



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

www.ct.gov/csc

VIA ELECTRONIC MAIL

January 23, 2019

Scott Pike
Site Acquisition Specialist
Empire Telecom
16 Esquire Road
Billerica, MA 01862

RE: **EM-AT&T-091-190104** – AT&T Mobility notice of intent to modify an existing telecommunications facility located at 29 Bogus Hill Road, New Fairfield, Connecticut.

Dear Mr. Pike:

The Connecticut Siting Council (Council) is in receipt of your correspondence of January 22, 2019 submitted in response to the Council's January 7, 2019 notification of an incomplete request for exempt modification with regard to the above-referenced matter.

The submission renders the request for exempt modification complete and the Council will process the request in accordance with the Federal Communications Commission 60-day timeframe.

Thank you for your attention and cooperation.

Sincerely,

Melanie A. Bachman
Executive Director

MAB/emr



Robidoux, Evan

From: Scott Pike <spike@empiretelecomm.com>
Sent: Tuesday, January 22, 2019 4:55 PM
To: Robidoux, Evan
Cc: CSC-DL Siting Council
Subject: RE: Council Incomplete Letter for EM-AT&T-091-190104-BogusHillRd-New Fairfield CT2006
Attachments: em-at&t-091-190104_incompleteltr_bogushillrd.pdf; EM-AT&T-091-190104 - Revised Proof of Delivery of Notice.pdf; CT2006 - REVISED NOTICE PACKAGE - EM-AT&T-091-190104 - 29 Bogus Hill Roa....pdf

Hi Evan,

I am in receipt of the Council's letter in response to the December 13, 2018 Notice of Exempt Modification for the above-referenced property (EM-AT&T-091-190104). In review for routing to the parties included in the notice delivery, administrative errors were noted in the initial December 13, 2018 letter; now revised here. As such, this Revision to Notice with Required Exhibits was re-routed to the interested parties and is now submitted to the Council to replace the letter dated December 13, 2018. The Property Card, Map, Construction Drawings, Structural Analysis, and RF Emissions Analysis Report Evaluations remain unchanged. Please accept this revised letter, dated January 17, 2018, as AT&T's Notice of Exempt Modification for the Property.

I have also included the revised delivery of notice for your records. Three copies of the attached delivery confirmations and the revised Notice of the Exempt modification will be routed via UPS to be delivered to the Connecticut Citing Council tomorrow.

If you require anything else please let me know.

Thanks,

Scott Pike
Site Acquisition Specialist
Phone- 339-223-9828
Empire Telecom
16 Esquire Road
Billerica, MA 01862
spike@empiretelecomm.com

From: Robidoux, Evan [mailto:Evan.Robidoux@ct.gov]
Sent: Tuesday, January 8, 2019 1:01 PM
To: Scott Pike
Cc: CSC-DL Siting Council
Subject: Council Incomplete Letter for EM-AT&T-091-190104-BogusHillRd-New Fairfield

Please see the attached correspondence.

First-Class Package International Service® is temporarily unavailable on Click-N-Ship®. Please visit a [Post Office™](#) location if you wish to ship with this service.

Create Label

Preferences

Shipping History

Address Book

Account # 161958927

Label Details

Label Number:

[9405503699300391690742](#)

SCAN® Form: [9475703699300301007793](#)

Terms

Acceptance Cutoff: [01/17/2019 4:30 PM](#)

Acceptance Time: [01/17/2019 5:00 PM](#)

Scheduled Date: [01/19/2019 11:59 PM](#)

Delivery Status: [Delivered, Front Desk/Reception/Mail Room](#)

Label Actions
[2019-01-22 10:54:00.0](#)

[USPS Tracking@](#)
[Ship Again](#)

Need help

[File an insurance claim](#)
[Request A Service Refund](#)

Return Address:

SCOTT PIKE
EMPIRE TELECOM
16 ESQUIRE RD
N BILLERICA, MA 01862-2527
spike@empiretelecomm.com

Package:

Ship Date: [01/17/19](#)
Value: \$50.00
From: 01862

Service:

Priority Mail® 2-Day
Flat Rate Envelope
USPS Tracking®

Delivery Address:

GIRL SCOUTS OF CONNECTICUT INC
340 WASHINGTON ST
HARTFORD, CT 06106-3317
Ref#: CT2006

Transaction Number: [454586180](#)

Transaction Type: Label

Payment Method: AMEX-1005

Payment Status: Account Charged

Postage Cost
USPS Tracking® \$6.70
Free

Label Total: **\$6.70**

Order Total: **\$33.50**

Feedback

Timestamp	Message
01-17-2019 14:42:07	LABEL REPRINTED
01-17-2019 14:41:43	LABEL PRINTED
01-17-2019 14:41:20	Getting Payment
01-17-2019 14:40:51	Setting Payment

[Back to Shipping History](#)

First-Class Package International Service® is temporarily unavailable on Click-N-Ship®. Please visit a [Post Office™](#) location if you wish to ship with this service.

Create Label

Preferences

Shipping History

Address Book

Account # 161958927

Label Details

Label Number:

[9405503699300391690674](#)

SCAN® Form: [9475703699300301007793](#)

Terms

Acceptance Cutoff: [01/17/2019 4:30 PM](#)

Acceptance Time: [01/17/2019 5:00 PM](#)

Scheduled Date: [01/19/2019 11:59 PM](#)

Delivery Status: [Delivered, Left with Individual](#)

Label Actions [2019-01-22 13:57:00.0](#)

[USPS Tracking®](#)

[Ship Again](#)

Need help

[File an insurance claim](#)

[Request A Service Refund](#)

Return Address:

SCOTT PIKE
EMPIRE TELECOM USA, LLC
16 ESQUIRE RD
N BILLERICA, MA 01862-2527
spike@empiretelecomm.com

Delivery Address:

CARLA SHORTER
SBA COMMUNICATIONS CORP.
8051 CONGRESS AVE
BOCA RATON, FL 33487-1310
Ref#: CT2006

Package:

Ship Date: 01/17/19
Value: \$50.00
From: 01862

Service:

Priority Mail® 2-Day
Flat Rate Envelope
USPS Tracking®

Transaction Number: [454586180](#)

Transaction Type: Label

Payment Method: AMEX-1005

Payment Status: Account Charged

Postage Cost [USPS Tracking®](#) \$6.70
Free

Label Total: **\$6.70**

Order Total: **\$33.50**

Feedback

Timestamp	Message
01-17-2019 14:42:07	LABEL REPRINTED
01-17-2019 14:41:40	LABEL PRINTED
01-17-2019 14:41:20	Getting Payment
01-17-2019 14:40:51	Setting Payment

[Back to Shipping History](#)

First-Class Package International Service® is temporarily unavailable on Click-N-Ship®. Please visit a [Post Office™](#) location if you wish to ship with this service.

Create Label

Preferences

Shipping History

Address Book

Account # 161958927

Label Details

Label Number:

[9405503699300391690704](#)

SCAN® Form: [9475703699300301007793](#)

Terms

Acceptance Cutoff: [01/17/2019 4:30 PM](#)

Acceptance Time: [01/17/2019 5:00 PM](#)

Scheduled Date: [01/19/2019 11:59 PM](#)

Delivery Status: [Delivered, Front Desk/Reception/Mail Room](#)

Label Actions
[2019-01-22 12:25:00.0](#)

[USPS Tracking@](#)
[Ship Again](#)

Need help

[File an insurance claim](#)
[Request A Service Refund](#)

Return Address:

SCOTT PIKE
EMPIRE TELECOM
16 ESQUIRE RD
N BILLERICA, MA 01862-2527
spike@empiretelecomm.com

Delivery Address:

PATRICIA DEL MONACO
TOWN OF NEW FAIRFIELD
4 BRUSH HILL RD
SELECTMEN'S OFFICE
NEW FAIRFIELD, CT 06812-2619
Ref#: CT2006

Package:

Ship Date: [01/17/19](#)
Value: \$50.00
From: 01862

Service:

Priority Mail® 2-Day
Flat Rate Envelope
USPS Tracking®

Transaction Number: [454586180](#)

Transaction Type: Label

Payment Method: AMEX-1005

Payment Status: Account Charged

Postage Cost \$6.70
USPS Tracking® Free

Label Total: **\$6.70**

Order Total: **\$33.50**

Timestamp	Message
01-17-2019 14:42:07	LABEL REPRINTED
01-17-2019 14:41:42	LABEL PRINTED
01-17-2019 14:41:20	Getting Payment
01-17-2019 14:40:51	Setting Payment

[Back to Shipping History](#)

Feedback

First-Class Package International Service® is temporarily unavailable on Click-N-Ship®. Please visit a [Post Office™](#) location if you wish to ship with this service.

Create Label

Preferences

Shipping History

Address Book

Account # 161958927

Label Details

Label Number:

[9405503699300391690711](#)

SCAN® Form: [9475703699300301007793](#)

Terms

Acceptance Cutoff: [01/17/2019 4:30 PM](#)

Acceptance Time: [01/17/2019 5:00 PM](#)

Scheduled Date: [01/19/2019 11:59 PM](#)

Delivery Status: [Delivered, Front Desk/Reception/Mail Room](#)

Label Actions
[2019-01-22 12:25:00.0](#)

[USPS Tracking@](#)
[Ship Again](#)

Need help

[File an insurance claim](#)
[Request A Service Refund](#)

Return Address:

SCOTT PIKE
EMPIRE TELECOM
16 ESQUIRE RD
N BILLERICA, MA 01862-2527
spike@empiretelecomm.com

Delivery Address:

EVAN WHITE
TOWN OF NEW FAIRFIELD ZONING
DEPARTMENT
4 BRUSH HILL RD
NEW FAIRFIELD, CT 06812-2619
Ref#: CT2006

Package:

Ship Date: [01/17/19](#)
Value: \$50.00
From: 01862

Service:

Priority Mail® 2-Day
Flat Rate Envelope
USPS Tracking®

Transaction Number: [454586180](#)

Transaction Type: Label

Payment Method: AMEX-1005

Payment Status: Account Charged

Postage Cost \$6.70
USPS Tracking® Free

Label Total: **\$6.70**

Order Total: **\$33.50**

Timestamp	Message
01-17-2019 14:42:07	LABEL REPRINTED
01-17-2019 14:41:43	LABEL PRINTED
01-17-2019 14:41:20	Getting Payment
01-17-2019 14:40:51	Setting Payment

[Back to Shipping History](#)

Feedback

First-Class Package International Service® is temporarily unavailable on Click-N-Ship®. Please visit a [Post Office™](#) location if you wish to ship with this service.

Create Label

Preferences

Shipping History

Address Book

Account # 161958927

Label Details

Label Number:

[9405503699300391690698](#)

SCAN® Form: [9475703699300301007793](#)

Terms

Acceptance Cutoff: [01/17/2019 4:30 PM](#)

Acceptance Time: [01/17/2019 5:00 PM](#)

Scheduled Date: [01/19/2019 11:59 PM](#)

Delivery Status: [Delivered, Front Desk/Reception/Mail Room](#)

Label Actions
[2019-01-22 12:25:00.0](#)

[USPS Tracking@](#)
[Ship Again](#)

Need help

[File an insurance claim](#)
[Request A Service Refund](#)

Return Address:

SCOTT PIKE
EMPIRE TELECOM USA, LLC
16 ESQUIRE RD
N BILLERICA, MA 01862-2527
spike@empiretelecomm.com

Delivery Address:

ERIC KIST
NEW FAIRFIELD BUILDING DEPARTMENT
4 BRUSH HILL RD
NEW FAIRFIELD, CT 06812-2619
Ref#: CT2006

Package:

Ship Date: 01/17/19
Value: \$50.00
From: 01862

Service:

Priority Mail® 2-Day
Flat Rate Envelope
USPS Tracking®

Transaction Number: [454586180](#)

Transaction Type: Label

Payment Method: AMEX-1005

Payment Status: Account Charged

Postage Cost \$6.70
USPS Tracking® Free

Label Total: **\$6.70**

Order Total: **\$33.50**

Timestamp	Message
01-17-2019 14:42:07	LABEL REPRINTED
01-17-2019 14:41:41	LABEL PRINTED
01-17-2019 14:41:20	Getting Payment
01-17-2019 14:40:51	Setting Payment

[Back to Shipping History](#)

Feedback



UNITED STATES
POSTAL SERVICE®

Click-N-Ship®

P

usps.com
US POSTAGE
Flat Rate Env



01/17/2019

Mailed from 01862 062S0000001309

9405 5036 9930 0391 6906 74 0067 0000 0063 3487

PRIORITY MAIL 2-DAY™

SCOTT PIKE

EMPIRE TELECOM USA, LLC
16 ESQUIRE RD
N BILLERICA MA 01862-2527

Expected Delivery Date: 01/19/19

Ref#: CT2006

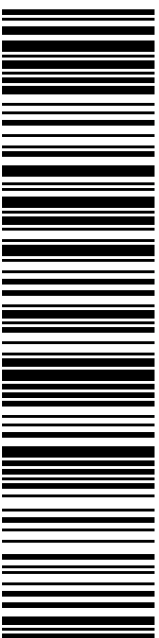
0006

C036

SHIP

TO: CARLA SHORTER
SBA COMMUNICATIONS CORP.
8051 CONGRESS AVE
BOCA RATON FL 33487-1310

USPS TRACKING #



9405 5036 9930 0391 6906 74

Electronic Rate Approved #038555749



UNITED STATES
POSTAL SERVICE®

Click-N-Ship®

P

usps.com
US POSTAGE
Flat Rate Env



01/17/2019

Mailed from 01862 062S0000001309

9405 5036 9930 0391 6906 98 0067 0000 0020 6812

PRIORITY MAIL 2-DAY™

SCOTT PIKE

EMPIRE TELECOM USA, LLC
16 ESQUIRE RD
N BILLERICA MA 01862-2527

Expected Delivery Date: 01/19/19

Ref#: CT2006

0006

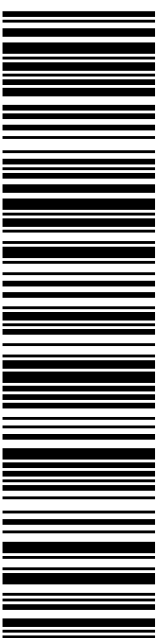
Carrier -- Leave if No Response

C059

SHIP

TO: ERIC KIST
NEW FAIRFIELD BUILDING DEPARTMENT
4 BRUSH HILL RD
NEW FAIRFIELD CT 06812-2619

USPS TRACKING #



9405 5036 9930 0391 6906 98

Electronic Rate Approved #038555749

Cut on dotted line.





UNITED STATES
POSTAL SERVICE®

Click-N-Ship®

P

usps.com
US POSTAGE
Flat Rate Env



01/17/2019

Mailed from 01862 062S0000001309

usps.com
\$6.70
US POSTAGE
Flat Rate Env



01/17/2019

Mailed from 01862 062S0000001308

PRIORITY MAIL 2-DAY™

SCOTT PIKE
EMPIRE TELECOM
16 ESQUIRE RD
N BILLERICA MA 01862-2527

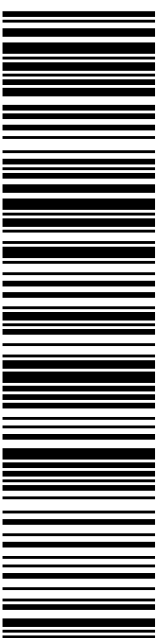
Expected Delivery Date: 01/19/19
Ref#: CT2006
0006

C059

SHIP

TO: EVAN WHITE
TOWN OF NEW FAIRFIELD ZONING DEPARTMENT
4 BRUSH HILL RD
NEW FAIRFIELD CT 06812-2619

USPS TRACKING #



9405 5036 9930 0391 6907 11

Electronic Rate Approved #038555749



UNITED STATES
POSTAL SERVICE®

Click-N-Ship®

P

usps.com
US POSTAGE
Flat Rate Env



01/17/2019

Mailed from 01862 062S0000001309

PRIORITY MAIL 2-DAY™

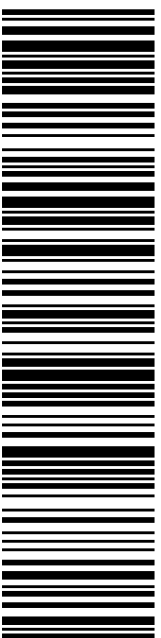
SCOTT PIKE
EMPIRE TELECOM
16 ESQUIRE RD
N BILLERICA MA 01862-2527

Expected Delivery Date: 01/19/19
Ref#: CT2006
0006

C059

SHIP
PATRICIA DEL MONACO
TO: TOWN OF NEW FAIRFIELD
4 BRUSH HILL RD
SELECTMEN'S OFFICE
NEW FAIRFIELD CT 06812-2619

USPS TRACKING #



9405 5036 9930 0391 6907 04

Electronic Rate Approved #038555749

Cut on dotted line.





UNITED STATES
POSTAL SERVICE®

Click-N-Ship®

P

usps.com

9405 5036 9930 0391 6907 42 0067 0000 0020 6106

US POSTAGE

Flat Rate Env



01/17/2019

Mailed from 01862 062S0000001309

PRIORITY MAIL 2-DAY™

SCOTT PIKE
EMPIRE TELECOM
16 ESQUIRE RD
N BILLERICA MA 01862-2527

Expected Delivery Date: 01/19/19

Ref#: CT2006

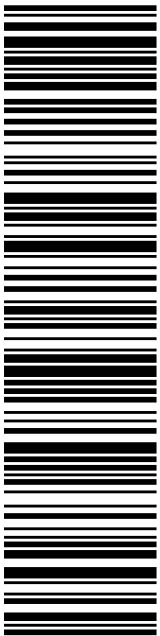
0006

C009

SHIP
TO:

GIRL SCOUTS OF CONNECTICUT INC
340 WASHINGTON ST
HARTFORD CT 06106-3317

USPS TRACKING #



9405 5036 9930 0391 6907 42

Electronic Rate Approved #038555749

Cut on dotted line.





January 17, 2019

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

Regarding: Revision to Notice of Exempt Modification dated December 13, 2018,
EM-AT&T-091-190104 "Revision to Notice")
Property Address: 29 Bogus Hill Road, New Fairfield, CT 06812 (the "Property")
Applicant: AT&T Mobility ("AT&T", Site # CT2006 / FA # 10042330)

Dear Ms. Bachman:

I am in receipt of the Council's letter in response to the December 13, 2018 Notice of Exempt Modification for the above-referenced property (EM-AT&T-091-190104). In review for routing to the parties included in the notice delivery, administrative errors were noted in the initial December 13, 2018 letter; now revised here. As such, this Revision to Notice with Required Exhibits is being re-routed to the interested parties and is now submitted to the Council to replace the letter dated December 13, 2018. The Property Card, Map, Construction Drawings, Structural Analysis, and RF Emissions Analysis Report Evaluations remain unchanged. Please accept this revised letter, dated January 17, 2018, as AT&T's Notice of Exempt Modification for the Property.

AT&T currently maintains a wireless telecommunications facility on an existing 149-foot monopole at the above-referenced address, latitude 41-30-42.6 N, longitude -73-27-1.9 W. Said monopole is operated by Crown Castle and the underlying property owner is the Girl Scouts of Connecticut, Inc.

AT&T desires to modify its existing pole-mounted telecommunications facility equipment by swapping (3) panel antennas and upgrading its ancillary tower-mounted equipment, including adding (6) Remote Radio Units. The centerline height of the existing antennas and ancillary tower-mounted equipment is and will remain at approximately 142 feet.

Please accept this application as notification pursuant to R.C.S.A. §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. §16-50j-72 (b)(2). In accordance with R.C.S.A. §16-50j-73, a copy of this letter is being sent to the Honorable Patricia Del Monaco, First Selectman of New Fairfield; Evan White, the Zoning Official; Eric Kist, the Building Official, The Girl Scouts of Connecticut, Inc., the ground property owners, and the tower operators, Crown Castle.

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

1. The planned modification will not result in an increase in the height of the existing structure. The added antennas and accessory equipment along with equipment to be swapped will be installed at the existing height of approximately 142 feet on the 149-foot monopole.
2. The proposed modifications will not involve any changes to AT&T's ground-space footprint, and therefore will not require an extension of the site boundary.
3. The proposed modification will not increase the noise level at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the modified facility will not increase radio frequency (RF) emissions at the facility to a level at or above Federal Communications Commission (FCC) safety standard. An RF emissions calculation (enclosed) for AT&T's modified facility is herein provided.
5. The operation of the modified facility will not increase radio frequency (RF) emissions at the facility to a level at or above Federal Communications Commission (FCC) safety standard. An RF emissions calculation for AT&T's modified facility is herein provided.
6. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
7. The existing structure and its foundation can support AT&T's proposed modifications. Please see enclosed structural analysis completed by Tower Engineering Solutions, dated November 26, 2018 and stamped by Jaime Reyes, CT Licensed Professional Engineer No. 17534.

For the foregoing reasons, AT&T respectfully requests that the proposed equipment upgrade be allowed within the exempt modifications under R.C.S.A. §16-50j-72 (b)(2).

Sincerely,

Scott Pike

Scott Pike
Site Acquisition Specialist
Empire Telecom USA, LLC
spike@empiretelecomm.com

Enclosures: Exhibit 1 – Field Card and GIS Map
Exhibit 2 – Construction Drawings
Exhibit 3 – Structural Analysis
Exhibit 4 – RF Emissions Analysis Report Evaluation

(CONTINUED ON NEXT PAGE)

January 17, 2019
Page 3 of 3

cc:

HON. PATRICIA DEL MONACO
TOWN OF NEW FAIRFIELD
4 BRUSH HILL RD
SELECTMEN'S OFFICE
NEW FAIRFIELD, CT 06812-261

CARLA SHORTER
SBA COMMUNICATIONS CORP.
8051 CONGRESS AVE
BOCA RATON, FL 33487-1310

EVAN WHITE
TOWN OF NEW FAIRFIELD ZONING DEPARTMENT
4 BRUSH HILL RD
NEW FAIRFIELD, CT 06812-2619

GIRL SCOUTS OF CONNECTICUT INC
340 WASHINGTON ST
HARTFORD, CT 06106-3317

ERIC KIST
NEW FAIRFIELD BUILDING DEPARTMENT
4 BRUSH HILL RD
NEW FAIRFIELD, CT 06812-2619

PROJECT NOTES

1. SITE INFORMATION OBTAINED FROM THE FOLLOWING:
 - A. PLAN ENTITLED "NEW FAIRFIELD" PREPARED BY CENTEK OF BRANFORD, CT LAST REVISED 08/11/2016.
 - B. LIMITED FIELD OBSERVATION BY MASER CONSULTING ON 05/21/2018.
2. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, ORDINANCES, LAWS AND REGULATIONS OF ALL MUNICIPALITIES, UTILITY COMPANIES OR OTHER PUBLIC/GOVERNING AUTHORITIES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS THAT MAY BE REQUIRED BY ANY FEDERAL, STATE, COUNTY OR MUNICIPAL AUTHORITIES.
4. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER, IN WRITING, OF ANY CONFLICTS, ERRORS OR OMISSIONS PRIOR TO THE SUBMISSION OF BIDS OR PERFORMANCE OF WORK.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SITE IMPROVEMENTS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL REPAIR ANY DAMAGE AS A RESULT OF CONSTRUCTION OF THIS FACILITY AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
6. THE SCOPE OF WORK FOR THIS PROJECT SHALL INCLUDE PROVIDING ALL MATERIALS, EQUIPMENT AND LABOR REQUIRED TO COMPLETE THIS PROJECT. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
7. THE CONTRACTOR SHALL VISIT THE PROJECT SITE PRIOR TO SUBMITTING THE BID TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND CONSTRUCTION DRAWINGS.
8. THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THESE DRAWINGS MUST BE VERIFIED. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
9. SINCE THE CELL SITE MAY BE ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE REQUIRED TO BE WORN TO ALERT OF ANY POTENTIALLY DANGEROUS EXPOSURE LEVELS.
10. THE PROPOSED FACILITY WILL CAUSE AN INSIGNIFICANT OR "DE-MINIMUS" INCREASE IN STORM WATER RUNOFF. THEREFORE, NO DRAINAGE STRUCTURES ARE PROPOSED.
11. NO NOISE, SMOKE, DUST OR ODOR WILL RESULT FROM THIS FACILITY AS TO CAUSE A NUISANCE.
12. THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION (NO HANDICAP ACCESS IS REQUIRED).
13. THE FACILITY DOES NOT REQUIRE POTABLE WATER OR SANITARY SERVICE.
14. CONTRACTOR SHALL VERIFY ANTENNA ELEVATION AND AZIMUTHS WITH RF ENGINEERING PRIOR TO INSTALLATION.
15. THE TOWER, MOUNTS AND ANTENNAS SHALL BE DESIGNED TO MEET EIA/TIA-222-G AS PER IBC REQUIREMENTS.
16. CONTRACTOR MUST FIELD LOCATE ALL EXISTING UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATION.
17. CONSTRUCTION SHALL NOT COMMENCE UNTIL COMPLETION OF A PASSING STRUCTURAL ANALYSIS CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER. THE STRUCTURAL ANALYSIS IS TO BE PERFORMED BY OTHERS.



SITE NAME: NEW FAIRFIELD - CANDLEWOOD LAKE
FA NUMBER: 10042330
SITE NUMBER: CT2006
LTE - 3C/4C/5C
29 BOGUS HILL ROAD
NEW FAIRFIELD, CT 06812
FAIRFIELD COUNTY



Customer Loyalty through Client Satisfaction
 www.maserconsulting.com
 Engineers ■ Planners ■ Surveyors
 Landscape Architects ■ Environmental Scientists

Copyright © 2018 Maser Consulting Connecticut. All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, reused, disclosed, distributed or relied upon for any other purpose without the express written consent of Maser Consulting Connecticut.



16 ESQUIRE ROAD
 BILLERICA, MA 01862

811 PROTECT YOURSELF
 ALL STATES REQUIRE NOTIFICATION OF EXCAVATIONS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE.
 Know what's below.
 Call before you dig.
 FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

SCALE:	JOB NUMBER:			
AS SHOWN	18963014A			
0	10/31/18 FOR CONSTRUCTION	AJC	RA	
1	09/28/18 ISSUED FOR REVIEW	AJC	RA	
REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY



IT IS A VIOLATION OF LAW FOR ANY PERSON UNLESS THEY ARE ACTING UNDER THE GUARANTY OF THE RESPONSIBILITY OF A LICENSED PROFESSIONAL ENGINEER, TO SIGN OR SEAL THIS DOCUMENT.

SITE NAME:
NEW FAIRFIELD
CANDLEWOOD LAKE
FA# 10042330
SITE# CT2006
29 BOGUS HILL ROAD
NEW FAIRFIELD, CT 06812
FAIRFIELD COUNTY

RED BANK OFFICE
 331 Newman Springs Road
 Suite 203
 Red Bank, NJ 07701-5669
 Phone: 732.383.1950
 Fax: 732.383.1984
 email: solutions@maserconsulting.com

SHEET TITLE:
TITLE SHEET
 SHEET NUMBER:
T-1



PROJECT INFORMATION

SITE INFORMATION
 LATITUDE: 41.51694° N
 LONGITUDE: 73.46694° W
 JURISDICTION: FAIRFIELD COUNTY

APPLICANT/LESSEE
 COMPANY: NEW CINGULAR WIRELESS PCS, LLC
 ADDRESS: 550 COCHITUATE ROAD
 CITY, STATE, ZIP: FRAMINGHAM, MA 01701

STRUCTURE OWNER
 COMPANY: T.B.D.
 ADDRESS: T.B.D.
 CITY, STATE, ZIP: T.B.D.

CLIENT REPRESENTATIVE
 COMPANY: EMPIRE TELECOM
 ADDRESS: 16 ESQUIRE ROAD
 CITY, STATE, ZIP: BILLERICA, MA 01862
 CONTACT: DAVID COOPER
 E-MAIL: DCOOPER@EMPIRETELECOM.COM

SITE ACQUISITION

COMPANY: EMPIRE TELECOM
 ADDRESS: 16 ESQUIRE ROAD
 CITY, STATE, ZIP: BILLERICA, MA 01862
 CONTACT: DAVID COOPER
 E-MAIL: DCOOPER@EMPIRETELECOM.COM

ENGINEER

COMPANY: MASER CONSULTING P.A.
 ADDRESS: 331 NEWMAN SPRINGS ROAD, SUITE 203
 CITY, STATE, ZIP: RED BANK, NJ 07701-5669
 CONTACT: ROBERT ANDREWS
 PHONE: (856) 797-0412
 E-MAIL: RANDREWS@MASERCONSULTING.COM

PROJECT DESCRIPTION/ SCOPE OF WORK

- INSTALL (3) NEW RRU'S AT GRADE
- INSTALL (6) NEW RRU'S, (2) PER SECTOR
- INSTALL (3) NEW PANEL ANTENNAS, (1) PER SECTOR
- REMOVE (3) EXISTING PANEL ANTENNAS, (1) PER SECTOR
- REMOVE (12) DIPLEXERS, (4) PER SECTOR
- INSTALL (3) LOW BAND COMBINERS, (1) PER SECTOR
- INSTALL (1) NEW 18-PAIR FIBER TRUNK
- INSTALL (1) NEW DC-6 SURGE SUPPRESSION DOME
- INSTALL (2) NEW 6/C DC CABLES
- REPLACE BBU WITH (1) 5216
- ADD 2ND XMU AND (1) RBS 6630
- INSTALL (1) NEW CABLE HATCH PLATE
- INSTALL (1) RACK MOUNTED DC-12

PROPOSED PROJECT SCOPE BASED ON RFDS ID# 2287785, VERSION 3.00, LAST UPDATED 09/12/2018.

SHEET INDEX

SHEET	DESCRIPTION
T-1	TITLE SHEET
C-1	COMPOUND PLAN
C-2	EQUIPMENT LAYOUT AND ELEVATION VIEW
C-3	ANTENNA LAYOUTS AND ANTENNA SCHEDULE
A-1	CONSTRUCTION DETAILS
A-2	CONSTRUCTION DETAILS
A-3	CONSTRUCTION DETAILS
A-4	RF PLUMBING DIAGRAM
G-1	GROUNDING DETAILS AND NOTES

CODE COMPLIANCE

- ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE LATEST EDITIONS OF THE FOLLOWING CODES.
- | | |
|---|--|
| 1. 2016 CONNECTICUT STATE BUILDING CODE, INCORPORATING THE 2012 IBC | 8. INSTITUTE FOR ELECTRICAL AND ELECTRONICS ENGINEERS 81 IEEE C2 LATEST EDITION |
| 2. 2014 NATIONAL ELECTRICAL CODE - NFPA 70 | 9. TELCORDIA GR-1275 |
| 3. 2012 NFPA 101 | 10. ANSI T1.311 |
| 4. AMERICAN INSTITUTE OF STEEL CONSTRUCTION 360-10 | 11. PROPOSED USE: UNMANNED TELECOM FACILITY |
| 5. AMERICAN CONCRETE INSTITUTE | 12. HANDICAP REQUIREMENTS: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS NOT REQUIRED. |
| 6. TIA-222-G | 13. CONSTRUCTION TYPE: IIB |
| 7. TIA 607 FOR GROUNDING | 14. USE GROUP: U |

COPYRIGHT © 2018, MASER CONSULTING CONNECTICUT ALL RIGHTS RESERVED

THIS DRAWING AND ALL THE INFORMATION CONTAINED HEREIN IS AUTHORIZED FOR USE ONLY BY THE PARTY FOR WHOM THE WORK WAS CONTRACTED OR TO WHOM IT IS CERTIFIED. THIS DRAWING MAY NOT BE COPIED, REUSED, DISCLOSED, DISTRIBUTED OR RELIED UPON FOR ANY OTHER PURPOSE WITHOUT THE EXPRESS WRITTEN CONSENT OF MASER CONSULTING CONNECTICUT

4/00003311 ASD1 18/018 CT2006 REV. CD 04/21

GENERAL NOTES:

- THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AHJ), THE SITE-SPECIFIC (UL, LPL OR NFPA) LIGHTING PROTECTION CODE, AND GENERAL COMPLIANCE WITH TELCORDIA AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO THE CONTRACTOR FOR RESOLUTION.
- ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER GES'S) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
- THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 50 HMS OR LESS.
- THE SUBCONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT.
- METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
- METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
- EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE EQUIPMENT GROUND RING WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, 6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS; 2 AWG STRANDED COPPER FOR OUTDOOR BTS.
- CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED. BACK TO BACK CONNECTIONS ON OPPOSITE SIDES OF THE GROUND BUS ARE PERMITTED.
- ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING, SHALL BE #2 AWG SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
- ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
- USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED. ALL BENDS SHALL BE MADE WITH 12" RADIUS OR LARGER.
- EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
- ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS EXCEPT FOR GROUND BAR CONNECTION FROM MGB TO OUTSIDE EXTERIOR GROUND SHALL ALL BE CADWELD CONNECTIONS.
- COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
- ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED TO THE TOWER GROUND BAR.
- APPROVED ANTIOXIDANT COATINGS (I.E. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
- ALL EXTERIOR AND INTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
- MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
- BOND ALL METALLIC OBJECTS WITHIN 6 FT OF MAIN GROUND WIRES WITH 1-#2 AWG TIN-PLATED COPPER GROUND CONDUCTOR.
- GROUND CONDUCTORS USED IN THE FACILITY GROUND AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC PLASTIC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (E.G. NON-METALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
- ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20 FT. OR MORE OF 1/4" IN. OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID BARE TINNED COPPER GROUND WIRE, PER NEC 250.50.
- FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
 CONTRACTOR - EMPIRE TELECOM
 SUBCONTRACTOR - GENERAL CONTRACTOR (CONSTRUCTION)
 OWNER - AT&T (NEW CINGULAR WIRELESS PCS, LLC)
- ALL SITE WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS AND PROJECT SPECIFICATIONS.
- DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK.
- ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE CONTRACTOR.
- THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
- THE SUBCONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
- ALL EXISTING 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 THE RESPONSIBLE ENGINEER. EXTREME CAUTION SHOULD BE USED BY THE SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. SUBCONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING & EXCAVATION.
- ALL EXISTING 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, AS DIRECTED BY THE RESPONSIBLE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.

- THE AREAS OF THE OWNER'S PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY SHALL BE GRADED TO A UNIFORM SLOPE AND STABILIZED TO PREVENT EROSION.
- SUBCONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
- NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
- THE SUBGRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
- THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE BTS EQUIPMENT AND TOWER AREAS.
- IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
- THE SUBCONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE.
- SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
- PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR.
- SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND TI CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR.
- ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.
- ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL BE AIR-ENTRAINED AND SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS.
- ALL STRUCTURAL STEEL WORK SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A36 (Fy = 36 ksi) UNLESS OTHERWISE NOTED. PIPES SHALL BE ASTM A53 TYPE E (Fy = 36 ksi). ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED. TOUCHUP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC RICH PAINT.
- CONSTRUCTION SHALL COMPLY WITH SPECIFICATIONS AND "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF AT&T MOBILITY SITES."
- SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
- THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
- SINCE THE CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE ADVISED TO BE WORN ALERT OF DANGEROUS EXPOSURE LEVELS.



Customer Loyalty through Client Satisfaction
 www.maserconsulting.com
 Engineers ■ Planners ■ Surveyors
 Landscape Architects ■ Environmental Scientists

Copyright © 2018 Maser Consulting Connecticut All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is loaned. This drawing may not be copied, reused, disclosed, distributed or relied upon for any other purpose without the express written consent of Maser Consulting Connecticut.

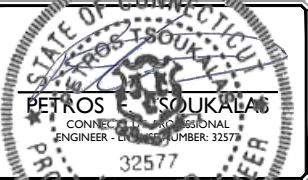


16 ESQUIRE ROAD
 BILLERICA, MA 01862



SCALE: AS SHOWN JOB NUMBER: 18963014A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
0	10/31/18	FOR CONSTRUCTION	AJC	RA
1	09/28/18	ISSUED FOR REVIEW	AJC	RA



IT IS A VIOLATION OF LAW FOR ANY PERSON UNLESS THEY ARE ACTING UNDER THE DIRECTION OF THE RESPONSIBLE LICENSED PROFESSIONAL ENGINEER, TO REPRODUCE OR ALTER THIS DOCUMENT.

SITE NAME:
 NEW FAIRFIELD
 CANDLEWOOD LAKE
 FA# 10042330
 SITE# CT2006
 29 BOGUS HILL ROAD
 NEW FAIRFIELD, CT 06812
 FAIRFIELD COUNTY



RED BANK OFFICE
 331 Newman Springs Road
 Suite 203
 Red Bank, NJ 07701-5669
 Phone: 732.383.1950
 Fax: 732.383.1984

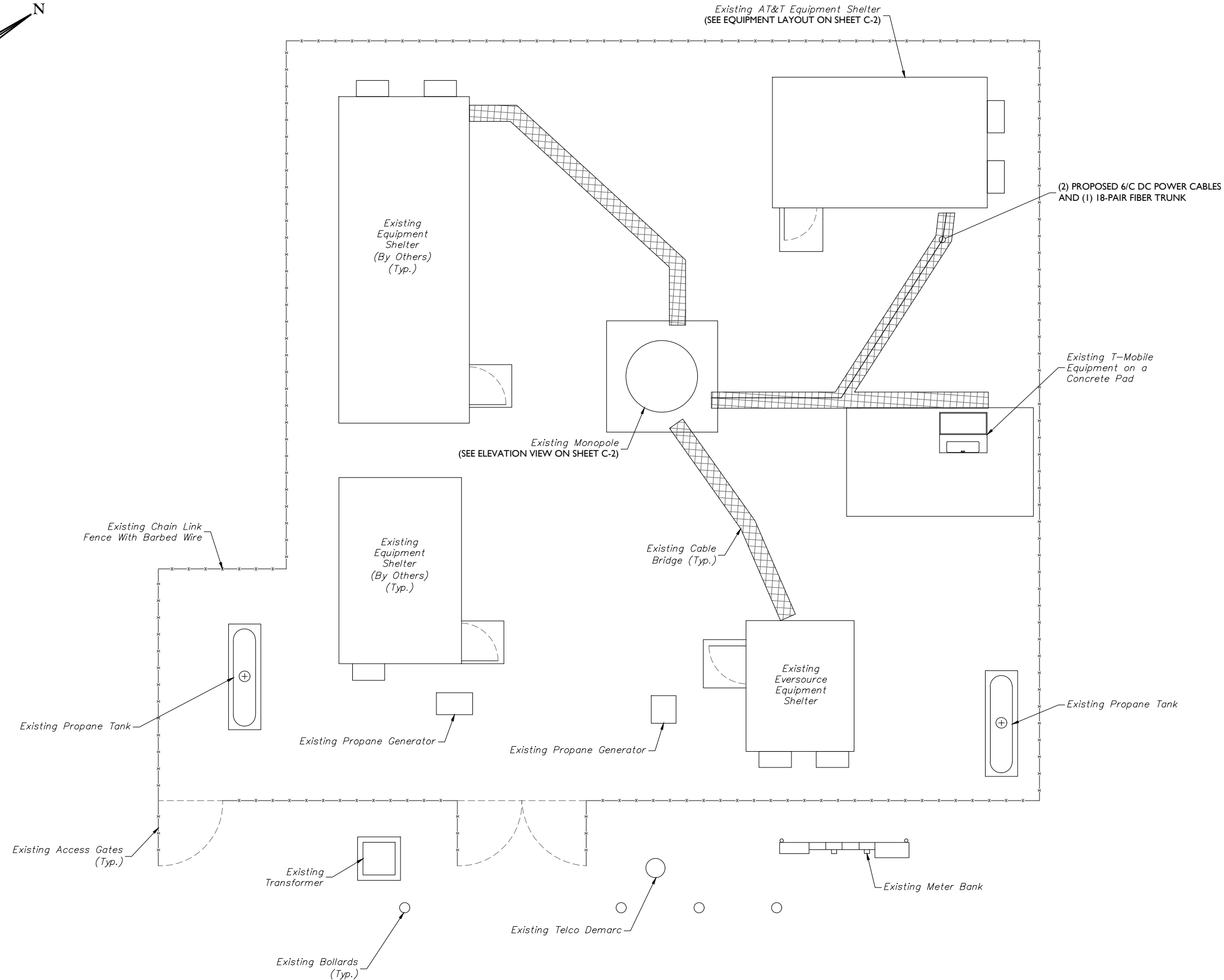
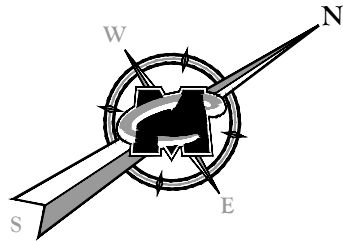
email: solutions@maserconsulting.com

SHEET TITLE:

GENERAL NOTES

SHEET NUMBER:

GN-1



COMPOUND PLAN



SCALE: 1" = 5' FOR 22"X34"
(SCALE: 1" = 10' FOR 11"X17")

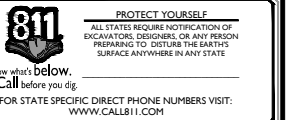


Customer Loyalty through Client Satisfaction
www.maserconsulting.com
Engineers ■ Planners ■ Surveyors
Landscape Architects ■ Environmental Scientists

Copyright © 2018 Maser Consulting Connecticut. All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, reused, disclosed, distributed or relied upon for any other purpose without the express written consent of Maser Consulting Connecticut.



16 ESQUIRE ROAD
BILLERICA, MA 01862



SCALE: AS SHOWN JOB NUMBER: 18963014A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
0	10/31/18	FOR CONSTRUCTION	AJC	RA
1	09/28/18	ISSUED FOR REVIEW	AJC	RA



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE GUARDIANSHIP OF THE RESPONSIBLE LICENSED PROFESSIONAL ENGINEER, TO REPRODUCE OR REPRODUCE THIS DOCUMENT.

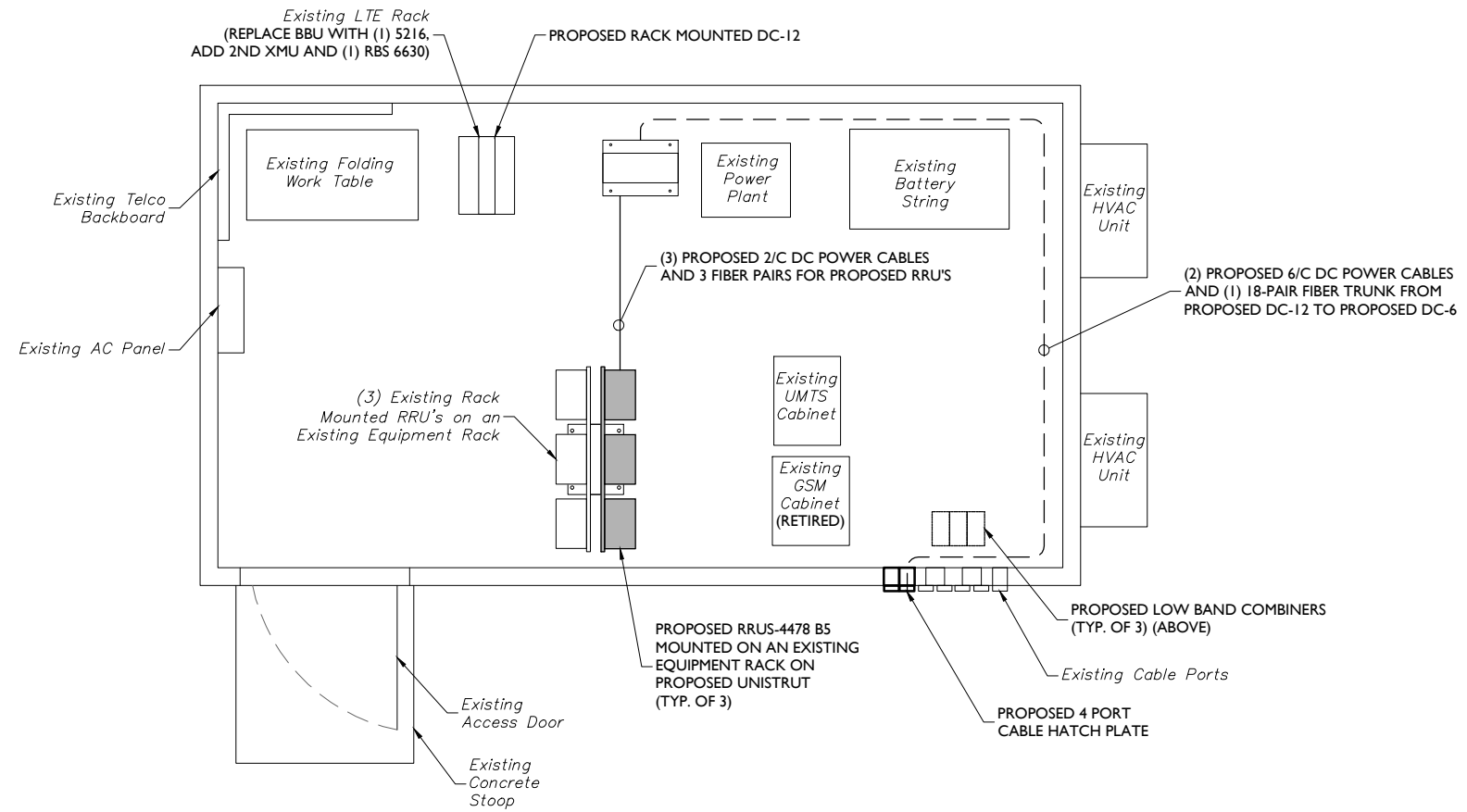
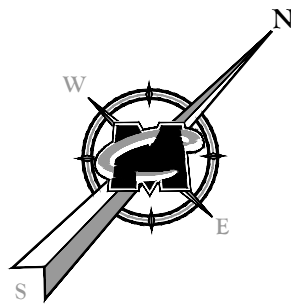
SITE NAME:
NEW FAIRFIELD
CANDLEWOOD LAKE
FA# 10042330
SITE# CT2006
29 BOGUS HILL ROAD
NEW FAIRFIELD, CT 06812
FAIRFIELD COUNTY



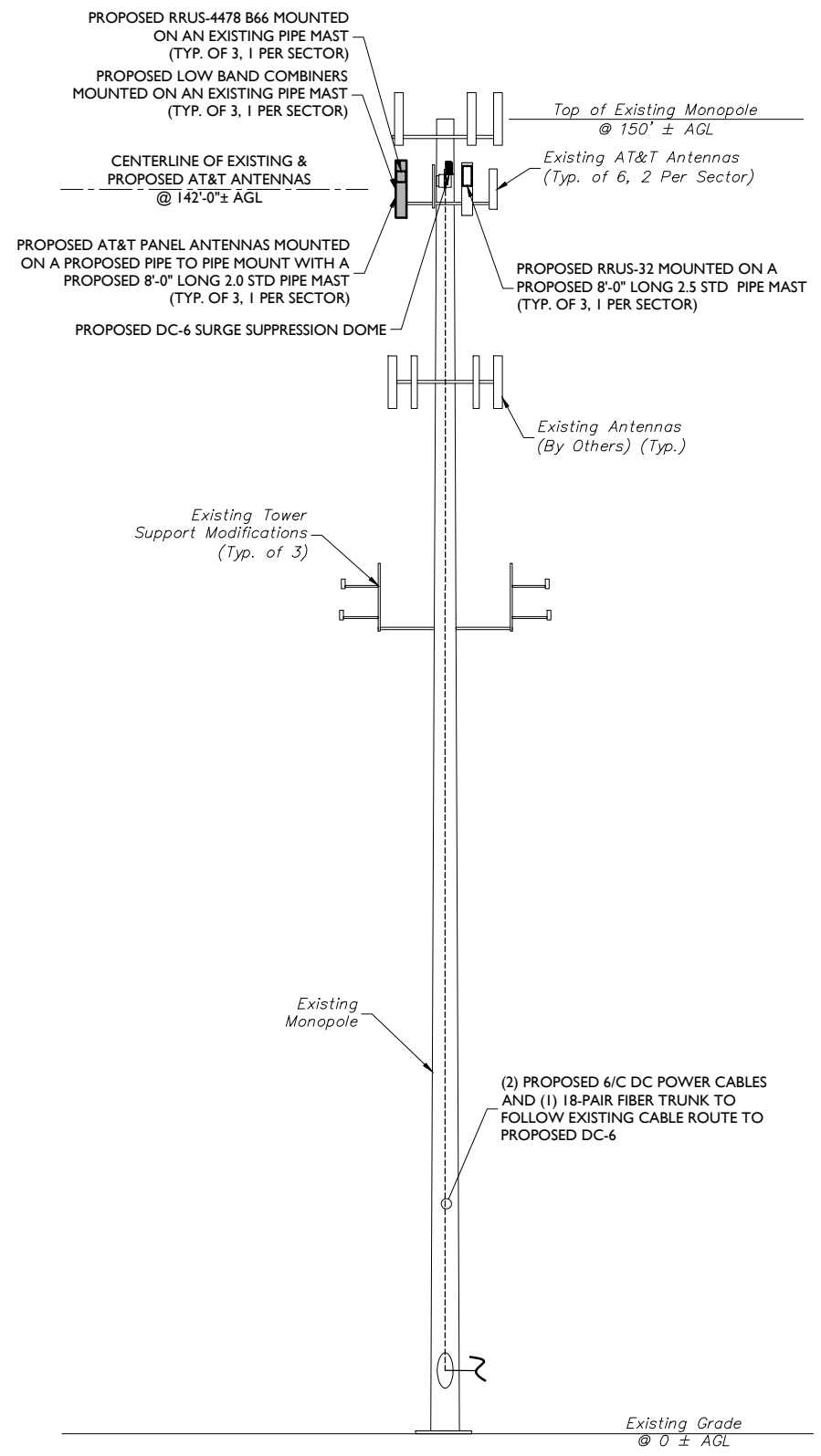
SHEET TITLE:
COMPOUND PLAN

SHEET NUMBER:
C-1

4/00003310_A301_18918_CTD206_REV_C01.dwg/C1 By: AC024



EQUIPMENT LAYOUT
 SCALE : 1" = 2' FOR 22"X34"
 (SCALE : 1" = 4' FOR 11"X17")



ELEVATION VIEW
 SCALE : 1" = 10' FOR 22"X34"
 (SCALE : 1" = 20' FOR 11"X17")

Copyright © 2018 Maser Consulting Connecticut. All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, reused, disclosed, distributed or relied upon for any other purpose without the express written consent of Maser Consulting Connecticut.



16 ESQUIRE ROAD
 BILLERICA, MA 01862

811 PROTECT YOURSELF
 ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE.
 Know what's below.
 Call before you dig.
 FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

SCALE:	JOB NUMBER:			
AS SHOWN	18963014A			
0	10/31/18	FOR CONSTRUCTION	AJC	RA
1	09/28/18	ISSUED FOR REVIEW	AJC	RA
REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY



IT IS A VIOLATION OF LAW FOR ANY PERSON UNLESS THEY ARE ACTING UNDER THE DIRECTION OF THE RESPONSIBLE LICENSED PROFESSIONAL ENGINEER, TO REPRODUCE OR COPY THIS DOCUMENT.

SITE NAME:
 NEW FAIRFIELD
 CANDLEWOOD LAKE
 FA# 10042330
 SITE# CT2006
 29 BOGUS HILL ROAD
 NEW FAIRFIELD, CT 06812
 FAIRFIELD COUNTY

RED BANK OFFICE
 331 Newman Springs Road
 Suite 203
 Red Bank, NJ 07701-5669
 Phone: 732.383.1950
 Fax: 732.383.1984
 email: solutions@maserconsulting.com

SHEET TITLE:
EQUIPMENT LAYOUT AND ELEVATION VIEW

SHEET NUMBER:
C-2

4/00003310_A301_18963014A_REV1_CD.dwg/C3 By: AC00A

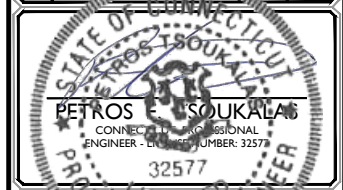
Copyright © 2018 Maser Consulting Connecticut. All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, reused, disclosed, distributed or relied upon for any other purpose without the express written consent of Maser Consulting Connecticut.



16 ESQUIRE ROAD
 BILLERICA, MA 01862

811 PROTECT YOURSELF
 ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE.
 Know what's below.
 Call before you dig.
 FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

SCALE:	JOB NUMBER:			
AS SHOWN	18963014A			
0	10/31/18	FOR CONSTRUCTION	AJC	RA
1	09/28/18	ISSUED FOR REVIEW	AJC	RA
REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY



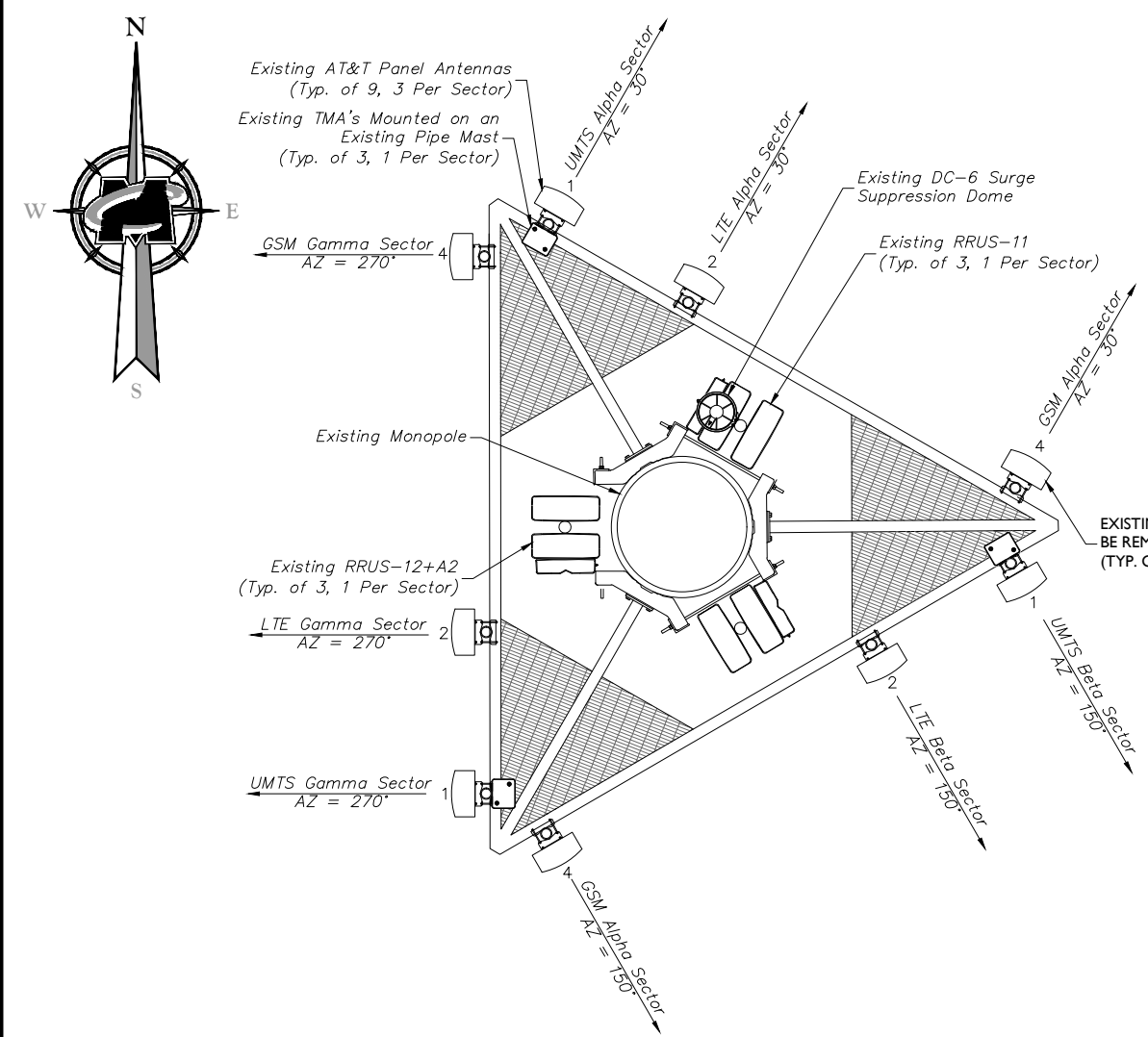
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF THE RESPONSIBLE LICENSED PROFESSIONAL ENGINEER, TO REPRODUCE OR REPRODUCE THIS DOCUMENT.

SITE NAME:
 NEW FAIRFIELD
 CANDLEWOOD LAKE
 FA# 10042330
 SITE# CT2006
 29 BOGUS HILL ROAD
 NEW FAIRFIELD, CT 06812
 FAIRFIELD COUNTY

RED BANK OFFICE
 331 Newman Springs Road
 Suite 203
 Red Bank, NJ 07701-5669
 Phone: 732.383.1950
 Fax: 732.383.1984
 email: solutions@maserconsulting.com

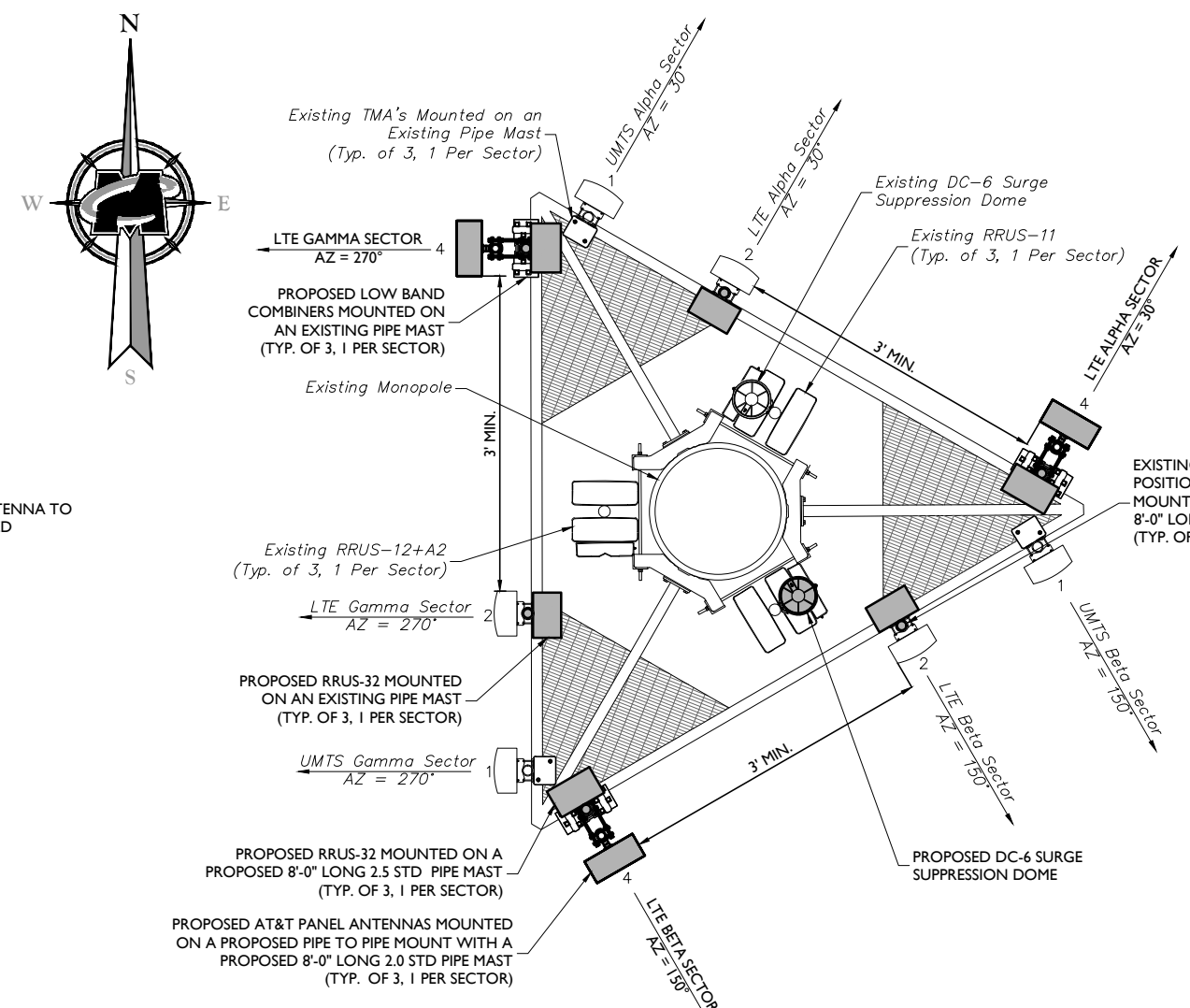
SHEET TITLE:
ANTENNA LAYOUT AND ANTENNA SCHEDULE

SHEET NUMBER:
C-3



EXISTING ANTENNA LAYOUT
 NOT TO SCALE

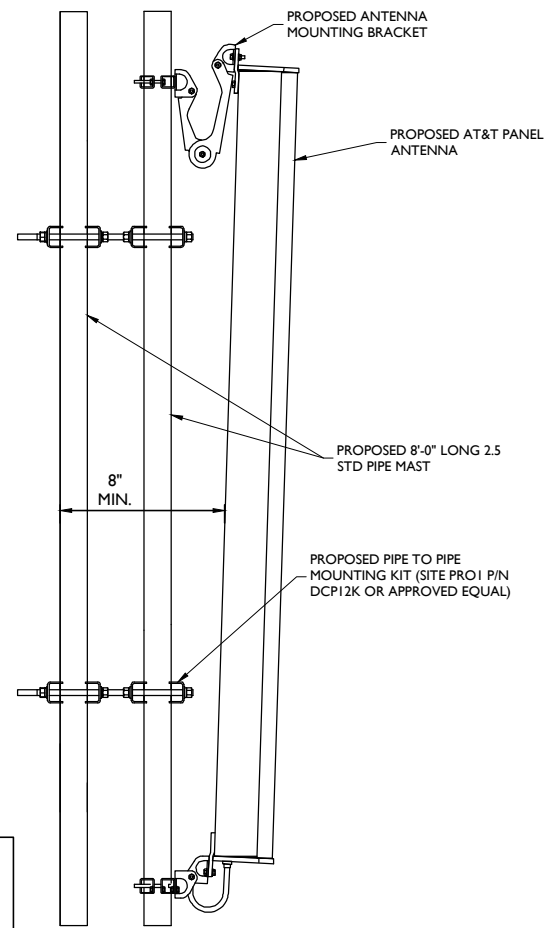
NOTE:
 8" MINIMUM SEPARATION REQUIRED FROM BACK OF PANEL ANTENNA TO EXISTING/PROPOSED EQUIPMENT



PROPOSED ANTENNA LAYOUT
 NOT TO SCALE

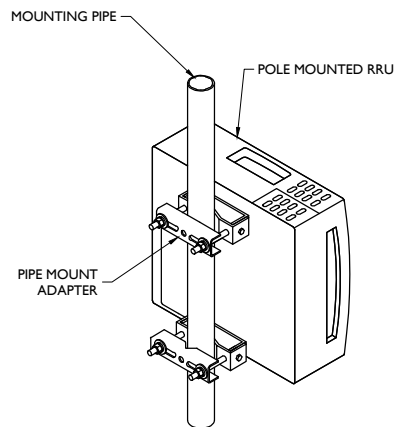
SECTOR	EXISTING ANTENNA	PROPOSED ANTENNA	TECHNOLOGY	ANTENNA STATUS	HEIGHT (in)	WIDTH (in)	DEPTH (in)	WEIGHT (lbs)	ANTENNA AZIMUTH (DEG.)	ANT. CL. ELEV. (ft.)	REMOTE RADIO/TMA CONFIGURATION	TRANSMISSION CABLE		
												QUANTITY	TYPE	STATUS
Sector 1	1	POWERWAVE 7770	UMTS	EXISTING	55.00	11.00	5.00	35.00	30	142°	(2) LCP 21901 DIPLEXER (2) LCP 21401	2	1.5/8" COAX	EXISTING
	2	CGI HPA-4SR-BUULH6	LTE	EXISTING	72.30	14.40	7.30	55.50	30	142°	(1) RRUS-32 (1) RRUS-11	1/2	FIBER/DC	EXISTING
	3													
	4	POWERWAVE 7770	KATHREIN 80010798	LTE	PROPOSED	78.50	14.80	6.70	81.50	30	142°	(1) DBCT108F1V92-1 (1) RRUS-4478 B5 (AT GRADE) (1) RRUS-4426 B66 (1) DBCT108F1V92-1 (AT GRADE) (1) RRUS-12+A2	1/2	FIBER/DC
Sector 2	1	POWERWAVE 7770	UMTS	EXISTING	55.00	11.00	5.00	35.00	150	142°	(2) LCP 21901 DIPLEXER (2) LCP 21401	2	1.5/8" COAX	EXISTING
	2	CGI HPA-4SR-BUULH6	LTE	EXISTING	72.30	14.40	7.30	55.50	150	142°	(1) RRUS-32 (1) RRUS-11			
	3													
	4	POWERWAVE 7770	KATHREIN 80010798	LTE	PROPOSED	78.50	14.80	6.70	81.50	150	142°	(1) DBCT108F1V92-1 (1) RRUS-4478 B5 (AT GRADE) (1) RRUS-4426 B66 (1) DBCT108F1V92-1 (AT GRADE) (1) RRUS-12+A2	2	1.5/8" COAX
Sector 3	1	POWERWAVE 7770	UMTS	EXISTING	55.00	11.00	5.00	35.00	270	142°	(2) LCP 21901 DIPLEXER (2) LCP 21401	2	1.5/8" COAX	EXISTING
	2	CGI HPA-4SR-BUULH6	LTE	EXISTING	72.30	14.40	7.30	55.50	270	142°	(1) RRUS-32 (1) RRUS-11			
	3													
	4	POWERWAVE 7770	KATHREIN 80010798	LTE	PROPOSED	78.50	14.80	6.70	81.50	270	142°	(1) DBCT108F1V92-1 (1) RRUS-4478 B5 (AT GRADE) (1) RRUS-4426 B66 (1) DBCT108F1V92-1 (AT GRADE) (1) RRUS-12+A2	2	1.5/8" COAX

4/00003317_A3D01_18963014A_001_18963014A_001_CD.rvt C-3

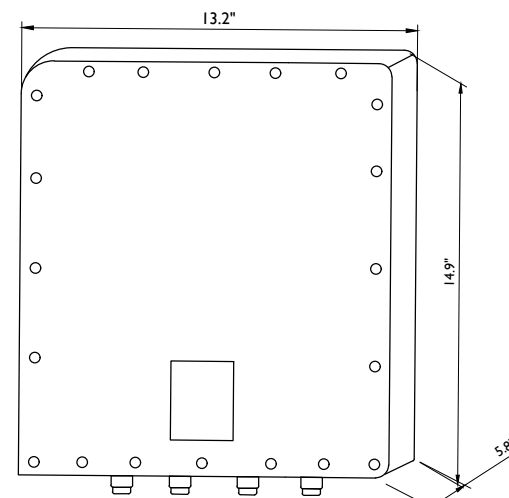


NOTE:
8" MINIMUM SEPARATION REQUIRED FROM BACK OF PANEL ANTENNA TO EXISTING/PROPOSED EQUIPMENT

ANTENNA MOUNTING DETAIL
NOT TO SCALE

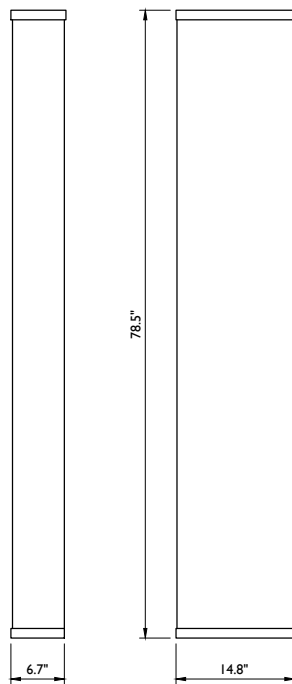


RRU MOUNTING DETAIL
NOT TO SCALE



RRUS 4426 B66 DIMENSIONS (H X W X D): 14.9" X 13.2" X 5.9" (INCLUDES SUNSHIELD) WEIGHT: 48 LBS

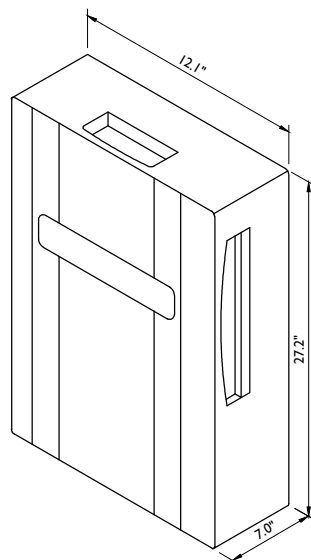
RRUS 4426 B66 DETAIL
NOT TO SCALE



WEIGHT = 81.5 LBS

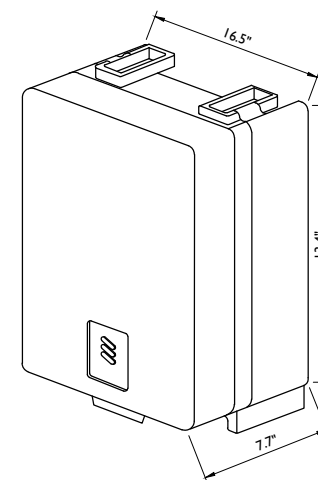
KATHREIN 80010798

ANTENNA DETAIL
NOT TO SCALE



RRUS-32 DIMENSIONS (H X W X D): 27.2" X 12.1" X 7.0" (INCLUDES SUNSHIELD) WEIGHT: 53 LBS

RRUS-32 DETAIL
NOT TO SCALE



DIMENSIONS (H X W X D): 16.5"H X 13.4"W X 7.7"D (INCLUDES SUNSHIELD) WEIGHT: 59.9 LBS

RRU-4478-B5 DETAIL
NOT TO SCALE

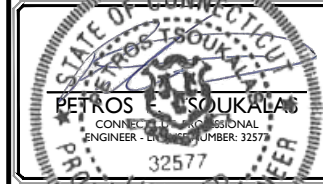


16 ESQUIRE ROAD
BILLERICA, MA 01862

811 PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE
Know what's below.
Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

SCALE:	JOB NUMBER:
AS SHOWN	18963014A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
0	10/31/18	FOR CONSTRUCTION	AJC	RA
1	09/28/18	ISSUED FOR REVIEW	AJC	RA



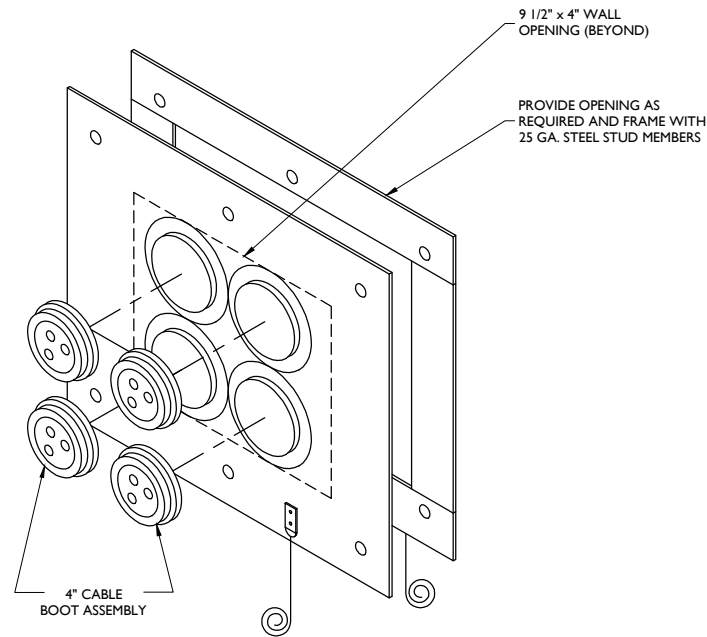
IT IS A VIOLATION OF LAW FOR ANY PERSON UNLESS THEY ARE ACTING UNDER THE DIRECTION OF THE RESPONSIBLE LICENSED PROFESSIONAL ENGINEER, TO REPRODUCE OR COPY THIS DOCUMENT.

SITE NAME:
NEW FAIRFIELD
CANDLEWOOD LAKE
FA# 10042330
SITE# CT2006
29 BOGUS HILL ROAD
NEW FAIRFIELD, CT 06812
FAIRFIELD COUNTY

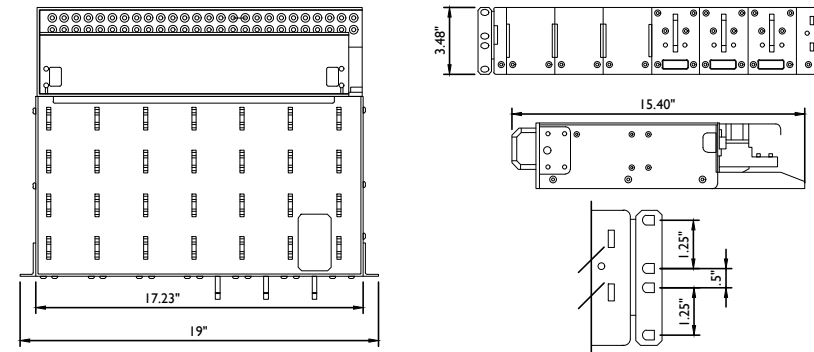
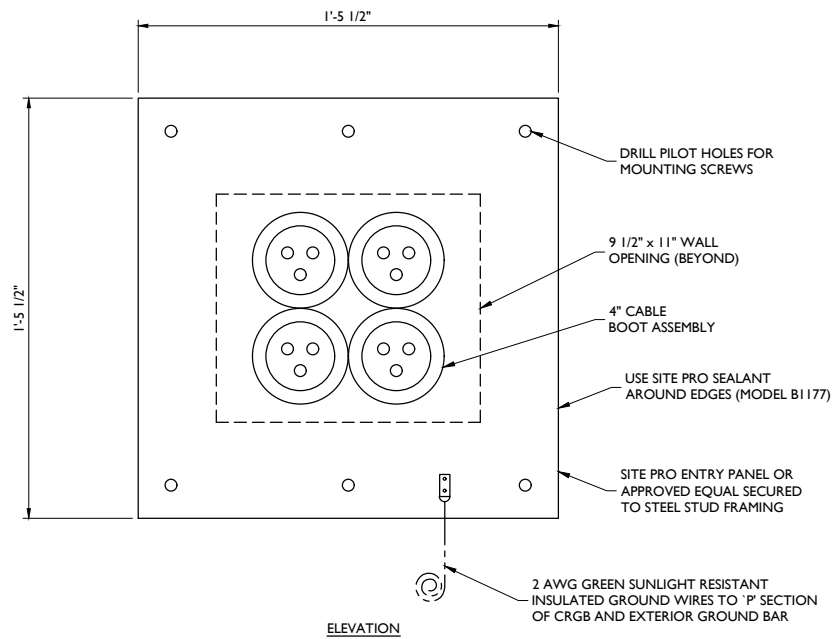
RED BANK OFFICE
331 Newman Springs Road
Suite 203
Red Bank, NJ 07701-5669
Phone: 732.383.1950
Fax: 732.383.1984
email: solutions@maserconsulting.com

SHEET TITLE:
DETAILS

SHEET NUMBER:
A-1



DC Surge Protection for RRHs
Rack Mount RM Series
 DC6-48-60-RM • DC12-48-60-RM



ELECTRICAL SPECIFICATIONS		MECHANICAL SPECIFICATIONS	
MODEL NUMBER:	DC12-48-60-RM	SUPPRESSION METHOD:	COMPRESSION LUG 2-HOLE, #10, 5/8 PITCH, 12-4 AWG
SURGE PROTECTIVE DEVICE TYPE:	CLASS I	WEIGHT:	27 LBS
MAXIMUM CONTINUOUS OPERATING:	75 VDC	OPERATING TEMPERATURE:	-40°C TO +80°C
DC VOLTAGE:	48 VDC	STORAGE TEMPERATURE:	-70°C TO +80°C
NOMINAL DISCHARGE CURRENT:	20kA 8/20 us	ENCLOSURE TYPE:	INDOOR ONLY
MAXIMUM IMPULSE CURRENT:	5kA 10/350 us		
MAXIMUM SURGE CURRENT:	60kA 8/20 us		
VOLTAGE PROTECTION RATING:	300V		
NUMBER OF PROTECTED RADIOS:	12		

CABLE ENTRY PANEL CHART

SITE PRO E1199 FOR (4 PORT)
SITE PRO BA122M, 4" BOOT FOR (2) 1/2" FOAM COAX & (1) 7/8" COAX
SITE PRO BA158, 4" BOOT FOR (1) 1-5/8" COAX

NOTES:

- ENTRY PANEL AND BOOTS BY SITE PRO (SEE CHART FOR PART #). ORDER BOOTS SEPARATELY FOR SPECIFIC CABLE SIZE(S) & QUANTITY. PROVIDE PLUGS BY SITE PRO FOR EACH UNUSED HOLE IN BOOT.
- AN APPROVED EQUAL MAY BE SUBSTITUTED FOR SITE PRO PARTS REFERENCED IN THIS DETAIL.
- STEEL FRAMES ARE REQUIRED ON BOTH SIDES OF THE WALL. THE FRAMES SHALL BE SEALED WITH THE MANUFACTURER'S RECOMMENDED SEALANT TO HELP RESIST WEATHER EXPOSURE ON THE INTERIOR OF THE SHELTER.
- OPENING IN WALL CAN BE EITHER ONE OVERALL RECTANGULAR OPENING OR SEVERAL ROUND CORE DRILLS PLACED TO MATCH BOOT LOCATIONS IN THE STEEL FRAMES.

DC-12-48-60-RM DETAIL



Customer Loyalty through Client Satisfaction
 www.maserconsulting.com
 Engineers ■ Planners ■ Surveyors
 Landscape Architects ■ Environmental Scientists

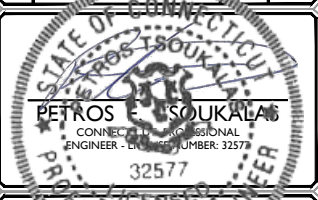
Copyright © 2018 Maser Consulting Connecticut. All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, reused, disclosed, distributed or relied upon for any other purpose without the express written consent of Maser Consulting Connecticut.



16 ESQUIRE ROAD
 BILLERICA, MA 01862



SCALE:	JOB NUMBER:			
AS SHOWN	18963014A			
0	10/31/18 FOR CONSTRUCTION	AJC	RA	
1	09/28/18 ISSUED FOR REVIEW	AJC	RA	
REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY



IT IS A VIOLATION OF LAW FOR ANY PERSON UNLESS THEY ARE ACTING UNDER THE DIRECTION OF THE RESPONSIBLE LICENSED PROFESSIONAL ENGINEER, TO REPRODUCE OR ALTER THIS DOCUMENT.

SITE NAME:
 NEW FAIRFIELD
 CANDLEWOOD LAKE
 FA# 10042330
 SITE# CT2006
 29 BOGUS HILL ROAD
 NEW FAIRFIELD, CT 06812
 FAIRFIELD COUNTY



SHEET TITLE:
 DETAILS
 SHEET NUMBER:
 A-2

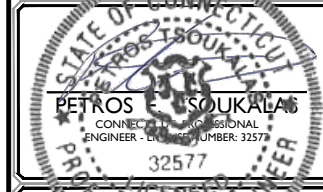


16 ESQUIRE ROAD
BILLERICA, MA 01862

811 PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE.
Know what's below.
Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

SCALE: AS SHOWN JOB NUMBER: 18963014A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
0	10/31/18	FOR CONSTRUCTION	AJC	RA
1	09/28/18	ISSUED FOR REVIEW	AJC	RA



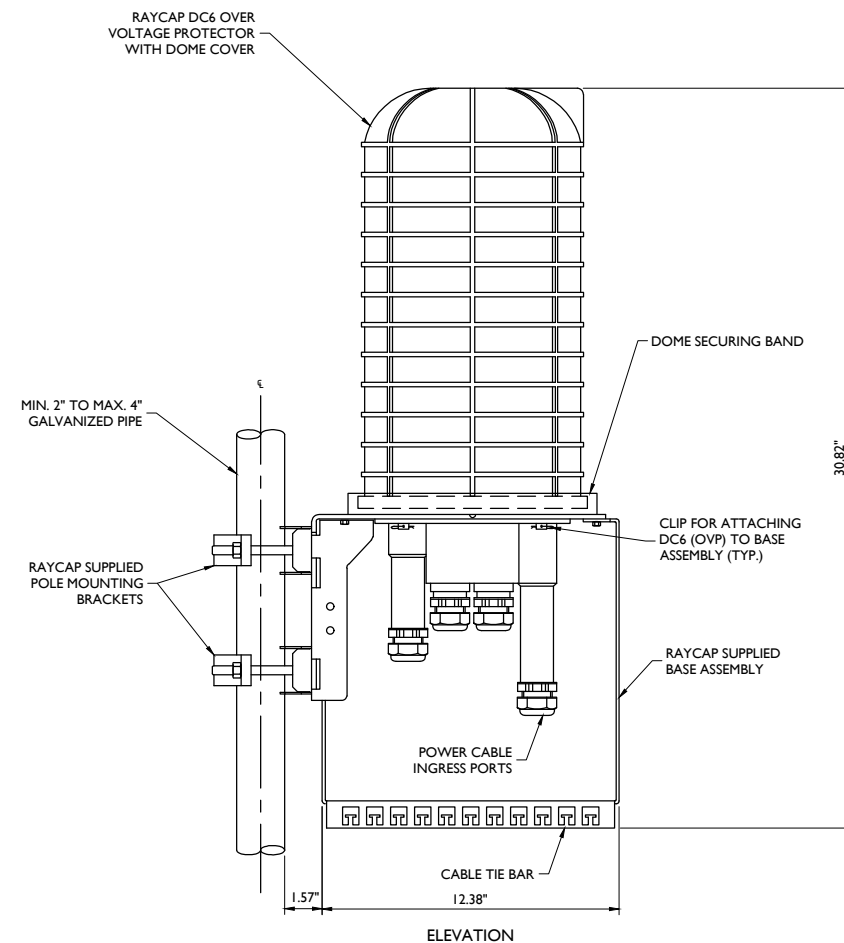
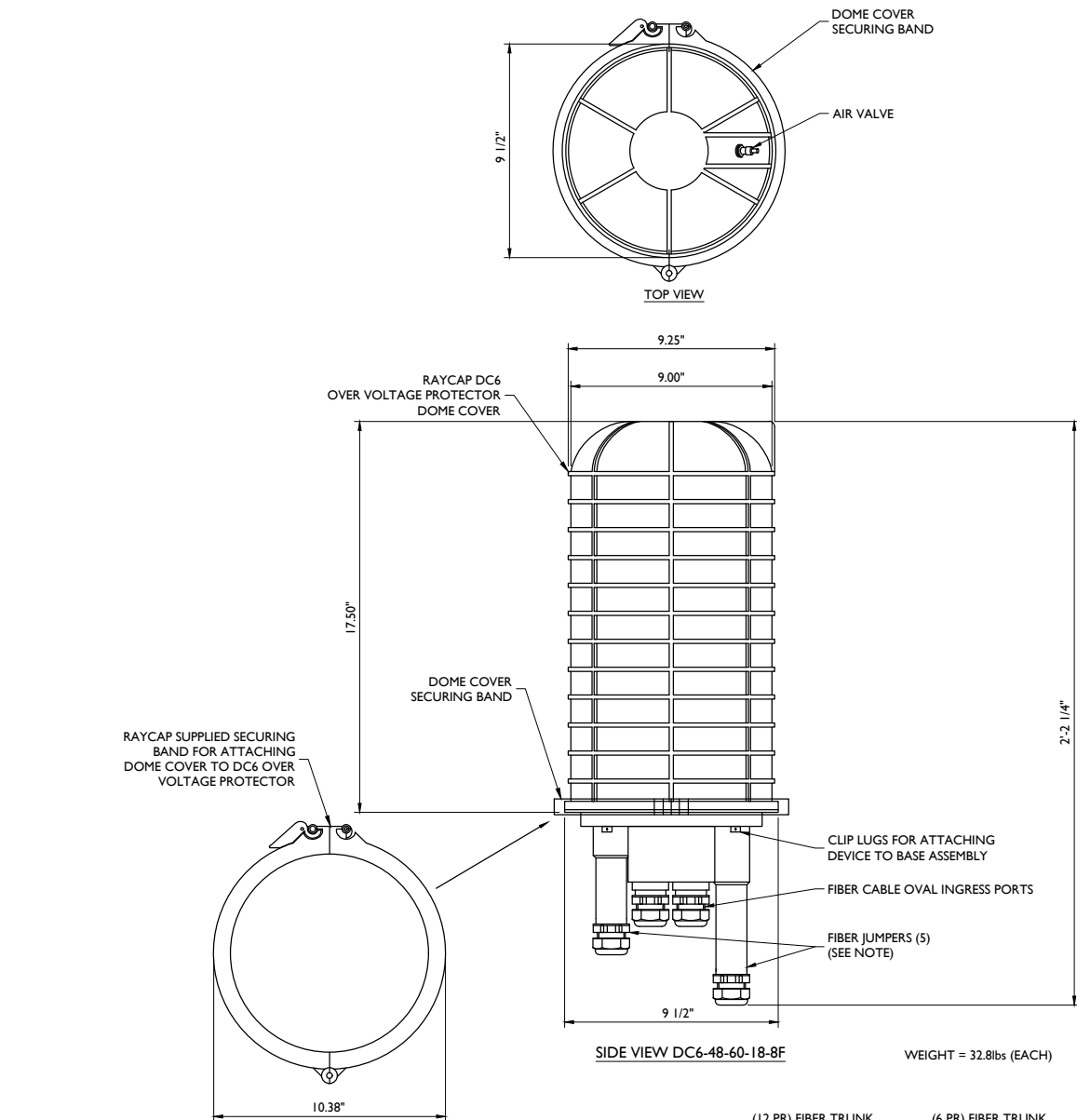
IT IS A VIOLATION OF LAW FOR ANY PERSON UNLESS THEY ARE ACTING UNDER THE DIRECTION OF THE RESPONSIBLE LICENSED PROFESSIONAL ENGINEER, TO REPRODUCE OR REPRODUCE THIS DOCUMENT.

SITE NAME:
NEW FAIRFIELD
CANDLEWOOD LAKE
FA# 10042330
SITE# CT2006
29 BOGUS HILL ROAD
NEW FAIRFIELD, CT 06812
FAIRFIELD COUNTY

RED BANK OFFICE
331 Newman Springs Road
Suite 203
Red Bank, NJ 07701-5669
Phone: 732.383.1950
Fax: 732.383.1984
email: solutions@maserconsulting.com

SHEET TITLE: DETAILS

SHEET NUMBER: A-3



NOTES:

RAYCAP VIA AT&T SUPPLIES THE DC6 OVER VOLTAGE PROTECTOR AND PIPE MOUNTING BRACKETS. SUBCONTRACTOR SHALL SUPPLY THE PIPE.

**RAYCAP DC6-48-60-18-8F & DC6-48-60-0-8F
DC POWER OVER VOLTAGE PROTECTOR (OVP)
POLE MOUNT BASE ASSEMBLY
NOT TO SCALE**

**DC6 SURGE SUPPRESSION DOME DETAIL
NOT TO SCALE**

NOTE:

REMOVE CABLE SEALING GLAND AND INSTALL M32x1.5 METRIC-TO-1" NPT ADAPTER (COOPER CROUSE-HINES P/N CAP 740 994 OR EQUIVALENT MFR) WHEN CONNECTING CONDUIT TO OVP.

4/00003310_A301_189718_CTD006_REV1_CD.rvt/pt3 Br-A002A

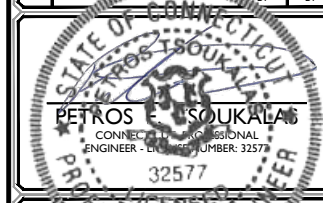


16 ESQUIRE ROAD
BILLERICA, MA 01862

811 PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF
EXCAVATORS, DESIGNERS, OR ANY PERSON
PREPARING TO DISTURB THE EARTH'S
SURFACE ANYWHERE IN ANY STATE
Know what's below.
Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT:
WWW.CALL811.COM

SCALE: AS SHOWN JOB NUMBER: 18963014A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
0	10/31/18	FOR CONSTRUCTION	AJC	RA
1	09/28/18	ISSUED FOR REVIEW	AJC	RA



IT IS A VIOLATION OF LAW FOR ANY PERSON UNLESS THEY ARE ACTING UNDER THE DIRECTION OF THE RESPONSIBLE LICENSED PROFESSIONAL ENGINEER, TO REPRODUCE OR COPY THIS DOCUMENT.

SITE NAME:
NEW FAIRFIELD
CANDLEWOOD LAKE
FA# 10042330
SITE# CT2006
29 BOGUS HILL ROAD
NEW FAIRFIELD, CT 06812
FAIRFIELD COUNTY

MASER CONSULTING
RED BANK OFFICE
331 Newman Springs Road
Suite 203
Red Bank, NJ 07701-5669
Phone: 732.383.1950
Fax: 732.383.1984
email: solutions@maserconsulting.com

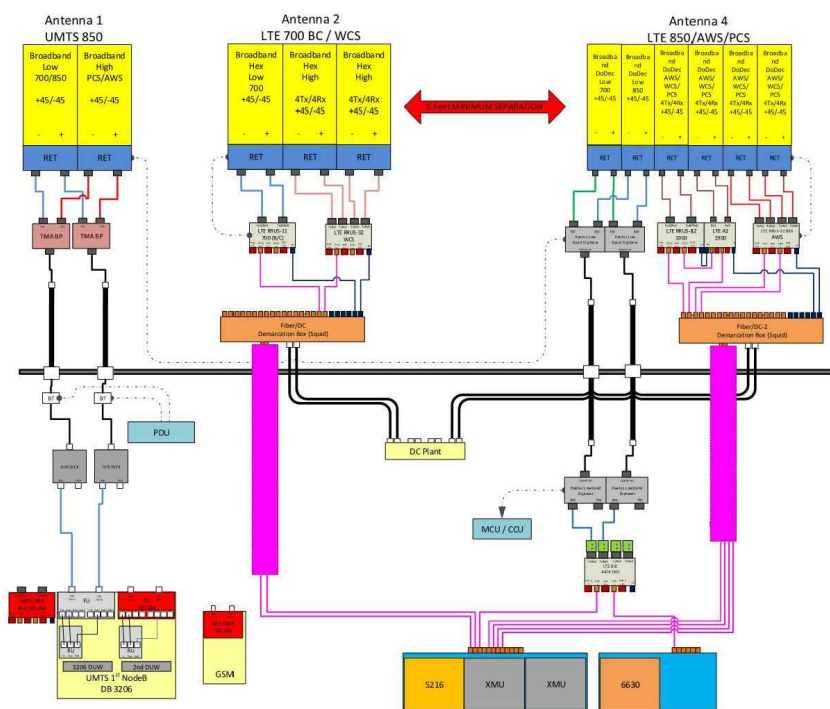
SHEET TITLE:
RF PLUMBING DIAGRAM

SHEET NUMBER:
A-4

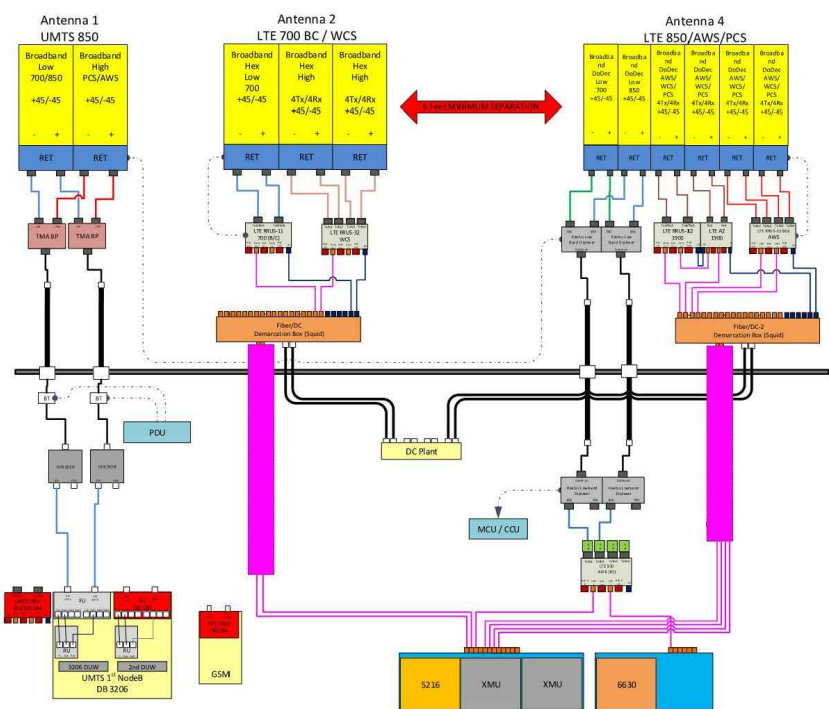
Diagram - Sector A Diagram File Name - CT2006_A_B_C_LTEWCS_850_AWS_Rev.1.vsd
Asst Site Name - CTL02006 Location Name - NEW FAIRFIELD Market - CONNECTICUT Market Cluster - NEW ENGLAND
Comments: Important Note: For detailed radio to antenna wiring refer to the latest field notice - Antenna - Radio Connection Drawings Playbook v6.0 - Ericsson

Diagram - Sector B Diagram File Name - CT2006_A_B_C_LTEWCS_850_AWS_Rev.1.vsd
Asst Site Name - CTL02006 Location Name - NEW FAIRFIELD Market - CONNECTICUT Market Cluster - NEW ENGLAND
Comments: Important Note: For detailed radio to antenna wiring refer to the latest field notice - Antenna - Radio Connection Drawings Playbook v6.0 - Ericsson

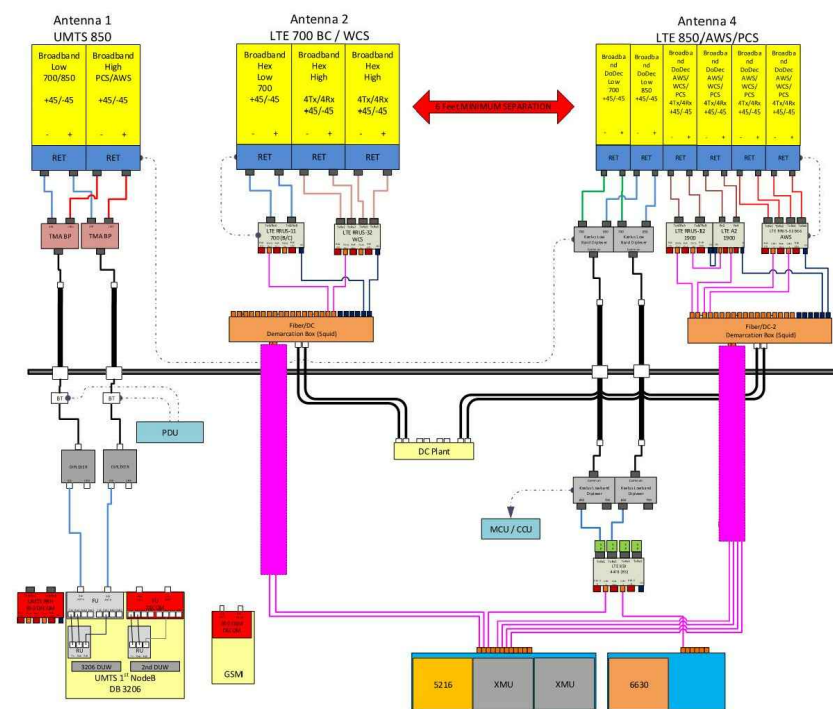
Diagram - Sector C Diagram File Name - CT2006_A_B_C_LTEWCS_850_AWS_Rev.1.vsd
Asst Site Name - CTL02006 Location Name - NEW FAIRFIELD Market - CONNECTICUT Market Cluster - NEW ENGLAND
Comments: Important Note: For detailed radio to antenna wiring refer to the latest field notice - Antenna - Radio Connection Drawings Playbook v6.0 - Ericsson



ALPHA SECTOR



BETA SECTOR



GAMMA SECTOR

BASED ON: RF ENGINEERING DESIGN ENTITLED "_CTL02006_2018-LTE-Next-Carrier_03-19-2018_Final-Approved_v3.00", LAST REVISED 09/12/2018.

RF PLUMBING DIAGRAMS

4/00003310_A301_18918_CTL02006_REV_1_CD.rvt(4) By: AC02A

SCALE:	AS SHOWN	JOB NUMBER:	18963014A	
REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
0	10/31/18	FOR CONSTRUCTION	AJC	RA
1	09/28/18	ISSUED FOR REVIEW	AJC	RA

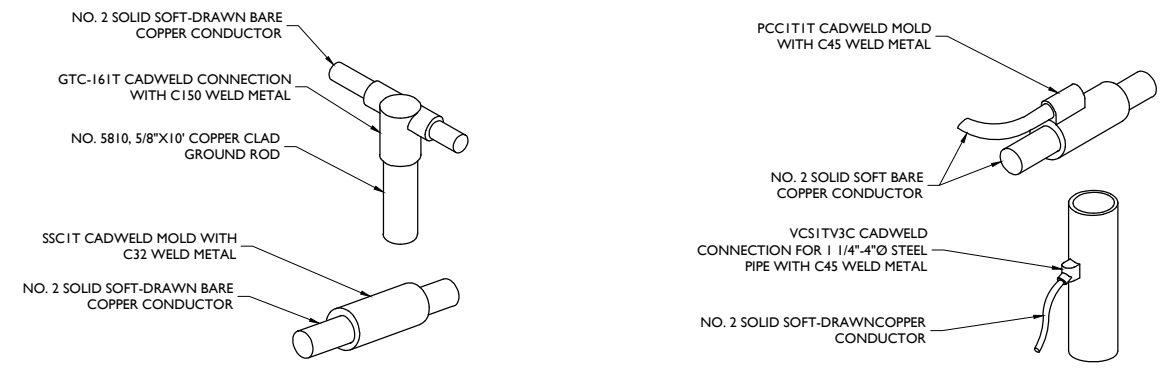


IT IS A VIOLATION OF LAW FOR ANY PERSON UNLESS THEY ARE ACTING UNDER THE DIRECTION OF THE RESPONSIBLE LICENSED PROFESSIONAL ENGINEER, TO REPRODUCE OR COPY THIS DOCUMENT.

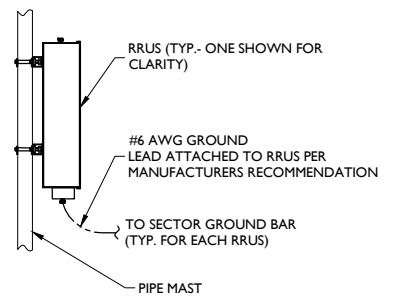
SITE NAME:
 NEW FAIRFIELD
 CANDLEWOOD LAKE
 FA# 10042330
 SITE# CT2006
 29 BOGUS HILL ROAD
 NEW FAIRFIELD, CT 06812
 FAIRFIELD COUNTY

SHEET TITLE:
GROUNDING DETAILS

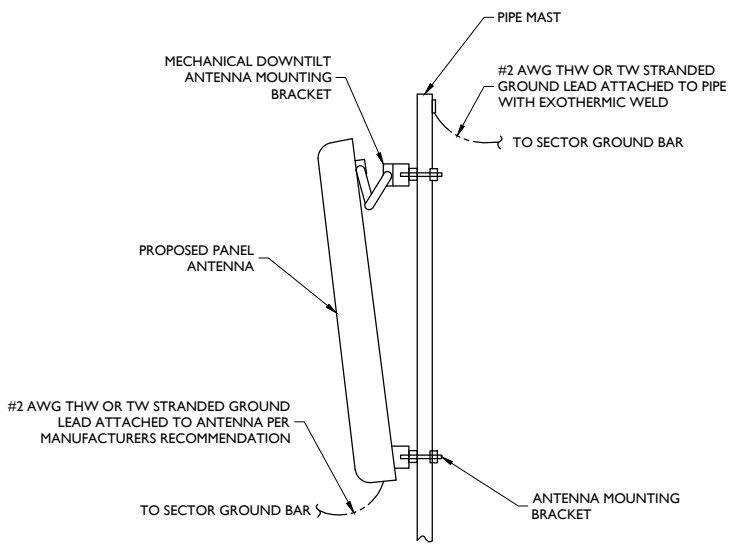
SHEET NUMBER:
G-1



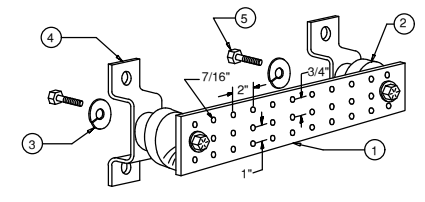
CADWELD DETAILS
 NOT TO SCALE



RRU GROUNDING
 NOT TO SCALE



ANTENNA GROUNDING
 NOT TO SCALE

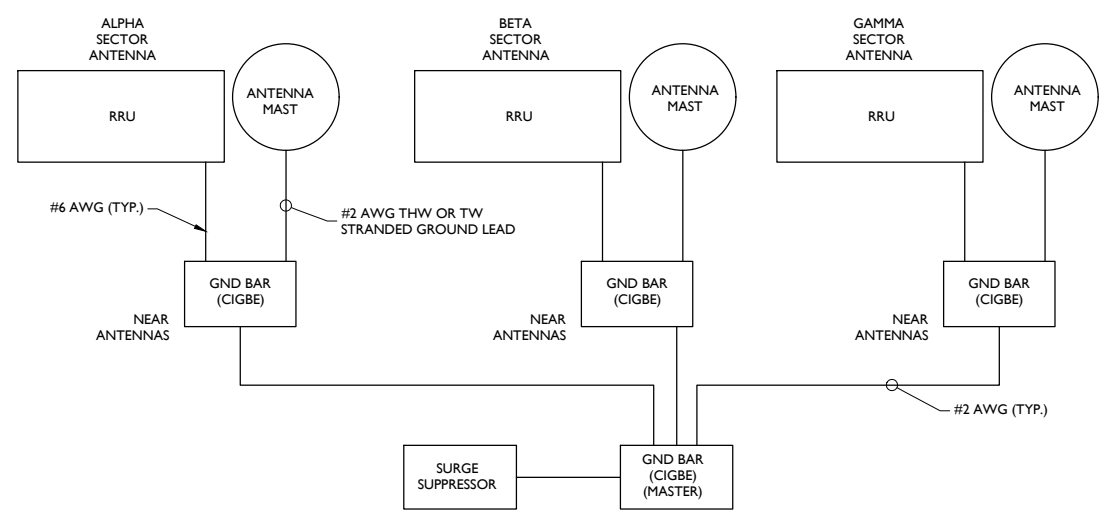


- LEGEND**
- 1- TINNED COPPER GROUND BAR, 1/4"x4"x20", NEWTON INSTRUMENT CO. CAT. NO. B-6142 OR EQUAL. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION.
 - 2- INSULATORS, NEWTON INSTRUMENT CAT. NO. 3061-4
 - 3- 5/8" LOCKWASHERS, NEWTON INSTRUMENT CO. CAT. NO. 3015-8
 - 4- WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. CAT NO. A-5056
 - 5- 5/8-11 X 1" HHCS BOLTS, NEWTON INSTRUMENT CO. CAT NO. 3012-1
 - 6- EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION.

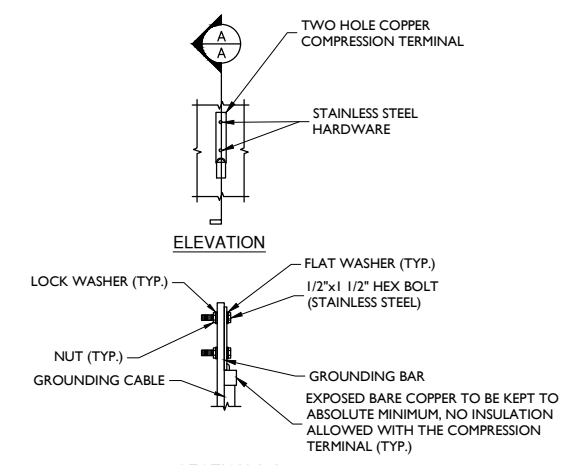
SECTION "P" - SURGE PRODUCERS
 CABLE ENTRY PORTS (HATCH PLATES) (#2)
 GENERATOR FRAMEWORK (IF AVAILABLE) (#2)
 TELCO GROUND BAR
 COMMERCIAL POWER COMMON NEUTRAL/GROUND BOND (#2)
 +24V POWER SUPPLY RETURN BAR (#2)
 -48V POWER SUPPLY RETURN BAR (#2)
 RECTIFIER FRAMES.

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)

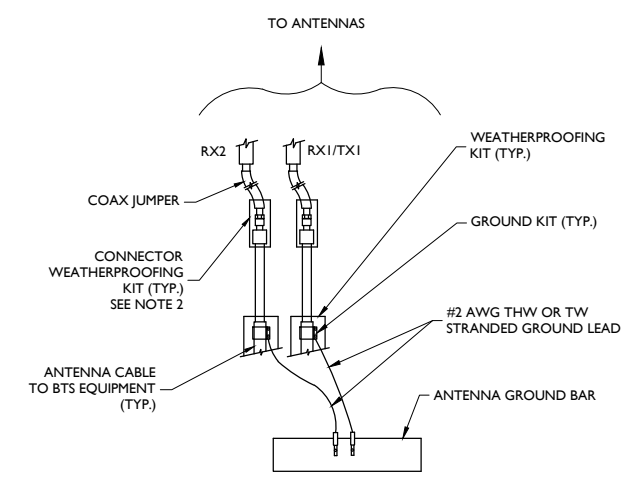
MASTER GROUND BAR
 NOT TO SCALE



SCHEMATIC DIAGRAM GROUNDING SYSTEM



TYPICAL GROUND BAR CONNECTION DETAIL
 NOT TO SCALE



- NOTES:**
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
 2. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

TYPICAL GROUND WIRE TO GROUNDING BAR
 NOT TO SCALE



Tower Engineering Solutions

Phone (972) 483-0607, Fax (972) 975-9615
1320 Greenway Drive, Suite 600, Irving, Texas 75038

Structural Analysis Report

Existing 149 ft SABRE Monopole

Customer Name: SBA Communications Corp

Customer Site Number: CT13061-A

Customer Site Name: New Fairfield

Carrier Name: AT&T (App#: 101583, V1)

Carrier Site ID / Name: CT2006 / New Fairfield

Site Location: 29 Bogus Hill Road

New Fairfield, Connecticut

Fairfield County

Latitude: 41.511833

Longitude: -73.450528

Analysis Result:

Max Structural Usage: 75.1% [Pass]

Max Foundation Usage: 74.0% [Pass]

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

Report Prepared By: Tawfeeq Alajaj





Tower Engineering Solutions

Phone (972) 483-0607, Fax (972) 975-9615
1320 Greenway Drive, Suite 600, Irving, Texas 75038

Structural Analysis Report

Existing 149 ft SABRE Monopole

Customer Name: SBA Communications Corp

Customer Site Number: CT13061-A

Customer Site Name: New Fairfield

Carrier Name: AT&T (App#: 101583, V1)

Carrier Site ID / Name: CT2006 / New Fairfield

Site Location: 29 Bogus Hill Road

New Fairfield, Connecticut

Fairfield County

Latitude: 41.511833

Longitude: -73.450528

Analysis Result:

Max Structural Usage: 75.1% [Pass]

Max Foundation Usage: 74.0% [Pass]

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

Report Prepared By: Tawfeeq Alajaj

Introduction

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

Sources of Information

Tower Drawings	Original structural design report & tower section data prepared by Sabre Communications Corporation. Dated 11-07-2006. Drawing No 07-11088-PE. Job No 07-11088. Previous structural report prepared by FDH Engineering, Inc. Dated 03-12-2015. Project No 15BFZD1400.
Foundation Drawing	Original foundation design prepared by Sabre Communications Corporation. Dated 11-07-2006. Job No 07-11088.
Geotechnical Report	Geotechnical report prepared by JGI Eastern, Inc. Dated 10-12-2006. Project No 06645G.
Modification Drawings	N/A

Analysis Criteria

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

Wind Speed Used in the Analysis:	Ultimate Design Wind Speed $V_{ult} = 115.0$ mph (3-Sec. Gust)/ Nominal Design Wind Speed $V_{asd} = 89.0$ mph (3-Sec. Gust)
Wind Speed with Ice:	50 mph (3-Sec. Gust) with 3/4" radial ice concurrent
Operational Wind Speed:	60 mph + 0" Radial ice
Standard/Codes:	ANSI/TIA/EIA 222-G / 2012 IBC / 2016 Connecticut State Building Code
Exposure Category:	C
Structure Class:	II
Topographic Category:	1
Crest Height:	0 ft.
Seismic Parameters:	$S_S = 0.206$, $S_1 = 0.066$

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

Existing Antennas, Mounts and Transmission Lines

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

Items	Elevation (ft.)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1	151.3	1	RFS BA1010 - Whip	(1) Standoff Mount	(1) 7/8" ¹	Town Of New Fairfield
2	150.0	3	Commscope LNX-6515DS-VTM - Panel	Low Profile Platform	(18) 1 5/8"	T-Mobile
3		3	RFS APXV18-209014 - Panel			
4		3	RFS APXV18-206517S-A20 - Panel			
5		3	Ericsson KRY 112 489/2			
6		3	Kathrein 782 11056			
7	141.0	9	Powerwave 7770 - Panel	Low Profile Platform	(12) 1 5/8" (1) 1/2" Fiber (2) 3/4" DC	AT&T
8		3	CCI HPA-65R-BUU-H6 - Panel			
9		9	Powerwave LGP21401			
10		3	Powerwave TT19-08BP-111-001			
11		3	Ericsson RRUS-11			
12		3	Ericsson RRUS-12			
13		3	Ericsson RRUS-A2			
14		6	Powerwave LGP21901			
15		1	Raycap DC6-48-60-18-8F			
16		3	Powerwave 1001983			
17	134.8	1	RFS BA40-01 - Whip	(1) Standoff Mount	(1) 7/8"	Town Of New Fairfield
18	121.1	3	Andrew SBNHH-1D65B - Panel	Low Profile Platform	(10) 1 5/8" (2) Hybrid Fiber	Verizon
19	120.0	3	ALU 2x90 AWS - RRH			
20	119.5	6	Antel LPA-80080-4CF-EDIN-0 - Panel			
21		3	Andrew SBNHH-1D65B - Panel			
22		1	Andrew RC2DC-3315-PF-48 - RET			
23	100.0	1	Sinclair SD210-SF3P2LDF – 16' Whip	(1) Single Arm Mount	(1) 7/8"	Town Of New Fairfield
24	99.5	2	RFS 1142- 13' Whip	(2) Single Arm Mount	(2) 7/8"	

¹ The (1) 7/8" feed line is installed on the outside of the pole's shaft from 94.0' to the mount elevation.

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
7	142.0	3	CCi HPA-65R-BUU-H6 - Panel	Low Profile Platform	(12) 1 5/8" (1) 1/2" Fiber (2) 3/4" DC	AT&T
8		9	Powerwave LGP-21401 TMA			
9		3	Powerwave TT19-08BP111-001 TMA			
10		3	Ericsson RRUS 11			
11		3	Ericsson RRUS 12			
12		3	Ericsson RRUS 32			
13		3	Ericsson 4478 B5			
14	141.0	3	Powerwave - 7770 - Panel			
15		3	Kathrein 80010798 - Panel			
16		3	Ericsson RRUS-A2			
17		3	Ericsson 4426 B66			
18		6	Powerwave LGP-21901 Diplexers			
19		3	Powerwave 1001983			
20		1	Raycap DC6-48-60-18-8F			

All proposed 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
Max. Usage:	75.1%	72.1%	52.4%
Pass/Fail	Pass	Pass	Pass

Foundations

	Moment (Kip-Ft)	Shear (Kips)	Axial (Kips)
Analysis Reactions	2774.5	25.3	59.8

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 1.6427 degrees under the operational wind speed as specified in the Analysis Criteria.

Conclusions

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

Standard Conditions

1. This analysis was performed based on the information supplied to **(TES) Tower Engineering Solutions, LLC**. Verification of the information provided was not included in the Scope of Work for **TES**. The accuracy of the analysis is dependent on the accuracy of the information provided.
2. The structural analysis was performance based upon the evidence available at the time of this report. All information provided by the client is considered to be accurate.
3. 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.
4. 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.
5. 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.
6. If a feasibility analysis was performed, final acceptance of changed conditions shall be based upon a rigorous structural analysis.

Usage Diagram - Max Ratio 75.13% at 0.0ft

Structure: CT13061-A-SBA
Site Name: New Fairfield
Height: 149.00 (ft)
Base Elev: 1.000 (ft)

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

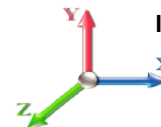
11/26/2018



Page: 1

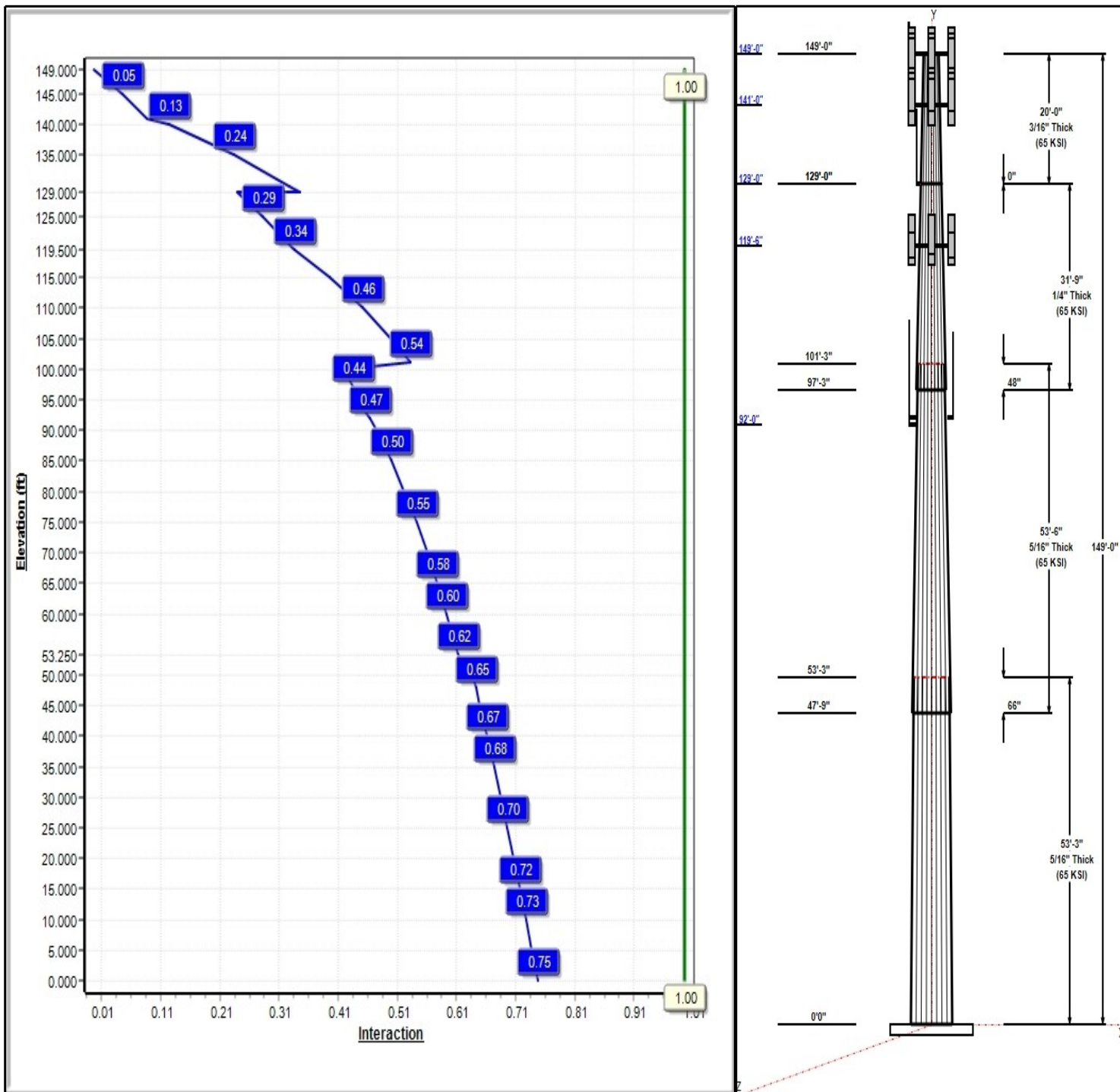
Dead Load Factor: 1.20
Wind Load Factor: 1.60

Load Case : 1.2D + 1.6W 89 mph Wind



Iterations: 25

Copyright © 2018 by Tower Engineering Solutions, LLC. All rights reserved.



Structure: CT13061-A-SBA

Type: Tapered
Site Name: New Fairfield
Height: 149.00 (ft)
Base Elev: 1.00 (ft)

Base Shape: 18 Sided
Taper: 0.25534

11/26/2018

Page: 2



Shaft Properties

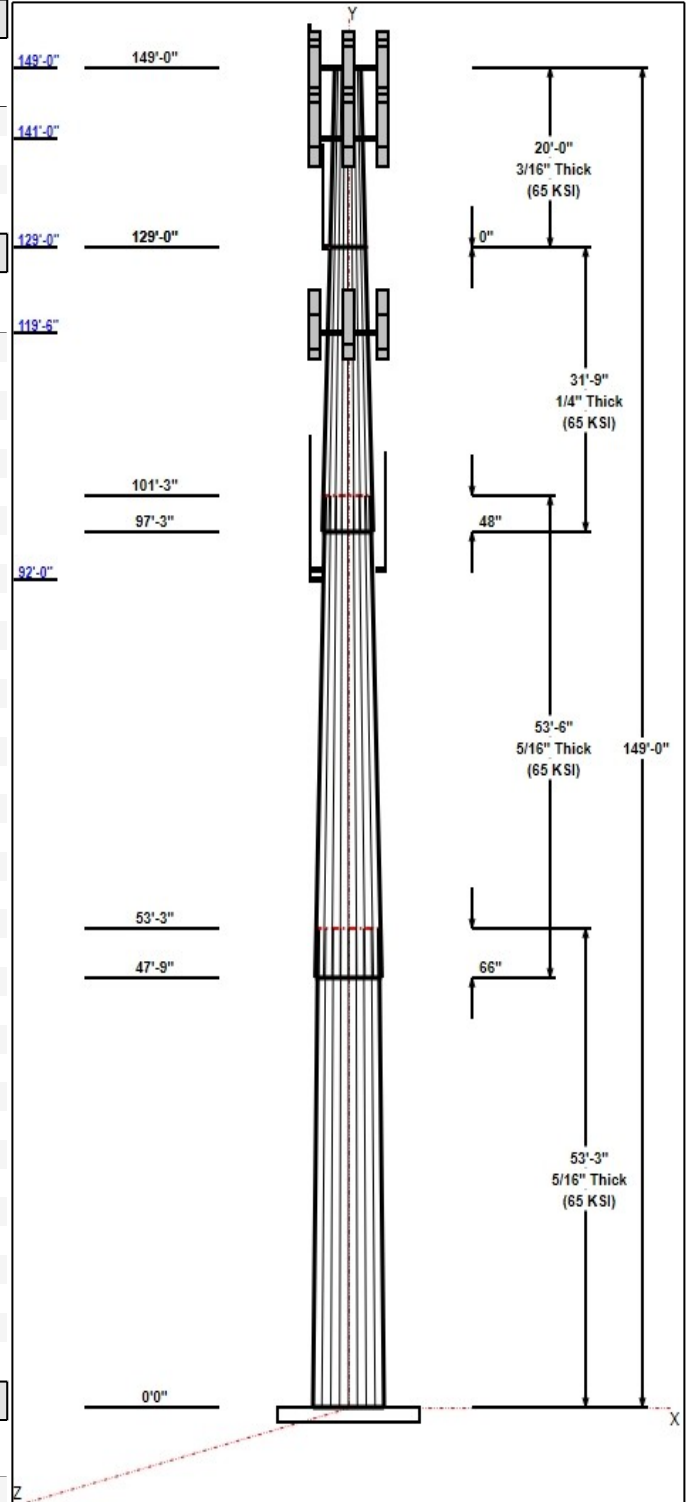
Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	53.25	42.32	55.92	0.313		0.25534	65
2	53.50	30.69	44.35	0.313	Slip	0.25534	65
3	31.75	24.11	32.21	0.250	Slip	0.25534	65
4	20.00	19.00	24.11	0.188	Butt	0.25534	65

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
149.00	152.50	1	Lightning Rod	---
149.00	151.35	1	RFS BA1010	T. Of New Fairfield
149.00	149.00	3	Commscope	T-Mobile
149.00	149.00	3	RFS APXV18-209014	T-Mobile
149.00	149.00	3	RFS	T-Mobile
149.00	149.00	3	Ericsson KRY 112 489/2	T-Mobile
149.00	149.00	3	Kathrein 782 11056	T-Mobile
149.00	149.00	1	Low Profile Platform	T-Mobile
149.00	149.00	1	Standoff Mount	T. Of New Fairfield
141.00	141.00	3	7770	AT&T
141.00	143.00	3	HPA-65R-BUU-H6	AT&T
141.00	143.00	9	Powerwave LGP-21401	AT&T
141.00	143.00	3	Powerwave	AT&T
141.00	141.00	3	Ericsson RRUS 11	AT&T
141.00	143.00	3	Ericsson RRUS 12	AT&T
141.00	141.00	3	Ericsson RRUS-A2	AT&T
141.00	141.00	6	Powerwave LGP-21901	AT&T
141.00	141.00	1	Raycap DC6-48-60-18-8F	AT&T
141.00	141.00	3	Powerwave 1001983	AT&T
141.00	141.00	1	Low Profile Platform	AT&T
141.00	141.00	3	80010798	AT&T
141.00	143.00	3	Ericsson RRUS 32	AT&T
141.00	143.00	3	Ericsson 4478 B5	AT&T
141.00	143.00	3	Ericsson 4426 B66	AT&T
129.00	134.75	1	RFS BA40-01	T. Of New Fairfield
129.00	129.00	1	Standoff Mount	T. Of New Fairfield
119.50	119.50	6	Antel	Verizon
119.50	121.10	3	Andrew SBNHH-1D65B	Verizon
119.50	120.00	3	ALU 2x90 AWS	Verizon
119.50	119.50	1	Andrew	Verizon
119.50	119.50	3	Andrew SBNHH-1D65B	Verizon
119.50	119.50	1	Low Profile Platform	Verizon
93.00	99.50	2	RFS 1142	T. Of New Fairfield
93.00	93.00	2	Single Arm Mount	T. Of New Fairfield
92.00	100.00	1	Sinclair SD210-SF3P2LDF	T. Of New Fairfield
92.00	92.00	1	Single Arm Mount	T. Of New Fairfield

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
3.00	149.00	Inside	1 5/8" Coax	T-Mobile
3.00	149.00	Inside	7/8" Coax	T. Of New Fairfield
94.00	149.00	Outside	7/8" Coax	T. Of New Fairfield
3.00	141.00	Inside	1 5/8" Coax	AT&T
3.00	141.00	Inside	1/2" Fiber	AT&T
3.00	141.00	Inside	3/4" DC	AT&T



Structure: CT13061-A-SBA

Type: Tapered	Base Shape: 18 Sided	11/26/2018
Site Name: New Fairfield	Taper: 0.25534	
Height: 149.00 (ft)		
Base Elev: 1.00 (ft)		Page: 3



3.00	129.00	Inside	7/8" Coax	T. Of New Fairfield
3.00	119.50	Inside	1 5/8" Coax	Verizon
3.00	119.50	Inside	Hybrid Fiber	Verizon
3.00	93.00	Inside	7/8" Coax	T. Of New Fairfield
3.00	92.00	Inside	7/8" Coax	T. Of New Fairfield

Anchor Bolts

Qty	Specifications	Grade (ksi)	Arrangement
12	2.25" 18J	75.0	Cluster

Base Plate

Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
2.7500	59.8	60.0	Clipped

Reactions

Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.6W 89 mph Wind	2774.5	25.3	39.0
0.9D + 1.6W 89 mph Wind	2743.4	25.3	29.2
1.2D + 1.0Di + 1.0Wi 50 mph Wind	950.6	8.8	59.8
1.2D + 1.0E	136.8	1.1	39.0
0.9D + 1.0E	135.2	1.1	29.3
1.0D + 1.0W 60 mph Wind	783.1	7.2	32.5

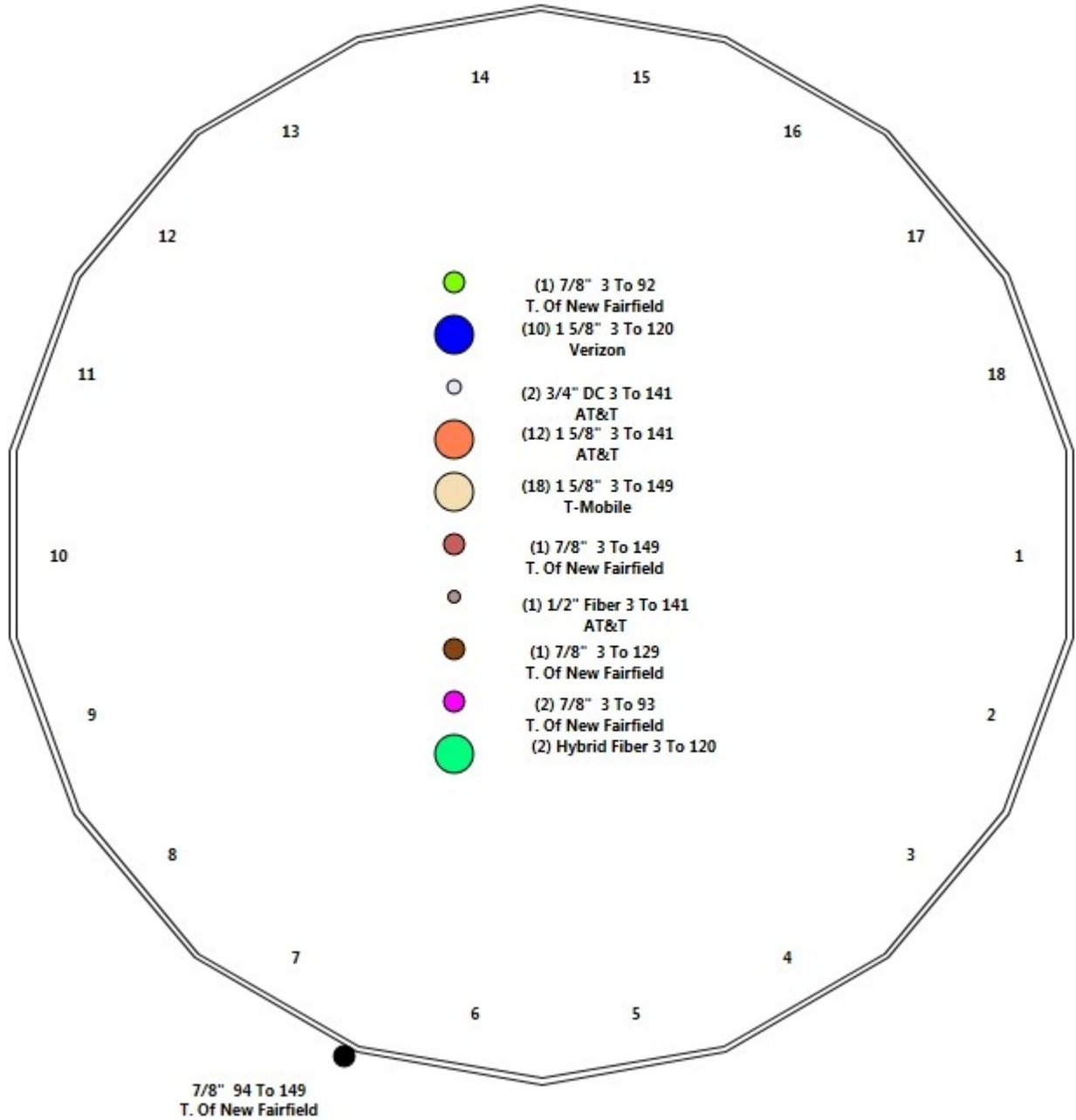
Structure: CT13061-A-SBA - Coax Line Placement

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

11/26/2018



Page: 4



Shaft Properties

Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	11/26/2018
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 5

Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	18	53.250	0.3125	65		0.00	8,772
2	18	53.500	0.3125	65	Slip	66.00	6,719
3	18	31.750	0.2500	65	Slip	48.00	2,393
4	18	20.000	0.1875	65	Flange	0.00	865
Total Shaft Weight:							18,749

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	55.92	0.00	55.15	21547.38	30.14	178.94	42.32	53.25	41.67	9291.37	22.47	135.4	0.255336
2	44.35	47.75	43.68	10703.92	23.62	141.93	30.69	101.25	30.13	3513.56	15.91	98.22	0.255336
3	32.21	97.25	25.36	3273.80	21.31	128.85	24.11	129.00	18.93	1361.18	15.59	96.43	0.255336
4	24.11	129.0	14.23	1028.93	21.26	128.57	19.00	149.00	11.20	500.59	16.46	101.3	0.255336

Load Summary

Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	11/26/2018
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 6

Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice			Ice			Hor. Ecc. (ft)	Vert Ecc (ft)
				Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor		
1	149.00	Lightning Rod	1	35.00	1.05	1.00	66.41	3.424	1.00	0.00	3.50
2	149.00	RFS BA1010	1	8.80	1.24	1.00	73.68	2.274	1.00	0.00	2.35
3	149.00	Commscope LNX-6515DS-VTM	3	49.80	11.45	0.84	279.70	14.695	0.84	0.00	0.00
4	149.00	RFS APXV18-209014	3	18.70	3.51	0.79	105.99	4.447	0.79	0.00	0.00
5	149.00	RFS APXV18-206517S-A20	3	26.50	5.17	0.79	129.30	7.299	0.79	0.00	0.00
6	149.00	Ericsson KRY 112 489/2	3	11.00	0.56	0.67	21.78	1.209	0.67	0.00	0.00
7	149.00	Kathrein 782 11056	3	2.60	0.15	0.67	9.13	0.365	0.67	0.00	0.00
8	149.00	Low Profile Platform	1	1500.00	22.00	1.00	2808.91	39.662	1.00	0.00	0.00
9	149.00	Standoff Mount	1	60.00	1.80	1.00	180.42	5.885	1.00	0.00	0.00
10	141.00	7770	3	35.00	5.51	0.77	169.27	6.559	0.77	0.00	0.00
11	141.00	HPA-65R-BUU-H6	3	50.70	9.66	0.83	297.23	11.018	0.83	0.00	2.00
12	141.00	Powerwave LGP-21401 TMA	9	14.10	1.05	0.67	38.96	1.727	0.67	0.00	2.00
13	141.00	Powerwave TT19-08BP111-001 TMA	3	16.00	0.55	0.67	36.13	1.057	0.67	0.00	2.00
14	141.00	Ericsson RRUS 11	3	55.00	2.52	0.67	121.06	3.150	0.67	0.00	0.00
15	141.00	Ericsson RRUS 12	3	50.00	3.15	0.67	111.58	4.399	0.67	0.00	2.00
16	141.00	Ericsson RRUS-A2	3	15.00	1.57	0.67	40.41	2.388	0.67	0.00	0.00
17	141.00	Powerwave LGP-21901 Diplexers	6	2.20	0.23	0.67	5.26	0.596	0.67	0.00	0.00
18	141.00	Raycap DC6-48-60-18-8F	1	32.80	2.20	0.67	118.86	3.346	0.67	0.00	0.00
19	141.00	Powerwave 1001983	3	2.90	0.11	0.67	6.55	0.298	0.67	0.00	0.00
20	141.00	Low Profile Platform	1	1500.00	22.00	1.00	2801.76	39.565	1.00	0.00	0.00
21	141.00	80010798	3	86.30	10.69	0.00	327.73	12.130	0.00	0.00	0.00
22	141.00	Ericsson RRUS 32	3	77.00	1.65	0.00	125.14	2.226	0.00	0.00	2.00
23	141.00	Ericsson 4478 B5	3	59.90	1.84	0.00	108.52	2.386	0.00	0.00	2.00
24	141.00	Ericsson 4426 B66	3	48.50	1.15	0.00	87.35	1.622	0.00	0.00	2.00
25	129.00	RFS BA40-01	1	32.00	3.45	1.00	96.87	10.079	1.00	0.00	5.75
26	129.00	Standoff Mount	1	60.00	1.80	1.00	178.71	5.827	1.00	0.00	0.00
27	119.50	Antel LPA-80080-4CF-EDIN-0	6	12.00	5.40	0.74	125.12	7.218	0.74	0.00	0.00
28	119.50	Andrew SBNHH-1D65B (121.1)	3	40.00	8.16	0.83	237.91	9.430	0.83	0.00	1.60
29	119.50	ALU 2x90 AWS	3	64.00	2.47	0.67	156.14	3.599	0.67	0.00	0.50
30	119.50	Andrew RC2DC-3315-PF-48	1	32.00	3.79	0.67	144.22	4.724	0.67	0.00	0.00
31	119.50	Andrew SBNHH-1D65B (119.5)	3	40.00	8.16	0.83	237.91	9.430	0.83	0.00	0.00
32	119.50	Low Profile Platform	1	1500.00	22.00	1.00	2780.56	39.279	1.00	0.00	0.00
33	93.00	RFS 1142	2	10.00	3.90	1.00	29.15	12.347	1.00	0.00	6.50
34	93.00	Single Arm Mount	2	60.00	1.80	1.00	174.92	5.699	1.00	0.00	0.00
35	92.00	Sinclair SD210-SF3P2LDF	1	18.50	4.80	1.00	75.64	11.543	1.00	0.00	8.00
36	92.00	Single Arm Mount	1	60.00	1.80	1.00	174.80	5.694	1.00	0.00	0.00
Totals:			94	7,437.90			18,868.38				

Linear Appurtenances

Bottom Elev. (ft)	Top Elev. (ft)	Description	Exposed Width	Exposed
3.00	149.00	(18) 1 5/8" Coax	0.00	Inside
3.00	149.00	(1) 7/8" Coax	0.00	Inside
94.00	149.00	(1) 7/8" Coax	1.11	Outside
3.00	141.00	(12) 1 5/8" Coax	0.00	Inside
3.00	141.00	(1) 1/2" Fiber	0.00	Inside

Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice			Ice			Hor. Ecc. (ft)	Vert Ecc (ft)
				Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor		
3.00	141.00	(2) 3/4" DC		0.00		Inside					
3.00	129.00	(1) 7/8" Coax		0.00		Inside					
3.00	119.50	(10) 1 5/8" Coax		0.00		Inside					
3.00	119.50	(2) Hybrid Fiber		0.00		Inside					
3.00	93.00	(2) 7/8" Coax		0.00		Inside					
3.00	92.00	(1) 7/8" Coax		0.00		Inside					

Shaft Section Properties

Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	11/26/2018
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 8

Increment Length: 5 (ft)

Elev (ft)	Description	Thick (in)	Dia (in)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Fpy (ksi)	S (in ³)	Weight (lb)
0.00		0.3125	55.920	55.154	21547.4	30.14	178.94	65.9	758.9	0.0
5.00		0.3125	54.643	53.887	20097.1	29.42	174.86	66.8	724.4	927.6
10.00		0.3125	53.367	52.621	18713.4	28.70	170.77	67.6	690.7	906.1
15.00		0.3125	52.090	51.355	17394.7	27.98	166.69	68.5	657.7	884.5
20.00		0.3125	50.813	50.089	16139.5	27.26	162.60	69.3	625.6	863.0
25.00		0.3125	49.537	48.822	14946.1	26.54	158.52	70.2	594.3	841.4
30.00		0.3125	48.260	47.556	13813.1	25.82	154.43	71.0	563.7	819.9
35.00		0.3125	46.983	46.290	12738.8	25.10	150.35	71.9	534.0	798.3
40.00		0.3125	45.707	45.024	11721.7	24.38	146.26	72.7	505.1	776.8
45.00		0.3125	44.430	43.757	10760.3	23.66	142.18	73.6	477.0	755.3
47.75	Bot - Section 2	0.3125	43.728	43.061	10254.6	23.26	139.93	74.0	461.9	406.2
50.00		0.3125	43.153	42.491	9852.9	22.94	138.09	74.4	449.7	659.8
53.25	Top - Section 1	0.3125	42.948	42.288	9712.3	22.82	137.43	0.0	0.0	937.6
55.00		0.3125	42.502	41.845	9410.1	22.57	136.00	74.9	436.1	250.5
60.00		0.3125	41.225	40.578	8581.4	21.85	131.92	75.7	410.0	701.2
65.00		0.3125	39.948	39.312	7802.9	21.13	127.83	76.5	384.7	679.6
70.00		0.3125	38.672	38.046	7072.9	20.41	123.75	77.4	360.2	658.1
75.00		0.3125	37.395	36.780	6389.9	19.69	119.66	78.2	336.6	636.5
80.00		0.3125	36.118	35.513	5752.4	18.97	115.58	79.1	313.7	615.0
85.00		0.3125	34.841	34.247	5158.8	18.25	111.49	79.9	291.6	593.4
90.00		0.3125	33.565	32.981	4607.4	17.53	107.41	80.8	270.4	571.9
92.00		0.3125	33.054	32.474	4398.4	17.24	105.77	81.1	262.1	222.7
93.00		0.3125	32.799	32.221	4296.3	17.10	104.96	81.3	258.0	110.1
95.00		0.3125	32.288	31.715	4096.9	16.81	103.32	81.6	249.9	217.6
97.25	Bot - Section 3	0.3125	31.714	31.145	3880.0	16.48	101.48	82.0	241.0	240.6
100.00		0.3125	31.011	30.448	3625.5	16.09	99.24	82.5	230.3	522.9
101.25	Top - Section 2	0.2500	31.192	24.552	2969.9	20.59	124.77	0.0	0.0	233.8
105.00		0.2500	30.235	23.792	2702.6	19.91	120.94	78.0	176.1	308.4
110.00		0.2500	28.958	22.779	2371.9	19.01	115.83	79.0	161.3	396.2
115.00		0.2500	27.681	21.766	2069.3	18.11	110.73	80.1	147.2	378.9
119.50		0.2500	26.532	20.854	1820.0	17.30	106.13	81.0	135.1	326.3
120.00		0.2500	26.405	20.753	1793.6	17.21	105.62	81.2	133.8	35.4
125.00		0.2500	25.128	19.740	1543.6	16.31	100.51	82.2	121.0	344.5
129.00	Top - Section 3	0.2500	24.107	18.930	1361.2	15.59	96.43	82.6	111.2	263.2
129.00	Bot - Section 4	0.1875	24.107	14.234	1028.9	20.79	128.57	76.4	84.1	
130.00		0.1875	23.851	14.082	996.3	21.02	127.21	76.7	82.3	48.2
135.00		0.1875	22.575	13.323	843.6	19.82	120.40	78.1	73.6	233.1
140.00		0.1875	21.298	12.563	707.4	18.62	113.59	79.5	65.4	220.2
141.00		0.1875	21.043	12.411	682.0	18.38	112.23	79.8	63.8	42.5
145.00		0.1875	20.021	11.803	586.6	17.42	106.78	80.9	57.7	164.8
149.00		0.1875	19.000	11.195	500.6	16.46	101.33	82.0	51.9	156.5

18748.6

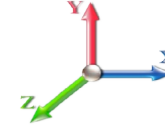
Wind Loading - Shaft

Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	11/26/2018
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 1.2D + 1.6W 89 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 25

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	16.374	18.01	388.27	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	16.374	18.01	379.41	0.650	0.000	5.00	23.389	15.20	438.1	0.0	1113.1
10.00		1.00	0.85	16.374	18.01	370.54	0.650	0.000	5.00	22.849	14.85	428.0	0.0	1087.3
15.00		1.00	0.86	16.576	18.23	363.90	0.650	0.000	5.00	22.309	14.50	423.1	0.0	1061.4
20.00		1.00	0.91	17.553	19.31	365.29	0.650	0.000	5.00	21.769	14.15	437.1	0.0	1035.6
25.00		1.00	0.95	18.360	20.20	364.21	0.650	0.000	5.00	21.229	13.80	445.9	0.0	1009.7
30.00		1.00	0.99	19.053	20.96	361.46	0.650	0.000	5.00	20.689	13.45	450.9	0.0	983.9
35.00		1.00	1.02	19.662	21.63	357.48	0.650	0.000	5.00	20.148	13.10	453.2	0.0	958.0
40.00		1.00	1.05	20.208	22.23	352.56	0.650	0.000	5.00	19.608	12.75	453.3	0.0	932.2
45.00		1.00	1.07	20.704	22.77	346.88	0.650	0.000	5.00	19.068	12.39	451.6	0.0	906.3
47.75	Bot - Section 2	1.00	1.09	20.958	23.05	343.50	0.650	0.000	2.75	10.257	6.67	245.9	0.0	487.4
50.00		1.00	1.10	21.158	23.27	340.60	0.650	0.000	2.25	8.390	5.45	203.1	0.0	791.7
53.25	Top - Section 1	1.00	1.11	21.435	23.58	336.23	0.650	0.000	3.25	11.925	7.75	292.4	0.0	1125.1
55.00		1.00	1.12	21.579	23.74	338.77	0.650	0.000	1.75	6.327	4.11	156.2	0.0	300.6
60.00		1.00	1.14	21.971	24.17	331.57	0.650	0.000	5.00	17.712	11.51	445.2	0.0	841.4
65.00		1.00	1.16	22.339	24.57	323.97	0.650	0.000	5.00	17.172	11.16	438.8	0.0	815.6
70.00		1.00	1.18	22.685	24.95	316.04	0.650	0.000	5.00	16.632	10.81	431.6	0.0	789.7
75.00		1.00	1.19	23.012	25.31	307.80	0.650	0.000	5.00	16.092	10.46	423.6	0.0	763.8
80.00		1.00	1.21	23.323	25.66	299.30	0.650	0.000	5.00	15.551	10.11	414.9	0.0	738.0
85.00		1.00	1.23	23.619	25.98	290.54	0.650	0.000	5.00	15.011	9.76	405.6	0.0	712.1
90.00		1.00	1.24	23.901	26.29	281.57	0.650	0.000	5.00	14.471	9.41	395.7	0.0	686.3
92.00	Appurtenance(s)	1.00	1.25	24.011	26.41	277.92	0.650	0.000	2.00	5.637	3.66	154.8	0.0	267.3
93.00	Appurtenance(s)	1.00	1.25	24.065	26.47	276.08	0.650	0.000	1.00	2.786	1.81	76.7	0.0	132.1
95.00		1.00	1.25	24.172	26.59	272.39	0.650	0.000	2.00	5.508	3.58	152.3	0.0	261.1
97.25	Bot - Section 3	1.00	1.26	24.290	26.72	268.19	0.650	0.000	2.25	6.093	3.96	169.3	0.0	288.8
100.00		1.00	1.27	24.432	26.88	263.02	0.650	0.000	2.75	7.414	4.82	207.2	0.0	627.5
101.25	Top - Section 2	1.00	1.27	24.495	26.94	260.65	0.650	0.000	1.25	3.316	2.16	92.9	0.0	280.6
105.00		1.00	1.28	24.682	27.15	257.74	0.650	0.000	3.75	9.746	6.33	275.2	0.0	370.1
110.00		1.00	1.29	24.922	27.41	248.06	0.650	0.000	5.00	12.522	8.14	357.0	0.0	475.4
115.00		1.00	1.31	25.155	27.67	238.22	0.650	0.000	5.00	11.982	7.79	344.8	0.0	454.7
119.50	Appurtenance(s)	1.00	1.32	25.357	27.89	229.25	0.650	0.000	4.50	10.322	6.71	299.4	0.0	391.6
120.00		1.00	1.32	25.379	27.92	228.25	0.650	0.000	0.50	1.120	0.73	32.5	0.0	42.5
125.00		1.00	1.33	25.596	28.16	218.14	0.650	0.000	5.00	10.902	7.09	319.2	0.0	413.4
129.00	Top - Section 3	1.00	1.34	25.765	28.34	209.96	0.650	0.000	4.00	8.332	5.42	245.6	0.0	315.8
130.00		1.00	1.34	25.807	28.39	207.91	0.650	0.000	1.00	2.029	1.32	59.9	0.0	57.8
135.00		1.00	1.35	26.011	28.61	197.55	0.650	0.000	5.00	9.821	6.38	292.3	0.0	279.8
140.00		1.00	1.36	26.210	28.83	187.09	0.650	0.000	5.00	9.281	6.03	278.3	0.0	264.2
141.00	Appurtenance(s)	1.00	1.36	26.249	28.87	184.99	0.650	0.000	1.00	1.791	1.16	53.8	0.0	51.0
145.00		1.00	1.37	26.403	29.04	176.52	0.650	0.000	4.00	6.950	4.52	209.9	0.0	197.7
149.00	Appurtenance(s)	1.00	1.38	26.553	29.21	168.00	0.650	0.000	4.00	6.604	4.29	200.6	0.0	187.8
Totals:								149.00			11,656.3	22,498.3		

Discrete Appurtenance Forces

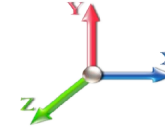
Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	11/26/2018
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 10

Load Case: 1.2D + 1.6W 89 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 25

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	149.00	RFS APXV18-209014	3	26.553	29.209	0.79	1.00	8.32	67.32	0.000	0.000	388.76	0.00	0.00
2	149.00	Lightning Rod	1	26.683	29.351	1.00	1.00	1.05	42.00	0.000	3.500	49.31	0.00	172.58
3	149.00	RFS BA1010	1	26.640	29.304	1.00	1.00	1.24	10.56	0.000	2.350	58.14	0.00	136.63
4	149.00	Commscope	3	26.553	29.209	0.84	1.00	28.85	179.28	0.000	0.000	1348.46	0.00	0.00
5	149.00	Standoff Mount	1	26.553	29.209	1.00	1.00	1.80	72.00	0.000	0.000	84.12	0.00	0.00
6	149.00	Ericsson KRY 112 489/2	3	26.553	29.209	0.60	0.90	1.01	39.60	0.000	0.000	47.34	0.00	0.00
7	149.00	Kathrein 782 11056	3	26.553	29.209	0.60	0.90	0.27	9.36	0.000	0.000	12.68	0.00	0.00
8	149.00	Low Profile Platform	1	26.553	29.209	1.00	1.00	22.00	1800.00	0.000	0.000	1028.14	0.00	0.00
9	149.00	RFS	3	26.553	29.209	0.79	1.00	12.25	95.40	0.000	0.000	572.62	0.00	0.00
10	141.00	Powerwave 1001983	3	26.249	28.874	0.54	0.80	0.18	10.44	0.000	0.000	8.17	0.00	0.00
11	141.00	Ericsson RRUS-A2	3	26.249	28.874	0.54	0.80	2.52	54.00	0.000	0.000	116.63	0.00	0.00
12	141.00	Powerwave LGP-21901	6	26.249	28.874	0.54	0.80	0.74	15.84	0.000	0.000	34.17	0.00	0.00
13	141.00	Raycap DC6-48-60-18-8F	1	26.249	28.874	0.54	0.80	1.18	39.36	0.000	0.000	54.48	0.00	0.00
14	141.00	Ericsson RRUS 32	3	26.326	28.959	0.00	1.00	4.95	277.20	0.000	2.000	229.35	0.00	458.71
15	141.00	Low Profile Platform	1	26.249	28.874	1.00	1.00	22.00	1800.00	0.000	0.000	1016.35	0.00	0.00
16	141.00	80010798	3	26.249	28.874	0.00	1.00	32.07	310.68	0.000	0.000	1481.56	0.00	0.00
17	141.00	Ericsson 4478 B5	3	26.326	28.959	0.00	1.00	5.52	215.64	0.000	2.000	255.76	0.00	511.53
18	141.00	Ericsson 4426 B66	3	26.326	28.959	0.00	1.00	3.45	174.60	0.000	2.000	159.85	0.00	319.70
19	141.00	Ericsson RRUS 12	3	26.326	28.959	0.54	0.80	5.07	180.00	0.000	2.000	234.69	0.00	469.38
20	141.00	Powerwave	3	26.326	28.959	0.54	0.80	0.88	57.60	0.000	2.000	40.98	0.00	81.96
21	141.00	Powerwave LGP-21401	9	26.326	28.959	0.54	0.80	5.07	152.28	0.000	2.000	234.69	0.00	469.38
22	141.00	HPA-65R-BUU-H6	3	26.326	28.959	0.66	0.80	19.24	182.52	0.000	2.000	891.59	0.00	1783.18
23	141.00	7770	3	26.249	28.874	0.62	0.80	10.18	126.00	0.000	0.000	470.41	0.00	0.00
24	141.00	Ericsson RRUS 11	3	26.249	28.874	0.54	0.80	4.05	198.00	0.000	0.000	187.20	0.00	0.00
25	129.00	Standoff Mount	1	25.765	28.342	1.00	1.00	1.80	72.00	0.000	0.000	81.62	0.00	0.00
26	129.00	RFS BA40-01	1	26.001	28.601	1.00	1.00	3.45	38.40	0.000	5.750	157.88	0.00	907.80
27	119.50	ALU 2x90 AWS	3	25.379	27.917	0.54	0.80	3.97	230.40	0.000	0.500	177.41	0.00	88.70
28	119.50	Antel	6	25.357	27.893	0.59	0.80	19.18	86.40	0.000	0.000	856.00	0.00	0.00
29	119.50	Andrew SBNHH-1D65B	3	25.427	27.970	0.66	0.80	16.25	144.00	0.000	1.600	727.44	0.00	1163.90
30	119.50	Andrew SBNHH-1D65B	3	25.357	27.893	0.66	0.80	16.25	144.00	0.000	0.000	725.42	0.00	0.00
31	119.50	Andrew	1	25.357	27.893	0.54	0.80	2.03	38.40	0.000	0.000	90.66	0.00	0.00
32	119.50	Low Profile Platform	1	25.357	27.893	1.00	1.00	22.00	1800.00	0.000	0.000	981.82	0.00	0.00
33	93.00	Single Arm Mount	2	24.065	26.472	1.00	1.00	3.60	144.00	0.000	0.000	152.48	0.00	0.00
34	93.00	RFS 1142	2	24.406	26.847	1.00	1.00	7.80	24.00	0.000	6.500	335.05	0.00	2177.83
35	92.00	Single Arm Mount	1	24.011	26.412	1.00	1.00	1.80	72.00	0.000	0.000	76.07	0.00	0.00
36	92.00	Sinclair SD210-SF3P2LDF	1	24.432	26.875	1.00	1.00	4.80	22.20	0.000	8.000	206.40	0.00	1651.20

Totals: 8,925.48

13,573.70

Total Applied Force Summary

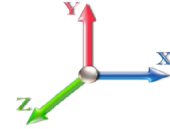
Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	11/26/2018
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 11

Load Case: 1.2D + 1.6W 89 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 25

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		438.13	1226.79	0.00	0.00
10.00		428.02	1371.44	0.00	0.00
15.00		423.06	1345.58	0.00	0.00
20.00		437.14	1319.73	0.00	0.00
25.00		445.90	1293.88	0.00	0.00
30.00		450.94	1268.02	0.00	0.00
35.00		453.21	1242.17	0.00	0.00
40.00		453.31	1216.32	0.00	0.00
45.00		451.63	1190.47	0.00	0.00
47.75		245.93	643.74	0.00	0.00
50.00		203.08	919.58	0.00	0.00
53.25		292.44	1309.79	0.00	0.00
55.00		156.19	400.06	0.00	0.00
60.00		445.19	1125.56	0.00	0.00
65.00		438.83	1099.71	0.00	0.00
70.00		431.62	1073.86	0.00	0.00
75.00		423.62	1048.01	0.00	0.00
80.00		414.93	1022.15	0.00	0.00
85.00		405.60	996.30	0.00	0.00
90.00		395.69	970.45	0.00	0.00
92.00	(2) attachments	437.31	475.14	0.00	1651.20
93.00	(4) attachments	564.23	356.29	0.00	2177.83
95.00		152.30	370.99	0.00	0.00
97.25		169.31	412.42	0.00	0.00
100.00		207.23	778.63	0.00	0.00
101.25		92.93	349.27	0.00	0.00
105.00		275.19	576.23	0.00	0.00
110.00		357.02	750.21	0.00	0.00
115.00		344.80	729.53	0.00	0.00
119.50	(17) attachments	3858.16	3082.09	0.00	1252.60
120.00		32.51	62.39	0.00	0.00
125.00		319.22	612.57	0.00	0.00
129.00	(2) attachments	485.10	585.56	0.00	907.80
130.00		59.90	97.03	0.00	0.00
135.00		292.25	475.84	0.00	0.00
140.00		278.28	460.33	0.00	0.00
141.00	(50) attachments	5469.67	3884.36	0.00	4093.83
145.00		209.91	290.10	0.00	0.00
149.00	(19) attachments	3790.19	2595.69	0.00	309.21
	Totals:	25,229.99	39,028.30	0.00	10,392.47

Linear Appurtenance Segment Forces (Factored)

Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	11/26/2018
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II

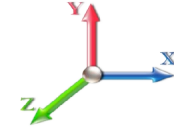


Page: 12

Load Case: 1.2D + 1.6W 89 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 25

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)
95.00	7/8" Coax	Yes	1.00	0.000	1.11	0.09	0.00	0.017	0.000	24.172	0.00	0.00
97.25	7/8" Coax	Yes	2.25	0.000	1.11	0.21	0.00	0.034	0.000	24.290	0.00	0.00
100.00	7/8" Coax	Yes	2.75	0.000	1.11	0.25	0.00	0.035	0.000	24.432	0.00	0.00
101.25	7/8" Coax	Yes	1.25	0.000	1.11	0.12	0.00	0.035	0.000	24.495	0.00	0.00
105.00	7/8" Coax	Yes	3.75	0.000	1.11	0.35	0.00	0.036	0.000	24.682	0.00	0.00
110.00	7/8" Coax	Yes	5.00	0.000	1.11	0.46	0.00	0.037	0.000	24.922	0.00	0.00
115.00	7/8" Coax	Yes	5.00	0.000	1.11	0.46	0.00	0.039	0.000	25.155	0.00	0.00
119.50	7/8" Coax	Yes	4.50	0.000	1.11	0.42	0.00	0.040	0.000	25.357	0.00	0.00
120.00	7/8" Coax	Yes	0.50	0.000	1.11	0.05	0.00	0.041	0.000	25.379	0.00	0.00
125.00	7/8" Coax	Yes	5.00	0.000	1.11	0.46	0.00	0.042	0.000	25.596	0.00	0.00
129.00	7/8" Coax	Yes	4.00	0.000	1.11	0.37	0.00	0.044	0.000	25.765	0.00	0.00
130.00	7/8" Coax	Yes	1.00	0.000	1.11	0.09	0.00	0.046	0.000	25.807	0.00	0.00
135.00	7/8" Coax	Yes	5.00	0.000	1.11	0.46	0.00	0.047	0.000	26.011	0.00	0.00
140.00	7/8" Coax	Yes	5.00	0.000	1.11	0.46	0.00	0.050	0.000	26.210	0.00	0.00
141.00	7/8" Coax	Yes	1.00	0.000	1.11	0.09	0.00	0.052	0.000	26.249	0.00	0.00
145.00	7/8" Coax	Yes	4.00	0.000	1.11	0.37	0.00	0.053	0.000	26.403	0.00	0.00
149.00	7/8" Coax	Yes	4.00	0.000	1.11	0.37	0.00	0.056	0.000	26.553	0.00	0.00
Totals:											0.0	0.0

Calculated Forces

Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	11/26/2018
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 1.2D + 1.6W 89 mph Wind	Iterations 25
Dead Load Factor 1.20	
Wind Load Factor 1.60	

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-38.99	-25.29	0.00	-2774.5	0.00	2774.50	3273.57	1636.79	7496.53	3753.83	0.00	0.000	0.000	0.751
5.00	-37.68	-24.97	0.00	-2648.0	0.00	2648.04	3239.51	1619.75	7247.24	3629.01	0.10	-0.179	0.000	0.742
10.00	-36.23	-24.65	0.00	-2523.1	0.00	2523.18	3203.51	1601.76	6997.34	3503.87	0.38	-0.362	0.000	0.732
15.00	-34.81	-24.34	0.00	-2399.9	0.00	2399.92	3165.58	1582.79	6747.13	3378.58	0.86	-0.549	0.000	0.722
20.00	-33.42	-24.00	0.00	-2278.2	0.00	2278.24	3125.72	1562.86	6496.92	3253.29	1.54	-0.740	0.000	0.711
25.00	-32.05	-23.64	0.00	-2158.2	0.00	2158.27	3083.93	1541.97	6247.01	3128.15	2.42	-0.936	0.000	0.701
30.00	-30.71	-23.28	0.00	-2040.0	0.00	2040.06	3040.21	1520.10	5997.71	3003.31	3.51	-1.136	0.000	0.690
35.00	-29.39	-22.90	0.00	-1923.6	0.00	1923.68	2994.56	1497.28	5749.33	2878.94	4.81	-1.340	0.000	0.678
40.00	-28.10	-22.52	0.00	-1809.1	0.00	1809.17	2946.97	1473.49	5502.17	2755.17	6.32	-1.548	0.000	0.666
45.00	-26.86	-22.11	0.00	-1696.5	0.00	1696.56	2897.46	1448.73	5256.53	2632.17	8.06	-1.761	0.000	0.654
47.75	-26.19	-21.90	0.00	-1635.7	0.00	1635.74	2869.40	1434.70	5122.20	2564.91	9.11	-1.882	0.000	0.647
50.00	-25.23	-21.72	0.00	-1586.4	0.00	1586.47	2846.01	1423.00	5012.74	2510.09	10.02	-1.983	0.000	0.641
53.25	-23.89	-21.43	0.00	-1515.8	0.00	1515.89	2837.57	1418.79	4973.81	2490.60	11.42	-2.128	0.000	0.617
55.00	-23.44	-21.32	0.00	-1478.3	0.00	1478.39	2819.00	1409.50	4889.10	2448.18	12.22	-2.208	0.000	0.612
60.00	-22.25	-20.91	0.00	-1371.8	0.00	1371.81	2764.64	1382.32	4648.65	2327.78	14.64	-2.424	0.000	0.598
65.00	-21.09	-20.50	0.00	-1267.2	0.00	1267.26	2708.35	1354.17	4410.81	2208.68	17.30	-2.643	0.000	0.582
70.00	-19.96	-20.10	0.00	-1164.7	0.00	1164.73	2650.12	1325.06	4175.87	2091.04	20.19	-2.864	0.000	0.565
75.00	-18.86	-19.70	0.00	-1064.2	0.00	1064.24	2589.96	1294.98	3944.16	1975.01	23.31	-3.088	0.000	0.546
80.00	-17.79	-19.30	0.00	-965.75	0.00	965.75	2527.88	1263.94	3715.96	1860.74	26.66	-3.314	0.000	0.526
85.00	-16.74	-18.90	0.00	-869.27	0.00	869.27	2463.86	1231.93	3491.60	1748.39	30.25	-3.541	0.000	0.504
90.00	-15.75	-18.48	0.00	-774.79	0.00	774.79	2397.91	1198.95	3271.37	1638.12	34.08	-3.768	0.000	0.480
92.00	-15.28	-18.04	0.00	-736.17	0.00	736.17	2370.99	1185.49	3184.51	1594.62	35.68	-3.861	0.000	0.468
93.00	-14.94	-17.47	0.00	-715.95	0.00	715.95	2357.41	1178.70	3141.35	1573.01	36.49	-3.908	0.000	0.462
95.00	-14.55	-17.31	0.00	-681.02	0.00	681.02	2330.03	1165.01	3055.58	1530.06	38.15	-4.001	0.000	0.452
97.25	-14.12	-17.14	0.00	-642.07	0.00	642.07	2298.85	1149.42	2960.01	1482.20	40.06	-4.104	0.000	0.440
100.00	-13.33	-16.90	0.00	-594.92	0.00	594.92	2260.21	1130.11	2844.54	1424.39	42.46	-4.229	0.000	0.424
101.25	-12.96	-16.81	0.00	-573.79	0.00	573.79	1705.50	852.75	2167.94	1085.58	43.57	-4.286	0.000	0.537
105.00	-12.34	-16.54	0.00	-510.76	0.00	510.76	1669.73	834.87	2056.27	1029.66	47.00	-4.451	0.000	0.504
110.00	-11.56	-16.17	0.00	-428.09	0.00	428.09	1620.35	810.17	1909.79	956.31	51.79	-4.698	0.000	0.455
115.00	-10.80	-15.80	0.00	-347.24	0.00	347.24	1569.04	784.52	1766.36	884.49	56.84	-4.931	0.000	0.400
119.50	-8.05	-11.70	0.00	-274.88	0.00	274.88	1521.21	760.60	1640.13	821.29	61.57	-5.123	0.000	0.340
120.00	-7.97	-11.68	0.00	-269.03	0.00	269.03	1515.79	757.90	1626.29	814.35	62.11	-5.145	0.000	0.336
125.00	-7.35	-11.33	0.00	-210.62	0.00	210.62	1460.62	730.31	1489.87	746.04	67.60	-5.335	0.000	0.288
129.00	-6.80	-10.80	0.00	-164.40	0.00	164.40	1406.38	703.19	1375.06	688.55	72.12	-5.473	0.000	0.244
129.00	-6.80	-10.80	0.00	-164.40	0.00	164.40	978.70	489.35	961.93	481.68	72.12	-5.473	0.000	0.349
130.00	-6.69	-10.75	0.00	-153.60	0.00	153.60	971.83	485.92	944.91	473.15	73.27	-5.507	0.000	0.332
135.00	-6.22	-10.42	0.00	-99.87	0.00	99.87	936.33	468.17	860.89	431.08	79.13	-5.688	0.000	0.239
140.00	-5.77	-10.11	0.00	-47.75	0.00	47.75	898.90	449.45	778.95	390.05	85.15	-5.812	0.000	0.129
141.00	-2.46	-4.27	0.00	-33.55	0.00	33.55	891.19	445.59	762.84	381.99	86.37	-5.829	0.000	0.091
145.00	-2.19	-4.04	0.00	-16.45	0.00	16.45	859.54	429.77	699.40	350.22	91.27	-5.871	0.000	0.050
149.00	0.00	-3.79	0.00	-0.31	0.00	0.31	826.66	413.33	637.68	319.32	96.19	-5.887	0.000	0.001

Wind Loading - Shaft

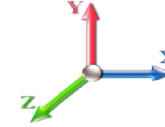
Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	11/26/2018
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 14

Load Case: 0.9D + 1.6W 89 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 24

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	16.374	18.01	388.27	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	16.374	18.01	379.41	0.650	0.000	5.00	23.389	15.20	438.1	0.0	834.8
10.00		1.00	0.85	16.374	18.01	370.54	0.650	0.000	5.00	22.849	14.85	428.0	0.0	815.5
15.00		1.00	0.86	16.576	18.23	363.90	0.650	0.000	5.00	22.309	14.50	423.1	0.0	796.1
20.00		1.00	0.91	17.553	19.31	365.29	0.650	0.000	5.00	21.769	14.15	437.1	0.0	776.7
25.00		1.00	0.95	18.360	20.20	364.21	0.650	0.000	5.00	21.229	13.80	445.9	0.0	757.3
30.00		1.00	0.99	19.053	20.96	361.46	0.650	0.000	5.00	20.689	13.45	450.9	0.0	737.9
35.00		1.00	1.02	19.662	21.63	357.48	0.650	0.000	5.00	20.148	13.10	453.2	0.0	718.5
40.00		1.00	1.05	20.208	22.23	352.56	0.650	0.000	5.00	19.608	12.75	453.3	0.0	699.1
45.00		1.00	1.07	20.704	22.77	346.88	0.650	0.000	5.00	19.068	12.39	451.6	0.0	679.7
47.75	Bot - Section 2	1.00	1.09	20.958	23.05	343.50	0.650	0.000	2.75	10.257	6.67	245.9	0.0	365.6
50.00		1.00	1.10	21.158	23.27	340.60	0.650	0.000	2.25	8.390	5.45	203.1	0.0	593.8
53.25	Top - Section 1	1.00	1.11	21.435	23.58	336.23	0.650	0.000	3.25	11.925	7.75	292.4	0.0	843.8
55.00		1.00	1.12	21.579	23.74	338.77	0.650	0.000	1.75	6.327	4.11	156.2	0.0	225.4
60.00		1.00	1.14	21.971	24.17	331.57	0.650	0.000	5.00	17.712	11.51	445.2	0.0	631.1
65.00		1.00	1.16	22.339	24.57	323.97	0.650	0.000	5.00	17.172	11.16	438.8	0.0	611.7
70.00		1.00	1.18	22.685	24.95	316.04	0.650	0.000	5.00	16.632	10.81	431.6	0.0	592.3
75.00		1.00	1.19	23.012	25.31	307.80	0.650	0.000	5.00	16.092	10.46	423.6	0.0	572.9
80.00		1.00	1.21	23.323	25.66	299.30	0.650	0.000	5.00	15.551	10.11	414.9	0.0	553.5
85.00		1.00	1.23	23.619	25.98	290.54	0.650	0.000	5.00	15.011	9.76	405.6	0.0	534.1
90.00		1.00	1.24	23.901	26.29	281.57	0.650	0.000	5.00	14.471	9.41	395.7	0.0	514.7
92.00	Appurtenance(s)	1.00	1.25	24.011	26.41	277.92	0.650	0.000	2.00	5.637	3.66	154.8	0.0	200.5
93.00	Appurtenance(s)	1.00	1.25	24.065	26.47	276.08	0.650	0.000	1.00	2.786	1.81	76.7	0.0	99.1
95.00		1.00	1.25	24.172	26.59	272.39	0.650	0.000	2.00	5.508	3.58	152.3	0.0	195.8
97.25	Bot - Section 3	1.00	1.26	24.290	26.72	268.19	0.650	0.000	2.25	6.093	3.96	169.3	0.0	216.6
100.00		1.00	1.27	24.432	26.88	263.02	0.650	0.000	2.75	7.414	4.82	207.2	0.0	470.6
101.25	Top - Section 2	1.00	1.27	24.495	26.94	260.65	0.650	0.000	1.25	3.316	2.16	92.9	0.0	210.4
105.00		1.00	1.28	24.682	27.15	257.74	0.650	0.000	3.75	9.746	6.33	275.2	0.0	277.6
110.00		1.00	1.29	24.922	27.41	248.06	0.650	0.000	5.00	12.522	8.14	357.0	0.0	356.6
115.00		1.00	1.31	25.155	27.67	238.22	0.650	0.000	5.00	11.982	7.79	344.8	0.0	341.0
119.50	Appurtenance(s)	1.00	1.32	25.357	27.89	229.25	0.650	0.000	4.50	10.322	6.71	299.4	0.0	293.7
120.00		1.00	1.32	25.379	27.92	228.25	0.650	0.000	0.50	1.120	0.73	32.5	0.0	31.9
125.00		1.00	1.33	25.596	28.16	218.14	0.650	0.000	5.00	10.902	7.09	319.2	0.0	310.0
129.00	Top - Section 3	1.00	1.34	25.765	28.34	209.96	0.650	0.000	4.00	8.332	5.42	245.6	0.0	236.9
130.00		1.00	1.34	25.807	28.39	207.91	0.650	0.000	1.00	2.029	1.32	59.9	0.0	43.4
135.00		1.00	1.35	26.011	28.61	197.55	0.650	0.000	5.00	9.821	6.38	292.3	0.0	209.8
140.00		1.00	1.36	26.210	28.83	187.09	0.650	0.000	5.00	9.281	6.03	278.3	0.0	198.2
141.00	Appurtenance(s)	1.00	1.36	26.249	28.87	184.99	0.650	0.000	1.00	1.791	1.16	53.8	0.0	38.2
145.00		1.00	1.37	26.403	29.04	176.52	0.650	0.000	4.00	6.950	4.52	209.9	0.0	148.3
149.00	Appurtenance(s)	1.00	1.38	26.553	29.21	168.00	0.650	0.000	4.00	6.604	4.29	200.6	0.0	140.9
Totals:									149.00			11,656.3		16,873.8

Discrete Appurtenance Forces

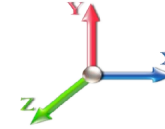
Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	11/26/2018
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 15

Load Case: 0.9D + 1.6W 89 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 24

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	149.00	RFS APXV18-209014	3	26.553	29.209	0.79	1.00	8.32	50.49	0.000	0.000	388.76	0.00	0.00
2	149.00	Lightning Rod	1	26.683	29.351	1.00	1.00	1.05	31.50	0.000	3.500	49.31	0.00	172.58
3	149.00	RFS BA1010	1	26.640	29.304	1.00	1.00	1.24	7.92	0.000	2.350	58.14	0.00	136.63
4	149.00	Commscope	3	26.553	29.209	0.84	1.00	28.85	134.46	0.000	0.000	1348.46	0.00	0.00
5	149.00	Standoff Mount	1	26.553	29.209	1.00	1.00	1.80	54.00	0.000	0.000	84.12	0.00	0.00
6	149.00	Ericsson KRY 112 489/2	3	26.553	29.209	0.60	0.90	1.01	29.70	0.000	0.000	47.34	0.00	0.00
7	149.00	Kathrein 782 11056	3	26.553	29.209	0.60	0.90	0.27	7.02	0.000	0.000	12.68	0.00	0.00
8	149.00	Low Profile Platform	1	26.553	29.209	1.00	1.00	22.00	1350.00	0.000	0.000	1028.14	0.00	0.00
9	149.00	RFS	3	26.553	29.209	0.79	1.00	12.25	71.55	0.000	0.000	572.62	0.00	0.00
10	141.00	Powerwave 1001983	3	26.249	28.874	0.54	0.80	0.18	7.83	0.000	0.000	8.17	0.00	0.00
11	141.00	Ericsson RRUS-A2	3	26.249	28.874	0.54	0.80	2.52	40.50	0.000	0.000	116.63	0.00	0.00
12	141.00	Powerwave LGP-21901	6	26.249	28.874	0.54	0.80	0.74	11.88	0.000	0.000	34.17	0.00	0.00
13	141.00	Raycap DC6-48-60-18-8F	1	26.249	28.874	0.54	0.80	1.18	29.52	0.000	0.000	54.48	0.00	0.00
14	141.00	Ericsson RRUS 32	3	26.326	28.959	0.00	1.00	4.95	207.90	0.000	2.000	229.35	0.00	458.71
15	141.00	Low Profile Platform	1	26.249	28.874	1.00	1.00	22.00	1350.00	0.000	0.000	1016.35	0.00	0.00
16	141.00	80010798	3	26.249	28.874	0.00	1.00	32.07	233.01	0.000	0.000	1481.56	0.00	0.00
17	141.00	Ericsson 4478 B5	3	26.326	28.959	0.00	1.00	5.52	161.73	0.000	2.000	255.76	0.00	511.53
18	141.00	Ericsson 4426 B66	3	26.326	28.959	0.00	1.00	3.45	130.95	0.000	2.000	159.85	0.00	319.70
19	141.00	Ericsson RRUS 12	3	26.326	28.959	0.54	0.80	5.07	135.00	0.000	2.000	234.69	0.00	469.38
20	141.00	Powerwave	3	26.326	28.959	0.54	0.80	0.88	43.20	0.000	2.000	40.98	0.00	81.96
21	141.00	Powerwave LGP-21401	9	26.326	28.959	0.54	0.80	5.07	114.21	0.000	2.000	234.69	0.00	469.38
22	141.00	HPA-65R-BUU-H6	3	26.326	28.959	0.66	0.80	19.24	136.89	0.000	2.000	891.59	0.00	1783.18
23	141.00	7770	3	26.249	28.874	0.62	0.80	10.18	94.50	0.000	0.000	470.41	0.00	0.00
24	141.00	Ericsson RRUS 11	3	26.249	28.874	0.54	0.80	4.05	148.50	0.000	0.000	187.20	0.00	0.00
25	129.00	Standoff Mount	1	25.765	28.342	1.00	1.00	1.80	54.00	0.000	0.000	81.62	0.00	0.00
26	129.00	RFS BA40-01	1	26.001	28.601	1.00	1.00	3.45	28.80	0.000	5.750	157.88	0.00	907.80
27	119.50	ALU 2x90 AWS	3	25.379	27.917	0.54	0.80	3.97	172.80	0.000	0.500	177.41	0.00	88.70
28	119.50	Antel	6	25.357	27.893	0.59	0.80	19.18	64.80	0.000	0.000	856.00	0.00	0.00
29	119.50	Andrew SBNHH-1D65B	3	25.427	27.970	0.66	0.80	16.25	108.00	0.000	1.600	727.44	0.00	1163.90
30	119.50	Andrew SBNHH-1D65B	3	25.357	27.893	0.66	0.80	16.25	108.00	0.000	0.000	725.42	0.00	0.00
31	119.50	Andrew	1	25.357	27.893	0.54	0.80	2.03	28.80	0.000	0.000	90.66	0.00	0.00
32	119.50	Low Profile Platform	1	25.357	27.893	1.00	1.00	22.00	1350.00	0.000	0.000	981.82	0.00	0.00
33	93.00	Single Arm Mount	2	24.065	26.472	1.00	1.00	3.60	108.00	0.000	0.000	152.48	0.00	0.00
34	93.00	RFS 1142	2	24.406	26.847	1.00	1.00	7.80	18.00	0.000	6.500	335.05	0.00	2177.83
35	92.00	Single Arm Mount	1	24.011	26.412	1.00	1.00	1.80	54.00	0.000	0.000	76.07	0.00	0.00
36	92.00	Sinclair SD210-SF3P2LDF	1	24.432	26.875	1.00	1.00	4.80	16.65	0.000	8.000	206.40	0.00	1651.20

Totals: 6,694.11

13,573.70

Total Applied Force Summary

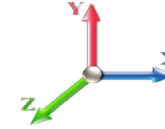
Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	11/26/2018
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 16

Load Case: 0.9D + 1.6W 89 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 24

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		438.13	920.09	0.00	0.00
10.00		428.02	1028.58	0.00	0.00
15.00		423.06	1009.19	0.00	0.00
20.00		437.14	989.80	0.00	0.00
25.00		445.90	970.41	0.00	0.00
30.00		450.94	951.02	0.00	0.00
35.00		453.21	931.63	0.00	0.00
40.00		453.31	912.24	0.00	0.00
45.00		451.63	892.85	0.00	0.00
47.75		245.93	482.80	0.00	0.00
50.00		203.08	689.68	0.00	0.00
53.25		292.44	982.34	0.00	0.00
55.00		156.19	300.04	0.00	0.00
60.00		445.19	844.17	0.00	0.00
65.00		438.83	824.78	0.00	0.00
70.00		431.62	805.39	0.00	0.00
75.00		423.62	786.00	0.00	0.00
80.00		414.93	766.61	0.00	0.00
85.00		405.60	747.22	0.00	0.00
90.00		395.69	727.84	0.00	0.00
92.00	(2) attachments	437.31	356.36	0.00	1651.20
93.00	(4) attachments	564.23	267.22	0.00	2177.83
95.00		152.30	278.24	0.00	0.00
97.25		169.31	309.32	0.00	0.00
100.00		207.23	583.97	0.00	0.00
101.25		92.93	261.95	0.00	0.00
105.00		275.19	432.17	0.00	0.00
110.00		357.02	562.66	0.00	0.00
115.00		344.80	547.15	0.00	0.00
119.50	(17) attachments	3858.16	2311.57	0.00	1252.60
120.00		32.51	46.80	0.00	0.00
125.00		319.22	459.42	0.00	0.00
129.00	(2) attachments	485.10	439.17	0.00	907.80
130.00		59.90	72.77	0.00	0.00
135.00		292.25	356.88	0.00	0.00
140.00		278.28	345.25	0.00	0.00
141.00	(50) attachments	5469.67	2913.27	0.00	4093.83
145.00		209.91	217.58	0.00	0.00
149.00	(19) attachments	3790.19	1946.77	0.00	309.21
	Totals:	25,229.99	29,271.22	0.00	10,392.47

Linear Appurtenance Segment Forces (Factored)

Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	11/26/2018
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II

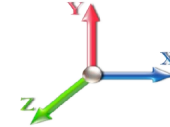


Page: 17

Load Case: 0.9D + 1.6W 89 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 24

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)
95.00	7/8" Coax	Yes	1.00	0.000	1.11	0.09	0.00	0.017	0.000	24.172	0.00	0.00
97.25	7/8" Coax	Yes	2.25	0.000	1.11	0.21	0.00	0.034	0.000	24.290	0.00	0.00
100.00	7/8" Coax	Yes	2.75	0.000	1.11	0.25	0.00	0.035	0.000	24.432	0.00	0.00
101.25	7/8" Coax	Yes	1.25	0.000	1.11	0.12	0.00	0.035	0.000	24.495	0.00	0.00
105.00	7/8" Coax	Yes	3.75	0.000	1.11	0.35	0.00	0.036	0.000	24.682	0.00	0.00
110.00	7/8" Coax	Yes	5.00	0.000	1.11	0.46	0.00	0.037	0.000	24.922	0.00	0.00
115.00	7/8" Coax	Yes	5.00	0.000	1.11	0.46	0.00	0.039	0.000	25.155	0.00	0.00
119.50	7/8" Coax	Yes	4.50	0.000	1.11	0.42	0.00	0.040	0.000	25.357	0.00	0.00
120.00	7/8" Coax	Yes	0.50	0.000	1.11	0.05	0.00	0.041	0.000	25.379	0.00	0.00
125.00	7/8" Coax	Yes	5.00	0.000	1.11	0.46	0.00	0.042	0.000	25.596	0.00	0.00
129.00	7/8" Coax	Yes	4.00	0.000	1.11	0.37	0.00	0.044	0.000	25.765	0.00	0.00
130.00	7/8" Coax	Yes	1.00	0.000	1.11	0.09	0.00	0.046	0.000	25.807	0.00	0.00
135.00	7/8" Coax	Yes	5.00	0.000	1.11	0.46	0.00	0.047	0.000	26.011	0.00	0.00
140.00	7/8" Coax	Yes	5.00	0.000	1.11	0.46	0.00	0.050	0.000	26.210	0.00	0.00
141.00	7/8" Coax	Yes	1.00	0.000	1.11	0.09	0.00	0.052	0.000	26.249	0.00	0.00
145.00	7/8" Coax	Yes	4.00	0.000	1.11	0.37	0.00	0.053	0.000	26.403	0.00	0.00
149.00	7/8" Coax	Yes	4.00	0.000	1.11	0.37	0.00	0.056	0.000	26.553	0.00	0.00
Totals:											0.0	0.0

Calculated Forces

Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	11/26/2018
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II

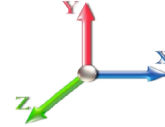


Page: 18

Load Case: 0.9D + 1.6W 89 mph Wind

Iterations 24

Dead Load Factor 0.90
Wind Load Factor 1.60



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-29.23	-25.28	0.00	-2743.4	0.00	2743.41	3273.57	1636.79	7496.53	3753.83	0.00	0.000	0.000	0.740
5.00	-28.23	-24.92	0.00	-2617.0	0.00	2617.04	3239.51	1619.75	7247.24	3629.01	0.10	-0.177	0.000	0.730
10.00	-27.13	-24.58	0.00	-2492.4	0.00	2492.42	3203.51	1601.76	6997.34	3503.87	0.38	-0.358	0.000	0.720
15.00	-26.04	-24.23	0.00	-2369.5	0.00	2369.54	3165.58	1582.79	6747.13	3378.58	0.85	-0.543	0.000	0.710
20.00	-24.98	-23.87	0.00	-2248.3	0.00	2248.38	3125.72	1562.86	6496.92	3253.29	1.52	-0.731	0.000	0.699
25.00	-23.94	-23.49	0.00	-2129.0	0.00	2129.05	3083.93	1541.97	6247.01	3128.15	2.39	-0.924	0.000	0.689
30.00	-22.91	-23.10	0.00	-2011.6	0.00	2011.61	3040.21	1520.10	5997.71	3003.31	3.47	-1.121	0.000	0.678
35.00	-21.91	-22.71	0.00	-1896.1	0.00	1896.11	2994.56	1497.28	5749.33	2878.94	4.75	-1.323	0.000	0.666
40.00	-20.93	-22.31	0.00	-1782.5	0.00	1782.58	2946.97	1473.49	5502.17	2755.17	6.24	-1.528	0.000	0.654
45.00	-19.99	-21.89	0.00	-1671.0	0.00	1671.06	2897.46	1448.73	5256.53	2632.17	7.96	-1.738	0.000	0.642
47.75	-19.47	-21.66	0.00	-1610.8	0.00	1610.87	2869.40	1434.70	5122.20	2564.91	8.99	-1.857	0.000	0.635
50.00	-18.74	-21.48	0.00	-1562.1	0.00	1562.13	2846.01	1423.00	5012.74	2510.09	9.89	-1.956	0.000	0.629
53.25	-17.73	-21.18	0.00	-1492.3	0.00	1492.34	2837.57	1418.79	4973.81	2490.60	11.27	-2.099	0.000	0.606
55.00	-17.38	-21.06	0.00	-1455.2	0.00	1455.27	2819.00	1409.50	4889.10	2448.18	12.06	-2.178	0.000	0.601
60.00	-16.48	-20.64	0.00	-1349.9	0.00	1349.97	2764.64	1382.32	4648.65	2327.78	14.45	-2.390	0.000	0.586
65.00	-15.60	-20.23	0.00	-1246.7	0.00	1246.75	2708.35	1354.17	4410.81	2208.68	17.07	-2.605	0.000	0.570
70.00	-14.74	-19.82	0.00	-1145.6	0.00	1145.61	2650.12	1325.06	4175.87	2091.04	19.92	-2.823	0.000	0.554
75.00	-13.90	-19.41	0.00	-1046.5	0.00	1046.54	2589.96	1294.98	3944.16	1975.01	22.99	-3.044	0.000	0.535
80.00	-13.09	-19.00	0.00	-949.51	0.00	949.51	2527.88	1263.94	3715.96	1860.74	26.30	-3.266	0.000	0.516
85.00	-12.29	-18.60	0.00	-854.51	0.00	854.51	2463.86	1231.93	3491.60	1748.39	29.84	-3.489	0.000	0.494
90.00	-11.54	-18.19	0.00	-761.51	0.00	761.51	2397.91	1198.95	3271.37	1638.12	33.61	-3.712	0.000	0.470
92.00	-11.19	-17.74	0.00	-723.48	0.00	723.48	2370.99	1185.49	3184.51	1594.62	35.18	-3.804	0.000	0.459
93.00	-10.94	-17.18	0.00	-703.56	0.00	703.56	2357.41	1178.70	3141.35	1573.01	35.98	-3.850	0.000	0.452
95.00	-10.65	-17.02	0.00	-669.20	0.00	669.20	2330.03	1165.01	3055.58	1530.06	37.62	-3.941	0.000	0.442
97.25	-10.32	-16.85	0.00	-630.90	0.00	630.90	2298.85	1149.42	2960.01	1482.20	39.50	-4.042	0.000	0.430
100.00	-9.72	-16.62	0.00	-584.56	0.00	584.56	2260.21	1130.11	2844.54	1424.39	41.86	-4.165	0.000	0.415
101.25	-9.44	-16.53	0.00	-563.78	0.00	563.78	1705.50	852.75	2167.94	1085.58	42.96	-4.221	0.000	0.525
105.00	-8.97	-16.25	0.00	-501.81	0.00	501.81	1669.73	834.87	2056.27	1029.66	46.34	-4.383	0.000	0.493
110.00	-8.37	-15.89	0.00	-420.55	0.00	420.55	1620.35	810.17	1909.79	956.31	51.05	-4.626	0.000	0.445
115.00	-7.80	-15.53	0.00	-341.12	0.00	341.12	1569.04	784.52	1766.36	884.49	56.02	-4.854	0.000	0.391
119.50	-5.81	-11.49	0.00	-270.00	0.00	270.00	1521.21	760.60	1640.13	821.29	60.68	-5.044	0.000	0.333
120.00	-5.74	-11.47	0.00	-264.25	0.00	264.25	1515.79	757.90	1626.29	814.35	61.21	-5.065	0.000	0.329
125.00	-5.28	-11.12	0.00	-206.92	0.00	206.92	1460.62	730.31	1489.87	746.04	66.61	-5.251	0.000	0.281
129.00	-4.87	-10.61	0.00	-161.52	0.00	161.52	1406.38	703.19	1375.06	688.55	71.07	-5.388	0.000	0.238
129.00	-4.87	-10.61	0.00	-161.52	0.00	161.52	978.70	489.35	961.93	481.68	71.07	-5.388	0.000	0.341
130.00	-4.79	-10.55	0.00	-150.91	0.00	150.91	971.83	485.92	944.91	473.15	72.20	-5.420	0.000	0.324
135.00	-4.43	-10.24	0.00	-98.17	0.00	98.17	936.33	468.17	860.89	431.08	77.97	-5.598	0.000	0.233
140.00	-4.11	-9.93	0.00	-46.99	0.00	46.99	898.90	449.45	778.95	390.05	83.90	-5.720	0.000	0.126
141.00	-1.75	-4.20	0.00	-32.97	0.00	32.97	891.19	445.59	762.84	381.99	85.09	-5.737	0.000	0.088
145.00	-1.55	-3.97	0.00	-16.18	0.00	16.18	859.54	429.77	699.40	350.22	89.91	-5.778	0.000	0.048
149.00	0.00	-3.79	0.00	-0.31	0.00	0.31	826.66	413.33	637.68	319.32	94.75	-5.794	0.000	0.001

Wind Loading - Shaft

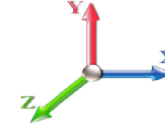
Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	11/26/2018
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 19

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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 24

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	5.168	5.68	0.00	1.200	1.057	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	5.168	5.68	0.00	1.200	1.265	5.00	24.443	29.33	166.7	443.0	1556.1
10.00		1.00	0.85	5.168	5.68	0.00	1.200	1.344	5.00	23.969	28.76	163.5	460.6	1547.9
15.00		1.00	0.86	5.232	5.76	0.00	1.200	1.395	5.00	23.472	28.17	162.1	467.5	1528.9
20.00		1.00	0.91	5.540	6.09	0.00	1.200	1.434	5.00	22.964	27.56	167.9	469.2	1504.8
25.00		1.00	0.95	5.795	6.37	0.00	1.200	1.465	5.00	22.449	26.94	171.7	467.9	1477.6
30.00		1.00	0.99	6.013	6.61	0.00	1.200	1.491	5.00	21.931	26.32	174.1	464.5	1448.4
35.00		1.00	1.02	6.206	6.83	0.00	1.200	1.513	5.00	21.409	25.69	175.4	459.6	1417.6
40.00		1.00	1.05	6.378	7.02	0.00	1.200	1.533	5.00	20.886	25.06	175.8	453.6	1385.7
45.00		1.00	1.07	6.534	7.19	0.00	1.200	1.551	5.00	20.360	24.43	175.6	446.6	1352.9
47.75	Bot - Section 2	1.00	1.09	6.615	7.28	0.00	1.200	1.560	2.75	10.972	13.17	95.8	243.3	730.8
50.00		1.00	1.10	6.678	7.35	0.00	1.200	1.567	2.25	8.977	10.77	79.1	200.2	991.9
53.25	Top - Section 1	1.00	1.11	6.765	7.44	0.00	1.200	1.576	3.25	12.779	15.34	114.1	285.8	1410.8
55.00		1.00	1.12	6.811	7.49	0.00	1.200	1.581	1.75	6.788	8.15	61.0	152.8	453.4
60.00		1.00	1.14	6.934	7.63	0.00	1.200	1.595	5.00	19.041	22.85	174.3	427.8	1269.2
65.00		1.00	1.16	7.050	7.76	0.00	1.200	1.608	5.00	18.512	22.21	172.3	418.4	1234.0
70.00		1.00	1.18	7.160	7.88	0.00	1.200	1.619	5.00	17.981	21.58	169.9	408.6	1198.3
75.00		1.00	1.19	7.263	7.99	0.00	1.200	1.631	5.00	17.450	20.94	167.3	398.5	1162.3
80.00		1.00	1.21	7.361	8.10	0.00	1.200	1.641	5.00	16.919	20.30	164.4	388.0	1126.0
85.00		1.00	1.23	7.454	8.20	0.00	1.200	1.651	5.00	16.387	19.66	161.2	377.2	1089.4
90.00		1.00	1.24	7.544	8.30	0.00	1.200	1.660	5.00	15.855	19.03	157.9	366.2	1052.5
92.00	Appurtenance(s)	1.00	1.25	7.578	8.34	0.00	1.200	1.664	2.00	6.192	7.43	61.9	144.7	412.0
93.00	Appurtenance(s)	1.00	1.25	7.595	8.35	0.00	1.200	1.666	1.00	3.064	3.68	30.7	71.9	204.0
95.00		1.00	1.25	7.629	8.39	0.00	1.200	1.669	2.00	6.064	7.28	61.1	142.0	403.0
97.25	Bot - Section 3	1.00	1.26	7.666	8.43	0.00	1.200	1.673	2.25	6.720	8.06	68.0	157.4	446.1
100.00		1.00	1.27	7.711	8.48	0.00	1.200	1.678	2.75	8.183	9.82	83.3	191.7	819.2
101.25	Top - Section 2	1.00	1.27	7.731	8.50	0.00	1.200	1.680	1.25	3.666	4.40	37.4	86.4	367.0
105.00		1.00	1.28	7.790	8.57	0.00	1.200	1.686	3.75	10.800	12.96	111.0	252.7	622.8
110.00		1.00	1.29	7.866	8.65	0.00	1.200	1.693	5.00	13.933	16.72	144.7	325.0	800.4
115.00		1.00	1.31	7.939	8.73	0.00	1.200	1.701	5.00	13.399	16.08	140.4	312.9	767.6
119.50	Appurtenance(s)	1.00	1.32	8.003	8.80	0.00	1.200	1.707	4.50	11.602	13.92	122.6	271.7	663.3
120.00		1.00	1.32	8.010	8.81	0.00	1.200	1.708	0.50	1.262	1.51	13.3	30.1	72.5
125.00		1.00	1.33	8.079	8.89	0.00	1.200	1.715	5.00	12.331	14.80	131.5	288.2	701.6
129.00	Top - Section 3	1.00	1.34	8.132	8.95	0.00	1.200	1.720	4.00	9.479	11.38	101.8	222.5	538.3
130.00		1.00	1.34	8.145	8.96	0.00	1.200	1.722	1.00	2.316	2.78	24.9	55.1	112.9
135.00		1.00	1.35	8.210	9.03	0.00	1.200	1.728	5.00	11.261	13.51	122.0	262.9	542.7
140.00		1.00	1.36	8.272	9.10	0.00	1.200	1.734	5.00	10.727	12.87	117.1	250.1	514.3
141.00	Appurtenance(s)	1.00	1.36	8.285	9.11	0.00	1.200	1.736	1.00	2.081	2.50	22.8	49.5	100.5
145.00		1.00	1.37	8.333	9.17	0.00	1.200	1.741	4.00	8.110	9.73	89.2	189.7	387.4
149.00	Appurtenance(s)	1.00	1.38	8.381	9.22	0.00	1.200	1.745	4.00	7.767	9.32	85.9	181.3	369.1
Totals:									149.00			4,620.0		33,783.6

Discrete Appurtenance Forces

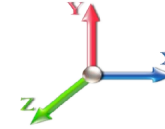
Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	11/26/2018
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 20

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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 24

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	149.00	RFS APXV18-209014	3	8.381	9.219	0.79	1.00	10.54	329.20	0.000	0.000	97.16	0.00	0.00
2	149.00	Lightning Rod	1	8.421	9.264	1.00	1.00	3.42	64.41	0.000	3.500	31.71	0.00	111.00
3	149.00	RFS BA1010	1	8.408	9.249	1.00	1.00	2.27	75.44	0.000	2.350	21.03	0.00	49.43
4	149.00	Commscope	3	8.381	9.219	0.84	1.00	37.03	671.28	0.000	0.000	341.39	0.00	0.00
5	149.00	Standoff Mount	1	8.381	9.219	1.00	1.00	5.88	189.42	0.000	0.000	54.25	0.00	0.00
6	149.00	Ericsson KRY 112 489/2	3	8.381	9.219	0.60	0.90	2.19	62.64	0.000	0.000	20.16	0.00	0.00
7	149.00	Kathrein 782 11056	3	8.381	9.219	0.60	0.90	0.66	23.26	0.000	0.000	6.09	0.00	0.00
8	149.00	Low Profile Platform	1	8.381	9.219	1.00	1.00	39.66	2808.91	0.000	0.000	365.63	0.00	0.00
9	149.00	RFS	3	8.381	9.219	0.79	1.00	17.30	315.60	0.000	0.000	159.48	0.00	0.00
10	141.00	Powerwave 1001983	3	8.285	9.113	0.54	0.80	0.48	12.38	0.000	0.000	4.37	0.00	0.00
11	141.00	Ericsson RRUS-A2	3	8.285	9.113	0.54	0.80	3.84	81.03	0.000	0.000	34.99	0.00	0.00
12	141.00	Powerwave LGP-21901	6	8.285	9.113	0.54	0.80	1.92	1.20	0.000	0.000	17.47	0.00	0.00
13	141.00	Raycap DC6-48-60-18-8F	1	8.285	9.113	0.54	0.80	1.79	123.12	0.000	0.000	16.34	0.00	0.00
14	141.00	Ericsson RRUS 32	3	8.309	9.140	0.00	1.00	6.68	421.61	0.000	2.000	61.04	0.00	122.08
15	141.00	Low Profile Platform	1	8.285	9.113	1.00	1.00	39.57	2801.76	0.000	0.000	360.55	0.00	0.00
16	141.00	80010798	3	8.285	9.113	0.00	1.00	36.39	1034.97	0.000	0.000	331.62	0.00	0.00
17	141.00	Ericsson 4478 B5	3	8.309	9.140	0.00	1.00	7.16	326.38	0.000	2.000	65.41	0.00	130.82
18	141.00	Ericsson 4426 B66	3	8.309	9.140	0.00	1.00	4.87	291.14	0.000	2.000	44.47	0.00	88.93
19	141.00	Ericsson RRUS 12	3	8.309	9.140	0.54	0.80	7.07	271.15	0.000	2.000	64.65	0.00	129.30
20	141.00	Powerwave	3	8.309	9.140	0.54	0.80	1.70	100.58	0.000	2.000	15.53	0.00	31.06
21	141.00	Powerwave LGP-21401	9	8.309	9.140	0.54	0.80	8.33	312.16	0.000	2.000	76.12	0.00	152.24
22	141.00	HPA-65R-BUU-H6	3	8.309	9.140	0.66	0.80	21.95	922.10	0.000	2.000	200.61	0.00	401.22
23	141.00	7770	3	8.285	9.113	0.62	0.80	12.12	528.80	0.000	0.000	110.46	0.00	0.00
24	141.00	Ericsson RRUS 11	3	8.285	9.113	0.54	0.80	5.06	352.38	0.000	0.000	46.16	0.00	0.00
25	129.00	Standoff Mount	1	8.132	8.945	1.00	1.00	5.83	187.71	0.000	0.000	52.12	0.00	0.00
26	129.00	RFS BA40-01	1	8.206	9.027	1.00	1.00	10.08	27.27	0.000	5.750	90.98	0.00	523.14
27	119.50	ALU 2x90 AWS	3	8.010	8.811	0.54	0.80	5.79	485.52	0.000	0.500	50.98	0.00	25.49
28	119.50	Antel	6	8.003	8.803	0.59	0.80	25.64	566.49	0.000	0.000	225.71	0.00	0.00
29	119.50	Andrew SBNHH-1D65B	3	8.025	8.828	0.66	0.80	18.78	737.73	0.000	1.600	165.83	0.00	265.32
30	119.50	Andrew SBNHH-1D65B	3	8.003	8.803	0.66	0.80	18.78	737.73	0.000	0.000	165.37	0.00	0.00
31	119.50	Andrew	1	8.003	8.803	0.54	0.80	2.53	125.62	0.000	0.000	22.29	0.00	0.00
32	119.50	Low Profile Platform	1	8.003	8.803	1.00	1.00	39.28	2780.56	0.000	0.000	345.79	0.00	0.00
33	93.00	Single Arm Mount	2	7.595	8.355	1.00	1.00	11.40	367.84	0.000	0.000	95.22	0.00	0.00
34	93.00	RFS 1142	2	7.703	8.473	1.00	1.00	24.69	-260.62	0.000	6.500	209.23	0.00	1360.02
35	92.00	Single Arm Mount	1	7.578	8.336	1.00	1.00	5.69	183.80	0.000	0.000	47.47	0.00	0.00
36	92.00	Sinclair SD210-SF3P2LDF	1	7.711	8.482	1.00	1.00	11.54	62.24	0.000	8.000	97.91	0.00	783.31

Totals: 18,122.83

4,115.58

Total Applied Force Summary

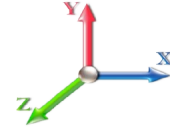
Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	11/26/2018
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 21

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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 24

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		166.75	1669.81	0.00	0.00
10.00		163.51	1832.04	0.00	0.00
15.00		162.10	1813.05	0.00	0.00
20.00		167.93	1788.95	0.00	0.00
25.00		171.72	1761.79	0.00	0.00
30.00		174.08	1732.55	0.00	0.00
35.00		175.38	1701.80	0.00	0.00
40.00		175.84	1669.89	0.00	0.00
45.00		175.62	1637.05	0.00	0.00
47.75		95.80	887.06	0.00	0.00
50.00		79.13	1119.81	0.00	0.00
53.25		114.12	1595.55	0.00	0.00
55.00		61.03	552.88	0.00	0.00
60.00		174.29	1553.33	0.00	0.00
65.00		172.28	1518.13	0.00	0.00
70.00		169.94	1482.50	0.00	0.00
75.00		167.30	1446.50	0.00	0.00
80.00		164.39	1410.18	0.00	0.00
85.00		161.25	1373.55	0.00	0.00
90.00		157.87	1336.65	0.00	0.00
92.00	(2) attachments	207.32	771.66	0.00	783.31
93.00	(4) attachments	335.17	367.40	0.00	1360.02
95.00		61.07	517.90	0.00	0.00
97.25		68.00	580.98	0.00	0.00
100.00		83.30	984.10	0.00	0.00
101.25		37.41	441.95	0.00	0.00
105.00		111.05	847.78	0.00	0.00
110.00		144.67	1100.56	0.00	0.00
115.00		140.42	1067.97	0.00	0.00
119.50	(17) attachments	1098.53	6367.36	0.00	290.81
120.00		13.35	95.03	0.00	0.00
125.00		131.49	926.67	0.00	0.00
129.00	(2) attachments	244.86	933.50	0.00	523.14
130.00		24.90	157.37	0.00	0.00
135.00		122.04	764.98	0.00	0.00
140.00		117.13	736.77	0.00	0.00
141.00	(50) attachments	1472.53	7725.75	0.00	1055.65
145.00		89.21	500.98	0.00	0.00
149.00	(19) attachments	1182.83	5022.94	0.00	160.43
	Totals:	8,735.60	59,794.72	0.00	4,173.35

Linear Appurtenance Segment Forces (Factored)

Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	11/26/2018
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 22

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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 24

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)
95.00	7/8" Coax	Yes	1.00	0.000	1.11	0.37	0.00	0.017	0.000	7.629	0.00	4.95
97.25	7/8" Coax	Yes	2.25	0.000	1.11	0.84	0.00	0.034	0.000	7.666	0.00	11.17
100.00	7/8" Coax	Yes	2.75	0.000	1.11	1.02	0.00	0.035	0.000	7.711	0.00	13.72
101.25	7/8" Coax	Yes	1.25	0.000	1.11	0.47	0.00	0.035	0.000	7.731	0.00	6.25
105.00	7/8" Coax	Yes	3.75	0.000	1.11	1.40	0.00	0.036	0.000	7.790	0.00	18.86
110.00	7/8" Coax	Yes	5.00	0.000	1.11	1.87	0.00	0.037	0.000	7.866	0.00	25.34
115.00	7/8" Coax	Yes	5.00	0.000	1.11	1.88	0.00	0.039	0.000	7.939	0.00	25.53
119.50	7/8" Coax	Yes	4.50	0.000	1.11	1.70	0.00	0.040	0.000	8.003	0.00	23.12
120.00	7/8" Coax	Yes	0.50	0.000	1.11	0.19	0.00	0.041	0.000	8.010	0.00	2.57
125.00	7/8" Coax	Yes	5.00	0.000	1.11	1.89	0.00	0.042	0.000	8.079	0.00	25.89
129.00	7/8" Coax	Yes	4.00	0.000	1.11	1.52	0.00	0.044	0.000	8.132	0.00	20.82
130.00	7/8" Coax	Yes	1.00	0.000	1.11	0.38	0.00	0.046	0.000	8.145	0.00	5.21
135.00	7/8" Coax	Yes	5.00	0.000	1.11	1.90	0.00	0.047	0.000	8.210	0.00	26.22
140.00	7/8" Coax	Yes	5.00	0.000	1.11	1.91	0.00	0.050	0.000	8.272	0.00	26.38
141.00	7/8" Coax	Yes	1.00	0.000	1.11	0.38	0.00	0.052	0.000	8.285	0.00	5.28
145.00	7/8" Coax	Yes	4.00	0.000	1.11	1.53	0.00	0.053	0.000	8.333	0.00	21.23
149.00	7/8" Coax	Yes	4.00	0.000	1.11	1.53	0.00	0.056	0.000	8.381	0.00	21.32
Totals:											0.0	283.9

Calculated Forces

Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	11/26/2018
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II

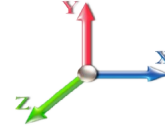


Page: 23

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

Iterations 24

Dead Load Factor 1.20
Wind Load Factor 1.00



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-59.79	-8.77	0.00	-950.56	0.00	950.56	3273.57	1636.79	7496.53	3753.83	0.00	0.000	0.000	0.272
5.00	-58.11	-8.66	0.00	-906.72	0.00	906.72	3239.51	1619.75	7247.24	3629.01	0.03	-0.061	0.000	0.268
10.00	-56.27	-8.56	0.00	-863.41	0.00	863.41	3203.51	1601.76	6997.34	3503.87	0.13	-0.124	0.000	0.264
15.00	-54.45	-8.45	0.00	-820.62	0.00	820.62	3165.58	1582.79	6747.13	3378.58	0.30	-0.188	0.000	0.260
20.00	-52.65	-8.34	0.00	-778.35	0.00	778.35	3125.72	1562.86	6496.92	3253.29	0.53	-0.253	0.000	0.256
25.00	-50.88	-8.22	0.00	-736.66	0.00	736.66	3083.93	1541.97	6247.01	3128.15	0.83	-0.320	0.000	0.252
30.00	-49.14	-8.09	0.00	-695.57	0.00	695.57	3040.21	1520.10	5997.71	3003.31	1.20	-0.388	0.000	0.248
35.00	-47.43	-7.96	0.00	-655.10	0.00	655.10	2994.56	1497.28	5749.33	2878.94	1.64	-0.458	0.000	0.243
40.00	-45.75	-7.83	0.00	-615.29	0.00	615.29	2946.97	1473.49	5502.17	2755.17	2.16	-0.529	0.000	0.239
45.00	-44.11	-7.68	0.00	-576.14	0.00	576.14	2897.46	1448.73	5256.53	2632.17	2.75	-0.601	0.000	0.234
47.75	-43.22	-7.60	0.00	-555.02	0.00	555.02	2869.40	1434.70	5122.20	2564.91	3.11	-0.642	0.000	0.231
50.00	-42.09	-7.54	0.00	-537.91	0.00	537.91	2846.01	1423.00	5012.74	2510.09	3.42	-0.676	0.000	0.229
53.25	-40.49	-7.44	0.00	-513.39	0.00	513.39	2837.57	1418.79	4973.81	2490.60	3.90	-0.726	0.000	0.220
55.00	-39.93	-7.40	0.00	-500.38	0.00	500.38	2819.00	1409.50	4889.10	2448.18	4.17	-0.753	0.000	0.219
60.00	-38.37	-7.26	0.00	-463.36	0.00	463.36	2764.64	1382.32	4648.65	2327.78	5.00	-0.826	0.000	0.213
65.00	-36.85	-7.11	0.00	-427.08	0.00	427.08	2708.35	1354.17	4410.81	2208.68	5.91	-0.899	0.000	0.207
70.00	-35.36	-6.96	0.00	-391.53	0.00	391.53	2650.12	1325.06	4175.87	2091.04	6.89	-0.974	0.000	0.201
75.00	-33.91	-6.81	0.00	-356.73	0.00	356.73	2589.96	1294.98	3944.16	1975.01	7.95	-1.049	0.000	0.194
80.00	-32.49	-6.67	0.00	-322.66	0.00	322.66	2527.88	1263.94	3715.96	1860.74	9.09	-1.125	0.000	0.186
85.00	-31.11	-6.52	0.00	-289.33	0.00	289.33	2463.86	1231.93	3491.60	1748.39	10.31	-1.201	0.000	0.178
90.00	-29.78	-6.36	0.00	-256.75	0.00	256.75	2397.91	1198.95	3271.37	1638.12	11.60	-1.276	0.000	0.169
92.00	-29.01	-6.14	0.00	-243.25	0.00	243.25	2370.99	1185.49	3184.51	1594.62	12.15	-1.307	0.000	0.165
93.00	-28.64	-5.81	0.00	-235.74	0.00	235.74	2357.41	1178.70	3141.35	1573.01	12.42	-1.322	0.000	0.162
95.00	-28.13	-5.76	0.00	-224.12	0.00	224.12	2330.03	1165.01	3055.58	1530.06	12.98	-1.353	0.000	0.159
97.25	-27.54	-5.69	0.00	-211.17	0.00	211.17	2298.85	1149.42	2960.01	1482.20	13.63	-1.387	0.000	0.154
100.00	-26.56	-5.60	0.00	-195.52	0.00	195.52	2260.21	1130.11	2844.54	1424.39	14.44	-1.428	0.000	0.149
101.25	-26.11	-5.57	0.00	-188.52	0.00	188.52	1705.50	852.75	2167.94	1085.58	14.82	-1.447	0.000	0.189
105.00	-25.26	-5.46	0.00	-167.65	0.00	167.65	1669.73	834.87	2056.27	1029.66	15.97	-1.501	0.000	0.178
110.00	-24.16	-5.32	0.00	-140.33	0.00	140.33	1620.35	810.17	1909.79	956.31	17.59	-1.582	0.000	0.162
115.00	-23.09	-5.18	0.00	-113.71	0.00	113.71	1569.04	784.52	1766.36	884.49	19.29	-1.658	0.000	0.143
119.50	-16.75	-3.90	0.00	-90.11	0.00	90.11	1521.21	760.60	1640.13	821.29	20.88	-1.721	0.000	0.121
120.00	-16.66	-3.90	0.00	-88.16	0.00	88.16	1515.79	757.90	1626.29	814.35	21.06	-1.728	0.000	0.119
125.00	-15.73	-3.75	0.00	-68.67	0.00	68.67	1460.62	730.31	1489.87	746.04	22.91	-1.790	0.000	0.103
129.00	-14.80	-3.49	0.00	-53.13	0.00	53.13	1406.38	703.19	1375.06	688.55	24.43	-1.835	0.000	0.088
129.00	-14.80	-3.49	0.00	-53.13	0.00	53.13	978.70	489.35	961.93	481.68	24.43	-1.835	0.000	0.125
130.00	-14.65	-3.47	0.00	-49.65	0.00	49.65	971.83	485.92	944.91	473.15	24.81	-1.846	0.000	0.120
135.00	-13.88	-3.33	0.00	-32.32	0.00	32.32	936.33	468.17	860.89	431.08	26.78	-1.905	0.000	0.090
140.00	-13.15	-3.19	0.00	-15.67	0.00	15.67	898.90	449.45	778.95	390.05	28.80	-1.945	0.000	0.055
141.00	-5.48	-1.46	0.00	-11.42	0.00	11.42	891.19	445.59	762.84	381.99	29.21	-1.951	0.000	0.036
145.00	-4.98	-1.35	0.00	-5.58	0.00	5.58	859.54	429.77	699.40	350.22	30.85	-1.965	0.000	0.022
149.00	0.00	-1.18	0.00	-0.16	0.00	0.16	826.66	413.33	637.68	319.32	32.50	-1.970	0.000	0.001

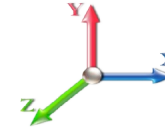
Seismic Segment Forces (Factored)

Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	11/26/2018
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 24

Load Case: 1.2D + 1.0E				Iterations 22
Gust Response Factor	1.10	Sds	0.14	Ss 0.21
Dead Load Factor	1.20	Seismic Load Factor	1.00	S1 0.07
Wind Load Factor	0.00	Structure Frequency	0.37	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		0.00	0.00	0.01	0.00	0.00	
5.00		927.61	0.00	0.04	0.02	16.96	
10.00		906.06	0.01	0.06	0.03	21.32	
15.00		884.52	0.02	0.06	0.04	22.99	
20.00		862.97	0.04	0.07	0.04	23.50	
25.00		841.43	0.06	0.07	0.04	23.57	
30.00		819.89	0.08	0.07	0.04	23.53	
35.00		798.34	0.11	0.07	0.04	23.51	
40.00		776.80	0.14	0.07	0.03	23.49	
45.00		755.26	0.18	0.07	0.03	23.32	
47.75	Bot - Section 2	406.21	0.20	0.06	0.02	12.60	
50.00		659.75	0.22	0.06	0.02	20.44	
53.25	Top - Section 1	937.57	0.25	0.06	0.02	28.58	
55.00		250.50	0.26	0.05	0.02	7.50	
60.00		701.17	0.31	0.04	0.01	18.82	
65.00		679.63	0.37	0.03	0.01	14.04	
70.00		658.08	0.42	0.01	0.01	7.01	
75.00		636.54	0.49	-0.01	0.01	-1.54	
80.00		614.99	0.55	-0.03	0.01	-9.78	
85.00		593.45	0.62	-0.06	0.02	-15.84	
90.00		571.91	0.70	-0.09	0.03	-19.01	
92.00	Appurtenance(s)	301.23	0.73	-0.09	0.04	-10.43	
93.00	Appurtenance(s)	250.07	0.74	-0.10	0.04	-8.76	
95.00		217.56	0.77	-0.11	0.05	-7.70	
97.25	Bot - Section 3	240.63	0.81	-0.11	0.06	-8.43	
100.00		522.91	0.86	-0.12	0.07	-17.55	
101.25	Top - Section 2	233.81	0.88	-0.12	0.08	-7.61	
105.00		308.44	0.94	-0.12	0.11	-8.66	
110.00		396.18	1.03	-0.10	0.15	-7.59	
115.00		378.94	1.13	-0.05	0.21	-2.59	
119.50	Appurtenance(s)	2362.3	1.22	0.02	0.27	16.86	
120.00		35.40	1.23	0.03	0.28	0.31	
125.00		344.47	1.33	0.17	0.37	9.65	
129.00	Top - Section 3	355.17	1.42	0.32	0.45	16.30	
130.00		48.18	1.44	0.37	0.48	2.44	
135.00		233.13	1.55	0.64	0.61	17.96	
140.00		220.21	1.67	1.01	0.77	23.59	
141.00	Appurtenance(s)	3204.2	1.69	1.10	0.81	363.98	
145.00		164.79	1.79	1.50	0.96	23.24	
149.00	Appurtenance(s)	2086.1	1.89	1.98	1.14	356.80	
Totals:		26,186.5				1,016.8	Total Wind: 25,230.0

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

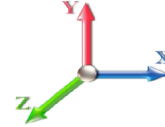
Calculated Forces

Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	11/26/2018
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 25

Load Case: 1.2D + 1.0E						Iterations 22
Gust Response Factor	1.10			Sds	0.14	Ss 0.21
Dead Load Factor	1.20	Seismic Load Factor	1.00	Sd1	0.04	S1 0.07
Wind Load Factor	0.00	Structure Frequency	0.37	SA	0.02	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	-39.03	-1.14	0.00	-136.84	0.00	136.84	3273.57	1636.79	7496.53	3753.83	0.00	0.00	0.00	0.048
5.00	-37.80	-1.13	0.00	-131.12	0.00	131.12	3239.51	1619.75	7247.24	3629.01	0.00	-0.01	0.048	
10.00	-36.43	-1.12	0.00	-125.45	0.00	125.45	3203.51	1601.76	6997.34	3503.87	0.02	-0.02	0.047	
15.00	-35.08	-1.10	0.00	-119.86	0.00	119.86	3165.58	1582.79	6747.13	3378.58	0.04	-0.03	0.047	
20.00	-33.76	-1.08	0.00	-114.36	0.00	114.36	3125.72	1562.86	6496.92	3253.29	0.08	-0.04	0.046	
25.00	-32.47	-1.06	0.00	-108.96	0.00	108.96	3083.93	1541.97	6247.01	3128.15	0.12	-0.05	0.045	
30.00	-31.20	-1.04	0.00	-103.64	0.00	103.64	3040.21	1520.10	5997.71	3003.31	0.17	-0.06	0.045	
35.00	-29.96	-1.02	0.00	-98.43	0.00	98.43	2994.56	1497.28	5749.33	2878.94	0.24	-0.07	0.044	
40.00	-28.74	-1.00	0.00	-93.31	0.00	93.31	2946.97	1473.49	5502.17	2755.17	0.32	-0.08	0.044	
45.00	-27.55	-0.98	0.00	-88.28	0.00	88.28	2897.46	1448.73	5256.53	2632.17	0.40	-0.09	0.043	
47.75	-26.91	-0.97	0.00	-85.58	0.00	85.58	2869.40	1434.70	5122.20	2564.91	0.46	-0.10	0.043	
50.00	-25.99	-0.95	0.00	-83.39	0.00	83.39	2846.01	1423.00	5012.74	2510.09	0.50	-0.10	0.042	
53.25	-24.68	-0.93	0.00	-80.29	0.00	80.29	2837.57	1418.79	4973.81	2490.60	0.57	-0.11	0.041	
55.00	-24.28	-0.92	0.00	-78.67	0.00	78.67	2819.00	1409.50	4889.10	2448.18	0.61	-0.11	0.041	
60.00	-23.15	-0.90	0.00	-74.07	0.00	74.07	2764.64	1382.32	4648.65	2327.78	0.74	-0.12	0.040	
65.00	-22.05	-0.89	0.00	-69.55	0.00	69.55	2708.35	1354.17	4410.81	2208.68	0.87	-0.14	0.040	
70.00	-20.98	-0.89	0.00	-65.09	0.00	65.09	2650.12	1325.06	4175.87	2091.04	1.02	-0.15	0.039	
75.00	-19.93	-0.89	0.00	-60.65	0.00	60.65	2589.96	1294.98	3944.16	1975.01	1.18	-0.16	0.038	
80.00	-18.91	-0.89	0.00	-56.21	0.00	56.21	2527.88	1263.94	3715.96	1860.74	1.36	-0.17	0.038	
85.00	-17.91	-0.89	0.00	-51.76	0.00	51.76	2463.86	1231.93	3491.60	1748.39	1.55	-0.19	0.037	
90.00	-16.94	-0.89	0.00	-47.30	0.00	47.30	2397.91	1198.95	3271.37	1638.12	1.75	-0.20	0.036	
92.00	-16.47	-0.89	0.00	-45.52	0.00	45.52	2370.99	1185.49	3184.51	1594.62	1.84	-0.21	0.035	
93.00	-16.11	-0.89	0.00	-44.63	0.00	44.63	2357.41	1178.70	3141.35	1573.01	1.88	-0.21	0.035	
95.00	-15.74	-0.89	0.00	-42.85	0.00	42.85	2330.03	1165.01	3055.58	1530.06	1.97	-0.22	0.035	
97.25	-15.33	-0.89	0.00	-40.85	0.00	40.85	2298.85	1149.42	2960.01	1482.20	2.07	-0.22	0.034	
100.00	-14.55	-0.89	0.00	-38.40	0.00	38.40	2260.21	1130.11	2844.54	1424.39	2.20	-0.23	0.033	
101.25	-14.20	-0.89	0.00	-37.29	0.00	37.29	1705.50	852.75	2167.94	1085.58	2.26	-0.23	0.043	
105.00	-13.62	-0.89	0.00	-33.95	0.00	33.95	1669.73	834.87	2056.27	1029.66	2.45	-0.24	0.041	
110.00	-12.87	-0.89	0.00	-29.50	0.00	29.50	1620.35	810.17	1909.79	956.31	2.72	-0.26	0.039	
115.00	-12.14	-0.89	0.00	-25.04	0.00	25.04	1569.04	784.52	1766.36	884.49	3.00	-0.28	0.036	
119.50	-9.06	-0.86	0.00	-21.03	0.00	21.03	1521.21	760.60	1640.13	821.29	3.27	-0.29	0.032	
120.00	-9.00	-0.86	0.00	-20.60	0.00	20.60	1515.79	757.90	1626.29	814.35	3.30	-0.29	0.031	
125.00	-8.38	-0.85	0.00	-16.30	0.00	16.30	1460.62	730.31	1489.87	746.04	3.61	-0.31	0.028	
129.00	-7.80	-0.83	0.00	-12.90	0.00	12.90	1406.38	703.19	1375.06	688.55	3.88	-0.32	0.024	
129.00	-7.80	-0.83	0.00	-12.90	0.00	12.90	978.70	489.35	961.93	481.68	3.88	-0.32	0.035	
130.00	-7.70	-0.83	0.00	-12.07	0.00	12.07	971.83	485.92	944.91	473.15	3.94	-0.32	0.033	
135.00	-7.23	-0.81	0.00	-7.92	0.00	7.92	936.33	468.17	860.89	431.08	4.29	-0.34	0.026	
140.00	-6.77	-0.78	0.00	-3.87	0.00	3.87	898.90	449.45	778.95	390.05	4.65	-0.35	0.017	
141.00	-2.88	-0.40	0.00	-3.08	0.00	3.08	891.19	445.59	762.84	381.99	4.72	-0.35	0.011	
145.00	-2.59	-0.37	0.00	-1.49	0.00	1.49	859.54	429.77	699.40	350.22	5.01	-0.35	0.007	
149.00	0.00	-0.36	0.00	0.00	0.00	0.00	826.66	413.33	637.68	319.32	5.31	-0.35	0.000	

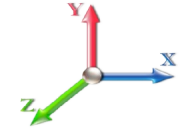
Seismic Segment Forces (Factored)

Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	11/26/2018
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 26

Load Case: 0.9D + 1.0E				Iterations 22
Gust Response Factor	1.10	Sds	0.14	Ss 0.21
Dead Load Factor	0.90	Seismic Load Factor	1.00	S1 0.07
Wind Load Factor	0.00	Structure Frequency	0.37	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		0.00	0.00	0.01	0.00	0.00	
5.00		927.61	0.00	0.04	0.02	16.96	
10.00		906.06	0.01	0.06	0.03	21.32	
15.00		884.52	0.02	0.06	0.04	22.99	
20.00		862.97	0.04	0.07	0.04	23.50	
25.00		841.43	0.06	0.07	0.04	23.57	
30.00		819.89	0.08	0.07	0.04	23.53	
35.00		798.34	0.11	0.07	0.04	23.51	
40.00		776.80	0.14	0.07	0.03	23.49	
45.00		755.26	0.18	0.07	0.03	23.32	
47.75	Bot - Section 2	406.21	0.20	0.06	0.02	12.60	
50.00		659.75	0.22	0.06	0.02	20.44	
53.25	Top - Section 1	937.57	0.25	0.06	0.02	28.58	
55.00		250.50	0.26	0.05	0.02	7.50	
60.00		701.17	0.31	0.04	0.01	18.82	
65.00		679.63	0.37	0.03	0.01	14.04	
70.00		658.08	0.42	0.01	0.01	7.01	
75.00		636.54	0.49	-0.01	0.01	-1.54	
80.00		614.99	0.55	-0.03	0.01	-9.78	
85.00		593.45	0.62	-0.06	0.02	-15.84	
90.00		571.91	0.70	-0.09	0.03	-19.01	
92.00	Appurtenance(s)	301.23	0.73	-0.09	0.04	-10.43	
93.00	Appurtenance(s)	250.07	0.74	-0.10	0.04	-8.76	
95.00		217.56	0.77	-0.11	0.05	-7.70	
97.25	Bot - Section 3	240.63	0.81	-0.11	0.06	-8.43	
100.00		522.91	0.86	-0.12	0.07	-17.55	
101.25	Top - Section 2	233.81	0.88	-0.12	0.08	-7.61	
105.00		308.44	0.94	-0.12	0.11	-8.66	
110.00		396.18	1.03	-0.10	0.15	-7.59	
115.00		378.94	1.13	-0.05	0.21	-2.59	
119.50	Appurtenance(s)	2362.3	1.22	0.02	0.27	16.86	
120.00		35.40	1.23	0.03	0.28	0.31	
125.00		344.47	1.33	0.17	0.37	9.65	
129.00	Top - Section 3	355.17	1.42	0.32	0.45	16.30	
130.00		48.18	1.44	0.37	0.48	2.44	
135.00		233.13	1.55	0.64	0.61	17.96	
140.00		220.21	1.67	1.01	0.77	23.59	
141.00	Appurtenance(s)	3204.2	1.69	1.10	0.81	363.98	
145.00		164.79	1.79	1.50	0.96	23.24	
149.00	Appurtenance(s)	2086.1	1.89	1.98	1.14	356.80	
Totals:		26,186.5				1,016.8	Total Wind: 25,230.0

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

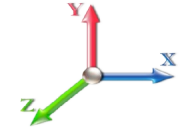
Calculated Forces

Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	11/26/2018
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 27

Load Case: 0.9D + 1.0E										Iterations 22
Gust Response Factor 1.10						Sds 0.14				Ss 0.21
Dead Load Factor 0.90		Seismic Load Factor 1.00				Sd1 0.04				S1 0.07
Wind Load Factor 0.00		Structure Frequency 0.37				SA 0.02		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	-29.27	-1.14	0.00	-135.19	0.00	135.19	3273.57	1636.79	7496.53	3753.83	0.00	0.00	0.00	0.045
5.00	-28.35	-1.13	0.00	-129.47	0.00	129.47	3239.51	1619.75	7247.24	3629.01	0.00	0.00	-0.01	0.044
10.00	-27.32	-1.11	0.00	-123.81	0.00	123.81	3203.51	1601.76	6997.34	3503.87	0.02	0.02	-0.02	0.044
15.00	-26.31	-1.09	0.00	-118.24	0.00	118.24	3165.58	1582.79	6747.13	3378.58	0.04	0.04	-0.03	0.043
20.00	-25.32	-1.08	0.00	-112.77	0.00	112.77	3125.72	1562.86	6496.92	3253.29	0.08	0.08	-0.04	0.043
25.00	-24.35	-1.05	0.00	-107.39	0.00	107.39	3083.93	1541.97	6247.01	3128.15	0.12	0.12	-0.05	0.042
30.00	-23.40	-1.03	0.00	-102.12	0.00	102.12	3040.21	1520.10	5997.71	3003.31	0.17	0.17	-0.06	0.042
35.00	-22.47	-1.01	0.00	-96.94	0.00	96.94	2994.56	1497.28	5749.33	2878.94	0.24	0.24	-0.07	0.041
40.00	-21.56	-0.99	0.00	-91.87	0.00	91.87	2946.97	1473.49	5502.17	2755.17	0.31	0.31	-0.08	0.041
45.00	-20.66	-0.97	0.00	-86.90	0.00	86.90	2897.46	1448.73	5256.53	2632.17	0.40	0.40	-0.09	0.040
47.75	-20.18	-0.96	0.00	-84.23	0.00	84.23	2869.40	1434.70	5122.20	2564.91	0.45	0.45	-0.09	0.040
50.00	-19.49	-0.94	0.00	-82.07	0.00	82.07	2846.01	1423.00	5012.74	2510.09	0.50	0.50	-0.10	0.040
53.25	-18.51	-0.91	0.00	-79.01	0.00	79.01	2837.57	1418.79	4973.81	2490.60	0.57	0.57	-0.11	0.038
55.00	-18.21	-0.91	0.00	-77.41	0.00	77.41	2819.00	1409.50	4889.10	2448.18	0.61	0.61	-0.11	0.038
60.00	-17.36	-0.89	0.00	-72.88	0.00	72.88	2764.64	1382.32	4648.65	2327.78	0.73	0.73	-0.12	0.038
65.00	-16.54	-0.88	0.00	-68.42	0.00	68.42	2708.35	1354.17	4410.81	2208.68	0.86	0.86	-0.13	0.037
70.00	-15.73	-0.87	0.00	-64.03	0.00	64.03	2650.12	1325.06	4175.87	2091.04	1.01	1.01	-0.15	0.037
75.00	-14.95	-0.87	0.00	-59.67	0.00	59.67	2589.96	1294.98	3944.16	1975.01	1.17	1.17	-0.16	0.036
80.00	-14.18	-0.87	0.00	-55.31	0.00	55.31	2527.88	1263.94	3715.96	1860.74	1.34	1.34	-0.17	0.035
85.00	-13.43	-0.88	0.00	-50.93	0.00	50.93	2463.86	1231.93	3491.60	1748.39	1.53	1.53	-0.18	0.035
90.00	-12.71	-0.88	0.00	-46.56	0.00	46.56	2397.91	1198.95	3271.37	1638.12	1.73	1.73	-0.20	0.034
92.00	-12.35	-0.87	0.00	-44.81	0.00	44.81	2370.99	1185.49	3184.51	1594.62	1.81	1.81	-0.20	0.033
93.00	-12.08	-0.87	0.00	-43.93	0.00	43.93	2357.41	1178.70	3141.35	1573.01	1.85	1.85	-0.21	0.033
95.00	-11.80	-0.87	0.00	-42.18	0.00	42.18	2330.03	1165.01	3055.58	1530.06	1.94	1.94	-0.21	0.033
97.25	-11.49	-0.88	0.00	-40.21	0.00	40.21	2298.85	1149.42	2960.01	1482.20	2.04	2.04	-0.22	0.032
100.00	-10.91	-0.87	0.00	-37.81	0.00	37.81	2260.21	1130.11	2844.54	1424.39	2.17	2.17	-0.23	0.031
101.25	-10.65	-0.87	0.00	-36.71	0.00	36.71	1705.50	852.75	2167.94	1085.58	2.23	2.23	-0.23	0.040
105.00	-10.22	-0.88	0.00	-33.44	0.00	33.44	1669.73	834.87	2056.27	1029.66	2.42	2.42	-0.24	0.039
110.00	-9.65	-0.88	0.00	-29.06	0.00	29.06	1620.35	810.17	1909.79	956.31	2.68	2.68	-0.26	0.036
115.00	-9.11	-0.88	0.00	-24.68	0.00	24.68	1569.04	784.52	1766.36	884.49	2.96	2.96	-0.27	0.034
119.50	-6.79	-0.85	0.00	-20.74	0.00	20.74	1521.21	760.60	1640.13	821.29	3.22	3.22	-0.29	0.030
120.00	-6.75	-0.85	0.00	-20.32	0.00	20.32	1515.79	757.90	1626.29	814.35	3.25	3.25	-0.29	0.029
125.00	-6.29	-0.84	0.00	-16.08	0.00	16.08	1460.62	730.31	1489.87	746.04	3.56	3.56	-0.30	0.026
129.00	-5.85	-0.82	0.00	-12.73	0.00	12.73	1406.38	703.19	1375.06	688.55	3.82	3.82	-0.31	0.023
129.00	-5.85	-0.82	0.00	-12.73	0.00	12.73	978.70	489.35	961.93	481.68	3.82	3.82	-0.31	0.032
130.00	-5.78	-0.82	0.00	-11.91	0.00	11.91	971.83	485.92	944.91	473.15	3.89	3.89	-0.32	0.031
135.00	-5.42	-0.80	0.00	-7.82	0.00	7.82	936.33	468.17	860.89	431.08	4.22	4.22	-0.33	0.024
140.00	-5.07	-0.77	0.00	-3.82	0.00	3.82	898.90	449.45	778.95	390.05	4.58	4.58	-0.34	0.015
141.00	-2.16	-0.39	0.00	-3.05	0.00	3.05	891.19	445.59	762.84	381.99	4.65	4.65	-0.34	0.010
145.00	-1.94	-0.37	0.00	-1.47	0.00	1.47	859.54	429.77	699.40	350.22	4.94	4.94	-0.35	0.006
149.00	0.00	-0.36	0.00	0.00	0.00	0.00	826.66	413.33	637.68	319.32	5.23	5.23	-0.35	0.000

Wind Loading - Shaft

Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	11/26/2018
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 28

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



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		1.00	0.85	7.442	8.19	261.76	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	7.442	8.19	255.78	0.650	0.000	5.00	23.389	15.20	124.5	0.0	927.6
10.00		1.00	0.85	7.442	8.19	249.80	0.650	0.000	5.00	22.849	14.85	121.6	0.0	906.1
15.00		1.00	0.86	7.534	8.29	245.33	0.650	0.000	5.00	22.309	14.50	120.2	0.0	884.5
20.00		1.00	0.91	7.978	8.78	246.26	0.650	0.000	5.00	21.769	14.15	124.2	0.0	863.0
25.00		1.00	0.95	8.345	9.18	245.54	0.650	0.000	5.00	21.229	13.80	126.7	0.0	841.4
30.00		1.00	0.99	8.659	9.53	243.68	0.650	0.000	5.00	20.689	13.45	128.1	0.0	819.9
35.00		1.00	1.02	8.936	9.83	241.00	0.650	0.000	5.00	20.148	13.10	128.7	0.0	798.3
40.00		1.00	1.05	9.184	10.10	237.68	0.650	0.000	5.00	19.608	12.75	128.8	0.0	776.8
45.00		1.00	1.07	9.410	10.35	233.85	0.650	0.000	5.00	19.068	12.39	128.3	0.0	755.3
47.75	Bot - Section 2	1.00	1.09	9.525	10.48	231.57	0.650	0.000	2.75	10.257	6.67	69.9	0.0	406.2
50.00		1.00	1.10	9.616	10.58	229.62	0.650	0.000	2.25	8.390	5.45	57.7	0.0	659.8
53.25	Top - Section 1	1.00	1.11	9.742	10.72	226.67	0.650	0.000	3.25	11.925	7.75	83.1	0.0	937.6
55.00		1.00	1.12	9.807	10.79	228.39	0.650	0.000	1.75	6.327	4.11	44.4	0.0	250.5
60.00		1.00	1.14	9.986	10.98	223.53	0.650	0.000	5.00	17.712	11.51	126.5	0.0	701.2
65.00		1.00	1.16	10.153	11.17	218.41	0.650	0.000	5.00	17.172	11.16	124.7	0.0	679.6
70.00		1.00	1.18	10.310	11.34	213.06	0.650	0.000	5.00	16.632	10.81	122.6	0.0	658.1
75.00		1.00	1.19	10.459	11.50	207.51	0.650	0.000	5.00	16.092	10.46	120.3	0.0	636.5
80.00		1.00	1.21	10.600	11.66	201.77	0.650	0.000	5.00	15.551	10.11	117.9	0.0	615.0
85.00		1.00	1.23	10.734	11.81	195.87	0.650	0.000	5.00	15.011	9.76	115.2	0.0	593.4
90.00		1.00	1.24	10.863	11.95	189.82	0.650	0.000	5.00	14.471	9.41	112.4	0.0	571.9
92.00	Appurtenance(s)	1.00	1.25	10.913	12.00	187.36	0.650	0.000	2.00	5.637	3.66	44.0	0.0	222.7
93.00	Appurtenance(s)	1.00	1.25	10.937	12.03	186.12	0.650	0.000	1.00	2.786	1.81	21.8	0.0	110.1
95.00		1.00	1.25	10.986	12.08	183.63	0.650	0.000	2.00	5.508	3.58	43.3	0.0	217.6
97.25	Bot - Section 3	1.00	1.26	11.040	12.14	180.80	0.650	0.000	2.25	6.093	3.96	48.1	0.0	240.6
100.00		1.00	1.27	11.104	12.21	177.32	0.650	0.000	2.75	7.414	4.82	58.9	0.0	522.9
101.25	Top - Section 2	1.00	1.27	11.133	12.25	175.72	0.650	0.000	1.25	3.316	2.16	26.4	0.0	233.8
105.00		1.00	1.28	11.218	12.34	173.76	0.650	0.000	3.75	9.746	6.33	78.2	0.0	308.4
110.00		1.00	1.29	11.327	12.46	167.23	0.650	0.000	5.00	12.522	8.14	101.4	0.0	396.2
115.00		1.00	1.31	11.432	12.58	160.60	0.650	0.000	5.00	11.982	7.79	97.9	0.0	378.9
119.50	Appurtenance(s)	1.00	1.32	11.524	12.68	154.55	0.650	0.000	4.50	10.322	6.71	85.1	0.0	326.3
120.00		1.00	1.32	11.534	12.69	153.87	0.650	0.000	0.50	1.120	0.73	9.2	0.0	35.4
125.00		1.00	1.33	11.633	12.80	147.06	0.650	0.000	5.00	10.902	7.09	90.7	0.0	344.5
129.00	Top - Section 3	1.00	1.34	11.710	12.88	141.55	0.650	0.000	4.00	8.332	5.42	69.8	0.0	263.2
130.00		1.00	1.34	11.729	12.90	140.16	0.650	0.000	1.00	2.029	1.32	17.0	0.0	48.2
135.00		1.00	1.35	11.822	13.00	133.18	0.650	0.000	5.00	9.821	6.38	83.0	0.0	233.1
140.00		1.00	1.36	11.912	13.10	126.13	0.650	0.000	5.00	9.281	6.03	79.0	0.0	220.2
141.00	Appurtenance(s)	1.00	1.36	11.930	13.12	124.71	0.650	0.000	1.00	1.791	1.16	15.3	0.0	42.5
145.00		1.00	1.37	12.000	13.20	119.00	0.650	0.000	4.00	6.950	4.52	59.6	0.0	164.8
149.00	Appurtenance(s)	1.00	1.38	12.068	13.27	113.26	0.650	0.000	4.00	6.604	4.29	57.0	0.0	156.5
Totals:									149.00			3,311.0		18,748.6

Discrete Appurtenance Forces

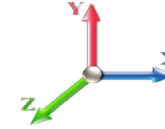
Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	11/26/2018
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 29

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



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	149.00	RFS APXV18-209014	3	12.068	13.275	0.79	1.00	8.32	56.10	0.000	0.000	110.43	0.00	0.00
2	149.00	Lightning Rod	1	12.127	13.340	1.00	1.00	1.05	35.00	0.000	3.500	14.01	0.00	49.02
3	149.00	RFS BA1010	1	12.108	13.318	1.00	1.00	1.24	8.80	0.000	2.350	16.51	0.00	38.81
4	149.00	Commscope	3	12.068	13.275	0.84	1.00	28.85	149.40	0.000	0.000	383.04	0.00	0.00
5	149.00	Standoff Mount	1	12.068	13.275	1.00	1.00	1.80	60.00	0.000	0.000	23.89	0.00	0.00
6	149.00	Ericsson KRY 112 489/2	3	12.068	13.275	0.60	0.90	1.01	33.00	0.000	0.000	13.45	0.00	0.00
7	149.00	Kathrein 782 11056	3	12.068	13.275	0.60	0.90	0.27	7.80	0.000	0.000	3.60	0.00	0.00
8	149.00	Low Profile Platform	1	12.068	13.275	1.00	1.00	22.00	1500.00	0.000	0.000	292.05	0.00	0.00
9	149.00	RFS	3	12.068	13.275	0.79	1.00	12.25	79.50	0.000	0.000	162.66	0.00	0.00
10	141.00	Powerwave 1001983	3	11.930	13.123	0.54	0.80	0.18	8.70	0.000	0.000	2.32	0.00	0.00
11	141.00	Ericsson RRUS-A2	3	11.930	13.123	0.54	0.80	2.52	45.00	0.000	0.000	33.13	0.00	0.00
12	141.00	Powerwave LGP-21901	6	11.930	13.123	0.54	0.80	0.74	13.20	0.000	0.000	9.71	0.00	0.00
13	141.00	Raycap DC6-48-60-18-8F	1	11.930	13.123	0.54	0.80	1.18	32.80	0.000	0.000	15.47	0.00	0.00
14	141.00	Ericsson RRUS 32	3	11.965	13.161	0.00	1.00	4.95	231.00	0.000	2.000	65.15	0.00	130.30
15	141.00	Low Profile Platform	1	11.930	13.123	1.00	1.00	22.00	1500.00	0.000	0.000	288.70	0.00	0.00
16	141.00	80010798	3	11.930	13.123	0.00	1.00	32.07	258.90	0.000	0.000	420.84	0.00	0.00
17	141.00	Ericsson 4478 B5	3	11.965	13.161	0.00	1.00	5.52	179.70	0.000	2.000	72.65	0.00	145.30
18	141.00	Ericsson 4426 B66	3	11.965	13.161	0.00	1.00	3.45	145.50	0.000	2.000	45.41	0.00	90.81
19	141.00	Ericsson RRUS 12	3	11.965	13.161	0.54	0.80	5.07	150.00	0.000	2.000	66.66	0.00	133.33
20	141.00	Powerwave	3	11.965	13.161	0.54	0.80	0.88	48.00	0.000	2.000	11.64	0.00	23.28
21	141.00	Powerwave LGP-21401	9	11.965	13.161	0.54	0.80	5.07	126.90	0.000	2.000	66.66	0.00	133.33
22	141.00	HPA-65R-BUU-H6	3	11.965	13.161	0.66	0.80	19.24	152.10	0.000	2.000	253.26	0.00	506.52
23	141.00	7770	3	11.930	13.123	0.62	0.80	10.18	105.00	0.000	0.000	133.62	0.00	0.00
24	141.00	Ericsson RRUS 11	3	11.930	13.123	0.54	0.80	4.05	165.00	0.000	0.000	53.18	0.00	0.00
25	129.00	Standoff Mount	1	11.710	12.881	1.00	1.00	1.80	60.00	0.000	0.000	23.19	0.00	0.00
26	129.00	RFS BA40-01	1	11.817	12.999	1.00	1.00	3.45	32.00	0.000	5.750	44.85	0.00	257.87
27	119.50	ALU 2x90 AWS	3	11.534	12.688	0.54	0.80	3.97	192.00	0.000	0.500	50.39	0.00	25.20
28	119.50	Antel	6	11.524	12.677	0.59	0.80	19.18	72.00	0.000	0.000	243.15	0.00	0.00
29	119.50	Andrew SBNHH-1D65B	3	11.556	12.712	0.66	0.80	16.25	120.00	0.000	1.600	206.63	0.00	330.61
30	119.50	Andrew SBNHH-1D65B	3	11.524	12.677	0.66	0.80	16.25	120.00	0.000	0.000	206.06	0.00	0.00
31	119.50	Andrew	1	11.524	12.677	0.54	0.80	2.03	32.00	0.000	0.000	25.75	0.00	0.00
32	119.50	Low Profile Platform	1	11.524	12.677	1.00	1.00	22.00	1500.00	0.000	0.000	278.89	0.00	0.00
33	93.00	Single Arm Mount	2	10.937	12.031	1.00	1.00	3.60	120.00	0.000	0.000	43.31	0.00	0.00
34	93.00	RFS 1142	2	11.092	12.202	1.00	1.00	7.80	20.00	0.000	6.500	95.17	0.00	618.62
35	92.00	Single Arm Mount	1	10.913	12.004	1.00	1.00	1.80	60.00	0.000	0.000	21.61	0.00	0.00
36	92.00	Sinclair SD210-SF3P2LDF	1	11.104	12.214	1.00	1.00	4.80	18.50	0.000	8.000	58.63	0.00	469.03

Totals: 7,437.90

3,855.68

Total Applied Force Summary

Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	11/26/2018
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 30

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



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		124.45	1022.33	0.00	0.00
10.00		121.58	1142.86	0.00	0.00
15.00		120.17	1121.32	0.00	0.00
20.00		124.17	1099.77	0.00	0.00
25.00		126.66	1078.23	0.00	0.00
30.00		128.09	1056.69	0.00	0.00
35.00		128.74	1035.14	0.00	0.00
40.00		128.76	1013.60	0.00	0.00
45.00		128.29	992.06	0.00	0.00
47.75		69.86	536.45	0.00	0.00
50.00		57.68	766.31	0.00	0.00
53.25		83.07	1091.49	0.00	0.00
55.00		44.37	333.38	0.00	0.00
60.00		126.46	937.97	0.00	0.00
65.00		124.65	916.43	0.00	0.00
70.00		122.60	894.88	0.00	0.00
75.00		120.33	873.34	0.00	0.00
80.00		117.86	851.79	0.00	0.00
85.00		115.21	830.25	0.00	0.00
90.00		112.40	808.71	0.00	0.00
92.00	(2) attachments	124.22	395.95	0.00	469.03
93.00	(4) attachments	160.27	296.91	0.00	618.62
95.00		43.26	309.16	0.00	0.00
97.25		48.09	343.68	0.00	0.00
100.00		58.87	648.86	0.00	0.00
101.25		26.40	291.06	0.00	0.00
105.00		78.17	480.19	0.00	0.00
110.00		101.41	625.18	0.00	0.00
115.00		97.94	607.94	0.00	0.00
119.50	(17) attachments	1095.93	2568.41	0.00	355.81
120.00		9.24	52.00	0.00	0.00
125.00		90.68	510.47	0.00	0.00
129.00	(2) attachments	137.80	487.97	0.00	257.87
130.00		17.02	80.86	0.00	0.00
135.00		83.02	396.53	0.00	0.00
140.00		79.05	383.61	0.00	0.00
141.00	(50) attachments	1553.69	3236.97	0.00	1162.87
145.00		59.63	241.75	0.00	0.00
149.00	(19) attachments	1076.62	2163.08	0.00	87.83
Totals:		7,166.71	32,523.58	0.00	2,952.03

Linear Appurtenance Segment Forces (Factored)

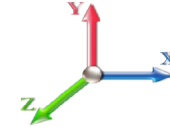
Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	11/26/2018
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 31

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



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)
95.00	7/8" Coax	Yes	1.00	0.000	1.11	0.09	0.00	0.017	0.000	10.986	0.00	0.00
97.25	7/8" Coax	Yes	2.25	0.000	1.11	0.21	0.00	0.034	0.000	11.040	0.00	0.00
100.00	7/8" Coax	Yes	2.75	0.000	1.11	0.25	0.00	0.035	0.000	11.104	0.00	0.00
101.25	7/8" Coax	Yes	1.25	0.000	1.11	0.12	0.00	0.035	0.000	11.133	0.00	0.00
105.00	7/8" Coax	Yes	3.75	0.000	1.11	0.35	0.00	0.036	0.000	11.218	0.00	0.00
110.00	7/8" Coax	Yes	5.00	0.000	1.11	0.46	0.00	0.037	0.000	11.327	0.00	0.00
115.00	7/8" Coax	Yes	5.00	0.000	1.11	0.46	0.00	0.039	0.000	11.432	0.00	0.00
119.50	7/8" Coax	Yes	4.50	0.000	1.11	0.42	0.00	0.040	0.000	11.524	0.00	0.00
120.00	7/8" Coax	Yes	0.50	0.000	1.11	0.05	0.00	0.041	0.000	11.534	0.00	0.00
125.00	7/8" Coax	Yes	5.00	0.000	1.11	0.46	0.00	0.042	0.000	11.633	0.00	0.00
129.00	7/8" Coax	Yes	4.00	0.000	1.11	0.37	0.00	0.044	0.000	11.710	0.00	0.00
130.00	7/8" Coax	Yes	1.00	0.000	1.11	0.09	0.00	0.046	0.000	11.729	0.00	0.00
135.00	7/8" Coax	Yes	5.00	0.000	1.11	0.46	0.00	0.047	0.000	11.822	0.00	0.00
140.00	7/8" Coax	Yes	5.00	0.000	1.11	0.46	0.00	0.050	0.000	11.912	0.00	0.00
141.00	7/8" Coax	Yes	1.00	0.000	1.11	0.09	0.00	0.052	0.000	11.930	0.00	0.00
145.00	7/8" Coax	Yes	4.00	0.000	1.11	0.37	0.00	0.053	0.000	12.000	0.00	0.00
149.00	7/8" Coax	Yes	4.00	0.000	1.11	0.37	0.00	0.056	0.000	12.068	0.00	0.00
Totals:											0.0	0.0

Calculated Forces

Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	11/26/2018
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II

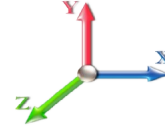


Page: 32

Load Case: 1.0D + 1.0W 60 mph Wind

Iterations 23

Dead Load Factor 1.00
Wind Load Factor 1.00



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-32.52	-7.18	0.00	-783.12	0.00	783.12	3273.57	1636.79	7496.53	3753.83	0.00	0.000	0.000	0.219
5.00	-31.49	-7.08	0.00	-747.22	0.00	747.22	3239.51	1619.75	7247.24	3629.01	0.03	-0.051	0.000	0.216
10.00	-30.34	-6.99	0.00	-711.80	0.00	711.80	3203.51	1601.76	6997.34	3503.87	0.11	-0.102	0.000	0.213
15.00	-29.22	-6.89	0.00	-676.87	0.00	676.87	3165.58	1582.79	6747.13	3378.58	0.24	-0.155	0.000	0.210
20.00	-28.11	-6.79	0.00	-642.40	0.00	642.40	3125.72	1562.86	6496.92	3253.29	0.43	-0.209	0.000	0.206
25.00	-27.03	-6.69	0.00	-608.45	0.00	608.45	3083.93	1541.97	6247.01	3128.15	0.68	-0.264	0.000	0.203
30.00	-25.96	-6.58	0.00	-575.01	0.00	575.01	3040.21	1520.10	5997.71	3003.31	0.99	-0.320	0.000	0.200
35.00	-24.92	-6.47	0.00	-542.12	0.00	542.12	2994.56	1497.28	5749.33	2878.94	1.36	-0.378	0.000	0.197
40.00	-23.90	-6.36	0.00	-509.78	0.00	509.78	2946.97	1473.49	5502.17	2755.17	1.78	-0.437	0.000	0.193
45.00	-22.91	-6.24	0.00	-477.99	0.00	477.99	2897.46	1448.73	5256.53	2632.17	2.27	-0.497	0.000	0.190
47.75	-22.37	-6.18	0.00	-460.83	0.00	460.83	2869.40	1434.70	5122.20	2564.91	2.57	-0.531	0.000	0.187
50.00	-21.60	-6.13	0.00	-446.93	0.00	446.93	2846.01	1423.00	5012.74	2510.09	2.83	-0.559	0.000	0.186
53.25	-20.50	-6.04	0.00	-427.02	0.00	427.02	2837.57	1418.79	4973.81	2490.60	3.22	-0.600	0.000	0.179
55.00	-20.17	-6.01	0.00	-416.44	0.00	416.44	2819.00	1409.50	4889.10	2448.18	3.45	-0.623	0.000	0.177
60.00	-19.22	-5.89	0.00	-386.39	0.00	386.39	2764.64	1382.32	4648.65	2327.78	4.13	-0.683	0.000	0.173
65.00	-18.30	-5.78	0.00	-356.92	0.00	356.92	2708.35	1354.17	4410.81	2208.68	4.88	-0.745	0.000	0.168
70.00	-17.40	-5.66	0.00	-328.04	0.00	328.04	2650.12	1325.06	4175.87	2091.04	5.69	-0.807	0.000	0.163
75.00	-16.53	-5.55	0.00	-299.73	0.00	299.73	2589.96	1294.98	3944.16	1975.01	6.57	-0.870	0.000	0.158
80.00	-15.67	-5.43	0.00	-272.00	0.00	272.00	2527.88	1263.94	3715.96	1860.74	7.52	-0.934	0.000	0.152
85.00	-14.84	-5.32	0.00	-244.83	0.00	244.83	2463.86	1231.93	3491.60	1748.39	8.53	-0.998	0.000	0.146
90.00	-14.03	-5.20	0.00	-218.23	0.00	218.23	2397.91	1198.95	3271.37	1638.12	9.61	-1.062	0.000	0.139
92.00	-13.63	-5.08	0.00	-207.35	0.00	207.35	2370.99	1185.49	3184.51	1594.62	10.06	-1.088	0.000	0.136
93.00	-13.33	-4.92	0.00	-201.66	0.00	201.66	2357.41	1178.70	3141.35	1573.01	10.29	-1.101	0.000	0.134
95.00	-13.02	-4.87	0.00	-191.82	0.00	191.82	2330.03	1165.01	3055.58	1530.06	10.76	-1.127	0.000	0.131
97.25	-12.68	-4.83	0.00	-180.86	0.00	180.86	2298.85	1149.42	2960.01	1482.20	11.30	-1.157	0.000	0.128
100.00	-12.03	-4.76	0.00	-167.59	0.00	167.59	2260.21	1130.11	2844.54	1424.39	11.97	-1.192	0.000	0.123
101.25	-11.74	-4.73	0.00	-161.64	0.00	161.64	1705.50	852.75	2167.94	1085.58	12.29	-1.208	0.000	0.156
105.00	-11.25	-4.66	0.00	-143.89	0.00	143.89	1669.73	834.87	2056.27	1029.66	13.25	-1.254	0.000	0.147
110.00	-10.62	-4.55	0.00	-120.61	0.00	120.61	1620.35	810.17	1909.79	956.31	14.61	-1.324	0.000	0.133
115.00	-10.01	-4.45	0.00	-97.85	0.00	97.85	1569.04	784.52	1766.36	884.49	16.03	-1.389	0.000	0.117
119.50	-7.47	-3.30	0.00	-77.46	0.00	77.46	1521.21	760.60	1640.13	821.29	17.37	-1.444	0.000	0.099
120.00	-7.42	-3.29	0.00	-75.82	0.00	75.82	1515.79	757.90	1626.29	814.35	17.52	-1.450	0.000	0.098
125.00	-6.91	-3.19	0.00	-59.37	0.00	59.37	1460.62	730.31	1489.87	746.04	19.06	-1.503	0.000	0.084
129.00	-6.42	-3.04	0.00	-46.35	0.00	46.35	1406.38	703.19	1375.06	688.55	20.34	-1.542	0.000	0.072
129.00	-6.42	-3.04	0.00	-46.35	0.00	46.35	978.70	489.35	961.93	481.68	20.34	-1.542	0.000	0.103
130.00	-6.34	-3.03	0.00	-43.30	0.00	43.30	971.83	485.92	944.91	473.15	20.67	-1.552	0.000	0.098
135.00	-5.94	-2.94	0.00	-28.17	0.00	28.17	936.33	468.17	860.89	431.08	22.32	-1.603	0.000	0.072
140.00	-5.56	-2.85	0.00	-13.47	0.00	13.47	898.90	449.45	778.95	390.05	24.02	-1.638	0.000	0.041
141.00	-2.37	-1.20	0.00	-9.46	0.00	9.46	891.19	445.59	762.84	381.99	24.36	-1.643	0.000	0.027
145.00	-2.13	-1.14	0.00	-4.64	0.00	4.64	859.54	429.77	699.40	350.22	25.74	-1.654	0.000	0.016
149.00	0.00	-1.08	0.00	-0.09	0.00	0.09	826.66	413.33	637.68	319.32	27.13	-1.659	0.000	0.000

Final Analysis Summary

Structure: CT13061-A-SBA	Code: EIA/TIA-222-G	11/26/2018
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 33

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 89 mph Wind	25.3	0.00	38.99	0.00	0.00	2774.50
0.9D + 1.6W 89 mph Wind	25.3	0.00	29.23	0.00	0.00	2743.41
1.2D + 1.0Di + 1.0Wi 50 mph Wind	8.8	0.00	59.79	0.00	0.00	950.56
1.2D + 1.0E	1.1	0.00	39.03	0.00	0.00	136.84
0.9D + 1.0E	1.1	0.00	29.27	0.00	0.00	135.19
1.0D + 1.0W 60 mph Wind	7.2	0.00	32.52	0.00	0.00	783.12

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 89 mph Wind	-38.99	-25.29	0.00	-2774.5	0.00	-2774.5	3273.57	1636.7	7496.53	3753.83	0.00	0.751
0.9D + 1.6W 89 mph Wind	-29.23	-25.28	0.00	-2743.4	0.00	-2743.4	3273.57	1636.7	7496.53	3753.83	0.00	0.740
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-59.79	-8.77	0.00	-950.56	0.00	-950.56	3273.57	1636.7	7496.53	3753.83	0.00	0.272
1.2D + 1.0E	-39.03	-1.14	0.00	-136.84	0.00	-136.84	3273.57	1636.7	7496.53	3753.83	0.00	0.048
0.9D + 1.0E	-29.27	-1.14	0.00	-135.19	0.00	-135.19	3273.57	1636.7	7496.53	3753.83	0.00	0.045
1.0D + 1.0W 60 mph Wind	-32.52	-7.18	0.00	-783.12	0.00	-783.12	3273.57	1636.7	7496.53	3753.83	0.00	0.219

Base Plate Summary

Structure: CT13061-A-SB	Code: EIA/TIA-222-G	11/26/2018
Site Name: New Fairfield	Exposure: C	
Height: 149.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: B - Competent Rock	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 34

Reactions	Base Plate	Anchor Bolts
Original Design	Yield (ksi): 60.00	Bolt Circle: 62.25
Moment (kip-ft): 3340.00	Width (in): 59.75	Number Bolts: 12.00
Axial (kip): 43.90	Style: Clipped	Bolt Type: 2.25" 18J
Shear (kip): 29.90	Polygon Sides: 0.00	Bolt Diameter (in): 2.25
Analysis	Clip Length (in): 11.00	Yield (ksi): 75.00
Moment (kip-ft): 2774.50	Effective Len (in): 10.85	Ultimate (ksi): 100.00
Axial (kip): 59.79	Moment (kip-in): 580.03	Arrangement: Clustered
Shear (kip): 25.29	Allow Stress (ksi): 81.00	Cluster Dist (in): 6.00
	Applied Stress (ksi): 0.00	Start Angle (deg): 45.00
Moment Design %: 83.07	Stress Ratio: 0.52	Compression
		Force (kip): 183.26
		Allowable (kip): 260.00
		Ratio: 0.72
		Tension
		Force (kip): 173.30
		Allowable (kip): 260.00
		Ratio: 0.68



Monopole Mat Foundation Design

Date

11/26/2018

Customer Name:	AT&T	EIA/TIA Standard:	EIA-222-G
Site Name:		Structure Height (Ft.):	149
Site Number:	CT13061-A-SBA	Engineer Name:	J. Tibbetts
Engr. Number:	65385	Engineer Login ID:	

Foundation Info Obtained from:

Drawings/Calculations

Structure Type:

Monopole

Analysis or Design?

Analysis

Base Reactions (Factored):

Axial Load (Kips):	59.8	Shear Force (Kips):	25.3
Uplift Force (Kips):	0.0	Moment (Kips-ft):	2774.5

Allowable overstress %: 5.0%

Foundation Geometries:

		Mods required -Yes/No ?:	No
Diameter of Pier (ft.):	7.0	Depth of Base BG (ft.):	5.5
Pier Height A. G. (ft.):	1.00	Thickness of Pad (ft):	2.00
Length of Pad (ft.):	21.5	Width of Pad (ft.):	21.5
Final Length of pad (ft)	21.5	Final width of pad (ft):	21.5
Control Value for Cell D18:	0	Control Value for Cell F18:	0

Material Properties and Rebar Info:

Concrete Strength (psi):	4000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield (ksi):	60	
Vertical Rebar Size #:	8	Tie / Stirrup Size #:	4	
Qty. of Vertical Rebars:	36	Tie Spacing (in):	12.0	
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	8	
Concrete Cover (in.):	3	Unit Weight of Concrete:	150.0	pcf
Rebar at the bottom of the concrete pad:				
Qty. of Rebar in Pad (L):	22	Qty. of Rebar in Pad (W):	22	
Rebar at the top of the concrete pad:				
Qty. of Rebar in Pad (L):	22	Qty. of Rebar in Pad (W):	22	

Apply 1.35 factor for e/w Per G: 1.35

Soil Design Parameters:

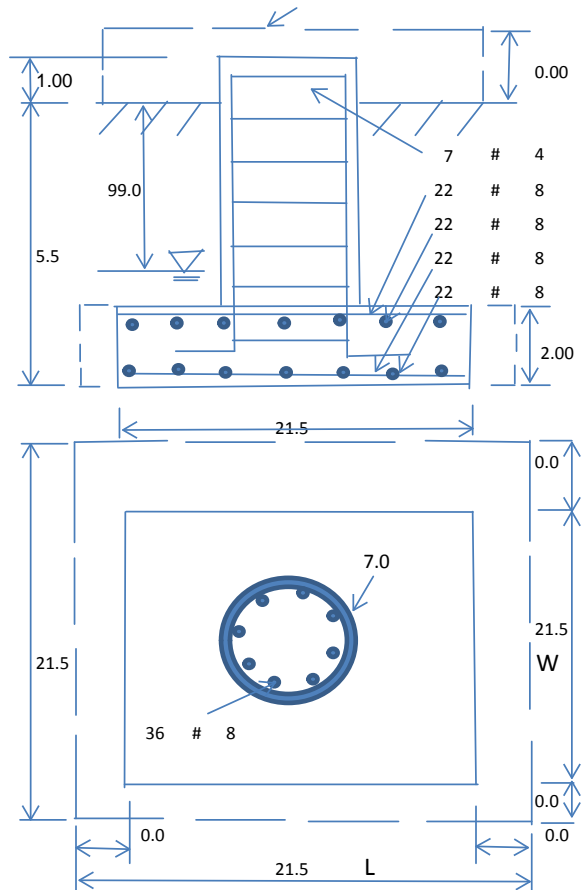
Soil Unit Weight (pcf):	120.0	Soil Buoyant Weight:	50.0	Pcf
Water Table B.G.S. (ft):	99.0	Unit Weight of Water:	62.4	pcf
Ultimate Bearing Pressure (psf):	24000	Ultimate Skin Friction:	0	Psf
Consider Friction for O.T.M. (Y/N):	No	Consider Friction for bearing (Y/N):	No	
Consider soil hor. resist. for OTM.:	No	Reduction factor on the maximum soil bearing pressure:	1.00	
		Angle from Top of Pad:	30	
		Angle from Bottm of Pad:	25	
		Angle from Bottm of Pad:	25	

Foundation Analysis and Design:

Uplift Strength Reduction Factor:	0.75	Compression Strength Reduction Factor:	0.75
Total Dry Soil Volume (cu. Ft.):	1483.18	Total Dry Soil Weight (Kips):	177.98
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	177.98	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	1097.68	Total Dry Concrete Weight (Kips):	164.65
Total Buoyant Concrete Volume (cu. Ft.):	0.00	Total Buoyant Concrete Weight (Kips):	0.00
Total Effective Concrete Weight (Kips):	164.65	Total Vertical Load on Base (Kips):	402.43

Check Soil Capacities:

Calculated Maxium Net Soil Pressure under the base (psf):	3442	<	Allowable Factored Soil Bearing (psf):	18000	0.19	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	3957.8	>	Design Factored Momont (kips-ft):	2939	0.74	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	1.35					OK!



Check the capacities of Reinforcing Concrete:

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

Load/
Capacity
Ratio**(1) Concrete Pier:**

Vertical Steel Rebar Area (sq. in./each):	0.79	Tie / Stirrup Area (sq. in./each):	0.20		
Calculated Moment Capacity (Mn,Kips-Ft):	4845.7	> Design Factored Moment (Mu, Kips-Ft)	2888.4	0.60	OK!
Calculated Shear Capacity (Kips):	660.1	> Design Factored Shear (Kips):	25.3	0.04	OK!
Calculated Tension Capacity (Tn, Kips):	1535.8	> Design Factored Tension (Tu Kips):	0.0	0.00	OK!
Calculated Compression Capacity (Pn, Kips):	9747.6	> Design Factored Axial Load (Pu Kips):	59.8	0.01	OK!
Moment & Axial Strength Combination:	0.60	OK! Check Tie Spacing (Design/Required):		1	OK!
Pier Reinforcement Ratio:	0.005	Reinforcement Ratio is satisfied per ACI			

(2).Concrete Pad:

One-Way Design Shear Capacity (L-Direction, Kips):	501.8	> One-Way Factored Shear (L-D. Kips):	208.2	0.41	OK!
One-Way Design Shear Capacity (W-Direction, Kips):	501.8	> One-Way Factored Shear (W-D., Kips)	208.2	0.41	OK!
One-Way Design Shear Capacity (Corner-Corner. Kips):	466.5	> One-Way Factored Shear (C-C, Kips):	209.2	0.45	OK!
Lower Steel Pad Reinforcement Ratio (L-Direct.):	0.0033	OK! Lower Steel Pad Reinf. Ratio (W-Direc	0.0033		
Lower Steel Pad Moment Capacity (L-Direction. Kips-ft):	1556.8	> Moment at Bottom (L-Dir. K-Ft):	860.6	0.55	OK!
Lower Steel Pad Moment Capacity (W-Direction. Kips-ft):	1556.8	> Moment at Bottom (W-Dir. K-Ft):	860.6	0.55	OK!
Lower Steel Pad Moment Capacity (Corner-Corner,K-ft):	2182.0	> Moment at Bottom (C-C Dir. K-Ft):	1217.1	0.56	OK!
Upper Steel Pad Reinforcement Ratio (L-Direct.):	0.0033	OK! Upper Steel Reinf. Ratio (W-Dir.):	0.0033		
Upper Steel Pad Moment Capacity (L-Direc. Kips-ft):	1556.8	> Moment at the top (L-Dir K-Ft):	362.5	0.23	OK!
Upper Steel Pad Moment Capacity (W-Direc. Kips-ft):	1556.8	> Moment at the top (W-Dir K-Ft):	362.5	0.23	OK!
Upper Steel Pad Moment Capacity (Corner-Corner. K-ft):	2182.0	> Moment at the top (C-C Dir. K-Ft):	342.8	0.16	OK!

(3).Check Punching Shear Capacity due to Moment in the Pier:

Moment transferred by punching shear:	1109.8	k-ft.	Max. factored shear stress $v_{u,CD}$:	0.2	Psi
Max. factored shear stress $v_{u,AB}$:	15.0	Psi	Factored shear Strength ϕv_n :	189.7	Psi
Max. factored shear stress v_u :	15.0	Psi	Check Usage of Punching Shear Capacity:	0.08	OK!

29 BOGUS HILL RD

Location 29 BOGUS HILL RD

Mblu 6/ 4/ 84A/ /

Acct# 00071810

Owner GIRL SCOUTS OF CONNECTICUT INC

Assessment \$459,900

Appraisal \$657,000

PID 100569

Building Count 1

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2016	\$441,000	\$216,000	\$657,000

Assessment			
Valuation Year	Improvements	Land	Total
2016	\$308,700	\$151,200	\$459,900

Owner of Record

Owner GIRL SCOUTS OF CONNECTICUT INC
Co-Owner
Address 340 WASHINGTON ST
HARTFORD, CT 06106

Sale Price \$0
Certificate
Book & Page 53/ 587
Sale Date 01/01/1900

Ownership History

Ownership History				
Owner	Sale Price	Certificate	Book & Page	Sale Date
GIRL SCOUTS OF CONNECTICUT INC	\$0		53/ 587	01/01/1900

Building Information

Building 1 : Section 1

Year Built:
Living Area: 0
Replacement Cost: \$0
Building Percent
Good:
Replacement Cost
Less Depreciation: \$0

Building Attributes	
Field	Description


Style	Outbuildings
Model	
Grade:	
Stories:	
Occupancy	
Exterior Wall 1	
Exterior Wall 2	
Roof Structure:	
Roof Cover	
Interior Wall 1	
Interior Wall 2	
Interior Flr 1	
Interior Flr 2	
Heat Fuel	
Heat Type:	
AC Type:	
Total Bedrooms:	
Full Bathrms:	
Half Baths:	
Total Rooms:	
Bath Style	
Kitchen Style	
Fireplaces	
Bsmt Garage	
Fin Bsmt Area	
Fin Bsmt Qual	
Func Code	
Eco Code	

Building Photo



(<http://images.vgsi.com/photos/NewFairfieldCTPhotos//\00\00\6>;

Building Layout

 Building Layout

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

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code	401
Description	Cell TWR
Zone	2
Neighborhood	

Land Line Valuation

Size (Acres)	0
Depth	
Assessed Value	\$151,200
Appraised Value	\$216,000

Outbuildings

Outbuildings						Legend
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
CELL	Cell Tenant			3 UNITS	\$441,000	1

Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
2017	\$441,000	\$216,000	\$657,000
2016	\$441,000	\$216,000	\$657,000
2014	\$441,000	\$216,000	\$657,000

Assessment			
Valuation Year	Improvements	Land	Total
2017	\$308,700	\$151,200	\$459,900
2016	\$308,700	\$151,200	\$459,900
2014	\$308,700	\$151,200	\$459,900

(c) 2016 Vision Government Solutions, Inc. All rights reserved.



Radio Frequency Emissions Analysis Report

AT&T Existing Facility

Site ID: CT2006

FA#: 10042330

New Fairfield - Candlewood Lake
29 Bogus Hill Road
New fairfield, CT 06812

December 17, 2018

Centerline Communications Project Number: 950006-157

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	9.02 %



December 17, 2018

AT&T Mobility – New England
Attn: John Benedetto, RF Manager
550 Cochituate Road
Suite 550 – 13&14
Framingham, MA 06040

Emissions Analysis for Site: **CT2006 – New Fairfield - Candlewood Lake**

Centerline Communications, LLC (“Centerline”) was directed to analyze the proposed AT&T facility located at **29 Bogus Hill Road, New Fairfield, CT**, for the purpose of determining whether the emissions from the Proposed AT&T Antenna Installation located on this property are within specified federal limits.

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

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

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

Population exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The general population exposure limits for the 700 and 850 MHz Bands are approximately $467 \mu\text{W}/\text{cm}^2$ and $567 \mu\text{W}/\text{cm}^2$ respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 2300 MHz (WCS) bands is $1000 \mu\text{W}/\text{cm}^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.



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

Additional details can be found in FCC OET 65.



CALCULATIONS

Calculations were performed for the proposed AT&T Wireless antenna facility located at **29 Bogus Hill Road, New Fairfield, CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since AT&T is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was focused at the base of the tower. For this report the sample point is the top of a 6-foot person standing at the base of the tower.

Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. All power values expressed and analyzed are maximum power levels expected to be used on all radios.

All emissions values for additional carriers were taken from the Connecticut Siting Council (CSC) active MPE database. Values in this database are provided by the individual carriers themselves

For each sector the following channel counts, frequency bands and power levels were utilized as shown in *Table 1*:

Technology	Frequency Band	Channel Count	Transmit Power per Channel (W)
UMTS	850 MHz	2	30
LTE	700 MHz	2	40
LTE	2300 MHz (WCS)	4	30
LTE	850 MHz	2	40
5G	850 MHz	2	25
LTE	1900 MHz (PCS)	4	40
LTE	2100 MHz (AWS)	4	30

Table 1: Channel Data Table



The following antennas listed in *Table 2* were used in the modeling for transmission in the 700 MHz, 850 MHz, 1900 MHz (PCS), 2100 MHz (AWS) and 2300 MHz (WCS) frequency bands. This is based on feedback from the carrier with regards to anticipated antenna selection. Maximum gain values for all antennas are listed in the Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

Sector	Antenna Number	Antenna Make / Model	Antenna Centerline (ft)
A	1	Powerwave 7770	141
A	2	CCI HPA-65R-BUU-H6	142
A	3	Kathrein 800-10798	141
B	1	Powerwave 7770	141
B	2	CCI HPA-65R-BUU-H6	142
B	3	Kathrein 800-10798	141
C	1	Powerwave 7770	141
C	2	CCI HPA-65R-BUU-H6	142
C	3	Kathrein 800-10798	141

Table 2: Antenna Data

All calculations were done with respect to uncontrolled / general population threshold limits.



RESULTS

Per the calculations completed for the proposed AT&T configurations *Table 3* shows resulting emissions power levels and percentages of the FCC's allowable general population limit.

Antenna ID	Antenna Make / Model	Frequency Bands	Antenna Gain (dBd)	Channel Count	Total TX Power (W)	ERP (W)	MPE %
Antenna A1	Powerwave 7770	850 MHz	11.4	2	60	828.23	0.29
Antenna A2	CCI HPA-65R-BUU-H6	700 MHz / 2300 MHz (WCS)	11.95 / 15.25	6	200	5,272.99	1.30
Antenna A3	Kathrein 800-10798	850 MHz / 1900 MHz (PCS) / 2100 MHz (AWS)	13.65 / 14.35 / 14.75	12	410	10,951.39	2.61
Sector A Composite MPE%							4.21
Antenna B1	Powerwave 7770	850 MHz	11.4	2	60	828.23	0.29
Antenna B2	CCI HPA-65R-BUU-H6	700 MHz / 2300 MHz (WCS)	11.95 / 15.25	6	200	5,272.99	1.30
Antenna B3	Kathrein 800-10798	850 MHz / 1900 MHz (PCS) / 2100 MHz (AWS)	13.65 / 14.35 / 14.75	12	410	10,951.39	2.61
Sector B Composite MPE%							4.21
Antenna C1	Powerwave 7770	850 MHz	11.4	2	60	828.23	0.29
Antenna C2	CCI HPA-65R-BUU-H6	700 MHz / 2300 MHz (WCS)	11.95 / 15.25	6	200	5,272.99	1.30
Antenna C3	Kathrein 800-10798	850 MHz / 1900 MHz (PCS) / 2100 MHz (AWS)	13.65 / 14.35 / 14.75	12	410	10,951.39	2.61
Sector C Composite MPE%							4.21

Table 3: AT&T Emissions Levels



The Following table (*table 4*) shows all additional carriers on site and their MPE% as recorded in the CSC active MPE database for this facility along with the newly calculated maximum AT&T MPE contributions per this report. FCC OET 65 specifies that for carriers utilizing directional antennas that the highest recorded sector value be used for composite site MPE values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. For this site, all three sectors have the same configuration yielding the same results on all three sectors. *Table 5* below shows a summary for each AT&T Sector as well as the composite MPE value for the site.

Site Composite MPE%	
Carrier	MPE%
AT&T – Max Per Sector Value	4.21 %
CL&P	0.51 %
Verizon Wireless	2.43 %
T-Mobile	1.87 %
Site Total MPE %:	9.02 %

Table 4: All Carrier MPE Contributions

AT&T Sector A Total:	4.21 %
AT&T Sector B Total:	4.21 %
AT&T Sector C Total:	4.21 %
Site Total:	9.02 %

Table 5: Site MPE Summary



FCC OET 65 specifies that for carriers utilizing directional antennas that the highest recorded sector value be used for composite site MPE values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. *Table 6* below details a breakdown by frequency band and technology for the MPE power values for the maximum calculated AT&T sector(s). For this site, all three sectors have the same configuration yielding the same results on all three sectors.

AT&T _ Frequency Band / Technology Max Power Values (Per Sector)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu\text{W}/\text{cm}^2$)	Frequency (MHz)	Allowable MPE ($\mu\text{W}/\text{cm}^2$)	Calculated % MPE
AT&T 850 MHz UMTS – Antenna 1	2	414.12	141	1.63	850 MHz	567	0.29%
AT&T 700 MHz LTE – Antenna 2	2	626.70	142	2.44	700 MHz	467	0.52%
AT&T 2300 MHz (WCS) LTE – Antenna 2	4	1,004.90	142	7.81	2300 MHz (WCS)	1000	0.78%
AT&T 850 MHz LTE – Antenna 3	2	926.96	141	3.66	850 MHz	567	0.64%
AT&T 850 MHz 5G – Antenna 3	2	579.35	141	2.29	850 MHz	567	0.40%
AT&T 1900 MHz (PCS) LTE – Antenna 3	4	1,089.08	141	8.59	1900 MHz (PCS)	1000	0.86%
AT&T 2100 MHz (AWS) LTE – Antenna 3	4	895.61	141	7.07	2100 MHz (AWS)	1000	0.71%
						Total:	4.21%

Table 6: AT&T Maximum Sector MPE Power Values



Summary

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

The anticipated maximum composite contributions from the AT&T facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

AT&T Sector	Power Density Value (%)
Sector A:	4.21 %
Sector B:	4.21 %
Sector C:	4.21 %
AT&T Maximum Total (per sector):	4.21 %
Site Total:	9.02 %
Site Compliance Status:	COMPLIANT

The anticipated composite MPE value for this site assuming all carriers present is **9.02 %** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

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

A handwritten signature in black ink, appearing to read 'Scott Heffernan', is written over a light blue horizontal line.

Scott Heffernan

RF Engineering Director

Centerline Communications, LLC

95 Ryan Drive, Suite 1

Raynham, MA 02767