



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

www.ct.gov/csc

VIA ELECTRONIC MAIL

August 13, 2019

Craig A. Russo, P.E.
Engineer
T-Squared Site Services
2500 Highland Road, Suite 201
Hermitage, PA 16148

RE: **TS-SIGFOX-135-190705** – Sigfox NIP, LLC request for an order to approve tower sharing at an existing telecommunications facility located at 168 Catoona Lane, Stamford, Connecticut.

Dear Mr. Russo:

The Connecticut Siting Council (Council) is in receipt of your correspondence of August 12, 2019, and additional information received on August 13, 2019, submitted in response to the Council's July 11, 2019 notification of an incomplete request for exempt modification with regard to the above-referenced matter.

The submission renders the request for exempt modification complete and the Council will process the request in accordance with the Federal Communications Commission 60-day timeframe.

Thank you for your attention and cooperation.

Sincerely,

Melanie A. Bachman
Executive Director

MAB/IN/emr



Robidoux, Evan

From: Craig A. Russo, P.E. <craig.r@t-sqrd.com>
Sent: Tuesday, August 06, 2019 5:18 PM
To: Robidoux, Evan
Cc: CSC-DL Siting Council
Subject: RE: Council Incomplete Letter for TS-SIGFOX-135-190705-CatoonaLn-Stamford
Attachments: Resubmission_CT9001 Siting Council Narrative_08.05.19.pdf

Good Afternoon Evan,

I'm sending this email to inform you that we have mailed our re-submission containing a signed original to the Council regarding the above referenced review letter. Please note that we have attached a digital copy to this email.

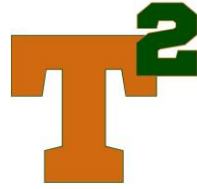
Thank you.

Craig A. Russo, P.E. | Engineer
T-Squared Site Services
724.308.7855 (o) | 724.333.0517 (m)

From: Robidoux, Evan <Evan.Robidoux@ct.gov>
Sent: Friday, July 12, 2019 11:25 AM
To: 'Craig A. Russo, P.E.' <craig.r@t-sqrd.com>
Cc: CSC-DL Siting Council <Siting.Council@ct.gov>
Subject: Council Incomplete Letter for TS-SIGFOX-135-190705-CatoonaLn-Stamford

Please see the attached correspondence.

Evan Robidoux
Clerk Typist
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051



August 5, 2019

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

RE: Request of Sigfox NIP LLC for an Order to Approve the Shared Use of an Existing Tower at 168 Catoona Lane, Stamford, CT 06902

Dear Ms. Bachman:

Pursuant to Connecticut General Statutes (“C.G.S.”) §16-50aa, as amended, Sigfox NIP LLC (“Sigfox”) hereby requests an order from the Connecticut Siting Council (“Council”) to approve the shared use by Sigfox of an existing telecommunication tower at 168 Catoona Lane, Stamford, CT 06902 (the “Property”). The existing 300-foot self-support tower is owned by American Tower Corp. (“ATC”), the underlying property is also owned by ATC. Sigfox requests that the Council find that the proposed shared use of the ATC tower satisfies the criteria of C.G.S. §16-50aa and issue an order approving the proposed shared use. A copy of this filing is being mailed to the City of Bridgeport and ATC.

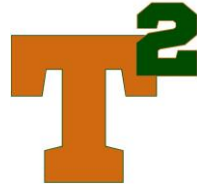
Background

The existing ATC facility consists of a 300-foot self-support tower located within an approximate 10,000 square foot compound positioned +/- 300-feet north of the Catoona Lane/Alvord Lane intersection. There are existing carrier antennas located various elevations throughout the tower (see Sheet C-1 of Exhibit 1 for more information). Equipment associated with these antennas is located at various positions within the tower compound.

Sigfox is licensed by the Federal Communications Commission (“FCC”) to provide wireless services throughout the State of Connecticut. Sigfox and ATC have agreed to the proposed shared use of the 168 Catoona Lane, Stamford, CT 06902 tower pursuant to mutually acceptable terms and conditions. Likewise, Sigfox and ATC have agreed to the proposed installation of equipment cabinets within an existing adjacent utility building located south of the tower within the compound. ATC has authorized Sigfox to apply for all necessary permits and approvals that may be required to share the existing tower. (See the attached Letter of Authorization).

Sigfox proposes to add one (1) omni antenna, one (1) line of coaxial cable; one (1) filter, and one (1) TMA on the existing tower at 292-feet above ground level. They propose to add one (1) equipment cabinet within the adjacent utility building.

T-SQUARED SITE SERVICES
2500 Highland Road | Suite 201
Hermitage, PA 16148 | 724.308.7855
www.t-sqrd.com



C.G.S. § 16-50aa(c)(1) provides that, upon written request for approval of a proposed shared use, “if the Council finds that the proposed shared use of the facility is technically, legally, environmentally and economically feasible and meets public safety concerns, the council shall issue an order approving such a shared use.” Sigfox respectfully submits that the shared use of the tower satisfies these criteria.

A. Technical Feasibility. The existing ATC tower is structurally capable of supporting Sigfox’s proposed improvements. The proposed shared use of this tower is, therefore, technically feasible. A Feasibility Structural Analysis Report (“Structural Report”) prepared for this project confirms that this tower can support Sigfox’s proposed loading. A copy of the Structural Report has been included in this application.

B. Legal Feasibility. Under C.G.S. § 16-50aa, the Council has been authorized to issue order approving the shared use of an existing tower such as the ATC tower. This authority complements the Council’s prior-existing authority under C.G.S. § 16-50p to issue orders approving the construction of new towers that are subject to the Council’s jurisdiction. In addition, § 16-50x(a) directs the Council to “give such consideration to the other state laws and municipal regulations as it shall deem appropriate” in ruling on requests for the shared use of existing tower facilities. Under the statutory authority vested in the Council, an order by the Council approving the requested shared use would permit the Applicant to obtain a building permit for the proposed installations.

C. Environmental Feasibility. The proposed shared use of the ATC tower would have a minimal environmental effect for the following reasons:

1. The proposed installation of one (1) omni antenna, one (1) line of coaxial cable; one (1) filter, and one (1) TMA on the existing tower at 292-feet above ground level, would have no visual impact on the area of the tower. Sigfox’s cabinet will be installed within the facility compound. Sigfox’s shared use of this tower therefore, does not cause any significant change or alteration in the physical or environmental characteristics of the existing site.
2. Operation of Sigfox’s antennas at this site would not exceed the RF emissions standard adopted by the Federal Communications Commission (“FCC”). Included in the EME report of this filing are the approximation tables that demonstrate that Sigfox’s proposed facility will operate well within the FCC RF emissions safety standards.
3. Under ordinary operating conditions, the proposed installation would not require the use of any water or sanitary facilities and would not generate air emissions or discharges to water bodies or sanitary facilities. After construction is complete the proposed installations would not generate any increased traffic to the ATC facility other



than periodic maintenance. The proposed shared use of the ATC tower, would, therefore, have a minimal environmental effect, and is environmentally feasible.

- D. **Economic Feasibility.** As previously mentioned, Sigfox has entered into an agreement with ATC for the shared use of the existing facility subject to mutually agreeable terms. The proposed tower sharing is, therefore, economically feasible. (Please see included authorization.)

- E. **Public Safety Concerns.** As discussed above, the tower is structurally capable of supporting Sigfox's full array of one (1) omni antenna, one (1) line of coaxial cable; one (1) filter, and one (1) TMA and all related equipment. Sigfox is not aware of any public safety concerns relative to the proposed sharing of the existing ATC tower.

Conclusion

For the reasons discussed above, the proposed shared use of the existing Crown Castle tower at 168 Catoona Lane, Stamford, CT 06902 satisfies the criteria state in C.G.S. §16-50aa and advances the Council's goal of preventing the unnecessary proliferation of towers in Connecticut. The Applicant, therefore, respectfully requests that the Council issue an order approving the proposed shared use.

Sincerely,

Craig A. Russo, P.E.
Engineer
T-Squared Site Services
2500 Highland Road, Suite 201
Hermitage, PA 16148
724.308.7855
craig.r@t-sqrd.com



Attachments:

- Exhibit-1: Compound Plan and Elevation Depicting the Planned Changes
- Exhibit-2: Structural Modification Report
- Exhibit-3: General Power Density Table report (RF Emissions Analysis Report)
- Exhibit-4: Letter of Authorization
- Exhibit-5: Proof of Mailing to Local Municipality
- Exhibit-6: Proof of Mailing to City Planner
- Exhibit-7: Proof of Mailing to Tower Owner/Property Owner

Copies to:

The Honorable David Martin, Mayor
Stamford Government Center
888 Washington Blvd.
Stamford, CT 06901

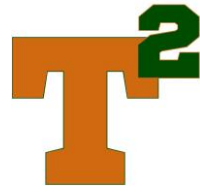
Mr. Thomas F. Gill
Director of OPED
Office of Planning and Economic Development
999 Broad Street
Bridgeport, CT 06604

Mr. Jason Hastie
Account Project Manager, Vertical Markets/Broadcast Repack
American Tower Corporation
10 Presidential Way
Woburn, MA 01801



EXHIBIT 1:

Compound Plan and Elevation Depicting the Planned Changes



SIGFOX

One network A billion dreams

SITE NUMBER: CT9001

168 CATOONA LANE
STAMFORD, CT 06902
FAIRFIELD COUNTY

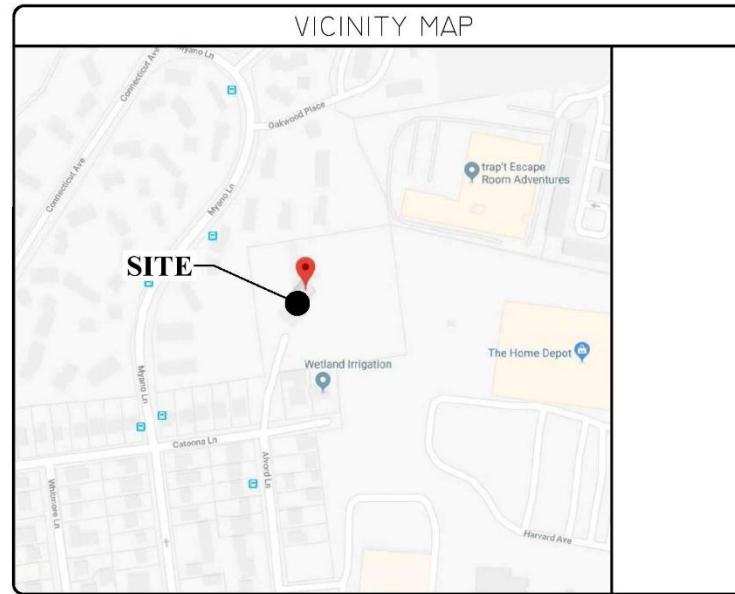



**T-SQUARED
SITE SERVICES**
2500 HIGHLAND ROAD, SUITE 201
HERMITAGE, PA 16148
www.t-squared.com
COPYRIGHT © 2016 T-SQUARED SITE SERVICES, LLC



SIGFOX
One network A billion dreams
SIGFOX, INC.
545 BOYLSTON STREET
10TH FLOOR
BOSTON, MA. 02116

SITE INFORMATION	
SCOPE OF WORK:	PROJECT CONSISTS OF INSTALLING THE FOLLOWING: <ul style="list-style-type: none"> (1) PROCOM CXL-900-3LW OMNI ANTENNA (1) LNA (1) CAVITY FILTER (1) 1/2" COAX CABLE (1) RG6 CABLE (1) EQUIPMENT CABINET FOR BASE STATION
SIGFOX SITE NUMBER:	CT9001
911 SITE ADDRESS	168 CATOONA LANE STAMFORD, CT 06902
TOWER OWNER: ADDRESS:	AMERICAN TOWER CORP. 116 HUNTINGTON AVE. 11TH FLOOR BOSTON, MA 02116
OWNER SITE NUMBER:	88018
LATITUDE (NAD 83): LONGITUDE (NAD 83):	41.05282° -73.56304°
JURISDICTION:	FAIRFIELD
PARCEL OWNER: ADDRESS:	AMERICAN TOWER CORP. 116 HUNTINGTON AVE. 11TH FLOOR BOSTON, MA 02116
GROUND ELEVATION:	50' AMSL
STRUCTURE TYPE:	SELF-SUPPORT
STRUCTURE HEIGHT:	301' (AGL)



DRAWING INDEX	
T-1	TITLE SHEET
C-1	COMPOUND PLAN & ELEVATION
A-1	ANTENNA PLAN AND DETAILS
E-1	ELECTRICAL DETAILS
G-1	GROUNDING DETAILS

Digitally signed by Gary Clower
DN: c=US, st=Pennsylvania,
l=Hermitage, o=T-Squared Site
Services, cn=Gary Clower,
email=gary.c@t-sqrd.com
Date: 2019.01.29 15:40:30 -05'00'

DO NOT SCALE DRAWINGS

THESE DRAWINGS ARE FORMATTED TO BE FULL-SIZE AT 11"X17". CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE DESIGNER / ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR MATERIAL ORDERS OR BE RESPONSIBLE FOR THE SAME. CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICE TO PREVENT STORM WATER POLLUTION DURING CONSTRUCTION.

REVISIONS

FINAL CD	DATE	BY	REV
REVISION CD	01.29.19	KE	C
PRELIMINARY	01.25.19	MNT	B
	12.03.18	KE	A

PROFESSIONAL SEAL

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

PROJECT TEAM	
APPLICANT:	SIGFOX, INC. 545 BOYLSTON STREET, 10TH FLOOR BOSTON, MA. 02116
PROJECT MANAGEMENT FIRM:	T-SQUARED SITE SERVICES, LLC 2500 HIGHLAND ROAD, SUITE 201 HERMITAGE, PA. 16148
ENGINEERING FIRM:	T-SQUARED SITE SERVICES, LLC 2500 HIGHLAND ROAD, SUITE 201 HERMITAGE, PA. 16148

CODE COMPLIANCE	
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. NOTHING IN THESE PLANS IS TO BE CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THE LATEST EDITIONS OF THE FOLLOWING CODES.	
•	2015 INTERNATIONAL BUILDING CODE
•	2017 NATIONAL ELECTRIC CODE
•	2015 INTERNATIONAL ENERGY CONSERVATION CODE
•	2015 INTERNATIONAL EXISTING BUILDING CODE
•	2015 INTERNATIONAL FIRE CODE
•	2015 INTERNATIONAL MECHANICAL CODE
•	2015 INTERNATIONAL RESIDENTIAL CODE

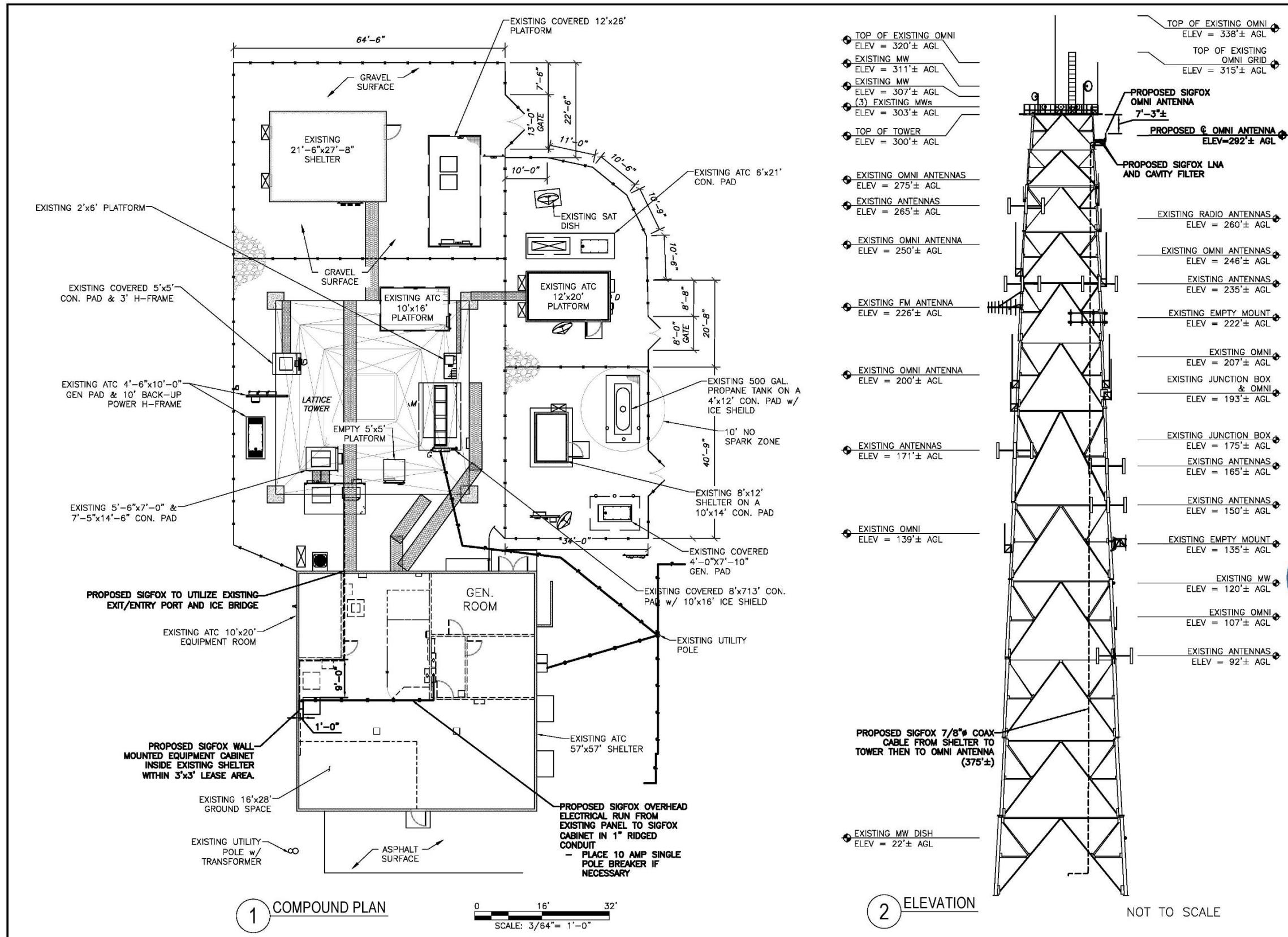
APPROVAL BLOCK			
	DATE	APPROVED	DISAPPROVED REVISE
PROPERTY OWNER	_____	<input type="checkbox"/>	<input type="checkbox"/>
SITE ACQUISITION	_____	<input type="checkbox"/>	<input type="checkbox"/>
CONSTRUCTION MANAGER	_____	<input type="checkbox"/>	<input type="checkbox"/>
ZONING	_____	<input type="checkbox"/>	<input type="checkbox"/>
RF ENGINEER	_____	<input type="checkbox"/>	<input type="checkbox"/>

SITE INFORMATION	
CT9001	168 CATOONA LANE STAMFORD, CT 06902 FAIRFIELD COUNTY

SHEET TITLE

TITLE SHEET

SHEET NUMBER	SCALE: AS NOTED
T-1	DRAWN BY: KE
	CHECKED BY: KE
	DATE: 1/21/19



T-SQUARED SITE SERVICES
2500 HIGHLAND ROAD, SUITE 201
HERMITAGE, PA 16148
www.t-sqrd.com
COPYRIGHT © 2016 T-SQUARED SITE SERVICES, LLC

SIGFOX
One network A billion dreams
SIGFOX, INC.
545 BOYLSTON STREET
10TH FLOOR
BOSTON, MA. 02116

REVISIONS

NO.	DESCRIPTION	DATE	BY	REV

FINAL CD	01.28.19	KE	C
REVISED CD	01.25.19	MNT	B
PRELIMINARY	12.03.18	KE	A

PROFESSIONAL SEAL

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

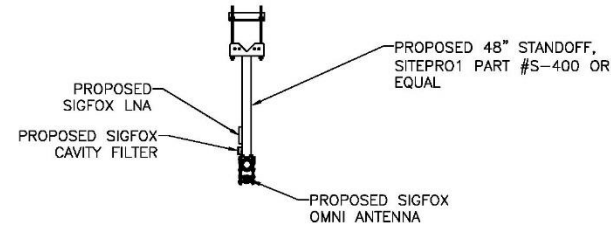
SITE INFORMATION

CT9001
168 CATOONA LANE
STAMFORD, CT 06902
FAIRFIELD COUNTY

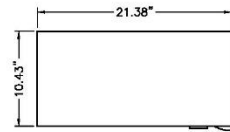
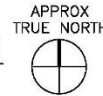
SHEET TITLE

COMPOUND PLAN & ELEVATION

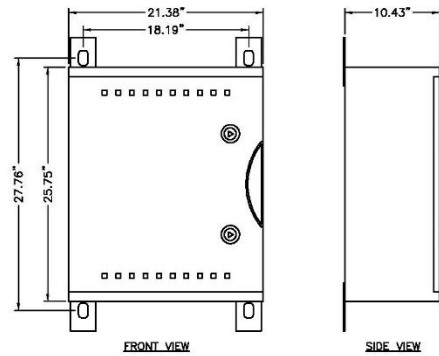
SHEET NUMBER	SCALE: AS NOTED
C-1	DRAWN BY: KE
	CHECKED BY: KE
	DATE: 1/21/19



1 PROPOSED ANTENNA PLAN
N.T.S.



TOP VIEW

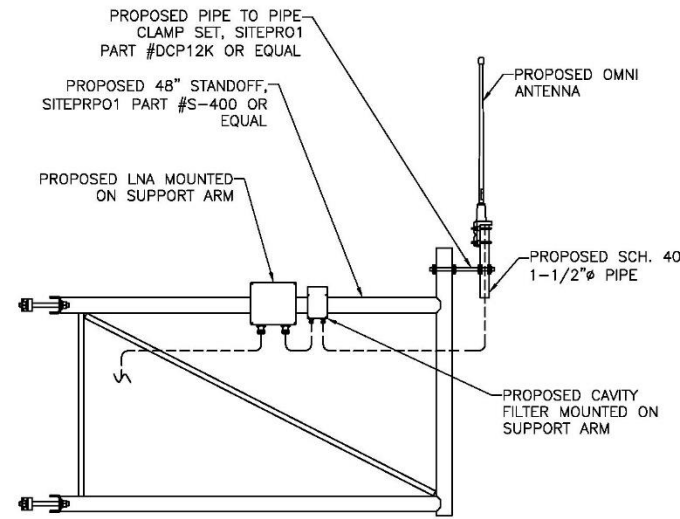


FRONT VIEW

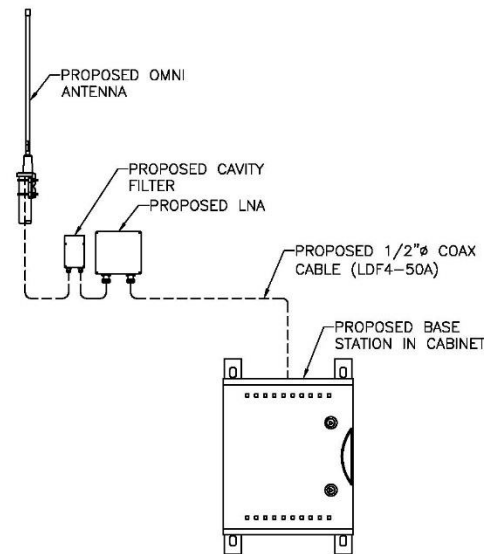
SIDE VIEW

4 SIGFOX EQUIPMENT CABINET
N.T.S.

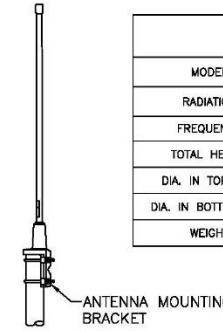
5 NOT USED
N.T.S.



2 ANTENNA MOUNTING DETAIL
N.T.S.



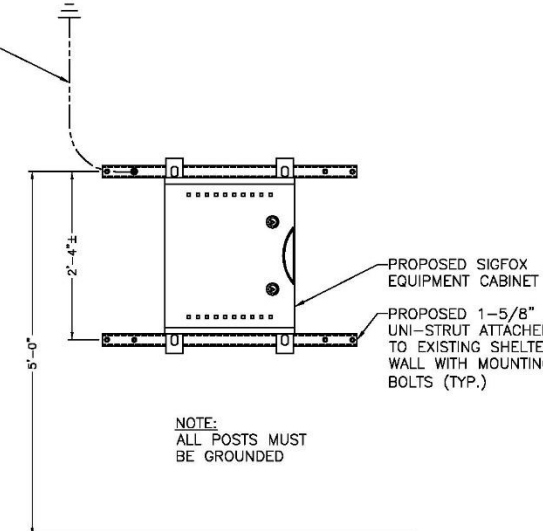
6 EQUIPMENT SCHEMATIC
N.T.S.



3 OMNI ANTENNA DETAIL
N.T.S.

SPECIFICATIONS	
MODEL	CXL 900-3LW/...
RADIATION	OMNIDIRECTIONAL
FREQUENCY	WITHIN 824-960 MHz
TOTAL HEIGHT	700 MM (27.5")
DIA. IN TOP END	12 MM (0.47")
DIA. IN BOTTOM END	16 MM (0.63")
WEIGHT	660 G (1.5 LBS)

#2 AWG SOLID TINNED COPPER GROUND CONDUCTOR CADWELD TO EXISTING HALOS OR CORNER GROUNDS INSIDE THE ATC SHELTER



NOTE:
ALL POSTS MUST BE GROUNDED

7 WALL MOUNT DETAIL
N.T.S.



REVISIONS

FINAL CD	01.29.19	KE	C
REVISED CD	01.25.19	MNT	B
PRELIMINARY	12.03.18	KE	A
DESCRIPTION	DATE	BY	REV

PROFESSIONAL SEAL



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

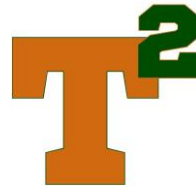
SITE INFORMATION

CT9001
168 CATOONA LANE
STAMFORD, CT 06902
FAIRFIELD COUNTY

SHEET TITLE

ANTENNA PLAN AND DETAILS

SHEET NUMBER	SCALE: AS NOTED
A-1	DRAWN BY: KE
	CHECKED BY: KE
	DATE: 1/21/19



ELECTRICAL NOTES

- ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRIC CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
- ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED SPECIFICATION REQUIREMENTS.
- THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED BY DRAWINGS AND SPECIFICATION INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.
- GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND IS RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS.
- ELECTRICAL AND TELCO WIRING AT EXPOSED INDOOR LOCATIONS SHALL BE IN ELECTRICAL METALLIC TUBING OR RIGID NONMETALLIC TUBING (RIGID SCHEDULE 40 PVC OR RIGID SCHEDULE 80 PVC FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) (AS PERMITTED BY CODE).
- ELECTRICAL AND TELCO WIRING AT CONCEALED INDOOR LOCATIONS SHALL BE IN ELECTRICAL METALLIC TUBING, ELECTRICAL NONMETALLIC TUBING, OR RIGID NONMETALLIC TUBING (RIGID SCHEDULE 40 PVC AS PERMITTED BY CODE).
- ELECTRICAL AND TELCO WIRING OUTSIDE A BUILDING, ABOVE GRADE AND EXPOSED TO WEATHER SHALL BE IN WATER TIGHT GALVANIZED RIGID STEEL CONDUITS (RGS) AND WHERE REQUIRED IN LIQUID TIGHT FLEXIBLE METAL OR NONMETALLIC CONDUITS.
- BURIED CONDUIT SHALL BE RIGID NONMETALLIC CONDUIT (RIGID SCHEDULE 40 PVC); DIRECT BURIED IN AREAS OF OCCASIONAL LIGHT TRAFFIC, ENCASED IN REINFORCED CONCRETE IN AREAS OF HEAVY TRAFFIC.
- LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT SHALL BE USED INDOORS AND OUTDOORS IN AREAS WHERE VIBRATION OCCURS AND FLEXIBILITY IS NEEDED.
- ELECTRICAL WIRING SHALL BE COPPER WITH TYPE THHN, THWN-2, OR THIN INSULATION.

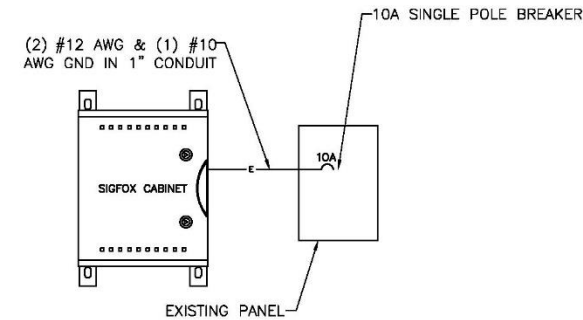
ELECTRICAL PANEL									
PANEL NAME: N/A		120/240 VOLTS		3 WIRE		1 PHASE		MAIN BREAKER: 100A	
CCT NO	LOAD DESCRIPTION	LOAD (VA)	POLE	AMP	AMP	POLE	LOAD (VA)	LOAD DESCRIPTION	CCT NO
1	SIGFOX BASE UNIT	1440	1	10					2
3									4
5									6
7									8
9									10
11									12

TOTAL CONNECTED LOAD (VA): 1,440
 MAXIMUM LOAD CURRENT (A): 6
 PANEL CAPACITY (A): 100
 SPARE CAPACITY (A): 98

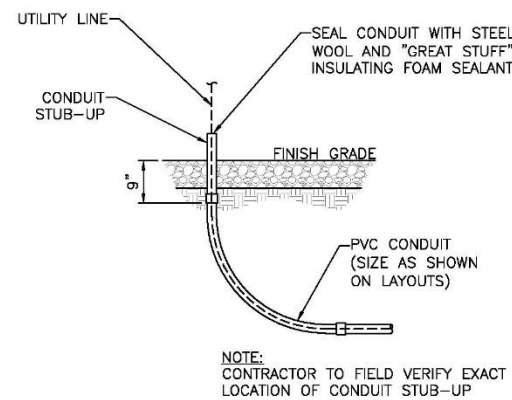
1 PANEL SCHEDULE
N.T.S.

ELECTRICAL NOTES

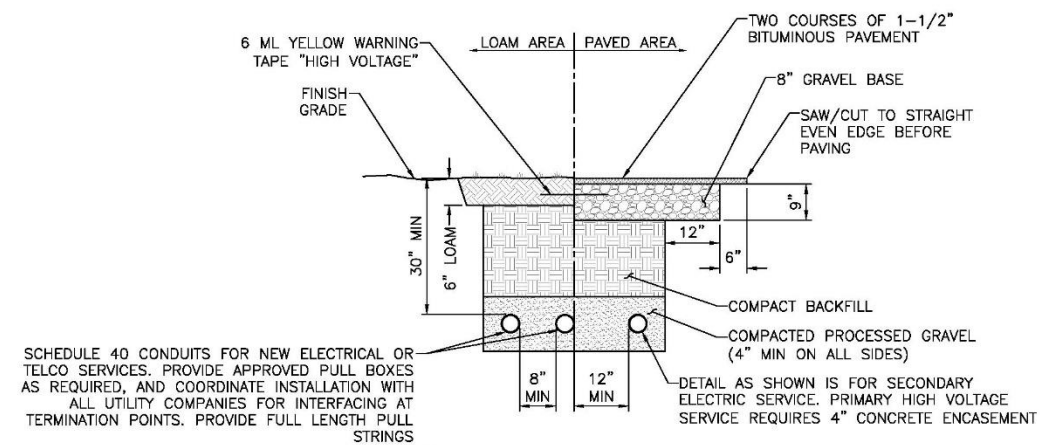
- ISOLATION OF SIGFOX POWER MUST BE MAINTAINED USING A 10 AMP SINGLE POLE BREAKER, LABELED SIGFOX, BETWEEN POWER SOURCE AND SIGFOX EQUIPMENT.
- SUPPLY NEW BREAKER IN EXISTING PANELS AND/OR NEW BREAKERS IN DISCONNECT IF NEEDED.



2 ELECTRICAL ONE-LINE DIAGRAM
N.T.S.



3 CONDUIT STUB-UP DETAIL (IF NEEDED)
N.T.S.



4 UTILITY TRENCH DETAIL (IF NEEDED)
N.T.S.



REVISIONS

NO.	DESCRIPTION	DATE	BY	REV

FINAL CD	01.29.19	KE	C
REVISED CD	01.25.19	MNT	B
PRELIMINARY	12.03.18	KE	A
DESCRIPTION	DATE	BY	REV

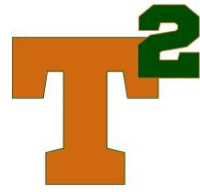


IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SITE INFORMATION
 CT9001
 168 CATOONA LANE
 STAMFORD, CT 06902
 FAIRFIELD COUNTY

SHEET TITLE
**ELECTRICAL
 DETAILS**

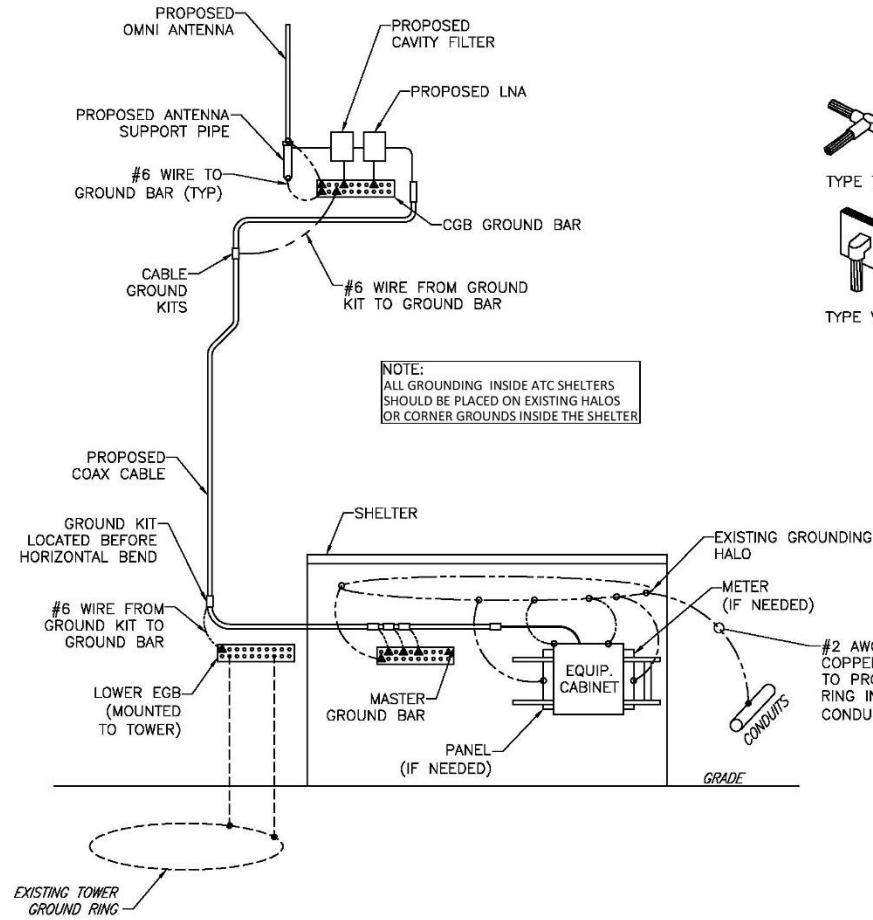
SHEET NUMBER	SCALE: AS NOTED
E-1	DRAWN BY: KE
	CHECKED BY: KE
	DATE: 1/21/19



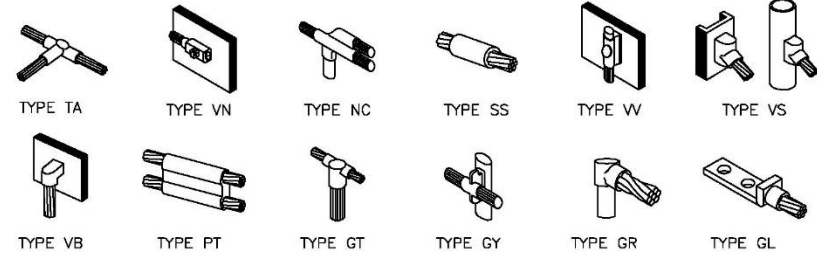
GROUNDING NOTES

- GROUNDING SHALL COMPLY WITH BED ART. 250. ADDITIONALLY, GROUNDING, BONDING AND LIGHTING PROTECTION SHALL BE DONE IN ACCORDANCE WITH METRO MOD CELL SITE GROUNDING STANDARDS.
- GROUND CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURERS CABLE GROUNDING KITS SUPPLIED BY PROJECT OWNER.
- USE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING AS INDICATED ON THE DRAWING.
- ALL POWER AND GROUND CONNECTIONS TO BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND NUTS BY HARGER (OR APPROVED EQUAL) RATED FOR OPERATION AT NO LESS THAN 75°C OR CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
- ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AT RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY. BOND ANY METAL OBJECTS WITHIN 6 FEET OF PROJECT OWNER EQUIPMENT OR CABINET TO MASTER GROUND BAR OR GROUNDING RING.
- CONNECTIONS TO BE GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
- APPLY OXIDE INHIBITING COMPOUND TO ALL MECHANICAL GROUND CONNECTIONS.
- CONTRACTOR SHALL PROVIDE AND INSTALL OMNI DIRECTIONAL ELECTRONIC MAKER SYSTEM (EMS) CALLS OVER EACH GROUND ROD AND BONDING POINT BETWEEN EXISTING TOWER/ MONOPOLE GROUNDING RING AND EQUIPMENT GROUNDING RING.
- CONTRACTOR SHALL TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION. 5 OHMS MINIMUM RESISTANCE REQUIRED.
- CONTRACTOR SHALL CONDUCT ANTENNA, CABLE, AND LNA RETURN-LOSS AND DISTANCE-TO-FAULT MEASUREMENTS (SWEEP TESTS) AND RECORD RESULTS FOR PROJECT CLOSE OUT.

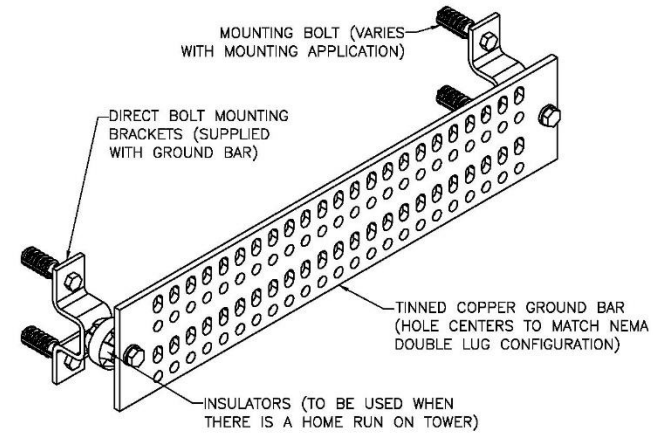
GROUNDING LEGEND	
	COMPRESSION FITTING CONNECTION
	EXOTHERMIC WELD CONNECTION
	PROPOSED GROUND WIRING
	EXISTING GROUND WIRING



1 GROUNDING RISER DIAGRAM
N.T.S.



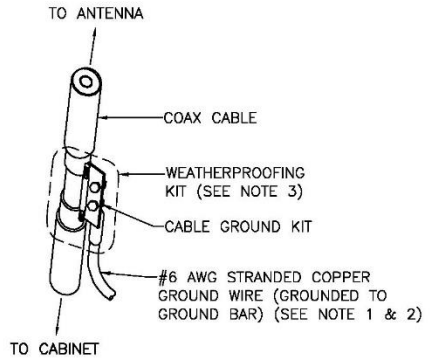
2 CADWELD GROUNDING CONNECTION DETAILS
N.T.S.



GROUND BAR SCHEDULE				
TYPE	QTY	MANUFACTURER	PART NO.	REMARKS
MGB	2	COMMSCOPE	UGBKIT-0120-T	OR EQUAL
CBG	1	COMMSCOPE	UGBKIT-0412	OR EQUAL

3 GROUND BAR DETAIL
N.T.S.

- NOTES**
- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
 - GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
 - WEATHER PROOFING SHALL BE TWO-PART TAPE SUPPLIED WITH KIT. COLD SHRINK SHALL NOT BE USED.



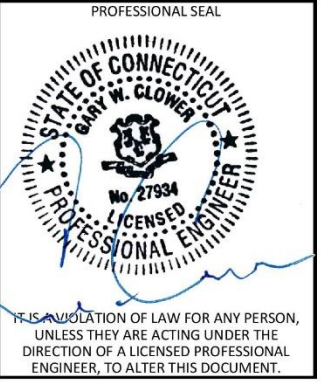
6 COAXIAL CABLE GROUNDING
N.T.S.

4 NOT USED
N.T.S.

5 NOT USED
N.T.S.



REVISIONS			
NO.	DESCRIPTION	DATE	BY/REV



SITE INFORMATION

CT9001
168 CATOONA LANE
STAMFORD, CT 06902
FAIRFIELD COUNTY

SHEET TITLE

GROUNDING DETAILS

SHEET NUMBER	SCALE: AS NOTED
G-1	DRAWN BY: KE
	CHECKED BY: KE
	DATE: 12/3/18

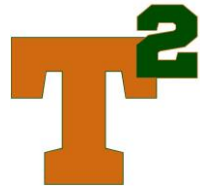
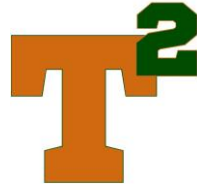


EXHIBIT 2:

Structural Modification Report



AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure : 300 ft Self Supported Tower
ATC Site Name : Stamford (Katoona), CT
ATC Site Number : 88018
Engineering Number : OAA743185_C3_03
Proposed Carrier : Sigfox S.A.
Carrier Site Name : CT9001_ATC_88018
Carrier Site Number : CT9001
Site Location : 168 Catoona Lane
Stamford, CT 06902-4573
41.052800,-73.563000
County : Fairfield
Date : July 25, 2019
Max Usage : 97%
Result : Pass

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

Robert D. Barrett

Reviewed By:

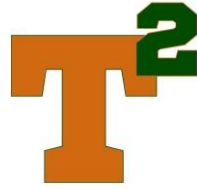


Authorized by "EOR"

Jul 26 2019 4:37 PM

cosign

COA: PEC.0001553



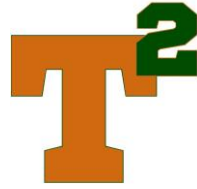
Eng. Number OAA743185_C3_03
July 25, 2019

Table of Contents

Introduction	1
Supporting Documents	1
Analysis	1
Conclusion.....	1
Existing and Reserved Equipment.....	2-3
Equipment to be Removed.....	3
Proposed Equipment	4
Structure Usages	4
Foundations	4
Standard Conditions	5
Calculations	Attached

A.T. Engineering Service, PLLC - 3500 Regency Parkway, Suite 100 - Cary, NC 27518 - 919-468-0112 Office - 919-466-5414 Fax - www.americantower.com

T-SQUARED SITE SERVICES
2500 Highland Road | Suite 201
Hermitage, PA 16148 | 724.308.7855
www.t-sqrd.com



Eng. Number OAA743185_C3_03

July 25, 2019

Page 1

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 300 ft self supported tower to reflect the change in loading by Sigfox S.A.

Supporting Documents

Tower Drawings	CSEI Analysis, ATC Eng. #73123451, dated September 28, 2005
Foundation Drawing	Rose, Chulkoff, and Rose Job #C67229, dated August 9, 1967
Geotechnical Report	Rose, Chulkoff, and Rose Job #C67229, dated August 9, 1967
Modifications	ATC Eng. #42439132, dated September 26, 2008 ATC Eng. #44209632, dated December 2, 2009

Analysis

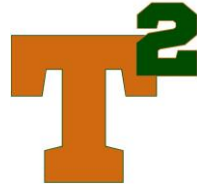
The tower was analyzed using Power Line Systems, Inc. tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

Basic Wind Speed:	93 mph (3-Second Gust, V_{asd}) / 120 mph (3-Second Gust, V_{ult})
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 3/4" radial ice concurrent
Code:	ANSI/TIA-222-G / 2015 IBC / 2018 Connecticut State Building Code
Structure Class:	II
Exposure Category:	B
Topographic Category:	1
Crest Height:	0 ft

Conclusion

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

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



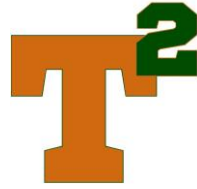
Eng. Number OAA743185_C3_03

July 25, 2019

Page 2

Existing and Reserved Equipment

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
300.0	338.0	1	TX RX Systems 101-68-10-X-03N	Platform w/ Handrails	(1) 1 1/4" Coax	Marcus Comm.
	324.0	1	15' Omni-Grid		(1) 1 5/8" Coax	
	320.0	1	12' Omni		-	Other
	311.0	1	Radio/ODU		(1) 7/8" Coax	Marcus Comm.
		1	4' Std. Dish			
	307.0	1	Radio/ODU		(1) 1/2" Coax	Other
		1	3' HP Dish			
	303.0	3	DragonWave Horizon Compact		(5) 7/8" Coax	Clearwire
3		DragonWave A-ANT-18G-2-C				
275.0	275.0	1	Rohde & Schwarz ADD090	Side Arm	(2) 7/8" Coax	US Dept Of Homeland Security
270.0	270.0	1	Dielectric TLP-08M-2E	Side Arms	-	Other
		2	Til-Tek TA-2350-DAB		(1) 1 5/8" Coax	Sirius XM Radio
267.0	267.0	1	Fastback Networks Intelligent Backhaul Radio 1300 Series	Leg	(2) 0.26" Cat 6 (1) 0.32" Cable	T-Mobile
265.0	265.0	3	RFS ATMAA1412D-1A20	Sector Frames	(12) 1 5/8" Coax (2) 1 1/4" Fiber (1) 1 5/8" Fiber	
		3	Ericsson AIR-32 B2A/B66Aa			
		3	Ericsson Air 3246 B66			
		3	RFS APXVAARR24_43-U-NA20			
3	Ericsson Radio 4449 B12,B71					
260.0	260.0	-	-	-	(1) EW20	Sirius XM Radio
250.0	250.0	1	Sinclair SC281-L	Side Arm	(1) 7/8" Coax	US Dept Of
246.0	246.0	1	Sinclair SC381-HL	Side Arm	(1) 7/8" Coax	Homeland Security
235.0	235.0	6	CCI TPX-070821	Sector Frames	(12) 1 5/8" Coax (4) 0.74" 8 AWG 7 (2) 0.78" 8 AWG 6 (2) 0.39" Fiber Trunk	AT&T Mobility
		6	Powerwave TT19-08BP111-001			
		2	Raycap DC2-48-60-0-9E			
		1	Raycap DC6-48-60-18-8F			
		3	Ericsson RRUS 4426 B66			
		3	Ericsson RRUS 4478 B14			
		6	Ericsson RRUS A2			
		3	Ericsson RRUS-11 800 MHz			
		3	Ericsson RRUS 32			
		3	Ericsson RRUS 32 B2			
		3	Ericsson RRUS E2 B29			
		3	Ericsson RRUS-11			
		3	Powerwave 7770.00			
		3	Andrew SBNHH-1D65A			
3	CCI OPA-65R-LCUU-H4					
3	KMW EPBQ-654L8H6-L2					
226.0	226.0	2	Shively 6025-1-1	Pole Mount	(1) 7/8" Coax	Geo-Broadcast Solutions
222.0	222.0	12	Decibel DB844H90E-XY	Sector Frames	(15) 1 5/8" Coax	Sprint Nextel

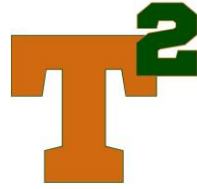


Existing and Reserved Equipment (Continued)

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
207.0	207.0	1	Sinclair SC281-L	Side Arm	(1) 7/8" Coax	US Dept Of Homeland Security
200.0	200.0	2	TX RX Systems 101-68-10-X-03N	Side Arms	(2) 1 1/4" Coax	Marcus Comm.
193.0	193.0	2	Antel BCD-87010	Side Arms	(3) 7/8" Coax	Spok Holdings
		1	30" x 30" Reflector	Leg		
175.0	175.0	1	12" x 12" Junction Box	Leg	-	Clearwire
171.0	171.0	3	NextNet BTS-2500	T-Arms	(6) 5/16" Coax (2) 2" Conduit	
165.0	165.0	15	RCU	Leg	(12) 1 5/8" Coax (1) 3/8" RET Control Cable (1) 3/8" Coax	Metro PCS
		6	Kathrein 800 10504			
150.0	150.0	3	Alcatel-Lucent ALU 800MHz External Notch Filter	Sector Frames	(3) 1 1/4" Hybriflex Cable (1) 1.7" Hybrid	Sprint Nextel
		3	RFS IBC1900HB-2			
		3	Alcatel-Lucent 800 MHz RRH			
		6	Alcatel-Lucent 1900MHz RRH			
		3	RFS APXVSP18-C-A20			
3	Nokia 2.5G MAA - AAHC(64T64R)					
139.0	139.0	1	Antel BCD-87010 4°	Side Arm	(1) 7/8" Coax	Sensus USA
135.0	135.0	1	L-com HG908U-PRO	Stand-Off	(1) 0.38" Cat 5e (1) 1/2" Coax	Senet
130.0	130.0	1	Tycon ENC-DC	Side Arm	-	
120.0	120.0	1	Channel Master Type 120	Stand-Off	(1) 1/2" Coax	Spok Holdings
107.0	107.0	1	TX RX Systems 101-68-10-X-03N	Side Arm	(1) 1 1/4" Coax	Marcus Comm.
92.0	92.0	3	Alcatel-Lucent RRH2X60-1900A-4R	Sector Frames	(3) 1 1/4" Hybriflex	Verizon
		3	Alcatel-Lucent RRH2x60 700			
		3	Alcatel-Lucent RRH4x45-B66 w/o Solar Shield			
		3	RFS DB-T1-6Z-8AB-OZ			
		6	Andrew SBNHH-1D65B			
		6	72" x 14" Panel			
22.0	22.0	1	Til-Tek TA-2324-LHCP	Leg	(1) 7/8" Coax	Sirius XM Radio
6.0	6.0	1	Trimble Acutime 2000	Leg	(1) 1/2" Coax (1) 1/4" Coax	Spok Holdings
		1	Channel Master Type 120			

Equipment to be Removed

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
No loading considered as to be removed						



Proposed Equipment

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
292.0	292.0	1	Procom CXL 900-3LW	Side Arm	(1) 7/8" Coax	Sigfox S.A.
		1	5" x 3" x 2" Cavity Filter			
		1	Low Noise Amplifier			

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

Install proposed coax on the tower face with the least amount of existing coax.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Legs	77%	Pass
Diagonals	89%	Pass
Truss Diagonals	94%	Pass
Horizontals	83%	Pass
Truss Horizontals	97%	Pass
Anchor Bolts	52%	Pass

Foundations

Reaction Component	Analysis Reactions	% of Usage
Uplift (Kips)	346.3	89%
Axial (Kips)	484.0	5%

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



Standard Conditions

All engineering services performed by A.T. Engineering Service, PLLC are prepared on the basis that the information used is current and correct. This information may consist of, but is not limited to the following:

- Information supplied by the client regarding antenna, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of A.T. Engineering Service, PLLC

It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete.

All assets of American Tower Corporation, its affiliates and subsidiaries (collectively "American Tower") are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

Unless explicitly agreed by both the client and A.T. Engineering Service, PLLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

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

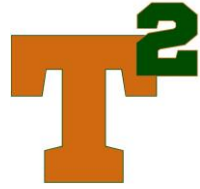


EXHIBIT 3:

General Power Density Table report (RF Emissions Analysis Report)



RF EMISSIONS COMPLIANCE REPORT

T-Squared Site Services on Behalf of SIGFOX

Site: Stamford (katoona), CT
Site ID: CT9001
ATC Site ID: 88018
168 CATOONA LANE
STAMFORD, CT
2/8/2019

Report Status:

SIGFOX Is Compliant



sealed 10feb2019 mike@h2dc.com
H2DC PLLC Ct CoA#: 0001714

Prepared By:

Sitesafe, LLC

8618 Westwood Center Drive,
Suite 315

Vienna, VA 22182

Voice 703-276-1100
Fax 703-276-1169

T-SQUARED SITE SERVICES
2500 Highland Road | Suite 201
Hermitage, PA 16148 | 724.308.7855
www.t-sqrd.com



Engineering Statement in Re:
Electromagnetic Energy Analysis
T-Squared Site Services
STAMFORD, CT

My signature on the cover of this document indicates:

That I, Michael A McGuire, am currently and actively licensed to provide (in this state/jurisdiction as indicated within the professional electrical engineering seal on the cover of this document) professional electrical engineering services, as an employee of Hurricane Hill Development Company, PLLC, a duly authorized/registered engineering firm (in this state, as applicable) on behalf of SiteSafe, LLC; and

That I am thoroughly familiar with the Rules and Regulations of the Federal Communications Commission ("the FCC" and "the FCC Rules") both in general and specifically as they apply to the FCC's Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields; and

That the technical information serving as the basis for this report was supplied by T-Squared Site Services (See attached Site Summary and Carrier documents), and that SIGFOX's installations involve communications equipment, antennas and associated technical equipment at a location referred to as the "Stamford (katoona), CT" ("the site"); and

That SIGFOX proposes to operate at the site with transmit antennas listed in the carrier summary and with a maximum effective radiated power as specified by SIGFOX and shown on the worksheet, and that worst-case 100% duty cycle have been assumed; and

That in addition to the emitters specified in the worksheet, there are additional collocated point-to-point microwave facilities on this structure and, the antennas used are highly directional oriented at angles at or just below the horizontal and, that the energy present at ground level is typically so low as to be considered insignificant and have not been included in this analysis; and

That this analysis has been performed with the assumption that the ground immediately surrounding the tower is primarily flat or falling; and

That at this time, the FCC requires that certain licensees address specific levels of radio-frequency energy to which workers or members of the public might possibly be exposed (at §1.1307(b) of the FCC Rules); and

That such consideration of possible exposure of humans to radio-frequency radiation must utilize the standards set by the FCC, which is the Federal Agency having jurisdiction over communications facilities; and

That the FCC rules define two tiers of permissible exposure guidelines: 1) "uncontrolled environments," defined as situations in which persons may not be aware of (the "general public"), or may not be able to control their exposure to a transmission facility; and (2) "controlled environments," which defines situations in which persons are aware of their potential for exposure (industry personnel); and



That this statement specifically addresses the uncontrolled environment (which is more conservative than the controlled environment) and the limit set forth in the FCC rules for licensees of SIGFOX's operating frequency as shown on the attached antenna worksheet; and

That when applying the uncontrolled environment standards, the predicted Maximum Power Density at two meters above ground level from the proposed SIGFOX operation is no more than 0% of the maximum in any accessible area on the ground and

That it is understood per FCC Guidelines and OET65 Appendix A, that regardless of the existent radio-frequency environment, only those licenses whose contributions exceed five percent of the exposure limit pertinent to their operation(s) bear any responsibility for bringing any non-compliant area(s) into compliance; and

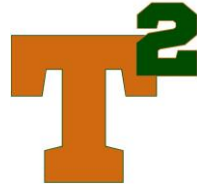
That when applying the uncontrolled environment standards, the cumulative predicted energy density from the proposed operation is no more than 6.17% of the maximum in any accessible area up to two meters above the ground per OET-65; and

That the calculations provided in this report are based on data provided by the client and antenna pattern data supplied by the antenna manufacturer, in accordance with FCC guidelines listed in OET-65. Horizontal and vertical antenna patterns are combined for modeling purposes to accurately reflect the energy two meters above ground level where on-axis energy refers to maximum energy two meters above the ground along the azimuth of the antenna and where area energy refers to the maximum energy anywhere two meters above the ground regardless of the antenna azimuth, accounting for cumulative energy from multiple antennas for the carrier and frequency range indicated; and

That the Occupational Safety and Health Administration has policies in place which address worker safety in and around communications sites, thus individual companies will be responsible for their employees' training regarding Radio Frequency Safety.

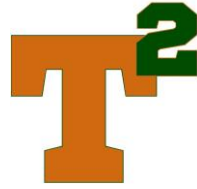
In summary, it is stated here that the proposed operation at the site would not result in exposure of the Public to excessive levels of radio-frequency energy as defined in the FCC Rules and Regulations, specifically 47 CFR 1.1307 and that SIGFOX's proposed operation is completely compliant.

Finally, it is stated that access to the tower should be restricted to communication industry professionals, and approved contractor personnel trained in radio-frequency safety; and that the instant analysis addresses exposure levels at two meters above ground level and does not address exposure levels on the tower, or in the immediate proximity of the antennas.



SIGFOX
Stamford (katoona), CT
Site Summary

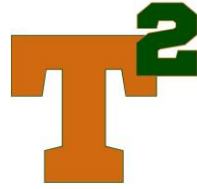
Carrier	Area Maximum Percentage MPE
AT&T Mobility, LLC	0.115 %
AT&T Mobility, LLC	0.075 %
AT&T Mobility, LLC	0.159 %
AT&T Mobility, LLC	0.029 %
Sirius XM Radio	0.055 %
Clearwire	0.079 %
Sensus USA	0.089 %
SIGFOX (Proposed)	0 %
MetroPCS	0.09 %
MetroPCS	0.076 %
Marcus Comm	0.037 %
Spok Holdings	0.123 %
Geo Broadcast Solutions	0.099 %
Sprint	0.126 %
Sprint	0.328 %
Sprint	0.124 %
T-Mobile	0.074 %
T-Mobile	0.07 %
T-Mobile	0.023 %
US Dept. of Homeland Security	0.036 %
US Dept. of Homeland Security	0.312 %
Unknown	0.248 %
Verizon Wireless	1.413 %
Verizon Wireless	1.385 %
Verizon Wireless	0.534 %
Verizon Wireless	0.471 %
Composite Site MPE:	6.17 %



AT&T Mobility, LLC
Stamford (katoona), CT
Carrier Summary

Frequency: 2300 MHz
Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 1.14727 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.11473 %

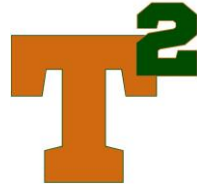
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
KMW	EPBQ-654L8H6	235	0	2209	0.898255	0.089825	0.898255	0.089825
KMW	EPBQ-654L8H6	235	120	2209	0.898255	0.089825	0.898255	0.089825
KMW	EPBQ-654L8H6	235	240	2209	0.893752	0.089375	0.898176	0.089818



**AT&T Mobility, LLC
Stamford (katoona), CT
Carrier Summary**

Frequency: 1900 MHz
 Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 0.75117 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 0.07512 %

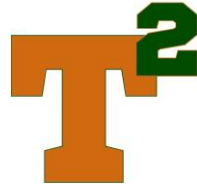
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
CCI Antennas	OPA-65R-LCUU-H6	235	0	1755	0.579304	0.05793	0.743571	0.074357
CCI Antennas	OPA-65R-LCUU-H6	235	120	1755	0.580196	0.05802	0.743571	0.074357
CCI Antennas	OPA-65R-LCUU-H6	235	240	1755	0.585031	0.058503	0.743571	0.074357



**T-Mobile
Stamford (katoona), CT
Carrier Summary**

Frequency: 700 MHz
Maximum Permissible Exposure (MPE): 466.67 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 0.34623 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.07419 %

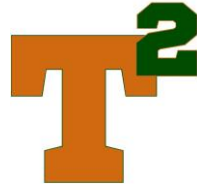
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
ANDREW	LNX-6515DS-VTM	265	0	1854	0.343907	0.073694	0.345416	0.074018
ANDREW	LNX-6515DS-VTM	265	120	1854	0.343798	0.073671	0.345416	0.074018
ANDREW	LNX-6515DS-VTM	265	240	1854	0.343907	0.073694	0.345416	0.074018



**AT&T Mobility, LLC
Stamford (katoona), CT
Carrier Summary**

Frequency: 737 MHz
 Maximum Permissible Exposure (MPE): 491.33 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 0.78283 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 0.15933 %

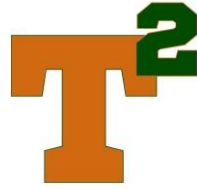
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
ANDREW	SBNHH-1D65A	235	0	2148	0.549152	0.111768	0.740165	0.150644
ANDREW	SBNHH-1D65A	235	120	2148	0.549152	0.111768	0.740165	0.150644
ANDREW	SBNHH-1D65A	235	240	2148	0.532713	0.108422	0.740165	0.150644



**AT&T Mobility, LLC
Stamford (katoona), CT
Carrier Summary**

Frequency: 850 MHz
Maximum Permissible Exposure (MPE): 566.67 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 0.16611 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.02931 %

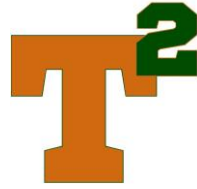
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Powerwave	7770	235	0	547	0.091895	0.016217	0.142048	0.025067
Powerwave	7770	235	120	547	0.091895	0.016217	0.142048	0.025067
Powerwave	7770	235	240	547	0.092012	0.016237	0.142048	0.025067



Sirius XM Radio
Stamford (katoona), CT
Carrier Summary

Frequency: 2350 MHz
Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 0.54666 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.05467 %

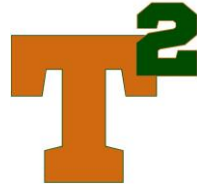
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
TIL-TEK	TA-2350-T0	270	0	1222	0.27333	0.027333	0.27333	0.027333
TIL-TEK	TA-2350-T0	270	0	1222	0.27333	0.027333	0.27333	0.027333



**Clearwire
Stamford (katoona), CT
Carrier Summary**

Frequency: 2500 MHz
Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 0.78697 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.0787 %

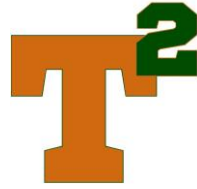
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
ARGUS	LLPX310R	171	0	1542	0.399273	0.039927	0.739197	0.07392
ARGUS	LLPX310R	171	120	1542	0.402094	0.040209	0.739197	0.07392
ARGUS	LLPX310R	171	240	1542	0.399273	0.039927	0.739197	0.07392



Sensus USA
Stamford (katoona), CT
Carrier Summary

Frequency: 900 MHz
Maximum Permissible Exposure (MPE): 600 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 0.53559 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.08927 %

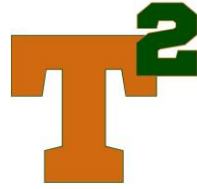
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Antel	BCD-87010-5	139	0	1000	0.531692	0.088615	0.535591	0.089265



**SIGFOX (Proposed)
Stamford (katoona), CT
Carrier Summary**

Frequency: 905.2 MHz
Maximum Permissible Exposure (MPE): 603.47 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 0.00045 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.00007 %

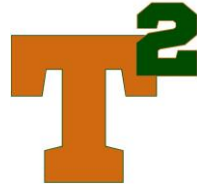
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Amphenol	CXL 900-3LW	292	0	1	0.000448	0.000074	0.000448	0.000074



**MetroPCS
Stamford (katoona), CT
Carrier Summary**

Frequency: 2100 MHz
Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 0.89774 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.08977 %

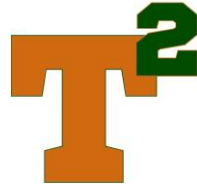
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Kathrein-Scala	80010504	165	0	2245	0.404136	0.040414	0.613107	0.061311
Kathrein-Scala	80010504	165	120	2245	0.404136	0.040414	0.613107	0.061311
Kathrein-Scala	80010504	165	240	2245	0.404577	0.040458	0.613107	0.061311



**MetroPCS
Stamford (katoona), CT
Carrier Summary**

Frequency: 1900 MHz
Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 0.76139 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.07614 %

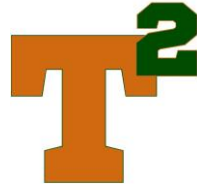
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Kathrein-Scala	80010504	165	0	2114	0.400446	0.040045	0.457407	0.045741
Kathrein-Scala	80010504	165	120	2114	0.400446	0.040045	0.457407	0.045741
Kathrein-Scala	80010504	165	240	2114	0.400446	0.040045	0.457407	0.045741



**Marcus Comm
Stamford (katoona), CT
Carrier Summary**

Frequency: 456 MHz
Maximum Permissible Exposure (MPE): 304 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 0.11391 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.03747 %

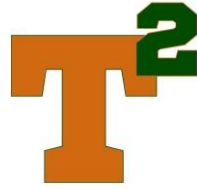
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Generic	Omni	324	0	100	0.053611	0.017635	0.053611	0.017635
Generic	Omni	320	0	100	0.060302	0.019836	0.060302	0.019836



**Spok Holdings
Stamford (katoona), CT
Carrier Summary**

Frequency: 900 MHz
Maximum Permissible Exposure (MPE): 600 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 0.73797 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.123 %

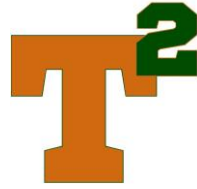
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Antel	BCD-87010-5	193	0	1000	0.368987	0.061498	0.368987	0.061498
Antel	BCD-87010-5	193	0	1000	0.368987	0.061498	0.368987	0.061498



**Geo Broadcast Solutions
Stamford (katoona), CT
Carrier Summary**

Frequency: 108 MHz
Maximum Permissible Exposure (MPE): 200 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 0.19851 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.09925 %

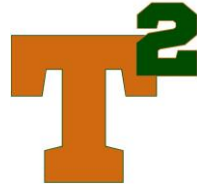
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Shively Labs	6025	226	0	100	0.098238	0.049119	0.099255	0.049627
Shively Labs	6025	226	0	100	0.098238	0.049119	0.099255	0.049627



**Sprint
Stamford (katoona), CT
Carrier Summary**

Frequency: 2500 MHz
Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 1.25531 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.12553 %

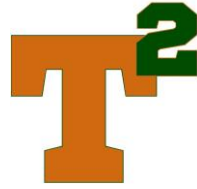
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Nokia	2.5G MAA - AAHC	150	0	3389	0.982627	0.098263	1.243418	0.124342
Nokia	2.5G MAA - AAHC	150	120	3389	0.982627	0.098263	1.243418	0.124342
Nokia	2.5G MAA - AAHC	150	240	3389	0.986391	0.098639	1.243418	0.124342



**Sprint
Stamford (katoona), CT
Carrier Summary**

Frequency: 1900 MHz
Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 3.27842 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.32784 %

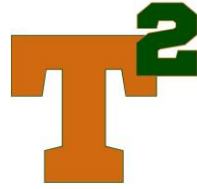
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
RFS	APXVSPP18-C-A20	150	0	3804	0.832096	0.08321	1.516412	0.151641
RFS	APXVSPP18-C-A20	150	120	3804	0.832096	0.08321	1.516412	0.151641
RFS	APXVSPP18-C-A20	150	240	3804	0.835716	0.083572	1.516412	0.151641
RFS	APXVSPP18-C-A20	150	0	3804	0.832096	0.08321	1.516412	0.151641
RFS	APXVSPP18-C-A20	150	120	3804	0.832096	0.08321	1.516412	0.151641
RFS	APXVSPP18-C-A20	150	240	3804	0.835716	0.083572	1.516412	0.151641



**Sprint
Stamford (katoona), CT
Carrier Summary**

Frequency:	862	MHz
Maximum Permissible Exposure (MPE):	574.67	$\mu\text{W}/\text{cm}^2$
Maximum power density at ground level:	0.71106	$\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure:	0.12373	%

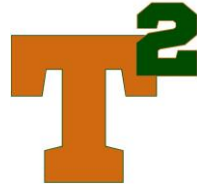
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
RFS	APXVSP18-C-A20	150	0	2168	0.686134	0.119397	0.699536	0.121729
RFS	APXVSP18-C-A20	150	120	2168	0.686134	0.119397	0.699536	0.121729
RFS	APXVSP18-C-A20	150	240	2168	0.68818	0.119753	0.699536	0.121729



**T-Mobile
Stamford (katoona), CT
Carrier Summary**

Frequency:	2100	MHz
Maximum Permissible Exposure (MPE):	1000	$\mu\text{W}/\text{cm}^2$
Maximum power density at ground level:	0.70305	$\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure:	0.0703	%

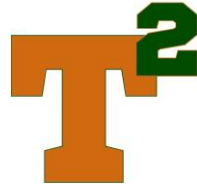
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Ericsson	AIR 32 B2A/B66Aa	265	0	2313	0.658844	0.065884	0.658844	0.065884
Ericsson	AIR 32 B2A/B66Aa	265	120	2313	0.658844	0.065884	0.658844	0.065884
Ericsson	AIR 32 B2A/B66Aa	265	240	2313	0.65491	0.065491	0.657702	0.06577



**T-Mobile
Stamford (katoona), CT
Carrier Summary**

Frequency: 1900 MHz
Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 0.22861 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.02286 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Ericsson	AIR 21 B2A B4P	265	0	2061	0.135462	0.013546	0.155748	0.015575
Ericsson	AIR 21 B2A B4P	265	120	2061	0.135462	0.013546	0.155748	0.015575
Ericsson	AIR 21 B2A B4P	265	240	2061	0.135503	0.01355	0.155748	0.015575



US Dept. of Homeland Security
Stamford (katoona), CT
Carrier Summary

Frequency: 150 MHz
Maximum Permissible Exposure (MPE): 200 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 0.07253 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.03626 %

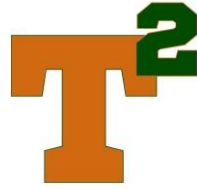
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
SINCLAIR	SC281	250	0	100	0.029262	0.014631	0.029729	0.014865
SINCLAIR	SC281	207	0	100	0.042971	0.021486	0.043673	0.021836



US Dept. of Homeland Security
Stamford (katoona), CT
Carrier Summary

Frequency: 450 MHz
Maximum Permissible Exposure (MPE): 300 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 0.9364 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.31213 %

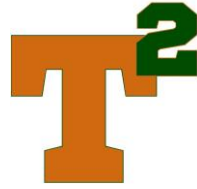
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Rohde & Schwarz	ADD090	275	0	100	0.102918	0.034306	0.102918	0.034306
Rohde & Schwarz	ADD090	275	0	100	0.102918	0.034306	0.102918	0.034306
Rohde & Schwarz	ADD090	275	0	100	0.102918	0.034306	0.102918	0.034306
Rohde & Schwarz	ADD090	275	0	100	0.102918	0.034306	0.102918	0.034306
Rohde & Schwarz	ADD090	275	0	100	0.102918	0.034306	0.102918	0.034306
Rohde & Schwarz	ADD090	275	0	100	0.102918	0.034306	0.102918	0.034306
Rohde & Schwarz	ADD090	275	0	100	0.102918	0.034306	0.102918	0.034306
Rohde & Schwarz	ADD090	275	0	100	0.102918	0.034306	0.102918	0.034306
Rohde & Schwarz	ADD090	275	0	100	0.102918	0.034306	0.102918	0.034306
SINCLAIR	SC381-HL	246	0	100	0.029822	0.009941	0.029822	0.009941



Unknown
Stamford (katoona), CT
Carrier Summary

Frequency: 470 MHz
Maximum Permissible Exposure (MPE): 313.33 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 0.77602 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.24767 %

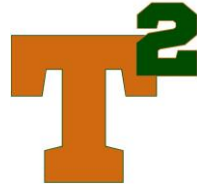
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Dielectric	TLP-08M-2E	270	0	1000	0.776021	0.247666	0.776021	0.247666



**Verizon Wireless
Stamford (katoona), CT
Carrier Summary**

Frequency:	850	MHz
Maximum Permissible Exposure (MPE):	566.67	$\mu\text{W}/\text{cm}^2$
Maximum power density at ground level:	8.00593	$\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure:	1.41281	%

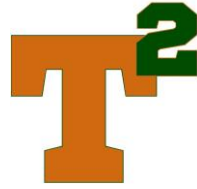
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
ANDREW	SBNHH-1D65B	92	0	2892	4.392171	0.775089	4.807162	0.848323
ANDREW	SBNHH-1D65B	92	120	2892	4.392171	0.775089	4.807162	0.848323
ANDREW	SBNHH-1D65B	92	240	2892	4.276637	0.754701	4.807162	0.848323



**Verizon Wireless
Stamford (katoona), CT
Carrier Summary**

Frequency: 2100 MHz
 Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 13.85044 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 1.38504 %

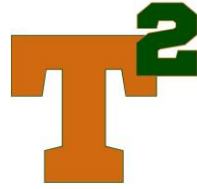
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Generic	6 Foot	92	0	4277	12.203756	1.220376	12.251038	1.225104
Generic	6 Foot	92	120	4277	12.203756	1.220376	12.251038	1.225104
Generic	6 Foot	92	240	4277	12.130371	1.213037	12.251038	1.225104



**Verizon Wireless
Stamford (katoona), CT
Carrier Summary**

Frequency: 1900 MHz
 Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 5.33901 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 0.5339 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Generic	6 Foot	92	0	5060	2.406006	0.240601	5.149232	0.514923
Generic	6 Foot	92	120	5060	2.406357	0.240636	5.149232	0.514923
Generic	6 Foot	92	240	5060	2.406006	0.240601	5.149231	0.514923



**Verizon Wireless
Stamford (katoona), CT
Carrier Summary**

Frequency:	751	MHz
Maximum Permissible Exposure (MPE):	500.67	$\mu\text{W}/\text{cm}^2$
Maximum power density at ground level:	2.35812	$\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure:	0.471	%

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
ANDREW	SBNHH-1D65B	92	0	1362	1.229924	0.245657	1.993586	0.398186
ANDREW	SBNHH-1D65B	92	120	1362	1.229925	0.245657	1.993586	0.398186
ANDREW	SBNHH-1D65B	92	240	1362	1.228313	0.245335	1.993586	0.398186

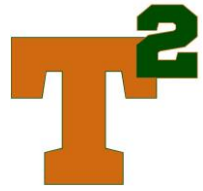
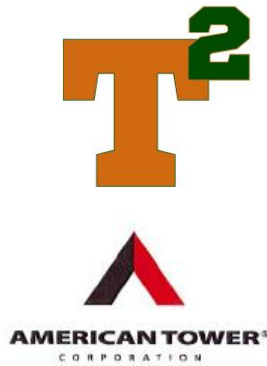


EXHIBIT 4:

Letter of Authorization



LETTER OF AUTHORIZATION

SITE NO: See Site List Below

SITE NAME: See Site List Below

ADDRESS: See Site List Below

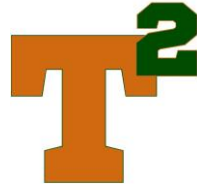
I, Margaret Robinson, Senior Counsel, US Tower Division on behalf of American Tower*, owner of the tower facility located at the address identified below (the "Tower Facilities"), do hereby authorize SIGFOX NIP LLC dba SIGFOX S.A., its successors and assigns, to act as American Tower's non-exclusive agent for the purpose of filing and securing any zoning, land-use, building permit and/or electrical permit application(s) and approvals of the applicable jurisdiction for and to conduct the construction of the installation of antennas and related telecommunications equipment on the Tower Facility located at the above address. This installation shall not affect adjoining lands and will occur only within the area leased by American Tower.

American Tower understands that the application may be denied, modified or approved with conditions. The above authorization is limited to the acceptance by American Tower of conditions related to American Tower's installation. Any such conditions of approval or modifications will not be effective unless approved in writing by American Tower.

The above authorization does not permit SIGFOX NIP LLC dba SIGFOX S.A to modify or alter any existing permit(s) and/or zoning or land-use conditions or impose any additional conditions unrelated to American Tower's installation of telecommunications equipment without the prior written approval of American Tower.

Sites Authorized (continued on the next page):

CT9000	ATC 302469
CT9001	ATC 88018
CT9081	ATC 88017
CT9122	ATC 88008
CT9123	ATC 88011
CT9184	ATC 88010



Asset Number	Site Name	Site Address	Site City	Site State	Site Zip
302469	Bridgeport CT 2	1069 Connecticut Avenue	Bridgeport	Connecticut	06607-1226
88018	STAMFORD (KATOONA)	168 Catoona Lane	Stamford	Connecticut	06902-4573
88017	SHELTON-TRUMBULL	14 OXFORD DRIVE/BOOTH HILL RD	SHELTON	Connecticut	06484-3455
88008	BETHANY CT	93 Old Amity Road	Bethany	Connecticut	06524-3400
88011	EAST KILLINGLY NORTH	1375 North Road	Killingly	Connecticut	06241-1404
88010	DURHAM CT	373 CHAMBERLAIN HILL RD	Higganum	Connecticut	06441-4062

Signature: _____

Margaret Robinson, Senior Counsel
US Tower Division

NOTARY BLOCK

COMMONWEALTH OF MASSACHUSETTS
County of Middlesex

This instrument was acknowledged before me by Margaret Robinson, Senior Counsel of American Tower (Tower Facility owner), personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same.

WITNESS my hand and official seal, this 18th day of June, 2019.



Notary Public
My Commission Expires: March 14, 2025

* American Tower as used herein is defined as American Tower Corporations and any of its affiliates or subsidiaries.

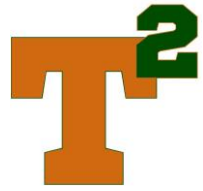


EXHIBIT 5:

Proof of Mailing to Local Municipality



8/5/2019

FedEx Ship Manager - Print Your Label(s)

ORIGIN ID: YNCA (724) 308-7855
 T-SQUARED SITE SERVICES, LLC
 2500 HIGHLAND RD
 SUITE 201
 HERMITAGE, PA 16148
 UNITED STATES US

SHIP DATE: 05AUG19
 ACTIVITY: CAD: 10861036INET4160
 BILL SENDER

TO THE HONORABLE DAVID MARTIN, MAYOR
 STAMFORD GOVERNMENT CENTER
 888 WASHINGTON BLVD
 STAMFORD CT 06901
 (203) 977-4140 REF: 567.3/E9E7/0542

TRK# 7889 0701 2684
 0201

THU - 08 AUG 4:30P
 EXPRESS SAVER

SE JSDA
 CT-US 06901
 JFK

FedEx
 EXPRESS
 71321596246544

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

T-squared SITE SERVICES
 2500 Highland Road | Suite 201
 Hermitage, PA 16148 | 724.308.7855
www.t-sqrd.com



8/5/2019

FedEx Ship Manager - Print Your Label(s)



Shipment Receipt

Address Information

Ship to: The Honorable David Martin, Mayor Stamford Government Center 888 Washington Blvd STAMFORD, CT 06901 US (203) 977-4140	Ship from: T-Squared Site Services, LLC 2500 Highland Rd Suite 201 Hermitage, PA 16148 US 7243087855
---	--

Shipment Information:

Tracking no.: 788907012684
Ship date: 08/05/2019
Estimated shipping charges: 8.65 USD

Package Information

Pricing option: FedEx One Rate
Service type: FedEx Express Saver
Package type: FedEx Envelope
Number of packages: 1
Total weight:
Declared Value: 0.00 USD
Special Services:
Pickup/Drop-off: Drop off package at FedEx location

Billing Information:

Bill transportation to: My Account - 350-350
Your reference:
P.O. no.:
Invoice no.:
Department no.:

Thank you for shipping online with FedEx ShipManager at fedex.com.

Please Note

FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1000, e.g., jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits; Consult the applicable FedEx Service Guide for details. The estimated shipping charge may be different than the actual charges for your shipment. Differences may occur based on actual weight, dimensions, and other factors. Consult the applicable [FedEx Service Guide](#) or the FedEx Rate Sheets for details on how shipping charges are calculated.

T-SQUARED SITE SERVICES
2500 Highland Road | Suite 201
Hermitage, PA 16148 | 724.308.7855
www.t-sqrd.com

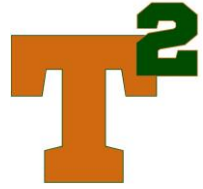
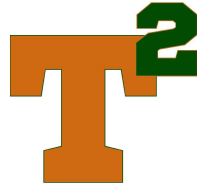


EXHIBIT 6:

Proof of Mailing to City Planner



8/13/2019

FedEx Ship Manager - Print Your Label(s)

ORIGIN ID: YNGA (724) 308-7855
T-SQUARED SITE SERVICES, LLC
2500 HIGHLAND RD
SUITE 201
HERMITAGE, PA 16148
UNITED STATES US

SHIP DATE: 13AUG19
ACT WGT:
CAD: 108891036NET/4160
BILL SENDER

TO
MR. DAVID WOODS, PHD, AICP
CITY OF STAMFORD PLANNING DEPT.
STAMFORD GOVERNMENT CENTER
888 WASHINGTON BLVD
STAMFORD CT 06901

(203) 977-4140 REF
NY DEPT

567.3.E9E7.05A2

TRK# 7759 6932 9859
0201

FRI - 16 AUG 4:30P
EXPRESS SAVER

SE JSDA
06901
CT-US JFK





After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

T-SQUARED SITE SERVICES
2500 Highland Road | Suite 201
Hermitage, PA 16148 | 724.308.7855
www.t-sqrd.com



7/1/2019

FedEx Ship Manager - Print Your Label(s)



Shipment Receipt

Address Information

Ship to:

Mr. Thomas F. Gill
City of Bridgeport
999 Broad Street
Office of Planning &
Economic Devp.
BRIDGEPORT, CT
06604
US
203-576-7221

Ship from:

T-Squared Site Services, LLC
2500 Highland Rd
Suite 201
Hermitage, PA
16148
US
7243087855

Shipment Information:

Tracking no.: 775606569248
Ship date: 07/01/2019
Estimated shipping charges: 8.65 USD

Package Information

Pricing option: FedEx One Rate
Service type: FedEx Express Saver
Package type: FedEx Envelope
Number of packages: 1
Total weight:
Declared Value: 0.00 USD
Special Services:
Pickup/Drop-off: Drop off package at FedEx location

Billing Information:

Bill transportation to: My Account - 350-350
Your reference:
P.O. no.:
Invoice no.:
Department no.:

Thank you for shipping online with FedEx ShipManager at fedex.com.

Please Note

FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1000, e.g., jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits; Consult the applicable FedEx Service Guide for details. The estimated shipping charge may be different than the actual charges for your shipment. Differences may occur based on actual weight, dimensions, and other factors. Consult the applicable FedEx Service Guide or the FedEx Rate Sheets for details on how shipping charges are calculated.

T-SQUARED SITE SERVICES
2500 Highland Road | Suite 201
Hermitage, PA 16148 | 724.308.7855
www.t-sqrd.com

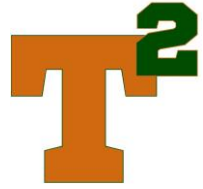


EXHIBIT 7:

Proof of Mailing to Tower Owner/Property Owner



8/5/2019

FedEx Ship Manager - Print Your Label(s)

ORIGIN ID: YNSA (724) 308-7855
T-SQUARED SITE SERVICES, LLC
2500 HIGHLAND RD
SUITE 201
HERMITAGE, PA 16148
UNITED STATES US

SHIP DATE: 05AUG19
ACTWST:
CAD: 108861036NET4180
BILL SENDER

TO
MR. JASON HASTIE
AMERICAN TOWER CORP.
10 PRESIDENTIAL WAY

WOBURN MA 01801
(781) 926-7485 REF
PO DEPT

TRK# 7889 0716 3129
0201
THU - 08 AUG 4:30P
EXPRESS SAVER

SE BEDA
MA-US 01801
BOS

567J3IE9E705A2

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

T-squared site services
2500 Highland Road | Suite 201
Hermitage, PA 16148 | 724.308.7855
www.t-sqrd.com



8/5/2019

FedEx Ship Manager - Print Your Label(s)

FedEx. Shipment Receipt

Address Information

Ship to:

Mr. Jason Hastic
American Tower Corp.
10 Presidential Way

WOBURN, MA
01801
US
7819267485

Ship from:

T-Squared Site Services, LLC

2500 Highland Rd
Suite 201
Hermitage, PA
16148
US
7243087855

Shipment Information:

Tracking no.: 788907163129
Ship date: 08/05/2019
Estimated shipping charges: 8.65 USD

Package Information

Pricing option: FedEx One Rate
Service type: FedEx Express Saver
Package type: FedEx Envelope
Number of packages: 1
Total weight:
Declared Value: 0.00 USD
Special Services:
Pickup/Drop-off: Drop off package at FedEx location

Billing Information:

Bill transportation to: My Account - 350-350
Your reference:
P.O. no.:
Invoice no.:
Department no.:

Thank you for shipping online with FedEx ShipManager at fedex.com.

Please Note

FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1000, e.g., jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits; Consult the applicable FedEx Service Guide for details.
The estimated shipping charge may be different than the actual charges for your shipment. Differences may occur based on actual weight, dimensions, and other factors. Consult the applicable FedEx Service Guide or the FedEx Rate Sheets for details on how shipping charges are calculated.

<https://www.fedex.com/shipping/shipAction.handle?method=doContinue>

2/2

T-SQUARED SITE SERVICES
2500 Highland Road | Suite 201
Hermitage, PA 16148 | 724.308.7855
www.t-sqrd.com