS, FAA/FCC APPROVED PAINT IS REQUIRED.
D. DO NOT PAINT OVER COLOR CODING OR ON EQUIPMENT MODEL NUMBERS
 76. ALL CABLES SHALL BE GROUNDED WITH COAXIAL CABLE GROUND KITS. FOLLOW THE MANUFACTURER'S RECOMMENDATIONS.
A. GROUNDING AT THE ANTENNA LEVEL.
B. GROUNDING AT MID LEVEL, TOWERS WHICH ARE OVER 200'-0", ADDITIONAL CABLE GROUNDING REQUIRED.
C. GROUNDING AT BASE OF TOWER PRIOR TO TURNING HORIZONTAL.
D. GROUNDING OUTSIDE THE EQUIPMENT SHELTER AT ENTRY PORT.
E. GROUNDING INSIDE THE EQUIPMENT SHELTER AT THE ENTRY PORT.
 77. ALL PROPOSED GROUND BAR DOWNLEADS ARE TO BE TERMINATED TO THE EXISTING ADJACENT GROUND BAR DOWNLEADS A MINIMUM DISTANCE OF 4'-0" BELOW GROUND BAR. TERMINATIONS MAY BE EXOTHERMIC OR COMPRESSION.



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smartlink

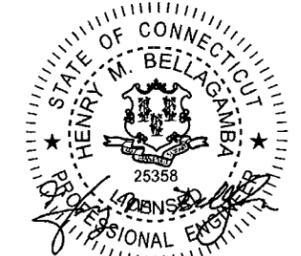
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SITE NAME
**WOLCOTT -
WOLCOTT RD**

SITE NUMBER:
CTL01111

SITE ADDRESS
1233 WOLCOTT ROAD
WOLCOTT, CT 06716

SHEET NAME
**NOTES AND
SPECIFICATIONS**

SHEET NUMBER
SP1

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NOTICE



Beyond This Point you are entering a controlled area where RF emissions *may exceed* the FCC General Population Exposure Limits.

Follow all posted signs and site guidelines for working in a RF environment.



Ref: 47CFR 1.1307(b)

CAUTION



Beyond This Point you are entering a controlled area where RF emissions *may exceed* the FCC Occupational Exposure Limits.

Obey all posted signs and site guidelines for working in a RF environment.



Ref: 47CFR 1.1307(b)



ALERTING SIGN
(FOR CELL SITE BATTERIES)



ALERTING SIGN
(FOR DIESEL FUEL)



ALERTING SIGN
(FOR PROPANE)



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ALERTING SIGNS

WARNING!

DANGER DO NOT TOUCH TOWER!

SERIOUS "RF" BURN HAZARD!

MAINTAIN AN ADEQUATE CLEARANCE BETWEEN TOWER SUPPORTS AND GUY WIRES

FAILURE TO OBEY ALL POSTED SIGNS AND SITE GUIDELINES FOR WORKING IN A RADIO FREQUENCY ENVIRONMENT COULD RESULT IN SERIOUS INJURY. CONTACT CURRENT MAY EXCEED LIMITS PRESCRIBED IN ANSI/IEEE C95.1-1992 FOR CONTROLLED ENVIRONMENTS.



PROPERTY OF AT&T



AUTHORIZED PERSONNEL ONLY

IN CASE OF EMERGENCY, OR PRIOR TO PERFORMING MAINTENANCE ON THIS SITE, CALL 800-638-2822 AND REFERENCE CELL SITE NUMBER _____

ALERTING SIGN

INFO SIGN #4

GENERAL SIGNAGE GUIDELINES

STRUCTURE TYPE	INFO SIGN #1	INFO SIGN #2	INFO SIGN #3	INFO SIGN #4	STRIPING	NOTICE SIGN	CAUTION SIGN
TOWERS							
MONOPOLE/MONOPINE/MONOPALM	ENTRANCE GATES, SHELTER DOORS OR ON THE OUTDOOR CABINETS	CLIMBING SIDE OF THE TOWER	ON BACKSIDE OF ANTENNAS	ENTRANCE GATES, SHELTER DOORS OR ON THE OUTDOOR CABINETS			AT THE HEIGHT OF THE FIRST CLIMBING STEP, MIN 9 FT ABOVE GROUND
SEC TOWERS/TOWERS WITH HIGH VOLTAGE	ENTRANCE GATES, SHELTER DOORS OR ON THE OUTDOOR CABINETS	CLIMBING SIDE OF THE TOWER	ON BACKSIDE OF ANTENNAS	ENTRANCE GATES, SHELTER DOORS OR ON THE OUTDOOR CABINETS			
LIGHT POLES/FLAG POLES	ENTRANCE GATES, SHELTER DOORS OR ON THE OUTDOOR CABINETS	ON THE POLE, NO LESS THAN 3FT BELOW THE ANTENNA AND LESS THAN 9FT ABOVE GROUND	ON BACKSIDE OF ANTENNAS	ENTRANCE GATES, SHELTER DOORS OR ON THE OUTDOOR CABINETS			
UTILITY WOOD POLES (JPA)	ENTRANCE GATES, SHELTER DOORS OR ON THE OUTDOOR CABINETS	ON THE POLE, NO LESS THAN 3FT BELOW THE ANTENNA AND LESS THAN 9FT ABOVE GROUND	ON BACKSIDE OF ANTENNAS	ENTRANCE GATES, SHELTER DOORS OR ON THE OUTDOOR CABINETS		IF GP MAX VALUE OF MPE AT ANTENNA LEVEL IS: 0-99%; NOTICE SIGN; OVER 99%; CAUTION SIGN AT NO LESS THAN 3FT BELOW ANTENNA AND 9FT ABOVE GROUND	
MICROCELLS MOUNTED ON NON-JPA POLES	ENTRANCE GATES, SHELTER DOORS OR ON THE OUTDOOR CABINETS	ON THE POLE, NO LESS THAN 3FT BELOW THE ANTENNA AND LESS THAN 9FT ABOVE GROUND	ON BACKSIDE OF ANTENNAS	ENTRANCE GATES, SHELTER DOORS OR ON THE OUTDOOR CABINETS		NOTICE OR CAUTION SIGN AT NO LESS THAN 9FT ABOVE GROUND; ONLY IF THE EXPOSURE EXCEEDS 90% OF THE GENERAL PUBLIC EXPOSURE AT EXPOSURE AT 6FT ABOVE GROUND OR AT OUTSIDE OF SURFACE OF ADJACENT BUILDING	
TOWERS							
AT ALL ACCESS POINTS TO THE ROOF	X			X			
ON ANTENNAS	X		X	X			
CONCEALED ANTENNAS	X	X		X			
ANTENNAS MOUNTED FACING OUTSIDE THE BUILDING	X	X		X			
ANTENNAS ON SUPPORT STRUCTURE	X	X		X			
ROOFVIEW GRAPH							
RADIATION AREA IS WITHIN 3FT FROM ANTENNA	X	ADJACENT TO EACH ANTENNA		X		EITHER NOTICE OR CAUTION SIGN (BASED ON ROOFVIEW RESULTS) AT ANTENNA /BARRIER	
RADIATION AREA IS BEYOND 3FT FROM ANTENNA	X	ADJACENT TO EACH ANTENNA		X	DIAGONAL, YELLOW STRIPING AS TO ROOFVIEW GRAPH		
CHURCH STEEPLES	ACCESS TO STEEPLE	ADJACENT TO ANTENNAS IF ANTENNAS ARE CONCEALED	ON BACKSIDE OF ANTENNAS	ACCESS TO STEEPLE			CAUTION SIGN AT THE ANTENNAS
WATER STATIONS	ACCESS TO LADDER	ADJACENT TO ANTENNAS IF ANTENNAS ARE CONCEALED	ON BACKSIDE OF ANTENNAS	ACCESS TO LADDER			CAUTION SIGN BESIDE INFO SIGN #1, MIN. 9FT ABOVE GROUND

STAY BACK 3 FEET FROM ANTENNA

INFORMATION

AT&T operates telecommunication antennas at this location. Remain at least 3 feet away from any antenna and obey all posted signs.

Contact the owner(s) of the antenna(s) before working closer than 3 feet from the antenna.

Contact AT&T at _____ prior to performing any maintenance or repairs near AT&T antennas. This is Site # _____.

Contact the management office if this door/hatch/gate is found unlocked.

INFORMACION

En esta propiedad se ubican antenas de telecomunicaciones operadas por AT&T. Favor mantener una distancia de no menos de 3 pies y obedecer todos los avisos.

Comuníquese con el propietario o los propietarios de las antenas antes de trabajar o caminar a una distancia de menos de 3 pies de la antena.

Comuníquese con AT&T _____ antes de realizar cualquier mantenimiento o reparaciones cerca de las antenas de AT&T.

Esta es la estación base número _____.

Favor comunicarse con la oficina de la administración del edificio si esta puerta o compuerta se encuentra sin cerrada.



INFORMATION

ACTIVE ANTENNAS ARE MOUNTED

ON THE OUTSIDE OF THIS BUILDING

BEHIND THIS PANEL

ON THIS STRUCTURE

STAY BACK A MINIMUM OF 3 FEET FROM THESE ANTENNAS

Contact AT&T at _____ and follow their instructions prior to performing any maintenance or repairs closer than 3 feet from the antennas.

This is AT&T site # _____



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WOLCOTT - WOLCOTT RD

SITE NUMBER:
CTL0111

SITE ADDRESS
**1233 WOLCOTT ROAD
WOLCOTT, CT 06716**

SHEET NAME
NOTES AND SPECIFICATIONS

SHEET NUMBER
SP2

INFO SIGN #1

INFO SIGN #2

INFO SIGN #3

SIGNAGE GUIDELINES CHART

NOTES FOR ROOFTOP SITES:

1. EITHER NOTICE OR CAUTION SIGNS NEED TO BE POSTED AT EACH SECTOR AS CLOSE AS POSSIBLE TO: THE OUTER EDGE OF THE STRIPED OFF AREA OR THE OUTER ANTENNAS OF THE SECTOR
2. IF ROOFVIEWS SHOWS: ONLY BLUE = NOTICE SIGN, BLUE AND YELLOW = CAUTION SIGN, ONLY YELLOW = CAUTION SIGN TO BE INSTALLED
3. SHOULD THE REQUIRED STRIPING AREAS INTERFERE WITH ANY STRUCTURE OR EQUIPMENT (A/C, VENTS, ROOF HATCH, DOORS, OTHER ANTENNAS, DISHES, ETC.). PLEASE NOTIFY AT&T TO MODIFY THE STRIPING AREA, PRIOR TO STARTING THE WORK.

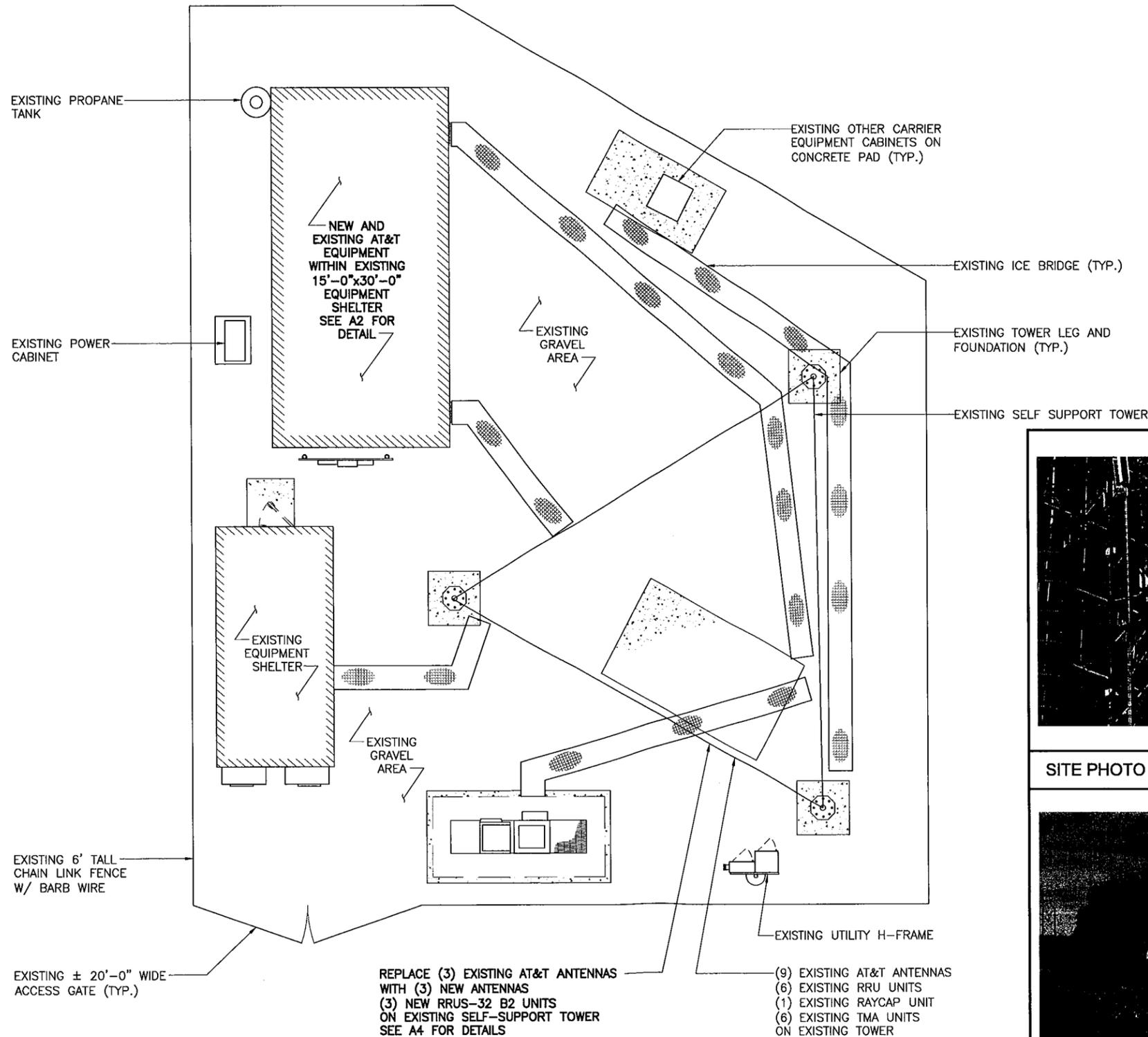
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ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AGL	ABOVE GRADE LEVEL
AMSL	ABOVE MEAN SEA LEVEL
APPROX	APPROXIMATE
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BLDG	BUILDING
BTS	BASE TRANSMISSION STATION
CL	CENTERLINE
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CND	CONDUIT
DWG	DRAWING
FT	FOOT(FEET)
EGB	EQUIPMENT GROUND BAR
ELEC	ELECTRICAL
EMT	ELECTRICAL METALLIC TUBING
ELEV	ELEVATION
EQUIP	EQUIPMENT
(E)	EXISTING
EXT	EXTERIOR
FND	FOUNDATION
F	FIBER
FIF	FACILITY INTERFACE FRAME
GA	GAUGE
GALV	GALVANIZED
GPS	GLOBAL POSITIONING SYSTEM
GND	GROUND
GSM	GLOBAL SYSTEM FOR MOBILE COMMUNICATION
LTE	LONG TERM EVOLUTION
MAX	MAXIMUM
MCPA	MULTI-CARRIER POWER AMPLIFIER
MFR	MANUFACTURER
MGB	MASTER GROUND BAR
MIN	MINIMUM
MTS	MANUAL TRANSFER SWITCH
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
OE/OT	OVERHEAD ELECTRIC/TELCO
PPC	POWER PROTECTION CABINET
PL	PROPERTY LINE
RBS	RADIO BASED STATION
RET	REMOTE ELECTRIC TILT
RRU	REMOTE RADIO UNIT
RGS	RIGID GALVANIZED STEEL
IN	INCH(ES)
INT	INTERIOR
LB(S), #	POUND(S)
SF	SQUARE FOOT
STL	STEEL
TMA	TOWER MOUNTED AMPLIFIER
TYP	TYPICAL
UE/UT	UNDERGROUND ELECTRIC/TELCO
UNO	UNLESS NOTED OTHERWISE
UMTS	UNIVERSAL MOBILE TELE-COMMUNICATION SYSTEM
VIF	VERIFY IN FIELD
W/	WITH
XFMR	TRANSFORMER

SYMBOLS

	REVISION
	WORK POINT
	UTILITY POLE
	COMPRESSED STONE
	BRICK
	CONCRETE
	EARTH
	GRAVEL
	MASONRY
	STEEL
	CENTERLINE
	PROPERTY LINE
	LEASE LINE
	EASEMENT LINE
	CHAIN LINK FENCE
	WOOD FENCE
	BELOW GRADE ELECTRIC
	BELOW GRADE TELEPHONE
	OVERHEAD ELECTRIC/TELEPHONE
	SECTION REFERENCE



COMPOUND PLAN

SCALE: 3/32" = 1'-0" 1



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SUITE 550 13 AND 14
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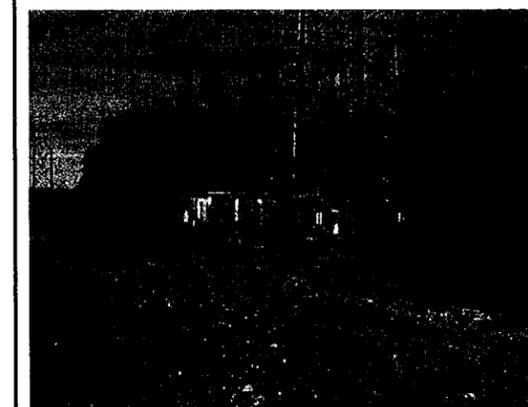


SITE NAME
WOLCOTT - WOLCOTT RD



SITE PHOTO 1 SCALE: N.T.S. 2

SITE NUMBER:
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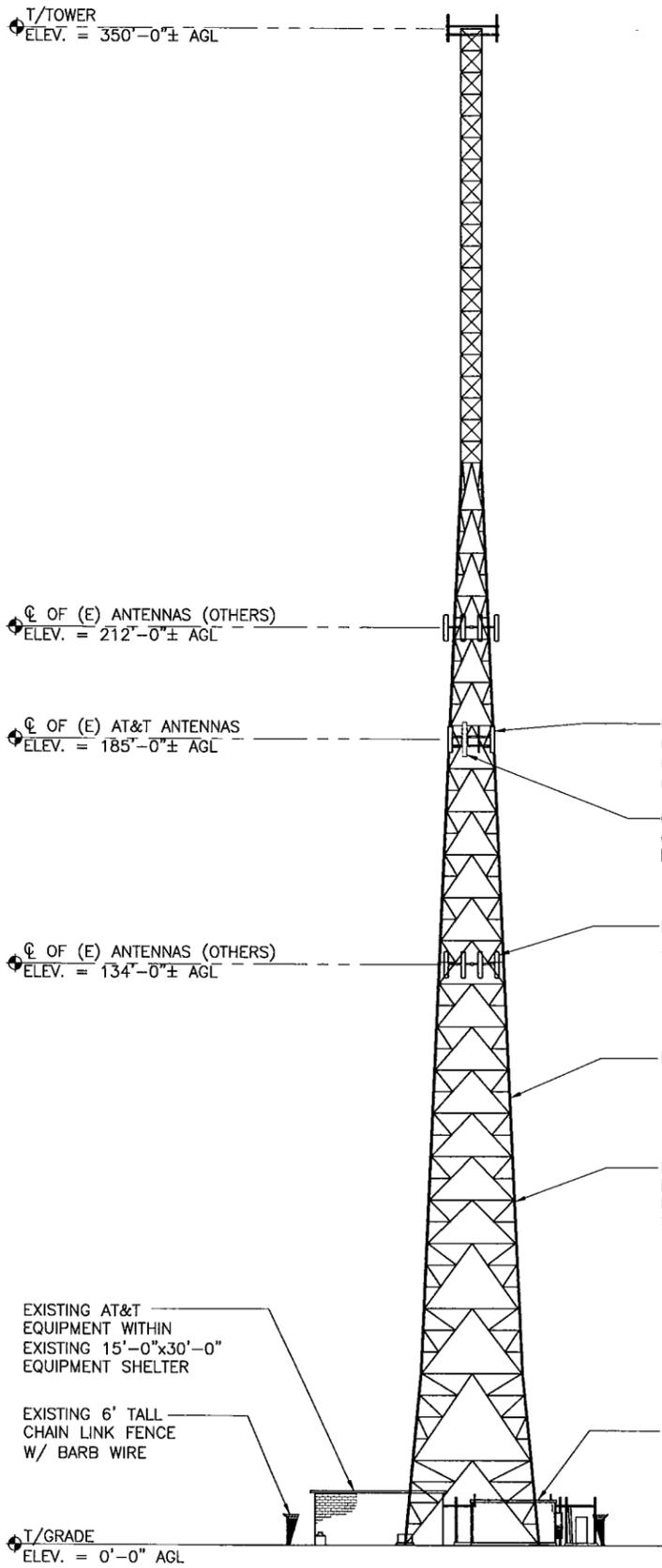
SITE PHOTO 2 SCALE: N.T.S. 3

SITE ADDRESS
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SHEET NAME
COMPOUND PLAN

SHEET NUMBER
A1

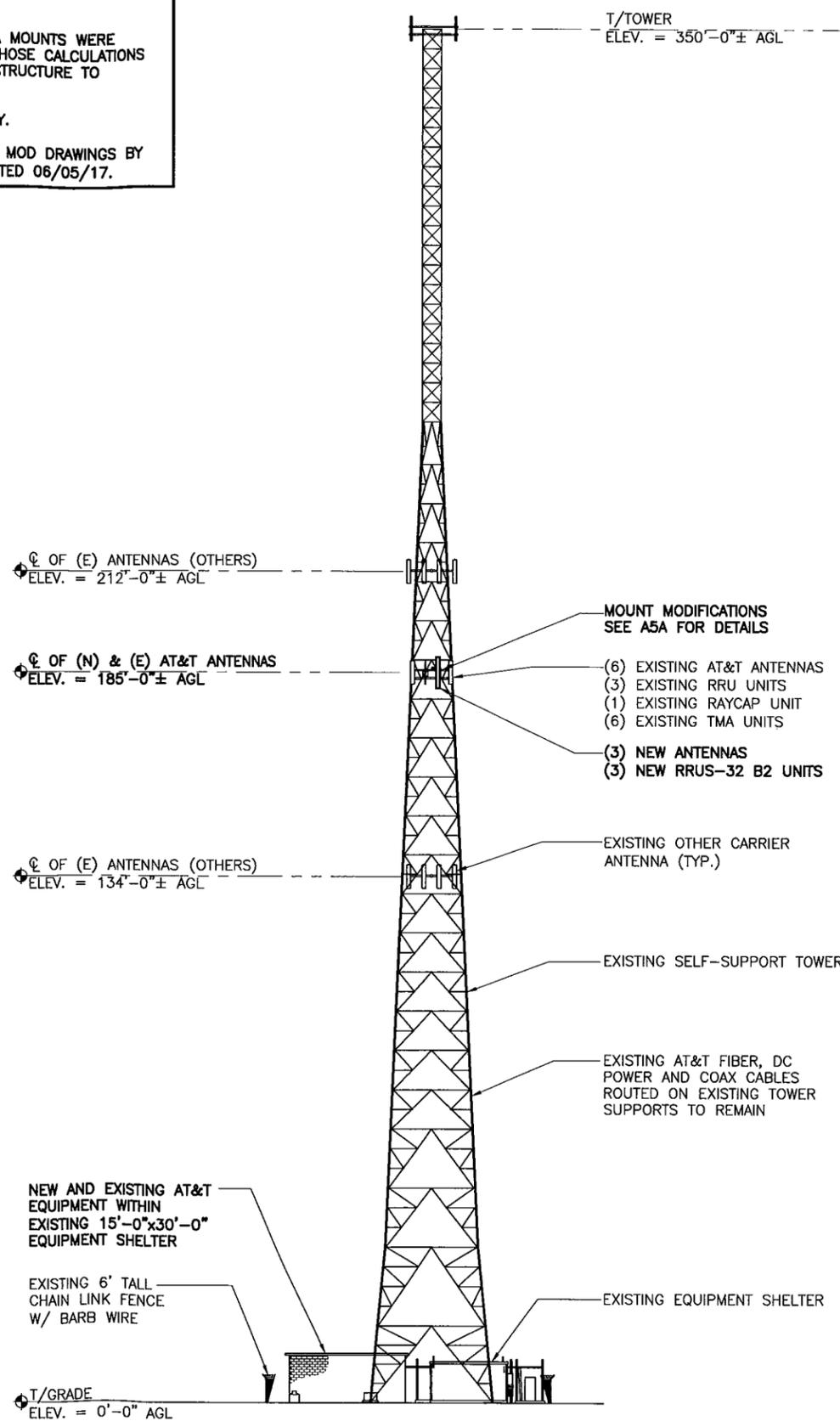
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EXISTING ELEVATION

SCALE: 1" = 40'-0" 1

- NOTES:**
1. CALCULATIONS FOR THE STRUCTURE WERE PREPARED BY OTHERS AND THOSE CALCULATIONS CERTIFY THE CAPACITY OF THE STRUCTURE TO SUPPORT THE NEW EQUIPMENT.
 2. CALCULATIONS FOR THE ANTENNA MOUNTS WERE PREPARED BY FULLERTON AND THOSE CALCULATIONS CERTIFY THE CAPACITY OF THE STRUCTURE TO SUPPORT THE NEW EQUIPMENT.
 3. CABLES NOT SHOWN FOR CLARITY.
 4. REFER TO THE STRUCTURAL AND MOD DRAWINGS BY SBA / ALLPRO CONSULTANTS DATED 06/05/17.



NEW ELEVATION

SCALE: 1" = 40'-0" 2



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SHEET NAME

ELEVATIONS

SHEET NUMBER

A3



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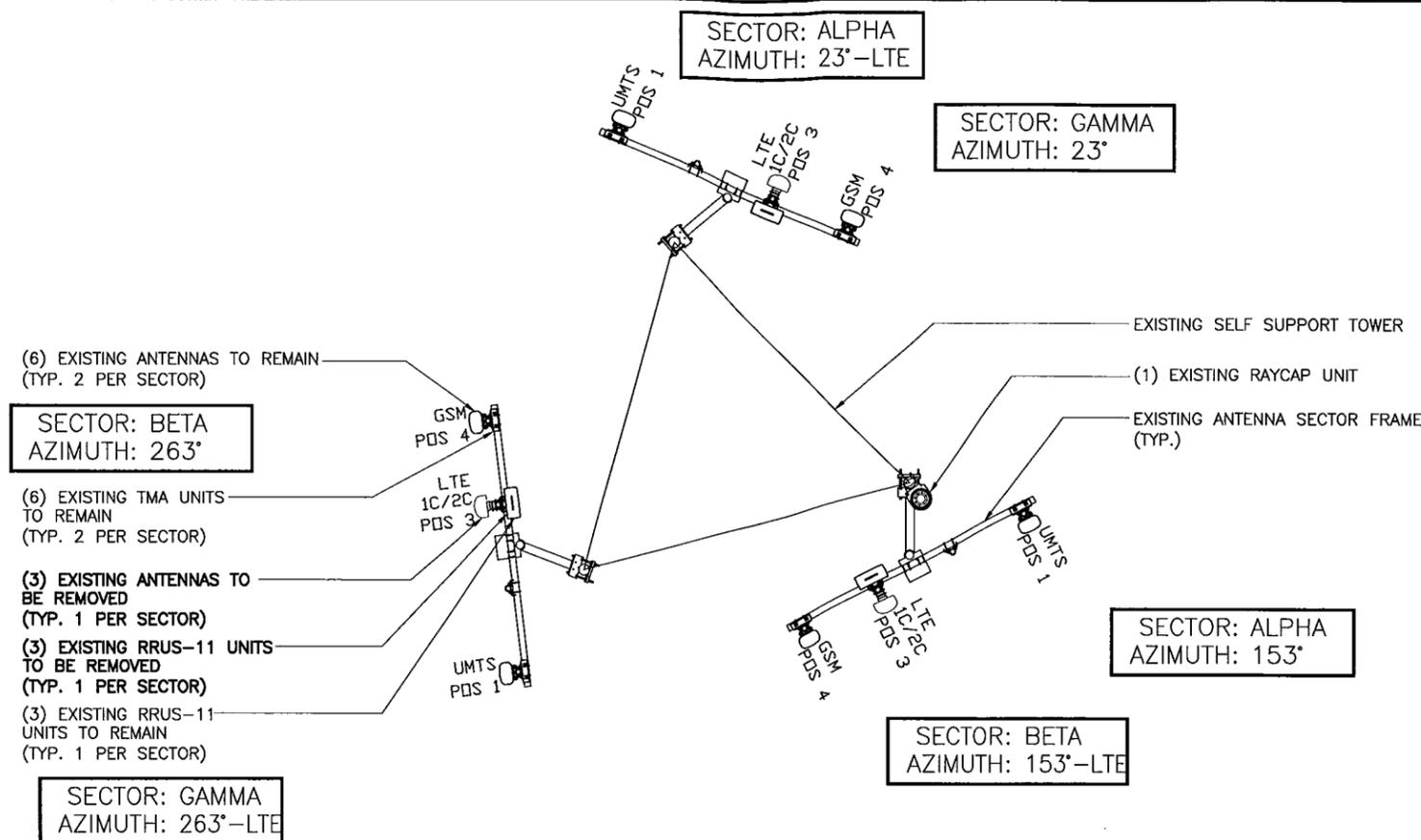
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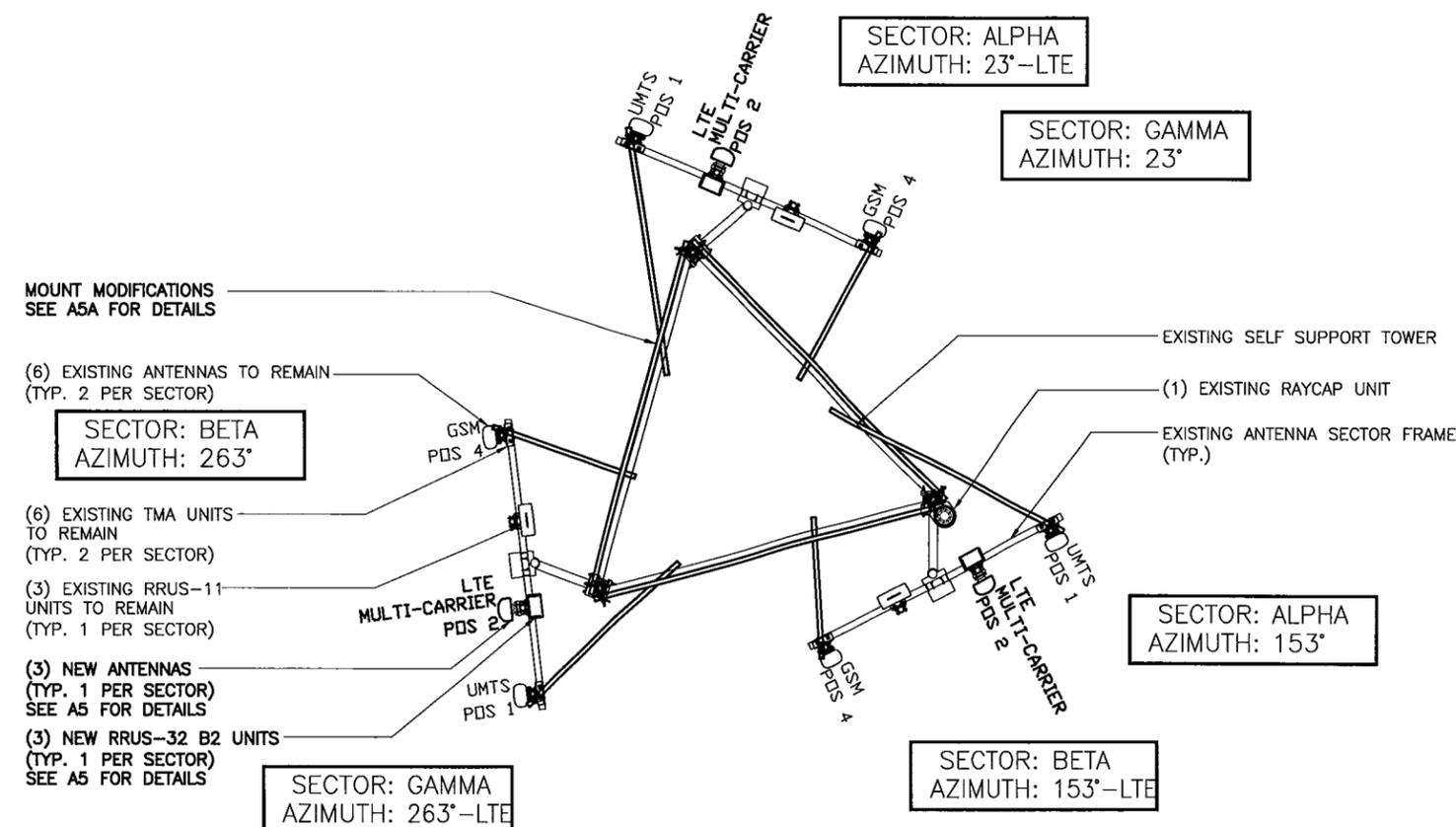
SHEET NAME
ANTENNA PLANS

SHEET NUMBER
A4



EXISTING ANTENNA PLAN

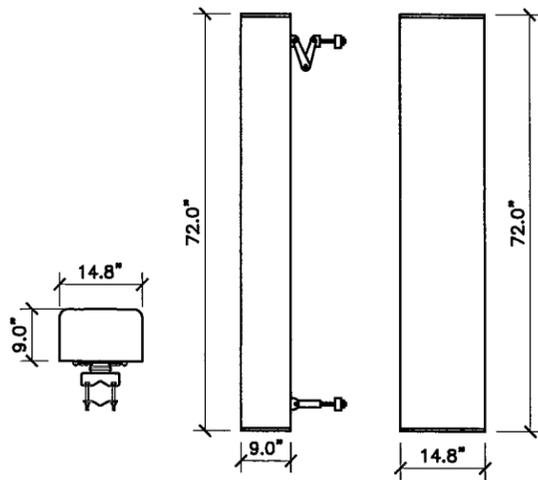
SCALE: 3/32" = 1'-0" 1



FINAL ANTENNA PLAN

SCALE: 3/32" = 1'-0" 2

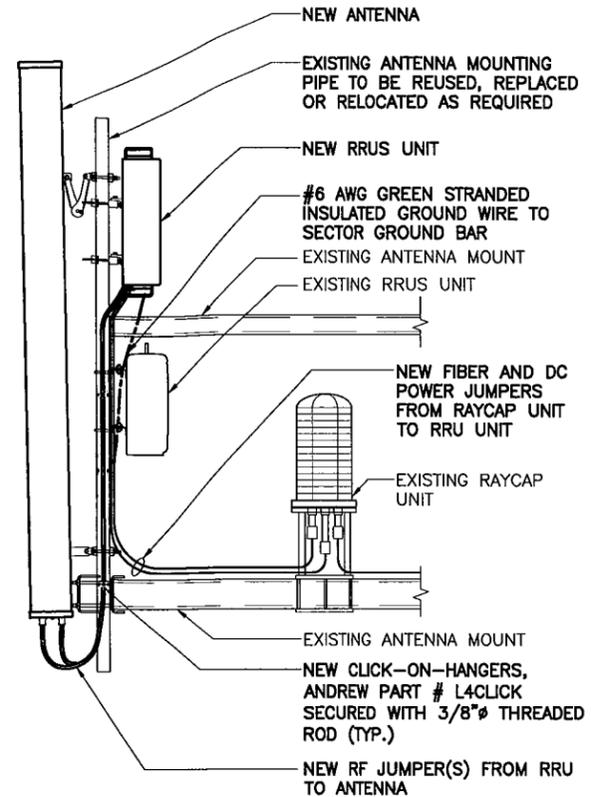
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PLAN VIEW SIDE VIEW FRONT VIEW

CCI - HPA-65R-BUU-H6

HEXPORT MULTI-BAND ANTENNA
 FREQUENCY RANGE 698-806 MHz
 824-894 MHz
 1850-1990 MHz
 1710-1755/2110-2170 MHz
 2305-2360 MHz
 ANTENNA WITH BRACKET 51 Lbs
 61 Lbs



ANTENNA SCHEMATIC

ANTENNA SPEC

SCALE: N.T.S.

1

NOT USED

SCALE: N.T.S.

2

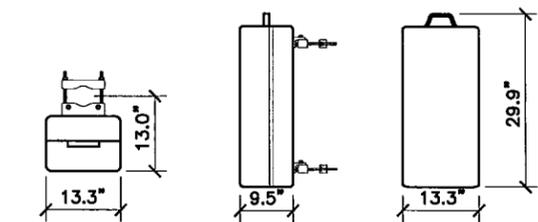
SCALE: N.T.S.

3

NOT USED

SCALE: N.T.S.

4



PLAN VIEW SIDE VIEW FRONT VIEW

ERICSSON - RRUS-32 B30

UNIT WEIGHT 77 Lbs

RRU SPEC

SCALE: N.T.S.

5

NOT USED

SCALE: N.T.S.

6

NOT USED

SCALE: N.T.S.

7

NOT USED

SCALE: N.T.S.

8



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 FRAMINGHAM, MA 01701



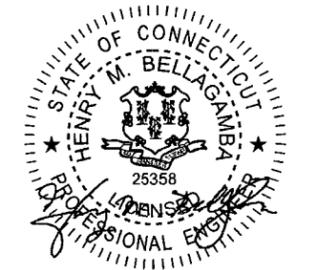
1362 MELLON ROAD
 SUITE 140
 HANOVER, MD 21076

FULLERTON
 ENGINEERING DESIGN

1100 E. WOODFIELD ROAD, SUITE 500
 SCHAUMBURG, ILLINOIS 60173
 TEL: 847-908-8400
 COA# PEC.0001444
 www.FullertonEngineering.com

REV	DATE	DESCRIPTION	BY
0	10/26/16	90% REVIEW	KC
1	11/18/16	FOR PERMIT	KC
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3	06/23/17	REVISION	MD

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SITE NAME
WOLCOTT - WOLCOTT RD

SITE NUMBER:
CTL01111

SITE ADDRESS
 1233 WOLCOTT ROAD
 WOLCOTT, CT 06716

SHEET NAME
EQUIPMENT DETAILS

SHEET NUMBER
A5

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**EQUIPMENT
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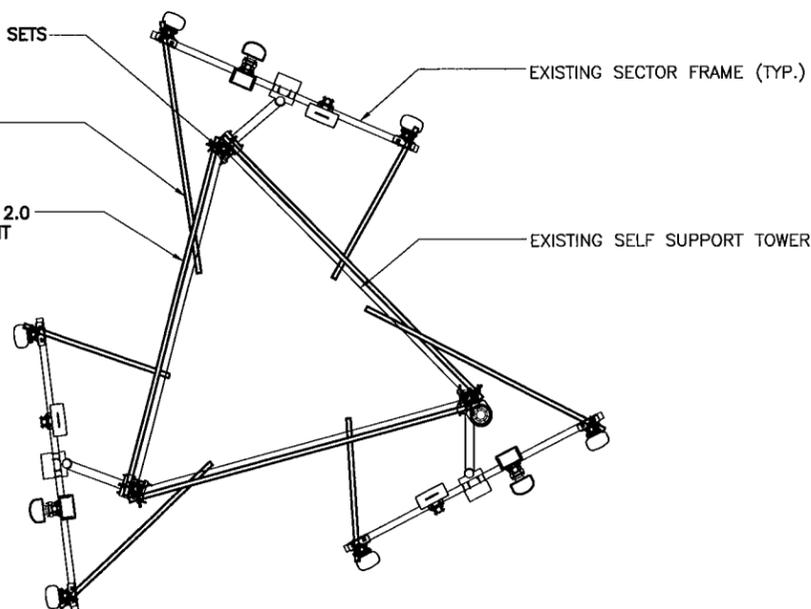
SHEET NUMBER

A5A

(6) NEW CROSSOVER CLAMP SETS
(TYP. 2 PER SECTOR)
SITE PRO 1 P/N: SSCK

(6) NEW STIFF ARM KITS
(TYP. 2 PER SECTOR)
SITE PRO 1 P/N: STK-U

(3) NEW HORIZONTAL PIPES 2.0
ATTACHED TO BOTH ADJACENT
LEGS AT EACH TOWER FACE
(TYP. 1 PER SECTOR)



SECTOR FRAME REINFORCEMENT DETAIL

SCALE: N.T.S.

1

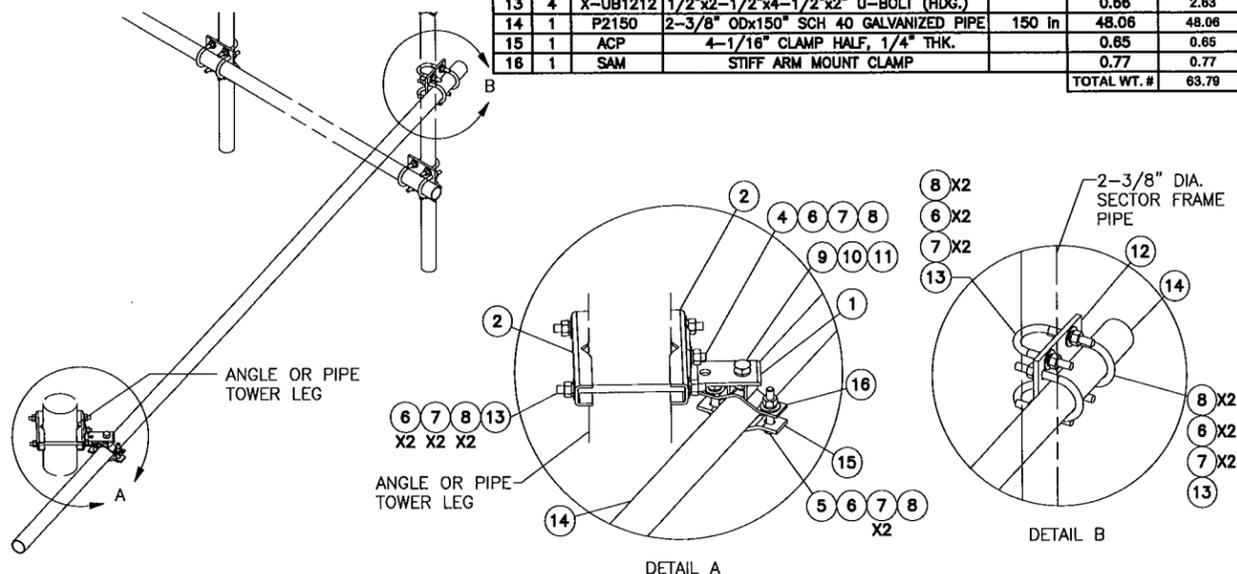
NOT USED

SCALE: N.T.S.

2

**VALMONT
SECTOR FRAME STIFF ARM KIT
PART#: STK-U**

PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	1	X-STA3	STIFF ARM ANGLE BRACKET	2 1/2 in	1.39	1.39
2	2	X-STU	STIFF ARM CHANNEL BRACKET		1.37	2.74
3	2	G12R-10	1/2"x10" THREADED ROD (HDG.)		3.23	6.45
4	1	G12112	1/2"x1-1/2" HDG HEX BOLT GR5	1 1/2 in	0.15	0.15
5	2	G1203	1/2"x3" HDG HEX BOLT GR5 FULL THREAD	3 in	0.22	0.43
6	15	G12LW	1/2" HDG LOCKWASHER		0.01	0.21
7	17	G12FW	1/2" HDG USS FLATWASHER		0.03	0.58
8	15	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	1.07
9	1	G58112	5/8"x1-1/2" HDG BOLT	1 1/2 in	0.25	0.25
10	1	G58LW	5/8" HDG LOCKWASHER		0.03	0.03
11	1	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	0.13
12	1	SCX1	CROSSOVER PLATE 2-3/8"x2-3/8"		3.71	3.71
13	4	X-UB1212	1/2"x2-1/2"x4-1/2"x2" U-BOLT (HDG.)		0.66	2.63
14	1	P2150	2-3/8" ODx150" SCH 40 GALVANIZED PIPE	150 in	48.06	48.06
15	1	ACP	4-1/16" CLAMP HALF, 1/4" THK.		0.65	0.65
16	1	SAM	STIFF ARM MOUNT CLAMP		0.77	0.77
				TOTAL WT. #		63.79



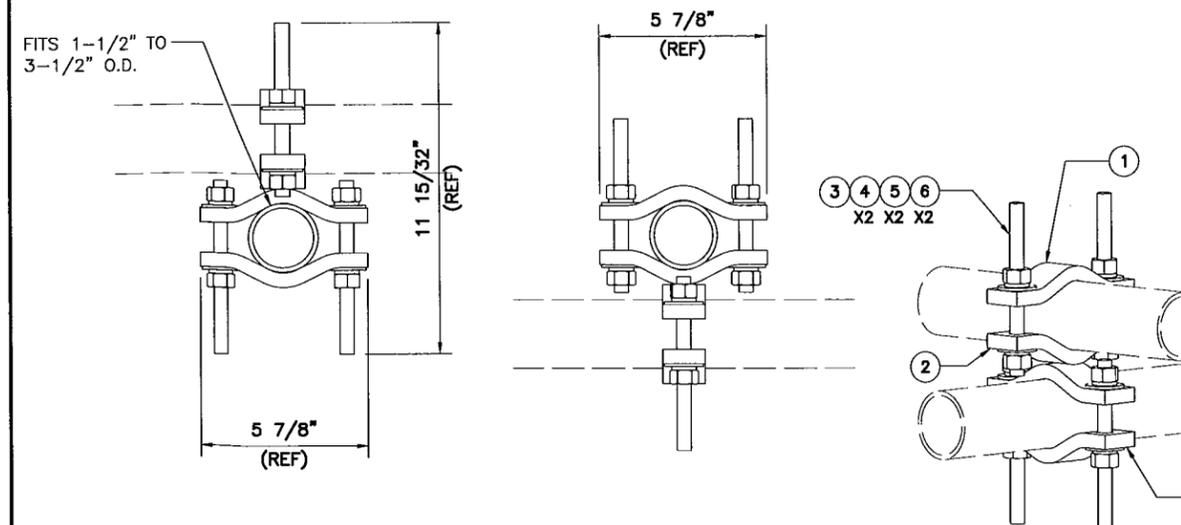
STIFF ARM KIT SPEC

SCALE: N.T.S.

3

**VALMONT
CROSSOVER CLAMP SET
PART#: SSCK**

PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	2	SCP	CLAMP HALF, 5-7/8" LONG		1.25	2.50
2	1	SSC	CROSSOVER CLAMP WELDMENT		2.50	2.50
3	4	G12R-6	1/2" x 6" THREADED ROD (HDG.)	6"	3.23	12.91
4	8	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	0.57
5	8	G12LW	1/2" HDG LOCKWASHER		0.01	0.11
6	8	G12FW	1/2" HDG USS FLATWASHER		0.03	0.27
				TOTAL WT. #		63.79



CROSSOVER CLAMP SPEC

SCALE: N.T.S.

4

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SITE NUMBER:
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WOLCOTT, CT 06716**

SHEET NAME
ANTENNA & CABLE CONFIGURATION

SHEET NUMBER
A6

FINAL ANTENNA CONFIGURATION AND CABLE SCHEDULE SUPPLIED BY AT&T WIRELESS, FROM RF CONFIG. DATED (10/11/16)										
SECTOR	ANTENNA NUMBER	ANTENNA STATUS & TYPE	ANTENNA MODEL NUMBER	ANTENNA VENDOR	TMA/RRU UNIT	AZIMUTH	ANTENNA CL FROM GROUND	CABLE FEEDER		RAYCAP UNIT
								TYPE	LENGTH	
ALPHA	A-1	(E) UMTS ANTENNA	AM-X-CD-16-65 OOT-RET	KMW	(1) EXISTING TMA UNIT	153°	185'-0"	1-5/8" LDF7-50A	250'-0"	(1) DC6-48-60-18-8F UNIT
	A-1	(E) UMTS ANTENNA	AM-X-CD-16-65 OOT-RET	KMW	(1) EXISTING TMA UNIT	153°	185'-0"	1-5/8" LDF7-50A	250'-0"	
	A-2	(E) LTE MULTI CARRIER ANTENNA	HPA-65R-BUU-H6	CCI	(1) EXISTING RRUS-11 UNIT AND (1) NEW RRUS-32 B2 UNIT	23°	185'-0"	(1) EXISTING FIBER CABLE	250'-0"	
	A-2	(E) LTE MULTI CARRIER ANTENNA	HPA-65R-BUU-H6	CCI	(1) EXISTING RRUS-11 UNIT AND (1) NEW RRUS-32 B2 UNIT	23°	185'-0"	(2) EXISTING DC POWER CABLES	250'-0"	
A-3	-	-	-	-	-	-	-	-		
A-4	(E) GSM ANTENNA	AM-X-CD-16-65 OOT-RET	KMW	(1) EXISTING TMA UNIT	153°	185'-0"	1-5/8" LDF7-50A	250'-0"		
A-4	(E) GSM ANTENNA	AM-X-CD-16-65 OOT-RET	KMW	(1) EXISTING TMA UNIT	153°	185'-0"	1-5/8" LDF7-50A	250'-0"		
BETA	B-1	(E) UMTS ANTENNA	800-10121	KATHREIN	(1) EXISTING TMA UNIT	263°	185'-0"	1-5/8" LDF7-50A	250'-0"	
	B-1	(E) UMTS ANTENNA	800-10121	KATHREIN	(1) EXISTING TMA UNIT	263°	185'-0"	1-5/8" LDF7-50A	250'-0"	
	B-2	(E) LTE MULTI CARRIER ANTENNA	HPA-65R-BUU-H6	CCI	(1) EXISTING RRUS-11 UNIT AND (1) NEW RRUS-32 B2 UNIT	153°	185'-0"	SEE ANTENNA A-2 FOR CABLE TYPE AND LENGTH		
	B-3	-	-	-	-	-	-	-	-	
B-4	(E) GSM ANTENNA	AM-X-CD-16-65 OOT-RET	KMW	(1) EXISTING TMA UNIT	263°	185'-0"	1-5/8" LDF7-50A	250'-0"		
B-4	(E) GSM ANTENNA	AM-X-CD-16-65 OOT-RET	KMW	(1) EXISTING TMA UNIT	263°	185'-0"	1-5/8" LDF7-50A	250'-0"		
GAMMA	C-1	(E) UMTS ANTENNA	800-10121	KATHREIN	(1) EXISTING TMA UNIT	23°	185'-0"	1-5/8" LDF7-50A	250'-0"	
	C-1	(E) UMTS ANTENNA	800-10121	KATHREIN	(1) EXISTING TMA UNIT	23°	185'-0"	1-5/8" LDF7-50A	250'-0"	
	C-2	(E) LTE MULTI CARRIER ANTENNA	HPA-65R-BUU-H6	CCI	(1) EXISTING RRUS-11 UNIT AND (1) NEW RRUS-32 B2 UNIT	263°	185'-0"	SEE ANTENNA A-2 FOR CABLE TYPE AND LENGTH		
	C-3	-	-	-	-	-	-	-	-	
C-4	(E) GSM ANTENNA	AM-X-CD-16-65 OOT-RET	KMW	(1) EXISTING TMA UNIT	23°	185'-0"	1-5/8" LDF7-50A	250'-0"		
C-4	(E) GSM ANTENNA	AM-X-CD-16-65 OOT-RET	KMW	(1) EXISTING TMA UNIT	23°	185'-0"	1-5/8" LDF7-50A	250'-0"		

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1. CONTRACTOR IS TO REFER TO AT&T'S MOST CURRENT RADIO FREQUENCY DATA SHEET (RFDS) PRIOR TO CONSTRUCTION.
2. THE SIZE, HEIGHT, AND DIRECTION OF THE ANTENNAS SHALL BE ADJUSTED TO ACHIEVE THE AZIMUTHS SPECIFIED AND LIMIT SHADOWING AND TO MEET THE SYSTEM REQUIREMENTS.
3. CONTRACTOR SHALL VERIFY THE HEIGHT OF THE ANTENNA WITH THE AT&T WIRELESS PROJECT MANAGER.
4. VERIFY TYPE AND SIZE OF TOWER LEG PRIOR TO ORDERING ANY ANTENNA MOUNT.
5. UNLESS NOTED OTHERWISE THE CONTRACTOR MUST PROVIDE ALL MATERIAL NECESSARY.
6. ANTENNA AZIMUTHS ARE DEGREES OFF OF TRUE NORTH, BEARING CLOCKWISE, IN WHICH ANTENNA FACE IS DIRECTED. ALL ANTENNAS (AND SUPPORTING STRUCTURES AS PRACTICAL) SHALL BE ACCURATELY ORIENTED IN THE SPECIFIED DIRECTION.
7. CONTRACTOR SHALL VERIFY ALL RF INFORMATION PRIOR TO CONSTRUCTION.
8. SWEEP TEST SHALL BE PERFORMED BY GENERAL CONTRACTOR AND SUBMITTED TO AT&T WIRELESS CONSTRUCTION SPECIALIST. TEST SHALL BE PERFORMED PER AT&T WIRELESS STANDARDS.
9. CABLE LENGTHS WERE DETERMINED BASED ON THE DESIGN DRAWING. CONTRACTOR TO VERIFY ACTUAL LENGTH DURING PRE-CONSTRUCTION WALK.
10. CONTRACTOR TO USE ROSENBERGER FIBER LINE HANGER COMPONENTS (OR ENGINEER APPROVED EQUAL).

ANTENNA AND CABLING NOTES

SCALE: N.T.S. 1

RF, DC, & COAX CABLE MARKING LOCATIONS TABLE	
NO	LOCATIONS
1	EACH TOP-JUMPER SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS.
2	EACH MAIN COAX SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS NEAR THE TOP-JUMPER CONNECTION AND WITH (1) SET OF 3/4" WIDE COLOR BANDS JUST PRIOR TO ENTERING THE BTS OR TRANSMITTER BUILDING.
3	CABLE ENTRY PORT ON THE INTERIOR OF THE SHELTER.
4	ALL BOTTOM JUMPERS SHALL BE COLOR CODED WITH (1) SET OF 3/4" WIDE BANDS ON EACH END OF THE BOTTOM JUMPER.
5	ALL BOTTOM JUMPERS SHALL BE COLOR CODED WITH (1) SET OF 3/4" WIDE BANDS ON EACH END OF THE BOTTOM JUMPER.

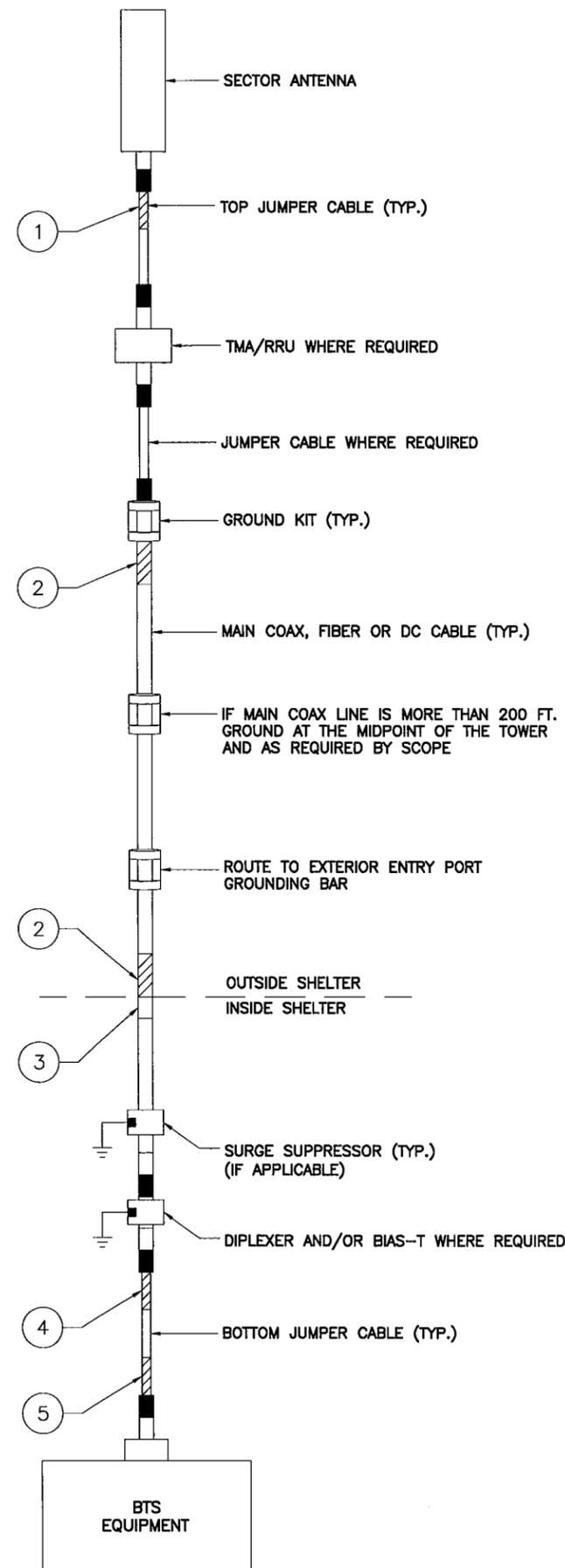
CABLE MARKING DIAGRAM

SCALE: N.T.S. 2

1. THE ANTENNA SYSTEM COAX SHALL BE LABELED WITH VINYL TAPE.
2. THE STANDARD IS BASED ON EIGHT COLORED TAPES-RED, BLUE, GREEN, YELLOW, ORANGE, BROWN, WHITE, AND VIOLET. THESE TAPES MUST BE 3/4" WIDE & UV RESISTANT SUCH AS SCOTCH 35 VINYL ELECTRICAL COLOR CODING TAPE AND SHOULD BE READILY AVAILABLE TO THE ELECTRICIAN OR CONTRACTOR ON SITE.
3. USING COLOR BANDS ON THE CABLES, MARK ALL RF CABLE BY SECTOR AND CABLE NUMBER AS SHOWN ON "CABLE COLOR CHART".
4. WHEN AN EXISTING COAXIAL LINE THAT IS INTENDED TO BE A SHARED LINE BETWEEN TECHNOLOGIES IS ENCOUNTERED, THE CONTRACTOR SHALL REMOVE THE EXISTING COLOR CODING SCHEME AND REPLACE IT WITH THE COLOR CODING STANDARD. IN THE ABSENCE OF AN EXISTING COLOR CODING AND TAGGING SCHEME, OR WHEN INSTALLING PROPOSED COAXIAL CABLES, THIS GUIDELINE SHALL BE IMPLEMENTED AT THAT SITE REGARDLESS OF TECHNOLOGY.
5. ALL COLOR CODE TAPE SHALL BE 3M-35 AND SHALL BE INSTALLED USING A MINIMUM OF (3) THREE WRAPS OF TAPE AND SHALL BE NEATLY TRIMMED AND SMOOTHED OUT SO AS TO AVOID UNRAVELING.
6. ALL COLOR BANDS INSTALLED AT THE TOP OF THE TOWER SHALL BE A MINIMUM OF 3" WIDE, AND SHALL HAVE A MINIMUM OF 3/4" OF SPACE BETWEEN EACH COLOR.
7. ALL COLOR CODES SHALL BE INSTALLED SO AS TO ALIGN NEATLY WITH ONE ANOTHER FROM SIDE-TO-SIDE.
8. IF EXISTING CABLES AT THE SITE ALREADY HAVE A COLOR CODING SCHEME AND THEY ARE NOT INTENDED TO BE REUSED OR SHARED WITH THE NEW TECHNOLOGY, THE EXISTING COLOR CODING SCHEME SHALL REMAIN UNTOUCHED.

CABLE MARKING NOTES

SCALE: N.T.S. 3



CABLE COLOR CODING DIAGRAM

SCALE: N.T.S. 4



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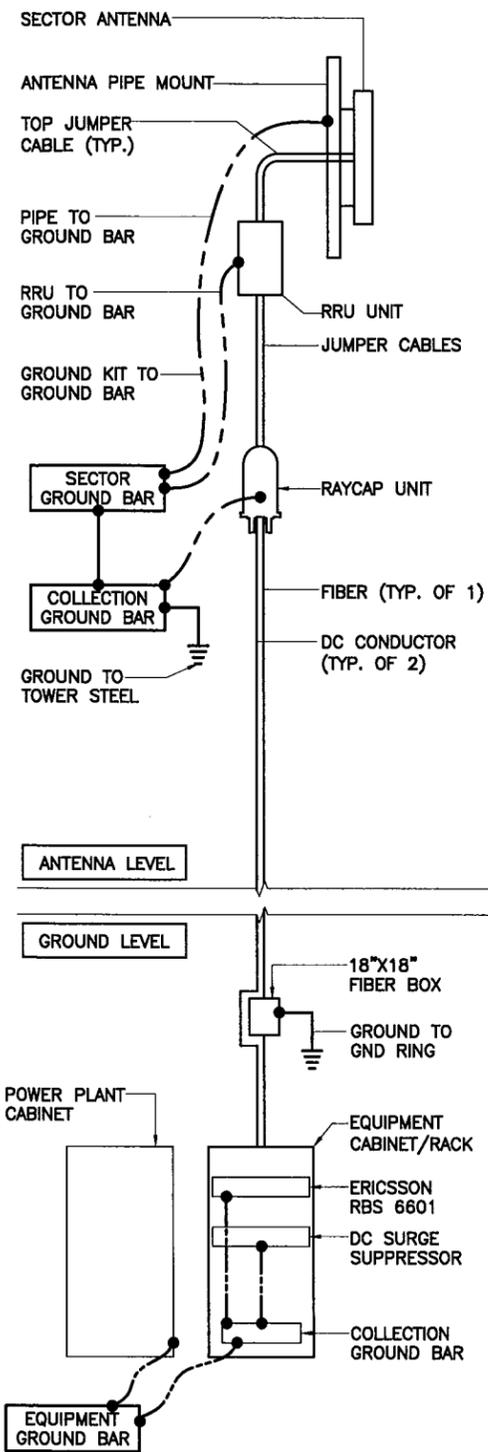
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CABLE NOTES
AND COLOR
CODING

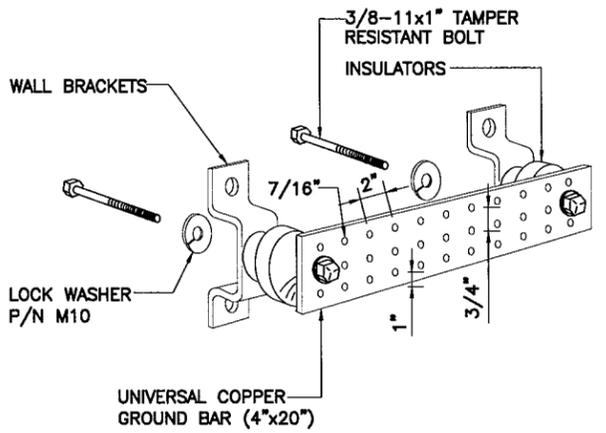
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A7

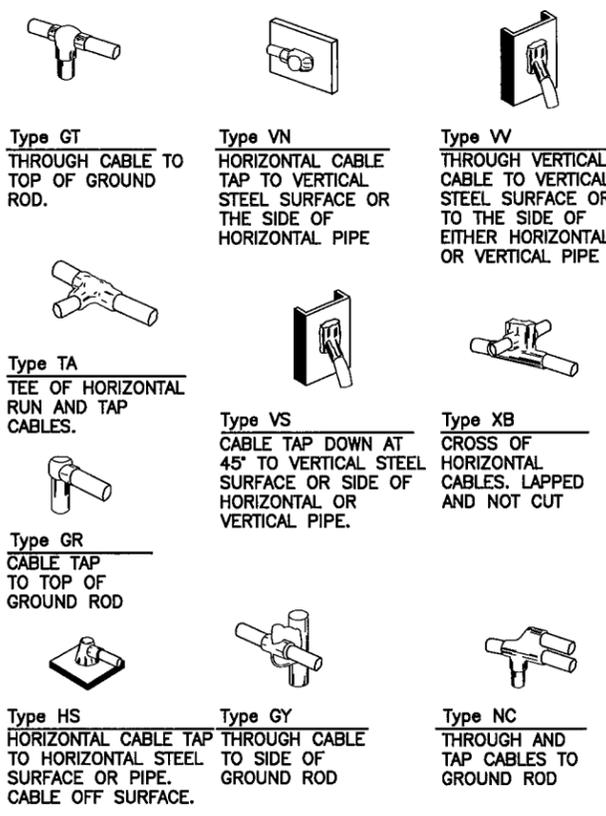
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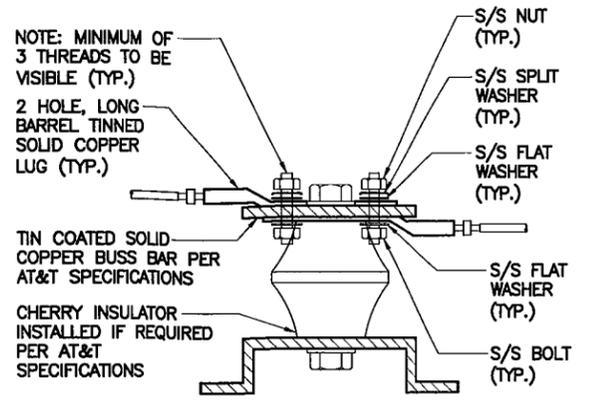
GROUNDING SCHEMATIC SCALE: N.T.S. 1



GROUND BAR DETAIL SCALE: N.T.S. 2

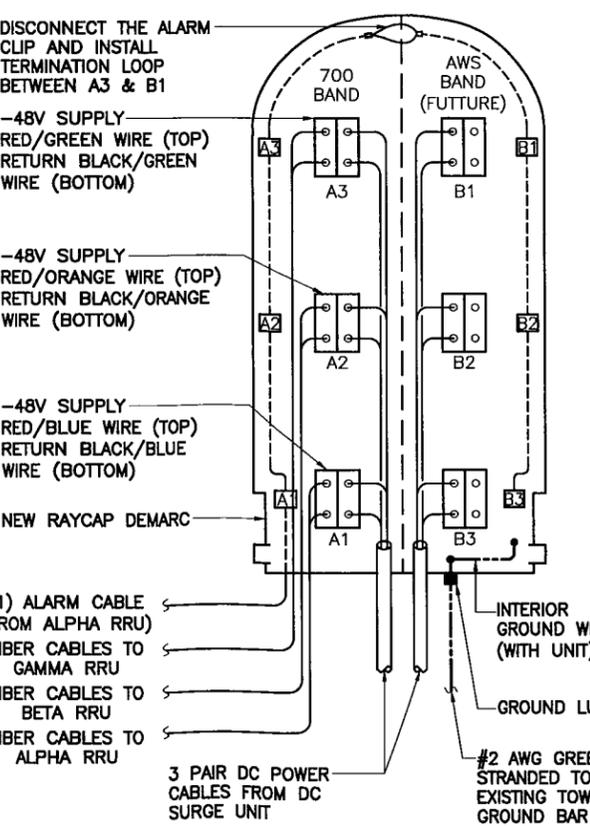


EXOTHERMIC WELD DETAILS SCALE: N.T.S. 4



- NOTES:
1. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING SPLIT WASHERS.
 2. COAT WIRE END WITH ANTI-OXIDATION COMPOUND PRIOR TO INSERTION INTO LUG BARREL AND CRIMPING.
 3. APPLY ANTI-OXIDATION COMPOUND BETWEEN ALL LUGS AND BUSS BARS PRIOR TO MATING AND BOLTING.

LUG DETAIL SCALE: N.T.S. 3



RAYCAP DC POWER AND ALARM DET. SCALE: N.T.S. 5

NOT USED SCALE: N.T.S. 6

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SHEET NAME
GROUNDING DETAILS

SHEET NUMBER
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