March 9th, 2018

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

Re: **Notice of Exempt Modification – Antenna Swap and RRU Add**
Property Address: **347 East Street, 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 160-feet on an existing 180-foot monopole, owned by Crown Castle at 12 Gill St. Suite 5800, Woburn, MA 01801. AT&T now intends to add (1) RRUS-32 B2 in position [2], all sectors, for a total of (3) new RRUS-32 B2s to be added. In addition, AT&T intends to relocate (1) RRUS-12 from position [4] to position [2] in all sectors, for a total of (3) RRUS-12s to be relocated. All of the changes will take place on the existing antenna mount.

Per the attached Decision and Order, the construction of the above mentioned tower was approved by the Connecticut Siting Council on April 14th, 1986 with the following conditions:

- The [tower] shall be constructed to meet Zone C wind loading with 1'' of radial ice and shall not exceed 180' in height excluding antennas.
- The certificate holder shall submit a development and management plan pursuant to sections 16-50j-75 through 16-50j-77 oif the RSA, except that irrelevant items in section 16-50j-76 need only be identified as such.
- The facility shall be constructed, operated, and maintained as specified in the Counci's record and in the site development and management plan required by order 8.
- A fence not lower than 8' shall surround each tower and associated equipment.

In addition, attached is a summary of the planned modifications including power density calculations reflecting the change in AT&T's operations at the site. Also included is documentation of the structural sufficiency of the tower to accommodate the revised antenna configuration.

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. § 16-5I0j-72(b) (2). In accordance with R.C.S.A., a copy of this letter is being sent David Kalinowski, Zoning Official, Wolcott Town Hall, 10 Kenea Ave. Wolcott CT 06716 and Thomas G. Dunn, Mayor, Wolcott Town Hall, 10 Kenea Ave. Wolcott CT 06716. A copy of this letter is also being sent to the property owners Agostinho & Joanne Rodrigues, 347 East St. Wolcott CT 06716 and to the tower company, Crown Castle, 3 Corporate Park Drive, Suite 101, Clifton Park, NY 12065.

The following is a list of subsequent decisions by the Connecticut Siting Council:

- **EM-AT&T-166-021001** - AT&T Wireless PCS, LLC d/b/a AT&T Wireless notice of intent to modify an existing telecommunications facility located at 347 East Street, **Wolcott**, Connecticut.
- **EM-CING-025-034-088-129-145-166-070612** - New Cingular Wireless PCS, LLC notice of intent to modify existing telecommunications facilities located at 1119 Summit Road, Cheshire; 48 Newtown Road, Danbury; 585

So. Main Street (a/k/a New Haven Road), Naugatuck; 126 Pioneer Heights Road, Somers; 23 Holland Road, Union; and 347 East Street, **Wolcott**, Connecticut.

- **EM-CING-057-107-130-130-166-070815** - New Cingular Wireless PCS, LLC notice of intent to modify existing telecommunications facilities located at 363 Riverville Drive, Greenwich; 525 Orange Center Road, Orange; 1432 Old Waterbury Road, Southbury; 133 Horse Fence Hill Road, Southbury; and 347 East Street, **Wolcott**, Connecticut.
- **EM-CING-166-120622 –** New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 347 East Street, **Wolcott**, Connecticut.
- **EM-CING-166-130711 –** New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 347 East Street, **Wolcott**, Connecticut.
- **EM-CING-166-140610 –** New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 347 East Street, **Wolcott**, Connecticut.
- **EM-AT&T-166-160217 -** AT&T notice of intent to modify an existing telecommunications facility located at 347 East Street, **Wolcott**, Connecticut.

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 160-foot level of the 180-foot monopole.
2. The proposed modifications will not involve any changes to ground-mounted equipment and, therefore, will not require and 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.
6. The tower and its foundation can support AT&T's proposed modifications. (See Structural Analysis Report included in Tab 3).

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,

Romina Kirchmaier

CC w/enclosures:
David Kalinowski, Zoning Official, Town of Wolcott
Thomas G. Dunn, Town of Wolcott
Agostinho & Joanne Rodrigues, Land Owner
Crown Castle, Tower Company

DOCKET NO. 56

AN APPLICATION OF METRO MOBILE CTS OF NEW HAVEN, INC., FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE, AND OPERATION OF FACILITIES TO PROVIDE CELLULAR SERVICE IN NEW HAVEN COUNTY.	:	CONNECTICUT SITING COUNCIL April 14, 1986

D E C I S I O N A N D O R D E R

Pursuant to the foregoing opinion, the Council hereby directs that a certificate of environmental compatibility and public need as required by section 16-50k of the General Statutes of Connecticut (CGS) be issued to Metro Mobile CTS of New Haven, Inc., for the construction, maintenance, and operation of cellular mobile phone telecommunication towers and associated equipment in the towns of Wolcott, Naugatuck, West Haven (existing tower), Milford, Hamden (existing tower), Guilford, and North Branford subject to the conditions below.

1. The proposed and alternate Beacon Falls sites are rejected without prejudice.
2. The Wolcott tower shall be constructed to meet Zone C wind loading with 1" of radial ice and shall not exceed 180' in height excluding antennas.
3. The Naugatuck tower shall not exceed 160' in height, excluding antennas. The certificate holder shall offer to remove the existing privately owned, unused tower now on the site.
4. Any future actions requiring the removal of the existing West Haven or Hamden towers to be shared by the certificate holder shall also apply to the equipment mounted on those towers by the certificate holder, regardless of that equipment's status under Chapter 277a of the CGS.

5. The Milford tower shall be a monopole structure not to exceed 100' in height, excluding antennas.
6. The Guilford tower shall be a monopole structure not to exceed 150' in height, excluding antennas.
7. The North Branford Route 17 site is rejected. The North Branford East Reeds Gap Road tower shall not exceed 160' in height, excluding antennas.
8. The certificate holder shall submit a development and management plan for the Wolcott, Naugatuck, Milford, Hamden, Guilford, and North Branford sites pursuant to sections 16-50j-75 through 16-50j-77 of the RSA, except that irrelevant items in section 16-50j-76 need only be identified as such. In addition to the requirements of section 16-50j-76, the D&M plan shall provide plans for evergreen screening around the fenced perimeter at the Wolcott, Milford, Hamden, Guilford, and North Branford sites. The D&M plan shall include a proposal for painting the approved monopole structures to blend with the sky. Any changes to specifications in the D&M plan must be approved by the Council prior to facility operation.
9. All certified facilities shall be constructed, operated, and maintained as specified in the Council's record and in the site development and management plan required by order 8.
10. The certificate holder shall permit public or private entities to share space on the towers approved herein, for due consideration received, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing. In addition to complying with 16-50j-73, the

certificate holder shall notify the Council of the addition of any equipment to any approved tower.

11. A fence not lower than 8' shall surround each tower and associated equipment.

12. Unless necessary to comply with order 13, below, no lights shall be installed on any of these towers.

13. The facilities' construction and any future tower sharing shall be in accordance with all applicable federal, state, and municipal laws and regulations. Shared uses by entities not subject to jurisdiction pursuant to sections 16-50i and 16-50k of the CGS shall be subject to all applicable federal, state, and municipal laws and regulations.

14. Construction activities shall take place during daylight working hours.

15. This decision and order shall be void and the towers and associated equipment shall be dismantled and removed, or reapplication for any new use shall be made to the CSC before any such new use is made, if the towers do not provide or permanently cease to provide cellular service following completion of construction.

16. This decision and order shall be void if all construction authorized herein is not completed within three years of the issuance of this decision, or within three years of the completion of any appeal if appeal of this decision is taken, unless otherwise approved by the Council.

Pursuant to CGS section 16-50p, we hereby direct that a copy of the decision and order shall be served on each person listed below. A notice

of the issuance shall be published in The Record-Journal, The New Haven Register, The Branford Review, The Evening Sentinel, The Waterbury American, and The Waterbury Republican.

The parties to this proceeding are:

Metro Mobile CTS of New Haven, Inc. (Applicant)
5 Eversley Avenue
Norwalk, Connecticut 06855

ATTN: Armand Mascioli
General Manager

Mr. Kevin B. Sullivan, Esq. (its attorneys)
Byrne, Slater, Sandler, Shulman & Rouse, P.C.
111 Pearl Street
P.O. Box 3216
Hartford, Connecticut 06103

Mr. Richard Rubin, Esq.
Fleischman and Walsh, P.C.
1725 N Street, N.W.
Washington, D.C. 20036

Guilford Conservation Commission represented by:

Mr. David B. Damer
Chairman
Guilford Conservation Commission
440 Great Hill Road
Guilford, Connecticut 06437

Mr. Robert W. Griswold, Jr.
100 Rimmon Hill Road
Beacon Falls, Connecticut 06403

Town of Hamden
Memorial Town Hall
2372 Whitney Avenue
Hamden, Connecticut 06518

ATTN: Shirley Gonzales
Town Planner

Guilford Planning and Zoning Commission — represented by:

Mr. David W. Fisher
Chairman
Town Hall
31 Park Street
Guilford, Connecticut 06437

Town of Hamden — represented by:

John DeNicola, Jr.
Mayor
Town of Hamden
Memorial Town Hall
2372 Whitney Avenue
New Haven, Connecticut 06518

Citizens Park Council of New Haven — represented by:

Mr. John J. Ciarleglio
President
Citizens Park Council
of New Haven
36 Elmwood Road
New Haven, Connecticut 06515

Mr. Thomas V. Keating
343 Rimmon Hill Road
Beacon Falls, Connecticut 06403

Ms. Evelyn M. Sirowich
245 Rimmon Hill Road
Beacon Falls, Connecticut 06403

Mr. Jack B. Levine
11 White Birch Lane
Beacon Falls, Connecticut 06403

Southern New England Telephone Company — represented by:

Mr. Peter J. Tyrrell, Esq.
227 Church Street
New Haven, Connecticut 06506

Mr. Dennis Bialecki
96 West Road
Beacon Falls, Connecticut 06403

Brittany Woods Homeowner's Association

represented by:

Mr. Stephen P. Del Sole, Esq.
Del Sole & Del Sole
152 Temple Street
P.O. Box 405
New Haven, Connecticut 06502-0405

Ms. Barbara G. Schlein
Box 2993 Westville Station
New Haven, Connecticut 06515

Mr. & Mrs. Joseph T. Farrell, Jr.
334 Rimmon Hill Road
Beacon Falls, Connecticut 06403

Town of Beacon Falls

represented by:

The Honorable Leonard F. D'Amico
First Selectman
10 Maple Avenue
Beacon Falls, Connecticut 06403

West Rock Ridge Park Association

represented by:

Mr. William L. Doheny Jr., D.D.S.
President
220 Mountain Road
Hamden, Connecticut 06514

Department of Parks,
Recreation & Trees

represented by:

Mr. Robert G. Sheeley
Director
Parks, Recreation & Trees
P.O. Box 1416
New Haven, Connecticut 06506

Town of Wallingford

represented by:

William W. Dickinson, Jr.
Mayor
Municipal Building
350 Center Street
P.O. Box 427
Wallingford, Connecticut 06492

New Haven Sierra Club

represented by:

Ms. Laurie Klein
270 Edgewood Avenue
New Haven, Connecticut 06511

Peter M. Lerner
State Representative
8 Merritt Avenue
Woodbridge, Connecticut 06525

Carleton J. Benson
State Representative
161 Scott Road
Prospect, Connecticut 06712

Dr. Stephen Collins (service waived)
Vice Chairman
West Rock State Park
Advisory Council
Bethany, Connecticut

Mr. Louis Melillo (service wavied)
985 Wintergreen Avenue
Hamden, Connecticut

Mr. John McGeever (service waived)
339 Rimmon Hill
Beacon Falls, Connecticut 06403

Senator John Consoli (service waived)
51 Luke Hill Road
Bethany, Connecticut 06525

Representative George P. Bassing (service waived)
14 Oakwood Drive
Seymour, Connecticut 06483

Dr. George D. Whitney (service waived)
858 Oakwood Road
Orange, Connecticut

Mr. Steve Molnar (service waived)
205 West Road
Beacon Falls, Connecticut

Mr. James W. Grandy (service waived)
President
Hamden Land Conservation Trust
Hamden, Connecticut

Senator Richard S. Eaton (service waived)
269 Mulberry Point Road
Guilford, Connecticut 06437

Representative Robert M. Ward
719 Totoket Road
Northford, Connecticut 06472

Town of North Branford — represented by:

John Gesmonde, Esquire
3127 Whitney Avenue
Hamden, Connecticut 06518

Regina Smith
1887 Middletown Avenue
Northford, Connecticut 06472 — (service waived)

Richard A. Nizolek
The Restland Farm Corporation
Route 17
Northford, Connecticut 06472

Mary Liska
83 Reeds Gap Road
Northford, Connecticut 06472

Ben Bullard
50 Christmas Hill Road
Guilford, Connecticut 06437 — (service waived)

Roland Robichaud
31 Berncliff Drive
North Branford, Connecticut 06471 — (service waived)

Irene Flynn
1926 Middletown Avenue
Northford, Connecticut 06472 — (service waived)

Charles Pope
199 Donalds Road
Guilford, Connecticut 06437

Richard Abate
131 Manor Road
Guilford, Connecticut 06437 — (service waived)

City of Milford — represented by:

Mayor Alberta Jagoe
Alderman Maurice Condon
Alderman Frederick Lisman
City Hall
River Street
Milford, Connecticut 06460

Thomas Scelfo
81 Berncliff Drive
North Branford, Connecticut 06471 — (service waived)

Senator Thomas Scott (service waived)
22 Meyers Court
Milford, Connecticut 06460

Helen Moore (service waived)
385 Oronoque Road
Milford, Connecticut 06460

William Barberi (service waived)
298 Oronoque Road
Milford, Connecticut 06460

C E R T I F I C A T I O N

The undersigned members of the Connecticut Siting Council hereby certify that they have heard this case or read the record thereof, and that we voted as follows:

Dated at New Britain, Connecticut, this 14th day of April, 1986.

Council Members	Vote Cast
Gloria Dibble Pond Chairperson	Yes
Commissioner John Downey Designee: Commissioner Peter G. Boucher	Absent
Commissioner Stanley Pac Designee: Christopher Cooper	No
Owen L. Clark	Yes
Mortimer A. Gelston	Yes
James G. Horsfall	Yes
Pamela B. Katz	Yes
William H. Smith	No
Colin C. Tait	No

STATE OF CONNECTICUT)
: ss. New Britain, April 14, 1986
COUNTY OF HARTFORD)

I hereby certify that the foregoing is a true and correct copy of the decision and order issued by the Connecticut Siting Council, State of Connecticut.

ATTEST:

Christopher S. Wood

Christopher S. Wood, Executive Director
Connecticut Siting Council

SITESAFE
RF COMPLIANCE EXPERTS

200 North Glebe Road, Suite 1000, Arlington, VA 22203-3728
703.276.1100 ● 703.276.1169 fax
info@sitesafe.com ● www.sitesafe.com

SmartLink, LLC on behalf of AT&T Mobility, LLC
Site FA – 10035040
Site ID – CT1060 – (MRCTB025123-MRCTB025176)
USID – 61146
Site Name – Wolcott_East St
Site Compliance Report

347 East Street
Wolcott, CT 06716

Latitude: N41-33-34.37
Longitude: W72-56-49.10
Structure Type: Self-Support

Report generated date: December 21, 2017
Report by: Brandon Green
Customer Contact: Romina Kirchmaier

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

Table of Contents

1 General Site Summary

1.1 Report Summary

AT&T Mobility, LLC	Summary
Access to Antennas Locked?	Yes
RF Sign(s) @ access point(s)	None
RF Sign(s) @ antennas	None
Barrier(s) @ sectors	None
Max cumulative simulated RFE level on the Ground	<1% General Public Limit
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_CTV1060_2018-LTE-Next-Carrier_LTE_rx855w_2051A0D0Q7_10035040_61146_06-13-2017_Preliminary-Approved_v3.00

CD's: 10035040_AE201_171116_CTL01060_REV1

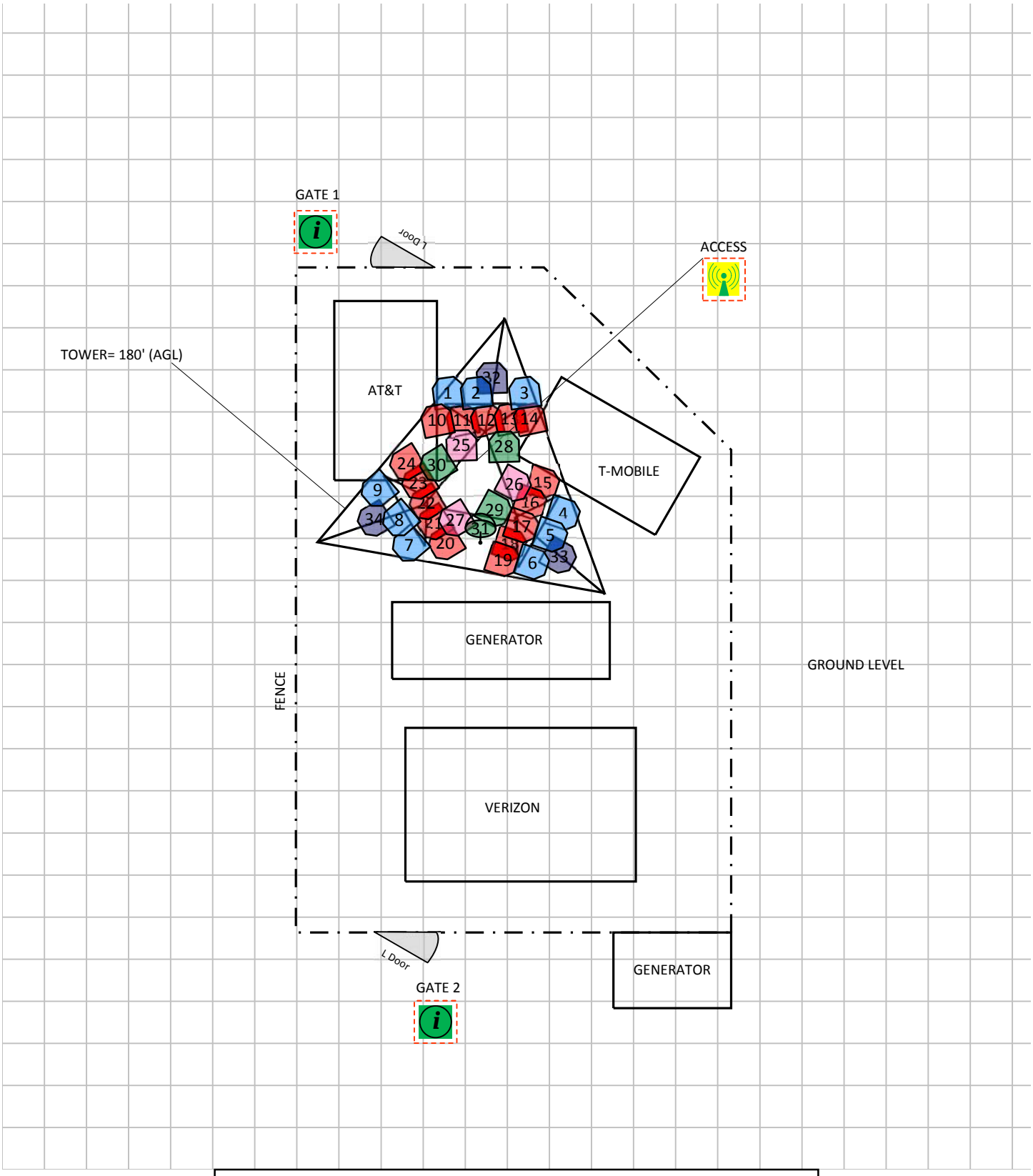
RF Powers Used: NEW-ENGLAND_CONNECTICUT_CTV1060_2018-LTE-Next-Carrier_LTE_rx855w_2051A0D0Q7_10035040_61146_06-13-2017_Preliminary-Approved_v3.00

2 Scale Maps of Site

The following diagrams are included:

- Site Scale Map
- RF Exposure Diagram
- RF Exposure Diagram – Elevation View
- AT&T Mobility, LLC Contribution

Site Scale Map For: Wolcott_East St



(Feet)

0 8.1 16.3

www.sitesafe.com
Site Name:Wolcott_East St
12/21/2017 7:53:58 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

Barrier ——— **Proposed Barriers/ Signs** — — — — —

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	Powerwave 7770	Panel	850	24	82	4.6	11.51	0	1	0	244.3	74.4'	167.1'	157.7'
1	AT&T MOBILITY LLC	Powerwave 7770	Panel	1900	24	86	4.6	13.41	0	1	0	194.6	74.4'	167.1'	157.7'
2	AT&T MOBILITY LLC	Quintel QS66512-2	Panel	2300	24	64	6	14.56	0	0	1	4842.1	77.7'	167.1'	157'
2	AT&T MOBILITY LLC (Proposed)	Quintel QS66512-2	Panel	850	24	63	6	10.96	0	0	1	1000	77.7'	167.1'	157'
2	AT&T MOBILITY LLC (Proposed)	Quintel QS66512-2	Panel	1900	24	68	6	14.16	0	0	1	1285.3	77.7'	167.1'	157'
3	AT&T MOBILITY LLC	KMW AM-X-CD-16-65-00T	Panel	737	24	65	6	13.36	0	0	1	1475.7	83.5'	167.1'	157'
4	AT&T MOBILITY LLC	Powerwave 7770	Panel	850	140	82	4.6	11.51	0	1	0	241	88.1'	152.7'	157.7'
5	AT&T MOBILITY LLC	CCI Antennas TPA-65R-LCUUUU-H8	Panel	2300	140	65	8	14.36	0	0	1	4842.1	86.6'	150.2'	156'
5	AT&T MOBILITY LLC (Proposed)	CCI Antennas TPA-65R-LCUUUU-H8	Panel	850	140	63	8	13.56	0	0	1	1000	86.6'	150.2'	156'
5	AT&T MOBILITY LLC (Proposed)	CCI Antennas TPA-65R-LCUUUU-H8	Panel	1900	140	68.2	8	13.86	0	0	1	1285.3	86.6'	150.2'	156'
6	AT&T MOBILITY LLC	Andrew SBNH-1D6565C	Panel	737	140	71	8	13.733	0	0	1	1475.7	84.4'	146.9'	156'
7	AT&T MOBILITY LLC	Powerwave 7770	Panel	850	261	82	4.6	11.51	0	1	0	246.6	69.7'	149'	157.7'
8	AT&T MOBILITY LLC	Quintel QS66512-2	Panel	2300	261	64	6	14.56	0	0	1	4842.1	68.6'	152'	157'
8	AT&T MOBILITY LLC (Proposed)	Quintel QS66512-2	Panel	850	261	63	6	10.96	0	0	1	1000	68.6'	152'	157'
8	AT&T MOBILITY LLC (Proposed)	Quintel QS66512-2	Panel	1900	261	68	6	14.16	0	0	1	1285.3	68.6'	152'	157'
9	AT&T MOBILITY LLC	KMW AM-X-CD-16-65-00T	Panel	737	261	65	6	13.36	0	0	1	1475.7	66'	155.5'	157'
10	VERIZON WIRELESS	Andrew DB846F65ZAXY	Panel	850	20	65	6	14.51	-	-	-	1130	73.1'	163.8'	174'
11	VERIZON WIRELESS	Antel BXA-185063-12CF	Panel	1900	20	63	6	18.51	-	-	-	4257.5	76'	163.8'	174'
12	VERIZON WIRELESS	Antel BXA-70040-6CF	Panel	751	20	42	5.9	15.51	-	-	-	2133.8	79'	163.9'	174'
13	VERIZON WIRELESS	Antel BXA-171063-8CF	Panel	2100	20	60	4	15.31	-	-	-	2037.8	81.7'	164'	175'
14	VERIZON WIRELESS	Andrew DB846F65ZAXY	Panel	850	20	65	6	14.51	-	-	-	1130	84.1'	164'	174'
15	VERIZON WIRELESS	Antel LPA-80063-6CF	Panel	850	140	63	5.9	14.51	-	-	-	1130	85.6'	156.4'	174'
16	VERIZON WIRELESS	Antel BXA-185063-12CF	Panel	1900	140	63	6	18.51	-	-	-	4257.5	84.1'	154'	174'
17	VERIZON WIRELESS	Antel BXA-70040-6CF	Panel	751	140	42	5.9	15.51	-	-	-	2133.8	83.1'	151.2'	174'
18	VERIZON WIRELESS	Antel BXA-171063-8CF	Panel	2100	140	60	4	15.31	-	-	-	2037.8	81.7'	149.1'	175'
19	VERIZON WIRELESS	Antel LPA-80063-6CF	Panel	850	140	63	5.9	14.51	-	-	-	1130	80.9'	147.2'	174'
20	VERIZON WIRELESS	Swedcom SC 6014	Panel	850	270	57	3.6	14.01	-	-	-	1007.1	74'	149.2'	175.2'

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)
21	VERIZON WIRELESS	Antel BXA-185063-12CF	Panel	1900	270	63	6	18.51	-	-	-	4257.5	72.7'	151.6'	174'
22	VERIZON WIRELESS	Antel BXA-70040-6CF	Panel	751	270	42	5.9	15.51	-	-	-	2133.8	71.8'	154'	174'
23	VERIZON WIRELESS	Antel BXA-171063-8CF	Panel	2100	270	60	4	15.31	-	-	-	2037.8	70.9'	156.4'	175'
24	VERIZON WIRELESS	Swedcom SC 6014	Panel	850	270	57	3.6	14.01	-	-	-	1007.1	69.4'	158.7'	175.2'
25	T-MOBILE	Ericsson AIR 21 B2A B4P	Panel	1900	30	65	4.7	15.37	-	-	-	2066.1	75.9'	160.9'	185.7'
25	T-MOBILE	Ericsson AIR 21 B2A B4P	Panel	2100	30	65	4.7	15.37	-	-	-	2066.1	75.9'	160.9'	185.7'
26	T-MOBILE	Ericsson AIR 21 B2A B4P	Panel	1900	150	65	4.7	15.37	-	-	-	2066.1	82.2'	156.2'	185.7'
26	T-MOBILE	Ericsson AIR 21 B2A B4P	Panel	2100	150	65	4.7	15.37	-	-	-	2066.1	82.2'	156.2'	185.7'
27	T-MOBILE	Ericsson AIR 21 B2A B4P	Panel	1900	270	65	4.7	15.37	-	-	-	2066.1	75.2'	152'	185.7'
27	T-MOBILE	Ericsson AIR 21 B2A B4P	Panel	2100	270	65	4.7	15.37	-	-	-	2066.1	75.2'	152'	185.7'
28	CLEARWIRE	Andrew LLPX310R	Panel	2500	30	65	3.5	15.15	-	-	-	355	81'	160.7'	166.2'
29	CLEARWIRE	Andrew LLPX310R	Panel	2500	150	65	3.5	15.15	-	-	-	355	79.9'	153.2'	166.2'
30	CLEARWIRE	Andrew LLPX310R	Panel	2500	270	65	3.5	15.15	-	-	-	355	73'	158.5'	166.2'
31	CLEARWIRE	Generic	Aperture	10735	213	2	2	31.16	-	-	-	59.1	78.2'	151'	168'
32	METROPCS (Decommissioned)	RFS APXV18-206517S-C-A20	Panel	1900	30	65.9	6	16.97	-	-	-	0	79.6'	168.9'	145'
33	METROPCS (Decommissioned)	RFS APXV18-206517S-C-A20	Panel	1900	150	65.9	6	16.97	-	-	-	0	87.6'	147.7'	145'
34	METROPCS (Decommissioned)	RFS APXV18-206517S-C-A20	Panel	1900	270	65.9	6	16.97	-	-	-	0	65.6'	152'	145'

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 main site 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. For other operators at this site the use of "Generic" as an antenna model or "Unknown" for a wireless operator means the information with regard to operator, their FCC license and/or antenna information was not available nor could it be secured while on site. Other operator's equipment, antenna models and powers used for modeling are based on obtained information or Sitesafe experience.

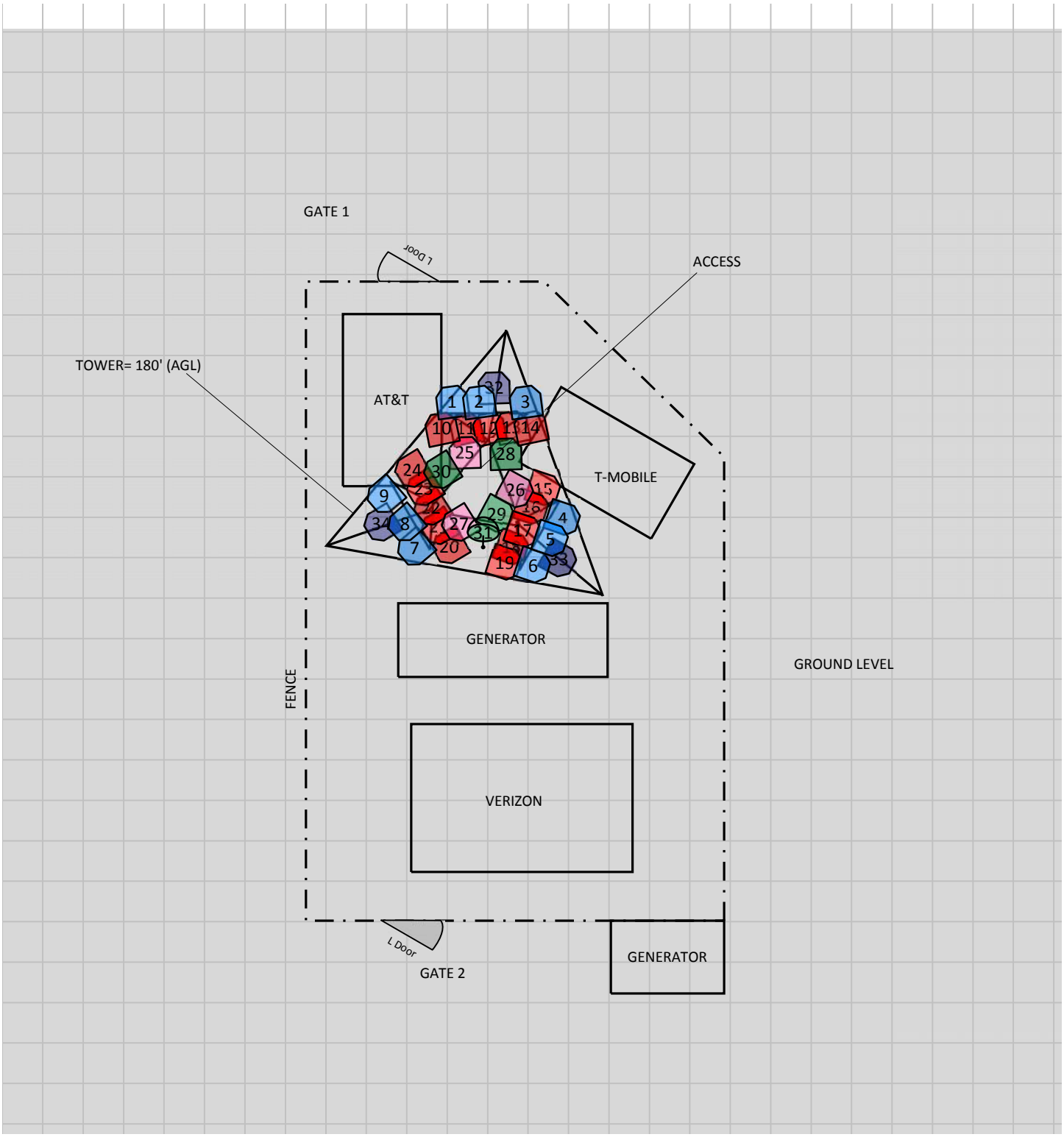
Note: The 850MHz and 1900MHz LTE technologies are being added to an existing antenna.

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.

RF Exposure Simulation For: Wolcott_East St



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

% of FCC Public Exposure Limit

>= 5000	>= 500	>= 100	>= 5	< 5

Carrier Identification

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

Barrier — Proposed Barriers

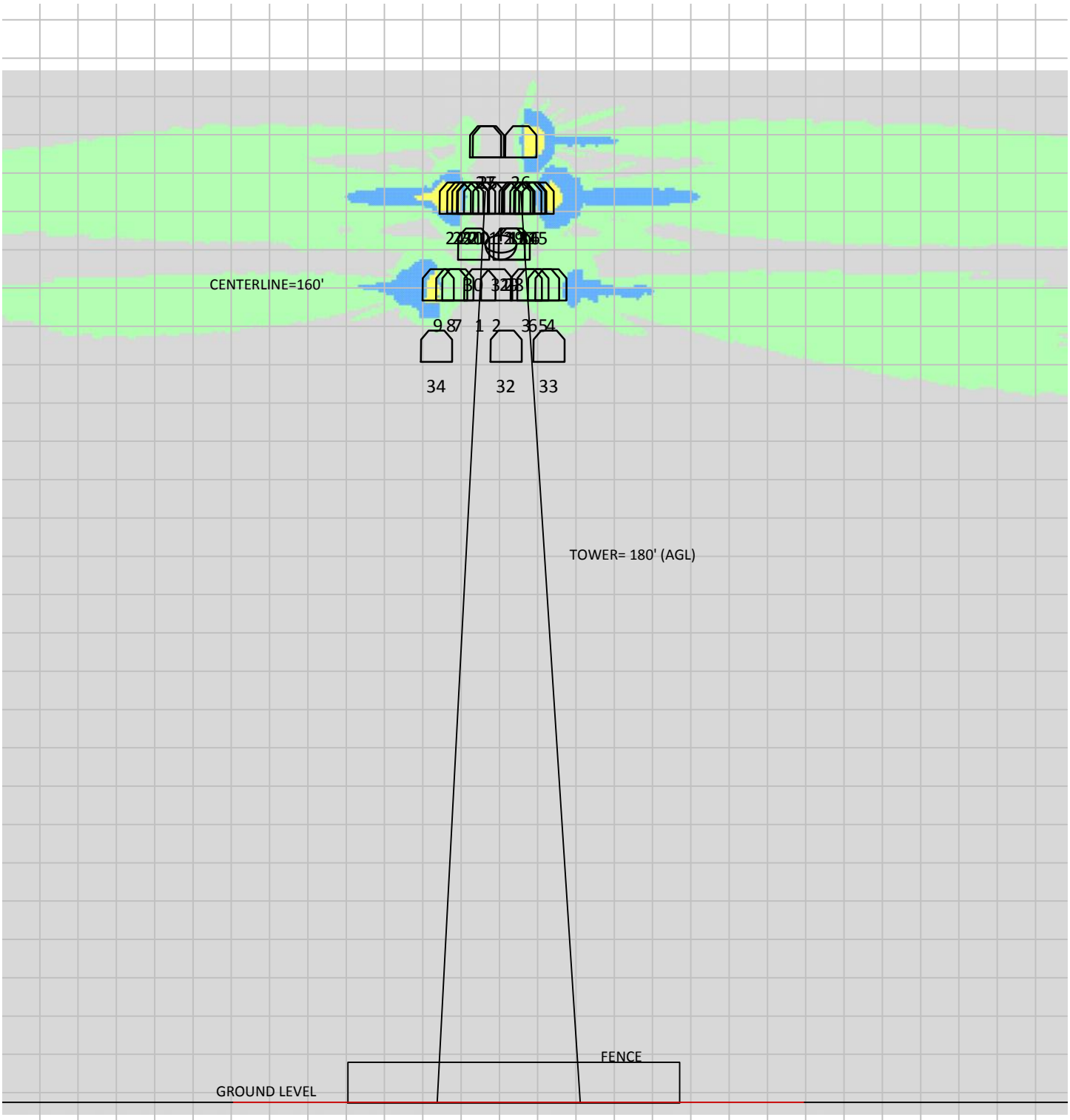
(Feet)

0 8.7 17.5

www.sitesafe.com
Site Name:Wolcott_East St
12/21/2017 7:51:57 AM

SitesafeTC Version:1.0.0.0 - 0.0.0.266
Sitesafe OET-65 Model
Near Field Boundary: 1.5 * Aperture
Reflection Factor: 1
Spatially Averaged

RF Exposure Simulation For: Wolcott_East St
Elevation View



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

% of FCC Public Exposure Limit
>= 5000 | >= 500 | >= 100 | >= 5 | < 5

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

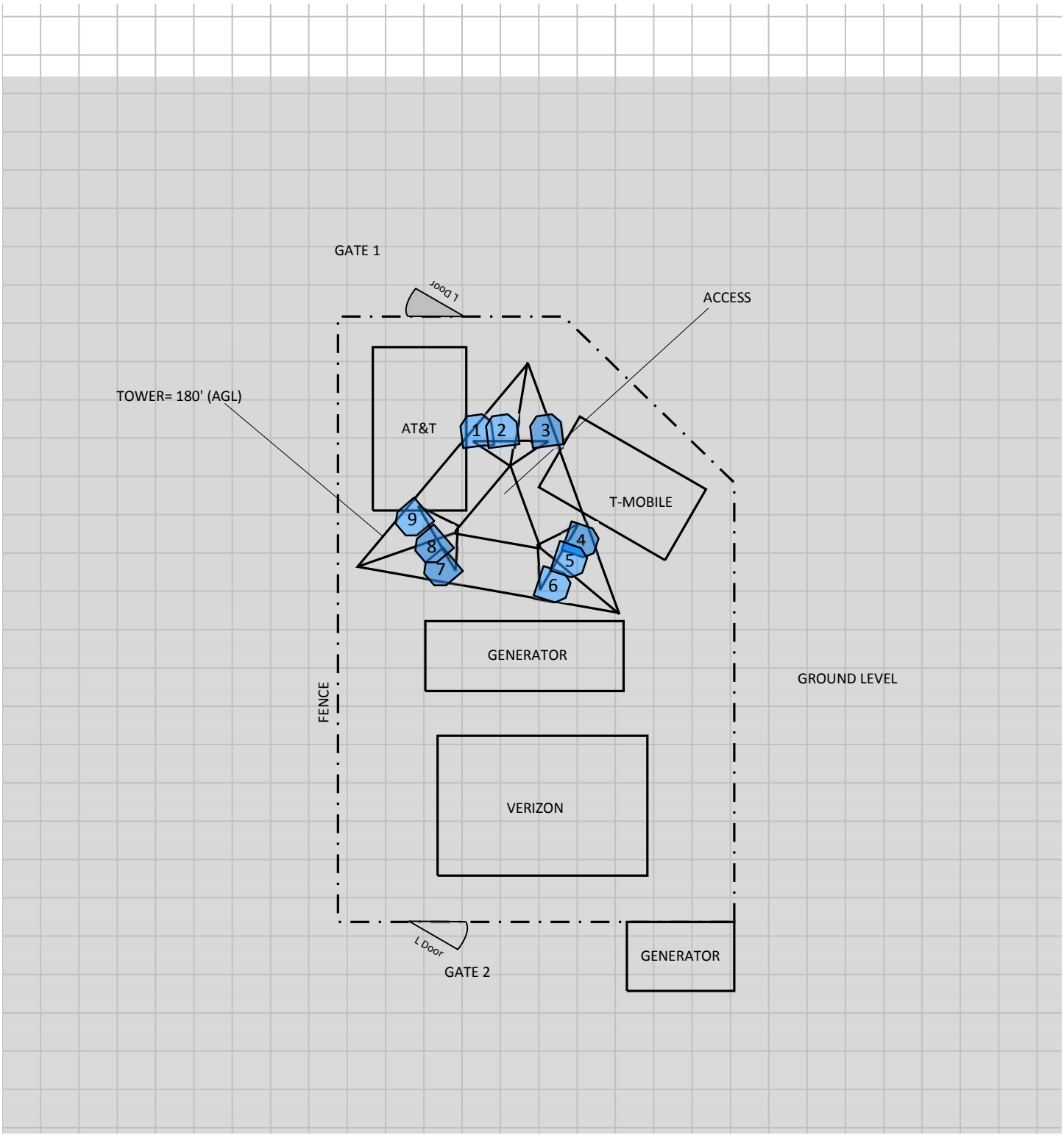
Barrier | Proposed Barriers

(Feet)
0 13.9 27.8

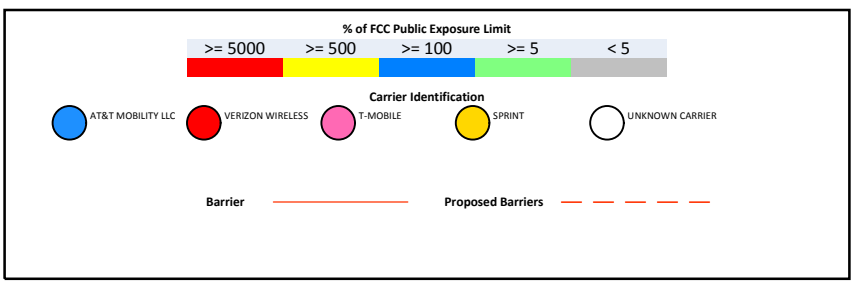
www.sitesafe.com
Site Name:Wolcott_East St
12/21/2017 9:25:00 AM

SitesafeTC Version:1.0.0.0 - 0.0.0.266
Sitesafe OET-65 Model
Near Field Boundary: 1.5 * Aperture
Reflection Factor: 1
Single Level (0)

RF Exposure Simulation For: Wolcott_East St
AT&T Mobility, LLC Contribution



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



(Feet)
0 9.2 18.4
www.sitesafe.com
Site Name:Wolcott_East St
12/21/2017 7:52:30 AM

SitesafeTC Version:1.0.0.0 - 0.0.0.266
Sitesafe OET-65 Model
Near Field Boundary: 1.5 * Aperture
Reflection Factor: 1
Spatially Averaged

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.

Gate 1

Information 1 sign required.

Gate 2

Information 1 sign required.

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 Brandon Green.

December 21, 2017

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 Communications 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.

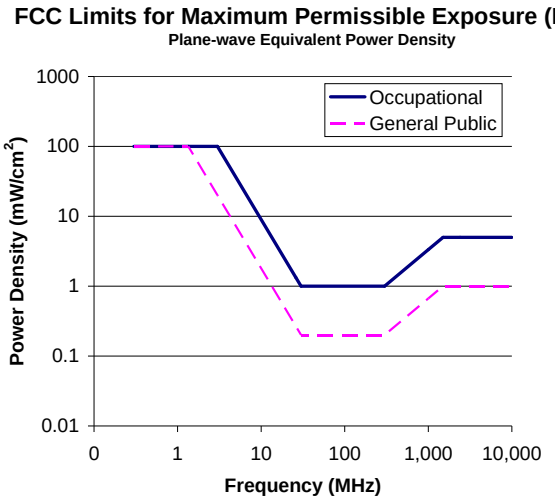
FCC regulations define two separate tiers of exposure limits: Occupational or "Controlled environment" and General Public or "Uncontrolled environment". The General Public limits are generally five times more conservative or restrictive than the Occupational limit. These limits apply to *accessible* 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?siteareа=PED
European Commission Scientific Committee on Emerging and Newly Identified Health Risks
http://ec.europa.eu/health/ph_risk/committees/04_scenihr/docs/scenihr_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

StartAntennaData It is advisable to provide an ID (ant 1) for all antennas

ID	Name	(MHz) Freq	Trans Power	Trans Count	Coax Len	Coax Type	Other Losses	Input Power	Calc Power	Mfg	Model	(ft) X	(ft) Y	(ft) Z	Type	(ft) Aper	dBd Gain	BWdth Pt Dir	Uptime Profile	ON flag
1	AT&T MOB	850	17.25816	1	0			17.25816		Powerwav	7770	74.37	167.11	157.7085	Panel	4.583	11.51	82;24	100%	ON•
2	AT&T MOB	850	80.16781	1	0			80.16781		Quintel	QS66512-2	77.7	167.11	157	Panel	6	10.96	63;24	100%	ON•
2	AT&T MOB	1900	49.31751	1	0			49.31751		Quintel	QS66512-2	77.7	167.11	157	Panel	6	14.16	68;24	100%	ON•
2	AT&T MOB	2300	169.4455	1	0			169.4455		Quintel	QS66512-2	77.7	167.11	157	Panel	6	14.56	64;24	100%	ON•
3	AT&T MOB	737	68.0771	1	0			68.0771		KMW	AM-X-CD-1	83.46	167.11	157	Panel	6	13.36	65;24	100%	ON•
4	AT&T MOB	850	17.02155	1	0			17.02155		Powerwav	7770	88.06	152.73	157.7085	Panel	4.583	11.51	82;140	100%	ON•
5	AT&T MOB	850	44.05549	1	0			44.05549		CCI Antenn	TPA-65R-L(	86.56	150.16	156	Panel	8	13.56	63;140	100%	ON•
5	AT&T MOB	1900	52.84466	1	0			52.84466		CCI Antenn	TPA-65R-L(	86.56	150.16	156	Panel	8	13.86	68.2;140	100%	ON•
5	AT&T MOB	2300	177.4313	1	0			177.4313		CCI Antenn	TPA-65R-L(	86.56	150.16	156	Panel	8	14.36	65;140	100%	ON•
6	AT&T MOB	737	62.47425	1	0			62.47425		Andrew	SBNH-1D6	84.39	146.89	155.9835	Panel	8.033	13.733	71;140	100%	ON•
7	AT&T MOB	850	17.41779	1	0			17.41779		Powerwav	7770	69.74	149.02	157.7085	Panel	4.583	11.51	82;261	100%	ON•
8	AT&T MOB	850	80.16781	1	0			80.16781		Quintel	QS66512-2	68.58	152.02	157	Panel	6	10.96	63;261	100%	ON•
8	AT&T MOB	1900	49.31751	1	0			49.31751		Quintel	QS66512-2	68.58	152.02	157	Panel	6	14.16	68;261	100%	ON•
8	AT&T MOB	2300	169.4455	1	0			169.4455		Quintel	QS66512-2	68.58	152.02	157	Panel	6	14.56	64;261	100%	ON•
9	AT&T MOB	737	68.0771	1	0			68.0771		KMW	AM-X-CD-1	66.01	155.52	157	Panel	6	13.36	65;261	100%	ON•
10	VERIZON W	850	40	1	0			40		Andrew	DB846F652	73.06	163.82	174	Panel	6	14.51	65;20	100%	ON•
11	VERIZON W	1900	60	1	0			60		Antel	BXA-18506	76.04	163.82	174	Panel	6	18.51	63;20	100%	ON•
12	VERIZON W	751	60	1	0			60		Antel	BXA-70040	78.95	163.85	174.0375	Panel	5.925	15.51	42;20	100%	ON•
13	VERIZON W	2100	60	1	0			60		Antel	BXA-17106	81.73	163.99	174.9915	Panel	4.017	15.31	60;20	100%	ON•
14	VERIZON W	850	40	1	0			40		Andrew	DB846F652	84.06	163.99	174	Panel	6	14.51	65;20	100%	ON•
15	VERIZON W	850	40	1	0			40		Antel	LPA-80063	85.61	156.36	174.0375	Panel	5.925	14.51	63;140	100%	ON•
16	VERIZON W	1900	60	1	0			60		Antel	BXA-18506	84.11	154.02	174	Panel	6	18.51	63;140	100%	ON•
17	VERIZON W	751	60	1	0			60		Antel	BXA-70040	83.11	151.24	174.0375	Panel	5.925	15.51	42;140	100%	ON•
18	VERIZON W	2100	60	1	0			60		Antel	BXA-17106	81.73	149.08	174.9915	Panel	4.017	15.31	60;140	100%	ON•
19	VERIZON W	850	40	1	0			40		Antel	LPA-80063	80.89	147.24	174.0375	Panel	5.925	14.51	63;140	100%	ON•
20	VERIZON W	850	40	1	0			40		Swedcom	SC 6014	74.02	149.23	175.2085	Panel	3.583	14.01	57;270	100%	ON•
21	VERIZON W	1900	60	1	0			60		Antel	BXA-18506	72.69	151.59	174	Panel	6	18.51	63;270	100%	ON•
22	VERIZON W	751	60	1	0			60		Antel	BXA-70040	71.77	153.98	174.0375	Panel	5.925	15.51	42;270	100%	ON•
23	VERIZON W	2100	60	1	0			60		Antel	BXA-17106	70.85	156.39	174.9915	Panel	4.017	15.31	60;270	100%	ON•
24	VERIZON W	850	40	1	0			40		Swedcom	SC 6014	69.43	158.67	175.2085	Panel	3.583	14.01	57;270	100%	ON•
25	T-MOBILE	1900	60	1	0			60		Ericsson	AIR 21 B2A	75.93	160.85	185.6665	Panel	4.667	15.37	65;30	100%	ON•
25	T-MOBILE	2100	60	1	0			60		Ericsson	AIR 21 B2A	75.93	160.85	185.6665	Panel	4.667	15.37	65;30	100%	ON•
26	T-MOBILE	1900	60	1	0			60		Ericsson	AIR 21 B2A	82.22	156.18	185.6665	Panel	4.667	15.37	65;150	100%	ON•
26	T-MOBILE	2100	60	1	0			60		Ericsson	AIR 21 B2A	82.22	156.18	185.6665	Panel	4.667	15.37	65;150	100%	ON•
27	T-MOBILE	1900	60	1	0			60		Ericsson	AIR 21 B2A	75.24	152.01	185.6665	Panel	4.667	15.37	65;270	100%	ON•
27	T-MOBILE	2100	60	1	0			60		Ericsson	AIR 21 B2A	75.24	152.01	185.6665	Panel	4.667	15.37	65;270	100%	ON•
28	CLEARWIRI	2500	10.84497	1	0			10.84497		Andrew	LLPX310R	81	160.68	166.2335	Panel	3.533	15.15	65;30	100%	ON•
29	CLEARWIRI	2500	10.84497	1	0			10.84497		Andrew	LLPX310R	79.91	153.18	166.2335	Panel	3.533	15.15	65;150	100%	ON•
30	CLEARWIRI	2500	10.84497	1	0			10.84497		Andrew	LLPX310R	73.02	158.53	166.2335	Panel	3.533	15.15	65;270	100%	ON•
31	CLEARWIRI	10735	0.045709	1	0			0.045709		Generic	10 GHz/11	78.22	150.96	168	Aperture	0	31.16	0;213	100%	ON•
32	METROPCS	1900	0	1	0			0		RFS	APXV18-20	79.55	168.85	145	Panel	6	16.97	65.9;30	100%	ON•
33	METROPCS	1900	0	1	0			0		RFS	APXV18-20	87.57	147.66	145	Panel	6	16.97	65.9;150	100%	ON•
34	METROPCS	1900	0	1	0			0		RFS	APXV18-20	65.62	152.02	145	Panel	6	16.97	65.9;270	100%	ON•

StartSymbolData

347 EAST ST

Location	347 EAST ST	**Mblu**	131/ 1/ 19/ /
Acct#	R0478100	**Owner**	RODRIGUES AGOSTINHO V &
Assessment	$453,670	**Appraisal**	$648,090
PID	5352	**Building Count**	3

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2016	$401,720	$246,370	$648,090
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2016	$281,210	$172,460	$453,670

Owner of Record

Owner	RODRIGUES AGOSTINHO V &	**Sale Price**	$0
Co-Owner	JOANNE	**Certificate**	
Address	347 EAST ST WOLCOTT, CT 06716	**Book & Page**	131/ 23
		Sale Date	06/27/1980
		Instrument	25

Ownership History

Ownership History					
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Instrument**	**Sale Date**
RODRIGUES AGOSTINHO V &	$0		131/ 23	25	06/27/1980

Building Information

Building 1 : Section 1

Year Built:	1930
Living Area:	3,139
Replacement Cost:	$339,418
Building Percent Good:	62
Replacement Cost Less Depreciation:	$210,440

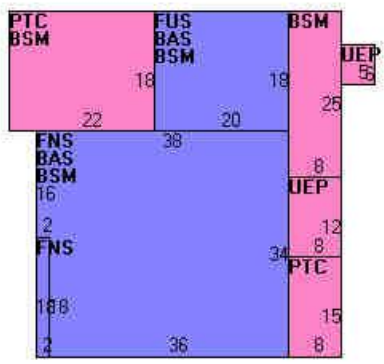
Building Attributes	
Field	**Description**

Style	Colonial
Model	Residential
Grade:	B
Stories	1.9
Occupancy	1
Exterior Wall 1	Vinyl Siding
Exterior Wall 2	
Roof Structure	Gambrel
Roof Cover	Arch Shingles
Interior Wall 1	Drywall
Interior Wall 2	
Interior Flr 1	Carpet
Interior Flr 2	
Heat Fuel	Oil
Heat Type:	Hot Water
AC Percent	35% CAC
Total Bedrooms:	5 Bedrooms
Full Bthrms:	3
Half Baths:	0
Extra Fixtures	0
Total Rooms:	9
Bath Style:	Average
Kitchen Style:	Average
Num Kitchens	1
Fireplace(s)	0
% Attic Fin	0
LF Dormer	12
Foundation	Poured Conc
Bsmt Gar(s)	0
Bsmt %	100
SF FBM	0
Fin Bsmt Qual	LQ
Bsmt Access	Int & Ext

Building Photo

(http://images.vgsi.com/photos/WolcottCTPhotos//\00\01\17/56.

Building Layout



Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	1,616	1,616
FNS	Finished 90% Story	1,292	1,163
FUS	Finished Upper Story	360	360
BSM	Basement	2,212	0
PTC	Concrete Patio	516	0
UEP	Unfin. Enclosed Porch	126	0
		6,122	3,139

Building 2 : Section 1

Year Built: 1910
Living Area: 1,308
Replacement Cost: $134,245
Building Percent Good: 60
Replacement Cost Less Depreciation: $80,550

Building Attributes : Bldg 2 of 3

Field	Description
Style	Conventional
Model	Residential
Grade:	D
Stories	1
Occupancy	1
Exterior Wall 1	Vinyl Siding
Exterior Wall 2	
Roof Structure	Gable
Roof Cover	Arch Shingles
Interior Wall 1	Plaster
Interior Wall 2	
Interior Flr 1	Carpet
Interior Flr 2	
Heat Fuel	Oil
Heat Type:	Hot Water
AC Percent	None
Total Bedrooms:	2 Bedrooms
Full Bthrms:	1
Half Baths:	0
Extra Fixtures	0
Total Rooms:	5
Bath Style:	Average
Kitchen Style:	Average
Num Kitchens	1
Fireplace(s)	0
% Attic Fin	0
LF Dormer	0
Foundation	Poured Conc
Bsmt Gar(s)	0
Bsmt %	0
SF FBM	0
Fin Bsmt Qual	
Bsmt Access	None

Building Photo

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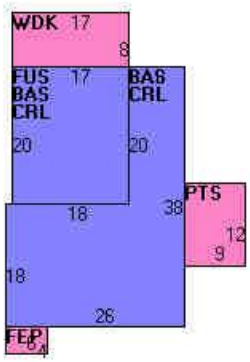
Building Layout



Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	968	968
FUS	Finished Upper Story	340	340
CRL	Crawl Space	968	0
FEP	Finished Enclosed Porch	24	0
PTS	Stone Patio	108	0
WDK	Deck	136	0
		2,544	1,308

Building 3 : Section 1

Year Built:	1912
Living Area:	1,481
Replacement Cost:	$160,287
Building Percent Good:	60

Replacement Cost
Less Depreciation: $96,170

Building Attributes : Bldg 3 of 3	
Field	**Description**
Style	Conventional
Model	Residential
Grade:	D
Stories	1.65
Occupancy	2
Exterior Wall 1	Vinyl Siding
Exterior Wall 2	
Roof Structure	Gable
Roof Cover	Arch Shingles
Interior Wall 1	Plaster
Interior Wall 2	
Interior Flr 1	Hardwood
Interior Flr 2	Carpet
Heat Fuel	Oil
Heat Type:	Hot Water
AC Percent	None
Total Bedrooms:	3 Bedrooms
Full Bthrms:	2
Half Baths:	0
Extra Fixtures	0
Total Rooms:	7
Bath Style:	Average
Kitchen Style:	Average
Num Kitchens	2
Fireplace(s)	0
% Attic Fin	0
LF Dormer	0
Foundation	Poured Conc
Bsmt Gar(s)	0
Bsmt %	100
SF FBM	0
Fin Bsmt Qual	
Bsmt Access	Int & Ext

Building Photo

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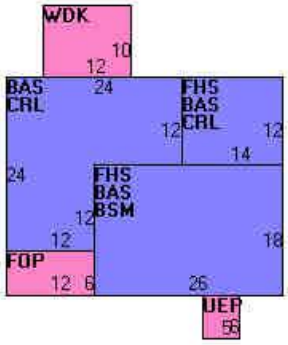
Building Layout



Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	1,068	1,068
FHS	Finished Half Story	636	413
BSM	Basement	468	0
CRL	Crawl Space	600	0
FOP	Open Porch	72	0
UEP	Unfin. Enclosed Porch	30	0
WDK	Deck	120	0
		2,994	1,481

Extra Features

Extra Features	Legend

Code	Description	Size	Value	Bldg #
SOL	Solar Array	39 UNITS	$0	1

Land

Land Use

Use Code	112
Description	Multiple Houses
Zone	R-30
Neighborhood	6C
Alt Land Appr	No
Category	

Land Line Valuation

Size (Acres)	2.20
Frontage	
Depth	
Assessed Value	$172,460
Appraised Value	$246,370

Outbuildings

Outbuildings						Legend
Code	**Description**	**Sub Code**	**Sub Description**	**Size**	**Value**	**Bldg #**
FGR1	Garage	FR	Frame	672 S.F.	$5,880	1
FGR1	Garage	FR	Frame	560 S.F.	$4,900	1
FOP	Porch			480 S.F.	$2,760	1
PTO	Patio	CN	Concrete	408 S.F.	$1,020	1

Valuation History

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2015	$496,350	$249,680	$746,030
2014	$496,350	$249,680	$746,030
2013	$496,350	$249,680	$746,030

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2015	$347,430	$174,780	$522,210
2014	$347,430	$174,780	$522,210
2013	$347,430	$174,780	$522,210

B+T GRP

Jacob Johnson, E.I.T.
Project Engineering
Structural Analysis

Tel (918) 587-4630

btwo@btgrp.com

B+T Group
1717 S. Boulder, Suite 300
Tulsa, OK 74119

March 7, 2018

Attn: Melanie A. Bachman Esq.
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051
Contact: (860) 827-2951 / melanie.bachman@ct.gov

Telecommunication Equipment Maintenance

180 ft Telecommunications Tower
Crown Castle BU# 806362
Site Name: NHV 108 943133
Address: INTERSECTION OF RTE 322/MERIDIAN RD WOLCOTT SITE
WOLCOTT, Connecticut 06716

Dear Ms. Bachman,

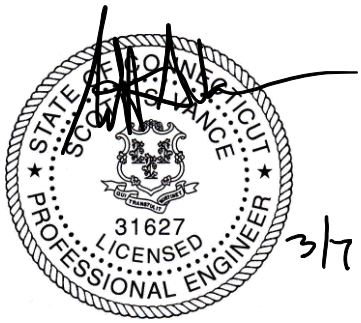
This letter is to request approval for the structural evaluation / building permit application for telecommunication equipment maintenance on the tower operated by Crown Castle at the above location. The equipment change-out proposed in the attached analysis dated November 29, 2017 is in conformance to the 2016 Connecticut State Building Code Section 101.2 Scope, Exception 2, The 2012 International Existing Building Code Section 301.1, Exception, and TIA-222-G Section 15.4. The structural calculations have been performed in accordance TIA/EIA-222-F standard, as required by TIA-222-G Section 15.4 and a wind speed of 85 mph fastest mile which is complying to the laws in existence when the tower last underwent a significant equipment change.

The equipment configuration change for telecommunication maintenance results in a net reduction of both wind shear and tower stress rating. As a result, there is no increase in the wind demands for the proposed telecommunication maintenance change based on the controlling building code and reference standards when the tower was first erected and last modified.

Please do not hesitate in contacting me for any questions regarding the proposed telecommunication equipment maintenance.

Respectfully submitted by: B+T Engineering, Inc.
COA: PEC.0001564 Expires: 2/10/2018

Scott S. Vance, P.E.



3/7/18

March 6, 2018

Timothy Howell
Crown Castle
3530 Toringdon Way Suite 300
Charlotte, NC 28277
(980) 209-8242

B+T Group
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630
btwo@btgrp.com

Subject:	**Structural Analysis Report**	
Carrier Designation:	***AT&T Mobility* Co-Locate**	
	Carrier Site Number:	CTL01060
	Carrier Site Name:	Wolcott - East St.
Crown Castle Designation:	**Crown Castle BU Number:**	806362
	Crown Castle Site Name:	NHV 108 943133
	Crown Castle JDE Job Number:	469998
	Crown Castle Work Order Number:	1495379
	Crown Castle Application Number:	414568 Rev. 1
Engineering Firm Designation:	**B+T Group Project Number:**	104053.003.01a
Site Data:	**Intersection Of Rte 322/Meridian Rdwolcott Site, Wolcott, New Haven County, CT** **Latitude *41° 33' 34.41"*, Longitude *-72° 56' 49.1"*** **180 Foot - Self Support Tower**	

Dear Timothy Howell,

B+T Group is pleased to submit this **"Structural Analysis Report"** to determine the structural integrity of the above-mentioned tower. This analysis has been performed in accordance with the Crown Castle Structural 'Statement of Work' and the terms of Crown Castle Purchase Order Number 1112335, in accordance with application 414568, revision 1.

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

LC6.5: Existing Equipment + Maintenance Configuration Change **Sufficient Capacity**
Note: See Table 1 and Table 2 for the proposed and existing loading, respectively.

This proposed configuration change is considered maintenance and does not increase the loading or stress rating of the tower and foundation. Therefore, conformance to TIA-222-G is not required.

This analysis has been performed in accordance with the TIA/EIA-222-F standard and 2005 CT State Building Code with 2009 amendment based upon a wind speed of 85 mph fastest mile.

All equipment proposed in this report shall be installed in accordance with the attached drawings for the determined available structural capacity to be effective.

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

Structural analysis prepared by: Jacob Johnson, E.I.T.

Respectfully submitted by: B+T Engineering, Inc.
COA: PEC.0001564 Expires: 2/10/2018

Scott S. Vance, P.E.

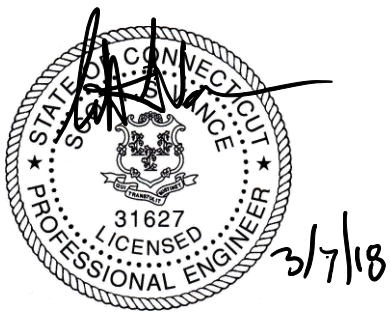


TABLE OF CONTENTS

1) INTRODUCTION

This tower is a 180 ft. Self-Support tower designed by Rohn in September of 1986. The tower was originally Designed for EIA Zone C with 1" radial ice. This tower has been modified by All Points Technology Corp in 2002 and those modifications incorporated in this analysis.

2) ANALYSIS CRITERIA

The structural analysis was performed for this tower in accordance with the requirements of TIA/EIA-222-F Structural Standards for Steel Antenna Towers and Antenna Supporting Structures using a fastest mile wind speed of 85 mph with no ice, 37.6 mph with 0.75-inch ice thickness and 50 mph under service loads.

Table 1 - Proposed Antenna and Cable Information

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)	Note
158.0	160.0	3	Ericsson	RRUS 32 B2	--	--	--
		6	Kaelus	DBC0061F1V51-2			
		2	Quintel Tech.	QS66512-2			

Table 2 - Existing Antenna and Cable Information

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)	Note
180.0	186.0	3	Commscope	ATBT-BOTTOM-24V	18	1-5/8	1
		3	Commscope	SBNHH-1D65A			
		3	Rfs Celwave	ATMAA1412D-1A20			
	182.0	3	Rfs Celwave	ATMAA1412D-1A20			
177.0	177.0	3	Alcatel Lucent	RRH2X60-AWS	13	1-5/8	1
		3	Alcatel Lucent	RRH2X60-PCS			
		3	Alcatel Lucent	RRH2x60-700			
		2	Andrew	DB846F65ZAXY			
		2	Antel	LPA-80063/6CFx5			
		6	Commscope	SBNHH-1D45B			
		3	Commscope	SBNHH-1D65B			
		2	Rfs Celwave	DB-T1-6Z-8AB-0Z			
		2	Swedcom	SC-E 6014 rev2			
		1	--	Sector Mount [SM 504-3]			
168.0	168.0	1	Andrew	VHLP2-18	4 1	5/16 7983A	1
		3	Argus Tech.	LLPX310R			
		1	Dragonwave	A-ANT-18G-2-C			
		4	Samsung Telecom.	FDD_R6_RRH			
		1	--	Pipe Mount [PM 602-3]			
158.0	160.0	**6**	**Cci Antennas**	**TPX-070821**	**--**	**--**	**2**
		3	**Ericsson**	**RRU-12**			
		2	**Quintel Tech.**	**QS66512-3**			

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)	Note
158.0	160.0	1	Andrew	SBNH-1D6565C	12 4 2	1-1/4 3/4 3/8	1
		1	Cci Antennas	TPA-65R-LCUUUU-H8			
		3	Ericsson	RRUS 32			
		2	Kmw Com.	AM-X-CD-16-65-00T-RET			
		3	Powerwave Tech.	7770.00			
		1	Raycap	DC6-48-60-18-8F			
	158.0	3	Comm Comp Inc.	DTMABP7819VG12A			
		3	Ericsson	RRUS-11			
		3	Powerwave Tech.	7020.00			
		1	Raycap	DC6-48-60-18-8F			
		1	--	Sector Mount [SM 504-3]			
58.0	58.0	1	Gps	GPS_A	1	1/2	1
		1	--	Side Arm Mount [SO 306-1]			

Notes:
1) Existing Equipment
2) Equipment To Be Removed; Not Considered in This Analysis

Table 3 - Design Antenna and Cable Information

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
180	180	3	Generic	3' Side Arms	--	--
		4	Rfs Celwave	PD10017		
170	170	3	Generic	6' Side Arms	--	--
		3	Rfs Celwave	PD1132D		
160	160	2	Generic	6' STD Dish	--	--

3) ANALYSIS PROCEDURE

Table 4 - Documents Provided

Document	Remarks	Reference	Source
Online Application	AT&T Mobility Co-Locate, Rev# 1	414568	CCI Sites
Tower Manufacturer Drawing	ROHN, File No. 21817JC	529684	CCI Sites
Tower Modification Drawing	APT, Job# CT105680	903539	CCI Sites
Exposure Category Determination	Crown Castle, Date:11/06/2017	5965877	CCI Sites
Foundation Drawing	ROHN, File No. 21817JC	217670	CCI Sites
Geotech Report	FDH, Project No. 08-01300G	2303630	CCI Sites
Antenna Configuration	Crown CAD Package	Date: 11/10/2017	CCI Sites

3.1) Analysis Method

tnxTower (version 7.0.5.1), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A.

3.2) Assumptions

1) Tower and structures were built in accordance with the manufacturer's specifications.
2) The tower and structures have been maintained in accordance with the manufacturer's specification.
3) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.
4) Mount areas and weights are assumed based on photographs provided.
5) The existing base plate grout was considered in this analysis. Grout must be maintained and inspected periodically, and must be replaced if damaged or cracked. Refer to crown document ENG-BUL-10122, Tower Base Plate Grout Inspection and Classification.

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

4) ANALYSIS RESULTS

Table 5 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
T1	180 - 160	Leg	ROHN 2.5 STD	1	-14.466	41.137	35.2	Pass
T2	160 - 140	Leg	ROHN 3 X-STR	40	-47.316	83.780	56.5	Pass
T3	140 - 120	Leg	ROHN 4 X-STR	79	-77.771	139.068	55.9	Pass
T4	120 - 100	Leg	ROHN 5 X-STR	118	-100.714	177.417	56.8	Pass
T5	100 - 80	Leg	ROHN 5 X-STR	146	-125.212	177.354	70.6	Pass
T6	80 - 60	Leg	ROHN 6 EHS	173	-147.874	212.128	69.7	Pass
T7	60 - 40	Leg	ROHN 6 X-STR	200	-170.555	264.217	64.6	Pass
T8	40 - 20	Leg	ROHN 6 X-STR	227	-192.236	264.187	72.8	Pass
T9	20 - 0	Leg	ROHN 8 EHS	254	-201.791	240.926	83.8	Pass
T1	180 - 160	Diagonal	ROHN 2 STD	8	-6.275	15.541	40.4	Pass
T2	160 - 140	Diagonal	ROHN 2 STD	60	-8.089	14.093	57.4	Pass
T3	140 - 120	Diagonal	ROHN 2 STD	87	-7.596	11.514	66.0	Pass
T4	120 - 100	Diagonal	ROHN 2.5 STD	126	-9.324	14.430	64.6	Pass
T5	100 - 80	Diagonal	ROHN 2.5 STD	153	-8.576	12.598	68.1	Pass
T6	80 - 60	Diagonal	ROHN 2.5 STD	179	-9.094	11.148	81.6	Pass
T7	60 - 40	Diagonal	ROHN 2.5 X-STR	206	-9.489	12.305	77.1	Pass
T8	40 - 20	Diagonal	ROHN 3 STD	233	-9.367	16.858	55.6	Pass
T9	20 - 0	Diagonal	ROHN 3 STD	264	-14.805	28.346	52.2	Pass
T1	180 - 160	Horizontal	ROHN 1.5 STD	7	-3.330	20.288	16.4 19.7 (b)	Pass
T2	160 - 140	Horizontal	ROHN 1.5 STD	46	-4.739	17.381	27.3 28.0 (b)	Pass
T3	140 - 120	Horizontal	ROHN 2 STD	85	-5.177	24.654	21.0 30.3 (b)	Pass
T4	120 - 100	Horizontal	ROHN 2 STD	124	-5.508	20.426	27.0 32.2 (b)	Pass
T5	100 - 80	Horizontal	ROHN 2 STD	151	-5.547	14.771	37.6	Pass
T6	80 - 60	Horizontal	ROHN 2.5 STD	178	-6.265	25.422	24.6 37.0 (b)	Pass
T7	60 - 40	Horizontal	ROHN 2.5 STD	205	-6.822	19.663	34.7 40.8 (b)	Pass
T8	40 - 20	Horizontal	ROHN 2.5 STD	232	-6.973	15.569	44.8	Pass
T9	20 - 0	Horizontal	ROHN 3 STD	263	-7.841	27.512	28.5 32.3 (b)	Pass
T1	180 - 160	Top Girt	ROHN 1.5 STD	4	-1.551	20.345	7.6	Pass
T9	20 - 0	Redund Horz 1 Bracing	ROHN 1.5 x 11GA	277	-0.754	4.897	15.4	Pass
T9	20 - 0	Redund Diag 1 Bracing	ROHN 1.5 STD	266	-0.751	3.600	20.9	Pass
T9	20 - 0	Redund Hip 1 Bracing	ROHN 1.5 x 11GA	270	-0.023	4.354	0.5	Pass
T9	20 - 0	Red Hip Diag 1 Bracing	ROHN 2.5 STD	271	-0.051	7.007	0.7	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
T1	180 - 160	Inner Bracing	L2x2x1/8	16	-0.003	5.820	0.3	Pass
T2	160 - 140	Inner Bracing	L2x2x1/8	52	-0.004	4.292	0.3	Pass
T3	140 - 120	Inner Bracing	L2x2x1/8	93	-0.005	2.933	0.4	Pass
T4	120 - 100	Inner Bracing	L2x2x1/8	130	-0.004	1.659	0.5	Pass
T5	100 - 80	Inner Bracing	L2 1/2x2 1/2x3/16	157	-0.006	3.472	0.5	Pass
T6	80 - 60	Inner Bracing	L3x3x3/16	185	-0.007	4.548	0.5	Pass
T7	60 - 40	Inner Bracing	L3 1/2x3 1/2x1/4	212	-0.009	7.448	0.3	Pass
T8	40 - 20	Inner Bracing	L3 1/2x3 1/2x1/4	238	-0.010	5.931	0.4	Pass
T9	20 - 0	Inner Bracing	ROHN 3 STD	284	-0.011	19.744	0.4	Pass
							Summary	
						Leg (T9)	83.8	Pass
						Diagonal (T6)	81.6	Pass
						Horizontal (T8)	44.8	Pass
						Top Girt (T1)	7.6	Pass
						Redund Horz 1 Bracing (T9)	15.4	Pass
						Redund Diag 1 Bracing (T9)	20.9	Pass
						Redund Hip 1 Bracing (T9)	0.5	Pass
						Redund Hip Diagonal 1 Bracing (T9)	0.7	Pass
						Inner Bracing (T4)	0.5	Pass
						Bolt Checks	56.8	Pass
						RATING =	83.8	Pass

Table 6 - Tower Component Stresses vs. Capacity – LC6.5

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Anchor Rods	Base	56.8	Pass
1	Base Foundation (Structure)	Base	43.8	Pass
1	Base Foundation (Soil Interaction)	Base	63.8	Pass

Structure Rating (max from all components) =	**83.8%**

Notes:
1) See additional documentation in “Appendix C – Additional Calculations” for calculations supporting the % capacity consumed.
2) Capacities up to 100% are considered acceptable based on analysis methods used.

4.1) Recommendations

The tower and its foundation have sufficient capacity to carry the existing, reserved and proposed loads. No modifications are required at this time.

PROJECT:	LTE 4C / RETRO
SITE NUMBER:	CTL01060
FA NUMBER:	10035040
PTN NUMBER:	2051AD0D0Q7/2051A0D1LS
PACE NUMBER:	MRCTB025176/MRCTB025123
CROWN BU#:	806362
SITE NAME:	WOLCOTT-EAST STREET
SITE ADDRESS:	347 EAST STREET WOLCOTT, CT 06716

PROJECT INFORMATION

SITE NAME:	WOLCOTT–EAST STREET
SITE NUMBER:	CTL01060
SITE ADDRESS:	347 EAST STREET WOLCOTT, CT 06716
FA NUMBER:	10035040
PTN NUMBER:	2051AD0D0Q7/2051A0D1LS
PACE NUMBER:	MRCTB025176/MRCTB025123
USID NUMBER:	61146
CROWN BU#:	806362
APPLICANT:	AT&T WIRELESS 550 COCHITUATE ROAD SUITE 550 13 AND 14 FRAMINGHAM, MA 01701
TOWER OWNER:	CROWN CASTLE INTERNATIONAL 12 GILL STREET, SUITE 5800 WOBURN, MA 01801
JURISDICTION:	NEW HAVEN COUNTY
COUNTY:	NEW HAVEN
SITE COORDINATES FROM	(RFDS)
LATITUDE:	41.5595481°
LONGITUDE:	–72.9469711°
GROUND ELEV.:	743'
PROPOSED USE:	TELECOMMUNICATIONS FACILITY
AT&T RF MANAGER:	DEEPAK RATHORE
PHONE:	(860) 965–3068
EMAIL:	dr701e@att.com

PROJECT CONSULTANTS

PROJECT MANAGER:	SMARTLINK
ADDRESS:	85 RANGEWAY ROAD, SUITE 102 NORTH BILLERICA, MA 01862
CONTACT:	EDWARD WEISSMAN (917) 528–1857
EMAIL:	Edward.Weissman@smartlinkllc.com
SITE AQUISITION:	SMARTLINK
ADDRESS:	85 RANGEWAY ROAD, SUITE 102 NORTH BILLERICA, MA 01862
CONTACT:	SHARON KEEFE (978) 930–3918
EMAIL:	Sharon.Keefe@smartlinkllc.com
ENGINEER/ARCHITECT:	FULLERTON ENGINEERING
ADDRESS:	1100 E. WOODFIELD ROAD, SUITE 500 SCHAUMBURG, IL 60173
CONTACT:	MILEN DIMITROV (847) 908–8439
EMAIL:	MDimitrov@FullertonEngineering.com
CONSTRUCTION:	SMARTLINK
ADDRESS:	85 RANGEWAY ROAD, SUITE 102 NORTH BILLERICA, MA 01862
CONTACT:	MARK DONNELLY (617) 515–2080
EMAIL:	mark.donnelly@smartlinkllc.com

SCOPE OF WORK

LTE 850 WILL BE 4C AT THE SITE WITH BRONZE CONFIGURATION.
PROPOSED 4C PROJECT SCOPE HEREIN BASED ON RFDS ID # 1811296, VERSION 3.00 LAST UPDATED 10/10/17.

- (3) NEW RRUS–32 B2
- (3) RELOCATED RRUS–12
- (3) NEW 25A BREAKERS, (2) NEW XMU AND (1) NEW IDL2
- REPLACE (6) EXISTING TRIPLEXERS W/ (6) NEW LOW BAND COMBINERS

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

SITE LOCATION MAP

NO SCALE

DIRECTIONS

SCAN QR CODE FOR LINK
TO SITE LOCATION MAP

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

DRAWING INDEX

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
A6	ANTENNA & CABLE CONFIGURATION
A7	CABLE NOTES AND COLOR CODING
A8	GROUNDING DETAILS

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

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

smartlink
1362 MELLON ROAD
SUITE 140
HANOVER, MD 21076

FULLERTON ENGINEERING · DESIGN
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REV	DATE	DESCRIPTION	BY
0	10/28/17	90% REVIEW	AS
1	11/16/17	FOR PERMIT	EB

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 NAME
WOLCOTT-EAST STREET

SITE NUMBER:
CTL01060

SITE ADDRESS
347 EAST STREET
WOLCOTT, CT 06716

SHEET NAME
TITLE SHEET

SHEET NUMBER
T1

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 OT 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 600 VOLT CABLES AND THE INTER DUCT IN ORDER TO SEGREGATE CABLE TYPES. OPTIC FIBER TRUNK CABLES SHALL HAVE APPROVED CABLE RESTRAINTS EVERY (60) 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, TMAS, 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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STATE OF CONNECTICUT · HENRY M. BELLAGAMBA · 25358 · PROFESSIONAL ENGINEER

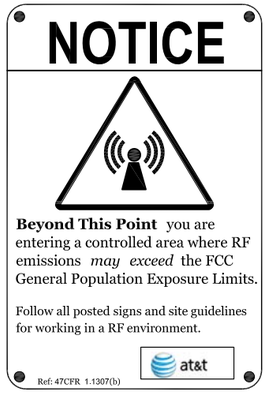
SITE NAME
WOLCOTT-EAST STREET

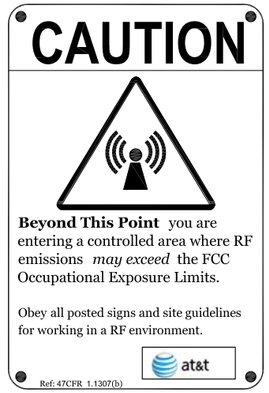
SITE NUMBER:
CTL01060

SITE ADDRESS
347 EAST STREET
WOLCOTT, CT 06716

SHEET NAME
NOTES AND SPECIFICATIONS

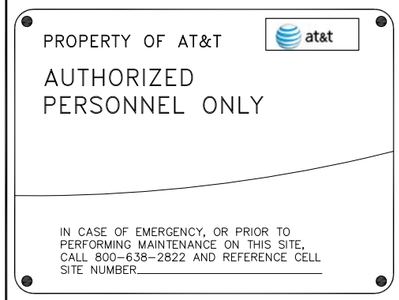
SHEET NUMBER
SP1





ALERTING SIGNS

ALERTING SIGN



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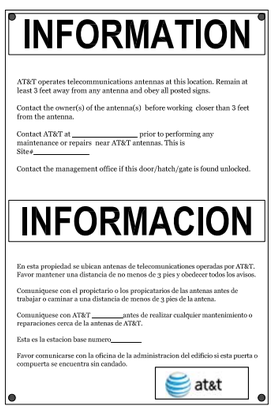
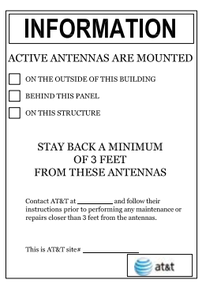


INFO SIGN #1



INFO SIGN #2

INFO SIGN #3

ALERTING SIGN
(FOR CELL SITE BATTERIES)

ALERTING SIGN
(FOR DIESEL FUEL)

ALERTING SIGN
(FOR PROPANE)

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

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.

SIGNAGE GUIDELINES CHART

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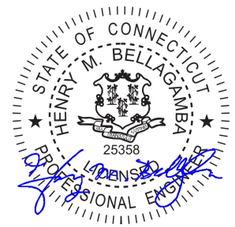


SITE NAME
WOLCOTT-EAST STREET

SITE NUMBER:
CTL01060

SITE ADDRESS
347 EAST STREET
WOLCOTT, CT 06716

SHEET NAME
NOTES AND SPECIFICATIONS

SHEET NUMBER
SP2

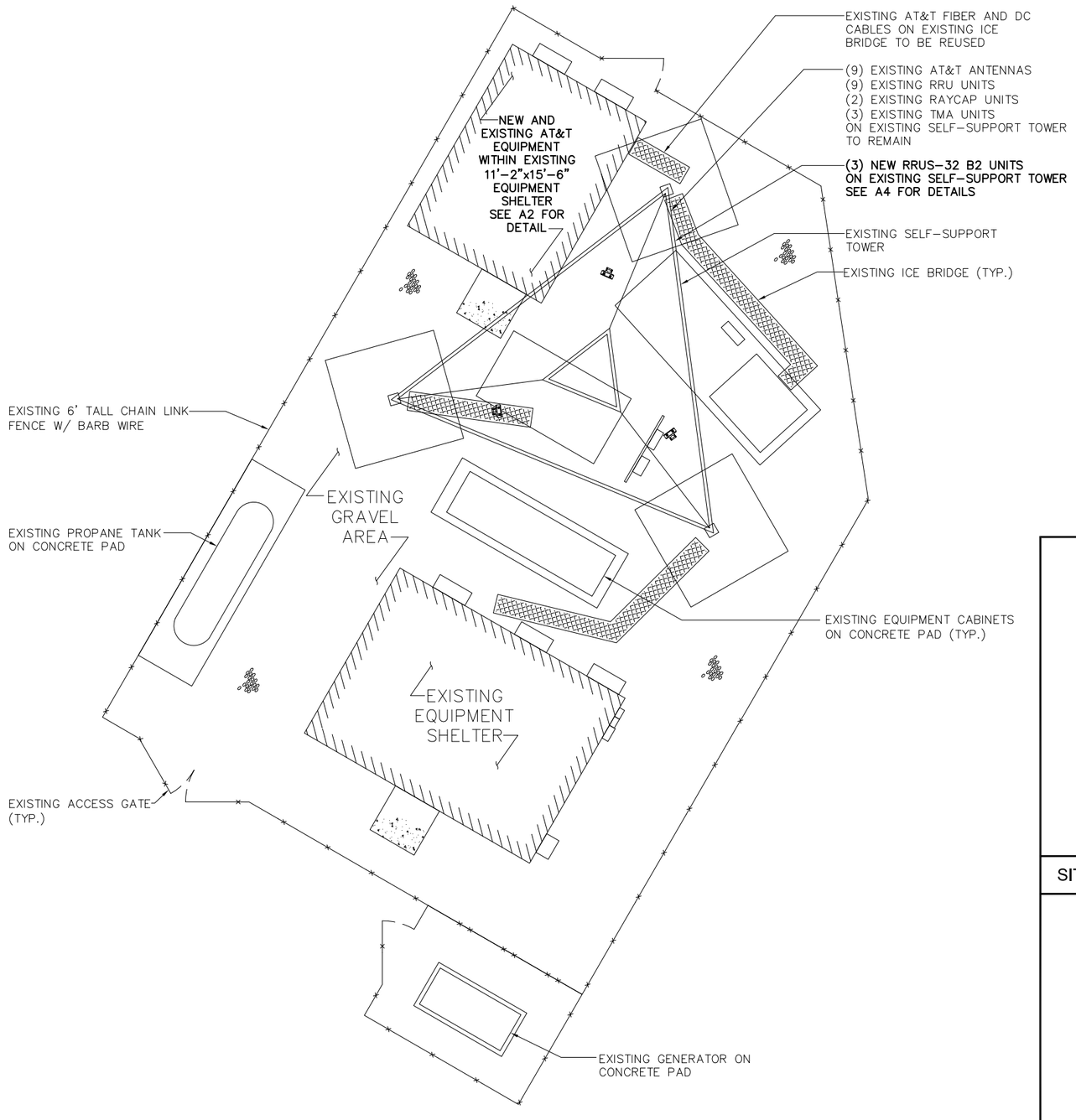
FEC# 2017.0278. 0089

ABBREVIATIONS

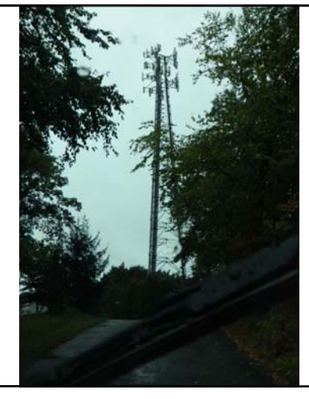
AFF	ABOVE FINISHED FLOOR
AGL	ABOVE GRADE LEVEL
AMSL	ABOVE MEAN SEA LEVEL
APPROX	APPROXIMATE
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BLDG	BUILDING
BTS	BASE TRANSMISSION STATION
℄	CENTERLINE
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CND	CONDUIT
DWG	DRAWING
FT	FOOT(FEET)
EGB	EQUIPMENT GROUND BAR
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	PROPERY 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
- UE — BELOW GRADE ELECTRIC
- UT — BELOW GRADE TELEPHONE
- OE/OT — OVERHEAD ELECTRIC/TELEPHONE
- SECTION REFERENCE (A / S-1)



COMPOUND PLAN — SCALE 1" = 10'-0" — 1



SITE PHOTO 1 — SCALE: N.T.S. — 2

SITE PHOTO 2 — SCALE: N.T.S. — 3

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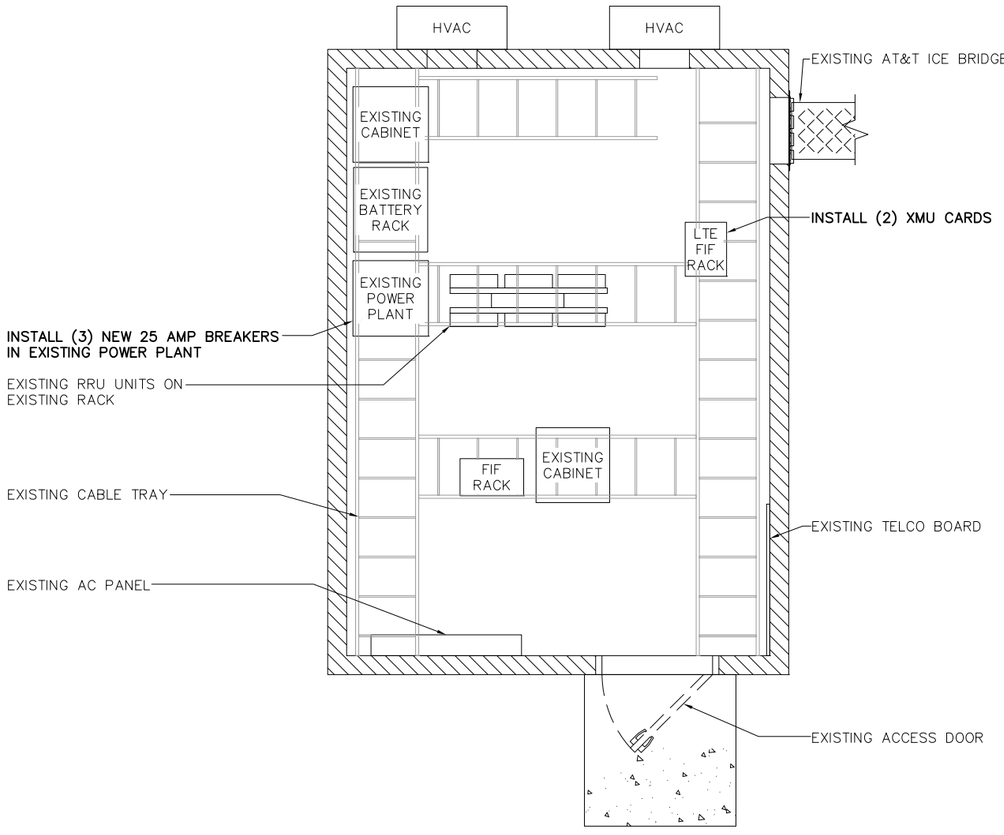
SITE NUMBER:
CTL01060

SITE ADDRESS
347 EAST STREET
WOLCOTT, CT 06716

SHEET NAME
COMPOUND PLAN

SHEET NUMBER
A1

FEC# 2017.0278. 0089



EQUIPMENT PLAN

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

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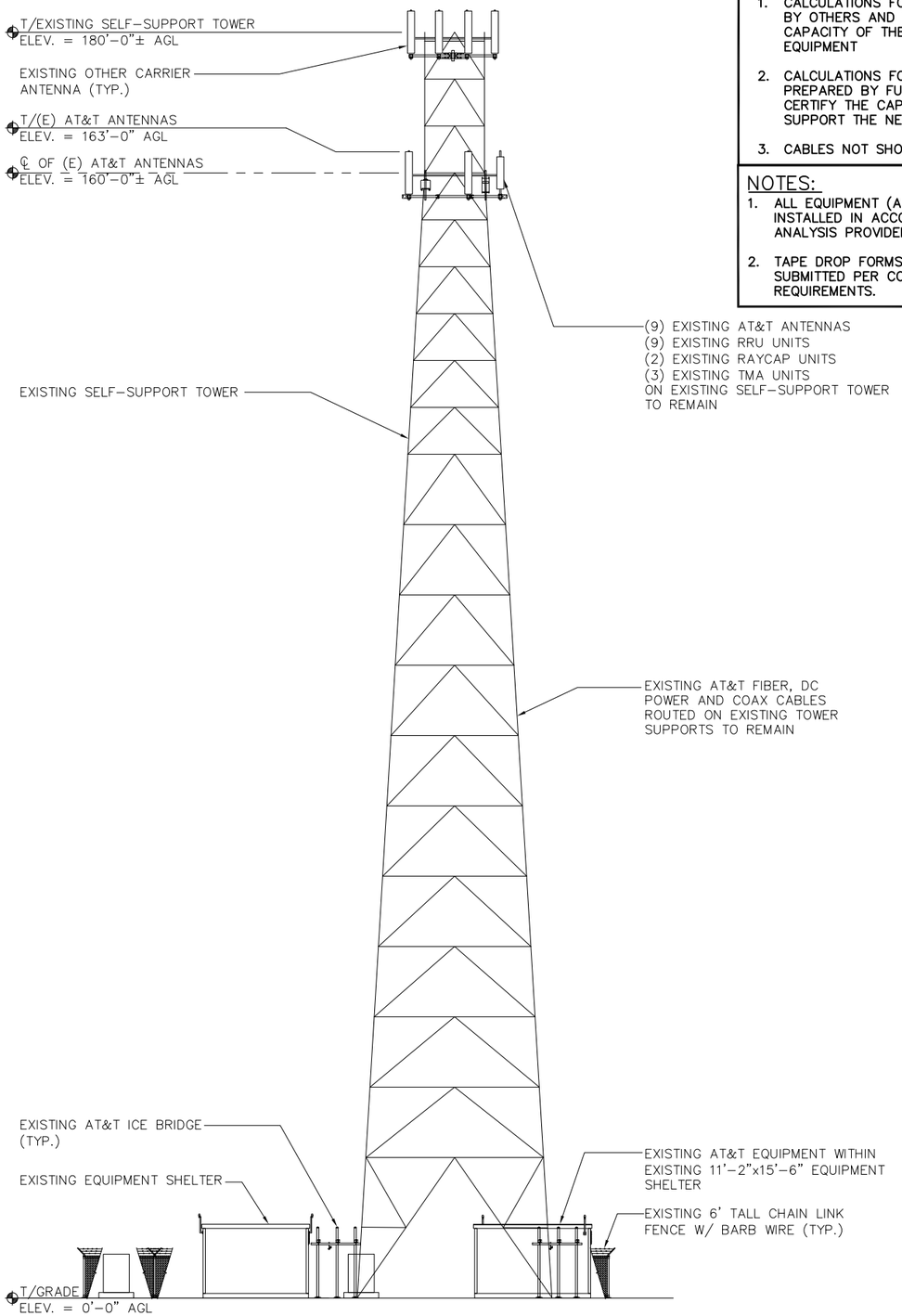
SHEET NAME
EQUIPMENT PLAN

SHEET NUMBER
A2



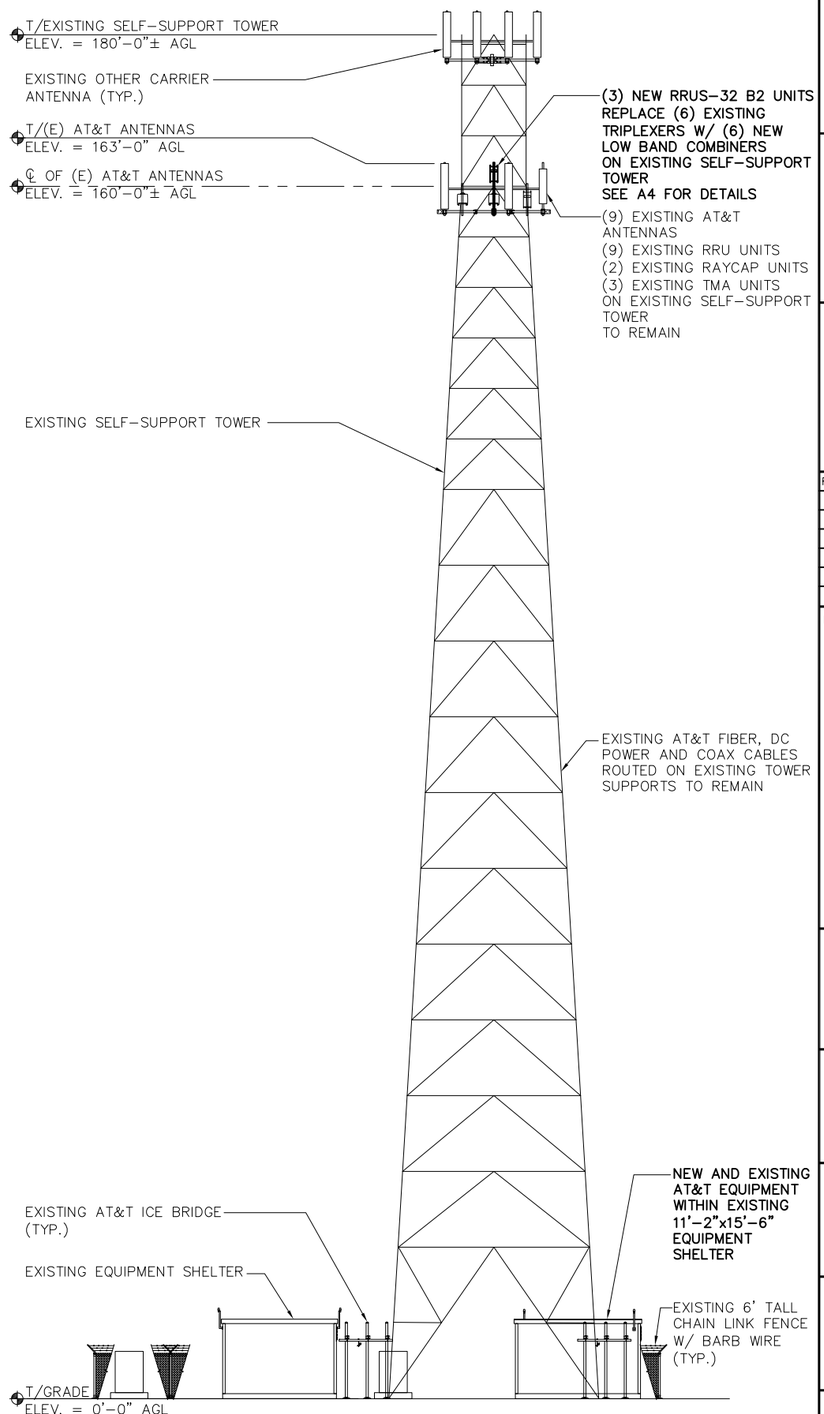
EXISTING ELEVATION — SCALE: 1" = 20'-0" — 1

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

NOTES:

1. ALL EQUIPMENT (ANTENNAS, LINES, ETC.) TO BE INSTALLED IN ACCORDANCE WITH PASSING STRUCTURAL ANALYSIS PROVIDED BY CROWN CASTLE.
2. TAPE DROP FORMS AND PHOTOGRAPHS TO BE SUBMITTED PER CCI AND AT&T CLOSEOUT REQUIREMENTS.



NEW ELEVATION — SCALE: 1" = 20'-0" — 2

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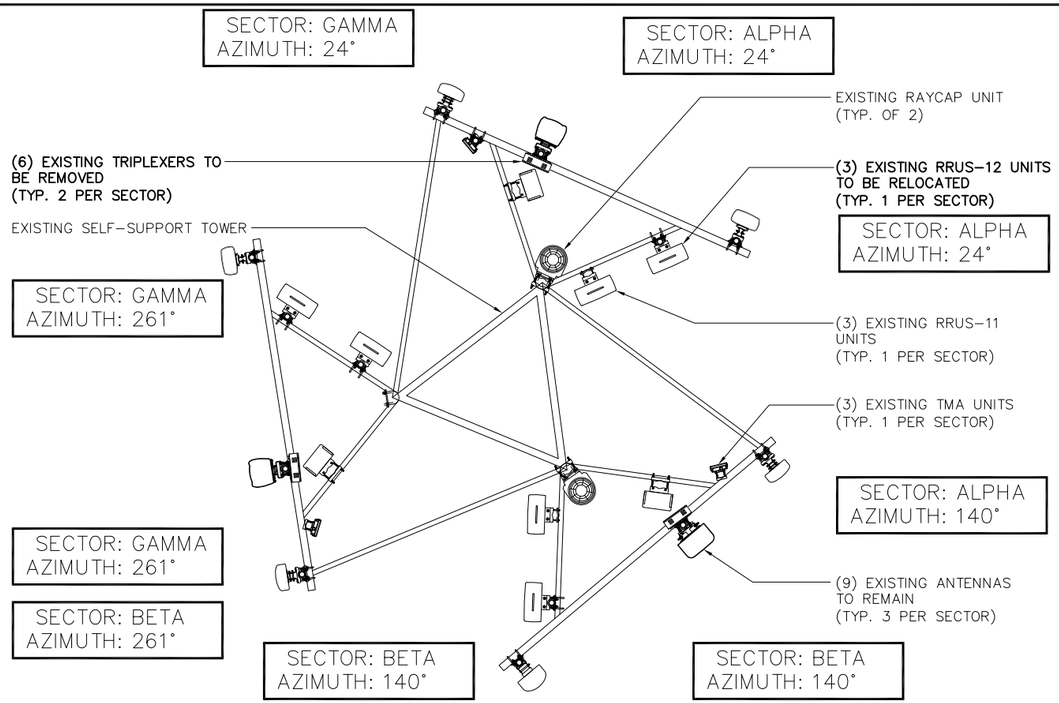
WOLCOTT, CT 06716

SHEET NAME
ELEVATIONS

SHEET NUMBER
A3

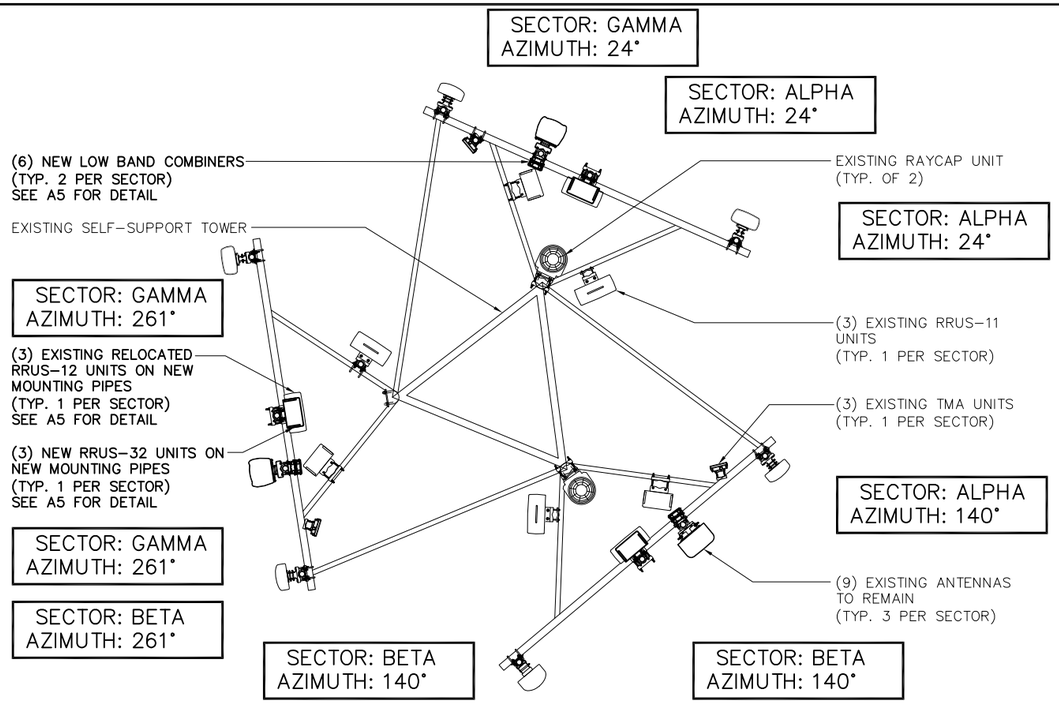
FEC# 2017.0278. 0089



EXISTING ANTENNA PLAN

SCALE: 3/16" = 1'-0" | 1

NOTES:
1. EXISTING ANTENNA MOUNTING PIPE TO BE REUSED, RELOCATED OR REPLACED AS REQUIRED
2. IF REQUIRED INSTALL NEW GALV. MOUNTING PIPE(S) 2.5 STD. (2-7/8" O.D.)



FINAL ANTENNA PLAN

SCALE: 3/16" = 1'-0" | 2

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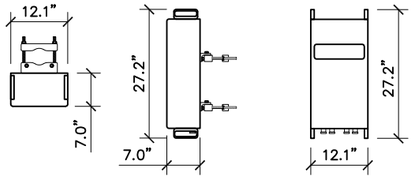
WOLCOTT, CT 06716

SHEET NAME
ANTENNA PLANS

SHEET NUMBER
A4

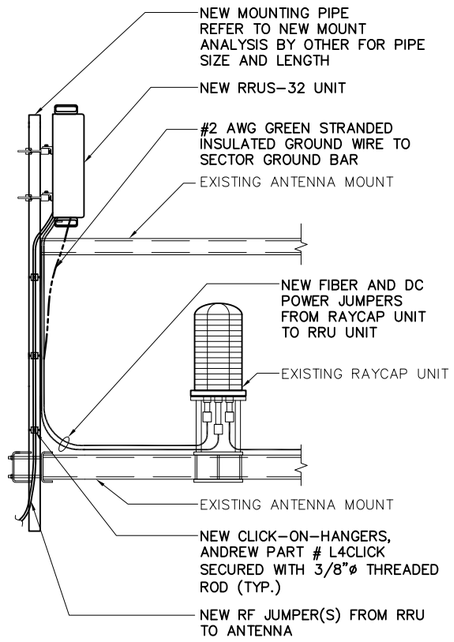


PLAN VIEW SIDE VIEW FRONT VIEW

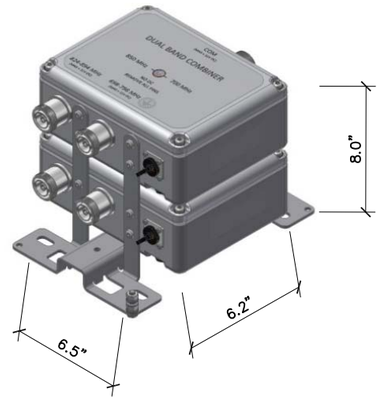
ERICSSON – RRUS 32 B30

UNIT WEIGHT 60 Lbs

RRU SPEC SCALE: N.T.S. 1



RRU SCHEMATIC SCALE: N.T.S. 2



KAELUS – DBC0061F1V51–2

FREQUENCY RANGE	
700 BAND– PASSBAND	698–798 MHZ
850 BAND– PASSBAND	824–894 MHZ
TOTAL WEIGHT	25.4 Lbs

COMBINER SPEC SCALE: N.T.S. 3

NOT USED SCALE: N.T.S. 4

NOT USED 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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SITE NUMBER:
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SITE ADDRESS
347 EAST STREET
WOLCOTT, CT 06716

SHEET NAME
EQUIPMENT DETAILS

SHEET NUMBER
A5

FEC# 2017.0278. 0089

FINAL ANTENNA CONFIGURATION AND CABLE SCHEDULE
SUPPLIED BY AT&T WIRELESS, FROM RF CONFIG. DATED (XX/XX/XX)

SECTOR	ANTENNA NUMBER	ANTENNA STATUS & TYPE	ANTENNA MODEL NUMBER	ANTENNA VENDOR	TMA/RRU UNIT	AZIMUTH	ANTENNA CL FROM GROUND	CABLE FEEDER TYPE	CABLE FEEDER LENGTH	RAYCAP UNIT
ALPHA	A–1	(E) UMTS ANTENNA	7770	POWERWAVE	(1) EXISTING TMA UNIT(S)	140°	160'–0"	1–1/4"ø LDF6–50A	210'–0"	(2) (E) DC6–48–60–18–8F UNITS
								1–1/4"ø LDF6–50A	210'–0"	
	A–2	**(E) LTE 2C/3C/4C ANTENNA**	QS66512–2	QUINTEL	(1) EXISTING RRUS–32 UNIT(S) **(1) RELOCATED RRUS–12 UNIT(S)** **(1) NEW RRUS–32 UNIT(S)** **(2) NEW DBC0061F1V51–2**	24°	160'–0"	(1) EXISTING FIBER CABLE	216'–0"	
								(2) EXISTING DC POWER CABLES	216'–0"	
	A–3	–	–	–	–	–	–	–		
	A–4	(E) LTE1C ANTENNA	AM–X–CD–16–65 –00T–RET	KMW	(1) EXISTING RRUS–11 UNIT(S)	24°	160'–0"	(1) EXISTING FIBER CABLE	216'–0"	
								(2) EXISTING DC POWER CABLES	216'–0"	
BETA	B–1	(E) UMTS ANTENNA	7770	POWERWAVE	(1) EXISTING TMA UNIT(S)	261°	160'–0"	1–1/4"ø LDF6–50A	210'–0"	
								1–1/4"ø LDF6–50A	210'–0"	
	B–2	**(E) LTE 2C/3C/4C ANTENNA**	TPA–65R–LCUUUU–H8	COMMSCOPE	(1) EXISTING RRUS–32 UNIT(S) **(1) RELOCATED RRUS–12 UNIT(S)** **(1) NEW RRUS–32 UNIT(S)** **(2) NEW DBC0061F1V51–2**	140°	160'–0"	SEE ANTENNA A–2 FOR FIBER CABLE		
								SEE ANTENNA A–2 FOR DC POWER CABLE		
	B–3	–	–	–	–	–	–	–		
	B–4	(E) LTE1C ANTENNA	SBNH–1D6565C	COMMSCOPE	(1) EXISTING RRUS–11 UNIT(S)	140°	160'–0"	SEE ANTENNA A–4 FOR FIBER CABLE		
								SEE ANTENNA A–4 FOR DC POWER CABLE		
GAMMA	C–1	(E) UMTS ANTENNA	7770	POWERWAVE	(1) EXISTING TMA UNIT(S)	24°	160'–0"	1–1/4"ø LDF6–50A	210'–0"	
								1–1/4"ø LDF6–50A	210'–0"	
	C–2	**(E) LTE 2C/3C/4C ANTENNA**	QS66512–2	QUINTEL	(1) EXISTING RRUS–32 UNIT(S) **(1) RELOCATED RRUS–12 UNIT(S)** **(1) NEW RRUS–32 UNIT(S)** **(2) NEW DBC0061F1V51–2**	261°	160'–0"	SEE ANTENNA A–2 FOR FIBER CABLE		
								SEE ANTENNA A–2 FOR DC POWER CABLE		
	C–3	–	–	–	–	–	–	–		
	C–4	(E) LTE1C ANTENNA	AM–X–CD–16–65 –00T–RET	KMW	(1) EXISTING RRUS–11 UNIT(S)	261°	160'–0"	SEE ANTENNA A–4 FOR FIBER CABLE		
								SEE ANTENNA A–4 FOR DC POWER CABLE		

LEGEND
(N) – NEW
(E) – EXISTING

ANTENNA & CABLE CONFIGURATION

SCALE: N.T.S. | 1

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1	11/16/17	FOR PERMIT	EB

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.

STATE OF CONNECTICUT · HENRY M. BELLAGAMBA · 25358 · LICENSED PROFESSIONAL ENGINEER

SITE NAME
WOLCOTT-EAST STREET

SITE NUMBER:
CTL01060

SITE ADDRESS
347 EAST STREET
WOLCOTT, CT 06716

SHEET NAME
ANTENNA & CABLE CONFIGURATION

SHEET NUMBER
A6

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.

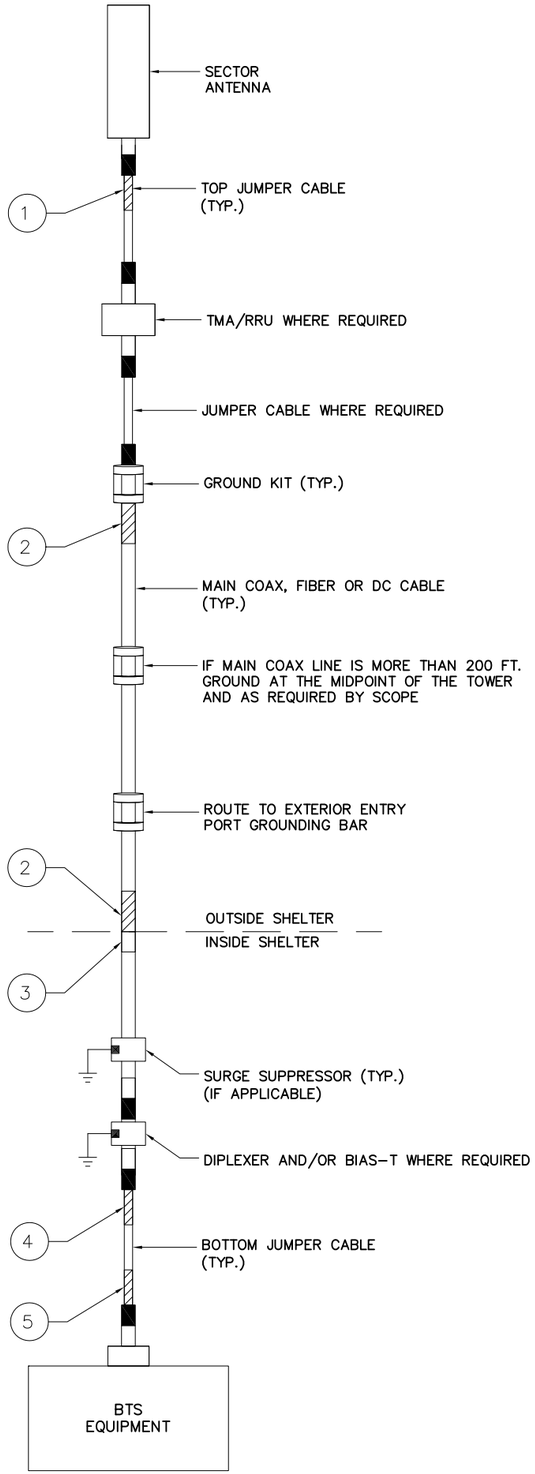
CABLE MARKING DIAGRAM

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

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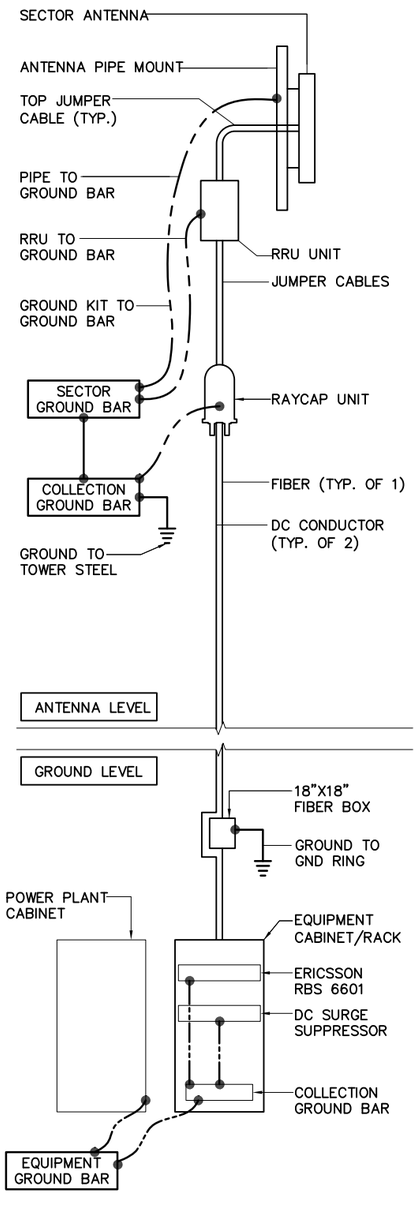
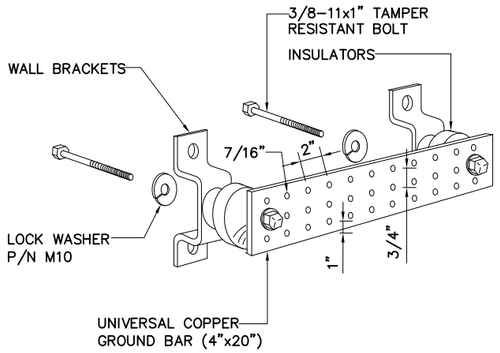
SHEET NAME
CABLE NOTES AND COLOR CODING

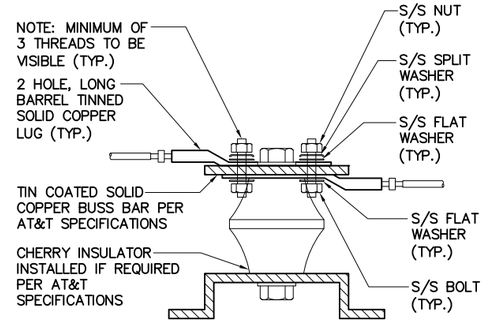
SHEET NUMBER
A7



GROUNDING SCHEMATIC SCALE: N.T.S. 1



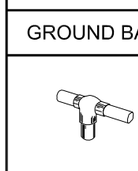
GROUND BAR DETAIL SCALE: N.T.S. 2



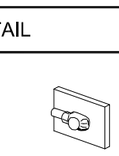
NOTES:

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.

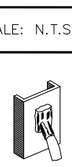
LUG DETAIL SCALE: N.T.S. 3



Type GT
THROUGH CABLE TO TOP OF GROUND ROD.



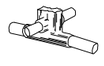
Type VN
HORIZONTAL CABLE TAP TO VERTICAL STEEL SURFACE OR THE SIDE OF HORIZONTAL PIPE



Type VV
THROUGH VERTICAL CABLE TO VERTICAL STEEL SURFACE OR TO THE SIDE OF EITHER HORIZONTAL OR VERTICAL PIPE

Type TA
TEE OF HORIZONTAL RUN AND TAP CABLES.

Type VS
CABLE TAP DOWN AT 45° TO VERTICAL STEEL SURFACE OR SIDE OF HORIZONTAL OR VERTICAL PIPE.



Type XB
CROSS OF HORIZONTAL CABLES. LAPPED AND NOT CUT

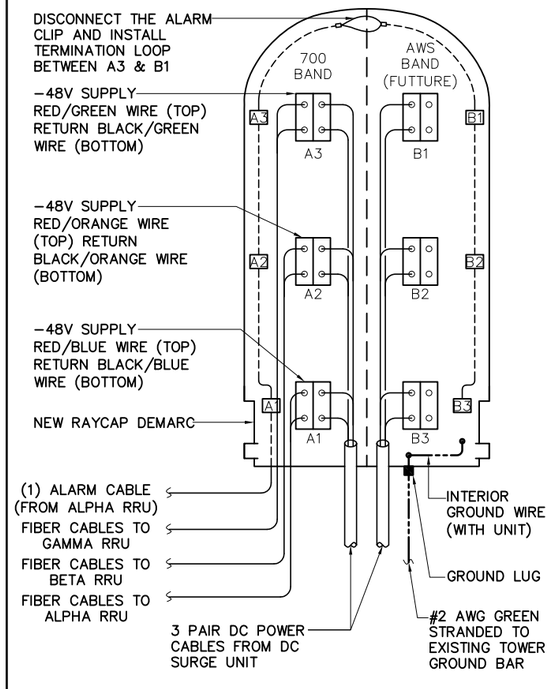
Type GR
CABLE TAP TO TOP OF GROUND ROD

Type HS
HORIZONTAL CABLE TAP TO HORIZONTAL STEEL SURFACE OR PIPE. CABLE OFF SURFACE.

Type GY
THROUGH CABLE TO SIDE OF GROUND ROD

Type NC
THROUGH AND TAP CABLES TO GROUND ROD

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



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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FEC# 2017.0278. 0089