



QC Development

PO Box 916

Storrs, CT 06268

860-670-9068

Mark.Roberts@QCDevelopment.net

March 30, 2018

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

Notice of Exempt Modification – New Cingular Wireless PCS, LLC (AT&T) – CT2820
1294 Pleasant Valley Road North, Groton, CT 06340
N 41-23-59.90
W 72-04-45.20

Dear Ms. Bachman:

AT&T currently maintains twelve (12) antennas at the 127-foot level of the existing 150-foot Monopole at 1294 Pleasant Valley Road North, Groton, CT. The tower is owned by SBA. The property is owned by the JFM Enterprises LLC. AT&T now intends to remove (3) Ericsson RRUS-12 / A2 and install three (3) new Ericsson RRUS-4415 B25, also at the 127-foot level of the tower.

This facility was approved by the Connecticut Siting Council in Docket # 330 on June 7, 2007. The approval included a tower height limitation of 140 feet and a subsequent tower extension to 150 feet was approved in Petition # 835 on December 13, 2007. Since no further modification to the overall facility height is proposed, this modification complies with the aforementioned approvals.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to the Honorable Patrice Granatosky, Mayor of the Town of Groton, and the Groton Planning & Development Office, as well as the property owner and the tower owner.

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2).

1. The proposed modifications will not result in an increase in the height of the existing structure.
2. The proposed modifications will not require the extension of the site boundary.
3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading.

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

Please feel free to call me at (860) 670-9068 with any questions regarding this matter. Thank you for your consideration.

Sincerely,



Mark Roberts
QC Development
Consultant for AT&T

Attachments

cc: Mayor Patrice Granatosky - as Elected Official
Jonathan Reiner – Director of Planning
JFM Enterprises LLC - as Property Owners
SBA - Tower Owner (via e-mail)

Power Density

Existing Loading on Tower

Carrier	# of Channels	ERP/Ch (W)	Antenna Centerline Height (ft)	Power Density (mW/cm ²)	Freq. Band (MHz ^{**})	Limit S (mW/cm ²)	%MPE
Other Carriers*							5.96%
AT&T UMTS	2	500	127	0.0246	880	0.5867	0.42%
AT&T UMTS	1	500	127	0.0123	1900	1.0000	0.12%
AT&T LTE	1	500	127	0.0123	700	0.4667	0.26%
AT&T LTE	1	500	127	0.0123	1900	1.0000	0.12%
AT&T LTE	1	500	127	0.0123	2300	1.0000	0.12%
Site Total							7.01%

*Per CSC Records (available upon request, includes calculation formulas)

** If a range of frequencies are used, such as 880-894, enter the lowest value, i.e. 880

Proposed Loading on Tower

Carrier	# of Channels	ERP/Ch (W)	Antenna Centerline Height (ft)	Power Density (mW/cm ²)	Freq. Band (MHz ^{**})	Limit S (mW/cm ²)	%MPE
Other Carriers*							5.96%
AT&T UMTS	2	500	127	0.0077	850	0.5667	0.43%
AT&T UMTS	1	500	127	0.0077	1900	1.0000	0.43%
AT&T LTE	2	1045	127	0.0363	700	0.4667	1.10%
AT&T LTE	2	3381	127	0.1189	1900	1.0000	1.66%
AT&T LTE	1	3381	127	0.0316	2100	1.0000	0.83%
Site Total							10.42%

*Per CSC Records (available upon request, includes calculation formulas)

** If a range of frequencies are used, such as 880-894, enter the lowest value, i.e. 880

PROJECT INFORMATION

SCOPE OF WORK: ITEMS TO BE MOUNTED ON THE EXISTING MONOPOLE:
 • NEW AT&T RRU'S: 4415 B25 (PCS) (TYP. OF 1 PER SECTOR, TOTAL OF 3).
 • COAX JUMPERS (1) PER SECTOR, FROM EACH RRU (TOTAL OF 3).
 • FIBER JUMPERS (2) PER SECTOR, FROM THE SQUID TO EACH RRU (TOTAL OF 6).

ITEMS TO BE MOUNTED AT EQUIPMENT LOCATION:
 • INSTALL (1) XMU WITH IDL2 CABLE IN EXISTING LTE RACK.

ITEMS TO REMAIN:
 • (12) ANTENNAS, (15) RRU'S, (8) DC POWER, (2) FIBER, & (3) 3/8"Ø RET RUNS.

SITE ADDRESS: 1294 PLEASANT VALLEY ROAD NORTH
 GROTON, CT 06340

 LATITUDE: 41.3999 N, 41° 23' 59.67" N
 LONGITUDE: 72.0792 W, 72° 04' 44.70" W
 TYPE OF SITE: MONOPOLE/ INDOOR EQUIPMENT
 STRUCTURE HEIGHT: 150'-3"±
 RAD CENTER: 127'-0"±
 CURRENT USE: TELECOMMUNICATIONS FACILITY
 PROPOSED USE: TELECOMMUNICATIONS FACILITY



SITE NUMBER: CT2820

SITE NAME: GROTON PLEASANT VALLEY ROAD NORTH

PROJECT: LTE BWE 2018 UPGRADE

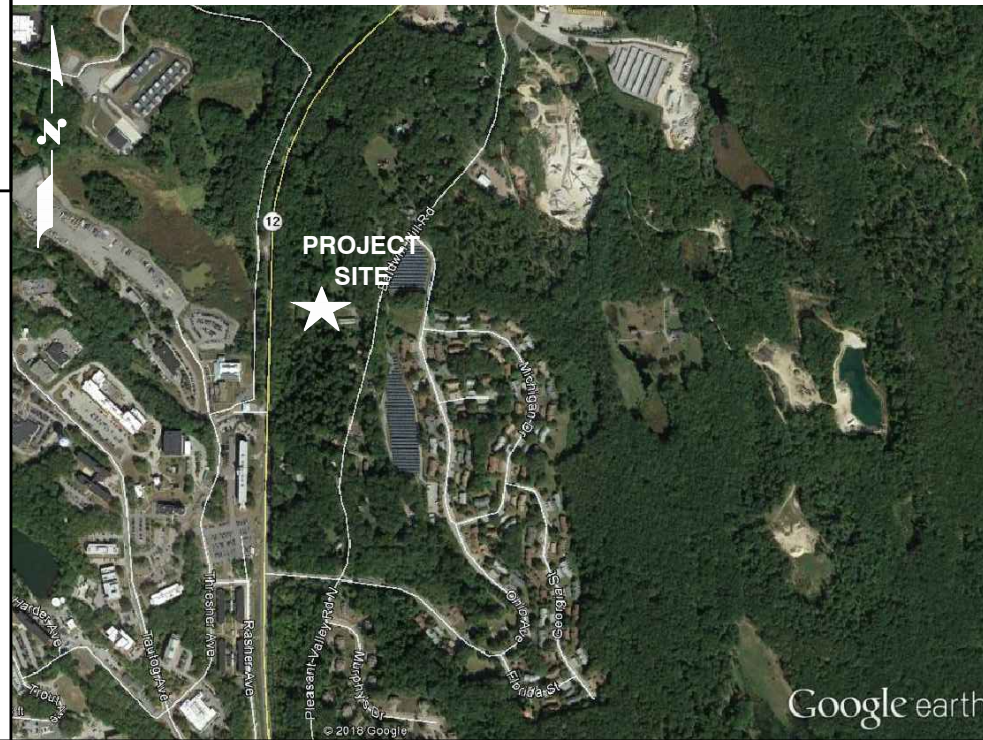
DRAWING INDEX

SHEET NO.	DESCRIPTION	REV.
T-1	TITLE SHEET	B
GN-1	GENERAL NOTES	B
A-1	COMPOUND & EQUIPMENT PLANS	B
A-2	ANTENNA LAYOUTS & ELEVATION	B
A-3	DETAILS	B
G-1	GROUNDING DETAILS	B
RF-1	RF PLUMBING DIAGRAM	B

VICINITY MAP

DIRECTIONS TO SITE:

DEPART ENTERPRISE DR TOWARD CAPITOL BLVD. 0.1 MI. TURN LEFT ONTO CAPITOL BLVD. 0.3 MI. TURN LEFT ONTO WEST ST. 0.3 MI. TAKE RAMP LEFT FOR I-91 S. 1.4 MI. AT EXIT 22S, TAKE RAMP LEFT FOR CT-9 SOUTH TOWARD MIDDLETOWN / OLD SAYBROOK. 6.3 MI. KEEP STRAIGHT ONTO CT-9 S. 22.9 MI. TAKE RAMP LEFT FOR I-95 NORTH / US-1 NORTH TOWARD NEW LONDON / PROVIDENCE. 17.2 MI. AT EXIT 86, TAKE RAMP LEFT FOR CT-184 TOWARD GALES FERRY / U.S. SUB BASE. 0.3 MI. TAKE RAMP RIGHT FOR US-1 SOUTH TOWARD NEW LONDON. 0.2 MI. TURN RIGHT ONTO US-1 / CT-12. 358 FT. KEEP STRAIGHT ONTO CT-12. 2.1 MI. TURN RIGHT ONTO OHIO AVE. 499 FT. TURN LEFT ONTO PLEASANT VALLEY RD N. 0.3 MI. ARRIVE AT SITE ON THE LEFT.



GENERAL NOTES

1. THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF AT&T. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.
2. THE FACILITY IS AN UNMANNED PRIVATE AND SECURED EQUIPMENT INSTALLATION. IT IS ONLY ACCESSED BY TRAINED TECHNICIANS FOR PERIODIC ROUTINE MAINTENANCE AND THEREFORE DOES NOT REQUIRE ANY WATER OR SANITARY SEWER SERVICE. THE FACILITY IS NOT GOVERNED BY REGULATIONS REQUIRING PUBLIC ACCESS PER ADA REQUIREMENTS.
3. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE AT&T MOBILITY REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.
4. CONSTRUCTION DRAWINGS ARE VALID FOR SIX MONTHS AFTER ENGINEER OF RECORD'S STAMPED AND SIGNED SUBMITTAL DATE LISTED HEREIN.

SBA SITE #: CT13075

72 HOURS

CALL BEFORE YOU DIG
 CALL TOLL FREE 1-800-922-4455
 OR CALL 811

UNDERGROUND SERVICE ALERT

HGD HUDSON Design Group LLC
 45 BEECHWOOD DRIVE
 NORTH ANDOVER, MA 01845
 TEL: (978) 557-5553
 FAX: (978) 336-5586

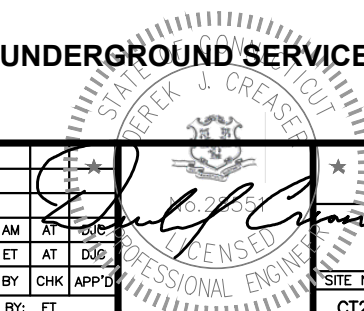
SAI
 12 INDUSTRIAL WAY
 SALEM, NH 03079

SITE NUMBER: CT2820
SITE NAME: GROTON PLEASANT VALLEY ROAD NORTH
SBA SITE ID: CT13075
 1294 PLEASANT VALLEY ROAD NORTH
 GROTON, CT 06340
 NEW LONDON COUNTY

at&t
 500 ENTERPRISE DRIVE, SUITE 3A
 ROCKY HILL, CT 06067

NO.	DATE	REVISIONS	BY	CHK	APP'D
B	03/27/18	ISSUED FOR PERMITTING	AM	AT	DJC
A	02/09/18	ISSUED FOR REVIEW	ET	AT	DJC

SCALE: AS SHOWN DESIGNED BY: AT DRAWN BY: ET



SITE NUMBER	DRAWING NUMBER	REV
CT2820	T-1	B

AT&T

TITLE SHEET
(LTE BWE)

GROUNDING NOTES

1. THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LIGHTNING PROTECTION SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AHJ), THE SITE-SPECIFIC (UL, LPI, OR NFPA) LIGHTING PROTECTION CODE, AND GENERAL COMPLIANCE WITH TELCORDIA AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO THE CONTRACTOR FOR RESOLUTION.
2. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER GES'S) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
3. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR NEW GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
4. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
5. EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, 6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS 2 AWG STRANDED COPPER FOR OUTDOOR BTS.
6. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
7. APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
8. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO GROUND BAR.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
11. METAL CONDUIT SHALL BE MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH 6 AWS COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
12. ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20 FT. OR MORE OF 1/2 IN. OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID BARE TINNED COPPER GROUND WIRE, PER NEC 250.50

GENERAL NOTES

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
 CONTRACTOR – SAI
 SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
 OWNER – AT&T MOBILITY
2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR.
3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
4. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
6. "KITTING LIST" SUPPLIED WITH THE BID PACKAGE IDENTIFIES ITEMS THAT WILL BE SUPPLIED BY CONTRACTOR. ITEMS NOT INCLUDED IN THE BILL OF MATERIALS AND KITTING LIST SHALL BE SUPPLIED BY THE SUBCONTRACTOR.
7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE CONTRACTOR.
9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR.
10. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
13. ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.

14. ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL BE AIR-ENTRAINED AND SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.
15. ALL STRUCTURAL STEEL WORK SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A36 (Fy = 36 ksi) UNLESS OTHERWISE NOTED. PIPES SHALL BE ASTM A53 TYPE E (Fy = 36 ksi). ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED. TOUCHUP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC RICH PAINT.
16. CONSTRUCTION SHALL COMPLY WITH LTE SPECIFICATIONS AND "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF AT&T SITES."
17. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
18. THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
19. SINCE THE CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE ADVISED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.
20. APPLICABLE BUILDING CODES:
 SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.
 BUILDING CODE: IBC 2012 WITH 2016 CT BUILDING CODE AMENDMENTS
 ELECTRICAL CODE: REFER TO ELECTRICAL DRAWINGS
 LIGHTENING CODE: REFER TO ELECTRICAL DRAWINGS

 SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:

 AMERICAN CONCRETE INSTITUTE (ACI) 318; BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE;

 AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)
 MANUAL OF STEEL CONSTRUCTION, ASD, FOURTEENTH EDITION;

 TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-G,
 STRUCTURAL STANDARDS FOR STEEL

 EQUIPMENT AND ANTENNA SUPPORTING STRUCTURES; REFER TO ELECTRICAL DRAWINGS FOR SPECIFIC ELECTRICAL STANDARDS.

 FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

ABBREVIATIONS

A GL	ABOVE GRADE LEVEL	EQ	EQUAL	REQ	REQUIRED
AWG	AMERICAN WIRE GAUGE	GC	GENERAL CONTRACTOR	RF	RADIO FREQUENCY
BBU	BATTERY BACKUP UNIT	GRC	GALVANIZED RIGID CONDUIT	TBD	TO BE DETERMINED
BTCW	BARE TINNED SOLID COPPER WIRE	MGB	MASTER GROUND BAR	TBR	TO BE REMOVED
BGR	BURIED GROUND RING	MIN	MINIMUM	TBRR	TO BE REMOVED AND REPLACED
BTS	BASE TRANSCEIVER STATION	P	PROPOSED	TYP	TYPICAL
E	EXISTING	NTS	NOT TO SCALE	UG	UNDER GROUND
EGB	EQUIPMENT GROUND BAR	RAD	RADIATION CENTER LINE (ANTENNA)	VIF	VERIFY IN FIELD
EGR	EQUIPMENT GROUND RING	REF	REFERENCE		

HGD HUDSON Design Group LLC
 45 BEECHWOOD DRIVE
 NORTH ANDOVER, MA 01845
 TEL: (978) 557-5553
 FAX: (978) 336-5586

SAI
 12 INDUSTRIAL WAY
 SALEM, NH 03079

SITE NUMBER: CT2820
SITE NAME: GROTON PLEASANT VALLEY ROAD NORTH
SBA SITE ID: CT13075

 1294 PLEASANT VALLEY ROAD NORTH
 GROTON, CT 06340
 NEW LONDON COUNTY

at&t
 500 ENTERPRISE DRIVE, SUITE 3A
 ROCKY HILL, CT 06067

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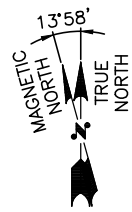
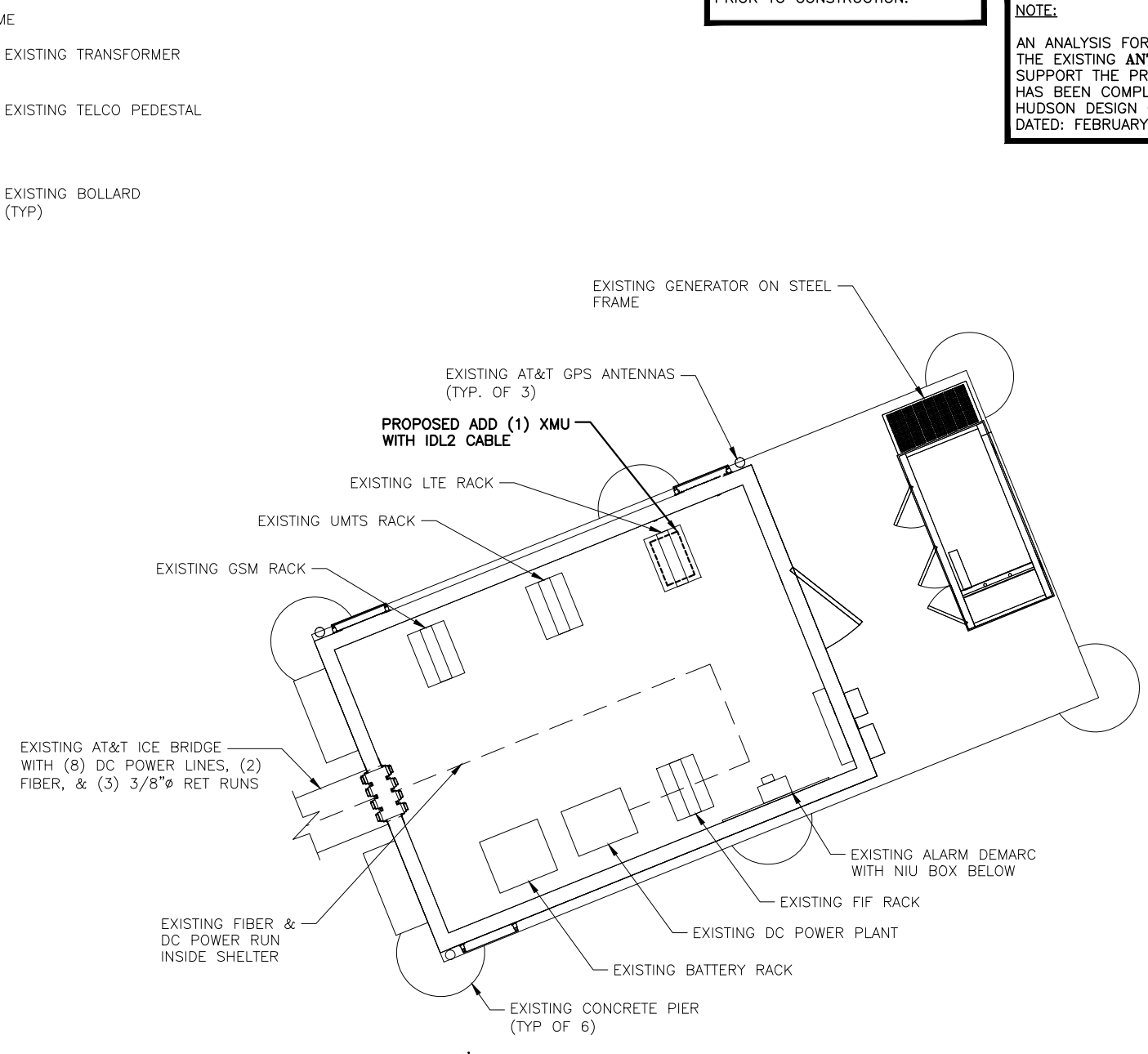
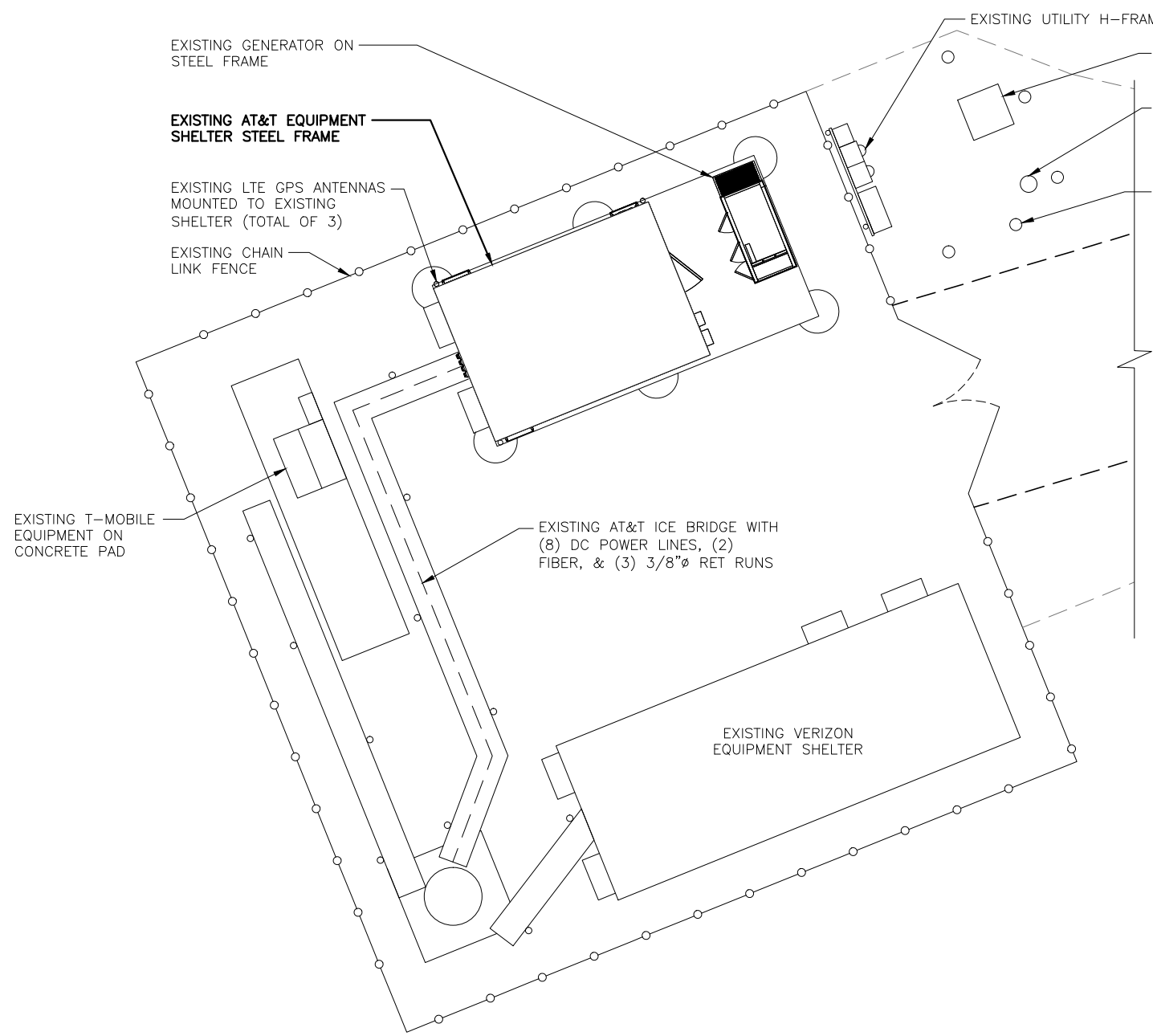
STATE OF CONNECTICUT
 STATE ENGINEER
 DEREK J. CREASE
 LICENSED PROFESSIONAL ENGINEER
 18-22358

AT&T
GENERAL NOTES (LTE BWE)
 SITE NUMBER: CT2820
 DRAWING NUMBER: GN-1
 REV: B

NOTE:
AN ANALYSIS FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION.

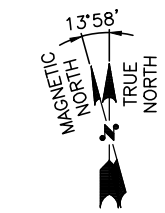
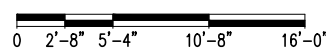
NOTE:
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

NOTE:
AN ANALYSIS FOR THE CAPACITY OF THE EXISTING **ANTENNA MOUNT** TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY: HUDSON DESIGN GROUP, LLC. DATED: FEBRUARY 8, 2018



COMPOUND PLAN
22x34 SCALE: 3/16"=1'-0"
11x17 SCALE: 3/32"=1'-0"

1
A-1



EQUIPMENT PLAN
22x34 SCALE: 3/8"=1'-0"
11x17 SCALE: 3/16"=1'-0"

2
A-1



HGD HUDSON Design Group LLC
45 BEECHWOOD DRIVE
NORTH ANDOVER, MA 01845
TEL: (978) 557-5553
FAX: (978) 336-5586

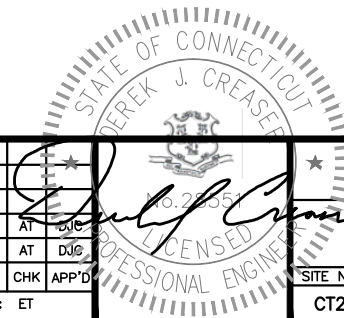
SAI
12 INDUSTRIAL WAY
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SITE NUMBER: CT2820
SITE NAME: GROTON PLEASANT VALLEY ROAD NORTH
SBA SITE ID: CT13075
1294 PLEASANT VALLEY ROAD NORTH
GROTON, CT 06340
NEW LONDON COUNTY

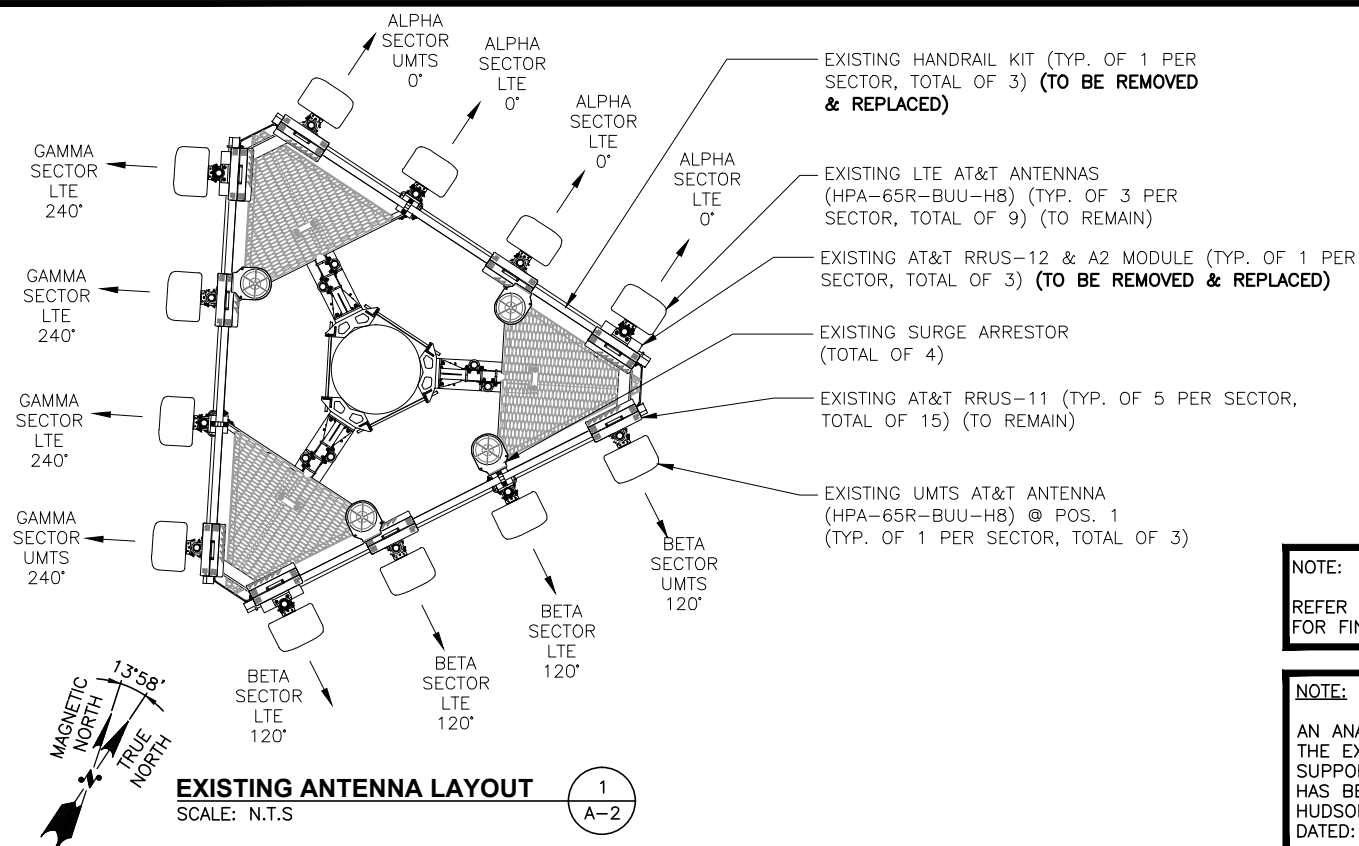
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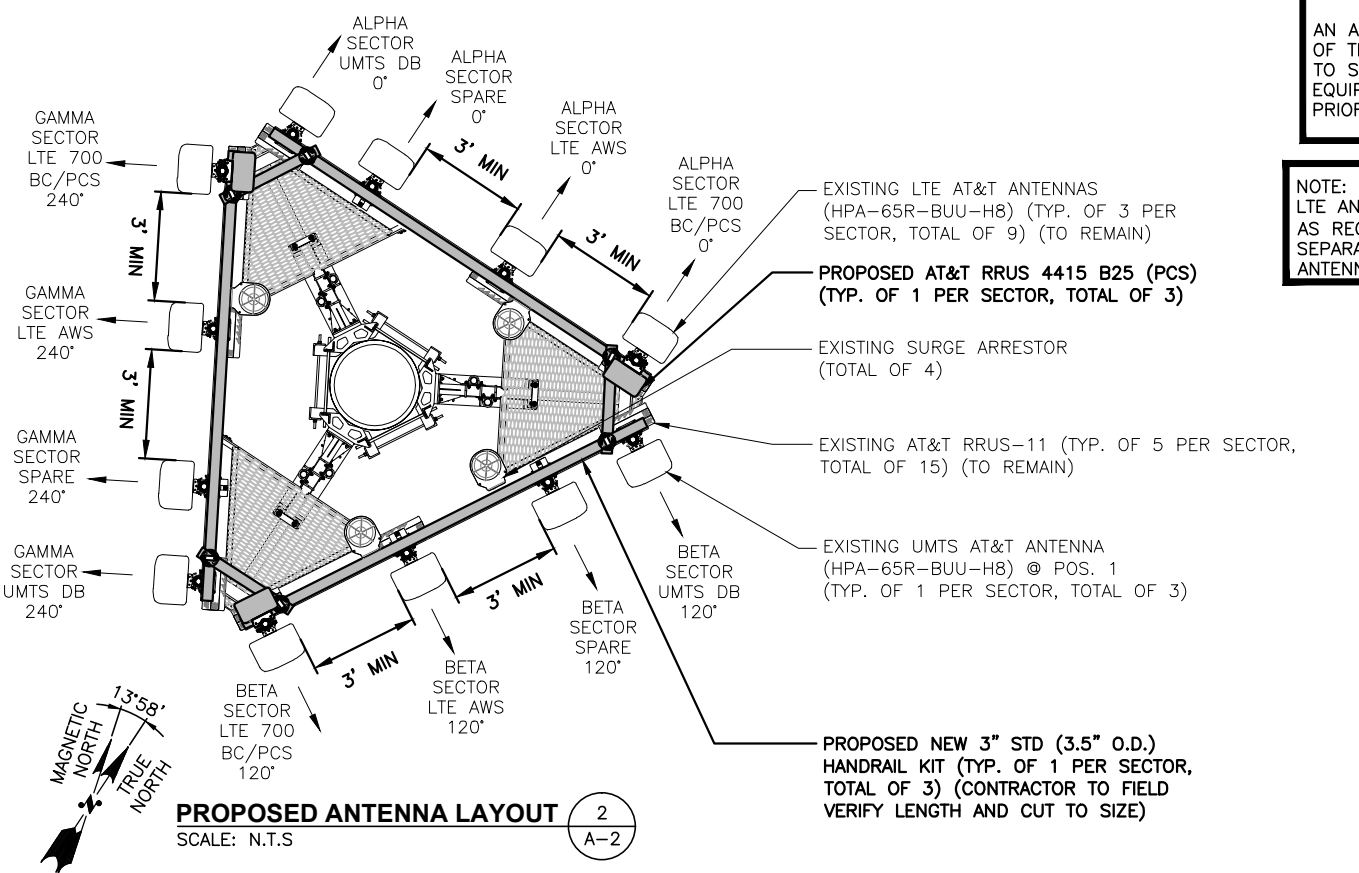
SCALE: AS SHOWN DESIGNED BY: AT DRAWN BY: ET



AT&T
COMPOUND & EQUIPMENT PLAN
(LTE BWE)
SITE NUMBER: CT2820 DRAWING NUMBER: A-1 REV: B



EXISTING ANTENNA LAYOUT
SCALE: N.T.S. 1 A-2



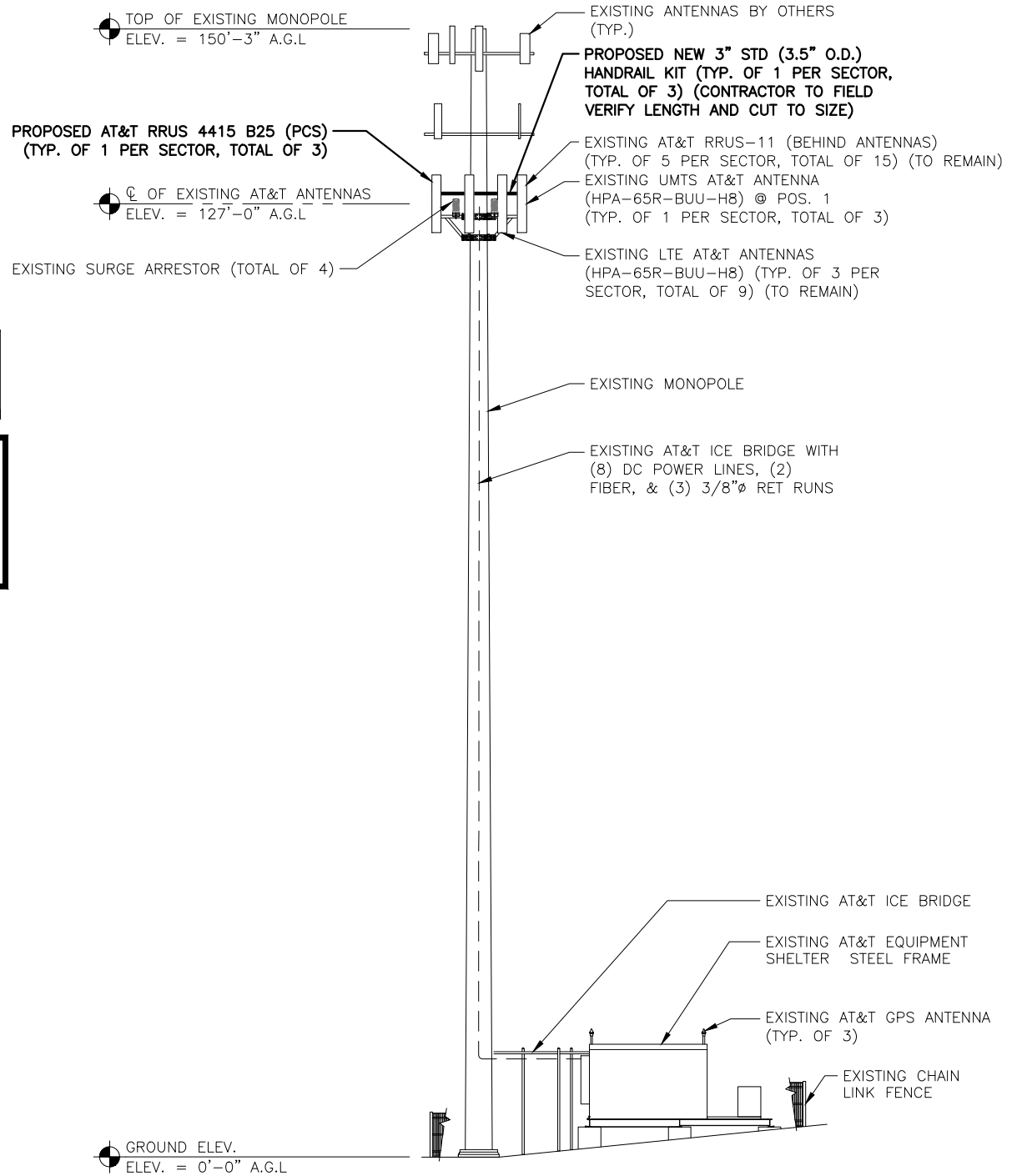
PROPOSED ANTENNA LAYOUT
SCALE: N.T.S. 2 A-2

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

NOTE:
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NOTE:
AN ANALYSIS FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION.

NOTE:
LTE ANTENNAS TO BE ADJUSTED AS REQUIRED TO ACHIEVE 3' SEPARATION BETWEEN LTE ANTENNAS AS SHOWN



SOUTH ELEVATION
22x34 SCALE: 3/32"=1'-0" A-2
11x17 SCALE: 3/64"=1'-0" 3 A-2

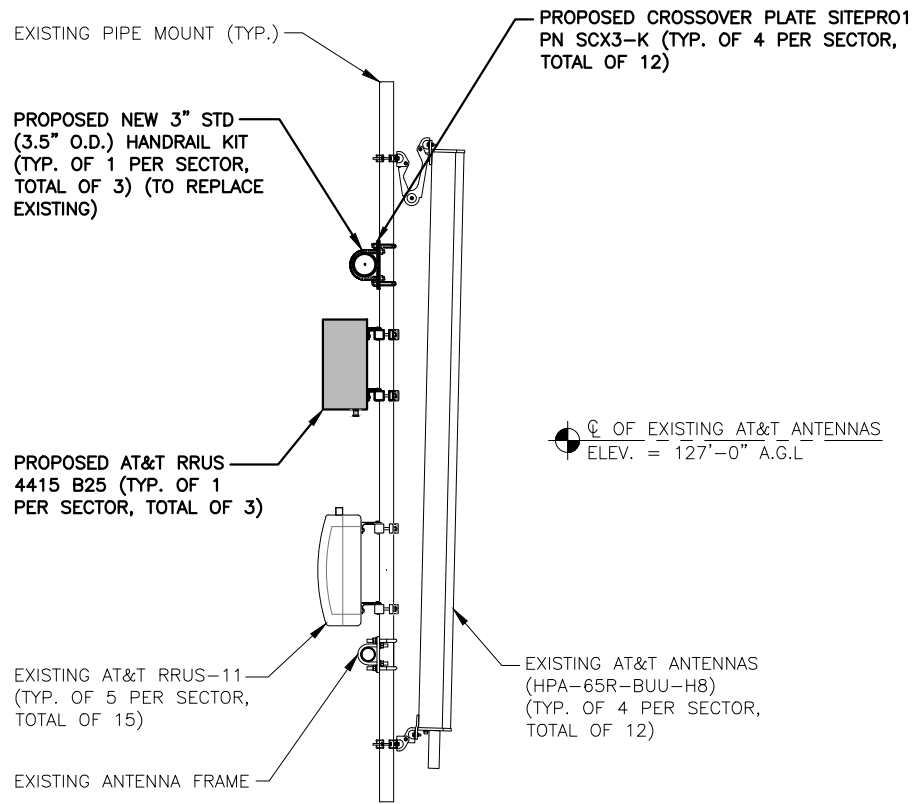
NOTE:
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

NOTE:
AN ANALYSIS FOR THE CAPACITY OF THE EXISTING ANTENNA MOUNT TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY:
HUDSON DESIGN GROUP, LLC.
DATED: FEBRUARY 8, 2018

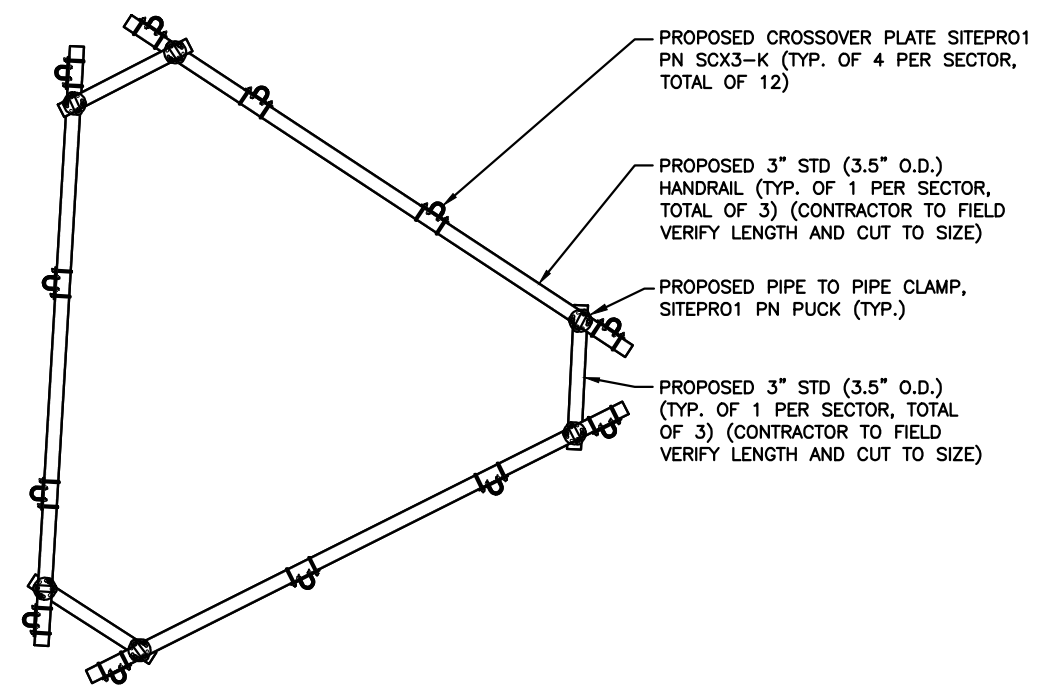
FINAL ANTENNA SCHEDULE

SECTOR	BAND	EXISTING	ANTENNA	SIZE (INCHES) (L X W X D)	RAD CENTER	AZIMUTH	RRU	SIZE (INCHES) (L X W X D)	DC JUMPERS	FIBER JUMPERS	COAX
ALPHA	UMTS DB	EXISTING	HPA-65R-BUU-H8	92.4X14.8X7.4	127'-0"±	0°	EXISTING EXISTING	RRUS-11 (850) RRUS-11 (PCS)	-	-	-
	SPARE	EXISTING	HPA-65R-BUU-H8	92.4X14.8X7.4	127'-0"±	0°	-	-	-	-	-
	LTE AWS	EXISTING	HPA-65R-BUU-H8	92.4X14.8X7.4	127'-0"±	0°	EXISTING EXISTING	RRUS-11 (850) RRUS-11 (AWS)	-	-	-
	LTE 700 BC/PCS	EXISTING	HPA-65R-BUU-H8	92.4X14.8X7.4	127'-0"±	0°	EXISTING PROPOSED	RRUS-11 (700) 4415 B25 (PCS)	15.0X13.2X7.4	*1	**2
BETA	UMTS DB	EXISTING	HPA-65R-BUU-H8	92.4X14.8X7.4	127'-0"±	120°	EXISTING EXISTING	RRUS-11 (850) RRUS-11 (PCS)	-	-	-
	SPARE	EXISTING	HPA-65R-BUU-H8	92.4X14.8X7.4	127'-0"±	120°	-	-	-	-	-
	LTE AWS	EXISTING	HPA-65R-BUU-H8	92.4X14.8X7.4	127'-0"±	120°	EXISTING EXISTING	RRUS-11 (850) RRUS-11 (AWS)	-	-	-
	LTE 700 BC/PCS	EXISTING	HPA-65R-BUU-H8	92.4X14.8X7.4	127'-0"±	120°	EXISTING PROPOSED	RRUS-11 (700) 4415 B25 (PCS)	15.0X13.2X7.4	*1	**2
GAMMA	UMTS DB	EXISTING	HPA-65R-BUU-H8	92.4X14.8X7.4	127'-0"±	240°	EXISTING EXISTING	RRUS-11 (850) RRUS-11 (PCS)	-	-	-
	SPARE	EXISTING	HPA-65R-BUU-H8	92.4X14.8X7.4	127'-0"±	240°	-	-	-	-	-
	LTE AWS	EXISTING	HPA-65R-BUU-H8	92.4X14.8X7.4	127'-0"±	240°	EXISTING EXISTING	RRUS-11 (850) RRUS-11 (AWS)	-	-	-
	LTE 700 BC/PCS	EXISTING	HPA-65R-BUU-H8	92.4X14.8X7.4	127'-0"±	240°	EXISTING PROPOSED	RRUS-11 (700) 4415 B25 (PCS)	15.0X13.2X7.4	*1	**2

FINAL ANTENNA CONFIGURATION TABLE 1
A-3



PROPOSED LTE ANTENNA & RRH MOUNTING DETAIL 2
A-3
22x34 SCALE: 3/4"=1'-0"
11x17 SCALE: 3/8"=1'-0"



PROPOSED HANDRAIL DETAIL 2
A-3
SCALE: N.T.S

***DC JUMPER NOTE:**
COAX JUMPERS (1) PER SECTOR, FROM RRU (TOTAL OF 3).

****FIBER JUMPER NOTE:**
FIBER JUMPERS (2) PER SECTOR, FROM THE SQUID TO RRU (TOTAL OF 6).

RRU CHART

QUANTITY	MODEL	L	W	D
15(E)	RRUS-11	19.7"	17.0"	7.2"
3(P)	4415 B25	15.0"	13.2"	7.4"

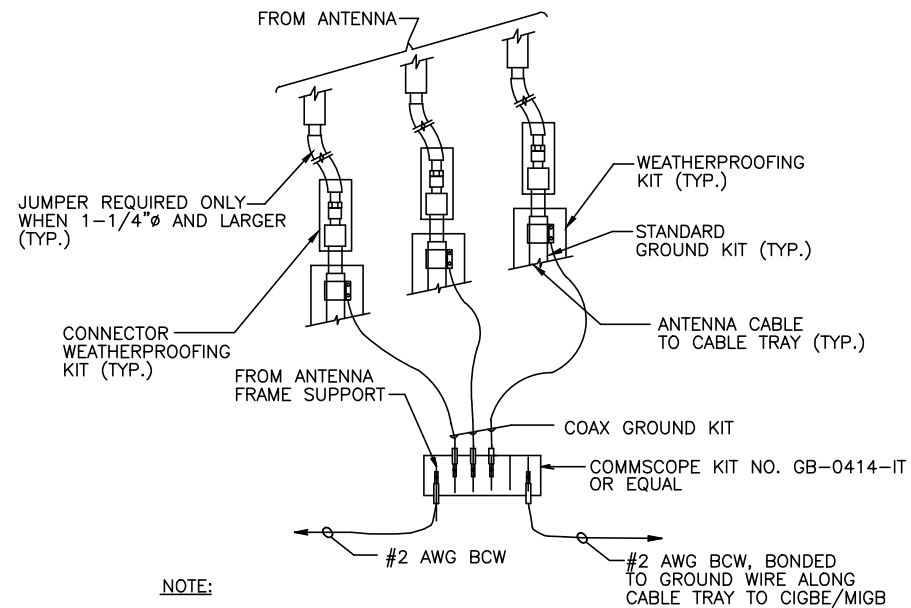
NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS

NOTE:
SEE RFDS FOR RRH FREQUENCY AND MODEL NUMBER

PROPOSED RRU REFER TO THE FINAL RFDS AND CHART FOR QUANTITY, MODEL AND DIMENSIONS

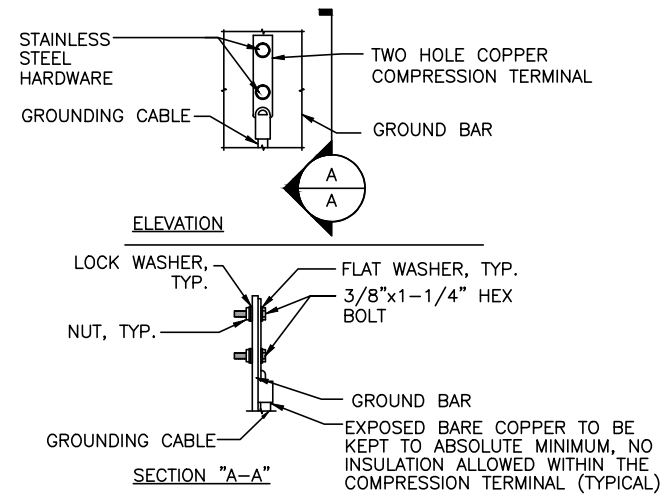
NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS.

PROPOSED RRU DETAIL 3
A-3
SCALE: N.T.S



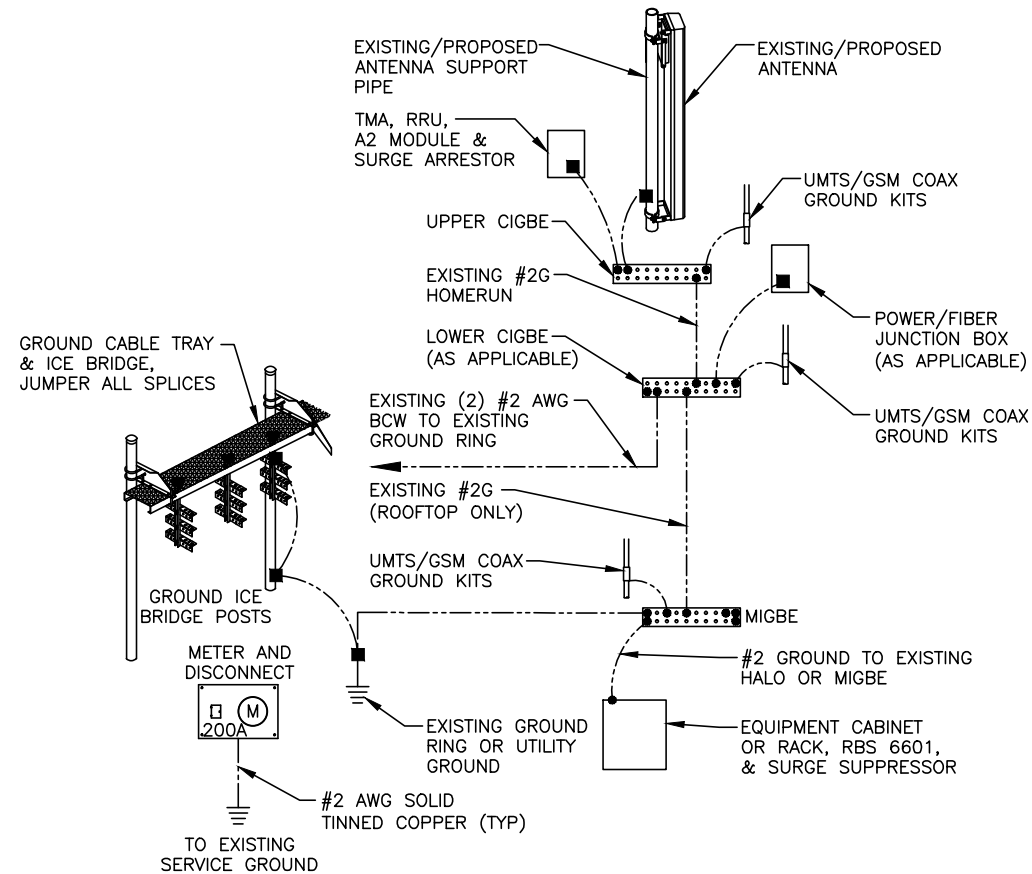
NOTE:
 1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO CIGBE.

GROUND WIRE TO GROUND BAR CONNECTION DETAIL 1
 SCALE: N.T.S. G-1



NOTE:
 1. "DOUBLING UP" OR "STACKING" OF CONNECTION IS NOT PERMITTED.
 2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATION.
 3. CADWELD DOWNLEADS FROM UPPER EGB, LOWER EGB, AND MGB

TYPICAL GROUND BAR CONNECTION DETAIL 3
 SCALE: N.T.S. G-1



GROUNDING RISER DIAGRAM 2
 SCALE: N.T.S. G-1

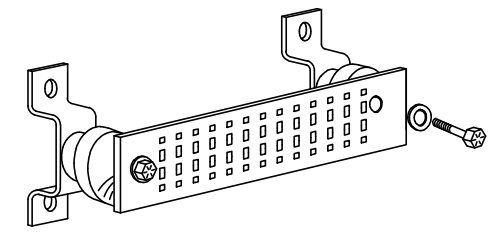
EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION.

SECTION "P" - SURGE PRODUCERS

- CABLE ENTRY PORTS (HATCH PLATES) (#2)
- GENERATOR FRAMEWORK (IF AVAILABLE) (#2)
- TELCO GROUND BAR
- COMMERCIAL POWER COMMON NEUTRAL/GROUND BOND (#2)
- +24V POWER SUPPLY RETURN BAR (#2)
- 48V POWER SUPPLY RETURN BAR (#2)
- RECTIFIER FRAMES.

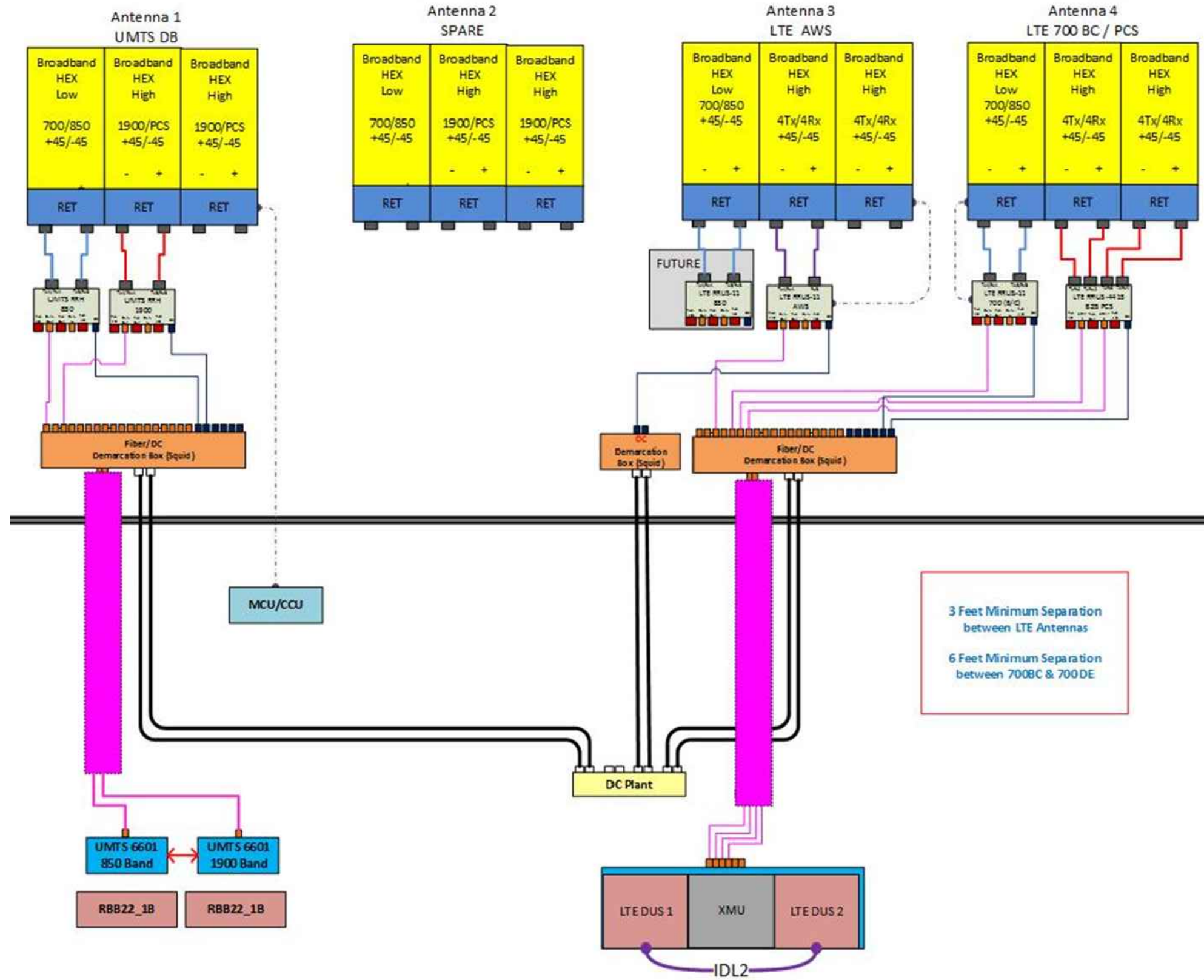
SECTION "A" - SURGE ABSORBERS

- INTERIOR GROUND RING (#2)
- EXTERNAL EARTH GROUND FIELD (BURIED GROUND RING) (#2)
- METALLIC COLD WATER PIPE (IF AVAILABLE) (#2)
- BUILDING STEEL (IF AVAILABLE) (#2)



GROUND BAR - DETAIL 4
 SCALE: N.T.S. G-1

ALPHA, BETA, & GAMMA SECTORS



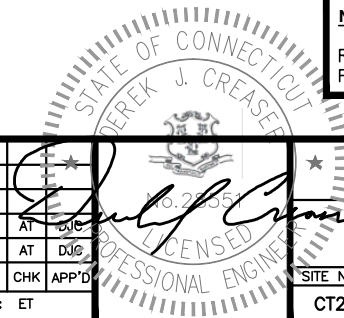
NOTE:
 1. CONTRACTOR TO CONFIRM ALL PARTS.
 2. INSTALL ALL EQUIPMENT TO MANUFACTURER'S RECOMMENDATIONS

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

RF PLUMBING DIAGRAM 1
 SCALE: N.T.S. RF-1

NO.	DATE	REVISIONS	BY	CHK	APP'D
B	03/27/18	ISSUED FOR PERMITTING	AM	AT	DJC
A	02/09/18	ISSUED FOR REVIEW	ET	AT	DJC

SCALE: AS SHOWN DESIGNED BY: AT DRAWN BY: ET





Tower Engineering Solutions

Phone (972) 483-0607, Fax (972) 975-9615
8445 Freeport Parkway, Suite 375, Irving, Texas 75063

Structural Analysis Report

Existing 149 ft SABRE Monopole

Customer Name: SBA Communications Corp

Customer Site Number: CT13075-A

Customer Site Name: New London

Carrier Name: AT&T

Carrier Site ID / Name: CT2820 / Groton Pleasant Valley Road

Site Location: 1294 Pleasant Valley Road North

Groton, Connecticut

New London County

Latitude: 41.399972

Longitude: -72.079222

Analysis Result:

Max Structural Usage: 72.6% [Pass]

Max Foundation Usage: 82.0% [Pass]

Additional Usage Caused by New Mount/Mount Modification: N/A

Report Prepared By: Mariana Franco



M. Franco
3/9/18



Tower Engineering Solutions

Phone (972) 483-0607, Fax (972) 975-9615
8445 Freeport Parkway, Suite 375, Irving, Texas 75063

Structural Analysis Report

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Max Foundation Usage: 82.0% [Pass]

Additional Usage Caused by New Mount/Mount Modification: N/A

Report Prepared By: Mariana Franco

Introduction

The purpose of this report is to summarize the analysis results on the 149 ft SABRE Monopole to support the proposed antennas and transmission lines in addition to those currently installed. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

Sources of Information

Tower Drawings	Tower Design prepared by Sabre, job # 08-07173, dated 08/09/2007
Foundation Drawing	Foundation Design prepared by Sabre, job # 08-07173-E, dated 08/09/2007
Geotechnical Report	Geotechnical Report prepared by Gemini Geotechnical Associates, job # 07079CT, dated 07/20/2007
Modification Drawings	N/A

Analysis Criteria

The rigorous analysis was performed in accordance with the requirements and stipulations of the ANSI/TIA/EIA 222-G. In accordance with this standard, the structure was analyzed using **TESPoles**, a proprietary analysis software. The program considers the structure as an elastic 3-D model with second-order effects and temperature effects incorporated in the analysis. The analysis was performed using multiple wind directions.

Wind Speed Used in the Analysis:	Ultimate Design Wind Speed $V_{ult} = 135.0$ mph (3-Sec. Gust)/ Nominal Design Wind Speed $V_{asd} = 105.0$ mph (3-Sec. Gust)
Wind Speed with Ice:	50 mph (3-Sec. Gust) with 3/4" radial ice concurrent
Operational Wind Speed:	60 mph + 0" Radial ice
Standard/Codes:	ANSI/TIA/EIA 222-G / 2012 IBC / 2016 Connecticut State Building Code
Exposure Category:	C
Structure Class:	II
Topographic Category:	1
Crest Height:	0 ft
Seismic Parameters:	$S_5 = 0.163g$, $S_1 = 0.059g$

This structural analysis is based upon the tower being classified as a Structure Class II; however, if a different classification is required subsequent to the date hereof, the tower classification will be changed to meet such requirement and a new structural analysis will be run.

Existing Antennas, Mounts and Transmission Lines

The table below summarizes the antennas, mounts and transmission lines that were considered in the analysis as existing on the tower.

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1	150.5	3	Commscope - SBNHH-1D65B - Panel	Low Profile Platform	(12) 1 5/8" (2) 1 5/8" Hybriflex Fiber	Verizon
2	149.0	3	Commscope - LNX-6514DS-VTM - Panel			
3		3	Antel - BXA-80063/4CF - Panel			
4		3	Commscope - SBNHH-1D65B - Panel			
5		3	Alcatel Lucent - RRH 2x60 700 - RRH			
6		3	Alcatel Lucent - RRH 4X45 AWS - RRH			
7		3	Alcatel Lucent - RRH 2x60W-1900MHz - RRH			
8		1	RFS - DB-TI-6Z-8AB-OZ - Distribution Box			
9		1	RFS - DB-T1-6Z-8AB-OZ - Distribution Box			
10	140.0	3	Ericsson - AIR B2A B4P - Panel	Low Profile Platform	(12) 1 5/8" (1) 1 5/8" Fiber	T-Mobile
11		3	Ericsson - AIR B4A B2P - Panel			
12		3	Ericsson - KRY 112 144 T - TMA			
-	127.0	12	CCI - HPA-65R-BUU-8H - Panel	MTC3607 Platform + HR & Kicker	(2) 1/2" Fiber (8) 3/4" DC (3) 3/8" RET	AT&T
-		9	Ericsson - RRUS 11 - RRU			
-		6	Ericsson - RRUS 12 - RRU			
-		3	Ericsson - RRUS 32 - RRU			
-		3	Ericsson - RRUS E2 - RRU			
-		6	Ericsson - RRUS A2 - RRU			
-		4	Raycap - DC6-48-60-18-8F			

Proposed Carrier’s Final Configuration of Antennas, Mounts and Transmission Lines

Information pertaining to the proposed carrier’s final configuration of antennas and transmission lines was provided by SBA Communications Corp. The proposed antennas and lines are listed below.

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
13	127.0	3	Ericsson - 4415 - RRU	MTC3607 Platform + HR & Kicker	(3) 1/2" Fiber (8) 3/4" DC (3) 3/8" RET Cable	AT&T
14		12	Cci - HPA-65R-BUU-H8 - Panel			
15		9	Ericsson - RRUS 11- RRU			
16		3	Ericsson - RRUS-12 B2 - RRU			
17		3	Ericsson - RRUS-32 - RRU			
18		3	Ericsson - RRUS-A2 Module			
19		3	Ericsson - RRUS-E2 - RRU			
20		4	Raycap - DC6-48-60-18-8F - Surge			

All transmission lines are considered running inside of the pole shafts.

Analysis Results

The results of the structural analysis, performed for the wind and ice loading and antenna equipment as defined above, are summarized as the following:

	Pole shafts	Anchor Bolts	Base Plate	Flange Plate
Max. Usage:	72.6%	67.5%	62.2%	54.5%
Pass/Fail	Pass	Pass	Pass	Pass

Foundations

	Moment (Kip-Ft)	Shear (Kips)
Original Design Reactions	5442.5	49.9
Analysis Reactions	4535.8	40.7
Factored Reactions*	7347.4	67.4
% of Design Reactions	61.7%	60.5%

* Per section 15.5.1 of the TIA-222-G standard, factored reactions were obtained by multiplying a 1.35 factor to the original design reactions.

The foundation has been investigated using the supplied documents and soils report and was found adequate. Therefore, no modification to the foundation will be required.

Operational Condition (Rigidity):

Operational characteristics of the tower are found to be within the limits prescribed by ANSI/TIA/EIA 222-G for the installed antennas. The maximum twist/sway at the elevation of the proposed equipment is 1.1039 degrees under the operational wind speed as specified in the Analysis Criteria.

Conclusions

Based on the analysis results, the existing structure and its foundation were found to be adequate to safely support the existing and proposed equipment and meet the minimum requirements per the ANSI/TIA/EIA 222-G Standard under the design basic wind speed as specified in the Analysis Criteria.

Standard Conditions

1. This analysis was performed based on the information supplied to **(TES) Tower Engineering Solutions, LLC**. Verification of the information provided was not included in the Scope of Work for **TES**. The accuracy of the analysis is dependent on the accuracy of the information provided.
2. The analysis is based on the presumption that the tower members and components along with any existing reinforcement items have been correctly and properly designed, manufactured, installed and maintained.
3. All the existing structural members were assumed to be in good condition with no physical damage or deterioration associated with corrosion.
4. An initial tension of 10% of the break strength on all the existing guy wires was assumed in all the structural analyses of guyed towers unless different values were provided by the client. **TES** cannot take responsibility for the deviations in the analysis results because of differences in the initial tension forces of the existing guy wires.
5. Secondary component or connection secondary components, welds and bolts are assumed to be able to carry their intended original design loads. **TES** cannot take responsibility for verification of the adequacy on the connections, bolts and welds present in the structure.
6. The analyses will be performed based on the codes as specified by the client or based on the best knowledge of the engineering staff of **TES**. In the absence of information to the contrary, all work will be performed in accordance with the latest relevant revision of ANSI/TIA-222. If wind speed and/or ice loads are different from the minimum values recommended by the EIA/TIA-222 standard or other codes, **TES** should be notified in writing and the applicable minimum values provided by the client.
7. The configuration of the existing mounts, antennas, coax and other appurtenances were supplied by the customer for the current structural analysis. **TES** has not visited the tower site to verify the adequacy of the information provided. If there is any discrepancy found in the report regarding the existing conditions, **TES** should be notified immediately to evaluate the effect of the discrepancy on the analysis results.
8. The client will assume responsibility for rework associated with the differences in initially provided information, including tower and foundation information, existing and/or proposed equipment and transmission lines.
9. If a feasibility analysis was performed, final acceptance of changed conditions shall be based upon a rigorous structural analysis.

Usage Diagram - Max Ratio 72.61% at 100.8ft

Structure: CT13075-A-SBA
Site Name: New London
Height: 149.00 (ft)
Base Elev: 0.000 (ft)

Code: EIA/TIA-222-G
Exposure: C
Gh: 1.1

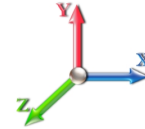
3/9/2018



Page: 1

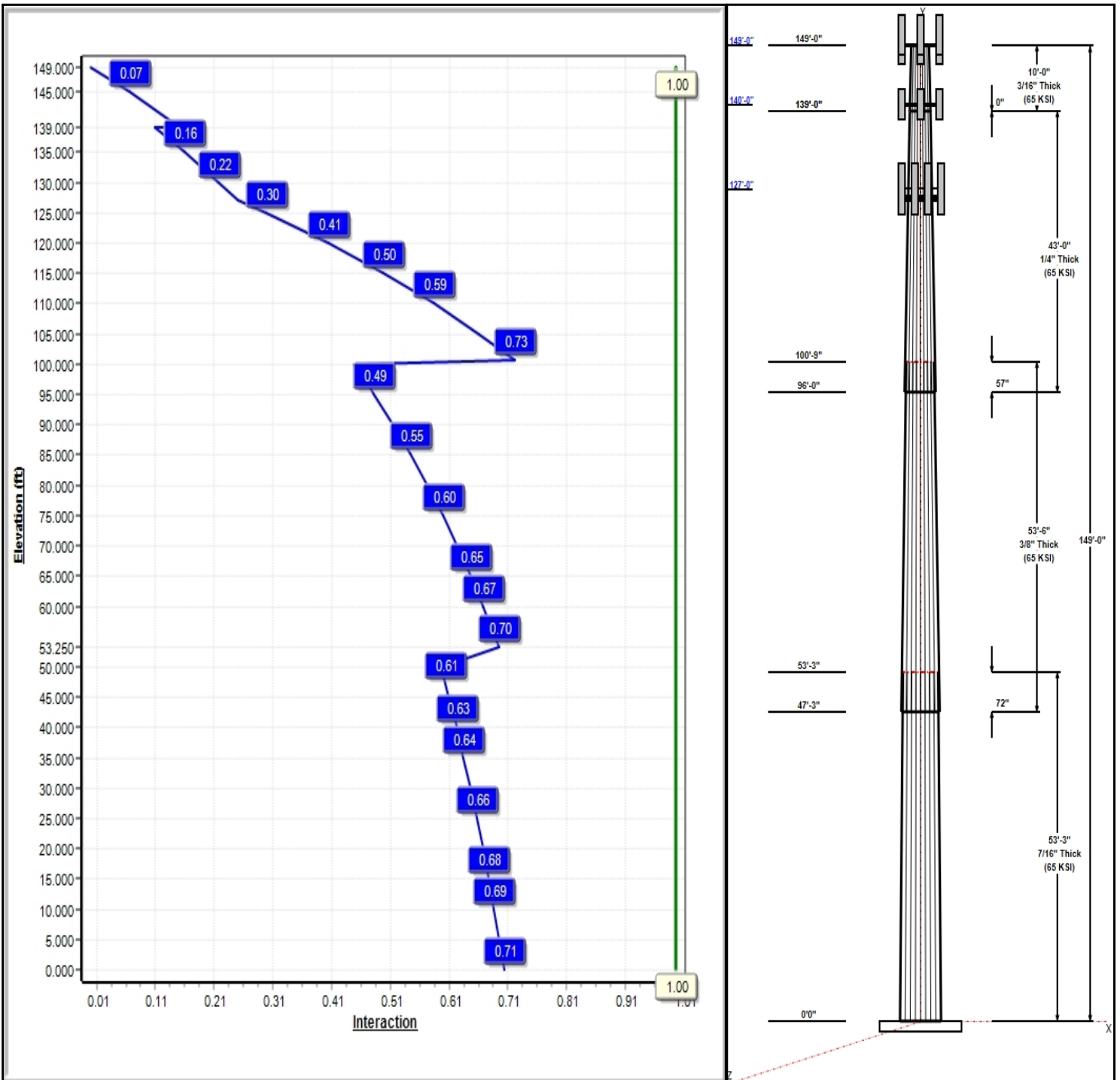
Dead Load Factor: 1.20
Wind Load Factor: 1.60

Load Case : 1.2D + 1.6W 105 mph Wind



Iterations: 22

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Structure: CT13075-A-SBA

Type: Tapered
Site Name: New London
Height: 149.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: 18 Sided
Taper: 0.23597

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Shaft Properties

Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	53.25	45.69	58.26	0.438		0.23597	65
2	53.50	35.24	47.86	0.375	Slip	0.23597	65
3	43.00	26.71	36.86	0.250	Slip	0.23597	65
4	10.00	24.35	26.71	0.188	Butt	0.23597	65

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
149.00	149.00	3	LNx-6514DS-VTM	Verizon
149.00	149.00	3	BXA-80063/4CF	Verizon
149.00	149.00	3	SBNHH-1D65B	Verizon
149.00	150.50	3	SBNHH-1D65B	Verizon
149.00	149.00	3	RRH2x60 700	Verizon
149.00	149.00	3	RRH 4X45 AWS	Verizon
149.00	149.00	3	RRH 2X60W-1900MHz	Verizon
149.00	149.00	1	DB-T1-6Z-8AB-0Z	Verizon
149.00	149.00	1	DB-T1-6Z-8AB-0Z	Verizon
149.00	149.00	1	Low Profile	Verizon
140.00	140.00	3	KRY 112 144 T	T-Mobile
140.00	140.00	1	Low Profile Platform	T-Mobile
140.00	140.00	3	AIR 32 B2A B4P	T-Mobile
140.00	140.00	3	AIR 32 B4A B2P	T-Mobile
127.00	127.00	3	4415	AT&T
127.00	127.00	12	HPA-65R-BUU-8H	AT&T
127.00	127.00	9	RRUS 11	AT&T
127.00	127.00	3	RRUS-12 B2	AT&T
127.00	127.00	3	RRUS 32	AT&T
127.00	127.00	3	RRUS E2	AT&T
127.00	127.00	3	RRUS A2	AT&T
127.00	127.00	4	DC6-48-60-18-8F	AT&T
127.00	127.00	1	MTC3607 Platform + HR &	AT&T

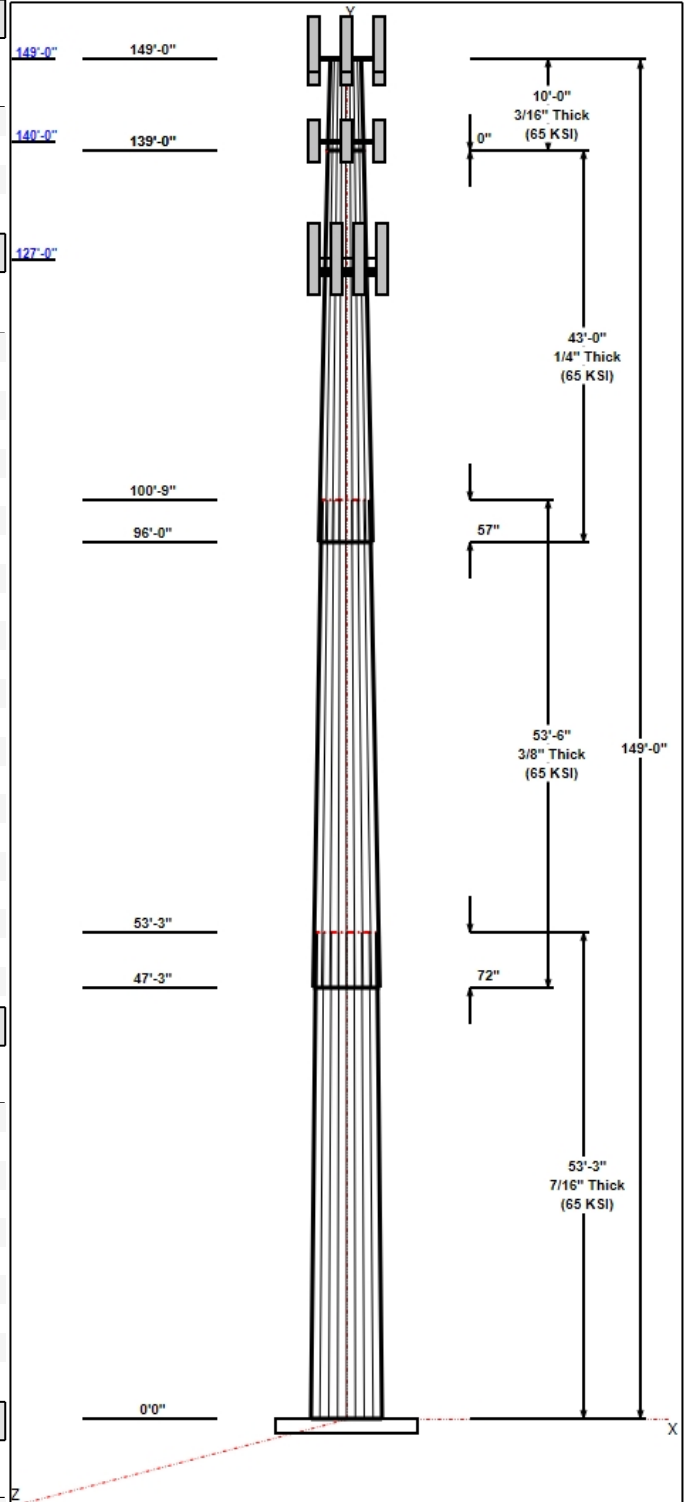
Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	149.00	Inside	1 5/8" Coax	Verizon
0.00	149.00	Inside	1 5/8" Coax	Verizon
0.00	149.00	Inside	1 5/8" Coax	Verizon
0.00	149.00	Inside	1 5/8" Coax	Verizon
0.00	149.00	Inside	1 5/8" Hybriflex Fiber	Verizon
0.00	140.00	Inside	1 5/8" Coax	T-Mobile
0.00	140.00	Inside	1 5/8" Fiber	T-Mobile
0.00	127.00	Inside	1/2" Fiber	AT&T
0.00	127.00	Inside	3/4" DC	AT&T
0.00	127.00	Inside	3/8" RET	AT&T

Anchor Bolts

Qty	Specifications	Grade (ksi)	Arrangement
20	2.25" 18J	75.0	Cluster

Base Plate



Structure: CT13075-A-SBA

Type: Tapered
Site Name: New London
Height: 149.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: 18 Sided
Taper: 0.23597

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Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
2.7500	65.4	60.0	Clipped

Reactions

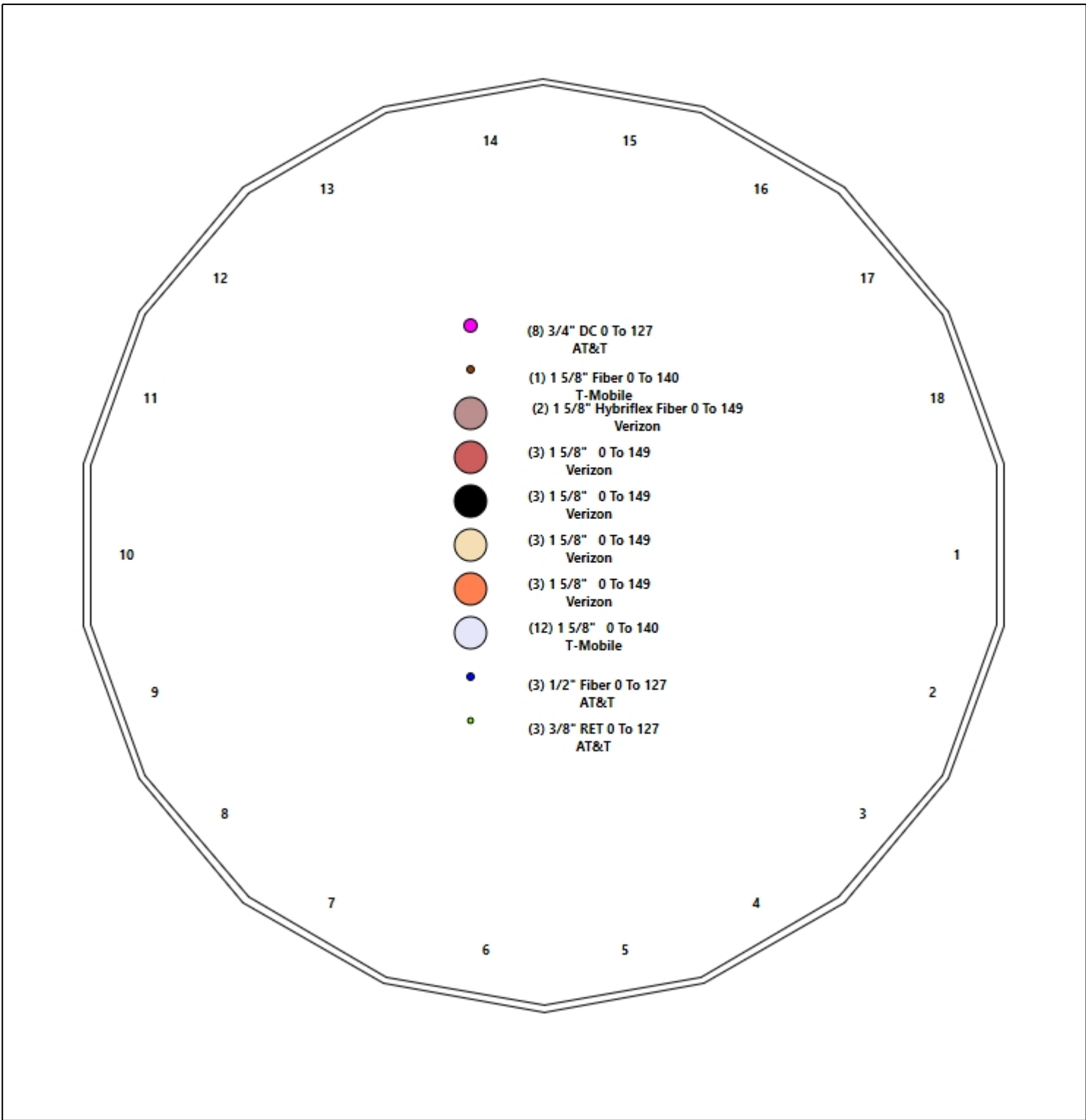
Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.6W 105 mph Wind	4535.8	40.7	47.4
0.9D + 1.6W 105 mph Wind	4499.3	40.7	35.5
1.2D + 1.0Di + 1.0Wi 50 mph Wind	1023.2	9.4	72.9
1.2D + 1.0E	207.9	1.8	47.4
0.9D + 1.0E	206.1	1.8	35.6
1.0D + 1.0W 60 mph Wind	922.0	8.3	39.5

Structure: CT13075-A-SBA - Coax Line Placement

Type: Monopole
Site Name: New London
Height: 149.00 (ft)

3/9/2018

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Shaft Properties

Structure: CT13075-A-SBA	Code: EIA/TIA-222-G	3/9/2018
Site Name: New London	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	18	53.250	0.4375	65		0.00	12,968
2	18	53.500	0.3750	65	Slip	72.00	8,921
3	18	43.000	0.2500	65	Slip	57.00	3,661
4	18	10.000	0.1875	65	Flange	0.00	513
Total Shaft Weight:							26,063

Bottom

Top

Sec. No.	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Taper
1	58.26	0.00	80.29	33916.66	22.07	133.17	45.69	53.25	62.84	16262.1	17.01	104.4	0.235973
2	47.86	47.25	56.52	16100.98	21.09	127.63	35.24	100.75	41.49	6370.66	15.16	93.96	0.235973
3	36.86	96.00	29.05	4917.70	24.58	147.43	26.71	139.00	21.00	1857.12	17.43	106.8	0.235973
4	26.71	139.0	15.78	1402.74	23.71	142.45	24.35	149.00	14.38	1060.65	21.49	129.8	0.235973

Load Summary

Structure: CT13075-A-SBA	Code: EIA/TIA-222-G	3/9/2018
Site Name: New London	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice			Ice			Hor. Ecc. (ft)	Vert Ecc (ft)
				Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor		
1	149.00	LNX-6514DS-VTM	3	38.80	8.17	0.83	214.98	10.991	0.83	0.00	0.00
2	149.00	BXA-80063/4CF	3	9.90	4.72	0.72	110.33	6.567	0.72	0.00	0.00
3	149.00	SBNHH-1D65B	3	40.60	8.08	0.83	242.97	9.459	0.83	0.00	0.00
4	149.00	SBNHH-1D65B	3	40.00	8.16	0.83	242.97	9.459	0.83	0.00	1.50
5	149.00	RRH2x60 700	3	51.00	1.51	1.50	151.17	1.934	1.47	0.00	0.00
6	149.00	RRH 4X45 AWS	3	64.00	2.60	0.80	147.52	3.304	0.80	0.00	0.00
7	149.00	RRH 2X60W-1900MHz	3	46.00	1.88	0.84	115.05	2.466	0.84	0.00	0.00
8	149.00	DB-T1-6Z-8AB-0Z	1	18.90	4.80	0.67	162.51	5.673	0.67	0.00	0.00
9	149.00	DB-T1-6Z-8AB-0Z	1	18.90	4.80	0.67	162.51	5.673	0.67	0.00	0.00
10	149.00	Low Profile Platform-Round	1	1500.00	22.00	1.00	2808.04	39.650	1.00	0.00	0.00
11	140.00	KRY 112 144 T	3	11.02	0.41	0.70	21.75	0.882	0.70	0.00	0.00
12	140.00	Low Profile Platform	1	1500.00	22.00	1.00	2799.91	39.540	1.00	0.00	0.00
13	140.00	AIR 32 B2A B4P	3	132.20	6.51	0.87	315.08	7.682	0.87	0.00	0.00
14	140.00	AIR 32 B4A B2P	3	105.80	6.51	0.87	288.68	7.682	0.87	0.00	0.00
15	127.00	4415	3	46.00	1.64	0.67	86.42	2.147	0.67	0.00	0.00
16	127.00	HPA-65R-BUU-8H	12	68.00	12.98	0.79	353.46	14.567	0.79	0.00	0.00
17	127.00	RRUS 11	9	50.70	2.52	0.67	138.10	3.160	0.67	0.00	0.00
18	127.00	RRUS-12 B2	3	60.00	3.14	0.67	125.91	3.894	0.67	0.00	0.00
19	127.00	RRUS 32	3	77.00	3.31	0.67	124.43	2.219	0.67	0.00	0.00
20	127.00	RRUS E2	3	60.00	2.70	0.67	133.08	3.759	0.67	0.00	0.00
21	127.00	RRUS A2	3	21.20	1.60	0.62	56.71	2.424	0.62	0.00	0.00
22	127.00	DC6-48-60-18-8F	4	31.80	2.20	1.00	92.60	3.230	1.00	0.00	0.00
23	127.00	MTC3607 Platform + HR & Kicker	1	2246.00	51.70	1.00	5330.04	89.325	1.00	0.00	0.00
Totals:			75	9,093.86			24,248.99				

Linear Appurtenances

Bottom Elev. (ft)	Top Elev. (ft)	Description	Exposed Width	Exposed
0.00	149.00	(3) 1 5/8" Coax	0.00	Inside
0.00	149.00	(3) 1 5/8" Coax	0.00	Inside
0.00	149.00	(3) 1 5/8" Coax	0.00	Inside
0.00	149.00	(3) 1 5/8" Coax	0.00	Inside
0.00	149.00	(2) 1 5/8" Hybriflex Fiber	0.00	Inside
0.00	140.00	(12) 1 5/8" Coax	0.00	Inside
0.00	140.00	(1) 1 5/8" Fiber	0.00	Inside
0.00	127.00	(3) 1/2" Fiber	0.00	Inside
0.00	127.00	(8) 3/4" DC	0.00	Inside
0.00	127.00	(3) 3/8" RET	0.00	Inside

Shaft Section Properties

Structure: CT13075-A-SBA	Code: EIA/TIA-222-G	3/9/2018
Site Name: New London	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Increment Length: 5 (ft)

Elev (ft)	Description	Thick (in)	Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fpy (ksi)	S (in^3)	Weight (lb)
0.00		0.4375	58.260	80.291	33916.7	22.07	133.17	75.4	1146.	0.0
5.00		0.4375	57.080	78.653	31882.5	21.59	130.47	76.0	1100.	1352.1
10.00		0.4375	55.900	77.014	29931.4	21.12	127.77	76.6	1054.	1324.2
15.00		0.4375	54.720	75.376	28061.5	20.64	125.08	77.1	1010.	1296.4
20.00		0.4375	53.541	73.738	26271.2	20.17	122.38	77.7	966.4	1268.5
25.00		0.4375	52.361	72.099	24558.7	19.69	119.68	78.2	923.8	1240.6
30.00		0.4375	51.181	70.461	22922.3	19.22	116.98	78.8	882.1	1212.8
35.00		0.4375	50.001	68.823	21360.3	18.74	114.29	79.4	841.4	1184.9
40.00		0.4375	48.821	67.184	19870.8	18.27	111.59	79.9	801.7	1157.0
45.00		0.4375	47.641	65.546	18452.3	17.79	108.89	80.5	762.9	1129.1
47.25	Bot - Section 2	0.4375	47.110	64.809	17836.6	17.58	107.68	80.7	745.7	499.0
50.00		0.4375	46.461	63.908	17103.0	17.31	106.20	81.0	725.0	1127.5
53.25	Top - Section 1	0.3750	46.444	54.832	14703.3	20.43	123.85	0.0	0.0	1312.3
55.00		0.3750	46.031	54.341	14311.4	20.23	122.75	77.6	612.4	325.1
60.00		0.3750	44.852	52.936	13230.3	19.68	119.60	78.3	581.0	912.6
65.00		0.3750	43.672	51.532	12205.1	19.12	116.46	78.9	550.5	888.7
70.00		0.3750	42.492	50.128	11234.3	18.57	113.31	79.6	520.7	864.8
75.00		0.3750	41.312	48.724	10316.3	18.01	110.17	80.2	491.8	840.9
80.00		0.3750	40.132	47.319	9449.8	17.46	107.02	80.9	463.8	817.0
85.00		0.3750	38.952	45.915	8633.2	16.90	103.87	81.5	436.5	793.1
90.00		0.3750	37.772	44.511	7865.0	16.35	100.73	82.2	410.1	769.2
95.00		0.3750	36.593	43.106	7143.9	15.80	97.58	82.5	384.5	745.4
96.00	Bot - Section 3	0.3750	36.357	42.826	7005.1	15.68	96.95	82.5	379.5	146.2
100.00		0.3750	35.413	41.702	6468.2	15.24	94.43	82.5	359.8	965.5
100.75	Top - Section 2	0.2500	35.736	28.157	4479.7	23.79	142.94	0.0	0.0	178.2
105.00		0.2500	34.733	27.361	4110.5	23.09	138.93	74.2	233.1	401.4
110.00		0.2500	33.553	26.425	3702.8	22.25	134.21	75.2	217.4	457.6
115.00		0.2500	32.373	25.489	3323.0	21.42	129.49	76.2	202.2	441.6
120.00		0.2500	31.193	24.553	2970.2	20.59	124.77	77.2	187.5	425.7
125.00		0.2500	30.013	23.616	2643.2	19.76	120.05	78.2	173.5	409.8
127.00		0.2500	29.541	23.242	2519.4	19.43	118.17	78.6	168.0	159.4
130.00		0.2500	28.833	22.680	2341.2	18.93	115.33	79.1	159.9	234.4
135.00		0.2500	27.654	21.744	2063.0	18.09	110.61	80.1	146.9	377.9
139.00	Top - Section 3	0.2500	26.710	20.995	1857.1	17.43	106.84	80.9	136.9	290.9
139.00	Bot - Section 4	0.1875	26.710	15.783	1402.7	23.24	142.45	73.5	103.4	
140.00		0.1875	26.474	15.643	1365.6	23.49	141.19	73.8	101.6	53.5
145.00		0.1875	25.294	14.941	1189.9	22.38	134.90	75.1	92.7	260.2
149.00		0.1875	24.350	14.379	1060.6	21.49	129.87	76.1	85.8	199.5

26063.1

Wind Loading - Shaft

Structure: CT13075-A-SBA	Code: EIA/TIA-222-G	3/9/2018
Site Name: New London	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.6W 105 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 22

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	22.791	25.07	477.24	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	22.791	25.07	467.57	0.650	0.000	5.00	24.400	15.86	636.2	0.0	1622.5
10.00		1.00	0.85	22.791	25.07	457.91	0.650	0.000	5.00	23.901	15.54	623.2	0.0	1589.1
15.00		1.00	0.85	22.791	25.07	448.24	0.650	0.000	5.00	23.401	15.21	610.1	0.0	1555.6
20.00		1.00	0.90	24.182	26.60	451.77	0.650	0.000	5.00	22.902	14.89	633.6	0.0	1522.2
25.00		1.00	0.95	25.345	27.88	452.31	0.650	0.000	5.00	22.403	14.56	649.6	0.0	1488.8
30.00		1.00	0.98	26.337	28.97	450.69	0.650	0.000	5.00	21.904	14.24	660.0	0.0	1455.3
35.00		1.00	1.01	27.206	29.93	447.50	0.650	0.000	5.00	21.405	13.91	666.2	0.0	1421.9
40.00		1.00	1.04	27.981	30.78	443.13	0.650	0.000	5.00	20.906	13.59	669.2	0.0	1388.4
45.00		1.00	1.07	28.684	31.55	437.81	0.650	0.000	5.00	20.406	13.26	669.6	0.0	1355.0
47.25	Bot - Section 2	1.00	1.08	28.980	31.88	435.16	0.650	0.000	2.25	9.020	5.86	299.0	0.0	598.8
50.00		1.00	1.09	29.327	32.26	431.73	0.650	0.000	2.75	11.062	7.19	371.1	0.0	1353.0
53.25	Top - Section 1	1.00	1.11	29.719	32.69	427.43	0.650	0.000	3.25	12.878	8.37	437.8	0.0	1574.8
55.00		1.00	1.12	29.922	32.91	432.05	0.650	0.000	1.75	6.847	4.45	234.4	0.0	390.1
60.00		1.00	1.14	30.475	33.52	424.85	0.650	0.000	5.00	19.226	12.50	670.3	0.0	1095.1
65.00		1.00	1.16	30.993	34.09	417.17	0.650	0.000	5.00	18.727	12.17	664.0	0.0	1066.4
70.00		1.00	1.17	31.480	34.63	409.08	0.650	0.000	5.00	18.228	11.85	656.4	0.0	1037.8
75.00		1.00	1.19	31.941	35.13	400.62	0.650	0.000	5.00	17.728	11.52	647.8	0.0	1009.1
80.00		1.00	1.21	32.377	35.62	391.83	0.650	0.000	5.00	17.229	11.20	638.2	0.0	980.4
85.00		1.00	1.22	32.793	36.07	382.75	0.650	0.000	5.00	16.730	10.87	627.6	0.0	951.8
90.00		1.00	1.24	33.190	36.51	373.39	0.650	0.000	5.00	16.231	10.55	616.3	0.0	923.1
95.00		1.00	1.25	33.570	36.93	363.79	0.650	0.000	5.00	15.732	10.23	604.2	0.0	894.4
96.00	Bot - Section 3	1.00	1.25	33.644	37.01	361.85	0.650	0.000	1.00	3.086	2.01	118.8	0.0	175.4
100.00		1.00	1.27	33.935	37.33	353.97	0.650	0.000	4.00	12.315	8.00	478.1	0.0	1158.6
100.75	Top - Section 2	1.00	1.27	33.988	37.39	352.48	0.650	0.000	0.75	2.274	1.48	88.4	0.0	213.8
105.00		1.00	1.28	34.285	37.71	348.96	0.650	0.000	4.25	12.671	8.24	497.0	0.0	481.7
110.00		1.00	1.29	34.623	38.08	338.76	0.650	0.000	5.00	14.446	9.39	572.2	0.0	549.1
115.00		1.00	1.30	34.948	38.44	328.38	0.650	0.000	5.00	13.946	9.07	557.6	0.0	530.0
120.00		1.00	1.32	35.263	38.79	317.84	0.650	0.000	5.00	13.447	8.74	542.5	0.0	510.8
125.00		1.00	1.33	35.567	39.12	307.13	0.650	0.000	5.00	12.948	8.42	526.8	0.0	491.7
127.00	Appurtenance(s)	1.00	1.33	35.686	39.25	302.81	0.650	0.000	2.00	5.039	3.28	205.7	0.0	191.3
130.00		1.00	1.34	35.862	39.45	296.28	0.650	0.000	3.00	7.409	4.82	304.0	0.0	281.3
135.00		1.00	1.35	36.148	39.76	285.29	0.650	0.000	5.00	11.950	7.77	494.2	0.0	453.5
139.00	Top - Section 3	1.00	1.36	36.371	40.01	276.40	0.650	0.000	4.00	9.200	5.98	382.8	0.0	349.0
140.00	Appurtenance(s)	1.00	1.36	36.426	40.07	274.16	0.650	0.000	1.00	2.250	1.46	93.8	0.0	64.2
145.00		1.00	1.37	36.696	40.37	262.91	0.650	0.000	5.00	10.951	7.12	459.7	0.0	312.2
149.00	Appurtenance(s)	1.00	1.38	36.907	40.60	253.83	0.650	0.000	4.00	8.402	5.46	354.7	0.0	239.4
Totals:									149.00			17,961.0		31,275.7

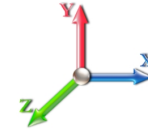
Discrete Appurtenance Forces

Structure: CT13075-A-SBA	Code: EIA/TIA-222-G	3/9/2018
Site Name: New London	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 1.2D + 1.6W 105 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 22

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	
1	149.00	RRH2x60 700	3	36.907	40.597	1.50	1.00	6.79	183.60	0.000	0.000	441.37	0.00	0.00	
2	149.00	LNx-6514DS-VTM	3	36.907	40.597	0.83	1.00	20.34	139.68	0.000	0.000	1321.42	0.00	0.00	
3	149.00	BXA-80063/4CF	3	36.907	40.597	0.72	1.00	10.20	35.64	0.000	0.000	662.24	0.00	0.00	
4	149.00	SBNHH-1D65B	3	36.907	40.597	0.83	1.00	20.12	146.16	0.000	0.000	1306.86	0.00	0.00	
5	149.00	SBNHH-1D65B	3	36.985	40.683	0.83	1.00	20.32	144.00	0.000	1.500	1322.58	0.00	1983.88	
6	149.00	Low Profile	1	36.907	40.597	1.00	1.00	22.00	1800.00	0.000	0.000	1429.03	0.00	0.00	
7	149.00	RRH 4X45 AWS	3	36.907	40.597	0.80	1.00	6.24	230.40	0.000	0.000	405.32	0.00	0.00	
8	149.00	RRH 2X60W-1900MHz	3	36.907	40.597	0.84	1.00	4.74	165.60	0.000	0.000	307.73	0.00	0.00	
9	149.00	DB-T1-6Z-8AB-0Z	1	36.907	40.597	0.67	1.00	3.22	22.68	0.000	0.000	208.90	0.00	0.00	
10	149.00	DB-T1-6Z-8AB-0Z	1	36.907	40.597	0.67	1.00	3.22	22.68	0.000	0.000	208.90	0.00	0.00	
11	140.00	AIR 32 B4A B2P	3	36.426	40.068	0.70	0.80	13.59	380.88	0.000	0.000	871.43	0.00	0.00	
12	140.00	AIR 32 B2A B4P	3	36.426	40.068	0.70	0.80	13.59	475.92	0.000	0.000	871.43	0.00	0.00	
13	140.00	KRY 112 144 T	3	36.426	40.068	0.56	0.80	0.69	39.67	0.000	0.000	44.16	0.00	0.00	
14	140.00	Low Profile Platform	1	36.426	40.068	1.00	1.00	22.00	1800.00	0.000	0.000	1410.41	0.00	0.00	
15	127.00	RRUS-12 B2	3	35.686	39.255	0.54	0.80	5.05	216.00	0.000	0.000	317.12	0.00	0.00	
16	127.00	4415	3	35.686	39.255	0.54	0.80	2.64	165.60	0.000	0.000	165.63	0.00	0.00	
17	127.00	HPA-65R-BUU-8H	12	35.686	39.255	0.63	0.80	98.44	979.20	0.000	0.000	6182.79	0.00	0.00	
18	127.00	RRUS 11	9	35.686	39.255	0.54	0.80	12.16	547.56	0.000	0.000	763.52	0.00	0.00	
19	127.00	RRUS E2	3	35.686	39.255	0.54	0.80	4.34	216.00	0.000	0.000	272.68	0.00	0.00	
20	127.00	RRUS 32	3	35.686	39.255	0.54	0.80	5.32	277.20	0.000	0.000	334.29	0.00	0.00	
21	127.00	RRUS A2	3	35.686	39.255	0.50	0.80	2.38	76.32	0.000	0.000	149.53	0.00	0.00	
22	127.00	DC6-48-60-18-8F	4	35.686	39.255	0.80	0.80	7.04	152.64	0.000	0.000	442.16	0.00	0.00	
23	127.00	MTC3607 Platform + HR	1	35.686	39.255	1.00	1.00	51.70	2695.20	0.000	0.000	3247.15	0.00	0.00	
Totals:								10,912.63							22,686.65

Total Applied Force Summary

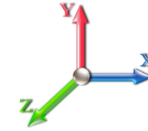
Structure: CT13075-A-SBA	Code: EIA/TIA-222-G	3/9/2018
Site Name: New London	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.6W 105 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 22

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		636.17	1806.69	0.00	0.00
10.00		623.16	1773.24	0.00	0.00
15.00		610.14	1739.79	0.00	0.00
20.00		633.58	1706.34	0.00	0.00
25.00		649.58	1672.89	0.00	0.00
30.00		659.95	1639.44	0.00	0.00
35.00		666.19	1605.99	0.00	0.00
40.00		669.20	1572.54	0.00	0.00
45.00		669.62	1539.09	0.00	0.00
47.25		299.04	681.68	0.00	0.00
50.00		371.12	1454.27	0.00	0.00
53.25		437.83	1694.46	0.00	0.00
55.00		234.38	454.51	0.00	0.00
60.00		670.28	1279.26	0.00	0.00
65.00		663.97	1250.59	0.00	0.00
70.00		656.43	1221.92	0.00	0.00
75.00		647.80	1193.25	0.00	0.00
80.00		638.17	1164.58	0.00	0.00
85.00		627.64	1135.91	0.00	0.00
90.00		616.28	1107.23	0.00	0.00
95.00		604.17	1078.56	0.00	0.00
96.00		118.79	212.27	0.00	0.00
100.00		478.10	1305.93	0.00	0.00
100.75		88.40	241.46	0.00	0.00
105.00		497.00	638.25	0.00	0.00
110.00		572.17	733.21	0.00	0.00
115.00		557.59	714.09	0.00	0.00
120.00		542.47	694.98	0.00	0.00
125.00		526.84	675.86	0.00	0.00
127.00	(41) attachments	12080.61	5590.71	0.00	0.00
130.00		303.98	379.26	0.00	0.00
135.00		494.16	616.82	0.00	0.00
139.00		382.81	479.69	0.00	0.00
140.00	(10) attachments	3291.19	2793.30	0.00	0.00
145.00		459.74	400.29	0.00	0.00
149.00	(24) attachments	7969.08	3200.35	0.00	1983.88
	Totals:	40,647.62	47,448.71	0.00	1,983.88

Calculated Forces

Structure: CT13075-A-SBA	Code: EIA/TIA-222-G	3/9/2018
Site Name: New London	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

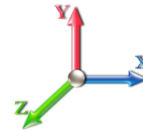


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Load Case: 1.2D + 1.6W 105 mph Wind

Iterations 22

Dead Load Factor 1.20
Wind Load Factor 1.60



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-47.38	-40.73	0.00	-4535.7	0.00	4535.78	5451.60	2725.80	12956.4	6487.84	0.00	0.000	0.000	0.708
5.00	-45.44	-40.24	0.00	-4332.1	0.00	4332.15	5379.95	2689.97	12523.2	6270.95	0.10	-0.186	0.000	0.699
10.00	-43.54	-39.75	0.00	-4130.9	0.00	4130.98	5306.65	2653.32	12093.3	6055.68	0.40	-0.375	0.000	0.691
15.00	-41.68	-39.26	0.00	-3932.2	0.00	3932.24	5231.70	2615.85	11666.9	5842.16	0.89	-0.566	0.000	0.681
20.00	-39.84	-38.75	0.00	-3735.9	0.00	3735.92	5155.10	2577.55	11244.2	5630.50	1.59	-0.761	0.000	0.671
25.00	-38.05	-38.21	0.00	-3542.1	0.00	3542.18	5076.86	2538.43	10825.5	5420.83	2.49	-0.958	0.000	0.661
30.00	-36.29	-37.64	0.00	-3351.1	0.00	3351.16	4996.96	2498.48	10411.0	5213.26	3.60	-1.157	0.000	0.650
35.00	-34.57	-37.06	0.00	-3162.9	0.00	3162.95	4915.42	2457.71	10001.0	5007.93	4.92	-1.360	0.000	0.639
40.00	-32.88	-36.47	0.00	-2977.6	0.00	2977.63	4832.22	2416.11	9595.63	4804.95	6.46	-1.564	0.000	0.627
45.00	-31.27	-35.84	0.00	-2795.2	0.00	2795.27	4747.38	2373.69	9195.21	4604.44	8.21	-1.771	0.000	0.614
47.25	-30.53	-35.58	0.00	-2714.6	0.00	2714.63	4708.66	2354.33	9016.69	4515.05	9.07	-1.866	0.000	0.608
50.00	-29.01	-35.22	0.00	-2616.7	0.00	2616.79	4660.89	2330.44	8799.96	4406.52	10.18	-1.983	0.000	0.600
53.25	-27.27	-34.77	0.00	-2502.3	0.00	2502.32	3818.32	1909.16	7226.08	3618.41	11.57	-2.122	0.000	0.699
55.00	-26.73	-34.60	0.00	-2441.4	0.00	2441.47	3795.26	1897.63	7117.54	3564.06	12.37	-2.197	0.000	0.692
60.00	-25.34	-33.98	0.00	-2268.4	0.00	2268.49	3728.27	1864.14	6809.75	3409.94	14.79	-2.431	0.000	0.672
65.00	-23.98	-33.36	0.00	-2098.5	0.00	2098.59	3659.63	1829.82	6505.57	3257.62	17.47	-2.666	0.000	0.651
70.00	-22.66	-32.74	0.00	-1931.8	0.00	1931.80	3589.34	1794.67	6205.25	3107.24	20.38	-2.901	0.000	0.628
75.00	-21.37	-32.11	0.00	-1768.1	0.00	1768.12	3517.40	1758.70	5909.03	2958.91	23.55	-3.135	0.000	0.604
80.00	-20.12	-31.49	0.00	-1607.5	0.00	1607.55	3443.81	1721.91	5617.15	2812.75	26.95	-3.368	0.000	0.578
85.00	-18.90	-30.87	0.00	-1450.0	0.00	1450.09	3368.58	1684.29	5329.85	2668.89	30.60	-3.598	0.000	0.549
90.00	-17.72	-30.26	0.00	-1295.7	0.00	1295.73	3291.69	1645.84	5047.37	2527.44	34.49	-3.824	0.000	0.518
95.00	-16.62	-29.62	0.00	-1144.4	0.00	1144.45	3202.59	1601.29	4754.28	2380.67	38.62	-4.045	0.000	0.486
96.00	-16.36	-29.51	0.00	-1114.8	0.00	1114.84	3181.72	1590.86	4692.22	2349.60	39.47	-4.090	0.000	0.480
100.00	-15.04	-28.97	0.00	-996.78	0.00	996.78	3098.26	1549.13	4448.03	2227.32	42.97	-4.261	0.000	0.453
100.75	-14.75	-28.89	0.00	-975.06	0.00	975.06	1860.42	930.21	2714.89	1359.46	43.64	-4.294	0.000	0.726
105.00	-14.04	-28.40	0.00	-852.28	0.00	852.28	1828.32	914.16	2592.13	1297.99	47.54	-4.467	0.000	0.665
110.00	-13.23	-27.83	0.00	-710.27	0.00	710.27	1789.04	894.52	2449.03	1226.33	52.36	-4.738	0.000	0.588
115.00	-12.46	-27.27	0.00	-571.12	0.00	571.12	1748.11	874.06	2307.59	1155.51	57.45	-4.984	0.000	0.502
120.00	-11.72	-26.70	0.00	-434.79	0.00	434.79	1705.53	852.77	2168.05	1085.64	62.79	-5.199	0.000	0.408
125.00	-11.05	-26.14	0.00	-301.27	0.00	301.27	1661.30	830.65	2030.66	1016.84	68.33	-5.375	0.000	0.304
127.00	-6.60	-13.59	0.00	-249.00	0.00	249.00	1643.15	821.58	1976.36	989.65	70.59	-5.435	0.000	0.256
130.00	-6.23	-13.26	0.00	-208.22	0.00	208.22	1615.43	807.71	1895.65	949.24	74.03	-5.512	0.000	0.223
135.00	-5.65	-12.72	0.00	-141.90	0.00	141.90	1567.90	783.95	1763.28	882.95	79.85	-5.619	0.000	0.165
139.00	-5.20	-12.30	0.00	-91.01	0.00	91.01	1528.69	764.34	1659.43	830.95	84.58	-5.683	0.000	0.113
139.00	-5.20	-12.30	0.00	-91.01	0.00	91.01	1044.31	522.16	1138.99	570.34	84.58	-5.683	0.000	0.165
140.00	-2.74	-8.75	0.00	-78.72	0.00	78.72	1038.69	519.35	1122.71	562.19	85.77	-5.696	0.000	0.143
145.00	-2.38	-8.25	0.00	-34.99	0.00	34.99	1009.62	504.81	1041.96	521.75	91.76	-5.755	0.000	0.070
149.00	0.00	-7.97	0.00	-1.98	0.00	1.98	985.17	492.59	978.22	489.84	96.59	-5.773	0.000	0.004

Wind Loading - Shaft

Structure: CT13075-A-SBA	Code: EIA/TIA-222-G	3/9/2018
Site Name: New London	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.6W 105 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 22

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	22.791	25.07	477.24	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	22.791	25.07	467.57	0.650	0.000	5.00	24.400	15.86	636.2	0.0	1216.9
10.00		1.00	0.85	22.791	25.07	457.91	0.650	0.000	5.00	23.901	15.54	623.2	0.0	1191.8
15.00		1.00	0.85	22.791	25.07	448.24	0.650	0.000	5.00	23.401	15.21	610.1	0.0	1166.7
20.00		1.00	0.90	24.182	26.60	451.77	0.650	0.000	5.00	22.902	14.89	633.6	0.0	1141.6
25.00		1.00	0.95	25.345	27.88	452.31	0.650	0.000	5.00	22.403	14.56	649.6	0.0	1116.6
30.00		1.00	0.98	26.337	28.97	450.69	0.650	0.000	5.00	21.904	14.24	660.0	0.0	1091.5
35.00		1.00	1.01	27.206	29.93	447.50	0.650	0.000	5.00	21.405	13.91	666.2	0.0	1066.4
40.00		1.00	1.04	27.981	30.78	443.13	0.650	0.000	5.00	20.906	13.59	669.2	0.0	1041.3
45.00		1.00	1.07	28.684	31.55	437.81	0.650	0.000	5.00	20.406	13.26	669.6	0.0	1016.2
47.25	Bot - Section 2	1.00	1.08	28.980	31.88	435.16	0.650	0.000	2.25	9.020	5.86	299.0	0.0	449.1
50.00		1.00	1.09	29.327	32.26	431.73	0.650	0.000	2.75	11.062	7.19	371.1	0.0	1014.7
53.25	Top - Section 1	1.00	1.11	29.719	32.69	427.43	0.650	0.000	3.25	12.878	8.37	437.8	0.0	1181.1
55.00		1.00	1.12	29.922	32.91	432.05	0.650	0.000	1.75	6.847	4.45	234.4	0.0	292.5
60.00		1.00	1.14	30.475	33.52	424.85	0.650	0.000	5.00	19.226	12.50	670.3	0.0	821.3
65.00		1.00	1.16	30.993	34.09	417.17	0.650	0.000	5.00	18.727	12.17	664.0	0.0	799.8
70.00		1.00	1.17	31.480	34.63	409.08	0.650	0.000	5.00	18.228	11.85	656.4	0.0	778.3
75.00		1.00	1.19	31.941	35.13	400.62	0.650	0.000	5.00	17.728	11.52	647.8	0.0	756.8
80.00		1.00	1.21	32.377	35.62	391.83	0.650	0.000	5.00	17.229	11.20	638.2	0.0	735.3
85.00		1.00	1.22	32.793	36.07	382.75	0.650	0.000	5.00	16.730	10.87	627.6	0.0	713.8
90.00		1.00	1.24	33.190	36.51	373.39	0.650	0.000	5.00	16.231	10.55	616.3	0.0	692.3
95.00		1.00	1.25	33.570	36.93	363.79	0.650	0.000	5.00	15.732	10.23	604.2	0.0	670.8
96.00	Bot - Section 3	1.00	1.25	33.644	37.01	361.85	0.650	0.000	1.00	3.086	2.01	118.8	0.0	131.6
100.00		1.00	1.27	33.935	37.33	353.97	0.650	0.000	4.00	12.315	8.00	478.1	0.0	869.0
100.75	Top - Section 2	1.00	1.27	33.988	37.39	352.48	0.650	0.000	0.75	2.274	1.48	88.4	0.0	160.4
105.00		1.00	1.28	34.285	37.71	348.96	0.650	0.000	4.25	12.671	8.24	497.0	0.0	361.3
110.00		1.00	1.29	34.623	38.08	338.76	0.650	0.000	5.00	14.446	9.39	572.2	0.0	411.8
115.00		1.00	1.30	34.948	38.44	328.38	0.650	0.000	5.00	13.946	9.07	557.6	0.0	397.5
120.00		1.00	1.32	35.263	38.79	317.84	0.650	0.000	5.00	13.447	8.74	542.5	0.0	383.1
125.00		1.00	1.33	35.567	39.12	307.13	0.650	0.000	5.00	12.948	8.42	526.8	0.0	368.8
127.00	Appurtenance(s)	1.00	1.33	35.686	39.25	302.81	0.650	0.000	2.00	5.039	3.28	205.7	0.0	143.5
130.00		1.00	1.34	35.862	39.45	296.28	0.650	0.000	3.00	7.409	4.82	304.0	0.0	211.0
135.00		1.00	1.35	36.148	39.76	285.29	0.650	0.000	5.00	11.950	7.77	494.2	0.0	340.1
139.00	Top - Section 3	1.00	1.36	36.371	40.01	276.40	0.650	0.000	4.00	9.200	5.98	382.8	0.0	261.8
140.00	Appurtenance(s)	1.00	1.36	36.426	40.07	274.16	0.650	0.000	1.00	2.250	1.46	93.8	0.0	48.1
145.00		1.00	1.37	36.696	40.37	262.91	0.650	0.000	5.00	10.951	7.12	459.7	0.0	234.2
149.00	Appurtenance(s)	1.00	1.38	36.907	40.60	253.83	0.650	0.000	4.00	8.402	5.46	354.7	0.0	179.6
Totals:									149.00			17,961.0		23,456.8

Discrete Appurtenance Forces

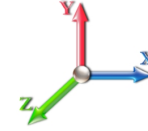
Structure: CT13075-A-SBA	Code: EIA/TIA-222-G	3/9/2018
Site Name: New London	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.6W 105 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 22

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	
1	149.00	RRH2x60 700	3	36.907	40.597	1.50	1.00	6.79	137.70	0.000	0.000	441.37	0.00	0.00	
2	149.00	LNx-6514DS-VTM	3	36.907	40.597	0.83	1.00	20.34	104.76	0.000	0.000	1321.42	0.00	0.00	
3	149.00	BXA-80063/4CF	3	36.907	40.597	0.72	1.00	10.20	26.73	0.000	0.000	662.24	0.00	0.00	
4	149.00	SBNHH-1D65B	3	36.907	40.597	0.83	1.00	20.12	109.62	0.000	0.000	1306.86	0.00	0.00	
5	149.00	SBNHH-1D65B	3	36.985	40.683	0.83	1.00	20.32	108.00	0.000	1.500	1322.58	0.00	1983.88	
6	149.00	Low Profile	1	36.907	40.597	1.00	1.00	22.00	1350.00	0.000	0.000	1429.03	0.00	0.00	
7	149.00	RRH 4X45 AWS	3	36.907	40.597	0.80	1.00	6.24	172.80	0.000	0.000	405.32	0.00	0.00	
8	149.00	RRH 2X60W-1900MHz	3	36.907	40.597	0.84	1.00	4.74	124.20	0.000	0.000	307.73	0.00	0.00	
9	149.00	DB-T1-6Z-8AB-0Z	1	36.907	40.597	0.67	1.00	3.22	17.01	0.000	0.000	208.90	0.00	0.00	
10	149.00	DB-T1-6Z-8AB-0Z	1	36.907	40.597	0.67	1.00	3.22	17.01	0.000	0.000	208.90	0.00	0.00	
11	140.00	AIR 32 B4A B2P	3	36.426	40.068	0.70	0.80	13.59	285.66	0.000	0.000	871.43	0.00	0.00	
12	140.00	AIR 32 B2A B4P	3	36.426	40.068	0.70	0.80	13.59	356.94	0.000	0.000	871.43	0.00	0.00	
13	140.00	KRY 112 144 T	3	36.426	40.068	0.56	0.80	0.69	29.75	0.000	0.000	44.16	0.00	0.00	
14	140.00	Low Profile Platform	1	36.426	40.068	1.00	1.00	22.00	1350.00	0.000	0.000	1410.41	0.00	0.00	
15	127.00	RRUS-12 B2	3	35.686	39.255	0.54	0.80	5.05	162.00	0.000	0.000	317.12	0.00	0.00	
16	127.00	4415	3	35.686	39.255	0.54	0.80	2.64	124.20	0.000	0.000	165.63	0.00	0.00	
17	127.00	HPA-65R-BUU-8H	12	35.686	39.255	0.63	0.80	98.44	734.40	0.000	0.000	6182.79	0.00	0.00	
18	127.00	RRUS 11	9	35.686	39.255	0.54	0.80	12.16	410.67	0.000	0.000	763.52	0.00	0.00	
19	127.00	RRUS E2	3	35.686	39.255	0.54	0.80	4.34	162.00	0.000	0.000	272.68	0.00	0.00	
20	127.00	RRUS 32	3	35.686	39.255	0.54	0.80	5.32	207.90	0.000	0.000	334.29	0.00	0.00	
21	127.00	RRUS A2	3	35.686	39.255	0.50	0.80	2.38	57.24	0.000	0.000	149.53	0.00	0.00	
22	127.00	DC6-48-60-18-8F	4	35.686	39.255	0.80	0.80	7.04	114.48	0.000	0.000	442.16	0.00	0.00	
23	127.00	MTC3607 Platform + HR	1	35.686	39.255	1.00	1.00	51.70	2021.40	0.000	0.000	3247.15	0.00	0.00	
Totals:									8,184.47						22,686.65

Total Applied Force Summary

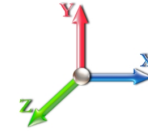
Structure: CT13075-A-SBA	Code: EIA/TIA-222-G	3/9/2018
Site Name: New London	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.6W 105 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 22

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		636.17	1355.02	0.00	0.00
10.00		623.16	1329.93	0.00	0.00
15.00		610.14	1304.84	0.00	0.00
20.00		633.58	1279.75	0.00	0.00
25.00		649.58	1254.67	0.00	0.00
30.00		659.95	1229.58	0.00	0.00
35.00		666.19	1204.49	0.00	0.00
40.00		669.20	1179.41	0.00	0.00
45.00		669.62	1154.32	0.00	0.00
47.25		299.04	511.26	0.00	0.00
50.00		371.12	1090.70	0.00	0.00
53.25		437.83	1270.84	0.00	0.00
55.00		234.38	340.89	0.00	0.00
60.00		670.28	959.44	0.00	0.00
65.00		663.97	937.94	0.00	0.00
70.00		656.43	916.44	0.00	0.00
75.00		647.80	894.94	0.00	0.00
80.00		638.17	873.43	0.00	0.00
85.00		627.64	851.93	0.00	0.00
90.00		616.28	830.43	0.00	0.00
95.00		604.17	808.92	0.00	0.00
96.00		118.79	159.20	0.00	0.00
100.00		478.10	979.45	0.00	0.00
100.75		88.40	181.09	0.00	0.00
105.00		497.00	478.69	0.00	0.00
110.00		572.17	549.90	0.00	0.00
115.00		557.59	535.57	0.00	0.00
120.00		542.47	521.23	0.00	0.00
125.00		526.84	506.90	0.00	0.00
127.00	(41) attachments	12080.61	4193.04	0.00	0.00
130.00		303.98	284.45	0.00	0.00
135.00		494.16	462.61	0.00	0.00
139.00		382.81	359.77	0.00	0.00
140.00	(10) attachments	3291.19	2094.97	0.00	0.00
145.00		459.74	300.22	0.00	0.00
149.00	(24) attachments	7969.08	2400.26	0.00	1983.88
	Totals:	40,647.62	35,586.53	0.00	1,983.88

Calculated Forces

Structure: CT13075-A-SBA	Code: EIA/TIA-222-G	3/9/2018
Site Name: New London	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.6W 105 mph Wind

Iterations 22

Dead Load Factor 0.90

Wind Load Factor 1.60



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-35.52	-40.71	0.00	-4499.3	0.00	4499.34	5451.60	2725.80	12956.4	6487.84	0.00	0.000	0.000	0.700
5.00	-34.03	-40.18	0.00	-4295.8	0.00	4295.82	5379.95	2689.97	12523.2	6270.95	0.10	-0.184	0.000	0.692
10.00	-32.58	-39.66	0.00	-4094.9	0.00	4094.93	5306.65	2653.32	12093.3	6055.68	0.39	-0.372	0.000	0.683
15.00	-31.15	-39.14	0.00	-3896.6	0.00	3896.65	5231.70	2615.85	11666.9	5842.16	0.89	-0.562	0.000	0.673
20.00	-29.74	-38.59	0.00	-3700.9	0.00	3700.96	5155.10	2577.55	11244.2	5630.50	1.58	-0.754	0.000	0.663
25.00	-28.37	-38.02	0.00	-3508.0	0.00	3508.00	5076.86	2538.43	10825.5	5420.83	2.47	-0.949	0.000	0.653
30.00	-27.02	-37.43	0.00	-3317.9	0.00	3317.90	4996.96	2498.48	10411.0	5213.26	3.57	-1.147	0.000	0.642
35.00	-25.70	-36.83	0.00	-3130.7	0.00	3130.74	4915.42	2457.71	10001.0	5007.93	4.88	-1.347	0.000	0.631
40.00	-24.41	-36.22	0.00	-2946.5	0.00	2946.58	4832.22	2416.11	9595.63	4804.95	6.40	-1.549	0.000	0.619
45.00	-23.19	-35.58	0.00	-2765.4	0.00	2765.49	4747.38	2373.69	9195.21	4604.44	8.13	-1.754	0.000	0.606
47.25	-22.62	-35.30	0.00	-2685.4	0.00	2685.44	4708.66	2354.33	9016.69	4515.05	8.98	-1.848	0.000	0.600
50.00	-21.47	-34.94	0.00	-2588.3	0.00	2588.36	4660.89	2330.44	8799.96	4406.52	10.08	-1.964	0.000	0.592
53.25	-20.15	-34.50	0.00	-2474.7	0.00	2474.79	3818.32	1909.16	7226.08	3618.41	11.47	-2.101	0.000	0.690
55.00	-19.72	-34.30	0.00	-2414.4	0.00	2414.42	3795.26	1897.63	7117.54	3564.06	12.25	-2.176	0.000	0.683
60.00	-18.65	-33.67	0.00	-2242.9	0.00	2242.90	3728.27	1864.14	6809.75	3409.94	14.66	-2.407	0.000	0.663
65.00	-17.61	-33.04	0.00	-2074.5	0.00	2074.54	3659.63	1829.82	6505.57	3257.62	17.30	-2.639	0.000	0.642
70.00	-16.60	-32.41	0.00	-1909.3	0.00	1909.35	3589.34	1794.67	6205.25	3107.24	20.19	-2.872	0.000	0.619
75.00	-15.61	-31.78	0.00	-1747.3	0.00	1747.32	3517.40	1758.70	5909.03	2958.91	23.32	-3.103	0.000	0.595
80.00	-14.65	-31.15	0.00	-1588.4	0.00	1588.44	3443.81	1721.91	5617.15	2812.75	26.69	-3.333	0.000	0.569
85.00	-13.72	-30.53	0.00	-1432.6	0.00	1432.69	3368.58	1684.29	5329.85	2668.89	30.31	-3.560	0.000	0.541
90.00	-12.81	-29.91	0.00	-1280.0	0.00	1280.07	3291.69	1645.84	5047.37	2527.44	34.15	-3.784	0.000	0.511
95.00	-11.98	-29.28	0.00	-1130.5	0.00	1130.54	3202.59	1601.29	4754.28	2380.67	38.23	-4.002	0.000	0.479
96.00	-11.78	-29.17	0.00	-1101.2	0.00	1101.26	3181.72	1590.86	4692.22	2349.60	39.07	-4.046	0.000	0.473
100.00	-10.78	-28.64	0.00	-984.59	0.00	984.59	3098.26	1549.13	4448.03	2227.32	42.54	-4.216	0.000	0.446
100.75	-10.56	-28.56	0.00	-963.11	0.00	963.11	1860.42	930.21	2714.89	1359.46	43.20	-4.248	0.000	0.715
105.00	-10.01	-28.07	0.00	-841.74	0.00	841.74	1828.32	914.16	2592.13	1297.99	47.06	-4.419	0.000	0.655
110.00	-9.38	-27.49	0.00	-701.41	0.00	701.41	1789.04	894.52	2449.03	1226.33	51.83	-4.686	0.000	0.578
115.00	-8.79	-26.93	0.00	-563.95	0.00	563.95	1748.11	874.06	2307.59	1155.51	56.87	-4.929	0.000	0.494
120.00	-8.23	-26.37	0.00	-429.31	0.00	429.31	1705.53	852.77	2168.05	1085.64	62.14	-5.142	0.000	0.401
125.00	-7.72	-25.81	0.00	-297.47	0.00	297.47	1661.30	830.65	2030.66	1016.84	67.62	-5.316	0.000	0.298
127.00	-4.66	-13.40	0.00	-245.84	0.00	245.84	1643.15	821.58	1976.36	989.65	69.86	-5.374	0.000	0.252
130.00	-4.38	-13.08	0.00	-205.64	0.00	205.64	1615.43	807.71	1895.65	949.24	73.26	-5.451	0.000	0.220
135.00	-3.95	-12.55	0.00	-140.25	0.00	140.25	1567.90	783.95	1763.28	882.95	79.02	-5.556	0.000	0.162
139.00	-3.62	-12.13	0.00	-90.06	0.00	90.06	1528.69	764.34	1659.43	830.95	83.69	-5.619	0.000	0.111
139.00	-3.62	-12.13	0.00	-90.06	0.00	90.06	1044.31	522.16	1138.99	570.34	83.69	-5.619	0.000	0.162
140.00	-1.85	-8.65	0.00	-77.93	0.00	77.93	1038.69	519.35	1122.71	562.19	84.87	-5.632	0.000	0.141
145.00	-1.60	-8.17	0.00	-34.66	0.00	34.66	1009.62	504.81	1041.96	521.75	90.80	-5.691	0.000	0.068
149.00	0.00	-7.97	0.00	-1.98	0.00	1.98	985.17	492.59	978.22	489.84	95.57	-5.708	0.000	0.004

Wind Loading - Shaft

Structure: CT13075-A-SBA	Code: EIA/TIA-222-G	3/9/2018
Site Name: New London	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Iterations 21

Dead Load Factor 1.20
Wind Load Factor 1.00



Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	5.168	5.68	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	5.168	5.68	0.00	1.200	1.242	5.00	25.435	30.52	173.5	453.8	2076.3
10.00		1.00	0.85	5.168	5.68	0.00	1.200	1.331	5.00	25.010	30.01	170.6	477.3	2066.4
15.00		1.00	0.85	5.168	5.68	0.00	1.200	1.386	5.00	24.557	29.47	167.5	487.2	2042.9
20.00		1.00	0.90	5.483	6.03	0.00	1.200	1.427	5.00	24.091	28.91	174.4	491.3	2013.5
25.00		1.00	0.95	5.747	6.32	0.00	1.200	1.459	5.00	23.619	28.34	179.2	491.8	1980.6
30.00		1.00	0.98	5.972	6.57	0.00	1.200	1.486	5.00	23.142	27.77	182.4	490.2	1945.5
35.00		1.00	1.01	6.169	6.79	0.00	1.200	1.509	5.00	22.662	27.19	184.5	486.8	1908.7
40.00		1.00	1.04	6.345	6.98	0.00	1.200	1.529	5.00	22.180	26.62	185.8	482.3	1870.7
45.00		1.00	1.07	6.504	7.15	0.00	1.200	1.547	5.00	21.696	26.03	186.3	476.7	1831.7
47.25	Bot - Section 2	1.00	1.08	6.571	7.23	0.00	1.200	1.555	2.25	9.603	11.52	83.3	213.3	812.1
50.00		1.00	1.09	6.650	7.32	0.00	1.200	1.564	2.75	11.778	14.13	103.4	262.7	1615.7
53.25	Top - Section 1	1.00	1.11	6.739	7.41	0.00	1.200	1.574	3.25	13.731	16.48	122.1	307.6	1882.4
55.00		1.00	1.12	6.785	7.46	0.00	1.200	1.579	1.75	7.307	8.77	65.4	164.8	554.8
60.00		1.00	1.14	6.910	7.60	0.00	1.200	1.592	5.00	20.553	24.66	187.5	463.2	1558.3
65.00		1.00	1.16	7.028	7.73	0.00	1.200	1.605	5.00	20.065	24.08	186.1	455.2	1521.7
70.00		1.00	1.17	7.138	7.85	0.00	1.200	1.617	5.00	19.575	23.49	184.4	446.8	1484.5
75.00		1.00	1.19	7.243	7.97	0.00	1.200	1.628	5.00	19.085	22.90	182.5	437.9	1447.0
80.00		1.00	1.21	7.342	8.08	0.00	1.200	1.639	5.00	18.595	22.31	180.2	428.7	1409.2
85.00		1.00	1.22	7.436	8.18	0.00	1.200	1.649	5.00	18.104	21.72	177.7	419.3	1371.0
90.00		1.00	1.24	7.526	8.28	0.00	1.200	1.658	5.00	17.613	21.14	175.0	409.5	1332.6
95.00		1.00	1.25	7.612	8.37	0.00	1.200	1.667	5.00	17.121	20.55	172.0	399.5	1293.9
96.00	Bot - Section 3	1.00	1.25	7.629	8.39	0.00	1.200	1.669	1.00	3.365	4.04	33.9	79.5	254.9
100.00		1.00	1.27	7.695	8.46	0.00	1.200	1.676	4.00	13.433	16.12	136.4	315.6	1474.2
100.75	Top - Section 2	1.00	1.27	7.707	8.48	0.00	1.200	1.677	0.75	2.483	2.98	25.3	58.9	272.8
105.00		1.00	1.28	7.774	8.55	0.00	1.200	1.684	4.25	13.864	16.64	142.3	326.4	808.2
110.00		1.00	1.29	7.851	8.64	0.00	1.200	1.692	5.00	15.856	19.03	164.3	373.4	922.5
115.00		1.00	1.30	7.925	8.72	0.00	1.200	1.699	5.00	15.363	18.44	160.7	362.6	892.5
120.00		1.00	1.32	7.996	8.80	0.00	1.200	1.707	5.00	14.870	17.84	156.9	351.6	862.4
125.00		1.00	1.33	8.065	8.87	0.00	1.200	1.714	5.00	14.376	17.25	153.0	340.4	832.2
127.00	Appurtenance(s)	1.00	1.33	8.092	8.90	0.00	1.200	1.716	2.00	5.612	6.73	59.9	134.4	325.7
130.00		1.00	1.34	8.132	8.95	0.00	1.200	1.720	3.00	8.270	9.92	88.8	197.5	478.7
135.00		1.00	1.35	8.197	9.02	0.00	1.200	1.727	5.00	13.389	16.07	144.9	317.7	771.2
139.00	Top - Section 3	1.00	1.36	8.247	9.07	0.00	1.200	1.732	4.00	10.355	12.43	112.7	246.7	595.8
140.00	Appurtenance(s)	1.00	1.36	8.260	9.09	0.00	1.200	1.733	1.00	2.539	3.05	27.7	61.2	125.4
145.00		1.00	1.37	8.321	9.15	0.00	1.200	1.739	5.00	12.401	14.88	136.2	294.4	606.6
149.00	Appurtenance(s)	1.00	1.38	8.369	9.21	0.00	1.200	1.744	4.00	9.564	11.48	105.7	227.9	467.4
Totals:									149.00			5,072.7	43,709.9	

Discrete Appurtenance Forces

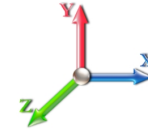
Structure: CT13075-A-SBA	Code: EIA/TIA-222-G	3/9/2018
Site Name: New London	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 21

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	
1	149.00	RRH2x60 700	3	8.369	9.206	1.47	1.00	8.54	484.10	0.000	0.000	78.61	0.00	0.00	
2	149.00	LNx-6514DS-VTM	3	8.369	9.206	0.83	1.00	27.37	516.73	0.000	0.000	251.95	0.00	0.00	
3	149.00	BXA-80063/4CF	3	8.369	9.206	0.72	1.00	14.19	250.84	0.000	0.000	130.59	0.00	0.00	
4	149.00	SBNHH-1D65B	3	8.369	9.206	0.83	1.00	23.33	750.50	0.000	0.000	214.81	0.00	0.00	
5	149.00	SBNHH-1D65B	3	8.387	9.225	0.83	1.00	23.55	752.91	0.000	1.500	217.28	0.00	325.92	
6	149.00	Low Profile	1	8.369	9.206	1.00	1.00	39.65	2808.04	0.000	0.000	365.01	0.00	0.00	
7	149.00	RRH 4X45 AWS	3	8.369	9.206	0.80	1.00	7.93	480.95	0.000	0.000	72.99	0.00	0.00	
8	149.00	RRH 2X60W-1900MHz	3	8.369	9.206	0.84	1.00	6.21	372.75	0.000	0.000	57.20	0.00	0.00	
9	149.00	DB-T1-6Z-8AB-0Z	1	8.369	9.206	0.67	1.00	3.80	166.29	0.000	0.000	34.99	0.00	0.00	
10	149.00	DB-T1-6Z-8AB-0Z	1	8.369	9.206	0.67	1.00	3.80	166.29	0.000	0.000	34.99	0.00	0.00	
11	140.00	AIR 32 B4A B2P	3	8.260	9.086	0.70	0.80	16.04	929.51	0.000	0.000	145.73	0.00	0.00	
12	140.00	AIR 32 B2A B4P	3	8.260	9.086	0.70	0.80	16.04	1024.55	0.000	0.000	145.73	0.00	0.00	
13	140.00	KRY 112 144 T	3	8.260	9.086	0.56	0.80	1.48	62.61	0.000	0.000	13.46	0.00	0.00	
14	140.00	Low Profile Platform	1	8.260	9.086	1.00	1.00	39.54	2799.91	0.000	0.000	359.25	0.00	0.00	
15	127.00	RRUS-12 B2	3	8.092	8.901	0.54	0.80	6.26	366.63	0.000	0.000	55.74	0.00	0.00	
16	127.00	4415	3	8.092	8.901	0.54	0.80	3.45	258.67	0.000	0.000	30.73	0.00	0.00	
17	127.00	HPA-65R-BUU-8H	12	8.092	8.901	0.63	0.80	110.48	4404.75	0.000	0.000	983.38	0.00	0.00	
18	127.00	RRUS 11	9	8.092	8.901	0.54	0.80	15.24	1334.12	0.000	0.000	135.68	0.00	0.00	
19	127.00	RRUS E2	3	8.092	8.901	0.54	0.80	6.04	371.63	0.000	0.000	53.80	0.00	0.00	
20	127.00	RRUS 32	3	8.092	8.901	0.54	0.80	3.57	419.49	0.000	0.000	31.76	0.00	0.00	
21	127.00	RRUS A2	3	8.092	8.901	0.50	0.80	3.61	152.26	0.000	0.000	32.10	0.00	0.00	
22	127.00	DC6-48-60-18-8F	4	8.092	8.901	0.80	0.80	10.34	325.06	0.000	0.000	92.01	0.00	0.00	
23	127.00	MTC3607 Platform + HR	1	8.092	8.901	1.00	1.00	89.33	4775.24	0.000	0.000	795.11	0.00	0.00	
Totals:									23,973.84						4,332.88

Total Applied Force Summary

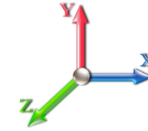
Structure: CT13075-A-SBA	Code: EIA/TIA-222-G	3/9/2018
Site Name: New London	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 21

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		173.51	2260.49	0.00	0.00
10.00		170.61	2250.50	0.00	0.00
15.00		167.52	2227.02	0.00	0.00
20.00		174.38	2197.60	0.00	0.00
25.00		179.18	2164.74	0.00	0.00
30.00		182.43	2129.60	0.00	0.00
35.00		184.54	2092.82	0.00	0.00
40.00		185.76	2054.80	0.00	0.00
45.00		186.27	2015.80	0.00	0.00
47.25		83.30	894.95	0.00	0.00
50.00		103.39	1717.01	0.00	0.00
53.25		122.14	2002.07	0.00	0.00
55.00		65.45	619.28	0.00	0.00
60.00		187.48	1742.49	0.00	0.00
65.00		186.13	1705.80	0.00	0.00
70.00		184.45	1668.67	0.00	0.00
75.00		182.46	1631.17	0.00	0.00
80.00		180.21	1593.32	0.00	0.00
85.00		177.70	1555.17	0.00	0.00
90.00		174.98	1516.74	0.00	0.00
95.00		172.04	1478.05	0.00	0.00
96.00		33.88	291.76	0.00	0.00
100.00		136.44	1621.52	0.00	0.00
100.75		25.26	300.40	0.00	0.00
105.00		142.28	964.70	0.00	0.00
110.00		164.32	1106.62	0.00	0.00
115.00		160.70	1076.69	0.00	0.00
120.00		156.94	1046.58	0.00	0.00
125.00		153.05	1016.30	0.00	0.00
127.00	(41) attachments	2270.24	12807.22	0.00	0.00
130.00		88.77	576.74	0.00	0.00
135.00		144.86	934.49	0.00	0.00
139.00		112.73	726.42	0.00	0.00
140.00	(10) attachments	691.86	4974.62	0.00	0.00
145.00		136.21	694.66	0.00	0.00
149.00	(24) attachments	1564.06	7287.24	0.00	325.92
Totals:		9,405.54	72,944.05	0.00	325.92

Calculated Forces

Structure: CT13075-A-SBA	Code: EIA/TIA-222-G	3/9/2018
Site Name: New London	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Iterations 21

Dead Load Factor 1.20
Wind Load Factor 1.00



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-72.94	-9.43	0.00	-1023.1	0.00	1023.19	5451.60	2725.80	12956.4	6487.84	0.00	0.000	0.000	0.171
5.00	-70.67	-9.31	0.00	-976.03	0.00	976.03	5379.95	2689.97	12523.2	6270.95	0.02	-0.042	0.000	0.169
10.00	-68.42	-9.19	0.00	-929.48	0.00	929.48	5306.65	2653.32	12093.3	6055.68	0.09	-0.084	0.000	0.166
15.00	-66.18	-9.07	0.00	-883.54	0.00	883.54	5231.70	2615.85	11666.9	5842.16	0.20	-0.128	0.000	0.164
20.00	-63.98	-8.94	0.00	-838.21	0.00	838.21	5155.10	2577.55	11244.2	5630.50	0.36	-0.171	0.000	0.161
25.00	-61.81	-8.80	0.00	-793.53	0.00	793.53	5076.86	2538.43	10825.5	5420.83	0.56	-0.215	0.000	0.159
30.00	-59.67	-8.65	0.00	-749.55	0.00	749.55	4996.96	2498.48	10411.0	5213.26	0.81	-0.260	0.000	0.156
35.00	-57.57	-8.50	0.00	-706.29	0.00	706.29	4915.42	2457.71	10001.0	5007.93	1.11	-0.305	0.000	0.153
40.00	-55.51	-8.35	0.00	-663.77	0.00	663.77	4832.22	2416.11	9595.63	4804.95	1.45	-0.351	0.000	0.150
45.00	-53.49	-8.18	0.00	-622.03	0.00	622.03	4747.38	2373.69	9195.21	4604.44	1.84	-0.397	0.000	0.146
47.25	-52.60	-8.11	0.00	-603.62	0.00	603.62	4708.66	2354.33	9016.69	4515.05	2.04	-0.418	0.000	0.145
50.00	-50.88	-8.02	0.00	-581.30	0.00	581.30	4660.89	2330.44	8799.96	4406.52	2.28	-0.444	0.000	0.143
53.25	-48.87	-7.90	0.00	-555.23	0.00	555.23	4613.12	2306.55	8583.23	4297.35	2.52	-0.470	0.000	0.141
55.00	-48.25	-7.86	0.00	-541.40	0.00	541.40	4575.35	2282.66	8366.50	4188.16	2.76	-0.496	0.000	0.139
60.00	-46.50	-7.70	0.00	-502.08	0.00	502.08	4477.59	2218.88	7889.72	3949.98	3.32	-0.543	0.000	0.135
65.00	-44.79	-7.54	0.00	-463.57	0.00	463.57	4379.83	2155.10	7412.94	3691.80	3.92	-0.590	0.000	0.131
70.00	-43.12	-7.38	0.00	-425.88	0.00	425.88	4282.07	2091.32	6936.16	3433.62	4.57	-0.647	0.000	0.127
75.00	-41.48	-7.21	0.00	-389.00	0.00	389.00	4184.31	2030.70	6459.38	3175.44	5.27	-0.699	0.000	0.123
80.00	-39.88	-7.05	0.00	-352.94	0.00	352.94	4086.55	1970.08	5982.60	2917.26	6.03	-0.750	0.000	0.119
85.00	-38.33	-6.88	0.00	-317.71	0.00	317.71	3988.79	1909.46	5505.82	2659.08	6.85	-0.800	0.000	0.115
90.00	-36.81	-6.72	0.00	-283.30	0.00	283.30	3891.03	1848.84	5029.04	2400.90	7.71	-0.850	0.000	0.111
95.00	-35.33	-6.54	0.00	-249.72	0.00	249.72	3793.27	1788.22	4552.26	2142.72	8.63	-0.898	0.000	0.107
96.00	-35.03	-6.52	0.00	-243.18	0.00	243.18	3763.50	1773.05	4482.09	2103.55	8.82	-0.908	0.000	0.115
100.00	-33.41	-6.37	0.00	-217.12	0.00	217.12	3615.74	1697.40	4005.31	1905.37	9.59	-0.945	0.000	0.108
100.75	-33.11	-6.35	0.00	-212.35	0.00	212.35	3600.57	1686.42	3975.14	1889.20	9.74	-0.952	0.000	0.174
105.00	-32.14	-6.22	0.00	-185.37	0.00	185.37	3452.81	1600.76	3508.36	1691.02	10.61	-0.990	0.000	0.160
110.00	-31.03	-6.06	0.00	-154.29	0.00	154.29	3305.05	1515.10	3041.58	1492.84	11.68	-1.049	0.000	0.143
115.00	-29.95	-5.91	0.00	-123.97	0.00	123.97	3157.29	1429.44	2574.80	1294.66	12.81	-1.102	0.000	0.124
120.00	-28.91	-5.75	0.00	-94.42	0.00	94.42	3010.53	1343.78	2108.02	1096.48	13.99	-1.149	0.000	0.104
125.00	-27.89	-5.59	0.00	-65.66	0.00	65.66	2863.77	1258.12	1641.24	904.30	15.21	-1.187	0.000	0.081
127.00	-15.13	-3.06	0.00	-54.48	0.00	54.48	2716.01	1172.46	1174.46	712.12	15.71	-1.200	0.000	0.064
130.00	-14.56	-2.96	0.00	-45.30	0.00	45.30	2568.25	1086.80	1026.70	520.94	16.47	-1.217	0.000	0.057
135.00	-13.63	-2.80	0.00	-30.49	0.00	30.49	2420.49	1001.14	878.94	329.76	17.76	-1.240	0.000	0.043
139.00	-12.90	-2.68	0.00	-19.28	0.00	19.28	2272.73	915.48	731.18	138.58	18.81	-1.254	0.000	0.032
139.00	-12.90	-2.68	0.00	-19.28	0.00	19.28	2272.73	915.48	731.18	138.58	18.81	-1.254	0.000	0.046
140.00	-7.94	-1.88	0.00	-16.61	0.00	16.61	2125.97	829.82	583.42	94.40	19.07	-1.257	0.000	0.037
145.00	-7.25	-1.73	0.00	-7.23	0.00	7.23	1978.21	744.16	435.66	75.22	20.39	-1.269	0.000	0.021
149.00	0.00	-1.56	0.00	-0.33	0.00	0.33	1830.45	658.50	287.90	56.04	21.46	-1.273	0.000	0.001

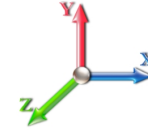
Seismic Segment Forces (Factored)

Structure: CT13075-A-SBA	Code: EIA/TIA-222-G	3/9/2018
Site Name: New London	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0E					Iterations 20
Gust Response Factor	1.10			Sds	0.17
Dead Load Factor	1.20	Seismic Load Factor	1.00	Sd1	0.09
Wind Load Factor	0.00	Structure Frequency	0.41	SA	0.04
				Seismic Importance Factor	1.00



Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	0.00	
5.00		1352.1	0.00	0.03	0.02	19.72	
10.00		1324.2	0.01	0.05	0.03	28.68	
15.00		1296.3	0.02	0.06	0.04	32.76	
20.00		1268.5	0.03	0.07	0.04	34.48	
25.00		1240.6	0.05	0.07	0.04	35.13	
30.00		1212.7	0.08	0.07	0.04	35.36	
35.00		1184.8	0.10	0.07	0.04	35.46	
40.00		1157.0	0.14	0.07	0.03	35.44	
45.00		1129.1	0.17	0.07	0.03	35.14	
47.25	Bot - Section 2	499.01	0.19	0.06	0.02	15.57	
50.00		1127.4	0.21	0.06	0.02	35.04	
53.25	Top - Section 1	1312.3	0.24	0.06	0.02	40.12	
55.00		325.05	0.26	0.05	0.02	9.78	
60.00		912.60	0.31	0.04	0.01	25.18	
65.00		888.71	0.36	0.03	0.01	20.55	
70.00		864.82	0.42	0.01	0.01	14.16	
75.00		840.92	0.48	-0.01	0.01	6.34	
80.00		817.03	0.54	-0.03	0.01	-2.08	
85.00		793.14	0.62	-0.06	0.02	-9.85	
90.00		769.25	0.69	-0.08	0.03	-15.69	
95.00		745.35	0.77	-0.11	0.05	-18.71	
96.00	Bot - Section 3	146.20	0.78	-0.11	0.05	-3.74	
100.00		965.51	0.85	-0.12	0.07	-24.78	
100.75	Top - Section 2	178.20	0.86	-0.12	0.07	-4.52	
105.00		401.45	0.94	-0.12	0.10	-8.69	
110.00		457.56	1.03	-0.10	0.15	-5.92	
115.00		441.63	1.13	-0.05	0.20	0.22	
120.00		425.70	1.23	0.03	0.27	7.96	
125.00		409.77	1.33	0.16	0.36	17.07	
127.00	Appurtenance(s)	4597.5	1.37	0.23	0.40	239.94	
130.00		234.39	1.44	0.36	0.47	16.28	
135.00		377.91	1.55	0.64	0.61	38.59	
139.00	Top - Section 3	290.86	1.64	0.92	0.73	38.35	
140.00	Appurtenance(s)	2300.5	1.67	1.01	0.77	321.58	
145.00		260.18	1.79	1.49	0.96	47.49	
149.00	Appurtenance(s)	2608.2	1.89	1.98	1.14	574.95	
Totals:		35,157.0				1,667.3	Total Wind: 40,647.6

Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

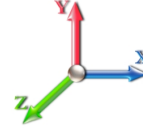
Calculated Forces

Structure: CT13075-A-SBA	Code: EIA/TIA-222-G	3/9/2018
Site Name: New London	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0E										Iterations 20
Gust Response Factor	1.10						Sds	0.17		Ss 0.16
Dead Load Factor	1.20	Seismic Load Factor	1.00	Sd1	0.09					S1 0.06
Wind Load Factor	0.00	Structure Frequency	0.41	SA	0.04	Seismic Importance Factor	1.00			



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-47.45	-1.76	0.00	-207.88	0.00	207.88	5451.60	2725.80	12956.4	6487.84	0.00	0.00	0.00	0.041
5.00	-45.64	-1.75	0.00	-199.05	0.00	199.05	5379.95	2689.97	12523.2	6270.95	0.00	-0.01	0.040	
10.00	-43.87	-1.73	0.00	-190.30	0.00	190.30	5306.65	2653.32	12093.3	6055.68	0.02	-0.02	0.040	
15.00	-42.13	-1.70	0.00	-181.65	0.00	181.65	5231.70	2615.85	11666.9	5842.16	0.04	-0.03	0.039	
20.00	-40.42	-1.67	0.00	-173.14	0.00	173.14	5155.10	2577.55	11244.2	5630.50	0.07	-0.04	0.039	
25.00	-38.75	-1.64	0.00	-164.77	0.00	164.77	5076.86	2538.43	10825.5	5420.83	0.11	-0.04	0.038	
30.00	-37.11	-1.61	0.00	-156.56	0.00	156.56	4996.96	2498.48	10411.0	5213.26	0.17	-0.05	0.037	
35.00	-35.50	-1.58	0.00	-148.50	0.00	148.50	4915.42	2457.71	10001.0	5007.93	0.23	-0.06	0.037	
40.00	-33.93	-1.55	0.00	-140.59	0.00	140.59	4832.22	2416.11	9595.63	4804.95	0.30	-0.07	0.036	
45.00	-32.39	-1.52	0.00	-132.84	0.00	132.84	4747.38	2373.69	9195.21	4604.44	0.38	-0.08	0.036	
47.25	-31.71	-1.50	0.00	-129.43	0.00	129.43	4708.66	2354.33	9016.69	4515.05	0.42	-0.09	0.035	
50.00	-30.25	-1.47	0.00	-125.29	0.00	125.29	4660.89	2330.44	8799.96	4406.52	0.47	-0.09	0.035	
53.25	-28.56	-1.43	0.00	-120.52	0.00	120.52	4618.32	2309.16	8584.16	4300.00	0.54	-0.10	0.041	
55.00	-28.11	-1.42	0.00	-118.02	0.00	118.02	4581.26	2291.63	8370.54	4200.00	0.57	-0.10	0.041	
60.00	-26.83	-1.40	0.00	-110.91	0.00	110.91	4528.27	2264.14	8099.75	4099.94	0.69	-0.11	0.040	
65.00	-25.57	-1.38	0.00	-103.92	0.00	103.92	4469.63	2229.82	7805.57	3957.62	0.81	-0.13	0.039	
70.00	-24.35	-1.37	0.00	-97.01	0.00	97.01	4406.34	2189.67	7490.25	3797.24	0.95	-0.14	0.038	
75.00	-23.16	-1.36	0.00	-90.16	0.00	90.16	4338.40	2143.70	7159.03	3628.91	1.10	-0.15	0.037	
80.00	-21.99	-1.37	0.00	-83.34	0.00	83.34	4265.81	2092.91	6797.15	3452.75	1.26	-0.16	0.036	
85.00	-20.86	-1.37	0.00	-76.51	0.00	76.51	4188.58	2037.29	6400.85	3268.89	1.44	-0.17	0.035	
90.00	-19.75	-1.37	0.00	-69.67	0.00	69.67	4106.69	1976.84	5977.37	3077.44	1.63	-0.19	0.034	
95.00	-18.67	-1.37	0.00	-62.83	0.00	62.83	4020.59	1911.29	5528.28	2878.67	1.83	-0.20	0.032	
96.00	-18.46	-1.37	0.00	-61.46	0.00	61.46	4000.72	1899.86	5492.22	2849.60	1.87	-0.20	0.032	
100.00	-17.15	-1.37	0.00	-55.99	0.00	55.99	3908.26	1849.13	5148.03	2627.32	2.04	-0.21	0.031	
100.75	-16.91	-1.37	0.00	-54.97	0.00	54.97	3880.42	1830.21	5074.89	2599.46	2.07	-0.21	0.050	
105.00	-16.27	-1.37	0.00	-49.16	0.00	49.16	3828.32	1804.16	4929.13	2497.99	2.27	-0.22	0.047	
110.00	-15.54	-1.37	0.00	-42.33	0.00	42.33	3789.04	1789.52	4749.03	2426.33	2.51	-0.24	0.043	
115.00	-14.83	-1.37	0.00	-35.48	0.00	35.48	3748.11	1774.06	4530.59	2355.51	2.76	-0.25	0.039	
120.00	-14.13	-1.36	0.00	-28.64	0.00	28.64	3705.53	1757.77	4283.05	2286.64	3.03	-0.27	0.035	
125.00	-13.45	-1.34	0.00	-21.83	0.00	21.83	3661.30	1740.65	4008.66	2219.84	3.32	-0.28	0.030	
127.00	-7.86	-1.08	0.00	-19.15	0.00	19.15	3643.15	1731.58	3976.36	2199.65	3.44	-0.28	0.024	
130.00	-7.49	-1.06	0.00	-15.92	0.00	15.92	3615.43	1720.71	3895.65	2179.24	3.62	-0.29	0.021	
135.00	-6.87	-1.02	0.00	-10.63	0.00	10.63	3567.90	1703.95	3763.28	2129.95	3.92	-0.30	0.016	
139.00	-6.39	-0.98	0.00	-6.55	0.00	6.55	3528.69	1694.34	3659.43	2099.95	4.17	-0.30	0.012	
139.00	-6.39	-0.98	0.00	-6.55	0.00	6.55	3504.31	1682.16	3589.99	2070.34	4.17	-0.30	0.018	
140.00	-3.60	-0.64	0.00	-5.58	0.00	5.58	3483.69	1679.35	3522.71	2062.19	4.24	-0.30	0.013	
145.00	-3.20	-0.59	0.00	-2.37	0.00	2.37	3469.62	1678.81	3471.96	2062.75	4.55	-0.31	0.008	
149.00	0.00	-0.57	0.00	0.00	0.00	0.00	3451.17	1678.59	3438.22	2062.84	4.81	-0.31	0.000	

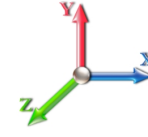
Seismic Segment Forces (Factored)

Structure: CT13075-A-SBA	Code: EIA/TIA-222-G	3/9/2018
Site Name: New London	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.0E				Iterations 20
Gust Response Factor	1.10	Sds	0.17	Ss 0.16
Dead Load Factor	0.90	Seismic Load Factor	1.00	S1 0.06
Wind Load Factor	0.00	Structure Frequency	0.41	SA 0.04
				Seismic Importance Factor 1.00



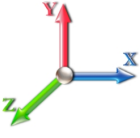
Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	0.00	
5.00		1352.1	0.00	0.03	0.02	19.72	
10.00		1324.2	0.01	0.05	0.03	28.68	
15.00		1296.3	0.02	0.06	0.04	32.76	
20.00		1268.5	0.03	0.07	0.04	34.48	
25.00		1240.6	0.05	0.07	0.04	35.13	
30.00		1212.7	0.08	0.07	0.04	35.36	
35.00		1184.8	0.10	0.07	0.04	35.46	
40.00		1157.0	0.14	0.07	0.03	35.44	
45.00		1129.1	0.17	0.07	0.03	35.14	
47.25	Bot - Section 2	499.01	0.19	0.06	0.02	15.57	
50.00		1127.4	0.21	0.06	0.02	35.04	
53.25	Top - Section 1	1312.3	0.24	0.06	0.02	40.12	
55.00		325.05	0.26	0.05	0.02	9.78	
60.00		912.60	0.31	0.04	0.01	25.18	
65.00		888.71	0.36	0.03	0.01	20.55	
70.00		864.82	0.42	0.01	0.01	14.16	
75.00		840.92	0.48	-0.01	0.01	6.34	
80.00		817.03	0.54	-0.03	0.01	-2.08	
85.00		793.14	0.62	-0.06	0.02	-9.85	
90.00		769.25	0.69	-0.08	0.03	-15.69	
95.00		745.35	0.77	-0.11	0.05	-18.71	
96.00	Bot - Section 3	146.20	0.78	-0.11	0.05	-3.74	
100.00		965.51	0.85	-0.12	0.07	-24.78	
100.75	Top - Section 2	178.20	0.86	-0.12	0.07	-4.52	
105.00		401.45	0.94	-0.12	0.10	-8.69	
110.00		457.56	1.03	-0.10	0.15	-5.92	
115.00		441.63	1.13	-0.05	0.20	0.22	
120.00		425.70	1.23	0.03	0.27	7.96	
125.00		409.77	1.33	0.16	0.36	17.07	
127.00	Appurtenance(s)	4597.5	1.37	0.23	0.40	239.94	
130.00		234.39	1.44	0.36	0.47	16.28	
135.00		377.91	1.55	0.64	0.61	38.59	
139.00	Top - Section 3	290.86	1.64	0.92	0.73	38.35	
140.00	Appurtenance(s)	2300.5	1.67	1.01	0.77	321.58	
145.00		260.18	1.79	1.49	0.96	47.49	
149.00	Appurtenance(s)	2608.2	1.89	1.98	1.14	574.95	
Totals:		35,157.0				1,667.3	Total Wind: 40,647.6

Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

Calculated Forces

Structure: CT13075-A-SBA	Code: EIA/TIA-222-G	3/9/2018
Site Name: New London	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 0.9D + 1.0E										Iterations 20
Gust Response Factor 1.10				Sds 0.17						Ss 0.16
Dead Load Factor 0.90		Seismic Load Factor 1.00		Sd1 0.09		S1 0.06				
Wind Load Factor 0.00		Structure Frequency 0.41		SA 0.04		Seismic Importance Factor 1.00				

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-35.59	-1.76	0.00	-206.10	0.00	206.10	5451.60	2725.80	12956.4	6487.84	0.00	0.00	0.00	0.038
5.00	-34.23	-1.75	0.00	-197.28	0.00	197.28	5379.95	2689.97	12523.2	6270.95	0.00	-0.01	0.038	
10.00	-32.90	-1.72	0.00	-188.54	0.00	188.54	5306.65	2653.32	12093.3	6055.68	0.02	-0.02	0.037	
15.00	-31.60	-1.70	0.00	-179.92	0.00	179.92	5231.70	2615.85	11666.9	5842.16	0.04	-0.03	0.037	
20.00	-30.32	-1.67	0.00	-171.43	0.00	171.43	5155.10	2577.55	11244.2	5630.50	0.07	-0.03	0.036	
25.00	-29.06	-1.63	0.00	-163.10	0.00	163.10	5076.86	2538.43	10825.5	5420.83	0.11	-0.04	0.036	
30.00	-27.83	-1.60	0.00	-154.93	0.00	154.93	4996.96	2498.48	10411.0	5213.26	0.16	-0.05	0.035	
35.00	-26.63	-1.57	0.00	-146.92	0.00	146.92	4915.42	2457.71	10001.0	5007.93	0.23	-0.06	0.035	
40.00	-25.45	-1.54	0.00	-139.06	0.00	139.06	4832.22	2416.11	9595.63	4804.95	0.30	-0.07	0.034	
45.00	-24.29	-1.50	0.00	-131.37	0.00	131.37	4747.38	2373.69	9195.21	4604.44	0.38	-0.08	0.034	
47.25	-23.78	-1.49	0.00	-127.99	0.00	127.99	4708.66	2354.33	9016.69	4515.05	0.42	-0.09	0.033	
50.00	-22.69	-1.46	0.00	-123.89	0.00	123.89	4660.89	2330.44	8799.96	4406.52	0.47	-0.09	0.033	
53.25	-21.42	-1.42	0.00	-119.16	0.00	119.16	4618.32	2309.16	8584.16	4298.00	0.53	-0.10	0.033	
55.00	-21.08	-1.41	0.00	-116.68	0.00	116.68	4582.22	2290.63	8370.16	4190.00	0.57	-0.10	0.033	
60.00	-20.12	-1.38	0.00	-109.64	0.00	109.64	4555.10	2275.55	8160.00	4090.00	0.68	-0.11	0.033	
65.00	-19.18	-1.37	0.00	-102.72	0.00	102.72	4536.63	2263.82	7960.00	4000.00	0.81	-0.12	0.033	
70.00	-18.26	-1.35	0.00	-95.89	0.00	95.89	4525.34	2254.67	7770.00	3920.00	0.94	-0.14	0.033	
75.00	-17.37	-1.35	0.00	-89.12	0.00	89.12	4520.40	2247.70	7590.00	3850.00	1.09	-0.15	0.033	
80.00	-16.49	-1.35	0.00	-82.38	0.00	82.38	4521.31	2242.91	7430.00	3790.00	1.25	-0.16	0.034	
85.00	-15.64	-1.35	0.00	-75.63	0.00	75.63	4528.58	2240.29	7290.00	3740.00	1.43	-0.17	0.033	
90.00	-14.81	-1.35	0.00	-68.88	0.00	68.88	4541.69	2239.84	7170.00	3700.00	1.61	-0.18	0.032	
95.00	-14.00	-1.35	0.00	-62.12	0.00	62.12	4560.59	2241.29	7070.00	3670.00	1.81	-0.20	0.030	
96.00	-13.84	-1.35	0.00	-60.77	0.00	60.77	4574.72	2243.86	7000.00	3650.00	1.85	-0.20	0.030	
100.00	-12.86	-1.35	0.00	-55.37	0.00	55.37	4604.26	2249.13	6930.00	3640.00	2.02	-0.21	0.029	
100.75	-12.68	-1.35	0.00	-54.35	0.00	54.35	4618.42	2252.21	6880.00	3640.00	2.05	-0.21	0.047	
105.00	-12.20	-1.35	0.00	-48.62	0.00	48.62	4663.32	2261.16	6830.00	3640.00	2.24	-0.22	0.044	
110.00	-11.65	-1.35	0.00	-41.87	0.00	41.87	4728.04	2275.52	6790.00	3640.00	2.48	-0.23	0.041	
115.00	-11.12	-1.35	0.00	-35.11	0.00	35.11	4814.11	2295.06	6770.00	3640.00	2.73	-0.25	0.037	
120.00	-10.60	-1.34	0.00	-28.35	0.00	28.35	4922.53	2320.77	6780.00	3640.00	3.00	-0.26	0.032	
125.00	-10.09	-1.33	0.00	-21.63	0.00	21.63	5056.30	2353.65	6830.00	3640.00	3.28	-0.27	0.027	
127.00	-5.90	-1.07	0.00	-18.98	0.00	18.98	5223.15	2401.58	6970.00	3640.00	3.40	-0.28	0.023	
130.00	-5.61	-1.05	0.00	-15.78	0.00	15.78	5415.43	2467.71	7190.00	3640.00	3.58	-0.28	0.020	
135.00	-5.15	-1.01	0.00	-10.54	0.00	10.54	5747.90	2563.95	7530.00	3640.00	3.88	-0.29	0.015	
139.00	-4.79	-0.97	0.00	-6.50	0.00	6.50	6228.69	2704.34	8000.00	3640.00	4.13	-0.30	0.011	
139.00	-4.79	-0.97	0.00	-6.50	0.00	6.50	1044.31	522.16	1138.99	570.34	4.13	-0.30	0.016	
140.00	-2.70	-0.64	0.00	-5.53	0.00	5.53	1038.69	519.35	1122.71	562.19	4.19	-0.30	0.012	
145.00	-2.40	-0.59	0.00	-2.35	0.00	2.35	1009.62	504.81	1041.96	521.75	4.51	-0.30	0.007	
149.00	0.00	-0.57	0.00	0.00	0.00	0.00	985.17	492.59	978.22	489.84	4.76	-0.30	0.000	

Wind Loading - Shaft

Structure: CT13075-A-SBA	Code: EIA/TIA-222-G	3/9/2018
Site Name: New London	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 21

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	7.442	8.19	272.71	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	7.442	8.19	267.19	0.650	0.000	5.00	24.400	15.86	129.8	0.0	1352.1
10.00		1.00	0.85	7.442	8.19	261.66	0.650	0.000	5.00	23.901	15.54	127.2	0.0	1324.2
15.00		1.00	0.85	7.442	8.19	256.14	0.650	0.000	5.00	23.401	15.21	124.5	0.0	1296.4
20.00		1.00	0.90	7.896	8.69	258.15	0.650	0.000	5.00	22.902	14.89	129.3	0.0	1268.5
25.00		1.00	0.95	8.276	9.10	258.46	0.650	0.000	5.00	22.403	14.56	132.6	0.0	1240.6
30.00		1.00	0.98	8.600	9.46	257.54	0.650	0.000	5.00	21.904	14.24	134.7	0.0	1212.8
35.00		1.00	1.01	8.883	9.77	255.71	0.650	0.000	5.00	21.405	13.91	136.0	0.0	1184.9
40.00		1.00	1.04	9.137	10.05	253.21	0.650	0.000	5.00	20.906	13.59	136.6	0.0	1157.0
45.00		1.00	1.07	9.366	10.30	250.18	0.650	0.000	5.00	20.406	13.26	136.7	0.0	1129.1
47.25	Bot - Section 2	1.00	1.08	9.463	10.41	248.66	0.650	0.000	2.25	9.020	5.86	61.0	0.0	499.0
50.00		1.00	1.09	9.576	10.53	246.70	0.650	0.000	2.75	11.062	7.19	75.7	0.0	1127.5
53.25	Top - Section 1	1.00	1.11	9.704	10.67	244.24	0.650	0.000	3.25	12.878	8.37	89.4	0.0	1312.3
55.00		1.00	1.12	9.770	10.75	246.88	0.650	0.000	1.75	6.847	4.45	47.8	0.0	325.1
60.00		1.00	1.14	9.951	10.95	242.77	0.650	0.000	5.00	19.226	12.50	136.8	0.0	912.6
65.00		1.00	1.16	10.120	11.13	238.38	0.650	0.000	5.00	18.727	12.17	135.5	0.0	888.7
70.00		1.00	1.17	10.279	11.31	233.76	0.650	0.000	5.00	18.228	11.85	134.0	0.0	864.8
75.00		1.00	1.19	10.430	11.47	228.93	0.650	0.000	5.00	17.728	11.52	132.2	0.0	840.9
80.00		1.00	1.21	10.572	11.63	223.90	0.650	0.000	5.00	17.229	11.20	130.2	0.0	817.0
85.00		1.00	1.22	10.708	11.78	218.71	0.650	0.000	5.00	16.730	10.87	128.1	0.0	793.1
90.00		1.00	1.24	10.838	11.92	213.37	0.650	0.000	5.00	16.231	10.55	125.8	0.0	769.2
95.00		1.00	1.25	10.962	12.06	207.88	0.650	0.000	5.00	15.732	10.23	123.3	0.0	745.4
96.00	Bot - Section 3	1.00	1.25	10.986	12.08	206.77	0.650	0.000	1.00	3.086	2.01	24.2	0.0	146.2
100.00		1.00	1.27	11.081	12.19	202.27	0.650	0.000	4.00	12.315	8.00	97.6	0.0	965.5
100.75	Top - Section 2	1.00	1.27	11.098	12.21	201.42	0.650	0.000	0.75	2.274	1.48	18.0	0.0	178.2
105.00		1.00	1.28	11.195	12.31	199.41	0.650	0.000	4.25	12.671	8.24	101.4	0.0	401.4
110.00		1.00	1.29	11.305	12.44	193.58	0.650	0.000	5.00	14.446	9.39	116.8	0.0	457.6
115.00		1.00	1.30	11.412	12.55	187.65	0.650	0.000	5.00	13.946	9.07	113.8	0.0	441.6
120.00		1.00	1.32	11.514	12.67	181.62	0.650	0.000	5.00	13.447	8.74	110.7	0.0	425.7
125.00		1.00	1.33	11.614	12.78	175.50	0.650	0.000	5.00	12.948	8.42	107.5	0.0	409.8
127.00	Appurtenance(s)	1.00	1.33	11.653	12.82	173.03	0.650	0.000	2.00	5.039	3.28	42.0	0.0	159.4
130.00		1.00	1.34	11.710	12.88	169.30	0.650	0.000	3.00	7.409	4.82	62.0	0.0	234.4
135.00		1.00	1.35	11.803	12.98	163.02	0.650	0.000	5.00	11.950	7.77	100.8	0.0	377.9
139.00	Top - Section 3	1.00	1.36	11.876	13.06	157.94	0.650	0.000	4.00	9.200	5.98	78.1	0.0	290.9
140.00	Appurtenance(s)	1.00	1.36	11.894	13.08	156.66	0.650	0.000	1.00	2.250	1.46	19.1	0.0	53.5
145.00		1.00	1.37	11.982	13.18	150.24	0.650	0.000	5.00	10.951	7.12	93.8	0.0	260.2
149.00	Appurtenance(s)	1.00	1.38	12.051	13.26	145.04	0.650	0.000	4.00	8.402	5.46	72.4	0.0	199.5
								Totals:	149.00			3,665.5	26,063.1	

Discrete Appurtenance Forces

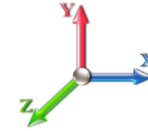
Structure: CT13075-A-SBA	Code: EIA/TIA-222-G	3/9/2018
Site Name: New London	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 21

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	149.00	RRH2x60 700	3	12.051	13.256	1.50	1.00	6.79	153.00	0.000	0.000	90.08	0.00	0.00
2	149.00	LNx-6514DS-VTM	3	12.051	13.256	0.83	1.00	20.34	116.40	0.000	0.000	269.68	0.00	0.00
3	149.00	BXA-80063/4CF	3	12.051	13.256	0.72	1.00	10.20	29.70	0.000	0.000	135.15	0.00	0.00
4	149.00	SBNHH-1D65B	3	12.051	13.256	0.83	1.00	20.12	121.80	0.000	0.000	266.71	0.00	0.00
5	149.00	SBNHH-1D65B	3	12.077	13.284	0.83	1.00	20.32	120.00	0.000	1.500	269.92	0.00	404.87
6	149.00	Low Profile	1	12.051	13.256	1.00	1.00	22.00	1500.00	0.000	0.000	291.64	0.00	0.00
7	149.00	RRH 4X45 AWS	3	12.051	13.256	0.80	1.00	6.24	192.00	0.000	0.000	82.72	0.00	0.00
8	149.00	RRH 2X60W-1900MHz	3	12.051	13.256	0.84	1.00	4.74	138.00	0.000	0.000	62.80	0.00	0.00
9	149.00	DB-T1-6Z-8AB-0Z	1	12.051	13.256	0.67	1.00	3.22	18.90	0.000	0.000	42.63	0.00	0.00
10	149.00	DB-T1-6Z-8AB-0Z	1	12.051	13.256	0.67	1.00	3.22	18.90	0.000	0.000	42.63	0.00	0.00
11	140.00	AIR 32 B4A B2P	3	11.894	13.084	0.70	0.80	13.59	317.40	0.000	0.000	177.84	0.00	0.00
12	140.00	AIR 32 B2A B4P	3	11.894	13.084	0.70	0.80	13.59	396.60	0.000	0.000	177.84	0.00	0.00
13	140.00	KRY 112 144 T	3	11.894	13.084	0.56	0.80	0.69	33.06	0.000	0.000	9.01	0.00	0.00
14	140.00	Low Profile Platform	1	11.894	13.084	1.00	1.00	22.00	1500.00	0.000	0.000	287.84	0.00	0.00
15	127.00	RRUS-12 B2	3	11.653	12.818	0.54	0.80	5.05	180.00	0.000	0.000	64.72	0.00	0.00
16	127.00	4415	3	11.653	12.818	0.54	0.80	2.64	138.00	0.000	0.000	33.80	0.00	0.00
17	127.00	HPA-65R-BUU-8H	12	11.653	12.818	0.63	0.80	98.44	816.00	0.000	0.000	1261.79	0.00	0.00
18	127.00	RRUS 11	9	11.653	12.818	0.54	0.80	12.16	456.30	0.000	0.000	155.82	0.00	0.00
19	127.00	RRUS E2	3	11.653	12.818	0.54	0.80	4.34	180.00	0.000	0.000	55.65	0.00	0.00
20	127.00	RRUS 32	3	11.653	12.818	0.54	0.80	5.32	231.00	0.000	0.000	68.22	0.00	0.00
21	127.00	RRUS A2	3	11.653	12.818	0.50	0.80	2.38	63.60	0.000	0.000	30.52	0.00	0.00
22	127.00	DC6-48-60-18-8F	4	11.653	12.818	0.80	0.80	7.04	127.20	0.000	0.000	90.24	0.00	0.00
23	127.00	MTC3607 Platform + HR	1	11.653	12.818	1.00	1.00	51.70	2246.00	0.000	0.000	662.68	0.00	0.00
Totals:									9,093.86			4,629.93		

Total Applied Force Summary

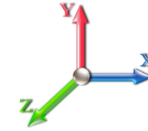
Structure: CT13075-A-SBA	Code: EIA/TIA-222-G	3/9/2018
Site Name: New London	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 21

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		129.83	1505.57	0.00	0.00
10.00		127.17	1477.70	0.00	0.00
15.00		124.52	1449.82	0.00	0.00
20.00		129.30	1421.95	0.00	0.00
25.00		132.57	1394.08	0.00	0.00
30.00		134.68	1366.20	0.00	0.00
35.00		135.96	1338.33	0.00	0.00
40.00		136.57	1310.45	0.00	0.00
45.00		136.66	1282.58	0.00	0.00
47.25		61.03	568.07	0.00	0.00
50.00		75.74	1211.89	0.00	0.00
53.25		89.35	1412.05	0.00	0.00
55.00		47.83	378.76	0.00	0.00
60.00		136.79	1066.05	0.00	0.00
65.00		135.50	1042.16	0.00	0.00
70.00		133.97	1018.27	0.00	0.00
75.00		132.20	994.37	0.00	0.00
80.00		130.24	970.48	0.00	0.00
85.00		128.09	946.59	0.00	0.00
90.00		125.77	922.70	0.00	0.00
95.00		123.30	898.80	0.00	0.00
96.00		24.24	176.89	0.00	0.00
100.00		97.57	1088.27	0.00	0.00
100.75		18.04	201.21	0.00	0.00
105.00		101.43	531.88	0.00	0.00
110.00		116.77	611.01	0.00	0.00
115.00		113.79	595.08	0.00	0.00
120.00		110.71	579.15	0.00	0.00
125.00		107.52	563.22	0.00	0.00
127.00	(41) attachments	2465.43	4658.93	0.00	0.00
130.00		62.04	316.05	0.00	0.00
135.00		100.85	514.01	0.00	0.00
139.00		78.12	399.74	0.00	0.00
140.00	(10) attachments	671.67	2327.75	0.00	0.00
145.00		93.82	333.58	0.00	0.00
149.00	(24) attachments	1626.34	2666.96	0.00	404.87
Totals:		8,295.43	39,540.59	0.00	404.87

Calculated Forces

Structure: CT13075-A-SBA
Site Name: New London
Height: 149.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Topography: 1

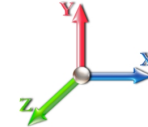
Code: EIA/TIA-222-G
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

3/9/2018
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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 21

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-39.54	-8.31	0.00	-921.97	0.00	921.97	5451.60	2725.80	12956.4	6487.84	0.00	0.000	0.000	0.149
5.00	-38.03	-8.20	0.00	-880.42	0.00	880.42	5379.95	2689.97	12523.2	6270.95	0.02	-0.038	0.000	0.147
10.00	-36.54	-8.10	0.00	-839.41	0.00	839.41	5306.65	2653.32	12093.3	6055.68	0.08	-0.076	0.000	0.146
15.00	-35.09	-8.00	0.00	-798.91	0.00	798.91	5231.70	2615.85	11666.9	5842.16	0.18	-0.115	0.000	0.143
20.00	-33.66	-7.89	0.00	-758.93	0.00	758.93	5155.10	2577.55	11244.2	5630.50	0.32	-0.155	0.000	0.141
25.00	-32.26	-7.77	0.00	-719.50	0.00	719.50	5076.86	2538.43	10825.5	5420.83	0.51	-0.195	0.000	0.139
30.00	-30.89	-7.66	0.00	-680.63	0.00	680.63	4996.96	2498.48	10411.0	5213.26	0.73	-0.235	0.000	0.137
35.00	-29.55	-7.53	0.00	-642.36	0.00	642.36	4915.42	2457.71	10001.0	5007.93	1.00	-0.276	0.000	0.134
40.00	-28.23	-7.41	0.00	-604.69	0.00	604.69	4832.22	2416.11	9595.63	4804.95	1.31	-0.318	0.000	0.132
45.00	-26.95	-7.28	0.00	-567.63	0.00	567.63	4747.38	2373.69	9195.21	4604.44	1.67	-0.360	0.000	0.129
47.25	-26.38	-7.23	0.00	-551.24	0.00	551.24	4708.66	2354.33	9016.69	4515.05	1.84	-0.379	0.000	0.128
50.00	-25.16	-7.15	0.00	-531.37	0.00	531.37	4660.89	2330.44	8799.96	4406.52	2.07	-0.403	0.000	0.126
53.25	-23.75	-7.06	0.00	-508.12	0.00	508.12	3818.32	1909.16	7226.08	3618.41	2.35	-0.431	0.000	0.147
55.00	-23.37	-7.03	0.00	-495.76	0.00	495.76	3795.26	1897.63	7117.54	3564.06	2.51	-0.446	0.000	0.145
60.00	-22.30	-6.90	0.00	-460.63	0.00	460.63	3728.27	1864.14	6809.75	3409.94	3.01	-0.494	0.000	0.141
65.00	-21.25	-6.77	0.00	-426.13	0.00	426.13	3659.63	1829.82	6505.57	3257.62	3.55	-0.542	0.000	0.137
70.00	-20.23	-6.64	0.00	-392.28	0.00	392.28	3589.34	1794.67	6205.25	3107.24	4.14	-0.589	0.000	0.132
75.00	-19.23	-6.52	0.00	-359.05	0.00	359.05	3517.40	1758.70	5909.03	2958.91	4.78	-0.637	0.000	0.127
80.00	-18.25	-6.39	0.00	-326.46	0.00	326.46	3443.81	1721.91	5617.15	2812.75	5.48	-0.684	0.000	0.121
85.00	-17.30	-6.27	0.00	-294.51	0.00	294.51	3368.58	1684.29	5329.85	2668.89	6.22	-0.731	0.000	0.115
90.00	-16.38	-6.14	0.00	-263.18	0.00	263.18	3291.69	1645.84	5047.37	2527.44	7.01	-0.777	0.000	0.109
95.00	-15.48	-6.01	0.00	-232.48	0.00	232.48	3202.59	1601.29	4754.28	2380.67	7.85	-0.822	0.000	0.103
96.00	-15.30	-5.99	0.00	-226.47	0.00	226.47	3181.72	1590.86	4692.22	2349.60	8.02	-0.831	0.000	0.101
100.00	-14.21	-5.88	0.00	-202.50	0.00	202.50	3098.26	1549.13	4448.03	2227.32	8.73	-0.866	0.000	0.096
100.75	-14.01	-5.87	0.00	-198.09	0.00	198.09	1860.42	930.21	2714.89	1359.46	8.87	-0.872	0.000	0.153
105.00	-13.47	-5.77	0.00	-173.16	0.00	173.16	1828.32	914.16	2592.13	1297.99	9.66	-0.907	0.000	0.141
110.00	-12.86	-5.65	0.00	-144.32	0.00	144.32	1789.04	894.52	2449.03	1226.33	10.64	-0.962	0.000	0.125
115.00	-12.26	-5.54	0.00	-116.06	0.00	116.06	1748.11	874.06	2307.59	1155.51	11.68	-1.012	0.000	0.107
120.00	-11.68	-5.43	0.00	-88.36	0.00	88.36	1705.53	852.77	2168.05	1085.64	12.76	-1.056	0.000	0.088
125.00	-11.12	-5.31	0.00	-61.24	0.00	61.24	1661.30	830.65	2030.66	1016.84	13.89	-1.092	0.000	0.067
127.00	-6.51	-2.76	0.00	-50.61	0.00	50.61	1643.15	821.58	1976.36	989.65	14.35	-1.104	0.000	0.055
130.00	-6.19	-2.69	0.00	-42.33	0.00	42.33	1615.43	807.71	1895.65	949.24	15.05	-1.120	0.000	0.048
135.00	-5.68	-2.58	0.00	-28.87	0.00	28.87	1567.90	783.95	1763.28	882.95	16.23	-1.141	0.000	0.036
139.00	-5.28	-2.50	0.00	-18.53	0.00	18.53	1528.69	764.34	1659.43	830.95	17.19	-1.154	0.000	0.026
139.00	-5.28	-2.50	0.00	-18.53	0.00	18.53	1044.31	522.16	1138.99	570.34	17.19	-1.154	0.000	0.038
140.00	-2.96	-1.78	0.00	-16.03	0.00	16.03	1038.69	519.35	1122.71	562.19	17.44	-1.157	0.000	0.031
145.00	-2.63	-1.68	0.00	-7.13	0.00	7.13	1009.62	504.81	1041.96	521.75	18.66	-1.169	0.000	0.016
149.00	0.00	-1.63	0.00	-0.40	0.00	0.40	985.17	492.59	978.22	489.84	19.64	-1.173	0.000	0.001

Final Analysis Summary

Structure: CT13075-A-SBA	Code: EIA/TIA-222-G	3/9/2018
Site Name: New London	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Reactions

Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)
1.2D + 1.6W 105 mph Wind	40.7	0.00	47.38	0.00	0.00	4535.78
0.9D + 1.6W 105 mph Wind	40.7	0.00	35.52	0.00	0.00	4499.34
1.2D + 1.0Di + 1.0Wi 50 mph Wind	9.4	0.00	72.94	0.00	0.00	1023.19
1.2D + 1.0E	1.8	0.00	47.45	0.00	0.00	207.88
0.9D + 1.0E	1.8	0.00	35.59	0.00	0.00	206.10
1.0D + 1.0W 60 mph Wind	8.3	0.00	39.54	0.00	0.00	921.97

Max Stresses

Load Case	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Elev (ft)	Stress Ratio
1.2D + 1.6W 105 mph Wind	-14.75	-28.89	0.00	-975.06	0.00	-975.06	1860.42	930.21	2714.89	1359.46	100.75	0.726
0.9D + 1.6W 105 mph Wind	-10.56	-28.56	0.00	-963.11	0.00	-963.11	1860.42	930.21	2714.89	1359.46	100.75	0.715
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-33.11	-6.35	0.00	-212.35	0.00	-212.35	1860.42	930.21	2714.89	1359.46	100.75	0.174
1.2D + 1.0E	-16.91	-1.37	0.00	-54.97	0.00	-54.97	1860.42	930.21	2714.89	1359.46	100.75	0.050
0.9D + 1.0E	-12.68	-1.35	0.00	-54.35	0.00	-54.35	1860.42	930.21	2714.89	1359.46	100.75	0.047
1.0D + 1.0W 60 mph Wind	-14.01	-5.87	0.00	-198.09	0.00	-198.09	1860.42	930.21	2714.89	1359.46	100.75	0.153



Monopole Mat Foundation Design

Date

3/9/2018

Customer Name:	AT&T	EIA/TIA Standard:	EIA-222-G
Site Name:		Structure Height (Ft.):	149
Site Number:	CT13075-A-SBA	Engineer Name:	J. Tibbetts
Engr. Number:	48983	Engineer Login ID:	

Foundation Info Obtained from:

Drawings/Calculations

Structure Type:

Monopole

Analysis or Design?

Analysis

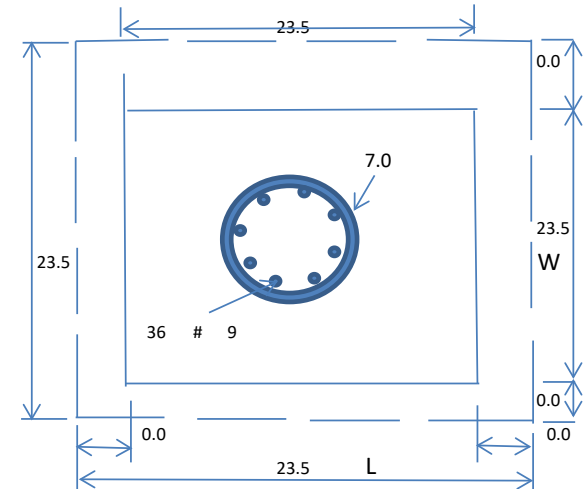
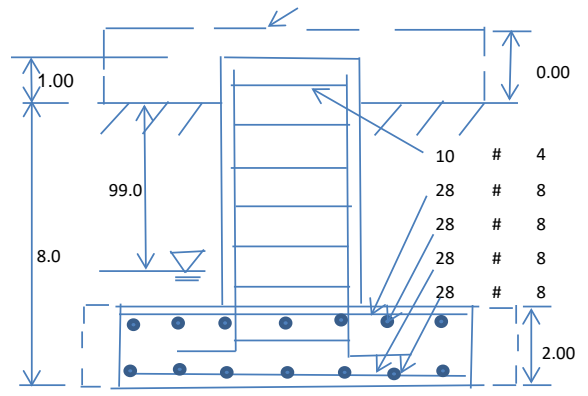
Base Reactions (Factored):

Axial Load (Kips):	47.4	Shear Force (Kips):	40.7
Uplift Force (Kips):	0.0	Moment (Kips-ft):	4535.8

Allowable overstress %: 5.0%

Foundation Geometries:

		Mods required -Yes/No ?:	No
Diameter of Pier (ft.):	7.0	Depth of Base BG (ft.):	8.0
Pier Height A. G. (ft.):	1.00	Thickness of Pad (ft):	2.00
Length of Pad (ft.):	23.5	Width of Pad (ft.):	23.5
Final Length of pad (ft)	23.5	Final width of pad (ft):	23.5
Control Value for Cell D18:	0	Control Value for Cell F18:	0



Material Properties and Rebar Info:

Concrete Strength (psi):	4000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield (ksi):	60	
Vertical Rebar Size #:	9	Tie / Stirrup Size #:	4	
Qty. of Vertical Rebars:	36	Tie Spacing (in):	12.0	
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	8	
Concrete Cover (in.):	3	Unit Weight of Concrete:	150.0	pcf
Rebar at the bottom of the concrete pad:				
Qty. of Rebar in Pad (L):	28	Qty. of Rebar in Pad (W):	28	
Rebar at the top of the concrete pad:				
Qty. of Rebar in Pad (L):	28	Qty. of Rebar in Pad (W):	28	

Apply 1.35 factor for e/w Per G: 1.35

Soil Design Parameters:

Soil Unit Weight (pcf):	100.0	Soil Buoyant Weight:	50.0	Pcf
Water Table B.G.S. (ft):	99.0	Unit Weight of Water:	62.4	pcf
Ultimate Bearing Pressure (psf):	8000	Ultimate Skin Friction:	0	Psf
Consider Friction for O.T.M. (Y/N):	No	Consider Friction for bearing (Y/N):	No	
Consider soil hor. resist. for OTM.:	No	Reduction factor on the maximum soil bearing pressure:	1.00	
		Angle from Top of Pad:	30	
		Angle from Bottm of Pad:	25	
		Angle from Bottm of Pad:	25	

Foundation Analysis and Design:

Uplift Strength Reduction Factor:	0.75	Compression Strength Reduction Factor:	0.75
Total Dry Soil Volume (cu. Ft.):	3082.59	Total Dry Soil Weight (Kips):	308.26
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	308.26	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	1373.89	Total Dry Concrete Weight (Kips):	206.08
Total Buoyant Concrete Volume (cu. Ft.):	0.00	Total Buoyant Concrete Weight (Kips):	0.00
Total Effective Concrete Weight (Kips):	206.08	Total Vertical Load on Base (Kips):	561.72

Check Soil Capacities:

Calculated Maxium Net Soil Pressure under the base (psf):	4487	<	Allowable Factored Soil Bearing (psf):	6000	0.75	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	5995.9	>	Design Factored Momont (kips-ft):	4902	0.82	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	1.22					OK!

Load/
Capacity
Ratio

Check the capacities of Reinforcing Concrete:

Strength reduction factor (Flexure and axial tension):	0.90	Strength reduction factor (Shear):	0.75
Strength reduction factor (Axial compression):	0.65	Wind Load Factor on Concrete Design:	1.00

Load/
Capacity
Ratio

(1) Concrete Pier:

Vertical Steel Rebar Area (sq. in./each):	1.00	Tie / Stirrup Area (sq. in./each):	0.20		
Calculated Moment Capacity (Mn,Kips-Ft):	6026.1	> Design Factored Moment (Mu, Kips-Ft)	4820.7	0.80	OK!
Calculated Shear Capacity (Kips):	660.1	> Design Factored Shear (Kips):	40.7	0.06	OK!
Calculated Tension Capacity (Tn, Kips):	1944.0	> Design Factored Tension (Tu Kips):	0.0	0.00	OK!
Calculated Compression Capacity (Pn, Kips):	9734.2	> Design Factored Axial Load (Pu Kips):	47.4	0.00	OK!
Moment & Axial Strength Combination:	0.80	OK! Check Tie Spacing (Design/Required):		1	OK!
Pier Reinforcement Ratio:	0.006	Reinforcement Ratio is satisfied per ACI			

(2).Concrete Pad:

One-Way Design Shear Capacity (L-Direction, Kips):	548.4	> One-Way Factored Shear (L-D. Kips):	328.3	0.60	OK!
One-Way Design Shear Capacity (W-Direction, Kips):	548.4	> One-Way Factored Shear (W-D., Kips)	328.3	0.60	OK!
One-Way Design Shear Capacity (Corner-Corner. Kips):	612.2	> One-Way Factored Shear (C-C, Kips):	345.3	0.56	OK!
Lower Steel Pad Reinforcement Ratio (L-Direct.):	0.0038	OK! Lower Steel Pad Reinf. Ratio (W-Direct	0.0038		
Lower Steel Pad Moment Capacity (L-Direction. Kips-ft):	1971.7	> Moment at Bottom (L-Direct. K-Ft):	1073.8	0.54	OK!
Lower Steel Pad Moment Capacity (W-Direction. Kips-ft):	1971.7	> Moment at Bottom (W-Direct. K-Ft):	1073.8	0.54	OK!
Lower Steel Pad Moment Capacity (Corner-Corner,K-ft):	2762.4	> Moment at Bottom (C-C Dir. K-Ft):	1518.5	0.55	OK!
Upper Steel Pad Reinforcement Ratio (L-Direct.):	0.0038	OK! Upper Steel Reinf. Ratio (W-Direct.):	0.0038		
Upper Steel Pad Moment Capacity (L-Direction. Kips-ft):	1971.7	> Moment at the top (L-Dir Kips-Ft):	538.2	0.27	OK!
Upper Steel Pad Moment Capacity (W-Direction. Kips-ft):	1971.7	> Moment at the top (W-Dir Kips-Ft):	538.2	0.27	OK!
Upper Steel Pad Moment Capacity (Corner-Corner. K-ft):	2762.4	> Moment at the top (C-C Direc. K-Ft):	553.5	0.20	OK!

[Back](#)

Parcel Detail

1294 PLEASANT VALLEY RD NORTH




Property Information

PIN: 178010470143
PROPERTY TYPE: COMMERCIAL
DISTRICT: POQUONNOCK BRIDGE FIRE DISTRICT
OWNER: JFM ENTERPRISES LLC
ACREAGE: 3.66AC.
ZONING: RU-20
USE CODE: SMALL RETAIL AND SERVICE STORES UNDER 10
CT GRAND LIST CODE: COMMERCIAL
LIVING UNITS: N/A
NEIGHBORHOOD: 3100
DEED BOOK/PAGE: 774/624
LAND VALUE: \$197,900
BUILDING VALUE: \$75,100
TOTAL VALUE: \$273,000
GROSS ASSESSED VALUE: \$191,100

Structure Information

CARD: 1 OF 1
BUILDING #: 1
IMPROVED NAME: PAWS PLACE
YEAR BUILT: 1975
OF UNITS: 1
IDENTICAL UNITS: 1
STRUCTURE TYPE: RETAIL-SINGLEOCCUPANCY
RIII DING AREA: 2388 SQFT






**UNITED STATES
POSTAL SERVICE®**

Click-N-Ship®

P

usps.com 9405 8036 9930 0615 3200 43 0067 0000 0010 6340
US POSTAGE
 Flat Rate Env
 03/31/2018 Mailed from 06268 024P



PRIORITY MAIL 1-DAY™

Expected Delivery Date: 04/02/18

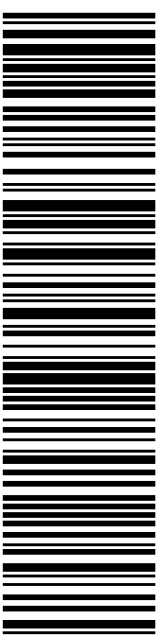
MARK J ROBERTS
 QC DEVELOPMENT
 PO BOX 916
 STORRS CT 06268-0916

0024

C003

SHIP TO: MAYOR PATRICE GRANATOSKY
 TOWN OF GROTON
 30 N PROSPECT ST
 GROTON CT 06340-5810

USPS TRACKING #



9405 8036 9930 0615 3200 43

Electronic Rate Approved #038555749



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1. Each Click-N-Ship® label is unique. Labels are to be used as printed and used only once. DO NOT PHOTO COPY OR ALTER LABEL.
2. Place your label so it does not wrap around the edge of the package.
3. Adhere your label to the package. A self-adhesive label is recommended. If tape or glue is used, DO NOT TAPE OVER BARCODE. Be sure all edges are secure.
4. To mail your package with PC Postage®, you may schedule a Package Pickup online, hand to your letter carrier, take to a Post Office™, or drop in a USPS collection box.
5. Mail your package on the "Ship Date" you selected when creating this label.

Click-N-Ship® Label Record

**USPS TRACKING # / Insurance Number:
 9405 8036 9930 0615 3200 43**

Trans. #:	431300899	Priority Mail® Postage:	\$6.70
Print Date:	03/30/2018	Insurance Fee	\$0.00
Ship Date:	03/31/2018	Total	\$6.70
Expected Delivery Date:	04/02/2018		
Insured Value:	\$50.00		

From: MARK J ROBERTS
 QC DEVELOPMENT
 PO BOX 916
 STORRS CT 06268-0916

To: MAYOR PATRICE GRANATOSKY
 TOWN OF GROTON
 30 N PROSPECT ST
 GROTON CT 06340-5810

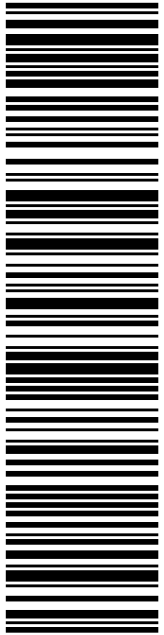
* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.



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 JFM ENTERPRISES LLC
 1294 PLEASANT VALLEY RD N
 GROTON CT 06340

USPS TRACKING #




9405 8036 9930 0615 3200 12

MARK J ROBERTS
 QC DEVELOPMENT
 PO BOX 916
 STORRS CT 06268-0916

Expected Delivery Date: 04/02/18

0024

P usps.com **9405 8036 9930 0615 3200 12 0067 0000 0010 6340**
US POSTAGE Flat Rate Env
 03/31/2018 Mailed from 06268 024P



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9405 8036 9930 0615 3200 12

Trans. #:	431300899	Priority Mail® Postage:	\$6.70
Print Date:	03/30/2018	Insurance Fee	\$0.00
Ship Date:	03/31/2018	Total	\$6.70
Expected Delivery Date:	04/02/2018		
Insured Value:	\$50.00		

From: MARK J ROBERTS
 QC DEVELOPMENT
 PO BOX 916
 STORRS CT 06268-0916

To: JFM ENTERPRISES LLC
 1294 PLEASANT VALLEY RD N
 GROTON CT 06340

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