



QC Development

PO Box 916

Storrs, CT 06268

860-670-9068

Mark.Roberts@QCDevelopment.net

March 22, 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) – CT5127
99 Meadow Street, Hartford, CT 06114
N 41-44-35.50
W 72-40-03.10

Dear Ms. Bachman:

AT&T currently maintains nine (9) antennas at the 138-foot level of the existing 150-foot Monopole at 99 Meadow Street, Hartford, CT. The tower is owned by American Tower. The property is owned by Meadow Street Realty LLC. AT&T now intends to install three (3) Kathrein 800-10965 antennas and add three (3) Ericsson RRUS-32 B66 and (3) RRUS-4478 B14 Remote Radio Units (RRU). These antennas and RRUs would be installed at the 138-foot level of the tower.

This facility was approved by the City of Hartford on October 16, 1998. Communications Towers were a permitted use as of right in the underlying Industrial Zone and a Building Permit was issued, therefore there were no condition(s) that could feasibly be violated by this modification, including total facility height or mounting restrictions. This modification therefore complies with the aforementioned approval.

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 Luke Bronin, Mayor of the City of Hartford, as elected official, and the City of Hartford

Planning Department as well as the tower and property owners.

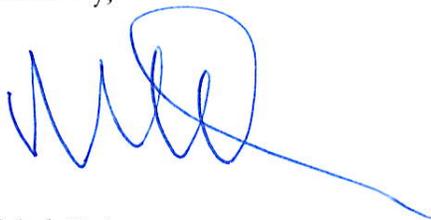
The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2).

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: The Honorable Luke Bronin - Elected Official
Caitlin Palmer – Chief of Zoning Administration
Meadow Street Realty LLC – Property Owner
American Tower - 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*							16.93%
AT&T UMTS	2	533	137	0.0223	850	0.5667	0.39%
AT&T UMTS	2	1089	137	0.0456	1900	1.0000	0.46%
AT&T LTE	2	1390	137	0.0583	700	0.4667	1.25%
AT&T LTE	2	1423	137	0.0596	1900	1.0000	0.60%
AT&T LTE	2	711	137	0.0298	1900	1.0000	0.30%
AT&T LTE	2	1672	137	0.0701	2300	1.0000	0.70%
Site Total							20.62%

*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*							16.93%
AT&T UMTS	1	317	137	0.0066	850	0.5667	0.12%
AT&T UMTS	1	615	137	0.0129	1900	1.0000	0.13%
AT&T LTE	2	1476	137	0.0619	700	0.4667	1.33%
AT&T LTE	2	4842	137	0.2029	1900	1.0000	2.03%
AT&T LTE	1	5070	137	0.1062	1900	1.0000	1.06%
AT&T LTE	1	1285	137	0.0269	2300	1.0000	0.27%
Site Total							21.86%

*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

Note: Proposed Loading may also include corrections to certain Existing Loading values

PROJECT INFORMATION

SCOPE OF WORK: ITEMS TO BE MOUNTED ON THE EXISTING MONOPOLE TOWER:

- NEW AT&T ANTENNA: 800-10965 @ POSITION 3 (TOTAL OF 2 PER ALPHA/BETA)
- NEW AT&T ANTENNA: 800-10966 @ POSITION 3 (TOTAL OF 1 PER GAMMA SECTOR)
- NEW AT&T RRUS: RRUS B14 4478 (700) (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- NEW AT&T RRUS: RRUS-32 B66 (AWS) (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- NEW AT&T SURGE ARRESTOR: DC6-48-60-18-8C (TOTAL OF 1).
- NEW JUMPER CABLES: COAX JUMPER (2) PER SECTOR FROM EACH RRU (TOTAL OF 6)
- NEW FIBER JUMPERS: FIBER JUMPERS (3) FROM THE SQUID TO EACH RRU (TOTAL OF 9)

ITEMS TO BE MOUNTED INSIDE EXISTING EQUIPMENT SHELTER:

- ADD SECOND XMU

ITEMS TO REMAIN:

- (9) ANTENNAS, (9) RRU'S, (2) SURGE ARRESTORS, (2) DC POWER CABLES, & (1) FIBER RUNS.

SQUID ALARMING (NOT TO BE DAISY CHAINED).

- THE 1ST SQUID INSTALLED WILL BE ALARMED TO THE LOWEST BAND (OR FIRST INSTALLED RRH/RRU ON THE ALPHA SECTOR, IN THE EVENT THE ALARM CABLE CANNOT BE CONNECTED TO ALPHA IT WILL BE ACCEPTABLE TO ALARM TO THE CLOSEST PHYSICAL SECTOR ON AN EXCEPTION BASIS.
- 2ND SQUID INSTALLED WILL BE ALARMED TO THE LOWEST BAND (OR FIRST INSTALLED) RRH/RRU ON THE BETA SECTOR.
- 3RD SQUID INSTALLED WILL BE ALARMED TO THE LOWEST BAND (OR FIRST INSTALLED) RRH/RRU ON THE GAMMA SECTOR.

SITE ADDRESS: 99 MEADOW STREET
HARTFORD, CT 06114

LATITUDE: 41.7438919° N 41° 44' 30.01" N
LONGITUDE: 72.6682989° W 72° 40' 5.88" W
TYPE OF SITE: MONOPOLE TOWER/INDOOR EQUIPMENT
STRUCTURE HEIGHT: 150'-0"± A.G.L.
RAD CENTER: 138'-0"± A.G.L.
CURRENT USE: TELECOMMUNICATIONS FACILITY
PROPOSED USE: TELECOMMUNICATIONS FACILITY



SITE NUMBER: CT5127

SITE NAME: 191 AND 5 SPLIT

PROJECT: LTE 4C_5C-FIRSTNET 2018 UPGRADE

VICINITY MAP

DIRECTIONS TO SITE:
HEAD SOUTHEAST ON ENTERPRISE DR. TURN LEFT ONTO CAPITAL BLVD. USE THE LEFT LANE TO TURN LEFT ONTO STATE HWY 411. TURN LEFT TO MERGE ONTO I-91 N. FOLLOW I-91 N TO HARTFORD. TAKE EXIT 27 FROM I-91 N. MERGE ONTO I-91 N. TAKE EXIT 27 FOR BRAINARD RD TOWARD AIRPORT RD/BRAINARD/AIRPORT. TAKE AIRPORT RD AND LOCUST ST TO MEADOW ST. TURN LEFT ONTO BRAINARD RD. USE THE LEFT 2 LANES TO TURN LEFT ONTO AIRPORT RD. TURN RIGHT ONTO LOCUST ST TURN LEFT ONTO MEADOW ST. DESTINATION WILL BE ON THE LEFT. 99 MEADOW ST HARTFORD, CT 06114



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.

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
RF-1	RF PLUMBING DIAGRAM	B
G-1	GROUNDING DETAILS	B

**AMERICAN TOWER SITE NAME: PETRO LOCK
AMERICAN TOWER SITE #: 302468**

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

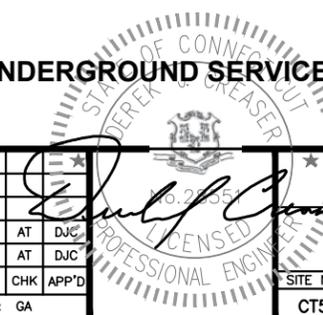
SAI
12 INDUSTRIAL WAY SALEM, NH 03079

**SITE NUMBER: CT5127
SITE NAME: 191 AND 5 SPLIT
AMERICAN TOWER SITE #: 302468
99 MEADOW STREET
HARTFORD, CT 06114
HARTFORD COUNTY**

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

NO.	DATE	REVISIONS	BY	CHK	APP'D
B	03/07/18	ISSUED FOR PERMITTING	MR	AT	DJC
A	01/23/18	ISSUED FOR REVIEW	GA	AT	DJC

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



AT&T		
TITLE SHEET (LTE 4C_5C)		
SITE NUMBER	DRAWING NUMBER	REV
CT5127	T-1	B

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.

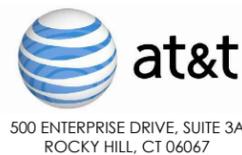
 FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

ABBREVIATIONS

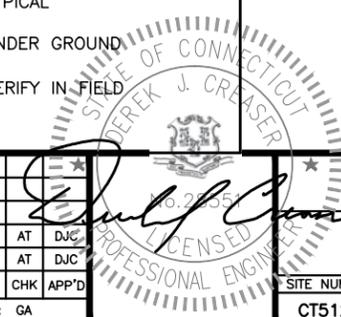
A GL	ABOVE GRADE LEVEL	EQ	EQUAL	REQ	REQUIRED
AWG	AMERICAN WIRE GAUGE	GC	GENERAL CONTRACTOR	RF	RADIO FREQUENCY
BBU	BATTERY BACKUP UNIT	GRC	GALVANIZED RIGID CONDUIT	TBD	TO BE DETERMINED
BTCW	BARE TINNED SOLID COPPER WIRE	MGB	MASTER GROUND BAR	TBR	TO BE REMOVED
BGR	BURIED GROUND RING	MIN	MINIMUM	TBRR	TO 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		



SITE NUMBER: CT5127
 SITE NAME: 191 AND 5 SPLIT
 AMERICAN TOWER SITE #: 302468
 99 MEADOW STREET
 HARTFORD, CT 06114
 HARTFORD COUNTY



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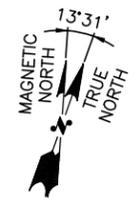
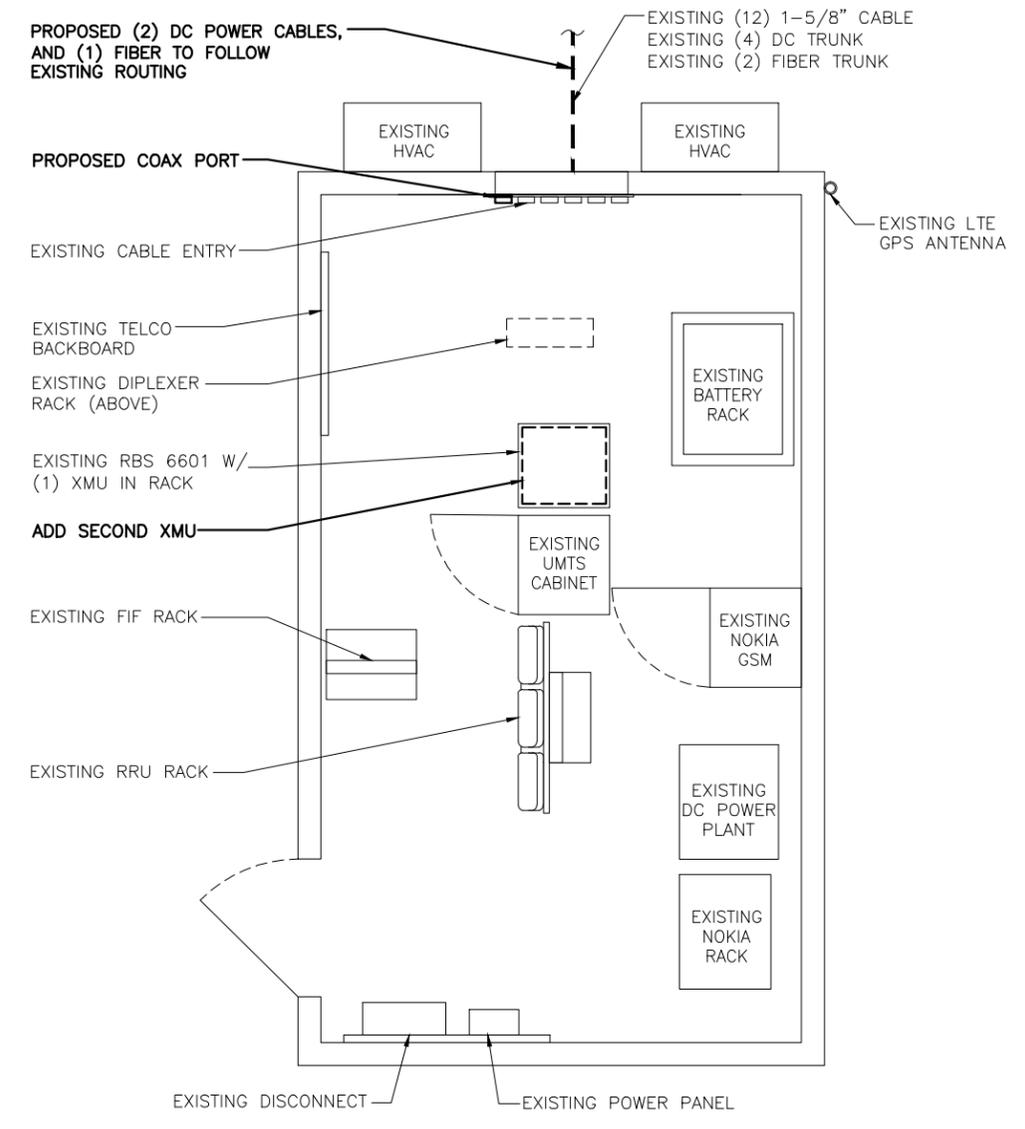
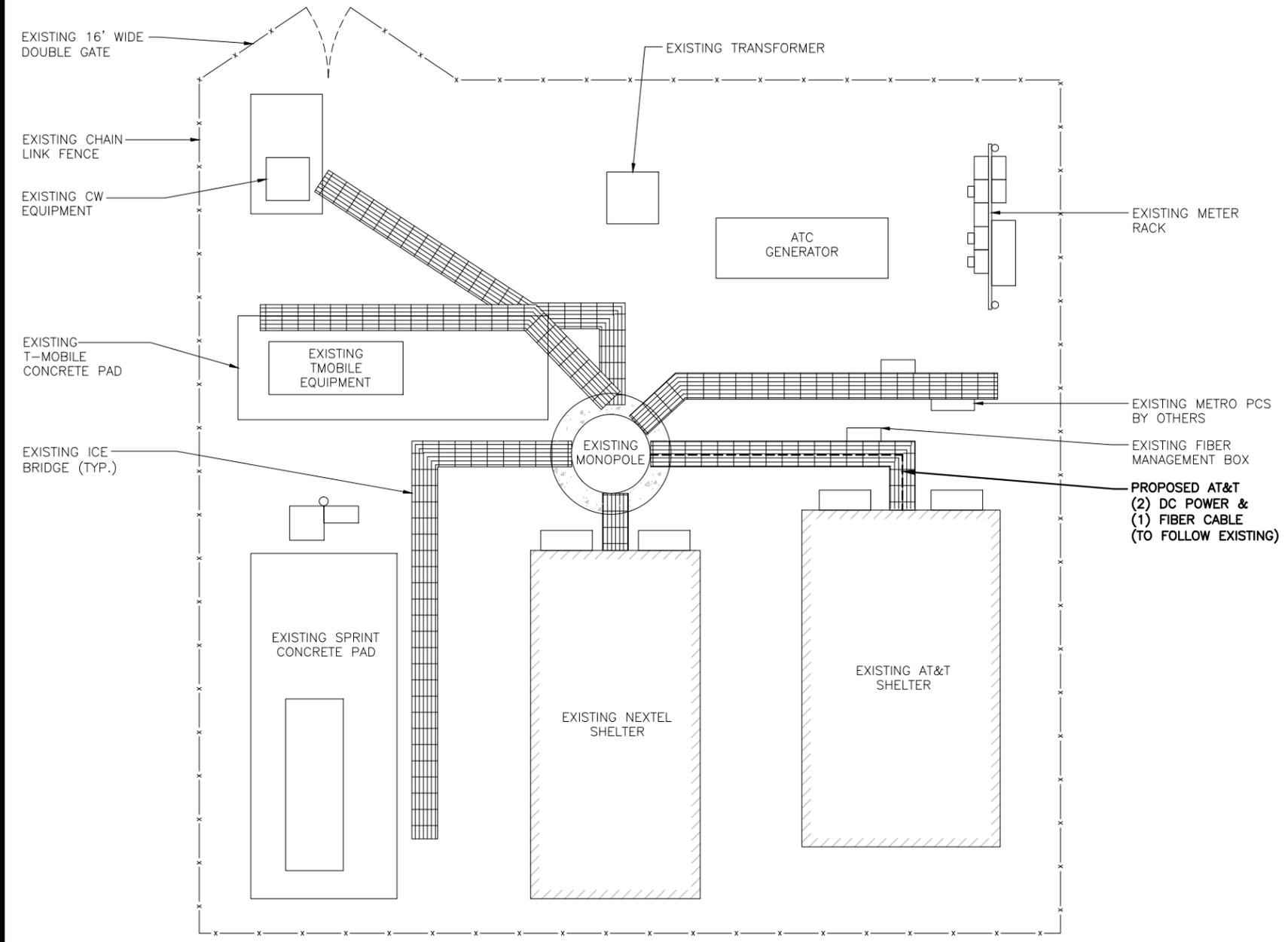


AT&T		
GENERAL NOTES (LTE 4C_5C)		
SITE NUMBER	DRAWING NUMBER	REV
CT5127	GN-1	B

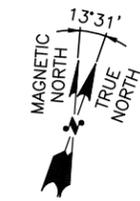
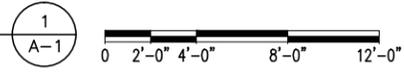
NOTE:
 AN ANALYSIS FOR THE CAPACITY OF THE EXISTING ANTENNA MOUNT TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY:
 HUDSON DESIGN GROUP, LLC.
 DATED: FEBRUARY 26, 2018

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

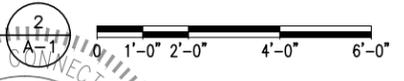
NOTE:
 ALL ANTENNAS AND RRHS TO BE INSTALLED IN ACCORDANCE WITH STRUCTURAL ANALYSIS PROVIDED BY AMERICAN TOWER AND FINAL RF DATA SHEET



COMPOUND PLAN
 22x34 SCALE: 1/4"=1'-0"
 11x17 SCALE: 1/8"=1'-0"



EQUIPMENT PLAN
 22x34 SCALE: 1/2"=1'-0"
 11x17 SCALE: 1/4"=1'-0"



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

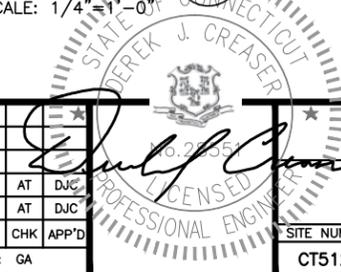
SAI
 12 INDUSTRIAL WAY
 SALEM, NH 03079

SITE NUMBER: CT5127
SITE NAME: 191 AND 5 SPLIT
AMERICAN TOWER SITE #: 302468
 99 MEADOW STREET
 HARTFORD, CT 06114
 HARTFORD COUNTY

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

NO.	DATE	REVISIONS	BY	CHK	APP'D
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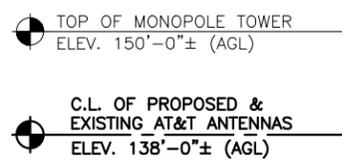
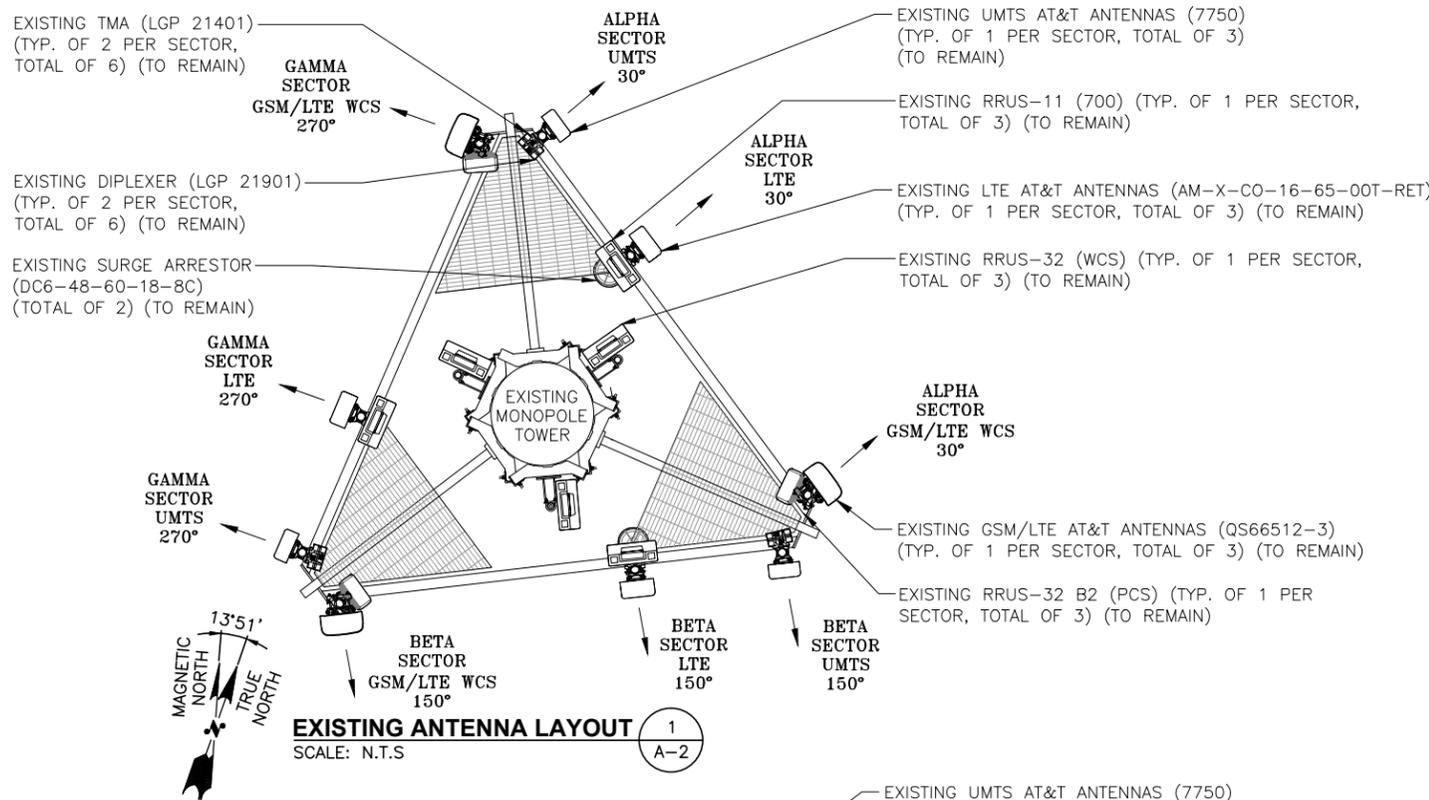
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AT&T

COMPOUND & EQUIPMENT PLANS
 (LTE 4C_5C)

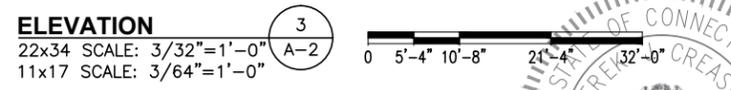
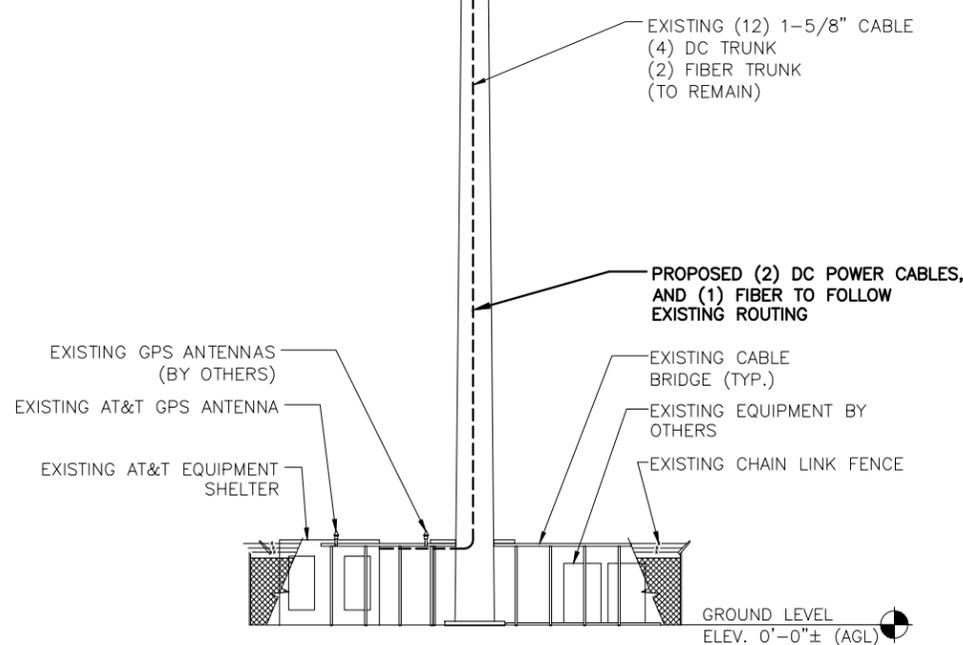
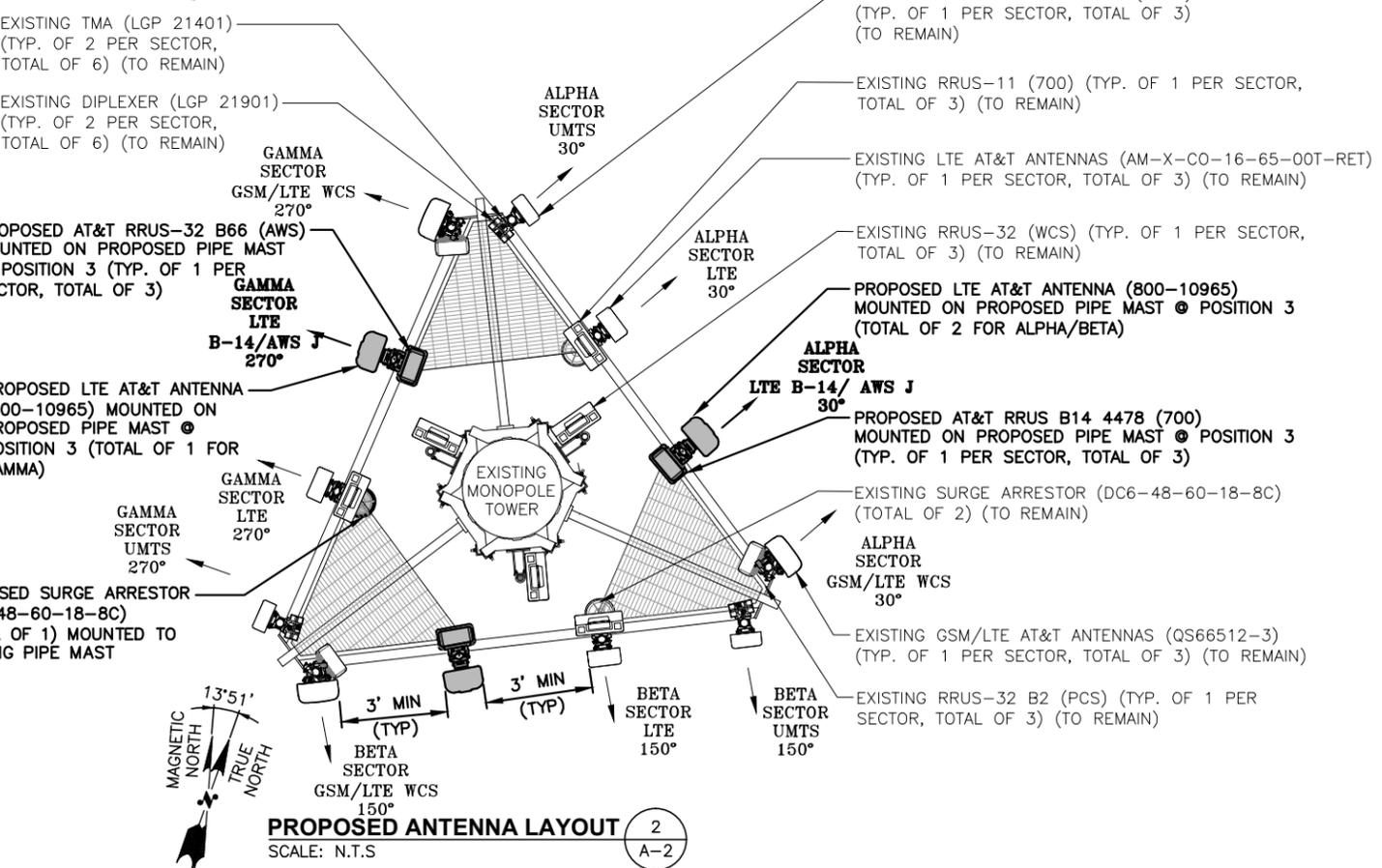
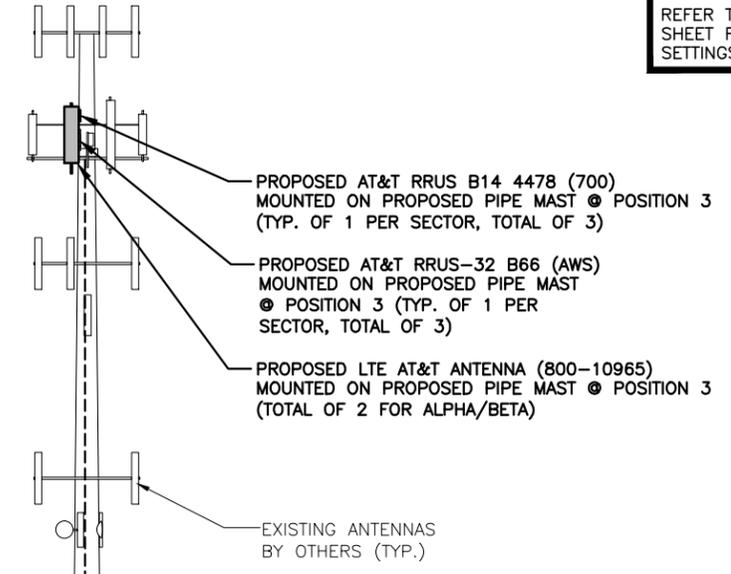
SITE NUMBER	DRAWING NUMBER	REV
CT5127	A-1	B



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 26, 2018

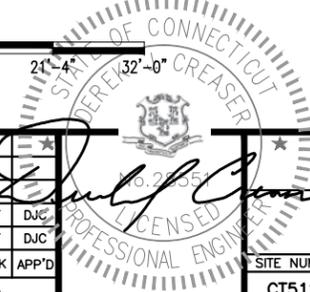
NOTE:
ALL ANTENNAS AND RRHS TO BE INSTALLED IN ACCORDANCE WITH STRUCTURAL ANALYSIS PROVIDED BY AMERICAN TOWER AND FINAL RF DATA SHEET

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



NO.	DATE	REVISIONS	BY	CHK	APP'D
B	03/07/18	ISSUED FOR PERMITTING	MR	AT	DJC
A	01/23/18	ISSUED FOR REVIEW	GA	AT	DJC

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



AT&T		
ANTENNA LAYOUTS & ELEVATION (LTE 4C_5C)		
SITE NUMBER	DRAWING NUMBER	REV
CT5127	A-2	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 26, 2018

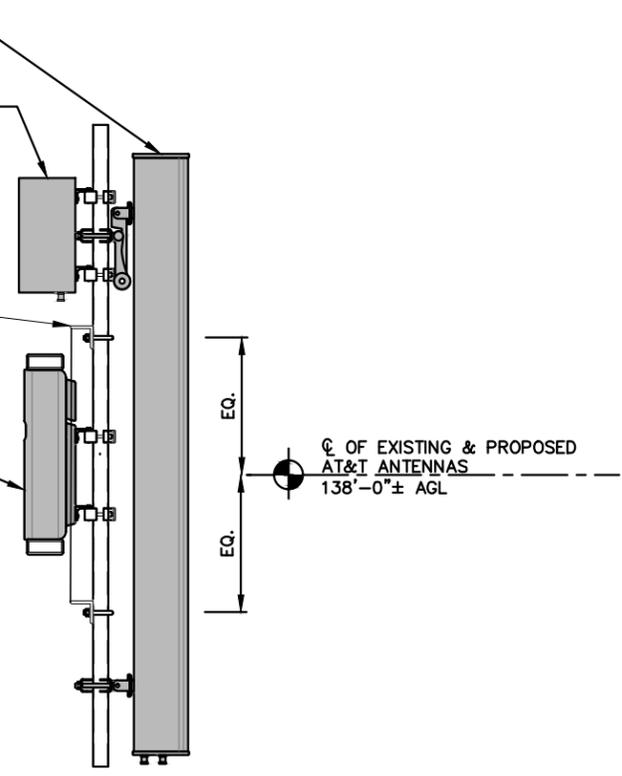
FINAL ANTENNA SCHEDULE													
SECTOR	BAND	ANTENNA	SIZE (INCHES) (L X W X D)	RAD CENTER	AZIMUTH	TMA'S	TRIPLEXERS	RRU'S	SIZE (INCHES) (L X W X D)	COAX JUMPERS	FIBER JUMPERS	COAX	
ALPHA	UMTS DB	EXISTING	7750	57X11X5	138'-0"±	30'	(2)	LGP 21401	-	-	-	(2) 1-5/8"	
	LTE 700	EXISTING	AM-X-CO-16-65-00T-RET	72X11.8X5.9	138'-0"±	30'	-	-	EXISTING	RRUS-11 (700)	-	-	
	LTE B-14/AWS J	PROPOSED	800-10965	78.7X20X6.9	138'-0"±	30'	-	-	PROPOSED PROPOSED	RRUS-32 B66 (AWS) B14 4478 (700)	1* 1*	2** 1**	-
	LTE PCS/WCS	EXISTING	QS66512-3	72X12X9.6	138'-0"±	30'	-	-	EXISTING EXISTING	RRUS-32 B2 (PCS) RRUS-32 (WCS)	-	-	(2) 1-5/8"
BETA	UMTS DB	EXISTING	7750	57X11X5	138'-0"±	150'	(2)	LGP 21401	-	-	-	(2) 1-5/8"	
	LTE 700	EXISTING	AM-X-CO-16-65-00T-RET	72X11.8X5.9	138'-0"±	150'	-	-	EXISTING	RRUS-11 (700)	-	-	
	LTE B-14/AWS J	PROPOSED	800-10965	78.7X20X6.9	138'-0"±	150'	-	-	PROPOSED PROPOSED	RRUS-32 B66 (AWS) B14 4478 (700)	1* 1*	2** 1**	-
	LTE PCS/WCS	EXISTING	QS66512-3	72X12X9.6	138'-0"±	150'	-	-	EXISTING EXISTING	RRUS-32 B2 (PCS) RRUS-32 (WCS)	-	-	(2) 1-5/8"
GAMMA	UMTS DB	EXISTING	7750	57X11X5	138'-0"±	270'	(2)	LGP 21401	-	-	-	(2) 1-5/8"	
	LTE 700	EXISTING	SBNH-1D6565C	96.4X11.9X7.1	138'-0"±	270'	-	-	EXISTING	RRUS-11 (700)	-	-	
	LTE B-14/AWS J	PROPOSED	800-10966	78.7X20X6.9	138'-0"±	270'	-	-	PROPOSED PROPOSED	RRUS-32 B66 (AWS) B14 4478 (700)	1* 1*	2** 1**	-
	LTE PCS/WCS	EXISTING	QS66512-3	72X12X9.6	138'-0"±	270'	-	-	EXISTING EXISTING	RRUS-32 B2 (PCS) RRUS-32 (WCS)	-	-	(2) 1-5/8"

PROPOSED LTE AT&T ANTENNA (800-10965) MOUNTED ON PROPOSED PIPE MAST @ POSITION 3 (TOTAL OF 2 FOR ALPHA/BETA)

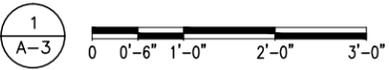
PROPOSED AT&T RRUS B14 4478 (700) MOUNTED ON PROPOSED PIPE MAST @ POSITION 3 (TYP. OF 1 PER SECTOR, TOTAL OF 3)

EXISTING MOUNTING FRAME

PROPOSED AT&T RRUS-32 B66 (AWS) MOUNTED ON PROPOSED PIPE MAST @ POSITION 3 (TYP. OF 1 PER SECTOR, TOTAL OF 3)



PROPOSED ANTENNA & RRU MOUNTING DETAIL
22x34 SCALE: 1"=1'-0"
11x17 SCALE: 1/2"=1'-0"



RRU CHART				
QUANTITY	MODEL	L	W	D
6(E)	RRUS-11	19.7"	17.0"	7.2"
6(E) 3(P)	RRUS-32	27.2"	12.1"	7.0"
3(P)	RRUS-B14	15.0"	13.2"	7.4"

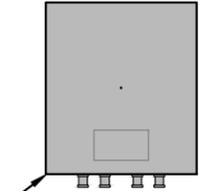
NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS

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
SCALE: N.T.S

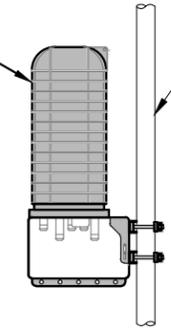


FINAL ANTENNA CONFIGURATION TABLE

3
A-3

PROPOSED SURGE ARRESTOR (TOTAL OF 1)

EXISTING PIPE MAST

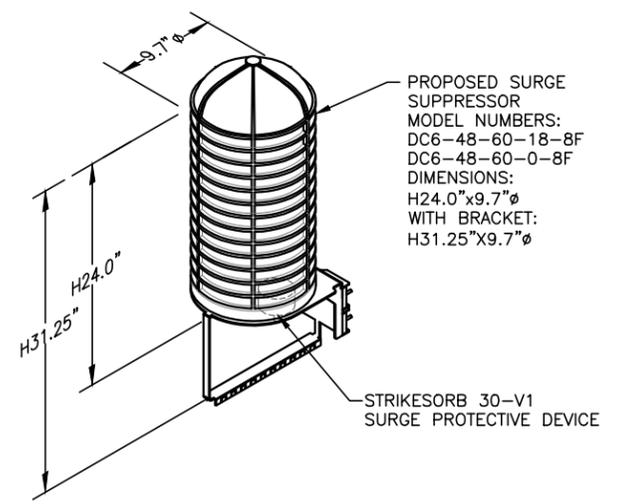


PROPOSED SURGE ARRESTOR MOUNTING DETAIL
SCALE: N.T.S

4
A-3

***COAX JUMPER NOTE:**
COAX JUMPERS (2) PER SECTOR, FROM EACH RRU (TOTAL OF 6).

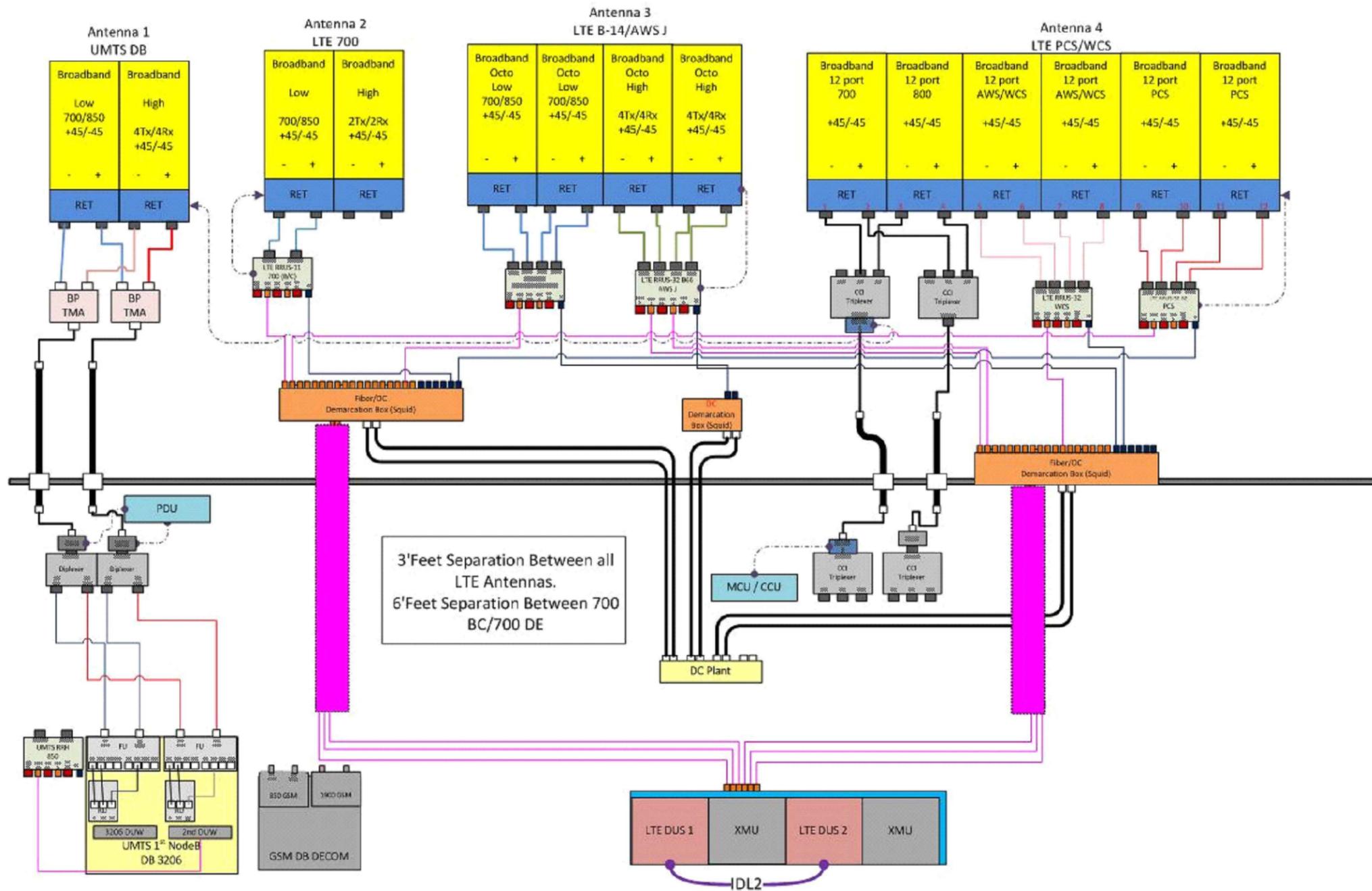
****FIBER JUMPER NOTE:**
FIBER JUMPERS (3) PER SECTOR, FROM THE SQUID TO EACH RRU (TOTAL OF 9).



NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS.

DC SURGE SUPPRESSOR DETAIL
SCALE: N.T.S

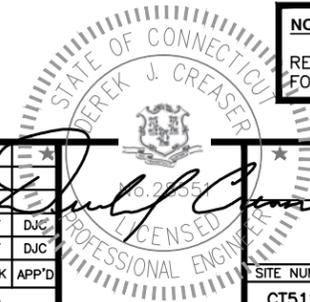
5
A-5



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

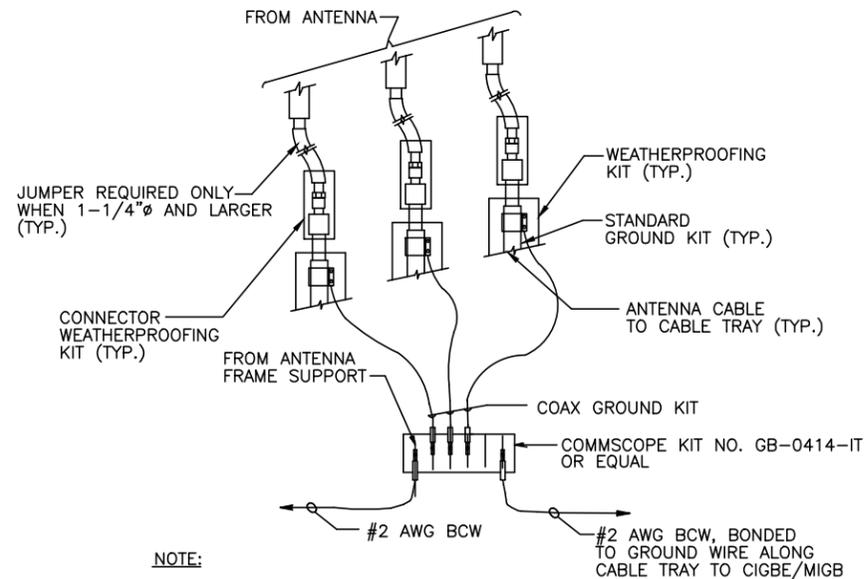


NO.	DATE	REVISIONS	BY	CHK	APP'D
B	03/07/18	ISSUED FOR PERMITTING	MR	AT	DJC
A	01/23/18	ISSUED FOR REVIEW	GA	AT	DJC
SCALE: AS SHOWN		DESIGNED BY: AT	DRAWN BY: GA		

AT&T

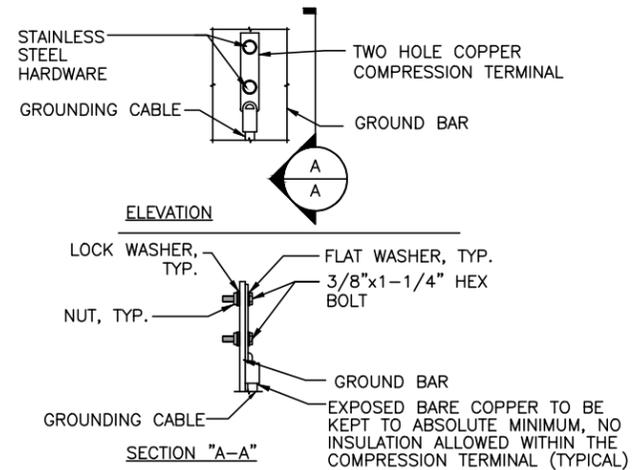
RF PLUMBING DIAGRAM
 (LTE 4C_5C)

SITE NUMBER	DRAWING NUMBER	REV
CT5127	RF-1	B



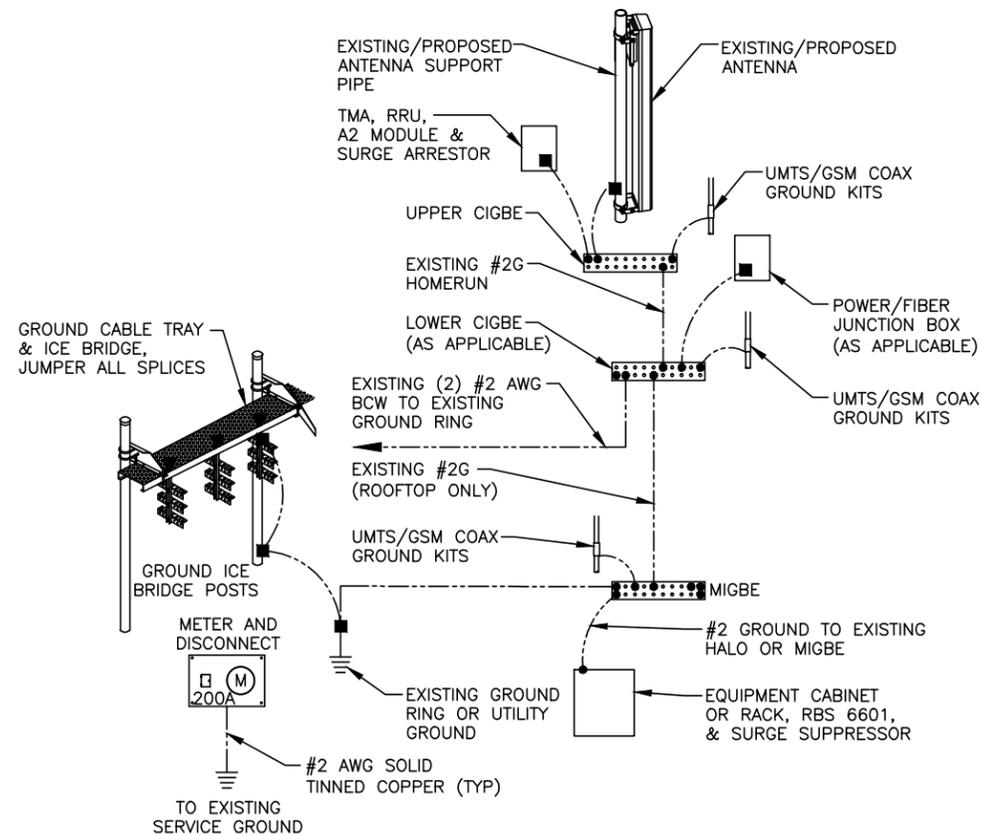
NOTE:
 1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO CIGBE.

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

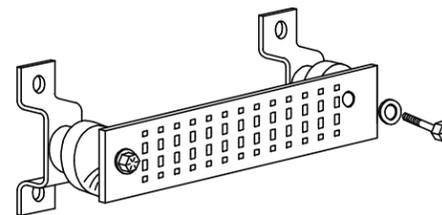
EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION.

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.

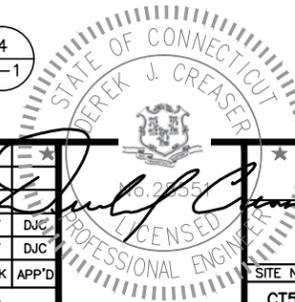
SECTION "A" - SURGE ABSORBERS

- 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

NO.	DATE	REVISIONS	BY	CHK	APP'D
B	03/07/18	ISSUED FOR PERMITTING	MR	AT	DJC
A	01/23/18	ISSUED FOR REVIEW	GA	AT	DJC
SCALE: AS SHOWN					
DESIGNED BY: AT		DRAWN BY: GA			



AT&T		
GROUNDING DETAILS (LTE 4C_5C)		
SITE NUMBER	DRAWING NUMBER	REV
CT5127	G-1	B



AMERICAN TOWER®
CORPORATION

This report was prepared for American Tower Corporation by



T O W E R
E N G I N E E R I N G
P R O F E S S I O N A L S

Structural Analysis Report

Structure : 147.9 ft Monopole
ATC Site Name : Petro Lock, CT
ATC Site Number : 302468
Engineering Number : OAA719349_C3_01
Proposed Carrier : AT&T Mobility
Carrier Site Name : I91 & 5 Split
Carrier Site Number : CT5127
Site Location : 99 Meadow St
Hartford, CT 06114-1598
41.743200,-72.667500
County : Hartford
Date : December 22, 2017
Max Usage : 64%
Result : Pass

Prepared By:
Connor J. Klein

Reviewed By:



12/28/2017

COA: PEC.0001553



Table of Contents

Introduction	1
Supporting Documents	1
Analysis	1
Conclusion.....	1
Existing and Reserved Equipment.....	2
Equipment to be Removed.....	3
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Calculations	Attached



Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 147.9 ft monopole to reflect the change in loading by AT&T Mobility.

Supporting Documents

Tower Drawings	FWT Job #21719000 Rev. 1, dated July 18, 2000
Foundation Drawing	FWT Job #21719000 Rev. 1, dated July 18, 2000
Geotechnical Report	Osprey Environmental Engineering Job #98083-01, dated August 28, 1998

Analysis

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

Basic Wind Speed:	96 mph (3-Second Gust, V_{asd}) / 123 mph (3-Second Gust, V_{ult})
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 1" radial ice concurrent
Code:	ANSI/TIA-222-G / 2012 IBC / 2016 Connecticut State Building Code
Structure Class:	II
Exposure Category:	B
Topographic Category:	1
Crest Height:	0 ft
Spectral Response:	$S_s = 0.18, S_1 = 0.06$
Site Class:	D - Stiff Soil

Conclusion

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

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



Existing and Reserved Equipment

Elevation ¹ (ft)	Mount	RAD	Qty	Antenna	Mount Type	Lines	Carrier																																																																																																															
148.0		151.0	4	Decibel DB844H90E-XY	Platform w/ Handrails	(12) 1 1/4" Coax	Sprint Nextel																																																																																																															
		148.0	8	Andrew 844G65VTZASX				137.0		137.0	6	Powerwave LGP21901	Platform w/ Handrails	(12) 1 5/8" Coax (4) 0.78" 8 AWG 6 (2) 0.39" Fiber Trunk (1) 3" Conduit	AT&T Mobility	6	Powerwave 7020.00 Dual Band RET	2	Raycap DC6-48-60-18-8F (23.5" Height)	6	Powerwave LGP21401	3	Ericsson RRUS 11 (Band 12) (55 lb)	3	Ericsson RRUS 32 B2	3	Ericsson RRUS-32 (77 lbs)	3	Powerwave 7750.00	2	KMW AM-X-CD-16-65-00T-RET	2	Quintel QS66512-3 (112 lbs.)	1	Andrew SBNH-1D6565C	1	CCI TPA-65R-LCUUUU-H8	123.0		124.0	3	Ericsson KRY 112 144/1	T-Arms	(12) 1 5/8" Coax (1) 1 5/8" Fiber	T-Mobile	3	Ericsson KRY 112 489/1	3	Ericsson AIR 32 B4A-B2P	3	RFS APX16DWV-16DWVS-E-A20	3	Andrew LNX-6515DS-VTM	3	Kathrein Smart Bias Tee	116		116.0	3	RFS APXV18-206517	Flush	(6) 1 5/8" Coax	Metro PCS	99.0		99.0	3	RFS IBC1900BB-1	Low Profile Platform	(3) 1 1/4" Hybriflex	Sprint Nextel	3	RFS IBC1900HG-2A	1	Alcatel-Lucent 800MHz 2X50W RRH w/ Filter	1	Alcatel-Lucent 4x40W RRH (88 lb)	1	Alcatel-Lucent TD-RRH8x20-25 w/ Solar Shield	3	RFS APXVTM14-C-I20	3	RFS APXVSPP18-C-A20	93.0		93.0	3	DragonWave Horizon Compact	Side Arms	(6) 5/16" Coax (3) 1/2" Coax (1) 2" Conduit	Clearwire	3	NextNet BTS-2500	3	Argus LLPX310R	2	DragonWave A-ANT-18G-2-C	1	DragonWave A-ANT-11G-2.5-C	79.0		79.0	3	Alcatel-Lucent RRH2X60-AWS	Low Profile Platform	(2) 1 5/8" Hybriflex	Verizon	3	Alcatel-Lucent RRH2x60 700	3	Alcatel-Lucent RRH2x60	2	RFS DB-T1-6Z-8AB-OZ	12	Commscope SBNHH-1D65B	20.0		20.0
137.0		137.0	6	Powerwave LGP21901	Platform w/ Handrails	(12) 1 5/8" Coax (4) 0.78" 8 AWG 6 (2) 0.39" Fiber Trunk (1) 3" Conduit	AT&T Mobility																																																																																																															
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			3	Ericsson RRUS 11 (Band 12) (55 lb)																																																																																																																		
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3	RFS APX16DWV-16DWVS-E-A20																																																																																																																					
3	Andrew LNX-6515DS-VTM																																																																																																																					
3	Kathrein Smart Bias Tee																																																																																																																					
116		116.0	3	RFS APXV18-206517	Flush	(6) 1 5/8" Coax	Metro PCS																																																																																																															
99.0		99.0	3	RFS IBC1900BB-1	Low Profile Platform	(3) 1 1/4" Hybriflex	Sprint Nextel																																																																																																															
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			12	Commscope SBNHH-1D65B																																																																																																																		
20.0		20.0	1	Lucent KS-24019	Flush	(1) 1/2" Coax	Sprint Nextel																																																																																																															



Equipment to be Removed

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

Proposed Equipment

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
137.0	137.0	3	Ericsson RRUS 4478 B14 (15")	Platform w/ Handrails	(2) 0.78" 8 AWG 6 (1) 0.39" Fiber Trunk	AT&T Mobility
		3	Ericsson RRUS 32 B66A			
		1	Raycap DC6-48-60-18-8C			
		3	Kathrein 80010965			

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

Install proposed coax inside the pole shaft.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	62%	Pass
Shaft	64%	Pass
Base Plate	32%	Pass

Foundations

Reaction Component	Analysis Reactions	% of Usage
Moment (Kips-Ft)	3,229.9	64%
Axial (Kips)	55.7	4%
Shear (Kips)	30.9	60%

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



Deflection and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
137.0	Ericsson RRUS 4478 B14 (15")	AT&T Mobility	1.225	0.883
	Ericsson RRUS 32 B66A			
	Raycap DC6-48-60-18-8C			
	Kathrein Scala 80010965			
93.0	DragonWave A-ANT-18G-2-C	Clearwire	0.601	0.705
	DragonWave A-ANT-11G-2.5-C			

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



Standard Conditions

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

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

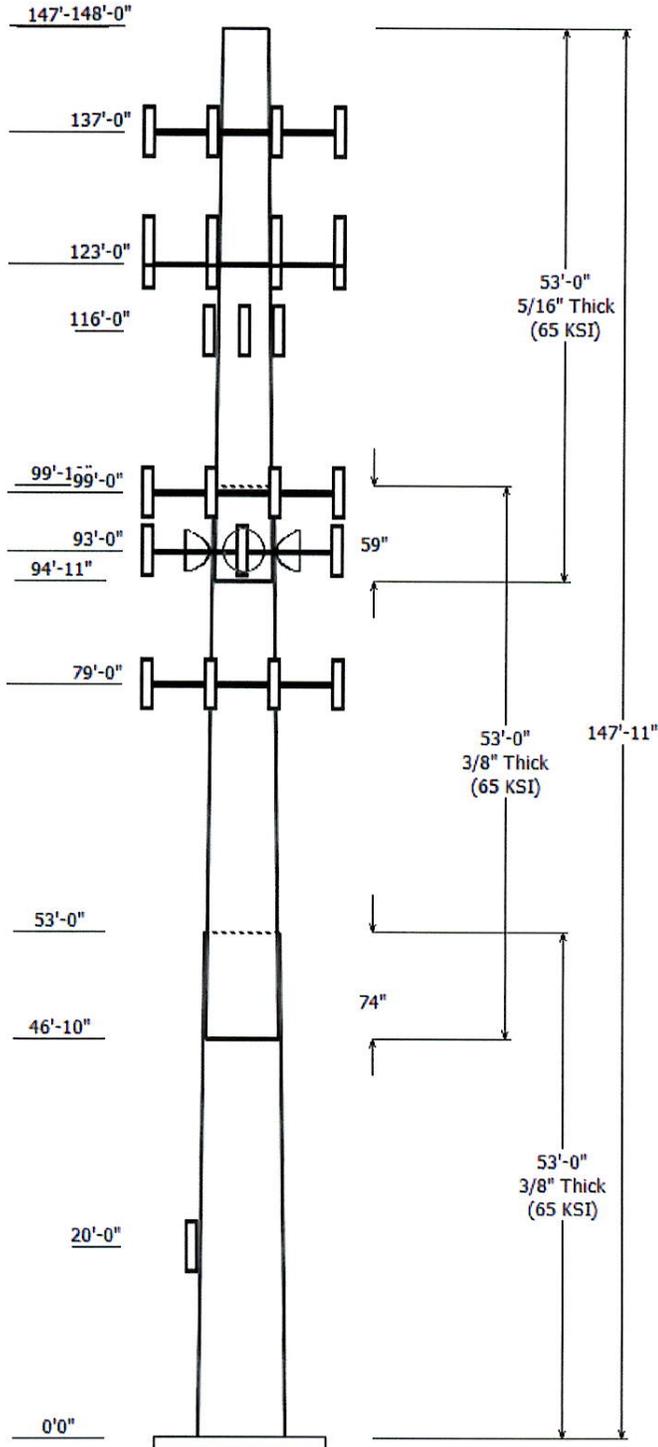
It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete.

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

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

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

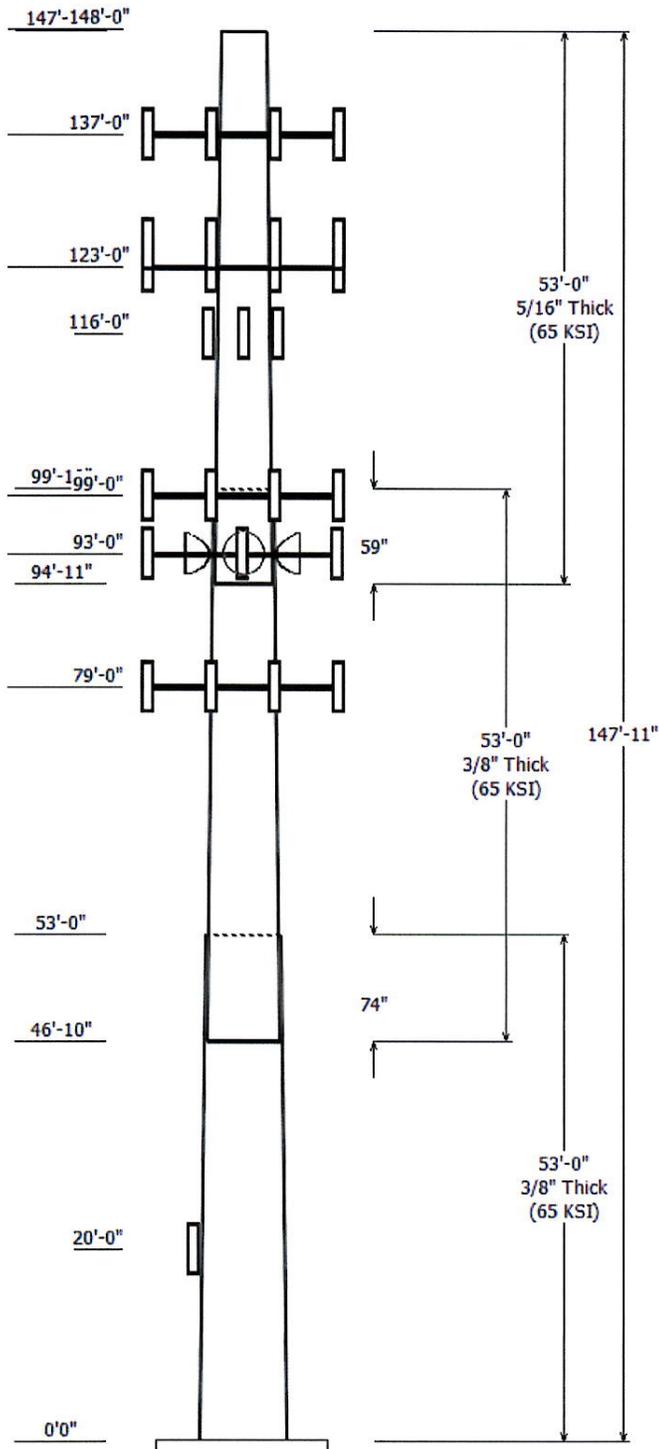
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Job Information	
Pole : 302468	Code: ANSI/TIA-222-G
Location : Petro Lock, CT	
Description : 148' FWT Monopole	
Client : AT&T MOBILITY	Struct Class : II
Shape : 18 Sides	Exposure : B
Height : 147.92 (ft)	Topo : 1
Base Elev (ft):0.00	
Taper: 0.21456in/ft)	

Sections Properties							
Shaft Section	Length (ft)	Diameter (in)		Thick (in)	Joint Type	Overlap Length (in)	Steel Grade
		Across Top	Flats Bottom				
1	53.000	45.208	56.580	0.375		0.000	Round 65
2	53.000	35.909	47.281	0.375	Slip Joint	74.000	Round 65
3	53.000	26.216	37.589	0.313	Slip Joint	59.000	Round 65

Discrete Appurtenance				
Attach Elev (ft)	Force Elev (ft)	Qty	Description	
148.000	148.000	1	Flat Platform w/ Handrails	
148.000	148.000	8	Andrew 844G65VTZASX	
148.000	151.000	4	Decibel DB844H90E-XY	
137.000	137.000	2	Quintel QS66512-3 (112 lbs.)	
137.000	137.000	1	CCI TPA-65R-LCUUUU-H8	
137.000	137.000	3	Kathrein Scala 80010965	
137.000	137.000	1	Andrew SBNH-1D6565C	
137.000	137.000	3	Ericsson RRUS-32 (77 lbs)	
137.000	137.000	3	Ericsson RRUS 32 B2	
137.000	137.000	3	Ericsson RRUS 32 B66A	
137.000	137.000	3	Ericsson RRUS 4478 B14 (15")	
137.000	137.000	1	Raycap DC6-48-60-18-8C	
137.000	137.000	1	Flat Platform w/ Handrails	
137.000	137.000	2	KMW AM-X-CD-16-65-00T-RET	
137.000	137.000	3	Powerwave Allgon 7750.00	
137.000	137.000	3	Ericsson RRUS 11 (Band 12) (55	
137.000	137.000	2	Raycap DC6-48-60-18-8F (23.5"	
137.000	137.000	6	Powerwave Allgon LGP21401	
137.000	137.000	6	Powerwave Allgon 7020.00 Dual	
137.000	137.000	6	Powerwave Allgon LGP21901	
123.000	124.000	3	Ericsson AIR 32 B4A-B2P	
123.000	124.000	3	Andrew LNX-6515DS-VTM	
123.000	124.000	3	RFS APX16DWV-16DWVVS-E-A20	
123.000	124.000	3	Ericsson KRY 112 489/1	
123.000	124.000	3	Ericsson KRY 112 144/1	
123.000	123.000	3	Kathrein Scala Smart Bias Tee	
123.000	123.000	3	Round T-Arms	
116.000	116.000	3	RFS APXV18-206517	
99.000	99.000	1	Round Low Profile Platform	
99.000	99.000	3	RFS APXVSP18-C-A20	
99.000	99.000	3	RFS APXVTM14-C-I20	
99.000	99.000	1	Alcatel-Lucent TD-RRH8x20-25 w	
99.000	99.000	1	Alcatel-Lucent 4x40W RRH (88 I	
99.000	99.000	1	Alcatel-Lucent 800 MHz 2X50W R	
99.000	99.000	3	RFS IBC1900HG-2A	
99.000	99.000	3	RFS IBC1900BB-1	
93.000	93.000	1	DragonWave A-ANT-11G-2.5-C	
93.000	93.000	3	Side Arms	
93.000	93.000	2	DragonWave A-ANT-18G-2-C	
93.000	93.000	3	Argus LLPX310R	
93.000	93.000	3	NextNet BTS-2500	
93.000	93.000	3	DragonWave Horizon Compact	
79.000	79.000	1	Flat Low Profile Platform	
79.000	79.000	12	Commscope SBNHH-1D65B	
79.000	79.000	2	RFS DB-T1-6Z-8AB-0Z	



79.000	79.000	3	Alcatel-Lucent RRH2x60
79.000	79.000	3	Alcatel-Lucent RRH2X60-AWS
79.000	79.000	3	Alcatel-Lucent RRH2x60 700
20.000	20.000	1	Lucent KS-24019

Linear Appurtenance			
Elev (ft)			
From	To	Description	Exposed To Wind
5.000	20.000	1/2" Coax	No
5.000	79.000	1 5/8" Hybriflex	Yes
5.000	93.000	1/2" Coax	No
5.000	93.000	2" Conduit	Yes
5.000	93.000	5/16" (0.31"-	No
5.000	99.000	1 1/4" Hybriflex	No
5.000	116.00	1 5/8" Coax	No
5.000	123.00	1 5/8" Coax	No
5.000	123.00	1 5/8" Coax	Yes
5.000	123.00	1 5/8" (1.63"-	No
5.000	137.00	0.39" (10mm) Fiber	No
5.000	137.00	0.39" (10mm) Fiber	No
5.000	137.00	0.78" (19.7mm) 8	No
5.000	137.00	0.78" (19.7mm) 8	No
5.000	137.00	1 5/8" Coax	No
5.000	137.00	3" Conduit	No
5.000	148.00	1 1/4" Coax	No

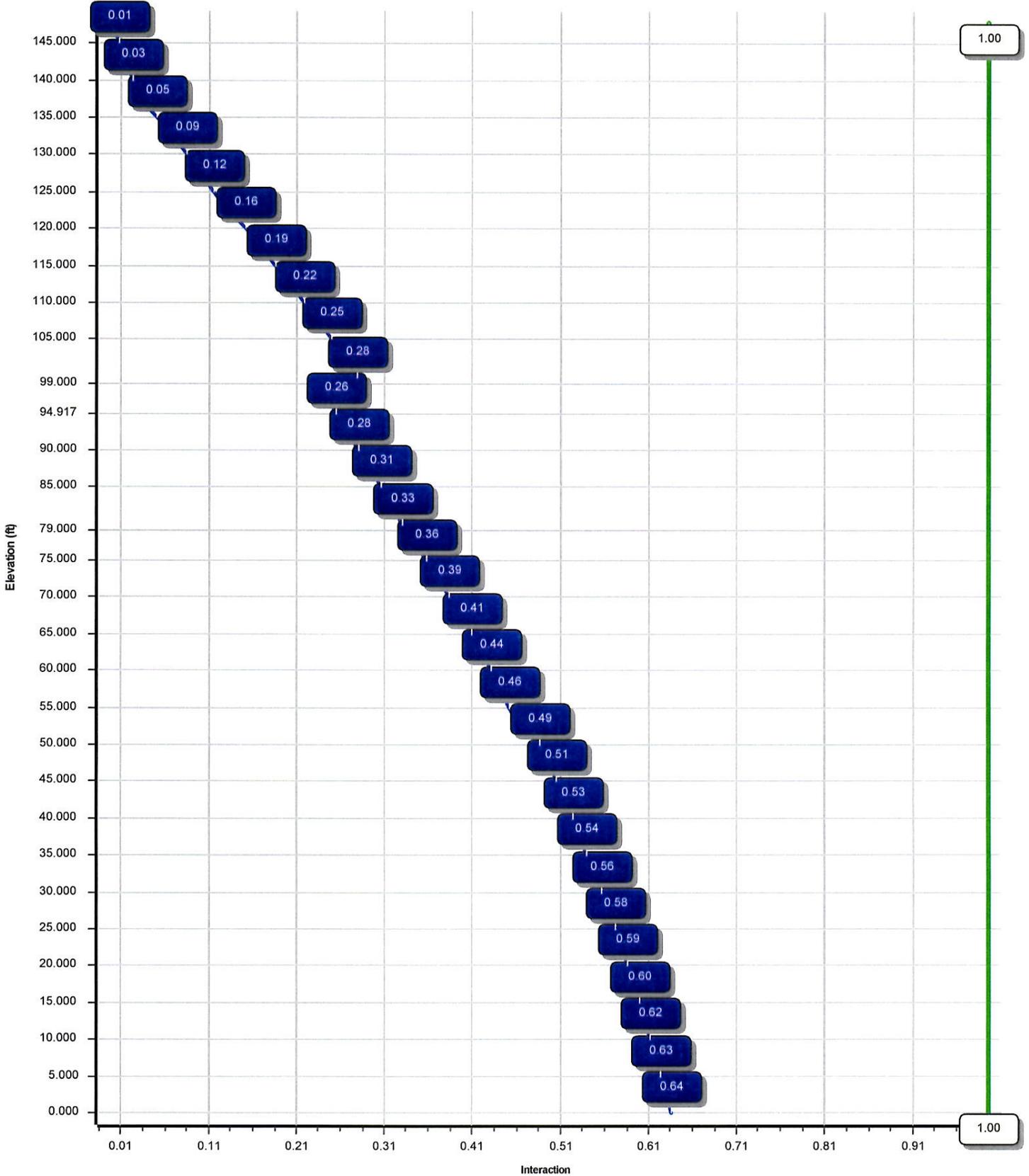
Load Cases	
1.2D + 1.6W	96 mph with No Ice
0.9D + 1.6W	96 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50 mph with 1.00 in Radial Ice
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Lateral Forces Method
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Modal Analysis Method
(0.9 - 0.2Sds) * DL + E	ELFM Seismic (Reduced DL) Equivalent Lateral
(0.9 - 0.2Sds) * DL + E	Seismic (Reduced DL) Equivalent Modal
1.0D + 1.0W	Serviceability 60 mph

Reactions			
Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
1.2D + 1.6W	3154.78	30.18	55.70
0.9D + 1.6W	3121.53	30.16	41.76
1.2D + 1.0Di + 1.0Wi	919.58	8.68	103.23
(1.2 + 0.2Sds) * DL + E ELFM	182.90	1.66	53.43
(1.2 + 0.2Sds) * DL + E EMAM	179.68	1.70	53.43
(0.9 - 0.2Sds) * DL + E ELFM	180.89	1.66	37.16
(0.9 - 0.2Sds) * DL + E EMAM	177.57	1.70	37.16
1.0D + 1.0W	765.23	7.36	46.45

Dish Deflections			
Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
1.0D + 1.0W	93.00	7.193	0.703
1.0D + 1.0W	93.00	7.193	0.703

Load Case : 1.2D + 1.6W

Max Ratio 64.00% at 0.0 ft



Site Number: 302468

Code: ANSI/TIA-222-G

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Site Name: Petro Lock, CT

Engineering Number: OAA719349_C3_01

12/28/2017 11:39:09 AM

Customer: AT&T MOBILITY

Analysis Parameters

Location :	HARTFORD County, CT	Height (ft) :	147.917
Code :	ANSI/TIA-222-G	Base Diameter (in) :	56.58
Shape :	18 Sides	Top Diameter (in) :	26.22
Pole Type :	Taper	Taper (in/ft) :	0.215
Pole Manufacturer :	FWT Inc	Rotation (deg) :	0.00

Ice & Wind Parameters

Structure Class:	II	Design Wind Speed Without Ice:	96 mph
Exposure Category:	B	Design Wind Speed With Ice:	50 mph
Topographic Category:	1	Operational Wind Speed:	60 mph
Crest Height:	0 ft	Design Ice Thickness:	1.00 in

Seismic Parameters

Analysis Method:	Equivalent Modal Analysis & Equivalent Lateral Force Methods		
Site Class:	D - Stiff Soil		
Period Based on Rayleigh Method (sec):	2.19		
T _L (sec):	6	p:	1.3
S _s :	0.181	S ₁ :	0.064
F _a :	1.600	F _v :	2.400
S _{ds} :	0.193	S _{d1} :	0.102
		C _s :	0.031
		C _s Max:	0.031
		C _s Min:	0.030

Load Cases

1.2D + 1.6W	96 mph with No Ice
0.9D + 1.6W	96 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50 mph with 1.00 in Radial Ice
(1.2 + 0.2S _{ds}) * DL + E ELFM	Seismic Equivalent Lateral Forces Method
(1.2 + 0.2S _{ds}) * DL + E EMAM	Seismic Equivalent Modal Analysis Method
(0.9 - 0.2S _{ds}) * DL + E ELFM	Seismic (Reduced DL) Equivalent Lateral Forces Method
(0.9 - 0.2S _{ds}) * DL + E EMAM	Seismic (Reduced DL) Equivalent Modal Analysis Method
1.0D + 1.0W	Serviceability 60 mph

Site Number: 302468

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Site Name: Petro Lock, CT

Engineering Number: OAA719349_C3_01

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Customer: AT&T MOBILITY

Shaft Section Properties

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Joint Len (in)	Weight (lb)	Bottom						Top						
							Dia (in)	Elev (ft)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Taper (in/ft)
1-18	53.000	0.3750	65		0.00	10,844	56.58	0.00	66.90	26698.9	24.84	150.88	45.208	53.00	53.36	13550.6	19.49	120.55	0.214568
2-18	53.000	0.3750	65	Slip	74.00	8,848	47.28	46.83	55.83	15518.7	20.47	126.08	35.909	99.83	42.29	6746.8	15.12	95.76	0.214568
3-18	53.000	0.3125	65	Slip	59.00	5,651	37.58	94.92	36.97	6490.6	19.45	120.28	26.217	147.92	25.69	2178.2	13.03	83.89	0.214568
Shaft Weight						25,342													

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	No Ice			Ice			Distance From Face (ft)	Vert Ecc (ft)
			Weight (lb)	EPAa (sf)	Orientation Factor	Weight (lb)	EPAa (sf)	Orientation Factor		
148.00	Andrew 844G65VTZASX	8	16.00	5.310	0.71	236.95	6.671	0.71	0.000	0.000
148.00	Decibel DB844H90E-XY	4	14.00	3.610	0.74	173.45	4.838	0.74	0.000	3.000
148.00	Flat Platform w/ Handrails	1	2000.00	42.400	1.00	3,894.24	70.353	1.00	0.000	0.000
137.00	Andrew SBNH-1D6565C	1	66.10	11.450	0.70	0.00	0.000	0.70	0.000	0.000
137.00	CCI TPA-65R-LCUUUU-H8	1	81.60	13.300	0.69	0.00	0.000	0.69	0.000	0.000
137.00	Ericsson RRUS 11 (Band 12)	3	55.00	2.520	0.67	169.13	3.395	0.67	0.000	0.000
137.00	Ericsson RRUS 32 B2	3	53.00	2.740	0.67	0.00	0.000	0.67	0.000	0.000
137.00	Ericsson RRUS 32 B66A	3	50.70	2.720	0.67	0.00	0.000	0.67	0.000	0.000
137.00	Ericsson RRUS 4478 B14	3	59.40	1.650	0.50	0.00	0.000	0.50	0.000	0.000
137.00	Ericsson RRUS-32 (77 lbs)	3	77.00	3.310	0.67	0.00	0.000	0.67	0.000	0.000
137.00	Flat Platform w/ Handrails	1	2000.00	42.400	1.00	3,875.37	70.075	1.00	0.000	0.000
137.00	Kathrein Scala 80010965	3	97.60	13.810	0.62	0.00	0.000	0.62	0.000	0.000
137.00	KMW AM-X-CD-16-65-00T-	2	48.50	8.020	0.67	313.27	9.761	0.67	0.000	0.000
137.00	Powerwave Allgon 7020.00	6	2.20	0.400	0.50	0.00	0.000	0.50	0.000	0.000
137.00	Powerwave Allgon 7750.00	3	27.00	5.560	0.65	217.92	6.927	0.65	0.000	0.000
137.00	Powerwave Allgon LGP21401	6	14.10	1.120	0.50	0.00	0.000	0.50	0.000	0.000
137.00	Powerwave Allgon LGP21901	6	5.50	0.230	0.50	25.59	0.526	0.50	0.000	0.000
137.00	Quintel QS66512-3 (112 lbs.)	2	112.00	8.130	0.74	0.00	0.000	0.74	0.000	0.000
137.00	Raycap DC6-48-60-18-8C	1	16.00	3.050	0.67	0.00	0.000	0.67	0.000	0.000
137.00	Raycap DC6-48-60-18-8F	2	20.00	1.110	1.00	134.43	2.744	1.00	0.000	0.000
123.00	Andrew LNX-6515DS-VTM	3	51.30	11.430	0.70	414.64	13.619	0.70	0.000	1.000
123.00	Ericsson AIR 32 B4A-B2P	3	105.80	6.520	0.71	359.23	8.027	0.71	0.000	1.000
123.00	Ericsson KRY 112 144/1	3	11.00	0.410	0.50	36.15	0.744	0.50	0.000	1.000
123.00	Ericsson KRY 112 489/1	3	15.40	0.650	0.50	52.35	1.039	0.50	0.000	1.000
123.00	Kathrein Scala Smart Bias	3	3.30	0.090	0.50	14.27	0.305	0.50	0.000	0.000
123.00	RFS APX16DWV-16DWVS-E-	3	40.70	6.590	0.66	233.95	8.082	0.66	0.000	1.000
123.00	Round T-Arms	3	250.00	9.700	0.67	523.41	20.485	0.67	0.000	0.000
116.00	RFS APXV18-206517	3	26.40	5.050	0.68	189.27	6.650	0.68	0.000	0.000
99.00	Alcatel-Lucent 4x40W RRH	1	88.00	3.260	0.67	257.14	3.341	0.67	0.000	0.000
99.00	Alcatel-Lucent 800 MHz	1	64.00	2.060	0.67	238.43	4.402	0.67	0.000	0.000
99.00	Alcatel-Lucent TD-RRH8x20-	1	70.00	4.050	0.67	219.43	5.120	0.67	0.000	0.000
99.00	RFS APXVSP18-C-A20	3	57.00	8.020	0.69	325.48	9.702	0.69	0.000	0.000
99.00	RFS APXVTM14-C-I20	3	52.90	6.340	0.66	269.04	7.783	0.66	0.000	0.000
99.00	RFS IBC1900BB-1	3	22.00	0.970	0.50	72.27	1.534	0.50	0.000	0.000
99.00	RFS IBC1900HG-2A	3	22.00	0.970	0.50	72.27	1.534	0.50	0.000	0.000
99.00	Round Low Profile Platform	1	1500.00	21.700	1.00	2,328.27	46.244	1.00	0.000	0.000
93.00	Argus LLPX310R	3	28.60	4.290	0.63	173.43	5.447	0.63	0.000	0.000
93.00	DragonWave A-ANT-11G-2.5-	1	47.60	8.670	1.00	208.92	10.856	1.00	0.000	0.000
93.00	DragonWave A-ANT-18G-2-C	2	27.10	4.690	1.00	150.57	6.302	1.00	0.000	0.000
93.00	DragonWave Horizon	3	10.60	0.430	0.50	52.89	0.759	0.50	0.000	0.000
93.00	NextNet BTS-2500	3	35.00	1.820	0.67	112.79	2.533	0.67	0.000	0.000
93.00	Side Arms	3	560.00	8.500	1.00	1,152.32	17.491	1.00	0.000	0.000
79.00	Alcatel-Lucent RRH2x60	3	60.00	3.500	0.67	158.90	6.036	0.67	0.000	0.000
79.00	Alcatel-Lucent RRH2x60 700	3	56.70	2.150	0.67	164.35	2.949	0.67	0.000	0.000
79.00	Alcatel-Lucent RRH2X60-AWS	3	44.00	1.880	0.67	136.09	2.637	0.67	0.000	0.000
79.00	Commscope SBNHH-1D65B	12	50.70	8.170	0.69	316.58	9.827	0.69	0.000	0.000
79.00	Flat Low Profile Platform	1	1500.00	26.100	1.00	2,309.79	49.963	1.00	0.000	0.000
79.00	RFS DB-T1-6Z-8AB-0Z	2	44.00	4.800	0.67	231.29	5.908	0.67	0.000	0.000

Site Number: 302468

Code: ANSI/TIA-222-G

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Engineering Number: OAA719349_C3_01

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Customer: AT&T MOBILITY

20.00	Lucent KS-24019	1	4.00	0.910	1.00	42.95	1.430	1.00	0.000	0.000
	Totals	142	14480.90			36,276.04			Number of Loadings : 49	

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Diameter (in)	Coax Weight (lb/ft)	Flat	Projected Width (in)	Exposed To Wind	Carrier
5.00	148.00	12	1 1/4" Coax	1.55	0.63	N	0.00	N	Sprint Nextel
5.00	137.00	2	0.39" (10mm) Fiber	0.39	0.06	N	0.00	N	AT&T Mobility
5.00	137.00	1	0.39" (10mm) Fiber	0.39	0.06	N	0.00	N	AT&T Mobility
5.00	137.00	4	0.78" (19.7mm) 8 AWG	60.78	0.59	N	0.00	N	AT&T Mobility
5.00	137.00	2	0.78" (19.7mm) 8 AWG	60.78	0.59	N	0.00	N	AT&T Mobility
5.00	137.00	12	1 5/8" Coax	1.98	0.82	N	0.00	N	AT&T Mobility
5.00	137.00	1	3" Conduit	3.50	7.58	N	0.00	N	AT&T Mobility
5.00	123.00	6	1 5/8" Coax	1.98	0.82	N	0.00	N	T-Mobile
5.00	123.00	6	1 5/8" Coax	1.98	0.82	N	1.98	Y	T-Mobile
5.00	123.00	1	1 5/8" (1.63"-41.3mm)	1.63	1.61	N	0.00	N	T-Mobile
5.00	116.00	6	1 5/8" Coax	1.98	0.82	N	0.00	N	Metro PCS
5.00	99.00	3	1 1/4" Hybriflex Cable	1.54	1.00	N	0.00	N	Sprint Nextel
5.00	93.00	3	1/2" Coax	0.63	0.15	N	0.00	N	Clearwire
5.00	93.00	1	2" Conduit	2.38	3.65	N	0.40	Y	Clearwire
5.00	93.00	6	5/16" (0.31"-7.9mm)	0.31	0.05	N	0.00	N	Clearwire
5.00	79.00	2	1 5/8" Hybriflex	1.98	1.30	N	0.00	Y	Verizon
5.00	20.00	1	1/2" Coax	0.63	0.15	N	0.00	N	Sprint Nextel

Site Number: 302468

Code: ANSI/TIA-222-G

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Site Name: Petro Lock, CT

Engineering Number: OAA719349_C3_01

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Customer: AT&T MOBILITY

Segment Properties (Max Len : 5. ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	F'y (ksi)	S (in ³)	Z (in ³)	Weight (lb)
0.00		0.3750	56.580	66.895	26,698.9	24.84	150.88	72.2	929.4	0.0	0.0
5.00		0.3750	55.507	65.618	25,199.0	24.34	148.02	72.8	894.2	0.0	1,127.3
10.00		0.3750	54.434	64.341	23,756.4	23.83	145.16	73.4	859.6	0.0	1,105.6
15.00		0.3750	53.361	63.065	22,369.9	23.33	142.30	74.0	825.7	0.0	1,083.8
20.00		0.3750	52.288	61.788	21,038.4	22.82	139.44	74.6	792.5	0.0	1,062.1
25.00		0.3750	51.216	60.511	19,760.8	22.32	136.57	75.2	760.0	0.0	1,040.4
30.00		0.3750	50.143	59.234	18,536.1	21.81	133.71	75.7	728.1	0.0	1,018.7
35.00		0.3750	49.070	57.957	17,363.0	21.31	130.85	76.3	696.9	0.0	996.9
40.00		0.3750	47.997	56.680	16,240.5	20.81	127.99	76.9	666.4	0.0	975.2
45.00		0.3750	46.924	55.403	15,167.4	20.30	125.13	77.5	636.6	0.0	953.5
46.83	Bot - Section 2	0.3750	46.531	54.935	14,786.1	20.12	124.08	77.7	625.9	0.0	344.2
50.00		0.3750	45.851	54.126	14,142.7	19.80	122.27	78.1	607.5	0.0	1,184.8
53.00	Top - Section 1	0.3750	45.958	54.253	14,242.1	19.85	122.55	78.1	610.4	0.0	1,106.4
55.00		0.3750	45.528	53.742	13,843.6	19.64	121.41	78.3	598.9	0.0	367.5
60.00		0.3750	44.456	52.465	12,880.1	19.14	118.55	78.9	570.7	0.0	903.5
65.00		0.3750	43.383	51.188	11,962.4	18.64	115.69	79.5	543.1	0.0	881.8
70.00		0.3750	42.310	49.911	11,089.3	18.13	112.83	80.1	516.2	0.0	860.0
75.00		0.3750	41.237	48.634	10,259.8	17.63	109.97	80.7	490.0	0.0	838.3
79.00		0.3750	40.379	47.613	9,626.8	17.22	107.68	81.1	469.6	0.0	655.0
80.00		0.3750	40.164	47.357	9,472.7	17.12	107.10	81.3	464.5	0.0	161.6
85.00		0.3750	39.091	46.081	8,726.9	16.62	104.24	81.9	439.7	0.0	794.9
90.00		0.3750	38.019	44.804	8,021.4	16.11	101.38	82.4	415.6	0.0	773.1
93.00		0.3750	37.375	44.038	7,616.9	15.81	99.67	82.6	401.4	0.0	453.5
94.92	Bot - Section 3	0.3750	36.964	43.548	7,365.7	15.62	98.57	82.6	392.5	0.0	285.6
95.00		0.3750	36.946	43.527	7,354.9	15.61	98.52	82.6	392.1	0.0	22.8
99.00		0.3750	36.088	42.505	6,849.1	15.21	96.23	82.6	373.8	0.0	1,082.7
99.83	Top - Section 2	0.3125	36.534	35.926	5,955.0	18.85	116.91	79.2	321.0	0.0	222.4
100.00		0.3125	36.498	35.890	5,937.4	18.83	116.79	79.3	320.4	0.0	20.4
105.00		0.3125	35.425	34.826	5,424.8	18.23	113.36	80.0	301.6	0.0	601.6
110.00		0.3125	34.352	33.762	4,942.6	17.62	109.93	80.7	283.4	0.0	583.5
115.00		0.3125	33.279	32.698	4,489.8	17.01	106.49	81.4	265.7	0.0	565.4
116.00		0.3125	33.065	32.485	4,402.7	16.89	105.81	81.5	262.3	0.0	110.9
120.00		0.3125	32.207	31.634	4,065.6	16.41	103.06	82.1	248.6	0.0	436.4
123.00		0.3125	31.563	30.995	3,824.4	16.05	101.00	82.5	238.7	0.0	319.7
125.00		0.3125	31.134	30.570	3,669.0	15.80	99.63	82.6	232.1	0.0	209.5
130.00		0.3125	30.061	29.506	3,299.0	15.20	96.19	82.6	216.2	0.0	511.1
135.00		0.3125	28.988	28.442	2,954.8	14.59	92.76	82.6	200.8	0.0	493.0
137.00		0.3125	28.559	28.016	2,824.1	14.35	91.39	82.6	194.8	0.0	192.1
140.00		0.3125	27.915	27.377	2,635.4	13.99	89.33	82.6	185.9	0.0	282.7
145.00		0.3125	26.842	26.313	2,339.9	13.38	85.90	82.6	171.7	0.0	456.7
147.92		0.3125	26.216	25.693	2,178.2	13.03	83.89	82.6	163.6	0.0	258.1
25,342.4											

Site Number: 302468
 Site Name: Petro Lock, CT
 Customer: AT&T MOBILITY

Code: ANSI/TIA-222-G
 Engineering Number: OAA719349_C3_01

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12/28/2017 11:39:10 AM

Load Case: 1.2D + 1.6W	96 mph with No Ice	23 Iterations
Gust Response Factor 1.10		Wind Importance Factor 1.00
Dead Load Factor :1.20		
Wind Load Factor :1.60		

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces			Sum of Forces			
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		212.8	0.0					0.0	0.0	212.8	0.0	0.0	0.0
5.00		421.5	1,352.7					0.0	0.0	421.5	1,352.7	0.0	0.0
10.00		413.4	1,326.7					0.0	331.1	413.4	1,657.8	0.0	0.0
15.00		405.2	1,300.6					0.0	331.1	405.2	1,631.7	0.0	0.0
20.00	Appurtenance(s)	397.1	1,274.5	25.1	0.0	0.0	4.8	0.0	331.1	422.2	1,610.5	0.0	0.0
25.00		388.9	1,248.5					0.0	330.2	388.9	1,578.7	0.0	0.0
30.00		385.3	1,222.4					0.0	330.2	385.3	1,552.6	0.0	0.0
35.00		389.5	1,196.3					0.0	330.2	389.5	1,526.5	0.0	0.0
40.00		395.8	1,170.3					0.0	330.2	395.8	1,500.5	0.0	0.0
45.00		272.8	1,144.2					0.0	330.2	272.8	1,474.4	0.0	0.0
46.83	Bot - Section 2	203.1	413.0					0.0	121.1	203.1	534.1	0.0	0.0
50.00		252.7	1,421.8					0.0	209.1	252.7	1,630.9	0.0	0.0
53.00	Top - Section 1	205.4	1,327.6					0.0	198.1	205.4	1,525.8	0.0	0.0
55.00		288.2	441.0					0.0	132.1	288.2	573.1	0.0	0.0
60.00		411.7	1,084.2					0.0	330.2	411.7	1,414.4	0.0	0.0
65.00		411.1	1,058.1					0.0	330.2	411.1	1,388.3	0.0	0.0
70.00		409.5	1,032.1					0.0	330.2	409.5	1,362.3	0.0	0.0
75.00		366.7	1,006.0					0.0	330.2	366.7	1,336.2	0.0	0.0
79.00	Appurtenance(s)	202.8	786.0	3,552.3	0.0	0.0	3,214.2	0.0	264.2	3,755.1	4,264.4	0.0	0.0
80.00		241.5	193.9					0.0	62.9	241.5	256.8	0.0	0.0
85.00		400.0	953.8					0.0	314.6	400.0	1,268.5	0.0	0.0
90.00		317.1	927.8					0.0	314.6	317.1	1,242.4	0.0	0.0
93.00	Appurtenance(s)	193.2	544.2	1,904.2	0.0	0.0	2,405.3	0.0	188.8	2,097.4	3,138.2	0.0	0.0
94.92	Bot - Section 3	78.3	342.7					0.0	110.6	78.3	453.3	0.0	0.0
95.00		161.2	27.4					0.0	4.8	161.2	32.2	0.0	0.0
99.00	Appurtenance(s)	190.6	1,299.2	2,035.8	0.0	0.0	2,620.4	0.0	230.7	2,226.4	4,150.4	0.0	0.0
99.83	Top - Section 2	39.2	266.8					0.0	45.1	39.2	311.9	0.0	0.0
100.00		200.7	24.4					0.0	9.0	200.7	33.5	0.0	0.0
105.00		385.1	721.9					0.0	270.4	385.1	992.3	0.0	0.0
110.00		378.4	700.2					0.0	270.4	378.4	970.6	0.0	0.0
115.00		224.5	678.4					0.0	270.4	224.5	948.8	0.0	0.0
116.00	Appurtenance(s)	183.8	133.1	419.0	0.0	0.0	95.0	0.0	54.1	602.8	282.2	0.0	0.0
120.00		255.1	523.6					0.0	192.7	255.1	716.3	0.0	0.0
123.00	Appurtenance(s)	179.9	383.6	2,351.3	0.0	1,742.0	1,719.0	0.0	144.5	2,531.2	2,247.1	0.0	0.0
125.00		247.3	251.4					0.0	68.9	247.3	320.3	0.0	0.0
130.00		347.3	613.3					0.0	172.2	347.3	785.5	0.0	0.0
135.00		238.9	591.5					0.0	172.2	238.9	763.7	0.0	0.0
137.00	Appurtenance(s)	167.0	230.5	5,365.0	0.0	0.0	4,697.5	0.0	68.9	5,532.1	4,996.9	0.0	0.0
140.00		262.1	339.3					0.0	27.2	262.1	366.5	0.0	0.0
145.00		254.9	548.1					0.0	45.4	254.9	593.5	0.0	0.0
147.92		92.5	309.7					0.0	26.5	92.5	336.2	0.0	0.0
Totals:										27,124.7553	121.98	0.00	0.00

Site Number: 302468

Code: ANSI/TIA-222-G

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Site Name: Petro Lock, CT

Engineering Number: OAA719349_C3_01

12/28/2017 11:39:15 AM

Customer: AT&T MOBILITY

Load Case: 1.2D + 1.6W	96 mph with No Ice	23 Iterations
Gust Response Factor 1.10		Wind Importance Factor 1.00
Dead Load Factor :1.20		
Wind Load Factor :1.60		

Calculated Forces

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 (deg)	Ratio
0.00	-55.70	-30.18	0.00	-3,154.78	0.00	3,154.78	4,345.86	2,172.93	10,048.44	5,031.69	0.00	0.00	0.640
5.00	-54.26	-29.91	0.00	-3,003.89	0.00	3,003.89	4,297.95	2,148.97	9,746.71	4,880.60	0.09	-0.16	0.628
10.00	-52.52	-29.64	0.00	-2,854.33	0.00	2,854.33	4,248.67	2,124.33	9,446.20	4,730.12	0.35	-0.33	0.616
15.00	-50.80	-29.38	0.00	-2,706.11	0.00	2,706.11	4,198.03	2,099.01	9,147.09	4,580.35	0.78	-0.50	0.603
20.00	-49.11	-29.08	0.00	-2,559.24	0.00	2,559.24	4,146.02	2,073.01	8,849.58	4,431.37	1.39	-0.66	0.590
25.00	-47.46	-28.81	0.00	-2,413.83	0.00	2,413.83	4,092.65	2,046.32	8,553.84	4,283.28	2.18	-0.83	0.575
30.00	-45.83	-28.54	0.00	-2,269.78	0.00	2,269.78	4,037.92	2,018.96	8,260.05	4,136.16	3.14	-1.00	0.560
35.00	-44.22	-28.25	0.00	-2,127.11	0.00	2,127.11	3,981.82	1,990.91	7,968.40	3,990.12	4.28	-1.17	0.544
40.00	-42.65	-27.94	0.00	-1,985.87	0.00	1,985.87	3,924.36	1,962.18	7,679.06	3,845.24	5.59	-1.34	0.528
45.00	-41.13	-27.72	0.00	-1,846.15	0.00	1,846.15	3,865.53	1,932.77	7,392.22	3,701.60	7.09	-1.51	0.510
46.83	-40.56	-27.56	0.00	-1,795.33	0.00	1,795.33	3,843.62	1,921.81	7,287.71	3,649.27	7.68	-1.57	0.503
50.00	-38.89	-27.33	0.00	-1,708.06	0.00	1,708.06	3,805.35	1,902.67	7,108.06	3,559.31	8.75	-1.67	0.490
53.00	-37.33	-27.14	0.00	-1,626.07	0.00	1,626.07	3,811.37	1,905.68	7,136.09	3,573.35	9.84	-1.77	0.465
55.00	-36.71	-26.90	0.00	-1,571.80	0.00	1,571.80	3,786.97	1,893.48	7,023.10	3,516.77	10.60	-1.84	0.457
60.00	-35.24	-26.54	0.00	-1,437.30	0.00	1,437.30	3,725.00	1,862.50	6,742.70	3,376.36	12.61	-2.00	0.435
65.00	-33.80	-26.16	0.00	-1,304.62	0.00	1,304.62	3,661.68	1,830.84	6,465.40	3,237.50	14.78	-2.15	0.412
70.00	-32.39	-25.78	0.00	-1,173.80	0.00	1,173.80	3,596.99	1,798.49	6,191.38	3,100.29	17.11	-2.30	0.388
75.00	-31.01	-25.43	0.00	-1,044.89	0.00	1,044.89	3,530.94	1,765.47	5,920.82	2,964.81	19.59	-2.44	0.361
79.00	-26.89	-21.52	0.00	-943.17	0.00	943.17	3,477.11	1,738.56	5,706.98	2,857.73	21.68	-2.55	0.338
80.00	-26.62	-21.31	0.00	-921.65	0.00	921.65	3,463.52	1,731.76	5,653.90	2,831.15	22.22	-2.58	0.333
85.00	-25.32	-20.91	0.00	-815.10	0.00	815.10	3,394.74	1,697.37	5,390.81	2,699.41	24.99	-2.71	0.310
90.00	-24.06	-20.57	0.00	-710.57	0.00	710.57	3,324.59	1,662.30	5,131.72	2,569.67	27.89	-2.83	0.284
93.00	-21.01	-18.34	0.00	-648.86	0.00	648.86	3,271.77	1,635.89	4,962.98	2,485.18	29.69	-2.90	0.268
94.92	-20.56	-18.25	0.00	-613.70	0.00	613.70	3,235.40	1,617.70	4,852.71	2,429.96	30.86	-2.95	0.259
95.00	-20.52	-18.10	0.00	-612.18	0.00	612.18	3,233.82	1,616.91	4,847.95	2,427.58	30.92	-2.95	0.259
99.00	-16.48	-15.68	0.00	-539.78	0.00	539.78	3,157.93	1,578.96	4,621.94	2,314.41	33.43	-3.04	0.239
99.83	-16.16	-15.62	0.00	-526.71	0.00	526.71	2,561.71	1,280.85	3,809.78	1,907.72	33.96	-3.06	0.283
100.00	-16.12	-15.44	0.00	-524.11	0.00	524.11	2,559.94	1,279.97	3,803.37	1,904.51	34.06	-3.06	0.282
105.00	-15.12	-15.03	0.00	-446.91	0.00	446.91	2,506.36	1,253.18	3,612.41	1,808.89	37.33	-3.18	0.253
110.00	-14.15	-14.62	0.00	-371.76	0.00	371.76	2,451.42	1,225.71	3,424.31	1,714.70	40.72	-3.28	0.223
115.00	-13.20	-14.36	0.00	-298.64	0.00	298.64	2,395.11	1,197.55	3,239.25	1,622.03	44.21	-3.38	0.190
116.00	-12.95	-13.75	0.00	-284.29	0.00	284.29	2,383.68	1,191.84	3,202.61	1,603.69	44.92	-3.40	0.183
120.00	-12.23	-13.46	0.00	-229.30	0.00	229.30	2,337.43	1,168.72	3,057.40	1,530.97	47.80	-3.47	0.155
123.00	-10.14	-10.81	0.00	-187.17	0.00	187.17	2,302.17	1,151.09	2,949.92	1,477.15	49.99	-3.51	0.131
125.00	-9.83	-10.55	0.00	-165.56	0.00	165.56	2,271.18	1,135.59	2,869.84	1,437.05	51.46	-3.54	0.120
130.00	-9.06	-10.16	0.00	-112.83	0.00	112.83	2,192.12	1,096.06	2,672.56	1,338.27	55.20	-3.59	0.089
135.00	-8.30	-9.87	0.00	-62.04	0.00	62.04	2,113.07	1,056.53	2,482.31	1,243.00	58.98	-3.63	0.054
137.00	-3.67	-4.04	0.00	-42.29	0.00	42.29	2,081.44	1,040.72	2,408.17	1,205.88	60.50	-3.64	0.037
140.00	-3.32	-3.75	0.00	-30.18	0.00	30.18	2,034.01	1,017.00	2,299.08	1,151.25	62.79	-3.65	0.028
145.00	-2.74	-3.46	0.00	-11.42	0.00	11.42	1,954.95	977.48	2,122.87	1,063.01	66.61	-3.66	0.012
147.92	0.00	-3.28	0.00	-1.32	0.00	1.32	1,908.83	954.42	2,023.32	1,013.16	68.85	-3.66	0.001

Site Number: 302468

Code: ANSI/TIA-222-G

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Site Name: Petro Lock, CT

Engineering Number: OAA719349_C3_01

12/28/2017 11:39:15 AM

Customer: AT&T MOBILITY

Load Case: 0.9D + 1.6W

96 mph with No Ice (Reduced DL)

23 Iterations

Gust Response Factor 1.10

Wind Importance Factor 1.00

Dead Load Factor :0.90

Wind Load Factor :1.60

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		212.8	0.0					0.0	0.0	212.8	0.0	0.0	0.0
5.00		421.5	1,014.6					0.0	0.0	421.5	1,014.6	0.0	0.0
10.00		413.4	995.0					0.0	248.3	413.4	1,243.3	0.0	0.0
15.00		405.2	975.5					0.0	248.3	405.2	1,223.8	0.0	0.0
20.00	Appurtenance(s)	397.1	955.9	25.1	0.0	0.0	3.6	0.0	248.3	422.2	1,207.8	0.0	0.0
25.00		388.9	936.3					0.0	247.7	388.9	1,184.0	0.0	0.0
30.00		385.3	916.8					0.0	247.7	385.3	1,164.5	0.0	0.0
35.00		389.5	897.2					0.0	247.7	389.5	1,144.9	0.0	0.0
40.00		395.8	877.7					0.0	247.7	395.8	1,125.4	0.0	0.0
45.00		272.8	858.1					0.0	247.7	272.8	1,105.8	0.0	0.0
46.83	Bot - Section 2	203.1	309.8					0.0	90.8	203.1	400.6	0.0	0.0
50.00		252.7	1,066.3					0.0	156.9	252.7	1,223.2	0.0	0.0
53.00	Top - Section 1	205.4	995.7					0.0	148.6	205.4	1,144.3	0.0	0.0
55.00		288.2	330.7					0.0	99.1	288.2	429.8	0.0	0.0
60.00		411.7	813.1					0.0	247.7	411.7	1,060.8	0.0	0.0
65.00		411.1	793.6					0.0	247.7	411.1	1,041.3	0.0	0.0
70.00		409.5	774.0					0.0	247.7	409.5	1,021.7	0.0	0.0
75.00		366.7	754.5					0.0	247.7	366.7	1,002.2	0.0	0.0
79.00	Appurtenance(s)	202.8	589.5	3,552.3	0.0	0.0	2,410.6	0.0	198.1	3,755.1	3,198.3	0.0	0.0
80.00		241.5	145.4					0.0	47.2	241.5	192.6	0.0	0.0
85.00		400.0	715.4					0.0	236.0	400.0	951.4	0.0	0.0
90.00		317.1	695.8					0.0	236.0	317.1	931.8	0.0	0.0
93.00	Appurtenance(s)	193.2	408.1	1,904.2	0.0	0.0	1,804.0	0.0	141.6	2,097.4	2,353.7	0.0	0.0
94.92	Bot - Section 3	78.3	257.1					0.0	82.9	78.3	340.0	0.0	0.0
95.00		161.2	20.5					0.0	3.6	161.2	24.1	0.0	0.0
99.00	Appurtenance(s)	190.6	974.4	2,035.8	0.0	0.0	1,965.3	0.0	173.0	2,226.4	3,112.8	0.0	0.0
99.83	Top - Section 2	39.2	200.1					0.0	33.8	39.2	233.9	0.0	0.0
100.00		200.7	18.3					0.0	6.8	200.7	25.1	0.0	0.0
105.00		385.1	541.4					0.0	202.8	385.1	744.2	0.0	0.0
110.00		378.4	525.1					0.0	202.8	378.4	727.9	0.0	0.0
115.00		224.5	508.8					0.0	202.8	224.5	711.6	0.0	0.0
116.00	Appurtenance(s)	183.8	99.8	419.0	0.0	0.0	71.3	0.0	40.6	602.8	211.7	0.0	0.0
120.00		255.1	392.7					0.0	144.5	255.1	537.3	0.0	0.0
123.00	Appurtenance(s)	179.9	287.7	2,351.3	0.0	1,742.0	1,289.2	0.0	108.4	2,531.2	1,685.4	0.0	0.0
125.00		247.3	188.5					0.0	51.7	247.3	240.2	0.0	0.0
130.00		347.3	460.0					0.0	129.1	347.3	589.1	0.0	0.0
135.00		238.9	443.7					0.0	129.1	238.9	572.8	0.0	0.0
137.00	Appurtenance(s)	167.0	172.9	5,365.0	0.0	0.0	3,523.1	0.0	51.7	5,532.1	3,747.7	0.0	0.0
140.00		262.1	254.5					0.0	20.4	262.1	274.9	0.0	0.0
145.00		254.9	411.1					0.0	34.0	254.9	445.1	0.0	0.0
147.92		92.5	232.3					0.0	19.8	92.5	252.1	0.0	0.0
Totals:										27,124.7539,841.48	0.00	0.00	

Site Number: 302468

Code: ANSI/TIA-222-G

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Site Name: Petro Lock, CT

Engineering Number: OAA719349_C3_01

12/28/2017 11:39:20 AM

Customer: AT&T MOBILITY

Load Case: 0.9D + 1.6W	96 mph with No Ice (Reduced DL)	23 Iterations
Gust Response Factor 1.10		Wind Importance Factor 1.00
Dead Load Factor :0.90		
Wind Load Factor :1.60		

Calculated Forces

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 (deg)	Ratio
0.00	-41.76	-30.16	0.00	-3,121.53	0.00	3,121.53	4,345.86	2,172.93	10,048.44	5,031.69	0.00	0.00	0.630
5.00	-40.66	-29.85	0.00	-2,970.74	0.00	2,970.74	4,297.95	2,148.97	9,746.71	4,880.60	0.09	-0.16	0.618
10.00	-39.34	-29.55	0.00	-2,821.48	0.00	2,821.48	4,248.67	2,124.33	9,446.20	4,730.12	0.35	-0.33	0.606
15.00	-38.03	-29.24	0.00	-2,673.75	0.00	2,673.75	4,198.03	2,099.01	9,147.09	4,580.35	0.78	-0.49	0.593
20.00	-36.75	-28.91	0.00	-2,527.55	0.00	2,527.55	4,146.02	2,073.01	8,849.58	4,431.37	1.38	-0.66	0.579
25.00	-35.48	-28.61	0.00	-2,382.99	0.00	2,382.99	4,092.65	2,046.32	8,553.84	4,283.28	2.15	-0.82	0.565
30.00	-34.24	-28.31	0.00	-2,239.93	0.00	2,239.93	4,037.92	2,018.96	8,260.05	4,136.16	3.11	-0.99	0.550
35.00	-33.03	-27.99	0.00	-2,098.39	0.00	2,098.39	3,981.82	1,990.91	7,968.40	3,990.12	4.23	-1.15	0.534
40.00	-31.83	-27.67	0.00	-1,958.42	0.00	1,958.42	3,924.36	1,962.18	7,679.06	3,845.24	5.53	-1.32	0.518
45.00	-30.68	-27.43	0.00	-1,820.09	0.00	1,820.09	3,865.53	1,932.77	7,392.22	3,701.60	7.00	-1.49	0.500
46.83	-30.24	-27.26	0.00	-1,769.81	0.00	1,769.81	3,843.62	1,921.81	7,287.71	3,649.27	7.58	-1.55	0.493
50.00	-28.98	-27.02	0.00	-1,683.50	0.00	1,683.50	3,805.35	1,902.67	7,108.06	3,559.31	8.65	-1.65	0.481
53.00	-27.80	-26.82	0.00	-1,602.44	0.00	1,602.44	3,811.37	1,905.68	7,136.09	3,573.35	9.72	-1.75	0.456
55.00	-27.33	-26.57	0.00	-1,548.79	0.00	1,548.79	3,786.97	1,893.48	7,023.10	3,516.77	10.47	-1.82	0.448
60.00	-26.21	-26.20	0.00	-1,415.92	0.00	1,415.92	3,725.00	1,862.50	6,742.70	3,376.36	12.45	-1.97	0.427
65.00	-25.12	-25.81	0.00	-1,284.95	0.00	1,284.95	3,661.68	1,830.84	6,465.40	3,237.50	14.60	-2.12	0.404
70.00	-24.05	-25.42	0.00	-1,155.88	0.00	1,155.88	3,596.99	1,798.49	6,191.38	3,100.29	16.90	-2.27	0.380
75.00	-23.01	-25.07	0.00	-1,028.76	0.00	1,028.76	3,530.94	1,765.47	5,920.82	2,964.81	19.35	-2.41	0.354
79.00	-19.95	-21.20	0.00	-928.50	0.00	928.50	3,477.11	1,738.56	5,706.98	2,857.73	21.41	-2.51	0.331
80.00	-19.74	-20.98	0.00	-907.30	0.00	907.30	3,463.52	1,731.76	5,653.90	2,831.15	21.94	-2.54	0.326
85.00	-18.77	-20.58	0.00	-802.40	0.00	802.40	3,394.74	1,697.37	5,390.81	2,699.41	24.67	-2.67	0.303
90.00	-17.82	-20.25	0.00	-699.52	0.00	699.52	3,324.59	1,662.30	5,131.72	2,569.67	27.53	-2.79	0.278
93.00	-15.55	-18.05	0.00	-638.78	0.00	638.78	3,271.77	1,635.89	4,962.98	2,485.18	29.31	-2.86	0.262
94.92	-15.21	-17.96	0.00	-604.19	0.00	604.19	3,235.40	1,617.70	4,852.71	2,429.96	30.47	-2.91	0.253
95.00	-15.18	-17.81	0.00	-602.69	0.00	602.69	3,233.82	1,616.91	4,847.95	2,427.58	30.52	-2.91	0.253
99.00	-12.17	-15.44	0.00	-531.45	0.00	531.45	3,157.93	1,578.96	4,621.94	2,314.41	32.99	-3.00	0.234
99.83	-11.94	-15.39	0.00	-518.58	0.00	518.58	2,561.71	1,280.85	3,809.78	1,907.72	33.52	-3.02	0.277
100.00	-11.91	-15.20	0.00	-516.02	0.00	516.02	2,559.94	1,279.97	3,803.37	1,904.51	33.62	-3.02	0.276
105.00	-11.16	-14.80	0.00	-440.02	0.00	440.02	2,506.36	1,253.18	3,612.41	1,808.89	36.84	-3.13	0.248
110.00	-10.42	-14.40	0.00	-366.03	0.00	366.03	2,451.42	1,225.71	3,424.31	1,714.70	40.18	-3.24	0.218
115.00	-9.71	-14.14	0.00	-294.05	0.00	294.05	2,395.11	1,197.55	3,239.25	1,622.03	43.63	-3.33	0.185
116.00	-9.53	-13.53	0.00	-279.91	0.00	279.91	2,383.68	1,191.84	3,202.61	1,603.69	44.33	-3.35	0.179
120.00	-8.99	-13.26	0.00	-225.77	0.00	225.77	2,337.43	1,168.72	3,057.40	1,530.97	47.16	-3.42	0.151
123.00	-7.46	-10.63	0.00	-184.26	0.00	184.26	2,302.17	1,151.09	2,949.92	1,477.15	49.32	-3.46	0.128
125.00	-7.22	-10.38	0.00	-163.00	0.00	163.00	2,271.18	1,135.59	2,869.84	1,437.05	50.78	-3.49	0.117
130.00	-6.65	-10.00	0.00	-111.11	0.00	111.11	2,192.12	1,096.06	2,672.56	1,338.27	54.46	-3.54	0.086
135.00	-6.09	-9.73	0.00	-61.12	0.00	61.12	2,113.07	1,056.53	2,482.31	1,243.00	58.18	-3.58	0.052
137.00	-2.69	-3.97	0.00	-41.66	0.00	41.66	2,081.44	1,040.72	2,408.17	1,205.88	59.69	-3.59	0.036
140.00	-2.44	-3.69	0.00	-29.74	0.00	29.74	2,034.01	1,017.00	2,299.08	1,151.25	61.94	-3.60	0.027
145.00	-2.01	-3.41	0.00	-11.27	0.00	11.27	1,954.95	977.48	2,122.87	1,063.01	65.71	-3.61	0.012
147.92	0.00	-3.28	0.00	-1.32	0.00	1.32	1,908.83	954.42	2,023.32	1,013.16	67.92	-3.61	0.001

Site Number: 302468

Code: ANSI/TIA-222-G

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Site Name: Petro Lock, CT

Engineering Number: OAA719349_C3_01

12/28/2017 11:39:20 AM

Customer: AT&T MOBILITY

Load Case: 1.2D + 1.0Di + 1.0Wi	50 mph with 1.00 in Radial Ice	23 Iterations
Gust Response Factor 1.10	Ice Dead Load Factor :1.00	Wind Importance Factor 1.00
Dead Load Factor :1.20		Ice Importance Factor 1.00
Wind Load Factor :1.00		

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces			Sum of Forces			
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		70.2	0.0					0.0	0.0	70.2	0.0	0.0	0.0
5.00		139.6	1,904.9					0.0	0.0	139.6	1,904.9	0.0	0.0
10.00		137.7	1,933.3					0.0	523.3	137.7	2,456.6	0.0	0.0
15.00		135.5	1,927.9					0.0	535.5	135.5	2,463.4	0.0	0.0
20.00	Appurtenance(s)	133.2	1,911.3	6.7	0.0	0.0	43.8	0.0	544.1	139.9	2,499.2	0.0	0.0
25.00		130.8	1,889.1					0.0	550.0	130.8	2,439.1	0.0	0.0
30.00		130.0	1,863.3					0.0	555.5	130.0	2,418.8	0.0	0.0
35.00		131.7	1,835.0					0.0	560.2	131.7	2,395.2	0.0	0.0
40.00		134.3	1,804.9					0.0	564.4	134.3	2,369.3	0.0	0.0
45.00		92.7	1,773.3					0.0	568.1	92.7	2,341.5	0.0	0.0
46.83	Bot - Section 2	69.1	643.7					0.0	209.2	69.1	852.9	0.0	0.0
50.00		86.1	1,823.0					0.0	362.3	86.1	2,185.3	0.0	0.0
53.00	Top - Section 1	70.0	1,705.2					0.0	344.4	70.0	2,049.5	0.0	0.0
55.00		98.5	691.6					0.0	230.2	98.5	921.8	0.0	0.0
60.00		141.0	1,700.8					0.0	577.4	141.0	2,278.2	0.0	0.0
65.00		141.2	1,665.8					0.0	580.0	141.2	2,245.8	0.0	0.0
70.00		141.1	1,630.2					0.0	582.5	141.1	2,212.6	0.0	0.0
75.00		126.6	1,594.0					0.0	584.8	126.6	2,178.8	0.0	0.0
79.00	Appurtenance(s)	70.2	1,250.1	858.6	0.0	0.0	8,217.0	0.0	469.4	928.7	9,936.4	0.0	0.0
80.00		83.8	309.7					0.0	101.2	83.8	410.9	0.0	0.0
85.00		139.1	1,520.5					0.0	507.1	139.1	2,027.5	0.0	0.0
90.00		110.6	1,483.1					0.0	508.5	110.6	1,991.5	0.0	0.0
93.00	Appurtenance(s)	67.5	873.5	547.9	0.0	0.0	4,916.3	0.0	305.7	615.4	6,095.6	0.0	0.0
94.92	Bot - Section 3	27.4	551.6					0.0	165.2	27.4	716.8	0.0	0.0
95.00		56.4	36.6					0.0	7.2	56.4	43.8	0.0	0.0
99.00	Appurtenance(s)	66.7	1,733.7	561.7	0.0	0.0	5,499.1	0.0	345.2	628.4	7,578.0	0.0	0.0
99.83	Top - Section 2	13.7	357.2					0.0	69.0	13.7	426.1	0.0	0.0
100.00		70.5	42.5					0.0	13.8	70.5	56.3	0.0	0.0
105.00		135.6	1,250.1					0.0	414.4	135.6	1,664.5	0.0	0.0
110.00		133.8	1,216.0					0.0	415.1	133.8	1,631.1	0.0	0.0
115.00		79.6	1,181.5					0.0	415.9	79.6	1,597.4	0.0	0.0
116.00	Appurtenance(s)	65.4	233.4	93.6	0.0	0.0	586.0	0.0	83.3	159.0	902.6	0.0	0.0
120.00		90.9	915.9					0.0	309.7	90.9	1,225.7	0.0	0.0
123.00	Appurtenance(s)	64.3	673.2	581.0	0.0	361.9	4,996.5	0.0	232.6	645.3	5,902.3	0.0	0.0
125.00		88.7	442.4					0.0	68.9	88.7	511.3	0.0	0.0
130.00		125.1	1,076.9					0.0	172.2	125.1	1,249.1	0.0	0.0
135.00		86.3	1,041.6					0.0	172.2	86.3	1,213.8	0.0	0.0
137.00	Appurtenance(s)	60.6	408.6	1,280.7	0.0	0.0	12,673.2	0.0	68.9	1,341.3	13,150.7	0.0	0.0
140.00		95.5	601.3					0.0	27.2	95.5	628.5	0.0	0.0
145.00		93.2	970.6					0.0	45.4	93.2	1,015.9	0.0	0.0
147.92		34.0	551.6					0.0	26.5	34.0	578.1	0.0	0.0
Totals:										7,898.2896,767.16	0.00	0.00	

Site Number: 302468

Code: ANSI/TIA-222-G

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Site Name: Petro Lock, CT

Engineering Number: OAA719349_C3_01

12/28/2017 11:39:25 AM

Customer: AT&T MOBILITY

Load Case: 1.2D + 1.0Di + 1.0Wi	50 mph with 1.00 in Radial Ice	23 Iterations
Gust Response Factor 1.10	Ice Dead Load Factor :1.00	Wind Importance Factor 1.00
Dead Load Factor :1.20		Ice Importance Factor 1.00
Wind Load Factor :1.00		

Calculated Forces

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 (deg)	Ratio
0.00	-103.23	-8.68	0.00	-919.58	0.00	919.58	4,345.86	2,172.93	10,048.44	5,031.69	0.00	0.00	0.207
5.00	-101.32	-8.63	0.00	-876.17	0.00	876.17	4,297.95	2,148.97	9,746.71	4,880.60	0.03	-0.05	0.203
10.00	-98.86	-8.57	0.00	-833.04	0.00	833.04	4,248.67	2,124.33	9,446.20	4,730.12	0.10	-0.10	0.199
15.00	-96.39	-8.51	0.00	-790.19	0.00	790.19	4,198.03	2,099.01	9,147.09	4,580.35	0.23	-0.14	0.195
20.00	-93.88	-8.44	0.00	-747.64	0.00	747.64	4,146.02	2,073.01	8,849.58	4,431.37	0.41	-0.19	0.191
25.00	-91.44	-8.38	0.00	-705.42	0.00	705.42	4,092.65	2,046.32	8,553.84	4,283.28	0.64	-0.24	0.187
30.00	-89.01	-8.32	0.00	-663.51	0.00	663.51	4,037.92	2,018.96	8,260.05	4,136.16	0.92	-0.29	0.182
35.00	-86.61	-8.25	0.00	-621.92	0.00	621.92	3,981.82	1,990.91	7,968.40	3,990.12	1.25	-0.34	0.178
40.00	-84.23	-8.17	0.00	-580.69	0.00	580.69	3,924.36	1,962.18	7,679.06	3,845.24	1.63	-0.39	0.172
45.00	-81.89	-8.11	0.00	-539.84	0.00	539.84	3,865.53	1,932.77	7,392.22	3,701.60	2.07	-0.44	0.167
46.83	-81.03	-8.07	0.00	-524.98	0.00	524.98	3,843.62	1,921.81	7,287.71	3,649.27	2.24	-0.46	0.165
50.00	-78.84	-8.01	0.00	-499.43	0.00	499.43	3,805.35	1,902.67	7,108.06	3,559.31	2.56	-0.49	0.161
53.00	-76.79	-7.95	0.00	-475.41	0.00	475.41	3,811.37	1,905.68	7,136.09	3,573.35	2.87	-0.52	0.153
55.00	-75.87	-7.89	0.00	-459.52	0.00	459.52	3,786.97	1,893.48	7,023.10	3,516.77	3.09	-0.54	0.151
60.00	-73.58	-7.78	0.00	-420.09	0.00	420.09	3,725.00	1,862.50	6,742.70	3,376.36	3.68	-0.58	0.144
65.00	-71.33	-7.67	0.00	-381.19	0.00	381.19	3,661.82	1,830.84	6,465.40	3,237.50	4.32	-0.63	0.137
70.00	-69.12	-7.55	0.00	-342.84	0.00	342.84	3,596.99	1,798.49	6,191.38	3,100.29	5.00	-0.67	0.130
75.00	-66.94	-7.44	0.00	-305.07	0.00	305.07	3,530.94	1,765.47	5,920.82	2,964.81	5.72	-0.71	0.122
79.00	-57.01	-6.41	0.00	-275.29	0.00	275.29	3,477.11	1,738.56	5,706.98	2,857.73	6.33	-0.74	0.113
80.00	-56.60	-6.34	0.00	-268.88	0.00	268.88	3,463.52	1,731.76	5,653.90	2,831.15	6.49	-0.75	0.111
85.00	-54.57	-6.21	0.00	-237.17	0.00	237.17	3,394.74	1,697.37	5,390.81	2,699.41	7.30	-0.79	0.104
90.00	-52.57	-6.10	0.00	-206.11	0.00	206.11	3,324.59	1,662.30	5,131.72	2,569.67	8.15	-0.83	0.096
93.00	-46.49	-5.41	0.00	-187.81	0.00	187.81	3,271.77	1,635.89	4,962.98	2,485.18	8.67	-0.85	0.090
94.92	-45.77	-5.38	0.00	-177.44	0.00	177.44	3,235.40	1,617.70	4,852.71	2,429.96	9.02	-0.86	0.087
95.00	-45.73	-5.33	0.00	-176.99	0.00	176.99	3,233.82	1,616.91	4,847.95	2,427.58	9.03	-0.86	0.087
99.00	-38.16	-4.60	0.00	-155.68	0.00	155.68	3,157.93	1,578.96	4,621.94	2,314.41	9.76	-0.89	0.079
99.83	-37.73	-4.58	0.00	-151.85	0.00	151.85	2,561.71	1,280.85	3,809.78	1,907.72	9.92	-0.89	0.094
100.00	-37.67	-4.52	0.00	-151.08	0.00	151.08	2,559.94	1,279.97	3,803.37	1,904.51	9.95	-0.89	0.094
105.00	-36.01	-4.38	0.00	-128.50	0.00	128.50	2,506.36	1,253.18	3,612.41	1,808.89	10.91	-0.93	0.085
110.00	-34.38	-4.23	0.00	-106.62	0.00	106.62	2,451.42	1,225.71	3,424.31	1,714.70	11.89	-0.96	0.076
115.00	-32.78	-4.14	0.00	-85.45	0.00	85.45	2,395.11	1,197.55	3,239.25	1,622.03	12.91	-0.99	0.066
116.00	-31.88	-3.97	0.00	-81.32	0.00	81.32	2,383.68	1,191.84	3,202.61	1,603.69	13.12	-0.99	0.064
120.00	-30.66	-3.86	0.00	-65.45	0.00	65.45	2,337.43	1,168.72	3,057.40	1,530.97	13.96	-1.01	0.056
123.00	-24.77	-3.12	0.00	-53.49	0.00	53.49	2,302.17	1,151.09	2,949.92	1,477.15	14.60	-1.02	0.047
125.00	-24.26	-3.03	0.00	-47.26	0.00	47.26	2,271.18	1,135.59	2,869.84	1,437.05	15.03	-1.03	0.044
130.00	-23.01	-2.88	0.00	-32.13	0.00	32.13	2,192.12	1,096.06	2,672.56	1,338.27	16.11	-1.04	0.035
135.00	-21.80	-2.78	0.00	-17.72	0.00	17.72	2,113.07	1,056.53	2,482.31	1,243.00	17.21	-1.06	0.025
137.00	-8.67	-1.19	0.00	-12.16	0.00	12.16	2,081.44	1,040.72	2,408.17	1,205.88	17.66	-1.06	0.014
140.00	-8.05	-1.09	0.00	-8.58	0.00	8.58	2,034.01	1,017.00	2,299.08	1,151.25	18.32	-1.06	0.011
145.00	-7.03	-0.97	0.00	-3.15	0.00	3.15	1,954.95	977.48	2,122.87	1,063.01	19.44	-1.06	0.007
147.92	0.00	-0.84	0.00	-0.31	0.00	0.31	1,908.83	954.42	2,023.32	1,013.16	20.09	-1.07	0.000

Site Number: 302468
 Site Name: Petro Lock, CT
 Customer: AT&T MOBILITY

Code: ANSI/TIA-222-G
 Engineering Number: OAA719349_C3_01

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Load Case: 1.0D + 1.0W	Serviceability 60 mph	22 Iterations
Gust Response Factor 1.10		Wind Importance Factor 1.00
Dead Load Factor :1.00		
Wind Load Factor :1.00		

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		52.0	0.0					0.0	0.0	52.0	0.0	0.0	0.0
5.00		102.9	1,127.3					0.0	0.0	102.9	1,127.3	0.0	0.0
10.00		100.9	1,105.6					0.0	275.9	100.9	1,381.5	0.0	0.0
15.00		98.9	1,083.8					0.0	275.9	98.9	1,359.8	0.0	0.0
20.00	Appurtenance(s)	96.9	1,062.1	6.1	0.0	0.0	4.0	0.0	275.9	103.1	1,342.0	0.0	0.0
25.00		95.0	1,040.4					0.0	275.2	95.0	1,315.6	0.0	0.0
30.00		94.1	1,018.7					0.0	275.2	94.1	1,293.8	0.0	0.0
35.00		95.1	996.9					0.0	275.2	95.1	1,272.1	0.0	0.0
40.00		96.6	975.2					0.0	275.2	96.6	1,250.4	0.0	0.0
45.00		66.6	953.5					0.0	275.2	66.6	1,228.7	0.0	0.0
46.83	Bot - Section 2	49.6	344.2					0.0	100.9	49.6	445.1	0.0	0.0
50.00		61.7	1,184.8					0.0	174.3	61.7	1,359.1	0.0	0.0
53.00	Top - Section 1	50.1	1,106.4					0.0	165.1	50.1	1,271.5	0.0	0.0
55.00		70.3	367.5					0.0	110.1	70.3	477.6	0.0	0.0
60.00		100.5	903.5					0.0	275.2	100.5	1,178.7	0.0	0.0
65.00		100.4	881.8					0.0	275.2	100.4	1,157.0	0.0	0.0
70.00		100.0	860.0					0.0	275.2	100.0	1,135.2	0.0	0.0
75.00		89.5	838.3					0.0	275.2	89.5	1,113.5	0.0	0.0
79.00	Appurtenance(s)	49.5	655.0	867.3	0.0	0.0	2,678.5	0.0	220.1	916.8	3,553.7	0.0	0.0
80.00		59.0	161.6					0.0	52.4	59.0	214.0	0.0	0.0
85.00		97.7	794.9					0.0	262.2	97.7	1,057.1	0.0	0.0
90.00		77.4	773.1					0.0	262.2	77.4	1,035.3	0.0	0.0
93.00	Appurtenance(s)	47.2	453.5	464.9	0.0	0.0	2,004.4	0.0	157.3	512.1	2,615.2	0.0	0.0
94.92	Bot - Section 3	19.1	285.6					0.0	92.1	19.1	377.7	0.0	0.0
95.00		39.4	22.8					0.0	4.0	39.4	26.8	0.0	0.0
99.00	Appurtenance(s)	46.5	1,082.7	497.0	0.0	0.0	2,183.7	0.0	192.3	543.6	3,458.7	0.0	0.0
99.83	Top - Section 2	9.6	222.4					0.0	37.6	9.6	259.9	0.0	0.0
100.00		49.0	20.4					0.0	7.5	49.0	27.9	0.0	0.0
105.00		94.0	601.6					0.0	225.3	94.0	826.9	0.0	0.0
110.00		92.4	583.5					0.0	225.3	92.4	808.8	0.0	0.0
115.00		54.8	565.4					0.0	225.3	54.8	790.7	0.0	0.0
116.00	Appurtenance(s)	44.9	110.9	102.3	0.0	0.0	79.2	0.0	45.1	147.2	235.2	0.0	0.0
120.00		62.3	436.4					0.0	160.6	62.3	597.0	0.0	0.0
123.00	Appurtenance(s)	43.9	319.7	574.0	0.0	425.3	1,432.5	0.0	120.4	618.0	1,872.6	0.0	0.0
125.00		60.4	209.5					0.0	57.4	60.4	266.9	0.0	0.0
130.00		84.8	511.1					0.0	143.5	84.8	654.6	0.0	0.0
135.00		58.3	493.0					0.0	143.5	58.3	636.4	0.0	0.0
137.00	Appurtenance(s)	40.8	192.1	1,309.8	0.0	0.0	3,914.6	0.0	57.4	1,350.6	4,164.1	0.0	0.0
140.00		64.0	282.7					0.0	22.7	64.0	305.4	0.0	0.0
145.00		62.2	456.7					0.0	37.8	62.2	494.5	0.0	0.0
147.92		22.6	258.1					0.0	22.1	22.6	280.2	0.0	0.0
Totals:										6,622.2544	2,688.32	0.00	0.00

Site Number: 302468

Code: ANSI/TIA-222-G

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Site Name: Petro Lock, CT

Engineering Number: OAA719349_C3_01

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Customer: AT&T MOBILITY

Load Case: 1.0D + 1.0W	Serviceability 60 mph	22 Iterations
Gust Response Factor 1.10		Wind Importance Factor 1.00
Dead Load Factor :1.00		
Wind Load Factor :1.00		

Calculated Forces

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 (deg)	Ratio
0.00	-46.45	-7.36	0.00	-765.23	0.00	765.23	4,345.86	2,172.93	10,048.44	5,031.69	0.00	0.00	0.163
5.00	-45.32	-7.29	0.00	-728.41	0.00	728.41	4,297.95	2,148.97	9,746.71	4,880.60	0.02	-0.04	0.160
10.00	-43.93	-7.22	0.00	-691.94	0.00	691.94	4,248.67	2,124.33	9,446.20	4,730.12	0.08	-0.08	0.157
15.00	-42.57	-7.15	0.00	-655.84	0.00	655.84	4,198.03	2,099.01	9,147.09	4,580.35	0.19	-0.12	0.153
20.00	-41.22	-7.07	0.00	-620.09	0.00	620.09	4,146.02	2,073.01	8,849.58	4,431.37	0.34	-0.16	0.150
25.00	-39.90	-7.00	0.00	-584.73	0.00	584.73	4,092.65	2,046.32	8,553.84	4,283.28	0.53	-0.20	0.146
30.00	-38.60	-6.93	0.00	-549.72	0.00	549.72	4,037.92	2,018.96	8,260.05	4,136.16	0.76	-0.24	0.142
35.00	-37.32	-6.86	0.00	-515.07	0.00	515.07	3,981.82	1,990.91	7,968.40	3,990.12	1.04	-0.28	0.138
40.00	-36.07	-6.78	0.00	-480.78	0.00	480.78	3,924.36	1,962.18	7,679.06	3,845.24	1.36	-0.32	0.134
45.00	-34.84	-6.72	0.00	-446.89	0.00	446.89	3,865.53	1,932.77	7,392.22	3,701.60	1.72	-0.36	0.130
46.83	-34.39	-6.68	0.00	-434.57	0.00	434.57	3,843.62	1,921.81	7,287.71	3,649.27	1.86	-0.38	0.128
50.00	-33.03	-6.62	0.00	-413.41	0.00	413.41	3,805.35	1,902.67	7,108.06	3,559.31	2.12	-0.41	0.125
53.00	-31.76	-6.58	0.00	-393.54	0.00	393.54	3,811.37	1,905.68	7,136.09	3,573.35	2.38	-0.43	0.118
55.00	-31.28	-6.52	0.00	-380.39	0.00	380.39	3,786.97	1,893.48	7,023.10	3,516.77	2.57	-0.45	0.116
60.00	-30.09	-6.43	0.00	-347.80	0.00	347.80	3,725.00	1,862.50	6,742.70	3,376.36	3.06	-0.48	0.111
65.00	-28.93	-6.33	0.00	-315.67	0.00	315.67	3,661.68	1,830.84	6,465.40	3,237.50	3.58	-0.52	0.105
70.00	-27.80	-6.24	0.00	-284.00	0.00	284.00	3,596.99	1,798.49	6,191.38	3,100.29	4.15	-0.56	0.099
75.00	-26.68	-6.15	0.00	-252.79	0.00	252.79	3,530.94	1,765.47	5,920.82	2,964.81	4.75	-0.59	0.093
79.00	-23.13	-5.21	0.00	-228.17	0.00	228.17	3,477.11	1,738.56	5,706.98	2,857.73	5.25	-0.62	0.087
80.00	-22.92	-5.15	0.00	-222.97	0.00	222.97	3,463.52	1,731.76	5,653.90	2,831.15	5.38	-0.62	0.085
85.00	-21.86	-5.06	0.00	-197.20	0.00	197.20	3,394.74	1,697.37	5,390.81	2,699.41	6.05	-0.66	0.080
90.00	-20.82	-4.97	0.00	-171.92	0.00	171.92	3,324.59	1,662.30	5,131.72	2,569.67	6.76	-0.69	0.073
93.00	-18.21	-4.44	0.00	-157.00	0.00	157.00	3,271.77	1,635.89	4,962.98	2,485.18	7.19	-0.70	0.069
94.92	-17.84	-4.41	0.00	-148.50	0.00	148.50	3,235.40	1,617.70	4,852.71	2,429.96	7.48	-0.71	0.067
95.00	-17.81	-4.38	0.00	-148.13	0.00	148.13	3,233.82	1,616.91	4,847.95	2,427.58	7.49	-0.71	0.067
99.00	-14.36	-3.79	0.00	-130.62	0.00	130.62	3,157.93	1,578.96	4,621.94	2,314.41	8.10	-0.74	0.061
99.83	-14.10	-3.78	0.00	-127.46	0.00	127.46	2,561.71	1,280.85	3,809.78	1,907.72	8.23	-0.74	0.072
100.00	-14.07	-3.74	0.00	-126.83	0.00	126.83	2,559.94	1,279.97	3,803.37	1,904.51	8.25	-0.74	0.072
105.00	-13.24	-3.64	0.00	-108.16	0.00	108.16	2,506.36	1,253.18	3,612.41	1,808.89	9.04	-0.77	0.065
110.00	-12.43	-3.54	0.00	-89.97	0.00	89.97	2,451.42	1,225.71	3,424.31	1,714.70	9.86	-0.80	0.058
115.00	-11.64	-3.48	0.00	-72.28	0.00	72.28	2,395.11	1,197.55	3,239.25	1,622.03	10.71	-0.82	0.049
116.00	-11.41	-3.33	0.00	-68.81	0.00	68.81	2,383.68	1,191.84	3,202.61	1,603.69	10.88	-0.82	0.048
120.00	-10.81	-3.26	0.00	-55.50	0.00	55.50	2,337.43	1,168.72	3,057.40	1,530.97	11.58	-0.84	0.041
123.00	-8.95	-2.61	0.00	-45.30	0.00	45.30	2,302.17	1,151.09	2,949.92	1,477.15	12.11	-0.85	0.035
125.00	-8.68	-2.55	0.00	-40.07	0.00	40.07	2,271.18	1,135.59	2,869.84	1,437.05	12.47	-0.86	0.032
130.00	-8.03	-2.46	0.00	-27.31	0.00	27.31	2,192.12	1,096.06	2,672.56	1,338.27	13.37	-0.87	0.024
135.00	-7.39	-2.39	0.00	-15.02	0.00	15.02	2,113.07	1,056.53	2,482.31	1,243.00	14.29	-0.88	0.016
137.00	-3.25	-0.98	0.00	-10.24	0.00	10.24	2,081.44	1,040.72	2,408.17	1,205.88	14.66	-0.88	0.010
140.00	-2.95	-0.91	0.00	-7.31	0.00	7.31	2,034.01	1,017.00	2,299.08	1,151.25	15.21	-0.88	0.008
145.00	-2.45	-0.84	0.00	-2.77	0.00	2.77	1,954.95	977.48	2,122.87	1,063.01	16.14	-0.89	0.004
147.92	0.00	-0.80	0.00	-0.32	0.00	0.32	1,908.83	954.42	2,023.32	1,013.16	16.68	-0.89	0.000

Site Number: 302468
 Site Name: Petro Lock, CT
 Customer: AT&T MOBILITY

Code: ANSI/TIA-222-G
 Engineering Number: OAA719349_C3_01

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Equivalent Lateral Forces Method Analysis

(Based on ASCE7-10 Chapters 11, 12, 15)

Spectral Response Acceleration for Short Period (S_s):	0.18
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.06
Long-Period Transition Period (T_L):	6
Importance Factor (I_p):	1.00
Site Coefficient F_a :	1.60
Site Coefficient F_v :	2.40
Response Modification Coefficient (R):	1.50
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.19
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.10
Seismic Response Coefficient (C_s):	0.03
Upper Limit C_s	0.03
Lower Limit C_s	0.03
Period based on Rayleigh Method (sec):	2.19
Redundancy Factor (p):	1.30
Seismic Force Distribution Exponent (k):	1.84
Total Unfactored Dead Load:	46.45 k
Seismic Base Shear (E):	1.88 k

Load Case (1.2 + 0.2Sds) * DL + E ELFM Seismic Equivalent Lateral Forces Method

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
40	146.46	280	2,773	0.015	29	347
39	142.50	495	4,654	0.025	48	613
38	138.50	305	2,727	0.015	28	378
37	136.00	250	2,154	0.012	22	309
36	132.50	636	5,237	0.029	54	788
35	127.50	655	5,017	0.027	52	811
34	124.00	267	1,943	0.011	20	331
33	121.50	440	3,086	0.017	32	545
32	118.00	597	3,966	0.022	41	739
31	115.50	156	996	0.005	10	193
30	112.50	791	4,811	0.026	50	979
29	107.50	809	4,525	0.025	47	1,002
28	102.50	827	4,237	0.023	44	1,024
27	99.92	28	136	0.001	1	35
26	99.42	260	1,259	0.007	13	322
25	97.00	1,275	5,901	0.032	61	1,579
24	94.96	27	119	0.001	1	33
23	93.96	378	1,648	0.009	17	468
22	91.50	611	2,538	0.014	26	757
21	87.50	1,035	3,962	0.022	41	1,282
20	82.50	1,057	3,629	0.020	37	1,309
19	79.50	214	686	0.004	7	265
18	77.00	875	2,645	0.014	27	1,084

Site Number: 302468

Code: ANSI/TIA-222-G

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Site Name: Petro Lock, CT

Engineering Number: OAA719349_C3_01

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Customer: AT&T MOBILITY

17	72.50	1,114	3,012	0.016	31	1,379
16	67.50	1,135	2,691	0.015	28	1,406
15	62.50	1,157	2,380	0.013	25	1,433
14	57.50	1,179	2,079	0.011	21	1,460
13	54.00	478	750	0.004	8	592
12	51.50	1,271	1,830	0.010	19	1,575
11	48.42	1,359	1,745	0.010	18	1,683
10	45.92	445	518	0.003	5	551
9	42.50	1,229	1,241	0.007	13	1,522
8	37.50	1,250	1,002	0.005	10	1,549
7	32.50	1,272	783	0.004	8	1,576
6	27.50	1,294	585	0.003	6	1,603
5	22.50	1,316	411	0.002	4	1,629
4	17.50	1,338	263	0.001	3	1,657
3	12.50	1,360	144	0.001	1	1,684
2	7.50	1,381	57	0.000	1	1,711
1	2.50	1,127	6	0.000	0	1,396
Decibel DB844H90E-XY	148.00	56	565	0.003	6	69
Andrew 844G65VTASX	148.00	128	1,292	0.007	13	159
Flat Platform w/ Han	148.00	2,000	20,182	0.110	208	2,477
Powerwave Allgon LGP	137.00	33	289	0.002	3	41
Powerwave Allgon 702	137.00	13	116	0.001	1	16
Raycap DC6-48-60-18-	137.00	40	350	0.002	4	50
Powerwave Allgon LGP	137.00	85	740	0.004	8	105
Ericsson RRUS 4478 B	137.00	178	1,559	0.009	16	221
Ericsson RRUS 11 (Ba	137.00	165	1,444	0.008	15	204
Ericsson RRUS 32 B66	137.00	152	1,331	0.007	14	188
Ericsson RRUS 32 B2	137.00	159	1,391	0.008	14	197
Raycap DC6-48-60-18-	137.00	16	140	0.001	1	20
Ericsson RRUS-32 (77	137.00	231	2,021	0.011	21	286
Powerwave Allgon 775	137.00	81	709	0.004	7	100
KMW AM-X-CD-16-65-00	137.00	97	849	0.005	9	120
Quintel QS66512-3 (1	137.00	224	1,960	0.011	20	277
Andrew SBNH-1D6565C	137.00	66	578	0.003	6	82
CCI TPA-65R-LCUUUU-H	137.00	82	714	0.004	7	101
Kathrein Scala 80010	137.00	293	2,562	0.014	26	363
Flat Platform w/ Han	137.00	2,000	17,502	0.096	180	2,477
Kathrein Scala Smart	123.00	10	71	0.000	1	12
Ericsson KRY 112 144	123.00	33	237	0.001	2	41
Ericsson KRY 112 489	123.00	46	331	0.002	3	57
Ericsson AIR 32 B4A-	123.00	317	2,277	0.012	23	393
RFS APX16DWV-16DWVS-	123.00	122	876	0.005	9	151
Round T-Arms	123.00	750	5,379	0.029	55	929
Andrew LNX-6515DS-VT	123.00	154	1,104	0.006	11	191
RFS APXV18-206517	116.00	79	510	0.003	5	98
RFS IBC1900BB-1	99.00	66	317	0.002	3	82
RFS IBC1900HG-2A	99.00	66	317	0.002	3	82
Alcatel-Lucent 800 M	99.00	64	308	0.002	3	79
Alcatel-Lucent 4x40W	99.00	88	423	0.002	4	109
Alcatel-Lucent TD-RR	99.00	70	336	0.002	3	87
RFS APXVTM14-C-I20	99.00	159	763	0.004	8	197
RFS APXVSP18-C-A20	99.00	171	822	0.004	8	212
Round Low Profile PI	99.00	1,500	7,209	0.039	74	1,858
DragonWave Horizon C	93.00	32	136	0.001	1	39
NextNet BTS-2500	93.00	105	450	0.002	5	130
Argus LLPX310R	93.00	86	367	0.002	4	106
DragonWave A-ANT-18G	93.00	54	232	0.001	2	67
Side Arms	93.00	1,680	7,194	0.039	74	2,081
DragonWave A-ANT-11G	93.00	48	204	0.001	2	59
Alcatel-Lucent RRRH2X	79.00	132	418	0.002	4	163
Alcatel-Lucent RRRH2x	79.00	170	539	0.003	6	211
Alcatel-Lucent RRRH2x	79.00	180	570	0.003	6	223
RFS DB-T1-6Z-8AB-0Z	79.00	88	279	0.002	3	109
Commscope SBNHH-1D65	79.00	608	1,928	0.011	20	754

Site Number: 302468

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Site Name: Petro Lock, CT

Engineering Number: OAA719349_C3_01

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Flat Low Profile Pla	79.00	1,500	4,754	0.026	49	1,858
Lucent KS-24019	20.00	4	1	0.000	0	5
		46,452	182,793	1.000	1,883	57,536

Load Case (0.9 - 0.2Sds) * DL + E ELFM Seismic (Reduced DL) Equivalent Lateral Forces Method

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
40	146.46	280	2,773	0.015	29	241
39	142.50	495	4,654	0.025	48	426
38	138.50	305	2,727	0.015	28	263
37	136.00	250	2,154	0.012	22	215
36	132.50	636	5,237	0.029	54	548
35	127.50	655	5,017	0.027	52	564
34	124.00	267	1,943	0.011	20	230
33	121.50	440	3,086	0.017	32	379
32	118.00	597	3,966	0.022	41	514
31	115.50	156	996	0.005	10	134
30	112.50	791	4,811	0.026	50	681
29	107.50	809	4,525	0.025	47	697
28	102.50	827	4,237	0.023	44	712
27	99.92	28	136	0.001	1	24
26	99.42	260	1,259	0.007	13	224
25	97.00	1,275	5,901	0.032	61	1,098
24	94.96	27	119	0.001	1	23
23	93.96	378	1,648	0.009	17	325
22	91.50	611	2,538	0.014	26	526
21	87.50	1,035	3,962	0.022	41	892
20	82.50	1,057	3,629	0.020	37	911
19	79.50	214	686	0.004	7	184
18	77.00	875	2,645	0.014	27	754
17	72.50	1,114	3,012	0.016	31	959
16	67.50	1,135	2,691	0.015	28	978
15	62.50	1,157	2,380	0.013	25	997
14	57.50	1,179	2,079	0.011	21	1,015
13	54.00	478	750	0.004	8	411
12	51.50	1,271	1,830	0.010	19	1,095
11	48.42	1,359	1,745	0.010	18	1,171
10	45.92	445	518	0.003	5	383
9	42.50	1,229	1,241	0.007	13	1,058
8	37.50	1,250	1,002	0.005	10	1,077
7	32.50	1,272	783	0.004	8	1,096
6	27.50	1,294	585	0.003	6	1,115
5	22.50	1,316	411	0.002	4	1,133
4	17.50	1,338	263	0.001	3	1,153
3	12.50	1,360	144	0.001	1	1,171
2	7.50	1,381	57	0.000	1	1,190
1	2.50	1,127	6	0.000	0	971
Decibel DB844H90E-XY	148.00	56	565	0.003	6	48
Andrew 844G65VTZASX	148.00	128	1,292	0.007	13	110
Flat Platform w/ Han	148.00	2,000	20,182	0.110	208	1,723
Powerwave Allgon LGP	137.00	33	289	0.002	3	28
Powerwave Allgon 702	137.00	13	116	0.001	1	11
Raycap DC6-48-60-18-	137.00	40	350	0.002	4	34
Powerwave Allgon LGP	137.00	85	740	0.004	8	73
Ericsson RRUS 4478 B	137.00	178	1,559	0.009	16	153
Ericsson RRUS 11 (Ba	137.00	165	1,444	0.008	15	142
Ericsson RRUS 32 B66	137.00	152	1,331	0.007	14	131
Ericsson RRUS 32 B2	137.00	159	1,391	0.008	14	137
Raycap DC6-48-60-18-	137.00	16	140	0.001	1	14

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Ericsson RRUS-32 (77	137.00	231	2,021	0.011	21	199
Powerwave Allgon 775	137.00	81	709	0.004	7	70
KMW AM-X-CD-16-65-00	137.00	97	849	0.005	9	84
Quintel QS66512-3 (1	137.00	224	1,960	0.011	20	193
Andrew SBNH-1D6565C	137.00	66	578	0.003	6	57
CCI TPA-65R-LCUUUU-H	137.00	82	714	0.004	7	70
Kathrein Scala 80010	137.00	293	2,562	0.014	26	252
Flat Platform w/ Han	137.00	2,000	17,502	0.096	180	1,723
Kathrein Scala Smart	123.00	10	71	0.000	1	9
Ericsson KRY 112 144	123.00	33	237	0.001	2	28
Ericsson KRY 112 489	123.00	46	331	0.002	3	40
Ericsson AIR 32 B4A-	123.00	317	2,277	0.012	23	273
RFS APX16DWV-16DWVS-	123.00	122	876	0.005	9	105
Round T-Arms	123.00	750	5,379	0.029	55	646
Andrew LNX-6515DS-VT	123.00	154	1,104	0.006	11	133
RFS APXV18-206517	116.00	79	510	0.003	5	68
RFS IBC1900BB-1	99.00	66	317	0.002	3	57
RFS IBC1900HG-2A	99.00	66	317	0.002	3	57
Alcatel-Lucent 800 M	99.00	64	308	0.002	3	55
Alcatel-Lucent 4x40W	99.00	88	423	0.002	4	76
Alcatel-Lucent TD-RR	99.00	70	336	0.002	3	60
RFS APXVTM14-C-I20	99.00	159	763	0.004	8	137
RFS APXVSPP18-C-A20	99.00	171	822	0.004	8	147
Round Low Profile PI	99.00	1,500	7,209	0.039	74	1,292
DragonWave Horizon C	93.00	32	136	0.001	1	27
NextNet BTS-2500	93.00	105	450	0.002	5	90
Argus LLPX310R	93.00	86	367	0.002	4	74
DragonWave A-ANT-18G	93.00	54	232	0.001	2	47
Side Arms	93.00	1,680	7,194	0.039	74	1,447
DragonWave A-ANT-11G	93.00	48	204	0.001	2	41
Alcatel-Lucent RRH2X	79.00	132	418	0.002	4	114
Alcatel-Lucent RRH2x	79.00	170	539	0.003	6	147
Alcatel-Lucent RRH2x	79.00	180	570	0.003	6	155
RFS DB-T1-6Z-8AB-0Z	79.00	88	279	0.002	3	76
Commscope SBNHH-1D65	79.00	608	1,928	0.011	20	524
Flat Low Profile Pla	79.00	1,500	4,754	0.026	49	1,292
Lucent KS-24019	20.00	4	1	0.000	0	3
		46,452	182,793	1.000	1,883	40,013

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Site Name: Petro Lock, CT

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Customer: AT&T MOBILITY

Load Case (1.2 + 0.2SDs) * DL + E ELM Seismic Equivalent Lateral Forces Method

Calculated Forces

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 (deg)	Ratio
0.00	-53.43	-1.66	0.00	-182.90	0.00	182.90	4,345.86	2,172.93	10,048.44	5,031.69	0.00	0.00	0.049
5.00	-51.72	-1.67	0.00	-174.60	0.00	174.60	4,297.95	2,148.97	9,746.71	4,880.60	0.01	-0.01	0.048
10.00	-50.04	-1.67	0.00	-166.27	0.00	166.27	4,248.67	2,124.33	9,446.20	4,730.12	0.02	-0.02	0.047
15.00	-48.38	-1.68	0.00	-157.91	0.00	157.91	4,198.03	2,099.01	9,147.09	4,580.35	0.05	-0.03	0.046
20.00	-46.75	-1.68	0.00	-149.52	0.00	149.52	4,146.02	2,073.01	8,849.58	4,431.37	0.08	-0.04	0.045
25.00	-45.14	-1.68	0.00	-141.11	0.00	141.11	4,092.65	2,046.32	8,553.84	4,283.28	0.13	-0.05	0.044
30.00	-43.57	-1.68	0.00	-132.71	0.00	132.71	4,037.92	2,018.96	8,260.05	4,136.16	0.18	-0.06	0.043
35.00	-42.02	-1.67	0.00	-124.31	0.00	124.31	3,981.82	1,990.91	7,968.40	3,990.12	0.25	-0.07	0.042
40.00	-40.50	-1.67	0.00	-115.94	0.00	115.94	3,924.36	1,962.18	7,679.06	3,845.24	0.33	-0.08	0.040
45.00	-39.95	-1.67	0.00	-107.60	0.00	107.60	3,865.53	1,932.77	7,392.22	3,701.60	0.41	-0.09	0.039
46.83	-38.26	-1.65	0.00	-104.55	0.00	104.55	3,843.62	1,921.81	7,287.71	3,649.27	0.45	-0.09	0.039
50.00	-36.69	-1.63	0.00	-99.33	0.00	99.33	3,805.35	1,902.67	7,108.06	3,559.31	0.51	-0.10	0.038
53.00	-36.10	-1.62	0.00	-94.44	0.00	94.44	3,811.37	1,905.68	7,136.09	3,573.35	0.57	-0.10	0.036
55.00	-34.64	-1.60	0.00	-91.19	0.00	91.19	3,786.97	1,893.48	7,023.10	3,516.77	0.62	-0.11	0.035
60.00	-33.20	-1.58	0.00	-83.17	0.00	83.17	3,725.00	1,862.50	6,742.70	3,376.36	0.74	-0.12	0.034
65.00	-31.80	-1.56	0.00	-75.26	0.00	75.26	3,661.68	1,830.84	6,465.40	3,237.50	0.86	-0.13	0.032
70.00	-30.42	-1.53	0.00	-67.48	0.00	67.48	3,596.99	1,798.49	6,191.38	3,100.29	1.00	-0.13	0.030
75.00	-29.33	-1.50	0.00	-59.84	0.00	59.84	3,530.94	1,765.47	5,920.82	2,964.81	1.14	-0.14	0.028
79.00	-25.75	-1.40	0.00	-53.84	0.00	53.84	3,477.11	1,738.56	5,706.98	2,857.73	1.26	-0.15	0.026
80.00	-24.44	-1.36	0.00	-52.44	0.00	52.44	3,463.52	1,731.76	5,653.90	2,831.15	1.29	-0.15	0.026
85.00	-23.16	-1.32	0.00	-45.64	0.00	45.64	3,394.74	1,697.37	5,390.81	2,699.41	1.46	-0.16	0.024
90.00	-22.40	-1.29	0.00	-39.05	0.00	39.05	3,324.59	1,662.30	5,131.72	2,569.67	1.62	-0.16	0.022
93.00	-19.45	-1.18	0.00	-35.17	0.00	35.17	3,271.77	1,635.89	4,962.98	2,485.18	1.73	-0.17	0.020
94.92	-19.42	-1.18	0.00	-32.91	0.00	32.91	3,235.40	1,617.70	4,852.71	2,429.96	1.80	-0.17	0.020
95.00	-17.84	-1.11	0.00	-32.81	0.00	32.81	3,233.82	1,616.91	4,847.95	2,427.58	1.80	-0.17	0.019
99.00	-14.81	-0.98	0.00	-28.36	0.00	28.36	3,157.93	1,578.96	4,621.94	2,314.41	1.94	-0.18	0.017
99.83	-14.78	-0.98	0.00	-27.53	0.00	27.53	2,561.71	1,280.85	3,809.78	1,907.72	1.97	-0.18	0.020
100.00	-13.75	-0.94	0.00	-27.37	0.00	27.37	2,559.94	1,279.97	3,803.37	1,904.51	1.98	-0.18	0.020
105.00	-12.75	-0.89	0.00	-22.68	0.00	22.68	2,506.36	1,253.18	3,612.41	1,808.89	2.17	-0.18	0.018
110.00	-11.77	-0.84	0.00	-18.24	0.00	18.24	2,451.42	1,225.71	3,424.31	1,714.70	2.36	-0.19	0.015
115.00	-11.58	-0.83	0.00	-14.05	0.00	14.05	2,395.11	1,197.55	3,239.25	1,622.03	2.56	-0.19	0.013
116.00	-10.74	-0.78	0.00	-13.22	0.00	13.22	2,383.68	1,191.84	3,202.61	1,603.69	2.60	-0.19	0.013
120.00	-10.20	-0.75	0.00	-10.11	0.00	10.11	2,337.43	1,168.72	3,057.40	1,530.97	2.77	-0.20	0.011
123.00	-8.09	-0.61	0.00	-7.87	0.00	7.87	2,302.17	1,151.09	2,949.92	1,477.15	2.89	-0.20	0.009
125.00	-7.28	-0.56	0.00	-6.65	0.00	6.65	2,271.18	1,135.59	2,869.84	1,437.05	2.97	-0.20	0.008
130.00	-6.49	-0.50	0.00	-3.85	0.00	3.85	2,192.12	1,096.06	2,672.56	1,338.27	3.18	-0.20	0.006
135.00	-6.18	-0.48	0.00	-1.34	0.00	1.34	2,113.07	1,056.53	2,482.31	1,243.00	3.39	-0.20	0.004
137.00	-0.96	-0.08	0.00	-0.39	0.00	0.39	2,081.44	1,040.72	2,408.17	1,205.88	3.48	-0.20	0.001
140.00	-0.35	-0.03	0.00	-0.15	0.00	0.15	2,034.01	1,017.00	2,299.08	1,151.25	3.61	-0.20	0.000
145.00	0.00	0.00	0.00	0.00	0.00	0.00	1,954.95	977.48	2,122.87	1,063.01	3.82	-0.20	0.000
147.92	0.00	0.00	0.00	0.00	0.00	0.00	1,908.83	954.42	2,023.32	1,013.16	3.94	-0.20	0.000

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Load Case (0.9 - 0.2Sds) * DL + E ELFM Seismic (Reduced DL) Equivalent Lateral Forces Method

Calculated Forces

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 (deg)	Ratio
0.00	-37.16	-1.66	0.00	-180.89	0.00	180.89	4,345.86	2,172.93	10,048.44	5,031.69	0.00	0.00	0.045
5.00	-35.97	-1.66	0.00	-172.60	0.00	172.60	4,297.95	2,148.97	9,746.71	4,880.60	0.01	-0.01	0.044
10.00	-34.80	-1.67	0.00	-164.29	0.00	164.29	4,248.67	2,124.33	9,446.20	4,730.12	0.02	-0.02	0.043
15.00	-33.65	-1.67	0.00	-155.96	0.00	155.96	4,198.03	2,099.01	9,147.09	4,580.35	0.05	-0.03	0.042
20.00	-32.51	-1.67	0.00	-147.61	0.00	147.61	4,146.02	2,073.01	8,849.58	4,431.37	0.08	-0.04	0.041
25.00	-31.39	-1.67	0.00	-139.26	0.00	139.26	4,092.65	2,046.32	8,553.84	4,283.28	0.13	-0.05	0.040
30.00	-30.30	-1.66	0.00	-130.92	0.00	130.92	4,037.92	2,018.96	8,260.05	4,136.16	0.18	-0.06	0.039
35.00	-29.22	-1.66	0.00	-122.60	0.00	122.60	3,981.82	1,990.91	7,968.40	3,990.12	0.25	-0.07	0.038
40.00	-28.16	-1.65	0.00	-114.31	0.00	114.31	3,924.36	1,962.18	7,679.06	3,845.24	0.32	-0.08	0.037
45.00	-27.78	-1.65	0.00	-106.07	0.00	106.07	3,865.53	1,932.77	7,392.22	3,701.60	0.41	-0.09	0.036
46.83	-26.61	-1.63	0.00	-103.05	0.00	103.05	3,843.62	1,921.81	7,287.71	3,649.27	0.44	-0.09	0.035
50.00	-25.51	-1.61	0.00	-97.90	0.00	97.90	3,805.35	1,902.67	7,108.06	3,559.31	0.50	-0.10	0.034
53.00	-25.10	-1.60	0.00	-93.07	0.00	93.07	3,811.37	1,905.68	7,136.09	3,573.35	0.57	-0.10	0.033
55.00	-24.09	-1.58	0.00	-89.86	0.00	89.86	3,786.97	1,893.48	7,023.10	3,516.77	0.61	-0.11	0.032
60.00	-23.09	-1.56	0.00	-81.94	0.00	81.94	3,725.00	1,862.50	6,742.70	3,376.36	0.73	-0.11	0.030
65.00	-22.11	-1.53	0.00	-74.14	0.00	74.14	3,661.68	1,830.84	6,465.40	3,237.50	0.85	-0.12	0.029
70.00	-21.15	-1.50	0.00	-66.47	0.00	66.47	3,596.99	1,798.49	6,191.38	3,100.29	0.98	-0.13	0.027
75.00	-20.40	-1.48	0.00	-58.95	0.00	58.95	3,530.94	1,765.47	5,920.82	2,964.81	1.13	-0.14	0.026
79.00	-17.91	-1.38	0.00	-53.04	0.00	53.04	3,477.11	1,738.56	5,706.98	2,857.73	1.25	-0.15	0.024
80.00	-17.00	-1.34	0.00	-51.66	0.00	51.66	3,463.52	1,731.76	5,653.90	2,831.15	1.28	-0.15	0.023
85.00	-16.10	-1.30	0.00	-44.97	0.00	44.97	3,394.74	1,697.37	5,390.81	2,699.41	1.44	-0.15	0.021
90.00	-15.58	-1.27	0.00	-38.48	0.00	38.48	3,324.59	1,662.30	5,131.72	2,569.67	1.60	-0.16	0.020
93.00	-13.53	-1.16	0.00	-34.66	0.00	34.66	3,271.77	1,635.89	4,962.98	2,485.18	1.71	-0.17	0.018
94.92	-13.50	-1.16	0.00	-32.43	0.00	32.43	3,235.40	1,617.70	4,852.71	2,429.96	1.77	-0.17	0.018
95.00	-12.40	-1.10	0.00	-32.34	0.00	32.34	3,233.82	1,616.91	4,847.95	2,427.58	1.78	-0.17	0.017
99.00	-10.30	-0.97	0.00	-27.95	0.00	27.95	3,157.93	1,578.96	4,621.94	2,314.41	1.92	-0.17	0.015
99.83	-10.28	-0.97	0.00	-27.14	0.00	27.14	2,561.71	1,280.85	3,809.78	1,907.72	1.95	-0.17	0.018
100.00	-9.56	-0.92	0.00	-26.98	0.00	26.98	2,559.94	1,279.97	3,803.37	1,904.51	1.95	-0.17	0.018
105.00	-8.87	-0.88	0.00	-22.36	0.00	22.36	2,506.36	1,253.18	3,612.41	1,808.89	2.14	-0.18	0.016
110.00	-8.19	-0.83	0.00	-17.97	0.00	17.97	2,451.42	1,225.71	3,424.31	1,714.70	2.33	-0.19	0.014
115.00	-8.05	-0.81	0.00	-13.85	0.00	13.85	2,395.11	1,197.55	3,239.25	1,622.03	2.53	-0.19	0.012
116.00	-7.47	-0.77	0.00	-13.03	0.00	13.03	2,383.68	1,191.84	3,202.61	1,603.69	2.57	-0.19	0.011
120.00	-7.09	-0.73	0.00	-9.96	0.00	9.96	2,337.43	1,168.72	3,057.40	1,530.97	2.73	-0.19	0.010
123.00	-5.63	-0.60	0.00	-7.76	0.00	7.76	2,302.17	1,151.09	2,949.92	1,477.15	2.85	-0.20	0.008
125.00	-5.06	-0.55	0.00	-6.55	0.00	6.55	2,271.18	1,135.59	2,869.84	1,437.05	2.93	-0.20	0.007
130.00	-4.52	-0.49	0.00	-3.80	0.00	3.80	2,192.12	1,096.06	2,672.56	1,338.27	3.14	-0.20	0.005
135.00	-4.30	-0.47	0.00	-1.33	0.00	1.33	2,113.07	1,056.53	2,482.31	1,243.00	3.35	-0.20	0.003
137.00	-0.67	-0.08	0.00	-0.38	0.00	0.38	2,081.44	1,040.72	2,408.17	1,205.88	3.43	-0.20	0.001
140.00	-0.24	-0.03	0.00	-0.15	0.00	0.15	2,034.01	1,017.00	2,299.08	1,151.25	3.56	-0.20	0.000
145.00	0.00	0.00	0.00	0.00	0.00	0.00	1,954.95	977.48	2,122.87	1,063.01	3.77	-0.20	0.000
147.92	0.00	0.00	0.00	0.00	0.00	0.00	1,908.83	954.42	2,023.32	1,013.16	3.89	-0.20	0.000

Site Number: 302468

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Site Name: Petro Lock, CT

Engineering Number: OAA719349_C3_01

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Customer: AT&T MOBILITY

Equivalent Modal Forces Analysis

(Based on ASCE7-10 Chapters 11, 12 & 15 and ANSI/TIA-G, section 2.7)

Spectral Response Acceleration for Short Period (S_s):	0.18
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.06
Importance Factor (I_E):	1.00
Site Coefficient F_a :	1.60
Site Coefficient F_v :	2.40
Response Modification Coefficient (R):	1.50
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.19
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.10
Period Based on Rayleigh Method (sec):	2.19
Redundancy Factor (ρ):	1.30

Load Case (1.2 + 0.2Sds) * DL + E EMAM Seismic Equivalent Modal Analysis Method

Segment	Height Above Base (ft)	Weight (lb)	a	b	c	Saz	Horizontal Force (lb)	Vertical Force (lb)
40	146.46	280	1.853	1.790	1.071	0.345	84	347
39	142.50	495	1.754	1.338	0.900	0.284	122	613
38	138.50	305	1.657	0.966	0.750	0.228	60	378
37	136.00	250	1.598	0.771	0.667	0.196	42	309
36	132.50	636	1.517	0.543	0.563	0.155	85	788
35	127.50	655	1.404	0.292	0.436	0.103	58	811
34	124.00	267	1.328	0.162	0.362	0.071	16	331
33	121.50	440	1.275	0.088	0.315	0.051	20	545
32	118.00	597	1.203	0.007	0.257	0.027	14	739
31	115.50	156	1.152	-0.036	0.221	0.012	2	193
30	112.50	791	1.093	-0.074	0.183	-0.004	-3	979
29	107.50	809	0.998	-0.110	0.130	-0.023	-16	1,002
28	102.50	827	0.908	-0.122	0.090	-0.034	-25	1,024
27	99.92	28	0.862	-0.120	0.074	-0.037	-1	35
26	99.42	260	0.854	-0.119	0.071	-0.037	-8	322
25	97.00	1,275	0.813	-0.114	0.058	-0.038	-42	1,579
24	94.96	27	0.779	-0.108	0.048	-0.037	-1	33
23	93.96	378	0.763	-0.104	0.044	-0.036	-12	468
22	91.50	611	0.723	-0.094	0.035	-0.032	-17	757
21	87.50	1,035	0.661	-0.074	0.023	-0.024	-22	1,282
20	82.50	1,057	0.588	-0.049	0.013	-0.010	-9	1,309
19	79.50	214	0.546	-0.033	0.010	-0.001	0	265
18	77.00	875	0.512	-0.021	0.008	0.007	5	1,084
17	72.50	1,114	0.454	0.000	0.006	0.020	20	1,379
16	67.50	1,135	0.394	0.020	0.007	0.033	32	1,406
15	62.50	1,157	0.337	0.036	0.009	0.041	42	1,433
14	57.50	1,179	0.286	0.048	0.014	0.047	48	1,460
13	54.00	478	0.252	0.055	0.017	0.049	20	592
12	51.50	1,271	0.229	0.059	0.020	0.050	55	1,575
11	48.42	1,359	0.202	0.062	0.023	0.050	59	1,683
10	45.92	445	0.182	0.065	0.026	0.050	19	551
9	42.50	1,229	0.156	0.067	0.029	0.050	53	1,522
8	37.50	1,250	0.121	0.070	0.034	0.049	53	1,549
7	32.50	1,272	0.091	0.071	0.038	0.048	52	1,576

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6	27.50	1,294	0.065	0.072	0.041	0.046	52	1,603
5	22.50	1,316	0.044	0.071	0.042	0.045	51	1,629
4	17.50	1,338	0.026	0.067	0.040	0.042	49	1,657
3	12.50	1,360	0.013	0.059	0.035	0.038	45	1,684
2	7.50	1,381	0.005	0.044	0.025	0.030	36	1,711
1	2.50	1,127	0.001	0.018	0.010	0.014	13	1,396
Decibel DB844H90E-XY	148.00	56	1.892	1.991	1.144	0.370	18	69
Andrew 844G65VTZASX	148.00	128	1.892	1.991	1.144	0.370	41	159
Flat Platform w/ Han	148.00	2,000	1.892	1.991	1.144	0.370	641	2,477
Powerwave Allgon LGP	137.00	33	1.621	0.846	0.699	0.209	6	41
Powerwave Allgon 702	137.00	13	1.621	0.846	0.699	0.209	2	16
Raycap DC6-48-60-18-	137.00	40	1.621	0.846	0.699	0.209	7	50
Powerwave Allgon LGP	137.00	85	1.621	0.846	0.699	0.209	15	105
Ericsson RRUS 4478 B	137.00	178	1.621	0.846	0.699	0.209	32	221
Ericsson RRUS 11 (Ba	137.00	165	1.621	0.846	0.699	0.209	30	204
Ericsson RRUS 32 B66	137.00	152	1.621	0.846	0.699	0.209	28	188
Ericsson RRUS 32 B2	137.00	159	1.621	0.846	0.699	0.209	29	197
Raycap DC6-48-60-18-	137.00	16	1.621	0.846	0.699	0.209	3	20
Ericsson RRUS-32 (77	137.00	231	1.621	0.846	0.699	0.209	42	286
Powerwave Allgon 775	137.00	81	1.621	0.846	0.699	0.209	15	100
KMW AM-X-CD-16-65-00	137.00	97	1.621	0.846	0.699	0.209	18	120
Quintel QS66512-3 (1	137.00	224	1.621	0.846	0.699	0.209	41	277
Andrew SBNH-1D6565C	137.00	66	1.621	0.846	0.699	0.209	12	82
CCI TPA-65R-LCUUUU-H	137.00	82	1.621	0.846	0.699	0.209	15	101
Kathrein Scala 80010	137.00	293	1.621	0.846	0.699	0.209	53	363
Flat Platform w/ Han	137.00	2,000	1.621	0.846	0.699	0.209	362	2,477
Kathrein Scala Smart	123.00	10	1.307	0.130	0.342	0.063	1	12
Ericsson KRY 112 144	123.00	33	1.307	0.130	0.342	0.063	2	41
Ericsson KRY 112 489	123.00	46	1.307	0.130	0.342	0.063	3	57
Ericsson AIR 32 B4A-	123.00	317	1.307	0.130	0.342	0.063	17	393
RFS APX16DWV-	123.00	122	1.307	0.130	0.342	0.063	7	151
Round T-Arms	123.00	750	1.307	0.130	0.342	0.063	41	929
Andrew LNX-6515DS-VT	123.00	154	1.307	0.130	0.342	0.063	8	191
RFS APXV18-206517	116.00	79	1.162	-0.028	0.228	0.015	1	98
RFS IBC1900BB-1	99.00	66	0.847	-0.119	0.068	-0.037	-2	82
RFS IBC1900HG-2A	99.00	66	0.847	-0.119	0.068	-0.037	-2	82
Alcatel-Lucent 800 M	99.00	64	0.847	-0.119	0.068	-0.037	-2	79
Alcatel-Lucent 4x40W	99.00	88	0.847	-0.119	0.068	-0.037	-3	109
Alcatel-Lucent TD-RR	99.00	70	0.847	-0.119	0.068	-0.037	-2	87
RFS APXVTM14-C-I20	99.00	159	0.847	-0.119	0.068	-0.037	-5	197
RFS APXVSP18-C-A20	99.00	171	0.847	-0.119	0.068	-0.037	-6	212
Round Low Profile PI	99.00	1,500	0.847	-0.119	0.068	-0.037	-49	1,858
DragonWave Horizon C	93.00	32	0.747	-0.100	0.040	-0.035	-1	39
NextNet BTS-2500	93.00	105	0.747	-0.100	0.040	-0.035	-3	130
Argus LLPX310R	93.00	86	0.747	-0.100	0.040	-0.035	-3	106
DragonWave A-ANT-18G	93.00	54	0.747	-0.100	0.040	-0.035	-2	67
Side Arms	93.00	1,680	0.747	-0.100	0.040	-0.035	-50	2,081
DragonWave A-ANT-11G	93.00	48	0.747	-0.100	0.040	-0.035	-1	59
Alcatel-Lucent RRH2X	79.00	132	0.539	-0.031	0.009	0.001	0	163
Alcatel-Lucent RRH2x	79.00	170	0.539	-0.031	0.009	0.001	0	211
Alcatel-Lucent RRH2x	79.00	180	0.539	-0.031	0.009	0.001	0	223
RFS DB-T1-6Z-8AB-0Z	79.00	88	0.539	-0.031	0.009	0.001	0	109
Commscope SBNHH-1D65	79.00	608	0.539	-0.031	0.009	0.001	0	754
Flat Low Profile Pla	79.00	1,500	0.539	-0.031	0.009	0.001	1	1,858
Lucent KS-24019	20.00	4	0.035	0.069	0.041	0.044	0	5
		46,452	85.775	25.238	25.566	6.522	2,411	57,536

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Customer: AT&T MOBILITY

Load Case (0.9 - 0.2Sds) * DL + E EMAM Seismic (Reduced DL) Equivalent Modal Analysis Method

Segment	Height Above Base (ft)	Weight (lb)	a	b	c	Saz	Horizontal Force (lb)	Vertical Force (lb)
40	146.46	280	1.853	1.790	1.071	0.345	84	241
39	142.50	495	1.754	1.338	0.900	0.284	122	426
38	138.50	305	1.657	0.966	0.750	0.228	60	263
37	136.00	250	1.598	0.771	0.667	0.196	42	215
36	132.50	636	1.517	0.543	0.563	0.155	85	548
35	127.50	655	1.404	0.292	0.436	0.103	58	564
34	124.00	267	1.328	0.162	0.362	0.071	16	230
33	121.50	440	1.275	0.088	0.315	0.051	20	379
32	118.00	597	1.203	0.007	0.257	0.027	14	514
31	115.50	156	1.152	-0.036	0.221	0.012	2	134
30	112.50	791	1.093	-0.074	0.183	-0.004	-3	681
29	107.50	809	0.998	-0.110	0.130	-0.023	-16	697
28	102.50	827	0.908	-0.122	0.090	-0.034	-25	712
27	99.92	28	0.862	-0.120	0.074	-0.037	-1	24
26	99.42	260	0.854	-0.119	0.071	-0.037	-8	224
25	97.00	1,275	0.813	-0.114	0.058	-0.038	-42	1,098
24	94.96	27	0.779	-0.108	0.048	-0.037	-1	23
23	93.96	378	0.763	-0.104	0.044	-0.036	-12	325
22	91.50	611	0.723	-0.094	0.035	-0.032	-17	526
21	87.50	1,035	0.661	-0.074	0.023	-0.024	-22	892
20	82.50	1,057	0.588	-0.049	0.013	-0.010	-9	911
19	79.50	214	0.546	-0.033	0.010	-0.001	0	184
18	77.00	875	0.512	-0.021	0.008	0.007	5	754
17	72.50	1,114	0.454	0.000	0.006	0.020	20	959
16	67.50	1,135	0.394	0.020	0.007	0.033	32	978
15	62.50	1,157	0.337	0.036	0.009	0.041	42	997
14	57.50	1,179	0.286	0.048	0.014	0.047	48	1,015
13	54.00	478	0.252	0.055	0.017	0.049	20	411
12	51.50	1,271	0.229	0.059	0.020	0.050	55	1,095
11	48.42	1,359	0.202	0.062	0.023	0.050	59	1,171
10	45.92	445	0.182	0.065	0.026	0.050	19	383
9	42.50	1,229	0.156	0.067	0.029	0.050	53	1,058
8	37.50	1,250	0.121	0.070	0.034	0.049	53	1,077
7	32.50	1,272	0.091	0.071	0.038	0.048	52	1,096
6	27.50	1,294	0.065	0.072	0.041	0.046	52	1,115
5	22.50	1,316	0.044	0.071	0.042	0.045	51	1,133
4	17.50	1,338	0.026	0.067	0.040	0.042	49	1,153
3	12.50	1,360	0.013	0.059	0.035	0.038	45	1,171
2	7.50	1,381	0.005	0.044	0.025	0.030	36	1,190
1	2.50	1,127	0.001	0.018	0.010	0.014	13	971
Decibel DB844H90E-XY	148.00	56	1.892	1.991	1.144	0.370	18	48
Andrew 844G65VTZASX	148.00	128	1.892	1.991	1.144	0.370	41	110
Flat Platform w/ Han	148.00	2,000	1.892	1.991	1.144	0.370	641	1,723
Powerwave Allgon LGP	137.00	33	1.621	0.846	0.699	0.209	6	28
Powerwave Allgon 702	137.00	13	1.621	0.846	0.699	0.209	2	11
Raycap DC6-48-60-18-	137.00	40	1.621	0.846	0.699	0.209	7	34
Powerwave Allgon LGP	137.00	85	1.621	0.846	0.699	0.209	15	73
Ericsson RRUS 4478 B	137.00	178	1.621	0.846	0.699	0.209	32	153
Ericsson RRUS 11 (Ba	137.00	165	1.621	0.846	0.699	0.209	30	142
Ericsson RRUS 32 B66	137.00	152	1.621	0.846	0.699	0.209	28	131
Ericsson RRUS 32 B2	137.00	159	1.621	0.846	0.699	0.209	29	137
Raycap DC6-48-60-18-	137.00	16	1.621	0.846	0.699	0.209	3	14
Ericsson RRUS-32 (77	137.00	231	1.621	0.846	0.699	0.209	42	199
Powerwave Allgon 775	137.00	81	1.621	0.846	0.699	0.209	15	70
KMW AM-X-CD-16-65-00	137.00	97	1.621	0.846	0.699	0.209	18	84
Quintel QS66512-3 (1	137.00	224	1.621	0.846	0.699	0.209	41	193

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Andrew SBNH-1D6565C	137.00	66	1.621	0.846	0.699	0.209	12	57
CCI TPA-65R-LCUUUU-H	137.00	82	1.621	0.846	0.699	0.209	15	70
Kathrein Scala 80010	137.00	293	1.621	0.846	0.699	0.209	53	252
Flat Platform w/ Han	137.00	2,000	1.621	0.846	0.699	0.209	362	1,723
Kathrein Scala Smart	123.00	10	1.307	0.130	0.342	0.063	1	9
Ericsson KRY 112 144	123.00	33	1.307	0.130	0.342	0.063	2	28
Ericsson KRY 112 489	123.00	46	1.307	0.130	0.342	0.063	3	40
Ericsson AIR 32 B4A-	123.00	317	1.307	0.130	0.342	0.063	17	273
RFS APX16DWV-	123.00	122	1.307	0.130	0.342	0.063	7	105
Round T-Arms	123.00	750	1.307	0.130	0.342	0.063	41	646
Andrew LNX-6515DS-VT	123.00	154	1.307	0.130	0.342	0.063	8	133
RFS APXV18-206517	116.00	79	1.162	-0.028	0.228	0.015	1	68
RFS IBC1900BB-1	99.00	66	0.847	-0.119	0.068	-0.037	-2	57
RFS IBC1900HG-2A	99.00	66	0.847	-0.119	0.068	-0.037	-2	57
Alcatel-Lucent 800 M	99.00	64	0.847	-0.119	0.068	-0.037	-2	55
Alcatel-Lucent 4x40W	99.00	88	0.847	-0.119	0.068	-0.037	-3	76
Alcatel-Lucent TD-RR	99.00	70	0.847	-0.119	0.068	-0.037	-2	60
RFS APXVTM14-C-I20	99.00	159	0.847	-0.119	0.068	-0.037	-5	137
RFS APXVSP18-C-A20	99.00	171	0.847	-0.119	0.068	-0.037	-6	147
Round Low Profile PI	99.00	1,500	0.847	-0.119	0.068	-0.037	-49	1,292
DragonWave Horizon C	93.00	32	0.747	-0.100	0.040	-0.035	-1	27
NextNet BTS-2500	93.00	105	0.747	-0.100	0.040	-0.035	-3	90
Argus LLPX310R	93.00	86	0.747	-0.100	0.040	-0.035	-3	74
DragonWave A-ANT-18G	93.00	54	0.747	-0.100	0.040	-0.035	-2	47
Side Arms	93.00	1,680	0.747	-0.100	0.040	-0.035	-50	1,447
DragonWave A-ANT-11G	93.00	48	0.747	-0.100	0.040	-0.035	-1	41
Alcatel-Lucent RRH2X	79.00	132	0.539	-0.031	0.009	0.001	0	114
Alcatel-Lucent RRH2x	79.00	170	0.539	-0.031	0.009	0.001	0	147
Alcatel-Lucent RRH2x	79.00	180	0.539	-0.031	0.009	0.001	0	155
RFS DB-T1-6Z-8AB-0Z	79.00	88	0.539	-0.031	0.009	0.001	0	76
Commscope SBNHH-1D65	79.00	608	0.539	-0.031	0.009	0.001	0	524
Flat Low Profile Pla	79.00	1,500	0.539	-0.031	0.009	0.001	1	1,292
Lucent KS-24019	20.00	4	0.035	0.069	0.041	0.044	0	3
		46,452	85.775	25.238	25.566	6.522	2,411	40,013

Site Number: 302468

Code: ANSI/TIA-222-G

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Site Name: Petro Lock, CT

Engineering Number: OAA719349_C3_01

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Customer: AT&T MOBILITY

Load Case (1.2 + 0.2Sds) * DL + E EMAM Seismic Equivalent Modal Analysis Method

Calculated Forces

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 (deg)	Ratio
0.00	-53.43	-1.70	0.00	-179.68	0.00	179.68	4,345.86	2,172.93	10,048.44	5,031.69	0.00	0.00	0.048
5.00	-51.72	-1.67	0.00	-171.17	0.00	171.17	4,297.95	2,148.97	9,746.71	4,880.60	0.01	-0.01	0.047
10.00	-50.04	-1.64	0.00	-162.81	0.00	162.81	4,248.67	2,124.33	9,446.20	4,730.12	0.02	-0.02	0.046
15.00	-48.38	-1.59	0.00	-154.63	0.00	154.63	4,198.03	2,099.01	9,147.09	4,580.35	0.04	-0.03	0.045
20.00	-46.75	-1.55	0.00	-146.66	0.00	146.66	4,146.02	2,073.01	8,849.58	4,431.37	0.08	-0.04	0.044
25.00	-45.14	-1.51	0.00	-138.90	0.00	138.90	4,092.65	2,046.32	8,553.84	4,283.28	0.12	-0.05	0.043
30.00	-43.57	-1.46	0.00	-131.38	0.00	131.38	4,037.92	2,018.96	8,260.05	4,136.16	0.18	-0.06	0.043
35.00	-42.02	-1.41	0.00	-124.08	0.00	124.08	3,981.82	1,990.91	7,968.40	3,990.12	0.24	-0.07	0.042
40.00	-40.50	-1.36	0.00	-117.02	0.00	117.02	3,924.36	1,962.18	7,679.06	3,845.24	0.32	-0.08	0.041
45.00	-39.95	-1.35	0.00	-110.21	0.00	110.21	3,865.53	1,932.77	7,392.22	3,701.60	0.41	-0.09	0.040
46.83	-38.26	-1.29	0.00	-107.74	0.00	107.74	3,843.62	1,921.81	7,287.71	3,649.27	0.44	-0.09	0.039
50.00	-36.69	-1.24	0.00	-103.65	0.00	103.65	3,805.35	1,902.67	7,108.06	3,559.31	0.50	-0.10	0.039
53.00	-36.10	-1.22	0.00	-99.94	0.00	99.94	3,811.37	1,905.68	7,136.09	3,573.35	0.57	-0.10	0.037
55.00	-34.64	-1.17	0.00	-97.51	0.00	97.51	3,786.97	1,893.48	7,023.10	3,516.77	0.61	-0.11	0.037
60.00	-33.20	-1.13	0.00	-91.65	0.00	91.65	3,725.00	1,862.50	6,742.70	3,376.36	0.73	-0.12	0.036
65.00	-31.80	-1.10	0.00	-85.98	0.00	85.98	3,661.68	1,830.84	6,465.40	3,237.50	0.86	-0.13	0.035
70.00	-30.42	-1.09	0.00	-80.46	0.00	80.46	3,596.99	1,798.49	6,191.38	3,100.29	0.99	-0.14	0.034
75.00	-29.33	-1.08	0.00	-75.03	0.00	75.03	3,530.94	1,765.47	5,920.82	2,964.81	1.14	-0.15	0.034
79.00	-25.75	-1.07	0.00	-70.70	0.00	70.70	3,477.11	1,738.56	5,706.98	2,857.73	1.27	-0.15	0.032
80.00	-24.44	-1.08	0.00	-69.63	0.00	69.63	3,463.52	1,731.76	5,653.90	2,831.15	1.30	-0.16	0.032
85.00	-23.16	-1.10	0.00	-64.22	0.00	64.22	3,394.74	1,697.37	5,390.81	2,699.41	1.47	-0.17	0.031
90.00	-22.40	-1.12	0.00	-58.69	0.00	58.69	3,324.59	1,662.30	5,131.72	2,569.67	1.65	-0.18	0.030
93.00	-19.45	-1.19	0.00	-55.33	0.00	55.33	3,271.77	1,635.89	4,962.98	2,485.18	1.76	-0.18	0.028
94.92	-19.42	-1.19	0.00	-53.05	0.00	53.05	3,235.40	1,617.70	4,852.71	2,429.96	1.84	-0.19	0.028
95.00	-17.84	-1.23	0.00	-52.95	0.00	52.95	3,233.82	1,616.91	4,847.95	2,427.58	1.84	-0.19	0.027
99.00	-14.81	-1.30	0.00	-48.05	0.00	48.05	3,157.93	1,578.96	4,621.94	2,314.41	2.00	-0.19	0.025
99.83	-14.78	-1.30	0.00	-46.97	0.00	46.97	2,561.71	1,280.85	3,809.78	1,907.72	2.04	-0.20	0.030
100.00	-13.75	-1.32	0.00	-46.75	0.00	46.75	2,559.94	1,279.97	3,803.37	1,904.51	2.04	-0.20	0.030
105.00	-12.75	-1.33	0.00	-40.16	0.00	40.16	2,506.36	1,253.18	3,612.41	1,808.89	2.25	-0.21	0.027
110.00	-11.77	-1.34	0.00	-33.48	0.00	33.48	2,451.42	1,225.71	3,424.31	1,714.70	2.48	-0.22	0.024
115.00	-11.58	-1.33	0.00	-26.81	0.00	26.81	2,395.11	1,197.55	3,239.25	1,622.03	2.71	-0.23	0.021
116.00	-10.74	-1.32	0.00	-25.47	0.00	25.47	2,383.68	1,191.84	3,202.61	1,603.69	2.76	-0.23	0.020
120.00	-10.19	-1.30	0.00	-20.20	0.00	20.20	2,337.43	1,168.72	3,057.40	1,530.97	2.95	-0.23	0.018
123.00	-8.09	-1.19	0.00	-16.32	0.00	16.32	2,302.17	1,151.09	2,949.92	1,477.15	3.10	-0.24	0.015
125.00	-7.28	-1.13	0.00	-13.93	0.00	13.93	2,271.18	1,135.59	2,869.84	1,437.05	3.20	-0.24	0.013
130.00	-6.49	-1.04	0.00	-8.27	0.00	8.27	2,192.12	1,096.06	2,672.56	1,338.27	3.45	-0.24	0.009
135.00	-6.18	-1.00	0.00	-3.05	0.00	3.05	2,113.07	1,056.53	2,482.31	1,243.00	3.71	-0.25	0.005
137.00	-0.96	-0.21	0.00	-1.05	0.00	1.05	2,081.44	1,040.72	2,408.17	1,205.88	3.81	-0.25	0.001
140.00	-0.35	-0.09	0.00	-0.42	0.00	0.42	2,034.01	1,017.00	2,299.08	1,151.25	3.97	-0.25	0.001
145.00	0.00	0.00	0.00	0.00	0.00	0.00	1,954.95	977.48	2,122.87	1,063.01	4.22	-0.25	0.000
147.92	0.00	0.00	0.00	0.00	0.00	0.00	1,908.83	954.42	2,023.32	1,013.16	4.37	-0.25	0.000

Site Number: 302468

Code: ANSI/TIA-222-G

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Site Name: Petro Lock, CT

Engineering Number: OAA719349_C3_01

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Customer: AT&T MOBILITY

Load Case (0.9 - 0.2Sds) * DL + E EMAM Seismic (Reduced DL) Equivalent Modal Analysis Method

Calculated Forces

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 (deg)	Ratio
0.00	-37.16	-1.70	0.00	-177.57	0.00	177.57	4,345.86	2,172.93	10,048.44	5,031.69	0.00	0.00	0.044
5.00	-35.97	-1.67	0.00	-169.07	0.00	169.07	4,297.95	2,148.97	9,746.71	4,880.60	0.00	-0.01	0.043
10.00	-34.80	-1.63	0.00	-160.73	0.00	160.73	4,248.67	2,124.33	9,446.20	4,730.12	0.02	-0.02	0.042
15.00	-33.65	-1.59	0.00	-152.58	0.00	152.58	4,198.03	2,099.01	9,147.09	4,580.35	0.04	-0.03	0.041
20.00	-32.51	-1.54	0.00	-144.65	0.00	144.65	4,146.02	2,073.01	8,849.58	4,431.37	0.08	-0.04	0.040
25.00	-31.39	-1.49	0.00	-136.95	0.00	136.95	4,092.65	2,046.32	8,553.84	4,283.28	0.12	-0.05	0.040
30.00	-30.30	-1.44	0.00	-129.49	0.00	129.49	4,037.92	2,018.96	8,260.05	4,136.16	0.18	-0.06	0.039
35.00	-29.22	-1.40	0.00	-122.27	0.00	122.27	3,981.82	1,990.91	7,968.40	3,990.12	0.24	-0.07	0.038
40.00	-28.16	-1.35	0.00	-115.29	0.00	115.29	3,924.36	1,962.18	7,679.06	3,845.24	0.32	-0.08	0.037
45.00	-27.78	-1.33	0.00	-108.56	0.00	108.56	3,865.53	1,932.77	7,392.22	3,701.60	0.40	-0.09	0.037
46.83	-26.61	-1.27	0.00	-106.13	0.00	106.13	3,843.62	1,921.81	7,287.71	3,649.27	0.43	-0.09	0.036
50.00	-25.51	-1.22	0.00	-102.11	0.00	102.11	3,805.35	1,902.67	7,108.06	3,559.31	0.50	-0.10	0.035
53.00	-25.10	-1.20	0.00	-98.46	0.00	98.46	3,811.37	1,905.68	7,136.09	3,573.35	0.56	-0.10	0.034
55.00	-24.09	-1.15	0.00	-96.06	0.00	96.06	3,786.97	1,893.48	7,023.10	3,516.77	0.60	-0.11	0.034
60.00	-23.09	-1.11	0.00	-90.31	0.00	90.31	3,725.00	1,862.50	6,742.70	3,376.36	0.72	-0.12	0.033
65.00	-22.11	-1.08	0.00	-84.75	0.00	84.75	3,661.68	1,830.84	6,465.40	3,237.50	0.84	-0.13	0.032
70.00	-21.15	-1.06	0.00	-79.35	0.00	79.35	3,596.99	1,798.49	6,191.38	3,100.29	0.98	-0.13	0.031
75.00	-20.40	-1.06	0.00	-74.04	0.00	74.04	3,530.94	1,765.47	5,920.82	2,964.81	1.13	-0.14	0.031
79.00	-17.91	-1.05	0.00	-69.80	0.00	69.80	3,477.11	1,738.56	5,706.98	2,857.73	1.25	-0.15	0.030
80.00	-17.00	-1.06	0.00	-68.75	0.00	68.75	3,463.52	1,731.76	5,653.90	2,831.15	1.28	-0.15	0.029
85.00	-16.10	-1.08	0.00	-63.45	0.00	63.45	3,394.74	1,697.37	5,390.81	2,699.41	1.45	-0.16	0.028
90.00	-15.58	-1.10	0.00	-58.04	0.00	58.04	3,324.59	1,662.30	5,131.72	2,569.67	1.63	-0.17	0.027
93.00	-13.53	-1.17	0.00	-54.73	0.00	54.73	3,271.77	1,635.89	4,962.98	2,485.18	1.74	-0.18	0.026
94.92	-13.50	-1.17	0.00	-52.50	0.00	52.50	3,235.40	1,617.70	4,852.71	2,429.96	1.81	-0.18	0.026
95.00	-12.40	-1.21	0.00	-52.40	0.00	52.40	3,233.82	1,616.91	4,847.95	2,427.58	1.82	-0.18	0.025
99.00	-10.30	-1.28	0.00	-47.57	0.00	47.57	3,157.93	1,578.96	4,621.94	2,314.41	1.97	-0.19	0.024
99.83	-10.27	-1.28	0.00	-46.50	0.00	46.50	2,561.71	1,280.85	3,809.78	1,907.72	2.01	-0.19	0.028
100.00	-9.56	-1.30	0.00	-46.29	0.00	46.29	2,559.94	1,279.97	3,803.37	1,904.51	2.01	-0.19	0.028
105.00	-8.87	-1.32	0.00	-39.77	0.00	39.77	2,506.36	1,253.18	3,612.41	1,808.89	2.22	-0.20	0.026
110.00	-8.18	-1.32	0.00	-33.17	0.00	33.17	2,451.42	1,225.71	3,424.31	1,714.70	2.44	-0.21	0.023
115.00	-8.05	-1.32	0.00	-26.56	0.00	26.56	2,395.11	1,197.55	3,239.25	1,622.03	2.67	-0.22	0.020
116.00	-7.47	-1.30	0.00	-25.24	0.00	25.24	2,383.68	1,191.84	3,202.61	1,603.69	2.72	-0.22	0.019
120.00	-7.09	-1.28	0.00	-20.03	0.00	20.03	2,337.43	1,168.72	3,057.40	1,530.97	2.91	-0.23	0.016
123.00	-5.62	-1.18	0.00	-16.18	0.00	16.18	2,302.17	1,151.09	2,949.92	1,477.15	3.06	-0.23	0.013
125.00	-5.06	-1.12	0.00	-13.82	0.00	13.82	2,271.18	1,135.59	2,869.84	1,437.05	3.15	-0.24	0.012
130.00	-4.51	-1.04	0.00	-8.21	0.00	8.21	2,192.12	1,096.06	2,672.56	1,338.27	3.40	-0.24	0.008
135.00	-4.30	-0.99	0.00	-3.03	0.00	3.03	2,113.07	1,056.53	2,482.31	1,243.00	3.66	-0.24	0.004
137.00	-0.67	-0.21	0.00	-1.05	0.00	1.05	2,081.44	1,040.72	2,408.17	1,205.88	3.76	-0.24	0.001
140.00	-0.24	-0.08	0.00	-0.42	0.00	0.42	2,034.01	1,017.00	2,299.08	1,151.25	3.91	-0.24	0.000
145.00	0.00	0.00	0.00	0.00	0.00	0.00	1,954.95	977.48	2,122.87	1,063.01	4.17	-0.24	0.000
147.92	0.00	0.00	0.00	0.00	0.00	0.00	1,908.83	954.42	2,023.32	1,013.16	4.32	-0.24	0.000

Site Number: 302468

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Site Name: Petro Lock, CT

Engineering Number: OAA719349_C3_01

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Customer: AT&T MOBILITY

Analysis Summary

Load Case	Reactions						Max Usage	
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.6W	30.18	0.00	55.70	0.00	0.00	3154.78	0.00	0.64
0.9D + 1.6W	30.16	0.00	41.76	0.00	0.00	3121.53	0.00	0.63
1.2D + 1.0Di + 1.0Wi	8.68	0.00	103.23	0.00	0.00	919.58	0.00	0.21
(1.2 + 0.2Sds) * DL + E ELFM	1.66	0.00	53.43	0.00	0.00	182.90	0.00	0.05
(1.2 + 0.2Sds) * DL + E EMAM	1.70	0.00	53.43	0.00	0.00	179.68	0.00	0.05
(0.9 - 0.2Sds) * DL + E ELFM	1.66	0.00	37.16	0.00	0.00	180.89	0.00	0.04
(0.9 - 0.2Sds) * DL + E EMAM	1.70	0.00	37.16	0.00	0.00	177.57	0.00	0.04
1.0D + 1.0W	7.36	0.00	46.45	0.00	0.00	765.23	0.00	0.16

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Site Name: Petro Lock, CT

Engineering Number: OAA719349_C3_01

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Customer: AT&T MOBILITY

Base Summary

Reactions

Original Design			Analysis			Moment Design %
Moment (kip-ft)	Axial (kip)	Shear (kip)	Moment (kip-ft)	Axial (kip)	Shear (kip)	
2,489.00	36.10	23.90	3,154.78	103.23	30.18	93.89

Base Plate

Yield (ksi)	Thick (in)	Width (in)	Style	Poly Sides	Clip Len (in)	Effective Len (in)	Mu (kip-in)	Phi Mn (kip-in)	Ratio
60.0	2.500	69.000	Round	0	0.00	11.224	301.78	946.99	0.32

Anchor Bolts

Bolt Circle	Num Bolts	Bolt Type	Bolt Dia (in)	Yield (ksi)	Ultimate (ksi)	Arrange	Cluster Dist (in)	Start Angle (deg)	Compression			Tension		
									Force (kip)	Allow (kip)	Ratio	Force (kip)	Allow (kip)	Ratio
63.00	16	2.25" 18J	2.25	75.00	100.00	Radial	0.00	0.0	156.68	260.00	0.62	143.78	260.00	0.57

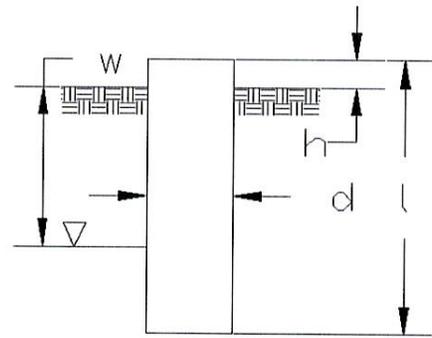
Site Name: Petro Lock, CT
 Site Number: 302468
 Engineer: Connor.Klein
 Engineering Number: OAA719349
 Date: 12/28/17

Program Last Updated: 5/13/2014
 American Tower Corporation

Design Base Loads (Factored) - Analysis per TIA-222-G Standards

Analyze or Design a Foundation? Analyze
 Foundation Mapped: N
 Moment (M): 3154.8 k-ft
 Shear/Leg (V): 30.2 k
 Axial Load (P): 55.7 k
 Uplift/Leg (U): 0.0 k
 Tower Type (GT / SST / MP): MP

Diameter of Caisson (d): 7.0 ft
 Caisson Embedment (L-h): 33.5 ft
 Caisson Height Above Ground (h): 0.5 ft
 Depth Below Ground Surface to Water Table (w): 4.0 ft
 Unit Weight of Concrete: 150.0 pcf
 Unit Weight of Water: 62.4 pcf
 Tension Skin Friction/Compression Skin Friction: 1.00
 Pullout Angle: 30.0 degrees



Engineer Notes

Soil Mechanical Properties

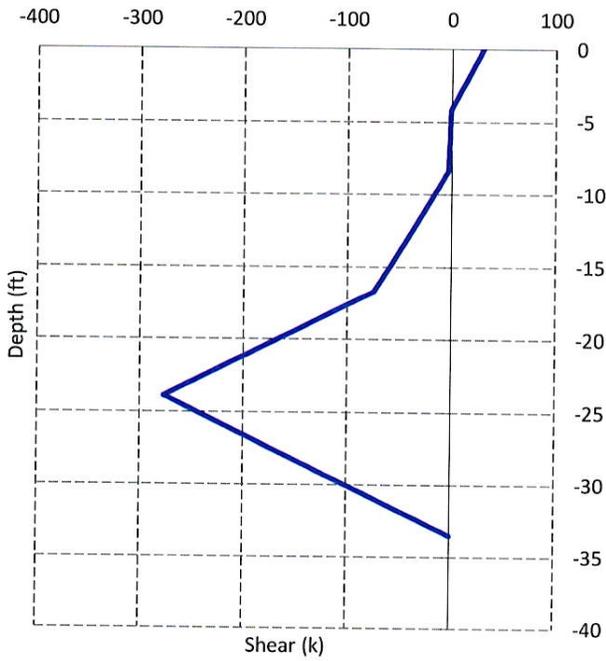
Depth (ft)		γ_{Soil}	Cohesion	ϕ	Ultimate Skin	Ultimate Bearing
Top	Bottom	(pcf)	(psf)	(degree)	Friction (psf)	Pressure (psf)
0.0	5.0	100	0	0	0	0
5.0	15.0	110	2880		1140	0
15.0	34.5	120	10080		5040	40000

Required Embedment: 17.8 ft - OK, Caisson Embedment Satisfactory
 Volume of Concrete: $1308.5 \text{ ft}^3 = 48.5 \text{ yd}^3$
 Weight of Concrete (Buoyancy Effect Considered): 125.4 k
 Average Soil Unit Weight: 59.1 pcf
 Skin Friction Resistance: 2301.2 k
 Compressive Bearing Resistance: 1539.4 k
 Pullout Weight (Minus Concrete Weight): 1196.2 k
 Nominal Uplift Capacity per Leg ($\phi_s T_n$): 897.2 k
 Nominal Compressive Capacity per Leg ($\phi_s P_n$): 2880.4 k
 P_u : 111.3 k
 $T_u / \phi_s T_n$: 0.00 Result: OK
 $P_u / \phi_s P_n$: 0.04 Result: OK
 Total Lateral Resistance: 9827.4 k
 Inflection Point (Below Ground Surface): 23.9 ft
 Design Overturning Moment At Inflection Point (M_D): 3890.8 k-ft
 Nominal Moment Capacity ($\phi_s M_n$): 38866.1 k-ft
 $M_D / \phi_s M_n$: 0.10 Result: OK
 ϕ_s : 0.75

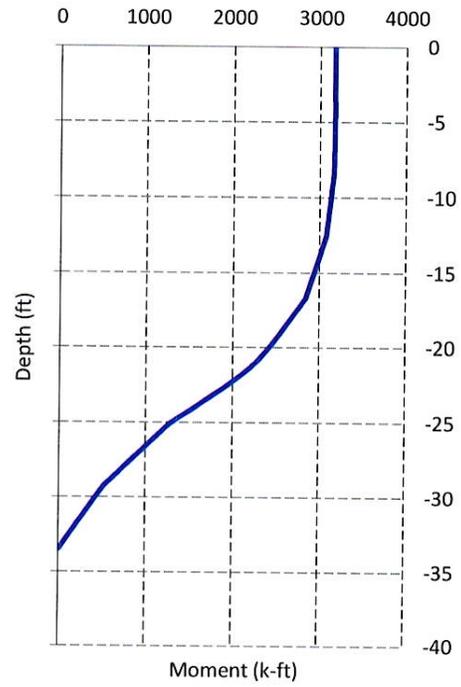
Caisson Strength Capacity

Concrete Compressive Strength (f'_c):	3000 psi
Vertical Steel Rebar Size #:	11
Vertical Steel Rebar Area:	1.56 in ²
# of Vertical Steel Rebars:	21
Vertical Steel Rebar Yield Strength (F_y):	60 ksi
Horizontal Tie / Stirrup Size #:	5
Horizontal Tie / Stirrup Area:	0.31 in ²
Design Horizontal Tie / Stirrup Spacing:	18.0 in
Horizontal Tie / Stirrup Steel Yield Strength (F_y):	40 ksi
Rebar Cage Diameter:	76.0 in
Strength Bending/Tension Reduction Factor (ϕ_B):	0.90 ACI318-05 - 9.3.2.1
Strength Shear Reduction Factor (ϕ_V):	0.75 ACI318-05 - 9.3.2.3
Strength Compression Reduction Factor (ϕ_P):	0.65 ACI318-05 - 9.3.2.2
Steel Elastic Modulus:	29000 ksi
Design Moment (M_u):	3171.6 k-ft
Nominal Moment Capacity ($\phi_B M_n$):	4963.4 k-ft - ACI318-005 - 10.2
$M_u/\phi_B M_n$:	0.64 Result: OK
Design Shear (V_u):	276.8 k
Nominal Shear Capacity ($\phi_V V_n$):	457.6 k - ACI318-05 - 11.3.1.1 or 11.5.7.2
$V_u/\phi_V V_n$:	0.60 Result: OK
Design Tension (T_u):	0.0 k
Nominal Tension Capacity ($\phi_T T_n$):	1769.0 k - ACI318-05 - 10.2
$T_u/\phi_T T_n$:	0.00 Result: OK
Design Compression (P_u):	111.3 k
Nominal Compression Capacity ($\phi_P P_n$):	7304.9 k - ACI318-05 - 10.3.6.2
$P_u/\phi_P P_n$:	0.02 Result: OK
Bending Reinforcement Ratio:	0.006 ACI318-05 - 10.8.4 & 10.9.1
$M_u/\phi_B M_n + T_u/\phi_T T_n$:	0.64 Result: OK

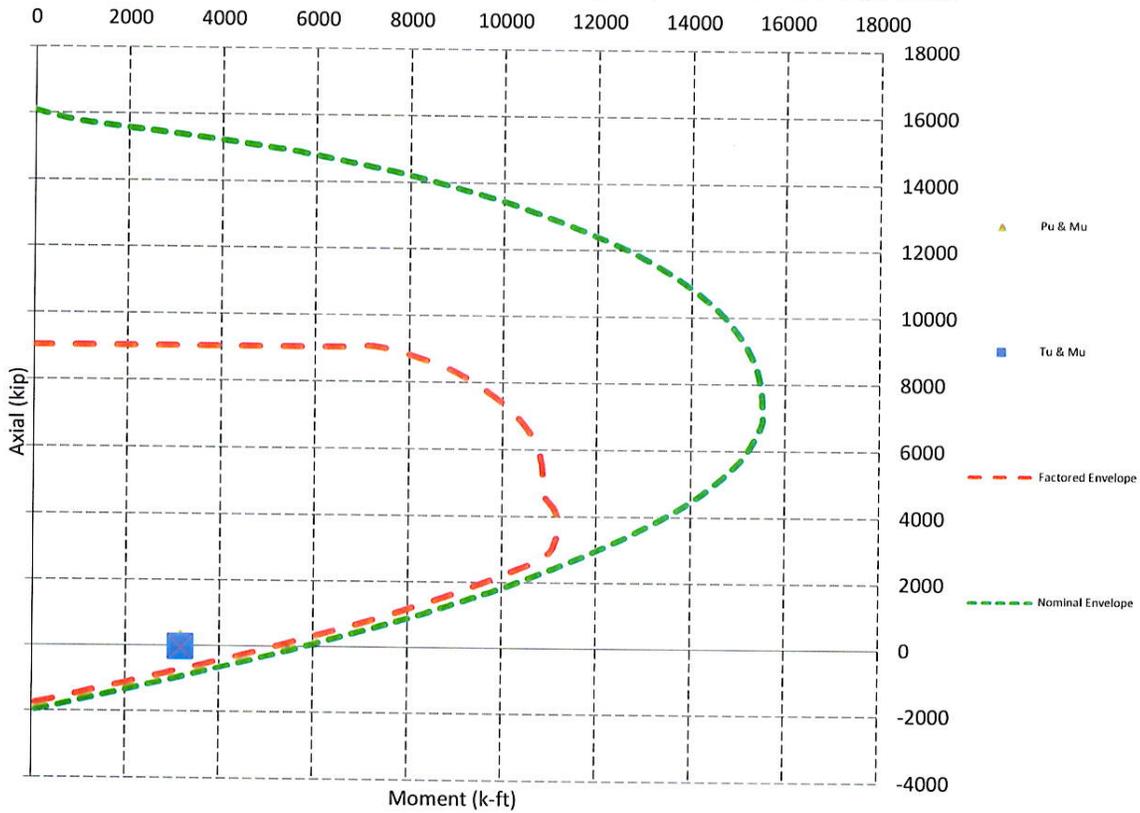
Design Factored Shear / Depth



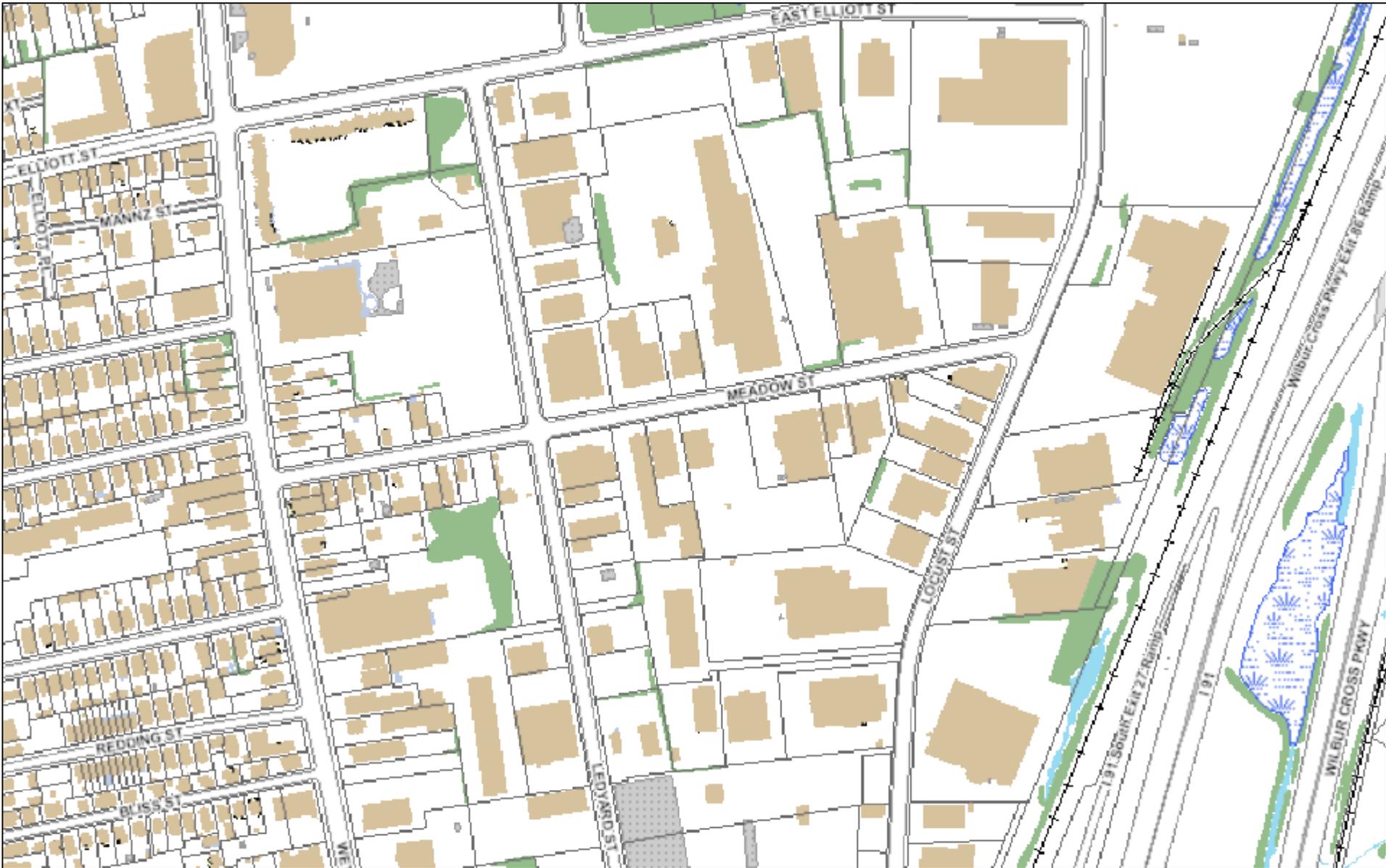
Design Factored Moment / Depth



Nominal and Factored Moment Capacity and Factored Design Loads

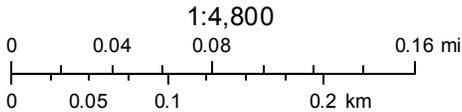


City of Hartford GIS Map



February 27, 2018

Parcels



Unofficial Property Record Card - City of Hartford, CT

General Property Data

Parcel ID **275-690-115** Account Number
Prior Parcel ID
Property Owner **MEADOW STREET REALTY LLC** Property Location **99 MEADOW ST HARTFORD**
Property Use **AUTO REPAIR**
Mailing Address **99 MEADOW ST** Most Recent Sale Date **4/7/2000**
Legal Reference **04225-0189**
City **HARTFORD** Grantor **MEADOW STREET REALTY, LLC**
Mailing State **CT** Zip **06114-1506** Sale Price **0**
Parcel Zoning **ID-1** Land Area **124,146.000 square feet**

Current Property Assessment

Card 1 Value Building Value **171,850** Xtra Features Value **10,150** Land Value **247,660** Total Value **429,660**

Building Description

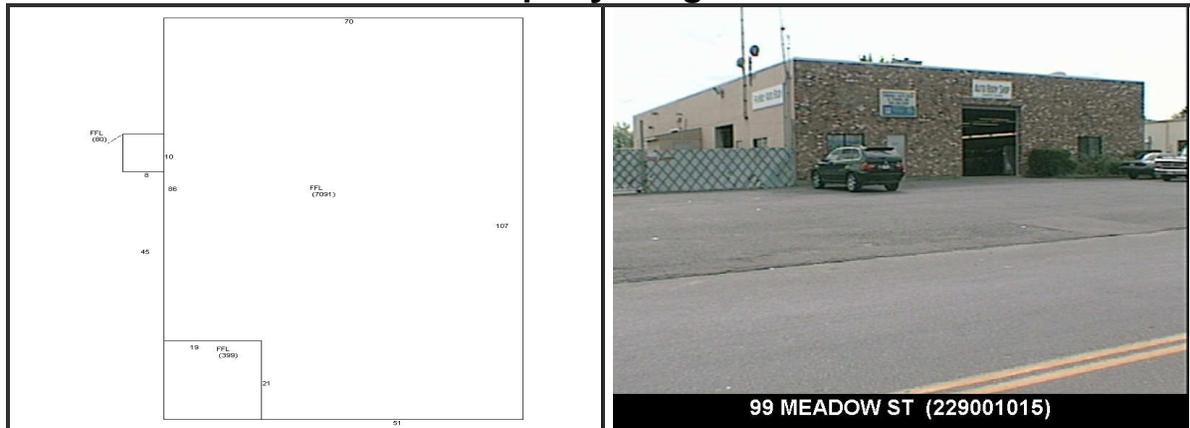
Building Style AUTO SERVICE	Foundation Type Concrete	Flooring Type CONCRETE
# of Living Units 0	Frame Type Wood Frame	Basement Floor N/A
Year Built 1979	Roof Structure FLAT	Heating Type Steam
Building Grade Average	Roof Cover Asphalt	Heating Fuel Gas
Building Condition N/A	Siding Conc Block	Air Conditioning 0%
Finished Area (SF) 7570	Interior Walls AVERAGE	# of Bsmt Garages 0
Number Rooms 0	# of Bedrooms 0	# of Full Baths 0
# of 3/4 Baths 0	# of 1/2 Baths 0	# of Other Fixtures 0

Legal Description

Narrative Description of Property

This property contains 124,146.000 square feet of land mainly classified as AUTO REPAIR with a(n) AUTO SERVICE style building, built about 1979, having Conc Block exterior and Asphalt roof cover, with 0 commercial unit(s) and 0 residential unit(s), 0 room(s), 0 bedroom(s), 0 bath(s), 0 half bath(s).

Property Images



Disclaimer: This information is believed to be correct but is subject to change and is not warranted.

BUILDING PERMIT

DEPARTMENT OF LICENSES & INSPECTIONS CITY OF HARTFORD

Appl. Nbr. 984670 Permit Nbr. 985309 C
THE APPLICANT NAMED BELOW IS HEREBY GRANTED PERMISSION TO
PERFORM WORK AS DESCRIBED HEREIN AT:

0000 0099 MEADOW ST

FLOOR: CONDO:

IN ACCORDANCE WITH THE APPLICATION AND PLANS APPROVED BY
THE DEPARTMENT OF LICENSES AND INSPECTIONS.

Joseph Hewes

Building Official

Date 10/16/98

OWNER: NUCCIA AMENTA

ADDRESS: 99 MEADOW ST
HARTFORD, CT 06114

APPLICANT: ~~CATHY GRABAREK~~ John Suckeas
GESIG & ASSOCIATES-PC DeLeon, Jnd
19 CEDAR ISLAND AV 95 Franklin Ad
CLINTON, CT 06413 Dover, NJ 07801

669-7799

ESTIMATED COST: \$ 100000.00

Application Date: 08/19/98 Fee: 1600.00

DESCRIPTION OF JOB:

CONSTRUCTION, INSTALLATION OF ANTENNAE POLE AND
FOUNDATION AND ASSOCIATED EQUIPMENT SHELTER FOR AN
UNMANNED WIRELESS COMMUNICATIONS SERVICES FACILITY.

PARCEL ID.: 229001015

Red card

Application For Building Permit

Application no. 984670
 Permit Number B-985309-C
 10/16/98

DEPARTMENT OF LICENSES AND INSPECTIONS
CITY OF HARTFORD
 550-Main St. Hartford CT 06103

1. LOCATION OF JOB
 No. 99 Meadow St Street
 Floor no. _____ Building Name (if any) _____

2. Applicant: John Suckey
 (first name) Suckey (last name)
 Address: 6200 4th Street Hill, CT 06115
 Phone: 860-444-1577

3. Contractor: General Contracting, Inc.
 Address: 583 Dover Rd, East Hill, CT 06115
 Phone: 860-444-1577
 License Type: General Cont. State CT
 License No.: 64559562 Exp. dt. 11/30/98

4. Owner: Nicula Amenta
 Address: 99 Meadow St
 Phone: 860-296-8558

5. Estimated construction cost: \$100,000
 Fee: \$1,600

Please do not include electrical/plumbing/brick/sprinkler/significance work in this cost.

FOR OFFICE USE ONLY

A. Zoning Division
 Zoning District F-2
 Approved
 Denied
 Date 8-27-98

Chief of Zoning Administration _____ Date _____

B. Plan Examination
 Approved
 Denied
 Date 10/17/98

Plan reviewer _____ Date _____

City Engineer
 Distance from building line to streetline 15 feet.
 Distance from veranda line to streetline 18 feet.
 City Engineer _____ Date 10/28/98

Fee Schedule

Estimated cost	Fee
\$1 - \$1,000	\$16.00
\$16.00 per each additional thousand or fraction thereof.	
Actual Cost \$ <u>40,942.63</u>	Fee \$ <u>656</u>
Estimated Cost \$ <u>100,000</u>	Fee \$ <u>1,600</u>
Balance \$ <u>944</u>	Fee \$ _____

Bill no. _____ Date _____ By _____
 File completed Date: 6/2/00 By gjs

Application For Building Permit (continued from reverse side)

6. Location of job : 99 Meadow St
 No. Street Floor Number Unit # / Tenant

<p>7. <u>Type of Building</u></p> <p><input type="checkbox"/> Residential <input type="checkbox"/> Business <input type="checkbox"/> Assembly <input type="checkbox"/> Mercantile <input type="checkbox"/> Educational <input type="checkbox"/> Institutional <input type="checkbox"/> Factory <input type="checkbox"/> Storage <input type="checkbox"/> Garage <input type="checkbox"/> Mixed use <input checked="" type="checkbox"/> <u>Equipment Shelter</u> <small>(Other Please specify)</small></p>	<p>8. <u>Type of job</u> <input checked="" type="checkbox"/> New construction <input type="checkbox"/> Addition <input type="checkbox"/> Alteration <input type="checkbox"/> Repair <input type="checkbox"/> Temporary <input type="checkbox"/> _____ <small>(Other Please specify)</small></p> <p>9. Type of construction _____ 10. Use group _____ 11. No. of stories <u>1</u></p> <p>12. Floor area (including all floors) <u>200</u> S.F. 13. Height of bldg. _____ FT.</p> <p>14. Roof material _____ 15. Foundation material _____</p> <p>16. For mixed use building explain use of each floor. 1st floor: _____ 2nd floor: _____ 3rd floor: _____</p> <p style="text-align: right;"><small>(attach sheet if necessary)</small></p>
--	---

17. For existing building : Change of use or occupancy : Yes No
 Current use and Occupancy : _____
 Proposed use and Occupancy : _____

18. Residential Building : Current number of dwelling unit(s) _____ Proposed number of dwelling unit(s) _____

<p>19. Architect Name : _____ Address : _____ Phone : _____</p>	<p>20. Engineer Name : <u>Robert J Grabarek, PE, LS</u> Address : <u>Osprey Environmental Eng'g</u> <u>45 Grove St</u> <u>Clinton, CT 06413</u> Phone : <u>860-669-8651</u></p>
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21. **Description of work :** Please do not include elect. heat. plumb. refr. sprinkler work. Subcontractors & their trades attach list if any.

Construction, installation and operation of antennae pole & foundation and associated equipment shelter for an unmanned wireless communications services facility

Make check payable to City of Hartford covering proper amount of fee (see fee schedule on reverse).
 Present in Person: Your payment/check/This application/Necessary Licenses(s)/Proper Identification.
 Please submit two copies of drawings for most jobs.

All work will be done in strict accordance with the LOCAL, STATE AND FEDERAL CODES.
 All work covered by this application has been authorized by the owner of this property.

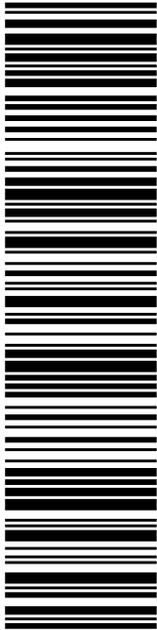
Signature of applicant : Cathy Grabarek Date : 8/18/98 Dwg. : received /attached /no
 Witnessed : _____ (Notary public) GM 8/19/98
 office person
 City of Hartford

IF NOT SIGNED BY NOTARY PUBLIC
 PLEASE BRING PROPER PHOTO ID

computer
9211

SHIP TO:
 MEADOW STREET REALTY LLC
 99 MEADOW ST
 HARTFORD CT 06114-1506

USPS TRACKING #



9405 8036 9930 0610 2362 88

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

0024

P usps.com **9405 8036 9930 0610 2362 88 0067 0000 0010 6114**
US POSTAGE
Flat Rate Env



03/22/2018 Mailed from 06268 024P

PRIORITY MAIL 1-DAY™

Expected Delivery Date: 03/23/18

C017

Electronic Rate Approved #038555749

Click-N-Ship®

✂ ————— Cut on dotted line. —————

Instructions

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 0610 2362 88

Trans. #:	430474198	Priority Mail® Postage:	\$6.70
Print Date:	03/21/2018	Insurance Fee	\$0.00
Ship Date:	03/22/2018	Total	\$6.70
Expected Delivery Date:	03/23/2018		
Insured Value:	\$50.00		

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

To: MEADOW STREET REALTY LLC
 99 MEADOW ST
 HARTFORD CT 06114-1506

* 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.



Thank you for shipping with the United States Postal Service!
 Check the status of your shipment on the USPS Tracking® page at usps.com



**UNITED STATES
POSTAL SERVICE®**

Click-N-Ship®

P

usps.com 9405 8036 9930 0610 2363 01 0067 0000 0010 6103
US POSTAGE \$6.70
 Flat Rate Env
 03/22/2018 Mailed from 06268 024P



PRIORITY MAIL 1-DAY™

Expected Delivery Date: 03/23/18

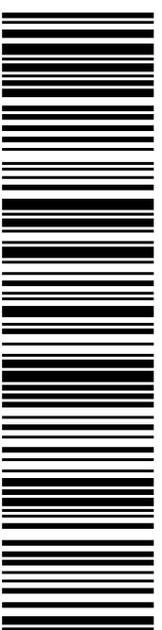
MARK J ROBERTS
 QC DEVELOPMENT
 PO BOX 916
 STORRS CT 06268-0916

0024

C006

SHIP TO: MAYOR LUKE BRONIN
 CITY OF HARTFORD
 550 MAIN ST RM 200
 HARTFORD CT 06103-2913

USPS TRACKING #



9405 8036 9930 0610 2363 01

Electronic Rate Approved #038555749



Cut on dotted line.

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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 0610 2363 01**

Trans. #:	430474198	Priority Mail® Postage:	\$6.70
Print Date:	03/21/2018	Insurance Fee	\$0.00
Ship Date:	03/22/2018	Total	\$6.70
Expected Delivery Date:	03/23/2018		
Insured Value:	\$50.00		

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

To: MAYOR LUKE BRONIN
 CITY OF HARTFORD
 550 MAIN ST RM 200
 HARTFORD CT 06103-2913

* 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.



Thank you for shipping with the United States Postal Service!
 Check the status of your shipment on the USPS Tracking® page at usps.com