QC Development
PO Box 916
Storrs, CT 06268
860-670-9068
Mark.Roberts@QCDevelopment.net

April 14, 2017

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

Notice of Exempt Modification – New Cingular Wireless PCS, LLC (AT&T) – CT5483
246 East Franklin Street, Danielson, CT 06239
N 41-47-45.10
W 71-52-12.60

Dear Ms. Bachman:

AT&T currently maintains nine (9) antennas at the 127-foot level of the existing 155-foot Monopole at 246 East Franklin Street, Danielson (Killingly), CT. The tower is owned by SBA. The property is owned by Charles R. Hutchins. AT&T now intends to replace three (3) KMW antennas with three (3) CCI antennas and install three (3) Ericsson remote radio units (RRUS-B2), also at the 127-foot level of the tower.

This facility was approved by the Town of Killingly in 1998 as Special Permit # 98-704. A Zoning Permit was issued on February 5, 1999 and a Building Permit on February 2nd. It is not known what conditions of approval were attached to the Special Permit since the Town does not keep records prior to 2005.

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 David Griffiths, Chair of the Killingly Town Council, the Killingly Planning & Development Department as well as the property owner and the tower owner.

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

1. The proposed modifications will not result in an increase in the height of the existing structure.

2. The proposed modifications will not require the extension of the site boundary.

3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.

4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.

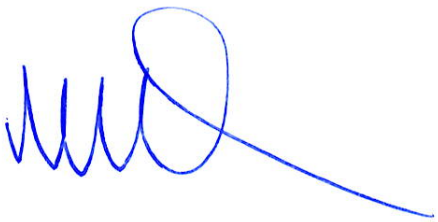
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.

6. The existing structure and its foundation can support the proposed loading.

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

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

Sincerely,



Mark Roberts
QC Development
Consultant for AT&T

Attachments

cc: David Griffiths - as elected official (via e-mail)
Ann-Marie Aubrey – Director of Planning & Development (via e-mail)
American Tower - as tower owner (via e-mail)
Charles R. Hutchins - as property owner

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*							3.46%
AT&T GSM	2	565	127	0.0278	880	0.5867	0.47%
AT&T UMTS	1	283	127	0.0070	880	0.5867	0.12%
AT&T UMTS	2	875	127	0.0430	1900	1.0000	0.43%
AT&T LTE	1	1771	127	0.0435	734	0.4933	0.89%
AT&T LTE	4	525	127	0.0516	1900	1.0000	0.52%
Site Total							5.88%

*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*							3.46%
AT&T GSM	2	565	127	0.0278	880	0.5867	0.47%
AT&T UMTS	1	302	127	0.0074	880	0.5867	0.13%
AT&T UMTS	2	397	127	0.0195	1900	1.0000	0.20%
AT&T LTE	1	1045	127	0.0257	734	0.4933	0.52%
AT&T LTE	4	3381	127	0.3322	1900	1.0000	3.32%
Site Total							8.10%

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

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

PROJECT INFORMATION

SCOPE OF WORK:	UNMANNED TELECOMMUNICATIONS FACILITY MODIFICATIONS
SITE ADDRESS:	246 EAST FRANKLIN STREET DANIELSON, CT 06239
LATITUDE: LONGITUDE:	41° 47' 45" N 71° 52' 13" W
JURISDICTION:	NATIONAL, STATE & LOCAL CODES OR ORDINANCES
CURRENT USE:	TELECOMMUNICATIONS FACILITY
PROPOSED USE:	TELECOMMUNICATIONS FACILITY
DESIGN GUIDELINE:	LTE 2C

SITE NUMBER: CT5483

SITE NAME: KILLINGLY - DANIELSON

246 EAST FRANKLIN STREET
DANIELSON, CT 06239
WINDHAM COUNTY

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LOCUS MAP

DRIVING DIRECTIONS FROM 550 COCHITUATE ROAD, FRAMINGHAM, MA:

1. Head northeast
2. Turn right toward Speen St
3. Turn right onto Speen St
4. Turn right onto Cochituate Rd
5. Use the right lane to take the ramp to I-90/Masspike/Springfield/Boston
6. Keep left at the fork, follow signs for Interstate 90 W/Massachusetts Turnpike/Worchester/Springfield and merge onto I-90 W/Massachusetts Turnpike
7. Merge onto I-90 W/Massachusetts Turnpike
8. Take exit 10 toward MA-12 N/Auburn/Worcester
9. Keep right at the fork, follow signs for I-395 S/US-20 E/Norwich Ct
10. Continue onto I-395 S
11. Entering Connecticut
12. Take exit 37A to merge onto US-6 E toward Providence
13. Merge onto US-6 E
14. Turn left onto E Franklin St (Site Access next to 242 East Franklin Street)

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 REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

STATE OF CONNECTICUT
MARC R. CHRETIEN
No. 28307
LICENSED
PROFESSIONAL ENGINEER

DIG SAFE SYSTEM, INC.

CALL BEFORE YOU DIG

CALL TOLL FREE: 811 OR 888-DIG-SAFE

UNDERGROUND SERVICE ALERT

ADVANCED ENGINEERING GROUP, P.C.
Civil Engineering - Site Development - Surveying - Telecommunications
500 North Broadway, East Providence, RI 02914
Phone: (401) 354-2403
Fax: (401) 633-6354

SAI COMMUNICATIONS
27 NORTHWESTERN DRIVE
SALEM, NH 03079

SITE NUMBER: CT5483
SITE NAME: KILLINGLY - DANIELSON
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at&t
550 COCHITUATE ROAD, SUITE 13,
FRAMINGHAM, MA 01701-4681

NO.	DATE	REVISIONS	BY	CHK
0	01/19/17	ISSUED FOR REVIEW	AAB	MRC
1	02/02/17	REVISION	AAB	MRC

TITLE SHEET

SHEET NO. T-1

GENERAL NOTES

1. THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK. THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES.

2. THE ARCHITECT/ENGINEER HAVE MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK. THE CONTRACTOR BIDDING THE JOB IS NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS.

3. THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE LESEE/LICENSEE REPRESENTATIVE OF ANY CONFLICTS, ERRORS, OR OMISSIONS PRIOR TO THE SUBMISSION OF CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXTENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.

4. THE SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND ALL OTHER MATERIALS AND LABOR DEEMED NECESSARY TO COMPLETE THE WORK/PROJECT AS DESCRIBED HEREIN.

5. THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK TO FAMILIARIZE HIMSELF WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

6. THE CONTRACTOR SHALL OBTAIN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWINGS / CONTRACT DOCUMENTS.

7. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S / VENDOR'S SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.

8. THE CONTRACTOR SHALL PROVIDE A FULL SET OF CONSTRUCTION DOCUMENTS AT THE SITE UPDATED WITH THE LATEST REVISIONS AND ADDENDUMS OR CLARIFICATIONS AVAILABLE FOR THE USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT.

9. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY CONSTRUCTION CONTROL SURVEYS, ESTABLISHING AND MAINTAINING ALL LINES AND GRADES REQUIRED TO CONSTRUCT ALL IMPROVEMENTS AS SHOWN HEREIN.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK BY THE ARCHITECT/ENGINEER, THE STATE, COUNTY OR LOCAL GOVERNMENT AUTHORITY.

12. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVING, CURBING, ETC. DURING CONSTRUCTION. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY.

13. THE CONTRACTOR SHALL KEEP THE GENERAL WORK AREA CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.

14. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT.

15. THE CONTRACTOR SHALL NOTIFY THE LESEE/LICENSEE REPRESENTATIVE WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE WORK THAT IS IN CONFLICT UNTIL CONFLICT IS RESOLVED BY THE LESEE/LICENSEE REPRESENTATIVE.

16. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC. ON THE JOB.

17. ALL UNDERGROUND UTILITY INFORMATION WAS DETERMINED FROM SURFACE INVESTIGATIONS AND EXISTING PLANS OF RECORD. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES IN THE FIELD PRIOR TO ANY SITE WORK. CALL THE FOLLOWING FOR ALL PRE-CONSTRUCTION NOTIFICATION 72-HOURS PRIOR TO ANY EXCAVATION ACTIVITY: DIG SAFE SYSTEM (MA, ME, NH, RI, VT): 1-888-344-7233 CALL BEFORE YOU DIG (CT): 1-800-922-4455

18. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY CONSTRUCTION CONTROL SURVEYS AND MAINTAINING ALL LINES AND GRADES REQUIRED TO CONSTRUCT ALL IMPROVEMENTS SHOWN HEREIN.

19. ALL DIMENSIONS SHOWN THUS ± ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS WHICH EFFECT THE CONTRACTORS WORK. CONTRACTOR TO VERIFY ALL DIMENSIONS WITH PROJECT OWNER PRIOR TO CONSTRUCTION.

20. NORTH ARROW SHOWN ON PLANS REFERS TO APPROXIMATE TRUE NORTH. PRIOR TO THE START OF CONSTRUCTION, ORDERING OR FABRICATING OF ANTENNA MOUNTS, CONTRACTOR SHALL CONSULT WITH PROJECT OWNER'S RF ENGINEER AND FIELD VERIFY ALL ANTENNA SECTOR LOCATIONS AND ANTENNA AZIMUTHS.

21. THE CONTRACTOR AND OR HIS SUB CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK BY THE ARCHITECT/ENGINEER, THE STATE, COUNTY OR LOCAL GOVERNMENT AUTHORITY.

22. ANTENNA INSTALLATION SHALL BE CONDUCTED BY FIELD CREWS EXPERIENCED IN THE ASSEMBLY AND ERECTION OF RADIO ANTENNAS, TRANSMISSION LINES AND SUPPORT STRUCTURES.

23. COAXIAL CABLE CONNECTORS AND TRANSMITTER EQUIPMENT SHALL BE PROVIDED BY THE PROJECT OWNER AND IS NOT INCLUDED IN THESE CONSTRUCTION DOCUMENTS. A SCHEDULE OF PROJECT OWNER SUPPLIED MATERIALS IS ATTACHED TO THE BID DOCUMENTS (SEE EXHIBIT 3). ALL OTHER HARDWARE TO BE PROVIDED BY THE CONTRACTOR. CONNECTION HARDWARE SHALL BE STAINLESS STEEL.

24. WHEN "PAINT TO MATCH" IS SPECIFIED FOR ANTENNA CONCEALMENT, PAINT PRODUCT FOR ANTENNA RADOME SHALL BE SHERWIN WILLIAMS COROTHANE II. SURFACE PREPARATION AND APPLICATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND PROJECT OWNER'S GUIDELINE'S.

25. COORDINATION, LAYOUT, AND FURNISHING OF CONDUIT, CABLE AND ALL APPURTENANCES REQUIRED FOR PROPER INSTALLATION OF ELECTRICAL AND TELECOMMUNICATION SERVICE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

26. ALL UTILITY WORK SHALL BE IN ACCORDANCE WITH LOCAL UTILITY COMPANY REQUIREMENTS AND SPECIFICATIONS.

27. ALL (E)ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY ENGINEERS. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR PIER DRILLING AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW.

28. ALL (E)INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF UTILITY COMPANY ENGINEERING. THE AREAS OF THE PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE EQUIPMENT, DRIVEWAY OR

29. GRAVEL, SHALL BE GRADED TO A UNIFORM SLOPE, FERTILIZED, SEEDED AND COVERED WITH MULCH UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN SOIL EROSION AND SEDIMENTATION CONTROLS AT ALL TIMES

30. DURING CONSTRUCTION. PER FCC MANDATE, ENHANCED EMERGENCY (E911) SERVICE IS REQUIRED TO MEET NATIONWIDE STANDARDS

31. FOR WIRELESS COMMUNICATIONS SYSTEMS. PROJECT OWNER'S IMPLEMENTATION REQUIRES DEPLOYMENT OF EQUIPMENT AND ANTENNAS GENERALLY DEPICTED ON THIS PLAN, ATTACHED TO OR MOUNTED IN CLOSE PROXIMITY TO THE BTS RADIO CABINETS. PROJECT OWNER RESERVES THE RIGHT TO MAKE REASONABLE MODIFICATIONS TO E911 EQUIPMENT AND LOCATION AS TECHNOLOGY EVOLVES TO MEET REQUIRED SPECIFICATIONS.

32. 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:

2009 INTERNATIONAL BUILDING CODE
2005 CT STATE BUILDING CODE
ELECTRICAL CODE: NEC 2014
LIGHTING CODE: NEC 2014

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, NINTH EDITION;

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

ANTENNA TOWER 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.

ELECTRICAL AND GROUNDING NOTES

1. ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.

2. ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER SPECIFICATION REQUIREMENTS.

3. THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED BY DRAWINGS AND SPECIFICATION INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.

4. GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND IS RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS.

5. ELECTRICAL AND TELCO WIRING OUTSIDE A BUILDING AND EXPOSED TO WEATHER SHALL BE IN WATER TIGHT GALVANIZED RIGID STEEL CONDUITS OR SCHEDULE 80 PVC (AS PERMITTED BY CODE) AND WHERE REQUIRED IN LIQUID TIGHT FLEXIBLE METAL OR NONMETALLIC CONDUITS.

6. BURIED CONDUIT SHALL BE SCHEDULE 40 PVC.

7. ELECTRICAL WIRING SHALL BE COPPER WITH TYPE XHHW, THWN, OR THHN INSULATION.

8. RUN ELECTRICAL CONDUIT OR CABLE BETWEEN ELECTRICAL UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE PPC AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE. COORDINATE INSTALLATION WITH UTILITY COMPANY.

9. RUN TELCO CONDUIT OR CABLE BETWEEN TELEPHONE UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE TELCO CABINET AND BTS CABINET AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE AND GREENLEE CONDUIT MEASURING TAPE IN EACH INSTALLED TELCO CONDUIT.

10. WHERE CONDUIT BETWEEN BTS AND PROJECT OWNER CELL SITE PPC AND BETWEEN BTS AND PROJECT OWNER CELL SITE TELCO SERVICE CABINET ARE UNDERGROUND USE PVC, SCHEDULE 40 CONDUIT. ABOVE THE GROUND PORTION OF THESE CONDUITS SHALL BE PVC CONDUIT.

11. ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.

12. PPC SUPPLIED BY PROJECT OWNER.

13. GROUNDING SHALL COMPLY WITH NEC ART. 250. ADDITIONALLY, GROUNDING, BONDING AND LIGHTNING PROTECTION SHALL BE DONE IN ACCORDANCE WITH "T-MOBILE BTS SITE GROUNDING STANDARDS".

14. GROUND COAXIAL CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURERS COAX CABLE GROUNDING KITS SUPPLIED BY PROJECT OWNER.

15. USE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING AS INDICATED ON THE DRAWING.

16. ALL GROUND CONNECTIONS TO BE BURNDY HYGROUND COMPRESSION TYPE CONNECTORS OR CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.

17. ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AT RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY. BOND ANY METAL OBJECTS WITHIN 6 FEET OF PROJECT OWNER EQUIPMENT OR CABINET TO MASTER GROUND BAR OR GROUNDING RING.

18. CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.

19. BOND ANTENNA MOUNTING BRACKETS, COAXIAL CABLE GROUND KITS, AND ALNA TO EGB PLACED NEAR THE ANTENNA LOCATION.

20. APPLY OXIDE INHIBITING COMPOUND TO ALL COMPRESSION TYPE GROUND CONNECTIONS.

21. CONTRACTOR SHALL PROVIDE AND INSTALL OMNI DIRECTIONAL ELECTRONIC MARKER SYSTEM (EMS) BALLS OVER EACH GROUND ROD AND BONDING POINT BETWEEN EXISTING TOWER/ (E) MONOPOLE GROUNDING RING AND EQUIPMENT GROUNDING RING.

22. CONTRACTOR SHALL TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION. 5 OHMS MAXIMUM RESISTANCE REQUIRED.

23.CONTRACTOR SHALL CONDUCT ANTENNA, COAX, AND LNA RETURN-LOSS AND DISTANCE- TO-FAULT MEASUREMENTS (SWEEP TESTS) AND RECORD RESULTS FOR PROJECT CLOSE OUT.

ABBREVIATIONS

AGL	ABOVE GRADE LEVEL	G.C.	GENERAL CONTRACTOR	RF	RADIO FREQUENCY
AWG	AMERICAN WIRE GAUGE	MGB	MASTER GROUND BUS		
BCW	BARE COPPER WIRE	MIN	MINIMUM	TBD	TO BE DETERMINED
BTS	BASE TRANSCEIVER STATION	(P)	PROPOSED/NEW	TBR	TO BE REMOVED
(E)	EXISTING	N.T.S.	NOT TO SCALE	TBRR	TO BE REMOVED AND REPLACED
EG	EQUIPMENT GROUND	REF	REFERENCE		
EGR	EQUIPMENT GROUND RING	REQ	REQUIRED	TYP	TYPICAL
(F)	FUTURE				

ADVANCED ENGINEERING GROUP, P.C.
Civil Engineering - Site Development - Surveying - Telecommunications
500 North Broadway, East Providence, RI 02914
Phone: (401) 354-2403 Fax: (401) 633-6354

SAI COMMUNICATIONS
27 NORTHWESTERN DRIVE
SALEM, NH 03079

SITE NUMBER: CT5483
SITE NAME: KILLINGLY - DANIELSON
246 EAST FRANKLIN STREET
DANIELSON, CT 06239
WINDHAM COUNTY

at&t
550 COCHITUATE ROAD, SUITE 13,
FRAMINGHAM, MA 01701-4681

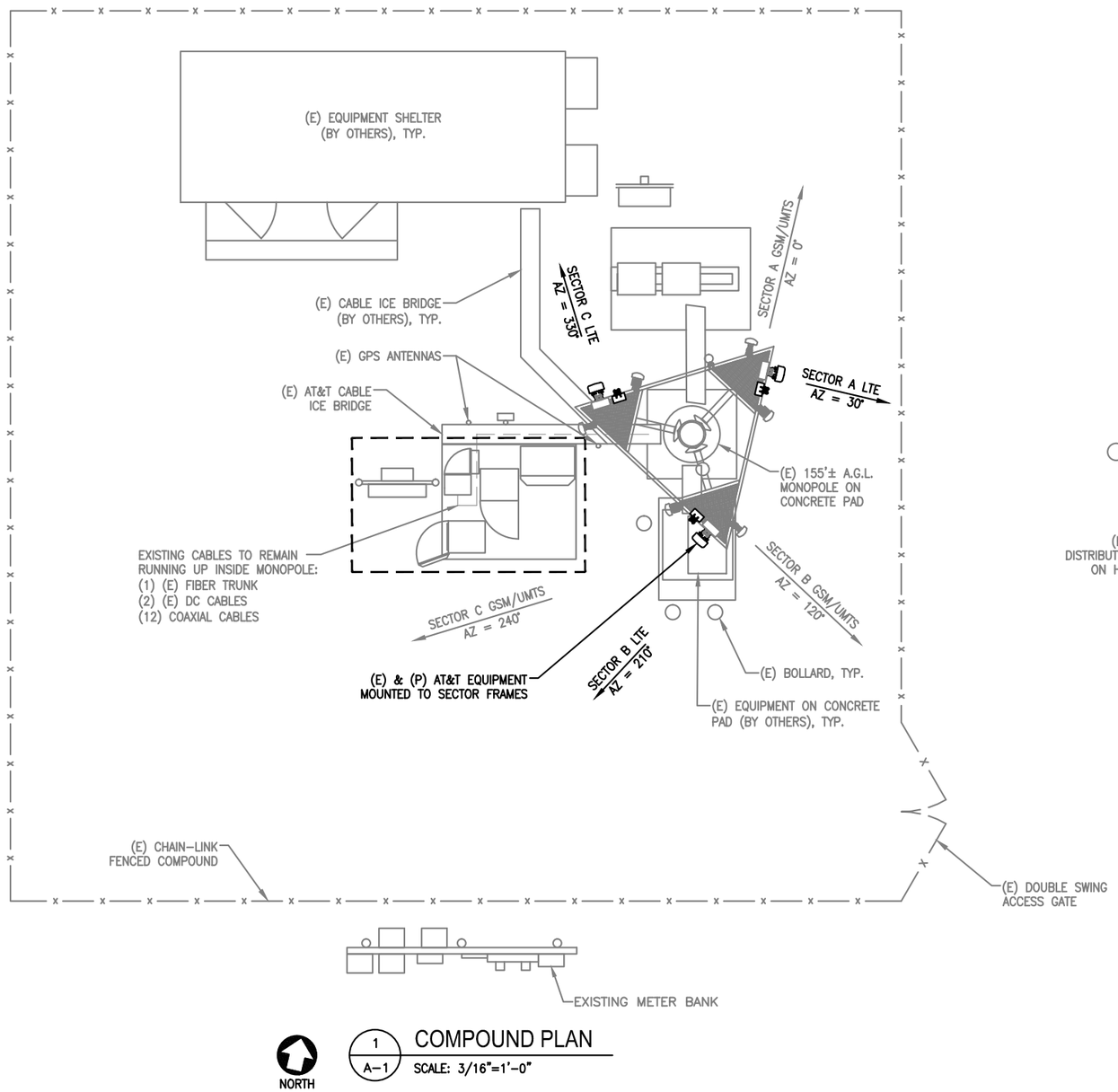
NO.	DATE	REVISIONS	BY	CHK
0	01/19/17	ISSUED FOR REVIEW	AAB	MRC
1	02/02/17	REVISION	AAB	MRC

GENERAL NOTES

SHEET NO. **GN-1**

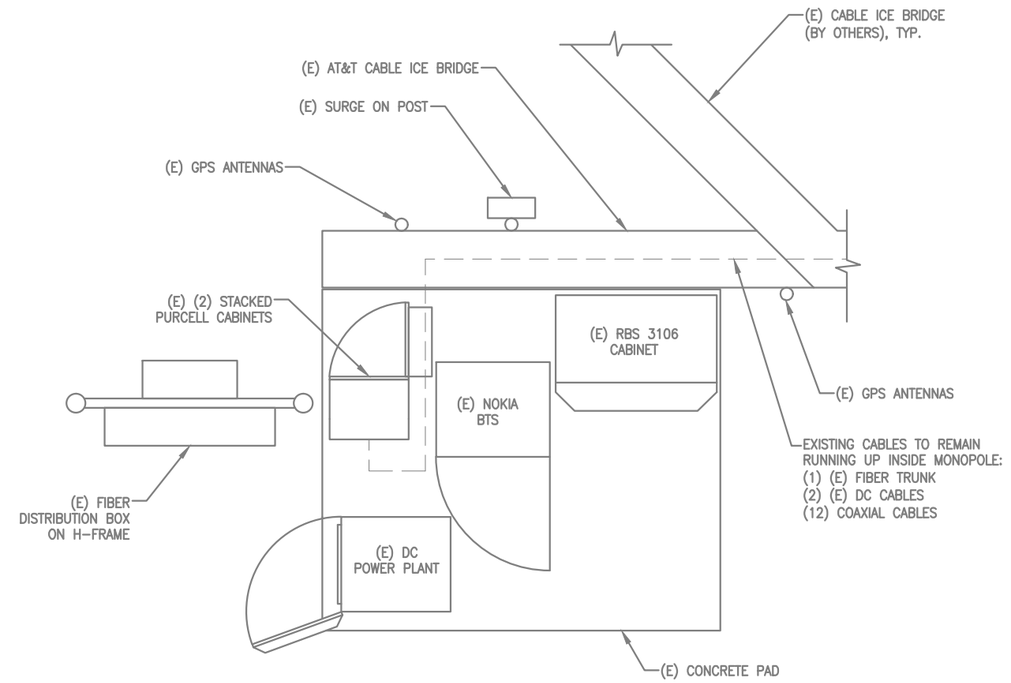
HALF SIZE PRINT

THIS DRAWING IS SCALEABLE AT HALF THE NOTED SCALE



1 / A-1 COMPOUND PLAN

SCALE: 3/16"=1'-0"



GROUND EQUIPMENT TO BE INSTALLED IN EXISTING AT&T EQUIPMENT AREA:
SWAP (E)(1)DUL TO (P)(1)DUS FOR UPGRADE
INSTALL ADDITIONAL XMU

2 / A-1 EQUIPMENT PLAN

SCALE: 1/2"=1'-0"

STATE OF CONNECTICUT
MARC R. CHRETIEN
No. 28307
LICENSED
PROFESSIONAL ENGINEER

ADVANCED ENGINEERING GROUP, P.C.
Civil Engineering - Site Development - Surveying - Telecommunications
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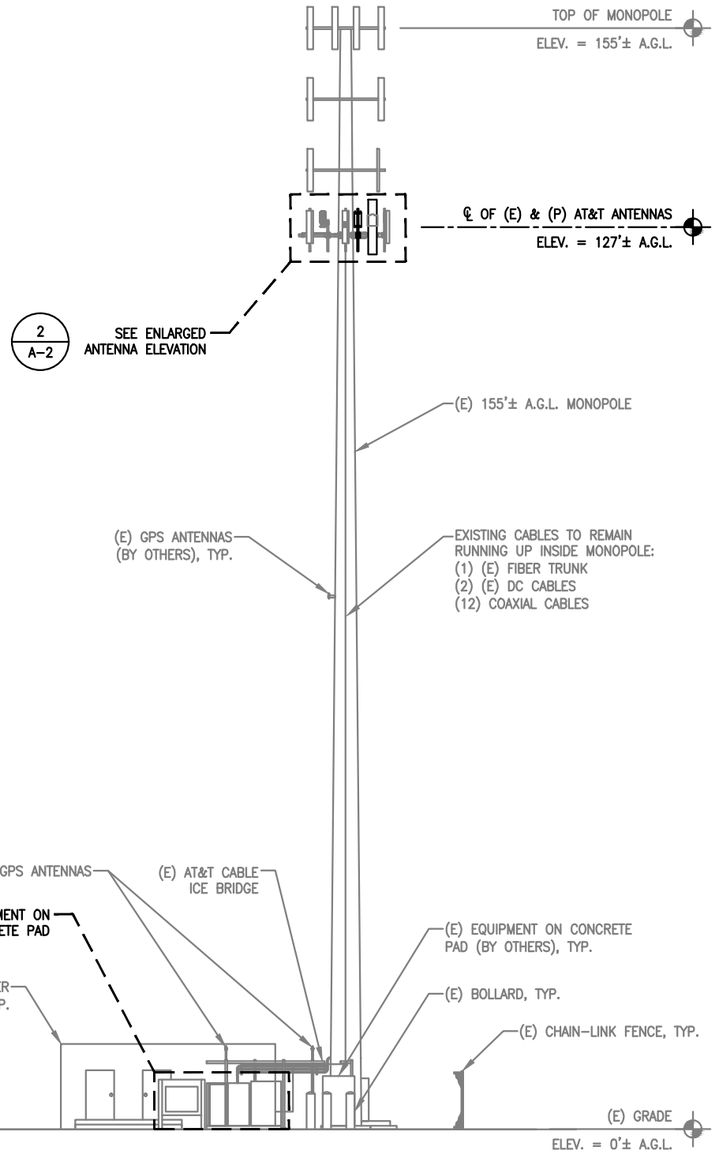
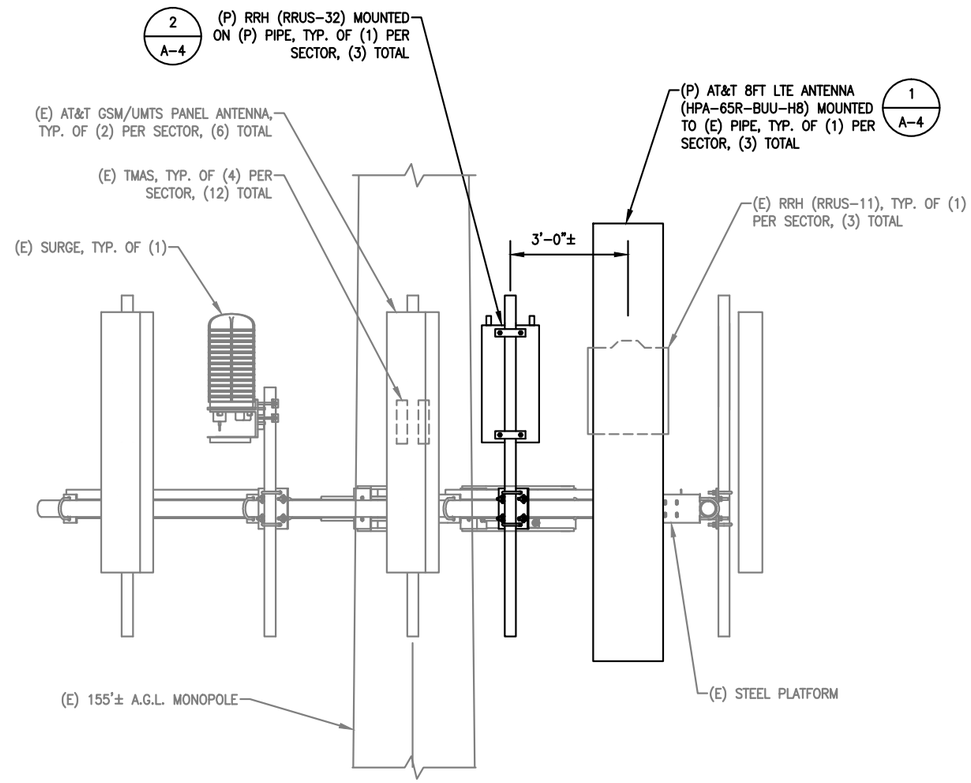
COMPOUND AND EQUIPMENT PLANS

SHEET NO. A-1

HALF SIZE PRINT
THIS DRAWING IS SCALEABLE AT HALF THE NOTED SCALE



1 / A-2 ELEVATION
SCALE: 3/32" = 1'-0"



2 / A-2 ENLARGED ANTENNA ELEVATION
SCALE: 1/4" = 1'-0"

ADVANCED ENGINEERING GROUP, P.C.
Civil Engineering - Site Development - Surveying - Telecommunications
500 North Broadway, East Providence, RI 02914
Phone: (401) 354-2403
Fax: (401) 633-6354

SAI COMMUNICATIONS
27 NORTHWESTERN DRIVE
SALEM, NH 03079

SITE NUMBER: CT5483
SITE NAME: KILLINGLY - DANIELSON
246 EAST FRANKLIN STREET
DANIELSON, CT 06239
WINDHAM COUNTY

at&t
550 COCHITUATE ROAD, SUITE 13,
FRAMINGHAM, MA 01701-4681

NO.	DATE	REVISIONS	BY	CHK
0	01/19/17	ISSUED FOR REVIEW	AAB	MRC
1	02/02/17	REVISION	AAB	MRC

ELEVATIONS

SHEET NO. A-2

HALF SIZE PRINT
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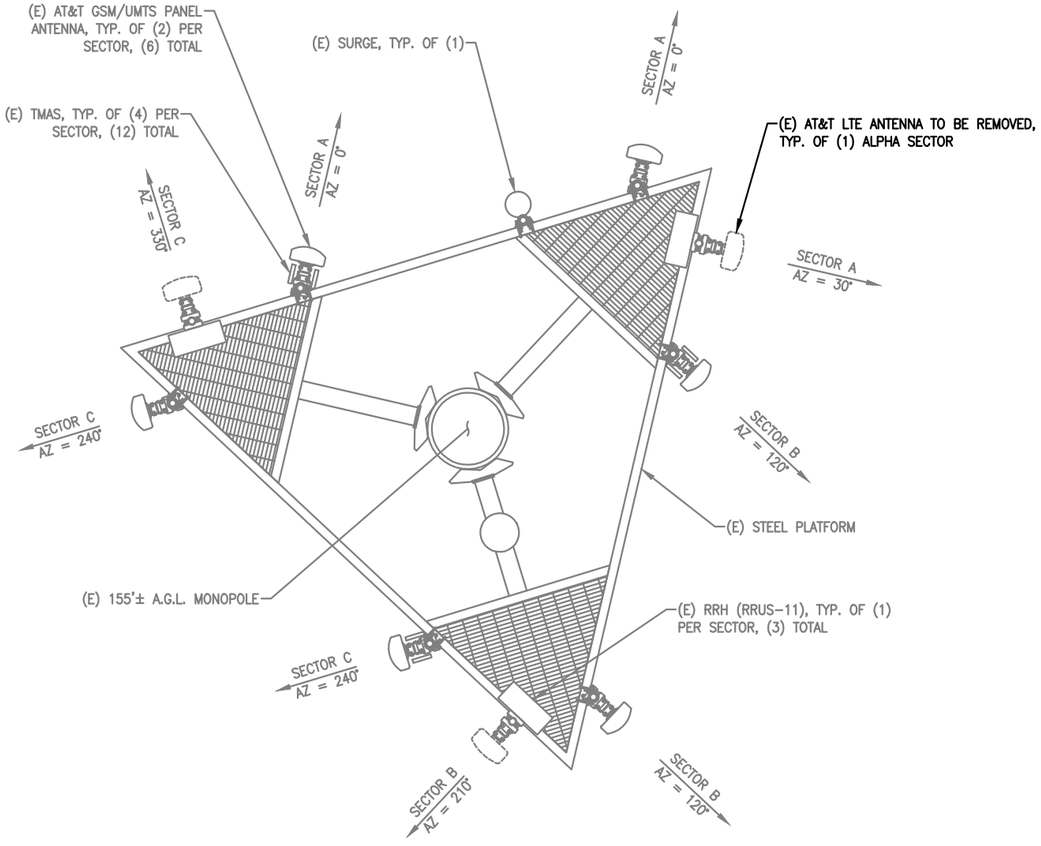
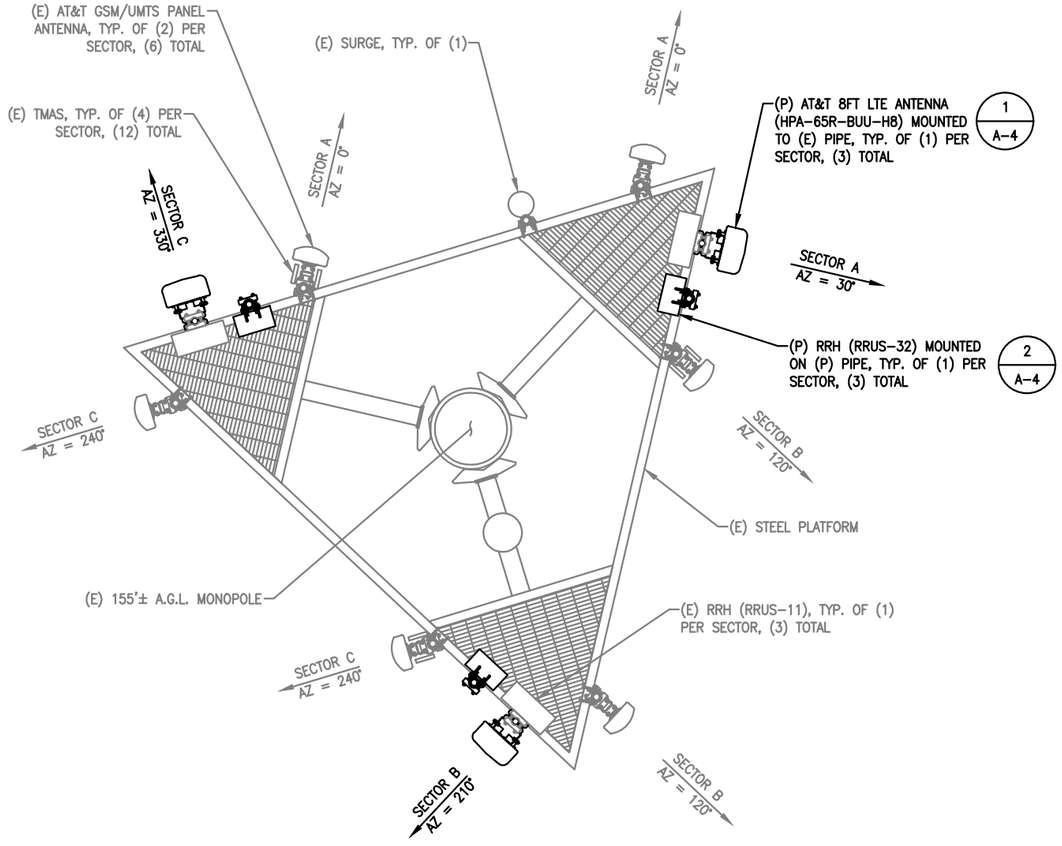


NORTH

1 / A-3 EXISTING ANTENNA PLAN
SCALE: 3/4" = 1'-0"



NORTH

2 / A-3 PROPOSED ANTENNA PLAN
SCALE: 3/4" = 1'-0"

STATE OF CONNECTICUT
MARC R. CHRETIEN
No. 28307
LICENSED
PROFESSIONAL ENGINEER

ADVANCED ENGINEERING GROUP, P.C.
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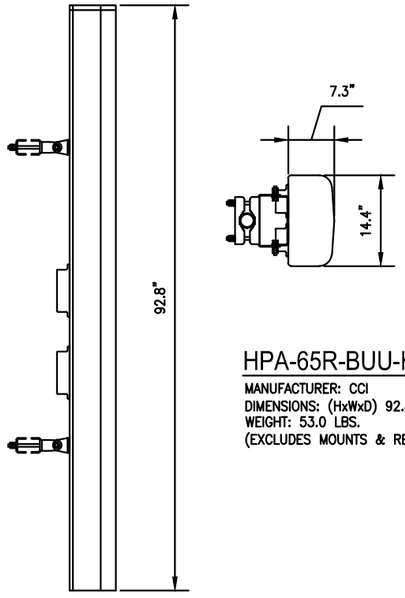
ANTENNA PLANS

SHEET NO. A-3



HPA-65R-BUU-H8

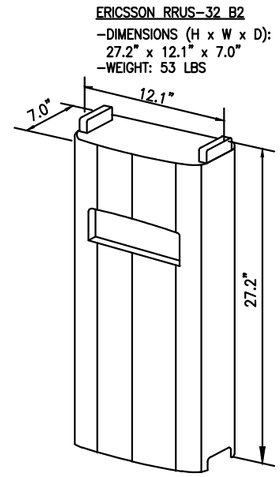
MANUFACTURER: CCI
DIMENSIONS: (HxWxD) 92.8"x14.4"x7.3"
WEIGHT: 53.0 LBS.
(EXCLUDES MOUNTS & RET SYSTEM)

1 / A-4 ANTENNA DETAILS

SCALE: N.T.S.

ERICSSON RRUS-32 B2

-DIMENSIONS (H x W x D):
27.2" x 12.1" x 7.0"
-WEIGHT: 53 LBS



NOTES:
RRU CAN ONLY BE PAINTED ON SOLAR SHIELD.

2 / A-4 REMOTE RADIO HEAD (RRH) DETAILS

SCALE: N.T.S.

STATE OF CONNECTICUT
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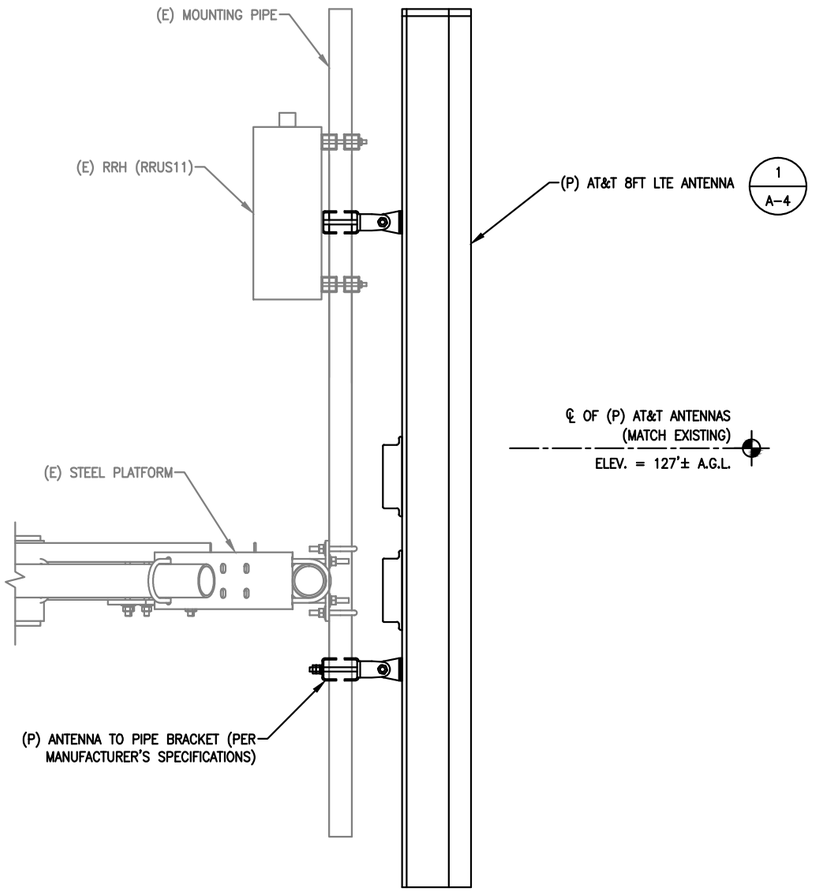
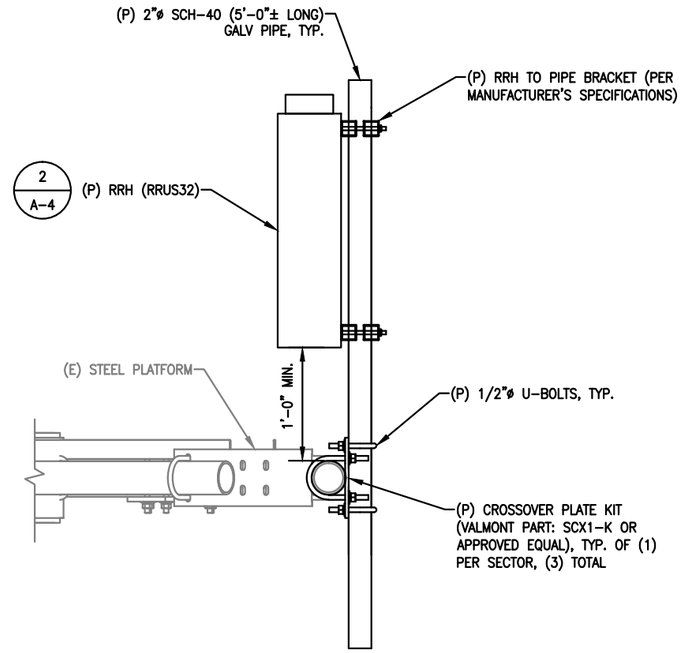
DETAILS

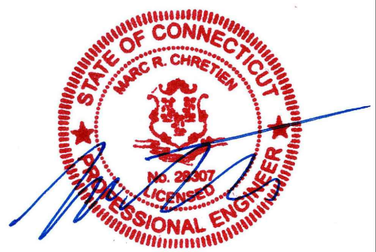
SHEET NO. A-4



1 S-1 ANTENNA MOUNTING DETAIL
SCALE: 1 1/2" = 1'-0"



2 S-1 RRH MOUNTING DETAIL
SCALE: 1 1/2" = 1'-0"



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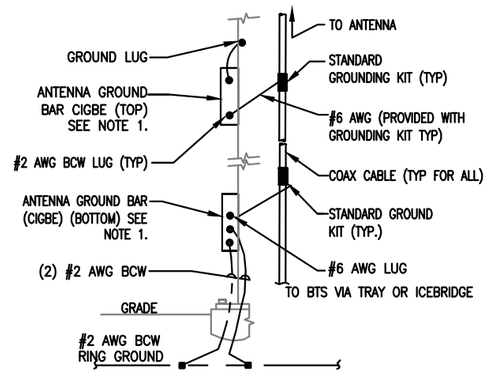
STRUCTURAL DETAILS

SHEET NO. S-1

	CIRCUIT BREAKER	ACCA	ANTENNA CABLE COVER ASSEMBLY
E	ELECTRIC BOX	AWG	AMERICAN WIRE GAUGE
	ELECTRICAL CONDUIT	BTCW	BARE TINNED COPPER WIRE
		C	CONDUIT
	EXOTHERMIC CONNECTION	CIGBE	COAX INSULATED GROUND BAR EXTERNAL
■	(CADWELD) TO GROUND RING AND COMPRESSION TO GROUND HALO	CO	CONDUIT ONLY
		DWG	DRAWING
	DISCONNECT SWITH	EGB	EXTERNAL GROUND BAR
		EMT	ELECTRICAL METALLIC TUBING
⊗	GROUND ROD	(E)	EXISTING
⊠	GROUND ROD WITH ACCESS	(F)	FUTURE
		GEN	GENERATOR
•	MECHANICAL GROUND CONN.	GFI	GROUND FAULT CIRCUIT INTERRUPTER
		GND	GROUND
⊠	GROUND ACCESS WELL	GPS	GLOBAL POSITIONING SYSTEM
		GR	GROWTH
G	GROUNDING WIRE	IGR	INTERIOR GROUND RING (HALO)
		MIGB	MASTER ISOLATED GROUND BAR
G	GENERATOR	(P)	PROPOSED, NEW (PROVIDE AND INSTALL UNLESS NOTED OTHERWISE)
	FUSE	PCS	PERSONAL COMMUNICATION SERVICE
	GROUND BUS BAR	PPC	POWER PROTECTION CABINET
		PRC	PRIMARY RADIO CABINET
⚠	REVISION	PVC	POLYVINYL CHLORIDE CONDUIT
T	TELEPHONE BOX	RGS	RIGID GALVANIZED STEEL
		RWY	RACEWAY
M	UTILITY METER	S.L.D.	SINGLE LINE DIAGRAM
	XIT GROUND ROD	TEL	TELEPHONE
		TYP.	TYPICAL
		WP	WEATHERPROOF EQUIPMENT

1 G-1 ELEC. / GROUNDING LEGEND

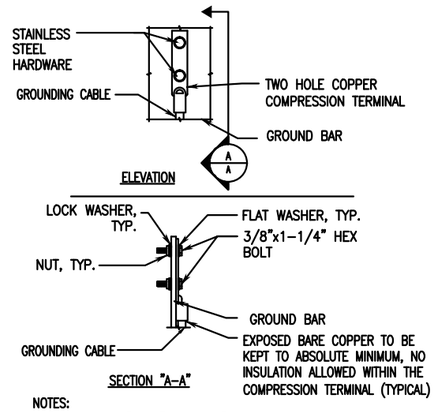
SCALE: N.T.S.



NOTE:
1. NUMBER OF GROUND BARS MAY VARY DEPENDING ON THE TYPE OF TOWER. ANTENNA LOCATION AND CONNECTION ANTENNA LOCATION AND CONNECTION ORIENTATION. PROVIDE AS REQUIRED.
2. A SEPARATE GROUND BAR TO BE USED FOR GPS ANTENNA IF REQUIRED.

2 G-1 TYP. ANTENNA CABLE GROUNDING

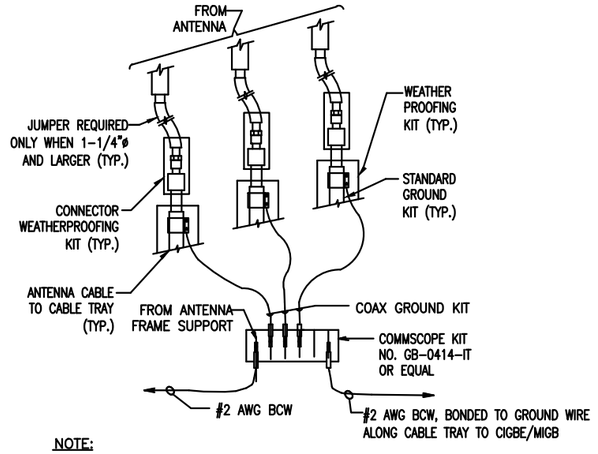
SCALE: N.T.S.



NOTES:
1. "DOUBLING UP" OR "STACKING " OF CONNECTION IS NOT PERMITTED.
2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.
3. CADWELD DOWNLEADS FROM UPPER EGB, LOWER EGB, AND MGB.
4. ALL GROUND LUGS MUST BE HEAT SHRUNK AT WIRE/LUG CONNECTION

3 G-1 TYP. GROUND BAR CONNECTION

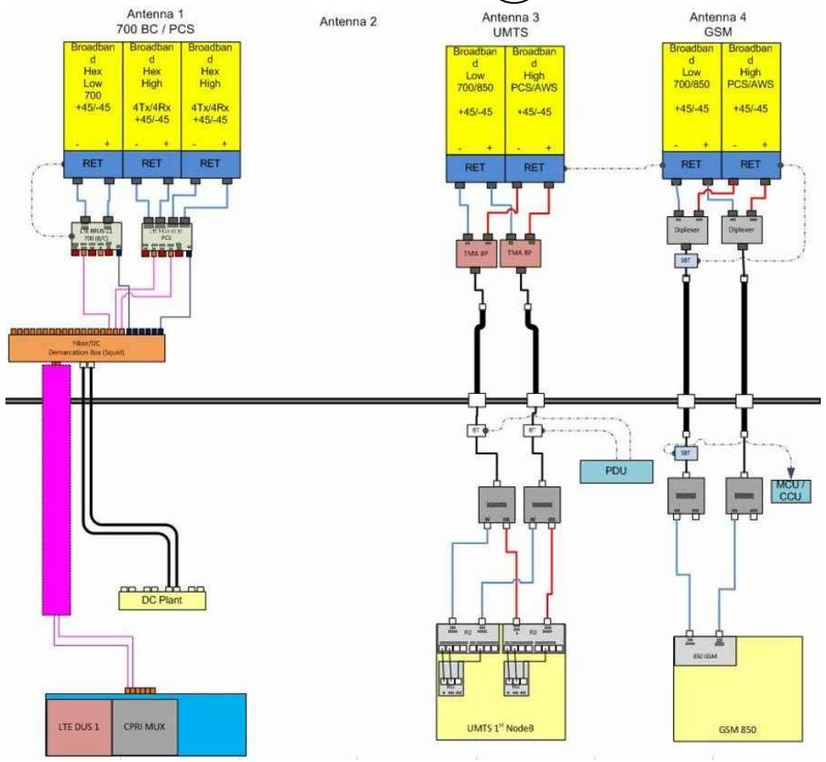
SCALE: N.T.S.



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

4 G-1 TYP. GROUND WIRE TO GROUND BAR CONN.

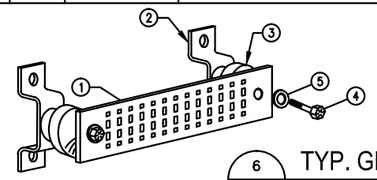
SCALE: N.T.S.



5 G-1 ONE LINE PLUMBING DIAGRAM

SCALE: N.T.S.

WIRELESS SOLUTIONS INC.			
NO.	REQ.	PART NO.	DESCRIPTION
1	1	HLGB-0420-IS	SOLID GND. BAR (20"x4"x1/4")
2	2	———	WALL MTG. BRKT.
3	2	———	INSULATORS
4	4	———	5/8"-11x1" H.H.C.S.
5	4	———	5/8 LOCKWASHER



6 G-1 TYP. GROUND BAR CONN.

SCALE: N.T.S.

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

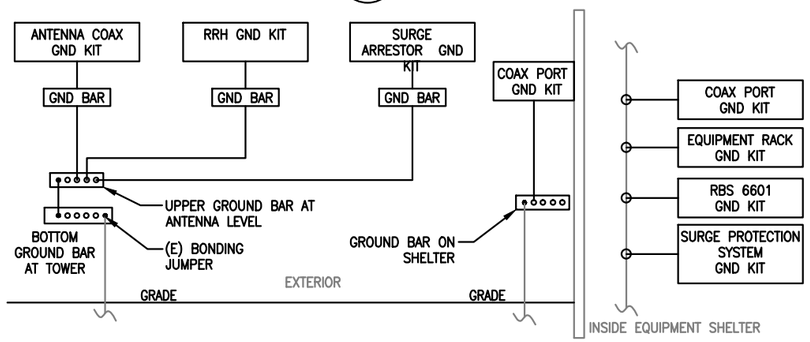
SECTION "P" – SURGE PRODUCERS

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

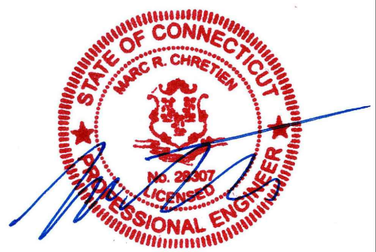
INTERIOR GROUND RING (#2)
EXTERNAL EARTH GROUND FIELD (BURIED GROUND RING) (#2)
METALLIC COLD WATER PIPE (IF AVAILABLE) (#2)
BUILDING STEEL (IF AVAILABLE) (#2)

GROUNDING NOTES:
ALL GROUNDING SHALL BE DONE IN ACCORDANCE WITH THE AT&T MOBILITY GROUNDING GUIDE.



7 G-1 ONE LINE GROUNDING DIAGRAM

SCALE: N.T.S.



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1	02/02/17	REVISION	AAB	MRC

GROUNDING DETAILS AND ONE LINE DIAGRAM

SHEET NO. **G-1**

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

Structural Analysis Report

Existing 155 ft Nudd Corporation Monopole

Customer Name: SBA Communications Corp

Customer Site Number: CT00302-S

Customer Site Name: Danielson

Carrier Name: AT&T

Carrier Site ID / Name: CT5483 / DANIELSON - E. FRANKLIN ST

Site Location: 246 East Franklin Street

Danielson, Connecticut

Windham County

Latitude: 41.795822

Longitude: -71.870333

Analysis Result:

Max Structural Usage: 99.3% [Pass]

Max Foundation Usage: 50.3% [Pass]

Report Prepared By : Fabiaye Arinyedokiari

4/10/17

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Max Structural Usage: 99.3% [Pass]

Max Foundation Usage: 50.3% [Pass]

Report Prepared By : Fabiaye Arinyedokiari

Introduction

The purpose of this report is to summarize the analysis results on the 155 ft Nudd Corporation Monopole to support the proposed antennas and transmission lines in addition to those currently installed. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

Sources of Information

Tower Drawings	Nudd Corporation, Project #6410 dated October 27, 1998
Foundation Drawing	Nudd Corporation, Project #98-6410-4 dated November 2, 1998
Geotechnical Report	Jaworski Geotech, Inc., Project #C98423G dated October 14, 1998
Modification Drawings	Vertical Solutions, Inc., Job #TA2002007001-T1 dated October 7, 2002 Vertical Solutions, Inc., Job #TA2008007031-T3 dated November 10, 2008 Vertical Solutions, Inc., Job #TA2009007021-T2 dated July 16, 2009 FDH Engineering, Project #12-01571E S4 dated March 13, 2013 FDH Engineering, Project #1466VA1400 dated July 8, 2014

Analysis Criteria

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

Wind Speed Used in the Analysis:	Ultimate Design Wind Speed V_{ult} = 130.0 mph (3-Sec. Gust)/ Nominal Design Wind Speed V_{asd} = 101.0 mph (3-Sec. Gust)
Wind Speed with Ice:	50 mph (3-Sec. Gust) with 1" radial ice concurrent
Operational Wind Speed:	60 mph + 0" Radial ice
Standard/Codes:	ANSI/TIA/EIA 222-G / 2012 IBC / 2016 Connecticut State Building Code
Exposure Category:	B
Structure Class:	II
Topographic Category:	3
Crest Height:	172 ft
Seismic Parameters:	S_S = 0.171, S_1 = 0.062

Existing Antennas, Mounts and Transmission Lines

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

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1	155.0	3	Commscope LNX-6514DS-A1M - Panel	(3) T-Frame w/ Platforms	(11) 1 5/8" (2) 1 5/8" Fiber	Verizon
2		3	BXA-70080-4BF - Panel			
3		6	Commscope HBXX-6517DS-A2M - Panel			
4		3	Alcatel Lucent RRH2X60-AWS			
5		3	Alcatel Lucent RRH2X60-PCS			
6		3	Alcatel Lucent RRH2X60-700			
7		6	RFS Celwave FD9R6004/2C-3L			
8		1	RFS DB-T1-6Z-8AB-0Z			
9	147.0	3	RFS APXVSPP18-C-A20 - Panel	(3) T-Frame w/ Platforms	(4) 1 1/4"	Sprint
10		3	RFS APXVTM14-C-120 - Panel			
11		3	ALU TD-RRH8x20-25			
12		3	ALU 1900MHz RRH			
13		3	ALU 800 MHz RRH			
14		3	ALU 800 MHz Filters			
15		4	RFS ACU-A20-N			
16	137.0	6	DAPA 59212 - Panel	(3) T-Frame w/ Platforms	(6) 1 5/8"	T-Mobile
-	127.0	6	Powerwave 7770.00 - Panel	Low Profile Platform	(12) 1 5/8" (2) 3/4" DC (1) 7/16" Fiber	AT&T
-		3	KMW AM-X-CD-17-65-00T - Panel			
-		6	Powerwave LGP21401 - TMA			
-		6	Powerwave LGP21903 - TMA			
-	125.0	6	Ericsson RRUS 11 - RRU	(1) Universal Ring Mount		
-		1	Raycap DC2-48-60-18-8F			
24	117.0	6	Kathrein 742 351 - Panel	(3) T-Frames	(12) 1 5/8" (1) 3/8"	Metro PCS
25	35.0	1	Decibel DB589	(1) Standoff	(2) 7/8"	American Messaging

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

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

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
17	127.0	6	Powerwave 7770.00 - Panel	Low Profile Platform	(12) 1 5/8" (2) 3/4" DC (1) 7/16" Fiber (1) 3" Conduit	AT&T
18		3	CCI HPA-65R-BUU-H8 - Panel			
19		6	Powerwave LGP21401 - TMA			
20		3	Ericsson RRUS 11 - RRU			
21		3	Ericsson RRUS 32 B2 - RRU			
22		6	Powerwave LGP13519 - Diplexer			
23		1	Raycap DC6-48-60-18-8F			

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

Analysis Results

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

	Pole shafts	Anchor Bolts	Base Plate	Reinforcement
Max. Usage:	**95.5%**	**75.8%**	**53.2%**	**99.3%**
Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**

Foundations

	Moment (Kip-Ft)	Shear (Kips)	Axial (Kips)
Analysis Reactions	5037.3	50.5	53.9

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

Operational Condition (Rigidity):

Operational characteristics of the tower are found to be within the limits prescribed by ANSI/TIA/EIA 222-G for the installed antennas. The maximum twist/sway at the elevation of the proposed equipment is 1.1102 degrees under the operational wind speed as specified in the Analysis Criteria.

Conclusions

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

Antenna Mount Note:

The existing mount contributed no additional stress to the tower since it was already existing.

Standard Conditions

1. This analysis was performed based on the information supplied to **(TES) Tower Engineering Solutions, LLC.** Verification of the information provided was not included in the Scope of Work for **TES**. The accuracy of the analysis is dependent on the accuracy of the information provided.

2. The analysis is based on the presumption that the tower members and components along with any existing reinforcement items have been correctly and properly designed, manufactured, installed and maintained.

3. All the existing structural members were assumed to be in good condition with no physical damage or deterioration associated with corrosion.

4. An initial tension of 10% of the break strength on all the existing guy wires was assumed in all the structural analyses of guyed towers unless different values were provided by the client. **TES** cannot take responsibility for the deviations in the analysis results because of differences in the initial tension forces of the existing guy wires.

5. Secondary component or connection secondary components, welds and bolts are assumed to be able to carry their intended original design loads. **TES** cannot take responsibility for verification of the adequacy on the connections, bolts and welds present in the structure.

6. The analyses will be performed based on the codes as specified by the client or based on the best knowledge of the engineering staff of **TES**. In the absence of information to the contrary, all work will be performed in accordance with the latest relevant revision of ANSI/TIA-222. If wind speed and/or ice loads are different from the minimum values recommended by the EIA/TIA-222 standard or other codes, **TES** should be notified in writing and the applicable minimum values provided by the client.

7. The configuration of the existing mounts, antennas, coax and other appurtenances were supplied by the customer for the current structural analysis. **TES** has not visited the tower site to verify the adequacy of the information provided. If there is any discrepancy found in the report regarding the existing conditions, **TES** should be notified immediately to evaluate the effect of the discrepancy on the analysis results.

8. The client will assume responsibility for rework associated with the differences in initially provided information, including tower and foundation information, existing and/or proposed equipment and transmission lines.

9. If a feasibility analysis was performed, final acceptance of changed conditions shall be based upon a rigorous structural analysis.

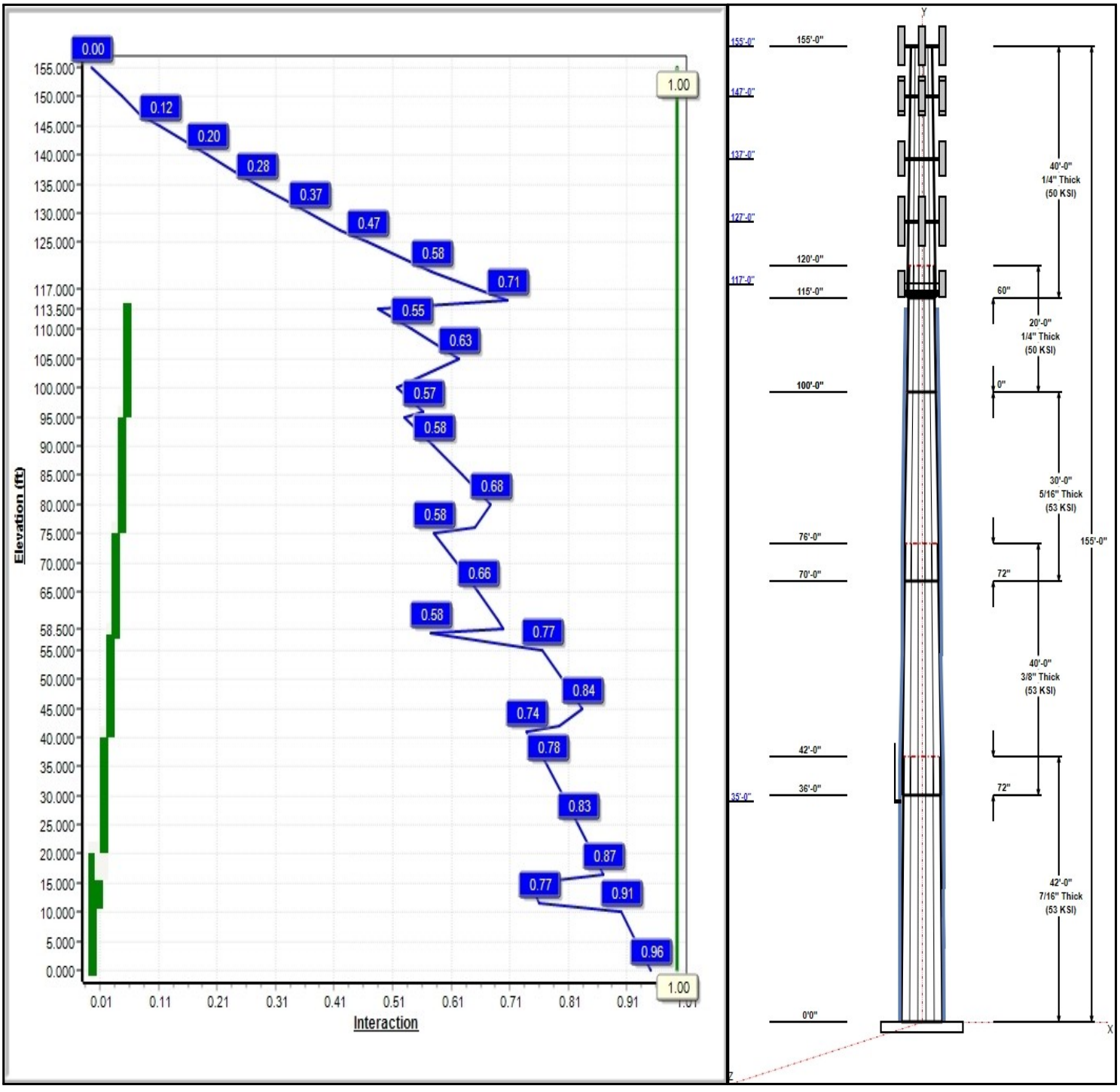
Usage Diagram - Max Ratio 95.54% at 0.0ft

Structure:	CT00302-S-SBA	**Code:**	EIA/TIA-222-G	4/10/2017	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Gh:**	1.1	Page: 1	
Base Elev:	0.000 (ft)				

Tower Engineering Solutions

Dead Load Factor:	1.20	**Iterations:**	23
Wind Load Factor:	1.60		

Load Case : 1.2D + 1.6W 101 mph Wind



Structure: CT00302-S-SBA

Type: Tapered
Site Name: Danielson
Height: 155.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: 12 Sided
Taper: 0.19129

4/10/2017

Tower Engineering Solutions

Shaft Properties

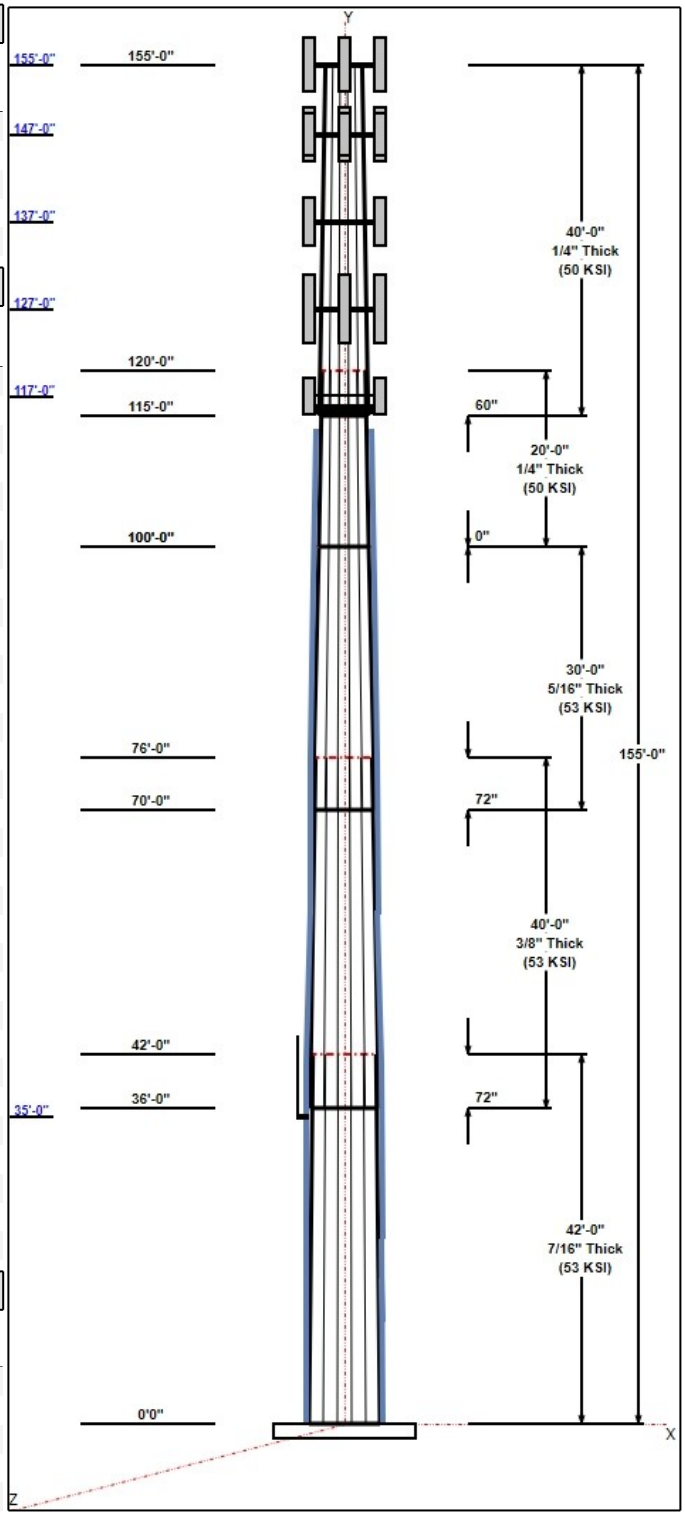
Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	42.00	45.87	53.90	0.433		0.19129	53
2	40.00	40.11	47.76	0.375	Slip	0.19129	53
3	30.00	36.15	41.88	0.313	Slip	0.19129	53
4	20.00	32.32	36.15	0.250	Butt	0.19129	50
5	40.00	26.13	33.78	0.250	Slip	0.19129	50

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
155.00	155.00	3	LNX-6514DS-A1M	Verizon
155.00	155.00	3	BXA-70080-4BF	Verizon
155.00	155.00	6	HBXX-6517DS-A2M	Verizon
155.00	155.00	3	RRH2X60-AWS	Verizon
155.00	155.00	3	RRH2X60-PCS	Verizon
155.00	155.00	3	RRH2X60-700	Verizon
155.00	155.00	6	FD9R6004/2C-3L	Verizon
155.00	155.00	1	DB-T1-6Z-8AB-0Z	Verizon
155.00	155.00	1	(3) T-Frame w/ Platforms	Verizon
147.00	147.00	1	(3) T-Frame w/ Platforms	Sprint
147.00	147.00	3	APXVSPP18-C-A20	Sprint
147.00	147.00	3	APXVTM14-C-120	Sprint
147.00	147.00	3	TD-RRH8x20-25	Sprint
147.00	147.00	3	1900MHz RRH	Sprint
147.00	147.00	3	800 MHz RRH	Sprint
147.00	147.00	3	800 MHz Filters	Sprint
147.00	147.00	4	ACU-A20-N	Sprint
137.00	137.00	6	59212	T-Mobile
137.00	137.00	1	(3) T-Frame w/ Platforms	T-Mobile
127.00	127.00	1	Low Profile	AT&T
127.00	127.00	3	HPA-65R-BUU-H8	AT&T
127.00	127.00	6	LGP21401	AT&T
127.00	127.00	3	RRUS 11	AT&T
127.00	127.00	3	RRUS 32 B2	AT&T
127.00	127.00	1	DC6-48-60-18-8F	AT&T
127.00	127.00	6	LGP13519	AT&T
127.00	127.00	6	7770.00	AT&T
117.00	117.00	6	742 351	Metro PCS
117.00	117.00	3	T-Frames	Metro PCS
35.00	35.00	1	3.58' Standoff	American Messaging
35.00	39.60	1	DB589	American Messaging

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	155.00	Inside	1 5/8" Coax	Verizon
0.00	155.00	Inside	1 5/8" Fiber	Verizon
0.00	147.00	Inside	1 1/4" Coax	Sprint
0.00	137.00	Inside	1 5/8" Coax	T-Mobile
0.00	127.00	Inside	1 5/8" Coax	AT&T
0.00	127.00	Inside	3" Conduit	AT&T
0.00	127.00	Inside	3/4" DC	AT&T
0.00	127.00	Inside	7/16" Fiber	AT&T
0.00	117.00	Inside	1 5/8" Coax	Metro PCS
0.00	117.00	Inside	3/8" Coax	Metro PCS



58.00	115.00	Outside	1.25" Reinforcing plate	
0.00	58.00	Outside	10"x1/2" Bent plate	
0.00	35.00	Inside	7/8" Coax	American Messaging

Anchor Bolts

Qty	Specifications	Grade (ksi)	Arrangement
18	2.00" A687	105.0	Radial

Base Plate

Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
1.7500	67.0	36.0	Round

Reactions

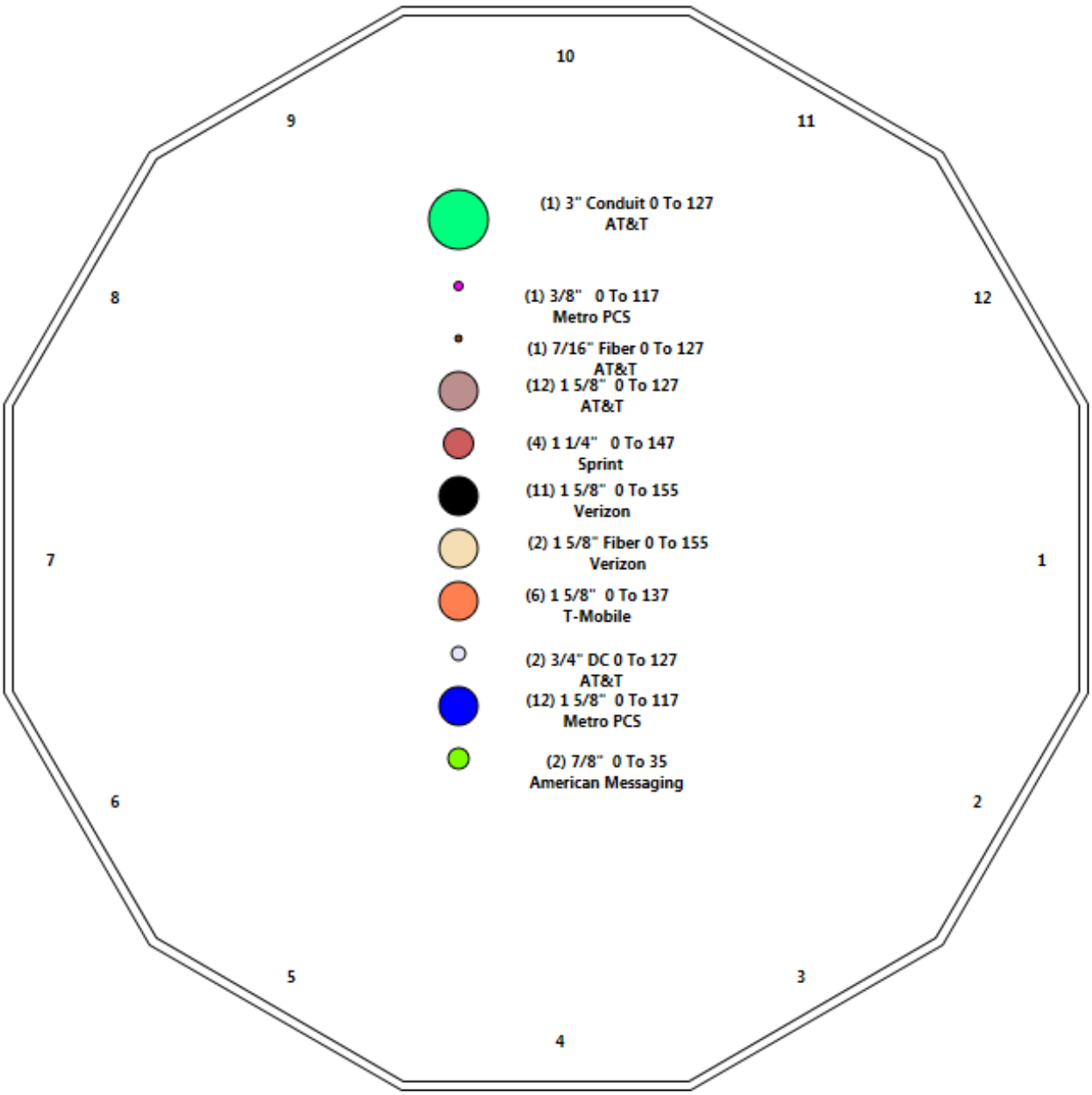
Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.6W 101 mph Wind	5037.4	50.5	54.0
0.9D + 1.6W 101 mph Wind	4991.6	50.5	40.5
1.2D + 1.0Di + 1.0Wi 50 mph Wind	1239.2	11.4	102.1
1.2D + 1.0E	186.5	1.5	54.1
0.9D + 1.0E	184.6	1.5	40.6
1.0D + 1.0W 60 mph Wind	1105.7	11.1	45.1

Structure: CT00302-S-SBA - Coax Line Placement

Type: Monopole
Site Name: Danielson
Height: 155.00 (ft)

4/10/2017

Tower Engineering Solutions



Shaft Properties

Structure:	CT00302-S-SBA		**Code:**	EIA/TIA-222-G	4/10/2017
Site Name:	Danielson		**Exposure:**	B	
Height:	155.00 (ft)		**Crest Height:**	172.00	
Base Elev:	0.000 (ft)		**Site Class:**	C - Very Dense Soil	
Gh:	1.1	**Topography:** 3	**Struct Class:**	II	Page: 5

Tower Engineering Solutions

Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	12	42.000	0.4331	53		0.00	9,856
2	12	40.000	0.3750	53	Slip	72.00	7,160
3	12	30.000	0.3125	53	Slip	72.00	3,976
4	12	20.000	0.2500	50	Flange	0.00	1,862
5	12	40.000	0.2500	50	Slip	60.00	3,254
					Total Shaft Weight:		**26,107**

	Bottom						Top						
Sec. No.	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Taper
1	53.90	0.00	74.56	27207.27	31.20	124.45	45.87	42.00	63.36	16693.0	26.23	105.9	0.191290
2	47.76	36.00	57.22	16401.87	31.98	127.37	40.11	76.00	47.98	9670.66	26.52	106.9	0.191290
3	41.88	70.00	41.83	9227.84	33.77	134.03	36.15	100.00	36.06	5909.60	28.85	115.6	0.191290
4	36.15	100.0	28.90	4752.46	36.60	144.58	32.32	120.00	25.82	3389.11	32.50	129.2	0.191290
5	33.78	115.0	26.99	3872.14	34.06	135.11	26.13	155.00	20.83	1780.01	25.86	104.5	0.191290

Additional Steel

							Intermediate Connectors		Termination Connectors			
Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Fu (ksi)	Offset (in)	Description	Spacing (in)	Description	Spacing (in)	Lower Qty	Upper Qty
0.00	21.00	3	PLT 6"X1-1/4"(1.25" Hole	65	80	0.00	AJM20&sleeve	18.00	AJM20&sleeve	3.00		
11.50	16.50	1	PLT 6"X1-1/4"(1.25" Hole	65	80	0.00	AJM20&sleeve	18.00	AJM20&sleeve	3.00	11	11
21.00	41.00	3	PLT 6"X1-1/4"(1.25" Hole	65	80	0.00	AJM20&sleeve	18.00	AJM20&sleeve	3.00		
41.00	58.50	3	PLT 6"X1-1/4"(1.25" Hole	65	80	0.00	AJM20&sleeve	18.00	AJM20&sleeve	3.00		11
58.00	76.00	3	PLT 5"x1-1/4"(1.25"Hole)	65	80	0.00	AJM20&sleeve	18.00	AJM20&sleeve	3.00	8	
76.00	96.00	3	PLT 4.5"x 1-1/4"(1.25"ho	65	80	0.00	AJM20&sleeve	18.00	AJM20&sleeve	3.00		
96.00	113.5	3	PLT 3.5x1.25(1.25 Hole)	65	80	0.00	AJM20&sleeve	18.00	AJM20&sleeve	3.00		6

Load Summary

Structure:	CT00302-S-SBA		**Code:**	EIA/TIA-222-G	4/10/2017
Site Name:	Danielson		**Exposure:**	B	
Height:	155.00 (ft)		**Crest Height:**	172.00	
Base Elev:	0.000 (ft)		**Site Class:**	C - Very Dense Soil	
Gh:	1.1	**Topography:** 3	**Struct Class:**	II	Page: 6

Tower Engineering Solutions

Discrete Appurtenances

				No Ice			Ice				
No.	**Elev (ft)**	**Description**	**Qty**	**Weight (lb)**	**CaAa (sf)**	**CaAa Factor**	**Weight (lb)**	**CaAa (sf)**	**CaAa Factor**	**Hor. Ecc. (ft)**	**Vert Ecc (ft)**
1	155.00	LNX-6514DS-A1M	3	38.40	8.17	0.83	287.05	12.152	0.83	0.00	0.00
2	155.00	BXA-70080-4BF	3	13.00	4.76	0.76	164.47	7.385	0.76	0.00	0.00
3	155.00	HBXX-6517DS-A2M	6	40.80	8.55	0.77	289.40	12.667	0.77	0.00	0.00
4	155.00	RRH2X60-AWS	3	55.00	3.50	0.67	167.86	4.613	0.67	0.00	0.00
5	155.00	RRH2X60-PCS	3	55.00	2.20	0.67	186.08	3.132	0.67	0.00	0.00
6	155.00	RRH2X60-700	3	46.00	1.88	0.67	154.30	2.743	0.67	0.00	0.00
7	155.00	FD9R6004/2C-3L	6	3.10	0.36	0.50	14.42	0.985	0.50	0.00	0.00
8	155.00	DB-T1-6Z-8AB-0Z	1	18.90	4.80	0.71	236.82	6.067	0.71	0.00	0.00
9	155.00	(3) T-Frame w/ Platforms	1	1620.00	25.00	1.00	3613.98	53.310	1.00	0.00	0.00
10	147.00	(3) T-Frame w/ Platforms	1	1620.00	25.00	1.00	3613.31	53.300	1.00	0.00	0.00
11	147.00	APXVSPP18-C-A20	3	57.00	8.02	0.83	300.73	11.959	0.83	0.00	0.00
12	147.00	APXVTM14-C-120	3	56.00	6.34	0.79	301.28	7.951	0.79	0.00	0.00
13	147.00	TD-RRH8x20-25	3	70.00	4.05	0.69	239.41	5.233	0.69	0.00	0.00
14	147.00	1900MHz RRH	3	44.00	3.80	0.67	197.93	5.760	0.67	0.00	0.00
15	147.00	800 MHz RRH	3	53.00	2.49	0.67	157.29	4.103	0.67	0.00	0.00
16	147.00	800 MHz Filters	3	61.80	2.91	0.67	189.73	4.626	0.67	0.00	0.00
17	147.00	ACU-A20-N	4	1.00	0.14	0.50	7.06	0.558	0.79	0.00	0.00
18	137.00	59212	6	40.00	4.97	0.66	281.07	7.797	0.66	0.00	0.00
19	137.00	(3) T-Frame w/ Platforms	1	1620.00	25.00	1.00	3612.87	53.294	1.00	0.00	0.00
20	127.00	Low Profile Platform-Round	1	1500.00	22.00	1.00	3345.27	46.899	1.00	0.00	0.00
21	127.00	HPA-65R-BUU-H8	3	68.00	12.98	0.79	506.37	15.313	0.79	0.00	0.00
22	127.00	LGP21401	6	17.50	0.95	0.50	46.11	1.999	0.50	0.00	0.00
23	127.00	RRUS 11	3	50.70	2.52	0.67	188.40	3.472	0.67	0.00	0.00
24	127.00	RRUS 32 B2	3	60.00	2.74	0.67	196.55	3.800	0.67	0.00	0.00
25	127.00	DC6-48-60-18-8F	1	31.80	0.92	1.00	118.96	1.538	1.00	0.00	0.00
26	127.00	LGP13519	6	5.30	0.34	0.67	18.69	0.980	0.67	0.00	0.00
27	127.00	7770.00	6	35.00	5.50	0.73	243.68	7.042	0.73	0.00	0.00
28	117.00	742 351	6	29.80	5.38	0.61	164.18	8.181	0.61	0.00	0.00
29	117.00	T-Frames	3	880.00	20.40	0.75	1850.19	34.858	0.75	0.00	0.00
30	35.00	3.58' Standoff	1	70.00	1.67	0.67	155.41	4.392	0.67	0.00	0.00
31	35.00	DB589	1	11.50	1.38	1.00	63.95	4.630	1.00	0.00	4.60
		Totals:	**99**	**12,348.90**			**36,397.02**				

Linear Appurtenances

Bottom Elev. (ft)	**Top Elev. (ft)**	**Description**	**Exposed Width**	**Exposed**
0.00	155.00	(11) 1 5/8" Coax	0.00	Inside
0.00	155.00	(2) 1 5/8" Fiber	0.00	Inside
0.00	147.00	(4) 1 1/4" Coax	0.00	Inside
0.00	137.00	(6) 1 5/8" Coax	0.00	Inside
0.00	127.00	(12) 1 5/8" Coax	0.00	Inside
0.00	127.00	(1) 3" Conduit	0.00	Inside
0.00	127.00	(2) 3/4" DC	0.00	Inside
0.00	127.00	(1) 7/16" Fiber	0.00	Inside
0.00	117.00	(12) 1 5/8" Coax	0.00	Inside
0.00	117.00	(1) 3/8" Coax	0.00	Inside

Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice Weight (lb)	No Ice CaAa (sf)	No Ice CaAa Factor	Ice Weight (lb)	Ice CaAa (sf)	Ice CaAa Factor	Hor. Ecc. (ft)	Vert Ecc (ft)
58.00	115.00	(3) 1.25" Reinforcing plate			2.00	Outside					
0.00	58.00	(3) 10"x1/2" Bent plate			4.00	Outside					
0.00	35.00	(2) 7/8" Coax			0.00	Inside					

Shaft Section Properties

Structure: CT00302-S-SBA | **Code:** EIA/TIA-222-G | 4/10/2017

Site Name: Danielson | **Exposure:** B

Height: 155.00 (ft) | **Crest Height:** 172.00

Base Elev: 0.000 (ft) | **Site Class:** C - Very Dense Soil

Gh: 1.1 | **Topography:** 3 | **Struct Class:** II | Page: 8

Tower Engineering Solutions

Increment Length: 5 (ft)

Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fy (ksi)	Fb (ksi)	Weight (lb)	Additional Reinforcing Area (in^2)	Additional Reinforcing Ixp (in^4)	Additional Reinforcing Iyp (in^4)	Additional Reinforcing Weight (lb)
0.00	RB1	0.4331	53.900	74.564	27207.3	31.20	124.45	53	60	0.0	22.50	11335.6	5634.6	
5.00		0.4331	52.944	73.230	25773.1	30.61	122.24	53	61	1257.3	22.50	10945.7	5440.9	382.8
10.00		0.4331	51.987	71.896	24390.3	30.02	120.03	53	61	1234.6	22.50	10562.8	5250.7	382.8
11.50	RB2	0.4331	51.700	71.496	23985.3	29.84	119.37	53	61	365.9	30.00	10560.9	10206.1	153.1
15.00		0.4331	51.031	70.562	23057.8	29.43	117.83	53	62	845.9	30.00	10296.7	9948.1	357.3
16.50	RT2	0.4331	50.744	70.162	22667.8	29.25	117.16	53	62	359.1	22.50	10075.2	5008.4	114.8
20.00		0.4331	50.074	69.229	21774.8	28.84	115.62	53	62	830.1	22.50	9817.4	4880.4	268.0
21.00	RT1 RB3	0.4331	49.883	68.962	21524.0	28.72	115.18	53	62	235.1	22.50	9744.4	4844.1	76.6
25.00		0.4331	49.118	67.895	20540.3	28.24	113.41	53	63	931.4	22.50	9455.0	4700.4	306.2
30.00		0.4331	48.161	66.561	19353.3	27.65	111.20	53	63	1143.8	22.50	9099.5	4523.8	382.8
35.00		0.4331	47.205	65.227	18213.0	27.06	108.99	53	64	1121.1	22.50	8750.8	4350.6	382.8
36.00	Bot - Section 2	0.4331	47.014	64.960	17990.4	26.94	108.55	53	64	221.5	22.50	8681.8	4316.4	76.6
40.00		0.4331	46.248	63.893	17118.3	26.47	106.78	53	64	1649.5	22.50	8675.5	4312.8	306.2
41.00	RT3 RB4	0.4331	46.057	63.626	16904.8	26.35	106.34	53	64	408.1	22.50	8606.9	4278.7	76.6
42.00	Top - Section 1	0.3750	46.616	55.836	15238.7	31.16	124.31	53	60	406.4	22.50	8538.6	4244.8	76.6
45.00		0.3750	46.042	55.143	14678.4	30.75	122.78	53	61	566.5	22.50	8328.6	4136.7	229.7
50.00		0.3750	45.085	53.988	13775.3	30.07	120.23	53	61	928.4	22.50	7995.4	3971.4	382.8
55.00		0.3750	44.129	52.833	12910.0	29.39	117.68	53	62	908.7	22.50	7669.0	3809.5	382.8
58.00	RB5	0.3750	43.555	52.140	12408.7	28.98	116.15	53	62	535.8	41.25	12224.5	8463.6	421.0
58.50	RT4	0.3750	43.460	52.025	12326.4	28.91	115.89	53	62	88.6	18.75	4705.8	4705.8	31.9
60.00		0.3750	43.173	51.678	12081.8	28.70	115.13	53	62	264.7	18.75	4645.8	4645.8	95.7
65.00		0.3750	42.216	50.523	11289.7	28.02	112.58	53	63	869.4	18.75	4448.8	4448.8	318.9
70.00	Bot - Section 3	0.3750	41.260	49.368	10533.1	27.34	110.03	53	63	849.8	18.75	4256.1	4256.1	318.9
75.00		0.3750	40.303	48.213	9811.0	26.65	107.48	53	64	1533.7	18.75	4190.3	4190.3	318.9
76.00	Top - Section 2 RT5	0.3125	40.737	40.677	8484.5	32.79	130.36	53	59	302.4	16.88	3734.0	3734.0	57.4
80.00		0.3125	39.972	39.907	8011.7	32.13	127.91	53	60	548.4	16.88	3599.7	3599.7	229.7
85.00		0.3125	39.015	38.945	7445.9	31.31	124.85	53	60	670.8	16.88	3435.3	3435.3	287.1
90.00		0.3125	38.059	37.982	6907.4	30.49	121.79	53	61	654.4	16.88	3274.7	3274.7	287.1
95.00		0.3125	37.102	37.020	6395.6	29.67	118.73	53	62	638.0	16.88	3118.0	3118.0	287.1
96.00	RT6 RB7	0.3125	36.911	36.827	6296.3	29.51	118.12	53	62	125.6	13.13	2396.7	2396.7	44.7
100.00	Top - Section 3	0.3125	36.146	36.057	5909.6	28.85	115.67	53	62	496.0	13.13	2301.9	2301.9	178.6
100.00	Bot - Section 4	0.2500	36.146	28.896	4752.5	36.06	144.58	50	54					
105.00		0.2500	35.190	28.126	4382.6	35.57	140.76	50	54	485.1	13.13	2186.0	2186.0	223.3
110.00		0.2500	34.233	27.356	4032.5	34.55	136.93	50	55	472.0	13.13	2073.2	2073.2	223.3
113.50	RT7	0.2500	33.564	26.817	3798.8	33.83	134.25	50	56	322.6	13.13	1996.0	1996.0	156.3
115.00	Bot - Section 5	0.2500	33.277	26.586	3701.5	33.52	133.11	50	56	136.3				
117.00		0.2500	32.894	26.278	3574.3	33.11	131.58	50	56	362.5				
120.00	Top - Section 4	0.2500	32.820	26.219	3550.1	33.03	131.28	50	56	535.9				
125.00		0.2500	31.864	25.449	3246.4	32.01	127.45	50	57	439.5				
127.00		0.2500	31.481	25.141	3130.0	31.60	125.92	50	57	172.1				
130.00		0.2500	30.907	24.679	2960.6	30.98	123.63	50	58	254.3				
135.00		0.2500	29.951	23.909	2692.1	29.96	119.80	50	59	413.3				
137.00		0.2500	29.568	23.601	2589.4	29.55	118.27	50	59	161.7				
140.00		0.2500	28.994	23.139	2440.3	28.93	115.98	50	59	238.6				
145.00		0.2500	28.038	22.369	2204.7	27.91	112.15	50	60	387.1				
147.00		0.2500	27.655	22.061	2114.9	27.50	110.62	50	60	151.2				
150.00		0.2500	27.081	21.599	1984.8	26.88	108.33	50	61	222.9				
155.00		0.2500	26.125	20.829	1780.0	25.86	104.50	50	62	360.9				
									Total Weight	**26107.2**				**7818.3**

Wind Loading - Shaft

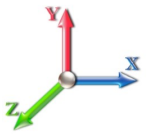
Structure:	CT00302-S-SBA	**Code:**	EIA/TIA-222-G	4/10/2017	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	172.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 9	

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 23

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00	RB1	2.18	0.70	37.885	41.67	580.38	1.000	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		2.10	0.70	36.515	40.17	559.69	1.000	0.000	5.00	23.044	23.04	1481.0	0.0	1508.7
10.00		2.03	0.70	35.247	38.77	539.94	1.000	0.000	5.00	22.632	22.63	1403.9	0.0	1481.5
11.50	RB2	2.01	0.70	34.884	38.37	534.19	1.000	0.000	1.50	6.709	6.71	411.9	0.0	439.1
15.00		1.96	0.70	34.070	37.48	521.09	1.000	0.000	3.50	15.510	15.51	930.0	0.0	1015.1
16.50	RT2	1.94	0.70	33.734	37.11	515.59	1.000	0.000	1.50	6.585	6.59	391.0	0.0	431.0
20.00		1.90	0.70	32.978	36.28	503.06	1.000	0.000	3.50	15.221	15.22	883.5	0.0	996.1
21.00	RT1 RB3	1.89	0.70	32.769	36.05	499.55	1.000	0.000	1.00	4.312	4.31	248.7	0.0	282.1
25.00		1.84	0.70	31.964	35.16	485.81	1.000	0.000	4.00	17.082	17.08	961.0	0.0	1117.7
30.00		1.79	0.70	31.048	34.15	469.47	1.000	0.000	5.00	20.981	20.98	1146.5	0.0	1372.6
35.00	Appurtenance(s)	1.74	0.73	31.530	34.68	463.70	1.000	0.000	5.00	20.569	20.57	1141.4	0.0	1345.3
36.00	Bot - Section 2	1.73	0.74	31.608	34.77	462.40	1.000	0.000	1.00	4.064	4.06	226.1	0.0	265.8
40.00		1.69	0.76	31.870	35.06	456.76	1.000	0.000	4.00	16.351	16.35	917.1	0.0	1979.4
41.00	RT3 RB4	1.68	0.77	31.925	35.12	455.26	1.000	0.000	1.00	4.046	4.05	227.4	0.0	489.8
42.00	Top - Section 1	1.67	0.77	31.976	35.17	453.73	1.000	0.000	1.00	4.030	4.03	226.8	0.0	487.7
45.00		1.65	0.79	32.108	35.32	456.41	1.000	0.000	3.00	11.991	11.99	677.6	0.0	679.7
50.00		1.60	0.81	32.271	35.50	448.06	1.000	0.000	5.00	19.655	19.65	1116.3	0.0	1114.0
55.00		1.57	0.83	32.378	35.62	439.28	1.000	0.000	5.00	19.242	19.24	1096.5	0.0	1090.5
58.00	RB5	1.55	0.85	32.422	35.66	433.86	1.000	0.000	3.00	11.347	11.35	647.5	0.0	643.0
58.50	RT4	1.54	0.85	32.427	35.67	432.95	1.000	0.000	0.50	1.877	1.88	107.1	0.0	106.3
60.00		1.53	0.85	32.444	35.69	430.19	1.000	0.000	1.50	5.606	5.61	320.1	0.0	317.6
65.00		1.50	0.87	32.478	35.73	420.89	1.000	0.000	5.00	18.417	18.42	1052.7	0.0	1043.3
70.00	Bot - Section 3	1.47	0.89	32.491	35.74	411.44	1.000	0.000	5.00	18.004	18.00	1029.6	0.0	1019.7
75.00		1.44	0.91	32.488	35.74	401.88	1.000	0.000	5.00	17.861	17.86	1021.3	0.0	1840.4
76.00	Top - Section 2 RT5	1.43	0.91	32.486	35.73	399.96	1.000	0.000	1.00	3.523	3.52	201.4	0.0	362.9
80.00		1.41	0.93	32.474	35.72	398.49	1.000	0.000	4.00	13.926	13.93	795.9	0.0	658.1
85.00		1.39	0.94	32.453	35.70	388.83	1.000	0.000	5.00	17.036	17.04	973.1	0.0	804.9
90.00		1.36	0.96	32.428	35.67	379.15	1.000	0.000	5.00	16.624	16.62	948.8	0.0	785.3
95.00		1.34	0.97	32.401	35.64	369.47	1.000	0.000	5.00	16.211	16.21	924.5	0.0	765.6
96.00	RT6 RB7	1.34	0.98	32.396	35.64	367.53	1.000	0.000	1.00	3.193	3.19	182.0	0.0	150.8
100.00	Top - Section 3	1.32	0.99	32.375	35.61	359.80	1.000	0.000	4.00	12.606	12.61	718.3	0.0	595.2
105.00		1.30	1.00	32.350	35.58	350.14	1.000	0.000	5.00	15.386	15.39	876.0	0.0	582.1
110.00		1.28	1.02	32.327	35.56	340.51	1.000	0.000	5.00	14.973	14.97	851.9	0.0	566.4
113.50	RT7	1.27	1.02	32.314	35.55	333.78	1.000	0.000	3.50	10.236	10.24	582.1	0.0	387.1
115.00	Bot - Section 5	1.27	1.03	32.309	35.54	330.90	1.000	0.000	1.50	4.325	4.32	245.9	0.0	163.5
117.00	Appurtenance(s)	1.26	1.03	32.302	35.53	327.06	1.000	0.000	2.00	5.795	5.80	329.5	0.0	435.0
120.00	Top - Section 4	1.25	1.04	32.294	35.52	321.31	1.000	0.000	3.00	8.569	8.57	487.0	0.0	643.1
125.00		1.24	1.05	32.284	35.51	316.73	1.000	0.000	5.00	13.951	13.95	792.7	0.0	527.4
127.00	Appurtenance(s)	1.23	1.06	32.281	35.51	312.91	1.000	0.000	2.00	5.465	5.46	310.5	0.0	206.6
130.00		1.22	1.07	32.279	35.51	307.19	1.000	0.000	3.00	8.074	8.07	458.7	0.0	305.1
135.00		1.21	1.08	32.279	35.51	297.69	1.000	0.000	5.00	13.126	13.13	745.7	0.0	496.0
137.00	Appurtenance(s)	1.20	1.08	32.280	35.51	293.89	1.000	0.000	2.00	5.135	5.13	291.7	0.0	194.0
140.00		1.20	1.09	32.284	35.51	288.20	1.000	0.000	3.00	7.579	7.58	430.6	0.0	286.3
145.00		1.18	1.10	32.295	35.52	278.74	1.000	0.000	5.00	12.301	12.30	699.2	0.0	464.6
147.00	Appurtenance(s)	1.18	1.10	32.300	35.53	274.96	1.000	0.000	2.00	4.805	4.80	273.1	0.0	181.4
150.00		1.17	1.11	32.311	35.54	269.30	1.000	0.000	3.00	7.083	7.08	402.8	0.0	267.4
155.00	Appurtenance(s)	1.16	1.12	32.332	35.56	259.87	1.000	0.000	5.00	11.476	11.48	653.0	0.0	433.1

Wind Loading - Shaft

Structure:	CT00302-S-SBA			**Code:**	EIA/TIA-222-G	4/10/2017
Site Name:	Danielson			**Exposure:**	B	
Height:	155.00 (ft)			**Crest Height:**	172.00	
Base Elev:	0.000 (ft)			**Site Class:**	C - Very Dense Soil	
Gh:	1.1	**Topography:**	3	**Struct Class:**	II	Page: 10

Totals:	**155.00**	**30,839.5**	**31,328.6**

Discrete Appurtenance Forces

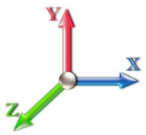
Structure:	CT00302-S-SBA	**Code:**	EIA/TIA-222-G	4/10/2017	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	172.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 11	

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 23

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	155.00	RRH2X60-AWS	3	32.332	35.565	0.54	0.80	5.63	198.00	0.000	0.000	320.26	0.00	0.00
2	155.00	LNX-6514DS-A1M	3	32.332	35.565	0.66	0.80	16.27	138.24	0.000	0.000	926.09	0.00	0.00
3	155.00	BXA-70080-4BF	3	32.332	35.565	0.61	0.80	8.68	46.80	0.000	0.000	494.05	0.00	0.00
4	155.00	HBXX-6517DS-A2M	6	32.332	35.565	0.62	0.80	31.60	293.76	0.000	0.000	1798.21	0.00	0.00
5	155.00	(3) T-Frame w/ Platforms	1	32.332	35.565	1.00	1.00	25.00	1944.00	0.000	0.000	1422.60	0.00	0.00
6	155.00	RRH2X60-PCS	3	32.332	35.565	0.54	0.80	3.54	198.00	0.000	0.000	201.30	0.00	0.00
7	155.00	RRH2X60-700	3	32.332	35.565	0.54	0.80	3.02	165.60	0.000	0.000	172.02	0.00	0.00
8	155.00	FD9R6004/2C-3L	6	32.332	35.565	0.40	0.80	0.86	22.32	0.000	0.000	49.17	0.00	0.00
9	155.00	DB-T1-6Z-8AB-0Z	1	32.332	35.565	0.57	0.80	2.73	22.68	0.000	0.000	155.14	0.00	0.00
10	147.00	ACU-A20-N	4	32.300	35.530	0.40	0.80	0.22	4.80	0.000	0.000	12.73	0.00	0.00
11	147.00	800 MHz Filters	3	32.300	35.530	0.54	0.80	4.68	222.48	0.000	0.000	266.01	0.00	0.00
12	147.00	800 MHz RRH	3	32.300	35.530	0.54	0.80	4.00	190.80	0.000	0.000	227.62	0.00	0.00
13	147.00	1900MHz RRH	3	32.300	35.530	0.54	0.80	6.11	158.40	0.000	0.000	347.37	0.00	0.00
14	147.00	TD-RRH8x20-25	3	32.300	35.530	0.55	0.80	6.71	252.00	0.000	0.000	381.27	0.00	0.00
15	147.00	APXVTM14-C-120	3	32.300	35.530	0.63	0.80	12.02	201.60	0.000	0.000	683.36	0.00	0.00
16	147.00	APXVSPP18-C-A20	3	32.300	35.530	0.66	0.80	15.98	205.20	0.000	0.000	908.21	0.00	0.00
17	147.00	(3) T-Frame w/ Platforms	1	32.300	35.530	1.00	1.00	25.00	1944.00	0.000	0.000	1421.22	0.00	0.00
18	137.00	(3) T-Frame w/ Platforms	1	32.280	35.508	1.00	1.00	25.00	1944.00	0.000	0.000	1420.33	0.00	0.00
19	137.00	59212	6	32.280	35.508	0.53	0.80	15.74	288.00	0.000	0.000	894.52	0.00	0.00
20	127.00	Low Profile	1	32.281	35.509	1.00	1.00	22.00	1800.00	0.000	0.000	1249.93	0.00	0.00
21	127.00	HPA-65R-BUU-H8	3	32.281	35.509	0.63	0.80	24.61	244.80	0.000	0.000	1398.22	0.00	0.00
22	127.00	LGP21401	6	32.281	35.509	0.40	0.80	2.28	126.00	0.000	0.000	129.54	0.00	0.00
23	127.00	RRUS 11	3	32.281	35.509	0.54	0.80	4.05	182.52	0.000	0.000	230.22	0.00	0.00
24	127.00	RRUS 32 B2	3	32.281	35.509	0.54	0.80	4.41	216.00	0.000	0.000	250.32	0.00	0.00
25	127.00	DC6-48-60-18-8F	1	32.281	35.509	0.80	0.80	0.74	38.16	0.000	0.000	41.82	0.00	0.00
26	127.00	LGP13519	6	32.281	35.509	0.54	0.80	1.09	38.16	0.000	0.000	62.12	0.00	0.00
27	127.00	7770.00	6	32.281	35.509	0.58	0.80	19.27	252.00	0.000	0.000	1094.94	0.00	0.00
28	117.00	T-Frames	3	32.302	35.532	0.56	0.75	34.42	3168.00	0.000	0.000	1957.13	0.00	0.00
29	117.00	742 351	6	32.302	35.532	0.49	0.80	15.75	214.56	0.000	0.000	895.57	0.00	0.00
30	35.00	DB589	1	31.847	35.032	0.80	0.80	1.10	13.80	0.000	4.600	61.88	0.00	284.65
31	35.00	3.58' Standoff	1	31.530	34.683	0.67	1.00	1.12	84.00	0.000	0.000	62.09	0.00	0.00
							Totals:		**14,818.68**			**19,535.26**		

Total Applied Force Summary

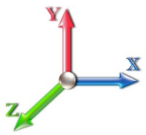
Structure:	CT00302-S-SBA		**Code:**	EIA/TIA-222-G	4/10/2017
Site Name:	Danielson		**Exposure:**	B	
Height:	155.00 (ft)		**Crest Height:**	172.00	
Base Elev:	0.000 (ft)		**Site Class:**	C - Very Dense Soil	
Gh:	1.1	**Topography:** 3	**Struct Class:**	II	Page: 12

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 23

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		1480.99	1807.53	0.00	0.00
10.00		1403.93	1780.30	0.00	0.00
11.50		411.91	528.78	0.00	0.00
15.00		930.03	1224.29	0.00	0.00
16.50		390.98	520.61	0.00	0.00
20.00		883.46	1205.22	0.00	0.00
21.00		248.68	341.90	0.00	0.00
25.00		960.99	1356.70	0.00	0.00
30.00		1146.52	1671.37	0.00	0.00
35.00	(2) attachments	1265.39	1741.93	0.00	284.65
36.00		226.09	324.31	0.00	0.00
40.00		917.15	2213.43	0.00	0.00
41.00		227.36	548.28	0.00	0.00
42.00		226.80	546.24	0.00	0.00
45.00		677.61	855.28	0.00	0.00
50.00		1116.33	1406.60	0.00	0.00
55.00		1096.51	1383.02	0.00	0.00
58.00		647.49	818.50	0.00	0.00
58.50		107.11	135.59	0.00	0.00
60.00		320.08	405.36	0.00	0.00
65.00		1052.75	1335.86	0.00	0.00
70.00		1029.57	1312.28	0.00	0.00
75.00		1021.29	2132.95	0.00	0.00
76.00		201.42	421.40	0.00	0.00
80.00		795.93	892.15	0.00	0.00
85.00		973.06	1097.51	0.00	0.00
90.00		948.76	1077.86	0.00	0.00
95.00		924.45	1058.21	0.00	0.00
96.00		182.04	209.28	0.00	0.00
100.00		718.27	829.27	0.00	0.00
105.00		876.00	874.67	0.00	0.00
110.00		851.92	858.95	0.00	0.00
113.50		582.13	591.91	0.00	0.00
115.00		245.93	251.32	0.00	0.00
117.00	(9) attachments	3182.15	3934.60	0.00	0.00
120.00		487.02	773.41	0.00	0.00
125.00		792.70	744.64	0.00	0.00
127.00	(29) attachments	4767.60	3191.10	0.00	0.00
130.00		458.67	386.22	0.00	0.00
135.00		745.70	631.12	0.00	0.00
137.00	(7) attachments	2606.58	2480.05	0.00	0.00
140.00		430.61	344.89	0.00	0.00
145.00		699.16	562.25	0.00	0.00
147.00	(23) attachments	4520.94	3399.78	0.00	0.00
150.00		402.81	316.53	0.00	0.00
155.00	(29) attachments	6191.86	3544.37	0.00	0.00

Total Applied Force Summary

Structure:	CT00302-S-SBA		**Code:**	EIA/TIA-222-G	4/10/2017
Site Name:	Danielson		**Exposure:**	B	
Height:	155.00 (ft)		**Crest Height:**	172.00	
Base Elev:	0.000 (ft)		**Site Class:**	C - Very Dense Soil	
Gh:	1.1	**Topography:** 3	**Struct Class:**	II	Page: 13

Tower Engineering Solutions

Totals:	**50,374.74**	**54,067.81**	**0.00**	**284.65**

Linear Appurtenance Segment Forces (Factored)

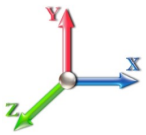
Structure:	CT00302-S-SBA	**Code:**	EIA/TIA-222-G	4/10/2017	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	172.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 14	

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 23

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	1.48	0.00	0.064	0.000	36.515	0.00	0.00
10.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	1.48	0.00	0.066	0.000	35.247	0.00	0.00
11.50	10"x1/2" Bent plate	Yes	1.50	0.000	3.56	0.45	0.00	0.066	0.000	34.884	0.00	0.00
15.00	10"x1/2" Bent plate	Yes	3.50	0.000	3.56	1.04	0.00	0.067	0.000	34.070	0.00	0.00
16.50	10"x1/2" Bent plate	Yes	1.50	0.000	3.56	0.45	0.00	0.068	0.000	33.734	0.00	0.00
20.00	10"x1/2" Bent plate	Yes	3.50	0.000	3.56	1.04	0.00	0.068	0.000	32.978	0.00	0.00
21.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.069	0.000	32.769	0.00	0.00
25.00	10"x1/2" Bent plate	Yes	4.00	0.000	3.56	1.19	0.00	0.069	0.000	31.964	0.00	0.00
30.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	1.48	0.00	0.071	0.000	31.048	0.00	0.00
35.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	1.48	0.00	0.072	0.000	31.530	0.00	0.00
36.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.073	0.000	31.608	0.00	0.00
40.00	10"x1/2" Bent plate	Yes	4.00	0.000	3.56	1.19	0.00	0.074	0.000	31.870	0.00	0.00
41.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.075	0.000	31.925	0.00	0.00
42.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.075	0.000	31.976	0.00	0.00
45.00	10"x1/2" Bent plate	Yes	3.00	0.000	3.56	0.89	0.00	0.074	0.000	32.108	0.00	0.00
50.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	1.48	0.00	0.075	0.000	32.271	0.00	0.00
55.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	1.48	0.00	0.077	0.000	32.378	0.00	0.00
58.00	10"x1/2" Bent plate	Yes	3.00	0.000	3.56	0.89	0.00	0.078	0.000	32.422	0.00	0.00
58.50	1.25" Reinforcing	Yes	0.50	0.000	2.50	0.10	0.00	0.056	0.000	32.427	0.00	0.00
60.00	1.25" Reinforcing	Yes	1.50	0.000	2.50	0.31	0.00	0.056	0.000	32.444	0.00	0.00
65.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	1.04	0.00	0.057	0.000	32.478	0.00	0.00
70.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	1.04	0.00	0.058	0.000	32.491	0.00	0.00
75.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	1.04	0.00	0.059	0.000	32.488	0.00	0.00
76.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.060	0.000	32.486	0.00	0.00
80.00	1.25" Reinforcing	Yes	4.00	0.000	2.50	0.83	0.00	0.060	0.000	32.474	0.00	0.00
85.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	1.04	0.00	0.061	0.000	32.453	0.00	0.00
90.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	1.04	0.00	0.063	0.000	32.428	0.00	0.00
95.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	1.04	0.00	0.064	0.000	32.401	0.00	0.00
96.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.065	0.000	32.396	0.00	0.00
100.00	1.25" Reinforcing	Yes	4.00	0.000	2.50	0.83	0.00	0.066	0.000	32.375	0.00	0.00
105.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	1.04	0.00	0.068	0.000	32.350	0.00	0.00
110.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	1.04	0.00	0.070	0.000	32.327	0.00	0.00
113.50	1.25" Reinforcing	Yes	3.50	0.000	2.50	0.73	0.00	0.071	0.000	32.314	0.00	0.00
115.00	1.25" Reinforcing	Yes	1.50	0.000	2.50	0.31	0.00	0.072	0.000	32.309	0.00	0.00
									Totals:		**0.0**	**0.0**

Calculated Forces

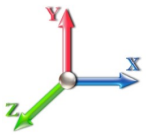
Structure:	CT00302-S-SBA	**Code:**	EIA/TIA-222-G	4/10/2017	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	172.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 15	

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 23

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-53.97	-50.48	0.00	-5037.3	0.00	5037.36	4048.32	2024.16	8933.65	4411.99	0.00	0.000	0.000	0.955
5.00	-51.99	-49.19	0.00	-4784.9	0.00	4784.98	4007.22	2003.61	8683.49	4288.45	0.11	-0.212	0.000	0.930
10.00	-50.10	-47.89	0.00	-4539.0	0.00	4539.06	3964.98	1982.49	8434.18	4165.32	0.45	-0.425	0.000	0.906
11.50	-49.49	-47.56	0.00	-4467.2	0.00	4467.22	3952.09	1976.04	8359.57	4128.48	0.60	-0.489	0.000	0.765
15.00	-48.20	-46.69	0.00	-4300.7	0.00	4300.77	3921.60	1960.80	8185.84	4042.68	1.00	-0.616	0.000	0.749
16.50	-47.60	-46.38	0.00	-4230.7	0.00	4230.73	3908.36	1954.18	8111.55	4005.99	1.20	-0.671	0.000	0.873
20.00	-46.34	-45.56	0.00	-4068.3	0.00	4068.39	3877.07	1938.54	7938.63	3920.59	1.75	-0.820	0.000	0.856
21.00	-45.91	-45.39	0.00	-4022.8	0.00	4022.83	3868.03	1934.02	7889.33	3896.24	1.93	-0.864	0.000	0.851
25.00	-44.42	-44.56	0.00	-3841.2	0.00	3841.27	3831.41	1915.70	7692.66	3799.12	2.73	-1.033	0.000	0.831
30.00	-42.62	-43.53	0.00	-3618.4	0.00	3618.49	3784.60	1892.30	7448.09	3678.33	3.92	-1.243	0.000	0.805
35.00	-40.81	-42.32	0.00	-3400.5	0.00	3400.54	3736.66	1868.33	7205.04	3558.30	5.34	-1.452	0.000	0.779
36.00	-40.42	-42.16	0.00	-3358.2	0.00	3358.23	3726.93	1863.47	7156.62	3534.39	5.64	-1.494	0.000	0.774
40.00	-38.16	-41.25	0.00	-3189.6	0.00	3189.61	3687.57	1843.78	6963.65	3439.09	6.97	-1.661	0.000	0.748
41.00	-37.58	-41.03	0.00	-3148.3	0.00	3148.36	3677.62	1838.81	6915.58	3415.35	7.32	-1.703	0.000	0.742
42.00	-36.99	-40.84	0.00	-3107.3	0.00	3107.33	3033.05	1516.53	5788.55	2858.75	7.68	-1.745	0.000	0.798
45.00	-36.03	-40.25	0.00	-2984.8	0.00	2984.81	3011.75	1505.88	5675.99	2803.16	8.82	-1.869	0.000	0.838
50.00	-34.52	-39.21	0.00	-2783.5	0.00	2783.58	2975.34	1487.67	5488.97	2710.80	10.89	-2.086	0.000	0.804
55.00	-33.06	-38.16	0.00	-2587.5	0.00	2587.52	2937.79	1468.89	5302.79	2618.85	13.19	-2.301	0.000	0.770
58.00	-32.23	-37.52	0.00	-2473.0	0.00	2473.04	2914.71	1457.35	5191.54	2563.91	14.68	-2.430	0.000	0.580
58.50	-32.07	-37.43	0.00	-2454.2	0.00	2454.28	2910.82	1455.41	5173.04	2554.77	14.94	-2.447	0.000	0.704
60.00	-31.59	-37.17	0.00	-2398.1	0.00	2398.13	2899.09	1449.55	5117.58	2527.38	15.71	-2.508	0.000	0.694
65.00	-30.18	-36.16	0.00	-2212.3	0.00	2212.31	2859.26	1429.63	4933.49	2436.46	18.44	-2.704	0.000	0.660
70.00	-28.81	-35.16	0.00	-2031.5	0.00	2031.53	2818.28	1409.14	4750.64	2346.16	21.38	-2.895	0.000	0.625
75.00	-26.67	-34.08	0.00	-1855.7	0.00	1855.74	2776.16	1388.08	4569.18	2256.54	24.51	-3.082	0.000	0.584
76.00	-26.20	-33.90	0.00	-1821.6	0.00	1821.67	2161.97	1080.98	3608.45	1782.08	25.16	-3.120	0.000	0.656
80.00	-25.25	-33.13	0.00	-1686.0	0.00	1686.08	2139.97	1069.98	3503.61	1730.30	27.84	-3.269	0.000	0.682
85.00	-24.11	-32.18	0.00	-1520.4	0.00	1520.43	2111.44	1055.72	3372.88	1665.74	31.37	-3.465	0.000	0.633
90.00	-22.99	-31.24	0.00	-1359.5	0.00	1359.55	2081.77	1040.89	3242.65	1601.42	35.09	-3.653	0.000	0.584
95.00	-21.94	-30.28	0.00	-1203.3	0.00	1203.38	2050.97	1025.48	3113.05	1537.42	39.02	-3.832	0.000	0.534
96.00	-21.69	-30.12	0.00	-1173.1	0.00	1173.10	2044.67	1022.33	3087.22	1524.66	39.82	-3.868	0.000	0.566
100.00	-20.84	-29.41	0.00	-1052.6	0.00	1052.61	2019.02	1009.51	2984.22	1473.79	43.12	-4.014	0.000	0.522
100.00	-20.84	-29.41	0.00	-1052.6	0.00	1052.61	1394.49	697.25	2068.33	1021.47	43.12	-4.014	0.000	0.607
105.00	-19.94	-28.53	0.00	-905.57	0.00	905.57	1376.43	688.21	1986.77	981.19	47.42	-4.183	0.000	0.627
110.00	-19.07	-27.67	0.00	-762.91	0.00	762.91	1357.32	678.66	1905.17	940.89	51.89	-4.364	0.000	0.547
113.50	-18.49	-27.07	0.00	-666.07	0.00	666.07	1343.33	671.66	1848.11	912.71	55.13	-4.480	0.000	0.489
113.50	-18.49	-27.07	0.00	-666.07	0.00	666.07	1343.33	671.66	1848.11	912.71	55.13	-4.480	0.000	0.489
115.00	-18.23	-26.83	0.00	-625.47	0.00	625.47	1337.17	668.58	1823.68	900.65	56.55	-4.528	0.000	0.710
117.00	-14.51	-23.37	0.00	-571.82	0.00	571.82	1328.82	664.41	1791.13	884.57	58.46	-4.620	0.000	0.659
120.00	-13.72	-22.86	0.00	-501.72	0.00	501.72	1327.18	663.59	1784.85	881.47	61.41	-4.748	0.000	0.581
125.00	-13.00	-22.03	0.00	-387.43	0.00	387.43	1305.49	652.74	1703.72	841.41	66.48	-4.935	0.000	0.472
127.00	-10.21	-17.02	0.00	-343.37	0.00	343.37	1296.51	648.26	1671.38	825.43	68.56	-4.999	0.000	0.425
130.00	-9.83	-16.55	0.00	-292.31	0.00	292.31	1282.74	641.37	1623.00	801.54	71.72	-5.085	0.000	0.373
135.00	-9.25	-15.76	0.00	-209.58	0.00	209.58	1258.96	629.48	1542.80	761.93	77.11	-5.206	0.000	0.283
137.00	-7.01	-12.94	0.00	-178.05	0.00	178.05	1249.15	624.57	1510.90	746.18	79.30	-5.247	0.000	0.245
140.00	-6.69	-12.49	0.00	-139.22	0.00	139.22	1234.12	617.06	1463.26	722.65	82.61	-5.299	0.000	0.198
145.00	-6.19	-11.75	0.00	-76.77	0.00	76.77	1208.24	604.12	1384.50	683.75	88.19	-5.362	0.000	0.118
147.00	-3.22	-6.93	0.00	-53.27	0.00	53.27	1197.60	598.80	1353.24	668.32	90.44	-5.379	0.000	0.083
150.00	-2.95	-6.50	0.00	-32.49	0.00	32.49	1181.32	590.66	1306.64	645.30	93.82	-5.396	0.000	0.053

Calculated Forces

Structure:	CT00302-S-SBA	**Code:**	EIA/TIA-222-G	4/10/2017	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	172.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 16	

155.00	0.00	-6.19	0.00	0.00	0.00	0.00	1153.35	576.68	1229.81	607.36	99.47	-5.408	0.000	0.000

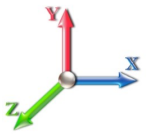
Wind Loading - Shaft

Structure: CT00302-S-SBA
Site Name: Danielson
Height: 155.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 3

Code: EIA/TIA-222-G 4/10/2017
Exposure: B
Crest Height: 172.00
Site Class: C - Very Dense Soil
Struct Class: II Page: 17

Tower Engineering Solutions

Load Case: 0.9D + 1.6W 101 mph Wind
Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 23

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00	RB1	2.18	0.70	37.885	41.67	580.38	1.000	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		2.10	0.70	36.515	40.17	559.69	1.000	0.000	5.00	23.044	23.04	1481.0	0.0	1131.5
10.00		2.03	0.70	35.247	38.77	539.94	1.000	0.000	5.00	22.632	22.63	1403.9	0.0	1111.1
11.50	RB2	2.01	0.70	34.884	38.37	534.19	1.000	0.000	1.50	6.709	6.71	411.9	0.0	329.4
15.00		1.96	0.70	34.070	37.48	521.09	1.000	0.000	3.50	15.510	15.51	930.0	0.0	761.3
16.50	RT2	1.94	0.70	33.734	37.11	515.59	1.000	0.000	1.50	6.585	6.59	391.0	0.0	323.2
20.00		1.90	0.70	32.978	36.28	503.06	1.000	0.000	3.50	15.221	15.22	883.5	0.0	747.0
21.00	RT1 RB3	1.89	0.70	32.769	36.05	499.55	1.000	0.000	1.00	4.312	4.31	248.7	0.0	211.6
25.00		1.84	0.70	31.964	35.16	485.81	1.000	0.000	4.00	17.082	17.08	961.0	0.0	838.2
30.00		1.79	0.70	31.048	34.15	469.47	1.000	0.000	5.00	20.981	20.98	1146.5	0.0	1029.4
35.00	Appurtenance(s)	1.74	0.73	31.530	34.68	463.70	1.000	0.000	5.00	20.569	20.57	1141.4	0.0	1009.0
36.00	Bot - Section 2	1.73	0.74	31.608	34.77	462.40	1.000	0.000	1.00	4.064	4.06	226.1	0.0	199.3
40.00		1.69	0.76	31.870	35.06	456.76	1.000	0.000	4.00	16.351	16.35	917.1	0.0	1484.5
41.00	RT3 RB4	1.68	0.77	31.925	35.12	455.26	1.000	0.000	1.00	4.046	4.05	227.4	0.0	367.3
42.00	Top - Section 1	1.67	0.77	31.976	35.17	453.73	1.000	0.000	1.00	4.030	4.03	226.8	0.0	365.8
45.00		1.65	0.79	32.108	35.32	456.41	1.000	0.000	3.00	11.991	11.99	677.6	0.0	509.8
50.00		1.60	0.81	32.271	35.50	448.06	1.000	0.000	5.00	19.655	19.65	1116.3	0.0	835.5
55.00		1.57	0.83	32.378	35.62	439.28	1.000	0.000	5.00	19.242	19.24	1096.5	0.0	817.8
58.00	RB5	1.55	0.85	32.422	35.66	433.86	1.000	0.000	3.00	11.347	11.35	647.5	0.0	482.2
58.50	RT4	1.54	0.85	32.427	35.67	432.95	1.000	0.000	0.50	1.877	1.88	107.1	0.0	79.8
60.00		1.53	0.85	32.444	35.69	430.19	1.000	0.000	1.50	5.606	5.61	320.1	0.0	238.2
65.00		1.50	0.87	32.478	35.73	420.89	1.000	0.000	5.00	18.417	18.42	1052.7	0.0	782.5
70.00	Bot - Section 3	1.47	0.89	32.491	35.74	411.44	1.000	0.000	5.00	18.004	18.00	1029.6	0.0	764.8
75.00		1.44	0.91	32.488	35.74	401.88	1.000	0.000	5.00	17.861	17.86	1021.3	0.0	1380.3
76.00	Top - Section 2 RT5	1.43	0.91	32.486	35.73	399.96	1.000	0.000	1.00	3.523	3.52	201.4	0.0	272.2
80.00		1.41	0.93	32.474	35.72	398.49	1.000	0.000	4.00	13.926	13.93	795.9	0.0	493.6
85.00		1.39	0.94	32.453	35.70	388.83	1.000	0.000	5.00	17.036	17.04	973.1	0.0	603.7
90.00		1.36	0.96	32.428	35.67	379.15	1.000	0.000	5.00	16.624	16.62	948.8	0.0	589.0
95.00		1.34	0.97	32.401	35.64	369.47	1.000	0.000	5.00	16.211	16.21	924.5	0.0	574.2
96.00	RT6 RB7	1.34	0.98	32.396	35.64	367.53	1.000	0.000	1.00	3.193	3.19	182.0	0.0	113.1
100.00	Top - Section 3	1.32	0.99	32.375	35.61	359.80	1.000	0.000	4.00	12.606	12.61	718.3	0.0	446.4
105.00		1.30	1.00	32.350	35.58	350.14	1.000	0.000	5.00	15.386	15.39	876.0	0.0	436.6
110.00		1.28	1.02	32.327	35.56	340.51	1.000	0.000	5.00	14.973	14.97	851.9	0.0	424.8
113.50	RT7	1.27	1.02	32.314	35.55	333.78	1.000	0.000	3.50	10.236	10.24	582.1	0.0	290.3
115.00	Bot - Section 5	1.27	1.03	32.309	35.54	330.90	1.000	0.000	1.50	4.325	4.32	245.9	0.0	122.7
117.00	Appurtenance(s)	1.26	1.03	32.302	35.53	327.06	1.000	0.000	2.00	5.795	5.80	329.5	0.0	326.3
120.00	Top - Section 4	1.25	1.04	32.294	35.52	321.31	1.000	0.000	3.00	8.569	8.57	487.0	0.0	482.3
125.00		1.24	1.05	32.284	35.51	316.73	1.000	0.000	5.00	13.951	13.95	792.7	0.0	395.6
127.00	Appurtenance(s)	1.23	1.06	32.281	35.51	312.91	1.000	0.000	2.00	5.465	5.46	310.5	0.0	154.9
130.00		1.22	1.07	32.279	35.51	307.19	1.000	0.000	3.00	8.074	8.07	458.7	0.0	228.9
135.00		1.21	1.08	32.279	35.51	297.69	1.000	0.000	5.00	13.126	13.13	745.7	0.0	372.0
137.00	Appurtenance(s)	1.20	1.08	32.280	35.51	293.89	1.000	0.000	2.00	5.135	5.13	291.7	0.0	145.5
140.00		1.20	1.09	32.284	35.51	288.20	1.000	0.000	3.00	7.579	7.58	430.6	0.0	214.7
145.00		1.18	1.10	32.295	35.52	278.74	1.000	0.000	5.00	12.301	12.30	699.2	0.0	348.4
147.00	Appurtenance(s)	1.18	1.10	32.300	35.53	274.96	1.000	0.000	2.00	4.805	4.80	273.1	0.0	136.1
150.00		1.17	1.11	32.311	35.54	269.30	1.000	0.000	3.00	7.083	7.08	402.8	0.0	200.6
155.00	Appurtenance(s)	1.16	1.12	32.332	35.56	259.87	1.000	0.000	5.00	11.476	11.48	653.0	0.0	324.8

Wind Loading - Shaft

Structure:	CT00302-S-SBA			**Code:**	EIA/TIA-222-G	4/10/2017	
Site Name:	Danielson			**Exposure:**	B		
Height:	155.00 (ft)			**Crest Height:**	172.00		
Base Elev:	0.000 (ft)			**Site Class:**	C - Very Dense Soil		
Gh:	1.1	**Topography:**	3	**Struct Class:**	II	Page: 18	

Totals:	**155.00**	**30,839.5**	**23,496.5**

Discrete Appurtenance Forces

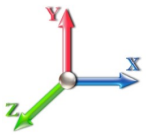
Structure:	CT00302-S-SBA	**Code:**	EIA/TIA-222-G	4/10/2017	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	172.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 19	

Tower Engineering Solutions

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 23

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	155.00	RRH2X60-AWS	3	32.332	35.565	0.54	0.80	5.63	148.50	0.000	0.000	320.26	0.00	0.00
2	155.00	LNX-6514DS-A1M	3	32.332	35.565	0.66	0.80	16.27	103.68	0.000	0.000	926.09	0.00	0.00
3	155.00	BXA-70080-4BF	3	32.332	35.565	0.61	0.80	8.68	35.10	0.000	0.000	494.05	0.00	0.00
4	155.00	HBXX-6517DS-A2M	6	32.332	35.565	0.62	0.80	31.60	220.32	0.000	0.000	1798.21	0.00	0.00
5	155.00	(3) T-Frame w/ Platforms	1	32.332	35.565	1.00	1.00	25.00	1458.00	0.000	0.000	1422.60	0.00	0.00
6	155.00	RRH2X60-PCS	3	32.332	35.565	0.54	0.80	3.54	148.50	0.000	0.000	201.30	0.00	0.00
7	155.00	RRH2X60-700	3	32.332	35.565	0.54	0.80	3.02	124.20	0.000	0.000	172.02	0.00	0.00
8	155.00	FD9R6004/2C-3L	6	32.332	35.565	0.40	0.80	0.86	16.74	0.000	0.000	49.17	0.00	0.00
9	155.00	DB-T1-6Z-8AB-0Z	1	32.332	35.565	0.57	0.80	2.73	17.01	0.000	0.000	155.14	0.00	0.00
10	147.00	ACU-A20-N	4	32.300	35.530	0.40	0.80	0.22	3.60	0.000	0.000	12.73	0.00	0.00
11	147.00	800 MHz Filters	3	32.300	35.530	0.54	0.80	4.68	166.86	0.000	0.000	266.01	0.00	0.00
12	147.00	800 MHz RRH	3	32.300	35.530	0.54	0.80	4.00	143.10	0.000	0.000	227.62	0.00	0.00
13	147.00	1900MHz RRH	3	32.300	35.530	0.54	0.80	6.11	118.80	0.000	0.000	347.37	0.00	0.00
14	147.00	TD-RRH8x20-25	3	32.300	35.530	0.55	0.80	6.71	189.00	0.000	0.000	381.27	0.00	0.00
15	147.00	APXVTM14-C-120	3	32.300	35.530	0.63	0.80	12.02	151.20	0.000	0.000	683.36	0.00	0.00
16	147.00	APXVSPP18-C-A20	3	32.300	35.530	0.66	0.80	15.98	153.90	0.000	0.000	908.21	0.00	0.00
17	147.00	(3) T-Frame w/ Platforms	1	32.300	35.530	1.00	1.00	25.00	1458.00	0.000	0.000	1421.22	0.00	0.00
18	137.00	(3) T-Frame w/ Platforms	1	32.280	35.508	1.00	1.00	25.00	1458.00	0.000	0.000	1420.33	0.00	0.00
19	137.00	59212	6	32.280	35.508	0.53	0.80	15.74	216.00	0.000	0.000	894.52	0.00	0.00
20	127.00	Low Profile	1	32.281	35.509	1.00	1.00	22.00	1350.00	0.000	0.000	1249.93	0.00	0.00
21	127.00	HPA-65R-BUU-H8	3	32.281	35.509	0.63	0.80	24.61	183.60	0.000	0.000	1398.22	0.00	0.00
22	127.00	LGP21401	6	32.281	35.509	0.40	0.80	2.28	94.50	0.000	0.000	129.54	0.00	0.00
23	127.00	RRUS 11	3	32.281	35.509	0.54	0.80	4.05	136.89	0.000	0.000	230.22	0.00	0.00
24	127.00	RRUS 32 B2	3	32.281	35.509	0.54	0.80	4.41	162.00	0.000	0.000	250.32	0.00	0.00
25	127.00	DC6-48-60-18-8F	1	32.281	35.509	0.80	0.80	0.74	28.62	0.000	0.000	41.82	0.00	0.00
26	127.00	LGP13519	6	32.281	35.509	0.54	0.80	1.09	28.62	0.000	0.000	62.12	0.00	0.00
27	127.00	7770.00	6	32.281	35.509	0.58	0.80	19.27	189.00	0.000	0.000	1094.94	0.00	0.00
28	117.00	T-Frames	3	32.302	35.532	0.56	0.75	34.42	2376.00	0.000	0.000	1957.13	0.00	0.00
29	117.00	742 351	6	32.302	35.532	0.49	0.80	15.75	160.92	0.000	0.000	895.57	0.00	0.00
30	35.00	DB589	1	31.847	35.032	0.80	0.80	1.10	10.35	0.000	4.600	61.88	0.00	284.65
31	35.00	3.58' Standoff	1	31.530	34.683	0.67	1.00	1.12	63.00	0.000	0.000	62.09	0.00	0.00
							Totals:		**11,114.01**			**19,535.26**		

Total Applied Force Summary

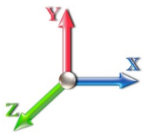
Structure:	CT00302-S-SBA		**Code:**	EIA/TIA-222-G	4/10/2017
Site Name:	Danielson		**Exposure:**	B	
Height:	155.00 (ft)		**Crest Height:**	172.00	
Base Elev:	0.000 (ft)		**Site Class:**	C - Very Dense Soil	
Gh:	1.1	**Topography:** 3	**Struct Class:**	II	Page: 20

Tower Engineering Solutions

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 23

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		1480.99	1355.65	0.00	0.00
10.00		1403.93	1335.22	0.00	0.00
11.50		411.91	396.58	0.00	0.00
15.00		930.03	918.22	0.00	0.00
16.50		390.98	390.46	0.00	0.00
20.00		883.46	903.92	0.00	0.00
21.00		248.68	256.42	0.00	0.00
25.00		960.99	1017.53	0.00	0.00
30.00		1146.52	1253.53	0.00	0.00
35.00	(2) attachments	1265.39	1306.45	0.00	284.65
36.00		226.09	243.23	0.00	0.00
40.00		917.15	1660.07	0.00	0.00
41.00		227.36	411.21	0.00	0.00
42.00		226.80	409.68	0.00	0.00
45.00		677.61	641.46	0.00	0.00
50.00		1116.33	1054.95	0.00	0.00
55.00		1096.51	1037.27	0.00	0.00
58.00		647.49	613.87	0.00	0.00
58.50		107.11	101.69	0.00	0.00
60.00		320.08	304.02	0.00	0.00
65.00		1052.75	1001.90	0.00	0.00
70.00		1029.57	984.21	0.00	0.00
75.00		1021.29	1599.71	0.00	0.00
76.00		201.42	316.05	0.00	0.00
80.00		795.93	669.11	0.00	0.00
85.00		973.06	823.13	0.00	0.00
90.00		948.76	808.39	0.00	0.00
95.00		924.45	793.66	0.00	0.00
96.00		182.04	156.96	0.00	0.00
100.00		718.27	621.96	0.00	0.00
105.00		876.00	656.00	0.00	0.00
110.00		851.92	644.21	0.00	0.00
113.50		582.13	443.93	0.00	0.00
115.00		245.93	188.49	0.00	0.00
117.00	(9) attachments	3182.15	2950.95	0.00	0.00
120.00		487.02	580.06	0.00	0.00
125.00		792.70	558.48	0.00	0.00
127.00	(29) attachments	4767.60	2393.32	0.00	0.00
130.00		458.67	289.67	0.00	0.00
135.00		745.70	473.34	0.00	0.00
137.00	(7) attachments	2606.58	1860.04	0.00	0.00
140.00		430.61	258.67	0.00	0.00
145.00		699.16	421.68	0.00	0.00
147.00	(23) attachments	4520.94	2549.83	0.00	0.00
150.00		402.81	237.39	0.00	0.00
155.00	(29) attachments	6191.86	2658.27	0.00	0.00

Total Applied Force Summary

Structure:	CT00302-S-SBA		**Code:**	EIA/TIA-222-G	4/10/2017
Site Name:	Danielson		**Exposure:**	B	
Height:	155.00 (ft)		**Crest Height:**	172.00	
Base Elev:	0.000 (ft)		**Site Class:**	C - Very Dense Soil	
Gh:	1.1	**Topography:** 3	**Struct Class:**	II	Page: 21

Tower Engineering Solutions

Totals:	**50,374.74**	**40,550.86**	**0.00**	**284.65**

Linear Appurtenance Segment Forces (Factored)

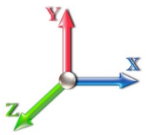
Structure:	CT00302-S-SBA	**Code:**	EIA/TIA-222-G	4/10/2017	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	172.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 22	

Tower Engineering Solutions

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 23

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	1.48	0.00	0.064	0.000	36.515	0.00	0.00
10.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	1.48	0.00	0.066	0.000	35.247	0.00	0.00
11.50	10"x1/2" Bent plate	Yes	1.50	0.000	3.56	0.45	0.00	0.066	0.000	34.884	0.00	0.00
15.00	10"x1/2" Bent plate	Yes	3.50	0.000	3.56	1.04	0.00	0.067	0.000	34.070	0.00	0.00
16.50	10"x1/2" Bent plate	Yes	1.50	0.000	3.56	0.45	0.00	0.068	0.000	33.734	0.00	0.00
20.00	10"x1/2" Bent plate	Yes	3.50	0.000	3.56	1.04	0.00	0.068	0.000	32.978	0.00	0.00
21.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.069	0.000	32.769	0.00	0.00
25.00	10"x1/2" Bent plate	Yes	4.00	0.000	3.56	1.19	0.00	0.069	0.000	31.964	0.00	0.00
30.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	1.48	0.00	0.071	0.000	31.048	0.00	0.00
35.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	1.48	0.00	0.072	0.000	31.530	0.00	0.00
36.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.073	0.000	31.608	0.00	0.00
40.00	10"x1/2" Bent plate	Yes	4.00	0.000	3.56	1.19	0.00	0.074	0.000	31.870	0.00	0.00
41.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.075	0.000	31.925	0.00	0.00
42.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.075	0.000	31.976	0.00	0.00
45.00	10"x1/2" Bent plate	Yes	3.00	0.000	3.56	0.89	0.00	0.074	0.000	32.108	0.00	0.00
50.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	1.48	0.00	0.075	0.000	32.271	0.00	0.00
55.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	1.48	0.00	0.077	0.000	32.378	0.00	0.00
58.00	10"x1/2" Bent plate	Yes	3.00	0.000	3.56	0.89	0.00	0.078	0.000	32.422	0.00	0.00
58.50	1.25" Reinforcing	Yes	0.50	0.000	2.50	0.10	0.00	0.056	0.000	32.427	0.00	0.00
60.00	1.25" Reinforcing	Yes	1.50	0.000	2.50	0.31	0.00	0.056	0.000	32.444	0.00	0.00
65.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	1.04	0.00	0.057	0.000	32.478	0.00	0.00
70.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	1.04	0.00	0.058	0.000	32.491	0.00	0.00
75.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	1.04	0.00	0.059	0.000	32.488	0.00	0.00
76.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.060	0.000	32.486	0.00	0.00
80.00	1.25" Reinforcing	Yes	4.00	0.000	2.50	0.83	0.00	0.060	0.000	32.474	0.00	0.00
85.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	1.04	0.00	0.061	0.000	32.453	0.00	0.00
90.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	1.04	0.00	0.063	0.000	32.428	0.00	0.00
95.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	1.04	0.00	0.064	0.000	32.401	0.00	0.00
96.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.065	0.000	32.396	0.00	0.00
100.00	1.25" Reinforcing	Yes	4.00	0.000	2.50	0.83	0.00	0.066	0.000	32.375	0.00	0.00
105.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	1.04	0.00	0.068	0.000	32.350	0.00	0.00
110.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	1.04	0.00	0.070	0.000	32.327	0.00	0.00
113.50	1.25" Reinforcing	Yes	3.50	0.000	2.50	0.73	0.00	0.071	0.000	32.314	0.00	0.00
115.00	1.25" Reinforcing	Yes	1.50	0.000	2.50	0.31	0.00	0.072	0.000	32.309	0.00	0.00
									Totals:		**0.0**	**0.0**

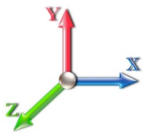
Calculated Forces

Structure:	CT00302-S-SBA	**Code:**	EIA/TIA-222-G	4/10/2017	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	172.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 23	

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 23

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-40.46	-50.45	0.00	-4991.5	0.00	4991.58	4048.32	2024.16	8933.65	4411.99	0.00	0.000	0.000	0.944
5.00	-38.92	-49.11	0.00	-4739.3	0.00	4739.33	4007.22	2003.61	8683.49	4288.45	0.11	-0.210	0.000	0.919
10.00	-37.48	-47.79	0.00	-4493.7	0.00	4493.79	3964.98	1982.49	8434.18	4165.32	0.45	-0.421	0.000	0.894
11.50	-37.01	-47.43	0.00	-4422.1	0.00	4422.11	3952.09	1976.04	8359.57	4128.48	0.59	-0.485	0.000	0.755
15.00	-36.03	-46.55	0.00	-4256.0	0.00	4256.09	3921.60	1960.80	8185.84	4042.68	0.99	-0.610	0.000	0.739
16.50	-35.56	-46.22	0.00	-4186.2	0.00	4186.26	3908.36	1954.18	8111.55	4005.99	1.19	-0.665	0.000	0.862
20.00	-34.59	-45.38	0.00	-4024.4	0.00	4024.49	3877.07	1938.54	7938.63	3920.59	1.74	-0.812	0.000	0.845
21.00	-34.26	-45.19	0.00	-3979.1	0.00	3979.11	3868.03	1934.02	7889.33	3896.24	1.91	-0.855	0.000	0.840
25.00	-33.11	-44.32	0.00	-3798.3	0.00	3798.34	3831.41	1915.70	7692.66	3799.12	2.70	-1.022	0.000	0.819
30.00	-31.72	-43.27	0.00	-3576.7	0.00	3576.72	3784.60	1892.30	7448.09	3678.33	3.88	-1.230	0.000	0.794
35.00	-30.36	-42.04	0.00	-3360.1	0.00	3360.10	3736.66	1868.33	7205.04	3558.30	5.28	-1.436	0.000	0.767
36.00	-30.04	-41.86	0.00	-3318.0	0.00	3318.06	3726.93	1863.47	7156.62	3534.39	5.59	-1.478	0.000	0.762
40.00	-28.34	-40.95	0.00	-3150.6	0.00	3150.62	3687.57	1843.78	6963.65	3439.09	6.90	-1.643	0.000	0.737
41.00	-27.90	-40.73	0.00	-3109.6	0.00	3109.67	3677.62	1838.81	6915.58	3415.35	7.25	-1.685	0.000	0.731
42.00	-27.44	-40.53	0.00	-3068.9	0.00	3068.94	3033.05	1516.53	5788.55	2858.75	7.60	-1.726	0.000	0.787
45.00	-26.70	-39.91	0.00	-2947.3	0.00	2947.35	3011.75	1505.88	5675.99	2803.16	8.73	-1.848	0.000	0.826
50.00	-25.54	-38.86	0.00	-2747.7	0.00	2747.79	2975.34	1487.67	5488.97	2710.80	10.78	-2.063	0.000	0.792
55.00	-24.44	-37.79	0.00	-2553.5	0.00	2553.51	2937.79	1468.89	5302.79	2618.85	13.05	-2.275	0.000	0.758
58.00	-23.80	-37.15	0.00	-2440.1	0.00	2440.13	2914.71	1457.35	5191.54	2563.91	14.52	-2.402	0.000	0.570
58.50	-23.68	-37.06	0.00	-2421.5	0.00	2421.56	2910.82	1455.41	5173.04	2554.77	14.78	-2.419	0.000	0.693
60.00	-23.31	-36.77	0.00	-2365.9	0.00	2365.98	2899.09	1449.55	5117.58	2527.38	15.55	-2.479	0.000	0.683
65.00	-22.24	-35.75	0.00	-2182.1	0.00	2182.10	2859.26	1429.63	4933.49	2436.46	18.25	-2.672	0.000	0.649
70.00	-21.19	-34.75	0.00	-2003.3	0.00	2003.34	2818.28	1409.14	4750.64	2346.16	21.15	-2.861	0.000	0.614
75.00	-19.58	-33.68	0.00	-1829.6	0.00	1829.61	2776.16	1388.08	4569.18	2256.54	24.24	-3.046	0.000	0.574
76.00	-19.22	-33.49	0.00	-1795.9	0.00	1795.93	2161.97	1080.98	3608.45	1782.08	24.88	-3.083	0.000	0.644
80.00	-18.50	-32.72	0.00	-1661.9	0.00	1661.96	2139.97	1069.98	3503.61	1730.30	27.53	-3.229	0.000	0.670
85.00	-17.63	-31.76	0.00	-1498.3	0.00	1498.37	2111.44	1055.72	3372.88	1665.74	31.01	-3.423	0.000	0.622
90.00	-16.78	-30.81	0.00	-1339.5	0.00	1339.59	2081.77	1040.89	3242.65	1601.42	34.70	-3.608	0.000	0.574
95.00	-16.00	-29.87	0.00	-1185.5	0.00	1185.52	2050.97	1025.48	3113.05	1537.42	38.57	-3.785	0.000	0.525
96.00	-15.81	-29.70	0.00	-1155.6	0.00	1155.65	2044.67	1022.33	3087.22	1524.66	39.36	-3.820	0.000	0.556
100.00	-15.15	-28.98	0.00	-1036.8	0.00	1036.85	2019.02	1009.51	2984.22	1473.79	42.63	-3.963	0.000	0.513
100.00	-15.15	-28.98	0.00	-1036.8	0.00	1036.85	1394.49	697.25	2068.33	1021.47	42.63	-3.963	0.000	0.596
105.00	-14.48	-28.11	0.00	-891.93	0.00	891.93	1376.43	688.21	1986.77	981.19	46.86	-4.130	0.000	0.615
110.00	-13.83	-27.25	0.00	-751.39	0.00	751.39	1357.32	678.66	1905.17	940.89	51.28	-4.308	0.000	0.536
113.50	-13.39	-26.65	0.00	-656.03	0.00	656.03	1343.33	671.66	1848.11	912.71	54.48	-4.423	0.000	0.479
113.50	-13.39	-26.65	0.00	-656.03	0.00	656.03	1343.33	671.66	1848.11	912.71	54.48	-4.423	0.000	0.479
115.00	-13.19	-26.41	0.00	-616.05	0.00	616.05	1337.17	668.58	1823.68	900.65	55.88	-4.470	0.000	0.695
117.00	-10.46	-23.02	0.00	-563.24	0.00	563.24	1328.82	664.41	1791.13	884.57	57.77	-4.561	0.000	0.646
120.00	-9.86	-22.52	0.00	-494.17	0.00	494.17	1327.18	663.59	1784.85	881.47	60.68	-4.687	0.000	0.569
125.00	-9.32	-21.70	0.00	-381.59	0.00	381.59	1305.49	652.74	1703.72	841.41	65.68	-4.871	0.000	0.462
127.00	-7.32	-16.76	0.00	-338.19	0.00	338.19	1296.51	648.26	1671.38	825.43	67.74	-4.934	0.000	0.416
130.00	-7.04	-16.29	0.00	-287.92	0.00	287.92	1282.74	641.37	1623.00	801.54	70.86	-5.019	0.000	0.365
135.00	-6.62	-15.51	0.00	-206.49	0.00	206.49	1258.96	629.48	1542.80	761.93	76.18	-5.138	0.000	0.277
137.00	-4.99	-12.75	0.00	-175.47	0.00	175.47	1249.15	624.57	1510.90	746.18	78.34	-5.178	0.000	0.240
140.00	-4.76	-12.30	0.00	-137.22	0.00	137.22	1234.12	617.06	1463.26	722.65	81.60	-5.230	0.000	0.194
145.00	-4.39	-11.57	0.00	-75.71	0.00	75.71	1208.24	604.12	1384.50	683.75	87.11	-5.292	0.000	0.115
147.00	-2.27	-6.83	0.00	-52.56	0.00	52.56	1197.60	598.80	1353.24	668.32	89.33	-5.308	0.000	0.081
150.00	-2.07	-6.41	0.00	-32.06	0.00	32.06	1181.32	590.66	1306.64	645.30	92.67	-5.325	0.000	0.052

Calculated Forces

Structure:	CT00302-S-SBA					**Code:**	EIA/TIA-222-G				4/10/2017				
Site Name:	Danielson					**Exposure:**	B								
Height:	155.00 (ft)					**Crest Height:**	172.00								
Base Elev:	0.000 (ft)					**Site Class:**	C - Very Dense Soil								
Gh:	1.1			**Topography:**	3	**Struct Class:**	II				Page: 24				

155.00	0.00	-6.19	0.00	0.00	0.00	0.00	1153.35	576.68	1229.81	607.36	98.24	-5.337	0.000	0.000

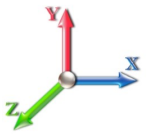
Wind Loading - Shaft

Structure:	CT00302-S-SBA	**Code:**	EIA/TIA-222-G	4/10/2017	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	172.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 25	

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 22

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00	RB1	2.18	0.70	9.285	10.21	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		2.10	0.70	8.949	9.84	0.00	1.200	2.148	5.00	24.834	29.80	293.4	766.1	2274.8
10.00		2.03	0.70	8.638	9.50	0.00	1.200	2.274	5.00	24.527	29.43	279.7	798.6	2280.1
11.50	RB2	2.01	0.70	8.549	9.40	0.00	1.200	2.298	1.50	7.283	8.74	82.2	240.9	680.0
15.00		1.96	0.70	8.350	9.18	0.00	1.200	2.340	3.50	16.875	20.25	186.0	565.8	1580.9
16.50	RT2	1.94	0.70	8.267	9.09	0.00	1.200	2.354	1.50	7.174	8.61	78.3	242.7	673.7
20.00		1.90	0.70	8.082	8.89	0.00	1.200	2.381	3.50	16.610	19.93	177.2	565.8	1561.9
21.00	RT1 RB3	1.89	0.70	8.031	8.83	0.00	1.200	2.387	1.00	4.710	5.65	49.9	161.5	443.7
25.00		1.84	0.70	7.834	8.62	0.00	1.200	2.408	4.00	18.688	22.43	193.2	642.5	1760.1
30.00		1.79	0.70	7.609	8.37	0.00	1.200	2.427	5.00	23.004	27.60	231.1	794.6	2167.1
35.00	Appurtenance(s)	1.74	0.73	7.727	8.50	0.00	1.200	2.440	5.00	22.602	27.12	230.5	783.9	2129.3
36.00	Bot - Section 2	1.73	0.74	7.746	8.52	0.00	1.200	2.442	1.00	4.471	5.37	45.7	156.3	422.1
40.00		1.69	0.76	7.811	8.59	0.00	1.200	2.449	4.00	17.984	21.58	185.4	627.0	2606.4
41.00	RT3 RB4	1.68	0.77	7.824	8.61	0.00	1.200	2.451	1.00	4.455	5.35	46.0	156.2	646.0
42.00	Top - Section 1	1.67	0.77	7.837	8.62	0.00	1.200	2.452	1.00	4.439	5.33	45.9	155.7	643.5
45.00		1.65	0.79	7.869	8.66	0.00	1.200	2.456	3.00	13.219	15.86	137.3	462.4	1142.1
50.00		1.60	0.81	7.909	8.70	0.00	1.200	2.460	5.00	21.705	26.05	226.6	756.8	1870.9
55.00		1.57	0.83	7.935	8.73	0.00	1.200	2.463	5.00	21.294	25.55	223.0	742.5	1833.0
58.00	RB5	1.55	0.85	7.946	8.74	0.00	1.200	2.464	3.00	12.579	15.10	131.9	440.2	1083.2
58.50	RT4	1.54	0.85	7.947	8.74	0.00	1.200	2.464	0.50	2.082	2.50	21.8	73.2	179.6
60.00		1.53	0.85	7.951	8.75	0.00	1.200	2.465	1.50	6.222	7.47	65.3	218.3	535.9
65.00		1.50	0.87	7.960	8.76	0.00	1.200	2.466	5.00	20.472	24.57	215.1	712.8	1756.1
70.00	Bot - Section 3	1.47	0.89	7.963	8.76	0.00	1.200	2.466	5.00	20.059	24.07	210.8	697.6	1717.3
75.00		1.44	0.91	7.962	8.76	0.00	1.200	2.466	5.00	19.916	23.90	209.3	692.3	2532.6
76.00	Top - Section 2 RT5	1.43	0.91	7.962	8.76	0.00	1.200	2.466	1.00	3.934	4.72	41.3	137.8	500.7
80.00		1.41	0.93	7.959	8.75	0.00	1.200	2.465	4.00	15.570	18.68	163.6	541.5	1199.6
85.00		1.39	0.94	7.953	8.75	0.00	1.200	2.465	5.00	19.090	22.91	200.4	661.4	1466.4
90.00		1.36	0.96	7.947	8.74	0.00	1.200	2.464	5.00	18.677	22.41	195.9	645.9	1431.2
95.00		1.34	0.97	7.941	8.73	0.00	1.200	2.464	5.00	18.264	21.92	191.4	630.5	1396.1
96.00	RT6 RB7	1.34	0.98	7.939	8.73	0.00	1.200	2.463	1.00	3.603	4.32	37.8	125.5	276.2
100.00	Top - Section 3	1.32	0.99	7.934	8.73	0.00	1.200	2.463	4.00	14.248	17.10	149.2	492.0	1087.2
105.00		1.30	1.00	7.928	8.72	0.00	1.200	2.462	5.00	17.438	20.93	182.5	599.6	1181.7
110.00		1.28	1.02	7.923	8.71	0.00	1.200	2.462	5.00	17.025	20.43	178.0	584.2	1150.5
113.50	RT7	1.27	1.02	7.919	8.71	0.00	1.200	2.461	3.50	11.671	14.01	122.0	401.4	788.5
115.00	Bot - Section 5	1.27	1.03	7.918	8.71	0.00	1.200	2.461	1.50	4.940	5.93	51.6	170.6	334.2
117.00	Appurtenance(s)	1.26	1.03	7.916	8.71	0.00	1.200	2.461	2.00	6.615	7.94	69.1	228.2	663.3
120.00	Top - Section 4	1.25	1.04	7.914	8.71	0.00	1.200	2.461	3.00	9.799	11.76	102.4	336.8	979.9
125.00		1.24	1.05	7.912	8.70	0.00	1.200	2.460	5.00	16.002	19.20	167.1	546.1	1073.5
127.00	Appurtenance(s)	1.23	1.06	7.911	8.70	0.00	1.200	2.460	2.00	6.285	7.54	65.6	216.0	422.6
130.00		1.22	1.07	7.911	8.70	0.00	1.200	2.460	3.00	9.304	11.16	97.2	318.5	623.6
135.00		1.21	1.08	7.911	8.70	0.00	1.200	2.460	5.00	15.176	18.21	158.5	515.5	1011.5
137.00	Appurtenance(s)	1.20	1.08	7.911	8.70	0.00	1.200	2.460	2.00	5.955	7.15	62.2	203.8	397.8
140.00		1.20	1.09	7.912	8.70	0.00	1.200	2.460	3.00	8.809	10.57	92.0	300.2	586.5
145.00		1.18	1.10	7.915	8.71	0.00	1.200	2.461	5.00	14.351	17.22	149.9	485.1	949.7
147.00	Appurtenance(s)	1.18	1.10	7.916	8.71	0.00	1.200	2.461	2.00	5.625	6.75	58.8	191.6	373.0
150.00		1.17	1.11	7.918	8.71	0.00	1.200	2.461	3.00	8.314	9.98	86.9	282.0	549.4
155.00	Appurtenance(s)	1.16	1.12	7.924	8.72	0.00	1.200	2.462	5.00	13.527	16.23	141.5	454.8	887.9

Wind Loading - Shaft

Structure:	CT00302-S-SBA			**Code:**	EIA/TIA-222-G	4/10/2017
Site Name:	Danielson			**Exposure:**	B	
Height:	155.00 (ft)			**Crest Height:**	172.00	
Base Elev:	0.000 (ft)			**Site Class:**	C - Very Dense Soil	
Gh:	1.1	**Topography:**	3	**Struct Class:**	II	Page: 26

Totals:	**155.00**	**6,330.7**	**51,851.4**

Discrete Appurtenance Forces

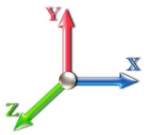
Structure:	CT00302-S-SBA	**Code:**	EIA/TIA-222-G	4/10/2017	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	172.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 27	

Tower Engineering Solutions

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 22

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	155.00	RRH2X60-AWS	3	7.924	8.716	0.54	0.80	7.42	476.29	0.000	0.000	64.66	0.00	0.00
2	155.00	LNX-6514DS-A1M	3	7.924	8.716	0.66	0.80	24.21	732.69	0.000	0.000	210.99	0.00	0.00
3	155.00	BXA-70080-4BF	3	7.924	8.716	0.61	0.80	13.47	409.12	0.000	0.000	117.40	0.00	0.00
4	155.00	HBXX-6517DS-A2M	6	7.924	8.716	0.62	0.80	46.82	1482.98	0.000	0.000	408.06	0.00	0.00
5	155.00	(3) T-Frame w/ Platforms	1	7.924	8.716	1.00	1.00	53.31	3757.98	0.000	0.000	464.65	0.00	0.00
6	155.00	RRH2X60-PCS	3	7.924	8.716	0.54	0.80	5.04	591.23	0.000	0.000	43.89	0.00	0.00
7	155.00	RRH2X60-700	3	7.924	8.716	0.54	0.80	4.41	490.50	0.000	0.000	38.44	0.00	0.00
8	155.00	FD9R6004/2C-3L	6	7.924	8.716	0.40	0.80	2.36	76.45	0.000	0.000	20.61	0.00	0.00
9	155.00	DB-T1-6Z-8AB-0Z	1	7.924	8.716	0.57	0.80	3.45	240.60	0.000	0.000	30.03	0.00	0.00
10	147.00	ACU-A20-N	4	7.916	8.708	0.63	0.80	1.41	23.83	0.000	0.000	12.29	0.00	0.00
11	147.00	800 MHz Filters	3	7.916	8.708	0.54	0.80	7.44	528.27	0.000	0.000	64.77	0.00	0.00
12	147.00	800 MHz RRH	3	7.916	8.708	0.54	0.80	6.60	440.37	0.000	0.000	57.45	0.00	0.00
13	147.00	1900MHz RRH	3	7.916	8.708	0.54	0.80	9.26	526.59	0.000	0.000	80.65	0.00	0.00
14	147.00	TD-RRH8x20-25	3	7.916	8.708	0.55	0.80	8.67	760.24	0.000	0.000	75.45	0.00	0.00
15	147.00	APXVTM14-C-120	3	7.916	8.708	0.63	0.80	15.08	937.44	0.000	0.000	131.27	0.00	0.00
16	147.00	APXVSPP18-C-A20	3	7.916	8.708	0.66	0.80	23.82	787.90	0.000	0.000	207.44	0.00	0.00
17	147.00	(3) T-Frame w/ Platforms	1	7.916	8.708	1.00	1.00	53.30	3757.31	0.000	0.000	464.11	0.00	0.00
18	137.00	(3) T-Frame w/ Platforms	1	7.911	8.702	1.00	1.00	53.29	3756.87	0.000	0.000	463.77	0.00	0.00
19	137.00	59212	6	7.911	8.702	0.53	0.80	24.70	1676.84	0.000	0.000	214.95	0.00	0.00
20	127.00	Low Profile	1	7.911	8.702	1.00	1.00	46.90	3345.27	0.000	0.000	408.13	0.00	0.00
21	127.00	HPA-65R-BUU-H8	3	7.911	8.702	0.63	0.80	29.03	1559.90	0.000	0.000	252.66	0.00	0.00
22	127.00	LGP21401	6	7.911	8.702	0.40	0.80	4.80	262.84	0.000	0.000	41.75	0.00	0.00
23	127.00	RRUS 11	3	7.911	8.702	0.54	0.80	5.58	595.61	0.000	0.000	48.58	0.00	0.00
24	127.00	RRUS 32 B2	3	7.911	8.702	0.54	0.80	6.11	625.64	0.000	0.000	53.18	0.00	0.00
25	127.00	DC6-48-60-18-8F	1	7.911	8.702	0.80	0.80	1.23	107.62	0.000	0.000	10.70	0.00	0.00
26	127.00	LGP13519	6	7.911	8.702	0.54	0.80	3.15	102.30	0.000	0.000	27.43	0.00	0.00
27	127.00	7770.00	6	7.911	8.702	0.58	0.80	24.68	1504.06	0.000	0.000	214.74	0.00	0.00
28	117.00	T-Frames	3	7.916	8.708	0.56	0.75	58.82	7068.58	0.000	0.000	512.24	0.00	0.00
29	117.00	742 351	6	7.916	8.708	0.49	0.80	23.96	857.04	0.000	0.000	208.61	0.00	0.00
30	35.00	DB589	1	7.805	8.585	0.80	0.80	3.70	55.45	0.000	4.600	31.80	0.00	146.29
31	35.00	3.58' Standoff	1	7.727	8.500	0.67	1.00	2.94	89.41	0.000	0.000	25.01	0.00	0.00
							Totals:		**37,627.20**			**5,005.74**		

Total Applied Force Summary

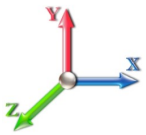
Structure:	CT00302-S-SBA		**Code:**	EIA/TIA-222-G	4/10/2017
Site Name:	Danielson		**Exposure:**	B	
Height:	155.00 (ft)		**Crest Height:**	172.00	
Base Elev:	0.000 (ft)		**Site Class:**	C - Very Dense Soil	
Gh:	1.1	**Topography:** 3	**Struct Class:**	II	Page: 28

Tower Engineering Solutions

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 22

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		293.36	2876.54	0.00	0.00
10.00		279.66	2896.84	0.00	0.00
11.50		82.19	865.91	0.00	0.00
15.00		185.99	2018.20	0.00	0.00
16.50		78.29	861.59	0.00	0.00
20.00		177.20	2002.60	0.00	0.00
21.00		49.93	569.73	0.00	0.00
25.00		193.24	2266.42	0.00	0.00
30.00		231.05	2802.29	0.00	0.00
35.00	(2) attachments	287.35	2910.87	0.00	146.29
36.00		45.72	548.27	0.00	0.00
40.00		185.41	3111.68	0.00	0.00
41.00		46.01	772.37	0.00	0.00
42.00		45.91	769.85	0.00	0.00
45.00		137.30	1521.59	0.00	0.00
50.00		226.59	2503.82	0.00	0.00
55.00		223.04	2466.24	0.00	0.00
58.00		131.93	1463.23	0.00	0.00
58.50		21.84	216.31	0.00	0.00
60.00		65.30	646.19	0.00	0.00
65.00		215.09	2123.68	0.00	0.00
70.00		210.84	2084.93	0.00	0.00
75.00		209.32	2900.27	0.00	0.00
76.00		41.34	574.25	0.00	0.00
80.00		163.56	1493.68	0.00	0.00
85.00		200.42	1833.94	0.00	0.00
90.00		195.93	1798.79	0.00	0.00
95.00		191.44	1763.64	0.00	0.00
96.00		37.76	349.75	0.00	0.00
100.00		149.22	1381.23	0.00	0.00
105.00		182.49	1549.14	0.00	0.00
110.00		178.04	1517.98	0.00	0.00
113.50		122.01	1045.68	0.00	0.00
115.00		51.63	444.40	0.00	0.00
117.00	(9) attachments	789.97	8705.90	0.00	0.00
120.00		102.37	1110.25	0.00	0.00
125.00		167.12	1290.72	0.00	0.00
127.00	(29) attachments	1122.81	8612.67	0.00	0.00
130.00		97.15	704.70	0.00	0.00
135.00		158.47	1146.67	0.00	0.00
137.00	(7) attachments	740.91	5885.54	0.00	0.00
140.00		92.00	645.08	0.00	0.00
145.00		149.93	1047.37	0.00	0.00
147.00	(23) attachments	1152.22	8174.05	0.00	0.00
150.00		86.90	598.50	0.00	0.00
155.00	(29) attachments	1540.22	9227.62	0.00	0.00

Total Applied Force Summary

Structure:	CT00302-S-SBA		**Code:**	EIA/TIA-222-G	4/10/2017
Site Name:	Danielson		**Exposure:**	B	
Height:	155.00 (ft)		**Crest Height:**	172.00	
Base Elev:	0.000 (ft)		**Site Class:**	C - Very Dense Soil	
Gh:	1.1	**Topography:** 3	**Struct Class:**	II	Page: 29

Tower Engineering Solutions

Totals:	**11,336.48**	**102,100.96**	**0.00**	**146.29**

Linear Appurtenance Segment Forces (Factored)

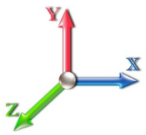
Structure:	CT00302-S-SBA	**Code:**	EIA/TIA-222-G	4/10/2017	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	172.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 30	

Tower Engineering Solutions

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 22

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	3.27	0.00	0.064	0.000	8.949	0.00	302.95
10.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	3.38	0.00	0.066	0.000	8.638	0.00	317.90
11.50	10"x1/2" Bent plate	Yes	1.50	0.000	3.56	1.02	0.00	0.066	0.000	8.549	0.00	96.22
15.00	10"x1/2" Bent plate	Yes	3.50	0.000	3.56	2.40	0.00	0.067	0.000	8.350	0.00	228.09
16.50	10"x1/2" Bent plate	Yes	1.50	0.000	3.56	1.03	0.00	0.068	0.000	8.267	0.00	98.27
20.00	10"x1/2" Bent plate	Yes	3.50	0.000	3.56	2.43	0.00	0.068	0.000	8.082	0.00	231.55
21.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.69	0.00	0.069	0.000	8.031	0.00	66.31
25.00	10"x1/2" Bent plate	Yes	4.00	0.000	3.56	2.79	0.00	0.069	0.000	7.834	0.00	267.27
30.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	3.51	0.00	0.071	0.000	7.609	0.00	336.36
35.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	3.52	0.00	0.072	0.000	7.727	0.00	337.96
36.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.70	0.00	0.073	0.000	7.746	0.00	67.64
40.00	10"x1/2" Bent plate	Yes	4.00	0.000	3.56	2.82	0.00	0.074	0.000	7.811	0.00	271.26
41.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.71	0.00	0.075	0.000	7.824	0.00	67.85
42.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.71	0.00	0.075	0.000	7.837	0.00	67.88
45.00	10"x1/2" Bent plate	Yes	3.00	0.000	3.56	2.12	0.00	0.074	0.000	7.869	0.00	203.91
50.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	3.53	0.00	0.075	0.000	7.909	0.00	340.38
55.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	3.54	0.00	0.077	0.000	7.935	0.00	340.73
58.00	10"x1/2" Bent plate	Yes	3.00	0.000	3.56	2.12	0.00	0.078	0.000	7.946	0.00	204.52
58.50	1.25" Reinforcing	Yes	0.50	0.000	2.50	0.31	0.00	0.056	0.000	7.947	0.00	7.50
60.00	1.25" Reinforcing	Yes	1.50	0.000	2.50	0.93	0.00	0.056	0.000	7.951	0.00	22.50
65.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	3.10	0.00	0.057	0.000	7.960	0.00	75.05
70.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	3.10	0.00	0.058	0.000	7.963	0.00	75.06
75.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	3.10	0.00	0.059	0.000	7.962	0.00	75.06
76.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.62	0.00	0.060	0.000	7.962	0.00	15.01
80.00	1.25" Reinforcing	Yes	4.00	0.000	2.50	2.48	0.00	0.060	0.000	7.959	0.00	60.03
85.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	3.10	0.00	0.061	0.000	7.953	0.00	75.02
90.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	3.10	0.00	0.063	0.000	7.947	0.00	74.99
95.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	3.09	0.00	0.064	0.000	7.941	0.00	74.96
96.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.62	0.00	0.065	0.000	7.939	0.00	14.99
100.00	1.25" Reinforcing	Yes	4.00	0.000	2.50	2.48	0.00	0.066	0.000	7.934	0.00	59.94
105.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	3.09	0.00	0.068	0.000	7.928	0.00	74.90
110.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	3.09	0.00	0.070	0.000	7.923	0.00	74.87
113.50	1.25" Reinforcing	Yes	3.50	0.000	2.50	2.16	0.00	0.071	0.000	7.919	0.00	52.40
115.00	1.25" Reinforcing	Yes	1.50	0.000	2.50	0.93	0.00	0.072	0.000	7.918	0.00	22.45
										Totals:	**0.0**	**4,701.8**

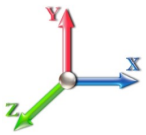
Calculated Forces

Structure:	CT00302-S-SBA	**Code:**	EIA/TIA-222-G	4/10/2017	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	172.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 31	

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 22

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-102.1	-11.38	0.00	-1239.2	0.00	1239.23	4048.32	2024.16	8933.65	4411.99	0.00	0.000	0.000	0.252
5.00	-99.21	-11.18	0.00	-1182.3	0.00	1182.31	4007.22	2003.61	8683.49	4288.45	0.03	-0.052	0.000	0.246
10.00	-96.31	-10.95	0.00	-1126.4	0.00	1126.42	3964.98	1982.49	8434.18	4165.32	0.11	-0.105	0.000	0.241
11.50	-95.44	-10.91	0.00	-1109.9	0.00	1109.99	3952.09	1976.04	8359.57	4128.48	0.15	-0.121	0.000	0.205
15.00	-93.41	-10.76	0.00	-1071.8	0.00	1071.81	3921.60	1960.80	8185.84	4042.68	0.25	-0.153	0.000	0.201
16.50	-92.55	-10.72	0.00	-1055.6	0.00	1055.67	3908.36	1954.18	8111.55	4005.99	0.30	-0.166	0.000	0.233
20.00	-90.54	-10.57	0.00	-1018.1	0.00	1018.17	3877.07	1938.54	7938.63	3920.59	0.43	-0.204	0.000	0.229
21.00	-89.97	-10.56	0.00	-1007.6	0.00	1007.60	3868.03	1934.02	7889.33	3896.24	0.48	-0.214	0.000	0.228
25.00	-87.69	-10.43	0.00	-965.36	0.00	965.36	3831.41	1915.70	7692.66	3799.12	0.68	-0.257	0.000	0.224
30.00	-84.88	-10.26	0.00	-913.21	0.00	913.21	3784.60	1892.30	7448.09	3678.33	0.97	-0.310	0.000	0.218
35.00	-81.97	-10.00	0.00	-861.74	0.00	861.74	3736.66	1868.33	7205.04	3558.30	1.33	-0.362	0.000	0.211
36.00	-81.41	-9.99	0.00	-851.74	0.00	851.74	3726.93	1863.47	7156.62	3534.39	1.40	-0.373	0.000	0.210
40.00	-78.30	-9.82	0.00	-811.77	0.00	811.77	3687.57	1843.78	6963.65	3439.09	1.73	-0.416	0.000	0.204
41.00	-77.53	-9.79	0.00	-801.95	0.00	801.95	3677.62	1838.81	6915.58	3415.35	1.82	-0.426	0.000	0.203
42.00	-76.75	-9.76	0.00	-792.16	0.00	792.16	3033.05	1516.53	5788.55	2858.75	1.91	-0.437	0.000	0.218
45.00	-75.23	-9.67	0.00	-762.88	0.00	762.88	3011.75	1505.88	5675.99	2803.16	2.20	-0.469	0.000	0.230
50.00	-72.71	-9.49	0.00	-714.52	0.00	714.52	2975.34	1487.67	5488.97	2710.80	2.72	-0.524	0.000	0.221
55.00	-70.24	-9.30	0.00	-667.06	0.00	667.06	2937.79	1468.89	5302.79	2618.85	3.30	-0.580	0.000	0.213
58.00	-68.78	-9.17	0.00	-639.17	0.00	639.17	2914.71	1457.35	5191.54	2563.91	3.67	-0.613	0.000	0.161
58.50	-68.56	-9.16	0.00	-634.58	0.00	634.58	2910.82	1455.41	5173.04	2554.77	3.74	-0.617	0.000	0.197
60.00	-67.91	-9.13	0.00	-620.83	0.00	620.83	2899.09	1449.55	5117.58	2527.38	3.93	-0.633	0.000	0.195
65.00	-65.78	-8.95	0.00	-575.18	0.00	575.18	2859.26	1429.63	4933.49	2436.46	4.62	-0.684	0.000	0.186
70.00	-63.69	-8.77	0.00	-530.44	0.00	530.44	2818.28	1409.14	4750.64	2346.16	5.37	-0.734	0.000	0.177
75.00	-60.79	-8.55	0.00	-486.61	0.00	486.61	2776.16	1388.08	4569.18	2256.54	6.16	-0.783	0.000	0.167
76.00	-60.21	-8.53	0.00	-478.06	0.00	478.06	2161.97	1080.98	3608.45	1782.08	6.33	-0.793	0.000	0.187
80.00	-58.71	-8.39	0.00	-443.95	0.00	443.95	2139.97	1069.98	3503.61	1730.30	7.01	-0.832	0.000	0.196
85.00	-56.88	-8.21	0.00	-402.01	0.00	402.01	2111.44	1055.72	3372.88	1665.74	7.91	-0.883	0.000	0.184
90.00	-55.07	-8.03	0.00	-360.95	0.00	360.95	2081.77	1040.89	3242.65	1601.42	8.86	-0.933	0.000	0.171
95.00	-53.31	-7.84	0.00	-320.78	0.00	320.78	2050.97	1025.48	3113.05	1537.42	9.86	-0.981	0.000	0.158
96.00	-52.96	-7.82	0.00	-312.94	0.00	312.94	2044.67	1022.33	3087.22	1524.66	10.07	-0.990	0.000	0.168
100.00	-51.57	-7.68	0.00	-281.67	0.00	281.67	2019.02	1009.51	2984.22	1473.79	10.92	-1.029	0.000	0.156
100.00	-51.57	-7.68	0.00	-281.67	0.00	281.67	1394.49	697.25	2068.33	1021.47	10.92	-1.029	0.000	0.181
105.00	-50.02	-7.51	0.00	-243.25	0.00	243.25	1376.43	688.21	1986.77	981.19	12.02	-1.075	0.000	0.190
110.00	-48.50	-7.34	0.00	-205.69	0.00	205.69	1357.32	678.66	1905.17	940.89	13.17	-1.123	0.000	0.169
113.50	-47.46	-7.22	0.00	-180.00	0.00	180.00	1343.33	671.66	1848.11	912.71	14.01	-1.155	0.000	0.153
113.50	-47.46	-7.22	0.00	-180.00	0.00	180.00	1343.33	671.66	1848.11	912.71	14.01	-1.155	0.000	0.153
115.00	-47.01	-7.17	0.00	-169.18	0.00	169.18	1337.17	668.58	1823.68	900.65	14.37	-1.168	0.000	0.223
117.00	-38.32	-6.22	0.00	-154.84	0.00	154.84	1328.82	664.41	1791.13	884.57	14.87	-1.193	0.000	0.204
120.00	-37.21	-6.12	0.00	-136.18	0.00	136.18	1327.18	663.59	1784.85	881.47	15.63	-1.227	0.000	0.183
125.00	-35.92	-5.95	0.00	-105.56	0.00	105.56	1305.49	652.74	1703.72	841.41	16.94	-1.278	0.000	0.153
127.00	-27.33	-4.64	0.00	-93.66	0.00	93.66	1296.51	648.26	1671.38	825.43	17.48	-1.296	0.000	0.135
130.00	-26.63	-4.54	0.00	-79.73	0.00	79.73	1282.74	641.37	1623.00	801.54	18.30	-1.319	0.000	0.120
135.00	-25.48	-4.37	0.00	-57.02	0.00	57.02	1258.96	629.48	1542.80	761.93	19.70	-1.352	0.000	0.095
137.00	-19.61	-3.49	0.00	-48.29	0.00	48.29	1249.15	624.57	1510.90	746.18	20.27	-1.363	0.000	0.080
140.00	-18.97	-3.39	0.00	-37.81	0.00	37.81	1234.12	617.06	1463.26	722.65	21.13	-1.377	0.000	0.068
145.00	-17.93	-3.22	0.00	-20.87	0.00	20.87	1208.24	604.12	1384.50	683.75	22.59	-1.394	0.000	0.045
147.00	-9.78	-1.87	0.00	-14.43	0.00	14.43	1197.60	598.80	1353.24	668.32	23.17	-1.399	0.000	0.030
150.00	-9.19	-1.77	0.00	-8.83	0.00	8.83	1181.32	590.66	1306.64	645.30	24.05	-1.404	0.000	0.021

Calculated Forces

Structure:	CT00302-S-SBA					**Code:**	EIA/TIA-222-G				4/10/2017			
Site Name:	Danielson					**Exposure:**	B							
Height:	155.00 (ft)					**Crest Height:**	172.00							
Base Elev:	0.000 (ft)					**Site Class:**	C - Very Dense Soil							
Gh:	1.1			**Topography:**	3	**Struct Class:**	II				Page: 32			

155.00	0.00	-1.54	0.00	0.00	0.00	0.00	1153.35	576.68	1229.81	607.36	25.52	-1.407	0.000	0.000

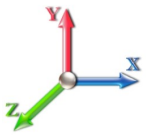
Seismic Segment Forces (Factored)

Structure:	CT00302-S-SBA		**Code:**	EIA/TIA-222-G	4/10/2017
Site Name:	Danielson		**Exposure:**	B	
Height:	155.00 (ft)		**Crest Height:**	172.00	
Base Elev:	0.000 (ft)		**Site Class:**	C - Very Dense Soil	
Gh:	1.1	**Topography:** 3	**Struct Class:**	II	Page: 33

Tower Engineering Solutions

Load Case: 1.2D + 1.0E

Gust Response Factor	1.10			**Sds**	0.14	**Iterations**	20
Dead Load Factor	1.20	**Seismic Load Factor**	1.00	**Sd1**	0.07	**Ss**	0.17
Wind Load Factor	0.00	**Structure Frequency**	0.32	**SA**	0.02	**S1**	0.06
						Seismic Importance Factor	1.00



Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00	RB1	0.00	0.00	0.00	0.00	0.00	
5.00		1257.2	0.00	0.03	0.02	17.24	
10.00		1234.5	0.01	0.05	0.03	24.37	
11.50	RB2	365.95	0.01	0.06	0.03	7.63	
15.00		845.94	0.02	0.06	0.04	19.22	
16.50	RT2	359.14	0.02	0.06	0.04	8.36	
20.00		830.05	0.03	0.07	0.04	20.14	
21.00	RT1 RB3	235.12	0.03	0.07	0.04	5.75	
25.00		931.38	0.05	0.07	0.04	23.42	
30.00		1143.8	0.07	0.07	0.04	29.50	
35.00	Appurtenance(s)	1202.6	0.10	0.07	0.04	31.75	
36.00	Bot - Section 2	221.50	0.10	0.07	0.04	5.87	
40.00		1649.4	0.13	0.07	0.03	44.55	
41.00	RT3 RB4	408.14	0.13	0.07	0.03	11.07	
42.00	Top - Section 1	406.44	0.14	0.07	0.03	11.07	
45.00		566.45	0.16	0.07	0.03	15.59	
50.00		928.37	0.20	0.06	0.02	25.73	
55.00		908.72	0.24	0.06	0.02	24.73	
58.00	RB5	535.80	0.26	0.05	0.02	14.13	
58.50	RT4	88.61	0.27	0.05	0.02	2.32	
60.00		264.66	0.28	0.05	0.01	6.75	
65.00		869.42	0.33	0.04	0.01	19.17	
70.00	Bot - Section 3	849.77	0.39	0.02	0.01	13.85	
75.00		1533.6	0.44	0.00	0.01	12.47	
76.00	Top - Section 2 RT5 RB6	302.41	0.45	0.00	0.01	1.89	
80.00		548.42	0.50	-0.02	0.01	-0.99	
85.00		670.79	0.57	-0.04	0.01	-8.05	
90.00		654.41	0.64	-0.07	0.02	-13.52	
95.00		638.04	0.71	-0.09	0.03	-16.88	
96.00	RT6 RB7	125.64	0.73	-0.09	0.03	-3.42	
100.00	Top - Section 3	496.02	0.79	-0.11	0.05	-14.29	
105.00		485.09	0.87	-0.12	0.08	-13.40	
110.00		471.99	0.95	-0.12	0.11	-10.83	
113.50	RT7	322.60	1.01	-0.11	0.14	-5.69	
115.00	Bot - Section 5	136.29	1.04	-0.10	0.15	-2.03	
117.00	Appurtenance(s)	3181.3	1.08	-0.08	0.17	-34.14	
120.00	Top - Section 4	535.91	1.13	-0.05	0.21	-1.88	
125.00		439.54	1.23	0.03	0.28	4.90	
127.00	Appurtenance(s)	2586.8	1.27	0.08	0.31	46.45	
130.00		254.29	1.33	0.16	0.36	7.42	
135.00		413.34	1.43	0.35	0.47	20.89	
137.00	Appurtenance(s)	2021.6	1.48	0.44	0.52	121.44	
140.00		238.57	1.54	0.61	0.59	17.99	
145.00		387.14	1.65	0.96	0.75	40.18	
147.00	Appurtenance(s)	2800.5	1.70	1.12	0.81	325.26	
150.00		222.85	1.77	1.41	0.93	30.26	

Seismic Segment Forces (Factored)

Structure:	CT00302-S-SBA		**Code:**	EIA/TIA-222-G	4/10/2017
Site Name:	Danielson		**Exposure:**	B	
Height:	155.00 (ft)		**Crest Height:**	172.00	
Base Elev:	0.000 (ft)		**Site Class:**	C - Very Dense Soil	
Gh:	1.1	**Topography:** 3	**Struct Class:**	II	Page: 34

155.00	Appurtenance(s)		2885.4	1.89	1.98	1.14	494.82	
		Totals:	**38,456.1**				**1,381.1**	**Total Wind:** **50,374.7**

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

Calculated Forces

Structure:	CT00302-S-SBA	**Code:**	EIA/TIA-222-G	4/10/2017	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	172.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 35	

Tower Engineering Solutions

Load Case: 1.2D + 1.0E

Gust Response Factor	1.10			**Sds**	0.14			**Iterations**	20
Dead Load Factor	1.20	**Seismic Load Factor**	1.00	**Sd1**	0.07			**Ss**	0.17
Wind Load Factor	0.00	**Structure Frequency**	0.32	**SA**	0.02			**S1**	0.06
								Seismic Importance Factor	1.00

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-54.07	-1.51	0.00	-186.46	0.00	186.46	4048.32	2024.16	8933.65	4411.99		0.00	0.00	0.045
5.00	-52.26	-1.50	0.00	-178.92	0.00	178.92	4007.22	2003.61	8683.49	4288.45		0.00	-0.01	0.044
10.00	-50.48	-1.48	0.00	-171.42	0.00	171.42	3964.98	1982.49	8434.18	4165.32		0.02	-0.02	0.044
11.50	-49.95	-1.47	0.00	-169.21	0.00	169.21	3952.09	1976.04	8359.57	4128.48		0.02	-0.02	0.038
15.00	-48.73	-1.46	0.00	-164.05	0.00	164.05	3921.60	1960.80	8185.84	4042.68		0.04	-0.02	0.037
16.50	-48.21	-1.45	0.00	-161.86	0.00	161.86	3908.36	1954.18	8111.55	4005.99		0.05	-0.03	0.042
20.00	-47.00	-1.43	0.00	-156.78	0.00	156.78	3877.07	1938.54	7938.63	3920.59		0.07	-0.03	0.042
21.00	-46.66	-1.43	0.00	-155.35	0.00	155.35	3868.03	1934.02	7889.33	3896.24		0.07	-0.03	0.042
25.00	-45.30	-1.41	0.00	-149.62	0.00	149.62	3831.41	1915.70	7692.66	3799.12		0.10	-0.04	0.041
30.00	-43.63	-1.39	0.00	-142.55	0.00	142.55	3784.60	1892.30	7448.09	3678.33		0.15	-0.05	0.040
35.00	-41.89	-1.36	0.00	-135.61	0.00	135.61	3736.66	1868.33	7205.04	3558.30		0.20	-0.06	0.039
36.00	-41.56	-1.36	0.00	-134.25	0.00	134.25	3726.93	1863.47	7156.62	3534.39		0.21	-0.06	0.039
40.00	-39.35	-1.31	0.00	-128.83	0.00	128.83	3687.57	1843.78	6963.65	3439.09		0.26	-0.06	0.038
41.00	-38.80	-1.30	0.00	-127.51	0.00	127.51	3677.62	1838.81	6915.58	3415.35		0.28	-0.07	0.038
42.00	-38.26	-1.29	0.00	-126.21	0.00	126.21	3033.05	1516.53	5788.55	2858.75		0.29	-0.07	0.040
45.00	-37.40	-1.28	0.00	-122.34	0.00	122.34	3011.75	1505.88	5675.99	2803.16		0.34	-0.07	0.043
50.00	-35.99	-1.26	0.00	-115.94	0.00	115.94	2975.34	1487.67	5488.97	2710.80		0.42	-0.08	0.042
55.00	-34.61	-1.24	0.00	-109.65	0.00	109.65	2937.79	1468.89	5302.79	2618.85		0.51	-0.09	0.041
58.00	-33.79	-1.22	0.00	-105.94	0.00	105.94	2914.71	1457.35	5191.54	2563.91		0.57	-0.10	0.031
58.50	-33.66	-1.22	0.00	-105.33	0.00	105.33	2910.82	1455.41	5173.04	2554.77		0.58	-0.10	0.038
60.00	-33.25	-1.22	0.00	-103.50	0.00	103.50	2899.09	1449.55	5117.58	2527.38		0.61	-0.10	0.038
65.00	-31.91	-1.20	0.00	-97.42	0.00	97.42	2859.26	1429.63	4933.49	2436.46		0.72	-0.11	0.037
70.00	-30.60	-1.19	0.00	-91.42	0.00	91.42	2818.28	1409.14	4750.64	2346.16		0.83	-0.12	0.036
75.00	-28.47	-1.17	0.00	-85.49	0.00	85.49	2776.16	1388.08	4569.18	2256.54		0.96	-0.12	0.034
76.00	-28.05	-1.17	0.00	-84.31	0.00	84.31	2161.97	1080.98	3608.45	1782.08		0.99	-0.13	0.038
80.00	-27.16	-1.17	0.00	-79.62	0.00	79.62	2139.97	1069.98	3503.61	1730.30		1.10	-0.13	0.041
85.00	-26.06	-1.18	0.00	-73.75	0.00	73.75	2111.44	1055.72	3372.88	1665.74		1.24	-0.14	0.039
90.00	-24.98	-1.18	0.00	-67.87	0.00	67.87	2081.77	1040.89	3242.65	1601.42		1.40	-0.15	0.037
95.00	-23.92	-1.18	0.00	-61.99	0.00	61.99	2050.97	1025.48	3113.05	1537.42		1.56	-0.16	0.035
96.00	-23.71	-1.18	0.00	-60.81	0.00	60.81	2044.67	1022.33	3087.22	1524.66		1.59	-0.16	0.037
100.00	-22.88	-1.18	0.00	-56.10	0.00	56.10	2019.02	1009.51	2984.22	1473.79		1.73	-0.17	0.036
100.00	-22.88	-1.18	0.00	-56.10	0.00	56.10	1394.49	697.25	2068.33	1021.47		1.73	-0.17	0.041
105.00	-22.01	-1.18	0.00	-50.21	0.00	50.21	1376.43	688.21	1986.77	981.19		1.92	-0.18	0.045
110.00	-21.15	-1.18	0.00	-44.31	0.00	44.31	1357.32	678.66	1905.17	940.89		2.11	-0.19	0.042
113.50	-20.56	-1.18	0.00	-40.17	0.00	40.17	1343.33	671.66	1848.11	912.71		2.25	-0.20	0.039
113.50	-20.56	-1.18	0.00	-40.17	0.00	40.17	1343.33	671.66	1848.11	912.71		2.25	-0.20	0.039
115.00	-20.30	-1.18	0.00	-38.40	0.00	38.40	1337.17	668.58	1823.68	900.65		2.32	-0.20	0.058
117.00	-16.37	-1.17	0.00	-36.04	0.00	36.04	1328.82	664.41	1791.13	884.57		2.40	-0.21	0.053
120.00	-15.60	-1.17	0.00	-32.53	0.00	32.53	1327.18	663.59	1784.85	881.47		2.53	-0.21	0.049
125.00	-14.85	-1.16	0.00	-26.69	0.00	26.69	1305.49	652.74	1703.72	841.41		2.76	-0.23	0.043
127.00	-11.66	-1.11	0.00	-24.36	0.00	24.36	1296.51	648.26	1671.38	825.43		2.86	-0.23	0.039
130.00	-11.27	-1.10	0.00	-21.05	0.00	21.05	1282.74	641.37	1623.00	801.54		3.01	-0.24	0.035
135.00	-10.64	-1.08	0.00	-15.56	0.00	15.56	1258.96	629.48	1542.80	761.93		3.26	-0.25	0.029
137.00	-8.16	-0.94	0.00	-13.41	0.00	13.41	1249.15	624.57	1510.90	746.18		3.36	-0.25	0.025
140.00	-7.82	-0.93	0.00	-10.57	0.00	10.57	1234.12	617.06	1463.26	722.65		3.52	-0.25	0.021
145.00	-7.26	-0.88	0.00	-5.95	0.00	5.95	1208.24	604.12	1384.50	683.75		3.79	-0.26	0.015
147.00	-3.86	-0.54	0.00	-4.18	0.00	4.18	1197.60	598.80	1353.24	668.32		3.90	-0.26	0.009

Calculated Forces

Structure:	CT00302-S-SBA	**Code:**	EIA/TIA-222-G	4/10/2017	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	172.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 36	

150.00	-3.54	-0.51	0.00	-2.55	0.00	2.55	1181.32	590.66	1306.64	645.30	4.06	-0.26	0.007
155.00	0.00	-0.49	0.00	0.00	0.00	0.00	1153.35	576.68	1229.81	607.36	4.34	-0.26	0.000

Seismic Segment Forces (Factored)

Structure:	CT00302-S-SBA		**Code:**	EIA/TIA-222-G	4/10/2017
Site Name:	Danielson		**Exposure:**	B	
Height:	155.00 (ft)		**Crest Height:**	172.00	
Base Elev:	0.000 (ft)		**Site Class:**	C - Very Dense Soil	
Gh:	1.1	**Topography:** 3	**Struct Class:**	II	Page: 37

Tower Engineering Solutions

Load Case:	0.9D + 1.0E							**Iterations**	20
Gust Response Factor	1.10				**Sds**	0.14		**Ss**	0.17
Dead Load Factor	0.90	**Seismic Load Factor**	1.00		**Sd1**	0.07		**S1**	0.06
Wind Load Factor	0.00	**Structure Frequency**	0.32		**SA**	0.02	**Seismic Importance Factor**		1.00

Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00	RB1	0.00	0.00	0.00	0.00	0.00	
5.00		1257.2	0.00	0.03	0.02	17.24	
10.00		1234.5	0.01	0.05	0.03	24.37	
11.50	RB2	365.95	0.01	0.06	0.03	7.63	
15.00		845.94	0.02	0.06	0.04	19.22	
16.50	RT2	359.14	0.02	0.06	0.04	8.36	
20.00		830.05	0.03	0.07	0.04	20.14	
21.00	RT1 RB3	235.12	0.03	0.07	0.04	5.75	
25.00		931.38	0.05	0.07	0.04	23.42	
30.00		1143.8	0.07	0.07	0.04	29.50	
35.00	Appurtenance(s)	1202.6	0.10	0.07	0.04	31.75	
36.00	Bot - Section 2	221.50	0.10	0.07	0.04	5.87	
40.00		1649.4	0.13	0.07	0.03	44.55	
41.00	RT3 RB4	408.14	0.13	0.07	0.03	11.07	
42.00	Top - Section 1	406.44	0.14	0.07	0.03	11.07	
45.00		566.45	0.16	0.07	0.03	15.59	
50.00		928.37	0.20	0.06	0.02	25.73	
55.00		908.72	0.24	0.06	0.02	24.73	
58.00	RB5	535.80	0.26	0.05	0.02	14.13	
58.50	RT4	88.61	0.27	0.05	0.02	2.32	
60.00		264.66	0.28	0.05	0.01	6.75	
65.00		869.42	0.33	0.04	0.01	19.17	
70.00	Bot - Section 3	849.77	0.39	0.02	0.01	13.85	
75.00		1533.6	0.44	0.00	0.01	12.47	
76.00	Top - Section 2 RT5 RB6	302.41	0.45	0.00	0.01	1.89	
80.00		548.42	0.50	-0.02	0.01	-0.99	
85.00		670.79	0.57	-0.04	0.01	-8.05	
90.00		654.41	0.64	-0.07	0.02	-13.52	
95.00		638.04	0.71	-0.09	0.03	-16.88	
96.00	RT6 RB7	125.64	0.73	-0.09	0.03	-3.42	
100.00	Top - Section 3	496.02	0.79	-0.11	0.05	-14.29	
105.00		485.09	0.87	-0.12	0.08	-13.40	
110.00		471.99	0.95	-0.12	0.11	-10.83	
113.50	RT7	322.60	1.01	-0.11	0.14	-5.69	
115.00	Bot - Section 5	136.29	1.04	-0.10	0.15	-2.03	
117.00	Appurtenance(s)	3181.3	1.08	-0.08	0.17	-34.14	
120.00	Top - Section 4	535.91	1.13	-0.05	0.21	-1.88	
125.00		439.54	1.23	0.03	0.28	4.90	
127.00	Appurtenance(s)	2586.8	1.27	0.08	0.31	46.45	
130.00		254.29	1.33	0.16	0.36	7.42	
135.00		413.34	1.43	0.35	0.47	20.89	
137.00	Appurtenance(s)	2021.6	1.48	0.44	0.52	121.44	
140.00		238.57	1.54	0.61	0.59	17.99	
145.00		387.14	1.65	0.96	0.75	40.18	
147.00	Appurtenance(s)	2800.5	1.70	1.12	0.81	325.26	
150.00		222.85	1.77	1.41	0.93	30.26	

Seismic Segment Forces (Factored)

Structure:	CT00302-S-SBA		**Code:**	EIA/TIA-222-G	4/10/2017
Site Name:	Danielson		**Exposure:**	B	
Height:	155.00 (ft)		**Crest Height:**	172.00	
Base Elev:	0.000 (ft)		**Site Class:**	C - Very Dense Soil	
Gh:	1.1	**Topography:** 3	**Struct Class:**	II	Page: 38

155.00	Appurtenance(s)		2885.4	1.89	1.98	1.14	494.82	
		Totals:	**38,456.1**				**1,381.1**	**Total Wind:** **50,374.7**

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

Calculated Forces

Structure:	CT00302-S-SBA	**Code:**	EIA/TIA-222-G	4/10/2017	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	172.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 39	

IES Tower Engineering Solutions

Load Case: 0.9D + 1.0E

Gust Response Factor	1.10			**Sds**	0.14			**Iterations**	20
Dead Load Factor	0.90	**Seismic Load Factor**	1.00	**Sd1**	0.07			**Ss**	0.17
Wind Load Factor	0.00	**Structure Frequency**	0.32	**SA**	0.02			**S1**	0.06
								Seismic Importance Factor	1.00

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-40.55	-1.51	0.00	-184.55	0.00	184.55	4048.32	2024.16	8933.65	4411.99		0.00	0.00	0.042
5.00	-39.19	-1.50	0.00	-177.01	0.00	177.01	4007.22	2003.61	8683.49	4288.45		0.00	-0.01	0.042
10.00	-37.86	-1.47	0.00	-169.53	0.00	169.53	3964.98	1982.49	8434.18	4165.32		0.02	-0.02	0.041
11.50	-37.46	-1.47	0.00	-167.32	0.00	167.32	3952.09	1976.04	8359.57	4128.48		0.02	-0.02	0.035
15.00	-36.54	-1.45	0.00	-162.18	0.00	162.18	3921.60	1960.80	8185.84	4042.68		0.04	-0.02	0.034
16.50	-36.15	-1.45	0.00	-160.00	0.00	160.00	3908.36	1954.18	8111.55	4005.99		0.04	-0.02	0.040
20.00	-35.25	-1.43	0.00	-154.94	0.00	154.94	3877.07	1938.54	7938.63	3920.59		0.06	-0.03	0.039
21.00	-34.99	-1.42	0.00	-153.51	0.00	153.51	3868.03	1934.02	7889.33	3896.24		0.07	-0.03	0.039
25.00	-33.98	-1.40	0.00	-147.81	0.00	147.81	3831.41	1915.70	7692.66	3799.12		0.10	-0.04	0.038
30.00	-32.72	-1.38	0.00	-140.79	0.00	140.79	3784.60	1892.30	7448.09	3678.33		0.15	-0.05	0.037
35.00	-31.42	-1.35	0.00	-133.90	0.00	133.90	3736.66	1868.33	7205.04	3558.30		0.20	-0.06	0.037
36.00	-31.17	-1.34	0.00	-132.55	0.00	132.55	3726.93	1863.47	7156.62	3534.39		0.21	-0.06	0.036
40.00	-29.51	-1.30	0.00	-127.17	0.00	127.17	3687.57	1843.78	6963.65	3439.09		0.26	-0.06	0.035
41.00	-29.10	-1.29	0.00	-125.87	0.00	125.87	3677.62	1838.81	6915.58	3415.35		0.28	-0.07	0.035
42.00	-28.69	-1.28	0.00	-124.58	0.00	124.58	3033.05	1516.53	5788.55	2858.75		0.29	-0.07	0.038
45.00	-28.05	-1.27	0.00	-120.74	0.00	120.74	3011.75	1505.88	5675.99	2803.16		0.33	-0.07	0.040
50.00	-26.99	-1.24	0.00	-114.41	0.00	114.41	2975.34	1487.67	5488.97	2710.80		0.41	-0.08	0.039
55.00	-25.96	-1.22	0.00	-108.19	0.00	108.19	2937.79	1468.89	5302.79	2618.85		0.50	-0.09	0.038
58.00	-25.34	-1.21	0.00	-104.53	0.00	104.53	2914.71	1457.35	5191.54	2563.91		0.56	-0.09	0.029
58.50	-25.24	-1.21	0.00	-103.92	0.00	103.92	2910.82	1455.41	5173.04	2554.77		0.57	-0.10	0.036
60.00	-24.94	-1.20	0.00	-102.11	0.00	102.11	2899.09	1449.55	5117.58	2527.38		0.60	-0.10	0.035
65.00	-23.94	-1.18	0.00	-96.11	0.00	96.11	2859.26	1429.63	4933.49	2436.46		0.71	-0.11	0.034
70.00	-22.95	-1.17	0.00	-90.19	0.00	90.19	2818.28	1409.14	4750.64	2346.16		0.82	-0.12	0.033
75.00	-21.35	-1.16	0.00	-84.34	0.00	84.34	2776.16	1388.08	4569.18	2256.54		0.95	-0.12	0.032
76.00	-21.03	-1.16	0.00	-83.18	0.00	83.18	2161.97	1080.98	3608.45	1782.08		0.97	-0.13	0.036
80.00	-20.37	-1.16	0.00	-78.56	0.00	78.56	2139.97	1069.98	3503.61	1730.30		1.08	-0.13	0.038
85.00	-19.54	-1.16	0.00	-72.77	0.00	72.77	2111.44	1055.72	3372.88	1665.74		1.23	-0.14	0.036
90.00	-18.73	-1.16	0.00	-66.98	0.00	66.98	2081.77	1040.89	3242.65	1601.42		1.38	-0.15	0.035
95.00	-17.94	-1.16	0.00	-61.18	0.00	61.18	2050.97	1025.48	3113.05	1537.42		1.54	-0.16	0.033
96.00	-17.78	-1.16	0.00	-60.03	0.00	60.03	2044.67	1022.33	3087.22	1524.66		1.57	-0.16	0.035
100.00	-17.16	-1.16	0.00	-55.39	0.00	55.39	2019.02	1009.51	2984.22	1473.79		1.71	-0.17	0.033
100.00	-17.16	-1.16	0.00	-55.39	0.00	55.39	1394.49	697.25	2068.33	1021.47		1.71	-0.17	0.039
105.00	-16.50	-1.16	0.00	-49.58	0.00	49.58	1376.43	688.21	1986.77	981.19		1.89	-0.18	0.042
110.00	-15.86	-1.16	0.00	-43.77	0.00	43.77	1357.32	678.66	1905.17	940.89		2.09	-0.19	0.039
113.50	-15.42	-1.16	0.00	-39.71	0.00	39.71	1343.33	671.66	1848.11	912.71		2.23	-0.19	0.036
113.50	-15.42	-1.16	0.00	-39.71	0.00	39.71	1343.33	671.66	1848.11	912.71		2.23	-0.19	0.036
115.00	-15.23	-1.16	0.00	-37.96	0.00	37.96	1337.17	668.58	1823.68	900.65		2.29	-0.20	0.054
117.00	-12.28	-1.15	0.00	-35.64	0.00	35.64	1328.82	664.41	1791.13	884.57		2.37	-0.20	0.050
120.00	-11.70	-1.15	0.00	-32.18	0.00	32.18	1327.18	663.59	1784.85	881.47		2.50	-0.21	0.045
125.00	-11.14	-1.15	0.00	-26.41	0.00	26.41	1305.49	652.74	1703.72	841.41		2.73	-0.22	0.040
127.00	-8.74	-1.09	0.00	-24.12	0.00	24.12	1296.51	648.26	1671.38	825.43		2.83	-0.23	0.036
130.00	-8.45	-1.09	0.00	-20.84	0.00	20.84	1282.74	641.37	1623.00	801.54		2.97	-0.23	0.033
135.00	-7.98	-1.06	0.00	-15.41	0.00	15.41	1258.96	629.48	1542.80	761.93		3.22	-0.24	0.027
137.00	-6.12	-0.93	0.00	-13.28	0.00	13.28	1249.15	624.57	1510.90	746.18		3.32	-0.25	0.023
140.00	-5.86	-0.92	0.00	-10.48	0.00	10.48	1234.12	617.06	1463.26	722.65		3.48	-0.25	0.019
145.00	-5.44	-0.87	0.00	-5.90	0.00	5.90	1208.24	604.12	1384.50	683.75		3.74	-0.25	0.013
147.00	-2.89	-0.54	0.00	-4.15	0.00	4.15	1197.60	598.80	1353.24	668.32		3.85	-0.26	0.009

Calculated Forces

Structure:	CT00302-S-SBA	**Code:**	EIA/TIA-222-G	4/10/2017	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	172.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 40	

150.00	-2.66	-0.51	0.00	-2.53	0.00	2.53	1181.32	590.66	1306.64	645.30	4.01	-0.26	0.006
155.00	0.00	-0.49	0.00	0.00	0.00	0.00	1153.35	576.68	1229.81	607.36	4.28	-0.26	0.000

Wind Loading - Shaft

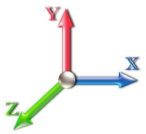
Structure:	CT00302-S-SBA	**Code:**	EIA/TIA-222-G	4/10/2017	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	172.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 41	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 22

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00	RB1	2.18	0.70	13.370	14.71	344.78	1.000	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		2.10	0.70	12.887	14.18	332.49	1.000	0.000	5.00	23.044	23.04	326.7	0.0	1257.3
10.00		2.03	0.70	12.439	13.68	320.76	1.000	0.000	5.00	22.632	22.63	309.7	0.0	1234.6
11.50	RB2	2.01	0.70	12.311	13.54	317.34	1.000	0.000	1.50	6.709	6.71	90.9	0.0	365.9
15.00		1.96	0.70	12.023	13.23	309.56	1.000	0.000	3.50	15.510	15.51	205.1	0.0	845.9
16.50	RT2	1.94	0.70	11.905	13.10	306.29	1.000	0.000	1.50	6.585	6.59	86.2	0.0	359.1
20.00		1.90	0.70	11.638	12.80	298.85	1.000	0.000	3.50	15.221	15.22	194.9	0.0	830.1
21.00	RT1 RB3	1.89	0.70	11.564	12.72	296.76	1.000	0.000	1.00	4.312	4.31	54.8	0.0	235.1
25.00		1.84	0.70	11.280	12.41	288.60	1.000	0.000	4.00	17.082	17.08	212.0	0.0	931.4
30.00		1.79	0.70	10.957	12.05	278.89	1.000	0.000	5.00	20.981	20.98	252.9	0.0	1143.8
35.00	Appurtenance(s)	1.74	0.73	11.127	12.24	275.47	1.000	0.000	5.00	20.569	20.57	251.8	0.0	1121.1
36.00	Bot - Section 2	1.73	0.74	11.155	12.27	274.69	1.000	0.000	1.00	4.064	4.06	49.9	0.0	221.5
40.00		1.69	0.76	11.247	12.37	271.34	1.000	0.000	4.00	16.351	16.35	202.3	0.0	1649.5
41.00	RT3 RB4	1.68	0.77	11.267	12.39	270.45	1.000	0.000	1.00	4.046	4.05	50.1	0.0	408.1
42.00	Top - Section 1	1.67	0.77	11.285	12.41	269.54	1.000	0.000	1.00	4.030	4.03	50.0	0.0	406.4
45.00		1.65	0.79	11.331	12.46	271.14	1.000	0.000	3.00	11.991	11.99	149.5	0.0	566.5
50.00		1.60	0.81	11.389	12.53	266.17	1.000	0.000	5.00	19.655	19.65	246.2	0.0	928.4
55.00		1.57	0.83	11.426	12.57	260.96	1.000	0.000	5.00	19.242	19.24	241.9	0.0	908.7
58.00	RB5	1.55	0.85	11.442	12.59	257.74	1.000	0.000	3.00	11.347	11.35	142.8	0.0	535.8
58.50	RT4	1.54	0.85	11.444	12.59	257.20	1.000	0.000	0.50	1.877	1.88	23.6	0.0	88.6
60.00		1.53	0.85	11.450	12.59	255.56	1.000	0.000	1.50	5.606	5.61	70.6	0.0	264.7
65.00		1.50	0.87	11.462	12.61	250.03	1.000	0.000	5.00	18.417	18.42	232.2	0.0	869.4
70.00	Bot - Section 3	1.47	0.89	11.466	12.61	244.42	1.000	0.000	5.00	18.004	18.00	227.1	0.0	849.8
75.00		1.44	0.91	11.465	12.61	238.74	1.000	0.000	5.00	17.861	17.86	225.3	0.0	1533.7
76.00	Top - Section 2 RT5	1.43	0.91	11.465	12.61	237.60	1.000	0.000	1.00	3.523	3.52	44.4	0.0	302.4
80.00		1.41	0.93	11.460	12.61	236.73	1.000	0.000	4.00	13.926	13.93	175.6	0.0	548.4
85.00		1.39	0.94	11.453	12.60	230.99	1.000	0.000	5.00	17.036	17.04	214.6	0.0	670.8
90.00		1.36	0.96	11.444	12.59	225.24	1.000	0.000	5.00	16.624	16.62	209.3	0.0	654.4
95.00		1.34	0.97	11.435	12.58	219.49	1.000	0.000	5.00	16.211	16.21	203.9	0.0	638.0
96.00	RT6 RB7	1.34	0.98	11.433	12.58	218.34	1.000	0.000	1.00	3.193	3.19	40.2	0.0	125.6
100.00	Top - Section 3	1.32	0.99	11.425	12.57	213.74	1.000	0.000	4.00	12.606	12.61	158.4	0.0	496.0
105.00		1.30	1.00	11.416	12.56	208.00	1.000	0.000	5.00	15.386	15.39	193.2	0.0	485.1
110.00		1.28	1.02	11.409	12.55	202.28	1.000	0.000	5.00	14.973	14.97	187.9	0.0	472.0
113.50	RT7	1.27	1.02	11.404	12.54	198.28	1.000	0.000	3.50	10.236	10.24	128.4	0.0	322.6
115.00	Bot - Section 5	1.27	1.03	11.402	12.54	196.57	1.000	0.000	1.50	4.325	4.32	54.2	0.0	136.3
117.00	Appurtenance(s)	1.26	1.03	11.400	12.54	194.29	1.000	0.000	2.00	5.795	5.80	72.7	0.0	362.5
120.00	Top - Section 4	1.25	1.04	11.397	12.54	190.88	1.000	0.000	3.00	8.569	8.57	107.4	0.0	535.9
125.00		1.24	1.05	11.393	12.53	188.15	1.000	0.000	5.00	13.951	13.95	174.8	0.0	439.5
127.00	Appurtenance(s)	1.23	1.06	11.392	12.53	185.89	1.000	0.000	2.00	5.465	5.46	68.5	0.0	172.1
130.00		1.22	1.07	11.391	12.53	182.49	1.000	0.000	3.00	8.074	8.07	101.2	0.0	254.3
135.00		1.21	1.08	11.391	12.53	176.84	1.000	0.000	5.00	13.126	13.13	164.5	0.0	413.3
137.00	Appurtenance(s)	1.20	1.08	11.392	12.53	174.59	1.000	0.000	2.00	5.135	5.13	64.3	0.0	161.7
140.00		1.20	1.09	11.393	12.53	171.21	1.000	0.000	3.00	7.579	7.58	95.0	0.0	238.6
145.00		1.18	1.10	11.397	12.54	165.59	1.000	0.000	5.00	12.301	12.30	154.2	0.0	387.1
147.00	Appurtenance(s)	1.18	1.10	11.399	12.54	163.35	1.000	0.000	2.00	4.805	4.80	60.2	0.0	151.2
150.00		1.17	1.11	11.403	12.54	159.98	1.000	0.000	3.00	7.083	7.08	88.8	0.0	222.9
155.00	Appurtenance(s)	1.16	1.12	11.410	12.55	154.38	1.000	0.000	5.00	11.476	11.48	144.0	0.0	360.9

Wind Loading - Shaft

Structure:	CT00302-S-SBA			**Code:**	EIA/TIA-222-G	4/10/2017
Site Name:	Danielson			**Exposure:**	B	
Height:	155.00 (ft)			**Crest Height:**	172.00	
Base Elev:	0.000 (ft)			**Site Class:**	C - Very Dense Soil	
Gh:	1.1	**Topography:**	3	**Struct Class:**	II	Page: 42

Totals:	**155.00**	**6,802.2**	**26,107.2**

Discrete Appurtenance Forces

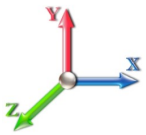
Structure:	CT00302-S-SBA	**Code:**	EIA/TIA-222-G	4/10/2017	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	172.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 43	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 22

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	155.00	RRH2X60-AWS	3	11.410	12.551	0.54	0.80	5.63	165.00	0.000	0.000	70.64	0.00	0.00
2	155.00	LNX-6514DS-A1M	3	11.410	12.551	0.66	0.80	16.27	115.20	0.000	0.000	204.26	0.00	0.00
3	155.00	BXA-70080-4BF	3	11.410	12.551	0.61	0.80	8.68	39.00	0.000	0.000	108.97	0.00	0.00
4	155.00	HBXX-6517DS-A2M	6	11.410	12.551	0.62	0.80	31.60	244.80	0.000	0.000	396.63	0.00	0.00
5	155.00	(3) T-Frame w/ Platforms	1	11.410	12.551	1.00	1.00	25.00	1620.00	0.000	0.000	313.78	0.00	0.00
6	155.00	RRH2X60-PCS	3	11.410	12.551	0.54	0.80	3.54	165.00	0.000	0.000	44.40	0.00	0.00
7	155.00	RRH2X60-700	3	11.410	12.551	0.54	0.80	3.02	138.00	0.000	0.000	37.94	0.00	0.00
8	155.00	FD9R6004/2C-3L	6	11.410	12.551	0.40	0.80	0.86	18.60	0.000	0.000	10.84	0.00	0.00
9	155.00	DB-T1-6Z-8AB-0Z	1	11.410	12.551	0.57	0.80	2.73	18.90	0.000	0.000	34.22	0.00	0.00
10	147.00	ACU-A20-N	4	11.399	12.539	0.40	0.80	0.22	4.00	0.000	0.000	2.81	0.00	0.00
11	147.00	800 MHz Filters	3	11.399	12.539	0.54	0.80	4.68	185.40	0.000	0.000	58.67	0.00	0.00
12	147.00	800 MHz RRH	3	11.399	12.539	0.54	0.80	4.00	159.00	0.000	0.000	50.20	0.00	0.00
13	147.00	1900MHz RRH	3	11.399	12.539	0.54	0.80	6.11	132.00	0.000	0.000	76.62	0.00	0.00
14	147.00	TD-RRH8x20-25	3	11.399	12.539	0.55	0.80	6.71	210.00	0.000	0.000	84.10	0.00	0.00
15	147.00	APXVTM14-C-120	3	11.399	12.539	0.63	0.80	12.02	168.00	0.000	0.000	150.73	0.00	0.00
16	147.00	APXVSPP18-C-A20	3	11.399	12.539	0.66	0.80	15.98	171.00	0.000	0.000	200.32	0.00	0.00
17	147.00	(3) T-Frame w/ Platforms	1	11.399	12.539	1.00	1.00	25.00	1620.00	0.000	0.000	313.47	0.00	0.00
18	137.00	(3) T-Frame w/ Platforms	1	11.392	12.531	1.00	1.00	25.00	1620.00	0.000	0.000	313.28	0.00	0.00
19	137.00	59212	6	11.392	12.531	0.53	0.80	15.74	240.00	0.000	0.000	197.30	0.00	0.00
20	127.00	Low Profile	1	11.392	12.531	1.00	1.00	22.00	1500.00	0.000	0.000	275.69	0.00	0.00
21	127.00	HPA-65R-BUU-H8	3	11.392	12.531	0.63	0.80	24.61	204.00	0.000	0.000	308.40	0.00	0.00
22	127.00	LGP21401	6	11.392	12.531	0.40	0.80	2.28	105.00	0.000	0.000	28.57	0.00	0.00
23	127.00	RRUS 11	3	11.392	12.531	0.54	0.80	4.05	152.10	0.000	0.000	50.78	0.00	0.00
24	127.00	RRUS 32 B2	3	11.392	12.531	0.54	0.80	4.41	180.00	0.000	0.000	55.21	0.00	0.00
25	127.00	DC6-48-60-18-8F	1	11.392	12.531	0.80	0.80	0.74	31.80	0.000	0.000	9.22	0.00	0.00
26	127.00	LGP13519	6	11.392	12.531	0.54	0.80	1.09	31.80	0.000	0.000	13.70	0.00	0.00
27	127.00	7770.00	6	11.392	12.531	0.58	0.80	19.27	210.00	0.000	0.000	241.51	0.00	0.00
28	117.00	T-Frames	3	11.400	12.540	0.56	0.75	34.42	2640.00	0.000	0.000	431.68	0.00	0.00
29	117.00	742 351	6	11.400	12.540	0.49	0.80	15.75	178.80	0.000	0.000	197.53	0.00	0.00
30	35.00	DB589	1	11.239	12.363	0.80	0.80	1.10	11.50	0.000	4.600	13.65	0.00	62.78
31	35.00	3.58' Standoff	1	11.127	12.240	0.67	1.00	1.12	70.00	0.000	0.000	13.70	0.00	0.00
							Totals:		**12,348.90**			**4,308.83**		

Total Applied Force Summary

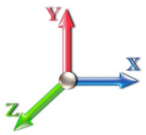
Structure:	CT00302-S-SBA		**Code:**	EIA/TIA-222-G	4/10/2017
Site Name:	Danielson		**Exposure:**	B	
Height:	155.00 (ft)		**Crest Height:**	172.00	
Base Elev:	0.000 (ft)		**Site Class:**	C - Very Dense Soil	
Gh:	1.1	**Topography:** 3	**Struct Class:**	II	Page: 44

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 22

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		326.66	1506.28	0.00	0.00
10.00		309.66	1483.58	0.00	0.00
11.50		90.85	440.65	0.00	0.00
15.00		205.13	1020.24	0.00	0.00
16.50		86.24	433.84	0.00	0.00
20.00		194.86	1004.35	0.00	0.00
21.00		54.85	284.92	0.00	0.00
25.00		211.96	1130.58	0.00	0.00
30.00		252.88	1392.81	0.00	0.00
35.00	(2) attachments	279.10	1451.61	0.00	62.78
36.00		49.87	270.26	0.00	0.00
40.00		202.29	1844.52	0.00	0.00
41.00		50.15	456.90	0.00	0.00
42.00		50.02	455.20	0.00	0.00
45.00		149.46	712.73	0.00	0.00
50.00		246.22	1172.17	0.00	0.00
55.00		241.85	1152.52	0.00	0.00
58.00		142.81	682.08	0.00	0.00
58.50		23.63	112.99	0.00	0.00
60.00		70.60	337.80	0.00	0.00
65.00		232.20	1113.22	0.00	0.00
70.00		227.09	1093.57	0.00	0.00
75.00		225.26	1777.46	0.00	0.00
76.00		44.43	351.17	0.00	0.00
80.00		175.56	743.46	0.00	0.00
85.00		214.63	914.59	0.00	0.00
90.00		209.27	898.21	0.00	0.00
95.00		203.90	881.84	0.00	0.00
96.00		40.15	174.40	0.00	0.00
100.00		158.43	691.06	0.00	0.00
105.00		193.22	728.89	0.00	0.00
110.00		187.91	715.79	0.00	0.00
113.50		128.40	493.26	0.00	0.00
115.00		54.24	209.43	0.00	0.00
117.00	(9) attachments	701.88	3278.83	0.00	0.00
120.00		107.42	644.51	0.00	0.00
125.00		174.84	620.54	0.00	0.00
127.00	(29) attachments	1051.57	2659.25	0.00	0.00
130.00		101.17	321.85	0.00	0.00
135.00		164.48	525.94	0.00	0.00
137.00	(7) attachments	574.93	2066.71	0.00	0.00
140.00		94.98	287.41	0.00	0.00
145.00		154.21	468.54	0.00	0.00
147.00	(23) attachments	997.17	2833.15	0.00	0.00
150.00		88.85	263.77	0.00	0.00
155.00	(29) attachments	1365.72	2953.64	0.00	0.00

Total Applied Force Summary

Structure:	CT00302-S-SBA		**Code:**	EIA/TIA-222-G	4/10/2017
Site Name:	Danielson		**Exposure:**	B	
Height:	155.00 (ft)		**Crest Height:**	172.00	
Base Elev:	0.000 (ft)		**Site Class:**	C - Very Dense Soil	
Gh:	1.1	**Topography:** 3	**Struct Class:**	II	Page: 45

Tower Engineering Solutions

Totals:	**11,110.98**	**45,056.51**	**0.00**	**62.78**

Linear Appurtenance Segment Forces (Factored)

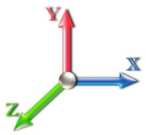
Structure:	CT00302-S-SBA	**Code:**	EIA/TIA-222-G	4/10/2017	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	172.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 46	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 22

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	1.48	0.00	0.064	0.000	12.887	0.00	0.00
10.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	1.48	0.00	0.066	0.000	12.439	0.00	0.00
11.50	10"x1/2" Bent plate	Yes	1.50	0.000	3.56	0.45	0.00	0.066	0.000	12.311	0.00	0.00
15.00	10"x1/2" Bent plate	Yes	3.50	0.000	3.56	1.04	0.00	0.067	0.000	12.023	0.00	0.00
16.50	10"x1/2" Bent plate	Yes	1.50	0.000	3.56	0.45	0.00	0.068	0.000	11.905	0.00	0.00
20.00	10"x1/2" Bent plate	Yes	3.50	0.000	3.56	1.04	0.00	0.068	0.000	11.638	0.00	0.00
21.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.069	0.000	11.564	0.00	0.00
25.00	10"x1/2" Bent plate	Yes	4.00	0.000	3.56	1.19	0.00	0.069	0.000	11.280	0.00	0.00
30.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	1.48	0.00	0.071	0.000	10.957	0.00	0.00
35.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	1.48	0.00	0.072	0.000	11.127	0.00	0.00
36.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.073	0.000	11.155	0.00	0.00
40.00	10"x1/2" Bent plate	Yes	4.00	0.000	3.56	1.19	0.00	0.074	0.000	11.247	0.00	0.00
41.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.075	0.000	11.267	0.00	0.00
42.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.075	0.000	11.285	0.00	0.00
45.00	10"x1/2" Bent plate	Yes	3.00	0.000	3.56	0.89	0.00	0.074	0.000	11.331	0.00	0.00
50.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	1.48	0.00	0.075	0.000	11.389	0.00	0.00
55.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	1.48	0.00	0.077	0.000	11.426	0.00	0.00
58.00	10"x1/2" Bent plate	Yes	3.00	0.000	3.56	0.89	0.00	0.078	0.000	11.442	0.00	0.00
58.50	1.25" Reinforcing	Yes	0.50	0.000	2.50	0.10	0.00	0.056	0.000	11.444	0.00	0.00
60.00	1.25" Reinforcing	Yes	1.50	0.000	2.50	0.31	0.00	0.056	0.000	11.450	0.00	0.00
65.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	1.04	0.00	0.057	0.000	11.462	0.00	0.00
70.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	1.04	0.00	0.058	0.000	11.466	0.00	0.00
75.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	1.04	0.00	0.059	0.000	11.465	0.00	0.00
76.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.060	0.000	11.465	0.00	0.00
80.00	1.25" Reinforcing	Yes	4.00	0.000	2.50	0.83	0.00	0.060	0.000	11.460	0.00	0.00
85.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	1.04	0.00	0.061	0.000	11.453	0.00	0.00
90.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	1.04	0.00	0.063	0.000	11.444	0.00	0.00
95.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	1.04	0.00	0.064	0.000	11.435	0.00	0.00
96.00	1.25" Reinforcing	Yes	1.00	0.000	2.50	0.21	0.00	0.065	0.000	11.433	0.00	0.00
100.00	1.25" Reinforcing	Yes	4.00	0.000	2.50	0.83	0.00	0.066	0.000	11.425	0.00	0.00
105.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	1.04	0.00	0.068	0.000	11.416	0.00	0.00
110.00	1.25" Reinforcing	Yes	5.00	0.000	2.50	1.04	0.00	0.070	0.000	11.409	0.00	0.00
113.50	1.25" Reinforcing	Yes	3.50	0.000	2.50	0.73	0.00	0.071	0.000	11.404	0.00	0.00
115.00	1.25" Reinforcing	Yes	1.50	0.000	2.50	0.31	0.00	0.072	0.000	11.402	0.00	0.00
									Totals:		**0.0**	**0.0**

Calculated Forces

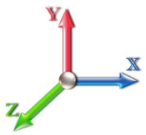
Structure:	CT00302-S-SBA	**Code:**	EIA/TIA-222-G	4/10/2017	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	172.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 47	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 22

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-45.05	-11.13	0.00	-1105.6	0.00	1105.65	4048.32	2024.16	8933.65	4411.99	0.00	0.000	0.000	0.216
5.00	-43.54	-10.84	0.00	-1050.0	0.00	1050.00	4007.22	2003.61	8683.49	4288.45	0.03	-0.047	0.000	0.210
10.00	-42.05	-10.55	0.00	-995.82	0.00	995.82	3964.98	1982.49	8434.18	4165.32	0.10	-0.093	0.000	0.205
11.50	-41.60	-10.47	0.00	-980.00	0.00	980.00	3952.09	1976.04	8359.57	4128.48	0.13	-0.107	0.000	0.173
15.00	-40.58	-10.28	0.00	-943.35	0.00	943.35	3921.60	1960.80	8185.84	4042.68	0.22	-0.135	0.000	0.170
16.50	-40.14	-10.21	0.00	-927.93	0.00	927.93	3908.36	1954.18	8111.55	4005.99	0.26	-0.147	0.000	0.197
20.00	-39.14	-10.02	0.00	-892.20	0.00	892.20	3877.07	1938.54	7938.63	3920.59	0.38	-0.180	0.000	0.193
21.00	-38.85	-9.98	0.00	-882.18	0.00	882.18	3868.03	1934.02	7889.33	3896.24	0.42	-0.189	0.000	0.192
25.00	-37.71	-9.80	0.00	-842.24	0.00	842.24	3831.41	1915.70	7692.66	3799.12	0.60	-0.227	0.000	0.188
30.00	-36.31	-9.57	0.00	-793.27	0.00	793.27	3784.60	1892.30	7448.09	3678.33	0.86	-0.273	0.000	0.182
35.00	-34.86	-9.30	0.00	-745.38	0.00	745.38	3736.66	1868.33	7205.04	3558.30	1.17	-0.318	0.000	0.176
36.00	-34.58	-9.26	0.00	-736.09	0.00	736.09	3726.93	1863.47	7156.62	3534.39	1.24	-0.328	0.000	0.175
40.00	-32.74	-9.06	0.00	-699.06	0.00	699.06	3687.57	1843.78	6963.65	3439.09	1.53	-0.364	0.000	0.169
41.00	-32.28	-9.01	0.00	-690.00	0.00	690.00	3677.62	1838.81	6915.58	3415.35	1.61	-0.373	0.000	0.167
42.00	-31.82	-8.97	0.00	-680.99	0.00	680.99	3033.05	1516.53	5788.55	2858.75	1.69	-0.383	0.000	0.180
45.00	-31.10	-8.83	0.00	-654.09	0.00	654.09	3011.75	1505.88	5675.99	2803.16	1.93	-0.410	0.000	0.189
50.00	-29.92	-8.60	0.00	-609.93	0.00	609.93	2975.34	1487.67	5488.97	2710.80	2.39	-0.457	0.000	0.181
55.00	-28.77	-8.37	0.00	-566.92	0.00	566.92	2937.79	1468.89	5302.79	2618.85	2.89	-0.505	0.000	0.174
58.00	-28.09	-8.23	0.00	-541.81	0.00	541.81	2914.71	1457.35	5191.54	2563.91	3.22	-0.533	0.000	0.131
58.50	-27.97	-8.21	0.00	-537.69	0.00	537.69	2910.82	1455.41	5173.04	2554.77	3.28	-0.536	0.000	0.159
60.00	-27.63	-8.15	0.00	-525.38	0.00	525.38	2899.09	1449.55	5117.58	2527.38	3.45	-0.550	0.000	0.157
65.00	-26.51	-7.92	0.00	-484.64	0.00	484.64	2859.26	1429.63	4933.49	2436.46	4.05	-0.593	0.000	0.149
70.00	-25.42	-7.70	0.00	-445.02	0.00	445.02	2818.28	1409.14	4750.64	2346.16	4.69	-0.635	0.000	0.142
75.00	-23.64	-7.47	0.00	-406.51	0.00	406.51	2776.16	1388.08	4569.18	2256.54	5.38	-0.676	0.000	0.132
76.00	-23.29	-7.43	0.00	-399.04	0.00	399.04	2161.97	1080.98	3608.45	1782.08	5.52	-0.684	0.000	0.149
80.00	-22.54	-7.26	0.00	-369.33	0.00	369.33	2139.97	1069.98	3503.61	1730.30	6.11	-0.716	0.000	0.155
85.00	-21.62	-7.05	0.00	-333.04	0.00	333.04	2111.44	1055.72	3372.88	1665.74	6.88	-0.760	0.000	0.144
90.00	-20.72	-6.84	0.00	-297.80	0.00	297.80	2081.77	1040.89	3242.65	1601.42	7.70	-0.801	0.000	0.133
95.00	-19.84	-6.63	0.00	-263.59	0.00	263.59	2050.97	1025.48	3113.05	1537.42	8.56	-0.840	0.000	0.122
96.00	-19.67	-6.60	0.00	-256.96	0.00	256.96	2044.67	1022.33	3087.22	1524.66	8.73	-0.848	0.000	0.129
100.00	-18.97	-6.44	0.00	-230.58	0.00	230.58	2019.02	1009.51	2984.22	1473.79	9.46	-0.880	0.000	0.120
100.00	-18.97	-6.44	0.00	-230.58	0.00	230.58	1394.49	697.25	2068.33	1021.47	9.46	-0.880	0.000	0.139
105.00	-18.24	-6.25	0.00	-198.38	0.00	198.38	1376.43	688.21	1986.77	981.19	10.40	-0.917	0.000	0.144
110.00	-17.53	-6.06	0.00	-167.15	0.00	167.15	1357.32	678.66	1905.17	940.89	11.38	-0.956	0.000	0.126
113.50	-17.03	-5.93	0.00	-145.95	0.00	145.95	1343.33	671.66	1848.11	912.71	12.09	-0.982	0.000	0.113
113.50	-17.03	-5.93	0.00	-145.95	0.00	145.95	1343.33	671.66	1848.11	912.71	12.09	-0.982	0.000	0.113
115.00	-16.82	-5.87	0.00	-137.06	0.00	137.06	1337.17	668.58	1823.68	900.65	12.40	-0.992	0.000	0.165
117.00	-13.56	-5.12	0.00	-125.31	0.00	125.31	1328.82	664.41	1791.13	884.57	12.82	-1.013	0.000	0.152
120.00	-12.91	-5.01	0.00	-109.96	0.00	109.96	1327.18	663.59	1784.85	881.47	13.47	-1.041	0.000	0.135
125.00	-12.29	-4.83	0.00	-84.92	0.00	84.92	1305.49	652.74	1703.72	841.41	14.58	-1.081	0.000	0.110
127.00	-9.65	-3.73	0.00	-75.26	0.00	75.26	1296.51	648.26	1671.38	825.43	15.04	-1.096	0.000	0.099
130.00	-9.33	-3.62	0.00	-64.08	0.00	64.08	1282.74	641.37	1623.00	801.54	15.73	-1.115	0.000	0.087
135.00	-8.81	-3.45	0.00	-45.95	0.00	45.95	1258.96	629.48	1542.80	761.93	16.92	-1.141	0.000	0.067
137.00	-6.75	-2.84	0.00	-39.05	0.00	39.05	1249.15	624.57	1510.90	746.18	17.40	-1.150	0.000	0.058
140.00	-6.46	-2.74	0.00	-30.54	0.00	30.54	1234.12	617.06	1463.26	722.65	18.12	-1.161	0.000	0.048
145.00	-6.00	-2.58	0.00	-16.84	0.00	16.84	1208.24	604.12	1384.50	683.75	19.35	-1.175	0.000	0.030
147.00	-3.19	-1.52	0.00	-11.69	0.00	11.69	1197.60	598.80	1353.24	668.32	19.84	-1.179	0.000	0.020
150.00	-2.92	-1.43	0.00	-7.13	0.00	7.13	1181.32	590.66	1306.64	645.30	20.58	-1.183	0.000	0.014

Calculated Forces

Structure:	CT00302-S-SBA					**Code:**	EIA/TIA-222-G				4/10/2017			
Site Name:	Danielson					**Exposure:**	B							
Height:	155.00 (ft)					**Crest Height:**	172.00							
Base Elev:	0.000 (ft)					**Site Class:**	C - Very Dense Soil							
Gh:	1.1			**Topography:**	3	**Struct Class:**	II				Page: 48			

155.00	0.00	-1.37	0.00	0.00	0.00	0.00	1153.35	576.68	1229.81	607.36	21.82	-1.185	0.000	0.000

Final Analysis Summary

Structure:	CT00302-S-SBA	**Code:**	EIA/TIA-222-G	4/10/2017	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	172.00		
Base Elev:	0.000 (ft)	**Site Class:**	C - Very Dense Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 49	

Tower Engineering Solutions

Reactions

Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)
1.2D + 1.6W 101 mph Wind	50.5	0.00	53.97	0.00	0.00	5037.36
0.9D + 1.6W 101 mph Wind	50.5	0.00	40.46	0.00	0.00	4991.58
1.2D + 1.0Di + 1.0Wi 50 mph Wind	11.4	0.00	102.10	0.00	0.00	1239.23
1.2D + 1.0E	1.5	0.00	54.07	0.00	0.00	186.46
0.9D + 1.0E	1.5	0.00	40.55	0.00	0.00	184.55
1.0D + 1.0W 60 mph Wind	11.1	0.00	45.05	0.00	0.00	1105.65

Max Stresses

Load Case	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Elev (ft)	Stress Ratio
1.2D + 1.6W 101 mph Wind	-53.97	-50.48	0.00	-5037.3	0.00	-5037.3	4048.32	2024.1	8933.65	4411.99	0.00	0.955
0.9D + 1.6W 101 mph Wind	-40.46	-50.45	0.00	-4991.5	0.00	-4991.5	4048.32	2024.1	8933.65	4411.99	0.00	0.944
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-102.1	-11.38	0.00	-1239.2	0.00	-1239.2	4048.32	2024.1	8933.65	4411.99	0.00	0.252
1.2D + 1.0E	-20.30	-1.18	0.00	-38.40	0.00	-38.40	1337.17	668.58	1823.68	900.65	115.00	0.058
0.9D + 1.0E	-15.23	-1.16	0.00	-37.96	0.00	-37.96	1337.17	668.58	1823.68	900.65	115.00	0.054
1.0D + 1.0W 60 mph Wind	-45.05	-11.13	0.00	-1105.6	0.00	-1105.6	4048.32	2024.1	8933.65	4411.99	0.00	0.216

Additional Steel Summary

			Intermediate Connectors			Lower Termination				Upper Termination				Max Member			
Elev From (ft)	Elev To (ft)	Member	VQ/I (lb/in)	Vu (kips)	phi Vn (kips)	MQ/I (kips)	phi Vn (kips)	Num Reqd	Num Actual	MQ/I (kips)	phi Vn (kips)	Num Reqd	Num Actual	Pu (kips)	phi Pn (kips)	phi Tn (kips)	Ratio
0.0	21.0	(3) PLT-6"X1-1/4"(1.25" Hole	305.4	5.50	37.1	353.7	37.1	10	0	324.8	37.1			353.70	413.6	356.25	0.993
11.5	16.5	(1) PLT-6"X1-1/4"(1.25" Hole	-263.5	-4.74	37.1	295.1	37.1	8	11	288.4	37.1	8	11	295.08	413.6	356.25	0.828
21.0	41.0	(3) PLT-6"X1-1/4"(1.25" Hole	321.3	5.78	37.1	324.8	37.1			295.8	37.1			324.79	413.6	356.25	0.912
41.0	58.5	(3) PLT-6"X1-1/4"(1.25" Hole	356.0	6.41	37.1	295.8	37.1			220.6	37.1	6	11	308.42	413.6	356.25	0.866
58.0	76.0	(3) PLT-5"x1-1/4"(1.25"Hole)	-321.8	-5.79	37.1	204.8	37.1	6	8	207.5	37.1			241.59	344.6	281.25	0.859
76.0	96.0	(3) PLT-4.5"x 1-1/4"(1.25"ho	-344.6	-6.20	37.1	192.6	37.1			161.0	37.1			202.02	310.2	243.75	0.829
96.0	113.5	(3) PLT-3.5x1.25(1.25 Hole)	-355.7	-6.40	37.1	135.2	37.1			105.0	37.1	3	6	135.18	241.2	168.75	0.801

Monopole Mat Foundation Design

			Date: 4/10/2017
Customer Name:	AT&T	**EIA/TIA Standard:**	EIA-222-G
Site Name:	Danielson	**Structure Height (Ft.):**	155
Site Number:	CT00302-S-SBA	**Engineer Name:**	F. Arinyedokia
Engr. Number:	32558	**Engineer Login ID:**	

Foundation Info Obtained from: Drawings/Calculations

Structure Type: Monopole

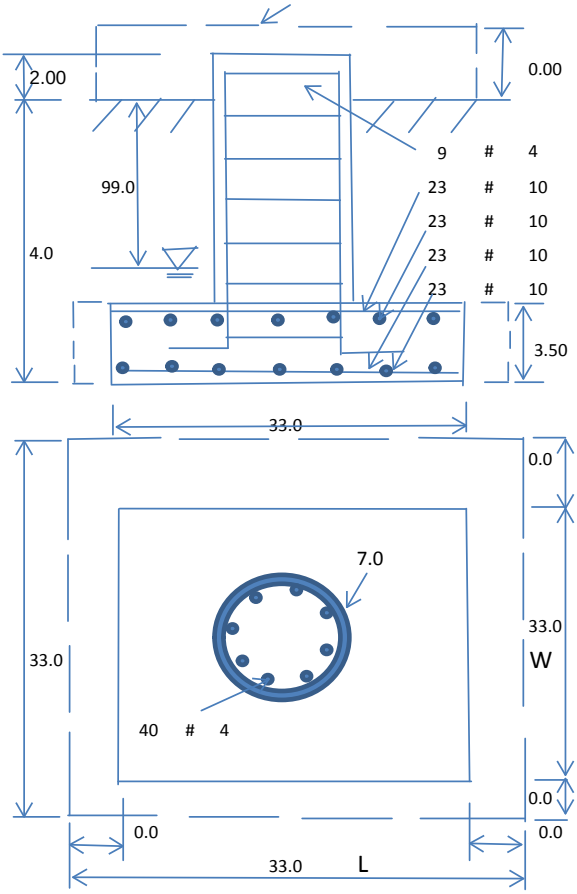
Analysis or Design? Analysis

Base Reactions (Factored):

Axial Load (Kips):	53.9	Shear Force (Kips):	50.5
Uplift Force (Kips):	0.0	Moment (Kips-ft):	5037.3
Allowable overstress %:	5.0%		

Foundation Geometries:

		Mods required -Yes/No ?:	No
Diameter of Pier (ft.):	7.0	Depth of Base BG (ft.):	4.0
Pier Height A. G. (ft.):	2.00	Thickness of Pad (ft):	3.50
Length of Pad (ft.):	33	Width of Pad (ft.):	33
Final Length of pad (ft)	33.0	Final width of pad (ft):	33.0
Control Value for Cell D18:	0	Control Value for Cell F18:	0



Material Properties and Reabr Info:

Concrete Strength (psi):	3000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield (ksi):	60	
Vertical Rebar Size #:	4	Tie / Stirrup Size #:	4	
Qty. of Vertical Rebars:	40	Tie Spacing (in):	8.0	
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	10	
Concrete Cover (in.):	3	Unit Weight of Concrete:	150.0	pcf
Rebar at the bottom of the concrete pad:				
Qty. of Rebar in Pad (L):	23	Qty. of Rebar in Pad (W):	23	
Rebar at the top of the concrete pad:				
Qty. of Rebar in Pad (L):	23	Qty. of Rebar in Pad (W):	23	
Apply 1.35 factor for e/w Per G:	1.35			

Soil Design Parameters:

Soil Unit Weight (pcf):	130.0	Soil Buoyant Weight:	50.0	Pcf		
Water Table B.G.S. (ft):	99.0	Unit Weight of Water:	62.4	pcf	Angle from Top of Pad:	30
Ultimate Bearing Pressure (psf):	32000	Ultimate Skin Friction:	0	Psf	Angle from Bottm of Pad:	25
Consider Friction for O.T.M. (Y/N):	No	Consider Friction for bearing (Y/N):	No		Angle from Bottm of Pad:	25
Consider soil hor. resist. for OTM.:	No	Reduction factor on the maximum soil bearing pressure:	1.00			

Foundation Analysis and Design: Uplift Strength Reduction Factor: 0.75 — Compression Strength Reduction Factor: 0.75

Total Dry Soil Volume (cu. Ft.):	525.26	Total Dry Soil Weight (Kips):	68.28
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	68.28	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	3907.71	Total Dry Concrete Weight (Kips):	586.16
Total Buoyant Concrete Volume (cu. Ft.):	0.00	Total Buoyant Concrete Weight (Kips):	0.00
Total Effective Concrete Weight (Kips):	586.16	Total Vertical Load on Base (Kips):	708.37

Check Soil Capacities:

				Load/ Capacity Ratio	
Calculated Maxium Net Soil Pressure under the base (psf):	1596	<	Allowable Factored Soil Bearing (psf): 24000	0.07	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	10608.3	>	Design Factored Momont (kips-ft): 5340	0.50	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	1.99	OK!			

DATE: 2/02/99

TOWN OF KILLINGLY, CONNECTICUT
ZONING PERMIT

№ 006544

Complete Items #1-9 and the plot plan on the reverse side of the top sheet.

1. Location of Property 246 E. FRANKLIN ST.
   House # & Street
   Tax Map Number 3995 Block 022 Lot 106A Zoning District RD Volume 555 Page 118 List 2601
2. Property Owner's Name CHARLES R. HUTCHINS Phone 774-1903
3. Property Owner's Address if different from property location
4. Applicant's Name and Address if different from Property Owner's Name and Address SCOTT THOMAE SBA INC 125 SHAN ST NEW LONDON, CT 06372 Phone (860) 908-5356

5. Lot Size 21.6 AC. Lot Frontage NA
6. This permit is applied for in accordance with the requirements of the Town of Killingly and/or Borough of Danielson Zoning Regulations for:
   - ☑ new construction
   - ☐ addition
   - ☐ accessory structure (sheds, satellite dishes, etc.)
   - ☐ swimming pool
   - ☐ excavating/filling/earth removal
   - ☐ sign
   - ☐ change of use
   - ☐ other
7. Proposed structure or project —
   Provide description and dimensions:
   CONSTRUCTION OF A 160' MULTITENANT MONO-POLE TELECOM. FACILITY & PLACEMENT OF ASSOC EQUIPMENT
8. Property Use:
   - ☐ single family residential
   - ☐ two-family residential
   - ☐ mobile home — residential
   - ☐ multi-family — residential
   - ☐ Industrial specify
   - ☑ Commercial specify MONOPOLE TELECOM FACILITY
   - ☐ Professional and Business specify
9. PERMIT VOID IF ...
   work or activity is not commenced within one year from the date of issue and diligently prosecuted to completion.
   This permit, if issued, is based upon the plot plan submitted. Falsification, by misrepresentation or omission, or failure to comply with the conditions of approval of this permit shall constitute a violation of the Town of Killingly and/or Borough of Danielson Zoning Regulations.
   Agents of the Town of Killingly are authorized to enter upon the property for the purpose of inspection and verification of compliance with the terms of this permit.

SBA INC. (860) 908 5356
(Signature of Owner or authorized agent) (Agent's phone #)

FOR OFFICE USE ONLY:

Inland Wetlands NA - OUTSIDE 200' REGULATED AREA 2-4-99
Historic District? Yes (No)
Slope greater than 15%? (Yes) No
Flood Hazard Zone? NO
Aquifer Protection Zone? Yes (No)
Public Sewer On-Site Septic
Site Plan Review Necessary? Yes No
Applicant's Name as part of spec. permit
Application No.
P&Z Commission Approval Date

Driveway Permit NA - existing
Special Permit necessary? (Yes) No
Applicant's Name SBA INC.
Application No. 98-704
P&Z Commission Approval Date July 13, 1998
Subdivision necessary? Yes (No)
Applicant's Name
Application No.
P&Z Commission Approval Date
Variance Necessary? Yes (No)
Applicant's Name
Application No.
ZBA Approval Date

Approved ✓ Disapproved Date February 5, 1999
Reason for Disapproval:
Comments: Adhere to all approval conditions and site work of special permit #98-704
Call for erosion + sediment control + other inspections

Linda E. Walden, CZEO
Zoning Enforcement Officer

Orig./White: Z.E.O. / Blue: P &Z / Green: Bldg. Official / Yellow: Applicant

APPLICATION FOR PLAN EXAMINATION AND BUILDING PERMIT

№ 013425

DATE 2-2-99

ALVIN N. KILBURN
Building Official
(203) 774-8601

TOWN OF KILLINGLY - DEPARTMENT OF BUILDING INSPECTION

DEED INFORMATION: VOL 555/118 PAGE 118 MAP 3995 BLOCK 022 LOT 1064 SOILS _____

ZONE RD CONFORMING ☐ NON-CONFORMING ☐ DRIVEWAY PERMIT STATE OF CONN. YES _____ NO _____

Aquifer Yes _____ No _____ Flood Hazard Yes _____ No _____ Inland Wetland Yes _____ No _____

1. Location of Building 246 EAST FRANKLIN STREET Lot 2601
2. Applicant SBA INC Address 125 SHAW ST NLondon Tel.: (860) 459-0152
3. Owner CHARLIE HUTCHINS Address 246 EAST FRANKLIN Tel.: _____
4. Contractor DICIN ELECTRIC Address 156 CROSS RD WATERFORD Tel.: (860) 442 0826
5. Elec. Cont. " RUDY CHIGLA Address " 1028346-1 Tel.: "
6. Plumbing - Htg. Cont. N/A Address N/A Tel.: N/A
7. ZONING PERMIT NO. _____ DRIVEWAY PERMIT NO. _____

8. TYPE OF IMPROVEMENT

- ☑ New building
- ☐ Addition (If residential, enter number of new housing units added, if any, in Part 9).
- ☐ Renovations
- ☐ Repair, replacement
- ☐ Demolition (If multifamily residential, enter number of units in building in Part 9).
- ☐ Moving (relocation)
- ☐ Foundation only

9. PROPOSED USE

Residential

- ☐ One family
- ☐ Two or more family — Enter number of units .....
- ☐ Transient hotel, motel, or dormitory - Enter number of units .....
- ☐ Garage
- ☐ Carport
- ☑ Other - Specify TELECOMMUNICATION TOWER + ASSOCIATED UTILITIES

Nonresidential

- ☐ Amusement, recreational
- ☐ Church, other religious
- ☐ Industrial
- ☐ Parking garage
- ☐ Service station, repair garage
- ☐ Hospital, institutional
- ☐ Office, bank, professional
- ☐ Public utility
- ☐ School, library, other educational
- ☐ Stores, mercantile
- ☐ Tanks, towers
- ☑ Other - Specify _____

10a. ESTIMATED COST $ 210,000.00

10b. PERMIT FEE $ 1,470.00

11. TYPE OF SEWAGE DISPOSAL

- ☐ Private
- ☐ Public

N/A

12. TYPE OF WATER SUPPLY

- ☐ Private
- ☐ Public

N/A

NONRESIDENTIAL — Describe in detail proposed use of buildings, e.g., food processing plant, machine shop, laundry building at hospital, elementary school, secondary school, college, parochial school, parking garage for department store, rental office building, office building at industrial plant. If use of existing building is being changed, enter proposed use.

TELECOMMUNICATION TOWER AND ASSOCIATED UTILITIES

13. PRINCIPAL TYPE OF FRAME

- ☐ Masonry (wall bearing)
- ☐ Wood frame
- ☐ Structural steel
- ☑ Reinforced concrete FOUNDATION
- ☐ Other - Specify _____

14. PRINCIPAL TYPE OF HEATING FUEL

HEATING SYSTEM

- ☐ Steam
- ☐ Water
- ☐ Air
- ☐ Electric
- ☐ Fireplace

N/A

The owner of this building and the undersigned agree to conform to the State of Conn. basic building Code, The Connecticut Fire Safety Code, and the laws of this jurisdiction and to notify the Building Official of any changes in plans for which this permit is requested.

Signature of Applicant _____ Date 2/2/99

Alvin N Kilburn 2-2-99

Date Permit Issued

BUILDING: White Copy / ASSESSOR: Yellow / OWNER: Pink

tyler clt division

RESIDENTIAL PROPERTY RECORD CARD 2016

TOWN OF KILLINGLY

Situs : 246 E FRANKLIN ST | **Map ID: 002601** | **Class: Single Family Residence** | Card: 1 of 1 | Printed: March 1, 2017

CURRENT OWNER

HUTCHINS CHARLES R
246 E FRANKLIN ST
KILLINGLY CT 06239

GENERAL INFORMATION

Living Units	1
Neighborhood	102
Alternate Id	216-12
Vol / Pg	555/118
District	7
Zoning	RURAL DEVELOPMENT
Class	100

Property Notes

Land Information

Type		Size	Influence Factors	Influence %	Value
Primary	AC	5.5000			47,880
Primary	AC	0.5000			34,000
Waste	AC	1.0000			250
Rear	AC	10.0000			10,000

Total Acres: 17
Spot: Location:

Assessment Information

	Assessed	Appraised	Cost	Income	
Land	64,470	92,100	92,100	0	92,100
Building	165,830	236,900	236,900	0	236,900
Total	230,300	329,000	329,000	0	329,000

Manual Override Reason
Base Date of Value 10/01/2013
Value Flag COST APPROACH **Effective Date of Value** 10/01/2016
MONOPOLE/BLDG/ 127600

Entrance Information

Date	ID	Entry Code	Source
11/10/09	MHB	Viewed	Asmt Staff
10/11/06	LA	Ext W/Info	Owner

Permit Information

Date Issued	Number	Price	Purpose		% Complete
08/03/15	23794	15,000	97 BPP	Repl Existing Antennaes & Add 3 I	995
12/11/14	23346	15,000	97 BPP	Repl Old Panel/Antennae Models \	995
10/06/14	23221	49,000	74 CRER	Nvc Maint Work - Add Steel Plates	997
08/28/14	23133	15,000	97 BPP	Add 3 Newer Cell Antennas & Ass	995
10/11/13	22648	25,000	97 BPP	Install 3 New Antennas & Assoc F	995

Sales/Ownership History

Transfer Date	Price	Type	Validity	Deed Reference	Deed Type	Grantee

tyler clt division

RESIDENTIAL PROPERTY RECORD CARD 2016

TOWN OF KILLINGLY

Situs : 246 E FRANKLIN ST	Parcel Id: 002601	Class: Single Family Residence	Card: 1 of 1	Printed: March 1, 2017

Dwelling Information

Style	Ranch	Year Built	1960
Story height	1	Eff Year Built	
Attic	None	Year Remodeled	
Exterior Walls	Frame	Amenities	Wood Stove
Masonry Trim	x		
Color	Brown	In-law Apt	No

Basement

Basement	Full	# Car Bsmt Gar	3
FBLA Size	x	FBLA Type	
Rec Rm Size	x	Rec Rm Type	

Heating & Cooling

Heat Type	Basic
Fuel Type	Oil
System Type	Hot Water

Fireplaces

Stacks	
Openings	
Pre-Fab	

Room Detail

Bedrooms	4	Full Baths	2
Family Rooms		Half Baths	
Kitchens	1	Extra Fixtures	1
Total Rooms	9		
Kitchen Type	Typical	Bath Type	Typical
Kitchen Remod	No	Bath Remod	No

Adjustments

Int vs Ext	Same	Unfinished Area	1180
Cathedral Ceiling	x	Unheated Area	1180

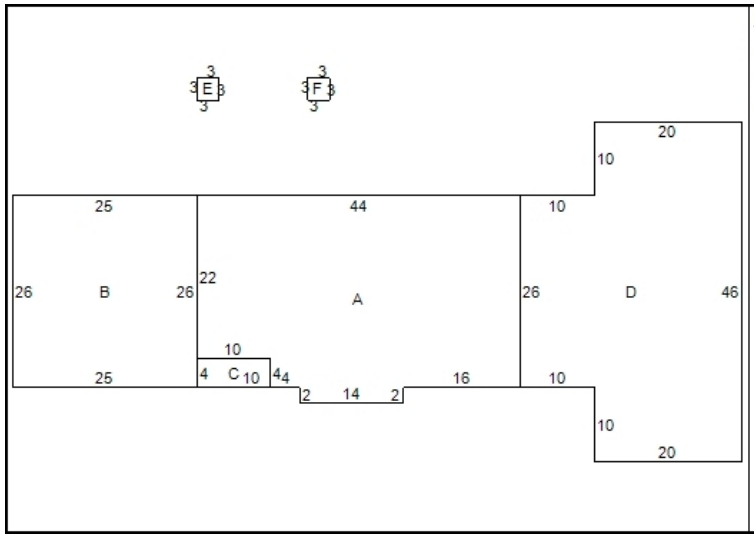
Grade & Depreciation

Grade	C	Market Adj	
Condition	Poor Condition	Functional	
CDU	POOR	Economic	
Cost & Design	0	% Good Ovr	
% Complete			

Dwelling Computations

Base Price	117,684	% Good	40
Plumbing	4,400	% Good Override	
Basement	0	Functional	
Heating	0	Economic	
Attic	0	% Complete	
Other Features	-26,020	C&D Factor	
		Adj Factor	1
Subtotal	96,060	Additions	68,700
Ground Floor Area	1,132		
Total Living Area	4,142	Dwelling Value	107,100

Building Notes



ID	Code	Description	Area
A		Main Building	1132
B	50/10	B BASEMENT/1s...	650
C	35	STP STOOP	40
D	50/10/10	B BASEMENT/1s...	1180
E	AL1	1S LEAN TO	9
F	AH1	1S FRAME OR META...	9

Outbuilding Data

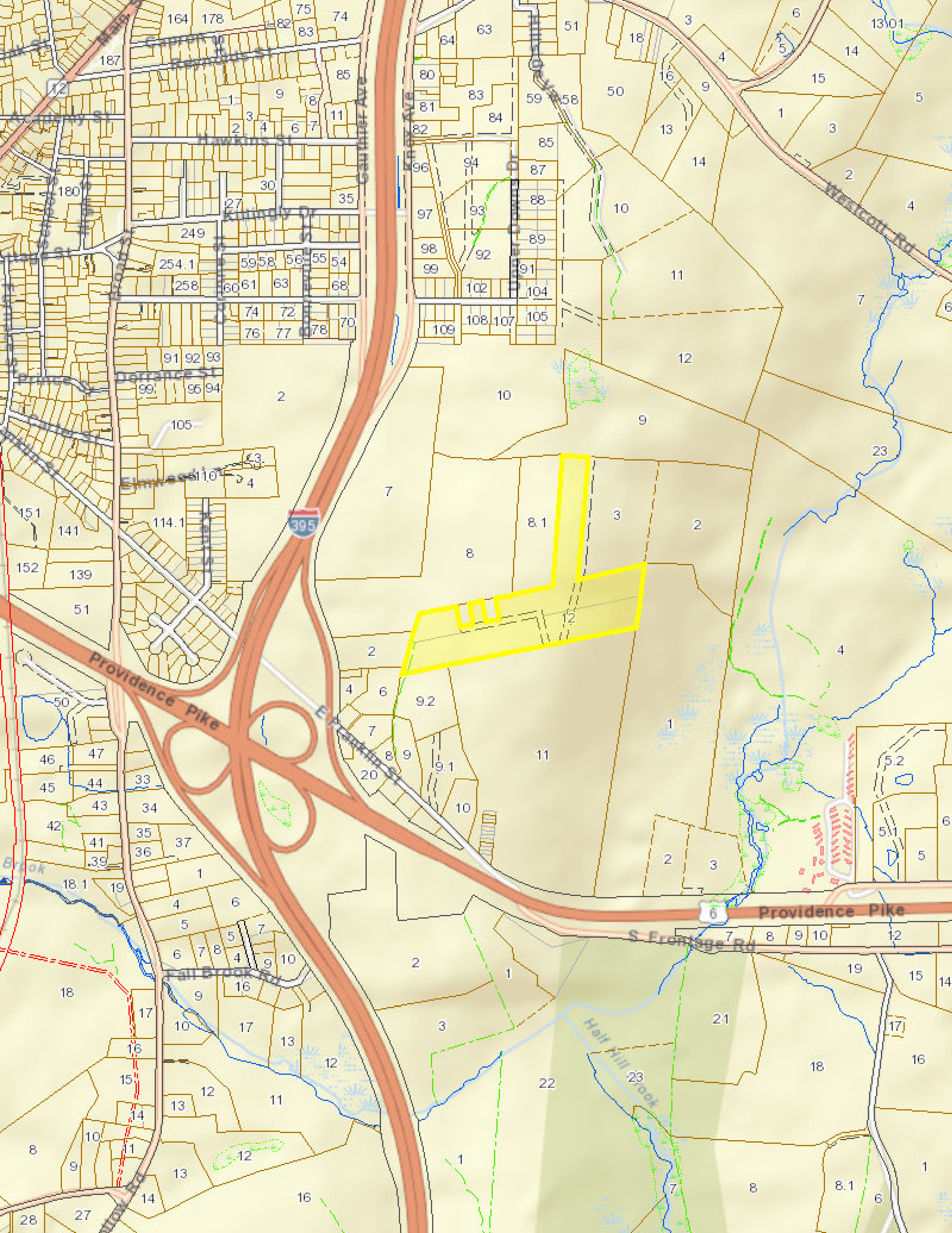
Type	Size 1	Size 2	Area	Qty	Yr Blt	Grade	Condition	Value
1s Lean To	4	x 12	48	1	2000	D	U	90
Poultry	11	x 12	132	1	2000	D	P	470
Frame Shed		x	174	1	2008	C	A	1,670

Condominium / Mobile Home Information

Complex Name			
Condo Model			
Unit Number			
Unit Level		Unit Location	
Unit Parking		Unit View	
Model (MH)		Model Make (MH)	

Addition Details

Line #	Low	1st	2nd	3rd	Value
1	50	10			24,200
2		35			
3	50	10	10		44,500



Main St
Capron St
Reynolds St
Academy St
Hawkins St
Killingly Dr
Gauthier Ave
Knox Ave
Hills St
Westcott Rd
Prince St
Dorrance St
Carter St
Elmwood Dr
Kent St
Broad St
395
Providence Pike
E Franklin St
6
Providence Pike
S Frontage Rd
Fall Brook Rd
Half Hill Brook
Brook
12

DIV. SITE ACQUISITION, LLC
27 NORTHWESTERN DRIVE
SALEM, NH 03079

BANK OF AMERICA 54-49/114

56663

Pay: **********Six hundred twenty-five dollars and no cents

DATE	CHECK NO.	AMOUNT
January 20, 2017	56663	$********625.00

PAY TO THE ORDER OF

Connecticut Siting Council
10 Franklin Sq
New Britain, CT 06051

⑈056663⑈ ⑆011400495⑆ 00008987744⑈

~~CONN03 Connecticut Siting Council~~

SAI
DIV. SITE ACQUISITION, LLC

56663

DATE	INVOICE NO.	DESCRIPTION	INVOICE AMOUNT	DEDUCTION	BALANCE
1-20-17	CR012017I	CT5483-CSC Filing Fe	625.00		625.00

CHECK DATE	1-20-17	CHECK NUMBER	56663	TOTALS	625.00		625.00