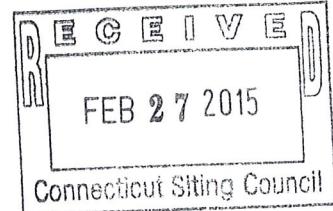


RACHEL A. SCHWARTZMAN

Please Reply To: Bridgeport
Writer's Direct Dial: (203) 337-4110
E-Mail: rschwartzman@cohenandwolf.com

February 26, 2015

Attorney Melanie Bachman
Acting Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06501



**Re: EM-T-MOBILE-091-130531B
T-Mobile Site ID CT11106A
37 Titicus Mountain Road, New Fairfield, CT
Notice of Construction Completion**

ORIGINAL

Dear Attorney Bachman:

The Connecticut Siting Council ("Council") acknowledged the above referenced T-Mobile Northeast LLC ("T-Mobile") notice of exempt modification on July 9, 2013. T-Mobile hereby notifies the Council that construction of the acknowledged modifications were complete as of January 16, 2014.

Please don't hesitate to contact me with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Rachel Scht".

Rachel A. Schwartzman

cc: Samuel Simons, T-Mobile
Mark Richard, T-Mobile
Robert Stanford, Vertical Development, LLC
Julie Kehler, Esq.



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

December 24, 2014

Rachel A. Schwartzman, Esq.
Cohen and Wolf, P.C.
P.O. Box 1821
Bridgeport, CT 06601

RE:	EM-T-MOBILE-004-130531	81 Montevideo Road	Avon
	EM-T-MOBILE-009-130611	38 Spring Hill Lane	Bethel
	EM-T-MOBILE-014-130724	405 Brushy Plain Road	Branford
	EM-T-MOBILE-017-130611	2 Willis Street	Bristol
	EM-T-MOBILE-017-130729	985 Farmington Avenue	Bristol
	EM-T-MOBILE-033-130719	179 Shunpike Road	Cromwell
	EM-T-MOBILE-034-130531A	41 Padanaram Road	Danbury
	EM-T-MOBILE-034-130531B	303 Boxwood Lane	Danbury
	EM-T-MOBILE-034-130726	7 West View Drive	Danbury
	EM-T-MOBILE-043-130222	1455 Forbes Street	East Hartford
	EM-T-MOBILE-049-130718	1 Ecology Drive	Enfield
	EM-T-MOBILE-057-130220	150 Butternut Hollow Road	Greenwich
	EM-T-MOBILE-080-130903	11 West Peak Drive	Meriden
	EM-T-MOBILE-091-130531A	302 Ball Pond Road	New Fairfield
	EM-T-MOBILE-091-130531B	37 Titicus Mountain Road	New Fairfield
	EM-T-MOBILE-101-130611	125 Washington Avenue	North Haven
	EM-T-MOBILE-110-130621	335 S. Washington Street	Plainville
	EM-T-MOBILE-135-130318	555 Main Street	Stamford
	EM-T-MOBILE-148-130531	90 N. Plains Industrial Road	Wallingford
	EM-T-MOBILE-166-130726	Andrews Road	Wolcott
	EM-T-MOBILE-166-130816	Route 322/Meridian Road	Wolcott

Dear Attorney Schwartzman:

The Connecticut Siting Council (Council) is in receipt of your letter dated December 23, 2014, submitted on behalf of T-Mobile, requesting an extension of time to submit a notice of completion of construction and associated post modification inspection reports for the above-referenced exempt modifications.

The Council hereby grants a 60-day extension of time to submit a notice of completion of construction and associated post modification inspection reports for the above-referenced exempt modifications to March 2, 2015.

This extension is granted with the understanding that the Council will be notified should T-Mobile need additional time beyond 60 days to submit a notice of completion and associated post modification inspection reports or decide not to proceed with construction.

Thank you for your attention to this matter.

Sincerely,



Melanie A. Bachman
Acting Executive Director

MAB/cm

RACHEL A. SCHWARTZMAN

Please Reply To: Bridgeport
Writer's Direct Dial: (203) 337-4110
E-Mail: rschwartzman@cohenandwolf.com

December 23, 2014

Via Electronic and Overnight Mail

Attorney Melanie Bachman
Acting Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RECEIVED
DEC 24 2014
CONNECTICUT
SITING COUNCIL

**Re: T-Mobile Exempt Modification Compliance Filings
Connecticut Siting Council Audit Letter dated November 3, 2014
Request For Extension of Time**

Dear Attorney Bachman:

T-Mobile Northeast, LLC ("T-Mobile") respectfully requests a 60-day extension of time to March 2, 2015 to respond to the Council's request, dated November 3, 2014, for exempt modification compliance data. The attached spreadsheet provides a list of the sites for which T-Mobile seeks a requested extension.

T-Mobile is actively compiling all of the requested information but needs additional time to provide the necessary documentation.

Please do not hesitate to let me know if you have any questions.

Sincerely,



Rachel A. Schwartzman, Esq.

RAS/lcc
Enclosure

cc: Samuel Simons, T-Mobile Northeast, LLC (via electronic mail)
Mark Richard, T-Mobile Northeast, LLC (via electronic mail)
Robert Stanford, Vertical Development, LLC (via electronic mail)
Julie Kohler, Esq.

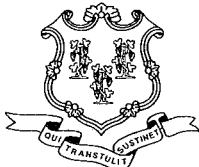
1115 BROAD STREET
PO. BOX 1821
BRIDGEPORT, CT 06601-1821
TEL: (203) 368-0211
FAX: (203) 394-9901

158 DEER HILL AVENUE
DANBURY, CT 06810
TEL: (203) 792-2771
FAX: (203) 791-8149

320 POST ROAD WEST
WESTFORT, CT 06880
TEL: (203) 222-1034
FAX: (203) 227-1373

657 ORANGE CENTER ROAD
ORANGE, CT 06477
TEL: (203) 298-4066
FAX: (203) 298-4068

EM/T/S#	Address	Town	Compliance with Council Conditions		Notice of Additional Conditions Received	Completion Date	Decision Date
			Yes	No			
EM-T-MOBILE-043-130222	1455 Forbes Street	East Hartford	Yes	No	No	3/12/2013	3/12/2013
EM-T-MOBILE-057-130220	150 Butternut Hollow Road	Greenwich	N/A	N/A	No	3/12/2013	3/12/2013
EM-T-MOBILE-135-130318	555 Main Street	Stamford	Yes	No	No	4/9/2013	4/9/2013
EM-T-MOBILE-006-130528	60 Rice Lane	Beacon Falls	Yes	No	No	6/26/2013	6/27/2013
EM-T-MOBILE-002-130529	401 Wakelee Avenue	Ansonia	N/A	N/A	No	6/27/2013	6/27/2013
EM-T-MOBILE-004-130531	81 Montevideo Road	Avon	N/A	N/A	No	7/9/2013	7/9/2013
EM-T-MOBILE-034-130531A	41 Paduanan Road	Danbury	Yes	No	No	7/9/2013	7/9/2013
EM-T-MOBILE-034-130531B	303 Boxwood Lane	Danbury	N/A	N/A	No	7/9/2013	7/9/2013
EM-T-MOBILE-091-130531A	302 Ball Pond Road	New Fairfield	N/A	N/A	No	7/9/2013	7/9/2013
EM-T-MOBILE-091-130531B	37 Titicus Mountain Road	New Fairfield	N/A	N/A	No	7/9/2013	7/9/2013
EM-T-MOBILE-148-130531	90 N. Plains Industrial Road	Wallingford	N/A	N/A	No	7/9/2013	7/9/2013
EM-T-MOBILE-101-130611	125 Washington Avenue	North Haven	N/A	N/A	No	7/10/2013	7/10/2013
EM-T-MOBILE-009-130611	38 Spring Hill Lane	Bethel	Yes	No	No	7/11/2013	7/11/2013
EM-T-MOBILE-017-130611	2 Willis Street	Bristol	Yes	No	No	7/12/2013	7/12/2013
EM-T-MOBILE-110-130621	335 S. Washington Street	Plainville	N/A	N/A	No	7/12/2013	7/12/2013
EM-T-MOBILE-033-130719	179 Shunpike Road	Cromwell	Yes	No	No	8/7/2013	8/7/2013
EM-T-MOBILE-049-130718	1 Ecology Drive	Enfield	N/A	N/A	No	8/7/2013	8/7/2013
EM-T-MOBILE-014-130724	405 Brushy Plain Road	Branford	Yes	No	No	8/13/2013	8/13/2013
EM-T-MOBILE-017-130729	935 Farmington Avenue	Bristol	N/A	N/A	No	8/20/2013	8/20/2013
EM-T-MOBILE-034-130726	7 West View Drive	Danbury	N/A	N/A	No	8/20/2013	8/20/2013
EM-T-MOBILE-166-130726	Andrews Road	Wolcott	Yes	No	No	8/20/2013	8/20/2013
EM-T-MOBILE-166-130816	Route 322 / Meridian Road	Wolcott	N/A	No	No	9/3/2013	9/3/2013
EM-T-MOBILE-080-130903	11 West Peak Drive	Meriden	Yes	No	No	9/18/2013	9/18/2013



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

July 9, 2013

Chris Bisson
Real Estate Consultant
Transcend Wireless
48 Spruce Street
Oakland, NJ 07436

RE: **EM-T-MOBILE-091-130531B** – T-Mobile Northeast LLC notice of intent to modify an existing telecommunications facility located at 37 Titicus Mountain Road, New Fairfield, Connecticut.

Dear Mr. Bisson:

The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies with the following conditions:

- Any deviation from the proposed modification as specified in this notice and supporting materials with the Council shall render this acknowledgement invalid;
- Any material changes to this modification as proposed shall require the filing of a new notice with the Council;
- Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;
- The validity of this action shall expire one year from the date of this letter; and
- The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration;

The proposed modifications including the placement of all necessary equipment and shelters within the tower compound are to be implemented as specified here and in your notice dated May 15, 2013. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Thank you for your attention and cooperation.

Very truly yours,

Melanie A. Bachman
Acting Executive Director

MAB/CDM/jb

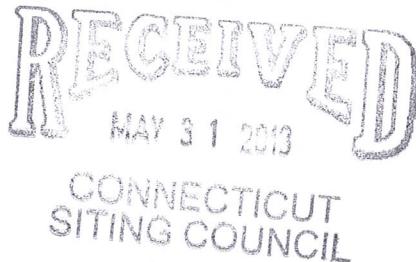
c: The Honorable John E. Hodge, First Selectman, Town of New Fairfield
Maria Horowitz, Zoning Enforcement Officer, Town of New Fairfield
American Tower



Transcend Wireless
48 Spruce Street
Oakland, NJ 07436
Phone: (203) 217-6200
Chris Bisson
Real Estate Consultant

05/15/2013

ORIGINAL



Hand Delivered

Ms. Linda Roberts
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

RE: T-Mobile Northeast LLC notice of intent to modify an existing telecommunications facility located at 37 Titicus Mountain Rd, New Fairfield, CT. Known to T-Mobile Northeast LLC as site CT11106A.

Dear Ms. Roberts:

In order to accommodate technological changes, implement Global System for Mobile Communications Access (“GSM”) and/or Long Term Evolution (“LTE”) capabilities, and enhance system performance in the state of Connecticut, T-Mobile Northeast LLC plans to modify the equipment configurations at many of its existing cell sites. Please accept this letter and attachments as notification, pursuant to R.C.S.A. Section 16-50j-73, of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-73(b)(2). In compliance with R.C.S.A. Section 16-50j-73, a copy of this letter and its attachments is being sent to the chief elected official of the municipality in which affected cell site is located.

GSM employs Spread-Spectrum technology and special coding scheme to allow multiple users to be multiplexed over the same physical channel. LTE is a new high-performance air interface for cellular mobile communications. It is designed to increase the capacity and speed of mobile telephone networks.

As part of the project the new multi-mode 800/1900 antenna will replace existing antennas. These antennas will provide more flexibility for optimization by allowing fast and easy electrical tilt adjustment from remote location and will enable the transmission of multiple technologies from a single antenna. As T-Mobile Northeast LLC network evolves to meet the demands of its customers, it is essential for T-Mobile Northeast LLC to install modern equipment and antennas in order to provide reliable wireless voice and data services. The proposed equipment will include multi-mode radios that will allow T-Mobile Northeast LLC to transmit at different frequencies using different technologies, including LTE technology. Likewise, the proposed antennas are quad-pole multi-band

high gain antennas that will allow T-Mobile Northeast LLC to operate using its multiple frequency bands and technologies, including LTE technology. The proposed equipment and antennas will improve the reliability, coverage and capacity of T-Mobile Northeast LLC voice and data networks across T-Mobile Northeast LLC various FCC licensed frequency bands and significantly increase the data speeds of T-Mobile Northeast LLC's network by utilizing the latest LTE technology. Without the proposed modifications T-Mobile Northeast LLC will be unable to provide reliable wireless voice and data service using the latest technologies.

T-Mobile Northeast LLC will have an interim (testing) period during the modification/installation prior to the final configuration. This antenna configuration is shown on the attached drawings of the planned modifications. Also included is the power density calculation reflecting the change in T-Mobile Northeast LLC operations at the site and documentation of the structural sufficiency of the tower to accommodate the revised antenna configuration.

The changes to the facility do not constitute modification as defined Connecticut General Statutes ("C.G.S.") Section 16-50i(d) because the general physical characteristics of the facility will not be significantly changed or altered. Rather, the planned changes to the facility fall squarely within those activities explicitly provided for the R.C.S.A. Section 16-50j-72(b)(2).

1. The height of the overall structure will not be affected.
2. The proposed changes will not extend the site boundaries. There will be no effect on the site compound.
3. The proposed changes will not increase the noise level at the existing facility by 6 decibels or more.
4. Radio Frequency power density may increase due to the use of one or more GSM transmissions. Moreover, LTE will utilize additional radio frequencies newly licensed by the FCC for cellular mobile communications. However, the changes will not increase the calculated "worst case" power density for the combined operations at the site to a level at or above the applicable standard for uncontrolled environments as calculated for a mixed frequency site.

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

Please feel free to call me at (203) 217-6200 or email cbisson@transcendwireless.com with questions concerning this matter.
Thank you for your consideration.

Sincerely,

Chris Bisson
(203) 217-6200



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

T-Mobile Existing Facility

Site ID: CT11106A

New Fairfield (AT&T)
37 Titicus Mountain Road
New Fairfield, CT 06812

May 22, 2013

EBI Project Number: 62136240

May 22, 2013

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

Re: Emissions Values for Site: CT11106A - New Fairfield (AT&T)

EBI Consulting was directed to analyze the proposed T-Mobile facility located at 37 Titicus Mountain Road, New Fairfield, CT, for the purpose of determining whether the emissions from the Proposed T-Mobile Antenna Installation located on this property are within specified federal limits.

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

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

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

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

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

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed T-Mobile Wireless antenna facility located at 37 Titicus Mountain Road, New Fairfield, CT, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-Mobile is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, the actual antenna pattern gain value in the direction of the sample area was used. For this report the sample point is a 6 foot person standing at the base of the tower

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

- 1) 2 GSM channels (1940.000 MHz—to 1950.000 MHz) were considered for each sector of the proposed installation.
- 2) 2 UMTS channels (2110.000 MHz to 2120.000 MHz / 2140.000 MHz to 2145.000 MHz) were considered for each sector of the proposed installation
- 3) 2 LTE channels (2110.000 MHz to 2120.000 MHz / 2140.000 MHz to 2145.000 MHz) were considered for each sector of the proposed installation
- 4) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
- 5) For the following calculations the sample point was the top of a six foot person standing at the base of the tower. The actual gain in this direction was used per the manufacturers supplied specifications.
- 6) The antenna used in this modeling is the Ericsson AIR21 for LTE, UMTS and GSM. This is based on feedback from the carrier with regards to anticipated antenna selection. This antenna has a 15.6 dBd gain value at its main lobe. Actual antenna gain values were used for all calculations as per the manufacturers specifications



- 7) The antenna mounting height centerline of the proposed antennas is **193 feet** above ground level (AGL)
- 8) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.

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

Site ID	CT1105A - New Fairfield (AT&T)
Site Address	37 Titus Mountain Road, New Fairfield, CT 06812
Site Type	Monopole

Sector 1																	
Antenna Number	Antenna Make	Antenna Model	Status	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBi)	Antenna Height (ft)	Antenna analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage
1a	Ericsson	AIR21 BAA/B2P	Active	AWS - 2100 MHz	LTE	60	2	120	-3.95	193	187	None	0	0	48.326044	0.0496826	0.04968%
1b	Ericsson	AIR21 BAA/B2P	Not Used	-	-	-	-	0	-3.95	193	187	None	0	0	0	0	0.00000%
2a	Ericsson	AIR21 B2A/B4P	Active	PCS - 1950 MHz	GSM / UMTS	30	2	60	-3.95	193	187	1.5'/8"	0	0	24.163022	0.248413	0.02484%
28	Ericsson	AIR21 B2A/B4P	Passive	AWS - 2100 MHz	UMTS	30	2	60	-3.95	193	187	1.5'/8"	0	0	24.163022	0.248413	0.02484%
Sector total Power Density Value: 0.099%																	
Sector 2																	
Antenna Number	Antenna Make	Antenna Model	Status	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBi)	Antenna Height (ft)	Antenna analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage
1a	Ericsson	AIR21 BAA/B2P	Active	AWS - 2100 MHz	LTE	60	2	120	-3.95	193	187	None	0	0	48.326044	0.0496826	0.04968%
1b	Ericsson	AIR21 BAA/B2P	Not Used	-	-	-	-	0	-3.95	193	187	None	0	0	0	0	0.00000%
2a	Ericsson	AIR21 B2A/B4P	Active	PCS - 1950 MHz	GSM / UMTS	30	2	60	-3.95	193	187	1.5'/8"	0	0	24.163022	0.248413	0.02484%
28	Ericsson	AIR21 B2A/B4P	Passive	AWS - 2100 MHz	UMTS	30	2	60	-3.95	193	187	1.5'/8"	0	0	24.163022	0.248413	0.02484%
Sector total Power Density Value: 0.099%																	
Sector 3																	
Antenna Number	Antenna Make	Antenna Model	Status	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBi)	Antenna Height (ft)	Antenna analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage
1a	Ericsson	AIR21 BAA/B2P	Active	AWS - 2100 MHz	LTE	60	2	120	-3.95	193	187	None	0	0	48.326044	0.0496826	0.04968%
1b	Ericsson	AIR21 BAA/B2P	Not Used	-	-	-	-	0	-3.95	193	187	None	0	0	0	0	0.00000%
2a	Ericsson	AIR21 B2A/B4P	Active	PCS - 1950 MHz	GSM / UMTS	30	2	60	-3.95	193	187	1.5'/8"	0	0	24.163022	0.248413	0.02484%
28	Ericsson	AIR21 B2A/B4P	Passive	AWS - 2100 MHz	UMTS	30	2	60	-3.95	193	187	1.5'/8"	0	0	24.163022	0.248413	0.02484%
Sector total Power Density Value: 0.099%																	

Site Composite MPF %	
Carrier	MPF %
T-Mobile	0.299%
Sprint	5.780%
Clearwire	0.540%
MediaEID	13.000%
Verizon Wireless	17.660%
AT&T	7.840%
Homeland Security	12.300%
Total Site MPF %	57.418%



Summary

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

The anticipated Maximum Composite contributions from the T-Mobile facility are **0.298% (0.099% from each sector)** of the allowable FCC established general public limit considering all three sectors simultaneously.

The anticipated composite MPE value for this site assuming all carriers present is **57.418%** of the allowable FCC established general public limit. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions

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

Scott Heffernan
RF Engineering Director

EBI Consulting

21 B Street
Burlington, MA 01803



Structural Analysis Report

Structure : 187.5 ft Self Supported Tower
ATC Site Name : New Fairfield, CT
ATC Site Number : 88014
Engineering Number : 53098921
Proposed Carrier : T-Mobile
Carrier Site Name : N/A
Carrier Site Number : CT11106A
Site Location : 22 Titicus Mtn Road
New Fairfield, CT 06812-2565
41.450664, -73.515989
County : Fairfield
Date : May 2, 2013
Max Usage : 100%
Result : Pass

Ahmad Ighwair
Design Engineer

Ahmad Ighwair



5/6/13



Eng. Number 53098921

May 2, 2013

Table of Contents

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Calculations	Attached



Eng. Number 53098921

May 2, 2013

Page 1

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 187.5 ft self supported tower to reflect the change in loading by T-Mobile.

Supporting Documents

Tower Drawings	Analysis by CSEI, ATC Eng. No. 26464321, dated August 21, 2006.
Foundation Drawing	GEI Report #E08-291-F, dated May 19, 2008
Geotechnical Report	GEI Report #E08-291-G, dated May 19, 2008

Analysis

The tower was analyzed using American Tower Corporation's tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

Basic Wind Speed:	95 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 3/4" radial ice concurrent
Code:	ANSI/TIA-222-G, Addendum 2 / 2003 IBC w/ 2005 CT Supplement & 2009 CT Amendment
Structure Class:	II
Exposure Category:	B
Topographic Category:	1

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 me via email at ahmad.ighwair@americantower.com or call 919-466-5046.



Existing and Reserved Equipment

Mount Elev. ¹ (ft)	Qty.	Antenna	Mount Type	Lines	Carrier
187.5	3	Ericsson KRY 112 144/1	Platform	(12) 1 5/8" Coax	T-Mobile
185.0	1	DragonWave A-ANT-23G-2.5-C	Side Arms	(6) 5/16" Coax (2) 1/2" Coax (1) 2" Conduit	Clearwire
	3	Argus LLPX310R			
	2	DragonWave Horizon Compact			
	1	DragonWave A-ANT-11G-4-C			
	3	NextNet BTS-2500			
182.0	3	Alcatel-Lucent 4x40W RRH	Sector Frames	(12) 1 5/8" Coax (3) 1 1/4" Hybriflex	Sprint Nextel
	3	Alcatel-Lucent 2X50W RRH			
	3	RFS APXVSPP18-C-A20			
	6	Decibel DB844H90E-A			
	3	EMS RR90-17-04DPL2			
170.3	-	-	Catwalk	-	-
160.0	6	Ericsson RRUS 11 (Band 12)	Sector Frames	(2) 0.74" 8 AWG 7 (12) 1 5/8" Coax (1) 3" Conduit (1) 0.28" RG6	AT&T Mobility
	3	Powerwave P65-16-XLH-RR			
	6	Powerwave 7770.00			
	1	Raycap DCG-48-60-18-8F			
	6	Powerwave LGP21401			
142.0	3	Antel BXA-171085-8BF-EDIN-X	Sector Frames	(12) 1 5/8" Coax	Verizon
	2	Antel LPA-80080/4CF			
	3	Antel BXA-70063/6CF			
	6	RFS FD9R6004/2C-3L			
	4	Antel LPA-80063/4CF			
137.5	-	-	Rest Platform	-	-
122.0	1	Dielectric TLP-16A-1E	Side Arm	(1) 3 1/8" HL	Qualcomm
100.0	-	-	Platform	-	-
87.5	-	-	Rest Platform	-	
70.0	1	Andrew DB616E-BC	Side Arm	(1) 7/8" Coax	US Treasury
50.0	-	-	Rest Platform	-	-
18.3	-	-	-	(4) Coax Cage	

Proposed Equipment

Elevation ¹ (ft)	Qty.	Antenna	Mount Type	Lines	Carrier
Mount	RAD				
187.5	193.0	3	Platform	(1) 1 5/8" Fiber	T-Mobile
		3			

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 alongside existing T-Mobile coax.



Eng. Number 53098921

May 2, 2013

Page 3

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Legs	59%	Pass
Diagonals	100%	Pass
Horizontals	49%	Pass
Anchor Bolts	31%	Pass

Foundations

Reaction Component	Analysis Reactions
Uplift (Kips)	184.3
Axial (Kips)	235.9
Shear (Kips)	33.0

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.

Deflection, Twist and Sway*

Antenna Elevation (ft)	Deflection (ft)	Twist (°)	Sway (Rotation) (°)
187.5	0.105	0.205	0.116

*Deflection, Twist and Sway was evaluated considering a design wind speed of 60 mph (3-Second Gust) per ANSI/TIA-222-G



Standard Conditions

All engineering services are performed on the basis that the information used is current and correct. This information may consist of, but is not necessarily limited, to:

- Information supplied by the client regarding the structure itself, antenna, mounts and feed line loading on the structure and its components, or other relevant information.
- Information from drawings in the possession of American Tower Corporation, or generated by field inspections or measurements of the structure.

It is the responsibility of the client to ensure that the information provided to ATC Tower Services and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that all structures were constructed in accordance with the drawings and specifications and that their capacity has not significantly changed from the "as new" condition.

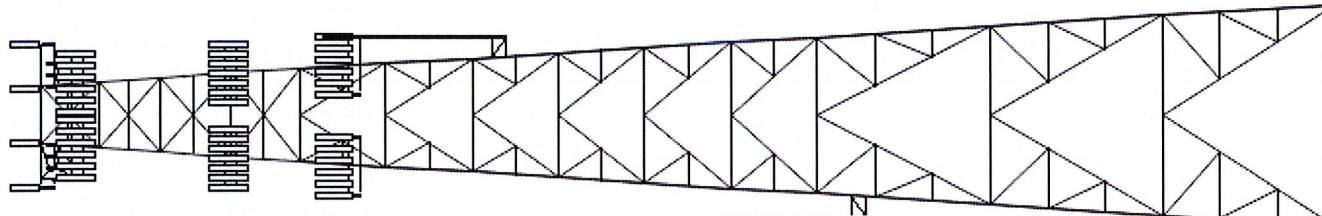
Unless explicitly agreed by both the client and American Tower Corporation, all services will be performed in accordance with the current revision of ANSI/TIA -222. The design basic wind speed will be determined based on the minimum basic wind speed as prescribed in ANSI/TIA-222. Although every effort is taken to ensure that the loading considered is adequate to meet the requirements of all applicable regulatory entities, we can provide no assurance to meet any other local and state codes or requirements. If wind and ice loads or other relevant parameters are to be different from the minimum values recommended by the codes, the client shall specify the exact requirement.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. ATC Tower Services is not responsible for the conclusions, opinions and recommendations made by others based on the information we supply.

Job Information

Tower : 88014
 Code: ANSI/TIA-222 Rev G
 Client : T-Mobile

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 Loads: 95 mph no ice
 50 mph w/ 3/4" radial ice
 60 mph Serviceability
 60 mph no ice



Uplift 184.35 k
 Vert 235.90 k
 Horz 33.04 k

Moment 9,475.43 ft-k
 Total Down 117.57 k
 Total Shear 83.78 k

187.50
Sect 12

178.50
Sect 11

170.50
Sect 10

160.17
Sect 9

150.00
Sect 8

137.50
Sect 7

125.00
Sect 6

112.50
Sect 5

87.50
Sect 4

75.00
Sect 3

50.00
Sect 2

25.00
Sect 1

Location : New Fairfield, CT

Base Width : 32.45 ft
 Top Width : 9.00 ft

Sections Properties

Section	Leg Members	Diagonal Members	Horizontal Members
1	SAE 36 ksi	8X8X0.875	DAS 36 ksi 3.5X3X0.25
2	SAE 36 ksi	8X8X0.75	DAS 36 ksi 3X2.5X0.25
3	SAE 36 ksi	8X8X0.75	DAS 36 ksi 3X2.5X0.25
4	SAE 36 ksi	6X6X0.875	DAS 36 ksi 2.5X2.5X0.25
5	SAE 36 ksi	6X6X0.75	DAS 36 ksi 2.5X2.5X0.25
6 - 7	SAE 36 ksi	6X6X0.5625	DAS 36 ksi 2.5X2.5X0.25
8	SAE 36 ksi	6X6X0.4375	DAS 36 ksi 2.5X2X0.25
9	SAE 36 ksi	5X5X0.4375	SAE 36 ksi 3.5X3.5X0.25
10	SAE 36 ksi	5X5X0.4375	SAE 36 ksi 3.5X3.5X0.25
11	SAE 36 ksi	5X5X0.3125	SAE 36 ksi 3X3X0.25
12	SAE 36 ksi	5X5X0.3125	SAE 36 ksi 3X3X0.25

Discrete Appurtenance

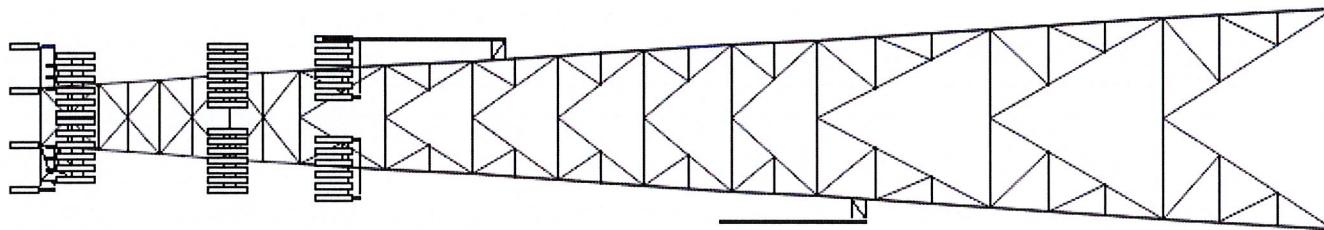
Elev (ft)	Type	Qty	Description
187.50	Panel	3	Ericsson AIR 21, 1.3M, B2A B4P
187.50	Panel	3	Ericsson AIR 21, 1.3M, B4A B2P
187.50	Panel	3	Ericsson KRY112 144/1
187.50	Straight Arm	6	Pipe Mount
187.50	Platform	1	Platform
185.00	Dish	1	DragonWave A-ANT-23G-2.5-C
185.00	Straight Arm	3	Round Side Arm
185.00	Panel	3	Argus LX310R
185.00	Panel	2	DragonWave Horizon Compact
185.00	Dish	1	DragonWave A-ANT-11G-4-C
185.00	Panel	3	NextNet BTS-2500
182.00	Panel	3	Alcatel-Lucent 4x40W RRH
182.00	Panel	3	Alcatel-Lucent 2x50W RRH
182.00	Panel	3	RFS APX/SPPI8-C-220
182.00	Panel	6	Decibel DB844H90E-A
182.00	Mounting Frame	3	Flat Light Sector Frames
182.00	Panel	3	EMSSR90-17-04DPL2
170.33	Platform	1	Catwalk
160.00	Panel	6	Ericsson RRUS 11 (Band 12)
160.00	Panel	3	Powerwave P65-16-XLH-RR
160.00	Panel	6	Powerwave 7770.00
160.00	Whip	1	Raycap DC6-48-60-18-8F
160.00	Panel	6	Powerwave LGP21401
160.00	Mounting Frame	3	Flat Light Sector Frames
142.00	Panel	3	Antel BXA-171085-3BF-EDIN-X
142.00	Panel	2	Antel LPA-80080/4CF
142.00	Panel	3	Antel BXA-70063/6CF
142.00	Panel	6	RFS FDR6004/2C-3L
142.00	Panel	4	Antel LPA-80063/4CF
142.00	Mounting Frame	3	Flat Light Sector Frames
137.50	Mounting Frame	1	Rest Platform
122.00	Straight Arm	1	Flat Side Arm
122.00	Whip	1	Dielectric TLP-16A-IE
100.00	Platform	1	Platform
87.50	Mounting Frame	1	Rest Platform
70.00	Whip	1	Andrew DB616E-BC
70.00	Straight Arm	1	Round Side Arm
50.00	Mounting Frame	1	Rest Platform

Linear Appurtenance

Elev (ft)	From	To	Qty	Description
5.00			187.50	Wave Guide
5.000			187.50	Climbing Ladder
5.000			187.50	1 5/8" Fiber
5.000			187.50	1 5/8" Coax

Job Information			
Tower : 88014	Location : New Fairfield, CT	Base Width : 32.45 ft	
Code: ANSI/TIA-222 Rev G	Shape : Square	Top Width : 9.00 ft	
Client : T-Mobile			

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187.50

178.50

Sect 12

5.50

170.50

Sect 11

5.50

160.50

Sect 10

5.50

150.00

Sect 9

5.00

140.00

Sect 8

5.00

137.50

Sect 7

5.00

Sect 5

87.50

Sect 4

75.00

Sect 3

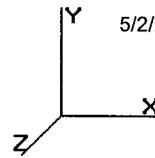
50.00

Sect 2

25.00

Sect 1

Uplift 184.35 k Moment 9.475.48 ft-k
Vert 235.90 k Total Down 117.37 k
Horz 33.04 k Total Shear 83.78 k



Section Forces

LoadCase 1.2D + 1.6W Normal

95.00 mph Normal to Face with No Ice

Gust Response Factor : 0.85

Dead Load Factor : 1.20

Wind Load Factor : 1.60

Wind Importance Factor : 1.00

Seq	Sect	Height	Wind	qz	Total				Ice				Ice				Struct					
					Wind	Flat	Total	Round	Round	Sol	Cf	Df	Dr	Ice	Eff	Linear	Linear	Total	Weight	Weight	Force	Linear
		(ft)	(psf)	(sqft)	(sqft)	(sqft)	(sqft)	(sqft)	(sqft)	(in)	(in)	(in)	(in)	(sqft)	(sqft)	(sqft)	(lb)	Ice (lb)	(lb)	(lb)	(lb)	(lb)
12	183.2	23.07	21.73	0.00	0.00	0.25	2.76	1.00	1.00	0.00	21.73	22.35	0.00	2,476.2	0.0	1,880.87	569.77	2,450.64				
11	174.6	22.76	18.88	0.00	0.00	0.20	2.98	1.00	1.00	0.00	18.88	29.77	0.00	2,170.3	0.0	1,742.54	761.22	2,503.76				
10	165.2	22.40	23.09	0.00	0.00	0.19	3.04	1.00	1.00	0.00	23.09	35.27	0.00	3,276.6	0.0	2,138.57	887.54	3,026.11				
9	155.0	22.00	24.22	0.00	0.00	0.18	3.08	1.00	1.00	0.00	24.22	49.75	0.00	3,265.3	0.0	2,233.15	1,260.8	3,493.98				
8	143.7	21.53	26.82	0.00	0.00	0.14	3.24	1.00	1.00	0.00	26.82	70.79	0.00	5,040.9	0.0	2,541.22	1,727.1	4,268.40				
7	131.2	20.98	27.59	0.00	0.00	0.13	3.28	1.00	1.00	0.00	27.59	88.30	0.00	5,699.9	0.0	2,584.57	2,065.3	4,649.88				
6	118.7	20.38	28.39	0.00	0.00	0.13	3.32	1.00	1.00	0.00	28.39	90.92	0.00	5,910.9	0.0	2,614.76	2,059.3	4,674.14				
5	100.0	19.41	59.23	0.00	0.00	0.12	3.37	1.00	1.00	0.00	59.23	183.49	0.00	13,622.6	0.0	5,268.18	3,952.8	9,221.05				
4	81.25	18.29	30.84	0.00	0.00	0.11	3.41	1.00	1.00	0.00	30.84	91.74	0.00	7,404.5	0.0	2,614.10	1,862.5	4,476.69				
3	62.50	16.97	68.39	0.00	0.00	0.11	3.41	1.00	1.00	0.00	68.39	185.31	0.00	13,726.2	0.0	5,380.10	3,486.3	8,866.43				
2	37.50	14.66	71.64	0.00	0.00	0.10	3.45	1.00	1.00	0.00	71.64	185.76	0.00	14,414.1	0.0	4,923.37	3,019.4	7,942.79				
1	12.50	13.75	76.58	0.00	0.00	0.10	3.46	1.00	1.00	0.00	76.58	190.73	0.00	18,401.9	0.0	4,960.66	2,737.9	7,698.57				
														95,409.4	0.0						63,272.44	

LoadCase 1.2D + 1.6W 45 deg

95.00 mph 45 deg with No Ice

Gust Response Factor : 0.85

Dead Load Factor : 1.20

Wind Load Factor : 1.60

Wind Importance Factor : 1.00

Seq	Sect	Height	Wind	qz	Total				Ice				Ice				Struct					
					Wind	Flat	Total	Round	Round	Sol	Cf	Df	Dr	Ice	Eff	Linear	Linear	Total	Weight	Weight	Force	Linear
		(ft)	(psf)	(sqft)	(sqft)	(sqft)	(sqft)	(sqft)	(sqft)	(in)	(in)	(in)	(in)	(sqft)	(sqft)	(sqft)	(lb)	Ice (lb)	(lb)	(lb)	(lb)	(lb)
12	183.2	23.07	21.73	0.00	0.00	0.25	2.76	1.19	1.19	0.00	25.88	22.35	0.00	2,476.2	0.0	2,239.76	569.77	2,809.52				
11	174.6	22.76	18.88	0.00	0.00	0.20	2.98	1.15	1.15	0.00	21.70	29.77	0.00	2,170.3	0.0	2,003.23	761.22	2,764.45				
10	165.2	22.40	23.09	0.00	0.00	0.19	3.04	1.14	1.14	0.00	26.31	35.27	0.00	3,276.6	0.0	2,437.15	887.54	3,324.69				
9	155.0	22.00	24.22	0.00	0.00	0.18	3.08	1.13	1.13	0.00	27.43	49.75	0.00	3,265.3	0.0	2,529.37	1,260.8	3,790.20				
8	143.7	21.53	26.82	0.00	0.00	0.14	3.24	1.11	1.11	0.00	29.70	70.79	0.00	5,040.9	0.0	2,814.35	1,727.1	4,541.52				
7	131.2	20.98	27.59	0.00	0.00	0.13	3.28	1.10	1.10	0.00	30.36	88.30	0.00	5,699.9	0.0	2,843.37	2,065.3	4,908.68				
6	118.7	20.38	28.39	0.00	0.00	0.13	3.32	1.09	1.09	0.00	31.06	90.92	0.00	5,910.9	0.0	2,860.86	2,059.3	4,920.24				
5	100.0	19.41	59.23	0.00	0.00	0.12	3.37	1.09	1.09	0.00	64.38	183.49	0.00	13,622.6	0.0	5,726.13	3,952.8	9,679.00				
4	81.25	18.29	30.84	0.00	0.00	0.11	3.41	1.08	1.08	0.00	33.34	91.74	0.00	7,404.5	0.0	2,826.36	1,862.5	4,688.95				
3	62.50	16.97	68.39	0.00	0.00	0.11	3.41	1.08	1.08	0.00	73.94	185.31	0.00	13,726.2	0.0	5,816.47	3,486.3	9,302.80				
2	37.50	14.66	71.64	0.00	0.00	0.10	3.45	1.08	1.08	0.00	77.06	185.76	0.00	14,414.1	0.0	5,295.66	3,019.4	8,315.08				
1	12.50	13.75	76.58	0.00	0.00	0.10	3.46	1.07	1.07	0.00	82.16	190.73	0.00	18,401.9	0.0	5,321.89	2,737.9	8,059.80				
														95,409.4	0.0						67,104.94	

Site Number: 88014

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Location: New Fairfield, CT

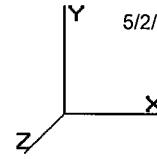
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Code: ANSI/TIA-222 Rev G

Struct Class : II

Exposure : B

Topo : 1



Section Forces

LoadCase 0.9D + 1.6W 45 deg

95.00 mph 45 deg with No Ice (Reduced DL)

Gust Response Factor : 0.85

Dead Load Factor : 0.90

Wind Load Factor : 1.60

Wind Importance Factor : 1.00

Seq	Sect	Height	Wind	qz	Total				Ice				Ice				Struct				
					Wind	Flat	Total	Round	Round	Sol	Cf	Df	Dr	Ice	Eff	Linear	Linear	Total	Weight	Weight	Struct
		(ft)	(psf)	(sqft)	(in)	(sqft)	(sqft)	(sqft)	(lb)	Ice (lb)	(lb)	Force	Force	(lb)	(lb)						
12	183.2	23.07	21.73	0.00	0.00	0.25	2.76	1.19	1.19	0.00	25.88	22.35	0.00	1,857.2	0.0	2,239.76	569.77	2,809.52			
11	174.6	22.76	18.88	0.00	0.00	0.20	2.98	1.15	1.15	0.00	21.70	29.77	0.00	1,627.8	0.0	2,003.23	761.22	2,764.45			
10	165.2	22.40	23.09	0.00	0.00	0.19	3.04	1.14	1.14	0.00	26.31	35.27	0.00	2,457.4	0.0	2,437.15	887.54	3,324.69			
9	155.0	22.00	24.22	0.00	0.00	0.18	3.08	1.13	1.13	0.00	27.43	49.75	0.00	2,449.0	0.0	2,529.37	1,260.8	3,790.20			
8	143.7	21.53	26.82	0.00	0.00	0.14	3.24	1.11	1.11	0.00	29.70	70.79	0.00	3,780.7	0.0	2,814.35	1,727.1	4,541.52			
7	131.2	20.98	27.59	0.00	0.00	0.13	3.28	1.10	1.10	0.00	30.36	88.30	0.00	4,274.9	0.0	2,843.37	2,065.3	4,908.68			
6	118.7	20.38	28.39	0.00	0.00	0.13	3.32	1.09	1.09	0.00	31.06	90.92	0.00	4,433.1	0.0	2,860.86	2,059.3	4,920.24			
5	100.0	19.41	59.23	0.00	0.00	0.12	3.37	1.09	1.09	0.00	64.38	183.49	0.00	10,217.0	0.0	5,726.13	3,952.8	9,679.00			
4	81.25	18.29	30.84	0.00	0.00	0.11	3.41	1.08	1.08	0.00	33.34	91.74	0.00	5,553.4	0.0	2,826.36	1,862.5	4,688.95			
3	62.50	16.97	68.39	0.00	0.00	0.11	3.41	1.08	1.08	0.00	73.94	185.31	0.00	10,294.7	0.0	5,816.47	3,486.3	9,302.80			
2	37.50	14.66	71.64	0.00	0.00	0.10	3.45	1.08	1.08	0.00	77.06	185.76	0.00	10,810.5	0.0	5,295.66	3,019.4	8,315.08			
1	12.50	13.75	76.58	0.00	0.00	0.10	3.46	1.07	1.07	0.00	82.16	190.73	0.00	13,801.4	0.0	5,321.89	2,737.9	8,059.80			
														71,557.1	0.0					67,104.94	

LoadCase 1.2D + 1.0Di + 1.0Wi Normal

50.00 mph Normal with 0.75 in Radial Ice

Gust Response Factor : 0.85

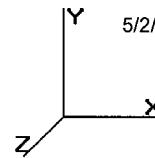
Dead Load Factor : 1.20

Wind Load Factor : 1.00

Wind Importance Factor : 1.00

Ice Importance Factor : 1.00

Seq	Sect	Height	Wind	qz	Total				Ice				Ice				Struct				
					Wind	Flat	Total	Round	Round	Sol	Cf	Df	Dr	Ice	Eff	Linear	Linear	Total	Weight	Weight	Struct
		(ft)	(psf)	(sqft)	(in)	Area	(sqft)	Area	(sqft)	(lb)	Ice (lb)	(lb)	Force	Force	(lb)						
12	183.2	6.39	21.73	15.41	15.41	0.42	2.22	1.00	1.00	1.78	37.14	29.28	39.37	6,971.1	4,494.9	448.36	241.24	689.60			
11	174.6	6.30	18.88	16.13	16.13	0.36	2.39	1.00	1.00	1.77	35.01	39.91	50.70	6,802.2	4,631.9	449.04	340.15	789.19			
10	165.2	6.21	23.09	18.42	18.42	0.33	2.50	1.00	1.00	1.76	41.51	47.21	59.72	9,288.4	6,011.8	547.13	408.40	955.53			
9	155.0	6.09	24.22	19.25	19.25	0.31	2.55	1.00	1.00	1.75	43.47	67.45	62.26	9,618.1	6,352.8	574.84	518.98	1,093.82			
8	143.7	5.96	26.82	19.73	19.73	0.24	2.80	1.00	1.00	1.74	46.55	93.23	91.67	14,503.5	9,462.6	660.25	777.39	1,437.64			
7	131.2	5.81	27.59	20.24	20.24	0.23	2.86	1.00	1.00	1.72	47.83	113.41	118.39	16,227.7	10,527.	676.76	989.55	1,666.31			
6	118.7	5.65	28.39	20.74	20.74	0.21	2.92	1.00	1.00	1.70	49.13	115.78	119.91	16,715.5	10,804.	688.80	991.90	1,680.70			
5	100.0	5.38	59.23	42.89	42.89	0.20	2.99	1.00	1.00	1.68	102.12	232.37	237.41	35,919.2	22,296.	1,396.33	1,912.6	3,309.00			
4	81.25	5.07	30.84	22.06	22.06	0.18	3.05	1.00	1.00	1.64	52.90	115.68	116.27	18,716.7	11,312.	695.26	901.28	1,596.55			
3	62.50	4.70	68.39	34.59	34.59	0.16	3.15	1.00	1.00	1.60	102.98	231.94	231.84	33,879.0	20,152.	1,297.36	1,708.5	3,005.90			
2	37.50	4.06	71.64	34.04	34.04	0.15	3.22	1.00	1.00	1.52	105.68	230.07	221.56	34,215.4	19,801.	1,173.97	1,457.6	2,631.58			
1	12.50	3.81	76.58	31.58	31.58	0.14	3.27	1.00	1.00	1.36	108.16	222.49	167.51	36,182.0	17,780.	1,145.10	1,209.9	2,355.03			
														239,038.8	143,629.					21,210.86	



Section Forces

LoadCase 1.2D + 1.0Di + 1.0Wi 45 deg

50.00 mph 45 deg with 0.75 in Radial Ice

Gust Response Factor : 0.85

Dead Load Factor : 1.20

Wind Load Factor : 1.00

Ice Dead Load Factor : 1.00

Wind Importance Factor : 1.00

Ice Importance Factor : 1.00

Seq	Sect	Wind Height (ft)	qz (psf)	Total			Ice			Ice			Struct				
				Total Area (sqft)	Flat Area (sqft)	Round Area (sqft)	Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Total Area (sqft)	Weight (lb)	Weight (lb)
12	183.2	6.39	21.73	15.41	15.41	0.42	2.22	1.20	1.20	1.20	1.78	44.57	29.28	39.37	6,971.1	4,494.9	538.03
11	174.6	6.30	18.88	16.13	16.13	0.36	2.39	1.20	1.20	1.20	1.77	42.01	39.91	50.70	6,802.2	4,631.9	538.85
10	165.2	6.21	23.09	18.42	18.42	0.33	2.50	1.20	1.20	1.20	1.76	49.81	47.21	59.72	9,288.4	6,011.8	656.55
9	155.0	6.09	24.22	19.25	19.25	0.31	2.55	1.20	1.20	1.20	1.75	52.16	67.45	62.26	9,618.1	6,352.8	689.81
8	143.7	5.96	26.82	19.73	19.73	0.24	2.80	1.18	1.18	1.18	1.74	55.06	93.23	91.67	14,503.5	9,462.6	781.08
7	131.2	5.81	27.59	20.24	20.24	0.23	2.86	1.17	1.17	1.17	1.72	55.99	113.41	118.39	16,227.7	10,527.	792.23
6	118.7	5.65	28.39	20.74	20.74	0.21	2.92	1.16	1.16	1.16	1.70	57.00	115.78	119.91	16,715.5	10,804.	799.25
5	100.0	5.38	59.23	42.89	42.89	0.20	2.99	1.15	1.15	1.15	1.68	117.21	232.37	237.41	35,919.2	22,296.	1,602.78
4	81.25	5.07	30.84	22.06	22.06	0.18	3.05	1.14	1.14	1.14	1.64	60.18	115.68	116.27	18,716.7	11,312.	790.97
3	62.50	4.70	68.39	34.59	34.59	0.16	3.15	1.12	1.12	1.12	1.60	115.43	231.94	231.84	33,879.0	20,152.	1,454.15
2	37.50	4.06	71.64	34.04	34.04	0.15	3.22	1.11	1.11	1.11	1.52	117.37	230.07	221.56	34,215.4	19,801.	1,303.76
1	12.50	3.81	76.58	31.58	31.58	0.14	3.27	1.10	1.10	1.10	1.36	119.20	222.49	167.51	36,182.0	17,780.	1,262.03
															239,038.8	143,629.	22,667.15

LoadCase 1.0D + 1.0W Service Normal

Serviceability - 60.00 Wind Normal

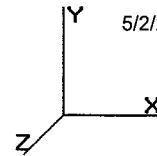
Gust Response Factor : 0.85

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Wind Importance Factor : 1.00

Seq	Sect	Wind Height (ft)	qz (psf)	Total			Ice			Ice			Struct				
				Total Area (sqft)	Flat Area (sqft)	Round Area (sqft)	Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Total Area (sqft)	Weight (lb)	Weight (lb)
12	183.2	9.20	21.73	0.00	0.00	0.25	2.76	1.00	1.00	0.00	21.73	22.35	0.00	2,063.5	0.0	468.92	
11	174.6	9.08	18.88	0.00	0.00	0.20	2.98	1.00	1.00	0.00	18.88	29.77	0.00	1,808.6	0.0	434.43	
10	165.2	8.94	23.09	0.00	0.00	0.19	3.04	1.00	1.00	0.00	23.09	35.27	0.00	2,730.5	0.0	533.16	
9	155.0	8.78	24.22	0.00	0.00	0.18	3.08	1.00	1.00	0.00	24.22	49.75	0.00	2,721.1	0.0	556.74	
8	143.7	8.59	26.82	0.00	0.00	0.14	3.24	1.00	1.00	0.00	26.82	70.79	0.00	4,200.8	0.0	633.55	
7	131.2	8.37	27.59	0.00	0.00	0.13	3.28	1.00	1.00	0.00	27.59	88.30	0.00	4,749.9	0.0	644.35	
6	118.7	8.13	28.39	0.00	0.00	0.13	3.32	1.00	1.00	0.00	28.39	90.92	0.00	4,925.7	0.0	651.88	
5	100.0	7.74	59.23	0.00	0.00	0.12	3.37	1.00	1.00	0.00	59.23	183.49	0.00	11,352.2	0.0	1,313.40	
4	81.25	7.30	30.84	0.00	0.00	0.11	3.41	1.00	1.00	0.00	30.84	91.74	0.00	6,170.4	0.0	651.71	
3	62.50	6.77	68.39	0.00	0.00	0.11	3.41	1.00	1.00	0.00	68.39	185.31	0.00	11,438.5	0.0	1,341.30	
2	37.50	5.85	71.64	0.00	0.00	0.10	3.45	1.00	1.00	0.00	71.64	185.76	0.00	12,011.7	0.0	1,227.43	
1	12.50	5.48	76.58	0.00	0.00	0.10	3.46	1.00	1.00	0.00	76.58	190.73	0.00	15,334.9	0.0	1,236.73	
															79,507.8	0.0	15,776.62



Section Forces

LoadCase 1.0D + 1.0W Service 45 deg

Serviceability - 60.00 Wind 45 deg

Gust Response Factor : 0.85

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Wind Importance Factor : 1.00

Seq	Sect	Wind Height (ft)	qz (psf)	Total			Ice			Ice			Struct			
				Flat Area (sqft)	Round Area (sqft)	Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Force (lb)
12	183.2	9.20	21.73	0.00	0.00	0.25	2.76	1.19	1.19	0.00	25.88	22.35	0.00	2,063.5	0.0	558.39
11	174.6	9.08	18.88	0.00	0.00	0.20	2.98	1.15	1.15	0.00	21.70	29.77	0.00	1,808.6	0.0	499.42
10	165.2	8.94	23.09	0.00	0.00	0.19	3.04	1.14	1.14	0.00	26.31	35.27	0.00	2,730.5	0.0	607.60
9	155.0	8.78	24.22	0.00	0.00	0.18	3.08	1.13	1.13	0.00	27.43	49.75	0.00	2,721.1	0.0	630.59
8	143.7	8.59	26.82	0.00	0.00	0.14	3.24	1.11	1.11	0.00	29.70	70.79	0.00	4,200.8	0.0	701.64
7	131.2	8.37	27.59	0.00	0.00	0.13	3.28	1.10	1.10	0.00	30.36	88.30	0.00	4,749.9	0.0	708.87
6	118.7	8.13	28.39	0.00	0.00	0.13	3.32	1.09	1.09	0.00	31.06	90.92	0.00	4,925.7	0.0	713.23
5	100.0	7.74	59.23	0.00	0.00	0.12	3.37	1.09	1.09	0.00	64.38	183.49	0.00	11,352.2	0.0	1,427.57
4	81.25	7.30	30.84	0.00	0.00	0.11	3.41	1.08	1.08	0.00	33.34	91.74	0.00	6,170.4	0.0	704.63
3	62.50	6.77	68.39	0.00	0.00	0.11	3.41	1.08	1.08	0.00	73.94	185.31	0.00	11,438.5	0.0	1,450.09
2	37.50	5.85	71.64	0.00	0.00	0.10	3.45	1.08	1.08	0.00	77.06	185.76	0.00	12,011.7	0.0	1,320.25
1	12.50	5.48	76.58	0.00	0.00	0.10	3.46	1.07	1.07	0.00	82.16	190.73	0.00	15,334.9	0.0	1,326.79
														79,507.8	0.0	16,732.08

LoadCase 0.9D + 1.6W Normal

95.00 mph Normal to Face with No Ice (Reduced DL)

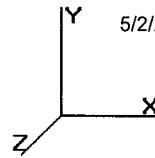
Gust Response Factor : 0.85

Dead Load Factor : 0.90

Wind Load Factor : 1.60

Wind Importance Factor : 1.00

Seq	Sect	Wind Height (ft)	qz (psf)	Total			Ice			Ice			Struct			
				Flat Area (sqft)	Round Area (sqft)	Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Force (lb)
12	183.2	23.07	21.73	0.00	0.00	0.25	2.76	1.00	1.00	0.00	21.73	22.35	0.00	1,857.2	0.0	1,880.87
11	174.6	22.76	18.88	0.00	0.00	0.20	2.98	1.00	1.00	0.00	18.88	29.77	0.00	1,627.8	0.0	1,742.54
10	165.2	22.40	23.09	0.00	0.00	0.19	3.04	1.00	1.00	0.00	23.09	35.27	0.00	2,457.4	0.0	2,138.57
9	155.0	22.00	24.22	0.00	0.00	0.18	3.08	1.00	1.00	0.00	24.22	49.75	0.00	2,449.0	0.0	2,233.15
8	143.7	21.53	26.82	0.00	0.00	0.14	3.24	1.00	1.00	0.00	26.82	70.79	0.00	3,780.7	0.0	2,541.22
7	131.2	20.98	27.59	0.00	0.00	0.13	3.28	1.00	1.00	0.00	27.59	88.30	0.00	4,274.9	0.0	2,584.57
6	118.7	20.38	28.39	0.00	0.00	0.13	3.32	1.00	1.00	0.00	28.39	90.92	0.00	4,433.1	0.0	2,614.76
5	100.0	19.41	59.23	0.00	0.00	0.12	3.37	1.00	1.00	0.00	59.23	183.49	0.00	10,217.0	0.0	5,268.18
4	81.25	18.29	30.84	0.00	0.00	0.11	3.41	1.00	1.00	0.00	30.84	91.74	0.00	5,553.4	0.0	2,614.10
3	62.50	16.97	68.39	0.00	0.00	0.11	3.41	1.00	1.00	0.00	68.39	185.31	0.00	10,294.7	0.0	5,380.10
2	37.50	14.66	71.64	0.00	0.00	0.10	3.45	1.00	1.00	0.00	71.64	185.76	0.00	10,810.5	0.0	4,923.37
1	12.50	13.75	76.58	0.00	0.00	0.10	3.46	1.00	1.00	0.00	76.58	190.73	0.00	13,801.4	0.0	4,960.66
														71,557.1	0.0	63,272.44



Tower Loading

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	No Ice		Ice		Len (ft)	Width (in)	Depth (in)	Ka	Orientation Factor	Vert Ecc (ft)
			Weight (lb)	CaAa (sf)	Weight (lb)	CaAa (sf)						
187.5	Ericsson AIR 21, 1.3M, B2A	3	83.00	6.050	256.13	7.172	4.670	12.00	8.000	0.80	0.71	5.500
187.5	Ericsson AIR 21, 1.3M, B4A	3	81.50	6.090	254.58	7.217	4.670	12.10	7.900	0.80	0.70	5.500
187.5	Ericsson KRY 112 144/1	3	11.00	0.410	27.91	0.641	0.580	6.100	2.700	0.80	0.33	5.500
187.5	Pipe Mount	6	150.00	3.300	417.07	5.650	6.000	6.000	6.000	1.00	1.00	3.000
187.5	Platform	1	4000.00	70.000	6934.21	101.40	0.000	0.000	0.000	1.00	1.00	0.000
185.0	DragonWave A-ANT-23G-2.5-	1	47.60	8.430	222.83	10.771	2.920	35.00	0.000	0.80	0.80	0.000
185.0	Round Side Arm	3	150.00	5.200	224.78	7.978	0.000	0.000	0.000	1.00	0.67	0.000
185.0	Argus LLPX310R	3	28.60	4.290	139.15	5.209	3.500	11.80	4.500	0.80	0.73	0.000
185.0	DragonWave Horizon	2	10.60	0.430	41.66	0.666	0.390	9.300	9.300	0.80	0.50	0.000
185.0	DragonWave A-ANT-11G-4-C	1	121.00	17.760	566.44	22.693	4.230	50.80	0.000	0.80	1.00	0.000
185.0	NextNet BTS-2500	3	35.00	1.820	94.36	2.411	1.610	11.30	5.100	0.80	0.73	0.000
182.0	Alcatel-Lucent 4x40W RRH	3	91.00	3.290	219.23	3.148	1.900	13.00	17.30	0.80	0.67	0.000
182.0	Alcatel-Lucent 2X50W RRH	3	64.00	2.060	196.12	4.172	2.580	13.00	12.20	0.80	0.67	0.000
182.0	RFS APXVSPP18-C-A20	3	57.00	8.020	260.34	9.336	6.000	11.80	7.000	0.80	0.69	0.000
182.0	Decibel DB844H90E-A	6	10.00	3.800	122.67	4.717	4.000	8.500	6.000	0.80	0.72	0.000
182.0	Flat Light Sector Frames	3	400.00	17.900	706.19	33.251	0.000	0.000	0.000	0.75	0.75	0.000
182.0	EMS RR90-17-04DPL2	3	18.00	4.356	118.27	5.363	4.667	8.000	2.750	0.80	0.73	0.000
170.3	Catwalk	1	3000.00	55.000	5156.91	82.525	0.000	0.000	0.000	1.00	1.00	0.000
160.0	Ericsson RRUS 11 (Band 12)	6	55.00	2.520	135.74	3.167	1.480	17.00	7.200	0.80	0.50	0.000
160.0	Powerwave P65-16-XLH-RR	3	53.00	8.130	245.42	9.434	6.000	12.00	6.000	0.80	0.67	0.000
160.0	Powerwave 7770.00	6	35.00	5.510	170.64	6.564	4.580	11.00	5.000	0.80	0.65	0.000
160.0	Raycap DC6-48-60-18-8F	1	31.80	1.470	125.13	1.939	2.000	11.00	11.00	0.80	1.00	0.000
160.0	Powerwave LGP21401	6	14.10	1.100	47.90	1.565	1.200	9.200	2.600	0.80	0.50	0.000
160.0	Flat Light Sector Frames	3	400.00	17.900	702.58	33.070	0.000	0.000	0.000	0.75	0.75	0.000
142.0	Antel BXA-171085-8BF-EDIN-X	3	10.00	2.944	85.85	3.803	4.063	6.060	3.150	0.80	0.87	4.000
142.0	Antel LPA-80080/4CF	2	12.00	5.400	145.28	6.384	3.933	13.20	5.500	0.80	0.74	4.000
142.0	Antel BXA-70063/6CF	3	17.00	7.570	181.52	8.801	5.910	11.20	4.500	0.80	0.75	4.000
142.0	RFS FD9R6004/2C-3L	6	3.10	0.370	15.99	0.578	0.483	6.500	1.500	0.80	0.50	4.000
142.0	Antel LPA-80063/4CF	4	20.00	6.140	223.18	7.174	3.953	15.20	13.19	0.80	0.94	4.000
142.0	Flat Light Sector Frames	3	400.00	17.900	697.57	32.819	0.000	0.000	0.000	0.75	0.75	0.000
137.5	Rest Platform	1	400.00	17.900	697.57	32.819	0.000	0.000	0.000	1.00	1.00	0.000
122.0	Flat Side Arm	1	150.00	6.300	221.61	8.706	0.000	0.000	0.000	1.00	1.00	0.000
122.0	Dielectric TLP-16A-1E	1	290.00	23.700	1076.62	31.864	24.70	10.00	10.00	1.00	1.00	12.35
100.0	Platform	1	2000.00	40.000	3367.50	59.038	0.000	0.000	0.000	1.00	1.00	0.000
87.50	Rest Platform	1	400.00	17.900	683.64	32.120	0.000	0.000	0.000	1.00	1.00	0.000
70.00	Andrew DB616E-BC	1	51.00	6.730	299.78	13.072	19.25	3.500	3.500	1.00	1.00	10.00
70.00	Round Side Arm	1	150.00	5.200	217.15	7.694	0.000	0.000	0.000	1.00	1.00	0.000
50.00	Rest Platform	1	400.00	17.900	662.53	31.062	0.000	0.000	0.000	1.00	1.00	0.000
Totals		105	18467.10		40188.62					Number of Appurtenances : 38		

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	Pct In Block	Spread On Faces	Bundling Arrangement	Cluster Dia (in)	Out Of Zone	Spacing (in)	Orientation Factor	Ka Override
5.00	187.5	1 5/8" Coax	6	1.98	0.82	50	3	Block	0.00	N	0.00	1.00	0.00
5.00	187.5	1 5/8" Coax	6	1.98	0.82	0	Lin App	Individual	0.00	N	0.00	1.00	0.00
5.00	187.5	1 5/8" Fiber	1	1.63	1.61	0	Lin App	Individual	0.00	N	1.00	1.00	0.00

Site Number: 88014

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Location: New Fairfield, CT

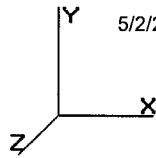
Code: ANSI/TIA-222 Rev G

Struct Class : II

Exposure : B

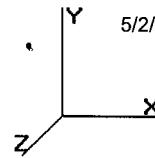
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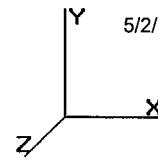
Tower Loading

5.00	187.5	Climbing Ladder	1	2.00	6.90	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
5.00	187.5	Wave Guide	1	2.00	6.00	0	3	Individual	0.00	N	1.00	1.00	0.00
5.00	185.0	1/2" Coax	2	0.63	0.15	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
5.00	185.0	2" Conduit	1	2.38	3.65	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
5.00	185.0	5/16" Coax	6	0.00	0.04	0	Lin App	Individual	0.00	N	0.00	1.00	0.01
5.00	182.0	1 1/4" Hybriflex	3	1.54	1.00	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
5.00	182.0	1 5/8" Coax	12	1.98	0.82	33	4	Block	0.00	N	0.00	1.00	0.00
5.00	182.0	Wave Guide	1	2.00	6.00	0	4	Individual	0.00	N	1.00	1.00	0.00
5.00	160.0	0.28" RG6	1	0.28	0.03	0	Lin App	Individual	0.00	N	1.00	0.00	0.01
5.00	160.0	0.74" 8 AWG	7	0.74	0.49	0	Lin App	Individual	0.00	N	1.00	0.00	0.01
5.00	160.0	1 5/8" Coax	12	1.98	0.82	50	3	Block	0.00	N	0.00	1.00	0.00
5.00	160.0	3" Conduit	1	3.50	7.58	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
5.00	160.0	Wave Guide	1	2.00	6.00	0	3	Individual	0.00	N	1.00	1.00	0.00
5.00	142.0	1 5/8" Coax	12	1.98	0.82	0	1	Individual	0.00	N	1.00	1.00	0.00
5.00	139.9	Wave Guide	1	2.00	6.00	0	1	Individual	0.00	N	1.00	1.00	0.00
5.00	122.0	3 1/8" Hard Line	1	3.31	1.13	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
0.00	70.00	7/8" Coax	1	1.09	0.33	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
10.00	18.33	Coax Cage	4	15.0	50.0	0	2,4	Individual	0.00	N	1.00	1.00	0.00



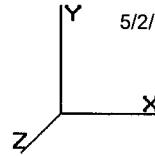
Force/Stress Summary

Section: 1 1		Bot Elev (ft): 0.00				Height (ft): 25.000										
Max Compression Member	Force (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	phi Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)		Bear phiRn (kip)		Use %	Controls
				X	Y	Z					0	0	0.00	0.00		
LEG SAE - 8X8X0.875	-206.78	1.2D + 1.6W 45	25.10	33	33	33	63.3	36.0	347.12	0	0	0.00	0.00	59	Member Z	
HORIZ DAL - 3X2.5X0.3125	-10.81	1.2D + 1.6W	14.66	100	100	25	171.7	36.0	24.84	0	0	0.00	0.00	43	Member X	
DIAG DAS - 3.5X3X0.25	-22.54	1.2D + 1.6W	29.84	33	66	8	145.0	36.0	33.61	0	0	0.00	0.00	67	Member Y	
Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Fu (ksi)	phit Pn (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls					
LEG SAE - 8X8X0.875	160.40	0.9D + 1.6W 45	36	58	428.65	0	0	0.00	0.00	37	Member					
HORIZ DAL - 3X2.5X0.3125	11.41	1.2D + 1.6W	36	58	104.98	0	0	0.00	0.00	10	Member					
DIAG DAS - 3.5X3X0.25	20.70	1.2D + 1.6W	36	58	101.41	0	0	0.00	0.00	20	Member					
Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts		Bolt Type									
Top Tension	159.39	0.9D + 1.6W 45	0.00	0												
Top Compression	205.71	1.2D + 1.6W 45	0.00	0												
Bot Tension	187.17	0.9D + 1.6W 45	602.76	31			4 2 1/4 A36									
Bot Compression	236.30	1.2D + 1.6W 45	0.00	0												
Section: 2 2		Bot Elev (ft): 25.00				Height (ft): 25.000										
Max Compression Member	Force (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	phi Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)		Bear phiRn (kip)		Use %	Controls
				X	Y	Z					0	0	0.00	0.00		
LEG SAE - 8X8X0.75	-173.53	1.2D + 1.6W 45	25.10	33	33	33	62.9	36.0	300.96	0	0	0.00	0.00	57	Member Z	
HORIZ DAL - 3X2.5X0.25	-10.61	0.9D + 1.6W	13.09	100	100	25	155.3	36.0	24.63	0	0	0.00	0.00	43	Member X	
DIAG DAS - 3X2.5X0.25	-24.32	1.2D + 1.6W	29.02	33	65	8	156.7	36.0	24.19	0	0	0.00	0.00	100	Member Y	
Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Fu (ksi)	phit Pn (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls					
LEG SAE - 8X8X0.75	133.06	0.9D + 1.6W 45	36	58	370.66	0	0	0.00	0.00	35	Member					
HORIZ DAL - 3X2.5X0.25	10.99	1.2D + 1.6W	36	58	85.21	0	0	0.00	0.00	12	Member					
DIAG DAS - 3X2.5X0.25	22.23	1.2D + 1.6W	36	58	85.21	0	0	0.00	0.00	26	Member					
Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts		Bolt Type									
Top Tension	132.08	0.9D + 1.6W 45	0.00	0												
Top Compression	172.51	1.2D + 1.6W 45	0.00	0												
Bot Tension	159.39	0.9D + 1.6W 45	0.00	0												
Bot Compression	205.71	1.2D + 1.6W 45	0.00	0												



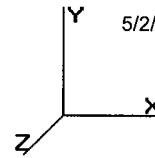
Force/Stress Summary

Section: 3 3		Bot Elev (ft): 50.00				Height (ft): 25.000										
Max Compression Member	Force (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	phi Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)		Bear phiRn (kip)		Use %	Controls
				X	Y	Z					Num	Cap (kip)	Num	Cap (kip)		
LEG SAE - 8X8X0.75	-138.62	1.2D + 1.6W 45	25.10	33	33	33	62.9	36.0	300.96	0	0	0.00	0.00	46	Member Z	
HORIZ DAE - 2.5X2.5X0.25	-9.60	1.2D + 1.6W	11.53	100	100	25	165.7	36.0	19.57	0	0	0.00	0.00	49	Member X	
DIAG DAS - 3X2.5X0.25	-24.69	1.2D + 1.6W	28.26	33	66	8	155.0	36.0	24.73	0	0	0.00	0.00	99	Member Y	
Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Fu (ksi)	phit (kip)	Pn (kip)	Num Bolts	Num Holes	Shear Cap (kip)		Bear Cap (kip)		Use %	Controls		
LEG SAE - 8X8X0.75	104.59	0.9D + 1.6W 45	36	58	370.66	0	0	0	0.00	0.00	0.00	0.00	28	Member		
HORIZ DAE - 2.5X2.5X0.25	10.16	1.2D + 1.6W	36	58	77.11	0	0	0	0.00	0.00	0.00	0.00	13	Member		
DIAG DAS - 3X2.5X0.25	22.76	1.2D + 1.6W	36	58	85.21	0	0	0	0.00	0.00	0.00	0.00	26	Member		
Max Splice Forces	Force (kip)	Load Case	Capacity (kip)		Use %		Num Bolts		Bolt Type							
Top Tension	103.70	0.9D + 1.6W 45	0.00		0		0									
Top Compression	137.67	1.2D + 1.6W 45	0.00		0											
Bot Tension	132.08	0.9D + 1.6W 45	0.00		0											
Bot Compression	172.51	1.2D + 1.6W 45	0.00		0											
Section: 4 4		Bot Elev (ft): 75.00				Height (ft): 12.500										
Max Compression Member	Force (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	phi Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)		Bear phiRn (kip)		Use %	Controls
				X	Y	Z					Num	Cap (kip)	Num	Cap (kip)		
LEG SAE - 6X6X0.875	-120.81	1.2D + 1.6W 45	12.55	50	50	50	64.4	36.0	253.50	0	0	0.00	0.00	47	Member Z	
HORIZ DAE - 2.5X2.5X0.25	-8.54	1.2D + 1.6W	10.75	100	100	50	165.8	36.0	19.56	0	0	0.00	0.00	43	Member Y	
DIAG DAE - 2.5X2.5X0.25	-14.45	1.2D + 1.6W	17.02	50	100	12	167.1	36.0	19.26	0	0	0.00	0.00	75	Member Y	
Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Fu (ksi)	phit (kip)	Pn (kip)	Num Bolts	Num Holes	Shear Cap (kip)		Bear Cap (kip)		Use %	Controls		
LEG SAE - 6X6X0.875	91.52	0.9D + 1.6W 45	36	58	315.25	0	0	0	0.00	0.00	0.00	0.00	29	Member		
HORIZ DAE - 2.5X2.5X0.25	9.06	1.2D + 1.6W	36	58	77.11	0	0	0	0.00	0.00	0.00	0.00	11	Member		
DIAG DAE - 2.5X2.5X0.25	13.19	1.2D + 1.6W	36	58	77.11	0	0	0	0.00	0.00	0.00	0.00	17	Member		
Max Splice Forces	Force (kip)	Load Case	Capacity (kip)		Use %		Num Bolts		Bolt Type							
Top Tension	90.73	0.9D + 1.6W 45	0.00		0		0									
Top Compression	119.96	1.2D + 1.6W 45	0.00		0											
Bot Tension	103.70	0.9D + 1.6W 45	0.00		0											
Bot Compression	137.67	1.2D + 1.6W 45	0.00		0											



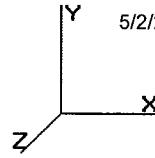
Force/Stress Summary

Section: 5 5		Bot Elev (ft): 87.50				Height (ft): 25.000										
Max Compression Member	Force (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	phi Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)		Bear phiRn (kip)		Use %	Controls
				X	Y	Z										
LEG SAE - 6X6X0.75	-103.74	1.2D + 1.6W 45	12.55	50	50	50	64.4	36.0	219.89	0	0	0.00	0.00	47	Member Z	
HORIZ DAE - 2.5X2.5X0.25	-7.95	1.2D + 1.6W	9.971	100	100	50	154.6	36.0	22.51	0	0	0.00	0.00	35	Member Y	
DIAG DAE - 2.5X2.5X0.25	-13.97	1.2D + 1.6W	16.50	50	100	12	162.8	36.0	20.29	0	0	0.00	0.00	68	Member Y	
Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Fu (ksi)	phit Pn (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls					
LEG SAE - 6X6X0.75	77.80	0.9D + 1.6W 45	36	58	273.46	0	0	0.00	0.00	0.00	28	Member				
HORIZ DAE - 2.5X2.5X0.25	8.37	1.2D + 1.6W	36	58	77.11	0	0	0.00	0.00	0.00	10	Member				
DIAG DAE - 2.5X2.5X0.25	12.85	1.2D + 1.6W	36	58	77.11	0	0	0.00	0.00	0.00	16	Member				
Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %			Num Bolts		Bolt Type							
Top Tension	63.98	0.9D + 1.6W 45	0.00	0												
Top Compression	85.83	1.2D + 1.6W 45	0.00	0												
Bot Tension	90.73	0.9D + 1.6W 45	0.00	0												
Bot Compression	119.96	1.2D + 1.6W 45	0.00	0												
Section: 6 6		Bot Elev (ft): 112.5				Height (ft): 12.500										
Max Compression Member	Force (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	phi Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)		Bear phiRn (kip)		Use %	Controls
				X	Y	Z										
LEG SAE - 6X6X0.5625	-69.84	1.2D + 1.6W 45	12.55	50	50	50	63.8	36.0	168.14	0	0	0.00	0.00	41	Member Z	
HORIZ DAE - 2.5X2.5X0.25	-6.77	1.2D + 1.6W	8.408	100	100	50	132.1	36.0	30.76	0	0	0.00	0.00	22	Member Y	
DIAG DAL - 2.5X2X0.25	-13.16	1.2D + 1.6W	15.53	50	100	12	188.1	36.0	13.60	0	0	0.00	0.00	96	Member Y	
Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Fu (ksi)	phit Pn (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls					
LEG SAE - 6X6X0.5625	50.76	0.9D + 1.6W 45	36	58	208.33	0	0	0.00	0.00	0.00	24	Member				
HORIZ DAE - 2.5X2.5X0.25	7.08	1.2D + 1.6W	36	58	77.11	0	0	0.00	0.00	0.00	9	Member				
DIAG DAL - 2.5X2X0.25	12.24	1.2D + 1.6W	36	58	69.01	0	0	0.00	0.00	0.00	17	Member				
Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %			Num Bolts		Bolt Type							
Top Tension	50.14	0.9D + 1.6W 45	0.00	0												
Top Compression	69.19	1.2D + 1.6W 45	0.00	0												
Bot Tension	63.98	0.9D + 1.6W 45	0.00	0												
Bot Compression	85.83	1.2D + 1.6W 45	0.00	0												



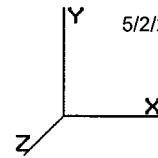
Force/Stress Summary

Section: 7 6		Bot Elev (ft): 125.0				Height (ft): 12.500											
Max Compression Member	Force (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	phi Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)		Bear phiRn (kip)		Use %	Controls	
				X	Y	Z					(kip)	(kip)	(kip)	(kip)			
LEG SAE - 6X6X0.5625	-53.42	1.2D + 1.6W 45	12.55	50	50	50	63.8	36.0	168.14	0	0	0.00	0.00	31	Member Z		
HORIZ DAE - 2.5X2.5X0.25	-6.18	1.2D + 1.6W	7.626	100	120	50	131.2	36.0	31.18	0	0	0.00	0.00	19	Member Y		
DIAG DAL - 2.5X2X0.25	-12.72	1.2D + 1.6W	15.08	50	100	12	183.4	36.0	14.30	0	0	0.00	0.00	88	Member Y		
Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Fu (ksi)	phit Pn (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls						
LEG SAE - 6X6X0.5625	37.13	0.9D + 1.6W 45	36	58	208.33	0	0	0.00	0.00	17	Member						
HORIZ DAE - 2.5X2.5X0.25	6.36	1.2D + 1.6W	36	58	77.11	0	0	0.00	0.00	8	Member						
DIAG DAL - 2.5X2X0.25	11.86	1.2D + 1.6W	36	58	69.01	0	0	0.00	0.00	17	Member						
Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %			Num Bolts										
							Bolt Type										
Top Tension	36.58	0.9D + 1.6W 45	0.00	0			0										
Top Compression	52.85	1.2D + 1.6W 45	0.00	0													
Bot Tension	50.14	0.9D + 1.6W 45	0.00	0													
Bot Compression	69.19	1.2D + 1.6W 45	0.00	0													
Section: 8 7		Bot Elev (ft): 137.5				Height (ft): 12.500											
Max Compression Member	Force (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	phi Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)		Bear phiRn (kip)		Use %	Controls	
				X	Y	Z					(kip)	(kip)	(kip)	(kip)			
LEG SAE - 6X6X0.4375	-38.28	1.2D + 1.6W 45	12.55	50	50	50	63.3	36.0	132.79	0	0	0.00	0.00	28	Member Z		
HORIZ DAE - 2.5X2.5X0.25	-4.45	1.2D + 1.6W	6.845	100	107	50	111.6	36.0	40.04	0	0	0.00	0.00	11	Member Y		
DIAG DAL - 2.5X2X0.25	-10.78	1.2D + 1.6W	14.66	50	100	12	179.1	36.0	15.01	0	0	0.00	0.00	71	Member Y		
Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Fu (ksi)	phit Pn (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls						
LEG SAE - 6X6X0.4375	25.30	0.9D + 1.6W 45	36	58	163.94	0	0	0.00	0.00	15	Member						
HORIZ DAE - 2.5X2.5X0.25	5.31	1.2D + 1.6W	36	58	77.11	0	0	0.00	0.00	6	Member						
DIAG DAL - 2.5X2X0.25	10.04	1.2D + 1.6W	36	58	69.01	0	0	0.00	0.00	14	Member						
Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %			Num Bolts										
							Bolt Type										
Top Tension	24.79	0.9D + 1.6W 45	0.00	0			0										
Top Compression	37.67	1.2D + 1.6W 45	0.00	0													
Bot Tension	36.58	0.9D + 1.6W 45	0.00	0													
Bot Compression	52.85	1.2D + 1.6W 45	0.00	0													



Force/Stress Summary

Section: 9 8 - lower		Bot Elev (ft): 150.0				Height (ft): 10.167											
Max Compression Member	Force (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	phi Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls			
				X	Y	Z											
LEG SAE - 5X5X0.4375	-30.19	1.2D + 1.6W 45	10.21	50	50	50	62.1	36.0	110.54	0	0	0.00	0.00	27	Member Z		
HORIZ SAU - 3X2.5X0.25	-1.51	0.9D + 1.6W	12.41	50	100	50	167.9	36.0	10.50	0	0	0.00	0.00	14	Member Y		
DIAG SAE - 3.5X3.5X0.25	-6.36	1.2D + 1.6W	16.55	50	50	50	137.7	36.0	20.14	0	0	0.00	0.00	31	Member Z		
Max Tension Member	Force (kip)	Load Case		Fy (ksi)	Fu (ksi)	phit (kip)	Pn (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls				
LEG SAE - 5X5X0.4375	19.69	0.9D + 1.6W 45		36	58	135.43	0	0	0	0.00	0.00	14	Member				
HORIZ SAU - 3X2.5X0.25	2.37	1.2D + 1.6W		36	58	42.44	0	0	0	0.00	0.00	5	Member				
DIAG SAE - 3.5X3.5X0.25	5.10	1.2D + 1.6W		36	58	54.76	0	0	0	0.00	0.00	9	Member				
Max Splice Forces	Force (kip)	Load Case		Capacity (kip)	Use %			Num Bolts	Bolt Type								
Top Tension	14.76	0.9D + 1.6W 45		0.00	0			0									
Top Compression	26.55	1.2D + 1.6W 45		0.00	0												
Bot Tension	24.79	0.9D + 1.6W 45		0.00	0												
Bot Compression	37.67	1.2D + 1.6W 45		0.00	0												
Section: 10 8 - upper		Bot Elev (ft): 160.1				Height (ft): 10.167											
Max Compression Member	Force (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	phi Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls			
				X	Y	Z											
LEG SAE - 5X5X0.4375	-19.49	1.2D + 1.6W 45	10.21	50	50	50	62.1	36.0	110.54	0	0	0.00	0.00	17	Member Z		
HORIZ DAL - 3X2.5X0.25	-0.86	0.9D + 1.6W	11.14	50	100	50	172.4	36.0	19.99	0	0	0.00	0.00	4	Member Y		
DIAG SAE - 3.5X3.5X0.25	-5.24	1.2D + 1.6W	15.57	50	50	50	131.2	36.0	22.12	0	0	0.00	0.00	23	Member Z		
Max Tension Member	Force (kip)	Load Case		Fy (ksi)	Fu (ksi)	phit (kip)	Pn (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls				
LEG SAE - 5X5X0.4375	11.39	0.9D + 1.6W 45		36	58	135.43	0	0	0	0.00	0.00	8	Member				
HORIZ DAL - 3X2.5X0.25	1.52	1.2D + 1.6W		36	58	85.21	0	0	0	0.00	0.00	1	Member				
DIAG SAE - 3.5X3.5X0.25	4.13	1.2D + 1.6W		36	58	54.76	0	0	0	0.00	0.00	7	Member				
Max Splice Forces	Force (kip)	Load Case		Capacity (kip)	Use %			Num Bolts	Bolt Type								
Top Tension	6.76	0.9D + 1.6W 45		0.00	0			0									
Top Compression	16.08	1.2D + 1.6W 45		0.00	0												
Bot Tension	14.76	0.9D + 1.6W 45		0.00	0												
Bot Compression	26.55	1.2D + 1.6W 45		0.00	0												

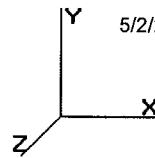


Force/Stress Summary

Section: 11 9 - lower		Bot Elev (ft): 170.3				Height (ft): 8.583										
Max Compression Member	Force (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	phi Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls		
				X	Y	Z										
LEG SAE - 5X5X0.3125	-10.43	1.2D + 1.6W 45	8.62	50	50	50	52.0	35.9	84.92	0	0	0.00	0.00	12	Member Z	
HORIZ SAU - 3X2.5X0.25	-0.29	1.2D + 1.6W	10.07	50	100	50	144.9	36.0	14.09	0	0	0.00	0.00	2	Member Y	
DIAG SAE - 3X3X0.25	-3.79	1.2D + 1.6W	13.65	50	50	50	134.1	36.0	18.10	0	0	0.00	0.00	20	Member Z	
Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Fu (ksi)	phit (kip)	Pn (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls				
LEG SAE - 5X5X0.3125	5.01	0.9D + 1.6W 45	36	58	98.17	0	0	0	0.00	0.00	0.00	0.00	5	Member		
HORIZ SAU - 3X2.5X0.25	0.90	1.2D + 1.6W	36	58	42.44	0	0	0	0.00	0.00	0.00	0.00	2	Member		
DIAG SAE - 3X3X0.25	2.94	1.2D + 1.6W	36	58	46.66	0	0	0	0.00	0.00	0.00	0.00	6	Member		
Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %			Num Bolts	Bolt Type								
Top Tension	1.67	0.9D + 1.6W 45	0.00	0			0									
Top Compression	9.60	1.2D + 1.0Di +	0.00	0			0									
Bot Tension	6.76	0.9D + 1.6W 45	0.00	0			0									
Bot Compression	16.08	1.2D + 1.6W 45	0.00	0			0									
Section: 12 9 - upper		Bot Elev (ft): 178.9				Height (ft): 8.583										
Max Compression Member	Force (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	phi Pn (kip)	Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %			
				X	Y	Z										
LEG SAE - 5X5X0.3125	-4.84	1.2D + 1.0Di +	8.62	50	50	50	52.0	35.9	84.92	0	0	0.00	0.00	5	Member Z	
HORIZ CHN - C8 x 11.5	-0.06	1.2D + 1.6W	9.000	100	100	100	160.3	36.0	29.73	0	0	0.00	0.00	0	Member Y	
DIAG SAE - 3X3X0.25	-2.92	1.2D + 1.6W	12.84	50	50	50	127.8	36.0	19.75	0	0	0.00	0.00	14	Member Z	
Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Fu (ksi)	phit (kip)	Pn (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls				
LEG SAE - 5X5X0.3125	0.13	1.2D + 1.6W 45	36	58	98.17	0	0	0	0.00	0.00	0.00	0.00	0	Member		
HORIZ CHN - C8 x 11.5	0.06	1.2D + 1.6W	36	58	109.51	0	0	0	0.00	0.00	0.00	0.00	0	Member		
DIAG SAE - 3X3X0.25	2.24	1.2D + 1.6W	36	58	46.66	0	0	0	0.00	0.00	0.00	0.00	4	Member		
Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %			Num Bolts	Bolt Type								
Top Tension	0.00		0.00	0			0									
Top Compression	5.47	1.2D + 1.0Di +	0.00	0			0									
Bot Tension	1.67	0.9D + 1.6W 45	0.00	0			0									
Bot Compression	9.60	1.2D + 1.0Di +	0.00	0			0									

Site Number: 88014
 Location: New Fairfield, CT
 Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure : B
 Topo : 1

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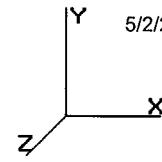
Support Forces Summary

Load Case	Node	FX (kip)	FY (kip)	FZ (kip)	(-) = Uplift (+) = Down
0.9D + 1.6W Normal	1c	10.35	161.45	-21.55	
	1b	-7.06	-117.37	-18.42	
	1a	7.06	-117.37	-18.42	
	1	-10.35	161.45	-21.55	
1.0D + 1.0W Service 45 deg	1c	-0.26	24.61	-3.92	
	1b	-3.48	-26.97	-3.48	
	1a	-3.91	24.38	-0.26	
	1	-7.12	75.96	-7.12	
1.0D + 1.0W Service Normal	1c	4.00	59.25	-6.80	
	1b	-0.34	-10.27	-3.16	
	1a	0.34	-10.27	-3.16	
	1	-4.00	59.25	-6.80	
1.2D + 1.0Di + 1.0Wi 45 deg	1c	2.40	70.84	-7.84	
	1b	-1.70	5.40	-1.70	
	1a	-7.84	70.62	2.39	
	1	-11.92	136.06	-11.91	
1.2D + 1.0Di + 1.0Wi Normal	1c	7.85	114.40	-11.48	
	1b	2.39	27.06	-1.26	
	1a	-2.39	27.06	-1.26	
	1	-7.85	114.40	-11.48	
0.9D + 1.6W 45 deg	1c	-6.70	22.50	-10.03	
	1b	-19.72	-184.35	-19.69	
	1a	-10.00	21.59	-6.73	
	1	-22.82	228.44	-22.80	
1.2D + 1.6W 45 deg	1c	-6.15	29.85	-10.58	
	1b	-19.17	-177.11	-19.14	
	1a	-10.55	28.93	-6.18	
	1	-23.38	235.90	-23.35	
1.2D + 1.6W Normal	1c	10.91	168.88	-22.10	
	1b	-6.52	-110.09	-17.87	
	1a	6.52	-110.09	-17.87	
	1	-10.91	168.88	-22.10	

Max Uplift: 184.35 (kip) Moment: 9,475.46 (ft-kip) 1.2D + 1.6W 45 deg
 Max Down: 235.90 (kip) Total Down: 117.57 (kip)
 Max Shear: 33.04 (kip) Total Shear: 83.78 (kip)

Site Number: 88014
 Location: New Fairfield, CT
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Deflections and Rotations

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)
Serviceability - 60.00 Wind 45 deg	50.00	0.0121	0.0332	0.0236
	75.00	0.0239	0.0507	0.0288
	87.50	0.0301	0.0684	0.0301
	100.00	0.0371	0.0885	0.0349
	125.00	0.0535	0.1347	0.0487
	137.50	0.0630	0.1484	0.0486
	160.17	0.0817	0.1652	0.0510
	170.33	0.0904	0.1765	0.0533
	178.92	0.0980	0.1923	0.0549
	187.50	0.1055	0.2053	0.0973
Serviceability - 60.00 Wind Normal	50.00	0.0116	0.0200	0.0231
	75.00	0.0228	0.0310	0.0318
	87.50	0.0288	0.0424	0.0302
	100.00	0.0354	0.0551	0.0373
	125.00	0.0512	0.0847	0.0630
	137.50	0.0603	0.0930	0.0578
	160.17	0.0780	0.1019	0.0533
	170.33	0.0864	0.1086	0.0589
	178.92	0.0937	0.1187	0.0432
	187.50	0.1009	0.1274	0.1158
50.00 mph 45 deg with 0.75 in Radial Ice	50.00	0.0190	0.0315	0.0313
	75.00	0.0337	0.0481	0.0373
	87.50	0.0413	0.0643	0.0377
	100.00	0.0498	0.0824	0.0433
	125.00	0.0697	0.1243	0.0565
	137.50	0.0811	0.1365	0.0569
	160.17	0.1027	0.1527	0.0599
	170.33	0.1130	0.1636	0.0622
	178.92	0.1218	0.1787	0.0630
	187.50	0.1306	0.1912	0.0996
50.00 mph Normal with 0.75 in Radial Ice	50.00	0.0173	0.0186	0.0297
	75.00	0.0312	0.0290	0.0403
	87.50	0.0385	0.0393	0.0366
	100.00	0.0465	0.0506	0.0447
	125.00	0.0654	0.0773	0.0704
	137.50	0.0762	0.0846	0.0636
	160.17	0.0967	0.0933	0.0609
	170.33	0.1065	0.0997	0.0667
	178.92	0.1149	0.1095	0.0508
	187.50	0.1233	0.1178	0.1209
95.00 mph 45 deg with No Ice (Reduced DL)	50.00	0.0485	0.1623	0.0945
	75.00	0.0957	0.2480	0.1158
	87.50	0.1207	0.3352	0.1214
	100.00	0.1487	0.4330	0.1416
	125.00	0.2147	0.6551	0.1960
	137.50	0.2528	0.7274	0.1999
	160.17	0.3274	0.8346	0.2103
	170.33	0.3623	0.8974	0.2210

Site Number: 88014

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Location: New Fairfield, CT

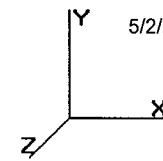
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Code: ANSI/TIA-222 Rev G

Struct Class : II

Exposure : B

Topo : 1



95.00 mph 45 deg with No Ice

178.92	0.3927	0.9750	0.2250
187.50	0.4229	1.0352	0.3929
50.00	0.0485	0.1623	0.0946
75.00	0.0958	0.2480	0.1160
87.50	0.1208	0.3352	0.1216
100.00	0.1488	0.4331	0.1418
125.00	0.2148	0.6552	0.1962
137.50	0.2530	0.7274	0.2001
160.17	0.3276	0.8347	0.2105
170.33	0.3625	0.8975	0.2212
178.92	0.3930	0.9751	0.2252
187.50	0.4232	1.0352	0.3931
50.00	0.0463	0.1028	0.0933
75.00	0.0914	0.1589	0.1295
87.50	0.1152	0.2168	0.1239
100.00	0.1420	0.2811	0.1532
125.00	0.2051	0.4279	0.2589
137.50	0.2417	0.4748	0.2390
160.17	0.3128	0.5431	0.2229
170.33	0.3464	0.5838	0.2464
178.92	0.3755	0.6353	0.1865
187.50	0.4048	0.6759	0.4775
50.00	0.0463	0.1028	0.0934
75.00	0.0914	0.1589	0.1296
87.50	0.1153	0.2168	0.1240
100.00	0.1421	0.2811	0.1533
125.00	0.2052	0.4279	0.2591
137.50	0.2419	0.4748	0.2392
160.17	0.3130	0.5431	0.2231
170.33	0.3467	0.5838	0.2466
178.92	0.3758	0.6354	0.1867
187.50	0.4051	0.6759	0.4779
187.50	0.0000	0.0000	0.0000

95.00 mph Normal to Face with No Ice

50.00	0.0463	0.1028	0.0934
75.00	0.0914	0.1589	0.1296
87.50	0.1153	0.2168	0.1240
100.00	0.1421	0.2811	0.1533
125.00	0.2052	0.4279	0.2591
137.50	0.2419	0.4748	0.2392
160.17	0.3130	0.5431	0.2231
170.33	0.3467	0.5838	0.2466
178.92	0.3758	0.6354	0.1867
187.50	0.4051	0.6759	0.4779
187.50	0.0000	0.0000	0.0000

T-MOBILE NORTHEAST LLC

CT11106A
NEW FAIRFIELD (AT&T)

37 TITICUS MOUNTAIN RD.
NEW FAIRFIELD, CT 06812

GENERAL NOTES

1. THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK, THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES.
2. THE ARCHITECT/ENGINEER HAVE MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONSTRUCT DOCUMENTS THE COMPLETE SCOPE OF WORK. THE CONTRACTOR BIDDING THE JOB IS NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS.
3. THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE T-MOBILE REPRESENTATIVE OF ANY CONFLICTS, ERRORS, OR OMISSIONS PRIOR TO THE SUBMISSION OF THE CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES, THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXPENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.
4. THE SCOPE OF WORK SHALL INCLUDE FURNISHING OF ALL MATERIALS, EQUIPMENT, LABOR AND ALL OTHER MATERIALS AND LABOR DEEMED NECESSARY TO COMPLETE THE WORK/PROJECT AS DESCRIBED HEREIN.
5. THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK TO FAMILIARIZE HIMSELF WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
6. THE CONTRACTOR SHALL OBTAIN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWINGS/CONTRACT DOCUMENTS.
7. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S/ VENDOR'S SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
8. THE CONTRACTOR SHALL PROVIDE A FULL SET OF CONSTRUCTION DOCUMENTS AT THE SITE UPDATED WITH THE LATEST REVISIONS AND ADDENDUM OR CLARIFICATIONS AVAILABLE FOR THE USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT.
9. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER CONTRACT.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY PERMITS AND INSPECTIONS WHICH ARE REQUIRED FOR THE WORK BY THE ARCHITECT/ENGINEER, THE STATE, COUNTY, OR LOCAL GOVERNMENT AUTHORITY.
11. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVING, CURBING, ETC., DURING CONSTRUCTION. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY.
12. THE CONTRACTOR SHALL KEEP THE GENERAL WORK AREA CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON PROPERTY. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
13. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS, AS WELL AS THE LATEST EDITIONS OF ANY PERTINENT STATE SAFETY REGULATIONS.
14. THE CONTRACTOR SHALL NOTIFY THE T-MOBILE REPRESENTATIVE WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE WORK THAT IS IN CONFLICT UNTIL CONFLICT IS RESOLVED BY THE T-MOBILE REPRESENTATIVE.
15. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC., ON THE JOB.
16. THE CONTRACTOR SHALL RETURN ALL DISTURBED AREAS TO THEIR ORIGINAL CONDITION AT THE COMPLETION OF WORK.

DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



CALL:
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CALL 811, OR 1-800-922-4455
CALL THREE WORKING DAYS PRIOR TO DIGGING

CALL THREE WORKING DAYS PRIOR TO DIGGING
SAFETY PRECAUTIONS SHALL BE IMPLEMENTED BY CONTRACTOR(S) AT ALL
TRENCHING IN ACCORDANCE WITH CURRENT OSHA STANDARDS.

COLOR CODE FOR UTILITY LOCATIONS

ELECTRIC - RED	SEWER	- GREEN
GAS/OIL - YELLOW	SURVEY	- PINK
TEL/CATV - ORANGE	PROPOSED EXCAVATION	- WHITE
WATER - BLUE	RECLAIMED WATER	- PURPLE

(2C CONFIGURATION)

PROJECT SUMMARY

SITE NUMBER:	CT11106A	APPLICANT:	T-MOBILE NORTHEAST LLC
SITE NAME:	NEW FAIRFIELD (AT&T)		400 STREET RD
SITE ADDRESS:	37 TTICUS MOUNTAIN RD. NEW FAIRFIELD, CT 06812		BENSALEM, PA 19020
PROPERTY OWNER:	TBD	PROJECT MANAGER:	AMERICAN TOWER CORPORATION
			10 PRESIDENTIAL WAY
			WOBURN, MA 01801
PARCEL:	TBD	CONTACT:	TARA RUSSO
CURRENT ZONING:	TBD		717-695-2942
JURISDICTION:	TBD		
ATC SITE NUMBER:	BB014	ARCHITECT/ENGINEER:	INFINIGY ENGINEERING
LAT./LONG.:	N 41.45070' / W 73.51597'		11 HERBERT DRIVE
CONSTRUCTION TYPE:	-		LATHAM, NY 12110
USE GROUP:	-	CONTACT:	AJ DESANTIS
			518-690-0790

PROJECT DESCRIPTION

<input checked="" type="checkbox"/> EXISTING MONOPOLE	<input checked="" type="checkbox"/> EXISTING CABINET(S)	<input checked="" type="checkbox"/> OUTDOOR
<input type="checkbox"/> EXISTING LATTICE TOWER	<input type="checkbox"/> EXISTING RBS 2106	<input type="checkbox"/> INDOOR
<input type="checkbox"/> EXISTING TRANSMISSION TOWER	<input type="checkbox"/> EXISTING RBS 3106	<input checked="" type="checkbox"/> EXISTING CONCRETE PAD
<input type="checkbox"/> EXISTING WATER TANK	<input checked="" type="checkbox"/> PROPOSED RBS 6102	<input type="checkbox"/> EXISTING STEEL PLATFORM
<input type="checkbox"/> EXISTING BUILDING	<input type="checkbox"/> SITE SUPPORT KIT	<input checked="" type="checkbox"/> EXISTING PPC
<input type="checkbox"/> EXISTING FLAGPOLE	<input type="checkbox"/> SITE SUPPORT CABINET	<input type="checkbox"/> PANI BOARD
<input type="checkbox"/> EXISTING FORT WORTH	<input checked="" type="checkbox"/> GPS	

T-MOBILE NORTHEAST LLC PROPOSES THE MODIFICATION OF AN UNMANNED WIRELESS BROADBAND FACILITY. REPLACEMENT OF EXISTING PANEL ANTENNAS & TIA'S WITH PROPOSED AIR21 PANEL ANTENNAS AND ASSOCIATED CABLING. REUSE EXISTING GPS ANTENNA AND EXISTING EQUIPMENT CABINETS.

SHEET INDEX

SITE NAME
CT11106A

NEW FAIRFIELD (AT&T)
37 TITICUS MAOUNTAIN RD.
NEW FAIRFIELD, CT 06812

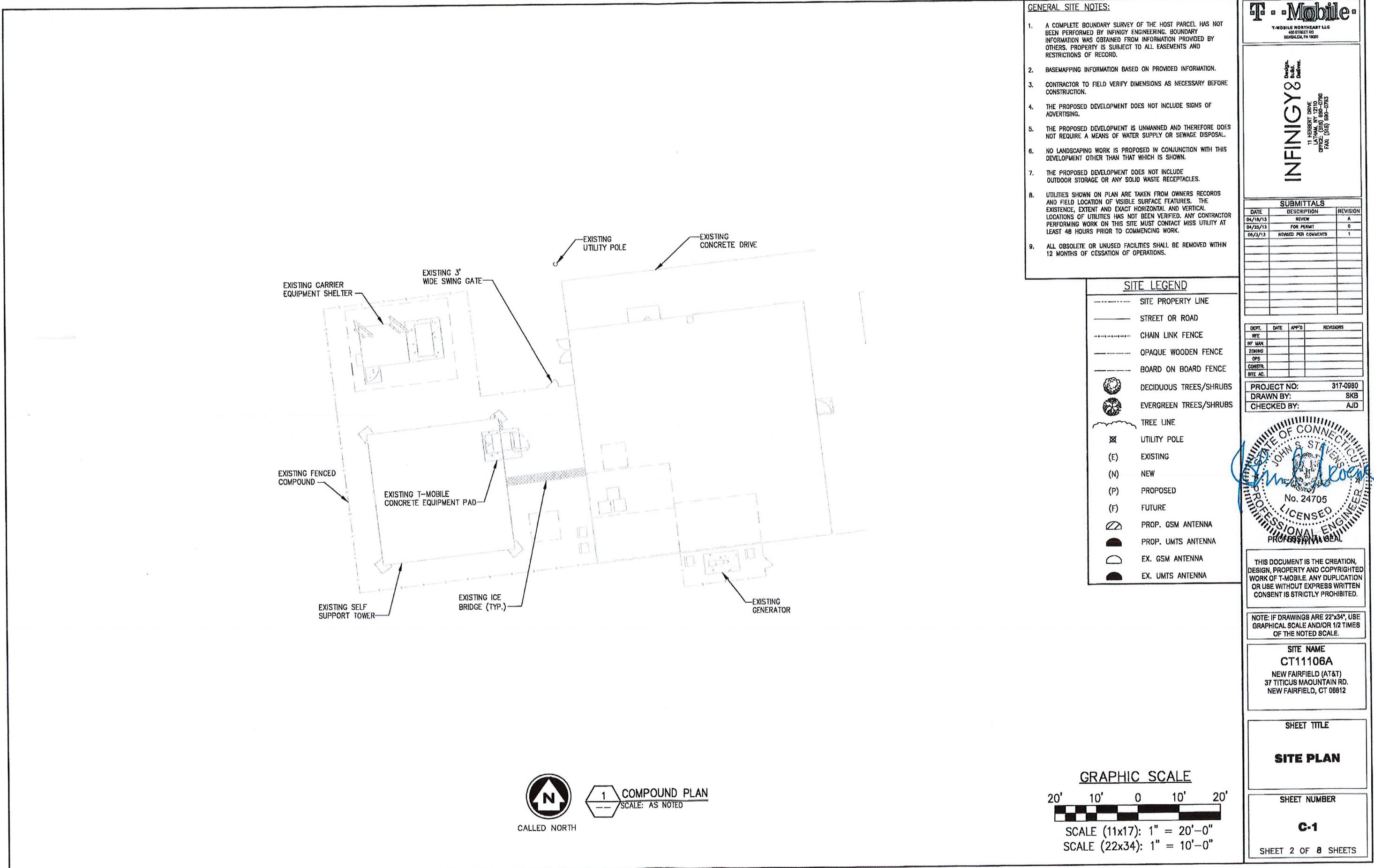
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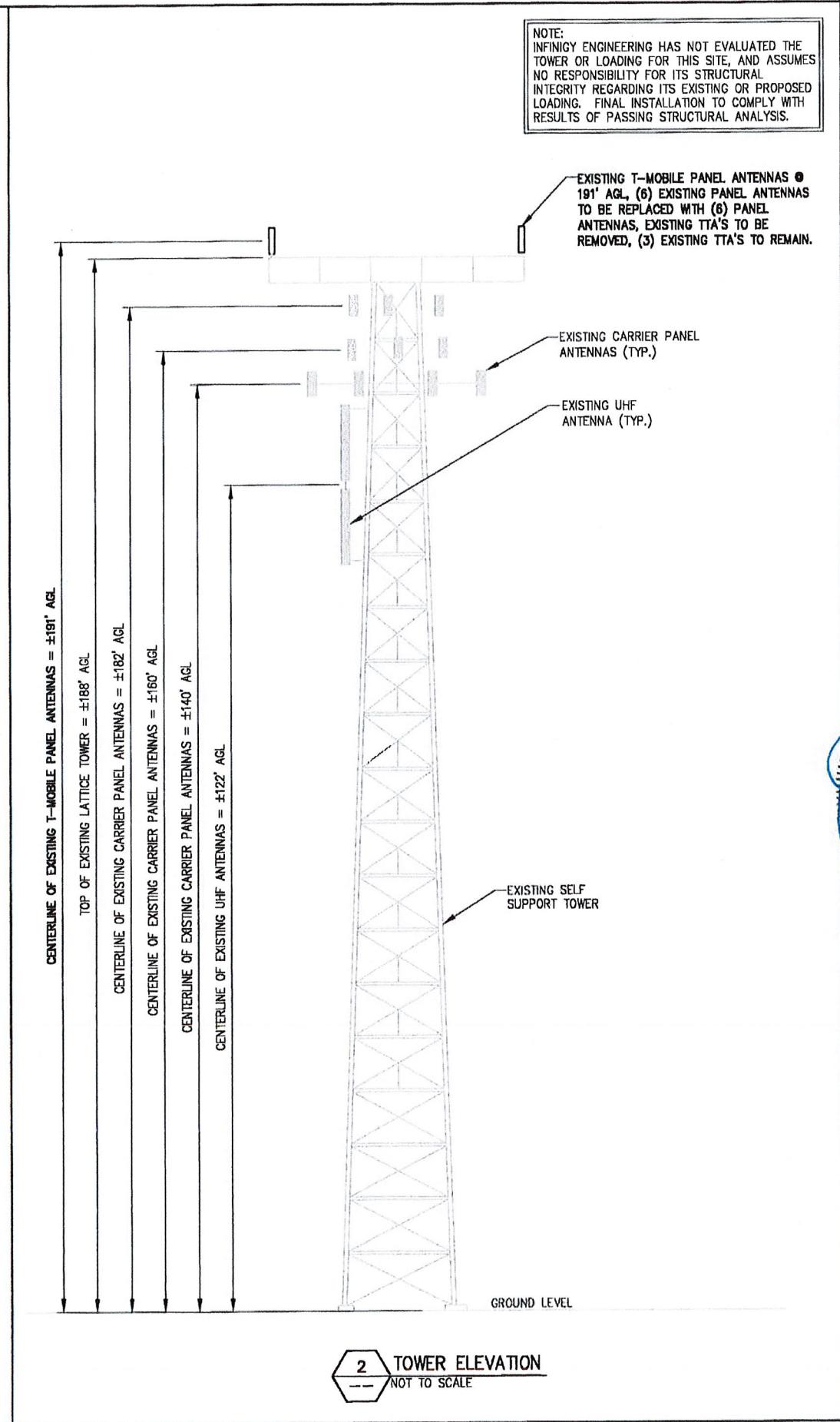
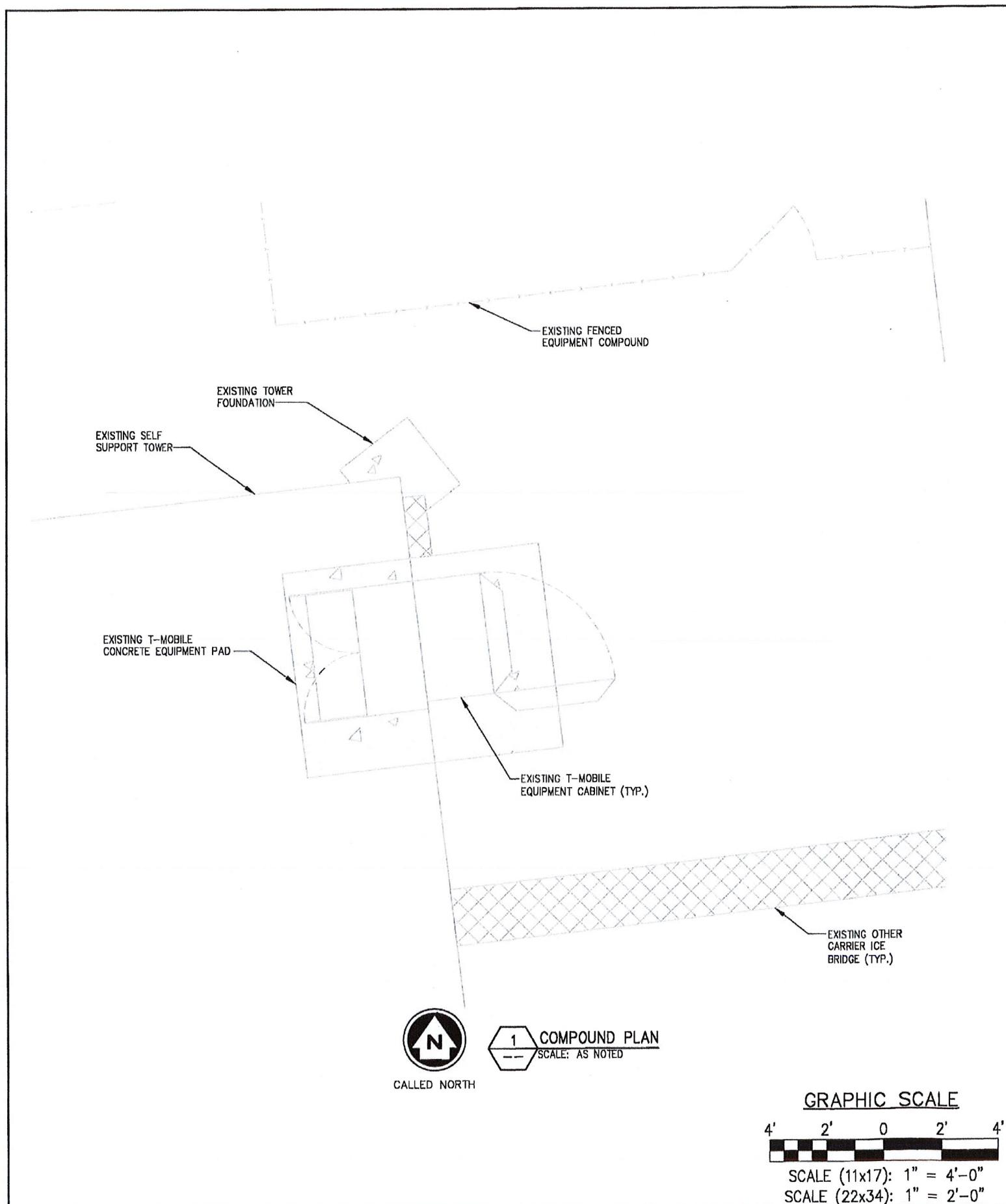
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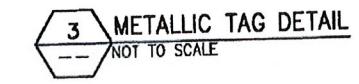
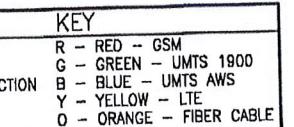
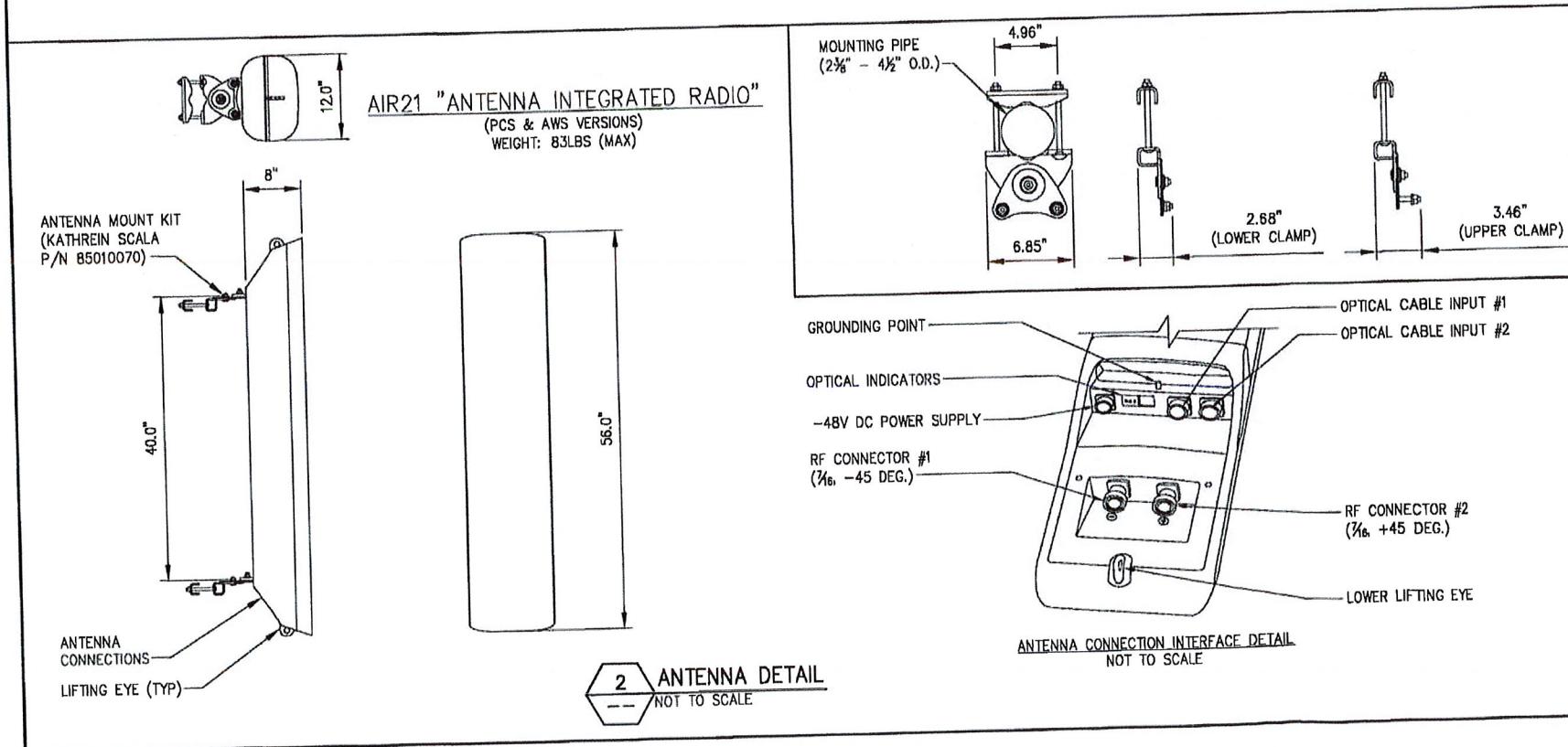
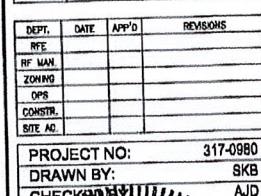
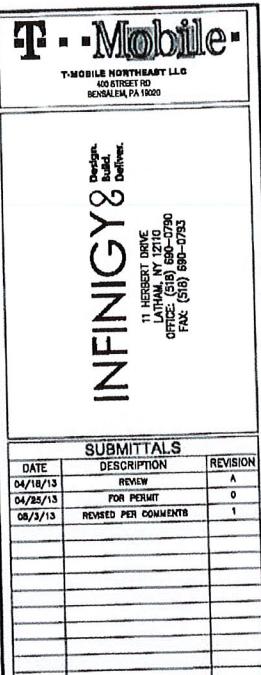
SHEET NUMBER

T.1

SHEET 1 OF 8 SHEETS

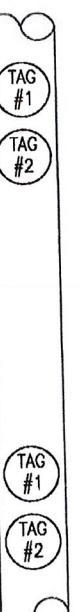






METALLIC TAG NOTES:

1. TWO METALLIC TAGS SHALL BE ATTACHED AT EACH END OF EVERY CABLE LONGER THAN (3) THREE FEET.
2. CABLES LESS THAN (3) THREE FEET WILL HAVE TWO METALLIC TAGS ATTACHED AT THE CENTER OF THE CABLE.
3. TAGS WILL BE FASTENED WITH STAINLESS STEEL ZIP TIES APPROPRIATE FOR CABLE DIAMETER.
4. STANDARDIZED METALLIC TAG KITS WILL BE ASSEMBLED WITH TAGS ALREADY ENGRAVED TO ACCOMMODATE ALL CONFIGURATIONS.



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NOTE: IF DRAWINGS ARE 22"X34", USE
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OF THE NOTED SCALE.

SITE NAME
CT11106A
NEW FAIRFIELD (AT&T)
37 TITICUS MAOUNTAIN RD.

SHEET TITLE

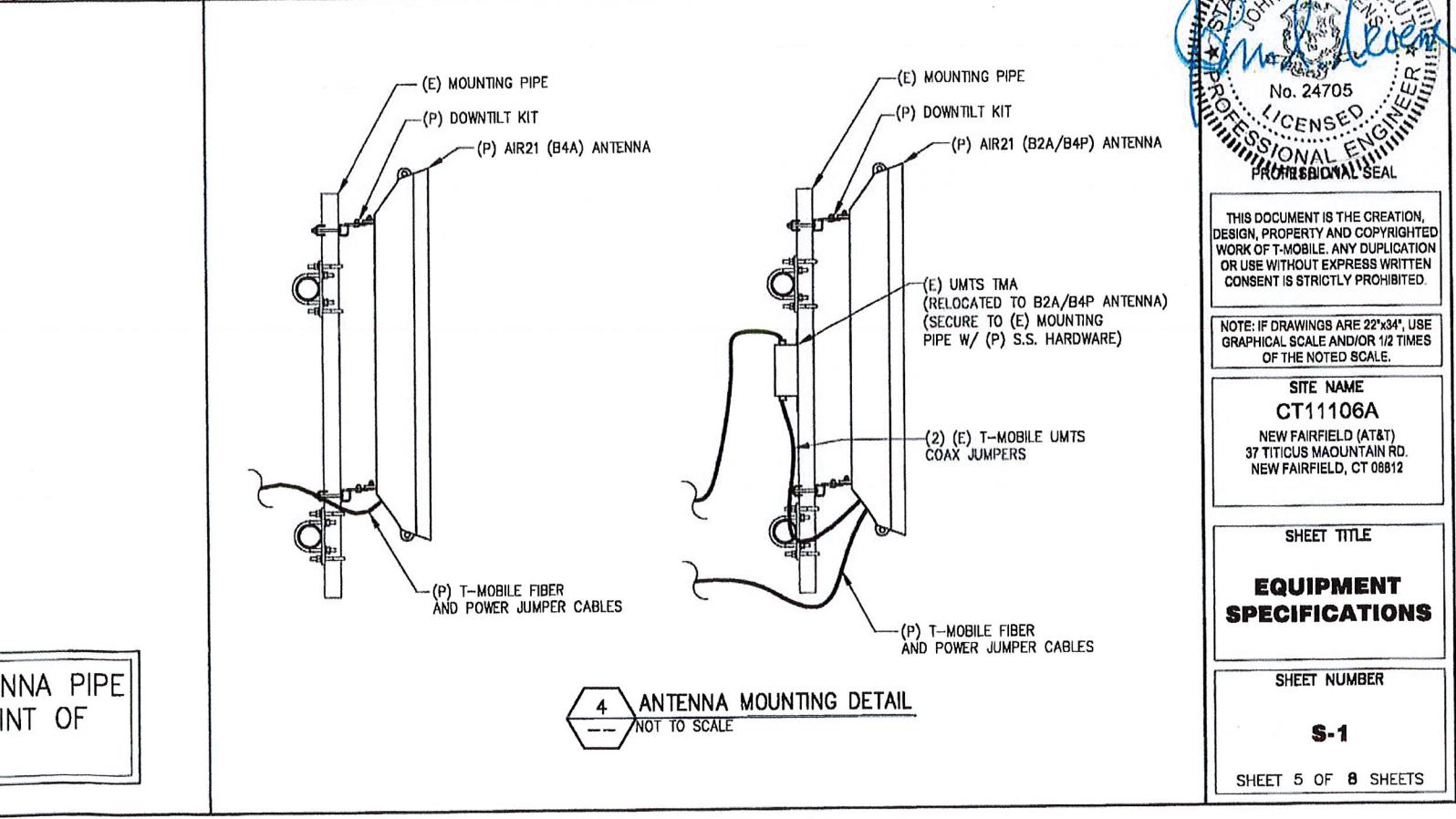
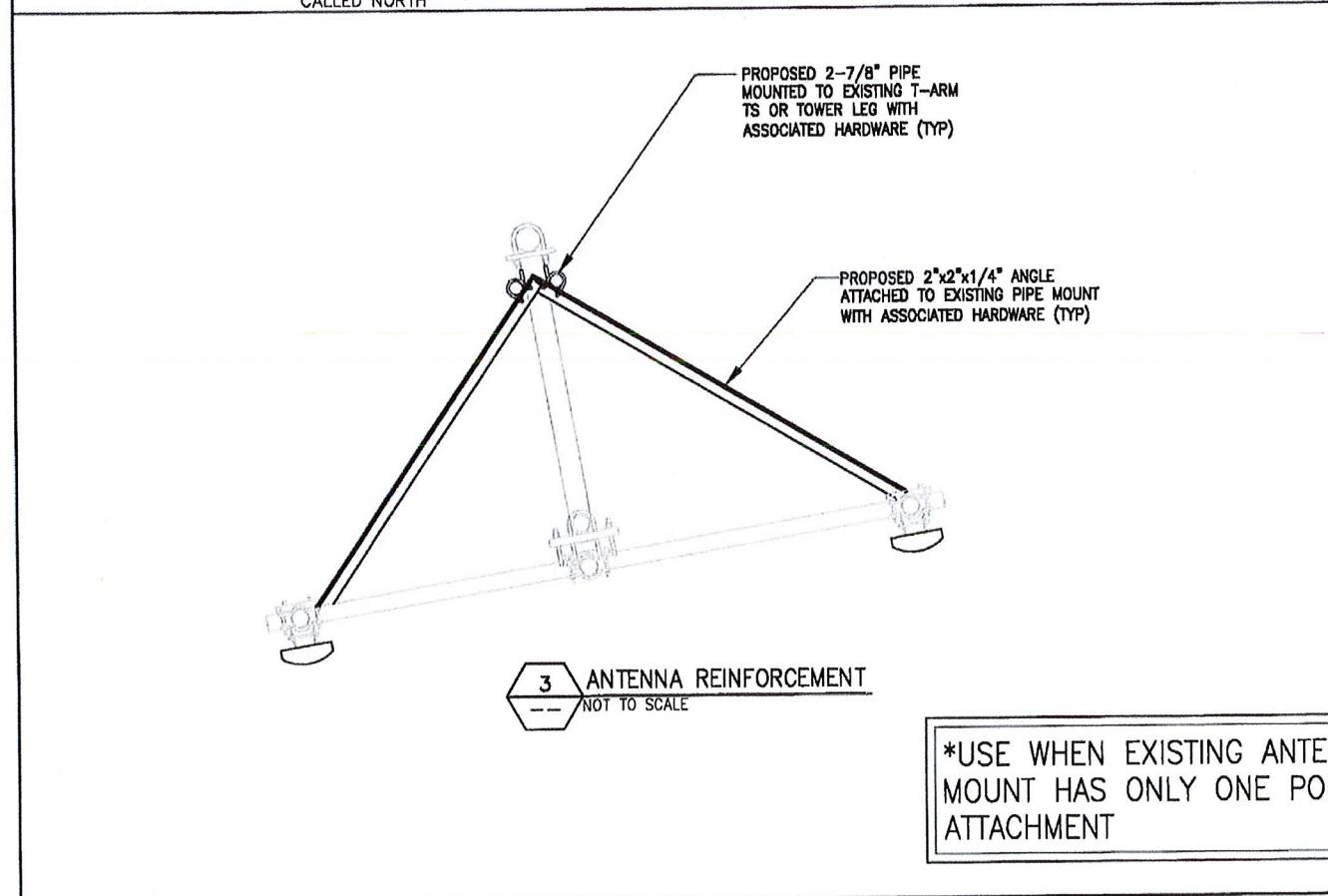
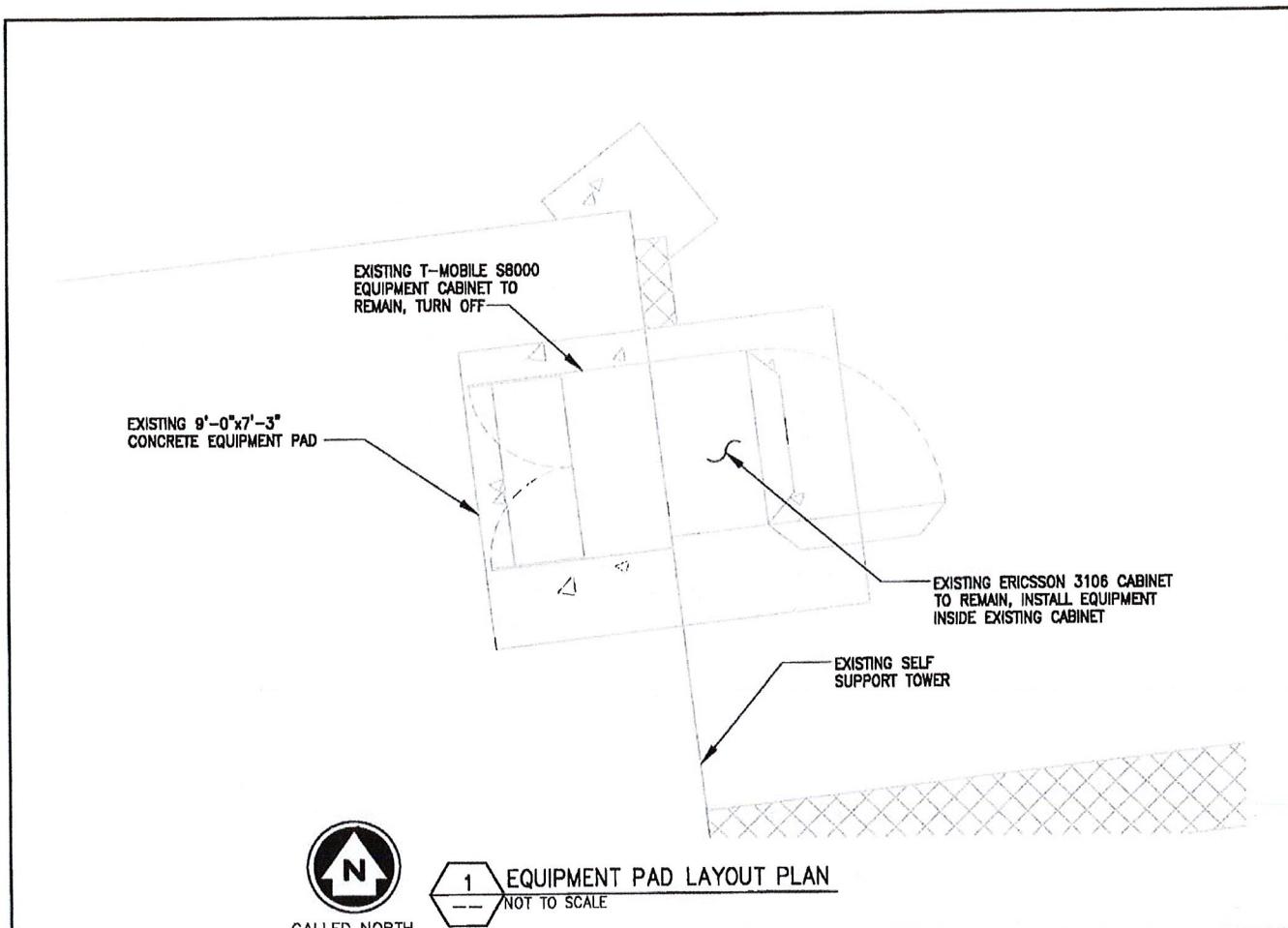
ANTENNA DETAIL

BUCKET NUMBER

THE JOURNAL OF CLIMATE

2000-2001

STREET 101 - 200



STRUCTURAL NOTES:

- SPECIFICATIONS / CODES:**
 - CONCRETE WORK SHALL BE PERFORMED IN ACCORDANCE WITH LATEST EDITION OF THE ACI CODE.
 - STEEL WORK SHALL BE PERFORMED IN ACCORDANCE WITH AISC STEEL CONSTRUCTION MANUAL, 9TH EDITION.
 - WELDING SHALL BE PERFORMED IN ACCORDANCE WITH AMERICAN WELDING SOCIETY (AWS) D1.1-92 "STRUCTURAL WELDING" CODE-STEEL.
 - REINFORCING STEEL SHALL BE PLACED IN ACCORDANCE WITH THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI), "MANUAL OF STANDARD PRACTICE."
- MATERIALS:**
 - CONCRETE: f'_c - 3000psi, (MIN. U.N.O.)
 - REINFORCING STEEL: ASTM A615, GRADE 60.
 - WIRE MESH: ASTM A185.
 - STRUCTURAL STEEL: ASTM A36.
 - ELECTRODES FOR WELDING: E 70xx.
 - GALVANIZING: ASTM A153 (BOLTS) OR ASTM A123 (SHAPES, PLATES).
 - EXPANSION BOLTS: HILTI KWIK BOLT II, STAINLESS STEEL, $3/4"$ ϕ \times $4/4"$ EMBEDMENT OR AN APPROVED EQUAL.

T-Mobile T-MOBILE NORTHEAST LLC 400 STREET RD ENVALIA, PA 16023			
INFINIGY 11 HERBERT DRIVE LATHAM, NY 12110 OFFICE (518) 669-0750 FAX (518) 669-0755			
SUBMITTALS			
DATE 04/16/13	DESCRIPTION FOR PERMIT	REVISION A	
04/23/13		0	
05/4/13	REVISED PER COMMENTS	1	
DEPT. RFE	DATE RF MAN.	APPROD TO HNG	REVISIONS
OPS			
CONSTR.			
SITE AG.			
PROJECT NO: 317-0880			
DRAWN BY: SKB			
CHECKED BY: AJD			

DEPT. RFE	DATE RF MAN.	APPROD TO HNG	REVISIONS
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CONSTR.			
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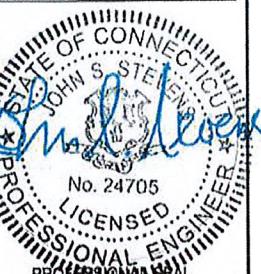
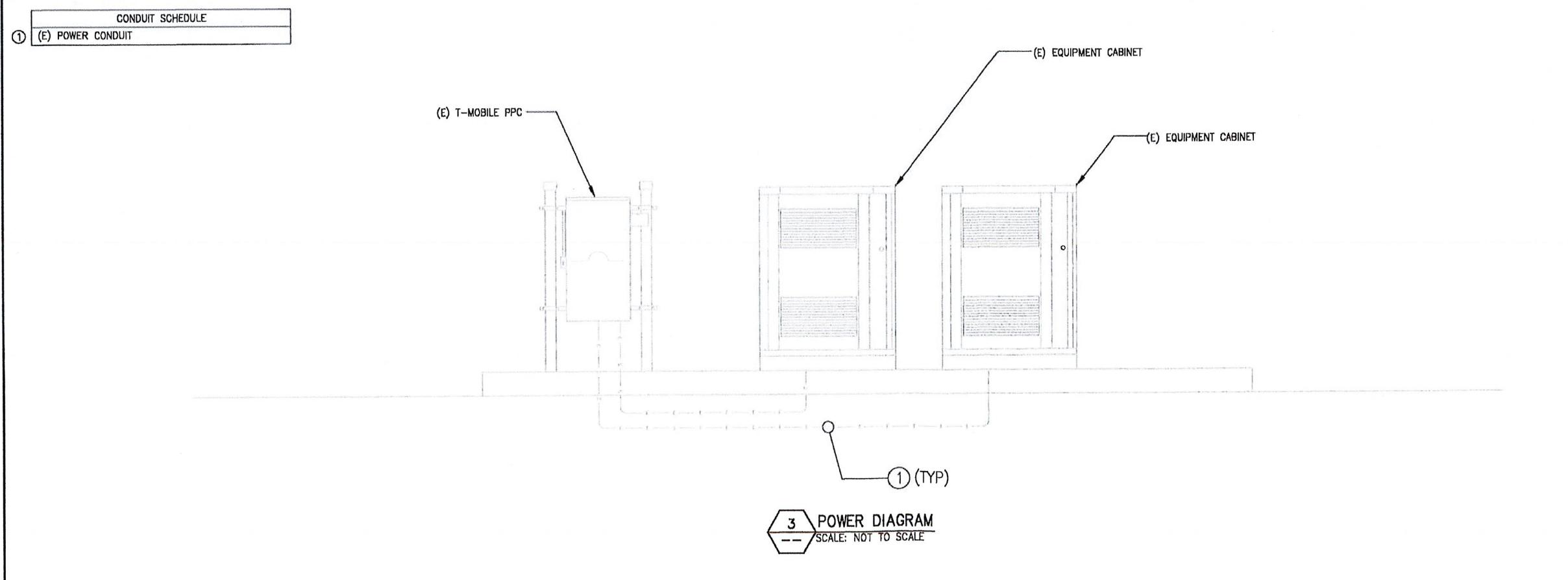
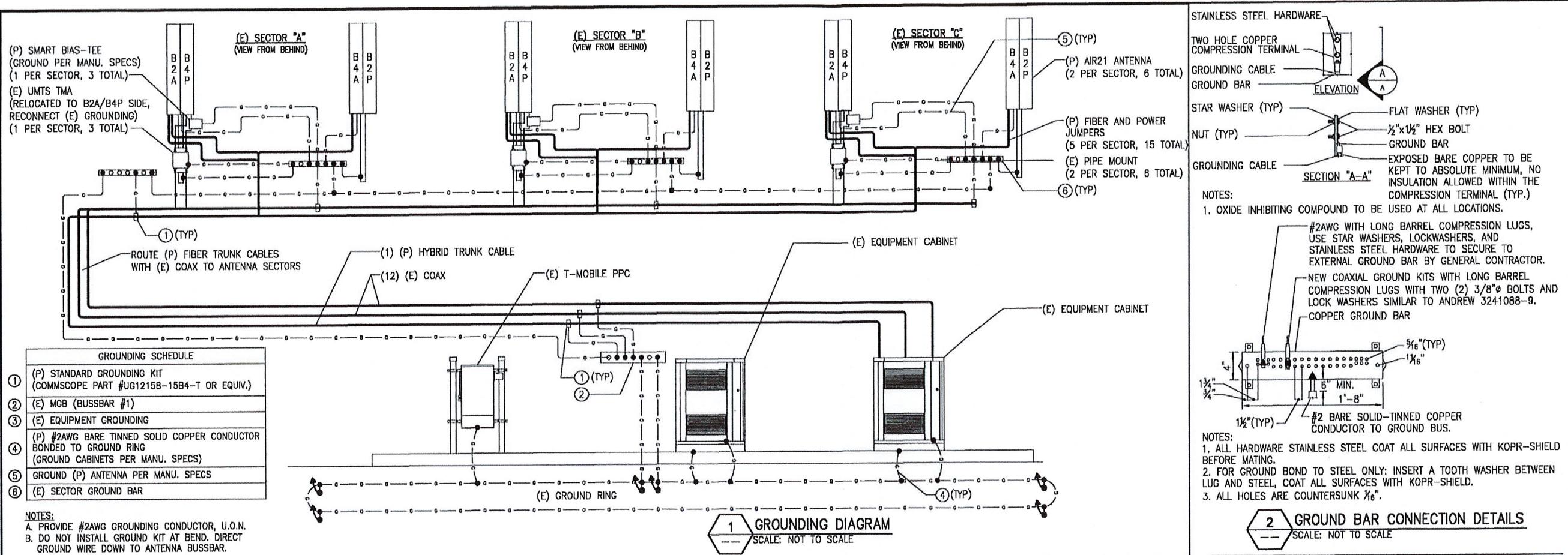
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SITE NAME
CT11106A
NEW FAIRFIELD (AT&T)
37 TITICUS MOUNTAIN RD
NEW FAIRFIELD, CT 06812

SHEET TITLE
EQUIPMENT SPECIFICATIONS

SHEET NUMBER
S-1

SHEET 5 OF 8 SHEETS



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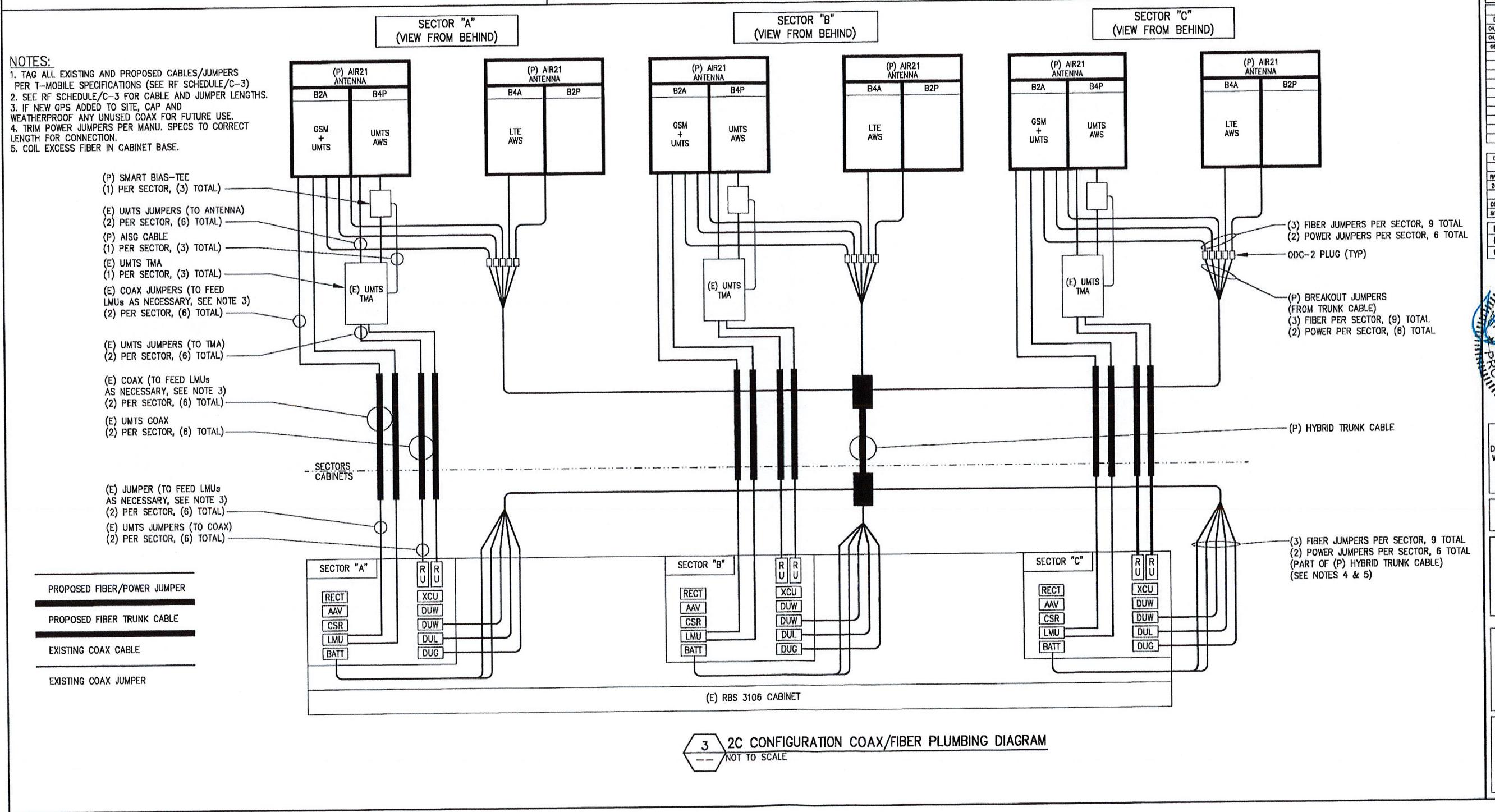
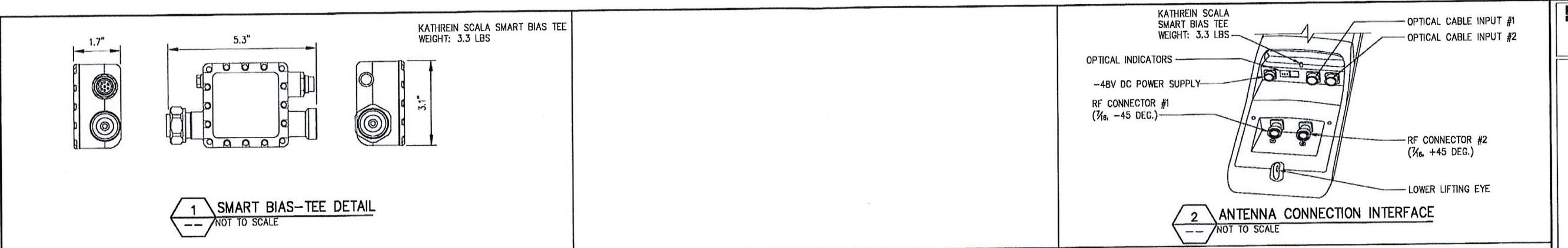
SITE NAME
CT11106A
NEW FAIRFIELD (AT&T)
37 TITICUS MOUNTAIN RD.
NEW FAIRFIELD, CT 06812

SHEET TITLE
GROUNDING & POWER DIAGRAMS

SHEET NUMBER

E-1

SHEET 6 OF 8 SHEETS



ELECTRICAL NOTES:

WORK INCLUDED

- INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, PLANT SERVICES AND ADMINISTRATIVE TASKS REQUIRED TO COMPLETE AND MAKE OPERABLE THE ELECTRICAL WORK SHOWN ON THE DRAWINGS AND AS SPECIFIED HEREIN, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
 - PREPARE AND SUBMIT SHOP DRAWINGS, DIAGRAMS AND ILLUSTRATIONS.
 - PROCURE ALL NECESSARY PERMITS AND APPROVALS AND PAY ALL REQUIRED FEES OR CHARGES IN CONNECTION WITH THE WORK OF THIS CONTRACT.
 - SUBMIT AS-BUILT DRAWINGS, OPERATING AND MAINTENANCE INSTRUCTIONS AND MANUALS.
 - EXECUTE ALL CUTTING, DRILLING, ROUGH AND FINISH PATCHING OF EXISTING OR NEWLY INSTALLED CONSTRUCTION REQUIRED FOR THE WORK OF THIS CONTRACT. FOR SLAB PENETRATIONS THROUGH POST TENSION SLABS, X-RAY EXACT AREA OF PENETRATION PRIOR TO PERFORMING WORK, COORDINATE ALL X-RAY WORK WITH BUILDING ENGINEER.
 - PROVIDE HANGERS, SUPPORTS, FOUNDATIONS, STRUCTURAL FRAMING SUPPORTS, AND BASES FOR CONDUIT AND EQUIPMENT PROVIDED OR INSTALLED UNDER THE WORK OF HIS CONTRACT. PROVIDE COUNTER FLASHING, SLEEVES AND SEALS FOR FLOOR AND WALL PENETRATIONS.
 - MAINTAIN ALL EXISTING ELECTRICAL SERVICES IN THE BUILDING AREAS NOT AFFECTED BY THE ALTERATION DURING THE PROGRESS OF THE WORK INCLUDING PROVIDING ALL TEMPORARY JUMPERS, CONDUITS, CAPS, PROTECTIVE DEVICES, CONNECTIONS AND EQUIPMENT REQUIRED. PROVIDE TEMPORARY LIGHT AND POWER FOR CONSTRUCTION PURPOSES.
- IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS TO CALL FOR AN INSTALLATION THAT IS COMPLETE IN EVERY RESPECT. IT IS NOT THE INTENT TO GIVE EVERY DETAIL ON THE DRAWINGS AND IN THE SPECIFICATIONS. IF AN ITEM OF WORK IS INDICATED IN THE DRAWINGS, IT IS CONSIDERED SUFFICIENT FOR INCLUSION IN THE CONTRACT. FURNISH AND INSTALL ALL MATERIAL AND EQUIPMENT USUALLY FURNISHED OR NEEDED TO MAKE A COMPLETE INSTALLATION WHETHER OR NOT SPECIFICALLY MENTIONED IN THE CONTRACT DOCUMENTS.

GENERAL REQUIREMENTS

- PROVIDE ALL WORK IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND LOCAL AND STATE ELECTRICAL CODES.
- THE ELECTRICAL PLANS ARE DIAGRAMMATIC ONLY. REFER TO THE ARCHITECTURAL PLANS FOR THE EXACT DIMENSIONS OF THE BUILDING.
- LOAD CALCULATIONS ARE BASED ON EXISTING BUILDING INFORMATION/DRAWINGS PROVIDED TO ENGINEERING. CONTRACTOR IS TO VERIFY ALL EXISTING RATINGS AND LOADS PRIOR TO PURCHASING OF SPECIFIED EQUIPMENT FOR COMPLIANCE TO NEC. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES AND REQUEST FURTHER DIRECTION BY ENGINEER.
- EXISTING BUILDING EQUIPMENT IS NOTED ON THE DRAWINGS. NEW OR RELOCATED EQUIPMENT IS SHOWN WITH SOLID LINES. FUTURE EQUIPMENT (NOT IN THIS CONTRACT) IS DEPICTED WITH SHADDED LINES. REQUEST CLARIFICATION OF DRAWINGS OR OF SPECIFICATIONS PRIOR TO PRICING OR INSTALLATION.
- GENERAL
 - AFTER CAREFULLY STUDYING THE DRAWINGS AND SPECIFICATIONS, AND BEFORE SUBMITTING THE PROPOSAL, MAKE A MANDATORY SITE VISIT TO ASCERTAIN CONDITIONS OF THE SITE, AND THE NATURE AND EXACT QUANTITY OF WORK TO BE PERFORMED. NO EXTRA COMPENSATION WILL BE ALLOWED FOR FAILURE TO NOTIFY THE OWNER, IN WRITING, OF ANY DISCREPANCIES THAT MAY HAVE BEEN NOTED BETWEEN THE EXISTING CONDITIONS AND THE DRAWINGS AND SPECIFICATIONS.
 - VERIFY ALL MEASUREMENTS AT THE SITE AND BE RESPONSIBLE FOR CORRECTNESS OF SAME.
- QUALITY, WORKMANSHIP, MATERIALS AND SAFETY
 - PROVIDE NEW MATERIALS AND EQUIPMENT OF A DOMESTIC MANUFACTURER BY THOSE REGULARLY ENGAGED IN THE PRODUCTION AND MANUFACTURE OF SPECIFIED MATERIALS AND EQUIPMENT. WHERE UL, OR OTHER AGENCY, HAS ESTABLISHED STANDARDS FOR MATERIALS, PROVIDE MATERIALS WHICH ARE LISTED AND LABELED ACCORDINGLY. THE COMMERCIALLY STANDARD ITEMS OF EQUIPMENT AND THE SPECIFIC NAMES MENTIONED HEREIN ARE INTENDED FOR THE PROPER FUNCTIONING OF THE WORK.
 - WORK SHALL BE PERFORMED BY WORKMEN SKILLED IN THE TRADE REQUIRED FOR THE WORK. INSTALL MATERIALS AND EQUIPMENT TO PRESENT A NEAT APPEARANCE WHEN COMPLETED AND IN ACCORDANCE WITH THE APPROVED RECOMMENDATIONS OF THE MANUFACTURER AND IN ACCORDANCE WITH CONTRACT DOCUMENTS.
 - PROVIDE LABOR, MATERIALS, APPARATUS AND APPLIANCES ESSENTIAL TO THE FUNCTIONING OF THE SYSTEMS DESCRIBED OR INDICATED HEREIN, OR WHICH MAY BE REASONABLY IMPLIED AS ESSENTIAL WHENEVER MENTIONED IN THE CONTRACT DOCUMENT OR NOT.
 - MAKE WRITTEN REQUESTS FOR SUPPLEMENTARY INSTRUCTIONS TO ARCHITECT/ENGINEER IN CASE OF DOUBT AS TO WORK INTENDED OR IN EVENT OF NEED FOR EXPLANATION THEREOF.
 - PERFORMANCE AND MATERIAL REQUIREMENTS SCHEDULED OR SPECIFIED ARE MINIMUM STANDARDS ACCEPTABLE. THE RIGHT TO JUDGE THE QUALITY OF EQUIPMENT THAT DEVIATES FROM THE CONTRACT DOCUMENT REMAINS SOLELY WITH ARCHITECT/ENGINEER. CONTRACT DOCUMENT OR NOT.

GUARANTEE

- GUARANTEE MATERIALS, PARTS AND LABOR FOR WORK FOR ONE YEAR FROM THE DATE OF ISSUANCE OF OCCUPANCY PERMIT. DURING THAT PERIOD, MAKE GOOD FAULTS OR IMPERFECTIONS THAT MAY ARISE DUE TO DEFECTS OR OMISSIONS IN MATERIALS OR WORKMANSHIP WITH NO ADDITIONAL COMPENSATION AND AS DIRECTED BY ARCHITECT.

CLEANING

- REMOVE ALL CONSTRUCTION DEBRIS RESULTING FROM THE WORK.
- CLEAN EQUIPMENT AND SYSTEMS FOLLOWING THE COMPLETION OF THE PROJECT TO THE SATISFACTION OF THE ENGINEER.

COORDINATION AND SUPERVISION

- CAREFULLY LAY OUT ALL WORK IN ADVANCE TO AVOID UNNECESSARY CUTTING, CHANNELING, CHASING OR DRILLING OF FLOORS, WALLS, PARTITIONS, CEILINGS OR OTHER SURFACES, WHERE SUCH WORK IS NECESSARY, HOWEVER, PATCH AND REPAIR THE WORK IN AN APPROVED MANNER BY SKILLED MECHANICS AT NO ADDITIONAL COST TO THE OWNER. RENDER FULL COOPERATION TO OTHER TRADES WHERE WORK WILL BE INSTALLED IN CLOSE PROXIMITY TO WORK OF OTHER TRADES. ASSIST IN WORKING OUT SPACE CONDITIONS. IF WORK IS INSTALLED BEFORE COORDINATION WITH OTHER TRADES, OR CAUSES INTERFERENCE, MAKE CHANGES NECESSARY TO CORRECT CONDITIONS WITHOUT EXTRA CHARGE.

SUBMITTALS

- AS-BUILT DRAWINGS:
 - A. UPON COMPLETION OF THE WORK, FURNISH TO THE OWNER AS-BUILT DRAWINGS.
 - B. SERVICE MANUALS:
 - A. UPON COMPLETION OF THE WORK, FULLY INSTRUCT T-MOBILE AS TO THE OPERATION AND MAINTENANCE OF ALL MATERIAL, EQUIPMENT AND SYSTEMS.
 - B. PROVIDE 3 COMPLETE BOUND SETS OF INSTRUCTIONS FOR OPERATING AND MAINTAINING ALL SYSTEMS AND EQUIPMENT.

CUTTING AND PATCHING

- PROVIDE ALL CUTTING, DRILLING, ROUGH AND FINISH PATCHING REQUIRED TO COMPLETE THE WORK.
- OBTAINT OWNER APPROVAL PRIOR TO CUTTING THROUGH FLOORS OR WALLS FOR PIPING OR CONDUIT.

TESTS, INSPECTION AND APPROVAL

- BEFORE ENERGIZING ANY ELECTRICAL INSTALLATION, INSPECT EACH UNIT IN DETAIL. TIGHTEN ALL BOLTS AND CONNECTIONS (TORQUE-TIGHTEN WHERE REQUIRED) AND DETERMINE THAT ALL COMPONENTS ARE ALIGNED, AND THE EQUIPMENT IS IN SAFE, OPERATIONAL CONDITION.
- PROVIDE THE COMPLETE ELECTRICAL SYSTEM FREE OF GROUND FAULTS AND SHORT CIRCUITS SUCH THAT THE SYSTEM WILL OPERATE SATISFACTORILY UNDER FULL LOAD CONDITIONS, WITHOUT EXCESSIVE HEATING AT ANY POINT IN THE SYSTEM.

SPECIAL REQUIREMENTS

- DO NOT LEAVE ANY WORK INCOMPLETE NOR ANY HAZARDOUS SITUATIONS CREATED WHICH WILL AFFECT THE LIFE OR SAFETY OF THE PUBLIC AND/OR BUILDING OCCUPANTS. DO NOT INTERFERE WITH OR CUT OFF ANY OF THE EXISTING SERVICES WITHOUT THE OWNER'S WRITTEN PERMISSION.
- WHEN NECESSARY TO TEMPORARILY DISCONNECT ANY EXISTING BUILDING UTILITIES AND SERVICE SYSTEMS, INCLUDING FEEDER OR BRANCH CIRCUITING SUPPLYING EXISTING FACILITIES, CONFER WITH THE OWNER AND ARRANGE THE PERIOD OF INTERRUPTION FOR A TIME MUTUALLY AGREED UPON. SHUTDOWN NOTE: SCHEDULE AND NOTIFY OWNER 48 HOURS PRIOR TO SHUTDOWN. ALL SHUTDOWN WORK TO BE SCHEDULED AT A TIME CONVENIENT TO OWNER.

GROUNDING

- ROUTE ALL GROUNDING CONDUCTORS AS SHOWN ON CONDUIT/GROUNDING RISER.
- ROUTE 500 KCMIL CU THHN CONDUCTOR FROM THE MCB LOCATION TO BUILDING STEEL. VERIFY BUILDING STEEL IS EFFECTIVELY GROUNDED PER NEC TO THE MAIN SERVICE GROUNDING ELECTRODE CONDUCTOR (GEC).
- MAKE ALL GROUND CONNECTIONS FROM MCB TO ELECTRICAL EQUIPMENT WITH 2 HOLE, CRIMP TYPE, BURNNDY COMPRESSION TERMINATIONS, SIZED AS REQUIRED.
- USE 1 HOLE, CRIMP TYPE, BURNNDY COMPRESSIONS TERMINATIONS, SIZED AS REQUIRED, AT EQUIPMENT GROUND CONNECTIONS.
- HIRE AN INDEPENDENT LAB TO PERFORM THE SPECIFIED OHMS TESTING. PROVIDE 4 SETS OF THE CERTIFIED DOCUMENTS TO THE OWNER FOR VERIFICATION PRIOR TO THE PROJECT COMPLETION.

RACEWAYS

- ALL WIRING TO BE INSTALLED IN CONDUIT SYSTEMS IN ACCORDANCE WITH THE FOLLOWING:
 - A. EXTERIOR FEEDERS AND CONTROL, WHERE UNDERGROUND, TO BE IN SCH 40 PVC.
 - B. EXTERIOR, ABOVE GROUND POWER CONDUITS TO BE GALVANIZED RIGID STEEL (RGS).
 - C. ALL TELECOMMUNICATION CONDUITS, INTERIOR/EXTERIOR, TO BE EMT.
 - D. INSTALL PULL ROPES IN ALL NEW EMPTY CONDUITS INSTALLED ON THIS PROJECT.
 - E. ALL TELECOM CONDUITS AND PULL BOXES INSTALLED ON THIS PROJECT TO BE LABELED "T-MOBILE". OWNER WILL PROVIDE LABELS FOR CONTRACTOR TO INSTALL.
 - F. INTERIOR FEEDERS TO BE INSTALLED IN E.M.T. WITH STEEL COMPRESSION FITTINGS.
 - G. MINIMUM SIZE CONDUIT TO BE $\frac{3}{4}$ " TRADE SIZE UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
 - H. FINAL CONNECTIONS TO MOTORS AND VIBRATING EQUIPMENT TO BE INSTALLED IN LIQUID-TIGHT FLEXIBLE METAL CONDUIT.
 - I. CONDUIT TO BE RUN CONCEALED IN CEILINGS, FINISHED AREAS OR DRYWALL PARTITIONS, UNLESS OTHERWISE NOTED.
 - J. THE ROUTING OF CONDUITS INDICATED ON THE DRAWINGS IS DIAGRAMMATIC. BEFORE INSTALLING ANY WORK, EXAMINE THE WORKING LAYOUTS AND SHOP DRAWINGS OF THE OTHER TRADES TO DETERMINE THE EXACT LOCATIONS AND CLEARANCES.
 - K. ALL EXTERIOR MOUNTING HARDWARE TO BE GALVANIZED STEEL. COORDINATE WITH BUILDING ENGINEER PRIOR TO ATTACHING TO BUILDING STRUCTURE.

RACEWAYS CONT'D

- PENETRATIONS OF WALLS, FLOORS AND ROOFS, FOR THE PASSAGE OF ELECTRICAL RACEWAYS, TO BE PROPERLY SEALED AFTER INSTALLATION OF RACEWAYS SO AS TO MAINTAIN THE STRUCTURAL OR WATERPROOF INTEGRITY OF THE WALL, FLOOR OR ROOF SYSTEM TO BE PENETRATED. SEAL ALL CONDUIT PENETRATIONS THROUGH FIRE OR SMOKE RATED WALLS, CEILINGS OR SMOKE TIGHT CORRIDOR PARTITIONS TO MAINTAIN PROPER RATING OF WALL OR CEILING.
- PROVIDE ALL CONDUIT ENDS WITH INSULATED METALLIC GROUNDING BUSHINGS.
- CONDUIT TO BE SUPPORTED AT MAXIMUM DISTANCE OF 8'-0", OR AS REQUIRED BY NEC, IN HORIZONTAL AND VERTICAL DIRECTIONS.
- PROVIDE STAINLESS STEEL BLANK COVER PLATES FOR ALL JUNCTION BOXES AND/OR OUTLET BOXES NOT USED IN EXPOSED AREAS. PROVIDE ALL OTHER UNUSED BOXES WITH STANDARD STEEL COVER PLATES.
- WHERE APPLICABLE, PROVIDE ROOFTOP CONDUIT SUPPORT SYSTEM, CONFORMING TO ROOFTOP WARRANTY REQUIREMENTS, PER BUILDING.

WIRES AND CABLES

- CONTRACTOR TO COORDINATE WITH EQUIPMENT SUPPLIER AND VENDOR FOR EXACT EQUIPMENT OVER-CURRENT PROTECTION VOLTAGE, WIRE SIZE AND PLUG CONFIGURATION, IF APPLICABLE, PRIOR TO BID.
- ALL EQUIPMENT/DEVICES TO BE PROVIDED WITH INSULATED GROUND CONDUCTOR.
- ALL WIRE AND CABLE TO BE 600VOLT, COPPER, WITH THHN/THWN INSULATION, EXCEPT AS NOTED.
- WIRE FOR POWER AND LIGHTING WILL NOT BE LESS THAN NO. 12AWG. ALL WIRE NO. 8 AND LARGER TO BE STRANDED.
- CONTROL WIRING IS NOT TO BE LESS THAN NO. 14AWG, FLEXIBLE IN SINGLE CONDUCTORS OR MULTI-CONDUCTOR CABLES. CONTROL WIRING WILL CONSIST OF MULTI-CONDUCTOR CABLES. WHEREVER POSSIBLE, CABLES TO BE PROVIDED WITH AN OVERALL FLAME-RETARDANT, EXTRUDED JACKET AND RATED FOR PLIUM USE. ALL CONTROL WIRE TO BE 600VOLT RATED.
- WIRE PREVIOUSLY PULLED INTO CONDUIT IS CONSIDERED USED AND IS NOT TO BE RE-PULLED.
- HOME RUNS AND BRANCH CIRCUIT WIRING FOR 20A, 120V CIRCUITS:

LENGTH (FT.)	HOME RUN WIRE SIZE
0 TO 50	NO. 12
51 TO 100	NO. 10
101 TO 150	NO. 8
- VOLTAGE DROP IS NOT TO EXCEED 3%.
- MAKE ALL CONNECTIONS WITH UL APPROVED, SOLDERLESS, PRESSURE TYPE INSULATED CONNECTORS: SCOTCHLOK OR AND APPROVED EQUAL.

WIRING DEVICES

- ALL RECEPTACLES INSTALLED IN THIS PROJECT TO BE GROUNDING TYPE, WITH GROUNDING PIN SLOT CONNECTED TO DEVICE GROUND SCREW FOR GROUND WIRE CONNECTION.
- DISCONNECT SWITCHES AND FUSES
 - DISCONNECT SWITCHES TO BE VOLTAGE-RATED TO SUIT THE CHARACTERISTICS OF THE SYSTEM FROM WHICH THEY ARE SUPPLIED.
 - PROVIDE HEAVY-DUTY, METAL-ENCLOSED, EXTERNALLY-OPERATED DISCONNECT SWITCHES, FUSED OR UNFUSED, OF SUCH TYPE AND SIZE AS REQUIRED TO PROPERLY PROTECT OR DISCONNECT THE LOAD FOR WHICH THEY ARE INTENDED.
- PROVIDE NEMA 1 DISCONNECT SWITCHES FOR INTERIOR INSTALLATION, NEMA 3R FOR EXTERIOR INSTALLATION.
- DISCONNECT SWITCHES TO BE MANUFACTURED BY:
 - A. GENERAL ELECTRIC COMPANY
 - B. SQUARE-D
- PROVIDE RK-1 TYPE FUSES, UNLESS NOTED OTHERWISE.

INSTALLATION

- INSTALL DISCONNECT SWITCHES WHERE INDICATED ON DRAWINGS.
- INSTALL FUSES IN FUSIBLE DISCONNECT SWITCHES. FUSES MUST MATCH IN TYPE AND RATING.
- FUSES TO BE MOUNTED SO THAT THE LABELS SHOWING THEIR RATINGS CAN BE READ WITHOUT REQUIRING FUSE REMOVAL.
- FURNISH AND DEPOSIT SPARE FUSES AT THE JOB SITE AS FOLLOWS:
 - A. THREE SPARES FOR EACH TYPE AND SIZE, IN EXCESS OF 60A, USED FOR INITIAL FUSING.
 - B. TEN PERCENT SPARES FOR EACH TYPE AND SIZE, UP TO AND INCLUDING 60A, USED FOR INITIAL FUSING. IN NO CASE WILL LESS THAN THREE FUSES OF ONE PARTICULAR TYPE AND SIZE BE FURNISHED.

GENERAL NOTES:

INTENT

- THESE SPECIFICATIONS AND CONSTRUCTION DRAWINGS ACCOMPANYING THEM DESCRIBE THE WORK TO BE DONE AND THE MATERIALS TO BE FURNISHED FOR CONSTRUCTION.
- THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE FULLY EXPLANATORY AND SUPPLEMENTARY. HOWEVER, SHOULD ANYTHING BE SHOWN, INDICATED, OR SPECIFIED ON ONE AND NOT THE OTHER, IT SHALL BE DONE THE SAME AS IF SHOWN, INDICATED OR SPECIFIED IN BOTH.
- THE INTENTION OF THE DOCUMENTS IS TO INCLUDE ALL LABOR AND MATERIALS REASONABLY NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK AS STIPULATED IN THE CONTRACT.
- THE PURPOSE OF THE SPECIFICATIONS IS TO INTERPRET THE INTENT OF THE DRAWINGS AND TO DESIGNATE THE METHOD OF THE PROCEDURE, TYPE AND QUALITY OF MATERIALS REQUIRED TO COMPLETE THE WORK.
- MINOR DEVIATIONS FROM THE DESIGN LAYOUT ARE ANTICIPATED AND SHALL BE CONSIDERED AS PART OF THE WORK. NO CHANGES THAT ALTER THE CHARACTER OF THE WORK WILL BE MADE OR PERMITTED BY THE OWNER WITHOUT ISSUING A CHANGE ORDER.

CONFLICTS

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATIONS OF ALL MEASUREMENTS AT THE SITE BEFORE ORDERING ANY MATERIALS OR DOING ANY WORK. NO EXTRA CHARGE OR COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INDICATED ON THE CONSTRUCTION DRAWINGS. ANY SUCH DISCREPANCY IN DIMENSION WHICH MAY BE FOUND SHALL BE SUBMITTED TO THE OWNER FOR CONSIDERATION BEFORE THE CONTRACTOR PROCEEDS WITH THE WORK IN THE AFFECTED AREAS.
- THE BIDDER, IF AWARDED THE CONTRACT, WILL NOT BE ALLOWED ANY EXTRA COMPENSATION BY REASON OF ANY MATTER OR THING CONCERNING SUCH BIDDER MIGHT HAVE FULLY INFORMED THEMSELVES PRIOR TO THE BIDDING.
- NO PLEA OF IGNORANCE OF CONDITIONS THAT EXIST, OR OF DIFFICULTIES OR CONDITIONS THAT MAY BE ENCOUNTERED, OR OF ANY OTHER RELEVANT MATTER CONCERNING THE WORK TO BE PERFORMED IN THE EXECUTION OF THE WORK WILL BE ACCEPTED AS AN EXCUSE FOR ANY FAILURE OR OMISSION ON THE PART OF THE CONTRACTOR TO FULFILL EVERY DETAIL OF ALL THE REQUIREMENTS OF THE CONTRACT DOCUMENTS GOVERNING THE WORK.

CONTRACTS AND WARRANTIES

- CONTRACTOR IS RESPONSIBLE FOR APPLICATION AND PAYMENT OF CONTRACTOR LICENSES AND BONDS.
- SEE MASTER CONTRACTION SERVICES AGREEMENT FOR ADDITIONAL DETAILS.

STORAGE

- ALL MATERIALS MUST BE STORED IN A LEVEL AND DRY FASHION AND IN A MANNER THAT DOES NOT NECESSARILY OBSTRUCT THE FLOW OF OTHER WORK. ANY STORAGE METHOD MUST MEET ALL REQUIREMENTS OF THE ASSOCIATED MANUFACTURER.

CLEANUP

- THE CONTRACTORS SHALL, AT ALL TIMES, KEEP THE SITE FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY THEIR EMPLOYEES AT WORK AND AT THE COMPLETION OF THE WORK. THEY SHALL REMOVE ALL RUBBISH FROM AND ABOUT THE BUILDING AREA, INCLUDING ALL THEIR TOOLS, SCAFFOLDING AND SURPLUS MATERIALS AND SHALL LEAVE THEIR WORK CLEAN AND READY TO USE.

2. EXTERIOR

- VISUALLY INSPECT EXTERIOR SURFACES AND REMOVE ALL TRACES OF SOIL, WASTE MATERIALS, SMUDGES AND OTHER FOREIGN MATTER.
- REMOVE ALL TRACES OF SPLASHED MATERIALS FROM ADJACENT SURFACES.
- IF NECESSARY, TO ACHIEVE A UNIFORM DEGREE OF CLEANLINESS, HOSE DOWN THE EXTERIOR OF THE STRUCTURE.

3. INTERIOR

- VISUALLY INSPECT INTERIOR SURFACE AND REMOVE ALL TRACES OF SOIL, WASTE MATERIALS, SMUDGES AND OTHER FOREIGN MATTER FROM WALLS, FLOOR, AND CEILING.
- REMOVE ALL TRACES OF SPLASHED MATERIALS FROM ADJACENT SURFACES.
- REMOVE PAINT DROPPINGS, SPOTS, STAINS, AND DIRT FROM FINISHED SURFACES.

CHANGE ORDER PROCEDURE:

- REFER TO SECTION 17 OF SIGNED MCSA: SEE PROFESSIONAL SERVICE AGREEMENT FOR MCSA.

RELATED DOCUMENTS AND COORDINATION

- GENERAL CARPENTRY, ELECTRICAL AND ANTENNA DRAWINGS ARE INTERRELATED. IN PERFORMANCE OF THE WORK, THE CONTRACTOR MUST REFER TO ALL DRAWINGS. ALL COORDINATION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.

SHOP DRAWINGS

- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AS REQUIRED AND LISTED IN THESE SPECIFICATIONS TO THE OWNER FOR APPROVAL.
- ALL SHOP DRAWINGS SHALL BE REVIEWED, CHECKED AND CORRECTED BY CONTRACTOR PRIOR TO SUBMITTAL TO THE OWNER.

PRODUCTS AND SUBSTITUTIONS

- SUBMIT 3 COPIES OF EACH REQUEST FOR SUBSTITUTION. IN EACH REQUEST, IDENTIFY THE PRODUCT OR FABRICATION OR INSTALLATION METHOD TO BE REPLACED BY THE SUBSTITUTION. INCLUDE RELATED SPECIFICATION SECTION AND DRAWING NUMBERS AND COMPLETE DOCUMENTATION SHOWING COMPLIANCE WITH THE REQUIREMENTS FOR SUBSTITUTIONS.
- SUBMIT ALL NECESSARY PRODUCT DATA AND CUT SHEETS WHICH PROPERLY INDICATE AND DESCRIBE THE ITEMS, PRODUCTS AND MATERIALS BEING INSTALLED. THE CONTRACTOR SHALL, IF DEEMED NECESSARY BY THE OWNER, SUBMIT ACTUAL SAMPLES TO THE OWNER FOR APPROVAL IN LIEU OF CUT SHEETS.

QUALITY ASSURANCE

- ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL STATE AND FEDERAL REGULATIONS. THESE SHALL INCLUDE, BUT NOT BE LIMITED TO THE APPLICABLE CODES SET FORTH BY THE LOCAL GOVERNING BODY. SEE "CODE COMPLIANCE" T-1.

ADMINISTRATION

- BEFORE THE COMMENCEMENT OF ANY WORK, THE CONTRACTOR WILL ASSIGN A PROJECT MANAGER WHO WILL ACT AS A SINGLE POINT OF CONTACT FOR ALL PERSONNEL INVOLVED IN THIS PROJECT. THIS PROJECT MANAGER WILL DEVELOP A MASTER SCHEDULE FOR THE PROJECT WHICH WILL BE SUBMITTED TO THE OWNER PRIOR TO THE COMMENCEMENT OF ANY WORK.
- SUBMIT A BAR TYPE PROGRESS CHART, NOT MORE THAN 3 DAYS AFTER THE DATE ESTABLISHED FOR COMMENCEMENT OF THE WORK ON THE SCHEDULE, INDICATING A TIME BAR FOR EACH MAJOR CATEGORY OR UNIT OF WORK TO BE PERFORMED AT THE SITE, PROPERLY SEQUENCED AND COORDINATED WITH OTHER ELEMENTS OF WORK AND SHOWING COMPLETION OF THE WORK SUFFICIENTLY IN ADVANCE OF THE DATE ESTABLISHED FOR SUBSTANTIAL COMPLETION OF THE WORK.
- PRIOR TO COMMENCING CONSTRUCTION, THE OWNER SHALL SCHEDULE AN ON-SITE MEETING WITH ALL MAJOR PARTIES. THIS WOULD INCLUDE, BUT NOT LIMITED TO, THE OWNER, PROJECT MANAGER, CONTRACTOR, LAND