



March 28<sup>th</sup>, 2018

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

**Re: Notice of Exempt Modification – TMA Swap**  
**Property Address: 550 Queen St. Southington, CT 06489**  
**Applicant: AT&T Mobility, LLC**

Dear Ms. Bachman:

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

AT&T currently maintains a wireless telecommunications facility consisting of three (3) wireless telecommunication antennas at an antenna center line height of 77-feet on an existing 82-foot monopole, owned by Crown Castle at 3 Corporate Park Drive, Suite 101, Clifton Park, NY 12065. AT&T now intends to replace two (2) Kaelus TMA2117F00V1-1 TMAs with two (2) CCI DTMABP0723VG12A TMAs per sector, for a total of six (6) TMAs to be replaced. All of the changes will take place on the existing antenna mount.

The construction of the aforementioned monopole did not require a Certificate of Environmental Compatibility and Public Need per the Petition no. 880 which was approved by the Connecticut Siting Council on January 22<sup>nd</sup>, 2009.

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

Please accept this letter pursuant to Regulation of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b) (2). In accordance with R.C.S.A., a copy of this letter is being sent to Matthew A. Reimondo – Zoning Enforcement Officer at the town of Southington, CT, 196 North Main St. Southington, CT 06489 and Christopher J. Palmieri, Chairman – Town of Southington, CT, at 186 Highridge Rd. Southington, CT 06489. A copy of this letter is being sent to the property owner, RAP Properties LLC c/o Rite Aid Corporation, PO Box 3165, Harrisburg, PA 17105. A copy of this letter is also being sent to the tower company Crown Castle at 3 Corporate Park Drive, Suite 101, Clifton Park, NY 12065.

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

- **PE1133-CING-20160829** - New Cingular Wireless PCS, LLC sub-petition for a declaratory ruling for approval of an eligible facility request for modifications to an existing telecommunications facility located at 500 Queen Street, Southington, Connecticut.
- **TS-AT&T-131-010523** - AT&T Wireless PCS, LLC request for an order to approve tower sharing at an existing telecommunications facility located at 500 Queen Street, **Southington**, Connecticut
- **EM-AT&T-077-031-037-021010** - AT&T Wireless PCS, LLC d/b/a AT&T Wireless notice of intent to modify existing telecommunications facilities located at 205 Spencer Street, Manchester, 500 Queen Street, **Southington**, and 86 Voluntown Road, Stonington, Connecticut.
- **EM-AT&T-131-120517** – AT&T Mobility (AT&T) notice of intent to modify an existing telecommunications facility located at 500 Queen Street, **Southington**, Connecticut.
- **EM-AT&T-131-170626** – AT&T notice of intent to modify an existing telecommunications facility located at 500 Queen Street, Southington, Connecticut.



The planned modifications to AT&T's facility fall squarely within those activities explicitly provided for in R.C.S.A. §16-50j-72(b) (2).

1. The proposed modifications will not result in an increase in the height of the existing tower. AT&T's replacement antennas will be installed at the 77-foot level of the 82-foot monopole.
2. The proposed modifications will not involve any changes to ground-mounted equipment and, therefore, will not require an extension of the site boundary.
3. The proposed modifications will not increase the noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the modified facility will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. A cumulative worst-case RF emissions calculation for AT&T's modified facility is provided in the RF Emissions Compliance Report, included in Tab 2.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The tower and its foundation can support AT&T's proposed modifications. (See Structural Analysis Report included in Tab 3).

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

Sincerely,

A handwritten signature in cursive script that reads 'Romina Kirchmaier'.

Romina Kirchmaier

CC w/enclosures:

Matthew A. Reimondo – Zoning Enforcement Officer, Town of Southington, CT  
Christopher J. Palmieri – Chairman, Town of Southington, CT  
RAP Properties c/o Rite Aid Corporation – Land Owner  
Crown Castle – Tower Company

Petition No. 880  
AT&T  
500 Queen Street, Southington  
Draft Staff Report  
January 22, 2009

New Cingular Wireless PCS, LLC (AT&T) previously maintained a 74-foot guyed lattice tower attached to an automobile business at 500 Queen Street, Southington. The building is to be removed, and the site will be developed as a new pharmacy. In the Connecticut Siting Council (Council) Petition No. 862, AT&T was granted approval to install an 85-foot temporary monopole in the southwest corner of the lot to facilitate site development.

In lieu of a temporary monopole, AT&T was granted administrative approval for a cell on wheels facility (COW) with a total height of approximately 85 feet. Per Council conditions of the earlier approval, one year was allowed for the COW to be installed, and a maximum of six months of operation was permitted. The COW was activated on December 12, 2008 and may be operational up to June 12, 2009.

On December 17, 2008, the Council received a Petition (Petition) for a declaratory ruling that no Certificate is required for a proposed permanent facility at this site. This Petition is designated as Petition No. 880. On January 12, 2008, this Petition was field reviewed by Council member Ed Wilensky and Michael Perrone of the Council staff. Attorney Lucia Chiochio of Cuddy & Feder LLP (representing AT&T) also attended the field review.

Specifically, AT&T seeks to install a permanent 82-foot flagpole without a flag. This tower would contain three internal panel antennas and six internal tower mounted amplifiers centered at the 79-foot level of the tower. AT&T would be the only carrier at this time. A 12-foot by 26-foot equipment shelter would be located inside a 30-foot by 30-foot fenced compound. The site would use the same access as the pharmacy. No new access would be required.

The site is commercial in nature and is bordered by Interstate 84 to the west and north, a hotel and restaurant to the east, and an automobile dealership to the south. Given the nature of the surrounding area, visibility is not expected to be significant. In fact, visibility from Queen Street (Route 10) is expected to decrease because the permanent facility would be located in the rear corner of the lot, farther away from Queen Street than the original facility.

There are no wetlands at the site, and the site is already disturbed with pavement.

At the field review, Council staff inquired about the tower setback radius. The proposed tower would be 72 feet from the southern property line. Thus, the tower setback radius would extend approximately 10 feet onto the auto dealership property. No buildings are located within the setback radius. AT&T would like to use a tower from its existing inventory. As such, it would not have a yield point design because it was not contemplated at the time of construction.



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info@sitesafe.com • www.sitesafe.com



**Smartlink on behalf of  
AT&T Mobility, LLC  
Site FA – 10092205  
Site ID – CT5251 (MRCTB025068  
USID – 16335  
Site Name – Southington  
Industrial Center  
Site Compliance Report**

**500 Queen Street  
Southington, CT 06489**

Latitude: N41-37-49.05  
Longitude: W72-52-28.92  
Structure Type: Self-Support

Report generated date: January 24, 2018  
Report by: Sam Cosgrove  
Customer Contact: Romina Kirchmaier

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

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# 1 General Site Summary

## 1.1 Report Summary

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

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

RFDS: NEW-ENGLAND\_CONNECTICUT\_CTL05251\_2018-LTE-Next-Carrier\_LTE\_mb497j\_2051A0CHDG\_10092205\_16335\_06-13-2017\_Final-RF-Approval\_v1.00 Redline

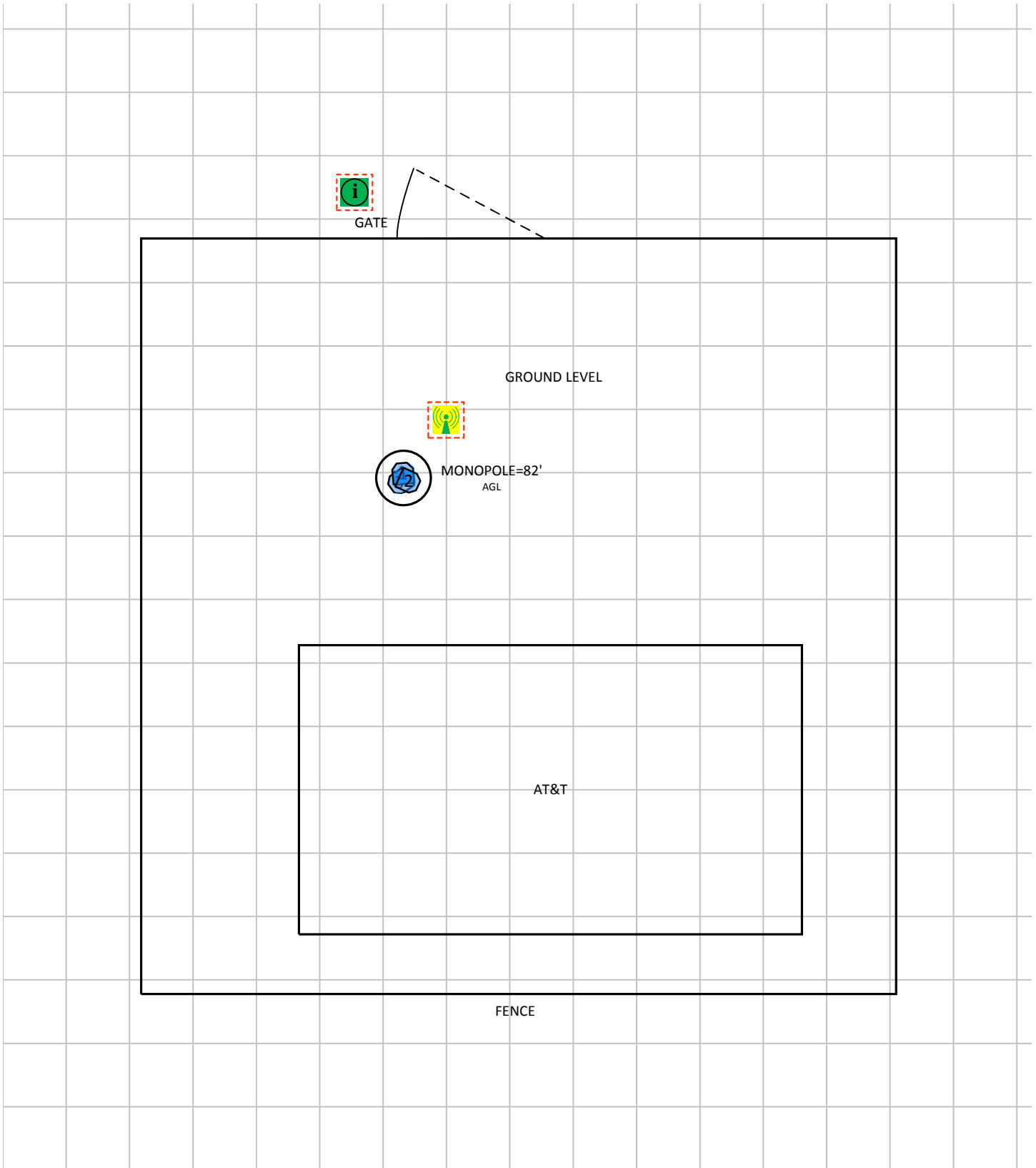
CD's: 10092205\_AE201\_171030\_CTL05251\_REVO\_RD\_11.16 RK RL 1.2.18

## 2 Scale Maps of Site

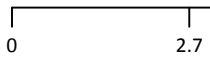
The following diagrams are included:

- Site Scale Map
- RF Exposure Diagram
- RF Exposure Diagram – Elevation View

# Site Scale Map For: Southington Industrial Center



(Feet)



www.sitesafe.com  
 Site Name:Southington Industrial Center  
 1/24/2018 1:10:02 PM

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

Sign Legend					
	Caution 2		Notice 2		Warning
	Info 1		Info 2		Caution 1
	Notice 1	<b>Proposed Barriers/ Signs</b>			



### 3 Antenna Inventory

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

Ant ID	Operator	Antenna Make & Model	Type	TX Freq (MHz)	Az (Deg)	Hor BW (Deg)	Ant Len (ft)	Ant Gain (dBd)	2G GSM Radio(s)	3G UMTS Radio(s)	4G Radio(s)	Total ERP (Watts)	X	Y	Z (AGL)
1	AT&T MOBILITY LLC	Kathrein-Scala 800 10891	Panel	737	40	66.1	6.5	13	0	0	1	1119.4	18.5'	35.4'	73.7'
1	AT&T MOBILITY LLC	Kathrein-Scala 800 10891	Panel	850	40	62.4	6.5	13.2	0	1	0	564.9	18.5'	35.4'	73.7'
1	AT&T MOBILITY LLC	Kathrein-Scala 800 10891	Panel	2300	40	58	6.5	13.93	0	0	1	1285.3	18.5'	35.4'	73.7'
1	AT&T MOBILITY LLC	Kathrein-Scala 800 10891	Panel	1900	40	60.3	6.5	13.7	0	0	1	2182.7	18.5'	35.4'	73.7'
1	AT&T MOBILITY LLC (Proposed)	Kathrein-Scala 800 10891	Panel	850	40	62.4	6.5	13.2	0	0	1	1000	18.5'	35.4'	73.7'
1	AT&T MOBILITY LLC (Proposed)	Kathrein-Scala 800 10891	Panel	2100	40	62	6.5	14.04	0	0	1	3837.1	18.5'	35.4'	73.7'
2	AT&T MOBILITY LLC	Kathrein-Scala 800 10891	Panel	737	160	66.1	6.5	13	0	0	1	1119.4	18.7'	35.1'	73.7'
2	AT&T MOBILITY LLC	Kathrein-Scala 800 10891	Panel	850	160	62.4	6.5	13.2	0	1	0	564.9	18.7'	35.1'	73.7'
2	AT&T MOBILITY LLC	Kathrein-Scala 800 10891	Panel	2300	160	58	6.5	13.93	0	0	1	1285.3	18.7'	35.1'	73.7'
2	AT&T MOBILITY LLC	Kathrein-Scala 800 10891	Panel	1900	160	60.3	6.5	13.7	0	0	1	2182.7	18.7'	35.1'	73.7'
2	AT&T MOBILITY LLC (Proposed)	Kathrein-Scala 800 10891	Panel	850	160	62.4	6.5	13.2	0	0	1	1000	18.7'	35.1'	73.7'
2	AT&T MOBILITY LLC (Proposed)	Kathrein-Scala 800 10891	Panel	2100	160	62	6.5	14.04	0	0	1	3837.1	18.7'	35.1'	73.7'
3	AT&T MOBILITY LLC	Kathrein-Scala 800 10891	Panel	737	280	66.1	6.5	13	0	0	1	1119.4	18.3'	35.1'	73.7'
3	AT&T MOBILITY LLC	Kathrein-Scala 800 10891	Panel	850	280	62.4	6.5	13.2	0	1	0	564.9	18.3'	35.1'	73.7'
3	AT&T MOBILITY LLC	Kathrein-Scala 800 10891	Panel	2300	280	58	6.5	13.93	0	0	1	1285.3	18.3'	35.1'	73.7'
3	AT&T MOBILITY LLC	Kathrein-Scala 800 10891	Panel	1900	280	60.3	6.5	13.7	0	0	1	2182.7	18.3'	35.1'	73.7'
3	AT&T MOBILITY LLC (Proposed)	Kathrein-Scala 800 10891	Panel	850	280	62.4	6.5	13.2	0	0	1	1000	18.3'	35.1'	73.7'
3	AT&T MOBILITY LLC (Proposed)	Kathrein-Scala 800 10891	Panel	2100	280	62	6.5	14.04	0	0	1	3837.1	18.3'	35.1'	73.7'

NOTE: X, Y and Z indicate relative position of the bottom of the antenna to the origin location on the site, displayed in the model results diagram. Specifically, the Z reference indicates the bottom of the antenna height above the main site level unless otherwise indicated. The distance to the bottom of the antenna is calculated by subtracting half of the length of the antenna from the antenna centerline. Effective Radiated Power (ERP) is provided by the operator or based on Sitesafe experience. The values used in the modeling may be greater than are currently deployed. For other operators at this site the use of "Generic" as an antenna model or "Unknown" for a wireless operator means the information with regard to operator, their FCC license and/or antenna information was not available nor could it be secured while on site. Other operator's equipment, antenna models and powers used for modeling are based on obtained information or Sitesafe experience.

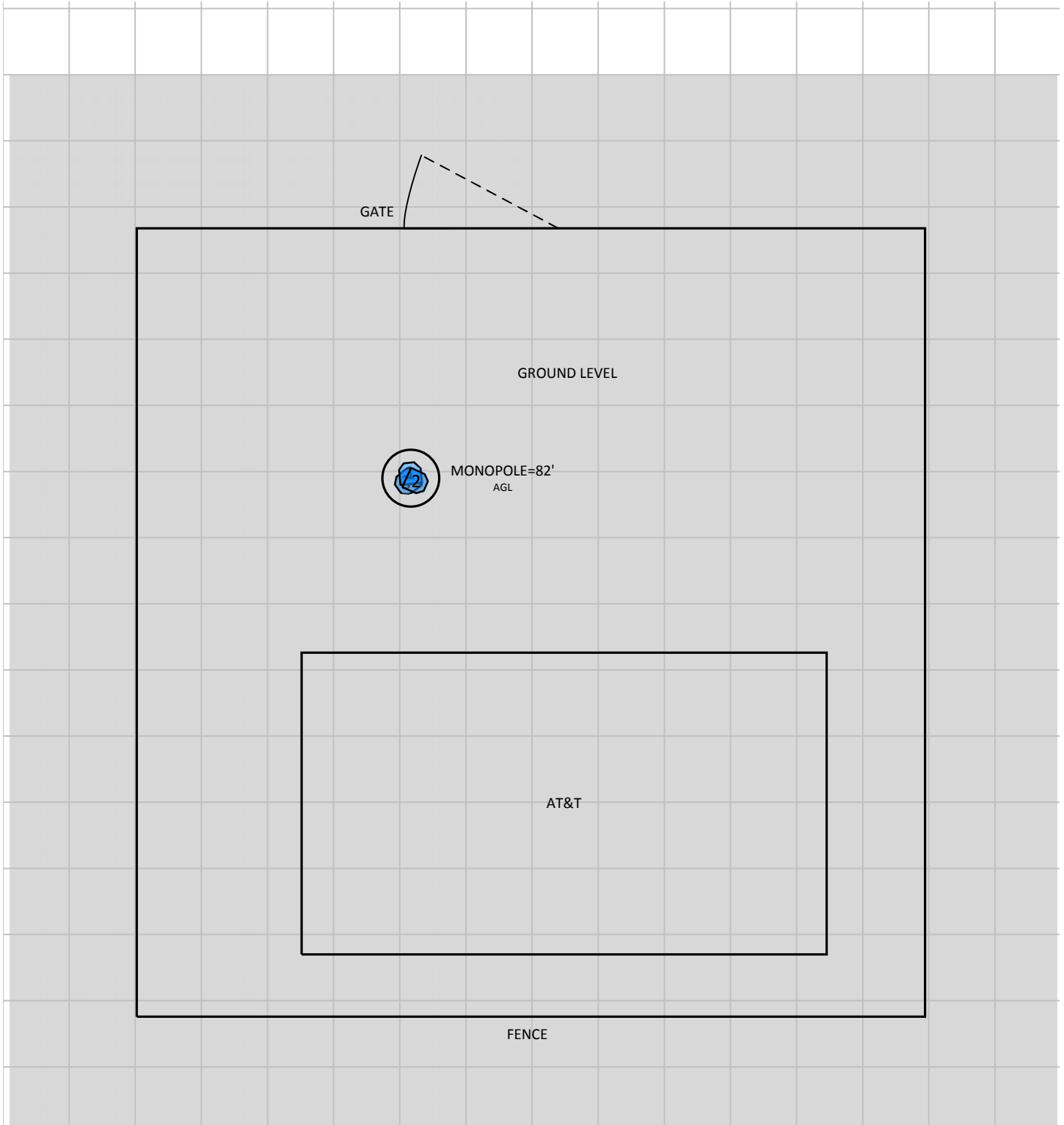
**Note:** The 850MHz LTE and 2100MHz LTE technologies are being added to existing antennas.

## 4 Emission Predictions

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

The Antenna Inventory heights are referenced to the same level.

# RF Exposure Simulation For: Southington Industrial Center



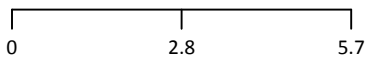
% of FCC Public Exposure Limit  
Spatial average 0' - 6'



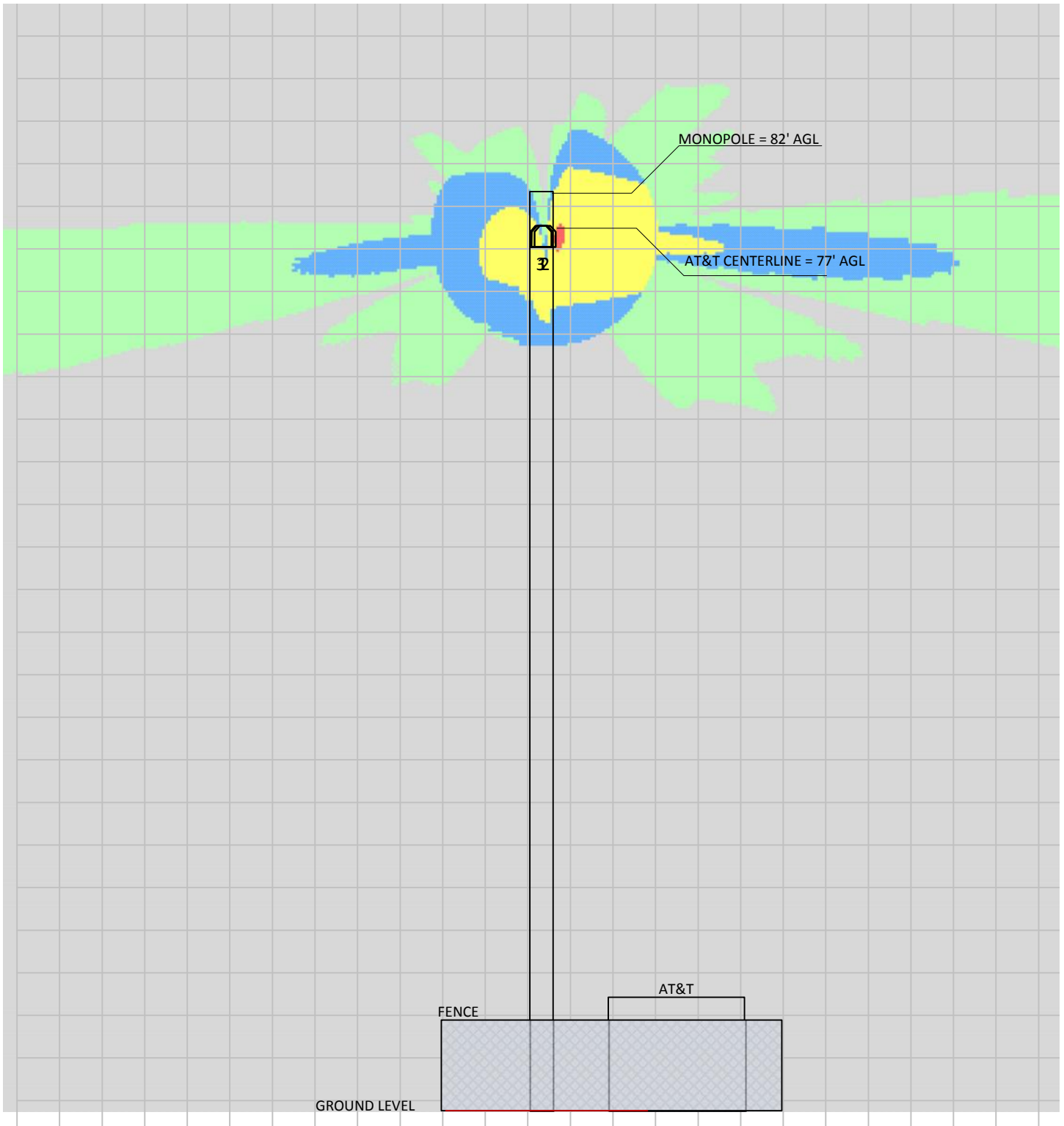
Carrier Identification



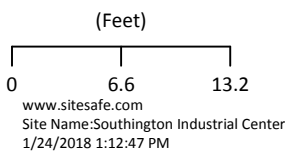
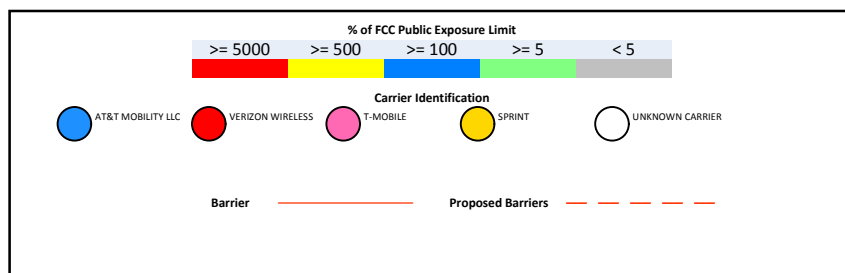
(Feet)



# RF Exposure Simulation For: Southington Industrial Center Elevation View



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



## 5 Site Compliance

### 5.1 Site Compliance Statement

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

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

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

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

### 5.2 Actions for Site Compliance

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

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

#### Site Access Locations

Information 1 sign required at the Gate.

Yellow caution 2 sign required at the base of the monopole.

#### Notes:

- Signage may already be in place. Sitesafe does not have record of any existing signage because there were no previous visits or data supplied regarding them. All remediation is based on a worst-case scenario.

## 6 Reviewer Certification

The reviewer whose signature appears below hereby certifies and affirms:

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

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

That I have thoroughly reviewed this Site Compliance Report and believe it to be true and accurate to the best of my knowledge as assembled by and attested to by Sam Cosgrove.

January 24, 2018

## Appendix A – Statement of Limiting Conditions

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

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

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

## Appendix B – Regulatory Background Information

### FCC Rules and Regulations

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

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

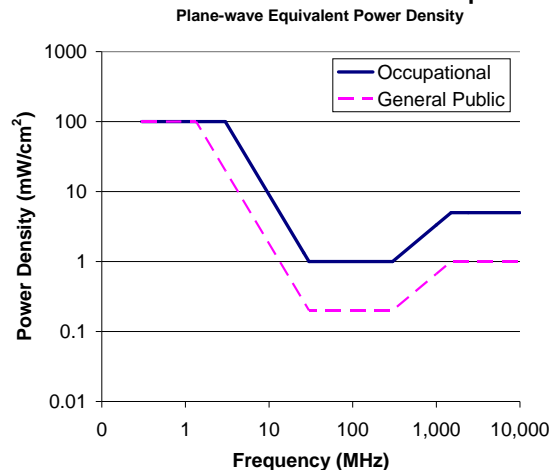
Occupational or Controlled limits apply in situations in which persons are exposed as a consequence of their employment and where those persons exposed have been made fully aware of the potential for exposure and can exercise control over their exposure.

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

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

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

**FCC Limits for Maximum Permissible Exposure (MPE)**





### Limits for Occupational/Controlled Exposure (MPE)

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

### Limits for General Population/Uncontrolled Exposure (MPE)

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

f = frequency in MHz

\*Plane-wave equivalent power density

## OSHA Statement

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

(a) Each employer –

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

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

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

## Appendix C – Safety Plan and Procedures

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

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

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

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

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

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

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

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

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

## Appendix D – RF Emissions

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

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

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

## Appendix E – Assumptions and Definitions

### General Model Assumptions

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

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

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

### Use of Generic Antennas

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

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

## Definitions

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## Appendix F – References

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

Sitesafe, Inc.

<http://www.sitesafe.com>

FCC Radio Frequency Safety

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

National Council on Radiation Protection and Measurements (NCRP)

<http://www.ncrponline.org>

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

<http://www.ieee.org>

American National Standards Institute (ANSI)

<http://www.ansi.org>

Environmental Protection Agency (EPA)

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

National Institutes of Health (NIH)

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

Occupational Safety and Health Agency (OSHA)

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

International Commission on Non-Ionizing Radiation Protection (ICNIRP)

<http://www.icnirp.org>

World Health Organization (WHO)

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

National Cancer Institute

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

American Cancer Society (ACS)

[http://www.cancer.org/docroot/PED/content/PED\\_1\\_3X\\_Cellular\\_Phone\\_Towers.asp?sitearea=PED](http://www.cancer.org/docroot/PED/content/PED_1_3X_Cellular_Phone_Towers.asp?sitearea=PED)

European Commission Scientific Committee on Emerging and Newly Identified Health Risks

[http://ec.europa.eu/health/ph\\_risk/committees/04\\_scenihp/docs/scenihp\\_o\\_022.pdf](http://ec.europa.eu/health/ph_risk/committees/04_scenihp/docs/scenihp_o_022.pdf)

Fairfax County, Virginia Public School Survey

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

UK Health Protection Agency Advisory Group on Non-ionising Radiation

[http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb\\_C/1317133826368](http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1317133826368)

Norwegian Institute of Public Health

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

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

ID	Name	Freq (MHz)	Trans Power	Trans Count	Coax Len	Coax Type	Other Losses	Input Power	Calc Power	Mfg	Model	(ft) X	(ft) Y	(ft) Z	Type	(ft) Aper	dBd Gain	BWdth Pt Dir	Uptime Profile	ON flag
1	AT&T MOB	737	56.1049	1	0			56.1049		Kathrein-S	800 10891	18.45	35.43	73.729	Panel	6.542	13.2	66.1;40	100%	ON•
1	AT&T MOB	850	27.03973	1	0			27.03973		Kathrein-S	800 10891	18.45	35.43	73.729	Panel	6.542	13.2	62.4;40	100%	ON•
1	AT&T MOB	2300	51.99973	1	0			51.99973		Kathrein-S	800 10891	18.45	35.43	73.729	Panel	6.542	13.93	58;40	100%	ON•
1	AT&T MOB	1900	93.11079	1	0			93.11079		Kathrein-S	800 10891	18.45	35.43	73.729	Panel	6.542	13.7	60.3;40	100%	ON•
1	AT&T MOB	850	47.86301	1	0			47.86301		Kathrein-S	800 10891	18.45	35.43	73.729	Panel	6.542	13.2	62.4;40	100%	ON•
1	AT&T MOB	2100	151.3561	1	0			151.3561		Kathrein-S	800 10891	18.45	35.43	73.729	Panel	6.542	14.04	62;40	100%	ON•
2	AT&T MOB	737	56.1049	1	0			56.1049		Kathrein-S	800 10891	18.69	35.11	73.729	Panel	6.542	13	66.1;160	100%	ON•
2	AT&T MOB	850	27.03973	1	0			27.03973		Kathrein-S	800 10891	18.69	35.11	73.729	Panel	6.542	13.2	62.4;160	100%	ON•
2	AT&T MOB	2300	51.99973	1	0			51.99973		Kathrein-S	800 10891	18.69	35.11	73.729	Panel	6.542	13.93	58;160	100%	ON•
2	AT&T MOB	1900	93.11079	1	0			93.11079		Kathrein-S	800 10891	18.69	35.11	73.729	Panel	6.542	13.7	60.3;160	100%	ON•
2	AT&T MOB	850	47.86301	1	0			47.86301		Kathrein-S	800 10891	18.69	35.11	73.729	Panel	6.542	13.2	62.4;160	100%	ON•
2	AT&T MOB	2100	151.356	1	0			151.356		Kathrein-S	800 10891	18.69	35.11	73.729	Panel	6.542	14.04	62;160	100%	ON•
3	AT&T MOB	737	56.1049	1	0			56.1049		Kathrein-S	800 10891	18.32	35.08	73.729	Panel	6.542	13	66.1;280	100%	ON•
3	AT&T MOB	850	27.03973	1	0			27.03973		Kathrein-S	800 10891	18.32	35.08	73.729	Panel	6.542	13.2	62.4;280	100%	ON•
3	AT&T MOB	2300	51.99973	1	0			51.99973		Kathrein-S	800 10891	18.32	35.08	73.729	Panel	6.542	13.93	58;280	100%	ON•
3	AT&T MOB	1900	93.11079	1	0			93.11079		Kathrein-S	800 10891	18.32	35.08	73.729	Panel	6.542	13.7	60.3;280	100%	ON•
3	AT&T MOB	850	47.86301	1	0			47.86301		Kathrein-S	800 10891	18.32	35.08	73.729	Panel	6.542	13.2	62.4;280	100%	ON•
3	AT&T MOB	2100	151.356	1	0			151.356		Kathrein-S	800 10891	18.32	35.08	73.729	Panel	6.542	14.04	62;280	100%	ON•

StartSymbolData



# 500 QUEEN ST

**Location** 500 QUEEN ST

**Mblu** 169/ / 001/ /

**Acct#** 8791

**Owner** RAP PROPERTIES LLC

**Assessment** \$3,360,500

**Appraisal** \$4,800,700

**PID** 15909

**Building Count** 1

## Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2016	\$3,951,690	\$849,010	\$4,800,700

Assessment			
Valuation Year	Improvements	Land	Total
2016	\$2,766,190	\$594,310	\$3,360,500

## Owner of Record

**Owner** RAP PROPERTIES LLC  
**Co-Owner** C/O RITE AID CORP  
**Address** PO BOX 3165  
HARRISBURG, PA 17105

**Sale Price** \$1,356,873  
**Certificate**  
**Book & Page** 804/ 218  
**Sale Date** 08/24/2001  
**Instrument** 25

## Ownership History

Ownership History					
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
RAP PROPERTIES LLC	\$1,356,873		804/ 218	25	08/24/2001

## Building Information

### Building 1 : Section 1

**Year Built:** 2009  
**Living Area:** 14,784  
**Building Percent Good:** 96

Building Attributes	
Field	Description
STYLE	Pharmacy
MODEL	Ind/Comm

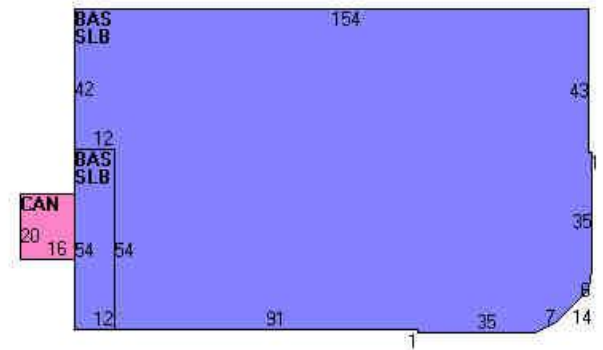
Grade	B
Stories:	1
Occupancy	1
Exterior Wall 1	Brick
Exterior Wall 2	Concr/Cinder
Roof Structure	Gable
Roof Cover	Asphalt Shingl
Interior Wall 1	Average
Interior Wall 2	
Interior Floor 1	Average
Interior Floor 2	
Heating Fuel	Typical
Heating Type	Forced Hot Air
AC Type	Central
Bldg Use	Discount Stores
Total Bedrooms	
Total Baths	
Wet Sprinkler	0
Dry Sprinkler	0
1st Floor Use:	
Heat/AC	Heat/AC Split
Frame Type	Steel
Baths/Plumbing	Average
Ceiling/Wall	Typical
Rooms/Prtns	Average
Wall Height	25

### Building Photo



(<http://images.vgsi.com/photos2/SouthingtonCTPhotos//\00\01\!>)

### Building Layout



(<http://images.vgsi.com/photos2/SouthingtonCTPhotos//Sketche>)

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	14,784	14,784
CAN	Canopy	320	0
SLB	Slab	14,784	0
		29,888	14,784

### Building 1 : Section 1

**Year Built:** 2009

**Living Area:** 0

**Building Percent Good:** 96

Building Attributes	
Field	Description
Style	Vacant w/OB
Model	
Grade:	

Stories	
Occupancy	
Exterior Wall 1	
Exterior Wall 2	
Roof Structure	
Roof Cover	
Interior Wall 1	
Interior Wall 2	
Interior Flr 1	
Interior Flr 2	
Heat Fuel	
Heat Type:	
AC Type:	
Total Bedrooms:	
Full Bthrms:	
Half Baths:	
Extra Fixtures	
Total Rooms:	
Bath Style:	
Kitchen Style:	
Total Kitchens	
Fireplaces	
Whirlpool Tubs	
Fin Bsmt Area	
Fin Bsmt Quality	
Bsmt Garages	
.	
Attic Type	
Cath Ceiling	

### Building Photo



(<http://images.vgsi.com/photos2/SouthingtonCTPhotos//\00\02\0>)

### Building Layout

(<http://images.vgsi.com/photos2/SouthingtonCTPhotos//Sketches>)

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

### Extra Features

Extra Features			Legend
Code	Description	Size	Bldg #
DUW	Drive Up Window	1 Units	1
CLR1	Cooler	152 S.F.	1
SPR1	Sprinklers-Wet	15746 S.F.	1
DUW	Drive Up Window	1 Units	1
MEZ1	Mezzanine-Unfin	648 S.F.	1

### Land

**Land Use**

**Use Code** 322  
**Description** Discount Stores  
**Zone** B  
**Alt Land Appr** No  
**Category**

**Land Line Valuation**

**Size (Acres)** 2.2  
**Depth**

**Outbuildings**

<b>Outbuildings</b>					<b>Legend</b>
<b>Code</b>	<b>Description</b>	<b>Sub Code</b>	<b>Sub Description</b>	<b>Size</b>	<b>Bldg #</b>
FN1	Fence - Chain			960 L.F.	1
PAV1	Paving	AS	Asphalt	31020 S.F.	1
PAV1	Paving	CN	Concrete	780 S.F.	1
PAV1	Paving	CN	Concrete	1320 S.F.	1
PAV1	Paving	CN	Concrete	1310 S.F.	1
LT1	1 Light w/PL			27 Units	1

**Valuation History**

<b>Appraisal</b>			
<b>Valuation Year</b>	<b>Improvements</b>	<b>Land</b>	<b>Total</b>
2017	\$3,951,690	\$849,010	\$4,800,700
2016	\$3,951,690	\$849,010	\$4,800,700
2015	\$3,951,690	\$849,010	\$4,800,700
2014	\$3,108,830	\$691,050	\$3,799,880
2013	\$3,108,830	\$691,050	\$3,799,880

<b>Assessment</b>			
<b>Valuation Year</b>	<b>Improvements</b>	<b>Land</b>	<b>Total</b>
2017	\$2,766,190	\$594,310	\$3,360,500
2016	\$2,766,190	\$594,310	\$3,360,500
2015	\$2,766,190	\$594,310	\$3,360,500
2014	\$2,176,200	\$483,740	\$2,659,940
2013	\$2,176,200	\$483,740	\$2,659,940

# INFINIGY

FROM ZERO TO INFINIGY  
the solutions are endless

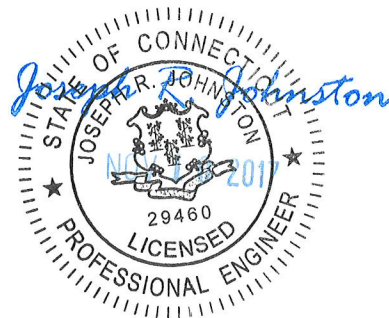
1033 WATERVLIET SHAKER RD, ALBANY, NY 12205

## Structural Analysis Report

November 10, 2017

Site Name	Southington Industrial
Cell Site ID	CTL05251
FA#	10092205
PTN#	MRCTB025052, MRCTB025068
PACE#	2051A0CHDG, 2051A0CHDJ
Infinigy Job Number	499-006
Client	Smartlink
Proposed Carrier	AT&T
Site Location	500 Queen St., Southington, CT 06489 41° 37' 48.54" N NAD83 72° 52' 29.98" W NAD83
Structure Type	Concealment Pole
Structural Usage Ratio	<b>61.2%</b>
Overall Result	<b>Pass</b>

Upon reviewing the results of this analysis, it is our opinion that the structure meets the specified TIA code requirements. The tower and foundations are therefore deemed adequate to support the existing and proposed loading as listed in this report.



Richmond Lam, EI  
Structural Engineer I

AZ CA CO FL GA IL MD NC NH NJ NY TN TX WA

INFINIGY

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Supporting Documentation.....	3
Analysis Code Requirements.....	3
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Existing and Reserved Loading.....	4
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Assumptions and Limitations.....	5
Calculations.....	Appended

**Introduction**

Infinigy Engineering has been requested to perform a structural analysis on the existing 82' Concealment Pole. All supporting documents have been obtained from the client and are assumed to be accurate and applicable to this site. The tower was analyzed using tnxTower version 7.0.8.5 tower analysis software.

**Supporting Documentation**

<b>Antenna Loading</b>	AT&T RFDS, dated August 18, 2017
<b>Previous Analysis</b>	Paul J. Ford Job #37517-1972.001.7805, dated May 22, 2017
<b>Construction Drawings</b>	Infinigy CD's Site CTL05251, October 30, 2017

**Analysis Code Requirements**

Wind Speed	97 mph (3-Second Gust, Vasd) / 125 mph (3-Second Gust, Vult)
Wind Speed w/ ice	50 mph (3-Second Gust) w/ 1" ice
TIA Revision	ANSI/TIA-222-G
Adopted IBC	2012 IBC / 2016 Connecticut State Building Code
Structure Class	II
Exposure Category	C
Topographic Category	1
Calculated Crest Height	0 ft.

**Conclusion**

Upon reviewing the results of this analysis, it is our opinion that the structure meets the specified TIA code requirements. The tower and foundations are therefore deemed adequate to support the existing and proposed loading as listed in this report.

If you have any questions, require additional information, or actual conditions differ from those as detailed in this report please contact me via the information below:

Richmond Lam, EI  
 Structural Engineer I | Infinigy Engineering, PLLC  
 1517 Old Apex Road, Suite 100, Cary, NC 27513  
 (M) (864) 706-9308  
[rlam@infinigy.com](mailto:rlam@infinigy.com) | [www.infinigy.com](http://www.infinigy.com)

**Existing and Reserved Loading**

Mount Height (ft)	Qty.	Appurtenance	Mount Type	Coax& Lines	Carrier
77.0	3	Kathrein 800 10891	Concealment Canister	(12) 7/8"	AT&T
	6	Kaelus TMA2117F00V1-1			

**To Be Removed Loading**

Mount Height (ft)	Qty.	Appurtenance	Mount Type	Coax& Lines	Carrier
77.0	6	Kaelus TMA2117F00V1-1	--	--	AT&T

**Proposed Loading**

Mount Height (ft)	Qty.	Appurtenance	Mount Type	Coax& Lines	Carrier
77.0	6	DTMABP723VG12A	Concealment Canister	(6) 1 5/8	AT&T

**Final Configuration**

Mount Height (ft)	Qty.	Appurtenance	Mount Type	Coax& Lines	Carrier
77.0	3	Kathrein 800 10891	Concealment Canister	(12) 7/8"	AT&T
	6	DTMABP723VG12A			

**Structure Usages**

Pole (L1)	61.2	Pass
Baseplate	33.2	Pass
<b>RATING =</b>	<b>61.2</b>	<b>Pass</b>

**Foundation Reactions**

Reaction Data	Allowable Reactions	Analysis Reactions	Result
Moment (kip-ft)	--	219.3	5.2%
Axial (kip)	--	8.6	23.2%
Shear (kip)	--	4.7	5.3%

Tower base reactions are acceptable per rigorous structural analysis.



## **Deflection, Twist, and Sway**

Antenna Elevation (ft)	Deflection (in)	Twist (°)	Sway (°)
77.0	2.359	0.0026	0.2297

\*Per ANSI/TIA-222-G Section 2.8.2 maximum serviceability structural deflection limit is 3% of structure height.

\*Per ANSI/TIA-222-G Section 2.8.2 maximum serviceability structural twist and sway limit is 4 degrees.

\*Per ANSI/TIA-222-G Section 2.8.3 deflection, Twist, and sway values were calculated using a basic 3-second gust wind speed of 60 mph.

\*It is the responsibility of the client to ensure their proposed and/or existing equipment will meet ANSI/TIA-222-G Annex D or other appropriate microwave signal degradation limits based on the provided values above.

## **Assumptions and Limitations**

Our structural calculations are completed assuming all information provided to Infinigy Engineering is accurate and applicable to this site. For the purposes of calculations, we assume an overall structure condition of “like new” and all members and connections to be free of corrosion and/or structural defects. The structure owner and/or contractor shall verify the structure’s condition prior to installation of any proposed equipment. If actual conditions differ from those described in this report Infinigy Engineering should be notified immediately to complete a revised evaluation.

Our evaluation is completed using standard TIA, AISC, ACI, and ASCE methods and procedures. Our structural results are proprietary and should not be used by others as their own. Infinigy Engineering is not responsible for decisions made by others that are or are not based on our supplied assumptions and conclusions.

This report is an evaluation of the tower structure only and does not reflect adequacy of any existing antenna mounts, mount connections, or cable mounting attachments. These elements are assumed to be adequate for the purposes of this analysis and are assumed to have been installed per their manufacturer requirements.





# GENERAL NOTES

## PART 1 - GENERAL REQUIREMENTS

- 1.1 THE WORK SHALL COMPLY WITH APPLICABLE NATIONAL CODES AND STANDARDS, LATEST EDITION, AND PORTIONS THEREOF, INCLUDED BUT NOT LIMITED TO THE FOLLOWING:
  - A. GR-63-CORE NEBS REQUIREMENTS: PHYSICAL PROTECTION
  - B. GR-78-CORE GENERIC REQUIREMENTS FOR THE PHYSICAL DESIGN AND MANUFACTURE OF TELECOMMUNICATIONS EQUIPMENT.
  - C. NATIONAL FIRE PROTECTION ASSOCIATION CODES AND STANDARDS (NFPA) INCLUDING NFPA 70 (NATIONAL ELECTRICAL CODE - "NEC").
  - D. AND NFPA 101 (LIFE SAFETY CODE).
  - E. AMERICAN SOCIETY FOR TESTING OF MATERIALS (ASTM).
  - F. INSTITUTE OF ELECTRONIC AND ELECTRICAL ENGINEERS (IEEE).
- 1.2 DEFINITIONS:
  - A. WORK: THE SUM OF TASKS AND RESPONSIBILITIES IDENTIFIED IN THE CONTRACT DOCUMENTS.
  - B. COMPANY: AT&T CORPORATION
  - C. ENGINEER: SYNONYMOUS WITH ARCHITECT & ENGINEER AND "A&E". THE DESIGN PROFESSIONAL HAVING PROFESSIONAL RESPONSIBILITY FOR DESIGN OF THE PROJECT.
  - D. CONTRACTOR: CONSTRUCTION CONTRACTOR; CONSTRUCTION VENDOR; INDIVIDUAL OR ENTITY WHO AFTER EXECUTION OF A CONTRACT IS BOUND TO ACCOMPLISH THE WORK.
  - E. THIRD PARTY VENDOR OR AGENCY: A VENDOR OR AGENCY ENGAGED SEPARATELY BY THE COMPANY, A&E, OR CONTRACTOR TO PROVIDE MATERIALS OR TO ACCOMPLISH SPECIFIC TASKS RELATED TO BUT NOT INCLUDED IN THE WORK.
- 1.3 POINT OF CONTACT: COMMUNICATION BETWEEN THE COMPANY AND THE CONTRACTOR SHALL FLOW THROUGH THE SINGLE COMPANY SITE DEVELOPMENT SPECIALIST OR OTHER PROJECT COORDINATOR APPOINTED TO MANAGE THE PROJECT FOR THE COMPANY.
- 1.4 ON-SITE SUPERVISION: THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL EMPLOY A COMPETENT SUPERINTENDENT WHO SHALL BE IN ATTENDANCE AT THE SITE AT ALL TIMES DURING PERFORMANCE OF THE WORK.
- 1.5 DRAWINGS, SPECIFICATIONS AND DETAILS REQUIRED AT JOBSITE: THE CONSTRUCTION CONTRACTOR SHALL MAINTAIN A FULL SET OF THE CONSTRUCTION DRAWINGS, STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES, AND THE STANDARD CONSTRUCTION SPECIFICATIONS FOR WIRELESS SITES AT THE JOBSITE FROM MOBILIZATION THROUGH CONSTRUCTION COMPLETION.
  - A. THE JOBSITE DRAWINGS, SPECIFICATIONS AND DETAILS SHALL BE CLEARLY MARKED DAILY IN PENCIL WITH ANY CHANGES IN CONSTRUCTION OVER WHAT IS DEPICTED IN THE DOCUMENTS. AT CONSTRUCTION COMPLETION, THIS JOBSITE MARKUP SET SHALL BE DELIVERED TO THE COMPANY OR COMPANY'S DESIGNATED REPRESENTATIVE TO BE FORWARDED TO THE COMPANY'S A&E VENDOR FOR PRODUCTION OF "AS-BUILT" DRAWINGS.
- 1.6 USE OF JOB SITE: THE CONTRACTOR SHALL CONFINE ALL CONSTRUCTION AND RELATED OPERATIONS INCLUDING STAGING AND STORAGE OF MATERIALS AND EQUIPMENT, PARKING, TEMPORARY FACILITIES, AND WASTE STORAGE TO THE LEASE PARCEL UNLESS OTHERWISE PERMITTED BY THE CONTRACT DOCUMENTS.
- 1.7 NOTICE TO PROCEED:
  - A. NO WORK SHALL COMMENCE PRIOR TO COMPANY'S WRITTEN NOTICE TO PROCEED.
  - B. UPON RECEIVING NOTICE TO PROCEED, CONTRACTOR SHALL FULLY PERFORM ALL WORK NECESSARY TO PROVIDE AT&T WITH AN OPERATIONAL WIRELESS FACILITY.

## PART 2 - EXECUTION

- 2.1 TEMPORARY UTILITIES AND FACILITIES: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY UTILITIES AND FACILITIES NECESSARY EXCEPT AS OTHERWISE INDICATED IN THE CONSTRUCTION DOCUMENTS. TEMPORARY UTILITIES AND FACILITIES INCLUDE, POTABLE WATER, HEAT, HVAC, ELECTRICITY, SANITARY FACILITIES, WASTE DISPOSAL FACILITIES, AND TELEPHONE/COMMUNICATION SERVICES. PROVIDE TEMPORARY UTILITIES AND FACILITIES IN ACCORDANCE WITH OSHA AND THE AUTHORITY HAVING JURISDICTION. CONTRACTOR MAY UTILIZE THE COMPANY ELECTRICAL SERVICE IN THE COMPLETION OF THE WORK WHEN IT BECOMES AVAILABLE. USE OF THE LESSORS OR SITE OWNER'S UTILITIES OR FACILITIES IS EXPRESSLY FORBIDDEN EXCEPT AS OTHERWISE ALLOWED IN THE CONTRACT DOCUMENTS.
- 2.2 ACCESS TO WORK: THE CONTRACTOR SHALL PROVIDE ACCESS TO THE JOB SITE FOR AUTHORIZED COMPANY PERSONNEL AND AUTHORIZED REPRESENTATIVES OF THE ARCHITECT/ENGINEER DURING ALL PHASES OF THE WORK.
- 2.3 TESTING: REQUIREMENTS FOR TESTING BY THIS CONTRACTOR SHALL BE AS INDICATED HERewith, ON THE CONSTRUCTION DRAWINGS, AND IN THE INDIVIDUAL SECTIONS OF THESE SPECIFICATIONS. SHOULD COMPANY CHOOSE TO ENGAGE ANY THIRD-PARTY TO CONDUCT ADDITIONAL TESTING, THE CONTRACTOR SHALL COOPERATE WITH AND PROVIDE A WORK AREA FOR COMPANY'S TEST AGENCY.

- 2.4 COMPANY FURNISHED MATERIAL AND EQUIPMENT: ALL HANDLING, STORAGE AND INSTALLATION OF COMPANY FURNISHED MATERIAL AND EQUIPMENT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AND WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
  - A. CONTRACTOR SHALL PROCURE ALL OTHER REQUIRED WORK RELATED MATERIALS NOT PROVIDED BY AT&T TO SUCCESSFULLY CONSTRUCT A WIRELESS FACILITY.
- 2.5 DIMENSIONS: VERIFY DIMENSIONS INDICATED ON DRAWINGS WITH FIELD DIMENSIONS BEFORE FABRICATION OR ORDERING OF MATERIALS. DO NOT SCALE DRAWINGS.
- 2.6 EXISTING CONDITIONS: NOTIFY THE COMPANY REPRESENTATIVE OF EXISTING CONDITIONS DIFFERING FROM THOSE INDICATED ON THE DRAWINGS. DO NOT REMOVE OR ALTER STRUCTURAL COMPONENTS WITHOUT PRIOR WRITTEN APPROVAL FROM THE ARCHITECT AND ENGINEER.

## PART 3 - RECEIPT OF MATERIAL & EQUIPMENT

- 3.1 RECEIPT OF MATERIAL AND EQUIPMENT: CONTRACTOR IS RESPONSIBLE FOR AT&T PROVIDED MATERIAL AND EQUIPMENT AND UPON RECEIPT SHALL:
  - A. ACCEPT DELIVERIES AS SHIPPED AND TAKE RECEIPT.
  - B. VERIFY COMPLETENESS AND CONDITION OF ALL DELIVERIES.
  - C. TAKE RESPONSIBILITY FOR EQUIPMENT AND PROVIDE INSURANCE PROTECTION AS REQUIRED IN AGREEMENT.
  - D. RECORD ANY DEFECTS OR DAMAGES AND WITHIN TWENTY-FOUR HOURS AFTER RECEIPT, REPORT TO AT&T OR ITS DESIGNATED PROJECT REPRESENTATIVE OF SUCH.
  - E. PROVIDE SECURE AND NECESSARY WEATHER PROTECTED WAREHOUSING.
  - F. COORDINATE SAFE AND SECURE TRANSPORTATION OF MATERIAL AND EQUIPMENT, DELIVERING AND OFF-LOADING FROM CONTRACTOR'S WAREHOUSE TO SITE.

## PART 4 - GENERAL REQUIREMENTS FOR CONSTRUCTION

- 4.1 CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH. AT THE COMPLETION OF THE WORK, CONTRACTOR SHALL REMOVE FROM THE SITE ALL REMAINING RUBBISH, IMPLEMENTS, TEMPORARY FACILITIES, AND SURPLUS MATERIALS.
- 4.2 EQUIPMENT ROOMS SHALL AT ALL TIMES BE MAINTAINED "BROOM CLEAN" AND CLEAR OF DEBRIS.
- 4.3 CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS TO DISCOVER AND LOCATE ANY HAZARDOUS CONDITION.
  - A. IN THE EVENT CONTRACTOR ENCOUNTERS ANY HAZARDOUS CONDITION WHICH HAS NOT BEEN ABATED OR OTHERWISE MITIGATED, CONTRACTOR AND ALL OTHER PERSONS SHALL IMMEDIATELY STOP WORK IN THE AFFECTED AREA AND NOTIFY COMPANY IN WRITING. THE WORK IN THE AFFECTED AREA SHALL NOT BE RESUMED EXCEPT BY WRITTEN NOTIFICATION BY COMPANY.
  - B. CONTRACTOR AGREES TO USE CARE WHILE ON THE SITE AND SHALL NOT TAKE ANY ACTION THAT WILL OR MAY RESULT IN OR CAUSE THE HAZARDOUS CONDITION TO BE FURTHER RELEASED IN THE ENVIRONMENT, OR TO FURTHER EXPOSE INDIVIDUALS TO THE HAZARD.
- 4.4 CONTRACTOR'S ACTIVITIES SHALL BE RESTRICTED TO THE PROJECT LIMITS. SHOULD AREAS OUTSIDE THE PROJECT LIMITS BE AFFECTED BY CONTRACTOR'S ACTIVITIES, CONTRACTOR SHALL IMMEDIATELY RETURN THEM TO ORIGINAL CONDITION.
- 4.5 CONDUCT TESTING AS REQUIRED HEREIN.

## PART 5 - TESTS AND INSPECTIONS

- 5.1 TESTS AND INSPECTIONS:
  - A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION TESTS, INSPECTIONS AND PROJECT DOCUMENTATION.
  - B. CONTRACTOR SHALL COORDINATE TEST AND INSPECTION SCHEDULES WITH COMPANY'S REPRESENTATIVE WHO MUST BE ON SITE TO WITNESS SUCH TESTS AND INSPECTIONS.
  - C. WHEN THE USE OF A THIRD PARTY INDEPENDENT TESTING AGENCY IS REQUIRED, THE AGENCY THAT IS SELECTED MUST PERFORM SUCH WORK ON A REGULAR BASIS IN THE STATE WHERE THE PROJECT IS LOCATED AND HAVE A THOROUGH UNDERSTANDING OF LOCAL AVAILABLE MATERIALS, INCLUDING THE SOIL, ROCK, AND GROUNDWATER CONDITIONS.
  - D. THE THIRD PARTY TESTING AGENCY IS TO BE FAMILIAR WITH THE APPLICABLE REQUIREMENTS FOR THE TESTS TO BE DONE, EQUIPMENT TO BE USED, AND ASSOCIATED HEALTH AND SAFETY ISSUES.
  - E. SITE RESISTANCE TO EARTH TESTING PER EXHIBIT: CELL SITE GROUNDING SYSTEM DESIGN.

- F. ANTENNA AND COAX SWEEP TESTS PER EXHIBIT: ANTENNA TRANSMISSION LINE ACCEPTANCE STANDARDS.
- G. ALL OTHER TESTS REQUIRED BY COMPANY OR JURISDICTION.

## PART 6 - TRENCHING AND BACKFILLING

- 6.1 TRENCHING AND BACKFILLING: THE CONTRACTOR SHALL PERFORM ALL EXCAVATION OF EVERY DESCRIPTION AND OF WHATEVER SUBSTANCES ENCOUNTERED, TO THE DEPTHS INDICATED ON THE CONSTRUCTION DRAWINGS OR AS OTHERWISE SPECIFIED.
  - A. PROTECTION OF EXISTING UTILITIES: THE CONTRACTOR SHALL CHECK WITH THE LOCAL UTILITIES AND THE RESPECTIVE UTILITY LOCATOR COMPANIES PRIOR TO STARTING EXCAVATION OPERATIONS IN EACH RESPECTIVE AREA TO ASCERTAIN THE LOCATIONS OF KNOWN UTILITY LINES. THE LOCATIONS, NUMBER AND TYPES OF EXISTING UTILITY LINES DETAILED ON THE CONSTRUCTION DRAWINGS ARE APPROXIMATE AND DO NOT REPRESENT EXACT INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ALL LINES DAMAGED DURING EXCAVATION AND ALL ASSOCIATED OPERATIONS. ALL UTILITY LINES UNCOVERED DURING THE EXCAVATION OPERATIONS, SHALL BE PROTECTED FROM DAMAGE DURING EXCAVATION AND ASSOCIATED OPERATIONS. ALL REPAIRS SHALL BE APPROVED BY THE UTILITY COMPANY.
  - B. HAND DIGGING: UNLESS APPROVED IN WRITING OTHERWISE, ALL DIGGING WITHIN AN EXISTING CELL SITE COMPOUND IS TO BE DONE BY HAND.
  - C. DURING EXCAVATION, MATERIAL SUITABLE FOR BACKFILLING SHALL BE STOCKPILED IN AN ORDERLY MANNER A SUFFICIENT DISTANCE FROM THE BANKS OF THE TRENCH TO AVOID OVERLOADING AND TO PREVENT SLIDES OR CAVE-INS. ALL EXCAVATED MATERIALS NOT REQUIRED OR SUITABLE FOR BACKFILL SHALL BE REMOVED AND DISPOSED OF AT THE CONTRACTOR'S EXPENSE.
  - D. GRADING SHALL BE DONE AS MAY BE NECESSARY TO PREVENT SURFACE WATER FROM FLOWING INTO TRENCHES OR OTHER EXCAVATIONS, AND ANY WATER ACCUMULATING THEREIN SHALL BE REMOVED BY PUMPING OR BY OTHER APPROVED METHOD.
  - E. SHEETING AND SHORING SHALL BE DONE AS NECESSARY FOR THE PROTECTION OF THE WORK AND FOR THE SAFETY OF PERSONNEL. UNLESS OTHERWISE INDICATED, EXCAVATION SHALL BE BY OPEN CUT, EXCEPT THAT SHORT SECTIONS OF A TRENCH MAY BE TUNNELED IF, THE CONDUIT CAN BE SAFELY AND PROPERLY INSTALLED AND BACKFILL CAN BE PROPERLY TAMPED IN SUCH TUNNEL SECTIONS. EARTH EXCAVATION SHALL COMPRISE ALL MATERIALS AND SHALL INCLUDE CLAY, SILT, SAND, MUCK, GRAVEL, HARDPAN, LOOSE SHALE, AND LOOSE STONE.
  - F. TRENCHES SHALL BE OF NECESSARY WIDTH FOR THE PROPER LAYING OF THE CONDUIT OR CABLE, AND THE BANKS SHALL BE AS NEARLY VERTICAL AS PRACTICABLE. THE BOTTOM OF THE TRENCHES SHALL BE ACCURATELY GRADED TO PROVIDE UNIFORM BEARING AND SUPPORT FOR EACH SECTION OF THE CONDUIT OR CABLE ON UNDISTURBED SOIL AT EVERY POINT ALONG ITS ENTIRE LENGTH. EXCEPT WHERE ROCK IS ENCOUNTERED, CARE SHALL BE TAKEN NOT TO EXCAVATE BELOW THE DEPTHS INDICATED. WHERE ROCK EXCAVATIONS ARE NECESSARY, THE ROCK SHALL BE EXCAVATED TO A MINIMUM OVER DEPTH OF 6 INCHES BELOW THE TRENCH DEPTHS INDICATED ON THE CONSTRUCTION DRAWINGS OR SPECIFIED. OVER DEPTHS IN THE ROCK EXCAVATION AND UNAUTHORIZED OVER DEPTHS SHALL BE THOROUGHLY BACK FILLED AND TAMPED TO THE APPROPRIATE GRADE. WHENEVER WET OR OTHERWISE UNSTABLE SOIL THAT IS INCAPABLE OF PROPERLY SUPPORTING THE CONDUIT OR CABLE IS ENCOUNTERED IN THE BOTTOM OF THE TRENCH, SUCH SOLID SHALL BE REMOVED TO A MINIMUM OVER DEPTH OF 6 INCHES AND THE TRENCH BACKFILLED TO THE PROPER GRADE WITH EARTH OF OTHER SUITABLE MATERIAL, AS HEREINAFTER SPECIFIED.
  - G. BACKFILLING OF TRENCHES. TRENCHES SHALL NOT BE BACKFILLED UNTIL ALL SPECIFIED TESTS HAVE BEEN PERFORMED AND ACCEPTED. WHERE COMPACTED BACKFILL IS NOT INDICATED THE TRENCHES SHALL BE CAREFULLY BACKFILLED WITH SELECT MATERIAL SUCH AS EXCAVATED SOILS THAT ARE FREE OF ROOTS, SOD, RUBBISH OR STONES, DEPOSITED IN 6 INCH LAYERS AND THOROUGHLY AND CAREFULLY RAMMED UNTIL THE CONDUIT OR CABLE HAS A COVER OF NOT LESS THAN 1 FOOT. THE REMAINDER OF THE BACKFILL MATERIAL SHALL BE GRANULAR IN NATURE AND SHALL NOT CONTAIN ROOTS, SOD, RUBBING, OR STONES OF 2-1/2 INCH MAXIMUM DIMENSION. BACKFILL SHALL BE CAREFULLY PLACED IN THE TRENCH AND IN 1 FOOT LAYERS AND EACH LAYER TAMPED. SETTLING THE BACKFILL WITH WATER WILL BE PERMITTED. THE SURFACE SHALL BE GRADED TO A REASONABLE UNIFORMITY AND THE MOUNDING OVER THE TRENCHES LEFT IN A UNIFORM AND NEAT CONDITION.

SYMBOL	DESCRIPTION
	CIRCUIT BREAKER
	NON-FUSIBLE DISCONNECT SWITCH
	FUSIBLE DISCONNECT SWITCH
	SURFACE MOUNTED PANEL BOARD
	TRANSFORMER
	KILOWATT HOUR METER
	JUNCTION BOX
	PULL BOX TO NEC/TELCO STANDARDS
-----	UNDERGROUND UTILITIES
	EXOTHERMIC WELD CONNECTION
	MECHANICAL CONNECTION
	GROUND ROD
	GROUND ROD WITH INSPECTION SLEEVE
	GROUND BAR
	120AC DUPLEX RECEPTACLE
	GROUND CONDUCTOR
	DC POWER AND FIBER OPTIC TRUNK CABLES
	DC POWER CABLES

REPRESENTS DETAIL NUMBER  
 REF. DRAWING NUMBER

## ABBREVIATIONS

CIGBE	COAX ISOLATED GROUND BAR EXTERNAL
MIGB	MASTER ISOLATED GROUND BAR
SST	SELF SUPPORTING TOWER
GPS	GLOBAL POSITIONING SYSTEM
TYP.	TYPICAL
DWG	DRAWING
BCW	BARE COPPER WIRE
BFG	BELOW FINISH GRADE
PVC	POLYVINYL CHLORIDE
CAB	CABINET
C	CONDUIT
SS	STAINLESS STEEL
G	GROUND
AWG	AMERICAN WIRE GAUGE
RGS	RIGID GALVANIZED STEEL
AHJ	AUTHORITY HAVING JURISDICTION
TTLNA	TOWER TOP LOW NOISE AMPLIFIER
UNO	UNLESS NOTED OTHERWISE
EMT	ELECTRICAL METALLIC TUBING
AGL	ABOVE GROUND LEVEL

1033 Watervliet Shaker Rd  
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Designed:	ASB	Date:	10/20/17
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Project Title: <b>SOUTHINGTON INDUSTRIAL CENTER</b>			
CTL05251			
FA# 10092205			
550 QUEEN STREET SOUTHINGTON, CT 06489			
Prepared For: 			
Drawing Scale: AS NOTED		CD	
Date: 01/05/17			
Drawing Title: <b>GENERAL NOTES</b>			
Drawing Number: <b>C1</b>			

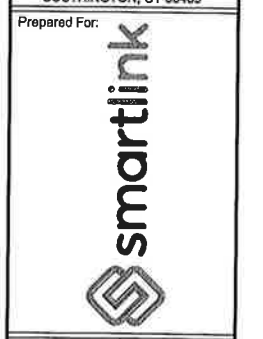




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Project Number:			
499-006			

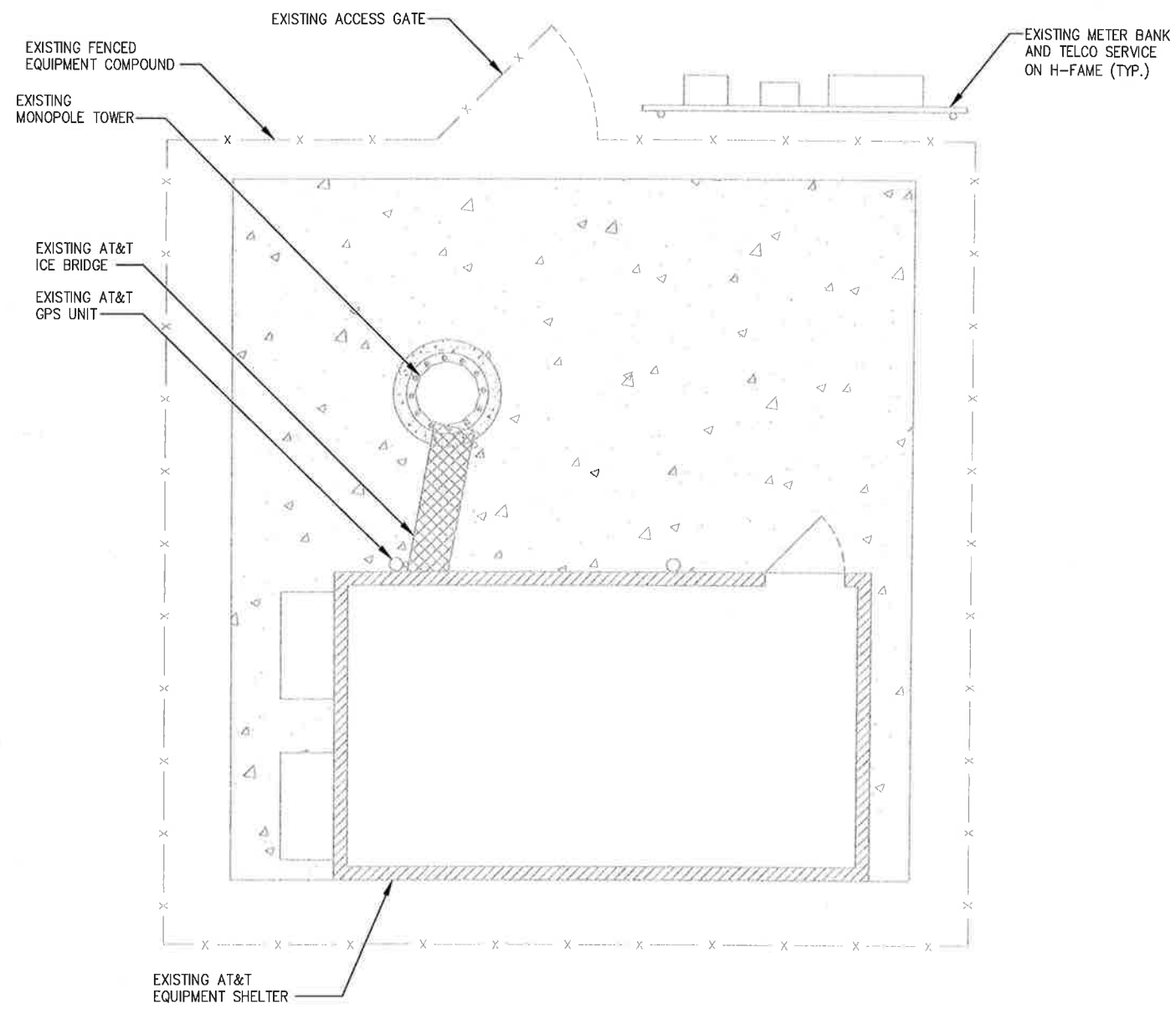
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CTL05251  
FA# 10092205  
550 QUEEN STREET  
SOUTHINGTON, CT 06489



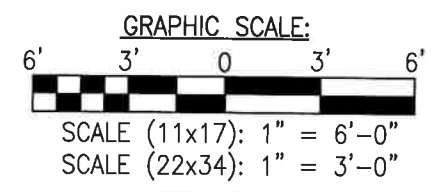
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AS NOTED  
Date:  
01/05/17  
**CD**

Drawing Title:  
**OVERALL & ENLARGED SITE PLAN**

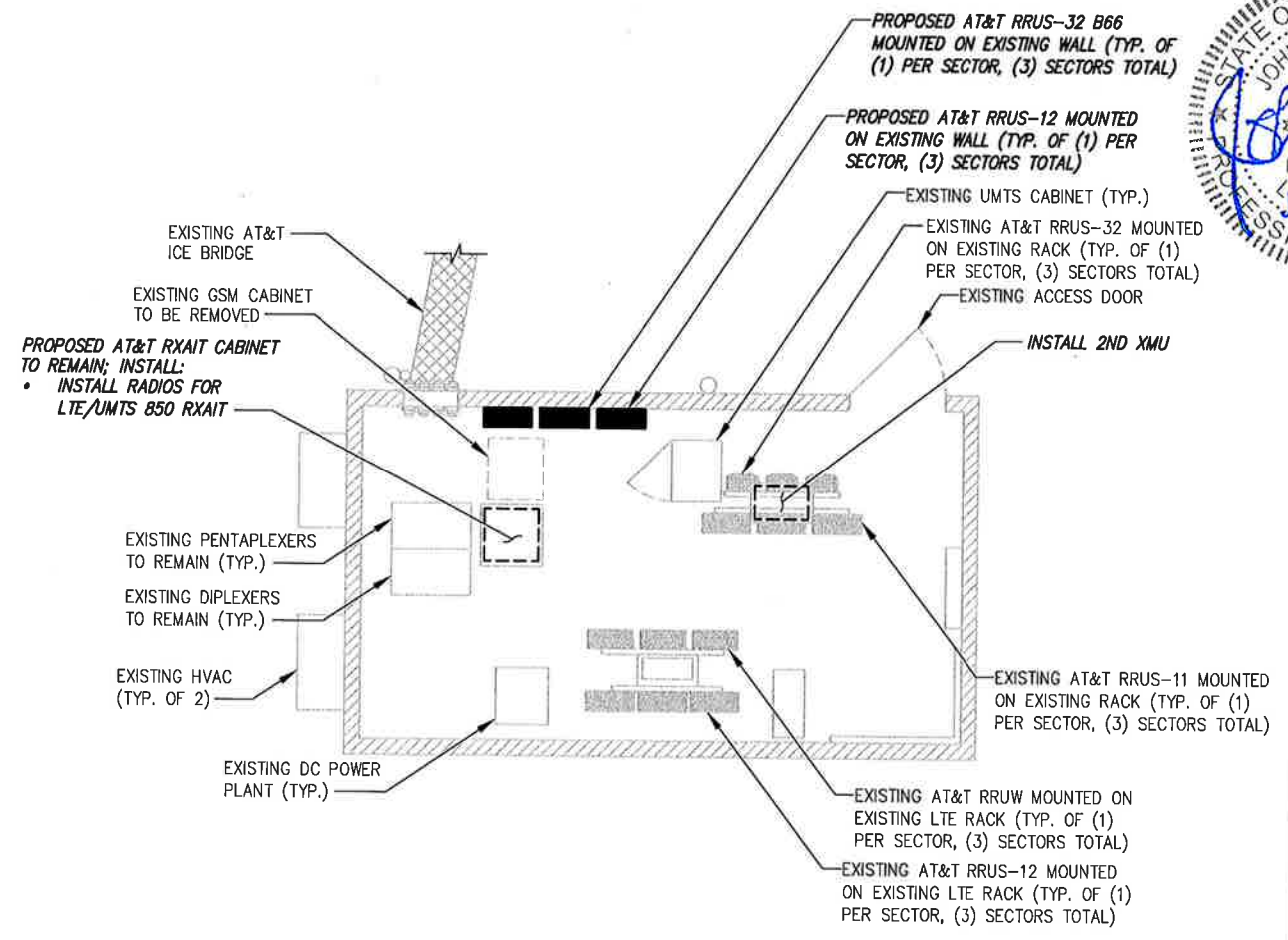
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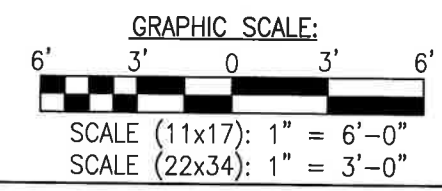
**1 OVERALL COMPOUND PLAN**  
SCALE: AS NOTED



BASEMAPPING PREPARED FROM A SITE WALK PERFORMED BY INFINIGY ENGINEERING ON 08/6/17 AND PROVIDED INFORMATION, AND DOES NOT REPRESENT AN ACTUAL FIELD SURVEY.



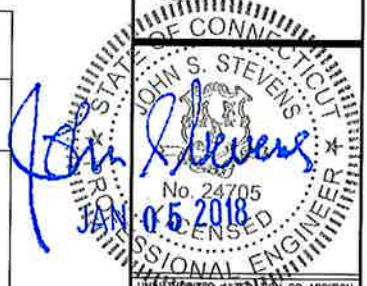
**2 ENLARGED EQUIPMENT PLAN**  
SCALE: AS NOTED



**NOTE:**

- FOR MORE INFORMATION PERTAINING TO THE TOWER, REFER TO PASSING STRUCTURAL ANALYSIS COMPLETED BY INFINIGY, DATED 11/10/17.
- FOR MORE INFORMATION PERTAINING TO THE ANTENNA MOUNTS, REFER TO PASSING MOUNT ANALYSIS COMPLETED BY INFINIGY, DATED 11/10/17.

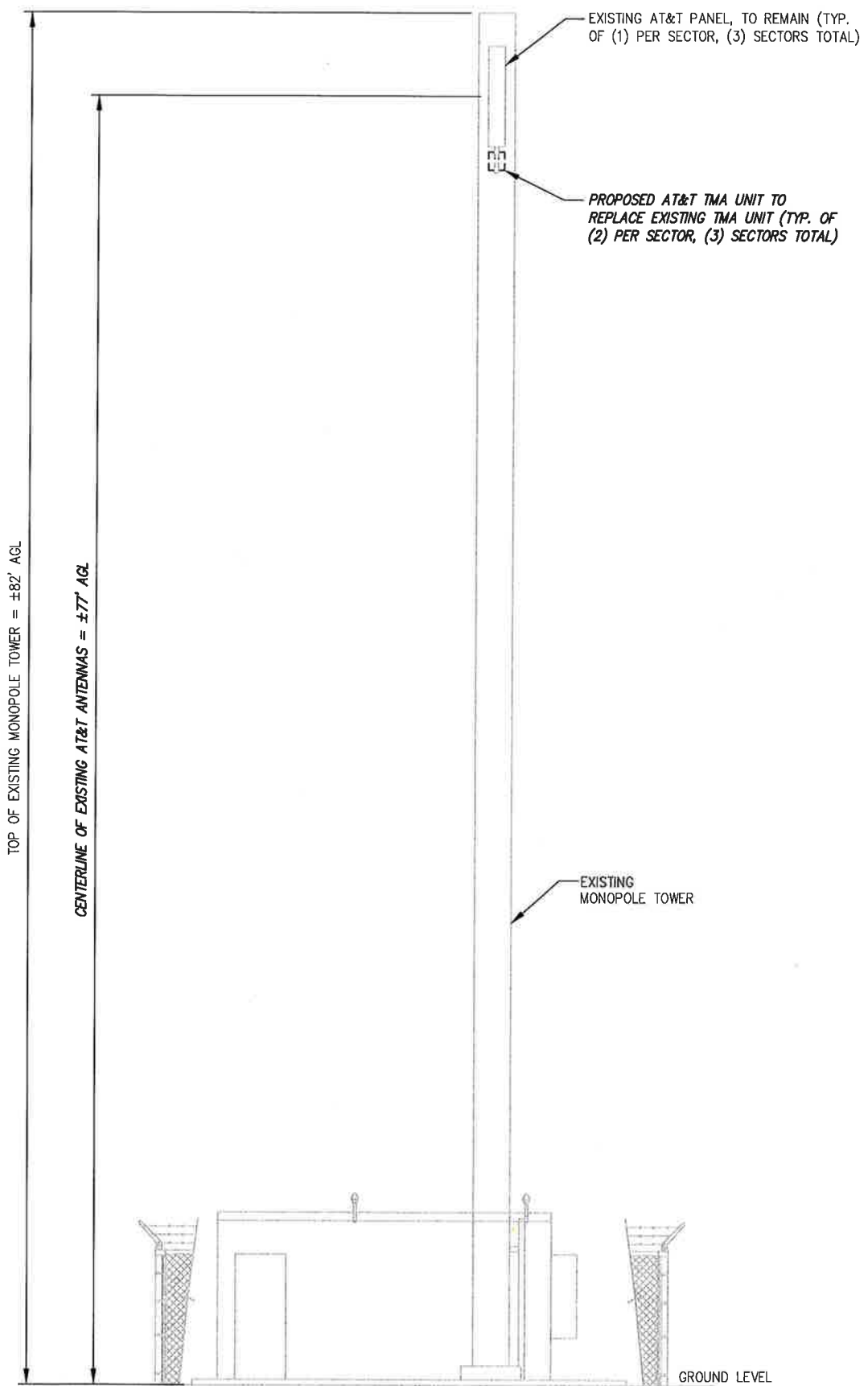
**INFINIGY**  
 1033 Waterwheel Shaker Rd  
 Albany, NY 12205  
 Office # (518) 690-0790  
 Fax # (518) 690-0793



FINAL ANTENNA CONFIGURATION & CABLE SCHEDULE BASED ON LTE RFDS DATED 8/18/17, V 1.0

SECTOR	ANTENNA POSITION	ANTENNA STATUS & TECHNOLOGY	ANTENNA MANF/MODEL	TMA/DIPLEXER	RRUS (GROUND)	AZIMUTH	ANTENNA C. HEIGHT	CABLE FEEDER		RAYCAP UNIT
								TYPE	LENGTH	
ALPHA	A-1	UMTS 850 LTE 700/ WCS/1900/850	KATHREIN 800 10891	(2) (P) DTMABP723VG12A	(1) (E) RRUS-11 (1) (E) RRUS-12 (1) (E) RRUS-32 (1) (P) RRUS-12 (1) (P) RRUS-32 B66	40°	±77'	(4) (E) 7/8" COAX CABLES	±110'	
BETA	B-1	UMTS 850 LTE 700/ WCS/1900/850	KATHREIN 800 10891	(2) (P) DTMABP723VG12A	(1) (E) RRUS-11 (1) (E) RRUS-12 (1) (E) RRUS-32 (1) (P) RRUS-12 (1) (P) RRUS-32 B66	160°	±77'	(4) (E) 7/8" COAX CABLES	±110'	
GAMMA	G-1	UMTS 850 LTE 700/ WCS/1900/850	KATHREIN 800 10891	(2) (P) DTMABP723VG12A	(1) (E) RRUS-11 (1) (E) RRUS-12 (1) (E) RRUS-32 (1) (P) RRUS-12 (1) (P) RRUS-32 B66	280°	±77'	(4) (E) 7/8" COAX CABLES	±110'	

**2** AT&T ANTENNA SCHEDULE  
 --- NOT TO SCALE



**1** ELEVATION VIEW  
 --- NOT TO SCALE

1	ISSUED FOR PERMIT	MPS	01/05/18
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Checked:	AJD	Date:	10/30/17

Project Number: 499-006  
 Project Title: SOUTHTON INDUSTRIAL CENTER  
 CTL05251  
 FA# 10092205  
 550 QUEEN STREET  
 SOUTHTON, CT 06489



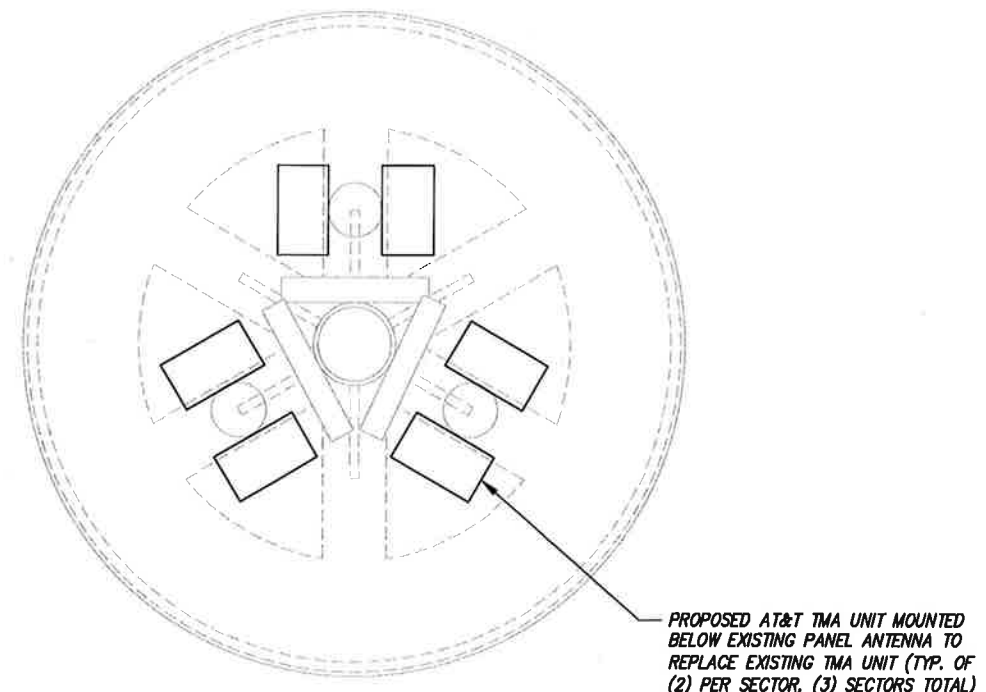
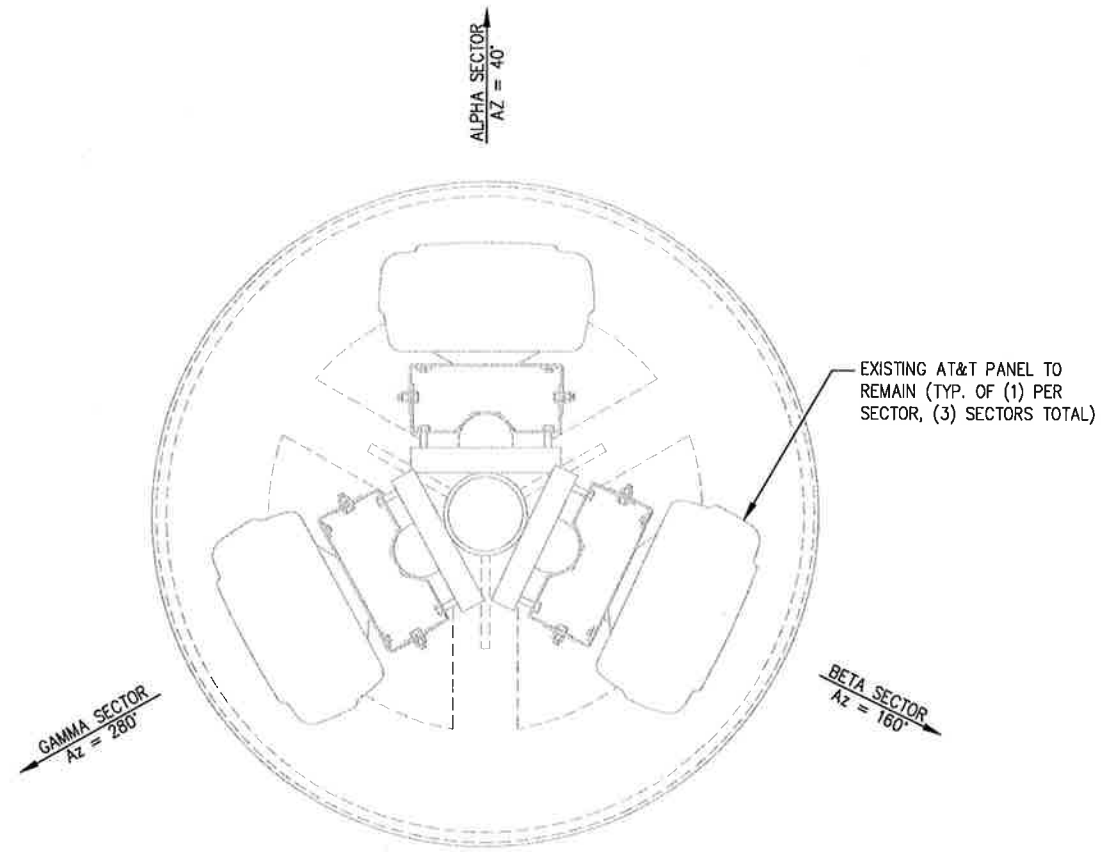
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Drawing Title: **ELEVATION VIEW**

Drawing Number: **C3**

**NOTE:**

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- FOR MORE INFORMATION PERTAINING TO THE ANTENNA MOUNTS, REFER TO PASSING MOUNT ANALYSIS COMPLETED BY INFINIGY, DATED 11/10/17.



1 ANTENNA ORIENTATION PLAN (EXISTING/PROPOSED (TMA SWAP))  
NOT TO SCALE

TRUE NORTH

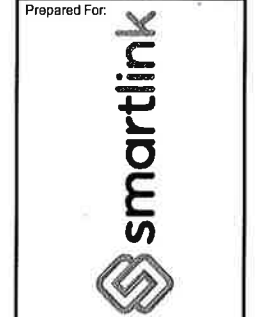
**INFINIGY**  
1033 Watervliet Shaker Rd  
Albany, NY 12205  
Office # (518) 690-0790  
Fax # (518) 690-0793



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Project Number:	499-006	

Project Title:  
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CTL05251  
FA# 10092205  
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SOUTHINGTON, CT 06489



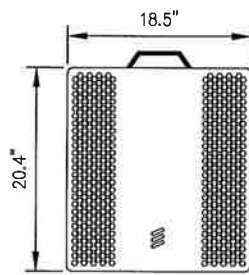
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Drawing Number:  
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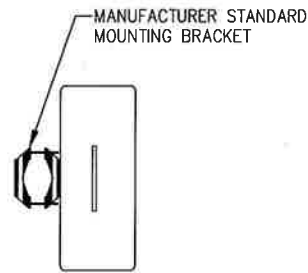




FRONT



SIDE

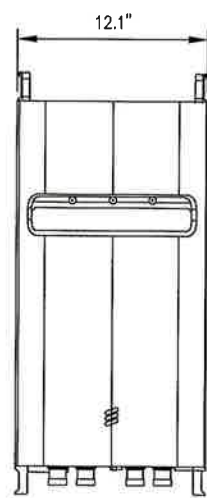


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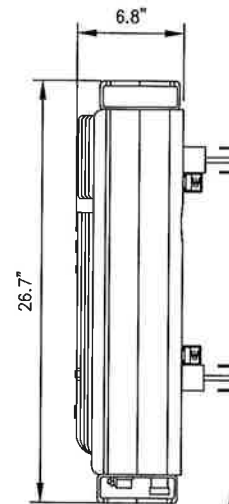
**RRUS-12 SPECIFICATIONS**

- HXWXD, (INCHES) : 20.4"x18.5"x7.5"
- WEIGHT (LBS) : 60
- COLOR : GRAY

1 ERICSSON RRUS DETAIL  
NOT TO SCALE



FRONT

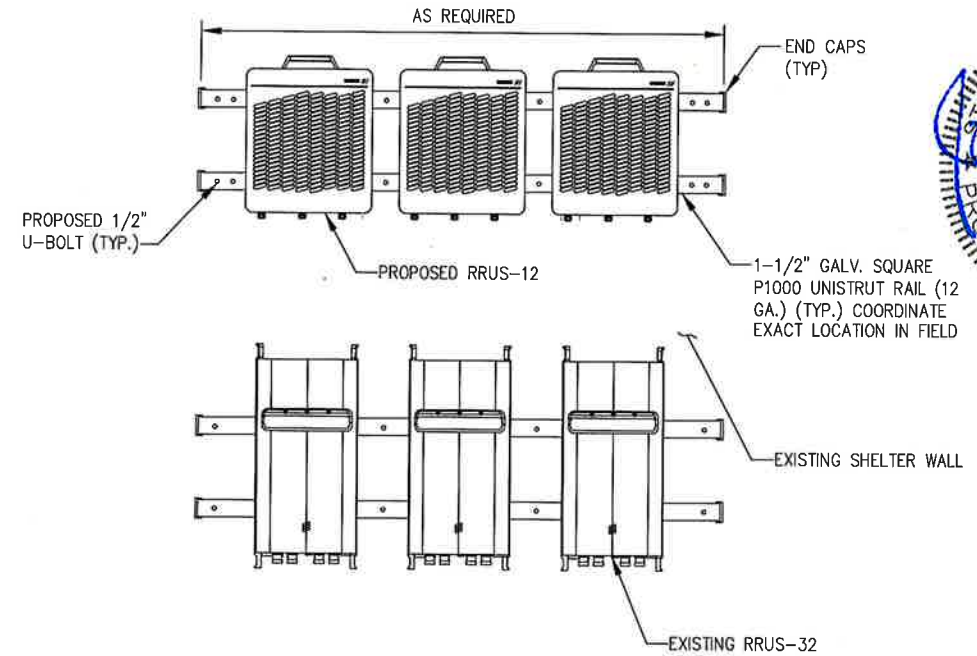


SIDE

**RRUS-32 SPECIFICATIONS**

- HXWXD, (INCHES) : 26.7"x12.1"x6.8"
- WEIGHT (LBS) : 50.8
- COLOR : GRAY

2 ERICSSON RRUS-32 DETAIL  
NOT TO SCALE



3 RRUS MOUNTING DETAIL  
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**INFINIGY**

1033 Watervliet Shaker Rd  
Albany, NY 12205  
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CTL05251  
FA# 10092205  
550 QUEEN STREET  
SOUTHINGTON, CT 06489

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Date:  
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Drawing Title:  
**EQUIPMENT DETAILS**

Drawing Number:  
**C5**



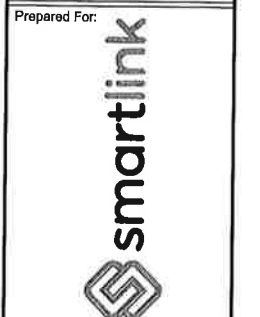
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CTL05251  
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SOUTHINGTON, CT 06489

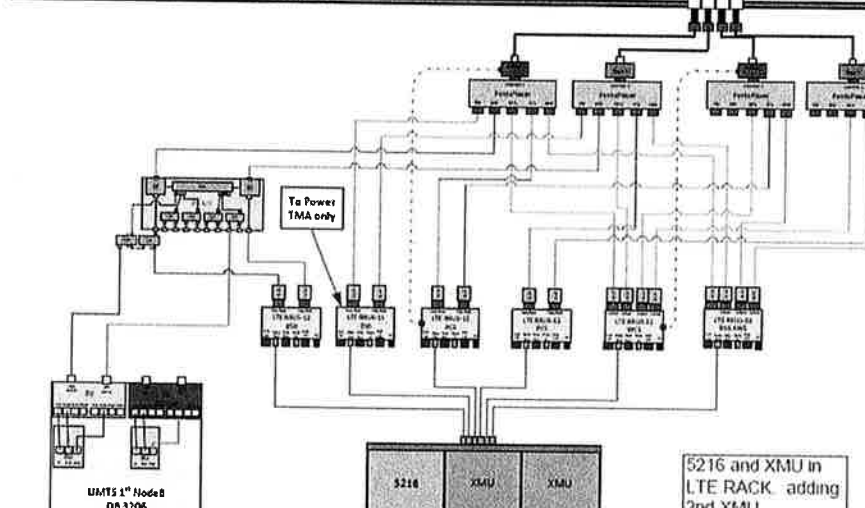
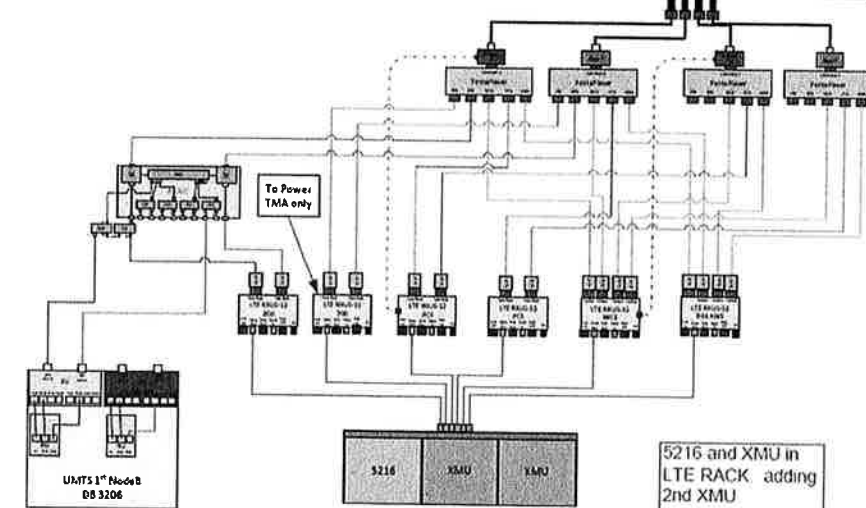
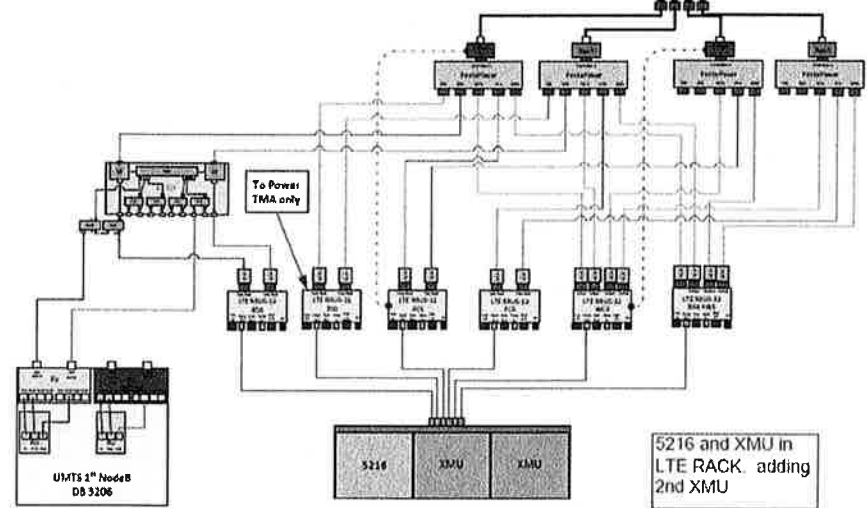
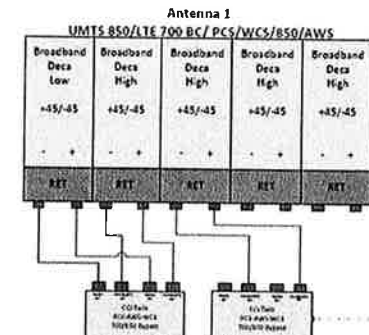
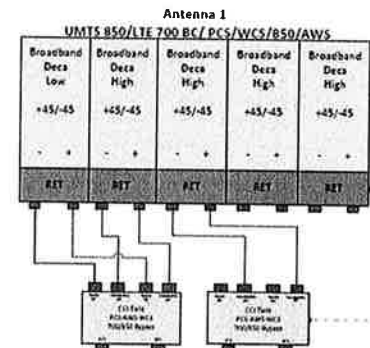
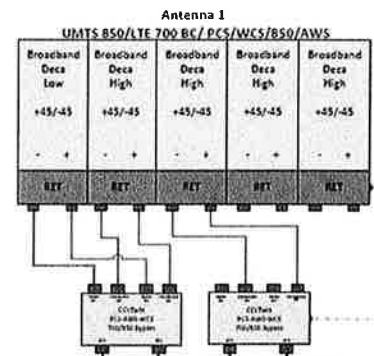


Drawing Scale: AS NOTED  
Date: 01/05/17

**CD**

Drawing Title:  
**PLUMBING DIAGRAM**

Drawing Number:  
**C6**



ALPHA SECTOR

BETA SECTOR

GAMMA SECTOR

**1 PLUMBING DIAGRAM (FINAL CONFIGURATION)**  
NOT TO SCALE

\*BASED ON LTE 2C RFDS, V. 1.0, DATED 7/3/17



