

April 1, 2014

David Martin and
Members of the Siting Council
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: Notice of Exempt Modification
12 Orchard Drive, Ledyard, CT 06335
N 41.468264
W 72.054442

Dear Mr. Martin and Members of the Siting Council:

On behalf of T-Mobile, SBA Communications is submitting an exempt modification application to the Connecticut Siting Council for modification of existing equipment at a tower facility located at 12 Orchard Drive, Ledyard, CT 06335.

The 12 Orchard Drive facility consists of a 150' Monopole owned and operated by SBA Towers IV, LLC. In order to accommodate technological changes and enhance system performance in the State of Connecticut, T-Mobile plans to modify the equipment configurations at many of its existing cell sites. Please accept this letter and attachments as notification, pursuant to R.C.S.A. Section 16-50j-73, of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2). In compliance with R.C.S.A. Section 16-50j-73, a copy of this letter and attachments is being sent to the chief elected official of the municipality in which the affected cell site is located.

As part of T-Mobile's modernization project, T-Mobile desires to upgrade their equipment to meet the new standards of 4G technology. The new equipment will allow customers to download files and browse the internet at a high rate of speed while also allowing their phones to be compatible with the latest 4G technology.

Attached is a summary of the planned modifications, including power density calculations reflecting the change in T-Mobile's operations at the site along with the required fee of \$625.

The changes to the facility do not constitute modifications as defined in Connecticut General Statutes ("C.G.S.") Section 16-50i(d) because the general physical characteristics of the facility will not be



significantly changed or altered. Rather, the planned changes to the facility fall squarely within those activities explicitly provided for in R.C.S.A. Section 16-50j-72(b)(2).

1. The overall height of the structure will be unaffected.
2. The proposed changes will not extend the site boundaries. There will be no effect on the site compound other than the new equipment cabinets.
3. The proposed changes will not increase the noise level at the existing facility by six decibels or more.
4. The changes in radio frequency power density will not increase the calculated "worst case" power density for the combined operations at the site to a level at or above the applicable standard for uncontrolled environments as calculated for a mixed frequency site.

For the foregoing reasons, SBA Communications on behalf of T-Mobile, respectfully submits that the proposed changes at the referenced site constitute exempt modifications under R.C.S.A. Section 16-50j-72(b)(2).

Please feel free to call me at 508.251.0720 x 3804 with any questions you may have concerning this matter.

Thank you,

Kri Pelletier
SBA Communications Corporation
33 Boston Post Road West Suite 320
Marlborough, MA 01752
508-251-0720 x 3804 + T
508-251-1755 + F
203-446-7700 + C
kpelletier@sbsite.com



**T-Mobile
Equipment Modification**

12 Orchard Drive, Ledyard, CT 06335
Site number CT11841B

Tower Owner: SBA Towers IV LLC

Equipment Configuration: Monopole

Current and/or approved:

- (3) RFS APX16DWV-16DWVS
- (6) Remec S20057A1 TMAs
- (12) 1-5/8" Feed Lines
- (1) 1/4" Feed Lines

Planned Modifications:

- (3) Ericsson AIR 21 B2A/B4P
- (3) Ericsson AIR 21 B4A/B2P
- (3) Ericsson KRY 112 144/1 TMAs
- (12) 1-5/8" Feed Lines
- (1) 1-5/8" Fiber

Structural Information:

The attached structural analysis demonstrates that the tower and foundation will have adequate structural capacity to accommodate the proposed modifications.

Power Density:

The anticipated Maximum Composite contributions from the T-Mobile facility are 0.568% of the allowable FCC established general public limit. The anticipated composite MPE value for this site assuming all carriers present is 3.118% of the allowable FCC established general public limit sampled at the ground level.

Site Composite MPE %	
Carrier	MPE %
T-Mobile	0.568%
MetroPCS	2.550%
Total Site MPE %	3.118%



April 1, 2014

Mayor John Rodolico
Town of Ledyard
741 Colonel Ledyard Highway
Ledyard, CT 06339

RE: Telecommunications Facility @ 12 Orchard Drive, Ledyard, CT 06335

Dear Mayor Rodolico,

In order to accommodate technological changes and enhance system performance in the State of Connecticut, T-Mobile will be changing its equipment configuration at certain cell sites.

As required by Regulations of Connecticut State Agencies (R.C.S.A.) Section 16-50j-73, the Connecticut Siting Council has been notified of the changes and will review T-Mobile's proposal. Please accept this letter as notification under Section 16-50j-73 of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2).

The accompanying letter to the Siting Council fully describes T-Mobile's proposal for the referenced cell site. However, if you have any questions or require any further information on our plans or the Siting Council's procedures, please call me at 508.251.0720 x 3804.

Thank you,

A handwritten signature in black ink, appearing to read "Kri Pelletier", is positioned above the printed name.

Kri Pelletier
SBA Communications Company
33 Boston Post Road West Suite 320
Marlborough, MA 01752
508-251-0720 x 3804 + T
508-251-1755 + F
203-446-7700 + C
kpelletier@sbsite.com

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

T-Mobile Existing Facility

Site ID: CT11841B

Holmberg Orchard

12 Orchard Drive
Ledyard, CT 06335

March 31, 2014

EBI Project Number: 62141992

March 31, 2014

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

Re: Emissions Values for Site: **CT11841B - Holmberg Orchard**

EBI Consulting was directed to analyze the proposed T-Mobile facility located at 12 Orchard Drive, Ledyard, CT, for the purpose of determining whether the emissions from the Proposed T-Mobile Antenna Installation located on this property are within specified federal limits.

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

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

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

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The general population exposure limit for the cellular band is $567 \mu\text{W}/\text{cm}^2$, and the general population exposure limit for the PCS and AWS bands is $1000 \mu\text{W}/\text{cm}^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

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

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed T-Mobile Wireless antenna facility located at 12 Orchard Drive, Ledyard, CT, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-Mobile is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, the actual antenna pattern gain value in the direction of the sample area was used. For this report the sample point is a 6 foot person standing at the base of the tower

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

- 1) 2 GSM / UMTS channels (1935.000 MHz to 1945.000 MHz / 1983.000 MHz to 1984.000 MHz) were considered for each sector of the proposed installation.
- 2) 4 UMTS / LTE channels (2110.000 to 2120.000 MHz / 2140.000 MHz to 2145.000 MHz) were considered for each sector of the proposed installation
- 3) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
- 4) For the following calculations the sample point was the top of a six foot person standing at the base of the tower. The actual gain in this direction was used per the manufactures supplied specifications.
- 5) The antenna used in this modeling is the Ericsson AIR21 for LTE, UMTS and GSM. This is based on feedback from the carrier with regards to anticipated antenna selection. This antenna has a 15.6 dBd gain value at its main lobe. Actual antenna gain values were used for all calculations as per the manufacturers specifications

- 6) The antenna mounting height centerline of the proposed antennas is **147 feet** above ground level (AGL)
- 7) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.

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

Site ID	CT11841B - Holmberg Orchard
Site Address	12 Orchard Drive, Ledyard, CT 06378
Site Type	Monopole

Sector 1

Antenna Number	Antenna Make	Antenna Model	Status	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBd)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage
1a	Ericsson	AIR21 B4A/B2P	Active	AWS - 2100 MHz	LTE	60	2	120	-3.95	147	141	None	0	0	48.326044	0.873874	0.08739%
1b	Ericsson	AIR21 B4A/B2P	Not Used	-	-	-	-	0	-3.95	147	141	None	0	0	0	0	0.00000%
2a	Ericsson	AIR21 B2A / B4P	Active	PCS - 1950 MHz	GSM / UMTS	30	2	60	-3.95	147	141	None	0	0	24.163022	0.436937	0.04369%
1b	Ericsson	AIR21 B4A/B2P	Passive	AWS - 2100 MHz	UMTS	40	2	80	-3.95	147	141	None	0	0	32.217363	0.582583	0.05826%

Sector total Power Density Value: 0.189%

Sector 2

Antenna Number	Antenna Make	Antenna Model	Status	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBd)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage
1a	Ericsson	AIR21 B4A/B2P	Active	AWS - 2100 MHz	LTE	60	2	120	-3.95	147	141	None	0	0	48.326044	0.873874	0.08739%
1b	Ericsson	AIR21 B4A/B2P	Not Used	-	-	-	-	0	-3.95	147	141	None	0	0	0	0	0.00000%
2a	Ericsson	AIR21 B2A / B4P	Active	PCS - 1950 MHz	GSM / UMTS	30	2	60	-3.95	147	141	None	0	0	24.163022	0.436937	0.04369%
1b	Ericsson	AIR21 B4A/B2P	Passive	AWS - 2100 MHz	UMTS	40	2	80	-3.95	147	141	None	0	0	32.217363	0.582583	0.05826%

Sector total Power Density Value: 0.189%

Sector 3

Antenna Number	Antenna Make	Antenna Model	Status	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBd)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage
1a	Ericsson	AIR21 B4A/B2P	Active	AWS - 2100 MHz	LTE	60	2	120	-3.95	147	141	None	0	0	48.326044	0.873874	0.08739%
1b	Ericsson	AIR21 B4A/B2P	Not Used	-	-	-	-	0	-3.95	147	141	None	0	0	0	0	0.00000%
2a	Ericsson	AIR21 B2A / B4P	Active	PCS - 1950 MHz	GSM / UMTS	30	2	60	-3.95	147	141	None	0	0	24.163022	0.436937	0.04369%
1b	Ericsson	AIR21 B4A/B2P	Passive	AWS - 2100 MHz	UMTS	40	2	80	-3.95	147	141	None	0	0	32.217363	0.582583	0.05826%

Sector total Power Density Value: 0.189%

Site Composite MPE %	
Carrier	MPE %
T-Mobile	0.568%
MetroPCS	2.550%
Total Site MPE %	3.118%

Summary

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

The anticipated Maximum Composite contributions from the T-Mobile facility are **0.568% (0.189% from each sector)** of the allowable FCC established general public limit considering all three sectors simultaneously sampled at the ground level.

The anticipated composite MPE value for this site assuming all carriers present is **3.118%** of the allowable FCC established general public limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

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



Scott Heffernan
RF Engineering Director

EBI Consulting
21 B Street
Burlington, MA 01803



**Structural Analysis for
SBA Network Services, Inc.**

150' Monopole Tower

**SBA Site Name: Ledyard
SBA Site ID: CT13076-A-01
T-Mobile Site ID: CT11841B**

FDH Project Number 1424NK1400

Analysis Results

Tower Components	43.6%	Sufficient
Foundation	37.8%	Sufficient

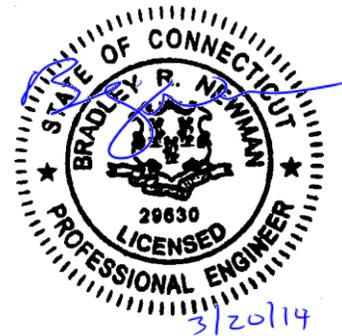
Prepared By:

Mark S. Girgis, EI
Project Engineer

Reviewed By:

Bradley Newman, PE
Senior Project Engineer
CT License No. 29630

FDH Engineering, Inc.
6521 Meriden Drive
Raleigh, NC 27616
(919) 755-1012
info@fdh-inc.com



March 20, 2014

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EXECUTIVE SUMMARY

At the request of SBA Network Services, Inc., FDH Engineering, Inc. performed a structural analysis of the monopole located in Ledyard, CT to determine whether the tower is structurally adequate to support both the existing and proposed loads pursuant to the *Structural Standards for Steel Antenna Towers and Antenna Supporting Structures, TIA/EIA-222-F* and the *2005 Connecticut Building Code (CBC)*. Information pertaining to the existing/proposed antenna loading, current tower geometry, geotechnical data, foundation dimensions, and member sizes was obtained from:

- Radian Communication Services (File No. 060-03664) original design drawings dated March 27, 2007
- Gemini Geotechnical Associates, Inc. (Site No. 999-0096) Geotechnical Engineering Report dated March 22, 2007
- FDH, Inc. (Job No. 08-07141T) TIA Inspection Report dated September 8, 2008
- SBA Network Services, Inc.

The *basic design wind speed* per the *TIA/EIA-222-F* standards and the *2005 CBC* is 85 mph without ice and 38 mph with 3/4" radial ice. Ice is considered to increase in thickness with height.

Conclusions

With the existing and proposed antennas from T-Mobile in place at 147 ft, the tower meets the requirements of the *TIA/EIA-222-F* standards and the *2005 CBC* provided the **Recommendations** listed below are satisfied. Furthermore, provided the foundation was designed and constructed to support the original design reactions (see Radian Communications Services File No. 060-03664), the foundation should have the necessary capacity to support the existing and proposed loading. For a more detailed description of the analysis of the tower, see the **Results** section of this report.

Our structural analysis has been performed assuming all information provided to FDH Engineering, Inc. is accurate (i.e., the steel data, tower layout, existing antenna loading, and proposed antenna loading) and that the tower has been properly erected and maintained per the original design drawings.

Recommendations

To ensure the requirements of the *TIA/EIA-222-F* standards and the *2005 CBC* are met with the existing and proposed loading in place, we have the following recommendations:

1. The proposed feed lines should be installed inside the pole's shaft.
2. The proposed TMAs should be installed directly behind the proposed panel antennas.

APPURTENANCE LISTING

The proposed and existing antennas with their corresponding cables/coax lines are shown in **Table 1**. *If the actual layout determined in the field deviates from the layout, FDH Engineering, Inc. should be contacted to perform a revised analysis.*

Table 1 - Appurtenance Loading

Existing Loading:

Antenna Elevation (ft)	Description	Feed Lines ¹	Carrier	Mount Elevation (ft)	Mount Type
147	(3) RFS APX16DWV-16DWVS (6) Remec S20057A1 TMAs	(12) 1-5/8" (1) 1/4"	T-Mobile	147	(1) Low Profile Platform
137	(6) Kathrein 742 351	(12) 1-5/8" (1) 3/8"	Metro PCS	137	(3) T-Arms

1. Feed lines installed inside the pole's shaft unless otherwise noted.

Proposed Loading:

Antenna Elevation (ft)	Description	Feed Lines	Carrier	Mount Elevation (ft)	Mount Type
147	(3) Ericsson AIR 21 B2A/B4P (3) Ericsson AIR 21 B4A/B2P (3) Ericsson KRY 112 144/1 TMAs	(12) 1-5/8" (1) 1-5/8" Fiber	T-Mobile	147	(1) Low Profile Platform

RESULTS

The following yield strength of steel for individual members was used for analysis:

Table 2 - Material Strength

Member Type	Yield Strength
Tower Shaft Sections	65 ksi
Base Plate	50 ksi
Anchor Bolts	Fu = 125 ksi

Table 3 displays the summary of the ratio (as a percentage) of force in the member to their capacities. Values greater than 100% indicate locations where the maximum force in the member exceeds its capacity. *Note: Capacities up to 105% are considered acceptable.* **Table 4** displays the maximum foundation reactions.

If the assumptions outlined in this report differ from actual field conditions, FDH Engineering, Inc. should be contacted to perform a revised analysis. Furthermore, as no information pertaining to the allowable twist and sway requirements for the existing or proposed appurtenances was provided, deflection and rotation were not taken into consideration when performing this analysis.

See the **Appendix** for detailed modeling information

Table 3 - Summary of Working Percentage of Structural Components

Section No.	Elevation (ft)	Component Type	Size	% Capacity	Pass Fail
L1	150 - 120.67	Pole	TP36.33x30x0.1875	15.7	Pass
L2	120.67 - 84.17	Pole	TP43.67x34.9838x0.3125	21.9	Pass
L3	84.17 - 41.587	Pole	TP52.07x41.8974x0.4375	24.8	Pass
L4	41.587 - 0	Pole	TP60x49.835x0.5	29.0	Pass
		Anchor Bolts	(34) 1.5" Ø w/ BC = 65"	43.6	Pass
		Base Plate	PL 69.5" Ø x 1.75" Thick	42.4	Pass

Table 4 - Maximum Base Reactions

Base Reactions	Current Analysis* (TIA/EIA-222-F)	Original Design (ANSI/TIA-222-G)
Axial	39 k	95 k
Shear	19 k	55 k
Moment	1,693 k-ft	6,054 k-ft

*Design analysis reactions are within an allowable factor of 1.35 per the ANSI/TIA-222-G standard when the current reactions are based on an allowable stress design.

GENERAL COMMENTS

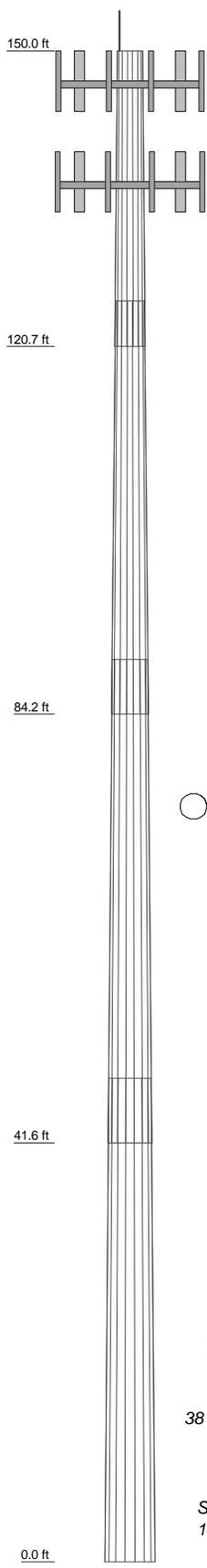
This engineering analysis is based upon the theoretical capacity of the structure. It is not a condition assessment of the tower and its foundation. It is the responsibility of SBA Network Services, Inc. to verify that the tower modeled and analyzed is the correct structure (with accurate antenna loading information) modeled. If there are substantial modifications to be made or the assumptions made in this analysis are not accurate, FDH Engineering, Inc. should be notified immediately to perform a revised analysis.

LIMITATIONS

All opinions and conclusions are considered accurate to a reasonable degree of engineering certainty based upon the evidence available at the time of this report. All opinions and conclusions are subject to revision based upon receipt of new or additional/updated information. All services are provided exercising a level of care and diligence equivalent to the standard and care of our profession. No other warranty or guarantee, expressed or implied, is offered. Our services are confidential in nature and we will not release this report to any other party without the client's consent. The use of this engineering work is limited to the express purpose for which it was commissioned and it may not be reused, copied, or distributed for any other purpose without the written consent of FDH Engineering, Inc.

APPENDIX

Section	1	2	3	4
Length (ft)	29.33	41.00	48.00	48.00
Number of Sides	18	18	18	18
Thickness (in)	0.1875	0.3125	0.4375	0.5000
Socket Length (ft)	4.50	5.42	6.42	49.8350
Top Dia (in)	30.0000	34.9838	41.8974	60.0000
Bot Dia (in)	36.3300	43.6700	52.0700	14.1
Grade		A572-65		
Weight (K)	2.0	5.4	10.6	32.0



DESIGNED APPURTENANCE LOADING

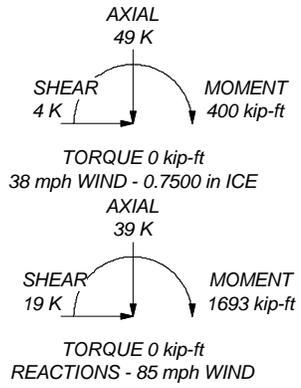
TYPE	ELEVATION	TYPE	ELEVATION
Lightning Rod	150	KRY 112 144/1 TMA	147
AIR 21 B2A/B4P w/Mount Pipe	147	KRY 112 144/1 TMA	147
AIR 21 B2A/B4P w/Mount Pipe	147	Low Profile Platform	147
AIR 21 B2A/B4P w/Mount Pipe	147	(2) 742 351 w/ Mount Pipe	137
AIR 21 B4A/B2P w/Mount Pipe	147	(2) 742 351 w/ Mount Pipe	137
AIR 21 B4A/B2P w/Mount Pipe	147	(2) 742 351 w/ Mount Pipe	137
AIR 21 B4A/B2P w/Mount Pipe	147	(3) T-Arms	137
KRY 112 144/1 TMA	147		

MATERIAL STRENGTH

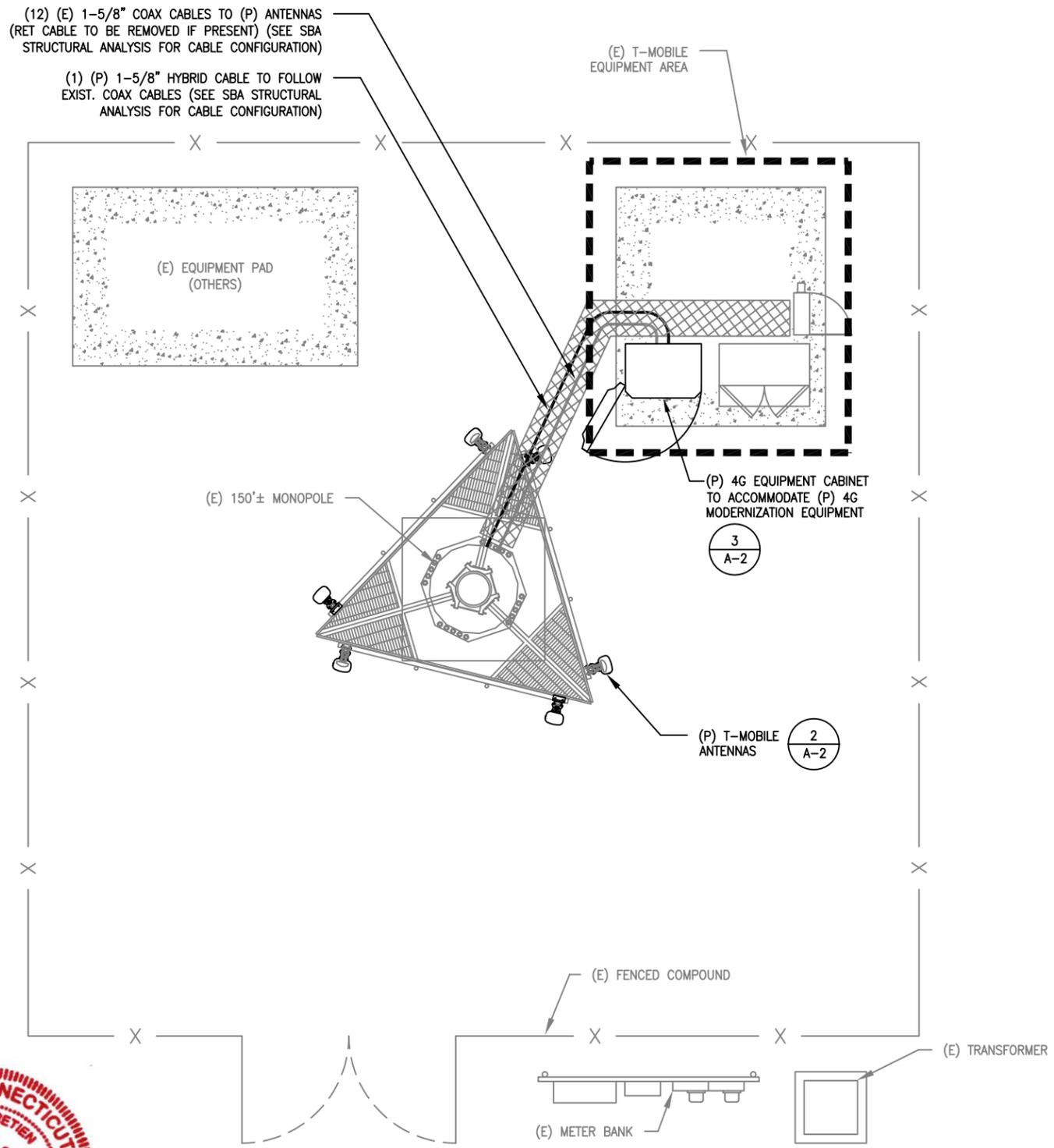
GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 ksi			

TOWER DESIGN NOTES

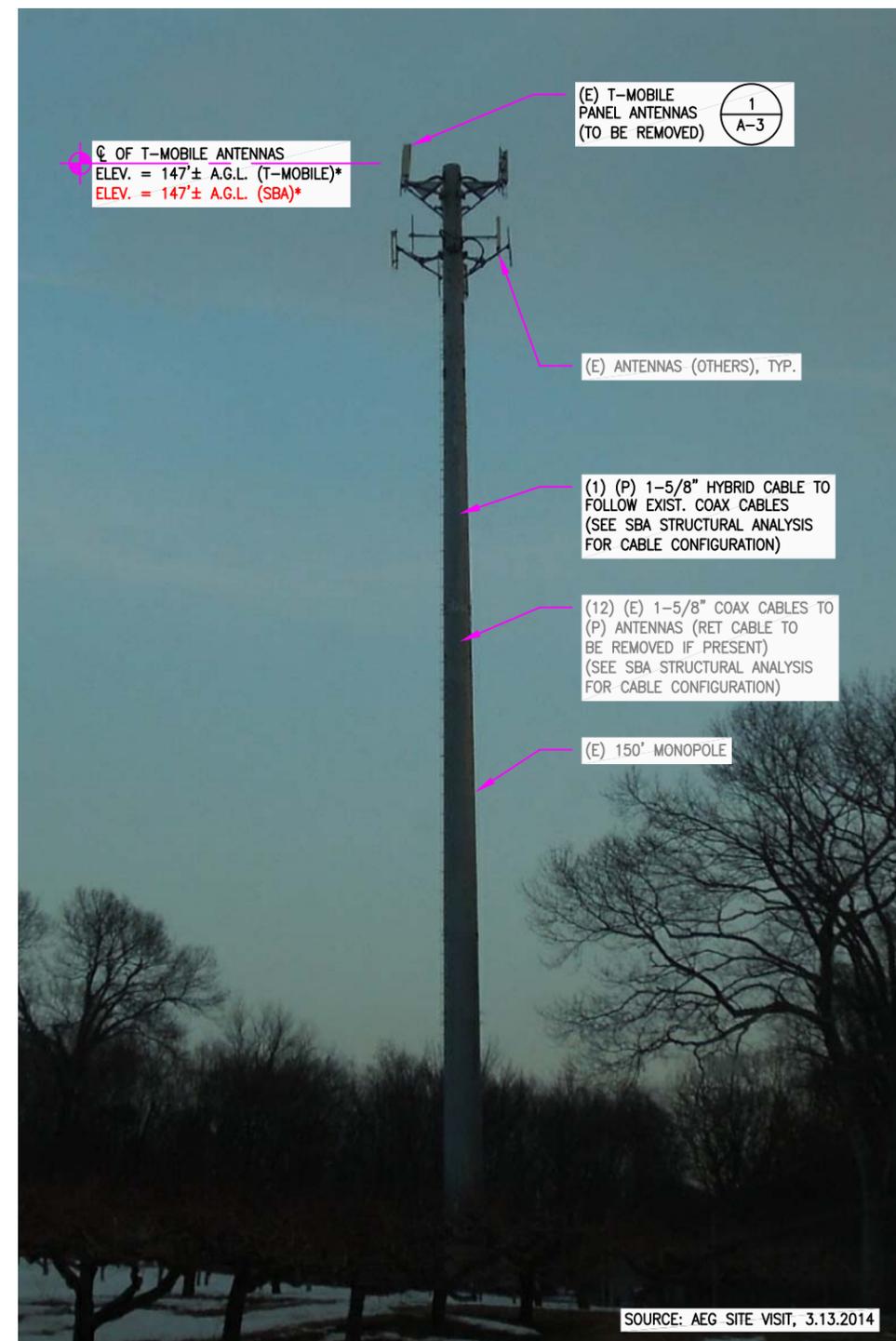
1. Tower is located in New London County, Connecticut.
2. Tower designed for a 85 mph basic wind in accordance with the TIA/EIA-222-F Standard.
3. Tower is also designed for a 38 mph basic wind with 0.75 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 50 mph wind.



	FDH Engineering, Inc. 6521 Meridien Drive Raleigh, NC 27616 Phone: (919) 755-1012 FAX: (919) 755-1031		Job: Ledyard, CT13076-A-01	
	Project: 1424NK1400		Drawn by: Mark S. Girgis	App'd:
	Client: SBA Network Services, Inc.		Date: 03/20/14	Scale: NTS
	Code: TIA/EIA-222-F		Path:	Dwg No. E-1



1
A-1
COMPOUND PLAN
SCALE: 1/8"=1'-0"
0' 4'-0" 8'-0" 16'-0"



SOURCE: AEG SITE VISIT, 3.13.2014

NOTE:
GROUND EQUIPMENT NOT SHOWN FOR CLARITY

2
A-1
EXISTING ELEVATION
SCALE: NTS

*NOTE:
ANTENNA ELEVATION BASED ON CLIENT-PROVIDED INFORMATION

ADVANCED ENGINEERING GROUP, P.C.
Civil Engineering - Site Development Surveying - Telecommunications
500 NORTH BROADWAY
EAST PROVIDENCE, RI 02914
PH: (401) 354-2403
FAX: (401) 633-6354

SBA
SBA COMMUNICATIONS CORPORATION
33 BOSTON POST ROAD WEST, SUITE 320
MARLBOROUGH, MA 01752
PHONE: 508-251-0720

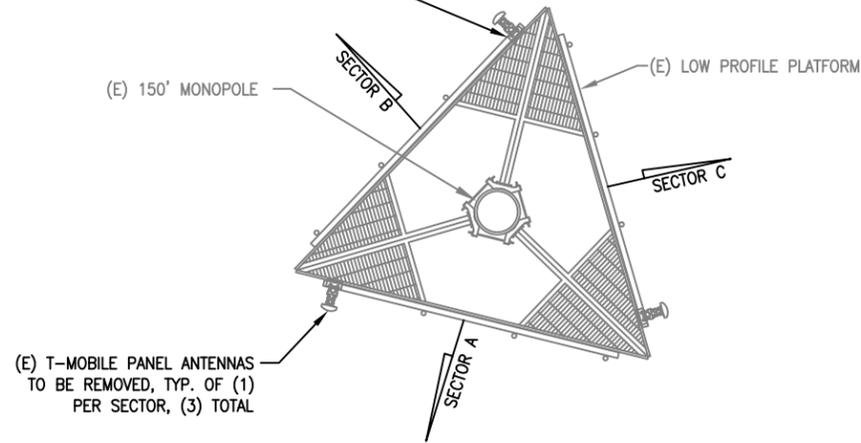
SITE NUMBER: CT11841B
SITE NAME: CT841 / HOLMBERG ORCHARD RL
12 ORCHARD DRIVE
LEDYARD, CT 06335

T-MOBILE NORTHEAST LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002
OFFICE: (860) 648-1116

1	03/25/14	UPDATES	MER	SB	MRC
0	03/17/14	CONSTRUCTION	MER	SB	MRC
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: MRC	DRAWN BY: MER		

T-MOBILE
COMPOUND PLAN AND ELEVATION
JOB NUMBER: CT11841B
DRAWING NUMBER: A-1
REV: 1

(E) TMAs TO BE REMOVED
(1) PER SECTOR, TOTAL OF (3)



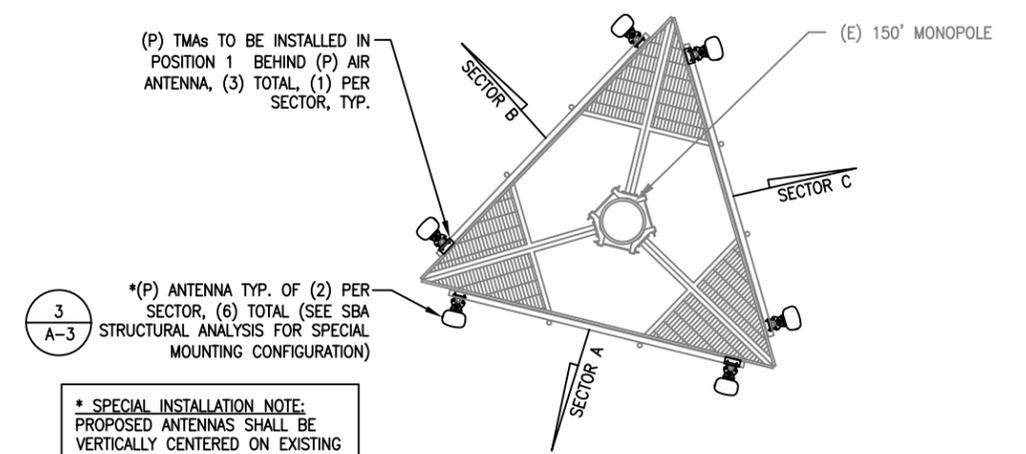
1
A-2
EXISTING ANTENNA PLAN
SCALE: 1/8"=1'-0"
0' 4'-0" 8'-0"

EXISTING ANTENNA SCHEDULE			
SECTOR	MAKE	MODEL#	SIZE (INCHES)
SECTOR A:	RFS	APX16PV_16PVL	13x3.15x53
SECTOR B:	RFS	APX16PV_16PVL	13x3.15x53
SECTOR C:	RFS	APX16PV_16PVL	13x3.15x53

PROPOSED ANTENNA SCHEDULE			
SECTOR	MAKE	MODEL#	SIZE (INCHES)
SECTOR A:	ERICSSON	AIR21 B2A/B4P	12x8x56
	ERICSSON	AIR21 B4A/B2P	12x8x56
SECTOR B:	ERICSSON	AIR21 B2A/B4P	12x8x56
	ERICSSON	AIR21 B4A/B2P	12x8x56
SECTOR C:	ERICSSON	AIR21 B2A/B4P	12x8x56
	ERICSSON	AIR21 B4A/B2P	12x8x56

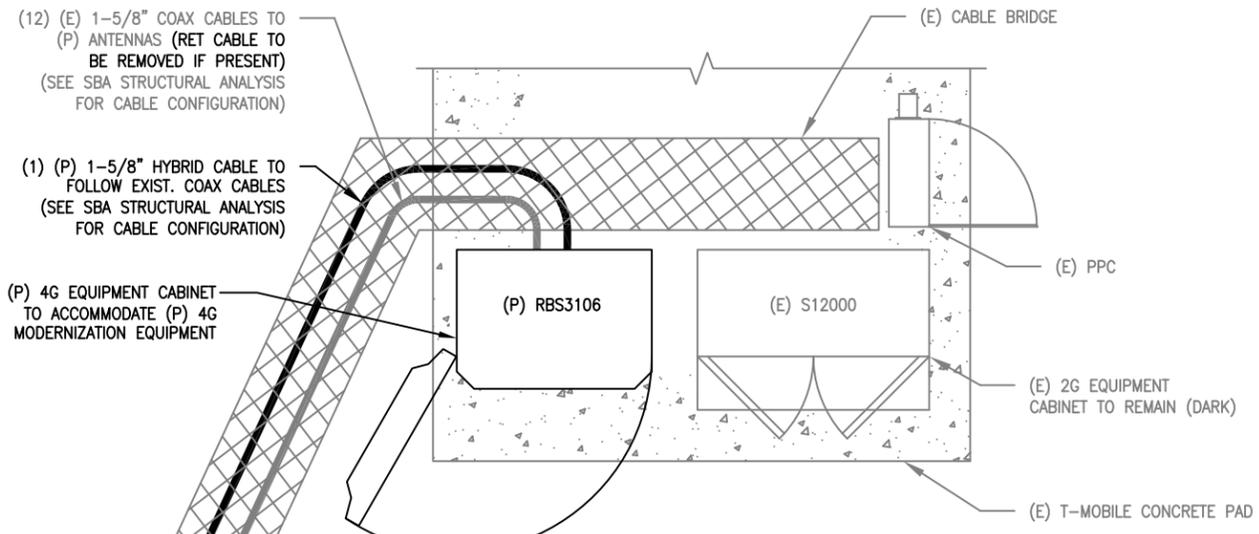
NOTE:
1. REFER TO FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

(P) TMAs TO BE INSTALLED IN POSITION 1 BEHIND (P) AIR ANTENNA, (3) TOTAL, (1) PER SECTOR, TYP.



*** SPECIAL INSTALLATION NOTE:**
PROPOSED ANTENNAS SHALL BE VERTICALLY CENTERED ON EXISTING PLATFORM RAIL. ADJUST ANTENNA MOUNTING PIPE AS REQUIRED.

2
A-2
PROPOSED ANTENNA PLAN
SCALE: 1/8"=1'-0"
0' 4'-0" 8'-0"



3
A-2
EQUIPMENT PLAN
SCALE: 1/4"=1'-0"
0' 2'-0" 4'-0"

(E) 2G EQUIPMENT CABINET TO REMAIN (DARK)

(E) PPC

(12) (E) 1-5/8" COAX CABLES TO (P) ANTENNAS (RET CABLE BE REMOVED IF PRESENT) (SEE SBA STRUCTURAL ANALYSIS FOR CABLE CONFIGURATION)

(E) T-MOBILE CONCRETE PAD



4
A-3
EXISTING EQUIPMENT AREA.
N.T.S.



NO.	DATE	REVISIONS	BY	CHK	APP'D
1	03/25/14	UPDATES	MER	SB	MRC
0	03/17/14	CONSTRUCTION	MER	SB	MRC

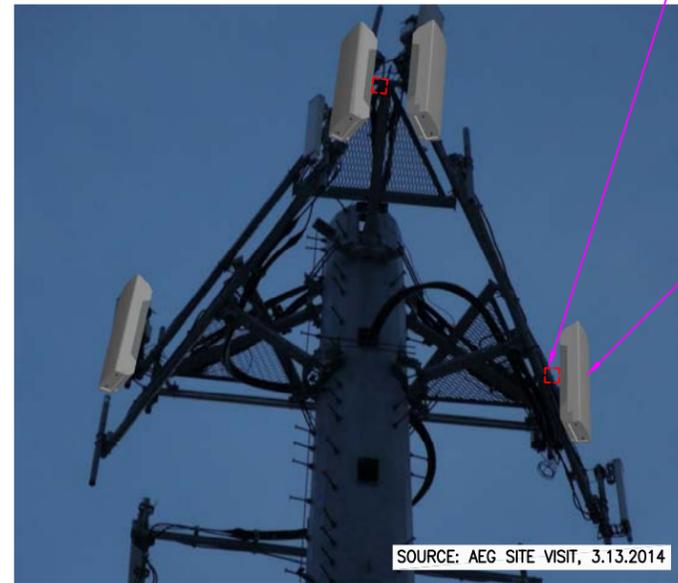
SCALE: AS SHOWN DESIGNED BY: MRC DRAWN BY: MER



(E) TMAs TO BE REMOVED
(1) PER SECTOR, TOTAL OF (3)

(E) T-MOBILE PANEL ANTENNAS
TO BE REMOVED, TYP. OF (1)
PER SECTOR, (3) TOTAL

SOURCE: AEG SITE VISIT, 3.13.2014



(P) TMAs TO BE INSTALLED IN
POSITION 1 BEHIND (P) AIR
ANTENNA, (3) TOTAL, (1) PER
SECTOR, TYP.

* SPECIAL INSTALLATION NOTE:
PROPOSED ANTENNAS SHALL BE
VERTICALLY CENTERED ON EXISTING
PLATFORM RAIL. ADJUST ANTENNA
MOUNTING PIPE AS REQUIRED.

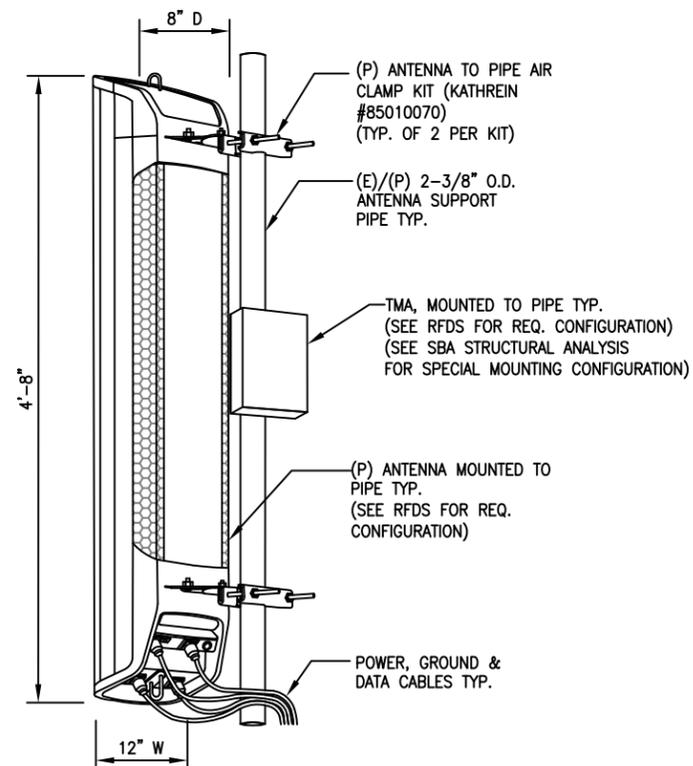
*(P) ANTENNA TYP. OF (2) PER
SECTOR, (6) TOTAL (SEE SBA
STRUCTURAL ANALYSIS FOR SPECIAL
MOUNTING CONFIGURATION)

3
A-3

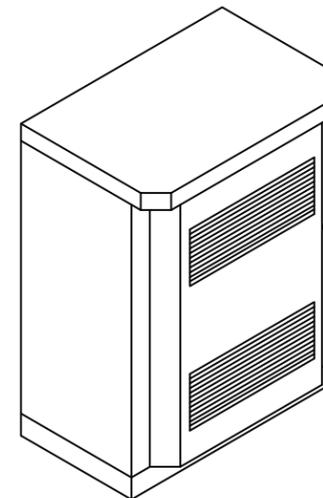
SOURCE: AEG SITE VISIT, 3.13.2014

1
A-3
EXISTING ANTENNA MOUNT TYP.
N.T.S.

2
A-3
PROPOSED ANTENNA MOUNT TYP.
N.T.S.



3
A-3
ANTENNA MOUNT TYP.
SCALE: NTS



NOTE:
ANCHOR (P) EQUIPMENT TO
(E) CONCRETE PAD PER
MANUFACTURER'S RECOMMENDATIONS

DIMENSIONS		
CABINET	DEPTH x WIDTH x HEIGHT	APPROX. MAX. WEIGHT
OUTDOOR RBS3106	36.45" x 51.18" x 64.17"	1874 LBS.

4
A-3
PROPOSED EQUIPMENT CABINET
SCALE: N.T.S.



NO.	DATE	REVISIONS	BY	CHK	APP'D
1	03/25/14	UPDATES	MER	SB	MRC
0	03/17/14	CONSTRUCTION	MER	SB	MRC

SCALE: AS SHOWN DESIGNED BY: MRC DRAWN BY: MER

JOB NUMBER	DRAWING NUMBER	REV
CT11841B	A-3	1