Filed by:
G. Scott Shepherd, Sr. Property Specialist - SBA Communications
134 Flanders Rd., Suite 125, Westborough, MA 01581
508.251.0720 x 3807 - GShepherd@sbasite.com

March 16, 2022

Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: Tower Share Application
500 Moosehill Rd., Monroe, CT 06468
Latitude: 41.320967
Longitude: -73.201422
Site# Dish NJJER01101B

Dear Ms. Bachman:

This letter and attachments are submitted on behalf of Dish Wireless LLC. Dish Wireless LLC plans to install antennas and related equipment to the tower site located at 500 Moosehill Rd., Monroe, Connecticut.

Dish Wireless LLC proposes to install three (3) 600/1900/2100 MHz antennas and six (6) RRUs, at the 110-foot level of the existing 150-foot monopole tower, one (1) Fiber cables will also be installed. Dish Wireless LLC equipment cabinets will be placed within 7' x 5' lease area. Included are plans by B+T Group, dated October 29, 2021 Exhibit 10. Also included is a structural analysis prepared by SBA, dated October 1, 2021, confirming that the existing tower is structurally capable of supporting the proposed equipment. Attached as Exhibit 8. This facility was approved by the Council under Docket No. 207 on March 21, 2002. Approval was given for a monopole not to exceed a height of 130 feet above ground level. Under Petition No. 628T dated June 19, 2003, approval was given to Sprint Spectrum L.P. to extend the Tower by twenty-feet (attached). The Certificate Holder shall provide a recalculated report of electromagnetic radio frequency power density if and when circumstances in operation cause a change in power density above the levels calculated. The Certificate Holder shall permit public or private entities to share space on the proposed tower for fair consideration. If the facility does not initially provide or ceases to provide cellular services, the tower shall be dismantled along with all associated equipment. There were no further post construction stipulations set. Please see attached Exhibit 6.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies 16-50aa, of Dish Wireless LLC intent to share a telecommunications facility pursuant to R.C.S.A. 16-50j-88. In accordance with R.C.S.A., a copy of this letter is being sent to Ken Kellogg, First Selectman for the Town of Monroe, Rick Schultz, Town Planner, as well as the property owner, St. John's Greek Catholic Cemetery Association, Inc. Separate notice is not being sent to the tower owner, as it belongs to SBA.

The planned modifications of the facility fall squarely within those activities explicitly provided for in R.C.S.A. 16-50j-89.

1. The proposed modification will not result in an increase in the height of the existing structure. The top of the tower is 150-feet; Dish Wireless LLC proposed antennas will be located at a center line height of 110-feet.

2. The proposed modifications will not result in the increase of the site boundary as depicted on the attached site plan.

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

4. The operation of the proposed antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard. As indicated in the attached power density calculations, the combined site operations will result in a total power density of 12.9219% as evidenced by Exhibit 7. Please see Appendix C of the EME/MPE Report conducted by Pinnacle Telecom for the depiction of the placement of the caution signs on the tower.

Connecticut General Statutes 16-50aa indicates that the Council must approve the shared use of a telecommunications facility provided it finds the shared use is technically, legally, environmentally, and economically feasible and meets public safety concerns. As demonstrated in this letter, Dish Wireless LLC respectfully indicates that the shared use of this facility satisfies these criteria.

A. Technical Feasibility. The existing monopole has been deemed structurally capable of supporting Dish Wireless LLC proposed loading. The structural analysis is included as Exhibit 8.

B. Legal Feasibility. As referenced above, C.G.S. 16-50aa has been authorized to issue orders approving the shared use of an existing tower such as this support tower in Monroe. Under the authority granted to the Council, an order of the Council approving the requested shared use would permit Dish Wireless LLC to obtain a building permit for the proposed installation. Further, a Letter of Authorization is included as Exhibit 2, authorizing Dish Wireless LLC to file this application for shared use.

C. Environmental Feasibility. The proposed shared use of this facility would have a minimal environmental impact. The installation of Dish Wireless LLC equipment at the 110-foot level of the existing 150-foot tower would have an insignificant visual impact on the area around the tower. Dish Wireless LLC ground equipment would be installed within the existing facility compound. Dish Wireless LLC shared use would therefore not cause any significant alteration in the physical or environmental characteristics of the existing site. Additionally, as evidenced by Exhibit 7, the proposed antennas would not increase radio frequency emissions to a level at or above the Federal Communications Commission safety standard.

D. Economic Feasibility. Dish Wireless LLC will be entering into an agreement with the owner of this facility to mutually agreeable terms. As previously mentioned, the Letter of Authorization has been provided by the owner to assist Dish Wireless LLC with this tower sharing application.

E. Public Safety Concerns. As discussed above, the tower is structurally capable of supporting Dish Wireless LLC proposed loading.

Dish Wireless LLC is not aware of any public safety concerns relative to the proposed sharing of the existing guyed tower. Dish Wireless LLC intentions of providing new and improved wireless service through the shared use of this facility is expected to enhance the safety and welfare of local residents and individuals traveling through Westbrook.

Sincerely,

Scott Shepherd
Site Development Specialist II
SBA COMMUNICATIONS CORPORATION
134 Flanders Rd., Suite 125
Westborough, MA 01581
508.251.0720 x3807 + T
508.366.2610 + F
508.868.6000 + C
GShepherd@sbasite.com

Attachments:

cc: Ken Kellogg, First Selectman / with attachments
Monroe Town Hall, 7 Fan Hill Rd., Monroe, CT 06468
Rick Schultz, Town Planner / with attachments
Monroe Town Hall, 7 Fan Hill Rd., Monroe, CT 06468
St. John's Greek Catholic Cemetery Association, Inc. / with attachments
50 Paradise Green Place Stratford, CT 06614

EXHIBIT LIST

Exhibit 1	Copy of Check	X
Exhibit 2	Letter of Intent to Allow Shared Use of the Existing SBA Telecommunications Site	X
Exhibit 3	Notification Receipts	x
Exhibit 4	Property Card	x
Exhibit 5	Property Map	x
Exhibit 6	Original Zoning Approval	Cert. of Occupancy Town of Monroe dated 9/4/02, CSC Docket NO. 207 dated 3/21/02, Town of Monroe P&Z Permits 13-75-S & 34-95-S dated 6/6/02. Petition 628T
Exhibit 7	EME Report	Pinnacle Telecom Group 3/8/22
Exhibit 8	Structural Analysis	SBA Communications 10/01/21
Exhibit 9	Mount Analysis	B+T Group 11/22/21
Exhibit 10	Construction Drawings	B+T Group 10/29/21

EXHIBIT 1

Copy of check

EXHIBIT 2
Letter of Intent

March 16, 2022

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

RE: **Notice of Intent to Allow Shared Use of the Existing SBA Telecommunications Site**
Location: 500 Moosehill Rd, Monroe, CT
Dish Wireless Site No: NJJER01101B
SBA Site No: CT13056-A

Dear Ms. Bachman:

Please let the following serve as Evidence of Intent to allow Dish's shared use of the existing SBA telecommunications site at **500 Moosehill Rd, Monroe, CT**.

SBA Infrastructure, LLC ("Owner") and Dish Wireless ("Tenant") are entering into a Site Lease Agreement. Tenant will be provided ground space within the existing site compound for its base station equipment and space at the height of 110' for antennas and associated equipment.

Thank you,

Rick Woods
Site Development Manager
SBA COMMUNICATIONS CORPORATION
134 Flanders Road, Suite 125
Westboro, MA 01581

508.251.0720 x3800 + T
508.366.2610 + F
508.614.0389 + C
rwoods@sbasite.com

EXHIBIT 3

Fedex Labels

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
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Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

FedEx

FedEx® Tracking Track Another Shipment Help

775835790505

ADD NICKNAME

ON TIME

Scheduled delivery:
Thursday, March 17, 2022 before 10:30 am

PICKED UP
WESTBOROUGH, MA

GET STATUS UPDATES

Travel History | Shipment Facts

Travel History

TIME ZONE
Local Scan Time

Wednesday, March 16, 2022

2:18 PM	WESTBOROUGH, MA	Picked up Tendered at FedEx Office

Shipment Facts

TRACKING NUMBER 775835790505	**SERVICE** FedEx Priority Overnight	**TOTAL PIECES** 1
PACKAGING FedEx Pak	**SPECIAL HANDLING SECTION** Deliver Weekday	**ACTUAL PICK UP** 3/16/22
SHIPMENT-FACTS.COD-DETAIL $0.00	**STANDARD TRANSIT** 3/17/22 before 10:30 am	**SCHEDULED DELIVERY** 3/17/22 before 10:30 am

All (30) | Inbound (2) | Outbound (28) | Watch list (0)

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775835850217

ADD NICKNAME

ON TIME

Scheduled delivery:
Thursday, March 17, 2022 before 10:30 am

PICKED UP
WESTBOROUGH, MA

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Travel History | Shipment Facts

Travel History

TIME ZONE
Local Scan Time

Wednesday, March 16, 2022

2:18 PM	WESTBOROUGH, MA	Picked up Tendered at FedEx Office

Shipment Facts

TRACKING NUMBER 775835850217	**SERVICE** FedEx Priority Overnight	**TOTAL PIECES** 1
PACKAGING FedEx Envelope	**SPECIAL HANDLING SECTION** Deliver Weekday	**ACTUAL PICK UP** 3/16/22
SHIPMENT-FACTS.COD-DETAIL $0.00	**STANDARD TRANSIT** 3/17/22 before 10:30 am	**SCHEDULED DELIVERY** 3/17/22 before 10:30 am

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Thursday, March 17, 2022 before 10:30 am

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WESTBOROUGH, MA

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Travel History | Shipment Facts

Travel History

TIME ZONE
Local Scan Time

Wednesday, March 16, 2022

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Shipment Facts

TRACKING NUMBER 775835864235	**SERVICE** FedEx Priority Overnight	**TOTAL PIECES** 1
PACKAGING FedEx Envelope	**SPECIAL HANDLING SECTION** Deliver Weekday	**ACTUAL PICK UP** 3/16/22
SHIPMENT-FACTS.COD-DETAIL $0.00	**STANDARD TRANSIT** 3/17/22 before 10:30 am	**SCHEDULED DELIVERY** 3/17/22 before 10:30 am

All (30) | Inbound (2) | Outbound (28) | Watch list (0)

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775835898840

ADD NICKNAME

ON TIME

Scheduled delivery:
Thursday, March 17, 2022 before 10:30 am

PICKED UP
WESTBOROUGH, MA

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Travel History | Shipment Facts

Travel History

TIME ZONE
Local Scan Time

Wednesday, March 16, 2022

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Shipment Facts

TRACKING NUMBER 775835898840	**SERVICE** FedEx Priority Overnight	**TOTAL PIECES** 1
PACKAGING FedEx Envelope	**SPECIAL HANDLING SECTION** Deliver Weekday	**ACTUAL PICK UP** 3/16/22
SHIPMENT-FACTS.COD-DETAIL $0.00	**STANDARD TRANSIT** 3/17/22 before 10:30 am	**SCHEDULED DELIVERY** 3/17/22 before 10:30 am

All (30) | Inbound (2) | Outbound (28) | Watch list (0)

EXHIBIT 4

Property Card

500 MOOSE HILL RD

Location	500 MOOSE HILL RD	**Map/Lot**	051/ 067/ 0C/ /
Acct#	0510670C	**Owner**	ST JOHN THE BAPTIST GREEK CATHOLIC CEM
Assessment	$928,000	**Appraisal**	$1,325,700
PID	8045	**Building Count**	1
Survey	2806 2859	**Affordable**	

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2019	$97,300	$1,228,400	$1,325,700

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2019	$68,100	$859,900	$928,000

Owner of Record

Owner	ST JOHN THE BAPTIST GREEK CATHOLIC CEM	**Sale Price**	$0
Co-Owner	ASSOC INC	**Certificate**	1
Address	50 PARADISE GREEN PL STRATFORD, CT 33487	**Book & Page**	176/ 349
		Sale Date	08/01/1978
		Instrument	

Ownership History

Ownership History					
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Instrument**	**Sale Date**
ST JOHN THE BAPTIST GREEK CATHOLIC CEM	$0	1	176/ 349		08/01/1978

Building Information

Building 1 : Section 1

Year Built:
Living Area: 0

Building Attributes

Field	Description
Style	Vacant Land
Model	
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:	
Total Bthrms:	
Total Half Baths:	
Total Xtra Fixtrs:	
Total Rooms:	
Bath Style:	
Kitchen Style:	
Fireplaces	
Wdstv Flues	
Basement Gar.	
Attic	
Basement	
In Law Apt	

Building Photo

(http://images.vgsi.com/photos/MonroeCTPhotos//\00\01\37/67.jpg)

Building Layout

(http://images.vgsi.com/photos/MonroeCTPhotos//Sketches/8045_8045.jpg

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	906V
Description	Church

Land Line Valuation

Size (Acres)	52.42
Appraised Value	$1,228,400

Zone	RF1
Neighborhood	Monroe
Alt Land Approved	No
Category	

Outbuildings

Outbuildings						Legend
Code	**Description**	**Sub Code**	**Sub Description**	**Size**	**Value**	**Bldg #**
FGR7	Garage +.5s Fin			1920 S.F.	$66,200	1
PA1	ASPHALT PARKING			6000 S.F.	$9,000	1
RS1	Frame Utility Shed			360 S.F.	$8,100	1
RS1	Frame Utility Shed			240 S.F.	$5,400	1
RS1	Frame Utility Shed			216 S.F.	$4,900	1
FN1	FENCE CHAIN			350 L.F.	$3,700	1

Valuation History

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2020	$97,300	$1,228,400	$1,325,700
2019	$97,300	$1,228,400	$1,325,700
2019	$97,300	$1,228,400	$1,325,700

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2020	$68,100	$859,900	$928,000
2019	$68,100	$859,900	$928,000
2019	$68,100	$859,900	$928,000

EXHIBIT 5

Property Map

Google Maps 500 Moose Hill Rd

Map data ©2022 1000 ft

EXHIBIT 6

Zoning Approval

SITE NAME: MOOSEHILL SITE ID: CT13056-A

Transaction: Optasite 002-0002

ZONING/PERMITTING COMPLETION FORM

Address: 500 Moosehill Rd., Monroe, CT 6468

Jurisdiction: Town of Monroe Zoning District: RD

Zoning Approval Type: Special Exception Permit Case #:

Approval Date: 6/6/2002 Approved Height: 130' Tower Build Date:

If tower is destroyed or drop/swap required, tower can likely be rebuilt? ☐ YES ☐ NO

Conditions of Approval:

	Yes	No	N/A
Removal Bond	☐	☑	☐
Site Plan Submittal	☐	☑	☐
Fall Zone	☐	☑	☐
Periodic Inspections	☐	☑	☐
Periodic Reporting	☐	☑	☐
Approval Renewal	☐	☑	☐
Additional Conditions	☑	☐	☐

North side of compound to be landscaped; fence - pressure treated wood set in concrete or black vinyl weave chain link
Mylar copy of plans to be recorded.
Tower owner to notify PZ Dept of ownership change.

JURISDICTION POC/DEPT.

Planning/Zoning:

Phone: Fax:

Bldg./Code Enforcement: Jack Brandt

Phone: 203-452-5470 Fax:

Submitted by: Date:
Zoning Compliance

TO BE COMPLETED BY CORPORATE

	Yes	No	N/A	
Zoning Approval Attached (required)	☑	☐	☐	
Ordinance Attached (required)	☐	☑	☐	
Building Permit Attached (required) #7642	☑	☐	☐	Date Recd 6/7/2002
Certificate of Occupancy or Compliance (CO) attached (required)	☑	☐	☐	8/4/02

Zoning Manager Approval: DE Borchardt Date 8/20/2008
Diane E. Borchardt, AICP

April 27, 2007

BUILDING INSPECTION DEPARTMENT

MONROE, CONNECTICUT

CERTIFICATE OF OCCUPANCY OR USE

Zone PC Dated 9/4/2002

This is to certify that the building or structure at 500 Moose Hill Road

as Constructed under permit number # 7642 LOT number # 5

conforms substantially to the requirements of the Building Code of the Town of Monroe and is hereby approved for occupancy or use as indicated below.

Approved for occupancy or use Erect 190 Foot Tall Tower and Block Utility Building and Fence

Building Use Group U Date typed 8/8/2002 P&Z # 11021

Below are each individual Town Department's acknowledgments of satisfactory completion of requirements when applicable.

Planning & Zoning ..... **Dated** .....

Sanitarian ..... **Dated** 8/16/02

Public Works ..... **Dated** .....

Fire Marshal ..... **Dated** 8/30/02

Inland/Wetlands ..... **Dated** 9/4/02

Historic Comm. ..... **Dated** .....

Building Official .....

Notice--If this certificate is lost or destroyed, a duplicate may be obtained from the Building Department. Any changes or extension of the use herein approved requires a new certificate of occupancy.

co2.doc

Petition No. 628T
Sprint Spectrum L.P.
500 Moose Hill Road
Monroe, Connecticut
June 19, 2003
***Revised* Staff Report**
~~~

On May 16, 2003, Sprint Spectrum L.P. (Sprint) submitted a petition to the Connecticut Siting Council (Council) for a determination that no Certificate of Environmental Compatibility and Public Need would be required for the proposed extension of this tower by 20 feet because this proposed modification would not have an substantial adverse environmental effect. On May 27, 2003, Edward S. Wilensky of the Council and Robert K. Erling of the Council staff met Laura A. McGeachy of Cacace, Tusch and Santagata, Christopher K. Daddi of Dewberry-Goodkind, Inc., Tony Wells of Sprint and Tom Nolan of Connecticut Architectural Towers (CAT) for a field review of this petition.

Sprint proposes to extend the height of this tower, which is owned by CAT, and approved by the Council in Docket No. 207, from its existing height of 130 feet to a new height of 150 feet in order to accommodate Sprint antennas at a centerline level of 147.5 feet above ground level (AGL). AT&T currently has its antennas at 127.5 feet AGL and Voicestream at 117.5 feet AGL on this tower. If Sprint's petition is approved by the Council, another telecommunications provider may be interested in co-locating at 140 feet AGL.

During the field review, members of the field review team requested that Sprint notify all abutting property owners of St. John's Cemetery of this petition and also provide radio frequency propagation plots for antennas mounted at 107.5 feet and 137.5 feet for this tower. On May 29, 2003, Sprint sent all abutting property owners notice of this petition. To date, Sprint has received one telephone response on the petition, from a resident who was not opposed to the project but had concerns about a right-of-way adjacent to his property on Wheeler Road. Sprint informed him that it would not use this right-of-way, but rather use the existing access way to the tower from Moose Hill Road.

Sprint's coverage maps indicate coverage from antennas mounted at 107.5 feet AGL would leave coverage gaps along Route 110 and Route 111. Antennas mounted at 137.5 feet AGL would leave some gaps along Route 111 north of Route 110 and Route 110 north of the site. Coverage from antennas mounted 147.5 feet AGL would be satisfactory in these areas.

Sprint also performed a visual analysis of how the 20-foot extension would be perceived from surrounding areas. The nearest home is approximately 600 feet to the east. The tower itself sits on a 53.27-acre parcel of land owned by the St. John the Baptist Greek Catholic Cemetery Association, Inc. The viewshed analysis indicates the 130 foot tower is currently visible over an area of approximately 25 acres, while the proposed 150-foot tower would be visible to approximately 28 acres. The extension would be partially visible during the winter months from intermittent areas along Wheeler Road, Moose Hill Road, and Cross Hill Road.

Sprint would add its equipment cabinets inside the existing fenced 80-foot by 100-foot compound. During the field review, staff noted that the previous owner of the tower had left the 20-foot extension of the tower on the ground outside the fenced compound, along with barrels of equipment for the tower. Staff recommends that all of this material be removed from this area as soon as possible, regardless of the disposition of his petition.

Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Daniel F. Caruso,
Chairman

S. Derek Phelps,
Executive Director

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

E-mail Address:
siting.council
@ct.gov

DOCKET NO 207 - James E Dwyer Co., Inc. application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a cellular telecommunications facility at 500 Moose Hill Road, Monroe, Connecticut. MOOSE HILL	Connecticut Siting Council March 21, 2002

Decision and Order

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, operation, and maintenance of a telecommunications facility at the proposed site in Monroe, Connecticut, including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate either alone or cumulatively with other effects when compared to need, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application and therefore directs that a Certificate of Environmental Compatibility and Public Need, as provided by General Statutes § 16-50k, be issued to James E Dwyer Co., Inc. for the construction, maintenance and operation of a cellular telecommunications facility at the proposed site located at 500 Moose Hill Road, Monroe, Connecticut.

The facility shall be constructed, operated, and maintained substantially as specified in the Council's record in this matter, and subject to the following conditions:

1. The tower shall be constructed as a monopole facility, no taller than necessary to provide the proposed telecommunications services, sufficient to accommodate the antennas of AT&T and other entities, both public and private, but such tower shall not exceed a height of 130 feet above ground level (AGL).

2. The Certificate Holder shall prepare a D&M Plan for this site in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of Connecticut State Agencies. The D&M Plan shall be submitted to and approved by the Council prior to the commencement of facility construction and shall include: a final site plan(s) for site development to include the location and specifications for the tower foundation, placement of carrier antennas, tower height, provisions for tower extension, equipment buildings, security fence, access road, and utility line; construction plans for site clearing, tree trimming, water drainage, and erosion and sedimentation controls consistent with the Connecticut Guidelines for Soil Erosion and Sediment Control, as amended; landscaping and provisions to protect the existing vegetative buffer that would extend around the facility compound; a tower finish that may include painting; and provisions for the prevention and containment of spills and/or other discharge into surface water and groundwater bodies. The applicant must have commitments from at least two carriers prior to commencement of construction of the facility.

3. The Certificate Holder shall, prior to the commencement of operation,

provide the Council worst-case modeling of electromagnetic radio frequency power density of all proposed entities' antennas at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65, August 1997. The Certificate Holder shall provide a recalculated report of electromagnetic radio frequency power density if and when circumstances in operation cause a change in power density above the levels calculated and provided pursuant to this Decision and Order.

4. Upon the establishment of any new State or Federal radio frequency standards applicable to frequencies of this facility, the facility granted herein shall be brought into compliance with such standards.

5. The Certificate Holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.

6. If the facility does not initially provide, or permanently ceases to provide cellular services following completion of construction, this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made.

7. Any antenna that becomes obsolete and ceases to function shall be removed within 60 days after such antenna becomes obsolete and ceases to function.

8. Unless otherwise approved by the Council, this Decision and Order shall be void if all construction authorized herein is not completed and the site in operation as a telecommunications facility within one year of the effective date of this Decision and Order or within one year after all appeals to this Decision and Order have been resolved.

Pursuant to General Statutes § 16-50p, we hereby direct that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in The Hartford Courant and The Advocate.

By this Decision and Order, the Council disposes of the legal rights, duties, and privileges of each party named or admitted to the proceeding in accordance with Section 16-50j-17 of the Regulations of Connecticut State Agencies.

The parties and intervenors to this proceeding are:

James E. Dwyer Co., Inc.
(Dwyer)
Dennis Morrissey, P.E
Attorney at Law
106 Sherman Street
Fairfield, CT 06430

Town of Monroe

PLANNING AND ZONING DEPARTMENT
- Planning and Zoning Commission
- Zoning Board of Appeals
- Zoning Enforcement Officer

FILE COPY

June 21, 2002

Mr. Richard Adzima
St. John the Baptist Greek Cemetery Association, Inc.
50 Paradise Green Place
Stratford, CT 06414

Mr. John Dwyer
James E. Dwyer Company, Inc.
106 Sherman Street
Fairfield, CT 06430

Re: **Special Exception Permit - 500 Moose Hill Road**

Gentlemen:

Please be advised that the Town Planning & Zoning Commission, at its regular meeting of June 6, 2002, voted **to approve** your application for James E. Dwyer Company, Inc., and St. John The Baptist Church, for a special exception permit at 500 Moose Hill Road.

The Commission has voted to approve the application for modification of special exception permit numbers 13-75-S ands 34-95-S, for revision of approved site improvements plan to incorporate a wireless communication facility ("Facility") at 500 Moose Hill Road as presented at the public hearing of May 30, 2002. This action was taken based upon the following reasons, conclusions and appended conditions.

The Commission finds that the applicant has demonstrated that the proposed modification meets the standards and conditions for such found in Article XVIII of the Zoning Regulations of the Town of Monroe. The following more specifically supports such finding:

1. The Commission finds in regard to the general conditions for a special exception permit in the zone and at the location the applicants have minimally sustained a burden of proof by the following reasons::

    a) the proposal is generally consistent with the intent of §8-2, CGS, and the requirements of the zoning regulations pertaining to the conditions of Article 18 for a special exception permit.

2. The Commission finds in regard to the specific conditions for a special exception permit in the zone and at the location the applicants have minimally sustained a burden of proof by the following:

   a) the Commission recognizes that no Facility incorporating a tower structure is either architecturally or aesthetically pleasing and understands the conclusions and opinions of the general public regarding location and appearance. The Commission also recognizes its obligations under state and federal law that such Facilities must be permitted and provided for. The process of location of facilities represents a delicate balancing act, which will result in a degree of public dissatisfaction; however, the end result must weigh considerably to benefit the substantial public interest, which in the pending application it does, therefore, with that realization in mind the Commission finds that the use, building, structures and improvements will not be detrimental to the health safety, and welfare in the neighborhood and will be in harmony with and conform to the appropriate orderly development of the town, and further, upon completion of improvements the proposal will have no significant detrimental impact upon the environment,

   b) due to the low volume of activity associated with the modification the streets serving the use are adequate to carry prospective traffic and provision is made, both through the application and the following conditions of approval, for entering and leaving the property in such a manner that no new traffic hazards will be created and existing off street parking facilities are provided,

   c) with the incorporation of additional requested buffer the property (Facility) will be suitably landscaped, and the proposed design of buildings, structures and appurtenances will be adequate to preserve the appearance and character of the neighborhood,

   d) the lot is of sufficient size and adequate dimension to permit construction of facilities and conduct of the use in such a manner as will not be detrimental to the neighborhood,

   e) the area for the maneuvering of vehicles will be paved to the satisfaction of the Commission, and,

   f) as no exterior lighting is proposed it is not a factor in consideration of the proposal.

FURTHER, the approval is given subject to the following specific conditions:

1. The following plans presented at the hearing May 30, 2002, including revisions and additions herein specified by the Commission, shall be the approved plans of record and basis of approval:

   "Zoning Location Survey, prepared for John G. Dwyer, Moose Hill Road, Monroe, Connecticut," dated 4/5/02, by Paul A. Brautigam, RLS.

   "Site Plan, Notes, and Details," dated 4/8/02, by Mark E. Lancor, PE.

2. The approval of this special exception permit shall not be substituted for or supersede previous permit approvals related to this facility. All previous permits remain in full force and effect except as herein modified.

3. Along the north side of the facility fence the applicants shall install a landscape buffer meeting the following specification:

   Two rows of evergreen white pine trees of a minimum one and on half (1½) inches caliper, or five (5) feet in height (whichever is greater) planted fifteen (15) feet apart, staggered in adjoining rows.

4. No lighting shall be shall be placed within the facility except emergency work lights to be used only when active maintenance is being performed.

5. Install a gate or other lockable, movable barrier at the present end of pavement which shall be locked at all times when the facility is not actively being worked on.

6. The gravel access drive beyond the gate shall give access only to the facility.

7. The fence detail shall provide for pressure treated wood set in concrete with a concrete or paved "wash" to minimize rot and deterioration. In the alternative, a chain link fence may be installed utilizing a vinyl weave colored black.

8. The plans shall be revised to incorporate and address all conditions specified herein. A mylar copy of the plan shall be provided for endorsement by the Commission and recording in the Monroe Land Records both reflecting the said conditions and improvements when constructed ("as-built").

9. Provision of copies of plans, details and/or specifications, as may be required by Town and State agencies from time to time.

10. Should this action be the subject of appeal to the courts, no time limit specified herein shall begin to run until such litigation is fully concluded (date of final court action).

11. The effective date of the modified special exception permit shall be the date of recording in the Monroe Land Records. It shall be the responsibility of the applicant to record the special exception permit document (prepared by the Planning and Zoning Department) in the Monroe Land Records. Failure to record said document within ninety (90) days of the date of approval shall render the approval null and void.

12. Failure to meet any specified condition of this approval or maintain compliance with applicable local, state or federal ordinance, regulation or laws may result in the ordered suspension of construction authorizations until such time as such failure or noncompliance has been satisfactorily resolved.

13. Should any changes in site plan be contemplated, they shall be submitted to the Commission for review. Should any changes be considered as major or substantial changes, they shall be applied for under a special exception permit application to modify the approved site plan. Minor changes are considered by the Commission as those, which do not change the substance, impact, or general locations involved in the proposal and may be authorized by the Commission after appropriate review.

Mr. Richard Adzima
Mr. John Dwyer
June 21, 2002

14. It is the responsibility of the owner/developer to notify the Planning and Zoning Department of any change in the status of ownership and/or contractor(s) and/or professional design or inspection consultant involved in the proposal. Additionally, it is the responsibility of the owner/developer to notify any new owner and/or contractor(s) and/or consultants of all construction requirements including all job meeting notes and inspection notes produced up to the date of any such change in project related personnel.

15. This permit and all conditions specified herein shall be binding in perpetuity upon the applicant and property owner and his (their) heirs, assigns and successors unless otherwise amended by a subsequent act of the Commission.

16. This permit and all conditions specified herein shall be binding in perpetuity upon this parcel and premises unless otherwise amended or invalidated under the terms of this approval or a subsequent act of the Commission.

A notice of special exception will be prepared by this office for filing in the Monroe Land Records. That document will be held in this office until such time as you or your representative appear to file it with the Monroe Town Clerk.

Enclosed please find a copy of the legal notice of decision.

Very truly yours,

Daniel A. Tuba
Town Planner
Clerk of the Commission

DAT:cd
Enclosure

cc: St. John the Baptist Cemetery Assoc.
Dymar, Inc.
Frank Kascak, Assessor
James Sandor, Chief Building Official
Jack Brandt, Zoning Enforcement Officer
Sherwood Lovejoy, D.P.W.
John Salvatore, Chief of Police

CMRRR: 7099 3220 0008 3393 5728 (Dwyer)
CMRRR: 7099 3220 0008 3393 5445 (Adzima)

EXHIBIT 7

EME Report

APPROVED
By Pawan Madahar at 9:18 am, Mar 08, 2022

Pinnacle Telecom Group

Professional and Technical Services

Antenna Site FCC RF Compliance Assessment and Report for Municipal Submission

Prepared for:	Dish Wireless, LLC
Site ID:	NJJER01101B
Site Address:	500 Moosehill Road Monroe, CT
Latitude:	N 41.320966
Longitude:	W 73.20142222
Structure type:	Monopole
Report date:	February 25, 2022
Compliance Conclusion:	Dish Wireless, LLC will be in compliance with the rules and regulations as described in OET Bulletin 65, following the implementation of the proposed mitigation as detailed in the report.

14 Ridgedale Avenue - Suite 260 • Cedar Knolls, NJ 07927 • 973-451-1630

Contents

Introduction and Summary

At the request of Dish Wireless, LLC ("Dish"), Pinnacle Telecom Group has performed an independent expert assessment of radiofrequency (RF) levels and related FCC compliance for proposed wireless base station antenna operations on an existing monopole located at 500 Moosehill Road in Monroe, CT. Dish refers to the antenna site by the code "NJJER01101B", and its proposed operation involves directional panel antennas and transmission in the 600 MHz, 2000 MHz and 2100 MHz frequency bands licensed to it by the FCC.

The FCC requires all wireless antenna operators to perform an assessment of potential human exposure to radiofrequency (RF) fields emanating from all the transmitting antennas at a site whenever antenna operations are added or modified, and to ensure compliance with the Maximum Permissible Exposure (MPE) limit in the FCC's regulations. In this case, the compliance assessment needs to take into account the RF effects of other existing antenna operations at the site by AT&T, Sprint, T-Mobile and Verizon Wireless. Note that FCC regulations require any future antenna collocators to assess and assure continuing compliance based on the cumulative effects of all then-proposed and then-existing antennas at the site.

This report describes a mathematical analysis of RF levels resulting around the site in areas of unrestricted public access, that is, at street level around the site. The compliance analysis employs a standard FCC formula for calculating the effects of the antennas in a very conservative manner, in order to overstate the RF levels and to ensure "safe-side" conclusions regarding compliance with the FCC limit for safe continuous exposure of the general public.

The results of a compliance assessment can be described in layman's terms by expressing the calculated RF levels as simple percentages of the FCC MPE limit. If the normalized reference for that limit is 100 percent, then calculated RF levels higher than 100 percent indicate the MPE limit is exceeded and there is a need to mitigate the potential exposure. On the other hand, calculated RF levels consistently below 100 percent serve as a clear and sufficient demonstration of

compliance with the MPE limit. We can (and will) also describe the overall worst-case result via the “plain-English” equivalent “times-below-the-limit” factor.

The result of the RF compliance assessment in this case is as follows:

- At street level, the conservatively calculated maximum RF level from the combination of proposed and existing antenna operations at the site is 12.9219 percent of the FCC general population MPE limit – well below the 100-percent reference for compliance. In other words, the worst-case calculated RF level – intentionally and significantly overstated by the calculations – is still more than seven times below the FCC limit for safe, continuous exposure of the general public.
- A supplemental analysis of the RF levels at the same height as the Dish antennas indicate that the FCC MPE limit is potentially exceeded. Therefore, it is recommended that two Caution signs be installed six feet below the antennas. In addition, NOC Information signs are to be installed at the base of the monopole.
- The results of the calculations, along with the proposed mitigation, combine to satisfy the FCC requirements and associated guidelines on RF compliance at street level around the site and on the subject roof. Moreover, because of the significant conservatism incorporated in the analysis, RF levels actually caused by the antennas will be lower than these calculations indicate.

The remainder of this report provides the following:

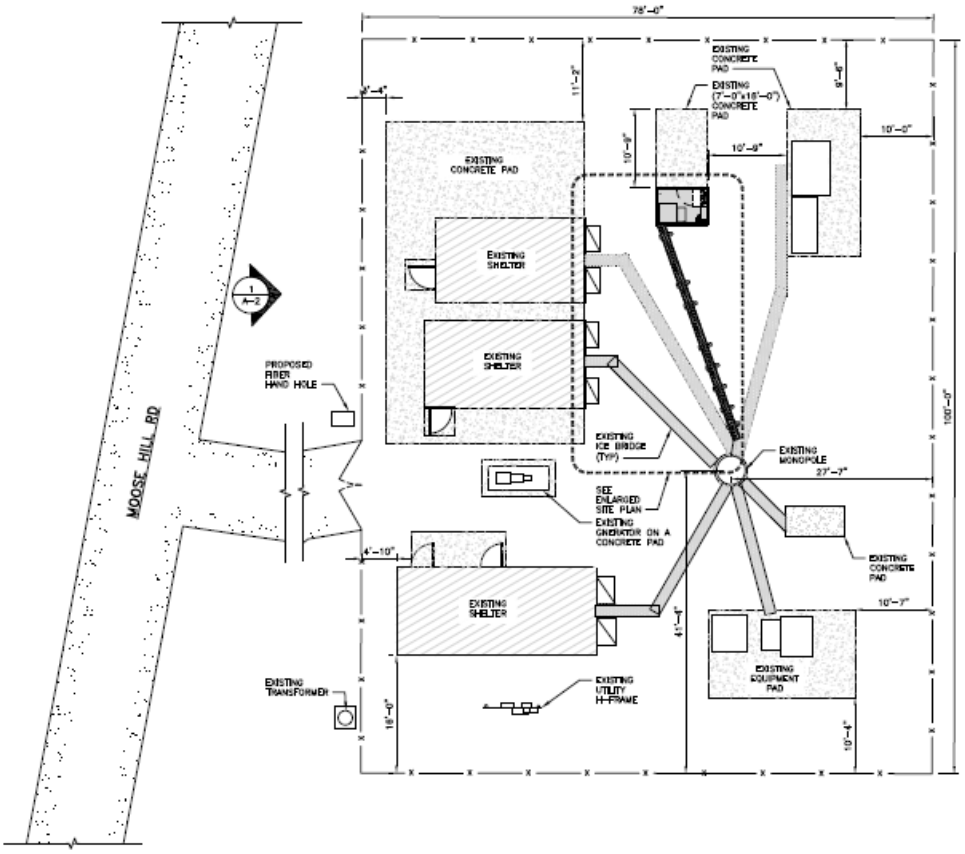
- relevant technical data on the proposed Dish antenna operations at the site, as well as on the other existing antenna operations;
- a description of the applicable FCC mathematical model for calculating RF levels, and application of the relevant technical data to that model;
- analysis of the results of the calculations against the FCC MPE limit, and the compliance conclusion for the site.

In addition, four Appendices are included. Appendix A provides information on the documents used to prepare the analysis. Appendix B provides background on the FCC MPE limit. Appendix C details the proposed mitigation to satisfy the FCC requirements and associated guidelines on RF compliance. Appendix D provides a summary of the qualifications of the expert certifying FCC compliance for this site.

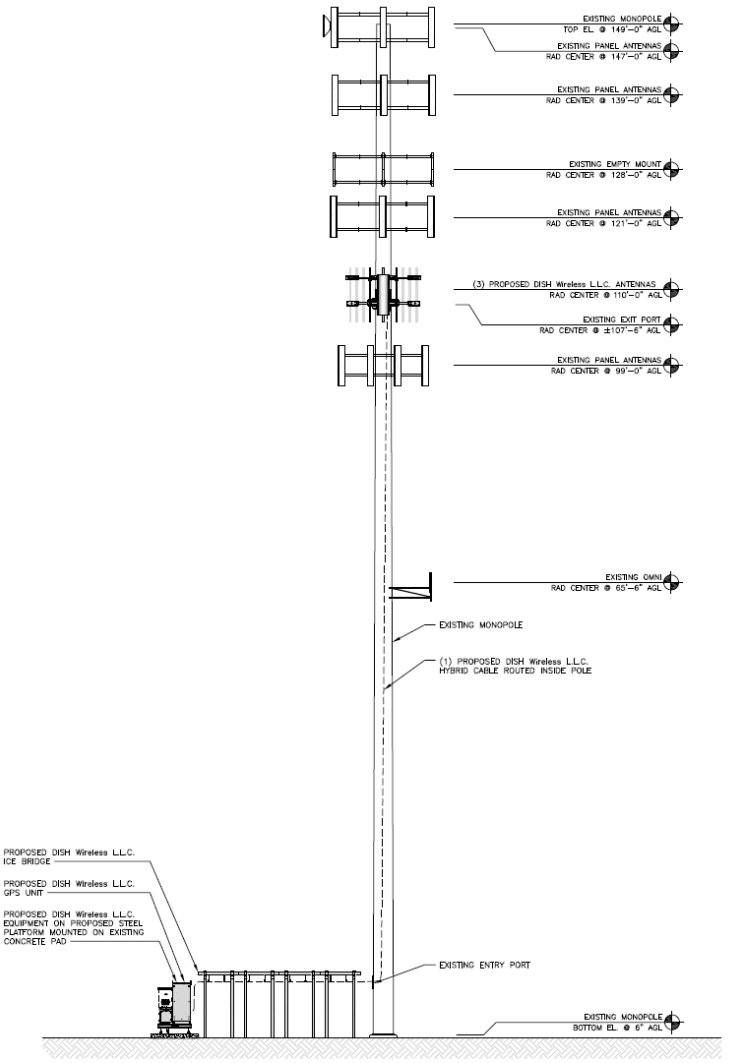
Antenna and Transmission Data

The plan and elevation views that follow, extracted from the site drawings, illustrate the mounting positions of the Dish antennas at the site.

Plan View:



Elevation View:



The table that follows summarizes the relevant data for the proposed Dish antenna operations. Note that the "Z" height references the centerline of the antenna.

Ant. ID	Carrier	Antenna Manufacturer	Antenna Model	Type	Freq (MHz)	Ant. Dim. (ft.)	Total Input Power (watts)	Total ERP (watts)	Z AGL (ft)	Ant. Gain (dBd)	B/W	Azimuth	EDT	MDT
❶	Dish	Commscope	FFVV-65B-R2	Panel	600	6	120	2110	110	12.46	64	0	2	0
❶	Dish	Commscope	FFVV-65B-R2	Panel	2000	6	160	7396	110	16.66	67	0	2	0
❶	Dish	Commscope	FFVV-65B-R2	Panel	2100	6	160	7396	110	16.66	67	0	2	0
❷	Dish	Commscope	FFVV-65B-R2	Panel	600	6	120	2110	110	12.46	64	120	2	0
❷	Dish	Commscope	FFVV-65B-R2	Panel	2000	6	160	7396	110	16.66	67	120	2	0
❷	Dish	Commscope	FFVV-65B-R2	Panel	2100	6	160	7396	110	16.66	67	120	2	0
❸	Dish	Commscope	FFVV-65B-R2	Panel	600	6	120	2110	110	12.46	64	240	2	0
❸	Dish	Commscope	FFVV-65B-R2	Panel	2000	6	160	7396	110	16.66	67	240	2	0
❸	Dish	Commscope	FFVV-65B-R2	Panel	2100	6	160	7396	110	16.66	67	240	2	0

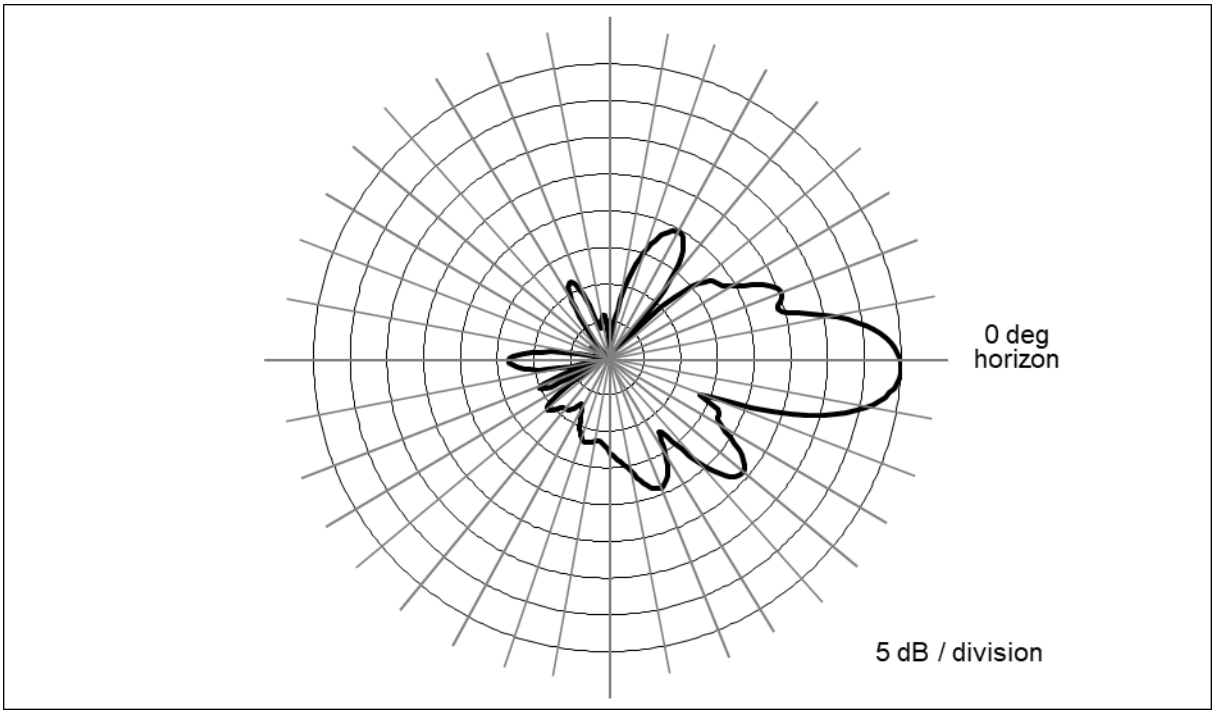
The area below the antennas, at street level, is of interest in terms of potential "uncontrolled" exposure of the general public, so the antenna's vertical-plane emission characteristic is used in the calculations, as it is a key determinant of the relative amount of RF emissions in the "downward" direction.

By way of illustration, Figure 1 that follows shows the vertical-plane radiation pattern of the proposed antenna model in the 600 MHz frequency band. In this type of antenna radiation pattern diagram, the antenna is effectively pointed at the three o'clock position (the horizon) and the relative strength of the pattern at different angles is described using decibel units.

Note that the use of a decibel scale to describe the relative pattern at different angles actually serves to significantly understate the actual focusing effects of the antenna. Where the antenna pattern reads 20 dB the relative RF energy emitted at the corresponding downward angle is 1/100th of the maximum that occurs in the main beam (at 0 degrees); at 30 dB, the energy is only 1/1000th of the maximum.

Finally, note that the automatic pattern-scaling feature of our internal software may skew side-by-side visual comparisons of different antenna models, or even different parties' depictions of the same antenna model.

Figure 1. Commscope FFVV-65B-R2 – 600 MHz Vertical-plane Pattern



As noted at the outset, there are other existing wireless antenna operations to include in the compliance assessment. For each of the wireless operators, we will conservatively assume operation with maximum channel capacity and at maximum transmitter power per channel to be used by each wireless operator in each of their respective FCC-licensed frequency bands.

The table that follows summarizes the relevant data for the collocated antenna operations.

Carrier	*Antenna Manufacturer*	*Antenna Model*	*Type*	*Freq (MHz)*	*Total ERP (watts)*	*Ant. Gain (dBd)*	*Azimuth*
AT&T	Generic	Generic	Panel	700	4945	11.26	N/A
AT&T	Generic	Generic	Panel	850	2400	11.76	N/A
AT&T	Generic	Generic	Panel	1900	5756	15.56	N/A
AT&T	Generic	Generic	Panel	2100	5890	15.66	N/A
AT&T	Generic	Generic	Panel	2300	4131	16.16	N/A
Sprint	Generic	Generic	Panel	800	2168	13.36	N/A
Sprint	Generic	Generic	Panel	1900	6168	15.86	N/A
Sprint	Generic	Generic	Panel	2500	4669	15.90	N/A
T-Mobile	Generic	Generic	Panel	600	3163	12.96	N/A
T-Mobile	Generic	Generic	Panel	700	867	13.36	N/A
T-Mobile	Generic	Generic	Panel	1900	4123	15.36	N/A
T-Mobile	Generic	Generic	Panel	1900	1452	15.60	N/A
T-Mobile	Generic	Generic	Panel	2100	4626	15.86	N/A
T-Mobile	Generic	Generic	Panel	1900	1419	15.50	N/A
T-Mobile	Generic	Generic	Panel	2500	12804	22.35	N/A
Verizon Wireless	Generic	Generic	Panel	746	2400	11.76	N/A
Verizon Wireless	Generic	Generic	Panel	869	5166	12.36	N/A
Verizon Wireless	Generic	Generic	Panel	1900	5372	15.26	N/A
Verizon Wireless	Generic	Generic	Panel	2100	5625	15.46	N/A

Compliance Analysis

FCC Office of Engineering and Technology Bulletin 65 ("OET Bulletin 65") provides guidelines for mathematical models to calculate the RF levels at various points around transmitting antennas. Different models apply in different areas around antennas, with one model applying to street level around a site, and another applying to the rooftop near the antennas. We will address each area of interest in turn in the subsections that follow.

Street Level Analysis

At street-level around an antenna site (in what is called the "far field" of the antennas), the RF levels are directly proportional to the total antenna input power and the relative antenna gain in the downward direction of interest – and the levels are otherwise inversely proportional to the square of the straight-line distance to the antenna.

Conservative calculations also assume the potential RF exposure is enhanced by reflection of the RF energy from the intervening ground. Our calculations will assume a 100% "perfect", mirror-like reflection, which is the absolute worst-case scenario.

The formula for street-level compliance assessment for any given wireless antenna operation is as follows:

$$MPE\% = (100 * Chans * TxPower * 10^{(Gmax-Vdisc/10)} * 4) / (MPE * 4\pi * R^2)$$

where

MPE%	=	RF level, expressed as a percentage of the MPE limit applicable to continuous exposure of the general public
100	=	factor to convert the raw result to a percentage
Chans	=	maximum number of RF channels per sector
TxPower	=	maximum transmitter power per channel, in milliwatts

$10^{(Gmax-Vdisc/10)}$	=	numeric equivalent of the relative antenna gain in the downward direction of interest; data on the antenna vertical-plane pattern is taken from manufacturer specifications
4	=	factor to account for a 100-percent-efficient energy reflection from the ground, and the squared relationship between RF field strength and power density ($2^2 = 4$)
MPE	=	FCC general population MPE limit
R	=	straight-line distance from the RF source to the point of interest, centimeters

The MPE% calculations are performed out to a distance of 500 feet from the facility to points 6.5 feet (approximately two meters, the FCC-recommended standing height) off the ground, as illustrated in Figure 2, below.

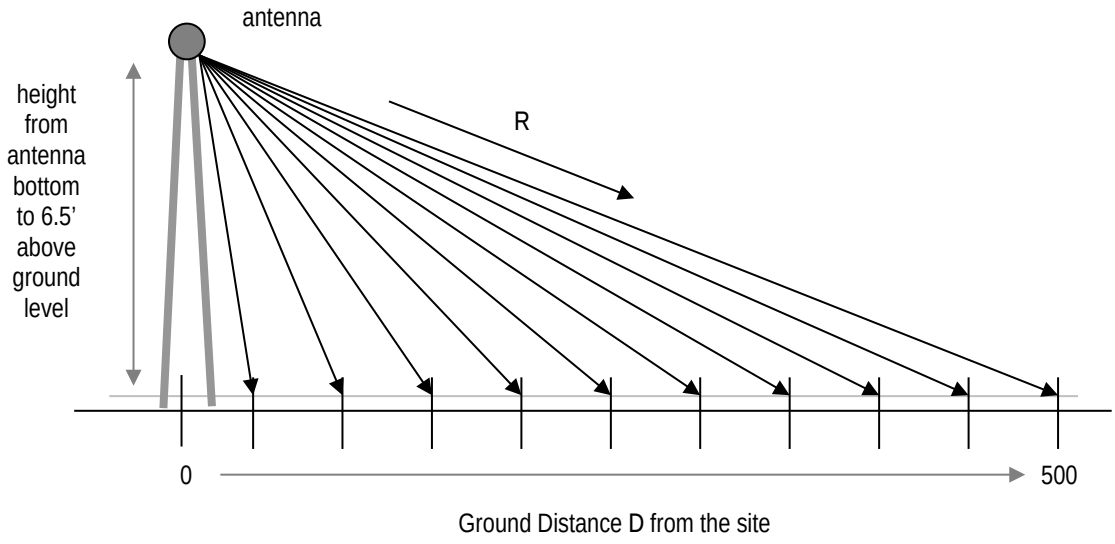


Figure 2. Street-level MPE% Calculation Geometry

It is popularly understood that the farther away one is from an antenna, the lower the RF level – which is generally but not universally correct. The results of MPE% calculations fairly close to the site will reflect the variations in the vertical-plane antenna pattern as well as the variation in straight-line distance to the antenna.

Therefore, RF levels may actually increase slightly with increasing distance within the range of zero to 500 feet from the site. As the distance approaches 500 feet and beyond, though, the antenna pattern factor becomes less significant, the RF levels become primarily distance-controlled and, as a result, the RF levels generally decrease with increasing distance. In any case, the RF levels more than 500 feet from a wireless antenna site are well understood to be sufficiently low to be comfortably in compliance.

According to the FCC, when directional antennas (such as panels) are used, compliance assessments are based on the RF effect of a single (facing) antenna sector, as the effects of directional antennas pointed away from the point(s) of interest are considered insignificant. If the different parameters apply in the different sectors, compliance is based on the worst-case parameters.

Street level FCC compliance for a collocated antenna site is assessed in the following manner. At each distance point along the ground, an MPE% calculation is made for each antenna operation (including each frequency band), and the sum of the individual MPE% contributions at each point is compared to 100 percent, the normalized reference for compliance with the MPE limit. We refer to the sum of the individual MPE% contributions as “total MPE%”, and any calculated total MPE% result exceeding 100 percent is, by definition, higher than the FCC limit and represents non-compliance and a need to mitigate the potential exposure. If all results are consistently below 100 percent, on the other hand, that set of results serves as a clear and sufficient demonstration of compliance with the MPE limit.

Note that the following conservative methodology and assumptions are incorporated into the MPE% calculations on a general basis:

1. The antennas are assumed to be operating continuously at maximum power and maximum channel capacity.
2. The power-attenuation effects of shadowing or other obstructions to the line-of-sight path from the antenna to the point of interest are ignored.
3. The calculations intentionally minimize the distance factor (R) by assuming a 6’6” human and performing the calculations from the bottom (rather than

the centerline) of each operator's lowest-mounted antenna, as applicable.

4. The calculations also conservatively take into account, when applicable, the different technical characteristics and related RF effects of the use of multiple antennas for transmission in the same frequency band.
5. The RF exposure at ground level is assumed to be 100-percent enhanced (increased) via a "perfect" field reflection from the intervening ground.

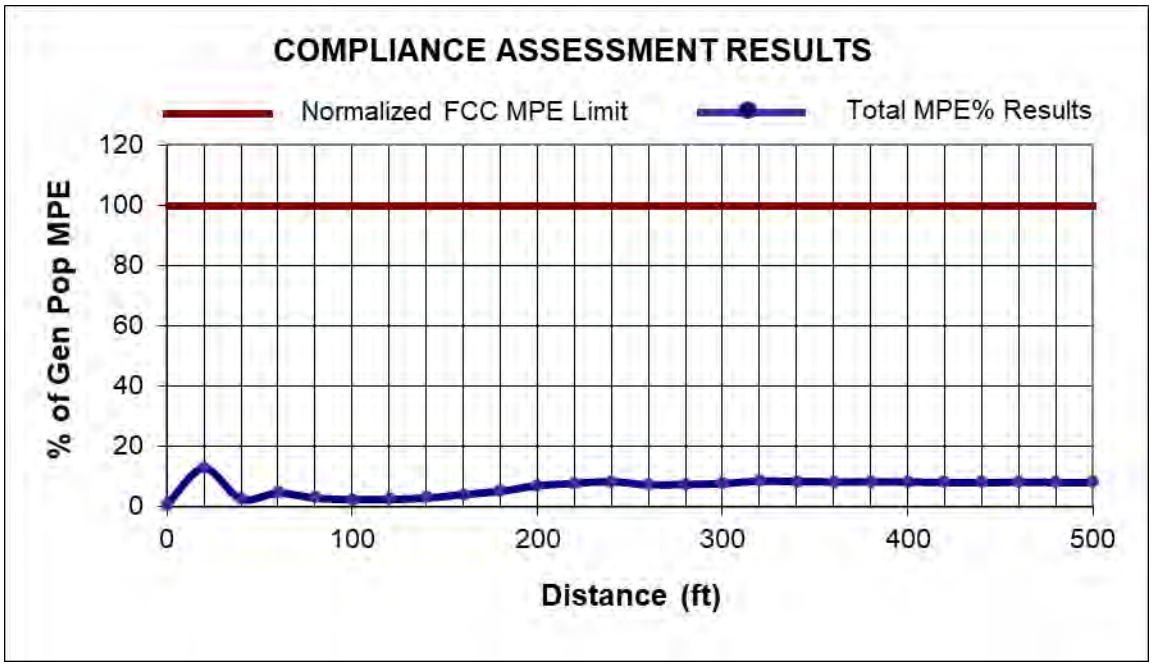
The net result of these assumptions is to intentionally and significantly overstate the calculated RF levels relative to the levels that will actually result from the antenna operations – and the purpose of this conservatism is to allow very "safe-side" conclusions about compliance.

The table that follows provides the results of the MPE% calculations for each antenna operation, with the overall worst-case calculated result highlighted in bold in the last column. Note that the transmission parameters for each Dish antenna sector are identical, and the calculations reflect the worst-case result for any/all sectors.

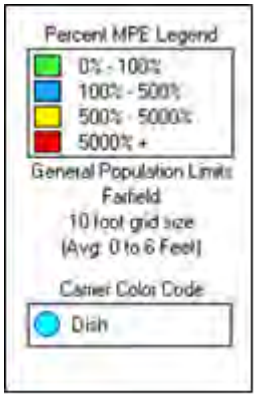
Ground Distance (ft)	Dish 600 MHz MPE%	Dish 2000 MHz MPE%	Dish 2100 MHz MPE%	AT&T MPE%	Sprint MPE%	T-Mobile MPE%	Verizon Wireless MPE%	Total MPE%
0	0.0482	0.0023	0.0004	0.0683	0.0208	0.3305	0.4412	0.9117
20	**0.1031**	**0.0057**	**0.0084**	**0.0663**	**0.0106**	**12.1152**	**0.6126**	**12.9219**
40	0.1955	0.0216	0.0349	0.1474	0.0096	1.1716	1.1750	2.7556
60	0.0682	0.0178	0.1403	0.2237	0.0136	2.8546	1.4321	4.7503
80	0.0667	0.2663	0.1231	0.3043	0.0300	1.0162	1.2402	3.0468
100	0.2542	0.1873	0.3755	0.3733	0.0439	0.4785	0.8539	2.5666
120	0.2866	0.2580	0.3512	0.3278	0.0493	0.8648	0.4921	2.6298
140	0.1431	0.0182	0.1045	0.5652	0.0484	1.4890	0.7088	3.0772
160	0.0608	0.0362	0.0261	0.6568	0.0570	2.0134	1.4236	4.2739
180	0.0340	0.0038	0.0439	0.6896	0.1132	2.2715	2.1171	5.2731
200	0.0275	0.1064	0.0891	0.6839	0.1220	3.2491	2.9285	7.2065
220	0.0177	0.0342	0.1323	0.7658	0.0806	3.4583	3.4331	7.9220
240	0.0094	0.0380	0.0261	0.7394	0.0341	3.4114	4.2622	8.5206
260	0.0101	0.0860	0.0238	0.5977	0.0275	2.7950	3.9361	7.4762
280	0.0369	0.1061	0.1205	0.3779	0.0347	3.8862	3.0130	7.5753
300	0.0643	0.0581	0.1189	0.2692	0.0507	4.0941	3.1958	7.8511
320	0.1029	0.0183	0.0783	0.2005	0.0536	4.0249	4.2584	8.7369
340	0.1521	0.0049	0.0343	0.1710	0.0571	3.8558	4.2700	8.5452
360	0.2119	0.0046	0.0107	0.1688	0.0599	3.6638	4.3102	8.4299
380	0.2802	0.0036	0.0035	0.1769	0.0590	3.5440	4.4318	8.4990
400	0.2545	0.0033	0.0032	0.1613	0.0408	3.3787	4.6013	8.4431
420	0.3234	0.0066	0.0020	0.1903	0.0358	3.1134	4.5474	8.2189
440	0.3957	0.0257	0.0099	0.2604	0.0172	2.9787	4.4665	8.1541
460	0.3636	0.0236	0.0091	0.3877	0.0118	2.9074	4.6739	8.3771
480	0.4318	0.0548	0.0321	0.3582	0.0139	2.7101	4.5993	8.2002
500	0.3993	0.0507	0.0297	0.5266	0.0215	2.6247	4.5570	8.2095

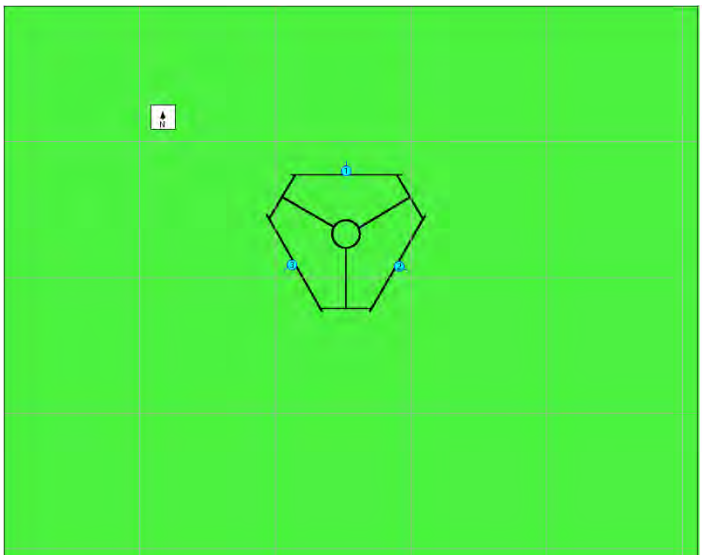
As indicated, the maximum calculated overall RF level is 12.9219 percent of the FCC MPE limit – well below the 100-percent reference for compliance.

A graph of the overall calculation results, shown below, perhaps provides a clearer *visual* illustration of the relative compliance of the calculated RF levels. The line representing the overall calculation results shows an obviously clear, consistent margin to the FCC MPE limit.



The graphic output for the areas at street level surrounding the site is reproduced on the next page.



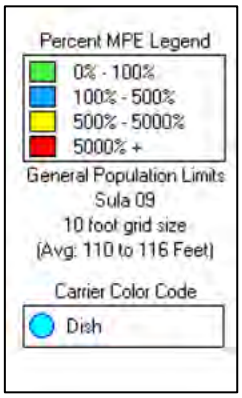


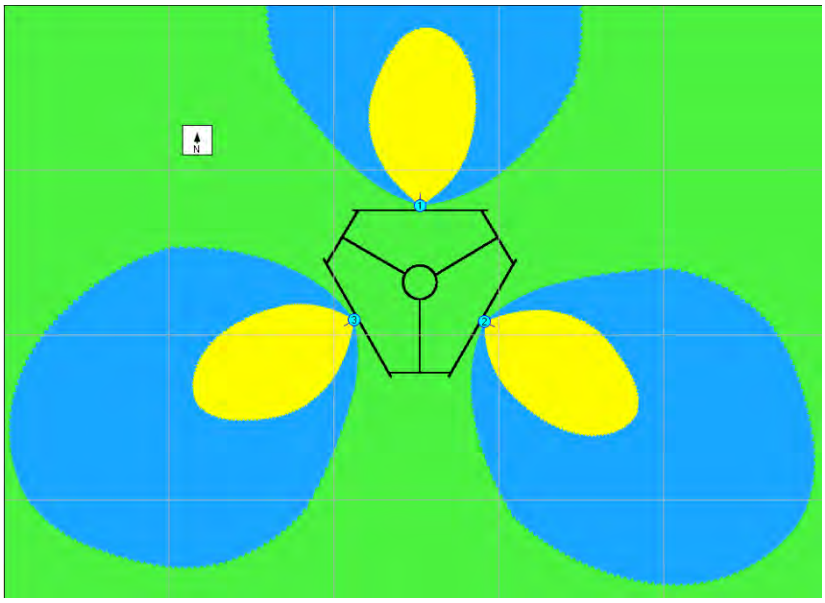
Near-field Analysis

The compliance analysis for the same height as the antennas is performed using the RoofMaster program by Waterford Consultants.

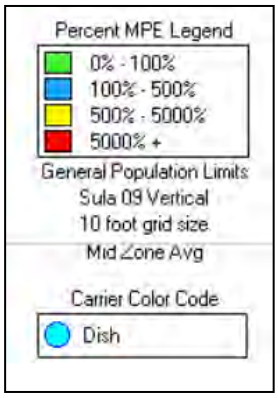
RF levels in the near field of an antenna depend on the power input to the antenna, the antenna's length and horizontal beamwidth, the mounting height of the antenna above nearby roof, and one's position and distance from the antenna. RF levels in front of a directional antenna are higher than they are to the sides or rear, and in any given horizontal direction are inversely proportional to the straight-line distance to the antenna.

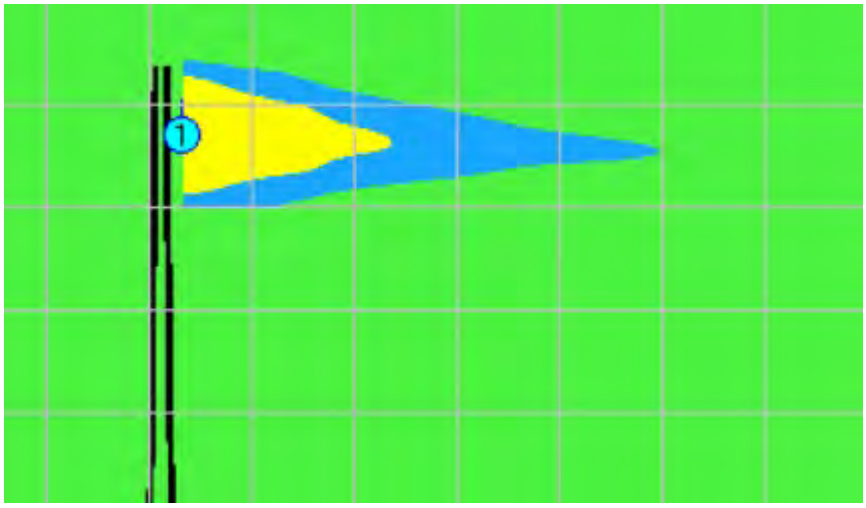
The RoofMaster graphic outputs for the same height as the Dish antennas are reproduced on the next page.





RoofMaster – Same Height as the Antennas – Alpha / Beta / Gamma sectors





RoofMaster – Same Height as the Antennas – Alpha / Beta / Gamma sectors

Compliance Conclusion

According to the FCC, the MPE limit has been constructed in such a manner that continuous human exposure to RF fields up to and including 100 percent of the MPE limit is acceptable and safe.

The conservative analysis in this case shows that the maximum calculated RF level from the proposed modifications to the existing antenna operations at the site is 12.9219 percent of the FCC general population MPE limit. At the same height as the antennas, the analysis shows that the calculated RF levels potentially exceed the FCC MPE limit. Per Dish guidelines, and consistent with FCC guidance on compliance, it is recommended that two Caution signs be six feet below the antennas. In addition, NOC Information signs be installed at the base of the monopole.

The results of the calculations, along with the described RF mitigation, combine to satisfy the FCC's RF compliance requirements and associated guidelines on compliance.

Moreover, because of the extremely conservative calculation methodology and operational assumptions we applied in the analysis, RF levels actually caused by the antennas will be significantly lower than the calculation results here indicate.

Certification

It is the policy of Pinnacle Telecom Group that all FCC RF compliance assessments are reviewed, approved, and signed by the firm's Chief Technical Officer who certifies as follows:

1. I have read and fully understand the FCC regulations concerning RF safety and the control of human exposure to RF fields (47 CFR 1.1301 *et seq*).
2. To the best of my knowledge, the statements and information disclosed in this report are true, complete and accurate.
3. The analysis of site RF compliance provided herein is consistent with the applicable FCC regulations, additional guidelines issued by the FCC, and industry practice.
4. The results of the analysis indicate that the subject antenna operations will be in compliance with the FCC regulations concerning the control of potential human exposure to the RF emissions from antennas.

2/25/22

Daniel J. Collins
Chief Technical Officer
Pinnacle Telecom Group, LLC

Date

Appendix A. Documents Used to Prepare the Analysis

RFDS: RFDS-NJJER01101B-Final-20220216-v.0_20220216130935

CD: NJJER01101B_FinalStampedCDs_20211111101102

Appendix B. Background on the FCC MPE Limit

As directed by the Telecommunications Act of 1996, the FCC has established limits for maximum continuous human exposure to RF fields.

The FCC maximum permissible exposure (MPE) limits represent the consensus of federal agencies and independent experts responsible for RF safety matters. Those agencies include the National Council on Radiation Protection and Measurements (NCRP), the Occupational Safety and Health Administration (OSHA), the National Institute for Occupational Safety and Health (NIOSH), the American National Standards Institute (ANSI), the Environmental Protection Agency (EPA), and the Food and Drug Administration (FDA). In formulating its guidelines, the FCC also considered input from the public and technical community – notably the Institute of Electrical and Electronics Engineers (IEEE).

The FCC's RF exposure guidelines are incorporated in Section 1.301 *et seq* of its Rules and Regulations (47 CFR 1.1301-1.1310). Those guidelines specify MPE limits for both occupational and general population exposure.

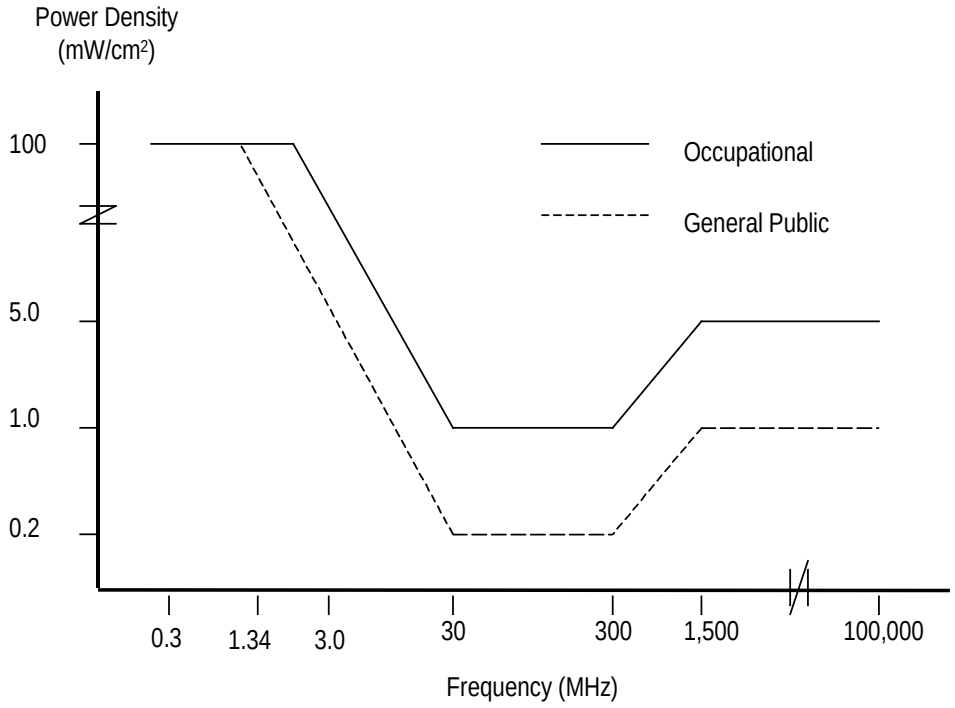
The specified continuous exposure MPE limits are based on known variation of human body susceptibility in different frequency ranges, and a Specific Absorption Rate (SAR) of 4 watts per kilogram, which is universally considered to accurately represent human capacity to dissipate incident RF energy (in the form of heat). The occupational MPE guidelines incorporate a safety factor of 10 or greater with respect to RF levels known to represent a health hazard, and an additional safety factor of five is applied to the MPE limits for general population exposure. Thus, the general population MPE limit has a built-in safety factor of more than 50. The limits were constructed to appropriately protect humans of both sexes and all ages and sizes and under all conditions – and continuous exposure at levels equal to or below the applicable MPE limits is considered to result in no adverse health effects or even health risk.

The reason for *two* tiers of MPE limits is based on an understanding and assumption that members of the general public are unlikely to have had appropriate RF safety training and may not be aware of the exposures they receive; occupational exposure in controlled environments, on the other hand, is assumed to involve individuals who have had such training, are aware of the exposures, and know how to maintain a safe personal work environment.

The FCC's RF exposure limits are expressed in two equivalent forms, using alternative units of field strength (expressed in volts per meter, or V/m), and power density (expressed in milliwatts per square centimeter, or mW/cm^2). The table on the next page lists the FCC limits for both occupational and general population exposures, using the mW/cm^2 reference, for the different radio frequency ranges.

Frequency Range (F) (MHz)	Occupational Exposure (mW/cm^2)	General Public Exposure (mW/cm^2)
0.3 - 1.34	100	100
1.34 - 3.0	100	$180 / F^2$
3.0 - 30	$900 / F^2$	$180 / F^2$
30 - 300	1.0	0.2
300 - 1,500	F / 300	F / 1500
1,500 - 100,000	5.0	1.0

The diagram below provides a graphical illustration of both the FCC's occupational and general population MPE limits.



Because the FCC's RF exposure limits are frequency-shaped, the exact MPE limits applicable to the instant situation depend on the frequency range used by the systems of interest.

The most appropriate method of determining RF compliance is to calculate the RF power density attributable to a particular system and compare that to the MPE limit applicable to the operating frequency in question. The result is usually expressed as a percentage of the MPE limit.

For potential exposure from multiple systems, the respective percentages of the MPE limits are added, and the total percentage compared to 100 (percent of the limit). If the result is less than 100, the total exposure is in compliance; if it is more than 100, exposure mitigation measures are necessary to achieve compliance.

Note that the FCC "categorically excludes" all "non-building-mounted" wireless antenna operations whose mounting heights are more than 10 meters (32.8 feet) from the routine requirement to demonstrate compliance with the MPE limit, because such operations "are deemed, individually and cumulatively, to have no significant effect on the human environment". The categorical exclusion also applies to *all* point-to-point antenna operations, regardless of the type of structure they're mounted on. Note that the FCC considers any facility qualifying for the categorical exclusion to be automatically in compliance.

In addition, FCC Rules and Regulations Section 1.1307(b)(3) describes a provision known in the industry as "the 5% rule". It describes that when a specific location – like a spot on a rooftop – is subject to an overall exposure level exceeding the applicable MPE limit, operators with antennas whose MPE% contributions at the point of interest are less than 5% are exempted from the obligation otherwise shared by all operators to bring the site into compliance, and those antennas are automatically deemed by the FCC to satisfy the rooftop compliance requirement.

FCC References on RF Compliance

47 CFR, FCC Rules and Regulations, Part 1 (Practice and Procedure), Section 1.1310 (Radiofrequency radiation exposure limits).

FCC Second Memorandum Opinion and Order and Notice of Proposed Rulemaking (FCC 97-303), *In the Matter of Procedures for Reviewing Requests for Relief From State and Local Regulations Pursuant to Section 332(c)(7)(B)(v) of the Communications Act of 1934 (WT Docket 97-192), Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation (ET Docket 93-62), and Petition for Rulemaking of the Cellular Telecommunications Industry Association Concerning Amendment of the Commission's Rules to Preempt State and Local Regulation of Commercial Mobile Radio Service Transmitting Facilities*, released August 25, 1997.

FCC First Memorandum Opinion and Order, ET Docket 93-62, *In the Matter of Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation*, released December 24, 1996.

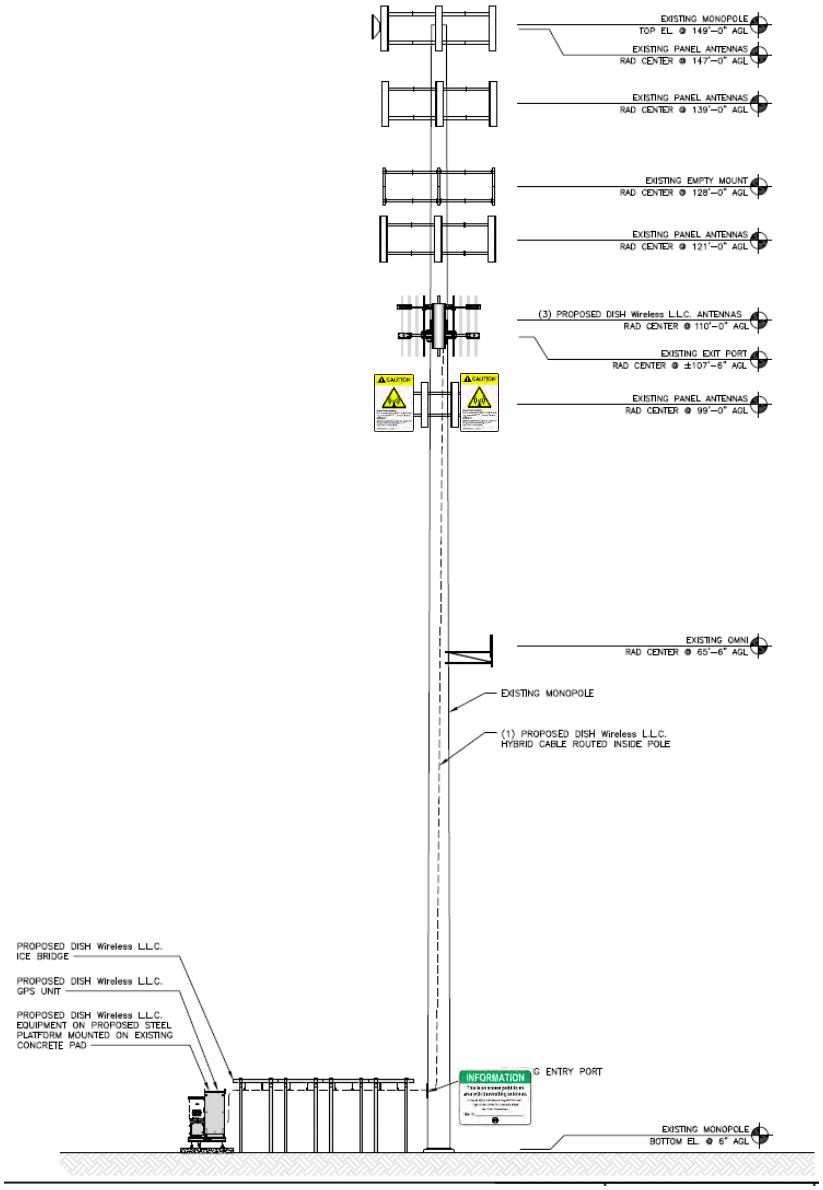
FCC Report and Order, ET Docket 93-62, *In the Matter of Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation*, released August 1, 1996.

FCC Report and Order, Notice of Proposed Rulemaking, Memorandum Opinion and Order (FCC 19-126), *Proposed Changes in the Commission's Rules Regarding Human Exposure to Radiofrequency Electromagnetic Fields; Reassessment of Federal Communications Commission Radiofrequency Exposure Limits and Policies,* released December 4, 2019.

FCC Office of Engineering and Technology (OET) Bulletin 65, “Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields”, Edition 97-01, August 1997.

FCC Office of Engineering and Technology (OET) Bulletin 56, “Questions and Answers About Biological Effects and Potential Hazards of RF Radiation”, edition 4, August 1999.

Appendix C. Proposed Signage



NOC Information Sign		Caution Sign	
Guidelines Sign		Warning Sign	
Notice Sign			

Appendix D. Summary of Expert Qualifications

Daniel J. Collins, Chief Technical Officer, Pinnacle Telecom Group, LLC

Synopsis:	• 40+ years of experience in all aspects of wireless system engineering, related regulation, and RF exposure • Has performed or led RF exposure compliance assessments on more than 20,000 antenna sites since the latest FCC regulations went into effect in 1997 • Has provided testimony as an RF compliance expert more than 1,500 times since 1997 • Have been accepted as an FCC compliance expert in New York, New Jersey, Connecticut, Pennsylvania and more than 40 other states, as well as by the FCC
Education:	• B.E.E., City College of New York (Sch. Of Eng.), 1971 • M.B.A., 1982, Fairleigh Dickinson University, 1982 • Bronx High School of Science, 1966
Current Responsibilities:	• Leads all PTG staff work involving RF safety and FCC compliance, microwave and satellite system engineering, and consulting on wireless technology and regulation
Prior Experience:	• Edwards & Kelcey, VP – RF Engineering and Chief Information Technology Officer, 1996-99 • Bellcore (a Bell Labs offshoot after AT&T's 1984 divestiture), Executive Director – Regulation and Public Policy, 1983-96 • AT&T (Corp. HQ), Division Manager – RF Engineering, and Director – Radio Spectrum Management, 1977-83 • AT&T Long Lines, Group Supervisor – Microwave Radio System Design, 1972-77
Specific RF Safety / Compliance Experience:	• Involved in RF exposure matters since 1972 • Have had lead corporate responsibility for RF safety and compliance at AT&T, Bellcore, Edwards & Kelcey, and PTG • While at AT&T, helped develop the mathematical models for calculating RF exposure levels • Have been relied on for compliance by all major wireless carriers, as well as by the federal government, several state and local governments, equipment manufacturers, system integrators, and other consulting / engineering firms
Other Background:	• Author, *Microwave System Engineering* (AT&T, 1974) • Co-author and executive editor, *A Guide to New Technologies and Services* (Bellcore, 1993) • National Spectrum Management Association (NSMA) – former three-term President and Chairman of the Board of Directors; was founding member, twice-elected Vice President, long-time member of the Board, and was named an NSMA Fellow in 1991 • Have published more than 35 articles in industry magazines

EXHIBIT 8

Structural Analysis

SBA Communications Corporation
8051 Congress Avenue
Boca Raton, FL 33487-1307

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F + 561.995.7626

sbasite.com

Structural Analysis Report

Client: Dish Wireless

Client Site ID / Name: NJJER01101B / 0
Application #: 163794, v2

SBA Site ID / Name: CT13056-A / Moosehill

150 ft Monopole

500 Moosehill Road
Monroe, Connecticut 6468
Lat: 41.320967, Long: -73.201422

Project number: CT13056-DW-093021

Analysis Results

Tower	81.6%	Pass
Foundation	77.0%	Pass

Change in tower stress due to mount modification / replacement	N/A

Prepared by:

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Structural Engineer II
214-570-8110 ext 2612
ahagos@sbasite.com

Reviewed by:

Anantha (Shan) Shanubhogue, P.E.
Senior Manager, Structural Engineering
561-981-7390
SShanubhogue@sbasite.com

October 1, 2021

STATE OF CONNECTICUT
ANANTHA B SHANUBHOGUE
33123
LICENSED
PROFESSIONAL ENGINEER

10/01/21

Table of Contents

Introduction

The purpose of this report is to summarize the analysis results on the 150 ft Monopole to support the proposed antennas and transmissions lines in addition to those currently installed.

Table 1 List of Documents Used

Item	Document
Tower design/drawings	Sabre, Job #: 02-03107 Rev A, dated 04/03/2002.
Foundation drawings	Sabre, Job #: 02-03107 Rev A, dated 04/03/2002.
Geotechnical report	James E.Dwyer Co. Inc., dated 03/20/2002.
Modification drawings	N/A
Latest SA	SBAE, Project # CT13056-VZW-062221, Dated 06/22/2021

Analysis Criteria

Table 2 Code Related Data

Jurisdiction (State/County/City)	Connecticut / Fairfield / Monroe
Governing Codes	ANSI/TIA/EIA 222-G, 2015 IBC / 2018 CSBC
Basic Wind Speed (3-Sec gust)	94.0 mph (Ultimate Wind Speed: 121 mph)
Wind Speed with Ice (3-Sec gust)	50 mph
Service Wind Speed (3-Sec gust)	60 mph
Ice Thickness	0.75”
Structural Class*	II
Exposure Category	C
Topographic Category	1
Crest Height	0 ft
Ground Elevation	622.96 ft.
Seismic Parameter Ss**	0.205
Seismic Parameter S1	0.065

*This structural analysis is based upon the tower being classified as a structural 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.

**Earthquake effects were ignored as per section 2.7.3 of the TIA-222-G code provisions for Ss < 1.0.

Appurtenance Loading

Existing Loading:

Table 3 Existing Appurtenances

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1	152.5	1	Decibel DB404-B - Whip	Pipe Mount	(1) 7/8”	Town of Monroe
2	147.0	1	Andrew VHLP2-11 - Dish	12.5’ LP Platform	(4) 1 1/4" (2) 1/2" (6) 5/16"	Sprint/ Clearwire
3		1	Andrew VHLP800-11-DW1 - Dish			
4		3	Argus LLPX310R - Panel			
5		4	RFS ACU-A20-N			
6		3	RFS APXVSPP18-C-A20 - Panel			
7		3	RFS APXVTM14-C-120 - Panel			
8		3	ALU 800MHz RRH w/ filter			
9		3	ALU 1900MHz RRH			
10		3	ALU 800MHz RRH			
11		3	ALU TD-RRH8x20-25			
12		3	U-RAS Flexible RRH ODUs			
13	139.0	3	Powerwave 7770	LP Platform w/ Handrails	(12) 1-1/4" (2) 1/2" Fiber (4) 3/4" DC	AT&T
14		3	Cci DMP65R-BU6DA			
15		3	Cci HPA-65R-BUU-H6			
16		6	Powerwave LGP13519 Diplexer			
17		6	Powerwave LGP21901 Diplexer			
18		12	Powerwave 7020.00 RET			
19		3	Ericsson RRUS 32 B2			
20		3	Ericsson 4449 B5/B12			
21		3	Ericsson 4415 B30			
22		2	Raycap DC6-48-60-18-8F			
23		3	Commscope ABT-DFDM-ADBH			
24		1	Commscope WCS-IMFQ-AMT-R40			
25	121.0	3	Ericsson AIR6449 B41	LP Platform w/ kicker and handrail kit Site Pro HRK12	(10) 1 5/8" (3) 1 5/8" Fiber	T-Mobile
26		3	Ericsson AIR32 KRD901146- 1_B66A_B2A (Octo)			
27		3	RFS APXVAALL24-43-U-NA20			
28		3	Ericsson KRY 112 144/1			
29		3	Commscope SDX1926Q-43			
30		3	Ericsson 4449 B71 + B85			
31		3	Ericsson 4415 B25			
32	99.0	3	Samsung B2/B66A RRH-BR049 (RFV01U-D1A) - RRU	12.5’ LP Platform (3) Dual Antenna Mount Bracket [Quintel AS-005245]	(6) 1 5/8" (2) 1 5/8" Hybrid	Verizon
34		3	Samsung B5/B13 RRH-BR04C (RFV01U-D2A - RRU			
36		2	RFS DB-C1-12C-24AB-OZ - RRU			
37	97.0	2	Amphenol LPA-80063-6CF-EDIN-2 - Panel			
39		4	Celwave APL866513-42TD - Panel			
40		6	Quintel QS6656-5D - Panel			
41		3	Samsung MT6407-77A - Panel			
42	65.5	1	Decibel 26OB	3’ Standoff @ 64.0	(1) 1/2”	Sprint

Proposed Loading:

Information pertaining to proposed antennas and transmission lines were based upon the Application #: 163794, v2 from Dish Wireless and is listed in Table 4.

Table 4 Proposed Appurtenances

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
32	110.0	3	Commscope FFVV-65B-R2 - Panel	Platform w/HRK (Commscope MC-PK8-DSH)	(1) 1.75" Hybrid	Dish Wireless
33		3	Fujitsu TA08025-B605 RRU			
34		3	Fujitsu TA08025-B604 RRU			
35		1	Raycap RDIDC-9181-PF-48 OVP			

Analysis Results

Tower

The results of the structural analysis are shown below in table 5. Additional information for the tower analysis is provided within the Appendix.

Table 5 Tower Analysis Summary

	Pole shafts	Anchor Bolts	Base Plate	Flange Plate
Max. Usage:	81.6%	79.0%	67.7%	58.6%
Pass/Fail	Pass	Pass	Pass	Pass

Foundation

The results of the foundation analysis are shown below in table 6. Additional information for the foundation analysis is provided within the Appendix.

Table 6 Foundation Analysis Summary

Structural Component	Max Usage (%)	Analysis Result
Foundation	77.0%	Pass

Conclusions

Based on the analysis results, the existing tower and foundation were found to be ***sufficient*** to safely support the equipment listed in this analysis. No modification to the tower and foundation is needed at this time.

Installation Requirements

This analysis was performed under the assumption that the carrier will place the proposed equipment and feed lines at the installation height listed in Table 4 and in accordance with the coax layout shown. TMAs and RRUs are to be installed on existing mounts behind tenant's antennas unless otherwise noted. No equipment is to be installed directly in the climbing path. All equipment is to be installed per mount manufacturer specifications. In case site conditions do not allow for the required installation parameters to be met the carrier must notify SBA Communications Corporation engineers for approval of an alternative placement.

Assumptions and Limitations

Assumptions

This analysis was completed based on the following assumptions:

- Tower and foundation were built in accordance to manufacturer specifications.
- Tower and foundation has been properly maintained in accordance with the manufacturer's specifications
- All existing structural members were assumed to be in good condition with no physical damage or deterioration associated with corrosion
- Welds and bolts are assumed able to carry their intended original design loads.
- The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Table 3 and 4.
- This analysis may be affected if any assumptions are not valid or have been made in error. SBA should be notified to determine the effect on the structural integrity of the tower.

Limitations

The computer generated analysis performed by the tower software is limited to theoretical capacities of the towers structural members and does not account for any missing or damaged members or connections. The tower and foundation are assumed to have been properly designed, fabricated, installed and maintained, barring any conflicting findings from the most recent inspection.

SBA Communications Corporation has used its due diligence to verify the information provided to perform this analysis. It is unreasonable to perform a more detailed inspection of a tower and its components. This report is not a condition assessment of the tower or foundation.

Appendix

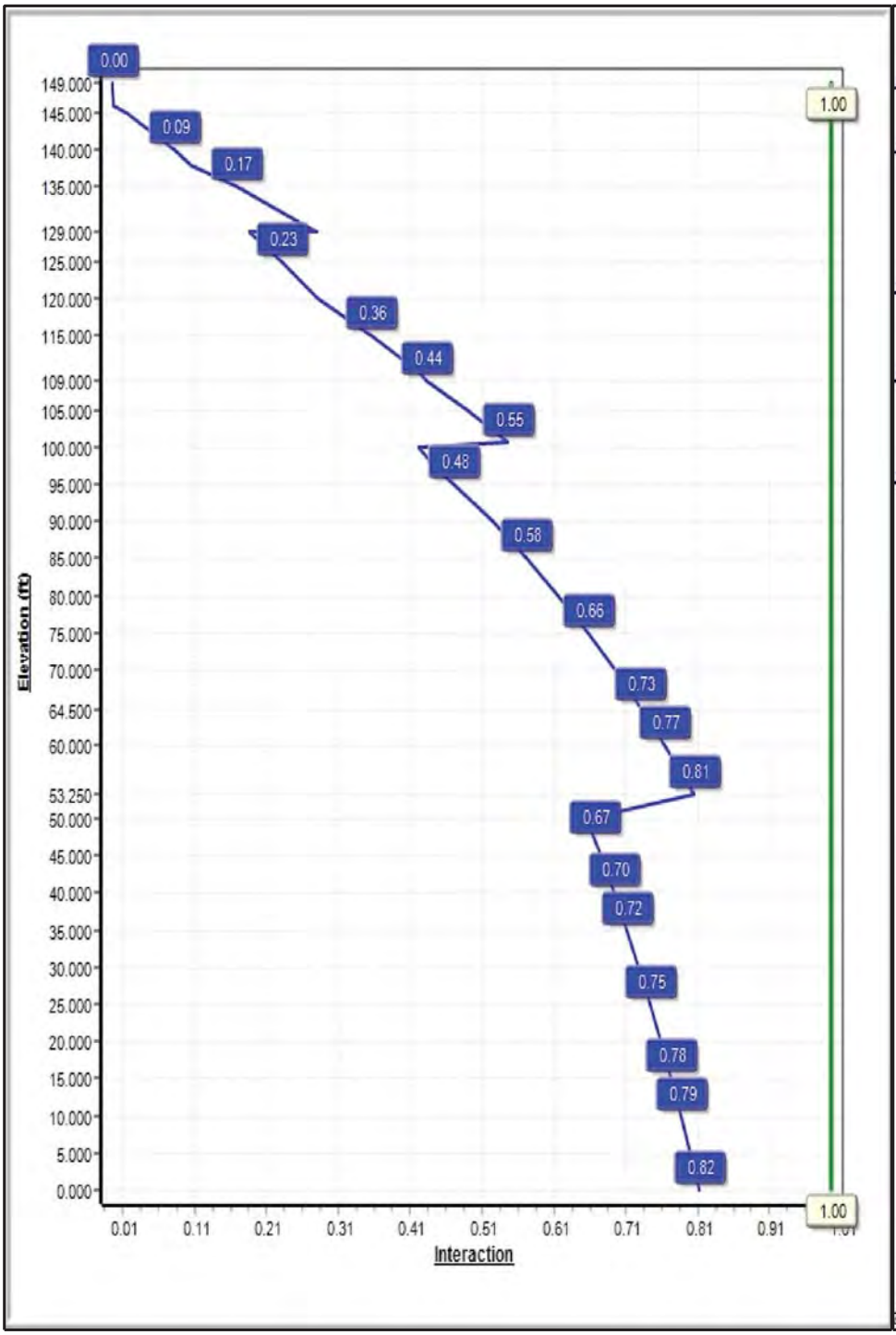
Usage Diagram - Max Ratio 81.60% at 0.0ft

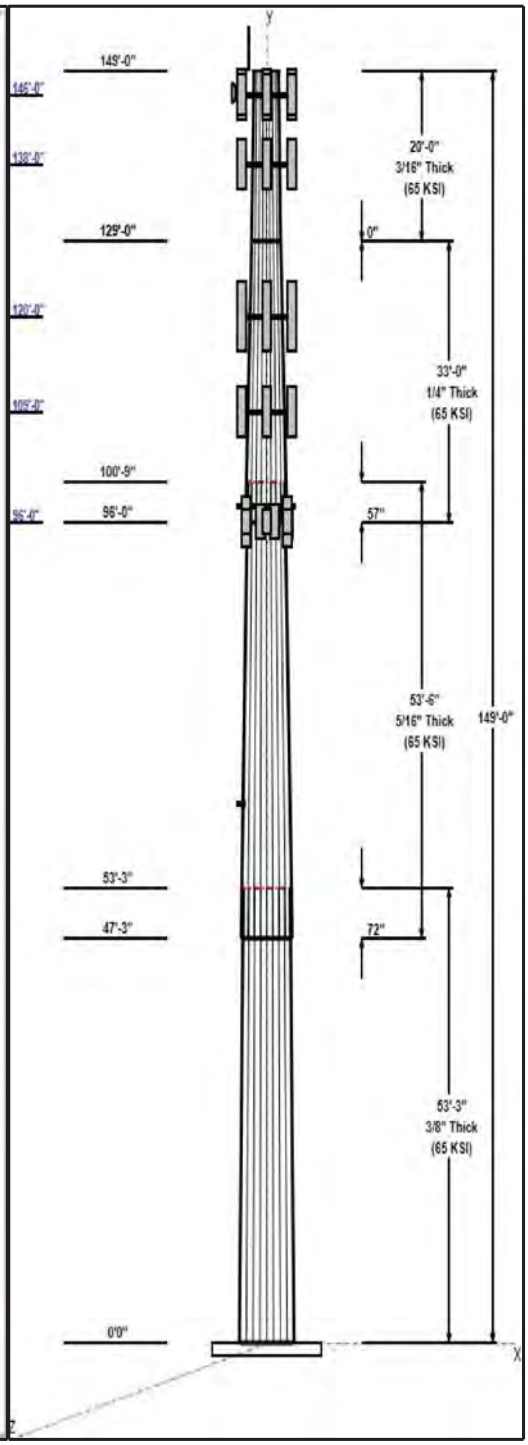
Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021
Site Name:	Moosehill	**Exposure:**	C	
Height:	149.00 (ft)	**Gh:**	1.1	
Base Elev:	1.000 (ft)			Page: 1

Dead Load Factor:	1.20
Wind Load Factor:	1.60

Load Case : 1.2D + 1.6W 94 mph Wind

Iterations: 24





Structure: CT13056-A

Type: Custom
Site Name: Moosehill
Height: 149.00 (ft)
Base Elev: 1.00 (ft)

Base Shape: 18 Sided
Taper: 0.24100

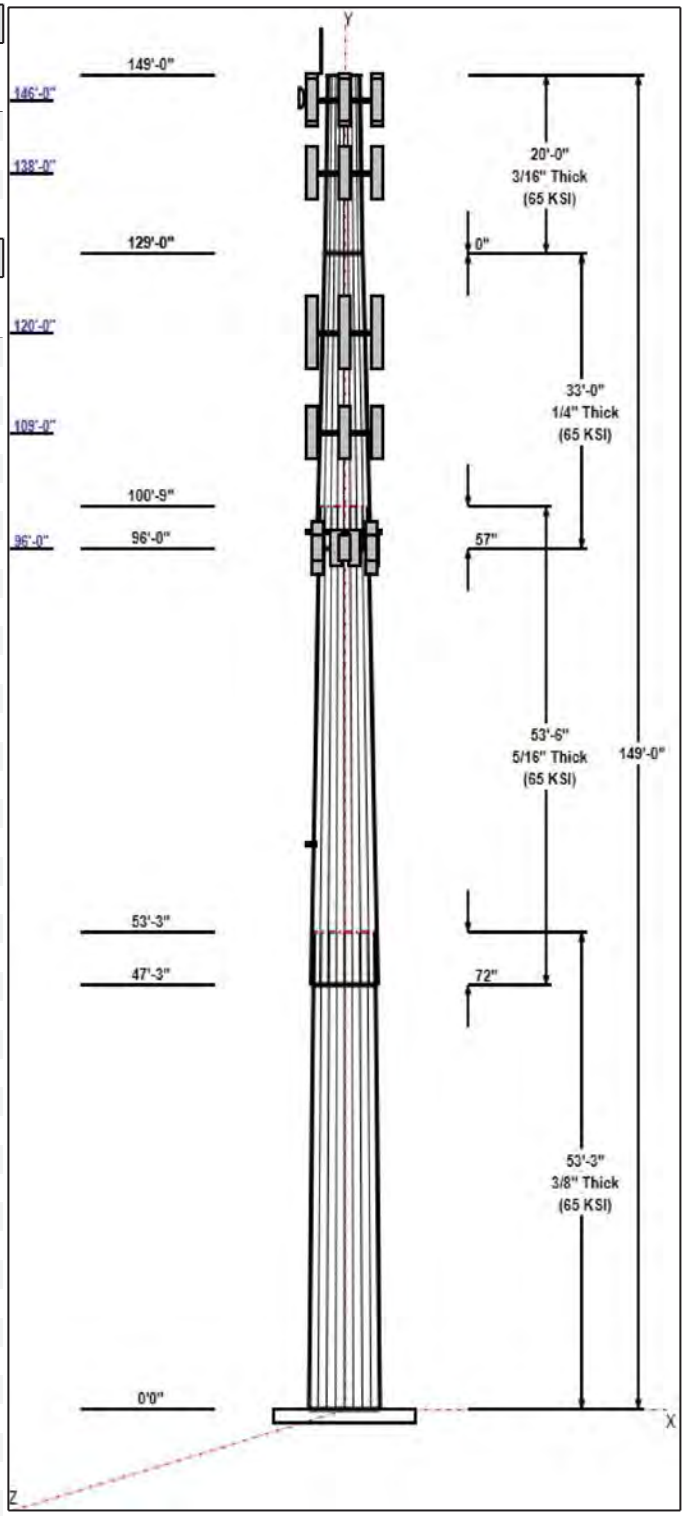
9/30/2021

Shaft Properties

Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	53.25	46.08	58.91	0.375		0.24100	65
2	53.50	35.25	48.15	0.313	Slip	0.24100	65
3	33.00	28.94	36.90	0.250	Slip	0.24100	65
4	20.00	24.00	28.84	0.188	Butt	0.24100	65

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
148.00	151.50	1	Decibel DB404-B	Town of Monroe
148.00	148.00	1	Pipe Mount	Town of Monroe
146.00	146.00	3	Argus LLPX310R	Sprint/Clearwire
146.00	146.00	1	Andrew VHLP2-11	Sprint/Clearwire
146.00	146.00	1	Andrew VHLP800-11-DW1	Sprint/Clearwire
146.00	146.00	3	U-RAS Flexible RRH	Sprint/Clearwire
146.00	146.00	1	12.5' Low Profile Platform	Sprint/Clearwire
146.00	146.00	3	RFS APXVTM14-C-120	Sprint/Clearwire
146.00	146.00	3	ALU TD-RRH8x20-25	Sprint/Clearwire
146.00	146.00	3	RFS APXVSPP18-C-A20	Sprint/Clearwire
146.00	146.00	3	ALU 1900MHz RRH	Sprint/Clearwire
146.00	146.00	3	ALU 800MHz RRH	Sprint/Clearwire
146.00	146.00	3	800MHz RRH w/ filter	Sprint/Clearwire
146.00	146.00	4	RFS ACU-A20-N	Sprint/Clearwire
138.00	138.00	3	DMP65R-BU6DA	AT&T
138.00	138.00	3	4415 B30	AT&T
138.00	138.00	3	4449 B5/B12	AT&T
138.00	138.00	1	WCS-IMFQ-AMT	AT&T
138.00	138.00	3	7770	AT&T
138.00	138.00	3	HPA-65R-BUU-H6	AT&T
138.00	138.00	2	Raycap DC6-48-60-18-8F	AT&T
138.00	138.00	3	Commscope	AT&T
138.00	138.00	1	Low Profile Platform w/	AT&T
138.00	138.00	6	Powerwave LGP13519	AT&T
138.00	138.00	12	Powerwave 7020.00 RET	AT&T
138.00	138.00	3	Ericsson RRUS-32 B2s	AT&T
138.00	138.00	6	Powerawve LGP21901	AT&T
120.00	120.00	3	AIR32 KRD	T-Mobile
120.00	120.00	3	AIR6449 B41	T-Mobile
120.00	120.00	3	APXVAALL24_43-U-NA20	T-Mobile
120.00	120.00	3	SDX1926Q-43	T-Mobile
120.00	120.00	3	Ericsson KRY 112 144/1	T-Mobile
120.00	120.00	1	Low Profile Platform	T-Mobile
120.00	120.00	3	4449 B71 + B85	T-Mobile
120.00	120.00	3	RRUS 4415 B25	T-Mobile
120.00	120.00	1	HRK12 (Handrail Kit)	T-Mobile
120.00	120.00	1	PRK-1245 (kicker kit)	T-Mobile
109.00	109.00	3	Commscope	Dish Wireless
109.00	109.00	3	Fujitsu TA08025-B605	Dish Wireless
109.00	109.00	3	Fujitsu TA08025-B604	Dish Wireless
109.00	109.00	1	Raycap	Dish Wireless
109.00	109.00	1	Platform w/HRK	Dish Wireless
98.00	98.00	3	B5/B13 RRH-BR04C	Verizon
98.00	98.00	2	RFS DB-C1-12C-24AB-OZ	Verizon
98.00	98.00	3	Quintel AS-005245 - Dual	Verizon



98.00	98.00	3	B2/B66A RRH-BR049	Verizon
98.00	98.00	1	12.5' Low Profile Platform	Verizon
96.00	96.00	6	Quintel QS6656-5D	Verizon
96.00	96.00	4	Celwave APL866513-42TD	Verizon
96.00	96.00	2	Amphenol	Verizon
96.00	96.00	3	Samsung MT6407-77A	Verizon
64.50	64.50	1	Decibel 26OB	Sprint
63.00	63.00	1	3 ft Standoff	Sprint

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	149.00	Inside	7/8" Coax	Town of Monroe
0.00	149.00	Outside	Safety Cable	
0.00	148.00	Outside	Step bolts (ladder)	
0.00	146.00	Outside	1 1/4" Coax	Sprint/Clearwire
0.00	146.00	Outside	1/2" Coax	Sprint/Clearwire
0.00	146.00	Outside	5/16" Coax	Sprint/Clearwire
0.00	138.00	Inside	1-1/4" Coax	AT&T
0.00	138.00	Inside	1/2" Fiber	AT&T
0.00	138.00	Inside	3/4" DC	AT&T
0.00	120.00	Inside	1 5/8" Coax	T-Mobile
0.00	120.00	Inside	1 5/8" Fiber	T-Mobile
0.00	109.00	Outside	1.75" Hybrid	Dish Wireless
0.00	98.00	Outside	1 5/8" Coax	Verizon
0.00	98.00	Outside	1 5/8" Hybrid	Verizon
0.00	63.00	Outside	1/2" Coax	Sprint

Anchor Bolts

Qty	Specifications	Grade (ksi)	Arrangement
16	2.25" 18J	75.0	Cluster

Base Plate

Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
3.0000	64.0	60.0	Clipped

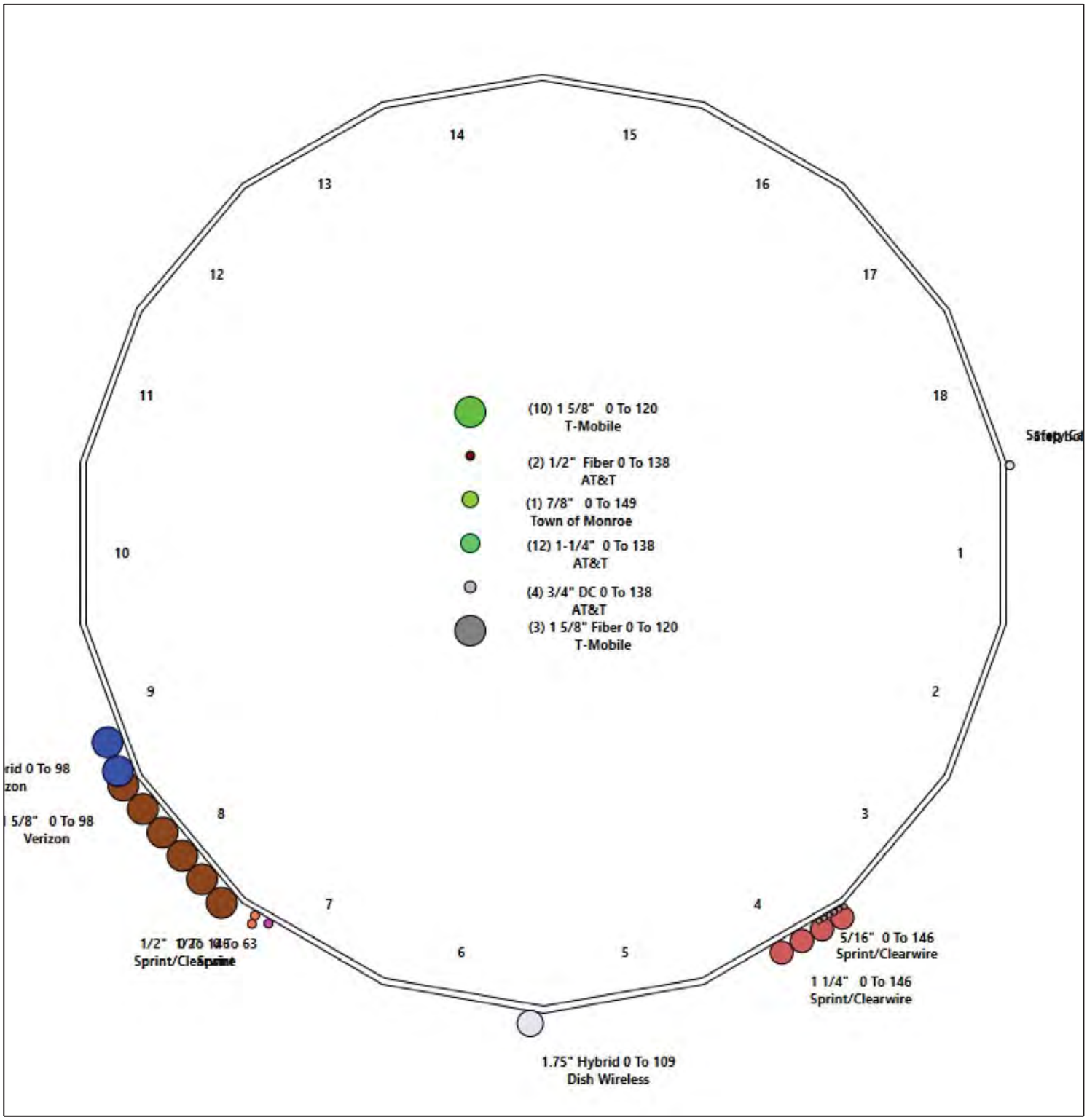
Reactions

Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.6W 94 mph Wind	4284.7	39.6	52.3

Structure: CT13056-A - Coax Line Placement

Type: Monopole
Site Name: Moosehill
Height: 149.00 (ft)

9/30/2021



Shaft Properties

Structure:	CT13056-A		**Code:**	EIA/TIA-222-G	9/30/2021
Site Name:	Moosehill		**Exposure:**	C	
Height:	149.00 (ft)		**Crest Height:**	0.00	
Base Elev:	1.000 (ft)		**Site Class:**	D - Stiff Soil	
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	0.3750	65		0.00	11,240
2	18	53.500	0.3125	65	Slip	72.00	7,474
3	18	33.000	0.2500	65	Slip	57.00	2,911
4	18	20.000	0.1875	65	Flange	0.00	1,063
					Total Shaft Weight:		**22,688**

	Bottom						Top						
Sec. No.	**Dia (in)**	**Elev (ft)**	**Area (sqin)**	**Ix (in^4)**	**W/t Ratio**	**D/t Ratio**	**Dia (in)**	**Elev (ft)**	**Area (sqin)**	**Ix (in^4)**	**W/t Ratio**	**D/t Ratio**	**Taper**
1	58.91	0.00	69.67	30159.39	26.29	157.09	46.08	53.25	54.39	14354.0	20.25	122.8	0.241000
2	48.15	47.25	47.45	13718.28	25.76	154.08	35.25	100.75	34.66	5347.03	18.48	112.8	0.241000
3	36.90	96.00	29.08	4935.22	24.62	147.60	28.94	129.00	22.77	2369.16	19.01	115.7	0.241000
4	28.84	129.0	17.05	1768.04	25.71	153.80	24.00	149.00	14.18	1017.39	21.18	128.0	0.241000

Load Summary

Structure:	CT13056-A		**Code:**	EIA/TIA-222-G	9/30/2021
Site Name:	Moosehill		**Exposure:**	C	
Height:	149.00 (ft)		**Crest Height:**	0.00	
Base Elev:	1.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 6

Discrete Appurtenances

				No Ice			Ice				
No.	Elev (ft)	Description	Qty	Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor	Hor. Ecc. (ft)	Vert Ecc (ft)
1	148.00	Decibel DB404-B	1	14.00	1.03	1.00	46.44	3.836	1.00	0.00	3.50
2	148.00	Pipe Mount	1	100.00	2.50	1.00	183.71	4.244	1.00	0.00	0.00
3	146.00	Argus LLPX310R	3	28.60	4.30	0.73	118.72	5.957	0.75	0.00	0.00
4	146.00	Andrew VHLP2-11	1	27.00	3.73	1.00	124.66	4.744	1.00	0.00	0.00
5	146.00	Andrew VHLP800-11-DW1	1	49.00	6.70	1.00	186.88	8.222	1.00	0.00	0.00
6	146.00	U-RAS Flexible RRH ODUs	3	50.70	1.93	0.78	109.37	2.847	0.78	0.00	0.00
7	146.00	12.5' Low Profile Platform	1	1632.00	36.05	1.00	3035.03	43.082	1.00	0.00	0.00
8	146.00	RFS APXVTM14-C-120	3	56.00	6.34	0.79	216.02	7.451	0.79	0.00	0.00
9	146.00	ALU TD-RRH8x20-25	3	70.00	4.05	0.69	180.19	4.861	0.70	0.00	0.00
10	146.00	RFS APXVSPP18-C-A20	3	57.00	8.02	0.83	229.50	10.808	0.83	0.00	0.00
11	146.00	ALU 1900MHz RRH	3	44.00	3.80	0.67	152.94	5.187	0.67	0.00	0.00
12	146.00	ALU 800MHz RRH	3	59.50	2.64	0.67	137.35	3.795	0.67	0.00	0.00
13	146.00	800MHz RRH w/ filter	3	68.30	3.46	1.00	158.56	4.771	1.00	0.00	0.00
14	146.00	RFS ACU-A20-N	4	1.00	0.14	0.79	5.29	0.436	0.79	0.00	0.00
15	138.00	DMP65R-BU6DA	3	79.40	12.71	0.72	490.36	14.154	0.73	0.00	0.00
16	138.00	4415 B30	3	46.00	1.64	0.67	86.79	2.151	0.67	0.00	0.00
17	138.00	4449 B5/B12	3	71.00	1.97	0.67	123.98	2.513	0.67	0.00	0.00
18	138.00	WCS-IMFQ-AMT	1	34.50	0.99	0.50	77.22	1.415	0.50	0.00	0.00
19	138.00	7770	3	35.00	5.50	0.73	168.92	6.556	0.73	0.00	0.00
20	138.00	HPA-65R-BUU-H6	3	51.00	9.66	0.85	296.92	11.015	0.85	0.00	0.00
21	138.00	Raycap DC6-48-60-18-8F DC Surge	2	32.80	1.47	1.00	94.15	2.164	1.00	0.00	0.00
22	138.00	Commscope ABT-DRDM-ADBH Bias	3	1.60	0.05	0.98	4.82	0.241	0.98	0.00	0.00
23	138.00	Low Profile Platform w/ Handrails	1	1588.00	23.81	1.00	2473.62	35.027	1.00	0.00	0.00
24	138.00	Powerwave LGP13519 TMAs	6	5.30	0.34	1.00	14.73	0.791	1.00	0.00	0.00
25	138.00	Powerwave 7020.00 RET	12	2.20	0.40	0.67	12.36	0.880	0.67	0.00	0.00
26	138.00	Ericsson RRUS-32 B2s RRUs	3	60.00	2.74	0.67	147.18	3.463	0.67	0.00	0.00
27	138.00	Powerawve LGP21901 Diplexer	6	5.50	0.23	0.75	13.13	0.595	0.75	0.00	0.00
28	120.00	AIR32 KRD 9011461-B66A-B2A	3	132.20	6.51	0.87	310.85	7.606	0.87	0.00	0.00
29	120.00	AIR6449 B41	3	103.00	5.65	0.71	237.20	6.580	0.71	0.00	0.00
30	120.00	APXVAALL24_43-U-NA20	3	128.00	20.24	0.70	535.94	22.098	0.70	0.00	0.00
31	120.00	SDX1926Q-43	3	4.30	0.52	0.67	15.38	1.040	0.67	0.00	0.00
32	120.00	Ericsson KRY 112 144/1	3	11.00	0.41	0.67	21.55	0.875	0.67	0.00	0.00
33	120.00	Low Profile Platform	1	1632.00	36.10	1.00	3007.99	43.006	1.00	0.00	0.00
34	120.00	4449 B71 + B85	3	73.20	1.97	0.67	129.72	2.527	0.67	0.00	0.00
35	120.00	RRUS 4415 B25	3	46.00	1.64	0.67	86.23	2.144	0.67	0.00	0.00
36	120.00	HRK12 (Handrail Kit)	1	261.72	6.75	1.00	565.71	13.207	1.00	0.00	0.00
37	120.00	PRK-1245 (kicker kit)	1	464.91	9.50	1.00	782.56	19.236	1.00	0.00	0.00
38	109.00	Commscope FFVV-65B-R2	3	70.80	12.27	0.73	344.83	13.673	0.73	0.00	0.00
39	109.00	Fujitsu TA08025-B605	3	74.95	1.96	0.80	125.12	2.497	0.80	0.00	0.00
40	109.00	Fujitsu TA08025-B604	3	63.93	1.96	0.76	112.52	2.497	0.76	0.00	0.00
41	109.00	Raycap RDIDC-9181-PF-48	1	21.85	2.01	0.78	72.35	2.554	0.78	0.00	0.00
42	109.00	Platform w/HRK (Commscope	1	1727.00	22.60	1.00	3169.27	26.883	1.00	0.00	0.00
43	98.00	B5/B13 RRH-BR04C (RFV01U-D2A	3	84.50	1.88	0.67	133.67	2.409	0.67	0.00	0.00
44	98.00	RFS DB-C1-12C-24AB-OZ	2	32.00	4.06	1.00	141.29	4.848	1.00	0.00	0.00
45	98.00	Quintel AS-005245 - Dual Antenna	3	60.00	1.20	1.00	116.25	2.647	1.00	0.00	0.00
46	98.00	B2/B66A RRH-BR049	3	84.50	1.88	0.67	133.67	2.409	0.67	0.00	0.00
47	98.00	12.5' Low Profile Platform	1	1588.00	23.81	1.00	2444.07	33.505	1.00	0.00	0.00
48	96.00	Quintel QS6656-5D	6	92.50	8.13	0.92	292.98	9.331	0.92	0.00	0.00
49	96.00	Celwave APL866513-42TD	4	15.70	4.05	0.93	120.25	5.834	0.93	0.00	0.00
50	96.00	Amphenol LPA-80063-6CF-EDIN-2	2	27.00	9.76	0.95	277.33	12.395	0.95	0.00	0.00

Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice Weight (lb)	No Ice CaAa (sf)	No Ice CaAa Factor	Ice Weight (lb)	Ice CaAa (sf)	Ice CaAa Factor	Hor. Ecc. (ft)	Vert Ecc (ft)
51	96.00	Samsung MT6407-77A	3	87.10	4.70	0.70	194.50	5.564	0.71	0.00	0.00
52	64.50	Decibel 26OB	1	50.00	2.00	1.00	210.64	5.213	1.00	0.00	0.00
53	63.00	3 ft Standoff	1	40.00	2.63	1.00	113.73	8.111	1.00	0.00	0.00
		Totals:	**146**	**15,531.32**			**35,452.03**				

Linear Appurtenances

Bottom Elev. (ft)	Top Elev. (ft)	Description	Exposed Width	Exposed
0.00	149.00	(1) 7/8" Coax	0.00	Inside
0.00	149.00	(1) Safety Cable	0.38	Outside
0.00	148.00	(1) Step bolts (ladder)	0.63	Outside
0.00	146.00	(4) 1 1/4" Coax	0.00	Outside
0.00	146.00	(2) 1/2" Coax	0.00	Outside
0.00	146.00	(6) 5/16" Coax	1.90	Outside
0.00	138.00	(12) 1-1/4" Coax	0.00	Inside
0.00	138.00	(2) 1/2" Fiber	0.00	Inside
0.00	138.00	(4) 3/4" DC	0.00	Inside
0.00	120.00	(10) 1 5/8" Coax	0.00	Inside
0.00	120.00	(3) 1 5/8" Fiber	0.00	Inside
0.00	109.00	(1) 1.75" Hybrid	1.75	Outside
0.00	98.00	(6) 1 5/8" Coax	0.00	Outside
0.00	98.00	(2) 1 5/8" Hybrid	0.00	Outside
0.00	63.00	(1) 1/2" Coax	1.00	Outside

Shaft Section Properties

Structure:	CT13056-A		**Code:**	EIA/TIA-222-G	9/30/2021
Site Name:	Moosehill		**Exposure:**	C	
Height:	149.00 (ft)		**Crest Height:**	0.00	
Base Elev:	1.000 (ft)		**Site Class:**	D - Stiff Soil	
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		0.3750	58.910	69.669	30159.4	26.29	157.09	70.5	1008.	0.0
5.00		0.3750	57.705	68.235	28334.9	25.72	153.88	71.1	967.1	1173.1
10.00		0.3750	56.500	66.800	26585.5	25.16	150.67	71.8	926.8	1148.7
15.00		0.3750	55.295	65.366	24909.6	24.59	147.45	72.5	887.3	1124.3
20.00		0.3750	54.090	63.932	23305.7	24.02	144.24	73.1	848.6	1099.9
25.00		0.3750	52.885	62.498	21772.2	23.46	141.03	73.8	810.9	1075.5
30.00		0.3750	51.680	61.064	20307.4	22.89	137.81	74.5	774.0	1051.1
35.00		0.3750	50.475	59.629	18909.9	22.32	134.60	75.1	737.9	1026.7
40.00		0.3750	49.270	58.195	17578.0	21.76	131.39	75.8	702.7	1002.3
45.00		0.3750	48.065	56.761	16310.1	21.19	128.17	76.5	668.4	977.9
47.25	Bot - Section 2	0.3750	47.523	56.116	15760.1	20.93	126.73	76.8	653.2	432.1
50.00		0.3750	46.860	55.327	15104.8	20.62	124.96	77.1	634.9	962.3
53.25	Top - Section 1	0.3125	46.704	46.013	12511.5	24.94	149.45	0.0	0.0	1119.9
55.00		0.3125	46.282	45.595	12173.4	24.70	148.10	72.3	518.1	272.8
60.00		0.3125	45.077	44.399	11240.9	24.02	144.25	73.1	491.2	765.6
63.00		0.3125	44.354	43.682	10705.0	23.62	141.93	73.6	475.4	449.6
64.50		0.3125	43.993	43.324	10443.6	23.41	140.78	73.9	467.6	222.0
65.00		0.3125	43.872	43.204	10357.4	23.34	140.39	73.9	465.0	73.6
70.00		0.3125	42.667	42.009	9521.4	22.66	136.54	74.7	439.5	724.9
75.00		0.3125	41.462	40.814	8731.6	21.98	132.68	75.5	414.8	704.6
80.00		0.3125	40.257	39.619	7986.8	21.30	128.82	76.3	390.8	684.2
85.00		0.3125	39.052	38.424	7285.6	20.62	124.97	77.1	367.5	663.9
90.00		0.3125	37.847	37.228	6626.7	19.94	121.11	77.9	344.9	643.6
95.00		0.3125	36.642	36.033	6008.7	19.26	117.26	78.7	323.0	623.2
96.00	Bot - Section 3	0.3125	36.401	35.794	5889.9	19.13	116.48	78.9	318.7	122.2
98.00		0.3125	35.919	35.316	5657.1	18.86	114.94	79.2	310.2	438.6
100.00		0.3125	35.437	34.838	5430.4	18.58	113.40	79.5	301.8	432.7
100.75	Top - Section 2	0.2500	35.755	28.172	4487.1	23.81	143.02	0.0	0.0	160.8
105.00		0.2500	34.731	27.360	4109.8	23.09	138.92	74.2	233.1	401.5
109.00		0.2500	33.767	26.595	3774.7	22.41	135.07	75.0	220.2	367.2
110.00		0.2500	33.526	26.404	3693.8	22.24	134.10	75.2	217.0	90.2
115.00		0.2500	32.321	25.447	3306.9	21.39	129.28	76.2	201.5	441.1
120.00		0.2500	31.116	24.491	2948.0	20.54	124.46	77.2	186.6	424.8
125.00		0.2500	29.911	23.535	2616.0	19.69	119.64	78.2	172.3	408.6
129.00	Top - Section 3	0.2500	28.947	22.770	2369.2	19.01	115.79	79.0	161.2	315.1
129.00	Bot - Section 4	0.1875	28.837	17.049	1768.0	25.34	154.38	71.2	120.8	
130.00		0.1875	28.596	16.906	1723.8	25.48	152.51	71.4	118.7	57.8
135.00		0.1875	27.391	16.189	1513.6	24.35	146.08	72.8	108.8	281.5
138.00		0.1875	26.668	15.759	1396.1	23.67	142.23	73.6	103.1	163.1
140.00		0.1875	26.186	15.472	1321.3	23.21	139.66	74.1	99.4	106.3
145.00		0.1875	24.981	14.755	1145.9	22.08	133.23	75.4	90.3	257.1
146.00		0.1875	24.740	14.611	1112.8	21.86	131.95	75.7	88.6	50.0
148.00		0.1875	24.258	14.324	1048.6	21.40	129.38	76.2	85.1	98.5
149.00		0.1875	24.017	14.181	1017.4	21.18	128.09	76.5	83.4	48.5
										22687.6

Wind Loading - Shaft

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 9	

Load Case: 1.2D + 1.6W 94 mph Wind

Dead Load Factor 1.20

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	18.266	20.09	432.01	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	18.266	20.09	423.17	0.650	0.000	5.00	24.670	16.04	515.5	0.0	1407.8
10.00		1.00	0.85	18.266	20.09	414.34	0.650	0.000	5.00	24.160	15.70	504.8	0.0	1378.5
15.00		1.00	0.86	18.491	20.34	408.00	0.650	0.000	5.00	23.650	15.37	500.3	0.0	1349.2
20.00		1.00	0.91	19.581	21.54	410.69	0.654 *	0.000	5.00	23.140	15.13	521.3	0.0	1319.9
25.00		1.00	0.95	20.481	22.53	410.67	0.658 *	0.000	5.00	22.630	14.90	536.9	0.0	1290.6
30.00		1.00	0.99	21.254	23.38	408.82	0.663 *	0.000	5.00	22.120	14.66	548.5	0.0	1261.4
35.00		1.00	1.02	21.934	24.13	405.62	0.668 *	0.000	5.00	21.611	14.43	557.1	0.0	1232.1
40.00		1.00	1.05	22.543	24.80	401.39	0.673 *	0.000	5.00	21.101	14.20	563.4	0.0	1202.8
45.00		1.00	1.07	23.095	25.40	396.35	0.678 *	0.000	5.00	20.591	13.97	567.8	0.0	1173.5
47.25	Bot - Section 2	1.00	1.09	23.329	25.66	393.85	0.682 *	0.000	2.25	9.100	6.21	255.0	0.0	518.5
50.00		1.00	1.10	23.602	25.96	390.63	0.685 *	0.000	2.75	11.127	7.63	316.8	0.0	1154.8
53.25	Top - Section 1	1.00	1.11	23.911	26.30	386.61	0.689 *	0.000	3.25	12.952	8.92	375.5	0.0	1343.8
55.00		1.00	1.12	24.072	26.48	389.63	0.689 *	0.000	1.75	6.885	4.74	200.9	0.0	327.3
60.00		1.00	1.14	24.509	26.96	382.92	0.693 *	0.000	5.00	19.327	13.39	577.7	0.0	918.7
63.00	Appurtenance(s)	1.00	1.15	24.758	27.23	378.69	0.698 *	0.000	3.00	11.351	7.92	345.3	0.0	539.5
64.50	Appurtenance(s)	1.00	1.16	24.879	27.37	376.52	0.658 *	0.000	1.50	5.607	3.69	161.4	0.0	266.5
65.00		1.00	1.16	24.919	27.41	375.79	0.659 *	0.000	0.50	1.859	1.22	53.7	0.0	88.3
70.00		1.00	1.18	25.305	27.84	368.29	0.662 *	0.000	5.00	18.307	12.12	539.6	0.0	869.9
75.00		1.00	1.19	25.670	28.24	360.46	0.668 *	0.000	5.00	17.797	11.88	536.9	0.0	845.5
80.00		1.00	1.21	26.017	28.62	352.34	0.674 *	0.000	5.00	17.288	11.65	533.5	0.0	821.1
85.00		1.00	1.23	26.347	28.98	343.95	0.681 *	0.000	5.00	16.778	11.42	529.6	0.0	796.7
90.00		1.00	1.24	26.662	29.33	335.33	0.688 *	0.000	5.00	16.268	11.19	525.0	0.0	772.3
95.00		1.00	1.25	26.964	29.66	326.48	0.695 *	0.000	5.00	15.758	10.96	519.9	0.0	747.9
96.00	Bot - Section 3	1.00	1.26	27.023	29.73	324.69	0.700 *	0.000	1.00	3.090	2.16	102.9	0.0	146.6
98.00	Appurtenance(s)	1.00	1.26	27.140	29.85	321.08	0.702 *	0.000	2.00	6.204	4.36	208.2	0.0	526.3
100.00		1.00	1.27	27.254	29.98	317.44	0.706 *	0.000	2.00	6.123	4.32	207.3	0.0	519.3
100.75	Top - Section 2	1.00	1.27	27.297	30.03	316.07	0.708 *	0.000	0.75	2.275	1.61	77.4	0.0	192.9
105.00		1.00	1.28	27.533	30.29	312.70	0.709 *	0.000	4.25	12.674	8.99	435.4	0.0	481.9
109.00	Appurtenance(s)	1.00	1.29	27.748	30.52	305.21	0.716 *	0.000	4.00	11.592	8.30	405.5	0.0	440.6
110.00		1.00	1.29	27.801	30.58	303.32	0.650	0.000	1.00	2.847	1.85	90.6	0.0	108.2
115.00		1.00	1.31	28.060	30.87	293.78	0.650	0.000	5.00	13.930	9.05	447.2	0.0	529.3
120.00	Appurtenance(s)	1.00	1.32	28.311	31.14	284.08	0.650	0.000	5.00	13.420	8.72	434.6	0.0	509.8
125.00		1.00	1.33	28.553	31.41	274.25	0.650	0.000	5.00	12.910	8.39	421.7	0.0	490.3
129.00	Top - Section 3	1.00	1.34	28.742	31.62	266.28	0.650	0.000	4.00	9.961	6.47	327.5	0.0	378.2
130.00		1.00	1.34	28.788	31.67	263.27	0.650	0.000	1.00	2.430	1.58	80.0	0.0	69.3
135.00		1.00	1.35	29.016	31.92	253.17	0.655 *	0.000	5.00	11.844	7.75	395.9	0.0	337.8
138.00	Appurtenance(s)	1.00	1.36	29.149	32.06	247.05	0.662 *	0.000	3.00	6.862	4.54	232.9	0.0	195.7
140.00		1.00	1.36	29.237	32.16	242.95	0.666 *	0.000	2.00	4.472	2.98	153.4	0.0	127.5
145.00		1.00	1.37	29.453	32.40	232.62	0.673 *	0.000	5.00	10.824	7.29	377.9	0.0	308.6
146.00	Appurtenance(s)	1.00	1.37	29.495	32.44	230.55	0.680 *	0.000	1.00	2.104	1.43	74.2	0.0	60.0
148.00	Appurtenance(s)	1.00	1.38	29.579	32.54	226.38	0.650	0.000	2.00	4.146	2.69	140.3	0.0	118.2
149.00		1.00	1.38	29.621	32.58	224.28	0.650	0.000	1.00	2.042	1.33	69.2	0.0	58.2
								Totals:	**149.00**			**14,968.7**		**27,225.1**

* Cf Adjusted by Linear Load Ra Effect

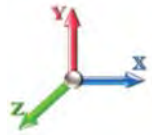
Discrete Appurtenance Forces

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 10	

Load Case: 1.2D + 1.6W 94 mph Wind

Dead Load Factor 1.20

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	148.00	Decibel DB404-B	1	29.724	32.696	1.00	1.00	1.03	16.80	0.000	3.500	53.88	0.00	188.59
2	148.00	Pipe Mount	1	29.579	32.537	1.00	1.00	2.50	120.00	0.000	0.000	130.15	0.00	0.00
3	146.00	RFS APXVTM14-C-120	3	29.495	32.444	0.71	0.90	13.52	201.60	0.000	0.000	702.00	0.00	0.00
4	146.00	Argus LLPX310R	3	29.495	32.444	0.66	0.90	8.48	102.96	0.000	0.000	439.96	0.00	0.00
5	146.00	Andrew VHLP800-11-DW1	1	29.495	32.444	1.00	1.00	6.70	58.80	0.000	0.000	347.80	0.00	0.00
6	146.00	U-RAS Flexible RRH	3	29.495	32.444	0.70	0.90	4.06	182.52	0.000	0.000	211.00	0.00	0.00
7	146.00	12.5' Low Profile Platform	1	29.495	32.444	1.00	1.00	36.05	1958.40	0.000	0.000	1871.39	0.00	0.00
8	146.00	Andrew VHLP2-11	1	29.495	32.444	1.00	1.00	3.73	32.40	0.000	0.000	193.63	0.00	0.00
9	146.00	RFS APXVSPP18-C-A20	3	29.495	32.444	0.75	0.90	17.97	205.20	0.000	0.000	932.99	0.00	0.00
10	146.00	ALU 1900MHz RRH	3	29.495	32.444	0.60	0.90	6.87	158.40	0.000	0.000	356.85	0.00	0.00
11	146.00	ALU 800MHz RRH	3	29.495	32.444	0.60	0.90	4.78	214.20	0.000	0.000	247.91	0.00	0.00
12	146.00	800MHz RRH w/ filter	3	29.495	32.444	0.90	0.90	9.34	245.88	0.000	0.000	484.95	0.00	0.00
13	146.00	RFS ACU-A20-N	4	29.495	32.444	0.71	0.90	0.40	4.80	0.000	0.000	20.67	0.00	0.00
14	146.00	ALU TD-RRH8x20-25	3	29.495	32.444	0.62	0.90	7.55	252.00	0.000	0.000	391.68	0.00	0.00
15	138.00	WCS-IMFQ-AMT	1	29.149	32.064	0.38	0.75	0.37	41.40	0.000	0.000	19.05	0.00	0.00
16	138.00	HPA-65R-BUU-H6	3	29.149	32.064	0.64	0.75	18.47	183.60	0.000	0.000	947.81	0.00	0.00
17	138.00	7770	3	29.149	32.064	0.55	0.75	9.03	126.00	0.000	0.000	463.46	0.00	0.00
18	138.00	Raycap DC6-48-60-18-8F	2	29.149	32.064	1.00	1.00	2.94	78.72	0.000	0.000	150.83	0.00	0.00
19	138.00	4449 B5/B12	3	29.149	32.064	0.50	0.75	2.97	255.60	0.000	0.000	152.36	0.00	0.00
20	138.00	4415 B30	3	29.149	32.064	0.50	0.75	2.47	165.60	0.000	0.000	126.84	0.00	0.00
21	138.00	Powerwave 7020.00 RET	12	29.149	32.064	0.50	0.75	2.41	31.68	0.000	0.000	123.74	0.00	0.00
22	138.00	Commscope	3	29.149	32.064	0.73	0.75	0.11	5.76	0.000	0.000	5.66	0.00	0.00
23	138.00	Low Profile Platform w/	1	29.149	32.064	1.00	1.00	23.81	1905.60	0.000	0.000	1221.53	0.00	0.00
24	138.00	Powerwave LGP13519	6	29.149	32.064	0.75	0.75	1.53	38.16	0.000	0.000	78.49	0.00	0.00
25	138.00	Ericsson RRUS-32 B2s	3	29.149	32.064	0.50	0.75	4.13	216.00	0.000	0.000	211.91	0.00	0.00
26	138.00	Powerawve LGP21901	6	29.149	32.064	0.56	0.75	0.78	39.60	0.000	0.000	39.82	0.00	0.00
27	138.00	DMP65R-BU6DA	3	29.149	32.064	0.54	0.75	20.59	285.84	0.000	0.000	1056.34	0.00	0.00
28	120.00	Ericsson KRY 112 144/1	3	28.311	31.142	0.50	0.75	0.62	39.60	0.000	0.000	30.80	0.00	0.00
29	120.00	AIR32 KRD	3	28.311	31.142	0.65	0.75	12.74	475.92	0.000	0.000	634.96	0.00	0.00
30	120.00	AIR6449 B41	3	28.311	31.142	0.53	0.75	9.03	370.80	0.000	0.000	449.73	0.00	0.00
31	120.00	APXVAALL24_43-U-NA20	3	28.311	31.142	0.52	0.75	31.88	460.80	0.000	0.000	1588.38	0.00	0.00
32	120.00	SDX1926Q-43	3	28.311	31.142	0.50	0.75	0.78	15.48	0.000	0.000	39.06	0.00	0.00
33	120.00	PRK-1245 (kicker kit)	1	28.311	31.142	1.00	1.00	9.50	557.89	0.000	0.000	473.35	0.00	0.00
34	120.00	Low Profile Platform	1	28.311	31.142	1.00	1.00	36.10	1958.40	0.000	0.000	1798.75	0.00	0.00
35	120.00	4449 B71 + B85	3	28.311	31.142	0.50	0.75	2.97	263.52	0.000	0.000	147.97	0.00	0.00
36	120.00	RRUS 4415 B25	3	28.311	31.142	0.50	0.75	2.47	165.60	0.000	0.000	123.19	0.00	0.00
37	120.00	HRK12 (Handrail Kit)	1	28.311	31.142	1.00	1.00	6.75	314.06	0.000	0.000	336.33	0.00	0.00
38	109.00	Commscope	3	27.748	30.523	0.55	0.75	20.15	254.88	0.000	0.000	984.24	0.00	0.00
39	109.00	Fujitsu TA08025-B605	3	27.748	30.523	0.60	0.75	3.53	269.82	0.000	0.000	172.30	0.00	0.00
40	109.00	Fujitsu TA08025-B604	3	27.748	30.523	0.57	0.75	3.35	230.15	0.000	0.000	163.68	0.00	0.00
41	109.00	Platform w/HRK	1	27.748	30.523	1.00	1.00	22.60	2072.40	0.000	0.000	1103.72	0.00	0.00
42	109.00	Raycap	1	27.748	30.523	0.58	0.75	1.18	26.22	0.000	0.000	57.43	0.00	0.00
43	98.00	Quintel AS-005245 - Dual	3	27.140	29.854	1.00	1.00	3.60	216.00	0.000	0.000	171.96	0.00	0.00
44	98.00	RFS DB-C1-12C-24AB-OZ	2	27.140	29.854	0.80	0.80	6.50	76.80	0.000	0.000	310.29	0.00	0.00
45	98.00	B5/B13 RRH-BR04C	3	27.140	29.854	0.54	0.80	3.02	304.20	0.000	0.000	144.40	0.00	0.00
46	98.00	B2/B66A RRH-BR049	3	27.140	29.854	0.54	0.80	3.02	304.20	0.000	0.000	144.40	0.00	0.00
47	98.00	12.5' Low Profile Platform	1	27.140	29.854	1.00	1.00	23.81	1905.60	0.000	0.000	1137.30	0.00	0.00

Discrete Appurtenance Forces

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 11

48	96.00	Samsung MT6407-77A	3	27.023	29.726	0.56	0.80	7.90	313.56	0.000	0.000	375.54	0.00	0.00
49	96.00	Amphenol	2	27.023	29.726	0.76	0.80	14.84	64.80	0.000	0.000	705.58	0.00	0.00
50	96.00	Celwave	4	27.023	29.726	0.74	0.80	12.05	75.36	0.000	0.000	573.24	0.00	0.00
51	96.00	Quintel QS6656-5D	6	27.023	29.726	0.74	0.80	35.90	666.00	0.000	0.000	1707.53	0.00	0.00
52	64.50	Decibel 26OB	1	24.879	27.367	1.00	1.00	2.00	60.00	0.000	0.000	87.57	0.00	0.00
53	63.00	3 ft Standoff	1	24.758	27.234	1.00	1.00	2.63	48.00	0.000	0.000	114.60	0.00	0.00
							Totals:		**18,637.58**			**24,558.98**		

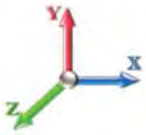
Total Applied Force Summary

Structure:	CT13056-A		**Code:**	EIA/TIA-222-G	9/30/2021
Site Name:	Moosehill		**Exposure:**	C	
Height:	149.00 (ft)		**Crest Height:**	0.00	
Base Elev:	1.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 12

Load Case: 1.2D + 1.6W 94 mph Wind

Dead Load Factor 1.20

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		515.50	1669.97	0.00	0.00
10.00		504.84	1640.69	0.00	0.00
15.00		500.29	1611.41	0.00	0.00
20.00		521.33	1582.12	0.00	0.00
25.00		536.94	1552.84	0.00	0.00
30.00		548.52	1523.56	0.00	0.00
35.00		557.11	1494.28	0.00	0.00
40.00		563.37	1465.00	0.00	0.00
45.00		567.75	1435.72	0.00	0.00
47.25		254.96	636.52	0.00	0.00
50.00		316.78	1299.02	0.00	0.00
53.25		375.50	1514.27	0.00	0.00
55.00		200.91	419.08	0.00	0.00
60.00		577.70	1180.90	0.00	0.00
63.00	(1) attachments	459.89	744.82	0.00	0.00
64.50	(1) attachments	249.02	404.83	0.00	0.00
65.00		53.70	114.46	0.00	0.00
70.00		539.61	1131.13	0.00	0.00
75.00		536.92	1106.73	0.00	0.00
80.00		533.55	1082.33	0.00	0.00
85.00		529.56	1057.93	0.00	0.00
90.00		525.01	1033.53	0.00	0.00
95.00		519.95	1009.13	0.00	0.00
96.00	(15) attachments	3464.79	1318.62	0.00	0.00
98.00	(12) attachments	2116.51	3437.60	0.00	0.00
100.00		207.29	603.51	0.00	0.00
100.75		77.40	224.51	0.00	0.00
105.00		435.40	660.87	0.00	0.00
109.00	(11) attachments	2886.88	3462.58	0.00	0.00
110.00		90.55	147.01	0.00	0.00
115.00		447.16	723.36	0.00	0.00
120.00	(24) attachments	6057.16	5325.91	0.00	0.00
125.00		421.70	602.12	0.00	0.00
129.00		327.52	467.64	0.00	0.00
130.00		80.03	91.69	0.00	0.00
135.00		395.95	449.69	0.00	0.00
138.00	(49) attachments	4830.78	3636.35	0.00	0.00
140.00		153.38	140.18	0.00	0.00
145.00		377.86	340.20	0.00	0.00
146.00	(31) attachments	6275.07	3683.44	0.00	0.00
148.00	(2) attachments	324.33	259.35	0.00	188.59
149.00		69.21	59.15	0.00	0.00
	Totals:	**39,527.67**	**52,344.02**	**0.00**	**188.59**

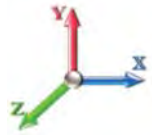
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 13	

Load Case: 1.2D + 1.6W 94 mph Wind

Dead Load Factor 1.20

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)
5.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.096	0.000	18.266	0.00	1.64
5.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.096	0.000	18.266	0.00	6.24
5.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.096	0.000	18.266	0.00	15.84
5.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.096	0.000	18.266	0.00	1.92
5.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.096	0.000	18.266	0.00	2.88
5.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.096	0.000	18.266	0.00	16.56
5.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.096	0.000	18.266	0.00	37.44
5.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.096	0.000	18.266	0.00	13.20
5.00	1/2" Coax	Yes	5.00	0.000	1.00	0.42	0.00	0.096	0.000	18.266	0.00	0.96
10.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.098	0.000	18.266	0.00	1.64
10.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.098	0.000	18.266	0.00	6.24
10.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.098	0.000	18.266	0.00	15.84
10.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.098	0.000	18.266	0.00	1.92
10.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.098	0.000	18.266	0.00	2.88
10.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.098	0.000	18.266	0.00	16.56
10.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.098	0.000	18.266	0.00	37.44
10.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.098	0.000	18.266	0.00	13.20
10.00	1/2" Coax	Yes	5.00	0.000	1.00	0.42	0.00	0.098	0.000	18.266	0.00	0.96
15.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.100	0.000	18.491	0.00	1.64
15.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.100	0.000	18.491	0.00	6.24
15.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.100	0.000	18.491	0.00	15.84
15.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.100	0.000	18.491	0.00	1.92
15.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.100	0.000	18.491	0.00	2.88
15.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.100	0.000	18.491	0.00	16.56
15.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.100	0.000	18.491	0.00	37.44
15.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.100	0.000	18.491	0.00	13.20
15.00	1/2" Coax	Yes	5.00	0.000	1.00	0.42	0.00	0.100	0.000	18.491	0.00	0.96
20.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.102	1.006	19.581	0.00	1.64
20.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.102	1.006	19.581	0.00	6.24
20.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.102	1.006	19.581	0.00	15.84
20.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.102	1.006	19.581	0.00	1.92
20.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.102	1.006	19.581	0.00	2.88
20.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.102	1.006	19.581	0.00	16.56
20.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.102	1.006	19.581	0.00	37.44
20.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.102	1.006	19.581	0.00	13.20
20.00	1/2" Coax	Yes	5.00	0.000	1.00	0.42	0.00	0.102	1.006	19.581	0.00	0.96
25.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.104	1.013	20.481	0.00	1.64
25.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.104	1.013	20.481	0.00	6.24
25.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.104	1.013	20.481	0.00	15.84
25.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.104	1.013	20.481	0.00	1.92
25.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.104	1.013	20.481	0.00	2.88
25.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.104	1.013	20.481	0.00	16.56
25.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.104	1.013	20.481	0.00	37.44
25.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.104	1.013	20.481	0.00	13.20
25.00	1/2" Coax	Yes	5.00	0.000	1.00	0.42	0.00	0.104	1.013	20.481	0.00	0.96
30.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.107	1.020	21.254	0.00	1.64
30.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.107	1.020	21.254	0.00	6.24

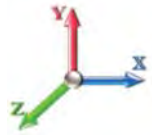
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 14	

Load Case: 1.2D + 1.6W 94 mph Wind

Dead Load Factor 1.20

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)
30.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.107	1.020	21.254	0.00	15.84
30.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.107	1.020	21.254	0.00	1.92
30.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.107	1.020	21.254	0.00	2.88
30.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.107	1.020	21.254	0.00	16.56
30.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.107	1.020	21.254	0.00	37.44
30.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.107	1.020	21.254	0.00	13.20
30.00	1/2" Coax	Yes	5.00	0.000	1.00	0.42	0.00	0.107	1.020	21.254	0.00	0.96
35.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.109	1.027	21.934	0.00	1.64
35.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.109	1.027	21.934	0.00	6.24
35.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	21.934	0.00	15.84
35.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	21.934	0.00	1.92
35.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.109	1.027	21.934	0.00	2.88
35.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.109	1.027	21.934	0.00	16.56
35.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	21.934	0.00	37.44
35.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	21.934	0.00	13.20
35.00	1/2" Coax	Yes	5.00	0.000	1.00	0.42	0.00	0.109	1.027	21.934	0.00	0.96
40.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.112	1.035	22.543	0.00	1.64
40.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.112	1.035	22.543	0.00	6.24
40.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.035	22.543	0.00	15.84
40.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.035	22.543	0.00	1.92
40.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.112	1.035	22.543	0.00	2.88
40.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.112	1.035	22.543	0.00	16.56
40.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.035	22.543	0.00	37.44
40.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.035	22.543	0.00	13.20
40.00	1/2" Coax	Yes	5.00	0.000	1.00	0.42	0.00	0.112	1.035	22.543	0.00	0.96
45.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.115	1.044	23.095	0.00	1.64
45.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.115	1.044	23.095	0.00	6.24
45.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.115	1.044	23.095	0.00	15.84
45.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.115	1.044	23.095	0.00	1.92
45.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.115	1.044	23.095	0.00	2.88
45.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.115	1.044	23.095	0.00	16.56
45.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.115	1.044	23.095	0.00	37.44
45.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.115	1.044	23.095	0.00	13.20
45.00	1/2" Coax	Yes	5.00	0.000	1.00	0.42	0.00	0.115	1.044	23.095	0.00	0.96
47.25	Safety Cable	Yes	2.25	0.000	0.38	0.07	0.00	0.117	1.050	23.329	0.00	0.74
47.25	Step bolts (ladder)	Yes	2.25	0.000	0.63	0.12	0.00	0.117	1.050	23.329	0.00	2.81
47.25	1 1/4" Coax	Yes	2.25	0.000	0.00	0.00	0.00	0.117	1.050	23.329	0.00	7.13
47.25	1/2" Coax	Yes	2.25	0.000	0.00	0.00	0.00	0.117	1.050	23.329	0.00	0.86
47.25	5/16" Coax	Yes	2.25	0.000	1.90	0.36	0.00	0.117	1.050	23.329	0.00	1.30
47.25	1.75" Hybrid	Yes	2.25	0.000	1.75	0.33	0.00	0.117	1.050	23.329	0.00	7.45
47.25	1 5/8" Coax	Yes	2.25	0.000	0.00	0.00	0.00	0.117	1.050	23.329	0.00	16.85
47.25	1 5/8" Hybrid	Yes	2.25	0.000	0.00	0.00	0.00	0.117	1.050	23.329	0.00	5.94
47.25	1/2" Coax	Yes	2.25	0.000	1.00	0.19	0.00	0.117	1.050	23.329	0.00	0.43
50.00	Safety Cable	Yes	2.75	0.000	0.38	0.09	0.00	0.118	1.054	23.602	0.00	0.90
50.00	Step bolts (ladder)	Yes	2.75	0.000	0.63	0.14	0.00	0.118	1.054	23.602	0.00	3.43
50.00	1 1/4" Coax	Yes	2.75	0.000	0.00	0.00	0.00	0.118	1.054	23.602	0.00	8.71
50.00	1/2" Coax	Yes	2.75	0.000	0.00	0.00	0.00	0.118	1.054	23.602	0.00	1.06

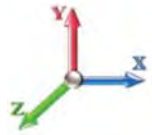
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 15	

Load Case: 1.2D + 1.6W 94 mph Wind

Dead Load Factor 1.20

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)
50.00	5/16" Coax	Yes	2.75	0.000	1.90	0.44	0.00	0.118	1.054	23.602	0.00	1.58
50.00	1.75" Hybrid	Yes	2.75	0.000	1.75	0.40	0.00	0.118	1.054	23.602	0.00	9.11
50.00	1 5/8" Coax	Yes	2.75	0.000	0.00	0.00	0.00	0.118	1.054	23.602	0.00	20.59
50.00	1 5/8" Hybrid	Yes	2.75	0.000	0.00	0.00	0.00	0.118	1.054	23.602	0.00	7.26
50.00	1/2" Coax	Yes	2.75	0.000	1.00	0.23	0.00	0.118	1.054	23.602	0.00	0.53
53.25	Safety Cable	Yes	3.25	0.000	0.38	0.10	0.00	0.120	1.060	23.911	0.00	1.06
53.25	Step bolts (ladder)	Yes	3.25	0.000	0.63	0.17	0.00	0.120	1.060	23.911	0.00	4.06
53.25	1 1/4" Coax	Yes	3.25	0.000	0.00	0.00	0.00	0.120	1.060	23.911	0.00	10.30
53.25	1/2" Coax	Yes	3.25	0.000	0.00	0.00	0.00	0.120	1.060	23.911	0.00	1.25
53.25	5/16" Coax	Yes	3.25	0.000	1.90	0.51	0.00	0.120	1.060	23.911	0.00	1.87
53.25	1.75" Hybrid	Yes	3.25	0.000	1.75	0.47	0.00	0.120	1.060	23.911	0.00	10.76
53.25	1 5/8" Coax	Yes	3.25	0.000	0.00	0.00	0.00	0.120	1.060	23.911	0.00	24.34
53.25	1 5/8" Hybrid	Yes	3.25	0.000	0.00	0.00	0.00	0.120	1.060	23.911	0.00	8.58
53.25	1/2" Coax	Yes	3.25	0.000	1.00	0.27	0.00	0.120	1.060	23.911	0.00	0.62
55.00	Safety Cable	Yes	1.75	0.000	0.38	0.06	0.00	0.120	1.060	24.072	0.00	0.57
55.00	Step bolts (ladder)	Yes	1.75	0.000	0.63	0.09	0.00	0.120	1.060	24.072	0.00	2.18
55.00	1 1/4" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.120	1.060	24.072	0.00	5.54
55.00	1/2" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.120	1.060	24.072	0.00	0.67
55.00	5/16" Coax	Yes	1.75	0.000	1.90	0.28	0.00	0.120	1.060	24.072	0.00	1.01
55.00	1.75" Hybrid	Yes	1.75	0.000	1.75	0.26	0.00	0.120	1.060	24.072	0.00	5.80
55.00	1 5/8" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.120	1.060	24.072	0.00	13.10
55.00	1 5/8" Hybrid	Yes	1.75	0.000	0.00	0.00	0.00	0.120	1.060	24.072	0.00	4.62
55.00	1/2" Coax	Yes	1.75	0.000	1.00	0.15	0.00	0.120	1.060	24.072	0.00	0.34
60.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.122	1.066	24.509	0.00	1.64
60.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.122	1.066	24.509	0.00	6.24
60.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.066	24.509	0.00	15.84
60.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.066	24.509	0.00	1.92
60.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.122	1.066	24.509	0.00	2.88
60.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.122	1.066	24.509	0.00	16.56
60.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.066	24.509	0.00	37.44
60.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.066	24.509	0.00	13.20
60.00	1/2" Coax	Yes	5.00	0.000	1.00	0.42	0.00	0.122	1.066	24.509	0.00	0.96
63.00	Safety Cable	Yes	3.00	0.000	0.38	0.10	0.00	0.125	1.074	24.758	0.00	0.98
63.00	Step bolts (ladder)	Yes	3.00	0.000	0.63	0.16	0.00	0.125	1.074	24.758	0.00	3.74
63.00	1 1/4" Coax	Yes	3.00	0.000	0.00	0.00	0.00	0.125	1.074	24.758	0.00	9.50
63.00	1/2" Coax	Yes	3.00	0.000	0.00	0.00	0.00	0.125	1.074	24.758	0.00	1.15
63.00	5/16" Coax	Yes	3.00	0.000	1.90	0.47	0.00	0.125	1.074	24.758	0.00	1.73
63.00	1.75" Hybrid	Yes	3.00	0.000	1.75	0.44	0.00	0.125	1.074	24.758	0.00	9.94
63.00	1 5/8" Coax	Yes	3.00	0.000	0.00	0.00	0.00	0.125	1.074	24.758	0.00	22.46
63.00	1 5/8" Hybrid	Yes	3.00	0.000	0.00	0.00	0.00	0.125	1.074	24.758	0.00	7.92
63.00	1/2" Coax	Yes	3.00	0.000	1.00	0.25	0.00	0.125	1.074	24.758	0.00	0.58
64.50	Safety Cable	Yes	1.50	0.000	0.38	0.05	0.00	0.104	1.012	24.879	0.00	0.49
64.50	Step bolts (ladder)	Yes	1.50	0.000	0.63	0.08	0.00	0.104	1.012	24.879	0.00	1.87
64.50	1 1/4" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.104	1.012	24.879	0.00	4.75
64.50	1/2" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.104	1.012	24.879	0.00	0.58
64.50	5/16" Coax	Yes	1.50	0.000	1.90	0.24	0.00	0.104	1.012	24.879	0.00	0.86
64.50	1.75" Hybrid	Yes	1.50	0.000	1.75	0.22	0.00	0.104	1.012	24.879	0.00	4.97

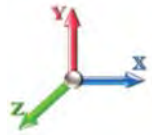
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 16	

Load Case: 1.2D + 1.6W 94 mph Wind

Dead Load Factor 1.20

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)
64.50	1 5/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.104	1.012	24.879	0.00	11.23
64.50	1 5/8" Hybrid	Yes	1.50	0.000	0.00	0.00	0.00	0.104	1.012	24.879	0.00	3.96
65.00	Safety Cable	Yes	0.50	0.000	0.38	0.02	0.00	0.104	1.013	24.919	0.00	0.16
65.00	Step bolts (ladder)	Yes	0.50	0.000	0.63	0.03	0.00	0.104	1.013	24.919	0.00	0.62
65.00	1 1/4" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.104	1.013	24.919	0.00	1.58
65.00	1/2" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.104	1.013	24.919	0.00	0.19
65.00	5/16" Coax	Yes	0.50	0.000	1.90	0.08	0.00	0.104	1.013	24.919	0.00	0.29
65.00	1.75" Hybrid	Yes	0.50	0.000	1.75	0.07	0.00	0.104	1.013	24.919	0.00	1.66
65.00	1 5/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.104	1.013	24.919	0.00	3.74
65.00	1 5/8" Hybrid	Yes	0.50	0.000	0.00	0.00	0.00	0.104	1.013	24.919	0.00	1.32
70.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.106	1.018	25.305	0.00	1.64
70.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.106	1.018	25.305	0.00	6.24
70.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.106	1.018	25.305	0.00	15.84
70.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.106	1.018	25.305	0.00	1.92
70.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.106	1.018	25.305	0.00	2.88
70.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.106	1.018	25.305	0.00	16.56
70.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.106	1.018	25.305	0.00	37.44
70.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.106	1.018	25.305	0.00	13.20
75.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.109	1.027	25.670	0.00	1.64
75.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.109	1.027	25.670	0.00	6.24
75.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	25.670	0.00	15.84
75.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	25.670	0.00	1.92
75.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.109	1.027	25.670	0.00	2.88
75.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.109	1.027	25.670	0.00	16.56
75.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	25.670	0.00	37.44
75.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	25.670	0.00	13.20
80.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.112	1.037	26.017	0.00	1.64
80.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.112	1.037	26.017	0.00	6.24
80.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.037	26.017	0.00	15.84
80.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.037	26.017	0.00	1.92
80.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.112	1.037	26.017	0.00	2.88
80.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.112	1.037	26.017	0.00	16.56
80.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.037	26.017	0.00	37.44
80.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.037	26.017	0.00	13.20
85.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.116	1.047	26.347	0.00	1.64
85.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.116	1.047	26.347	0.00	6.24
85.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.116	1.047	26.347	0.00	15.84
85.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.116	1.047	26.347	0.00	1.92
85.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.116	1.047	26.347	0.00	2.88
85.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.116	1.047	26.347	0.00	16.56
85.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.116	1.047	26.347	0.00	37.44
85.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.116	1.047	26.347	0.00	13.20
90.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.119	1.058	26.662	0.00	1.64
90.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.119	1.058	26.662	0.00	6.24
90.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.119	1.058	26.662	0.00	15.84
90.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.119	1.058	26.662	0.00	1.92
90.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.119	1.058	26.662	0.00	2.88

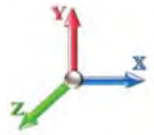
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 17	

Load Case: 1.2D + 1.6W 94 mph Wind

Dead Load Factor 1.20

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)
90.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.119	1.058	26.662	0.00	16.56
90.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.119	1.058	26.662	0.00	37.44
90.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.119	1.058	26.662	0.00	13.20
95.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.123	1.070	26.964	0.00	1.64
95.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.123	1.070	26.964	0.00	6.24
95.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.123	1.070	26.964	0.00	15.84
95.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.123	1.070	26.964	0.00	1.92
95.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.123	1.070	26.964	0.00	2.88
95.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.123	1.070	26.964	0.00	16.56
95.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.123	1.070	26.964	0.00	37.44
95.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.123	1.070	26.964	0.00	13.20
96.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.126	1.077	27.023	0.00	0.33
96.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.126	1.077	27.023	0.00	1.25
96.00	1 1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.126	1.077	27.023	0.00	3.17
96.00	1/2" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.126	1.077	27.023	0.00	0.38
96.00	5/16" Coax	Yes	1.00	0.000	1.90	0.16	0.00	0.126	1.077	27.023	0.00	0.58
96.00	1.75" Hybrid	Yes	1.00	0.000	1.75	0.15	0.00	0.126	1.077	27.023	0.00	3.31
96.00	1 5/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.126	1.077	27.023	0.00	7.49
96.00	1 5/8" Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.126	1.077	27.023	0.00	2.64
98.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.127	1.081	27.140	0.00	0.66
98.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.127	1.081	27.140	0.00	2.50
98.00	1 1/4" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.081	27.140	0.00	6.34
98.00	1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.081	27.140	0.00	0.77
98.00	5/16" Coax	Yes	2.00	0.000	1.90	0.32	0.00	0.127	1.081	27.140	0.00	1.15
98.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.127	1.081	27.140	0.00	6.62
98.00	1 5/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.081	27.140	0.00	14.98
98.00	1 5/8" Hybrid	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.081	27.140	0.00	5.28
100.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.129	1.086	27.254	0.00	0.66
100.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.129	1.086	27.254	0.00	2.50
100.00	1 1/4" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.086	27.254	0.00	6.34
100.00	1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.086	27.254	0.00	0.77
100.00	5/16" Coax	Yes	2.00	0.000	1.90	0.32	0.00	0.129	1.086	27.254	0.00	1.15
100.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.129	1.086	27.254	0.00	6.62
100.75	Safety Cable	Yes	0.75	0.000	0.38	0.02	0.00	0.130	1.090	27.297	0.00	0.25
100.75	Step bolts (ladder)	Yes	0.75	0.000	0.63	0.04	0.00	0.130	1.090	27.297	0.00	0.94
100.75	1 1/4" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.130	1.090	27.297	0.00	2.38
100.75	1/2" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.130	1.090	27.297	0.00	0.29
100.75	5/16" Coax	Yes	0.75	0.000	1.90	0.12	0.00	0.130	1.090	27.297	0.00	0.43
100.75	1.75" Hybrid	Yes	0.75	0.000	1.75	0.11	0.00	0.130	1.090	27.297	0.00	2.48
105.00	Safety Cable	Yes	4.25	0.000	0.38	0.13	0.00	0.130	1.091	27.533	0.00	1.39
105.00	Step bolts (ladder)	Yes	4.25	0.000	0.63	0.22	0.00	0.130	1.091	27.533	0.00	5.30
105.00	1 1/4" Coax	Yes	4.25	0.000	0.00	0.00	0.00	0.130	1.091	27.533	0.00	13.46
105.00	1/2" Coax	Yes	4.25	0.000	0.00	0.00	0.00	0.130	1.091	27.533	0.00	1.63
105.00	5/16" Coax	Yes	4.25	0.000	1.90	0.67	0.00	0.130	1.091	27.533	0.00	2.45
105.00	1.75" Hybrid	Yes	4.25	0.000	1.75	0.62	0.00	0.130	1.091	27.533	0.00	14.08
109.00	Safety Cable	Yes	4.00	0.000	0.38	0.13	0.00	0.134	1.102	27.748	0.00	1.31
109.00	Step bolts (ladder)	Yes	4.00	0.000	0.63	0.21	0.00	0.134	1.102	27.748	0.00	4.99

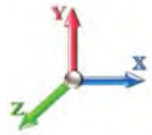
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 18	

Load Case: 1.2D + 1.6W 94 mph Wind

Dead Load Factor 1.20

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)
109.00	1 1/4" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.134	1.102	27.748	0.00	12.67
109.00	1/2" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.134	1.102	27.748	0.00	1.54
109.00	5/16" Coax	Yes	4.00	0.000	1.90	0.63	0.00	0.134	1.102	27.748	0.00	2.30
109.00	1.75" Hybrid	Yes	4.00	0.000	1.75	0.58	0.00	0.134	1.102	27.748	0.00	13.25
110.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.085	0.000	27.801	0.00	0.33
110.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.085	0.000	27.801	0.00	1.25
110.00	1 1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.085	0.000	27.801	0.00	3.17
110.00	1/2" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.085	0.000	27.801	0.00	0.38
110.00	5/16" Coax	Yes	1.00	0.000	1.90	0.16	0.00	0.085	0.000	27.801	0.00	0.58
115.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.087	0.000	28.060	0.00	1.64
115.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.087	0.000	28.060	0.00	6.24
115.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.087	0.000	28.060	0.00	15.84
115.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.087	0.000	28.060	0.00	1.92
115.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.087	0.000	28.060	0.00	2.88
120.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.090	0.000	28.311	0.00	1.64
120.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.090	0.000	28.311	0.00	6.24
120.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.090	0.000	28.311	0.00	15.84
120.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.090	0.000	28.311	0.00	1.92
120.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.090	0.000	28.311	0.00	2.88
125.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.094	0.000	28.553	0.00	1.64
125.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.094	0.000	28.553	0.00	6.24
125.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.094	0.000	28.553	0.00	15.84
125.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.094	0.000	28.553	0.00	1.92
125.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.094	0.000	28.553	0.00	2.88
129.00	Safety Cable	Yes	4.00	0.000	0.38	0.13	0.00	0.097	0.000	28.742	0.00	1.31
129.00	Step bolts (ladder)	Yes	4.00	0.000	0.63	0.21	0.00	0.097	0.000	28.742	0.00	4.99
129.00	1 1/4" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.097	0.000	28.742	0.00	12.67
129.00	1/2" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.097	0.000	28.742	0.00	1.54
129.00	5/16" Coax	Yes	4.00	0.000	1.90	0.63	0.00	0.097	0.000	28.742	0.00	2.30
130.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.100	0.000	28.788	0.00	0.33
130.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.100	0.000	28.788	0.00	1.25
130.00	1 1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.100	0.000	28.788	0.00	3.17
130.00	1/2" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.100	0.000	28.788	0.00	0.38
130.00	5/16" Coax	Yes	1.00	0.000	1.90	0.16	0.00	0.100	0.000	28.788	0.00	0.58
135.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.102	1.007	29.016	0.00	1.64
135.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.102	1.007	29.016	0.00	6.24
135.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.102	1.007	29.016	0.00	15.84
135.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.102	1.007	29.016	0.00	1.92
135.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.102	1.007	29.016	0.00	2.88
138.00	Safety Cable	Yes	3.00	0.000	0.38	0.10	0.00	0.106	1.018	29.149	0.00	0.98
138.00	Step bolts (ladder)	Yes	3.00	0.000	0.63	0.16	0.00	0.106	1.018	29.149	0.00	3.74
138.00	1 1/4" Coax	Yes	3.00	0.000	0.00	0.00	0.00	0.106	1.018	29.149	0.00	9.50
138.00	1/2" Coax	Yes	3.00	0.000	0.00	0.00	0.00	0.106	1.018	29.149	0.00	1.15
138.00	5/16" Coax	Yes	3.00	0.000	1.90	0.47	0.00	0.106	1.018	29.149	0.00	1.73
140.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.108	1.025	29.237	0.00	0.66
140.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.108	1.025	29.237	0.00	2.50
140.00	1 1/4" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.108	1.025	29.237	0.00	6.34

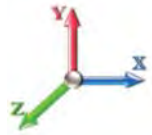
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13056-A		**Code:**	EIA/TIA-222-G	9/30/2021
Site Name:	Moosehill		**Exposure:**	C	
Height:	149.00 (ft)		**Crest Height:**	0.00	
Base Elev:	1.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 19

Load Case: 1.2D + 1.6W 94 mph Wind

Dead Load Factor 1.20

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)
140.00	1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.108	1.025	29.237	0.00	0.77
140.00	5/16" Coax	Yes	2.00	0.000	1.90	0.32	0.00	0.108	1.025	29.237	0.00	1.15
145.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.112	1.036	29.453	0.00	1.64
145.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.112	1.036	29.453	0.00	6.24
145.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.036	29.453	0.00	15.84
145.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.036	29.453	0.00	1.92
145.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.112	1.036	29.453	0.00	2.88
146.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.115	1.046	29.495	0.00	0.33
146.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.115	1.046	29.495	0.00	1.25
146.00	1 1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.115	1.046	29.495	0.00	3.17
146.00	1/2" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.115	1.046	29.495	0.00	0.38
146.00	5/16" Coax	Yes	1.00	0.000	1.90	0.16	0.00	0.115	1.046	29.495	0.00	0.58
148.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.041	0.000	29.579	0.00	0.66
148.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.041	0.000	29.579	0.00	2.50
149.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.016	0.000	29.621	0.00	0.33
										Totals:	**0.0**	**2,201.9**

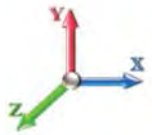
Calculated Forces

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 20	

Load Case: 1.2D + 1.6W 94 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 24

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	-52.27	-39.62	0.00	-4284.6	0.00	4284.66	4419.23	2209.62	10644.5	5330.19	0.00	0.000	0.000	0.816
5.00	-50.47	-39.28	0.00	-4086.5	0.00	4086.56	4369.18	2184.59	10305.9	5160.65	0.11	-0.197	0.000	0.804
10.00	-48.69	-38.94	0.00	-3890.1	0.00	3890.18	4317.41	2158.71	9968.41	4991.62	0.42	-0.398	0.000	0.791
15.00	-46.95	-38.59	0.00	-3695.5	0.00	3695.51	4263.92	2131.96	9632.14	4823.23	0.95	-0.601	0.000	0.778
20.00	-45.24	-38.21	0.00	-3502.5	0.00	3502.58	4208.71	2104.36	9297.40	4655.61	1.69	-0.806	0.000	0.763
25.00	-43.55	-37.81	0.00	-3311.5	0.00	3311.52	4151.78	2075.89	8964.46	4488.89	2.64	-1.014	0.000	0.749
30.00	-41.90	-37.39	0.00	-3122.4	0.00	3122.49	4093.13	2046.56	8633.57	4323.20	3.82	-1.224	0.000	0.733
35.00	-40.29	-36.94	0.00	-2935.5	0.00	2935.56	4032.76	2016.38	8305.00	4158.67	5.22	-1.436	0.000	0.716
40.00	-38.70	-36.49	0.00	-2750.8	0.00	2750.85	3970.67	1985.33	7978.99	3995.42	6.84	-1.650	0.000	0.699
45.00	-37.19	-35.98	0.00	-2568.4	0.00	2568.42	3906.85	1953.43	7655.81	3833.59	8.68	-1.866	0.000	0.680
47.25	-36.49	-35.77	0.00	-2487.4	0.00	2487.48	3877.58	1938.79	7511.37	3761.27	9.58	-1.965	0.000	0.671
50.00	-35.12	-35.49	0.00	-2389.1	0.00	2389.11	3841.32	1920.66	7335.71	3673.31	10.75	-2.086	0.000	0.660
53.25	-33.55	-35.12	0.00	-2273.7	0.00	2273.77	2984.31	1492.16	5695.15	2851.81	12.22	-2.229	0.000	0.809
55.00	-33.04	-35.00	0.00	-2212.3	0.00	2212.31	2968.67	1484.33	5613.44	2810.89	13.05	-2.306	0.000	0.799
60.00	-31.77	-34.48	0.00	-2037.3	0.00	2037.32	2922.80	1461.40	5380.87	2694.44	15.60	-2.555	0.000	0.768
63.00	-30.98	-34.05	0.00	-1933.8	0.00	1933.88	2894.46	1447.23	5242.03	2624.91	17.26	-2.705	0.000	0.748
64.50	-30.56	-33.81	0.00	-1882.8	0.00	1882.81	2880.06	1440.03	5172.83	2590.26	18.12	-2.781	0.000	0.738
65.00	-30.36	-33.82	0.00	-1865.9	0.00	1865.90	2875.22	1437.61	5149.80	2578.73	18.41	-2.807	0.000	0.735
70.00	-29.12	-33.35	0.00	-1696.8	0.00	1696.80	2825.92	1412.96	4920.48	2463.90	21.48	-3.052	0.000	0.700
75.00	-27.91	-32.87	0.00	-1530.0	0.00	1530.06	2774.89	1387.45	4693.17	2350.07	24.81	-3.293	0.000	0.662
80.00	-26.73	-32.38	0.00	-1365.7	0.00	1365.72	2722.15	1361.08	4468.13	2237.39	28.38	-3.529	0.000	0.621
85.00	-25.58	-31.88	0.00	-1203.8	0.00	1203.83	2667.69	1333.84	4245.61	2125.96	32.20	-3.757	0.000	0.576
90.00	-24.47	-31.38	0.00	-1044.4	0.00	1044.41	2611.50	1305.75	4025.88	2015.93	36.26	-3.977	0.000	0.528
95.00	-23.43	-30.84	0.00	-887.51	0.00	887.51	2553.60	1276.80	3809.20	1907.43	40.53	-4.184	0.000	0.475
96.00	-22.34	-27.31	0.00	-856.67	0.00	856.67	2541.81	1270.90	3766.25	1885.92	41.41	-4.226	0.000	0.463
98.00	-19.04	-24.97	0.00	-802.04	0.00	802.04	2518.03	1259.01	3680.75	1843.11	43.20	-4.306	0.000	0.443
100.00	-18.43	-24.74	0.00	-752.10	0.00	752.10	2493.97	1246.99	3595.81	1800.58	45.02	-4.384	0.000	0.425
100.75	-18.17	-24.67	0.00	-733.54	0.00	733.54	1861.03	930.51	2717.30	1360.67	45.71	-4.413	0.000	0.550
105.00	-17.48	-24.24	0.00	-628.69	0.00	628.69	1828.27	914.13	2591.91	1297.88	49.71	-4.567	0.000	0.495
109.00	-14.23	-21.10	0.00	-531.75	0.00	531.75	1796.29	898.15	2474.87	1239.28	53.60	-4.728	0.000	0.438
110.00	-14.05	-21.03	0.00	-510.65	0.00	510.65	1788.13	894.06	2445.78	1224.71	54.59	-4.767	0.000	0.425
115.00	-13.31	-20.56	0.00	-405.52	0.00	405.52	1746.27	873.13	2301.39	1152.40	59.68	-4.943	0.000	0.360
120.00	-8.50	-14.08	0.00	-302.73	0.00	302.73	1702.69	851.34	2158.99	1081.10	64.93	-5.096	0.000	0.285
125.00	-7.91	-13.62	0.00	-232.35	0.00	232.35	1657.39	828.70	2018.85	1010.92	70.34	-5.225	0.000	0.235
129.00	-7.46	-13.26	0.00	-177.87	0.00	177.87	1619.91	809.96	1908.53	955.68	74.75	-5.314	0.000	0.191
129.00	-7.46	-13.26	0.00	-177.87	0.00	177.87	1091.97	545.98	1287.15	644.53	74.75	-5.314	0.000	0.283
130.00	-7.36	-13.18	0.00	-164.62	0.00	164.62	1086.84	543.42	1270.26	636.07	75.86	-5.335	0.000	0.266
135.00	-6.93	-12.75	0.00	-98.73	0.00	98.73	1060.16	530.08	1186.17	593.97	81.51	-5.443	0.000	0.173
138.00	-3.77	-7.60	0.00	-60.48	0.00	60.48	1043.32	521.66	1136.10	568.89	84.94	-5.488	0.000	0.110
140.00	-3.64	-7.43	0.00	-45.29	0.00	45.29	1031.75	515.88	1102.91	552.27	87.24	-5.510	0.000	0.086
145.00	-3.34	-7.02	0.00	-8.13	0.00	8.13	1001.63	500.82	1020.73	511.12	93.02	-5.539	0.000	0.019
146.00	-0.28	-0.42	0.00	-1.11	0.00	1.11	995.40	497.70	1004.44	502.97	94.18	-5.540	0.000	0.002
148.00	-0.05	-0.07	0.00	-0.07	0.00	0.07	982.73	491.37	972.05	486.75	96.50	-5.540	0.000	0.000
149.00	0.00	-0.07	0.00	0.00	0.00	0.00	976.29	488.15	955.94	478.68	97.65	-5.540	0.000	0.000

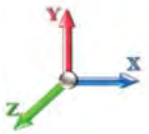
Wind Loading - Shaft

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 21	

Load Case: 0.9D + 1.6W 94 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	18.266	20.09	432.01	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	18.266	20.09	423.17	0.650	0.000	5.00	24.670	16.04	515.5	0.0	1055.8
10.00		1.00	0.85	18.266	20.09	414.34	0.650	0.000	5.00	24.160	15.70	504.8	0.0	1033.9
15.00		1.00	0.86	18.491	20.34	408.00	0.650	0.000	5.00	23.650	15.37	500.3	0.0	1011.9
20.00		1.00	0.91	19.581	21.54	410.69	0.654 *	0.000	5.00	23.140	15.13	521.3	0.0	989.9
25.00		1.00	0.95	20.481	22.53	410.67	0.658 *	0.000	5.00	22.630	14.90	536.9	0.0	968.0
30.00		1.00	0.99	21.254	23.38	408.82	0.663 *	0.000	5.00	22.120	14.66	548.5	0.0	946.0
35.00		1.00	1.02	21.934	24.13	405.62	0.668 *	0.000	5.00	21.611	14.43	557.1	0.0	924.1
40.00		1.00	1.05	22.543	24.80	401.39	0.673 *	0.000	5.00	21.101	14.20	563.4	0.0	902.1
45.00		1.00	1.07	23.095	25.40	396.35	0.678 *	0.000	5.00	20.591	13.97	567.8	0.0	880.1
47.25	Bot - Section 2	1.00	1.09	23.329	25.66	393.85	0.682 *	0.000	2.25	9.100	6.21	255.0	0.0	388.9
50.00		1.00	1.10	23.602	25.96	390.63	0.685 *	0.000	2.75	11.127	7.63	316.8	0.0	866.1
53.25	Top - Section 1	1.00	1.11	23.911	26.30	386.61	0.689 *	0.000	3.25	12.952	8.92	375.5	0.0	1007.9
55.00		1.00	1.12	24.072	26.48	389.63	0.689 *	0.000	1.75	6.885	4.74	200.9	0.0	245.5
60.00		1.00	1.14	24.509	26.96	382.92	0.693 *	0.000	5.00	19.327	13.39	577.7	0.0	689.0
63.00	Appurtenance(s)	1.00	1.15	24.758	27.23	378.69	0.698 *	0.000	3.00	11.351	7.92	345.3	0.0	404.6
64.50	Appurtenance(s)	1.00	1.16	24.879	27.37	376.52	0.658 *	0.000	1.50	5.607	3.69	161.4	0.0	199.8
65.00		1.00	1.16	24.919	27.41	375.79	0.659 *	0.000	0.50	1.859	1.22	53.7	0.0	66.2
70.00		1.00	1.18	25.305	27.84	368.29	0.662 *	0.000	5.00	18.307	12.12	539.6	0.0	652.4
75.00		1.00	1.19	25.670	28.24	360.46	0.668 *	0.000	5.00	17.797	11.88	536.9	0.0	634.1
80.00		1.00	1.21	26.017	28.62	352.34	0.674 *	0.000	5.00	17.288	11.65	533.5	0.0	615.8
85.00		1.00	1.23	26.347	28.98	343.95	0.681 *	0.000	5.00	16.778	11.42	529.6	0.0	597.5
90.00		1.00	1.24	26.662	29.33	335.33	0.688 *	0.000	5.00	16.268	11.19	525.0	0.0	579.2
95.00		1.00	1.25	26.964	29.66	326.48	0.695 *	0.000	5.00	15.758	10.96	519.9	0.0	560.9
96.00	Bot - Section 3	1.00	1.26	27.023	29.73	324.69	0.700 *	0.000	1.00	3.090	2.16	102.9	0.0	110.0
98.00	Appurtenance(s)	1.00	1.26	27.140	29.85	321.08	0.702 *	0.000	2.00	6.204	4.36	208.2	0.0	394.7
100.00		1.00	1.27	27.254	29.98	317.44	0.706 *	0.000	2.00	6.123	4.32	207.3	0.0	389.5
100.75	Top - Section 2	1.00	1.27	27.297	30.03	316.07	0.708 *	0.000	0.75	2.275	1.61	77.4	0.0	144.7
105.00		1.00	1.28	27.533	30.29	312.70	0.709 *	0.000	4.25	12.674	8.99	435.4	0.0	361.4
109.00	Appurtenance(s)	1.00	1.29	27.748	30.52	305.21	0.716 *	0.000	4.00	11.592	8.30	405.5	0.0	330.5
110.00		1.00	1.29	27.801	30.58	303.32	0.650	0.000	1.00	2.847	1.85	90.6	0.0	81.2
115.00		1.00	1.31	28.060	30.87	293.78	0.650	0.000	5.00	13.930	9.05	447.2	0.0	397.0
120.00	Appurtenance(s)	1.00	1.32	28.311	31.14	284.08	0.650	0.000	5.00	13.420	8.72	434.6	0.0	382.3
125.00		1.00	1.33	28.553	31.41	274.25	0.650	0.000	5.00	12.910	8.39	421.7	0.0	367.7
129.00	Top - Section 3	1.00	1.34	28.742	31.62	266.28	0.650	0.000	4.00	9.961	6.47	327.5	0.0	283.6
130.00		1.00	1.34	28.788	31.67	263.27	0.650	0.000	1.00	2.430	1.58	80.0	0.0	52.0
135.00		1.00	1.35	29.016	31.92	253.17	0.655 *	0.000	5.00	11.844	7.75	395.9	0.0	253.4
138.00	Appurtenance(s)	1.00	1.36	29.149	32.06	247.05	0.662 *	0.000	3.00	6.862	4.54	232.9	0.0	146.8
140.00		1.00	1.36	29.237	32.16	242.95	0.666 *	0.000	2.00	4.472	2.98	153.4	0.0	95.6
145.00		1.00	1.37	29.453	32.40	232.62	0.673 *	0.000	5.00	10.824	7.29	377.9	0.0	231.4
146.00	Appurtenance(s)	1.00	1.37	29.495	32.44	230.55	0.680 *	0.000	1.00	2.104	1.43	74.2	0.0	45.0
148.00	Appurtenance(s)	1.00	1.38	29.579	32.54	226.38	0.650	0.000	2.00	4.146	2.69	140.3	0.0	88.6
149.00		1.00	1.38	29.621	32.58	224.28	0.650	0.000	1.00	2.042	1.33	69.2	0.0	43.6
								Totals:	**149.00**			**14,968.7**		**20,418.8**

* Cf Adjusted by Linear Load Ra Effect

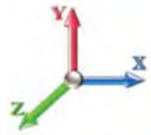
Discrete Appurtenance Forces

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 22	

Load Case: 0.9D + 1.6W 94 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	148.00	Decibel DB404-B	1	29.724	32.696	1.00	1.00	1.03	12.60	0.000	3.500	53.88	0.00	188.59
2	148.00	Pipe Mount	1	29.579	32.537	1.00	1.00	2.50	90.00	0.000	0.000	130.15	0.00	0.00
3	146.00	RFS APXVTM14-C-120	3	29.495	32.444	0.71	0.90	13.52	151.20	0.000	0.000	702.00	0.00	0.00
4	146.00	Argus LLPX310R	3	29.495	32.444	0.66	0.90	8.48	77.22	0.000	0.000	439.96	0.00	0.00
5	146.00	Andrew VHLP800-11-DW1	1	29.495	32.444	1.00	1.00	6.70	44.10	0.000	0.000	347.80	0.00	0.00
6	146.00	U-RAS Flexible RRH	3	29.495	32.444	0.70	0.90	4.06	136.89	0.000	0.000	211.00	0.00	0.00
7	146.00	12.5' Low Profile Platform	1	29.495	32.444	1.00	1.00	36.05	1468.80	0.000	0.000	1871.39	0.00	0.00
8	146.00	Andrew VHLP2-11	1	29.495	32.444	1.00	1.00	3.73	24.30	0.000	0.000	193.63	0.00	0.00
9	146.00	RFS APXVSPP18-C-A20	3	29.495	32.444	0.75	0.90	17.97	153.90	0.000	0.000	932.99	0.00	0.00
10	146.00	ALU 1900MHz RRH	3	29.495	32.444	0.60	0.90	6.87	118.80	0.000	0.000	356.85	0.00	0.00
11	146.00	ALU 800MHz RRH	3	29.495	32.444	0.60	0.90	4.78	160.65	0.000	0.000	247.91	0.00	0.00
12	146.00	800MHz RRH w/ filter	3	29.495	32.444	0.90	0.90	9.34	184.41	0.000	0.000	484.95	0.00	0.00
13	146.00	RFS ACU-A20-N	4	29.495	32.444	0.71	0.90	0.40	3.60	0.000	0.000	20.67	0.00	0.00
14	146.00	ALU TD-RRH8x20-25	3	29.495	32.444	0.62	0.90	7.55	189.00	0.000	0.000	391.68	0.00	0.00
15	138.00	WCS-IMFQ-AMT	1	29.149	32.064	0.38	0.75	0.37	31.05	0.000	0.000	19.05	0.00	0.00
16	138.00	HPA-65R-BUU-H6	3	29.149	32.064	0.64	0.75	18.47	137.70	0.000	0.000	947.81	0.00	0.00
17	138.00	7770	3	29.149	32.064	0.55	0.75	9.03	94.50	0.000	0.000	463.46	0.00	0.00
18	138.00	Raycap DC6-48-60-18-8F	2	29.149	32.064	1.00	1.00	2.94	59.04	0.000	0.000	150.83	0.00	0.00
19	138.00	4449 B5/B12	3	29.149	32.064	0.50	0.75	2.97	191.70	0.000	0.000	152.36	0.00	0.00
20	138.00	4415 B30	3	29.149	32.064	0.50	0.75	2.47	124.20	0.000	0.000	126.84	0.00	0.00
21	138.00	Powerwave 7020.00 RET	12	29.149	32.064	0.50	0.75	2.41	23.76	0.000	0.000	123.74	0.00	0.00
22	138.00	Commscope	3	29.149	32.064	0.73	0.75	0.11	4.32	0.000	0.000	5.66	0.00	0.00
23	138.00	Low Profile Platform w/	1	29.149	32.064	1.00	1.00	23.81	1429.20	0.000	0.000	1221.53	0.00	0.00
24	138.00	Powerwave LGP13519	6	29.149	32.064	0.75	0.75	1.53	28.62	0.000	0.000	78.49	0.00	0.00
25	138.00	Ericsson RRUS-32 B2s	3	29.149	32.064	0.50	0.75	4.13	162.00	0.000	0.000	211.91	0.00	0.00
26	138.00	Powerawve LGP21901	6	29.149	32.064	0.56	0.75	0.78	29.70	0.000	0.000	39.82	0.00	0.00
27	138.00	DMP65R-BU6DA	3	29.149	32.064	0.54	0.75	20.59	214.38	0.000	0.000	1056.34	0.00	0.00
28	120.00	Ericsson KRY 112 144/1	3	28.311	31.142	0.50	0.75	0.62	29.70	0.000	0.000	30.80	0.00	0.00
29	120.00	AIR32 KRD	3	28.311	31.142	0.65	0.75	12.74	356.94	0.000	0.000	634.96	0.00	0.00
30	120.00	AIR6449 B41	3	28.311	31.142	0.53	0.75	9.03	278.10	0.000	0.000	449.73	0.00	0.00
31	120.00	APXVAALL24_43-U-NA20	3	28.311	31.142	0.52	0.75	31.88	345.60	0.000	0.000	1588.38	0.00	0.00
32	120.00	SDX1926Q-43	3	28.311	31.142	0.50	0.75	0.78	11.61	0.000	0.000	39.06	0.00	0.00
33	120.00	PRK-1245 (kicker kit)	1	28.311	31.142	1.00	1.00	9.50	418.42	0.000	0.000	473.35	0.00	0.00
34	120.00	Low Profile Platform	1	28.311	31.142	1.00	1.00	36.10	1468.80	0.000	0.000	1798.75	0.00	0.00
35	120.00	4449 B71 + B85	3	28.311	31.142	0.50	0.75	2.97	197.64	0.000	0.000	147.97	0.00	0.00
36	120.00	RRUS 4415 B25	3	28.311	31.142	0.50	0.75	2.47	124.20	0.000	0.000	123.19	0.00	0.00
37	120.00	HRK12 (Handrail Kit)	1	28.311	31.142	1.00	1.00	6.75	235.55	0.000	0.000	336.33	0.00	0.00
38	109.00	Commscope	3	27.748	30.523	0.55	0.75	20.15	191.16	0.000	0.000	984.24	0.00	0.00
39	109.00	Fujitsu TA08025-B605	3	27.748	30.523	0.60	0.75	3.53	202.37	0.000	0.000	172.30	0.00	0.00
40	109.00	Fujitsu TA08025-B604	3	27.748	30.523	0.57	0.75	3.35	172.61	0.000	0.000	163.68	0.00	0.00
41	109.00	Platform w/HRK	1	27.748	30.523	1.00	1.00	22.60	1554.30	0.000	0.000	1103.72	0.00	0.00
42	109.00	Raycap	1	27.748	30.523	0.58	0.75	1.18	19.67	0.000	0.000	57.43	0.00	0.00
43	98.00	Quintel AS-005245 - Dual	3	27.140	29.854	1.00	1.00	3.60	162.00	0.000	0.000	171.96	0.00	0.00
44	98.00	RFS DB-C1-12C-24AB-OZ	2	27.140	29.854	0.80	0.80	6.50	57.60	0.000	0.000	310.29	0.00	0.00
45	98.00	B5/B13 RRH-BR04C	3	27.140	29.854	0.54	0.80	3.02	228.15	0.000	0.000	144.40	0.00	0.00
46	98.00	B2/B66A RRH-BR049	3	27.140	29.854	0.54	0.80	3.02	228.15	0.000	0.000	144.40	0.00	0.00
47	98.00	12.5' Low Profile Platform	1	27.140	29.854	1.00	1.00	23.81	1429.20	0.000	0.000	1137.30	0.00	0.00

Discrete Appurtenance Forces

Structure:	CT13056-A		**Code:**	EIA/TIA-222-G	9/30/2021
Site Name:	Moosehill		**Exposure:**	C	
Height:	149.00 (ft)		**Crest Height:**	0.00	
Base Elev:	1.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 23

48	96.00	Samsung MT6407-77A	3	27.023	29.726	0.56	0.80	7.90	235.17	0.000	0.000	375.54	0.00	0.00
49	96.00	Amphenol	2	27.023	29.726	0.76	0.80	14.84	48.60	0.000	0.000	705.58	0.00	0.00
50	96.00	Celwave	4	27.023	29.726	0.74	0.80	12.05	56.52	0.000	0.000	573.24	0.00	0.00
51	96.00	Quintel QS6656-5D	6	27.023	29.726	0.74	0.80	35.90	499.50	0.000	0.000	1707.53	0.00	0.00
52	64.50	Decibel 26OB	1	24.879	27.367	1.00	1.00	2.00	45.00	0.000	0.000	87.57	0.00	0.00
53	63.00	3 ft Standoff	1	24.758	27.234	1.00	1.00	2.63	36.00	0.000	0.000	114.60	0.00	0.00
							Totals:		**13,978.19**			**24,558.98**		

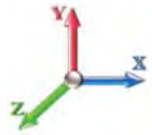
Total Applied Force Summary

Structure:	CT13056-A		**Code:**	EIA/TIA-222-G	9/30/2021
Site Name:	Moosehill		**Exposure:**	C	
Height:	149.00 (ft)		**Crest Height:**	0.00	
Base Elev:	1.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 24

Load Case: 0.9D + 1.6W 94 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		515.50	1252.48	0.00	0.00
10.00		504.84	1230.52	0.00	0.00
15.00		500.29	1208.55	0.00	0.00
20.00		521.33	1186.59	0.00	0.00
25.00		536.94	1164.63	0.00	0.00
30.00		548.52	1142.67	0.00	0.00
35.00		557.11	1120.71	0.00	0.00
40.00		563.37	1098.75	0.00	0.00
45.00		567.75	1076.79	0.00	0.00
47.25		254.96	477.39	0.00	0.00
50.00		316.78	974.26	0.00	0.00
53.25		375.50	1135.70	0.00	0.00
55.00		200.91	314.31	0.00	0.00
60.00		577.70	885.67	0.00	0.00
63.00	(1) attachments	459.89	558.62	0.00	0.00
64.50	(1) attachments	249.02	303.62	0.00	0.00
65.00		53.70	85.84	0.00	0.00
70.00		539.61	848.35	0.00	0.00
75.00		536.92	830.05	0.00	0.00
80.00		533.55	811.75	0.00	0.00
85.00		529.56	793.45	0.00	0.00
90.00		525.01	775.15	0.00	0.00
95.00		519.95	756.84	0.00	0.00
96.00	(15) attachments	3464.79	988.96	0.00	0.00
98.00	(12) attachments	2116.51	2578.20	0.00	0.00
100.00		207.29	452.63	0.00	0.00
100.75		77.40	168.38	0.00	0.00
105.00		435.40	495.65	0.00	0.00
109.00	(11) attachments	2886.88	2596.94	0.00	0.00
110.00		90.55	110.26	0.00	0.00
115.00		447.16	542.52	0.00	0.00
120.00	(24) attachments	6057.16	3994.43	0.00	0.00
125.00		421.70	451.59	0.00	0.00
129.00		327.52	350.73	0.00	0.00
130.00		80.03	68.77	0.00	0.00
135.00		395.95	337.27	0.00	0.00
138.00	(49) attachments	4830.78	2727.26	0.00	0.00
140.00		153.38	105.13	0.00	0.00
145.00		377.86	255.15	0.00	0.00
146.00	(31) attachments	6275.07	2762.58	0.00	0.00
148.00	(2) attachments	324.33	194.51	0.00	188.59
149.00		69.21	44.36	0.00	0.00
	Totals:	**39,527.67**	**39,258.02**	**0.00**	**188.59**

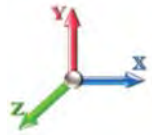
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 25	

Load Case: 0.9D + 1.6W 94 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)
5.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.096	0.000	18.266	0.00	1.23
5.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.096	0.000	18.266	0.00	4.68
5.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.096	0.000	18.266	0.00	11.88
5.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.096	0.000	18.266	0.00	1.44
5.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.096	0.000	18.266	0.00	2.16
5.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.096	0.000	18.266	0.00	12.42
5.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.096	0.000	18.266	0.00	28.08
5.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.096	0.000	18.266	0.00	9.90
5.00	1/2" Coax	Yes	5.00	0.000	1.00	0.42	0.00	0.096	0.000	18.266	0.00	0.72
10.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.098	0.000	18.266	0.00	1.23
10.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.098	0.000	18.266	0.00	4.68
10.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.098	0.000	18.266	0.00	11.88
10.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.098	0.000	18.266	0.00	1.44
10.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.098	0.000	18.266	0.00	2.16
10.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.098	0.000	18.266	0.00	12.42
10.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.098	0.000	18.266	0.00	28.08
10.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.098	0.000	18.266	0.00	9.90
10.00	1/2" Coax	Yes	5.00	0.000	1.00	0.42	0.00	0.098	0.000	18.266	0.00	0.72
15.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.100	0.000	18.491	0.00	1.23
15.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.100	0.000	18.491	0.00	4.68
15.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.100	0.000	18.491	0.00	11.88
15.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.100	0.000	18.491	0.00	1.44
15.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.100	0.000	18.491	0.00	2.16
15.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.100	0.000	18.491	0.00	12.42
15.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.100	0.000	18.491	0.00	28.08
15.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.100	0.000	18.491	0.00	9.90
15.00	1/2" Coax	Yes	5.00	0.000	1.00	0.42	0.00	0.100	0.000	18.491	0.00	0.72
20.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.102	1.006	19.581	0.00	1.23
20.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.102	1.006	19.581	0.00	4.68
20.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.102	1.006	19.581	0.00	11.88
20.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.102	1.006	19.581	0.00	1.44
20.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.102	1.006	19.581	0.00	2.16
20.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.102	1.006	19.581	0.00	12.42
20.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.102	1.006	19.581	0.00	28.08
20.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.102	1.006	19.581	0.00	9.90
20.00	1/2" Coax	Yes	5.00	0.000	1.00	0.42	0.00	0.102	1.006	19.581	0.00	0.72
25.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.104	1.013	20.481	0.00	1.23
25.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.104	1.013	20.481	0.00	4.68
25.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.104	1.013	20.481	0.00	11.88
25.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.104	1.013	20.481	0.00	1.44
25.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.104	1.013	20.481	0.00	2.16
25.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.104	1.013	20.481	0.00	12.42
25.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.104	1.013	20.481	0.00	28.08
25.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.104	1.013	20.481	0.00	9.90
25.00	1/2" Coax	Yes	5.00	0.000	1.00	0.42	0.00	0.104	1.013	20.481	0.00	0.72
30.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.107	1.020	21.254	0.00	1.23
30.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.107	1.020	21.254	0.00	4.68

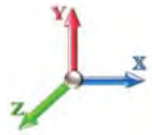
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 26	

Load Case: 0.9D + 1.6W 94 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)
30.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.107	1.020	21.254	0.00	11.88
30.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.107	1.020	21.254	0.00	1.44
30.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.107	1.020	21.254	0.00	2.16
30.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.107	1.020	21.254	0.00	12.42
30.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.107	1.020	21.254	0.00	28.08
30.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.107	1.020	21.254	0.00	9.90
30.00	1/2" Coax	Yes	5.00	0.000	1.00	0.42	0.00	0.107	1.020	21.254	0.00	0.72
35.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.109	1.027	21.934	0.00	1.23
35.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.109	1.027	21.934	0.00	4.68
35.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	21.934	0.00	11.88
35.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	21.934	0.00	1.44
35.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.109	1.027	21.934	0.00	2.16
35.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.109	1.027	21.934	0.00	12.42
35.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	21.934	0.00	28.08
35.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	21.934	0.00	9.90
35.00	1/2" Coax	Yes	5.00	0.000	1.00	0.42	0.00	0.109	1.027	21.934	0.00	0.72
40.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.112	1.035	22.543	0.00	1.23
40.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.112	1.035	22.543	0.00	4.68
40.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.035	22.543	0.00	11.88
40.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.035	22.543	0.00	1.44
40.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.112	1.035	22.543	0.00	2.16
40.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.112	1.035	22.543	0.00	12.42
40.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.035	22.543	0.00	28.08
40.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.035	22.543	0.00	9.90
40.00	1/2" Coax	Yes	5.00	0.000	1.00	0.42	0.00	0.112	1.035	22.543	0.00	0.72
45.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.115	1.044	23.095	0.00	1.23
45.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.115	1.044	23.095	0.00	4.68
45.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.115	1.044	23.095	0.00	11.88
45.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.115	1.044	23.095	0.00	1.44
45.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.115	1.044	23.095	0.00	2.16
45.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.115	1.044	23.095	0.00	12.42
45.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.115	1.044	23.095	0.00	28.08
45.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.115	1.044	23.095	0.00	9.90
45.00	1/2" Coax	Yes	5.00	0.000	1.00	0.42	0.00	0.115	1.044	23.095	0.00	0.72
47.25	Safety Cable	Yes	2.25	0.000	0.38	0.07	0.00	0.117	1.050	23.329	0.00	0.55
47.25	Step bolts (ladder)	Yes	2.25	0.000	0.63	0.12	0.00	0.117	1.050	23.329	0.00	2.11
47.25	1 1/4" Coax	Yes	2.25	0.000	0.00	0.00	0.00	0.117	1.050	23.329	0.00	5.35
47.25	1/2" Coax	Yes	2.25	0.000	0.00	0.00	0.00	0.117	1.050	23.329	0.00	0.65
47.25	5/16" Coax	Yes	2.25	0.000	1.90	0.36	0.00	0.117	1.050	23.329	0.00	0.97
47.25	1.75" Hybrid	Yes	2.25	0.000	1.75	0.33	0.00	0.117	1.050	23.329	0.00	5.59
47.25	1 5/8" Coax	Yes	2.25	0.000	0.00	0.00	0.00	0.117	1.050	23.329	0.00	12.64
47.25	1 5/8" Hybrid	Yes	2.25	0.000	0.00	0.00	0.00	0.117	1.050	23.329	0.00	4.46
47.25	1/2" Coax	Yes	2.25	0.000	1.00	0.19	0.00	0.117	1.050	23.329	0.00	0.32
50.00	Safety Cable	Yes	2.75	0.000	0.38	0.09	0.00	0.118	1.054	23.602	0.00	0.68
50.00	Step bolts (ladder)	Yes	2.75	0.000	0.63	0.14	0.00	0.118	1.054	23.602	0.00	2.57
50.00	1 1/4" Coax	Yes	2.75	0.000	0.00	0.00	0.00	0.118	1.054	23.602	0.00	6.53
50.00	1/2" Coax	Yes	2.75	0.000	0.00	0.00	0.00	0.118	1.054	23.602	0.00	0.79

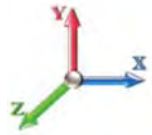
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 27	

Load Case: 0.9D + 1.6W 94 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)
50.00	5/16" Coax	Yes	2.75	0.000	1.90	0.44	0.00	0.118	1.054	23.602	0.00	1.19
50.00	1.75" Hybrid	Yes	2.75	0.000	1.75	0.40	0.00	0.118	1.054	23.602	0.00	6.83
50.00	1 5/8" Coax	Yes	2.75	0.000	0.00	0.00	0.00	0.118	1.054	23.602	0.00	15.44
50.00	1 5/8" Hybrid	Yes	2.75	0.000	0.00	0.00	0.00	0.118	1.054	23.602	0.00	5.45
50.00	1/2" Coax	Yes	2.75	0.000	1.00	0.23	0.00	0.118	1.054	23.602	0.00	0.40
53.25	Safety Cable	Yes	3.25	0.000	0.38	0.10	0.00	0.120	1.060	23.911	0.00	0.80
53.25	Step bolts (ladder)	Yes	3.25	0.000	0.63	0.17	0.00	0.120	1.060	23.911	0.00	3.04
53.25	1 1/4" Coax	Yes	3.25	0.000	0.00	0.00	0.00	0.120	1.060	23.911	0.00	7.72
53.25	1/2" Coax	Yes	3.25	0.000	0.00	0.00	0.00	0.120	1.060	23.911	0.00	0.94
53.25	5/16" Coax	Yes	3.25	0.000	1.90	0.51	0.00	0.120	1.060	23.911	0.00	1.40
53.25	1.75" Hybrid	Yes	3.25	0.000	1.75	0.47	0.00	0.120	1.060	23.911	0.00	8.07
53.25	1 5/8" Coax	Yes	3.25	0.000	0.00	0.00	0.00	0.120	1.060	23.911	0.00	18.25
53.25	1 5/8" Hybrid	Yes	3.25	0.000	0.00	0.00	0.00	0.120	1.060	23.911	0.00	6.44
53.25	1/2" Coax	Yes	3.25	0.000	1.00	0.27	0.00	0.120	1.060	23.911	0.00	0.47
55.00	Safety Cable	Yes	1.75	0.000	0.38	0.06	0.00	0.120	1.060	24.072	0.00	0.43
55.00	Step bolts (ladder)	Yes	1.75	0.000	0.63	0.09	0.00	0.120	1.060	24.072	0.00	1.64
55.00	1 1/4" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.120	1.060	24.072	0.00	4.16
55.00	1/2" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.120	1.060	24.072	0.00	0.50
55.00	5/16" Coax	Yes	1.75	0.000	1.90	0.28	0.00	0.120	1.060	24.072	0.00	0.76
55.00	1.75" Hybrid	Yes	1.75	0.000	1.75	0.26	0.00	0.120	1.060	24.072	0.00	4.35
55.00	1 5/8" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.120	1.060	24.072	0.00	9.83
55.00	1 5/8" Hybrid	Yes	1.75	0.000	0.00	0.00	0.00	0.120	1.060	24.072	0.00	3.47
55.00	1/2" Coax	Yes	1.75	0.000	1.00	0.15	0.00	0.120	1.060	24.072	0.00	0.25
60.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.122	1.066	24.509	0.00	1.23
60.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.122	1.066	24.509	0.00	4.68
60.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.066	24.509	0.00	11.88
60.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.066	24.509	0.00	1.44
60.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.122	1.066	24.509	0.00	2.16
60.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.122	1.066	24.509	0.00	12.42
60.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.066	24.509	0.00	28.08
60.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.066	24.509	0.00	9.90
60.00	1/2" Coax	Yes	5.00	0.000	1.00	0.42	0.00	0.122	1.066	24.509	0.00	0.72
63.00	Safety Cable	Yes	3.00	0.000	0.38	0.10	0.00	0.125	1.074	24.758	0.00	0.74
63.00	Step bolts (ladder)	Yes	3.00	0.000	0.63	0.16	0.00	0.125	1.074	24.758	0.00	2.81
63.00	1 1/4" Coax	Yes	3.00	0.000	0.00	0.00	0.00	0.125	1.074	24.758	0.00	7.13
63.00	1/2" Coax	Yes	3.00	0.000	0.00	0.00	0.00	0.125	1.074	24.758	0.00	0.86
63.00	5/16" Coax	Yes	3.00	0.000	1.90	0.47	0.00	0.125	1.074	24.758	0.00	1.30
63.00	1.75" Hybrid	Yes	3.00	0.000	1.75	0.44	0.00	0.125	1.074	24.758	0.00	7.45
63.00	1 5/8" Coax	Yes	3.00	0.000	0.00	0.00	0.00	0.125	1.074	24.758	0.00	16.85
63.00	1 5/8" Hybrid	Yes	3.00	0.000	0.00	0.00	0.00	0.125	1.074	24.758	0.00	5.94
63.00	1/2" Coax	Yes	3.00	0.000	1.00	0.25	0.00	0.125	1.074	24.758	0.00	0.43
64.50	Safety Cable	Yes	1.50	0.000	0.38	0.05	0.00	0.104	1.012	24.879	0.00	0.37
64.50	Step bolts (ladder)	Yes	1.50	0.000	0.63	0.08	0.00	0.104	1.012	24.879	0.00	1.40
64.50	1 1/4" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.104	1.012	24.879	0.00	3.56
64.50	1/2" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.104	1.012	24.879	0.00	0.43
64.50	5/16" Coax	Yes	1.50	0.000	1.90	0.24	0.00	0.104	1.012	24.879	0.00	0.65
64.50	1.75" Hybrid	Yes	1.50	0.000	1.75	0.22	0.00	0.104	1.012	24.879	0.00	3.73

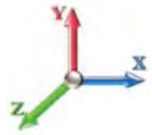
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 28	

Load Case: 0.9D + 1.6W 94 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)
64.50	1 5/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.104	1.012	24.879	0.00	8.42
64.50	1 5/8" Hybrid	Yes	1.50	0.000	0.00	0.00	0.00	0.104	1.012	24.879	0.00	2.97
65.00	Safety Cable	Yes	0.50	0.000	0.38	0.02	0.00	0.104	1.013	24.919	0.00	0.12
65.00	Step bolts (ladder)	Yes	0.50	0.000	0.63	0.03	0.00	0.104	1.013	24.919	0.00	0.47
65.00	1 1/4" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.104	1.013	24.919	0.00	1.19
65.00	1/2" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.104	1.013	24.919	0.00	0.14
65.00	5/16" Coax	Yes	0.50	0.000	1.90	0.08	0.00	0.104	1.013	24.919	0.00	0.22
65.00	1.75" Hybrid	Yes	0.50	0.000	1.75	0.07	0.00	0.104	1.013	24.919	0.00	1.24
65.00	1 5/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.104	1.013	24.919	0.00	2.81
65.00	1 5/8" Hybrid	Yes	0.50	0.000	0.00	0.00	0.00	0.104	1.013	24.919	0.00	0.99
70.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.106	1.018	25.305	0.00	1.23
70.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.106	1.018	25.305	0.00	4.68
70.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.106	1.018	25.305	0.00	11.88
70.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.106	1.018	25.305	0.00	1.44
70.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.106	1.018	25.305	0.00	2.16
70.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.106	1.018	25.305	0.00	12.42
70.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.106	1.018	25.305	0.00	28.08
70.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.106	1.018	25.305	0.00	9.90
75.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.109	1.027	25.670	0.00	1.23
75.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.109	1.027	25.670	0.00	4.68
75.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	25.670	0.00	11.88
75.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	25.670	0.00	1.44
75.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.109	1.027	25.670	0.00	2.16
75.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.109	1.027	25.670	0.00	12.42
75.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	25.670	0.00	28.08
75.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	25.670	0.00	9.90
80.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.112	1.037	26.017	0.00	1.23
80.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.112	1.037	26.017	0.00	4.68
80.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.037	26.017	0.00	11.88
80.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.037	26.017	0.00	1.44
80.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.112	1.037	26.017	0.00	2.16
80.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.112	1.037	26.017	0.00	12.42
80.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.037	26.017	0.00	28.08
80.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.037	26.017	0.00	9.90
85.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.116	1.047	26.347	0.00	1.23
85.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.116	1.047	26.347	0.00	4.68
85.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.116	1.047	26.347	0.00	11.88
85.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.116	1.047	26.347	0.00	1.44
85.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.116	1.047	26.347	0.00	2.16
85.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.116	1.047	26.347	0.00	12.42
85.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.116	1.047	26.347	0.00	28.08
85.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.116	1.047	26.347	0.00	9.90
90.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.119	1.058	26.662	0.00	1.23
90.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.119	1.058	26.662	0.00	4.68
90.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.119	1.058	26.662	0.00	11.88
90.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.119	1.058	26.662	0.00	1.44
90.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.119	1.058	26.662	0.00	2.16

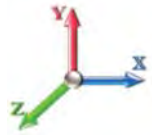
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 29	

Load Case: 0.9D + 1.6W 94 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)
90.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.119	1.058	26.662	0.00	12.42
90.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.119	1.058	26.662	0.00	28.08
90.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.119	1.058	26.662	0.00	9.90
95.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.123	1.070	26.964	0.00	1.23
95.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.123	1.070	26.964	0.00	4.68
95.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.123	1.070	26.964	0.00	11.88
95.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.123	1.070	26.964	0.00	1.44
95.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.123	1.070	26.964	0.00	2.16
95.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.123	1.070	26.964	0.00	12.42
95.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.123	1.070	26.964	0.00	28.08
95.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.123	1.070	26.964	0.00	9.90
96.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.126	1.077	27.023	0.00	0.25
96.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.126	1.077	27.023	0.00	0.94
96.00	1 1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.126	1.077	27.023	0.00	2.38
96.00	1/2" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.126	1.077	27.023	0.00	0.29
96.00	5/16" Coax	Yes	1.00	0.000	1.90	0.16	0.00	0.126	1.077	27.023	0.00	0.43
96.00	1.75" Hybrid	Yes	1.00	0.000	1.75	0.15	0.00	0.126	1.077	27.023	0.00	2.48
96.00	1 5/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.126	1.077	27.023	0.00	5.62
96.00	1 5/8" Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.126	1.077	27.023	0.00	1.98
98.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.127	1.081	27.140	0.00	0.49
98.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.127	1.081	27.140	0.00	1.87
98.00	1 1/4" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.081	27.140	0.00	4.75
98.00	1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.081	27.140	0.00	0.58
98.00	5/16" Coax	Yes	2.00	0.000	1.90	0.32	0.00	0.127	1.081	27.140	0.00	0.86
98.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.127	1.081	27.140	0.00	4.97
98.00	1 5/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.081	27.140	0.00	11.23
98.00	1 5/8" Hybrid	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.081	27.140	0.00	3.96
100.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.129	1.086	27.254	0.00	0.49
100.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.129	1.086	27.254	0.00	1.87
100.00	1 1/4" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.086	27.254	0.00	4.75
100.00	1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.086	27.254	0.00	0.58
100.00	5/16" Coax	Yes	2.00	0.000	1.90	0.32	0.00	0.129	1.086	27.254	0.00	0.86
100.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.129	1.086	27.254	0.00	4.97
100.75	Safety Cable	Yes	0.75	0.000	0.38	0.02	0.00	0.130	1.090	27.297	0.00	0.18
100.75	Step bolts (ladder)	Yes	0.75	0.000	0.63	0.04	0.00	0.130	1.090	27.297	0.00	0.70
100.75	1 1/4" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.130	1.090	27.297	0.00	1.78
100.75	1/2" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.130	1.090	27.297	0.00	0.22
100.75	5/16" Coax	Yes	0.75	0.000	1.90	0.12	0.00	0.130	1.090	27.297	0.00	0.32
100.75	1.75" Hybrid	Yes	0.75	0.000	1.75	0.11	0.00	0.130	1.090	27.297	0.00	1.86
105.00	Safety Cable	Yes	4.25	0.000	0.38	0.13	0.00	0.130	1.091	27.533	0.00	1.04
105.00	Step bolts (ladder)	Yes	4.25	0.000	0.63	0.22	0.00	0.130	1.091	27.533	0.00	3.98
105.00	1 1/4" Coax	Yes	4.25	0.000	0.00	0.00	0.00	0.130	1.091	27.533	0.00	10.10
105.00	1/2" Coax	Yes	4.25	0.000	0.00	0.00	0.00	0.130	1.091	27.533	0.00	1.22
105.00	5/16" Coax	Yes	4.25	0.000	1.90	0.67	0.00	0.130	1.091	27.533	0.00	1.84
105.00	1.75" Hybrid	Yes	4.25	0.000	1.75	0.62	0.00	0.130	1.091	27.533	0.00	10.56
109.00	Safety Cable	Yes	4.00	0.000	0.38	0.13	0.00	0.134	1.102	27.748	0.00	0.98
109.00	Step bolts (ladder)	Yes	4.00	0.000	0.63	0.21	0.00	0.134	1.102	27.748	0.00	3.74

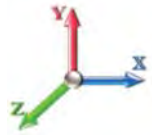
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 30	

Load Case: 0.9D + 1.6W 94 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)
109.00	1 1/4" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.134	1.102	27.748	0.00	9.50
109.00	1/2" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.134	1.102	27.748	0.00	1.15
109.00	5/16" Coax	Yes	4.00	0.000	1.90	0.63	0.00	0.134	1.102	27.748	0.00	1.73
109.00	1.75" Hybrid	Yes	4.00	0.000	1.75	0.58	0.00	0.134	1.102	27.748	0.00	9.94
110.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.085	0.000	27.801	0.00	0.25
110.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.085	0.000	27.801	0.00	0.94
110.00	1 1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.085	0.000	27.801	0.00	2.38
110.00	1/2" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.085	0.000	27.801	0.00	0.29
110.00	5/16" Coax	Yes	1.00	0.000	1.90	0.16	0.00	0.085	0.000	27.801	0.00	0.43
115.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.087	0.000	28.060	0.00	1.23
115.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.087	0.000	28.060	0.00	4.68
115.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.087	0.000	28.060	0.00	11.88
115.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.087	0.000	28.060	0.00	1.44
115.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.087	0.000	28.060	0.00	2.16
120.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.090	0.000	28.311	0.00	1.23
120.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.090	0.000	28.311	0.00	4.68
120.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.090	0.000	28.311	0.00	11.88
120.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.090	0.000	28.311	0.00	1.44
120.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.090	0.000	28.311	0.00	2.16
125.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.094	0.000	28.553	0.00	1.23
125.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.094	0.000	28.553	0.00	4.68
125.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.094	0.000	28.553	0.00	11.88
125.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.094	0.000	28.553	0.00	1.44
125.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.094	0.000	28.553	0.00	2.16
129.00	Safety Cable	Yes	4.00	0.000	0.38	0.13	0.00	0.097	0.000	28.742	0.00	0.98
129.00	Step bolts (ladder)	Yes	4.00	0.000	0.63	0.21	0.00	0.097	0.000	28.742	0.00	3.74
129.00	1 1/4" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.097	0.000	28.742	0.00	9.50
129.00	1/2" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.097	0.000	28.742	0.00	1.15
129.00	5/16" Coax	Yes	4.00	0.000	1.90	0.63	0.00	0.097	0.000	28.742	0.00	1.73
130.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.100	0.000	28.788	0.00	0.25
130.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.100	0.000	28.788	0.00	0.94
130.00	1 1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.100	0.000	28.788	0.00	2.38
130.00	1/2" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.100	0.000	28.788	0.00	0.29
130.00	5/16" Coax	Yes	1.00	0.000	1.90	0.16	0.00	0.100	0.000	28.788	0.00	0.43
135.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.102	1.007	29.016	0.00	1.23
135.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.102	1.007	29.016	0.00	4.68
135.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.102	1.007	29.016	0.00	11.88
135.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.102	1.007	29.016	0.00	1.44
135.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.102	1.007	29.016	0.00	2.16
138.00	Safety Cable	Yes	3.00	0.000	0.38	0.10	0.00	0.106	1.018	29.149	0.00	0.74
138.00	Step bolts (ladder)	Yes	3.00	0.000	0.63	0.16	0.00	0.106	1.018	29.149	0.00	2.81
138.00	1 1/4" Coax	Yes	3.00	0.000	0.00	0.00	0.00	0.106	1.018	29.149	0.00	7.13
138.00	1/2" Coax	Yes	3.00	0.000	0.00	0.00	0.00	0.106	1.018	29.149	0.00	0.86
138.00	5/16" Coax	Yes	3.00	0.000	1.90	0.47	0.00	0.106	1.018	29.149	0.00	1.30
140.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.108	1.025	29.237	0.00	0.49
140.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.108	1.025	29.237	0.00	1.87
140.00	1 1/4" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.108	1.025	29.237	0.00	4.75

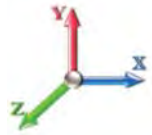
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 31	

Load Case: 0.9D + 1.6W 94 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)
140.00	1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.108	1.025	29.237	0.00	0.58
140.00	5/16" Coax	Yes	2.00	0.000	1.90	0.32	0.00	0.108	1.025	29.237	0.00	0.86
145.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.112	1.036	29.453	0.00	1.23
145.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.112	1.036	29.453	0.00	4.68
145.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.036	29.453	0.00	11.88
145.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.036	29.453	0.00	1.44
145.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.112	1.036	29.453	0.00	2.16
146.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.115	1.046	29.495	0.00	0.25
146.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.115	1.046	29.495	0.00	0.94
146.00	1 1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.115	1.046	29.495	0.00	2.38
146.00	1/2" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.115	1.046	29.495	0.00	0.29
146.00	5/16" Coax	Yes	1.00	0.000	1.90	0.16	0.00	0.115	1.046	29.495	0.00	0.43
148.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.041	0.000	29.579	0.00	0.49
148.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.041	0.000	29.579	0.00	1.87
149.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.016	0.000	29.621	0.00	0.25
										Totals:	**0.0**	**1,651.4**

Calculated Forces

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 32	

Load Case: 0.9D + 1.6W 94 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60

Iterations 24

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	-39.19	-39.60	0.00	-4240.8	0.00	4240.83	4419.23	2209.62	10644.5	5330.19	0.00	0.000	0.000	0.805
5.00	-37.80	-39.21	0.00	-4042.8	0.00	4042.85	4369.18	2184.59	10305.9	5160.65	0.11	-0.195	0.000	0.792
10.00	-36.44	-38.82	0.00	-3846.8	0.00	3846.81	4317.41	2158.71	9968.41	4991.62	0.42	-0.393	0.000	0.779
15.00	-35.10	-38.44	0.00	-3652.7	0.00	3652.70	4263.92	2131.96	9632.14	4823.23	0.94	-0.594	0.000	0.766
20.00	-33.78	-38.02	0.00	-3460.5	0.00	3460.51	4208.71	2104.36	9297.40	4655.61	1.67	-0.797	0.000	0.752
25.00	-32.49	-37.58	0.00	-3270.4	0.00	3270.40	4151.78	2075.89	8964.46	4488.89	2.61	-1.003	0.000	0.737
30.00	-31.23	-37.13	0.00	-3082.4	0.00	3082.48	4093.13	2046.56	8633.57	4323.20	3.78	-1.210	0.000	0.721
35.00	-29.98	-36.66	0.00	-2896.8	0.00	2896.85	4032.76	2016.38	8305.00	4158.67	5.16	-1.420	0.000	0.704
40.00	-28.77	-36.17	0.00	-2713.5	0.00	2713.57	3970.67	1985.33	7978.99	3995.42	6.76	-1.631	0.000	0.687
45.00	-27.61	-35.64	0.00	-2532.7	0.00	2532.73	3906.85	1953.43	7655.81	3833.59	8.58	-1.843	0.000	0.668
47.25	-27.08	-35.42	0.00	-2452.5	0.00	2452.53	3877.58	1938.79	7511.37	3761.27	9.47	-1.941	0.000	0.659
50.00	-26.03	-35.13	0.00	-2355.1	0.00	2355.11	3841.32	1920.66	7335.71	3673.31	10.63	-2.060	0.000	0.648
53.25	-24.85	-34.76	0.00	-2240.9	0.00	2240.93	2984.31	1492.16	5695.15	2851.81	12.08	-2.201	0.000	0.795
55.00	-24.44	-34.62	0.00	-2180.1	0.00	2180.10	2968.67	1484.33	5613.44	2810.89	12.90	-2.277	0.000	0.784
60.00	-23.47	-34.09	0.00	-2007.0	0.00	2007.00	2922.80	1461.40	5380.87	2694.44	15.42	-2.522	0.000	0.753
63.00	-22.86	-33.65	0.00	-1904.7	0.00	1904.75	2894.46	1447.23	5242.03	2624.91	17.05	-2.670	0.000	0.734
64.50	-22.54	-33.40	0.00	-1854.2	0.00	1854.28	2880.06	1440.03	5172.83	2590.26	17.90	-2.745	0.000	0.724
65.00	-22.38	-33.40	0.00	-1837.5	0.00	1837.58	2875.22	1437.61	5149.80	2578.73	18.19	-2.771	0.000	0.721
70.00	-21.43	-32.90	0.00	-1670.6	0.00	1670.60	2825.92	1412.96	4920.48	2463.90	21.22	-3.011	0.000	0.686
75.00	-20.49	-32.41	0.00	-1506.0	0.00	1506.08	2774.89	1387.45	4693.17	2350.07	24.50	-3.249	0.000	0.649
80.00	-19.59	-31.91	0.00	-1344.0	0.00	1344.05	2722.15	1361.08	4468.13	2237.39	28.03	-3.481	0.000	0.608
85.00	-18.71	-31.40	0.00	-1184.5	0.00	1184.52	2667.69	1333.84	4245.61	2125.96	31.80	-3.706	0.000	0.565
90.00	-17.86	-30.89	0.00	-1027.5	0.00	1027.53	2611.50	1305.75	4025.88	2015.93	35.79	-3.922	0.000	0.517
95.00	-17.07	-30.35	0.00	-873.08	0.00	873.08	2553.60	1276.80	3809.20	1907.43	40.01	-4.126	0.000	0.465
96.00	-16.31	-26.84	0.00	-842.73	0.00	842.73	2541.81	1270.90	3766.25	1885.92	40.88	-4.167	0.000	0.454
98.00	-13.86	-24.56	0.00	-789.04	0.00	789.04	2518.03	1259.01	3680.75	1843.11	42.64	-4.246	0.000	0.434
100.00	-13.40	-24.33	0.00	-739.92	0.00	739.92	2493.97	1246.99	3595.81	1800.58	44.43	-4.322	0.000	0.417
100.75	-13.20	-24.27	0.00	-721.67	0.00	721.67	1861.03	930.51	2717.30	1360.67	45.12	-4.351	0.000	0.538
105.00	-12.68	-23.83	0.00	-618.54	0.00	618.54	1828.27	914.13	2591.91	1297.88	49.06	-4.503	0.000	0.484
109.00	-10.28	-20.76	0.00	-523.23	0.00	523.23	1796.29	898.15	2474.87	1239.28	52.89	-4.661	0.000	0.428
110.00	-10.14	-20.68	0.00	-502.47	0.00	502.47	1788.13	894.06	2445.78	1224.71	53.87	-4.699	0.000	0.416
115.00	-9.58	-20.22	0.00	-399.08	0.00	399.08	1746.27	873.13	2301.39	1152.40	58.89	-4.873	0.000	0.352
120.00	-6.09	-13.85	0.00	-298.00	0.00	298.00	1702.69	851.34	2158.99	1081.10	64.07	-5.023	0.000	0.279
125.00	-5.65	-13.40	0.00	-228.75	0.00	228.75	1657.39	828.70	2018.85	1010.92	69.39	-5.150	0.000	0.230
129.00	-5.32	-13.05	0.00	-175.14	0.00	175.14	1619.91	809.96	1908.53	955.68	73.74	-5.238	0.000	0.187
129.00	-5.32	-13.05	0.00	-175.14	0.00	175.14	1091.97	545.98	1287.15	644.53	73.74	-5.238	0.000	0.277
130.00	-5.25	-12.97	0.00	-162.09	0.00	162.09	1086.84	543.42	1270.26	636.07	74.84	-5.258	0.000	0.260
135.00	-4.93	-12.55	0.00	-97.25	0.00	97.25	1060.16	530.08	1186.17	593.97	80.40	-5.365	0.000	0.169
138.00	-2.67	-7.49	0.00	-59.60	0.00	59.60	1043.32	521.66	1136.10	568.89	83.79	-5.409	0.000	0.108
140.00	-2.57	-7.32	0.00	-44.63	0.00	44.63	1031.75	515.88	1102.91	552.27	86.05	-5.431	0.000	0.084
145.00	-2.35	-6.92	0.00	-8.01	0.00	8.01	1001.63	500.82	1020.73	511.12	91.75	-5.459	0.000	0.018
146.00	-0.20	-0.41	0.00	-1.09	0.00	1.09	995.40	497.70	1004.44	502.97	92.89	-5.460	0.000	0.002
148.00	-0.04	-0.07	0.00	-0.07	0.00	0.07	982.73	491.37	972.05	486.75	95.18	-5.460	0.000	0.000
149.00	0.00	-0.07	0.00	0.00	0.00	0.00	976.29	488.15	955.94	478.68	96.32	-5.460	0.000	0.000

Wind Loading - Shaft

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 33	

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

Dead Load Factor 1.20

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	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	25.724	30.87	175.5	467.3	1875.0
10.00		1.00	0.85	5.168	5.68	0.00	1.200	1.344	5.00	25.280	30.34	172.5	487.0	1865.5
15.00		1.00	0.86	5.232	5.76	0.00	1.200	1.395	5.00	24.813	29.78	171.4	495.5	1844.7
20.00		1.00	0.91	5.540	6.09	0.00	1.207 *	1.434	5.00	24.335	29.37	179.0	498.7	1818.6
25.00		1.00	0.95	5.795	6.37	0.00	1.215 *	1.465	5.00	23.851	28.98	184.7	498.6	1789.3
30.00		1.00	0.99	6.013	6.61	0.00	1.224 *	1.491	5.00	23.363	28.59	189.1	496.5	1757.8
35.00		1.00	1.02	6.206	6.83	0.00	1.233 *	1.513	5.00	22.872	28.20	192.5	492.7	1724.8
40.00		1.00	1.05	6.378	7.02	0.00	1.242 *	1.533	5.00	22.378	27.80	195.1	487.8	1690.6
45.00		1.00	1.07	6.534	7.19	0.00	1.252 *	1.551	5.00	21.883	27.40	197.0	481.9	1655.4
47.25	Bot - Section 2	1.00	1.09	6.600	7.26	0.00	1.260 *	1.558	2.25	9.684	12.20	88.6	215.5	734.1
50.00		1.00	1.10	6.678	7.35	0.00	1.265 *	1.567	2.75	11.846	14.99	110.1	264.8	1419.6
53.25	Top - Section 1	1.00	1.11	6.765	7.44	0.00	1.272 *	1.576	3.25	13.806	17.56	130.7	309.9	1653.7
55.00		1.00	1.12	6.811	7.49	0.00	1.272 *	1.581	1.75	7.346	9.34	70.0	165.9	493.2
60.00		1.00	1.14	6.934	7.63	0.00	1.279 *	1.595	5.00	20.656	26.42	201.6	466.3	1385.0
63.00	Appurtenance(s)	1.00	1.15	7.005	7.71	0.00	1.289 *	1.603	3.00	12.153	15.66	120.7	276.8	816.3
64.50	Appurtenance(s)	1.00	1.16	7.039	7.74	0.00	1.214 *	1.606	1.50	6.008	7.29	56.5	137.6	404.1
65.00		1.00	1.16	7.050	7.76	0.00	1.216 *	1.608	0.50	1.993	2.42	18.8	45.8	134.1
70.00		1.00	1.18	7.160	7.88	0.00	1.222 *	1.619	5.00	19.657	24.02	189.1	449.2	1319.1
75.00		1.00	1.19	7.263	7.99	0.00	1.233 *	1.631	5.00	19.156	23.61	188.7	440.1	1285.5
80.00		1.00	1.21	7.361	8.10	0.00	1.244 *	1.641	5.00	18.655	23.21	188.0	430.6	1251.7
85.00		1.00	1.23	7.454	8.20	0.00	1.257 *	1.651	5.00	18.153	22.81	187.1	420.8	1217.5
90.00		1.00	1.24	7.544	8.30	0.00	1.270 *	1.660	5.00	17.651	22.41	186.0	410.8	1183.0
95.00		1.00	1.25	7.629	8.39	0.00	1.284 *	1.669	5.00	17.149	22.01	184.7	400.4	1148.3
96.00	Bot - Section 3	1.00	1.26	7.646	8.41	0.00	1.292 *	1.671	1.00	3.369	4.35	36.6	79.7	226.3
98.00	Appurtenance(s)	1.00	1.26	7.679	8.45	0.00	1.297 *	1.674	2.00	6.762	8.77	74.1	159.8	686.0
100.00		1.00	1.27	7.711	8.48	0.00	1.303 *	1.678	2.00	6.682	8.71	73.9	158.1	677.3
100.75	Top - Section 2	1.00	1.27	7.723	8.50	0.00	1.307 *	1.679	0.75	2.485	3.25	27.6	59.0	251.9
105.00		1.00	1.28	7.790	8.57	0.00	1.309 *	1.686	4.25	13.869	18.15	155.5	326.8	808.6
109.00	Appurtenance(s)	1.00	1.29	7.851	8.64	0.00	1.322 *	1.692	4.00	12.720	16.82	145.3	300.5	741.2
110.00		1.00	1.29	7.866	8.65	0.00	1.200	1.693	1.00	3.129	3.76	32.5	74.7	182.9
115.00		1.00	1.31	7.939	8.73	0.00	1.200	1.701	5.00	15.347	18.42	160.8	362.4	891.7
120.00	Appurtenance(s)	1.00	1.32	8.010	8.81	0.00	1.200	1.708	5.00	14.843	17.81	156.9	351.1	860.9
125.00		1.00	1.33	8.079	8.89	0.00	1.200	1.715	5.00	14.339	17.21	152.9	339.6	829.9
129.00	Top - Section 3	1.00	1.34	8.132	8.95	0.00	1.200	1.720	4.00	11.108	13.33	119.2	264.3	642.4
130.00		1.00	1.34	8.145	8.96	0.00	1.200	1.722	1.00	2.717	3.26	29.2	65.4	134.7
135.00		1.00	1.35	8.210	9.03	0.00	1.209 *	1.728	5.00	13.284	16.05	145.0	315.1	652.9
138.00	Appurtenance(s)	1.00	1.36	8.247	9.07	0.00	1.222 *	1.732	3.00	7.728	9.44	85.6	184.8	380.5
140.00		1.00	1.36	8.272	9.10	0.00	1.230 *	1.734	2.00	5.051	6.21	56.5	121.3	248.8
145.00		1.00	1.37	8.333	9.17	0.00	1.243 *	1.741	5.00	12.275	15.26	139.9	291.2	599.7
146.00	Appurtenance(s)	1.00	1.37	8.345	9.18	0.00	1.255 *	1.742	1.00	2.394	3.00	27.6	57.7	117.7
148.00	Appurtenance(s)	1.00	1.38	8.369	9.21	0.00	1.200	1.744	2.00	4.727	5.67	52.2	113.6	231.7
149.00		1.00	1.38	8.381	9.22	0.00	1.200	1.745	1.00	2.333	2.80	25.8	56.3	114.5
								Totals:	**149.00**			**5,274.3**		**39,746.7**

* Cf Adjusted by Linear Load Ra Effect

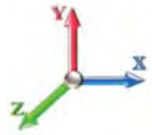
Discrete Appurtenance Forces

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 34	

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

Dead Load Factor 1.20

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	148.00	Decibel DB404-B	1	8.410	9.251	1.00	1.00	3.84	39.94	0.000	3.500	35.49	0.00	124.20
2	148.00	Pipe Mount	1	8.369	9.206	1.00	1.00	4.24	-146.29	0.000	0.000	39.07	0.00	0.00
3	146.00	RFS APXVTM14-C-120	3	8.345	9.180	0.71	0.90	15.89	681.67	0.000	0.000	145.89	0.00	0.00
4	146.00	Argus LLPX310R	3	8.345	9.180	0.68	0.90	12.06	295.62	0.000	0.000	110.73	0.00	0.00
5	146.00	Andrew VHLP800-11-DW1	1	8.345	9.180	1.00	1.00	8.22	157.18	0.000	0.000	75.47	0.00	0.00
6	146.00	U-RAS Flexible RRH	3	8.345	9.180	0.70	0.90	6.00	308.13	0.000	0.000	55.04	0.00	0.00
7	146.00	12.5' Low Profile Platform	1	8.345	9.180	1.00	1.00	43.08	3193.43	0.000	0.000	395.48	0.00	0.00
8	146.00	Andrew VHLP2-11	1	8.345	9.180	1.00	1.00	4.74	102.06	0.000	0.000	43.54	0.00	0.00
9	146.00	RFS APXVSPP18-C-A20	3	8.345	9.180	0.75	0.90	24.22	574.21	0.000	0.000	222.34	0.00	0.00
10	146.00	ALU 1900MHz RRH	3	8.345	9.180	0.60	0.90	9.38	391.63	0.000	0.000	86.14	0.00	0.00
11	146.00	ALU 800MHz RRH	3	8.345	9.180	0.60	0.90	6.87	380.54	0.000	0.000	63.02	0.00	0.00
12	146.00	800MHz RRH w/ filter	3	8.345	9.180	0.90	0.90	12.88	438.98	0.000	0.000	118.26	0.00	0.00
13	146.00	RFS ACU-A20-N	4	8.345	9.180	0.71	0.90	1.24	16.75	0.000	0.000	11.39	0.00	0.00
14	146.00	ALU TD-RRH8x20-25	3	8.345	9.180	0.63	0.90	9.19	582.58	0.000	0.000	84.34	0.00	0.00
15	138.00	WCS-IMFQ-AMT	1	8.247	9.072	0.38	0.75	0.53	84.12	0.000	0.000	4.81	0.00	0.00
16	138.00	HPA-65R-BUU-H6	3	8.247	9.072	0.64	0.75	21.07	921.35	0.000	0.000	191.12	0.00	0.00
17	138.00	7770	3	8.247	9.072	0.55	0.75	10.77	527.75	0.000	0.000	97.70	0.00	0.00
18	138.00	Raycap DC6-48-60-18-8F	2	8.247	9.072	1.00	1.00	4.33	166.03	0.000	0.000	39.27	0.00	0.00
19	138.00	4449 B5/B12	3	8.247	9.072	0.50	0.75	3.79	373.73	0.000	0.000	34.37	0.00	0.00
20	138.00	4415 B30	3	8.247	9.072	0.50	0.75	3.24	259.77	0.000	0.000	29.42	0.00	0.00
21	138.00	Powerwave 7020.00 RET	12	8.247	9.072	0.50	0.75	5.31	118.78	0.000	0.000	48.15	0.00	0.00
22	138.00	Commscope	3	8.247	9.072	0.73	0.75	0.53	14.82	0.000	0.000	4.82	0.00	0.00
23	138.00	Low Profile Platform w/	1	8.247	9.072	1.00	1.00	35.03	2579.22	0.000	0.000	317.77	0.00	0.00
24	138.00	Powerwave LGP13519	6	8.247	9.072	0.75	0.75	3.56	78.51	0.000	0.000	32.28	0.00	0.00
25	138.00	Ericsson RRUS-32 B2s	3	8.247	9.072	0.50	0.75	5.22	477.54	0.000	0.000	47.36	0.00	0.00
26	138.00	Powerawve LGP21901	6	8.247	9.072	0.56	0.75	2.01	72.19	0.000	0.000	18.22	0.00	0.00
27	138.00	DMP65R-BU6DA	3	8.247	9.072	0.55	0.75	23.25	1365.12	0.000	0.000	210.91	0.00	0.00
28	120.00	Ericsson KRY 112 144/1	3	8.010	8.811	0.50	0.75	1.32	61.96	0.000	0.000	11.62	0.00	0.00
29	120.00	AIR32 KRD	3	8.010	8.811	0.65	0.75	14.89	1011.86	0.000	0.000	131.19	0.00	0.00
30	120.00	AIR6449 B41	3	8.010	8.811	0.53	0.75	10.51	678.31	0.000	0.000	92.62	0.00	0.00
31	120.00	APXVAALL24_43-U-NA20	3	8.010	8.811	0.52	0.75	34.80	1684.63	0.000	0.000	306.67	0.00	0.00
32	120.00	SDX1926Q-43	3	8.010	8.811	0.50	0.75	1.57	39.13	0.000	0.000	13.82	0.00	0.00
33	120.00	PRK-1245 (kicker kit)	1	8.010	8.811	1.00	1.00	19.24	780.45	0.000	0.000	169.49	0.00	0.00
34	120.00	Low Profile Platform	1	8.010	8.811	1.00	1.00	43.01	3166.39	0.000	0.000	378.93	0.00	0.00
35	120.00	4449 B71 + B85	3	8.010	8.811	0.50	0.75	3.81	257.87	0.000	0.000	33.57	0.00	0.00
36	120.00	RRUS 4415 B25	3	8.010	8.811	0.50	0.75	3.23	258.09	0.000	0.000	28.48	0.00	0.00
37	120.00	HRK12 (Handrail Kit)	1	8.010	8.811	1.00	1.00	13.21	879.78	0.000	0.000	116.36	0.00	0.00
38	109.00	Commscope	3	7.851	8.636	0.55	0.75	22.46	885.26	0.000	0.000	193.95	0.00	0.00
39	109.00	Fujitsu TA08025-B605	3	7.851	8.636	0.60	0.75	4.49	241.07	0.000	0.000	38.82	0.00	0.00
40	109.00	Fujitsu TA08025-B604	3	7.851	8.636	0.57	0.75	4.27	163.60	0.000	0.000	36.88	0.00	0.00
41	109.00	Platform w/HRK	1	7.851	8.636	1.00	1.00	26.88	3441.67	0.000	0.000	232.16	0.00	0.00
42	109.00	Raycap	1	7.851	8.636	0.58	0.75	1.49	-36.13	0.000	0.000	12.90	0.00	0.00
43	98.00	Quintel AS-005245 - Dual	3	7.679	8.447	1.00	1.00	7.94	399.76	0.000	0.000	67.06	0.00	0.00
44	98.00	RFS DB-C1-12C-24AB-OZ	2	7.679	8.447	0.80	0.80	7.76	238.18	0.000	0.000	65.52	0.00	0.00
45	98.00	B5/B13 RRH-BR04C	3	7.679	8.447	0.54	0.80	3.87	414.22	0.000	0.000	32.72	0.00	0.00
46	98.00	B2/B66A RRH-BR049	3	7.679	8.447	0.54	0.80	3.87	414.22	0.000	0.000	32.72	0.00	0.00
47	98.00	12.5' Low Profile Platform	1	7.679	8.447	1.00	1.00	33.50	2549.67	0.000	0.000	283.00	0.00	0.00

Discrete Appurtenance Forces

Structure:	CT13056-A		**Code:**	EIA/TIA-222-G	9/30/2021
Site Name:	Moosehill		**Exposure:**	C	
Height:	149.00 (ft)		**Crest Height:**	0.00	
Base Elev:	1.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 35

48	96.00	Samsung MT6407-77A	3	7.646	8.410	0.57	0.80	9.48	897.05	0.000	0.000	79.74	0.00	0.00
49	96.00	Amphenol	2	7.646	8.410	0.76	0.80	18.84	415.66	0.000	0.000	158.46	0.00	0.00
50	96.00	Celwave	4	7.646	8.410	0.74	0.80	17.36	368.35	0.000	0.000	146.01	0.00	0.00
51	96.00	Quintel QS6656-5D	6	7.646	8.410	0.74	0.80	41.20	1720.07	0.000	0.000	346.55	0.00	0.00
52	64.50	Decibel 26OB	1	7.039	7.743	1.00	1.00	5.21	170.64	0.000	0.000	40.36	0.00	0.00
53	63.00	3 ft Standoff	1	7.005	7.705	1.00	1.00	8.11	98.73	0.000	0.000	62.50	0.00	0.00
							Totals:		**35,255.82**			**5,674.49**		

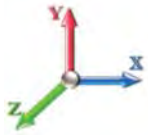
Total Applied Force Summary

Structure:	CT13056-A		**Code:**	EIA/TIA-222-G	9/30/2021
Site Name:	Moosehill		**Exposure:**	C	
Height:	149.00 (ft)		**Crest Height:**	0.00	
Base Elev:	1.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 36

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

Dead Load Factor 1.20

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		175.48	2389.61	0.00	0.00
10.00		172.45	2400.41	0.00	0.00
15.00		171.36	2393.23	0.00	0.00
20.00		178.98	2377.50	0.00	0.00
25.00		184.75	2356.68	0.00	0.00
30.00		189.13	2332.42	0.00	0.00
35.00		192.49	2305.68	0.00	0.00
40.00		195.05	2277.05	0.00	0.00
45.00		196.98	2246.91	0.00	0.00
47.25		88.58	1001.20	0.00	0.00
50.00		110.09	1747.42	0.00	0.00
53.25		130.67	2042.97	0.00	0.00
55.00		69.98	703.36	0.00	0.00
60.00		201.57	1989.21	0.00	0.00
63.00	(1) attachments	183.18	1278.91	0.00	0.00
64.50	(1) attachments	96.84	750.72	0.00	0.00
65.00		18.79	192.82	0.00	0.00
70.00		189.15	1909.18	0.00	0.00
75.00		188.67	1878.64	0.00	0.00
80.00		187.96	1847.60	0.00	0.00
85.00		187.06	1816.11	0.00	0.00
90.00		185.97	1784.21	0.00	0.00
95.00		184.73	1751.94	0.00	0.00
96.00	(15) attachments	767.37	3748.26	0.00	0.00
98.00	(12) attachments	555.09	4944.12	0.00	0.00
100.00		73.85	839.00	0.00	0.00
100.75		27.60	312.61	0.00	0.00
105.00		155.53	1153.37	0.00	0.00
109.00	(11) attachments	659.98	5761.99	0.00	0.00
110.00		32.49	254.92	0.00	0.00
115.00		160.83	1252.85	0.00	0.00
120.00	(24) attachments	1439.70	10041.55	0.00	0.00
125.00		152.91	1110.95	0.00	0.00
129.00		119.23	867.92	0.00	0.00
130.00		29.21	191.10	0.00	0.00
135.00		144.98	935.93	0.00	0.00
138.00	(49) attachments	1161.85	7589.53	0.00	0.00
140.00		56.55	330.29	0.00	0.00
145.00		139.88	804.36	0.00	0.00
146.00	(31) attachments	1439.21	7281.44	0.00	0.00
148.00	(2) attachments	126.78	147.43	0.00	124.20
149.00		25.81	119.68	0.00	0.00
	Totals:	**10,948.77**	**89,461.07**	**0.00**	**124.20**

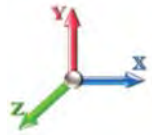
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 37	

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

Dead Load Factor 1.20

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)
5.00	Safety Cable	Yes	5.00	0.000	0.38	1.21	0.00	0.096	0.000	5.168	0.00	13.31
5.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.32	0.00	0.096	0.000	5.168	0.00	19.25
5.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.096	0.000	5.168	0.00	60.12
5.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.096	0.000	5.168	0.00	18.44
5.00	5/16" Coax	Yes	5.00	0.000	1.90	1.85	0.00	0.096	0.000	5.168	0.00	26.12
5.00	1.75" Hybrid	Yes	5.00	0.000	1.75	1.78	0.00	0.096	0.000	5.168	0.00	36.22
5.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.096	0.000	5.168	0.00	115.47
5.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.096	0.000	5.168	0.00	45.99
5.00	1/2" Coax	Yes	5.00	0.000	1.00	1.47	0.00	0.096	0.000	5.168	0.00	14.11
10.00	Safety Cable	Yes	5.00	0.000	0.38	1.28	0.00	0.098	0.000	5.168	0.00	14.69
10.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.38	0.00	0.098	0.000	5.168	0.00	20.70
10.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.098	0.000	5.168	0.00	63.29
10.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.098	0.000	5.168	0.00	20.10
10.00	5/16" Coax	Yes	5.00	0.000	1.90	1.91	0.00	0.098	0.000	5.168	0.00	28.20
10.00	1.75" Hybrid	Yes	5.00	0.000	1.75	1.85	0.00	0.098	0.000	5.168	0.00	38.02
10.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.098	0.000	5.168	0.00	120.38
10.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.098	0.000	5.168	0.00	48.48
10.00	1/2" Coax	Yes	5.00	0.000	1.00	1.54	0.00	0.098	0.000	5.168	0.00	15.57
15.00	Safety Cable	Yes	5.00	0.000	0.38	1.32	0.00	0.100	0.000	5.232	0.00	15.62
15.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.43	0.00	0.100	0.000	5.232	0.00	21.69
15.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.100	0.000	5.232	0.00	65.38
15.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.100	0.000	5.232	0.00	21.22
15.00	5/16" Coax	Yes	5.00	0.000	1.90	1.95	0.00	0.100	0.000	5.232	0.00	29.58
15.00	1.75" Hybrid	Yes	5.00	0.000	1.75	1.89	0.00	0.100	0.000	5.232	0.00	39.23
15.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.100	0.000	5.232	0.00	123.61
15.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.100	0.000	5.232	0.00	50.13
15.00	1/2" Coax	Yes	5.00	0.000	1.00	1.58	0.00	0.100	0.000	5.232	0.00	16.56
20.00	Safety Cable	Yes	5.00	0.000	0.38	1.35	0.00	0.102	1.006	5.540	0.00	16.34
20.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.46	0.00	0.102	1.006	5.540	0.00	22.44
20.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.102	1.006	5.540	0.00	66.97
20.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.102	1.006	5.540	0.00	22.08
20.00	5/16" Coax	Yes	5.00	0.000	1.90	1.99	0.00	0.102	1.006	5.540	0.00	30.64
20.00	1.75" Hybrid	Yes	5.00	0.000	1.75	1.92	0.00	0.102	1.006	5.540	0.00	40.15
20.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.102	1.006	5.540	0.00	126.05
20.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.102	1.006	5.540	0.00	51.40
20.00	1/2" Coax	Yes	5.00	0.000	1.00	1.61	0.00	0.102	1.006	5.540	0.00	17.32
25.00	Safety Cable	Yes	5.00	0.000	0.38	1.38	0.00	0.104	1.013	5.795	0.00	16.94
25.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.48	0.00	0.104	1.013	5.795	0.00	23.07
25.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.104	1.013	5.795	0.00	68.27
25.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.104	1.013	5.795	0.00	22.78
25.00	5/16" Coax	Yes	5.00	0.000	1.90	2.01	0.00	0.104	1.013	5.795	0.00	31.51
25.00	1.75" Hybrid	Yes	5.00	0.000	1.75	1.95	0.00	0.104	1.013	5.795	0.00	40.91
25.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.104	1.013	5.795	0.00	128.03
25.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.104	1.013	5.795	0.00	52.43
25.00	1/2" Coax	Yes	5.00	0.000	1.00	1.64	0.00	0.104	1.013	5.795	0.00	17.94
30.00	Safety Cable	Yes	5.00	0.000	0.38	1.40	0.00	0.107	1.020	6.013	0.00	17.44
30.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.50	0.00	0.107	1.020	6.013	0.00	23.60

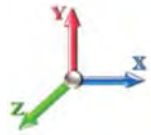
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 38	

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

Dead Load Factor 1.20

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)
30.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.107	1.020	6.013	0.00	69.37
30.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.107	1.020	6.013	0.00	23.38
30.00	5/16" Coax	Yes	5.00	0.000	1.90	2.03	0.00	0.107	1.020	6.013	0.00	32.24
30.00	1.75" Hybrid	Yes	5.00	0.000	1.75	1.97	0.00	0.107	1.020	6.013	0.00	41.56
30.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.107	1.020	6.013	0.00	129.70
30.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.107	1.020	6.013	0.00	53.30
30.00	1/2" Coax	Yes	5.00	0.000	1.00	1.66	0.00	0.107	1.020	6.013	0.00	18.48
35.00	Safety Cable	Yes	5.00	0.000	0.38	1.42	0.00	0.109	1.027	6.206	0.00	17.89
35.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.52	0.00	0.109	1.027	6.206	0.00	24.07
35.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	6.206	0.00	70.32
35.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	6.206	0.00	23.91
35.00	5/16" Coax	Yes	5.00	0.000	1.90	2.05	0.00	0.109	1.027	6.206	0.00	32.89
35.00	1.75" Hybrid	Yes	5.00	0.000	1.75	1.99	0.00	0.109	1.027	6.206	0.00	42.12
35.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	6.206	0.00	131.15
35.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	6.206	0.00	54.06
35.00	1/2" Coax	Yes	5.00	0.000	1.00	1.68	0.00	0.109	1.027	6.206	0.00	18.95
40.00	Safety Cable	Yes	5.00	0.000	0.38	1.44	0.00	0.112	1.035	6.378	0.00	18.29
40.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.54	0.00	0.112	1.035	6.378	0.00	24.48
40.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.035	6.378	0.00	71.16
40.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.035	6.378	0.00	24.38
40.00	5/16" Coax	Yes	5.00	0.000	1.90	2.07	0.00	0.112	1.035	6.378	0.00	33.46
40.00	1.75" Hybrid	Yes	5.00	0.000	1.75	2.01	0.00	0.112	1.035	6.378	0.00	42.62
40.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.035	6.378	0.00	132.43
40.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.035	6.378	0.00	54.74
40.00	1/2" Coax	Yes	5.00	0.000	1.00	1.69	0.00	0.112	1.035	6.378	0.00	19.37
45.00	Safety Cable	Yes	5.00	0.000	0.38	1.45	0.00	0.115	1.044	6.534	0.00	18.65
45.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.55	0.00	0.115	1.044	6.534	0.00	24.86
45.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.115	1.044	6.534	0.00	71.93
45.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.115	1.044	6.534	0.00	24.80
45.00	5/16" Coax	Yes	5.00	0.000	1.90	2.08	0.00	0.115	1.044	6.534	0.00	33.97
45.00	1.75" Hybrid	Yes	5.00	0.000	1.75	2.02	0.00	0.115	1.044	6.534	0.00	43.08
45.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.115	1.044	6.534	0.00	133.58
45.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.115	1.044	6.534	0.00	55.35
45.00	1/2" Coax	Yes	5.00	0.000	1.00	1.71	0.00	0.115	1.044	6.534	0.00	19.74
47.25	Safety Cable	Yes	2.25	0.000	0.38	0.66	0.00	0.117	1.050	6.600	0.00	8.46
47.25	Step bolts (ladder)	Yes	2.25	0.000	0.63	0.70	0.00	0.117	1.050	6.600	0.00	11.26
47.25	1 1/4" Coax	Yes	2.25	0.000	0.00	0.00	0.00	0.117	1.050	6.600	0.00	32.51
47.25	1/2" Coax	Yes	2.25	0.000	0.00	0.00	0.00	0.117	1.050	6.600	0.00	11.24
47.25	5/16" Coax	Yes	2.25	0.000	1.90	0.94	0.00	0.117	1.050	6.600	0.00	15.39
47.25	1.75" Hybrid	Yes	2.25	0.000	1.75	0.91	0.00	0.117	1.050	6.600	0.00	19.47
47.25	1 5/8" Coax	Yes	2.25	0.000	0.00	0.00	0.00	0.117	1.050	6.600	0.00	60.33
47.25	1 5/8" Hybrid	Yes	2.25	0.000	0.00	0.00	0.00	0.117	1.050	6.600	0.00	25.02
47.25	1/2" Coax	Yes	2.25	0.000	1.00	0.77	0.00	0.117	1.050	6.600	0.00	8.96
50.00	Safety Cable	Yes	2.75	0.000	0.38	0.81	0.00	0.118	1.054	6.678	0.00	10.44
50.00	Step bolts (ladder)	Yes	2.75	0.000	0.63	0.86	0.00	0.118	1.054	6.678	0.00	13.86
50.00	1 1/4" Coax	Yes	2.75	0.000	0.00	0.00	0.00	0.118	1.054	6.678	0.00	39.94
50.00	1/2" Coax	Yes	2.75	0.000	0.00	0.00	0.00	0.118	1.054	6.678	0.00	13.85

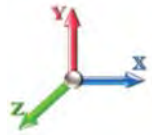
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 39	

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

Dead Load Factor 1.20

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)
50.00	5/16" Coax	Yes	2.75	0.000	1.90	1.15	0.00	0.118	1.054	6.678	0.00	18.94
50.00	1.75" Hybrid	Yes	2.75	0.000	1.75	1.12	0.00	0.118	1.054	6.678	0.00	23.92
50.00	1 5/8" Coax	Yes	2.75	0.000	0.00	0.00	0.00	0.118	1.054	6.678	0.00	74.05
50.00	1 5/8" Hybrid	Yes	2.75	0.000	0.00	0.00	0.00	0.118	1.054	6.678	0.00	30.75
50.00	1/2" Coax	Yes	2.75	0.000	1.00	0.95	0.00	0.118	1.054	6.678	0.00	11.05
53.25	Safety Cable	Yes	3.25	0.000	0.38	0.96	0.00	0.120	1.060	6.765	0.00	12.46
53.25	Step bolts (ladder)	Yes	3.25	0.000	0.63	1.02	0.00	0.120	1.060	6.765	0.00	16.52
53.25	1 1/4" Coax	Yes	3.25	0.000	0.00	0.00	0.00	0.120	1.060	6.765	0.00	47.48
53.25	1/2" Coax	Yes	3.25	0.000	0.00	0.00	0.00	0.120	1.060	6.765	0.00	16.53
53.25	5/16" Coax	Yes	3.25	0.000	1.90	1.37	0.00	0.120	1.060	6.765	0.00	22.57
53.25	1.75" Hybrid	Yes	3.25	0.000	1.75	1.33	0.00	0.120	1.060	6.765	0.00	28.44
53.25	1 5/8" Coax	Yes	3.25	0.000	0.00	0.00	0.00	0.120	1.060	6.765	0.00	87.92
53.25	1 5/8" Hybrid	Yes	3.25	0.000	0.00	0.00	0.00	0.120	1.060	6.765	0.00	36.56
53.25	1/2" Coax	Yes	3.25	0.000	1.00	1.12	0.00	0.120	1.060	6.765	0.00	13.20
55.00	Safety Cable	Yes	1.75	0.000	0.38	0.52	0.00	0.120	1.060	6.811	0.00	6.75
55.00	Step bolts (ladder)	Yes	1.75	0.000	0.63	0.55	0.00	0.120	1.060	6.811	0.00	8.93
55.00	1 1/4" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.120	1.060	6.811	0.00	25.64
55.00	1/2" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.120	1.060	6.811	0.00	8.94
55.00	5/16" Coax	Yes	1.75	0.000	1.90	0.74	0.00	0.120	1.060	6.811	0.00	12.21
55.00	1.75" Hybrid	Yes	1.75	0.000	1.75	0.72	0.00	0.120	1.060	6.811	0.00	15.36
55.00	1 5/8" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.120	1.060	6.811	0.00	47.46
55.00	1 5/8" Hybrid	Yes	1.75	0.000	0.00	0.00	0.00	0.120	1.060	6.811	0.00	19.75
55.00	1/2" Coax	Yes	1.75	0.000	1.00	0.61	0.00	0.120	1.060	6.811	0.00	7.14
60.00	Safety Cable	Yes	5.00	0.000	0.38	1.49	0.00	0.122	1.066	6.934	0.00	19.56
60.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.59	0.00	0.122	1.066	6.934	0.00	25.82
60.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.066	6.934	0.00	73.85
60.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.066	6.934	0.00	25.88
60.00	5/16" Coax	Yes	5.00	0.000	1.90	2.12	0.00	0.122	1.066	6.934	0.00	35.28
60.00	1.75" Hybrid	Yes	5.00	0.000	1.75	2.06	0.00	0.122	1.066	6.934	0.00	44.23
60.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.066	6.934	0.00	136.49
60.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.066	6.934	0.00	56.89
60.00	1/2" Coax	Yes	5.00	0.000	1.00	1.75	0.00	0.122	1.066	6.934	0.00	20.71
63.00	Safety Cable	Yes	3.00	0.000	0.38	0.90	0.00	0.125	1.074	7.005	0.00	11.84
63.00	Step bolts (ladder)	Yes	3.00	0.000	0.63	0.96	0.00	0.125	1.074	7.005	0.00	15.59
63.00	1 1/4" Coax	Yes	3.00	0.000	0.00	0.00	0.00	0.125	1.074	7.005	0.00	44.51
63.00	1/2" Coax	Yes	3.00	0.000	0.00	0.00	0.00	0.125	1.074	7.005	0.00	15.64
63.00	5/16" Coax	Yes	3.00	0.000	1.90	1.28	0.00	0.125	1.074	7.005	0.00	21.31
63.00	1.75" Hybrid	Yes	3.00	0.000	1.75	1.24	0.00	0.125	1.074	7.005	0.00	26.66
63.00	1 5/8" Coax	Yes	3.00	0.000	0.00	0.00	0.00	0.125	1.074	7.005	0.00	82.20
63.00	1 5/8" Hybrid	Yes	3.00	0.000	0.00	0.00	0.00	0.125	1.074	7.005	0.00	34.30
63.00	1/2" Coax	Yes	3.00	0.000	1.00	1.05	0.00	0.125	1.074	7.005	0.00	12.53
64.50	Safety Cable	Yes	1.50	0.000	0.38	0.45	0.00	0.104	1.012	7.039	0.00	5.94
64.50	Step bolts (ladder)	Yes	1.50	0.000	0.63	0.48	0.00	0.104	1.012	7.039	0.00	7.82
64.50	1 1/4" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.104	1.012	7.039	0.00	22.30
64.50	1/2" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.104	1.012	7.039	0.00	7.85
64.50	5/16" Coax	Yes	1.50	0.000	1.90	0.64	0.00	0.104	1.012	7.039	0.00	10.69
64.50	1.75" Hybrid	Yes	1.50	0.000	1.75	0.62	0.00	0.104	1.012	7.039	0.00	13.36

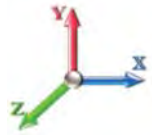
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 40	

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

Dead Load Factor 1.20

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)
64.50	1 5/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.104	1.012	7.039	0.00	41.17
64.50	1 5/8" Hybrid	Yes	1.50	0.000	0.00	0.00	0.00	0.104	1.012	7.039	0.00	17.19
65.00	Safety Cable	Yes	0.50	0.000	0.38	0.15	0.00	0.104	1.013	7.050	0.00	1.98
65.00	Step bolts (ladder)	Yes	0.50	0.000	0.63	0.16	0.00	0.104	1.013	7.050	0.00	2.61
65.00	1 1/4" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.104	1.013	7.050	0.00	7.44
65.00	1/2" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.104	1.013	7.050	0.00	2.62
65.00	5/16" Coax	Yes	0.50	0.000	1.90	0.21	0.00	0.104	1.013	7.050	0.00	3.57
65.00	1.75" Hybrid	Yes	0.50	0.000	1.75	0.21	0.00	0.104	1.013	7.050	0.00	4.46
65.00	1 5/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.104	1.013	7.050	0.00	13.73
65.00	1 5/8" Hybrid	Yes	0.50	0.000	0.00	0.00	0.00	0.104	1.013	7.050	0.00	5.73
70.00	Safety Cable	Yes	5.00	0.000	0.38	1.51	0.00	0.106	1.018	7.160	0.00	20.08
70.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.61	0.00	0.106	1.018	7.160	0.00	26.36
70.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.106	1.018	7.160	0.00	74.92
70.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.106	1.018	7.160	0.00	26.48
70.00	5/16" Coax	Yes	5.00	0.000	1.90	2.14	0.00	0.106	1.018	7.160	0.00	36.01
70.00	1.75" Hybrid	Yes	5.00	0.000	1.75	2.08	0.00	0.106	1.018	7.160	0.00	44.88
70.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.106	1.018	7.160	0.00	138.09
70.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.106	1.018	7.160	0.00	57.75
75.00	Safety Cable	Yes	5.00	0.000	0.38	1.52	0.00	0.109	1.027	7.263	0.00	20.31
75.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.62	0.00	0.109	1.027	7.263	0.00	26.61
75.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	7.263	0.00	75.40
75.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	7.263	0.00	26.76
75.00	5/16" Coax	Yes	5.00	0.000	1.90	2.15	0.00	0.109	1.027	7.263	0.00	36.34
75.00	1.75" Hybrid	Yes	5.00	0.000	1.75	2.09	0.00	0.109	1.027	7.263	0.00	45.17
75.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	7.263	0.00	138.82
75.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	7.263	0.00	58.14
80.00	Safety Cable	Yes	5.00	0.000	0.38	1.53	0.00	0.112	1.037	7.361	0.00	20.54
80.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.63	0.00	0.112	1.037	7.361	0.00	26.84
80.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.037	7.361	0.00	75.86
80.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.037	7.361	0.00	27.02
80.00	5/16" Coax	Yes	5.00	0.000	1.90	2.16	0.00	0.112	1.037	7.361	0.00	36.66
80.00	1.75" Hybrid	Yes	5.00	0.000	1.75	2.10	0.00	0.112	1.037	7.361	0.00	45.45
80.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.037	7.361	0.00	139.51
80.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.037	7.361	0.00	58.51
85.00	Safety Cable	Yes	5.00	0.000	0.38	1.53	0.00	0.116	1.047	7.454	0.00	20.75
85.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.64	0.00	0.116	1.047	7.454	0.00	27.06
85.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.116	1.047	7.454	0.00	76.30
85.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.116	1.047	7.454	0.00	27.26
85.00	5/16" Coax	Yes	5.00	0.000	1.90	2.17	0.00	0.116	1.047	7.454	0.00	36.96
85.00	1.75" Hybrid	Yes	5.00	0.000	1.75	2.10	0.00	0.116	1.047	7.454	0.00	45.72
85.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.116	1.047	7.454	0.00	140.17
85.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.116	1.047	7.454	0.00	58.86
90.00	Safety Cable	Yes	5.00	0.000	0.38	1.54	0.00	0.119	1.058	7.544	0.00	20.95
90.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.65	0.00	0.119	1.058	7.544	0.00	27.27
90.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.119	1.058	7.544	0.00	76.71
90.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.119	1.058	7.544	0.00	27.50
90.00	5/16" Coax	Yes	5.00	0.000	1.90	2.18	0.00	0.119	1.058	7.544	0.00	37.24

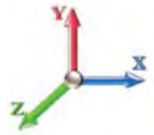
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 41	

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

Dead Load Factor 1.20

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)
90.00	1.75" Hybrid	Yes	5.00	0.000	1.75	2.11	0.00	0.119	1.058	7.544	0.00	45.97
90.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.119	1.058	7.544	0.00	140.79
90.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.119	1.058	7.544	0.00	59.20
95.00	Safety Cable	Yes	5.00	0.000	0.38	1.55	0.00	0.123	1.070	7.629	0.00	21.15
95.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.65	0.00	0.123	1.070	7.629	0.00	27.48
95.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.123	1.070	7.629	0.00	77.11
95.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.123	1.070	7.629	0.00	27.73
95.00	5/16" Coax	Yes	5.00	0.000	1.90	2.18	0.00	0.123	1.070	7.629	0.00	37.52
95.00	1.75" Hybrid	Yes	5.00	0.000	1.75	2.12	0.00	0.123	1.070	7.629	0.00	46.21
95.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.123	1.070	7.629	0.00	141.38
95.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.123	1.070	7.629	0.00	59.52
96.00	Safety Cable	Yes	1.00	0.000	0.38	0.31	0.00	0.126	1.077	7.646	0.00	4.24
96.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.33	0.00	0.126	1.077	7.646	0.00	5.50
96.00	1 1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.126	1.077	7.646	0.00	15.44
96.00	1/2" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.126	1.077	7.646	0.00	5.55
96.00	5/16" Coax	Yes	1.00	0.000	1.90	0.44	0.00	0.126	1.077	7.646	0.00	7.51
96.00	1.75" Hybrid	Yes	1.00	0.000	1.75	0.42	0.00	0.126	1.077	7.646	0.00	9.25
96.00	1 5/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.126	1.077	7.646	0.00	28.30
96.00	1 5/8" Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.126	1.077	7.646	0.00	11.92
98.00	Safety Cable	Yes	2.00	0.000	0.38	0.62	0.00	0.127	1.081	7.679	0.00	8.50
98.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.66	0.00	0.127	1.081	7.679	0.00	11.04
98.00	1 1/4" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.081	7.679	0.00	30.94
98.00	1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.081	7.679	0.00	11.14
98.00	5/16" Coax	Yes	2.00	0.000	1.90	0.87	0.00	0.127	1.081	7.679	0.00	15.07
98.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.85	0.00	0.127	1.081	7.679	0.00	18.54
98.00	1 5/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.081	7.679	0.00	56.69
98.00	1 5/8" Hybrid	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.081	7.679	0.00	23.88
100.00	Safety Cable	Yes	2.00	0.000	0.38	0.62	0.00	0.129	1.086	7.711	0.00	8.53
100.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.66	0.00	0.129	1.086	7.711	0.00	11.07
100.00	1 1/4" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.086	7.711	0.00	31.00
100.00	1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.086	7.711	0.00	11.18
100.00	5/16" Coax	Yes	2.00	0.000	1.90	0.88	0.00	0.129	1.086	7.711	0.00	15.11
100.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.85	0.00	0.129	1.086	7.711	0.00	18.58
100.75	Safety Cable	Yes	0.75	0.000	0.38	0.23	0.00	0.130	1.090	7.723	0.00	3.20
100.75	Step bolts (ladder)	Yes	0.75	0.000	0.63	0.25	0.00	0.130	1.090	7.723	0.00	4.15
100.75	1 1/4" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.130	1.090	7.723	0.00	11.63
100.75	1/2" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.130	1.090	7.723	0.00	4.20
100.75	5/16" Coax	Yes	0.75	0.000	1.90	0.33	0.00	0.130	1.090	7.723	0.00	5.67
100.75	1.75" Hybrid	Yes	0.75	0.000	1.75	0.32	0.00	0.130	1.090	7.723	0.00	6.97
105.00	Safety Cable	Yes	4.25	0.000	0.38	1.33	0.00	0.130	1.091	7.790	0.00	18.29
105.00	Step bolts (ladder)	Yes	4.25	0.000	0.63	1.42	0.00	0.130	1.091	7.790	0.00	23.68
105.00	1 1/4" Coax	Yes	4.25	0.000	0.00	0.00	0.00	0.130	1.091	7.790	0.00	66.17
105.00	1/2" Coax	Yes	4.25	0.000	0.00	0.00	0.00	0.130	1.091	7.790	0.00	23.93
105.00	5/16" Coax	Yes	4.25	0.000	1.90	1.87	0.00	0.130	1.091	7.790	0.00	32.32
105.00	1.75" Hybrid	Yes	4.25	0.000	1.75	1.81	0.00	0.130	1.091	7.790	0.00	39.67
109.00	Safety Cable	Yes	4.00	0.000	0.38	1.25	0.00	0.134	1.102	7.851	0.00	17.32
109.00	Step bolts (ladder)	Yes	4.00	0.000	0.63	1.34	0.00	0.134	1.102	7.851	0.00	22.40

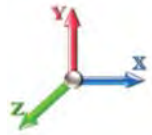
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 42	

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

Dead Load Factor 1.20

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)
109.00	1 1/4" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.134	1.102	7.851	0.00	62.50
109.00	1/2" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.134	1.102	7.851	0.00	22.65
109.00	5/16" Coax	Yes	4.00	0.000	1.90	1.76	0.00	0.134	1.102	7.851	0.00	30.58
109.00	1.75" Hybrid	Yes	4.00	0.000	1.75	1.71	0.00	0.134	1.102	7.851	0.00	37.47
110.00	Safety Cable	Yes	1.00	0.000	0.38	0.31	0.00	0.085	0.000	7.866	0.00	4.34
110.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.33	0.00	0.085	0.000	7.866	0.00	5.61
110.00	1 1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.085	0.000	7.866	0.00	15.64
110.00	1/2" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.085	0.000	7.866	0.00	5.67
110.00	5/16" Coax	Yes	1.00	0.000	1.90	0.44	0.00	0.085	0.000	7.866	0.00	7.65
115.00	Safety Cable	Yes	5.00	0.000	0.38	1.58	0.00	0.087	0.000	7.939	0.00	21.85
115.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.68	0.00	0.087	0.000	7.939	0.00	28.21
115.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.087	0.000	7.939	0.00	78.53
115.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.087	0.000	7.939	0.00	28.54
115.00	5/16" Coax	Yes	5.00	0.000	1.90	2.21	0.00	0.087	0.000	7.939	0.00	38.50
120.00	Safety Cable	Yes	5.00	0.000	0.38	1.58	0.00	0.090	0.000	8.010	0.00	22.01
120.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.69	0.00	0.090	0.000	8.010	0.00	28.38
120.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.090	0.000	8.010	0.00	78.86
120.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.090	0.000	8.010	0.00	28.73
120.00	5/16" Coax	Yes	5.00	0.000	1.90	2.22	0.00	0.090	0.000	8.010	0.00	38.72
125.00	Safety Cable	Yes	5.00	0.000	0.38	1.59	0.00	0.094	0.000	8.079	0.00	22.17
125.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.69	0.00	0.094	0.000	8.079	0.00	28.54
125.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.094	0.000	8.079	0.00	79.17
125.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.094	0.000	8.079	0.00	28.91
125.00	5/16" Coax	Yes	5.00	0.000	1.90	2.22	0.00	0.094	0.000	8.079	0.00	38.94
129.00	Safety Cable	Yes	4.00	0.000	0.38	1.27	0.00	0.097	0.000	8.132	0.00	17.83
129.00	Step bolts (ladder)	Yes	4.00	0.000	0.63	1.36	0.00	0.097	0.000	8.132	0.00	22.93
129.00	1 1/4" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.097	0.000	8.132	0.00	63.53
129.00	1/2" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.097	0.000	8.132	0.00	23.24
129.00	5/16" Coax	Yes	4.00	0.000	1.90	1.78	0.00	0.097	0.000	8.132	0.00	31.29
130.00	Safety Cable	Yes	1.00	0.000	0.38	0.32	0.00	0.100	0.000	8.145	0.00	4.46
130.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.34	0.00	0.100	0.000	8.145	0.00	5.74
130.00	1 1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.100	0.000	8.145	0.00	15.89
130.00	1/2" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.100	0.000	8.145	0.00	5.82
130.00	5/16" Coax	Yes	1.00	0.000	1.90	0.45	0.00	0.100	0.000	8.145	0.00	7.83
135.00	Safety Cable	Yes	5.00	0.000	0.38	1.60	0.00	0.102	1.007	8.210	0.00	22.46
135.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.70	0.00	0.102	1.007	8.210	0.00	28.85
135.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.102	1.007	8.210	0.00	79.76
135.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.102	1.007	8.210	0.00	29.25
135.00	5/16" Coax	Yes	5.00	0.000	1.90	2.23	0.00	0.102	1.007	8.210	0.00	39.35
138.00	Safety Cable	Yes	3.00	0.000	0.38	0.96	0.00	0.106	1.018	8.247	0.00	13.53
138.00	Step bolts (ladder)	Yes	3.00	0.000	0.63	1.02	0.00	0.106	1.018	8.247	0.00	17.36
138.00	1 1/4" Coax	Yes	3.00	0.000	0.00	0.00	0.00	0.106	1.018	8.247	0.00	47.96
138.00	1/2" Coax	Yes	3.00	0.000	0.00	0.00	0.00	0.106	1.018	8.247	0.00	17.61
138.00	5/16" Coax	Yes	3.00	0.000	1.90	1.34	0.00	0.106	1.018	8.247	0.00	23.68
140.00	Safety Cable	Yes	2.00	0.000	0.38	0.64	0.00	0.108	1.025	8.272	0.00	9.04
140.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.68	0.00	0.108	1.025	8.272	0.00	11.60
140.00	1 1/4" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.108	1.025	8.272	0.00	32.02

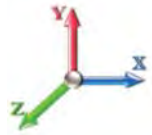
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 43	

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

Dead Load Factor 1.20

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)
140.00	1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.108	1.025	8.272	0.00	11.77
140.00	5/16" Coax	Yes	2.00	0.000	1.90	0.89	0.00	0.108	1.025	8.272	0.00	15.82
145.00	Safety Cable	Yes	5.00	0.000	0.38	1.61	0.00	0.112	1.036	8.333	0.00	22.74
145.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	1.71	0.00	0.112	1.036	8.333	0.00	29.14
145.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.036	8.333	0.00	80.32
145.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.036	8.333	0.00	29.58
145.00	5/16" Coax	Yes	5.00	0.000	1.90	2.24	0.00	0.112	1.036	8.333	0.00	39.74
146.00	Safety Cable	Yes	1.00	0.000	0.38	0.32	0.00	0.115	1.046	8.345	0.00	4.55
146.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.34	0.00	0.115	1.046	8.345	0.00	5.83
146.00	1 1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.115	1.046	8.345	0.00	16.07
146.00	1/2" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.115	1.046	8.345	0.00	5.92
146.00	5/16" Coax	Yes	1.00	0.000	1.90	0.45	0.00	0.115	1.046	8.345	0.00	7.96
148.00	Safety Cable	Yes	2.00	0.000	0.38	0.64	0.00	0.041	0.000	8.369	0.00	9.13
148.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.69	0.00	0.041	0.000	8.369	0.00	11.69
149.00	Safety Cable	Yes	1.00	0.000	0.38	0.32	0.00	0.016	0.000	8.381	0.00	4.57
										Totals:	**0.0**	**10,179.1**

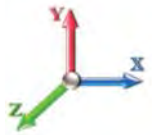
Calculated Forces

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 44	

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 23

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-89.46	-10.99	0.00	-1172.1	0.00	1172.12	4419.23	2209.62	10644.5	5330.19	0.00	0.000	0.000	0.240
5.00	-87.06	-10.90	0.00	-1117.1	0.00	1117.16	4369.18	2184.59	10305.9	5160.65	0.03	-0.054	0.000	0.236
10.00	-84.65	-10.80	0.00	-1062.6	0.00	1062.68	4317.41	2158.71	9968.41	4991.62	0.12	-0.109	0.000	0.233
15.00	-82.24	-10.71	0.00	-1008.6	0.00	1008.67	4263.92	2131.96	9632.14	4823.23	0.26	-0.164	0.000	0.228
20.00	-79.85	-10.60	0.00	-955.14	0.00	955.14	4208.71	2104.36	9297.40	4655.61	0.46	-0.220	0.000	0.224
25.00	-77.49	-10.48	0.00	-902.15	0.00	902.15	4151.78	2075.89	8964.46	4488.89	0.72	-0.277	0.000	0.220
30.00	-75.15	-10.35	0.00	-849.76	0.00	849.76	4093.13	2046.56	8633.57	4323.20	1.04	-0.334	0.000	0.215
35.00	-72.83	-10.22	0.00	-797.99	0.00	797.99	4032.76	2016.38	8305.00	4158.67	1.42	-0.392	0.000	0.210
40.00	-70.55	-10.08	0.00	-746.89	0.00	746.89	3970.67	1985.33	7978.99	3995.42	1.87	-0.450	0.000	0.205
45.00	-68.29	-9.91	0.00	-696.50	0.00	696.50	3906.85	1953.43	7655.81	3833.59	2.37	-0.508	0.000	0.199
47.25	-67.29	-9.85	0.00	-674.19	0.00	674.19	3877.58	1938.79	7511.37	3761.27	2.62	-0.535	0.000	0.197
50.00	-65.54	-9.77	0.00	-647.10	0.00	647.10	3841.32	1920.66	7335.71	3673.31	2.93	-0.568	0.000	0.193
53.25	-63.49	-9.65	0.00	-615.36	0.00	615.36	2984.31	1492.16	5695.15	2851.81	3.33	-0.607	0.000	0.237
55.00	-62.78	-9.62	0.00	-598.48	0.00	598.48	2968.67	1484.33	5613.44	2810.89	3.56	-0.628	0.000	0.234
60.00	-60.78	-9.45	0.00	-550.39	0.00	550.39	2922.80	1461.40	5380.87	2694.44	4.25	-0.695	0.000	0.225
63.00	-59.50	-9.28	0.00	-522.03	0.00	522.03	2894.46	1447.23	5242.03	2624.91	4.70	-0.736	0.000	0.219
64.50	-58.75	-9.19	0.00	-508.11	0.00	508.11	2880.06	1440.03	5172.83	2590.26	4.94	-0.756	0.000	0.217
65.00	-58.55	-9.21	0.00	-503.51	0.00	503.51	2875.22	1437.61	5149.80	2578.73	5.02	-0.763	0.000	0.216
70.00	-56.64	-9.06	0.00	-457.48	0.00	457.48	2825.92	1412.96	4920.48	2463.90	5.85	-0.829	0.000	0.206
75.00	-54.75	-8.90	0.00	-412.20	0.00	412.20	2774.89	1387.45	4693.17	2350.07	6.76	-0.894	0.000	0.195
80.00	-52.90	-8.74	0.00	-367.69	0.00	367.69	2722.15	1361.08	4468.13	2237.39	7.73	-0.957	0.000	0.184
85.00	-51.07	-8.58	0.00	-323.99	0.00	323.99	2667.69	1333.84	4245.61	2125.96	8.76	-1.019	0.000	0.172
90.00	-49.29	-8.41	0.00	-281.11	0.00	281.11	2611.50	1305.75	4025.88	2015.93	9.86	-1.078	0.000	0.158
95.00	-47.53	-8.22	0.00	-239.08	0.00	239.08	2553.60	1276.80	3809.20	1907.43	11.02	-1.134	0.000	0.144
96.00	-43.80	-7.39	0.00	-230.86	0.00	230.86	2541.81	1270.90	3766.25	1885.92	11.26	-1.145	0.000	0.140
98.00	-38.86	-6.75	0.00	-216.09	0.00	216.09	2518.03	1259.01	3680.75	1843.11	11.75	-1.167	0.000	0.133
100.00	-38.03	-6.66	0.00	-202.60	0.00	202.60	2493.97	1246.99	3595.81	1800.58	12.24	-1.188	0.000	0.128
100.75	-37.71	-6.65	0.00	-197.60	0.00	197.60	1861.03	930.51	2717.30	1360.67	12.43	-1.196	0.000	0.166
105.00	-36.56	-6.49	0.00	-169.35	0.00	169.35	1828.27	914.13	2591.91	1297.88	13.51	-1.237	0.000	0.151
109.00	-30.81	-5.72	0.00	-143.37	0.00	143.37	1796.29	898.15	2474.87	1239.28	14.57	-1.280	0.000	0.133
110.00	-30.55	-5.70	0.00	-137.65	0.00	137.65	1788.13	894.06	2445.78	1224.71	14.84	-1.291	0.000	0.130
115.00	-29.30	-5.53	0.00	-109.15	0.00	109.15	1746.27	873.13	2301.39	1152.40	16.21	-1.339	0.000	0.112
120.00	-19.29	-3.87	0.00	-81.49	0.00	81.49	1702.69	851.34	2158.99	1081.10	17.64	-1.380	0.000	0.087
125.00	-18.18	-3.70	0.00	-62.15	0.00	62.15	1657.39	828.70	2018.85	1010.92	19.10	-1.414	0.000	0.072
129.00	-17.32	-3.56	0.00	-47.36	0.00	47.36	1619.91	809.96	1908.53	955.68	20.30	-1.438	0.000	0.060
129.00	-17.32	-3.56	0.00	-47.36	0.00	47.36	1091.97	545.98	1287.15	644.53	20.30	-1.438	0.000	0.089
130.00	-17.12	-3.53	0.00	-43.80	0.00	43.80	1086.84	543.42	1270.26	636.07	20.60	-1.443	0.000	0.085
135.00	-16.19	-3.37	0.00	-26.14	0.00	26.14	1060.16	530.08	1186.17	593.97	22.13	-1.472	0.000	0.059
138.00	-8.63	-2.01	0.00	-16.03	0.00	16.03	1043.32	521.66	1136.10	568.89	23.06	-1.484	0.000	0.036
140.00	-8.30	-1.95	0.00	-12.00	0.00	12.00	1031.75	515.88	1102.91	552.27	23.68	-1.490	0.000	0.030
145.00	-7.50	-1.79	0.00	-2.26	0.00	2.26	1001.63	500.82	1020.73	511.12	25.25	-1.498	0.000	0.012
146.00	-0.26	-0.16	0.00	-0.47	0.00	0.47	995.40	497.70	1004.44	502.97	25.56	-1.498	0.000	0.001
148.00	-0.12	-0.03	0.00	-0.03	0.00	0.03	982.73	491.37	972.05	486.75	26.19	-1.498	0.000	0.000
149.00	0.00	-0.03	0.00	0.00	0.00	0.00	976.29	488.15	955.94	478.68	26.50	-1.498	0.000	0.000

Seismic Segment Forces (Factored)

Structure:	CT13056-A		**Code:**	EIA/TIA-222-G	9/30/2021
Site Name:	Moosehill		**Exposure:**	C	
Height:	149.00 (ft)		**Crest Height:**	0.00	
Base Elev:	1.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 45

Load Case:	1.2D + 1.0E							**Iterations**	21
Gust Response Factor	1.10				**Sds**	0.22		**Ss**	0.20
Dead Load Factor	1.20	**Seismic Load Factor**	1.00		**Sd1**	0.10		**S1**	0.07
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.35		**SA**	0.04	**Seismic Importance Factor**		1.00

Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.01	0.00	0.00	
5.00		1173.1	0.00	0.04	0.02	28.64	
10.00		1148.7	0.01	0.06	0.03	37.48	
15.00		1124.3	0.02	0.06	0.04	41.21	
20.00		1099.9	0.04	0.07	0.04	42.61	
25.00		1075.5	0.06	0.07	0.04	43.02	
30.00		1051.1	0.08	0.07	0.04	43.11	
35.00		1026.7	0.11	0.07	0.04	43.14	
40.00		1002.3	0.14	0.07	0.03	43.06	
45.00		977.93	0.18	0.07	0.03	42.62	
47.25	Bot - Section 2	432.11	0.20	0.06	0.02	18.85	
50.00		962.34	0.22	0.06	0.02	41.74	
53.25	Top - Section 1	1119.8	0.25	0.06	0.02	47.53	
55.00		272.76	0.26	0.05	0.02	11.34	
60.00		765.57	0.31	0.04	0.01	28.53	
63.00	Appurtenance(s)	489.58	0.34	0.03	0.01	16.19	
64.50	Appurtenance(s)	272.05	0.36	0.03	0.01	8.28	
65.00		73.61	0.37	0.03	0.01	2.17	
70.00		724.91	0.42	0.01	0.01	12.81	
75.00		704.57	0.49	-0.01	0.01	1.73	
80.00		684.24	0.55	-0.03	0.01	-9.63	
85.00		663.90	0.62	-0.06	0.02	-19.21	
90.00		643.57	0.70	-0.09	0.03	-25.45	
95.00		623.23	0.77	-0.11	0.05	-27.76	
96.00	Bot - Section 3	1055.3	0.79	-0.11	0.05	-47.30	
98.00	Appurtenance(s)	2777.5	0.82	-0.12	0.06	-124.05	
100.00		432.73	0.86	-0.12	0.07	-18.84	
100.75	Top - Section 2	160.76	0.87	-0.12	0.08	-6.89	
105.00		401.55	0.94	-0.12	0.11	-14.71	
109.00	Appurtenance(s)	2745.0	1.02	-0.11	0.14	-73.94	
110.00		90.17	1.03	-0.10	0.15	-2.16	
115.00		441.09	1.13	-0.05	0.21	-2.47	
120.00	Appurtenance(s)	4276.5	1.23	0.03	0.28	78.54	
125.00		408.56	1.33	0.17	0.37	19.62	
129.00	Top - Section 3	315.13	1.42	0.32	0.45	23.91	
130.00		57.77	1.44	0.37	0.48	4.82	
135.00		281.54	1.55	0.64	0.61	35.12	
138.00	Appurtenance(s)	2974.3	1.62	0.85	0.70	453.38	
140.00		106.27	1.67	1.01	0.77	18.29	
145.00		257.13	1.79	1.50	0.96	58.01	
146.00	Appurtenance(s)	3064.2	1.82	1.61	1.00	726.47	
148.00	Appurtenance(s)	212.46	1.86	1.85	1.09	55.40	
149.00		48.50	1.89	1.98	1.14	13.24	
	Totals:	**38,218.9**				**1,668.5**	**Total Wind:** **39,527.7**

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

Calculated Forces

Structure:	CT13056-A		**Code:**	EIA/TIA-222-G	9/30/2021
Site Name:	Moosehill		**Exposure:**	C	
Height:	149.00 (ft)		**Crest Height:**	0.00	
Base Elev:	1.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 46

Load Case:	1.2D + 1.0E							**Iterations**	21
Gust Response Factor	1.10				**Sds**	0.22		**Ss**	0.20
Dead Load Factor	1.20	**Seismic Load Factor**	1.00		**Sd1**	0.10		**S1**	0.07
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.35		**SA**	0.04	**Seismic Importance Factor**		1.00

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-52.34	-2.04	0.00	-240.47	0.00	240.47	4419.23	2209.62	10644.5	5330.19		0.00	0.00	0.057
5.00	-50.67	-2.03	0.00	-230.25	0.00	230.25	4369.18	2184.59	10305.9	5160.65		0.01	-0.01	0.056
10.00	-49.03	-2.00	0.00	-220.12	0.00	220.12	4317.41	2158.71	9968.41	4991.62		0.02	-0.02	0.055
15.00	-47.42	-1.97	0.00	-210.13	0.00	210.13	4263.92	2131.96	9632.14	4823.23		0.05	-0.03	0.055
20.00	-45.84	-1.93	0.00	-200.31	0.00	200.31	4208.71	2104.36	9297.40	4655.61		0.10	-0.05	0.054
25.00	-44.28	-1.90	0.00	-190.65	0.00	190.65	4151.78	2075.89	8964.46	4488.89		0.15	-0.06	0.053
30.00	-42.76	-1.86	0.00	-181.17	0.00	181.17	4093.13	2046.56	8633.57	4323.20		0.22	-0.07	0.052
35.00	-41.27	-1.82	0.00	-171.87	0.00	171.87	4032.76	2016.38	8305.00	4158.67		0.30	-0.08	0.052
40.00	-39.80	-1.79	0.00	-162.75	0.00	162.75	3970.67	1985.33	7978.99	3995.42		0.39	-0.09	0.051
45.00	-38.37	-1.75	0.00	-153.82	0.00	153.82	3906.85	1953.43	7655.81	3833.59		0.49	-0.11	0.050
47.25	-37.73	-1.73	0.00	-149.88	0.00	149.88	3877.58	1938.79	7511.37	3761.27		0.55	-0.11	0.050
50.00	-36.43	-1.69	0.00	-145.12	0.00	145.12	3841.32	1920.66	7335.71	3673.31		0.61	-0.12	0.049
53.25	-34.91	-1.65	0.00	-139.61	0.00	139.61	2984.31	1492.16	5695.15	2851.81		0.70	-0.13	0.061
55.00	-34.50	-1.64	0.00	-136.73	0.00	136.73	2968.67	1484.33	5613.44	2810.89		0.75	-0.13	0.060
60.00	-33.31	-1.62	0.00	-128.53	0.00	128.53	2922.80	1461.40	5380.87	2694.44		0.90	-0.15	0.059
63.00	-32.57	-1.60	0.00	-123.68	0.00	123.68	2894.46	1447.23	5242.03	2624.91		0.99	-0.16	0.058
64.50	-32.16	-1.60	0.00	-121.27	0.00	121.27	2880.06	1440.03	5172.83	2590.26		1.04	-0.16	0.058
65.00	-32.05	-1.60	0.00	-120.48	0.00	120.48	2875.22	1437.61	5149.80	2578.73		1.06	-0.17	0.058
70.00	-30.92	-1.59	0.00	-112.49	0.00	112.49	2825.92	1412.96	4920.48	2463.90		1.24	-0.18	0.057
75.00	-29.81	-1.59	0.00	-104.54	0.00	104.54	2774.89	1387.45	4693.17	2350.07		1.44	-0.20	0.055
80.00	-28.73	-1.60	0.00	-96.57	0.00	96.57	2722.15	1361.08	4468.13	2237.39		1.66	-0.21	0.054
85.00	-27.67	-1.60	0.00	-88.59	0.00	88.59	2667.69	1333.84	4245.61	2125.96		1.89	-0.23	0.052
90.00	-26.64	-1.60	0.00	-80.58	0.00	80.58	2611.50	1305.75	4025.88	2015.93		2.14	-0.25	0.050
95.00	-25.63	-1.60	0.00	-72.56	0.00	72.56	2553.60	1276.80	3809.20	1907.43		2.41	-0.26	0.048
96.00	-24.31	-1.60	0.00	-70.95	0.00	70.95	2541.81	1270.90	3766.25	1885.92		2.47	-0.27	0.047
98.00	-20.87	-1.59	0.00	-67.75	0.00	67.75	2518.03	1259.01	3680.75	1843.11		2.58	-0.27	0.045
100.00	-20.27	-1.59	0.00	-64.58	0.00	64.58	2493.97	1246.99	3595.81	1800.58		2.70	-0.28	0.044
100.75	-20.04	-1.59	0.00	-63.39	0.00	63.39	1861.03	930.51	2717.30	1360.67		2.74	-0.28	0.057
105.00	-19.38	-1.59	0.00	-56.64	0.00	56.64	1828.27	914.13	2591.91	1297.88		3.00	-0.30	0.054
109.00	-15.92	-1.57	0.00	-50.29	0.00	50.29	1796.29	898.15	2474.87	1239.28		3.26	-0.31	0.049
110.00	-15.77	-1.58	0.00	-48.72	0.00	48.72	1788.13	894.06	2445.78	1224.71		3.32	-0.32	0.049
115.00	-15.05	-1.58	0.00	-40.84	0.00	40.84	1746.27	873.13	2301.39	1152.40		3.66	-0.33	0.044
120.00	-9.72	-1.47	0.00	-32.96	0.00	32.96	1702.69	851.34	2158.99	1081.10		4.02	-0.35	0.036
125.00	-9.12	-1.45	0.00	-25.62	0.00	25.62	1657.39	828.70	2018.85	1010.92		4.39	-0.36	0.031
129.00	-8.65	-1.42	0.00	-19.84	0.00	19.84	1619.91	809.96	1908.53	955.68		4.70	-0.37	0.026
129.00	-8.65	-1.42	0.00	-19.84	0.00	19.84	1091.97	545.98	1287.15	644.53		4.70	-0.37	0.039
130.00	-8.56	-1.42	0.00	-18.42	0.00	18.42	1086.84	543.42	1270.26	636.07		4.78	-0.37	0.037
135.00	-8.11	-1.38	0.00	-11.33	0.00	11.33	1060.16	530.08	1186.17	593.97		5.18	-0.39	0.027
138.00	-4.48	-0.90	0.00	-7.20	0.00	7.20	1043.32	521.66	1136.10	568.89		5.42	-0.39	0.017
140.00	-4.34	-0.88	0.00	-5.39	0.00	5.39	1031.75	515.88	1102.91	552.27		5.59	-0.39	0.014
145.00	-4.00	-0.82	0.00	-0.98	0.00	0.98	1001.63	500.82	1020.73	511.12		6.00	-0.40	0.006
146.00	-0.32	-0.07	0.00	-0.15	0.00	0.15	995.40	497.70	1004.44	502.97		6.09	-0.40	0.001
148.00	-0.06	-0.01	0.00	-0.01	0.00	0.01	982.73	491.37	972.05	486.75		6.25	-0.40	0.000
149.00	0.00	-0.01	0.00	0.00	0.00	0.00	976.29	488.15	955.94	478.68		6.34	-0.40	0.000

Seismic Segment Forces (Factored)

Structure:	CT13056-A		**Code:**	EIA/TIA-222-G	9/30/2021
Site Name:	Moosehill		**Exposure:**	C	
Height:	149.00 (ft)		**Crest Height:**	0.00	
Base Elev:	1.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 47

Load Case:	0.9D + 1.0E							**Iterations**	21
Gust Response Factor	1.10				**Sds**	0.22		**Ss**	0.20
Dead Load Factor	0.90	**Seismic Load Factor**	1.00		**Sd1**	0.10		**S1**	0.07
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.35		**SA**	0.04	**Seismic Importance Factor**		1.00

Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.01	0.00	0.00	
5.00		1173.1	0.00	0.04	0.02	28.64	
10.00		1148.7	0.01	0.06	0.03	37.48	
15.00		1124.3	0.02	0.06	0.04	41.21	
20.00		1099.9	0.04	0.07	0.04	42.61	
25.00		1075.5	0.06	0.07	0.04	43.02	
30.00		1051.1	0.08	0.07	0.04	43.11	
35.00		1026.7	0.11	0.07	0.04	43.14	
40.00		1002.3	0.14	0.07	0.03	43.06	
45.00		977.93	0.18	0.07	0.03	42.62	
47.25	Bot - Section 2	432.11	0.20	0.06	0.02	18.85	
50.00		962.34	0.22	0.06	0.02	41.74	
53.25	Top - Section 1	1119.8	0.25	0.06	0.02	47.53	
55.00		272.76	0.26	0.05	0.02	11.34	
60.00		765.57	0.31	0.04	0.01	28.53	
63.00	Appurtenance(s)	489.58	0.34	0.03	0.01	16.19	
64.50	Appurtenance(s)	272.05	0.36	0.03	0.01	8.28	
65.00		73.61	0.37	0.03	0.01	2.17	
70.00		724.91	0.42	0.01	0.01	12.81	
75.00		704.57	0.49	-0.01	0.01	1.73	
80.00		684.24	0.55	-0.03	0.01	-9.63	
85.00		663.90	0.62	-0.06	0.02	-19.21	
90.00		643.57	0.70	-0.09	0.03	-25.45	
95.00		623.23	0.77	-0.11	0.05	-27.76	
96.00	Bot - Section 3	1055.3	0.79	-0.11	0.05	-47.30	
98.00	Appurtenance(s)	2777.5	0.82	-0.12	0.06	-124.05	
100.00		432.73	0.86	-0.12	0.07	-18.84	
100.75	Top - Section 2	160.76	0.87	-0.12	0.08	-6.89	
105.00		401.55	0.94	-0.12	0.11	-14.71	
109.00	Appurtenance(s)	2745.0	1.02	-0.11	0.14	-73.94	
110.00		90.17	1.03	-0.10	0.15	-2.16	
115.00		441.09	1.13	-0.05	0.21	-2.47	
120.00	Appurtenance(s)	4276.5	1.23	0.03	0.28	78.54	
125.00		408.56	1.33	0.17	0.37	19.62	
129.00	Top - Section 3	315.13	1.42	0.32	0.45	23.91	
130.00		57.77	1.44	0.37	0.48	4.82	
135.00		281.54	1.55	0.64	0.61	35.12	
138.00	Appurtenance(s)	2974.3	1.62	0.85	0.70	453.38	
140.00		106.27	1.67	1.01	0.77	18.29	
145.00		257.13	1.79	1.50	0.96	58.01	
146.00	Appurtenance(s)	3064.2	1.82	1.61	1.00	726.47	
148.00	Appurtenance(s)	212.46	1.86	1.85	1.09	55.40	
149.00		48.50	1.89	1.98	1.14	13.24	
	Totals:	**38,218.9**				**1,668.5**	**Total Wind:** **39,527.7**

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

Calculated Forces

Structure:	CT13056-A		**Code:**	EIA/TIA-222-G	9/30/2021
Site Name:	Moosehill		**Exposure:**	C	
Height:	149.00 (ft)		**Crest Height:**	0.00	
Base Elev:	1.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 48

Load Case:	0.9D + 1.0E							**Iterations**	21
Gust Response Factor	1.10				**Sds**	0.22		**Ss**	0.20
Dead Load Factor	0.90	**Seismic Load Factor**	1.00		**Sd1**	0.10		**S1**	0.07
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.35		**SA**	0.04	**Seismic Importance Factor**		1.00

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-39.26	-2.04	0.00	-237.76	0.00	237.76	4419.23	2209.62	10644.5	5330.19		0.00	0.00	0.053
5.00	-38.00	-2.02	0.00	-227.55	0.00	227.55	4369.18	2184.59	10305.9	5160.65		0.01	-0.01	0.053
10.00	-36.77	-1.99	0.00	-217.44	0.00	217.44	4317.41	2158.71	9968.41	4991.62		0.02	-0.02	0.052
15.00	-35.57	-1.96	0.00	-207.48	0.00	207.48	4263.92	2131.96	9632.14	4823.23		0.05	-0.03	0.051
20.00	-34.38	-1.92	0.00	-197.70	0.00	197.70	4208.71	2104.36	9297.40	4655.61		0.09	-0.05	0.051
25.00	-33.21	-1.88	0.00	-188.09	0.00	188.09	4151.78	2075.89	8964.46	4488.89		0.15	-0.06	0.050
30.00	-32.07	-1.85	0.00	-178.68	0.00	178.68	4093.13	2046.56	8633.57	4323.20		0.21	-0.07	0.049
35.00	-30.95	-1.81	0.00	-169.45	0.00	169.45	4032.76	2016.38	8305.00	4158.67		0.29	-0.08	0.048
40.00	-29.85	-1.77	0.00	-160.41	0.00	160.41	3970.67	1985.33	7978.99	3995.42		0.38	-0.09	0.048
45.00	-28.77	-1.73	0.00	-151.57	0.00	151.57	3906.85	1953.43	7655.81	3833.59		0.49	-0.11	0.047
47.25	-28.30	-1.71	0.00	-147.68	0.00	147.68	3877.58	1938.79	7511.37	3761.27		0.54	-0.11	0.047
50.00	-27.32	-1.67	0.00	-142.97	0.00	142.97	3841.32	1920.66	7335.71	3673.31		0.61	-0.12	0.046
53.25	-26.19	-1.63	0.00	-137.53	0.00	137.53	2984.31	1492.16	5695.15	2851.81		0.69	-0.13	0.057
55.00	-25.87	-1.62	0.00	-134.68	0.00	134.68	2968.67	1484.33	5613.44	2810.89		0.74	-0.13	0.057
60.00	-24.98	-1.59	0.00	-126.59	0.00	126.59	2922.80	1461.40	5380.87	2694.44		0.89	-0.15	0.056
63.00	-24.43	-1.58	0.00	-121.81	0.00	121.81	2894.46	1447.23	5242.03	2624.91		0.98	-0.16	0.055
64.50	-24.12	-1.57	0.00	-119.44	0.00	119.44	2880.06	1440.03	5172.83	2590.26		1.03	-0.16	0.054
65.00	-24.04	-1.57	0.00	-118.66	0.00	118.66	2875.22	1437.61	5149.80	2578.73		1.05	-0.16	0.054
70.00	-23.19	-1.56	0.00	-110.80	0.00	110.80	2825.92	1412.96	4920.48	2463.90		1.23	-0.18	0.053
75.00	-22.36	-1.57	0.00	-102.98	0.00	102.98	2774.89	1387.45	4693.17	2350.07		1.42	-0.20	0.052
80.00	-21.54	-1.57	0.00	-95.15	0.00	95.15	2722.15	1361.08	4468.13	2237.39		1.64	-0.21	0.050
85.00	-20.75	-1.57	0.00	-87.31	0.00	87.31	2667.69	1333.84	4245.61	2125.96		1.87	-0.23	0.049
90.00	-19.98	-1.57	0.00	-79.46	0.00	79.46	2611.50	1305.75	4025.88	2015.93		2.12	-0.24	0.047
95.00	-19.22	-1.57	0.00	-71.59	0.00	71.59	2553.60	1276.80	3809.20	1907.43		2.38	-0.26	0.045
96.00	-18.23	-1.57	0.00	-70.01	0.00	70.01	2541.81	1270.90	3766.25	1885.92		2.43	-0.26	0.044
98.00	-15.65	-1.56	0.00	-66.87	0.00	66.87	2518.03	1259.01	3680.75	1843.11		2.55	-0.27	0.042
100.00	-15.20	-1.56	0.00	-63.75	0.00	63.75	2493.97	1246.99	3595.81	1800.58		2.66	-0.28	0.042
100.75	-15.03	-1.56	0.00	-62.58	0.00	62.58	1861.03	930.51	2717.30	1360.67		2.70	-0.28	0.054
105.00	-14.53	-1.56	0.00	-55.95	0.00	55.95	1828.27	914.13	2591.91	1297.88		2.96	-0.29	0.051
109.00	-11.94	-1.55	0.00	-49.70	0.00	49.70	1796.29	898.15	2474.87	1239.28		3.21	-0.31	0.047
110.00	-11.83	-1.55	0.00	-48.15	0.00	48.15	1788.13	894.06	2445.78	1224.71		3.28	-0.31	0.046
115.00	-11.28	-1.55	0.00	-40.39	0.00	40.39	1746.27	873.13	2301.39	1152.40		3.61	-0.33	0.042
120.00	-7.29	-1.45	0.00	-32.63	0.00	32.63	1702.69	851.34	2158.99	1081.10		3.96	-0.34	0.034
125.00	-6.84	-1.43	0.00	-25.37	0.00	25.37	1657.39	828.70	2018.85	1010.92		4.33	-0.36	0.029
129.00	-6.49	-1.41	0.00	-19.64	0.00	19.64	1619.91	809.96	1908.53	955.68		4.63	-0.37	0.025
129.00	-6.49	-1.41	0.00	-19.64	0.00	19.64	1091.97	545.98	1287.15	644.53		4.63	-0.37	0.036
130.00	-6.42	-1.40	0.00	-18.24	0.00	18.24	1086.84	543.42	1270.26	636.07		4.71	-0.37	0.035
135.00	-6.08	-1.37	0.00	-11.23	0.00	11.23	1060.16	530.08	1186.17	593.97		5.11	-0.38	0.025
138.00	-3.36	-0.89	0.00	-7.13	0.00	7.13	1043.32	521.66	1136.10	568.89		5.35	-0.39	0.016
140.00	-3.25	-0.88	0.00	-5.34	0.00	5.34	1031.75	515.88	1102.91	552.27		5.51	-0.39	0.013
145.00	-3.00	-0.82	0.00	-0.97	0.00	0.97	1001.63	500.82	1020.73	511.12		5.92	-0.39	0.005
146.00	-0.24	-0.07	0.00	-0.15	0.00	0.15	995.40	497.70	1004.44	502.97		6.00	-0.39	0.001
148.00	-0.04	-0.01	0.00	-0.01	0.00	0.01	982.73	491.37	972.05	486.75		6.17	-0.39	0.000
149.00	0.00	-0.01	0.00	0.00	0.00	0.00	976.29	488.15	955.94	478.68		6.25	-0.39	0.000

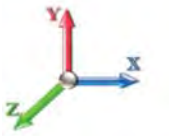
Wind Loading - Shaft

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 49	

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	275.75	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	270.11	0.650	0.000	5.00	24.670	16.04	131.3	0.0	1173.1
10.00		1.00	0.85	7.442	8.19	264.47	0.650	0.000	5.00	24.160	15.70	128.6	0.0	1148.7
15.00		1.00	0.86	7.534	8.29	260.42	0.650	0.000	5.00	23.650	15.37	127.4	0.0	1124.3
20.00		1.00	0.91	7.978	8.78	262.15	0.654 *	0.000	5.00	23.140	15.13	132.8	0.0	1099.9
25.00		1.00	0.95	8.345	9.18	262.13	0.658 *	0.000	5.00	22.630	14.90	136.7	0.0	1075.5
30.00		1.00	0.99	8.659	9.53	260.95	0.663 *	0.000	5.00	22.120	14.66	139.7	0.0	1051.1
35.00		1.00	1.02	8.936	9.83	258.91	0.668 *	0.000	5.00	21.611	14.43	141.9	0.0	1026.7
40.00		1.00	1.05	9.184	10.10	256.21	0.673 *	0.000	5.00	21.101	14.20	143.5	0.0	1002.3
45.00		1.00	1.07	9.410	10.35	252.99	0.678 *	0.000	5.00	20.591	13.97	144.6	0.0	977.9
47.25	Bot - Section 2	1.00	1.09	9.505	10.46	251.39	0.682 *	0.000	2.25	9.100	6.21	64.9	0.0	432.1
50.00		1.00	1.10	9.616	10.58	249.34	0.685 *	0.000	2.75	11.127	7.63	80.7	0.0	962.3
53.25	Top - Section 1	1.00	1.11	9.742	10.72	246.77	0.689 *	0.000	3.25	12.952	8.92	95.6	0.0	1119.9
55.00		1.00	1.12	9.807	10.79	248.70	0.689 *	0.000	1.75	6.885	4.74	51.2	0.0	272.8
60.00		1.00	1.14	9.986	10.98	244.42	0.693 *	0.000	5.00	19.327	13.39	147.1	0.0	765.6
63.00	Appurtenance(s)	1.00	1.15	10.087	11.10	241.71	0.698 *	0.000	3.00	11.351	7.92	87.9	0.0	449.6
64.50	Appurtenance(s)	1.00	1.16	10.136	11.15	240.33	0.658 *	0.000	1.50	5.607	3.69	41.1	0.0	222.0
65.00		1.00	1.16	10.153	11.17	239.86	0.659 *	0.000	0.50	1.859	1.22	13.7	0.0	73.6
70.00		1.00	1.18	10.310	11.34	235.08	0.662 *	0.000	5.00	18.307	12.12	137.4	0.0	724.9
75.00		1.00	1.19	10.459	11.50	230.08	0.668 *	0.000	5.00	17.797	11.88	136.7	0.0	704.6
80.00		1.00	1.21	10.600	11.66	224.90	0.674 *	0.000	5.00	17.288	11.65	135.9	0.0	684.2
85.00		1.00	1.23	10.734	11.81	219.54	0.681 *	0.000	5.00	16.778	11.42	134.8	0.0	663.9
90.00		1.00	1.24	10.863	11.95	214.04	0.688 *	0.000	5.00	16.268	11.19	133.7	0.0	643.6
95.00		1.00	1.25	10.986	12.08	208.39	0.695 *	0.000	5.00	15.758	10.96	132.4	0.0	623.2
96.00	Bot - Section 3	1.00	1.26	11.010	12.11	207.25	0.700 *	0.000	1.00	3.090	2.16	26.2	0.0	122.2
98.00	Appurtenance(s)	1.00	1.26	11.057	12.16	204.95	0.702 *	0.000	2.00	6.204	4.36	53.0	0.0	438.6
100.00		1.00	1.27	11.104	12.21	202.62	0.706 *	0.000	2.00	6.123	4.32	52.8	0.0	432.7
100.75	Top - Section 2	1.00	1.27	11.121	12.23	201.74	0.708 *	0.000	0.75	2.275	1.61	19.7	0.0	160.8
105.00		1.00	1.28	11.218	12.34	199.60	0.709 *	0.000	4.25	12.674	8.99	110.9	0.0	401.5
109.00	Appurtenance(s)	1.00	1.29	11.305	12.44	194.81	0.716 *	0.000	4.00	11.592	8.30	103.3	0.0	367.2
110.00		1.00	1.29	11.327	12.46	193.61	0.650	0.000	1.00	2.847	1.85	23.1	0.0	90.2
115.00		1.00	1.31	11.432	12.58	187.52	0.650	0.000	5.00	13.930	9.05	113.9	0.0	441.1
120.00	Appurtenance(s)	1.00	1.32	11.534	12.69	181.33	0.650	0.000	5.00	13.420	8.72	110.7	0.0	424.8
125.00		1.00	1.33	11.633	12.80	175.05	0.650	0.000	5.00	12.910	8.39	107.4	0.0	408.6
129.00	Top - Section 3	1.00	1.34	11.710	12.88	169.97	0.650	0.000	4.00	9.961	6.47	83.4	0.0	315.1
130.00		1.00	1.34	11.729	12.90	168.04	0.650	0.000	1.00	2.430	1.58	20.4	0.0	57.8
135.00		1.00	1.35	11.822	13.00	161.60	0.655 *	0.000	5.00	11.844	7.75	100.8	0.0	281.5
138.00	Appurtenance(s)	1.00	1.36	11.876	13.06	157.69	0.662 *	0.000	3.00	6.862	4.54	59.3	0.0	163.1
140.00		1.00	1.36	11.912	13.10	155.08	0.666 *	0.000	2.00	4.472	2.98	39.1	0.0	106.3
145.00		1.00	1.37	12.000	13.20	148.48	0.673 *	0.000	5.00	10.824	7.29	96.2	0.0	257.1
146.00	Appurtenance(s)	1.00	1.37	12.017	13.22	147.16	0.680 *	0.000	1.00	2.104	1.43	18.9	0.0	50.0
148.00	Appurtenance(s)	1.00	1.38	12.051	13.26	144.50	0.650	0.000	2.00	4.146	2.69	35.7	0.0	98.5
149.00		1.00	1.38	12.068	13.27	143.16	0.650	0.000	1.00	2.042	1.33	17.6	0.0	48.5
								Totals:	**149.00**			**3,811.6**		**22,687.6**

* Cf Adjusted by Linear Load Ra Effect

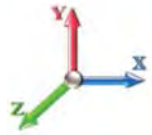
Discrete Appurtenance Forces

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 50	

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	148.00	Decibel DB404-B	1	12.110	13.321	1.00	1.00	1.03	14.00	0.000	3.500	13.72	0.00	48.02
2	148.00	Pipe Mount	1	12.051	13.256	1.00	1.00	2.50	100.00	0.000	0.000	33.14	0.00	0.00
3	146.00	RFS APXVTM14-C-120	3	12.017	13.219	0.71	0.90	13.52	168.00	0.000	0.000	178.76	0.00	0.00
4	146.00	Argus LLPX310R	3	12.017	13.219	0.66	0.90	8.48	85.80	0.000	0.000	112.03	0.00	0.00
5	146.00	Andrew VHLP800-11-DW1	1	12.017	13.219	1.00	1.00	6.70	49.00	0.000	0.000	88.56	0.00	0.00
6	146.00	U-RAS Flexible RRH	3	12.017	13.219	0.70	0.90	4.06	152.10	0.000	0.000	53.73	0.00	0.00
7	146.00	12.5' Low Profile Platform	1	12.017	13.219	1.00	1.00	36.05	1632.00	0.000	0.000	476.53	0.00	0.00
8	146.00	Andrew VHLP2-11	1	12.017	13.219	1.00	1.00	3.73	27.00	0.000	0.000	49.31	0.00	0.00
9	146.00	RFS APXVSPP18-C-A20	3	12.017	13.219	0.75	0.90	17.97	171.00	0.000	0.000	237.58	0.00	0.00
10	146.00	ALU 1900MHz RRH	3	12.017	13.219	0.60	0.90	6.87	132.00	0.000	0.000	90.87	0.00	0.00
11	146.00	ALU 800MHz RRH	3	12.017	13.219	0.60	0.90	4.78	178.50	0.000	0.000	63.13	0.00	0.00
12	146.00	800MHz RRH w/ filter	3	12.017	13.219	0.90	0.90	9.34	204.90	0.000	0.000	123.49	0.00	0.00
13	146.00	RFS ACU-A20-N	4	12.017	13.219	0.71	0.90	0.40	4.00	0.000	0.000	5.26	0.00	0.00
14	146.00	ALU TD-RRH8x20-25	3	12.017	13.219	0.62	0.90	7.55	210.00	0.000	0.000	99.74	0.00	0.00
15	138.00	WCS-IMFQ-AMT	1	11.876	13.064	0.38	0.75	0.37	34.50	0.000	0.000	4.85	0.00	0.00
16	138.00	HPA-65R-BUU-H6	3	11.876	13.064	0.64	0.75	18.47	153.00	0.000	0.000	241.35	0.00	0.00
17	138.00	7770	3	11.876	13.064	0.55	0.75	9.03	105.00	0.000	0.000	118.02	0.00	0.00
18	138.00	Raycap DC6-48-60-18-8F	2	11.876	13.064	1.00	1.00	2.94	65.60	0.000	0.000	38.41	0.00	0.00
19	138.00	4449 B5/B12	3	11.876	13.064	0.50	0.75	2.97	213.00	0.000	0.000	38.80	0.00	0.00
20	138.00	4415 B30	3	11.876	13.064	0.50	0.75	2.47	138.00	0.000	0.000	32.30	0.00	0.00
21	138.00	Powerwave 7020.00 RET	12	11.876	13.064	0.50	0.75	2.41	26.40	0.000	0.000	31.51	0.00	0.00
22	138.00	Commscope	3	11.876	13.064	0.73	0.75	0.11	4.80	0.000	0.000	1.44	0.00	0.00
23	138.00	Low Profile Platform w/	1	11.876	13.064	1.00	1.00	23.81	1588.00	0.000	0.000	311.05	0.00	0.00
24	138.00	Powerwave LGP13519	6	11.876	13.064	0.75	0.75	1.53	31.80	0.000	0.000	19.99	0.00	0.00
25	138.00	Ericsson RRUS-32 B2s	3	11.876	13.064	0.50	0.75	4.13	180.00	0.000	0.000	53.96	0.00	0.00
26	138.00	Powerawve LGP21901	6	11.876	13.064	0.56	0.75	0.78	33.00	0.000	0.000	10.14	0.00	0.00
27	138.00	DMP65R-BU6DA	3	11.876	13.064	0.54	0.75	20.59	238.20	0.000	0.000	268.99	0.00	0.00
28	120.00	Ericsson KRY 112 144/1	3	11.534	12.688	0.50	0.75	0.62	33.00	0.000	0.000	7.84	0.00	0.00
29	120.00	AIR32 KRD	3	11.534	12.688	0.65	0.75	12.74	396.60	0.000	0.000	161.69	0.00	0.00
30	120.00	AIR6449 B41	3	11.534	12.688	0.53	0.75	9.03	309.00	0.000	0.000	114.52	0.00	0.00
31	120.00	APXVAALL24_43-U-NA20	3	11.534	12.688	0.52	0.75	31.88	384.00	0.000	0.000	404.47	0.00	0.00
32	120.00	SDX1926Q-43	3	11.534	12.688	0.50	0.75	0.78	12.90	0.000	0.000	9.95	0.00	0.00
33	120.00	PRK-1245 (kicker kit)	1	11.534	12.688	1.00	1.00	9.50	464.91	0.000	0.000	120.54	0.00	0.00
34	120.00	Low Profile Platform	1	11.534	12.688	1.00	1.00	36.10	1632.00	0.000	0.000	458.03	0.00	0.00
35	120.00	4449 B71 + B85	3	11.534	12.688	0.50	0.75	2.97	219.60	0.000	0.000	37.68	0.00	0.00
36	120.00	RRUS 4415 B25	3	11.534	12.688	0.50	0.75	2.47	138.00	0.000	0.000	31.37	0.00	0.00
37	120.00	HRK12 (Handrail Kit)	1	11.534	12.688	1.00	1.00	6.75	261.72	0.000	0.000	85.64	0.00	0.00
38	109.00	Commscope	3	11.305	12.436	0.55	0.75	20.15	212.40	0.000	0.000	250.63	0.00	0.00
39	109.00	Fujitsu TA08025-B605	3	11.305	12.436	0.60	0.75	3.53	224.85	0.000	0.000	43.87	0.00	0.00
40	109.00	Fujitsu TA08025-B604	3	11.305	12.436	0.57	0.75	3.35	191.79	0.000	0.000	41.68	0.00	0.00
41	109.00	Platform w/HRK	1	11.305	12.436	1.00	1.00	22.60	1727.00	0.000	0.000	281.05	0.00	0.00
42	109.00	Raycap	1	11.305	12.436	0.58	0.75	1.18	21.85	0.000	0.000	14.62	0.00	0.00
43	98.00	Quintel AS-005245 - Dual	3	11.057	12.163	1.00	1.00	3.60	180.00	0.000	0.000	43.79	0.00	0.00
44	98.00	RFS DB-C1-12C-24AB-OZ	2	11.057	12.163	0.80	0.80	6.50	64.00	0.000	0.000	79.01	0.00	0.00
45	98.00	B5/B13 RRH-BR04C	3	11.057	12.163	0.54	0.80	3.02	253.50	0.000	0.000	36.77	0.00	0.00
46	98.00	B2/B66A RRH-BR049	3	11.057	12.163	0.54	0.80	3.02	253.50	0.000	0.000	36.77	0.00	0.00
47	98.00	12.5' Low Profile Platform	1	11.057	12.163	1.00	1.00	23.81	1588.00	0.000	0.000	289.60	0.00	0.00

Discrete Appurtenance Forces

Structure:	CT13056-A		**Code:**	EIA/TIA-222-G	9/30/2021
Site Name:	Moosehill		**Exposure:**	C	
Height:	149.00 (ft)		**Crest Height:**	0.00	
Base Elev:	1.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 51

48	96.00	Samsung MT6407-77A	3	11.010	12.111	0.56	0.80	7.90	261.30	0.000	0.000	95.63	0.00	0.00
49	96.00	Amphenol	2	11.010	12.111	0.76	0.80	14.84	54.00	0.000	0.000	179.67	0.00	0.00
50	96.00	Celwave	4	11.010	12.111	0.74	0.80	12.05	62.80	0.000	0.000	145.97	0.00	0.00
51	96.00	Quintel QS6656-5D	6	11.010	12.111	0.74	0.80	35.90	555.00	0.000	0.000	434.81	0.00	0.00
52	64.50	Decibel 26OB	1	10.136	11.150	1.00	1.00	2.00	50.00	0.000	0.000	22.30	0.00	0.00
53	63.00	3 ft Standoff	1	10.087	11.096	1.00	1.00	2.63	40.00	0.000	0.000	29.18	0.00	0.00
							Totals:		**15,531.32**			**6,253.70**		

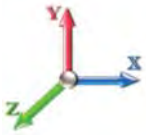
Total Applied Force Summary

Structure:	CT13056-A		**Code:**	EIA/TIA-222-G	9/30/2021
Site Name:	Moosehill		**Exposure:**	C	
Height:	149.00 (ft)		**Crest Height:**	0.00	
Base Elev:	1.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 52

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		131.27	1391.64	0.00	0.00
10.00		128.55	1367.24	0.00	0.00
15.00		127.39	1342.84	0.00	0.00
20.00		132.75	1318.44	0.00	0.00
25.00		136.73	1294.04	0.00	0.00
30.00		139.68	1269.63	0.00	0.00
35.00		141.86	1245.23	0.00	0.00
40.00		143.46	1220.83	0.00	0.00
45.00		144.57	1196.43	0.00	0.00
47.25		64.92	530.43	0.00	0.00
50.00		80.67	1082.51	0.00	0.00
53.25		95.62	1261.89	0.00	0.00
55.00		51.16	349.23	0.00	0.00
60.00		147.11	984.08	0.00	0.00
63.00	(1) attachments	117.11	620.69	0.00	0.00
64.50	(1) attachments	63.41	337.36	0.00	0.00
65.00		13.67	95.38	0.00	0.00
70.00		137.41	942.61	0.00	0.00
75.00		136.72	922.28	0.00	0.00
80.00		135.86	901.94	0.00	0.00
85.00		134.85	881.61	0.00	0.00
90.00		133.69	861.27	0.00	0.00
95.00		132.40	840.94	0.00	0.00
96.00	(15) attachments	882.27	1098.85	0.00	0.00
98.00	(12) attachments	538.95	2864.66	0.00	0.00
100.00		52.78	502.93	0.00	0.00
100.75		19.71	187.09	0.00	0.00
105.00		110.87	550.73	0.00	0.00
109.00	(11) attachments	735.11	2885.48	0.00	0.00
110.00		23.06	122.51	0.00	0.00
115.00		113.86	602.80	0.00	0.00
120.00	(24) attachments	1542.40	4438.26	0.00	0.00
125.00		107.38	501.76	0.00	0.00
129.00		83.40	389.70	0.00	0.00
130.00		20.38	76.41	0.00	0.00
135.00		100.82	374.74	0.00	0.00
138.00	(49) attachments	1230.11	3030.29	0.00	0.00
140.00		39.06	116.82	0.00	0.00
145.00		96.22	283.50	0.00	0.00
146.00	(31) attachments	1597.88	3069.54	0.00	0.00
148.00	(2) attachments	82.59	216.13	0.00	48.02
149.00		17.62	49.29	0.00	0.00
	Totals:	**10,065.33**	**43,620.02**	**0.00**	**48.02**

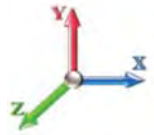
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 53	

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)
5.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.096	0.000	7.442	0.00	1.37
5.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.096	0.000	7.442	0.00	5.20
5.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.096	0.000	7.442	0.00	13.20
5.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.096	0.000	7.442	0.00	1.60
5.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.096	0.000	7.442	0.00	2.40
5.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.096	0.000	7.442	0.00	13.80
5.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.096	0.000	7.442	0.00	31.20
5.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.096	0.000	7.442	0.00	11.00
5.00	1/2" Coax	Yes	5.00	0.000	1.00	0.42	0.00	0.096	0.000	7.442	0.00	0.80
10.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.098	0.000	7.442	0.00	1.37
10.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.098	0.000	7.442	0.00	5.20
10.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.098	0.000	7.442	0.00	13.20
10.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.098	0.000	7.442	0.00	1.60
10.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.098	0.000	7.442	0.00	2.40
10.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.098	0.000	7.442	0.00	13.80
10.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.098	0.000	7.442	0.00	31.20
10.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.098	0.000	7.442	0.00	11.00
10.00	1/2" Coax	Yes	5.00	0.000	1.00	0.42	0.00	0.098	0.000	7.442	0.00	0.80
15.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.100	0.000	7.534	0.00	1.37
15.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.100	0.000	7.534	0.00	5.20
15.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.100	0.000	7.534	0.00	13.20
15.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.100	0.000	7.534	0.00	1.60
15.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.100	0.000	7.534	0.00	2.40
15.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.100	0.000	7.534	0.00	13.80
15.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.100	0.000	7.534	0.00	31.20
15.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.100	0.000	7.534	0.00	11.00
15.00	1/2" Coax	Yes	5.00	0.000	1.00	0.42	0.00	0.100	0.000	7.534	0.00	0.80
20.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.102	1.006	7.978	0.00	1.37
20.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.102	1.006	7.978	0.00	5.20
20.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.102	1.006	7.978	0.00	13.20
20.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.102	1.006	7.978	0.00	1.60
20.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.102	1.006	7.978	0.00	2.40
20.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.102	1.006	7.978	0.00	13.80
20.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.102	1.006	7.978	0.00	31.20
20.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.102	1.006	7.978	0.00	11.00
20.00	1/2" Coax	Yes	5.00	0.000	1.00	0.42	0.00	0.102	1.006	7.978	0.00	0.80
25.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.104	1.013	8.345	0.00	1.37
25.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.104	1.013	8.345	0.00	5.20
25.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.104	1.013	8.345	0.00	13.20
25.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.104	1.013	8.345	0.00	1.60
25.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.104	1.013	8.345	0.00	2.40
25.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.104	1.013	8.345	0.00	13.80
25.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.104	1.013	8.345	0.00	31.20
25.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.104	1.013	8.345	0.00	11.00
25.00	1/2" Coax	Yes	5.00	0.000	1.00	0.42	0.00	0.104	1.013	8.345	0.00	0.80
30.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.107	1.020	8.659	0.00	1.37
30.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.107	1.020	8.659	0.00	5.20

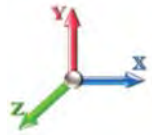
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 54	

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)
30.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.107	1.020	8.659	0.00	13.20
30.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.107	1.020	8.659	0.00	1.60
30.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.107	1.020	8.659	0.00	2.40
30.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.107	1.020	8.659	0.00	13.80
30.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.107	1.020	8.659	0.00	31.20
30.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.107	1.020	8.659	0.00	11.00
30.00	1/2" Coax	Yes	5.00	0.000	1.00	0.42	0.00	0.107	1.020	8.659	0.00	0.80
35.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.109	1.027	8.936	0.00	1.37
35.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.109	1.027	8.936	0.00	5.20
35.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	8.936	0.00	13.20
35.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	8.936	0.00	1.60
35.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.109	1.027	8.936	0.00	2.40
35.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.109	1.027	8.936	0.00	13.80
35.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	8.936	0.00	31.20
35.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	8.936	0.00	11.00
35.00	1/2" Coax	Yes	5.00	0.000	1.00	0.42	0.00	0.109	1.027	8.936	0.00	0.80
40.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.112	1.035	9.184	0.00	1.37
40.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.112	1.035	9.184	0.00	5.20
40.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.035	9.184	0.00	13.20
40.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.035	9.184	0.00	1.60
40.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.112	1.035	9.184	0.00	2.40
40.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.112	1.035	9.184	0.00	13.80
40.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.035	9.184	0.00	31.20
40.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.035	9.184	0.00	11.00
40.00	1/2" Coax	Yes	5.00	0.000	1.00	0.42	0.00	0.112	1.035	9.184	0.00	0.80
45.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.115	1.044	9.410	0.00	1.37
45.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.115	1.044	9.410	0.00	5.20
45.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.115	1.044	9.410	0.00	13.20
45.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.115	1.044	9.410	0.00	1.60
45.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.115	1.044	9.410	0.00	2.40
45.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.115	1.044	9.410	0.00	13.80
45.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.115	1.044	9.410	0.00	31.20
45.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.115	1.044	9.410	0.00	11.00
45.00	1/2" Coax	Yes	5.00	0.000	1.00	0.42	0.00	0.115	1.044	9.410	0.00	0.80
47.25	Safety Cable	Yes	2.25	0.000	0.38	0.07	0.00	0.117	1.050	9.505	0.00	0.61
47.25	Step bolts (ladder)	Yes	2.25	0.000	0.63	0.12	0.00	0.117	1.050	9.505	0.00	2.34
47.25	1 1/4" Coax	Yes	2.25	0.000	0.00	0.00	0.00	0.117	1.050	9.505	0.00	5.94
47.25	1/2" Coax	Yes	2.25	0.000	0.00	0.00	0.00	0.117	1.050	9.505	0.00	0.72
47.25	5/16" Coax	Yes	2.25	0.000	1.90	0.36	0.00	0.117	1.050	9.505	0.00	1.08
47.25	1.75" Hybrid	Yes	2.25	0.000	1.75	0.33	0.00	0.117	1.050	9.505	0.00	6.21
47.25	1 5/8" Coax	Yes	2.25	0.000	0.00	0.00	0.00	0.117	1.050	9.505	0.00	14.04
47.25	1 5/8" Hybrid	Yes	2.25	0.000	0.00	0.00	0.00	0.117	1.050	9.505	0.00	4.95
47.25	1/2" Coax	Yes	2.25	0.000	1.00	0.19	0.00	0.117	1.050	9.505	0.00	0.36
50.00	Safety Cable	Yes	2.75	0.000	0.38	0.09	0.00	0.118	1.054	9.616	0.00	0.75
50.00	Step bolts (ladder)	Yes	2.75	0.000	0.63	0.14	0.00	0.118	1.054	9.616	0.00	2.86
50.00	1 1/4" Coax	Yes	2.75	0.000	0.00	0.00	0.00	0.118	1.054	9.616	0.00	7.26
50.00	1/2" Coax	Yes	2.75	0.000	0.00	0.00	0.00	0.118	1.054	9.616	0.00	0.88

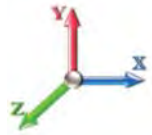
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 55	

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)
50.00	5/16" Coax	Yes	2.75	0.000	1.90	0.44	0.00	0.118	1.054	9.616	0.00	1.32
50.00	1.75" Hybrid	Yes	2.75	0.000	1.75	0.40	0.00	0.118	1.054	9.616	0.00	7.59
50.00	1 5/8" Coax	Yes	2.75	0.000	0.00	0.00	0.00	0.118	1.054	9.616	0.00	17.16
50.00	1 5/8" Hybrid	Yes	2.75	0.000	0.00	0.00	0.00	0.118	1.054	9.616	0.00	6.05
50.00	1/2" Coax	Yes	2.75	0.000	1.00	0.23	0.00	0.118	1.054	9.616	0.00	0.44
53.25	Safety Cable	Yes	3.25	0.000	0.38	0.10	0.00	0.120	1.060	9.742	0.00	0.89
53.25	Step bolts (ladder)	Yes	3.25	0.000	0.63	0.17	0.00	0.120	1.060	9.742	0.00	3.38
53.25	1 1/4" Coax	Yes	3.25	0.000	0.00	0.00	0.00	0.120	1.060	9.742	0.00	8.58
53.25	1/2" Coax	Yes	3.25	0.000	0.00	0.00	0.00	0.120	1.060	9.742	0.00	1.04
53.25	5/16" Coax	Yes	3.25	0.000	1.90	0.51	0.00	0.120	1.060	9.742	0.00	1.56
53.25	1.75" Hybrid	Yes	3.25	0.000	1.75	0.47	0.00	0.120	1.060	9.742	0.00	8.97
53.25	1 5/8" Coax	Yes	3.25	0.000	0.00	0.00	0.00	0.120	1.060	9.742	0.00	20.28
53.25	1 5/8" Hybrid	Yes	3.25	0.000	0.00	0.00	0.00	0.120	1.060	9.742	0.00	7.15
53.25	1/2" Coax	Yes	3.25	0.000	1.00	0.27	0.00	0.120	1.060	9.742	0.00	0.52
55.00	Safety Cable	Yes	1.75	0.000	0.38	0.06	0.00	0.120	1.060	9.807	0.00	0.48
55.00	Step bolts (ladder)	Yes	1.75	0.000	0.63	0.09	0.00	0.120	1.060	9.807	0.00	1.82
55.00	1 1/4" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.120	1.060	9.807	0.00	4.62
55.00	1/2" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.120	1.060	9.807	0.00	0.56
55.00	5/16" Coax	Yes	1.75	0.000	1.90	0.28	0.00	0.120	1.060	9.807	0.00	0.84
55.00	1.75" Hybrid	Yes	1.75	0.000	1.75	0.26	0.00	0.120	1.060	9.807	0.00	4.83
55.00	1 5/8" Coax	Yes	1.75	0.000	0.00	0.00	0.00	0.120	1.060	9.807	0.00	10.92
55.00	1 5/8" Hybrid	Yes	1.75	0.000	0.00	0.00	0.00	0.120	1.060	9.807	0.00	3.85
55.00	1/2" Coax	Yes	1.75	0.000	1.00	0.15	0.00	0.120	1.060	9.807	0.00	0.28
60.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.122	1.066	9.986	0.00	1.37
60.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.122	1.066	9.986	0.00	5.20
60.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.066	9.986	0.00	13.20
60.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.066	9.986	0.00	1.60
60.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.122	1.066	9.986	0.00	2.40
60.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.122	1.066	9.986	0.00	13.80
60.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.066	9.986	0.00	31.20
60.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.066	9.986	0.00	11.00
60.00	1/2" Coax	Yes	5.00	0.000	1.00	0.42	0.00	0.122	1.066	9.986	0.00	0.80
63.00	Safety Cable	Yes	3.00	0.000	0.38	0.10	0.00	0.125	1.074	10.087	0.00	0.82
63.00	Step bolts (ladder)	Yes	3.00	0.000	0.63	0.16	0.00	0.125	1.074	10.087	0.00	3.12
63.00	1 1/4" Coax	Yes	3.00	0.000	0.00	0.00	0.00	0.125	1.074	10.087	0.00	7.92
63.00	1/2" Coax	Yes	3.00	0.000	0.00	0.00	0.00	0.125	1.074	10.087	0.00	0.96
63.00	5/16" Coax	Yes	3.00	0.000	1.90	0.47	0.00	0.125	1.074	10.087	0.00	1.44
63.00	1.75" Hybrid	Yes	3.00	0.000	1.75	0.44	0.00	0.125	1.074	10.087	0.00	8.28
63.00	1 5/8" Coax	Yes	3.00	0.000	0.00	0.00	0.00	0.125	1.074	10.087	0.00	18.72
63.00	1 5/8" Hybrid	Yes	3.00	0.000	0.00	0.00	0.00	0.125	1.074	10.087	0.00	6.60
63.00	1/2" Coax	Yes	3.00	0.000	1.00	0.25	0.00	0.125	1.074	10.087	0.00	0.48
64.50	Safety Cable	Yes	1.50	0.000	0.38	0.05	0.00	0.104	1.012	10.136	0.00	0.41
64.50	Step bolts (ladder)	Yes	1.50	0.000	0.63	0.08	0.00	0.104	1.012	10.136	0.00	1.56
64.50	1 1/4" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.104	1.012	10.136	0.00	3.96
64.50	1/2" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.104	1.012	10.136	0.00	0.48
64.50	5/16" Coax	Yes	1.50	0.000	1.90	0.24	0.00	0.104	1.012	10.136	0.00	0.72
64.50	1.75" Hybrid	Yes	1.50	0.000	1.75	0.22	0.00	0.104	1.012	10.136	0.00	4.14

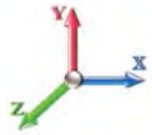
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 56	

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)
64.50	1 5/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	0.104	1.012	10.136	0.00	9.36
64.50	1 5/8" Hybrid	Yes	1.50	0.000	0.00	0.00	0.00	0.104	1.012	10.136	0.00	3.30
65.00	Safety Cable	Yes	0.50	0.000	0.38	0.02	0.00	0.104	1.013	10.153	0.00	0.14
65.00	Step bolts (ladder)	Yes	0.50	0.000	0.63	0.03	0.00	0.104	1.013	10.153	0.00	0.52
65.00	1 1/4" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.104	1.013	10.153	0.00	1.32
65.00	1/2" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.104	1.013	10.153	0.00	0.16
65.00	5/16" Coax	Yes	0.50	0.000	1.90	0.08	0.00	0.104	1.013	10.153	0.00	0.24
65.00	1.75" Hybrid	Yes	0.50	0.000	1.75	0.07	0.00	0.104	1.013	10.153	0.00	1.38
65.00	1 5/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.104	1.013	10.153	0.00	3.12
65.00	1 5/8" Hybrid	Yes	0.50	0.000	0.00	0.00	0.00	0.104	1.013	10.153	0.00	1.10
70.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.106	1.018	10.310	0.00	1.37
70.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.106	1.018	10.310	0.00	5.20
70.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.106	1.018	10.310	0.00	13.20
70.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.106	1.018	10.310	0.00	1.60
70.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.106	1.018	10.310	0.00	2.40
70.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.106	1.018	10.310	0.00	13.80
70.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.106	1.018	10.310	0.00	31.20
70.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.106	1.018	10.310	0.00	11.00
75.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.109	1.027	10.459	0.00	1.37
75.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.109	1.027	10.459	0.00	5.20
75.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	10.459	0.00	13.20
75.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	10.459	0.00	1.60
75.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.109	1.027	10.459	0.00	2.40
75.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.109	1.027	10.459	0.00	13.80
75.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	10.459	0.00	31.20
75.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.109	1.027	10.459	0.00	11.00
80.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.112	1.037	10.600	0.00	1.37
80.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.112	1.037	10.600	0.00	5.20
80.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.037	10.600	0.00	13.20
80.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.037	10.600	0.00	1.60
80.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.112	1.037	10.600	0.00	2.40
80.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.112	1.037	10.600	0.00	13.80
80.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.037	10.600	0.00	31.20
80.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.037	10.600	0.00	11.00
85.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.116	1.047	10.734	0.00	1.37
85.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.116	1.047	10.734	0.00	5.20
85.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.116	1.047	10.734	0.00	13.20
85.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.116	1.047	10.734	0.00	1.60
85.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.116	1.047	10.734	0.00	2.40
85.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.116	1.047	10.734	0.00	13.80
85.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.116	1.047	10.734	0.00	31.20
85.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.116	1.047	10.734	0.00	11.00
90.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.119	1.058	10.863	0.00	1.37
90.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.119	1.058	10.863	0.00	5.20
90.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.119	1.058	10.863	0.00	13.20
90.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.119	1.058	10.863	0.00	1.60
90.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.119	1.058	10.863	0.00	2.40

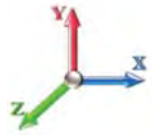
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 57	

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)
90.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.119	1.058	10.863	0.00	13.80
90.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.119	1.058	10.863	0.00	31.20
90.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.119	1.058	10.863	0.00	11.00
95.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.123	1.070	10.986	0.00	1.37
95.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.123	1.070	10.986	0.00	5.20
95.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.123	1.070	10.986	0.00	13.20
95.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.123	1.070	10.986	0.00	1.60
95.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.123	1.070	10.986	0.00	2.40
95.00	1.75" Hybrid	Yes	5.00	0.000	1.75	0.73	0.00	0.123	1.070	10.986	0.00	13.80
95.00	1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.123	1.070	10.986	0.00	31.20
95.00	1 5/8" Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.123	1.070	10.986	0.00	11.00
96.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.126	1.077	11.010	0.00	0.27
96.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.126	1.077	11.010	0.00	1.04
96.00	1 1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.126	1.077	11.010	0.00	2.64
96.00	1/2" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.126	1.077	11.010	0.00	0.32
96.00	5/16" Coax	Yes	1.00	0.000	1.90	0.16	0.00	0.126	1.077	11.010	0.00	0.48
96.00	1.75" Hybrid	Yes	1.00	0.000	1.75	0.15	0.00	0.126	1.077	11.010	0.00	2.76
96.00	1 5/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.126	1.077	11.010	0.00	6.24
96.00	1 5/8" Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.126	1.077	11.010	0.00	2.20
98.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.127	1.081	11.057	0.00	0.55
98.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.127	1.081	11.057	0.00	2.08
98.00	1 1/4" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.081	11.057	0.00	5.28
98.00	1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.081	11.057	0.00	0.64
98.00	5/16" Coax	Yes	2.00	0.000	1.90	0.32	0.00	0.127	1.081	11.057	0.00	0.96
98.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.127	1.081	11.057	0.00	5.52
98.00	1 5/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.081	11.057	0.00	12.48
98.00	1 5/8" Hybrid	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.081	11.057	0.00	4.40
100.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.129	1.086	11.104	0.00	0.55
100.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.129	1.086	11.104	0.00	2.08
100.00	1 1/4" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.086	11.104	0.00	5.28
100.00	1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.129	1.086	11.104	0.00	0.64
100.00	5/16" Coax	Yes	2.00	0.000	1.90	0.32	0.00	0.129	1.086	11.104	0.00	0.96
100.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.129	1.086	11.104	0.00	5.52
100.75	Safety Cable	Yes	0.75	0.000	0.38	0.02	0.00	0.130	1.090	11.121	0.00	0.20
100.75	Step bolts (ladder)	Yes	0.75	0.000	0.63	0.04	0.00	0.130	1.090	11.121	0.00	0.78
100.75	1 1/4" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.130	1.090	11.121	0.00	1.98
100.75	1/2" Coax	Yes	0.75	0.000	0.00	0.00	0.00	0.130	1.090	11.121	0.00	0.24
100.75	5/16" Coax	Yes	0.75	0.000	1.90	0.12	0.00	0.130	1.090	11.121	0.00	0.36
100.75	1.75" Hybrid	Yes	0.75	0.000	1.75	0.11	0.00	0.130	1.090	11.121	0.00	2.07
105.00	Safety Cable	Yes	4.25	0.000	0.38	0.13	0.00	0.130	1.091	11.218	0.00	1.16
105.00	Step bolts (ladder)	Yes	4.25	0.000	0.63	0.22	0.00	0.130	1.091	11.218	0.00	4.42
105.00	1 1/4" Coax	Yes	4.25	0.000	0.00	0.00	0.00	0.130	1.091	11.218	0.00	11.22
105.00	1/2" Coax	Yes	4.25	0.000	0.00	0.00	0.00	0.130	1.091	11.218	0.00	1.36
105.00	5/16" Coax	Yes	4.25	0.000	1.90	0.67	0.00	0.130	1.091	11.218	0.00	2.04
105.00	1.75" Hybrid	Yes	4.25	0.000	1.75	0.62	0.00	0.130	1.091	11.218	0.00	11.73
109.00	Safety Cable	Yes	4.00	0.000	0.38	0.13	0.00	0.134	1.102	11.305	0.00	1.09
109.00	Step bolts (ladder)	Yes	4.00	0.000	0.63	0.21	0.00	0.134	1.102	11.305	0.00	4.16

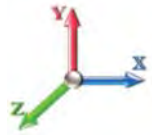
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 58	

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)
109.00	1 1/4" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.134	1.102	11.305	0.00	10.56
109.00	1/2" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.134	1.102	11.305	0.00	1.28
109.00	5/16" Coax	Yes	4.00	0.000	1.90	0.63	0.00	0.134	1.102	11.305	0.00	1.92
109.00	1.75" Hybrid	Yes	4.00	0.000	1.75	0.58	0.00	0.134	1.102	11.305	0.00	11.04
110.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.085	0.000	11.327	0.00	0.27
110.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.085	0.000	11.327	0.00	1.04
110.00	1 1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.085	0.000	11.327	0.00	2.64
110.00	1/2" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.085	0.000	11.327	0.00	0.32
110.00	5/16" Coax	Yes	1.00	0.000	1.90	0.16	0.00	0.085	0.000	11.327	0.00	0.48
115.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.087	0.000	11.432	0.00	1.37
115.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.087	0.000	11.432	0.00	5.20
115.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.087	0.000	11.432	0.00	13.20
115.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.087	0.000	11.432	0.00	1.60
115.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.087	0.000	11.432	0.00	2.40
120.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.090	0.000	11.534	0.00	1.37
120.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.090	0.000	11.534	0.00	5.20
120.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.090	0.000	11.534	0.00	13.20
120.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.090	0.000	11.534	0.00	1.60
120.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.090	0.000	11.534	0.00	2.40
125.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.094	0.000	11.633	0.00	1.37
125.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.094	0.000	11.633	0.00	5.20
125.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.094	0.000	11.633	0.00	13.20
125.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.094	0.000	11.633	0.00	1.60
125.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.094	0.000	11.633	0.00	2.40
129.00	Safety Cable	Yes	4.00	0.000	0.38	0.13	0.00	0.097	0.000	11.710	0.00	1.09
129.00	Step bolts (ladder)	Yes	4.00	0.000	0.63	0.21	0.00	0.097	0.000	11.710	0.00	4.16
129.00	1 1/4" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.097	0.000	11.710	0.00	10.56
129.00	1/2" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.097	0.000	11.710	0.00	1.28
129.00	5/16" Coax	Yes	4.00	0.000	1.90	0.63	0.00	0.097	0.000	11.710	0.00	1.92
130.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.100	0.000	11.729	0.00	0.27
130.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.100	0.000	11.729	0.00	1.04
130.00	1 1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.100	0.000	11.729	0.00	2.64
130.00	1/2" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.100	0.000	11.729	0.00	0.32
130.00	5/16" Coax	Yes	1.00	0.000	1.90	0.16	0.00	0.100	0.000	11.729	0.00	0.48
135.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.102	1.007	11.822	0.00	1.37
135.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.102	1.007	11.822	0.00	5.20
135.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.102	1.007	11.822	0.00	13.20
135.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.102	1.007	11.822	0.00	1.60
135.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.102	1.007	11.822	0.00	2.40
138.00	Safety Cable	Yes	3.00	0.000	0.38	0.10	0.00	0.106	1.018	11.876	0.00	0.82
138.00	Step bolts (ladder)	Yes	3.00	0.000	0.63	0.16	0.00	0.106	1.018	11.876	0.00	3.12
138.00	1 1/4" Coax	Yes	3.00	0.000	0.00	0.00	0.00	0.106	1.018	11.876	0.00	7.92
138.00	1/2" Coax	Yes	3.00	0.000	0.00	0.00	0.00	0.106	1.018	11.876	0.00	0.96
138.00	5/16" Coax	Yes	3.00	0.000	1.90	0.47	0.00	0.106	1.018	11.876	0.00	1.44
140.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.108	1.025	11.912	0.00	0.55
140.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.108	1.025	11.912	0.00	2.08
140.00	1 1/4" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.108	1.025	11.912	0.00	5.28

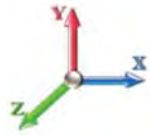
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13056-A		**Code:**	EIA/TIA-222-G	9/30/2021
Site Name:	Moosehill		**Exposure:**	C	
Height:	149.00 (ft)		**Crest Height:**	0.00	
Base Elev:	1.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 59

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)
140.00	1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.108	1.025	11.912	0.00	0.64
140.00	5/16" Coax	Yes	2.00	0.000	1.90	0.32	0.00	0.108	1.025	11.912	0.00	0.96
145.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.112	1.036	12.000	0.00	1.37
145.00	Step bolts (ladder)	Yes	5.00	0.000	0.63	0.26	0.00	0.112	1.036	12.000	0.00	5.20
145.00	1 1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.036	12.000	0.00	13.20
145.00	1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.112	1.036	12.000	0.00	1.60
145.00	5/16" Coax	Yes	5.00	0.000	1.90	0.79	0.00	0.112	1.036	12.000	0.00	2.40
146.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.115	1.046	12.017	0.00	0.27
146.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.115	1.046	12.017	0.00	1.04
146.00	1 1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.115	1.046	12.017	0.00	2.64
146.00	1/2" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.115	1.046	12.017	0.00	0.32
146.00	5/16" Coax	Yes	1.00	0.000	1.90	0.16	0.00	0.115	1.046	12.017	0.00	0.48
148.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.041	0.000	12.051	0.00	0.55
148.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.041	0.000	12.051	0.00	2.08
149.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.016	0.000	12.068	0.00	0.27
										Totals:	**0.0**	**1,834.9**

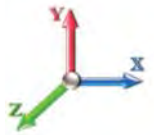
Calculated Forces

Structure:	CT13056-A	**Code:**	EIA/TIA-222-G	9/30/2021	
Site Name:	Moosehill	**Exposure:**	C		
Height:	149.00 (ft)	**Crest Height:**	0.00		
Base Elev:	1.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 60	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 23

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-43.62	-10.08	0.00	-1084.9	0.00	1084.94	4419.23	2209.62	10644.5	5330.19	0.00	0.000	0.000	0.213
5.00	-42.22	-9.99	0.00	-1034.5	0.00	1034.52	4369.18	2184.59	10305.9	5160.65	0.03	-0.050	0.000	0.210
10.00	-40.84	-9.90	0.00	-984.58	0.00	984.58	4317.41	2158.71	9968.41	4991.62	0.11	-0.101	0.000	0.207
15.00	-39.49	-9.80	0.00	-935.10	0.00	935.10	4263.92	2131.96	9632.14	4823.23	0.24	-0.152	0.000	0.203
20.00	-38.16	-9.70	0.00	-886.09	0.00	886.09	4208.71	2104.36	9297.40	4655.61	0.43	-0.204	0.000	0.199
25.00	-36.86	-9.59	0.00	-837.60	0.00	837.60	4151.78	2075.89	8964.46	4488.89	0.67	-0.257	0.000	0.195
30.00	-35.58	-9.48	0.00	-789.65	0.00	789.65	4093.13	2046.56	8633.57	4323.20	0.97	-0.310	0.000	0.191
35.00	-34.33	-9.36	0.00	-742.26	0.00	742.26	4032.76	2016.38	8305.00	4158.67	1.32	-0.363	0.000	0.187
40.00	-33.10	-9.24	0.00	-695.45	0.00	695.45	3970.67	1985.33	7978.99	3995.42	1.73	-0.418	0.000	0.182
45.00	-31.90	-9.11	0.00	-649.25	0.00	649.25	3906.85	1953.43	7655.81	3833.59	2.20	-0.472	0.000	0.178
47.25	-31.36	-9.05	0.00	-628.75	0.00	628.75	3877.58	1938.79	7511.37	3761.27	2.43	-0.497	0.000	0.175
50.00	-30.28	-8.98	0.00	-603.85	0.00	603.85	3841.32	1920.66	7335.71	3673.31	2.72	-0.528	0.000	0.172
53.25	-29.01	-8.89	0.00	-574.66	0.00	574.66	2984.31	1492.16	5695.15	2851.81	3.09	-0.564	0.000	0.211
55.00	-28.66	-8.85	0.00	-559.10	0.00	559.10	2968.67	1484.33	5613.44	2810.89	3.30	-0.583	0.000	0.209
60.00	-27.67	-8.72	0.00	-514.83	0.00	514.83	2922.80	1461.40	5380.87	2694.44	3.95	-0.646	0.000	0.201
63.00	-27.04	-8.61	0.00	-488.67	0.00	488.67	2894.46	1447.23	5242.03	2624.91	4.37	-0.684	0.000	0.196
64.50	-26.70	-8.55	0.00	-475.75	0.00	475.75	2880.06	1440.03	5172.83	2590.26	4.58	-0.703	0.000	0.193
65.00	-26.60	-8.55	0.00	-471.48	0.00	471.48	2875.22	1437.61	5149.80	2578.73	4.66	-0.710	0.000	0.192
70.00	-25.65	-8.43	0.00	-428.73	0.00	428.73	2825.92	1412.96	4920.48	2463.90	5.44	-0.772	0.000	0.183
75.00	-24.72	-8.30	0.00	-386.59	0.00	386.59	2774.89	1387.45	4693.17	2350.07	6.28	-0.833	0.000	0.173
80.00	-23.82	-8.18	0.00	-345.07	0.00	345.07	2722.15	1361.08	4468.13	2237.39	7.18	-0.892	0.000	0.163
85.00	-22.93	-8.05	0.00	-304.17	0.00	304.17	2667.69	1333.84	4245.61	2125.96	8.15	-0.950	0.000	0.152
90.00	-22.06	-7.93	0.00	-263.90	0.00	263.90	2611.50	1305.75	4025.88	2015.93	9.17	-1.005	0.000	0.139
95.00	-21.22	-7.79	0.00	-224.28	0.00	224.28	2553.60	1276.80	3809.20	1907.43	10.25	-1.058	0.000	0.126
96.00	-20.14	-6.89	0.00	-216.49	0.00	216.49	2541.81	1270.90	3766.25	1885.92	10.48	-1.068	0.000	0.123
98.00	-17.28	-6.31	0.00	-202.70	0.00	202.70	2518.03	1259.01	3680.75	1843.11	10.93	-1.089	0.000	0.117
100.00	-16.78	-6.25	0.00	-190.09	0.00	190.09	2493.97	1246.99	3595.81	1800.58	11.39	-1.108	0.000	0.112
100.75	-16.59	-6.23	0.00	-185.41	0.00	185.41	1861.03	930.51	2717.30	1360.67	11.56	-1.116	0.000	0.145
105.00	-16.03	-6.12	0.00	-158.93	0.00	158.93	1828.27	914.13	2591.91	1297.88	12.58	-1.155	0.000	0.131
109.00	-13.16	-5.33	0.00	-134.45	0.00	134.45	1796.29	898.15	2474.87	1239.28	13.56	-1.195	0.000	0.116
110.00	-13.04	-5.31	0.00	-129.12	0.00	129.12	1788.13	894.06	2445.78	1224.71	13.81	-1.205	0.000	0.113
115.00	-12.43	-5.19	0.00	-102.56	0.00	102.56	1746.27	873.13	2301.39	1152.40	15.10	-1.250	0.000	0.096
120.00	-8.03	-3.56	0.00	-76.58	0.00	76.58	1702.69	851.34	2158.99	1081.10	16.43	-1.288	0.000	0.076
125.00	-7.53	-3.44	0.00	-58.79	0.00	58.79	1657.39	828.70	2018.85	1010.92	17.80	-1.321	0.000	0.063
129.00	-7.14	-3.35	0.00	-45.01	0.00	45.01	1619.91	809.96	1908.53	955.68	18.92	-1.344	0.000	0.052
129.00	-7.14	-3.35	0.00	-45.01	0.00	45.01	1091.97	545.98	1287.15	644.53	18.92	-1.344	0.000	0.076
130.00	-7.06	-3.33	0.00	-41.66	0.00	41.66	1086.84	543.42	1270.26	636.07	19.20	-1.349	0.000	0.072
135.00	-6.69	-3.23	0.00	-24.99	0.00	24.99	1060.16	530.08	1186.17	593.97	20.63	-1.376	0.000	0.048
138.00	-3.69	-1.92	0.00	-15.32	0.00	15.32	1043.32	521.66	1136.10	568.89	21.49	-1.388	0.000	0.030
140.00	-3.57	-1.88	0.00	-11.47	0.00	11.47	1031.75	515.88	1102.91	552.27	22.08	-1.393	0.000	0.024
145.00	-3.29	-1.78	0.00	-2.06	0.00	2.06	1001.63	500.82	1020.73	511.12	23.54	-1.400	0.000	0.007
146.00	-0.26	-0.11	0.00	-0.28	0.00	0.28	995.40	497.70	1004.44	502.97	23.83	-1.401	0.000	0.001
148.00	-0.05	-0.02	0.00	-0.02	0.00	0.02	982.73	491.37	972.05	486.75	24.42	-1.401	0.000	0.000
149.00	0.00	-0.02	0.00	0.00	0.00	0.00	976.29	488.15	955.94	478.68	24.71	-1.401	0.000	0.000

Final Analysis Summary

Structure:	CT13056-A		**Code:**	EIA/TIA-222-G	9/30/2021
Site Name:	Moosehill		**Exposure:**	C	
Height:	149.00 (ft)		**Crest Height:**	0.00	
Base Elev:	1.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 61

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 94 mph Wind	39.6	0.00	52.27	0.00	0.00	4284.66
0.9D + 1.6W 94 mph Wind	39.6	0.00	39.19	0.00	0.00	4240.83
1.2D + 1.0Di + 1.0Wi 50 mph Wind	11.0	0.00	89.46	0.00	0.00	1172.12
1.2D + 1.0E	2.0	0.00	52.34	0.00	0.00	240.47
0.9D + 1.0E	2.0	0.00	39.26	0.00	0.00	237.76
1.0D + 1.0W 60 mph Wind	10.1	0.00	43.62	0.00	0.00	1084.94

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 94 mph Wind	-52.27	-39.62	0.00	-4284.6	0.00	-4284.6	4419.23	2209.6	10644.5	5330.19	0.00	0.816
0.9D + 1.6W 94 mph Wind	-39.19	-39.60	0.00	-4240.8	0.00	-4240.8	4419.23	2209.6	10644.5	5330.19	0.00	0.805
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-89.46	-10.99	0.00	-1172.1	0.00	-1172.1	4419.23	2209.6	10644.5	5330.19	0.00	0.240
1.2D + 1.0E	-34.91	-1.65	0.00	-139.61	0.00	-139.61	2984.31	1492.1	5695.15	2851.81	53.25	0.061
0.9D + 1.0E	-26.19	-1.63	0.00	-137.53	0.00	-137.53	2984.31	1492.1	5695.15	2851.81	53.25	0.057
1.0D + 1.0W 60 mph Wind	-43.62	-10.08	0.00	-1084.9	0.00	-1084.9	4419.23	2209.6	10644.5	5330.19	0.00	0.213

Base Plate Summary

Structure:	CT13056-A		**Code:**	EIA/TIA-222-G	9/30/2021
Site Name:	Moosehill		**Exposure:**	C	
Height:	149.00 (ft)		**Crest Height:**	0.00	
Base Elev:	1.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 62

Reactions

Original Design

Moment (kip-ft):	4184.00
Axial (kip):	45.00
Shear (kip):	39.00

Analysis

Moment (kip-ft):	4284.66
Axial (kip):	52.27
Shear (kip):	39.62

Base Plate

Yield (ksi):	60.00
Width (in):	64.00
Style:	Clipped
Polygon Sides:	4.00
Clip Length (in):	12.00
Effective Len (in):	8.64
Moment (kip-in):	710.23
Allow Stress (ksi):	81.00
Applied Stress (ksi):	55.08
Stress Ratio:	0.68

Anchor Bolts

Bolt Circle:	66.00
Number Bolts:	16.00
Bolt Type:	2.25" 18J
Bolt Diameter (in):	2.25
Yield (ksi):	75.00
Ultimate (ksi):	100.00
Arrangement:	Clustered
Cluster Dist (in):	6.00
Start Angle (deg):	45.00

Compression

Force (kip):	200.35
Allowable (kip):	260.00
Ratio:	0.79

Tension

Force (kip):	189.17
Allowable (kip):	260.00
Ratio:	0.75

Monopole Mat Foundation Design

				Date
				9/30/2021
	Customer Name:	Dish Wireless	**EIA/TIA Standard:**	EIA-222-G
	Site Name:		**Structure Height (Ft.):**	150
	Site Number:		**Engineer Name:**	A. Hagos
	Engr. Number:		**Engineer Login ID:**	

Foundation Info Obtained from: Drawings/Calculations

Structure Type: Monopole

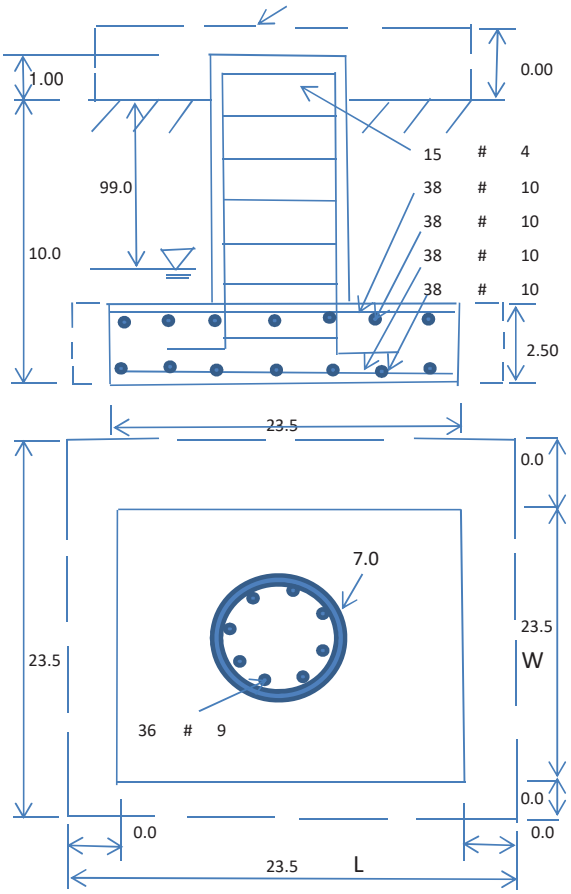
Analysis or Design? Analysis

Base Reactions (Factored):

Axial Load (Kips):	52.3	Shear Force (Kips):	39.6
Uplift Force (Kips):	0.0	Moment (Kips-ft):	4284.7
Allowable overstress %:	5.0%		

Foundation Geometries:

		Mods required -Yes/No ?:	No
Diameter of Pier (ft.):	7.0	Depth of Base BG (ft.):	10.0
Pier Height A. G. (ft.):	1.00	Thickness of Pad (ft):	2.50
Length of Pad (ft.):	23.5	Width of Pad (ft.):	23.5
Final Length of pad (ft)	23.5	Final width of pad (ft):	23.5



Material Properties and Reabr Info:

Concrete Strength (psi):	4000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield (ksi):	60	
Vertical Rebar Size #:	9	Tie / Stirrup Size #:	4	
Qty. of Vertical Rebars:	36	Tie Spacing (in):	9.0	
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	10	
Concrete Cover (in.):	3	Unit Weight of Concrete:	150.0	pcf
Rebar at the bottom of the concrete pad:				
Qty. of Rebar in Pad (L):	38	Qty. of Rebar in Pad (W):	38	
Rebar at the top of the concrete pad:				
Qty. of Rebar in Pad (L):	38	Qty. of Rebar in Pad (W):	38	
Apply 1.35 factor for e/w Per G:	1.35			

Soil Design Parameters:

Soil Unit Weight (pcf):	100.0	Soil Buoyant Weight:	37.6	Pcf		
Water Table B.G.S. (ft):	99.0	Unit Weight of Water:	62.4	pcf	Angle from Top of Pad:	30
Ultimate Bearing Pressure (psf):	8000	Ultimate Skin Friction:	0	Psf	Angle from Bottm of Pad:	25
Consider Friction for O.T.M. (Y/N):	No	Consider Friction for bearing (Y/N):	No		Angle from Bottm of Pad:	25
Consider soil hor. resist. for OTM.:	No	Reduction factor on the maximum soil bearing pressure:	1.00			

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

Total Dry Soil Volume (cu. Ft.):	3853.24	Total Dry Soil Weight (Kips):	385.32
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	385.32	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	1707.74	Total Dry Concrete Weight (Kips):	256.16
Total Buoyant Concrete Volume (cu. Ft.):	0.00	Total Buoyant Concrete Weight (Kips):	0.00
Total Effective Concrete Weight (Kips):	256.16	Total Vertical Load on Base (Kips):	693.79

Check Soil Capacities:

					Load/ Capacity Ratio	
Calculated Maxium Net Soil Pressure under the base (psf):	4037	<	Allowable Factored Soil Bearing (psf):	6000	0.67	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	7398.2	>	Design Factored Momont (kips-ft):	4720	0.64	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	1.57	OK!				

Check the capacities of Reinforceing Concrete:

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

(1) Concrete Pier:

Vertical Steel Rebar Area (sq. in./each):	1.00		Tie / Stirrup Area (sq. in./each):	0.20		
Calculated Moment Capacity (Mn,Kips-Ft):	6026.1	>	Design Factored Moment (Mu, Kips-Ft	4621.3	0.77	OK!
Calculated Shear Capacity (Kips):	704.9	>	Design Factored Shear (Kips):	39.6	0.06	OK!
Calculated Tension Capacity (Tn, Kips):	1944.0	>	Design Factored Tension (Tu Kips):	0.0	0.00	OK!
Calculated Compression Capacity (Pn, Kips):	9734.2	>	Design Factored Axial Load (Pu Kips):	52.3	0.01	OK!
Moment & Axial Strength Combination:	0.77	OK!	Check Tie Spacing (Design/Required):		0.75	OK!
Pier Reinforcement Ratio:	0.006	Reinforcement Ratio is satisfied per ACI				

(2).Concrete Pad:

One-Way Design Shear Capacity (L-Direction, Kips):	705.6	>	One-Way Factored Shear (L-D. Kips):	302.1	0.43	OK!
One-Way Design Shear Capacity (W-Direction, Kips):	705.6	>	One-Way Factored Shear (W-D., Kips):	302.1	0.43	OK!
One-Way Design Shear Capacity (Corner-Corner. Kips):	655.7	>	One-Way Factored Shear (C-C, Kips):	302.6	0.46	OK!
Lower Steel Pad Reinforcement Ratio (L-Direct.):	0.0065	OK!	Lower Steel Pad Reinf. Ratio (W-Direc	0.0065		
Lower Steel Pad Moment Capacity (L-Direction. Kips-ft):	5399.9	>	Moment at Bottom (L-Dir. K-Ft):	1471.4	0.27	OK!
Lower Steel Pad Moment Capacity (W-Direction. Kips-ft):	5399.9	>	Moment at Bottom (W-Dir. K-Ft):	1471.4	0.27	OK!
Lower Steel Pad Moment Capacity (Corner-Corner,K-ft):	7512.9	>	Moment at Bottom (C-C Dir. K-Ft):	2080.9	0.28	OK!
Upper Steel Pad Reinforcement Ratio (L-Direct.):	0.0065	OK!	Upper Steel Reinf. Ratio (W-Dir.):	0.0065		
Upper Steel Pad Moment Capacity (L-Direc. Kips-ft):	5399.9	>	Moment at the top (L-Dir K-Ft):	688.8	0.13	OK!
Upper Steel Pad Moment Capacity (W-Direc. Kips-ft):	5399.9	>	Moment at the top (W-Dir K-Ft):	688.8	0.13	OK!
Upper Steel Pad Moment Capacity (Corner-Corner. K-ft):	7512.9	>	Moment at the top (C-C Dir. K-Ft):	648.0	0.09	OK!

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

Moment transferred by punching shear:	1713.9	k-ft.	Max. factored shear stress v_{u_CD}:	5.2	Psi
Max. factored shear stress v_{u_AB}:	14.4	Psi	Factored shear Strength ϕv_n:	189.7	Psi
Max. factored shear stress v_u:	14.4	Psi	Check Usage of Punching Shear Capacity:	0.08	OK!

EXHIBIT 9

Antenna Mount Analysis

November 22, 2021

Sherri Knapik
SBA Communications Corporation
134 Flanders Road, Suite 125
Westborough, MA 01581
(508) 251-0720 x 3805

B+T Group
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630
btwo@btgrp.com

Subject:	**Appurtenance Mount Analysis Report**	
Carrier Designation:	***Dish Wireless* Co-Locate**	
	Site Number:	NJJER01101B
	Site Name:	N/A
SBA Network Services Designation:	**Site Number:**	CT13056-A-06
	Site Name:	Moosehill
	Application Number:	163794, v2
Engineering Firm Designation:	**B+T Group Project Number:**	156469.003.01
Site Data:	**500 Moosehill Road, Monroe, CT, 06468, Fairfield County**	
	Latitude *41.320966*°, Longitude *-73.201422*°	
	Monopole	
	8 ft. Platform Mount	

Dear Ms. Knapik,

B+T Group is pleased to submit this **"Appurtenance Mount Analysis Report"** to determine the structural integrity of the antenna mount on the above-mentioned structure.

The purpose of the analysis is to determine acceptability of the mount's stress level. Based on our analysis we have determined the stress level for the mount under the following load case to be:

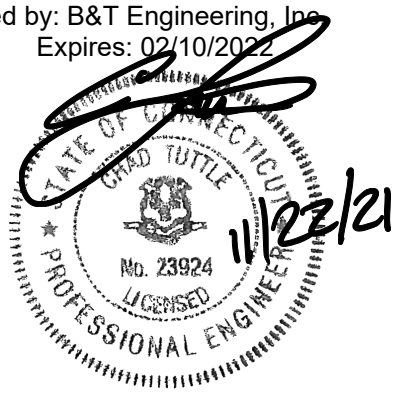
Proposed Equipment Note: See Table 1 for the final loading configuration	**Sufficient Capacity** **(Passing at 57.2%)**

"This analysis utilizes an ultimate 3-second gust wind speed of 118 mph as required by the 2018 Connecticut State Building Code (2018 IBC). Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria."

We at B+T Group appreciate the opportunity of providing our continuing professional services to you and *SBA Communications Corporation*. If you have any questions or need further assistance on this or any other projects, please give us a call.

Mount structural analysis prepared by: Suman Rana, P.E.

Respectfully submitted by: B&T Engineering, Inc.
COA: PEC.0001564 Expires: 02/10/2022



Chad E. Tuttle, P.E.

TABLE OF CONTENTS

1) INTRODUCTION

The appurtenance mount consists of CommScope platform mount (Part# MC-PK8-DSH) at 110 ft., attached to monopole at 500 Moosehill Road, Monroe, CT, 06468, Fairfield County. The proposed antenna loading information was obtained from SBA Communications Corporation. All information provided to B+T Group was assumed accurate and complete.

2) ANALYSIS CRITERIA

The structural analysis was performed for this mount in accordance with the ANSI/TIA-222-H-2017 Structural Standard for Antenna Supporting Structures and Antennas and Small Wind Turbine Support Structures using a 3-second gust wind speed of 118 mph with no ice and 50 mph with 1 inch escalated ice thickness. Exposure category C, risk category II & Topo category 1 were used in the analysis. In addition, the Platform mount has been analyzed for various live loading conditions consisting of a 250-lb man live load applied individually at the midpoint and cantilevered ends of horizontal members as well as a 500-pound man live load applied individually at mount pipe locations using a 3-second gust of 30mph. The mount was analyzed under 30º increments in the wind direction. The analyzed loading is detailed in Table 1.

Table 1 – Proposed Equipment Information

Loading	RAD Center Elev. (ft.)	Position	Qty.	Description	Note
Proposed	110	1	3	JMA Wireless - FFVV-65B-R2	1
			3	Fujitsu - TA08025-B605	2
			3	Fujitsu - TA08025-B604	
		-	1	Raycap - RDIDC-9181-PF-48	3

Note:
1) Proposed Antenna to be installed on the Proposed Mount Pipe.
2) Proposed Equipment to be installed directly behind the Antenna
3) Proposed Equipment to be installed on Mount.

Table 2 - Documents Provided

Documents	Remarks	Reference	Source
SBA Application	Proposed Loading	Date: 09/23/2021	SBA Communications Corporation
RFDS		Date: 06/04/2021	

3) ANALYSIS PROCEDURE

3.1) Analysis Method

RISA-3D (Version 19.0.4), a commercially available analysis software package, was used to create a three-dimensional model of the mount and calculate member stresses and deflections for various loading cases. Selected output from the analysis is included in Appendix A.

Manufacturer's drawings were used to create the model.

3.2) Assumptions

1. The mount was built in accordance with the manufacturer's specifications.
2. The mount has been maintained in accordance with the manufacturer's specifications and is free of damage.
3. The configuration of antennas and other appurtenances are as specified in Table 1.
4. All mount components have been assumed to be in sufficient condition to carry their full design capacity for the analysis.
5. Mount areas and weights are determined from field measurements, standard material properties, and/or manufacturer product data.

6. Serviceability with respect to antenna twist, tilt, roll or lateral translation is not checked and is left to the carrier or tower owner to ensure conformance.
7. All prior structural modifications, if any are assumed to be correctly installed and fully effective.
8. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
9. The following material grades were assumed (Unless Noted Otherwise):
   a) Connection Bolts : ASTM A325
   b) Steel Pipe : ASTM A53 (GR. 35)
   c) HSS (Round) : ASTM 500 (GR. B-42)
   d) HSS (Rectangular) : ASTM 500 (GR. B-46)
   e) Channel : ASTM A36 (GR. 36)
   f) Steel Solid Rod : ASTM A36 (GR. 36)
   g) Steel Plate : ASTM A36 (GR. 36)
   h) Steel Angle : ASTM A36 (GR. 36)
   i) UNISTRUT : ASTM A570 (GR. 33)

This analysis may be affected if any assumptions are not valid or have been made in error. B+T Group should be notified to determine the effect on the structural integrity of the antenna mounting system.

4) ANALYSIS RESULTS

Table 3 – Mount Component Stresses vs. Capacity

Notes	Component	Elevation (ft.)	% Capacity	Pass / Fail
-	Main Horizontals	110	8.7	Pass
-	Support Rails	110	15.9	Pass
-	Support Tubes	110	57.2	Pass
-	Support Channel	110	38.5	Pass
-	Support Angle	110	40.8	Pass
-	Mount Pipes	110	17.1	Pass
-	Connection Plates	110	22.5	Pass
-	Connection Angles	110	26.5	Pass

5) RECOMMENDATIONS

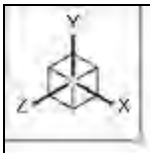
The CommScope platform mount, Part# MC-PK8-DSH has sufficient capacity to carry the proposed loads and is in compliance with the ANSI/TIA-222-H standard for the proposed loading. (Refer to the RISA output for the specific members).

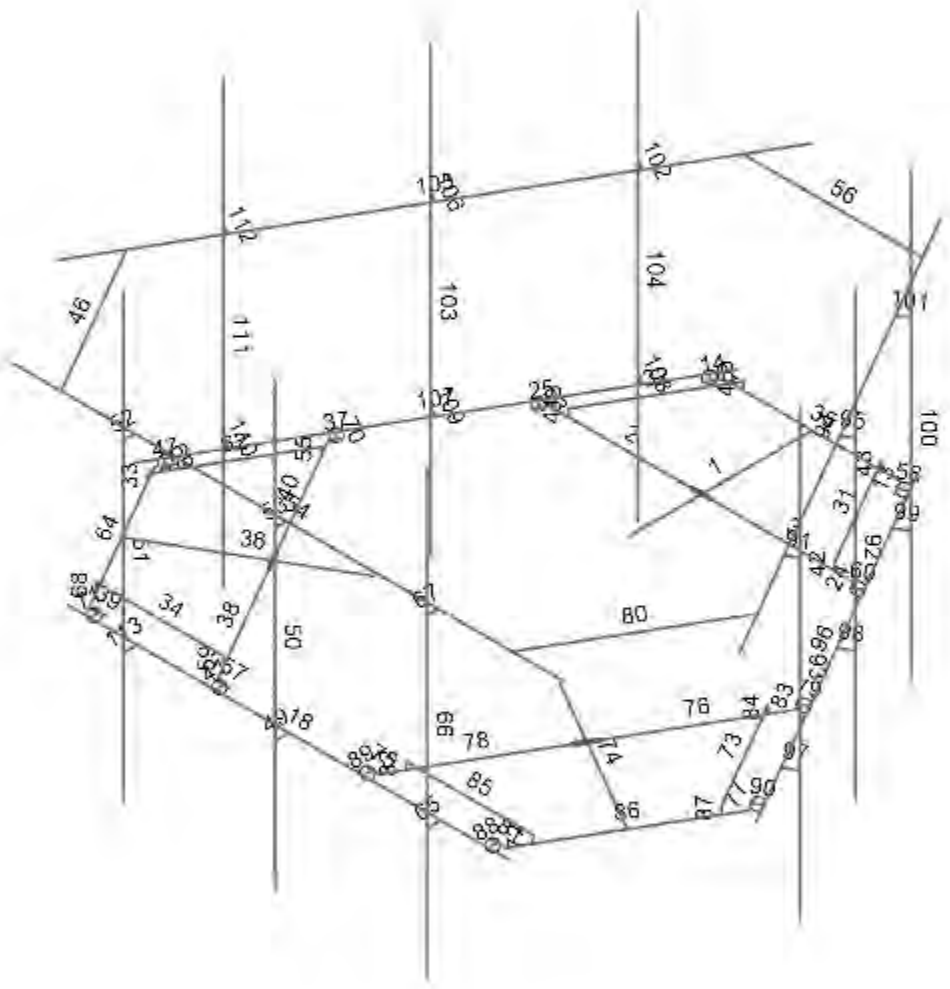
APPENDIX A

(RISA-3D Output)

Envelope Only Solution

B+T Group	CT13056-A - Moosehill	SK-1
SV		Nov 20, 2021
156469.003.01		156469_003_01_Moosehill_CT.r3d





Envelope Only Solution

B+T Group	CT13056-A - Moosehill	SK-2
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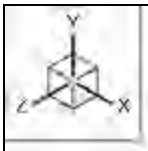

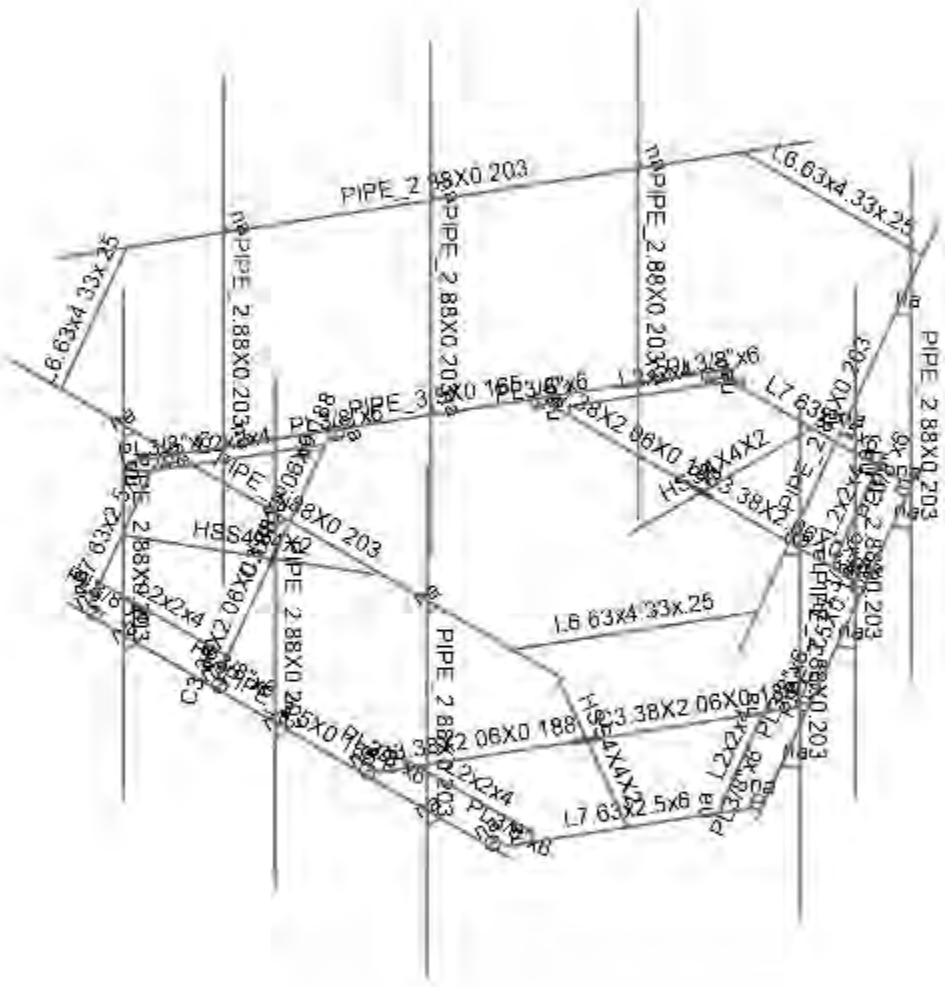

Envelope Only Solution

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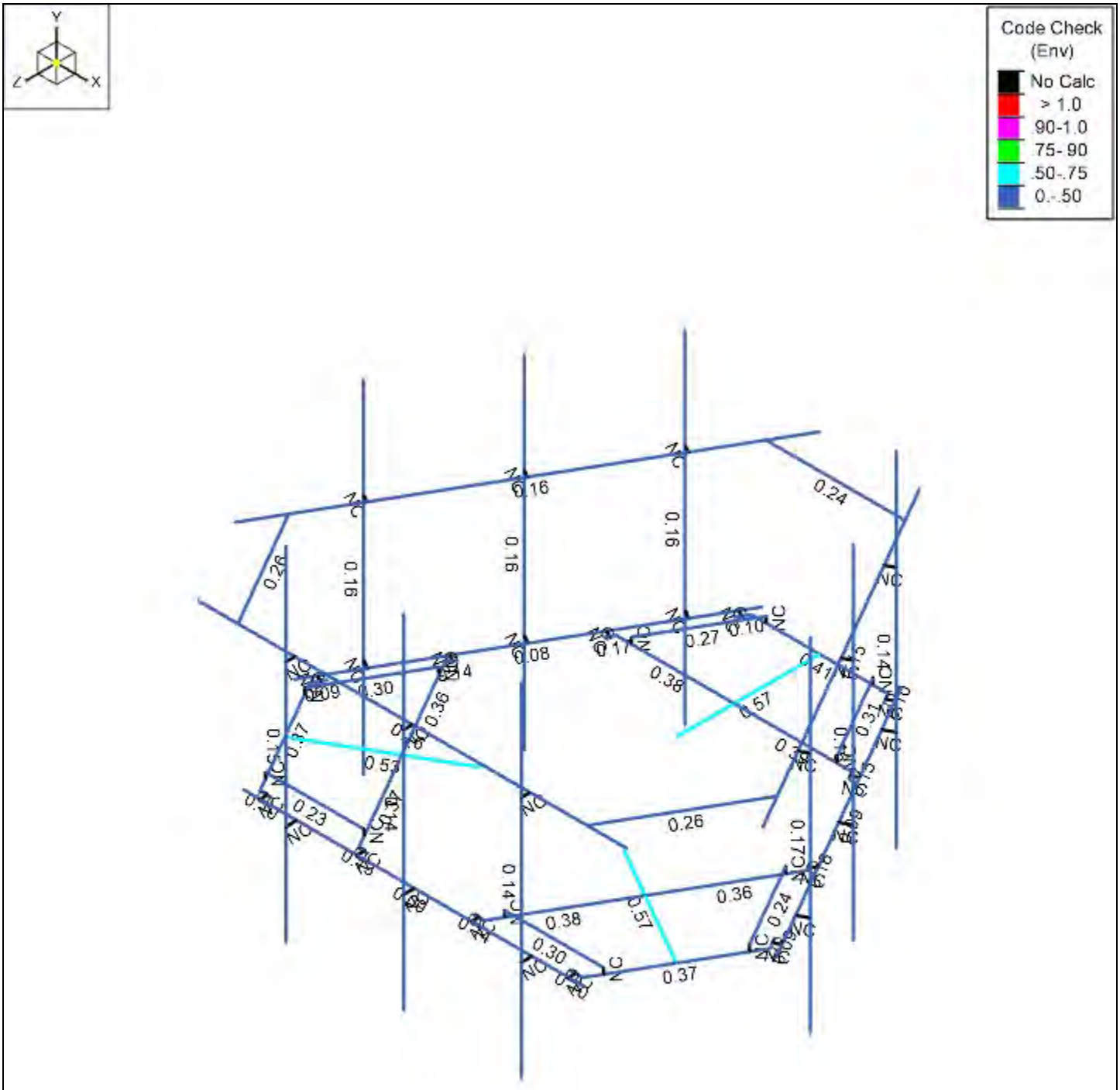

Member Code Checks Displayed (Enveloped)
Envelope Only Solution

B+T Group	CT13056-A - Moosehill	SK-4
SV		Nov 20, 2021
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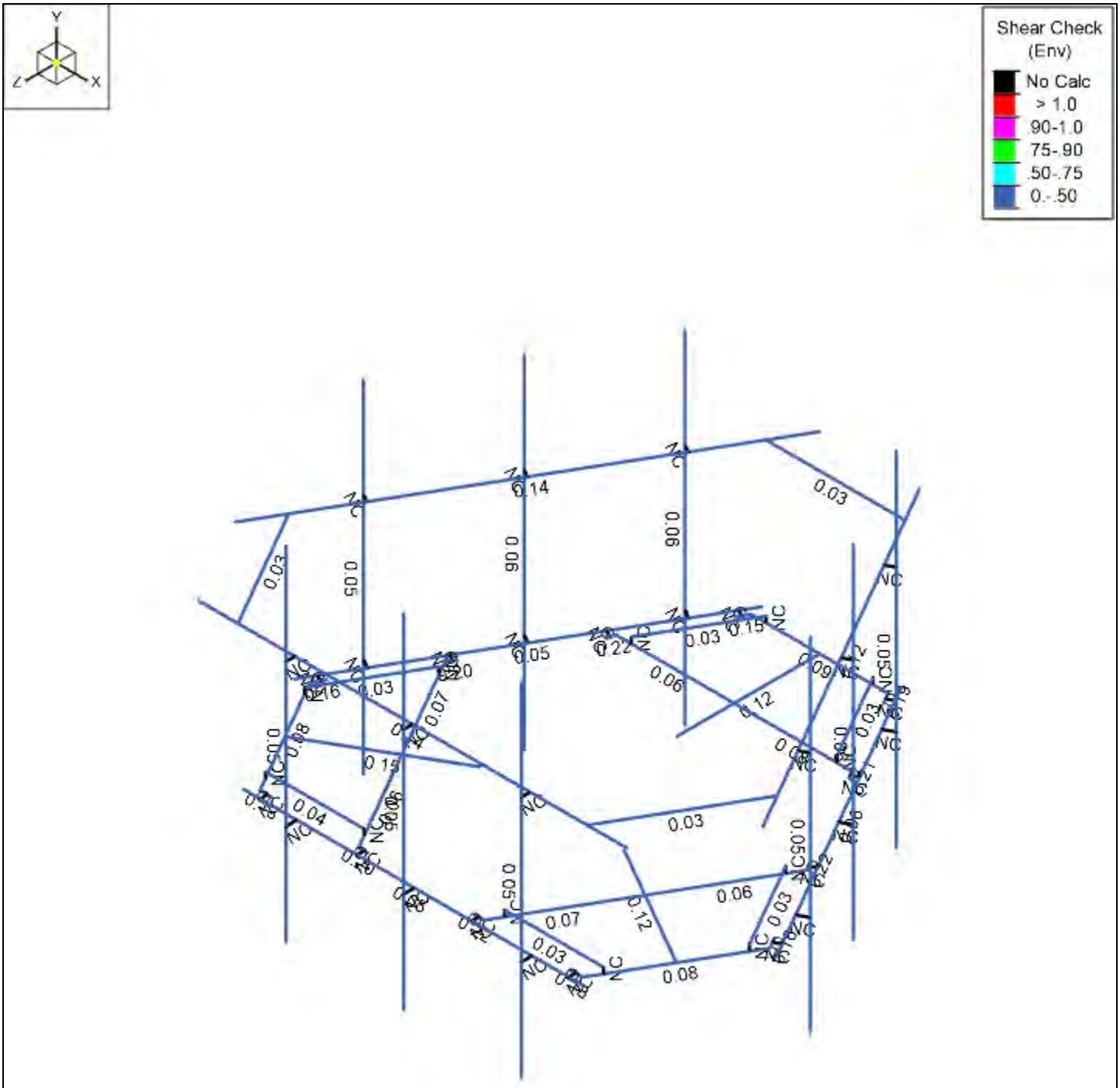


B+T Group	CT13056-A - Moosehill	SK-5
SV		Nov 20, 2021
156469.003.01		156469_003_01_Moosehill_CT.r3d

Node Coordinates

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
1	2	0	0.333337	-1.95145	
2	4	0	0.333337	-5.284783	
3	5	0	0.333337	-3.284783	
4	6	2.758333	0.333337	-3.284783	
5	7	-2.758333	0.333337	-3.284783	
6	16	-1.603633	0.333337	-5.284783	
7	17	1.603633	0.333337	-5.284783	
8	25	1.749466	0.333337	-5.032193	
9	26	-1.749466	0.333337	-5.032193	
10	33	1.686966	0.333337	-5.140446	
11	35	1.826806	0.333337	-5.221182	
12	36	-1.686966	0.333337	-5.140446	
13	38	-1.826806	0.333337	-5.221182	
14	40	-3.999998	0.333337	4.192951	
15	41	3.999998	0.333337	4.192951	
16	49	2.8625	0.333337	-3.104361	
17	51	2.820833	0.333337	-3.176531	
18	53	2.960672	0.333337	-3.257267	
19	54	-2.8625	0.333337	-3.104361	
20	56	-2.820833	0.333337	-3.176531	
21	58	-2.960672	0.333337	-3.257267	
22	60	-1.25	0.47417	-5.284783	
23	64	-2.404701	0.47417	-3.284783	
24	65	2.404701	0.47417	-3.284783	
25	71	1.25	0.47417	-5.284783	
26	72	-1.25	0.333337	-5.284783	
27	76	-2.404701	0.333337	-3.284783	
28	77	2.404701	0.333337	-3.284783	
29	83	1.25	0.333337	-5.284783	
30	85	0.000002	0.333337	4.192951	
31	87	0.000002	0.333337	4.442951	
32	88	-2.749998	6	4.442951	
33	89	0.000002	6	4.442951	
34	90	-2.749998	-2	4.442951	
35	91	0.000002	-2	4.442951	
36	92	-2.749998	3.666667	4.442951	
37	93	0.000002	3.666667	4.442951	
38	94	-2.749998	3.666667	4.234618	
39	95	0.000002	3.666667	4.234618	
40	96	-5	3.666667	4.234618	
41	97	5.	3.666667	4.234618	
42	100	1.625018	3.666667	-5.654022	
43	101	-1.625018	3.666667	-5.654022	
44	102	2.749998	0.333337	4.192951	
45	103	2.749998	0.333337	4.442951	
46	104	2.749998	6	4.442951	
47	105	2.749998	-2	4.442951	
48	106	2.749998	3.666667	4.442951	
49	107	2.749998	3.666667	4.234618	
50	154	0	0.333337	0	
51	55	-4.047056	0.333337	-0.44014	
52	57	-5.201757	0.333337	1.55986	
53	59	-1.465539	0.333337	4.031178	
54	61	-4.119706	0.333337	-0.926817	
55	62	-1.690005	0.333337	0.975725	

Node Coordinates (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
56	63	-2.844706	0.333337	1.642392	
57	66	-4.576757	0.333337	2.642392	
58	67	-4.223872	0.333337	-0.746395	
59	68	-5.23274	0.333337	1.001014	
60	69	-3.77494	0.333337	4.031178	
61	70	-5.378573	0.333337	1.253605	
62	73	-1.34054	0.333337	4.031178	
63	74	-3.483273	0.333337	4.031178	
64	75	-5.29524	0.333337	1.109267	
65	78	-5.435079	0.333337	1.028531	
66	79	-4.161373	0.333337	-0.854647	
67	80	-3.608273	0.333337	4.031178	
68	81	-3.608273	0.333337	4.192951	
69	82	-4.301212	0.333337	-0.935384	
70	98	-1.257206	0.333337	4.031178	
71	99	-1.34054	0.333337	4.192951	
72	108	-3.951757	0.47417	3.724923	
73	109	-1.642355	0.47417	3.724923	
74	110	-4.047056	0.47417	-0.44014	
75	111	-5.201757	0.47417	1.55986	
76	112	-3.951757	0.333337	3.724923	
77	113	-1.642355	0.333337	3.724923	
78	114	-5.709035	3.666667	1.419704	
79	115	-4.083844	3.666667	4.234618	
80	116	1.642381	0.333337	3.724938	
81	117	3.951783	0.333337	3.724938	
82	118	4.223898	0.333337	-0.74638	
83	119	1.257232	0.333337	4.031193	
84	120	1.690031	0.333337	0.97574	
85	121	2.844732	0.333337	1.642407	
86	122	4.576783	0.333337	2.642407	
87	123	1.465565	0.333337	4.031193	
88	124	3.4833	0.333337	4.031193	
89	125	5.378599	0.333337	1.25362	
90	126	3.774966	0.333337	4.031193	
91	127	4.161399	0.333337	-0.854632	
92	128	5.232766	0.333337	1.001029	
93	129	3.6083	0.333337	4.031193	
94	130	3.6083	0.333337	4.192951	
95	131	1.340566	0.333337	4.031193	
96	132	5.295266	0.333337	1.109282	
97	133	5.435092	0.333337	1.028554	
98	134	1.340566	0.333337	4.192951	
99	135	4.119732	0.333337	-0.926802	
100	136	4.301225	0.333337	-0.935361	
101	137	5.201783	0.47417	1.559875	
102	138	4.047082	0.47417	-0.440125	
103	139	1.642381	0.47417	3.724938	
104	140	3.951783	0.47417	3.724938	
105	141	5.201783	0.333337	1.559875	
106	142	4.047082	0.333337	-0.440125	
107	143	4.083879	3.666667	4.234618	
108	144	5.709053	3.666667	1.419734	
109	145	2.292028	3.666667	-4.498727	
110	146	2.255943	0.333337	-4.477894	

Node Coordinates (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
111	147	5.005941	0.333337	0.285243	
112	148	3.630941	0.333337	-2.096327	
113	149	5.222448	0.333337	0.160243	
114	150	3.847448	0.333337	-2.221327	
115	151	5.222448	6	0.160243	
116	152	3.847448	6	-2.221327	
117	153	5.222448	-2	0.160243	
118	156	3.847448	-2	-2.221327	
119	157	5.222448	3.666667	0.160243	
120	158	3.847448	3.666667	-2.221327	
121	159	5.042026	3.666667	0.264409	
122	160	3.667026	3.666667	-2.117161	
123	161	2.47245	0.333337	-4.602894	
124	162	2.47245	6	-4.602894	
125	163	2.47245	-2	-4.602894	
126	164	2.47245	3.666667	-4.602894	
127	165	6.167027	3.666667	2.212968	
128	166	1.167027	3.666667	-6.447286	
129	167	5.630941	0.333337	1.367774	
130	168	1.630943	0.333337	-5.560425	
131	169	-5.042026	3.666667	0.264409	
132	170	-5.005941	0.333337	0.285243	
133	171	-2.255943	0.333337	-4.477894	
134	172	-3.630943	0.333337	-2.096324	
135	173	-2.47245	0.333337	-4.602894	
136	174	-3.84745	0.333337	-2.221324	
137	175	-2.47245	6	-4.602894	
138	176	-3.84745	6	-2.221324	
139	177	-2.47245	-2	-4.602894	
140	178	-3.84745	-2	-2.221324	
141	179	-2.47245	3.666667	-4.602894	
142	180	-3.84745	3.666667	-2.221324	
143	181	-2.292028	3.666667	-4.498727	
144	182	-3.667028	3.666667	-2.117157	
145	183	-5.222448	0.333337	0.160243	
146	184	-5.222448	6	0.160243	
147	185	-5.222448	-2	0.160243	
148	186	-5.222448	3.666667	0.160243	
149	187	-1.167027	3.666667	-6.447286	
150	188	-6.167027	3.666667	2.212968	
151	189	-1.630943	0.333337	-5.560425	
152	190	-5.630941	0.333337	1.367774	
153	155	-2.749998	0.333337	4.442951	
154	191	-2.749998	0.333337	4.192951	

Node Boundary Conditions

	Node Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot [k-ft/rad]	Y Rot [k-ft/rad]	Z Rot [k-ft/rad]
1	2	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	4						
3	5						
4	6						
5	7						
6	49						
7	51						
8	54						

Node Boundary Conditions (Continued)

	Node Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot [k-ft/rad]	Y Rot [k-ft/rad]	Z Rot [k-ft/rad]
9	56						
10	60						
11	71						
12	72						
13	83						
14	57						
15	59						
16	61						
17	62	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
18	63						
19	66						
20	67						
21	73						
22	79						
23	98						
24	108						
25	111						
26	112						
27	117						
28	118						
29	119						
30	120	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
31	121						
32	122						
33	123						
34	127						
35	131						
36	135						
37	137						
38	140						
39	141						

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e^{5}°F^{-1}]	Density [k/ft^{3}]	Yield [ksi]	Ry	Fu [ksi]	Rt
1	A992	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	0.3	0.65	0.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	0.3	0.65	0.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	0.3	0.65	0.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	0.3	0.65	0.49	35	1.6	60	1.2
7	A1085	29000	11154	0.3	0.65	0.49	50	1.4	65	1.3
8	A500 Gr.C	29000	11154	0.3	0.65	0.49	46	1.4	62	1.3

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in^{2}]	Iyy [in^{4}]	Izz [in^{4}]	J [in^{4}]
1	MF-H1	PIPE_3.5X0.165	Beam	Pipe	A500 Gr.C	Typical	1.729	2.409	2.409	4.819
2	MF-H2	PIPE_2.88X0.203	Beam	Pipe	A500 Gr.C	Typical	1.704	1.53	1.53	3.059
3	SF-H1	HSS4X4X2	Beam	Tube	A500 Gr.B Rect	Typical	1.77	4.4	4.4	6.91
4	SF-H2	C3.38X2.06X0.188	Beam	Channel	A36 Gr.36	Typical	1.339	0.562	2.4	0.015
5	SF-H3	L2x2x4	Beam	Single Angle	A36 Gr.36	Typical	0.944	0.346	0.346	0.021
6	SF-H4	L7.63x2.5x6	Beam	Single Angle	A36 Gr.36	Typical	3.658	1.307	22.092	0.163
7	MF-P1	PIPE_2.88X0.203	Column	Pipe	A500 Gr.C	Typical	1.704	1.53	1.53	3.059
8	MF-CP1	PL3/8"x6	Beam	RECT	A36 Gr.36	Typical	2.25	0.026	6.75	0.101

Hot Rolled Steel Section Sets (Continued)

	Label	Shape	Type	Design List	Material	Design Rule	Area [in²]	Iyy [in⁴]	Izz [in⁴]	J [in⁴]
9	MF-H3	L6.63x4.33x.25	Beam	Single Angle	A36 Gr.36	Typical	2.678	4.383	12.502	0.054

Member Primary Data

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
1	1	2	4		SF-H1	Beam	Tube	A500 Gr.B Rect	Typical
2	2	7	5	180	SF-H2	Beam	Channel	A36 Gr.36	Typical
3	3	5	6	180	SF-H2	Beam	Channel	A36 Gr.36	Typical
4	13	17	25		MF-CP1	Beam	RECT	A36 Gr.36	Typical
5	14	16	26		MF-CP1	Beam	RECT	A36 Gr.36	Typical
6	18	40	41		MF-H1	Beam	Pipe	A500 Gr.C	Typical
7	24	49	6		MF-CP1	Beam	RECT	A36 Gr.36	Typical
8	25	7	54		MF-CP1	Beam	RECT	A36 Gr.36	Typical
9	31	71	65		SF-H3	Beam	Single Angle	A36 Gr.36	Typical
10	32	64	60		SF-H3	Beam	Single Angle	A36 Gr.36	Typical
11	35	16	17		SF-H4	Beam	Single Angle	A36 Gr.36	Typical
12	42	77	65		RIGID	None	None	RIGID	Typical
13	43	83	71		RIGID	None	None	RIGID	Typical
14	44	76	64		RIGID	None	None	RIGID	Typical
15	45	72	60		RIGID	None	None	RIGID	Typical
16	49	87	85		RIGID	None	None	RIGID	Typical
17	50	89	91		MF-P1	Column	Pipe	A500 Gr.C	Typical
18	51	88	90		MF-P1	Column	Pipe	A500 Gr.C	Typical
19	52	92	94		RIGID	None	None	RIGID	Typical
20	53	93	95		RIGID	None	None	RIGID	Typical
21	54	96	97		MF-H2	Beam	Pipe	A500 Gr.C	Typical
22	56	100	101	180	MF-H3	Beam	Single Angle	A36 Gr.36	Typical
23	58	35	33		RIGID	None	None	RIGID	Typical
24	60	53	51		RIGID	None	None	RIGID	Typical
25	61	38	36		RIGID	None	None	RIGID	Typical
26	63	58	56		RIGID	None	None	RIGID	Typical
27	65	103	102		RIGID	None	None	RIGID	Typical
28	66	104	105		MF-P1	Column	Pipe	A500 Gr.C	Typical
29	67	106	107		RIGID	None	None	RIGID	Typical
30	33	57	111		RIGID	None	None	RIGID	Typical
31	34	109	108		SF-H3	Beam	Single Angle	A36 Gr.36	Typical
32	36	62	66		SF-H1	Beam	Tube	A500 Gr.B Rect	Typical
33	37	61	67		MF-CP1	Beam	RECT	A36 Gr.36	Typical
34	38	59	63	180	SF-H2	Beam	Channel	A36 Gr.36	Typical
35	39	69	74		MF-CP1	Beam	RECT	A36 Gr.36	Typical
36	40	63	67	180	SF-H2	Beam	Channel	A36 Gr.36	Typical
37	41	99	73		RIGID	None	None	RIGID	Typical
38	46	114	115	180	MF-H3	Beam	Single Angle	A36 Gr.36	Typical
39	47	70	68		MF-CP1	Beam	RECT	A36 Gr.36	Typical
40	55	55	110		RIGID	None	None	RIGID	Typical
41	57	59	98		MF-CP1	Beam	RECT	A36 Gr.36	Typical
42	59	113	109		RIGID	None	None	RIGID	Typical
43	62	111	110		SF-H3	Beam	Single Angle	A36 Gr.36	Typical
44	64	69	70		SF-H4	Beam	Single Angle	A36 Gr.36	Typical
45	68	112	108		RIGID	None	None	RIGID	Typical
46	69	78	75		RIGID	None	None	RIGID	Typical
47	70	82	79		RIGID	None	None	RIGID	Typical
48	71	81	80		RIGID	None	None	RIGID	Typical
49	72	117	140		RIGID	None	None	RIGID	Typical
50	73	138	137		SF-H3	Beam	Single Angle	A36 Gr.36	Typical
51	74	120	122		SF-H1	Beam	Tube	A500 Gr.B Rect	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
52	75	119	123		MF-CP1	Beam	RECT	A36 Gr.36	Typical
53	76	118	121	180	SF-H2	Beam	Channel	A36 Gr.36	Typical
54	77	125	128		MF-CP1	Beam	RECT	A36 Gr.36	Typical
55	78	121	123	180	SF-H2	Beam	Channel	A36 Gr.36	Typical
56	79	136	127		RIGID	None	None	RIGID	Typical
57	80	143	144	180	MF-H3	Beam	Single Angle	A36 Gr.36	Typical
58	81	126	124		MF-CP1	Beam	RECT	A36 Gr.36	Typical
59	82	116	139		RIGID	None	None	RIGID	Typical
60	83	118	135		MF-CP1	Beam	RECT	A36 Gr.36	Typical
61	84	142	138		RIGID	None	None	RIGID	Typical
62	85	140	139		SF-H3	Beam	Single Angle	A36 Gr.36	Typical
63	86	125	126		SF-H4	Beam	Single Angle	A36 Gr.36	Typical
64	87	141	137		RIGID	None	None	RIGID	Typical
65	88	130	129		RIGID	None	None	RIGID	Typical
66	89	134	131		RIGID	None	None	RIGID	Typical
67	90	133	132		RIGID	None	None	RIGID	Typical
68	91	157	159		RIGID	None	None	RIGID	Typical
69	92	152	156		MF-P1	Column	Pipe	A500 Gr.C	Typical
70	93	151	153		MF-P1	Column	Pipe	A500 Gr.C	Typical
71	94	165	166		MF-H2	Beam	Pipe	A500 Gr.C	Typical
72	95	158	160		RIGID	None	None	RIGID	Typical
73	96	167	168		MF-H1	Beam	Pipe	A500 Gr.C	Typical
74	97	149	147		RIGID	None	None	RIGID	Typical
75	98	150	148		RIGID	None	None	RIGID	Typical
76	99	161	146		RIGID	None	None	RIGID	Typical
77	100	162	163		MF-P1	Column	Pipe	A500 Gr.C	Typical
78	101	164	145		RIGID	None	None	RIGID	Typical
79	102	179	181		RIGID	None	None	RIGID	Typical
80	103	176	178		MF-P1	Column	Pipe	A500 Gr.C	Typical
81	104	175	177		MF-P1	Column	Pipe	A500 Gr.C	Typical
82	105	187	188		MF-H2	Beam	Pipe	A500 Gr.C	Typical
83	106	180	182		RIGID	None	None	RIGID	Typical
84	107	189	190		MF-H1	Beam	Pipe	A500 Gr.C	Typical
85	108	173	171		RIGID	None	None	RIGID	Typical
86	109	174	172		RIGID	None	None	RIGID	Typical
87	110	183	170		RIGID	None	None	RIGID	Typical
88	111	184	185		MF-P1	Column	Pipe	A500 Gr.C	Typical
89	112	186	169		RIGID	None	None	RIGID	Typical
90	113	155	191		RIGID	None	None	RIGID	Typical

Member Advanced Data

	Label	I Release	I Offset [in]	J Offset [in]	Physical	Deflection Ratio Options	Seismic DR
1	1				Yes	N/A	None
2	2			2	Yes	N/A	None
3	3		2		Yes	N/A	None
4	13				Yes	Default	None
5	14				Yes	Default	None
6	18				Yes	N/A	None
7	24				Yes	Default	None
8	25				Yes	Default	None
9	31				Yes	N/A	None
10	32				Yes	N/A	None
11	35				Yes	N/A	None
12	42				Yes	** NA **	None
13	43				Yes	** NA **	None

Member Advanced Data (Continued)

	Label	I Release	I Offset [in]	J Offset [in]	Physical	Deflection Ratio Options	Seismic DR
14	44				Yes	** NA **	None
15	45				Yes	** NA **	None
16	49				Yes	** NA **	None
17	50				Yes	** NA **	None
18	51				Yes	** NA **	None
19	52				Yes	** NA **	None
20	53				Yes	** NA **	None
21	54				Yes	N/A	None
22	56				Yes	Default	None
23	58	OOOOOX			Yes	** NA **	None
24	60	OOOOOX			Yes	** NA **	None
25	61	OOOOOX			Yes	** NA **	None
26	63	OOOOOX			Yes	** NA **	None
27	65				Yes	** NA **	None
28	66				Yes	** NA **	None
29	67				Yes	** NA **	None
30	33				Yes	** NA **	None
31	34				Yes	N/A	None
32	36				Yes	Default	None
33	37				Yes	Default	None
34	38			2	Yes	N/A	None
35	39				Yes	Default	None
36	40		2		Yes	N/A	None
37	41	OOOOOX			Yes	** NA **	None
38	46				Yes	Default	None
39	47				Yes	Default	None
40	55				Yes	** NA **	None
41	57				Yes	Default	None
42	59				Yes	** NA **	None
43	62				Yes	N/A	None
44	64				Yes	N/A	None
45	68				Yes	** NA **	None
46	69	OOOOOX			Yes	** NA **	None
47	70	OOOOOX			Yes	** NA **	None
48	71	OOOOOX			Yes	** NA **	None
49	72				Yes	** NA **	None
50	73				Yes	N/A	None
51	74				Yes	N/A	None
52	75				Yes	Default	None
53	76			2	Yes	N/A	None
54	77				Yes	Default	None
55	78		2		Yes	N/A	None
56	79	OOOOOX			Yes	** NA **	None
57	80				Yes	Default	None
58	81				Yes	Default	None
59	82				Yes	** NA **	None
60	83				Yes	Default	None
61	84				Yes	** NA **	None
62	85				Yes	N/A	None
63	86				Yes	Default	None
64	87				Yes	** NA **	None
65	88	OOOOOX			Yes	** NA **	None
66	89	OOOOOX			Yes	** NA **	None
67	90	OOOOOX			Yes	** NA **	None
68	91				Yes	** NA **	None

Member Advanced Data (Continued)

	Label	I Release	I Offset [in]	J Offset [in]	Physical	Deflection Ratio Options	Seismic DR
69	92				Yes	** NA **	None
70	93				Yes	** NA **	None
71	94				Yes	N/A	None
72	95				Yes	** NA **	None
73	96				Yes	N/A	None
74	97				Yes	** NA **	None
75	98				Yes	** NA **	None
76	99				Yes	** NA **	None
77	100				Yes	** NA **	None
78	101				Yes	** NA **	None
79	102				Yes	** NA **	None
80	103				Yes	** NA **	None
81	104				Yes	** NA **	None
82	105				Yes	N/A	None
83	106				Yes	** NA **	None
84	107				Yes	N/A	None
85	108				Yes	** NA **	None
86	109				Yes	** NA **	None
87	110				Yes	** NA **	None
88	111				Yes	** NA **	None
89	112				Yes	** NA **	None
90	113				Yes	** NA **	None

Hot Rolled Steel Design Parameters

	Label	Shape	Length [ft]	Lcomp top [ft]	Function
1	1	SF-H1	3.333	Lbyy	Lateral
2	2	SF-H2	2.758	Lbyy	Lateral
3	3	SF-H2	2.758	Lbyy	Lateral
4	13	MF-CP1	0.292	Lbyy	Lateral
5	14	MF-CP1	0.292	Lbyy	Lateral
6	18	MF-H1	8	Lbyy	Lateral
7	24	MF-CP1	0.208	Lbyy	Lateral
8	25	MF-CP1	0.208	Lbyy	Lateral
9	31	SF-H3	2.309	Lbyy	Lateral
10	32	SF-H3	2.309	Lbyy	Lateral
11	35	SF-H4	3.207	Lbyy	Lateral
12	50	MF-P1	8	Lbyy	Lateral
13	51	MF-P1	8	Lbyy	Lateral
14	54	MF-H2	10	Lbyy	Lateral
15	56	MF-H3	3.25	Lbyy	Lateral
16	66	MF-P1	8	Lbyy	Lateral
17	34	SF-H3	2.309	Lbyy	Lateral
18	36	SF-H1	3.333	Lbyy	Lateral
19	37	MF-CP1	0.208	Lbyy	Lateral
20	38	SF-H2	2.758	Lbyy	Lateral
21	39	MF-CP1	0.292	Lbyy	Lateral
22	40	SF-H2	2.758	Lbyy	Lateral
23	46	MF-H3	3.25	Lbyy	Lateral
24	47	MF-CP1	0.292	Lbyy	Lateral
25	57	MF-CP1	0.208	Lbyy	Lateral
26	62	SF-H3	2.309	Lbyy	Lateral
27	64	SF-H4	3.207	Lbyy	Lateral
28	73	SF-H3	2.309	Lbyy	Lateral
29	74	SF-H1	3.333	Lbyy	Lateral
30	75	MF-CP1	0.208	Lbyy	Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length [ft]	Lcomp top [ft]	Function
31	76	SF-H2	2.758	Lbyy	Lateral
32	77	MF-CP1	0.292	Lbyy	Lateral
33	78	SF-H2	2.758	Lbyy	Lateral
34	80	MF-H3	3.25	Lbyy	Lateral
35	81	MF-CP1	0.292	Lbyy	Lateral
36	83	MF-CP1	0.208	Lbyy	Lateral
37	85	SF-H3	2.309	Lbyy	Lateral
38	86	SF-H4	3.207	Lbyy	Lateral
39	92	MF-P1	8	Lbyy	Lateral
40	93	MF-P1	8	Lbyy	Lateral
41	94	MF-H2	10	Lbyy	Lateral
42	96	MF-H1	8	Lbyy	Lateral
43	100	MF-P1	8	Lbyy	Lateral
44	103	MF-P1	8	Lbyy	Lateral
45	104	MF-P1	8	Lbyy	Lateral
46	105	MF-H2	10	Lbyy	Lateral
47	107	MF-H1	8	Lbyy	Lateral
48	111	MF-P1	8	Lbyy	Lateral

Member Point Loads (BLC 1 : Dead)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	66	Y	-0.035	%15
2	66	Y	-0.035	%85
3	66	Y	-0.064	%50
4	66	Y	-0.075	%15
5	66	Y	0	0
6	36	Y	-0.022	%20
7	36	Y	0	0
8	36	Y	0	0
9	36	Y	0	0
10	36	Y	0	0
11	111	Y	-0.035	%15
12	111	Y	-0.035	%85
13	111	Y	-0.064	%50
14	111	Y	-0.075	%15
15	111	Y	0	0
16	100	Y	-0.035	%15
17	100	Y	-0.035	%85
18	100	Y	-0.064	%50
19	100	Y	-0.075	%15
20	100	Y	0	0

Member Point Loads (BLC 2 : 0 Wind - No Ice)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	66	Z	-0.236	%15
2	66	Z	-0.236	%85
3	66	Z	-0.076	%50
4	66	Z	-0.076	%15
5	66	Z	0	0
6	36	Z	-0.045	%20
7	36	Z	0	0
8	36	Z	0	0
9	36	Z	0	0

Member Point Loads (BLC 2 : 0 Wind - No Ice) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
10	36	Z	0	0
11	111	Z	-0.236	%15
12	111	Z	-0.236	%85
13	111	Z	-0.076	%50
14	111	Z	-0.076	%15
15	111	Z	0	0
16	100	Z	-0.236	%15
17	100	Z	-0.236	%85
18	100	Z	-0.076	%50
19	100	Z	-0.076	%15
20	100	Z	0	0

Member Point Loads (BLC 3 : 90 Wind - No Ice)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	66	X	-0.094	%15
2	66	X	-0.094	%85
3	66	X	-0.04	%50
4	66	X	-0.046	%15
5	66	X	0	0
6	36	X	-0.077	%20
7	36	X	0	0
8	36	X	0	0
9	36	X	0	0
10	36	X	0	0
11	111	X	-0.094	%15
12	111	X	-0.094	%85
13	111	X	-0.04	%50
14	111	X	-0.046	%15
15	111	X	0	0
16	100	X	-0.094	%15
17	100	X	-0.094	%85
18	100	X	-0.04	%50
19	100	X	-0.046	%15
20	100	X	0	0

Member Point Loads (BLC 4 : 0 Wind - Ice)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	66	Z	-0.042	%15
2	66	Z	-0.042	%85
3	66	Z	-0.014	%50
4	66	Z	-0.014	%15
5	66	Z	0	0
6	36	Z	-0.008	%20
7	36	Z	0	0
8	36	Z	0	0
9	36	Z	0	0
10	36	Z	0	0
11	111	Z	-0.042	%15
12	111	Z	-0.042	%85
13	111	Z	-0.014	%50
14	111	Z	-0.014	%15
15	111	Z	0	0
16	100	Z	-0.042	%15

Member Point Loads (BLC 4 : 0 Wind - Ice) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
17	100	Z	-0.042	%85
18	100	Z	-0.014	%50
19	100	Z	-0.014	%15
20	100	Z	0	0

Member Point Loads (BLC 5 : 90 Wind - Ice)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	66	X	-0.017	%15
2	66	X	-0.017	%85
3	66	X	-0.007	%50
4	66	X	-0.008	%15
5	66	X	0	0
6	36	X	-0.014	%20
7	36	X	0	0
8	36	X	0	0
9	36	X	0	0
10	36	X	0	0
11	111	X	-0.017	%15
12	111	X	-0.017	%85
13	111	X	-0.007	%50
14	111	X	-0.008	%15
15	111	X	0	0
16	100	X	-0.017	%15
17	100	X	-0.017	%85
18	100	X	-0.007	%50
19	100	X	-0.008	%15
20	100	X	0	0

Member Point Loads (BLC 6 : 0 Wind - Service)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	66	Z	-0.015	%15
2	66	Z	-0.015	%85
3	66	Z	-0.005	%50
4	66	Z	-0.005	%15
5	66	Z	0	0
6	36	Z	-0.003	%20
7	36	Z	0	0
8	36	Z	0	0
9	36	Z	0	0
10	36	Z	0	0
11	111	Z	-0.015	%15
12	111	Z	-0.015	%85
13	111	Z	-0.005	%50
14	111	Z	-0.005	%15
15	111	Z	0	0
16	100	Z	-0.015	%15
17	100	Z	-0.015	%85
18	100	Z	-0.005	%50
19	100	Z	-0.005	%15
20	100	Z	0	0

Member Point Loads (BLC 7 : 90 Wind - Service)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	66	X	-0.006	%15
2	66	X	-0.006	%85
3	66	X	-0.003	%50
4	66	X	-0.003	%15
5	66	X	0	0
6	36	X	-0.005	%20
7	36	X	0	0
8	36	X	0	0
9	36	X	0	0
10	36	X	0	0
11	111	X	-0.006	%15
12	111	X	-0.006	%85
13	111	X	-0.003	%50
14	111	X	-0.003	%15
15	111	X	0	0
16	100	X	-0.006	%15
17	100	X	-0.006	%85
18	100	X	-0.003	%50
19	100	X	-0.003	%15
20	100	X	0	0

Member Point Loads (BLC 8 : Ice)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	66	Y	-0.092	%15
2	66	Y	-0.092	%85
3	66	Y	-0.033	%50
4	66	Y	-0.034	%15
5	66	Y	0	0
6	36	Y	-0.034	%20
7	36	Y	0	0
8	36	Y	0	0
9	36	Y	0	0
10	36	Y	0	0
11	111	Y	-0.092	%15
12	111	Y	-0.092	%85
13	111	Y	-0.033	%50
14	111	Y	-0.034	%15
15	111	Y	0	0
16	100	Y	-0.092	%15
17	100	Y	-0.092	%85
18	100	Y	-0.033	%50
19	100	Y	-0.034	%15
20	100	Y	0	0

Member Point Loads (BLC 9 : 0 Seismic)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	66	Z	-0.015	%15
2	66	Z	-0.015	%85
3	66	Z	-0.014	%50
4	66	Z	-0.016	%15
5	66	Z	0	0
6	36	Z	-0.005	%20

Member Point Loads (BLC 9 : 0 Seismic) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
7	36	Z	0	0
8	36	Z	0	0
9	36	Z	0	0
10	36	Z	0	0
11	111	Z	-0.015	%15
12	111	Z	-0.015	%85
13	111	Z	-0.014	%50
14	111	Z	-0.016	%15
15	111	Z	0	0
16	100	Z	-0.015	%15
17	100	Z	-0.015	%85
18	100	Z	-0.014	%50
19	100	Z	-0.016	%15
20	100	Z	0	0

Member Point Loads (BLC 10 : 90 Seismic)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	66	X	-0.015	%15
2	66	X	-0.015	%85
3	66	X	-0.014	%50
4	66	X	-0.016	%15
5	66	X	0	0
6	36	X	-0.005	%20
7	36	X	0	0
8	36	X	0	0
9	36	X	0	0
10	36	X	0	0
11	111	X	-0.015	%15
12	111	X	-0.015	%85
13	111	X	-0.014	%50
14	111	X	-0.016	%15
15	111	X	0	0
16	100	X	-0.015	%15
17	100	X	-0.015	%85
18	100	X	-0.014	%50
19	100	X	-0.016	%15
20	100	X	0	0

Member Point Loads (BLC 15 : Maint LL 1)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	18	Y	-0.25	%95

Member Point Loads (BLC 16 : Maint LL 2)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	54	Y	-0.25	%5

Member Point Loads (BLC 17 : Maint LL 3)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	107	Y	-0.25	%5

Member Point Loads (BLC 18 : Maint LL 4)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	105	Y	-0.25	%5

Member Point Loads (BLC 19 : Maint LL 5)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	96	Y	-0.25	%5

Member Point Loads (BLC 20 : Maint LL 6)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	94	Y	-0.25	%5

Member Point Loads (BLC 21 : Maint LL 7)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	18	Y	-0.25	%5

Member Point Loads (BLC 22 : Maint LL 8)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	54	Y	-0.25	%95

Member Point Loads (BLC 23 : Maint LL 9)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	107	Y	-0.25	%95

Member Point Loads (BLC 24 : Maint LL 10)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	105	Y	-0.25	%95

Member Point Loads (BLC 25 : Maint LL 11)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	96	Y	-0.25	%95

Member Point Loads (BLC 26 : Maint LL 12)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	94	Y	-0.25	%95

Member Point Loads (BLC 27 : Maint LL 13)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	36	Y	-0.25	%95

Member Point Loads (BLC 28 : Maint LL 14)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	74	Y	-0.25	%95

Member Point Loads (BLC 29 : Maint LL 15)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	1	Y	-0.25	%95

Member Distributed Loads (BLC 2 : 0 Wind - No Ice)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Z	-0.019	-0.019	0	%100
2	2	Z	-0.016	-0.016	0	%100
3	3	Z	-0.016	-0.016	0	%100
4	13	Z	-0.023	-0.023	0	%100
5	14	Z	-0.023	-0.023	0	%100
6	18	Z	-0.013	-0.013	0	%100
7	25	Z	-0.023	-0.023	0	%100
8	31	Z	-0.01	-0.01	0	%100
9	32	Z	-0.01	-0.01	0	%100
10	35	Z	-0.032	-0.032	0	%100
11	50	Z	-0.011	-0.011	0	%100
12	51	Z	-0.011	-0.011	0	%100
13	54	Z	-0.011	-0.011	0	%100
14	56	Z	-0.028	-0.028	0	%100
15	66	Z	-0.011	-0.011	0	%100
16	34	Z	-0.01	-0.01	0	%100
17	36	Z	-0.019	-0.019	0	%100
18	37	Z	-0.023	-0.023	0	%100
19	38	Z	-0.016	-0.016	0	%100
20	39	Z	-0.023	-0.023	0	%100
21	40	Z	-0.016	-0.016	0	%100
22	46	Z	-0.028	-0.028	0	%100
23	47	Z	-0.023	-0.023	0	%100
24	57	Z	-0.023	-0.023	0	%100
25	62	Z	-0.01	-0.01	0	%100
26	64	Z	-0.032	-0.032	0	%100
27	73	Z	-0.01	-0.01	0	%100
28	74	Z	-0.019	-0.019	0	%100
29	76	Z	-0.016	-0.016	0	%100
30	77	Z	-0.023	-0.023	0	%100
31	78	Z	-0.016	-0.016	0	%100
32	80	Z	-0.028	-0.028	0	%100
33	81	Z	-0.023	-0.023	0	%100
34	85	Z	-0.01	-0.01	0	%100
35	86	Z	-0.032	-0.032	0	%100
36	92	Z	-0.011	-0.011	0	%100
37	93	Z	-0.011	-0.011	0	%100
38	94	Z	-0.011	-0.011	0	%100
39	96	Z	-0.013	-0.013	0	%100
40	100	Z	-0.011	-0.011	0	%100
41	103	Z	-0.011	-0.011	0	%100
42	104	Z	-0.011	-0.011	0	%100
43	105	Z	-0.011	-0.011	0	%100
44	107	Z	-0.013	-0.013	0	%100

Member Distributed Loads (BLC 2 : 0 Wind - No Ice) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
45	111	Z	-0.011	-0.011	0	%100
46	1	Z	-0.023	-0.023	0	%100
47	1	Z	-0.023	-0.023	0	%100
48	1	Z	-0.023	-0.023	0	%100

Member Distributed Loads (BLC 3 : 90 Wind - No Ice)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	X	-0.019	-0.019	0	%100
2	2	X	-0.016	-0.016	0	%100
3	3	X	-0.016	-0.016	0	%100
4	13	X	-0.023	-0.023	0	%100
5	14	X	-0.023	-0.023	0	%100
6	18	X	-0.013	-0.013	0	%100
7	25	X	-0.023	-0.023	0	%100
8	31	X	-0.01	-0.01	0	%100
9	32	X	-0.01	-0.01	0	%100
10	35	X	-0.032	-0.032	0	%100
11	50	X	-0.011	-0.011	0	%100
12	51	X	-0.011	-0.011	0	%100
13	54	X	-0.011	-0.011	0	%100
14	56	X	-0.028	-0.028	0	%100
15	66	X	-0.011	-0.011	0	%100
16	34	X	-0.01	-0.01	0	%100
17	36	X	-0.019	-0.019	0	%100
18	37	X	-0.023	-0.023	0	%100
19	38	X	-0.016	-0.016	0	%100
20	39	X	-0.023	-0.023	0	%100
21	40	X	-0.016	-0.016	0	%100
22	46	X	-0.028	-0.028	0	%100
23	47	X	-0.023	-0.023	0	%100
24	57	X	-0.023	-0.023	0	%100
25	62	X	-0.01	-0.01	0	%100
26	64	X	-0.032	-0.032	0	%100
27	73	X	-0.01	-0.01	0	%100
28	74	X	-0.019	-0.019	0	%100
29	76	X	-0.016	-0.016	0	%100
30	77	X	-0.023	-0.023	0	%100
31	78	X	-0.016	-0.016	0	%100
32	80	X	-0.028	-0.028	0	%100
33	81	X	-0.023	-0.023	0	%100
34	85	X	-0.01	-0.01	0	%100
35	86	X	-0.032	-0.032	0	%100
36	92	X	-0.011	-0.011	0	%100
37	93	X	-0.011	-0.011	0	%100
38	94	X	-0.011	-0.011	0	%100
39	96	X	-0.013	-0.013	0	%100
40	100	X	-0.011	-0.011	0	%100
41	103	X	-0.011	-0.011	0	%100
42	104	X	-0.011	-0.011	0	%100
43	105	X	-0.011	-0.011	0	%100
44	107	X	-0.013	-0.013	0	%100
45	111	X	-0.011	-0.011	0	%100
46	105	X	-0.023	-0.023	0	%100
47	107	X	-0.023	-0.023	0	%100
48	111	X	-0.023	-0.023	0	%100

Member Distributed Loads (BLC 4 : 0 Wind - Ice)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Z	-0.006	-0.006	0	%100
2	2	Z	-0.005	-0.005	0	%100
3	3	Z	-0.005	-0.005	0	%100
4	13	Z	-0.009	-0.009	0	%100
5	14	Z	-0.009	-0.009	0	%100
6	18	Z	-0.002	-0.002	0	%100
7	25	Z	-0.011	-0.011	0	%100
8	31	Z	-0.004	-0.004	0	%100
9	32	Z	-0.004	-0.004	0	%100
10	35	Z	-0.008	-0.008	0	%100
11	50	Z	-0.002	-0.002	0	%100
12	51	Z	-0.002	-0.002	0	%100
13	54	Z	-0.002	-0.002	0	%100
14	56	Z	-0.007	-0.007	0	%100
15	66	Z	-0.002	-0.002	0	%100
16	34	Z	-0.004	-0.004	0	%100
17	36	Z	-0.006	-0.006	0	%100
18	37	Z	-0.011	-0.011	0	%100
19	38	Z	-0.005	-0.005	0	%100
20	39	Z	-0.009	-0.009	0	%100
21	40	Z	-0.005	-0.005	0	%100
22	46	Z	-0.007	-0.007	0	%100
23	47	Z	-0.009	-0.009	0	%100
24	57	Z	-0.011	-0.011	0	%100
25	62	Z	-0.004	-0.004	0	%100
26	64	Z	-0.008	-0.008	0	%100
27	73	Z	-0.004	-0.004	0	%100
28	74	Z	-0.006	-0.006	0	%100
29	76	Z	-0.005	-0.005	0	%100
30	77	Z	-0.009	-0.009	0	%100
31	78	Z	-0.005	-0.005	0	%100
32	80	Z	-0.007	-0.007	0	%100
33	81	Z	-0.009	-0.009	0	%100
34	85	Z	-0.004	-0.004	0	%100
35	86	Z	-0.008	-0.008	0	%100
36	92	Z	-0.002	-0.002	0	%100
37	93	Z	-0.002	-0.002	0	%100
38	94	Z	-0.002	-0.002	0	%100
39	96	Z	-0.002	-0.002	0	%100
40	100	Z	-0.002	-0.002	0	%100
41	103	Z	-0.002	-0.002	0	%100
42	104	Z	-0.002	-0.002	0	%100
43	105	Z	-0.002	-0.002	0	%100
44	107	Z	-0.002	-0.002	0	%100
45	111	Z	-0.002	-0.002	0	%100
46	105	Z	-0.011	-0.011	0	%100
47	107	Z	-0.011	-0.011	0	%100
48	111	Z	-0.011	-0.011	0	%100

Member Distributed Loads (BLC 5 : 90 Wind - Ice)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	X	-0.006	-0.006	0	%100
2	2	X	-0.005	-0.005	0	%100
3	3	X	-0.005	-0.005	0	%100

Member Distributed Loads (BLC 5 : 90 Wind - Ice) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
4	13	X	-0.009	-0.009	0	%100
5	14	X	-0.009	-0.009	0	%100
6	18	X	-0.002	-0.002	0	%100
7	25	X	-0.011	-0.011	0	%100
8	31	X	-0.004	-0.004	0	%100
9	32	X	-0.004	-0.004	0	%100
10	35	X	-0.008	-0.008	0	%100
11	50	X	-0.002	-0.002	0	%100
12	51	X	-0.002	-0.002	0	%100
13	54	X	-0.002	-0.002	0	%100
14	56	X	-0.007	-0.007	0	%100
15	66	X	-0.002	-0.002	0	%100
16	34	X	-0.004	-0.004	0	%100
17	36	X	-0.006	-0.006	0	%100
18	37	X	-0.011	-0.011	0	%100
19	38	X	-0.005	-0.005	0	%100
20	39	X	-0.009	-0.009	0	%100
21	40	X	-0.005	-0.005	0	%100
22	46	X	-0.007	-0.007	0	%100
23	47	X	-0.009	-0.009	0	%100
24	57	X	-0.011	-0.011	0	%100
25	62	X	-0.004	-0.004	0	%100
26	64	X	-0.008	-0.008	0	%100
27	73	X	-0.004	-0.004	0	%100
28	74	X	-0.006	-0.006	0	%100
29	76	X	-0.005	-0.005	0	%100
30	77	X	-0.009	-0.009	0	%100
31	78	X	-0.005	-0.005	0	%100
32	80	X	-0.007	-0.007	0	%100
33	81	X	-0.009	-0.009	0	%100
34	85	X	-0.004	-0.004	0	%100
35	86	X	-0.008	-0.008	0	%100
36	92	X	-0.002	-0.002	0	%100
37	93	X	-0.002	-0.002	0	%100
38	94	X	-0.002	-0.002	0	%100
39	96	X	-0.002	-0.002	0	%100
40	100	X	-0.002	-0.002	0	%100
41	103	X	-0.002	-0.002	0	%100
42	104	X	-0.002	-0.002	0	%100
43	105	X	-0.002	-0.002	0	%100
44	107	X	-0.002	-0.002	0	%100
45	111	X	-0.002	-0.002	0	%100
46	105	X	-0.011	-0.011	0	%100
47	107	X	-0.011	-0.011	0	%100
48	111	X	-0.011	-0.011	0	%100

Member Distributed Loads (BLC 6 : 0 Wind - Service)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Z	-0.001	-0.001	0	%100
2	2	Z	-0.001	-0.001	0	%100
3	3	Z	-0.001	-0.001	0	%100
4	13	Z	-0.002	-0.002	0	%100
5	14	Z	-0.002	-0.002	0	%100
6	18	Z	-0.0004	-0.0004	0	%100
7	25	Z	-0.002	-0.002	0	%100

Member Distributed Loads (BLC 6 : 0 Wind - Service) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
8	31	Z	-0.0007	-0.0007	0	%100
9	32	Z	-0.0007	-0.0007	0	%100
10	35	Z	-0.002	-0.002	0	%100
11	50	Z	-0.0004	-0.0004	0	%100
12	51	Z	-0.0004	-0.0004	0	%100
13	54	Z	-0.0004	-0.0004	0	%100
14	56	Z	-0.002	-0.002	0	%100
15	66	Z	-0.0004	-0.0004	0	%100
16	34	Z	-0.0007	-0.0007	0	%100
17	36	Z	-0.001	-0.001	0	%100
18	37	Z	-0.002	-0.002	0	%100
19	38	Z	-0.001	-0.001	0	%100
20	39	Z	-0.002	-0.002	0	%100
21	40	Z	-0.001	-0.001	0	%100
22	46	Z	-0.002	-0.002	0	%100
23	47	Z	-0.002	-0.002	0	%100
24	57	Z	-0.002	-0.002	0	%100
25	62	Z	-0.0007	-0.0007	0	%100
26	64	Z	-0.002	-0.002	0	%100
27	73	Z	-0.0007	-0.0007	0	%100
28	74	Z	-0.001	-0.001	0	%100
29	76	Z	-0.001	-0.001	0	%100
30	77	Z	-0.002	-0.002	0	%100
31	78	Z	-0.001	-0.001	0	%100
32	80	Z	-0.002	-0.002	0	%100
33	81	Z	-0.002	-0.002	0	%100
34	85	Z	-0.0007	-0.0007	0	%100
35	86	Z	-0.002	-0.002	0	%100
36	92	Z	-0.0004	-0.0004	0	%100
37	93	Z	-0.0004	-0.0004	0	%100
38	94	Z	-0.0004	-0.0004	0	%100
39	96	Z	-0.0004	-0.0004	0	%100
40	100	Z	-0.0004	-0.0004	0	%100
41	103	Z	-0.0004	-0.0004	0	%100
42	104	Z	-0.0004	-0.0004	0	%100
43	105	Z	-0.0004	-0.0004	0	%100
44	107	Z	-0.0004	-0.0004	0	%100
45	111	Z	-0.0004	-0.0004	0	%100
46	105	Z	-0.002	-0.002	0	%100
47	107	Z	-0.002	-0.002	0	%100
48	111	Z	-0.002	-0.002	0	%100

Member Distributed Loads (BLC 7 : 90 Wind - Service)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	X	-0.001	-0.001	0	%100
2	2	X	-0.001	-0.001	0	%100
3	3	X	-0.001	-0.001	0	%100
4	13	X	-0.002	-0.002	0	%100
5	14	X	-0.002	-0.002	0	%100
6	18	X	-0.0004	-0.0004	0	%100
7	25	X	-0.002	-0.002	0	%100
8	31	X	-0.0007	-0.0007	0	%100
9	32	X	-0.0007	-0.0007	0	%100
10	35	X	-0.002	-0.002	0	%100
11	50	X	-0.0004	-0.0004	0	%100

Member Distributed Loads (BLC 7 : 90 Wind - Service) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
12	51	X	-0.0004	-0.0004	0	%100
13	54	X	-0.0004	-0.0004	0	%100
14	56	X	-0.002	-0.002	0	%100
15	66	X	-0.0004	-0.0004	0	%100
16	34	X	-0.0007	-0.0007	0	%100
17	36	X	-0.001	-0.001	0	%100
18	37	X	-0.002	-0.002	0	%100
19	38	X	-0.001	-0.001	0	%100
20	39	X	-0.002	-0.002	0	%100
21	40	X	-0.001	-0.001	0	%100
22	46	X	-0.002	-0.002	0	%100
23	47	X	-0.002	-0.002	0	%100
24	57	X	-0.002	-0.002	0	%100
25	62	X	-0.0007	-0.0007	0	%100
26	64	X	-0.002	-0.002	0	%100
27	73	X	-0.0007	-0.0007	0	%100
28	74	X	-0.001	-0.001	0	%100
29	76	X	-0.001	-0.001	0	%100
30	77	X	-0.002	-0.002	0	%100
31	78	X	-0.001	-0.001	0	%100
32	80	X	-0.002	-0.002	0	%100
33	81	X	-0.002	-0.002	0	%100
34	85	X	-0.0007	-0.0007	0	%100
35	86	X	-0.002	-0.002	0	%100
36	92	X	-0.0004	-0.0004	0	%100
37	93	X	-0.0004	-0.0004	0	%100
38	94	X	-0.0004	-0.0004	0	%100
39	96	X	-0.0004	-0.0004	0	%100
40	100	X	-0.0004	-0.0004	0	%100
41	103	X	-0.0004	-0.0004	0	%100
42	104	X	-0.0004	-0.0004	0	%100
43	105	X	-0.0004	-0.0004	0	%100
44	107	X	-0.0004	-0.0004	0	%100
45	111	X	-0.0004	-0.0004	0	%100
46	105	X	-0.002	-0.002	0	%100
47	107	X	-0.002	-0.002	0	%100
48	111	X	-0.002	-0.002	0	%100

Member Distributed Loads (BLC 8 : Ice)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Y	-0.009	-0.009	0	%100
2	2	Y	-0.007	-0.007	0	%100
3	3	Y	-0.007	-0.007	0	%100
4	13	Y	-0.01	-0.01	0	%100
5	14	Y	-0.01	-0.01	0	%100
6	18	Y	-0.006	-0.006	0	%100
7	25	Y	-0.01	-0.01	0	%100
8	31	Y	-0.005	-0.005	0	%100
9	32	Y	-0.005	-0.005	0	%100
10	35	Y	-0.013	-0.013	0	%100
11	50	Y	-0.006	-0.006	0	%100
12	51	Y	-0.006	-0.006	0	%100
13	54	Y	-0.006	-0.006	0	%100
14	56	Y	-0.012	-0.012	0	%100
15	66	Y	-0.006	-0.006	0	%100

Member Distributed Loads (BLC 8 : Ice) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
16	34	Y	-0.005	-0.005	0	%100
17	36	Y	-0.009	-0.009	0	%100
18	37	Y	-0.01	-0.01	0	%100
19	38	Y	-0.007	-0.007	0	%100
20	39	Y	-0.01	-0.01	0	%100
21	40	Y	-0.007	-0.007	0	%100
22	46	Y	-0.012	-0.012	0	%100
23	47	Y	-0.01	-0.01	0	%100
24	57	Y	-0.01	-0.01	0	%100
25	62	Y	-0.005	-0.005	0	%100
26	64	Y	-0.013	-0.013	0	%100
27	73	Y	-0.005	-0.005	0	%100
28	74	Y	-0.009	-0.009	0	%100
29	76	Y	-0.007	-0.007	0	%100
30	77	Y	-0.01	-0.01	0	%100
31	78	Y	-0.007	-0.007	0	%100
32	80	Y	-0.012	-0.012	0	%100
33	81	Y	-0.01	-0.01	0	%100
34	85	Y	-0.005	-0.005	0	%100
35	86	Y	-0.013	-0.013	0	%100
36	92	Y	-0.006	-0.006	0	%100
37	93	Y	-0.006	-0.006	0	%100
38	94	Y	-0.006	-0.006	0	%100
39	96	Y	-0.006	-0.006	0	%100
40	100	Y	-0.006	-0.006	0	%100
41	103	Y	-0.006	-0.006	0	%100
42	104	Y	-0.006	-0.006	0	%100
43	105	Y	-0.006	-0.006	0	%100
44	107	Y	-0.006	-0.006	0	%100
45	111	Y	-0.006	-0.006	0	%100
46	105	Y	-0.01	-0.01	0	%100
47	107	Y	-0.01	-0.01	0	%100
48	111	Y	-0.01	-0.01	0	%100

Member Distributed Loads (BLC 9 : 0 Seismic)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Z	-0.001	-0.001	0	%100
2	2	Z	-0.001	-0.001	0	%100
3	3	Z	-0.001	-0.001	0	%100
4	13	Z	-0.002	-0.002	0	%100
5	14	Z	-0.002	-0.002	0	%100
6	18	Z	-0.001	-0.001	0	%100
7	25	Z	-0.002	-0.002	0	%100
8	31	Z	-0.0007	-0.0007	0	%100
9	32	Z	-0.0007	-0.0007	0	%100
10	35	Z	-0.003	-0.003	0	%100
11	50	Z	-0.001	-0.001	0	%100
12	51	Z	-0.001	-0.001	0	%100
13	54	Z	-0.001	-0.001	0	%100
14	56	Z	-0.002	-0.002	0	%100
15	66	Z	-0.001	-0.001	0	%100
16	34	Z	-0.0007	-0.0007	0	%100
17	36	Z	-0.001	-0.001	0	%100
18	37	Z	-0.002	-0.002	0	%100
19	38	Z	-0.001	-0.001	0	%100

Member Distributed Loads (BLC 9 : 0 Seismic) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
20	39	Z	-0.002	-0.002	0	%100
21	40	Z	-0.001	-0.001	0	%100
22	46	Z	-0.002	-0.002	0	%100
23	47	Z	-0.002	-0.002	0	%100
24	57	Z	-0.002	-0.002	0	%100
25	62	Z	-0.0007	-0.0007	0	%100
26	64	Z	-0.003	-0.003	0	%100
27	73	Z	-0.0007	-0.0007	0	%100
28	74	Z	-0.001	-0.001	0	%100
29	76	Z	-0.001	-0.001	0	%100
30	77	Z	-0.002	-0.002	0	%100
31	78	Z	-0.001	-0.001	0	%100
32	80	Z	-0.002	-0.002	0	%100
33	81	Z	-0.002	-0.002	0	%100
34	85	Z	-0.0007	-0.0007	0	%100
35	86	Z	-0.003	-0.003	0	%100
36	92	Z	-0.001	-0.001	0	%100
37	93	Z	-0.001	-0.001	0	%100
38	94	Z	-0.001	-0.001	0	%100
39	96	Z	-0.001	-0.001	0	%100
40	100	Z	-0.001	-0.001	0	%100
41	103	Z	-0.001	-0.001	0	%100
42	104	Z	-0.001	-0.001	0	%100
43	105	Z	-0.001	-0.001	0	%100
44	107	Z	-0.001	-0.001	0	%100
45	111	Z	-0.001	-0.001	0	%100
46	1	Z	-0.002	-0.002	0	%100
47	1	Z	-0.002	-0.002	0	%100
48	1	Z	-0.002	-0.002	0	%100

Member Distributed Loads (BLC 10 : 90 Seismic)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	X	-0.001	-0.001	0	%100
2	2	X	-0.001	-0.001	0	%100
3	3	X	-0.001	-0.001	0	%100
4	13	X	-0.002	-0.002	0	%100
5	14	X	-0.002	-0.002	0	%100
6	18	X	-0.001	-0.001	0	%100
7	25	X	-0.002	-0.002	0	%100
8	31	X	-0.0007	-0.0007	0	%100
9	32	X	-0.0007	-0.0007	0	%100
10	35	X	-0.003	-0.003	0	%100
11	50	X	-0.001	-0.001	0	%100
12	51	X	-0.001	-0.001	0	%100
13	54	X	-0.001	-0.001	0	%100
14	56	X	-0.002	-0.002	0	%100
15	66	X	-0.001	-0.001	0	%100
16	34	X	-0.0007	-0.0007	0	%100
17	36	X	-0.001	-0.001	0	%100
18	37	X	-0.002	-0.002	0	%100
19	38	X	-0.001	-0.001	0	%100
20	39	X	-0.002	-0.002	0	%100
21	40	X	-0.001	-0.001	0	%100
22	46	X	-0.002	-0.002	0	%100
23	47	X	-0.002	-0.002	0	%100

Member Distributed Loads (BLC 10 : 90 Seismic) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
24	57	X	-0.002	-0.002	0	%100
25	62	X	-0.0007	-0.0007	0	%100
26	64	X	-0.003	-0.003	0	%100
27	73	X	-0.0007	-0.0007	0	%100
28	74	X	-0.001	-0.001	0	%100
29	76	X	-0.001	-0.001	0	%100
30	77	X	-0.002	-0.002	0	%100
31	78	X	-0.001	-0.001	0	%100
32	80	X	-0.002	-0.002	0	%100
33	81	X	-0.002	-0.002	0	%100
34	85	X	-0.0007	-0.0007	0	%100
35	86	X	-0.003	-0.003	0	%100
36	92	X	-0.001	-0.001	0	%100
37	93	X	-0.001	-0.001	0	%100
38	94	X	-0.001	-0.001	0	%100
39	96	X	-0.001	-0.001	0	%100
40	100	X	-0.001	-0.001	0	%100
41	103	X	-0.001	-0.001	0	%100
42	104	X	-0.001	-0.001	0	%100
43	105	X	-0.001	-0.001	0	%100
44	107	X	-0.001	-0.001	0	%100
45	111	X	-0.001	-0.001	0	%100
46	1	X	-0.002	-0.002	0	%100
47	1	X	-0.002	-0.002	0	%100
48	1	X	-0.002	-0.002	0	%100

Member Distributed Loads (BLC 30 : BLC 1 Transient Area Loads)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	32	Y	-0.018	-0.016	0.231	2.309
2	34	Y	-0.018	-0.016	0.231	2.309
3	62	Y	-0.035	-0.016	0	1.155
4	62	Y	-0.016	0.0006163	1.155	2.309
5	73	Y	0.0006164	-0.016	0	1.155
6	73	Y	-0.016	-0.035	1.155	2.309
7	85	Y	-0.018	-0.016	0	2.078
8	31	Y	-0.035	-0.016	0	1.155
9	31	Y	-0.016	0.0006163	1.155	2.309

Member Distributed Loads (BLC 31 : BLC 8 Transient Area Loads)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	31	Y	-0.019	-0.009	0	1.155
2	31	Y	-0.009	0.000332	1.155	2.309
3	32	Y	-0.01	-0.009	0.231	2.309
4	34	Y	-0.008	-0.009	0.231	2.309
5	62	Y	-0.017	-0.008	0	1.155
6	62	Y	-0.008	0.0003082	1.155	2.309
7	73	Y	0.0003082	-0.008	0	1.155
8	73	Y	-0.008	-0.017	1.155	2.309
9	85	Y	-0.009	-0.008	0	2.078

Member Area Loads (BLC 1 : Dead)

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]
1	64	60	71	65	Y	Two Way	-0.01
2	111	110	109	108	Y	Two Way	-0.01
3	139	138	137	140	Y	Two Way	-0.01

Member Area Loads (BLC 8 : Ice)

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]
1	64	60	71	65	Y	Two Way	-0.005
2	111	110	109	108	Y	Two Way	-0.005
3	139	138	137	140	Y	Two Way	-0.005

Node Loads and Enforced Displacements (BLC 11 : Live Load a)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	102	L	Y	-0.5
2	170	L	Y	-0.5
3	147	L	Y	-0.5

Node Loads and Enforced Displacements (BLC 12 : Live Load b)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	85	L	Y	-0.5
2	172	L	Y	-0.5
3	148	L	Y	-0.5

Node Loads and Enforced Displacements (BLC 13 : Live Load c)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	171	L	Y	-0.5
2	146	L	Y	-0.5
3	191	L	Y	-0.5

Basic Load Cases

	BLC Description	Category	Y Gravity	Nodal	Point	Distributed	Area(Member)
1	Dead	DL	-1		20		3
2	0 Wind - No Ice	WLZ			20	48	
3	90 Wind - No Ice	WLX			20	48	
4	0 Wind - Ice	WLZ			20	48	
5	90 Wind - Ice	WLX			20	48	
6	0 Wind - Service	WLZ			20	48	
7	90 Wind - Service	WLX			20	48	
8	Ice	OL1			20	48	3
9	0 Seismic	ELZ			20	48	
10	90 Seismic	ELX			20	48	
11	Live Load a	LL		3			
12	Live Load b	LL		3			
13	Live Load c	LL		3			
14	Live Load d	LL					
15	Maint LL 1	LL			1		
16	Maint LL 2	LL			1		
17	Maint LL 3	LL			1		
18	Maint LL 4	LL			1		

Basic Load Cases (Continued)

	BLC Description	Category	Y Gravity	Nodal	Point	Distributed	Area(Member)
19	Maint LL 5	LL			1		
20	Maint LL 6	LL			1		
21	Maint LL 7	LL			1		
22	Maint LL 8	LL			1		
23	Maint LL 9	LL			1		
24	Maint LL 10	LL			1		
25	Maint LL 11	LL			1		
26	Maint LL 12	LL			1		
27	Maint LL 13	LL			1		
28	Maint LL 14	LL			1		
29	Maint LL 15	LL			1		
30	BLC 1 Transient Area Loads	None				9	
31	BLC 8 Transient Area Loads	None				9	

Load Combinations

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
1	1.4 Dead	Yes	Y	1	1.4						
2	1.2 D + 1.0 - 0 W	Yes	Y	1	1.2	2	1				
3	1.2 D + 1.0 - 30 W	Yes	Y	1	1.2	2	0.866	3	0.5		
4	1.2 D + 1.0 - 60 W	Yes	Y	1	1.2	3	0.866	2	0.5		
5	1.2 D + 1.0 - 90 W	Yes	Y	1	1.2	3	1				
6	1.2 D + 1.0 - 120 W	Yes	Y	1	1.2	3	0.866	2	-0.5		
7	1.2 D + 1.0 - 150 W	Yes	Y	1	1.2	2	-0.866	3	0.5		
8	1.2 D + 1.0 - 180 W	Yes	Y	1	1.2	2	-1				
9	1.2 D + 1.0 - 210 W	Yes	Y	1	1.2	2	-0.866	3	-0.5		
10	1.2 D + 1.0 - 240 W	Yes	Y	1	1.2	3	-0.866	2	-0.5		
11	1.2 D + 1.0 - 270 W	Yes	Y	1	1.2	3	-1				
12	1.2 D + 1.0 - 300 W	Yes	Y	1	1.2	3	-0.866	2	0.5		
13	1.2 D + 1.0 - 330 W	Yes	Y	1	1.2	2	0.866	3	-0.5		
14	1.2 D + 1.0 - 0 W/Ice	Yes	Y	1	1.2	4	1			8	1
15	1.2 D + 1.0 - 30 W/Ice	Yes	Y	1	1.2	4	0.866	5	0.5	8	1
16	1.2 D + 1.0 - 60 W/Ice	Yes	Y	1	1.2	5	0.866	4	0.5	8	1
17	1.2 D + 1.0 - 90 W/Ice	Yes	Y	1	1.2	5	1			8	1
18	1.2 D + 1.0 - 120 W/Ice	Yes	Y	1	1.2	5	0.866	4	-0.5	8	1
19	1.2 D + 1.0 - 150 W/Ice	Yes	Y	1	1.2	4	-0.866	5	0.5	8	1
20	1.2 D + 1.0 - 180 W/Ice	Yes	Y	1	1.2	4	-1			8	1
21	1.2 D + 1.0 - 210 W/Ice	Yes	Y	1	1.2	4	-0.866	5	-0.5	8	1
22	1.2 D + 1.0 - 240 W/Ice	Yes	Y	1	1.2	5	-0.866	4	-0.5	8	1
23	1.2 D + 1.0 - 270 W/Ice	Yes	Y	1	1.2	5	-1			8	1
24	1.2 D + 1.0 - 300 W/Ice	Yes	Y	1	1.2	5	-0.866	4	0.5	8	1
25	1.2 D + 1.0 - 330 W/Ice	Yes	Y	1	1.2	4	0.866	5	-0.5	8	1
26	1.2 D + 1.0 E - 0	Yes	Y	1	1.2	9	1				
27	1.2 D + 1.0 E - 30	Yes	Y	1	1.2	9	0.866	10	0.5		
28	1.2 D + 1.0 E - 60	Yes	Y	1	1.2	10	0.866	9	0.5		
29	1.2 D + 1.0 E - 90	Yes	Y	1	1.2	10	1				
30	1.2 D + 1.0 E - 120	Yes	Y	1	1.2	10	0.866	9	-0.5		
31	1.2 D + 1.0 E - 150	Yes	Y	1	1.2	9	-0.866	10	0.5		
32	1.2 D + 1.0 E - 180	Yes	Y	1	1.2	9	-1				
33	1.2 D + 1.0 E - 210	Yes	Y	1	1.2	9	-0.866	10	-0.5		
34	1.2 D + 1.0 E - 240	Yes	Y	1	1.2	10	-0.866	9	-0.5		
35	1.2 D + 1.0 E - 270	Yes	Y	1	1.2	10	-1				
36	1.2 D + 1.0 E - 300	Yes	Y	1	1.2	10	-0.866	9	0.5		
37	1.2 D + 1.0 E - 330	Yes	Y	1	1.2	9	0.866	10	-0.5		
38	1.2 D + 1.5 LL a + Service - 0 W	Yes	Y	1	1.2	6	1			11	1.5
39	1.2 D + 1.5 LL a + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	11	1.5

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
40	1.2 D + 1.5 LL a + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	11	1.5
41	1.2 D + 1.5 LL a + Service - 90 W	Yes	Y	1	1.2	7	1			11	1.5
42	1.2 D + 1.5 LL a + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	11	1.5
43	1.2 D + 1.5 LL a + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	11	1.5
44	1.2 D + 1.5 LL a + Service - 180 W	Yes	Y	1	1.2	6	-1			11	1.5
45	1.2 D + 1.5 LL a + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	11	1.5
46	1.2 D + 1.5 LL a + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	11	1.5
47	1.2 D + 1.5 LL a + Service - 270 W	Yes	Y	1	1.2	7	-1			11	1.5
48	1.2 D + 1.5 LL a + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	11	1.5
49	1.2 D + 1.5 LL a + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	11	1.5
50	1.2 D + 1.5 LL b + Service - 0 W	Yes	Y	1	1.2	6	1			12	1.5
51	1.2 D + 1.5 LL b + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	12	1.5
52	1.2 D + 1.5 LL b + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	12	1.5
53	1.2 D + 1.5 LL b + Service - 90 W	Yes	Y	1	1.2	7	1			12	1.5
54	1.2 D + 1.5 LL b + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	12	1.5
55	1.2 D + 1.5 LL b + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	12	1.5
56	1.2 D + 1.5 LL b + Service - 180 W	Yes	Y	1	1.2	6	-1			12	1.5
57	1.2 D + 1.5 LL b + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	12	1.5
58	1.2 D + 1.5 LL b + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	12	1.5
59	1.2 D + 1.5 LL b + Service - 270 W	Yes	Y	1	1.2	7	-1			12	1.5
60	1.2 D + 1.5 LL b + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	12	1.5
61	1.2 D + 1.5 LL b + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	12	1.5
62	1.2 D + 1.5 LL c + Service - 0 W	Yes	Y	1	1.2	6	1			13	1.5
63	1.2 D + 1.5 LL c + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	13	1.5
64	1.2 D + 1.5 LL c + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	13	1.5
65	1.2 D + 1.5 LL c + Service - 90 W	Yes	Y	1	1.2	7	1			13	1.5
66	1.2 D + 1.5 LL c + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	13	1.5
67	1.2 D + 1.5 LL c + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	13	1.5
68	1.2 D + 1.5 LL c + Service - 180 W	Yes	Y	1	1.2	6	-1			13	1.5
69	1.2 D + 1.5 LL c + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	13	1.5
70	1.2 D + 1.5 LL c + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	13	1.5
71	1.2 D + 1.5 LL c + Service - 270 W	Yes	Y	1	1.2	7	-1			13	1.5
72	1.2 D + 1.5 LL c + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	13	1.5
73	1.2 D + 1.5 LL c + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	13	1.5
74	1.2 D + 1.5 LL d + Service - 0 W	Yes	Y	1	1.2	6	1			14	1.5
75	1.2 D + 1.5 LL d + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	14	1.5
76	1.2 D + 1.5 LL d + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	14	1.5
77	1.2 D + 1.5 LL d + Service - 90 W	Yes	Y	1	1.2	7	1			14	1.5
78	1.2 D + 1.5 LL d + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	14	1.5
79	1.2 D + 1.5 LL d + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	14	1.5
80	1.2 D + 1.5 LL d + Service - 180 W	Yes	Y	1	1.2	6	-1			14	1.5
81	1.2 D + 1.5 LL d + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	14	1.5
82	1.2 D + 1.5 LL d + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	14	1.5
83	1.2 D + 1.5 LL d + Service - 270 W	Yes	Y	1	1.2	7	-1			14	1.5
84	1.2 D + 1.5 LL d + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	14	1.5
85	1.2 D + 1.5 LL d + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	14	1.5
86	1.2 D + 1.5 LL Maint (1)	Yes	Y	1	1.2					15	1.5
87	1.2 D + 1.5 LL Maint (2)	Yes	Y	1	1.2					16	1.5
88	1.2 D + 1.5 LL Maint (3)	Yes	Y	1	1.2					17	1.5
89	1.2 D + 1.5 LL Maint (4)	Yes	Y	1	1.2					18	1.5
90	1.2 D + 1.5 LL Maint (5)	Yes	Y	1	1.2					19	1.5
91	1.2 D + 1.5 LL Maint (6)	Yes	Y	1	1.2					20	1.5
92	1.2 D + 1.5 LL Maint (7)	Yes	Y	1	1.2					21	1.5
93	1.2 D + 1.5 LL Maint (8)	Yes	Y	1	1.2					22	1.5
94	1.2 D + 1.5 LL Maint (9)	Yes	Y	1	1.2					23	1.5

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
95	1.2 D + 1.5 LL Maint (10)	Yes	Y	1	1.2					24	1.5
96	1.2 D + 1.5 LL Maint (11)	Yes	Y	1	1.2					25	1.5
97	1.2 D + 1.5 LL Maint (12)	Yes	Y	1	1.2					26	1.5
98	1.2 D + 1.5 LL Maint (13)	Yes	Y	1	1.2					27	1.5
99	1.2 D + 1.5 LL Maint (14)	Yes	Y	1	1.2					28	1.5
100	1.2 D + 1.5 LL Maint (15)	Yes	Y	1	1.2					29	1.5

Envelope Node Reactions

	Node Label		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	2	max	1.463	5	2.153	62	1.694	2	4.671	62	1.497	11	0.364	96
2		min	-1.465	11	-0.193	8	-1.821	8	-0.96	8	-1.497	5	-0.199	88
3	62	max	1.463	5	1.979	18	1.464	2	0.375	13	1.477	3	0.599	12
4		min	-1.572	11	-0.07	12	-1.398	8	-1.803	7	-1.476	9	-3.598	18
5	120	max	1.234	5	2.14	46	1.651	2	0.381	3	1.425	7	3.963	46
6		min	-1.124	11	-0.094	4	-1.589	8	-2.418	45	-1.426	13	-0.619	4
7	Totals:	max	4.161	5	4.864	20	4.809	2						
8		min	-4.161	11	2.417	2	-4.809	8						

Envelope AISC 13TH (360-05): LRFD Member Steel Code Checks

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	Dir	LC	phi*Pnc [k]	phi*Pnt [k]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
1	1	HSS4X4X2	0.571	0	63	0.116	0	y	13	70.173	73.278	8.24	8.24	2.061	H1-1b
2	2	C3.38X2.06X0.188	0.381	2.592	15	0.061	0.351	y	18	38.433	43.394	1.694	4.483	1.625	H1-1b
3	3	C3.38X2.06X0.188	0.385	0	13	0.076	2.241	z	8	38.433	43.394	1.694	4.483	1.593	H1-1b
4	13	PL3/8"x6	0.099	0	13	0.188	0	y	62	68.856	72.9	0.57	9.113	2.2	H1-1b
5	14	PL3/8"x6	0.103	0	3	0.155	0	y	62	68.856	72.9	0.57	9.113	1.884	H1-1b
6	18	PIPE_3.5X0.165	0.087	6.75	43	0.049	4		5	45.872	71.57	6.336	6.336	2.45	H1-1b
7	24	PL3/8"x6	0.147	0.208	9	0.214	0.208	y	62	70.733	72.9	0.57	9.113	1.674	H1-1b
8	25	PL3/8"x6	0.17	0	13	0.225	0	y	63	70.733	72.9	0.57	9.113	2.833	H1-1b
9	31	L2x2x4	0.313	0	7	0.028	2.309	z	13	23.349	30.586	0.691	1.577	1.5	H2-1
10	32	L2x2x4	0.267	2.309	8	0.034	0	y	17	23.349	30.586	0.691	1.577	1.5	H2-1
11	35	L7.63x2.5x6	0.407	1.604	8	0.091	0.334	y	62	73.845	118.523	1.798	13.752	1.249	H2-1
12	50	PIPE_2.88X0.203	0.139	5.667	5	0.053	5.667		6	35.361	70.548	5.01	5.01	3	H1-1b
13	51	PIPE_2.88X0.203	0.155	2.333	10	0.052	5.667		9	35.361	70.548	5.01	5.01	3	H1-1b
14	54	PIPE_2.88X0.203	0.158	7.812	13	0.143	9.062		2	23.996	70.548	5.01	5.01	2.452	H1-1b
15	56	L6.63x4.33x.25	0.236	0	11	0.032	3.25	z	12	49.975	86.751	2.311	6.976	1.5	H2-1
16	66	PIPE_2.88X0.203	0.136	2.333	7	0.054	2.333		9	35.361	70.548	5.01	5.01	3	H1-1b
17	34	L2x2x4	0.234	2.309	12	0.038	0	y	44	23.349	30.586	0.691	1.577	1.5	H2-1
18	36	HSS4X4X2	0.534	0	7	0.146	0	y	17	70.173	73.278	8.24	8.24	2.021	H1-1b
19	37	PL3/8"x6	0.145	0.208	13	0.202	0.208	y	17	70.733	72.9	0.57	9.113	1.773	H1-1b
20	38	C3.38X2.06X0.188	0.371	2.592	19	0.063	0.351	y	44	38.433	43.394	1.694	4.483	1.626	H1-1b
21	39	PL3/8"x6	0.104	0	7	0.132	0	y	66	68.856	72.9	0.57	9.113	1.849	H1-1b
22	40	C3.38X2.06X0.188	0.363	0	5	0.072	2.241	z	12	38.433	43.394	1.694	4.483	1.594	H1-1b
23	46	L6.63x4.33x.25	0.265	3.25	10	0.034	3.25	z	4	49.974	86.751	2.311	6.976	1.5	H2-1
24	47	PL3/8"x6	0.092	0.164	11	0.164	0	y	6	68.856	72.9	0.57	9.113	2.181	H1-1b
25	57	PL3/8"x6	0.126	0	5	0.204	0	y	19	70.733	72.9	0.57	9.113	2.97	H1-1b
26	62	L2x2x4	0.299	0	11	0.033	2.309	z	72	23.349	30.586	0.691	1.577	1.5	H2-1
27	64	L7.63x2.5x6	0.374	1.604	12	0.085	0	z	42	73.845	118.523	1.798	13.664	1.23	H2-1
28	73	L2x2x4	0.243	2.309	4	0.032	2.309	y	24	23.349	30.586	0.691	1.577	1.5	H2-1
29	74	HSS4X4X2	0.572	0	45	0.12	0	z	7	70.173	73.278	8.24	8.24	2.061	H1-1b
30	75	PL3/8"x6	0.14	0.085	3	0.22	0.208	y	45	70.733	72.9	0.57	9.113	1.399	H1-1b
31	76	C3.38X2.06X0.188	0.356	2.592	45	0.058	0.351	y	60	38.433	43.394	1.703	4.483	1.617	H1-1b
32	77	PL3/8"x6	0.091	0	11	0.159	0	y	45	68.856	72.9	0.57	9.113	1.844	H1-1b
33	78	C3.38X2.06X0.188	0.38	0	9	0.068	2.241	z	3	38.433	43.394	1.694	4.483	1.595	H1-1b

Envelope AISC 13TH (360-05): LRFD Member Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	Dir	LC	phi*Pnc [k]	phi*Pnt [k]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
34	80	L6.63x4.33x.25	0.263	3.25	2	0.035	3.25	z	8	49.974	86.751	2.311	6.976	1.5	H2-1
35	81	PL3/8"x6	0.095	0.164	3	0.181	0	y	46	68.856	72.9	0.57	9.113	2.178	H1-1b
36	83	PL3/8"x6	0.16	0	9	0.218	0	y	47	70.733	72.9	0.57	9.113	2.876	H1-1b
37	85	L2x2x4	0.305	0	3	0.029	2.309	y	44	23.349	30.586	0.691	1.577	1.5	H2-1
38	86	L7.63x2.5x6	0.375	1.604	3	0.085	0.334	y	46	73.845	118.523	1.798	14.044	1.315	H2-1
39	92	PIPE_2.88X0.203	0.159	5.667	9	0.058	5.667		9	35.361	70.548	5.01	5.01	3	H1-1b
40	93	PIPE_2.88X0.203	0.171	2.333	2	0.052	5.667		13	35.361	70.548	5.01	5.01	3	H1-1b
41	94	PIPE_2.88X0.203	0.154	2.187	13	0.12	2.187		13	23.996	70.548	5.01	5.01	2.291	H1-1b
42	96	PIPE_3.5X0.165	0.085	1.25	2	0.059	4		9	45.872	71.57	6.336	6.336	1.782	H1-1b
43	100	PIPE_2.88X0.203	0.144	5.667	9	0.051	2.333		13	35.361	70.548	5.01	5.01	3	H1-1b
44	103	PIPE_2.88X0.203	0.159	5.667	13	0.059	5.667		13	35.361	70.548	5.01	5.01	3	H1-1b
45	104	PIPE_2.88X0.203	0.162	2.333	6	0.056	5.667		5	35.361	70.548	5.01	5.01	3	H1-1b
46	105	PIPE_2.88X0.203	0.159	7.812	9	0.137	9.062		9	23.996	70.548	5.01	5.01	2.584	H1-1b
47	107	PIPE_3.5X0.165	0.083	2.667	12	0.053	4		13	45.872	71.57	6.336	6.336	1.48	H1-1b
48	111	PIPE_2.88X0.203	0.156	5.667	2	0.051	2.333		5	35.361	70.548	5.01	5.01	3	H1-1b

APPENDIX B
(Additional Calculations)

ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-16
Risk Category: II
Soil Class: D - Default (see Section 11.4.3)

Elevation: 622.96 ft (NAVD 88)
Latitude: 41.320966
Longitude: -73.201422

Wind

Results:

Wind Speed:	118 Vmph
10-year MRI	75 Vmph
25-year MRI	85 Vmph
50-year MRI	90 Vmph
100-year MRI	97 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed: Sat Sep 25 2021

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

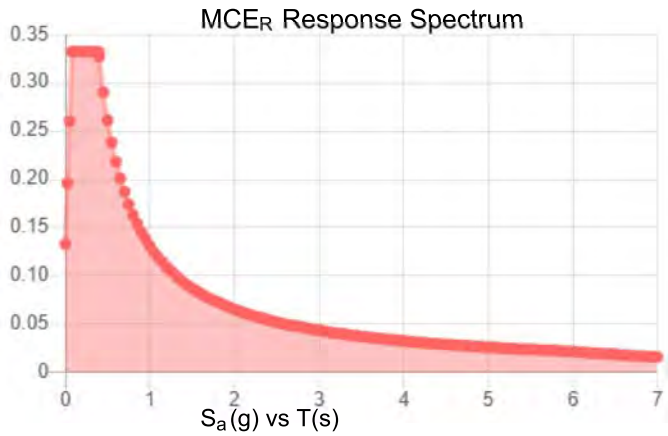
Seismic

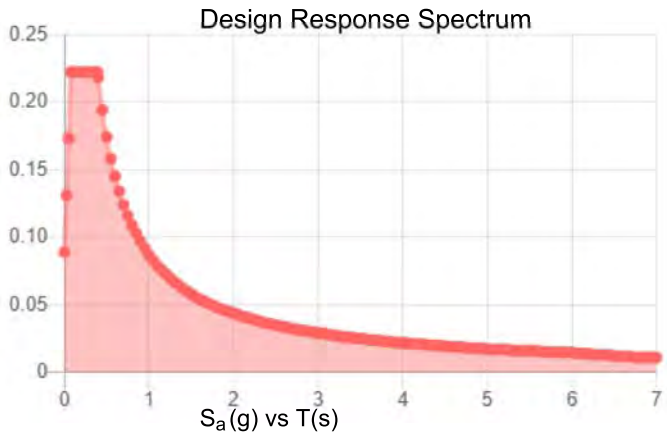
Site Soil Class: D - Default (see Section 11.4.3)

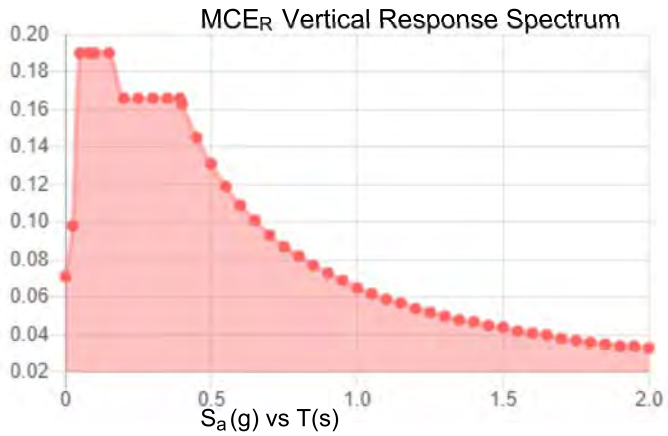
Results:

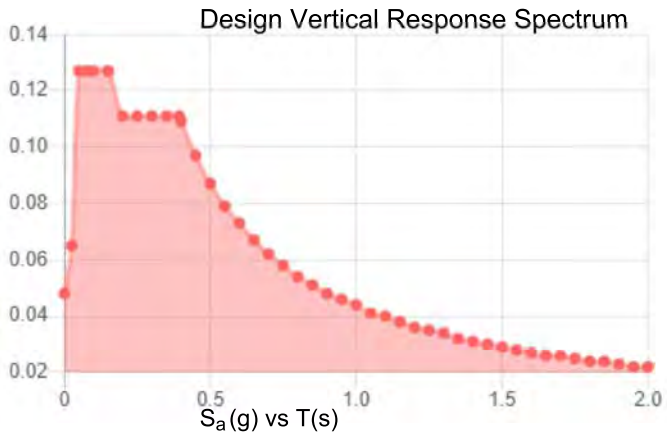
S_S :	0.208	S_{D1} :	0.087
S_1 :	0.054	T_L :	6
F_a :	1.6	PGA :	0.118
F_v :	2.4	PGA_M :	0.184
S_{MS} :	0.332	F_{PGA} :	1.565
S_{M1} :	0.131	I_e :	1
S_{DS} :	0.222	C_v :	0.716

Seismic Design Category B









Data Accessed: Sat Sep 25 2021

Date Source: USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.

Ice

Results:

Ice Thickness:	1.00 in.
Concurrent Temperature:	15 F
Gust Speed:	50 mph
Data Source:	Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8
Date Accessed:	Sat Sep 25 2021

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 500-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

EXHIBIT 10

Construction Drawings

DISH Wireless L.L.C. SITE ID:

NJJER01101B

DISH Wireless L.L.C. SITE ADDRESS:

500 MOOSEHILL ROAD
MONROE, CT 06468

CONNECTICUT CODE OF COMPLIANCE

ALL WORK SHALL BE PERFORMED AND MATERIALS 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 THESE CODES

CODE TYPE	CODE
BUILDING	2018 CT STATE BUILDING CODE/2015 IBC W/ CT AMENDMENTS
MECHANICAL	2018 CT STATE BUILDING CODE/2015 IMC W/ CT AMENDMENTS
ELECTRICAL	2018 CT STATE BUILDING CODE/2017 NEC W/ CT AMENDMENTS

SHEET INDEX

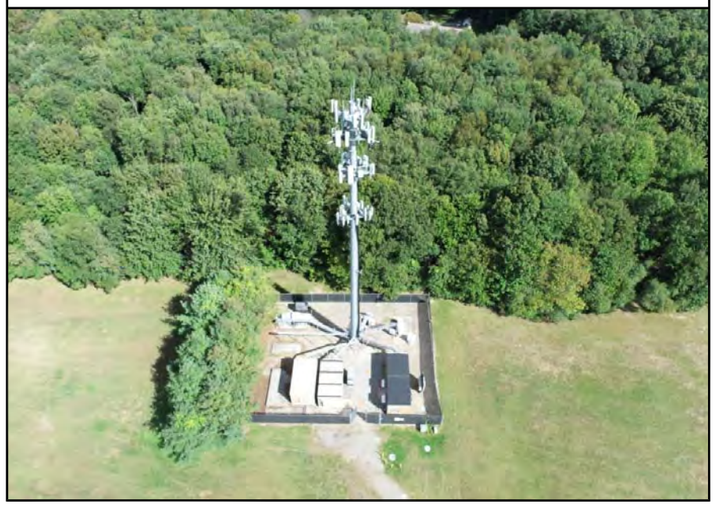
SCOPE OF WORK

THIS IS NOT AN ALL INCLUSIVE LIST. CONTRACTOR SHALL UTILIZE SPECIFIED EQUIPMENT PART OR ENGINEER APPROVED EQUIVALENT. CONTRACTOR SHALL VERIFY ALL NEEDED EQUIPMENT TO PROVIDE A FUNCTIONAL SITE. THE PROJECT GENERALLY CONSISTS OF THE FOLLOWING:

TOWER SCOPE OF WORK:
- INSTALL (3) PROPOSED PANEL ANTENNAS (1 PER SECTOR)
- INSTALL (1) PROPOSED ANTENNA PLATFORM MOUNT
- INSTALL PROPOSED JUMPERS
- INSTALL (6) PROPOSED RRUs (2 PER SECTOR)
- INSTALL (1) PROPOSED OVER VOLTAGE PROTECTION DEVICE (OVP)
- INSTALL (1) PROPOSED HYBRID CABLE

GROUND SCOPE OF WORK:
- INSTALL (1) PROPOSED METAL PLATFORM
- INSTALL (1) PROPOSED ICE BRIDGE
- INSTALL (1) PROPOSED PPC CABINET
- INSTALL (1) PROPOSED EQUIPMENT CABINET
- INSTALL (1) PROPOSED POWER CONDUIT
- INSTALL (1) PROPOSED TELCO CONDUIT
- INSTALL (1) PROPOSED TELCO-FIBER BOX
- INSTALL (1) PROPOSED GPS UNIT
- INSTALL (1) PROPOSED SAFETY SWITCH (IF REQUIRED)
- INSTALL (1) PROPOSED FIBER NID (IF REQUIRED)
- INSTALL (1) PROPOSED METER SOCKET

SITE PHOTO



UNDERGROUND SERVICE ALERT CBYD 811
UTILITY NOTIFICATION CENTER OF CONNECTICUT
(800) 922-4455
WWW.CBYD.COM

CALL 2 WORKING DAYS UTILITY NOTIFICATION PRIOR TO CONSTRUCTION

GENERAL NOTES

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE. NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

11"x17" PLOT WILL BE HALF SCALE UNLESS OTHERWISE NOTED

CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON THE JOB SITE, AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.

SITE INFORMATION

PROPERTY OWNER:	ST JOHN THE BAPTIST GREEK CATHOLIC CEM
ADDRESS:	50 PARADISE GREEN PL STRATFORD, CT 33487
TOWER TYPE:	MONOPOLE
TOWER CO SITE ID:	CT13056-A
TOWER APP NUMBER:	163794
COUNTY:	FAIRFIELD
LATITUDE (NAD 83):	41° 19' 15.48" N 41.320966 N
LONGITUDE (NAD 83):	73° 12' 5.12" W 73.20142222 W
ZONING JURISDICTION:	FAIRFIELD COUNTY
ZONING DISTRICT:	RF1
PARCEL NUMBER:	051 067 0C
OCCUPANCY GROUP:	U
CONSTRUCTION TYPE:	II-B
POWER COMPANY:	EVERSOURCE
TELEPHONE COMPANY:	AT&T

PROJECT DIRECTORY

APPLICANT:	DISH Wireless L.L.C. 5701 SOUTH SANTA FE DRIVE LITTLETON, CO 80120
TOWER OWNER:	SBA COMMUNICATAIONS CORP. 8051 CONGRESS AVENUE BOCA RATON, FL 33487 (800) 487-7483
SITE DESIGNER:	B+T GROUP 1717 S. BOULDER AVE, SUITE 300 TULSA, OK 74119 (918) 587-4630
SITE ACQUISITION:	GREGG BAILEY gregg.bailey@dish.com
CONST. MANAGER:	MICHAEL NARDUCCI michael.narducci@dish.com
RF ENGINEER:	MURUGABIRAN JAYAPAL murugabiran.jayapal@dish.com

DIRECTIONS

DIRECTIONS FROM 3 ADP BLVD, ROSELAND, NJ 07068:

TURN LEFT ONTO ADP BLVD. TURN RIGHT TOWARD CHOCTAW WAY. SLIGHT RIGHT ONTO CHOCTAW WAY. USE THE RIGHT LANE TO TURN RIGHT ONTO LIVINGSTON AVE. USE THE RIGHT LANE TO MERGE ONTO I-280 W VIA THE RAMP TO PARSIPPANY. MERGE ONTO I-280 W. TAKE THE I-287 EXIT TOWARD US-46/MAHWAH.MORRISTOWN. KEEP RIGHT AT THE FORK, FOLLOW SIGNS FOR I-287 N AND MERGE ONTO I-287 N. TAKE THE I-87 S/NEW YORK STATE THRUWAY/I-287 EXIT TOWARD GOV MARIO M. CUOMO BR/NEW YORK CITY. MERGE ONTO I-287 E/I-87 S. KEEP LEFT AT THE FORK TO CONTINUE ON I-287 E, FOLLOW SIGNS FOR WHITE PLAINS/RYE. TAKE EXIT 9 S-N TOWARD HUTCHINSON PKWY/MERRITT PKWY. MERGE ONTO WESTCHESTER AVE. USE THE RIGHT LANE TO TAKE THE RAMP TO WESTCHESTER AVE/NORTH HUTCHINSON PKWY/MERRITT PKWY. MERGE ONTO HUTCHINSON RIVER PKWY N. CONTINUE ONTO CT-15 N. TAKE EXIT 49N TO MERGE ONTO CT-25 N TOWARD DANBURY. TAKE EXIT 9 FOR DANIELS FARM RD. TURN RIGHT ONTO DANIELS FARM RD. CONTINUE ONTO MOOSE HILL RD. TURN RIGHT AT B'NAI ISRAEL CEMETERY AND FOLLOW ACCESS ROAD. ARRIVE AT NJJER01101B.

VICINITY MAP

NO SCALE

dish wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

B+T GRP
1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.btgrp.com

10/29/21

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/22

DRAWN BY:	CHECKED BY:	APPROVED BY:
NGN	RMC	RMC

RFDS REV #: 1

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
A	9/30/21	ISSUED FOR REVIEW
B	10/13/21	ISSUED FOR REVIEW
0	10/18/21	ISSUED FOR CONSTRUCTION
1	10/29/21	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER

156469.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION

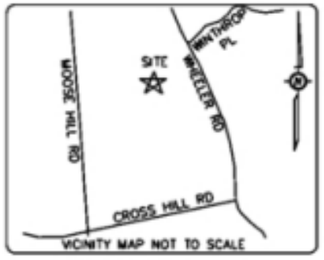
NJJER01101B
500 MOOSEHILL ROAD
MONROE, CT 06468

SHEET TITLE

TITLE SHEET

SHEET NUMBER

T-1



PARENT PARCEL INFORMATION:
OWNER: ST. JOHN THE BAPTIST GREEK CATHOLIC CEMETERY ASSOCIATION, INCORPORATED

500 MOOSE HILL RD, MONROE, CT
TAX ID NO. 0510670C
TAX ID NO. 05106701A (TOWER TAX ID)
BOOK 142 PAGE 272

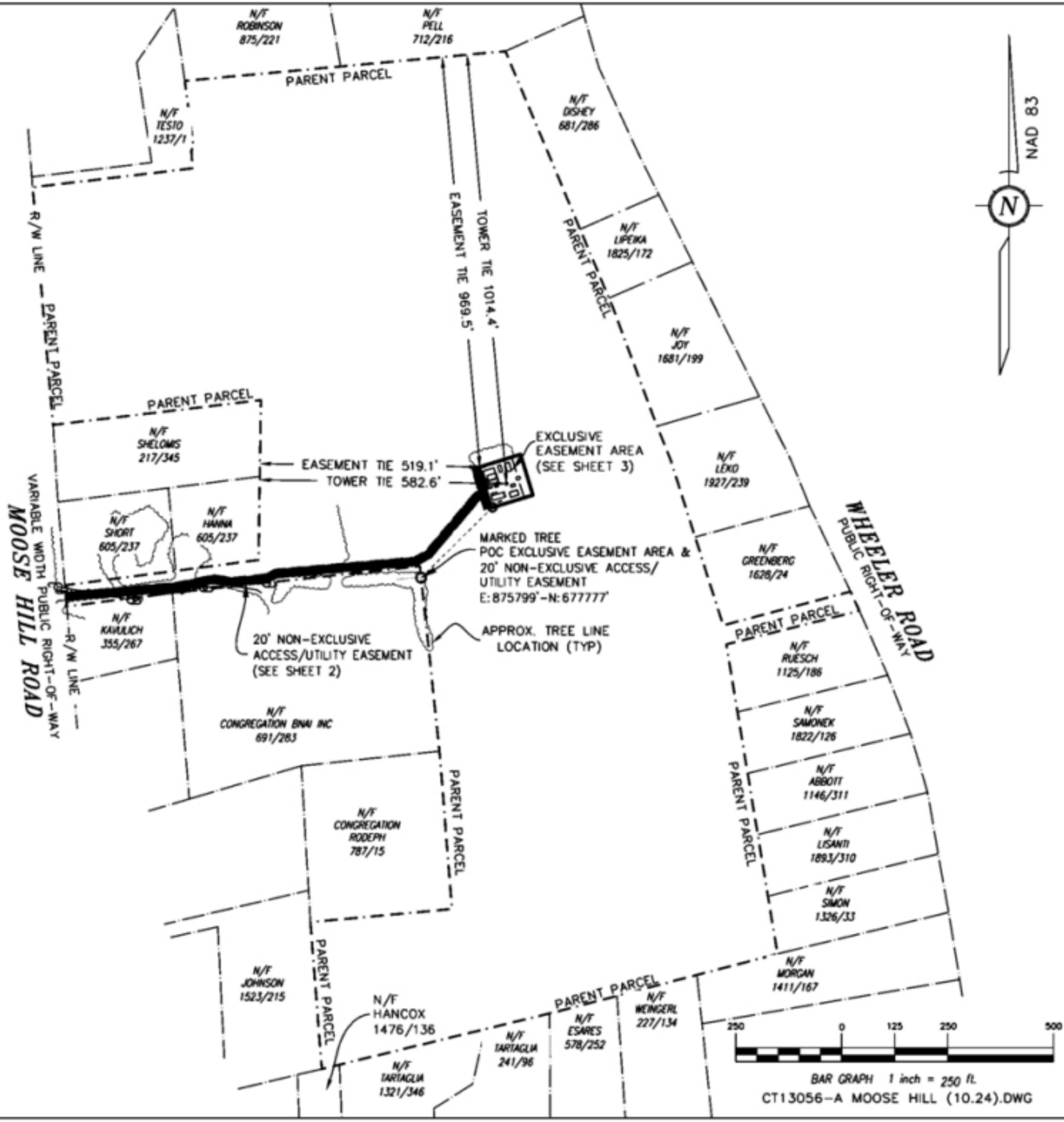
ZONING: RF1 (RESIDENTIAL AND FARMING 1)

THIS PARCEL OF LAND LIES WITHIN FLOOD ZONE X WHICH IS NOT A SPECIAL FLOOD HAZARD AREA AS PER F.I.R.M. PANEL NUMBER: 09001C0279F
EFFECTIVE DATE: 06/18/2010

LEGEND

- ● :SET 5/8" REBAR, OR AS NOTED.
- ○ :FOUND 1/2" REBAR, OR AS NOTED.
- :FOUND MONUMENT, OR AS NOTED.
- (___) :RECORD DESCRIPTION DATA.
- P.O.T. :POINT OF TERMINUS.
- P.O.B. :POINT OF BEGINNING.
- P.O.C. :POINT OF COMMENCEMENT.
- —o— :FENCE AS NOTED.
- —OH— :OVER HEAD UTILITY LINES.
- :WOOD UTILITY POLE.
- :ELECTRIC TRANSFORMER.
- :TELCO PEDESTAL.
- :HAND HOLE.
- N/A :NOT AVAILABLE

AREA	SQUARE FEET	ACRE
PARENT PARCEL	2,283,415	52.42
EXCLUSIVE EASEMENT AREA	10,000	0.18
TOWER COMPOUND	7,690	0.18
20'NON-EXCLUSIVE ACCESS/ UTILITY EASEMENT	23,068	0.53



AS-BUILT SURVEY

PREPARED FOR SBA

SITE: MOOSE HILL
ID: CT 13056-A
ADDRESS: 500 MOOSEHILL ROAD, MONROE, CT 06468
FAIRFIELD COUNTY

NATIONAL SURVEY SERVICES COORDINATION BY:

GEOLINE SURVEYING, INC.
13430 NW 104th Terrace, Alachua, FL 32615
Office: (386) 418-0500 Fax: (386) 462-9986
WWW.GEOLINEINC.COM

SURVEY WORK PERFORMED BY:

JONATHAN MURPHY
Professional Land Surveying
10505 Leafwood Place (919) 280-8189
Raleigh NC 27613 FAX 995-9616
E-MAIL : raleigh@murphygeomatics.com FIRM C-3757

SURVEYOR'S NOTES

1. BASIS OF BEARING: CT GRID NAD83
2. NO SUBSURFACE INVESTIGATION WAS PERFORMED TO LOCATE UNDERGROUND UTILITIES. UTILITIES SHOWN HEREON ARE LIMITED TO AND ARE PER OBSERVED EVIDENCE ONLY.
3. THIS SURVEY DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARENT PARCEL.
4. ALL VISIBLE TOWER EQUIPMENT AND IMPROVEMENTS ARE CONTAINED WITHIN THE DESCRIBED AREA, UNLESS OTHERWISE SHOWN HEREON. THERE ARE NO ENCROACHMENTS INTO OR BEYOND THE DESCRIBED SBA EXCLUSIVE EASEMENT AREA.
5. ALL SYMBOLS SHOWN HEREON NOT DEPICTED TO SCALE.

SURVEYOR'S CERTIFICATION

I HEREBY CERTIFY TO:
SBA INFRASTRUCTURE, LLC, A DELAWARE LIMITED LIABILITY COMPANY, OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY AS TO COMMITMENT NO. 01-17072999-01T COMMITMENT DATE: 10/27/2017 AT 7:00 AM

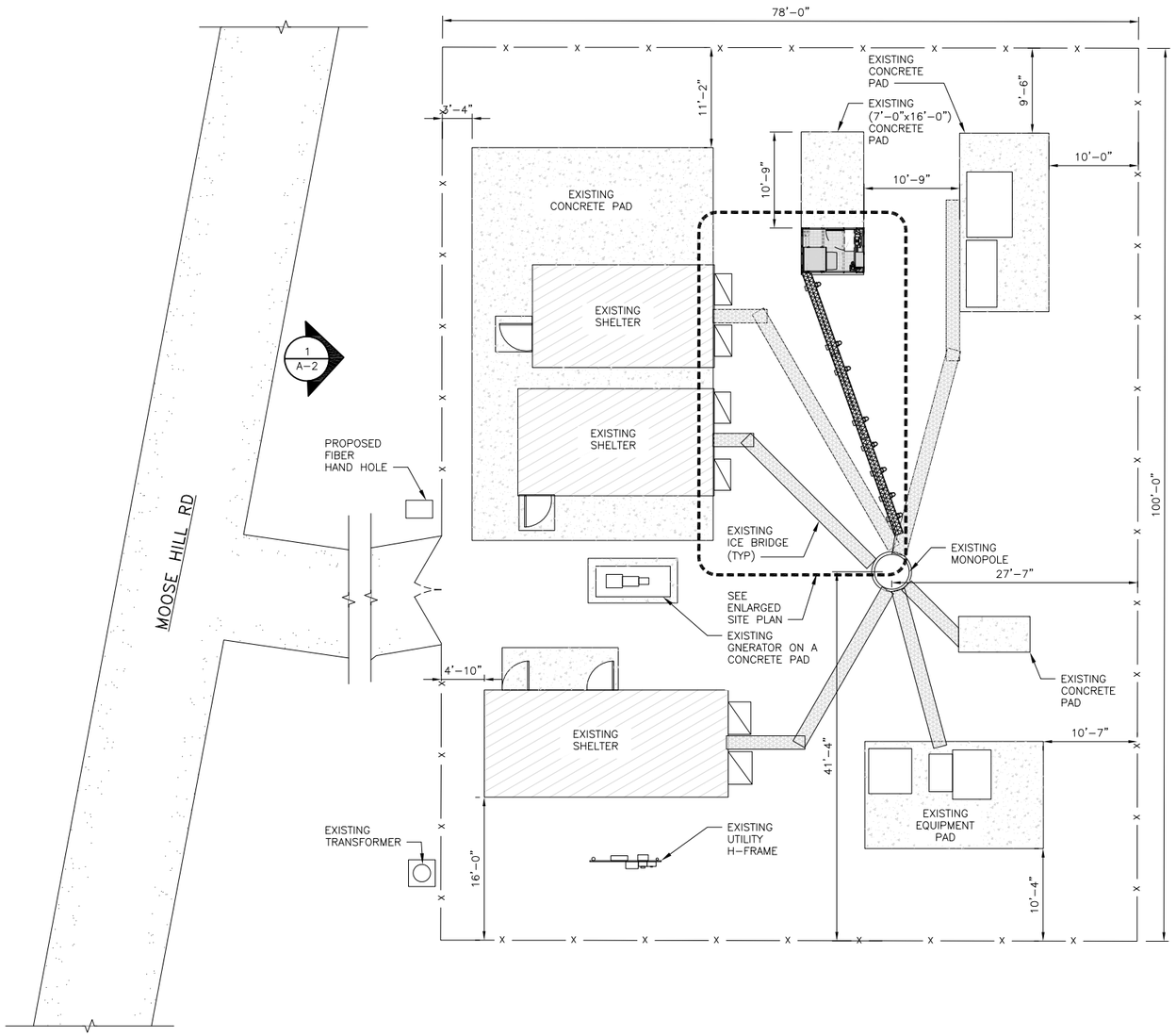
WILLIAM J. NAGLE
LAND SURVEYOR
DATE: 11/07/2017
FIELD DATE: 10/9/17

STATE OF CONNECTICUT WILLIAM J. NAGLE JR. No. 71286 LICENSED LAND SURVEYOR

CERTIFICATION NOTE: THE WORD "CERTIFY" IS UNDERSTOOD TO BE AN EXPRESSION OF PROFESSIONAL OPINION BY THE LAND SURVEYOR WHICH IS BASED UPON THEIR BEST KNOWLEDGE AND BELIEF AND DOES NOT CONSTITUTE A GUARANTEE OR WARRANTY.

NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL PROPOSED UNDERGROUND UTILITY CONDUIT ROUTE.
2. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.



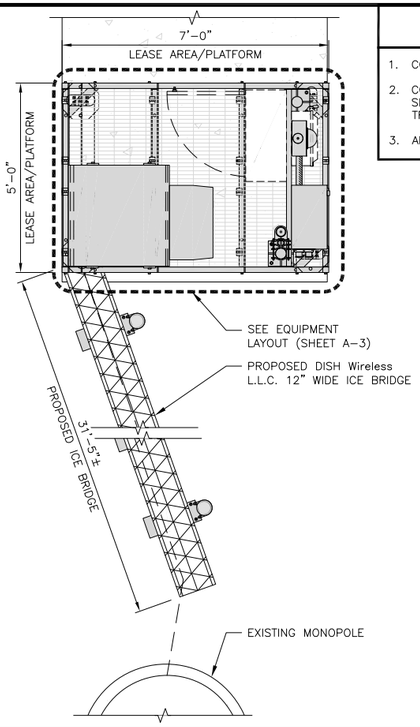
OVERALL SITE PLAN

8' 4' 0 8' 16'
1/8"=1'-0"

1

NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. CONTRACTOR SHALL MAINTAIN A 10'-0" MINIMUM SEPARATION BETWEEN THE PROPOSED GPS UNIT, TRANSMITTING ANTENNAS AND EXISTING GPS UNITS.
3. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.



ENLARGED SITE PLAN

12" 6" 0 1' 2' 3' 4' 5'
1/2"=1'-0"

2

NOT USED

NO SCALE

3

dish wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

B+T GRP
1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.btgrp.com

STATE OF CONNECTICUT — No. 27824 — LICENSED PROFESSIONAL ENGINEER

10/29/21

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/22

DRAWN BY:	CHECKED BY:	APPROVED BY:
NGN	RMC	RMC

RFDS REV #: 1

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A&E PROJECT NUMBER

156469.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION

NJJER01101B
500 MOOSEHILL ROAD
MONROE, CT 06468

SHEET TITLE

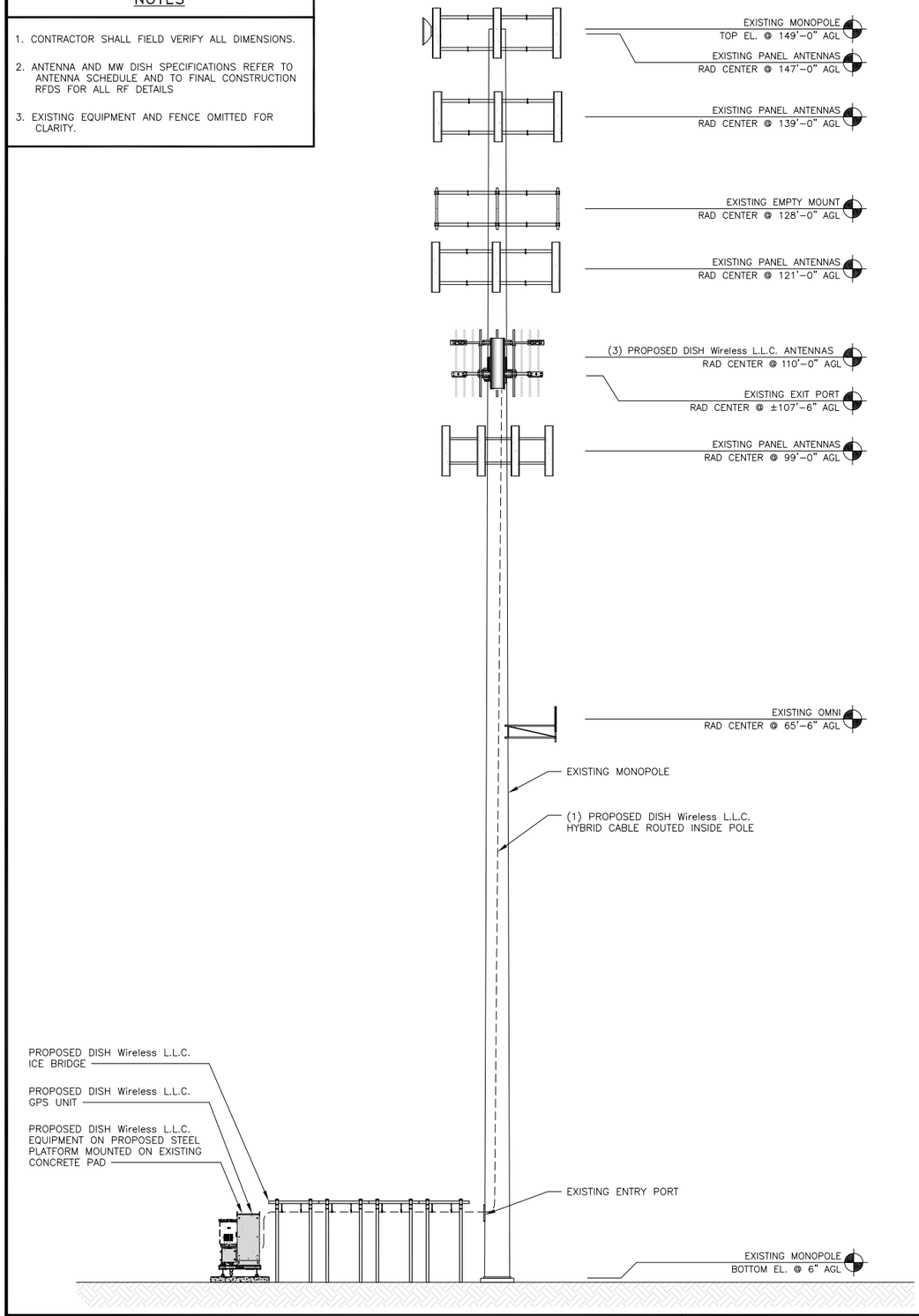
OVERALL AND ENLARGED SITE PLAN

SHEET NUMBER

A-1

NOTES

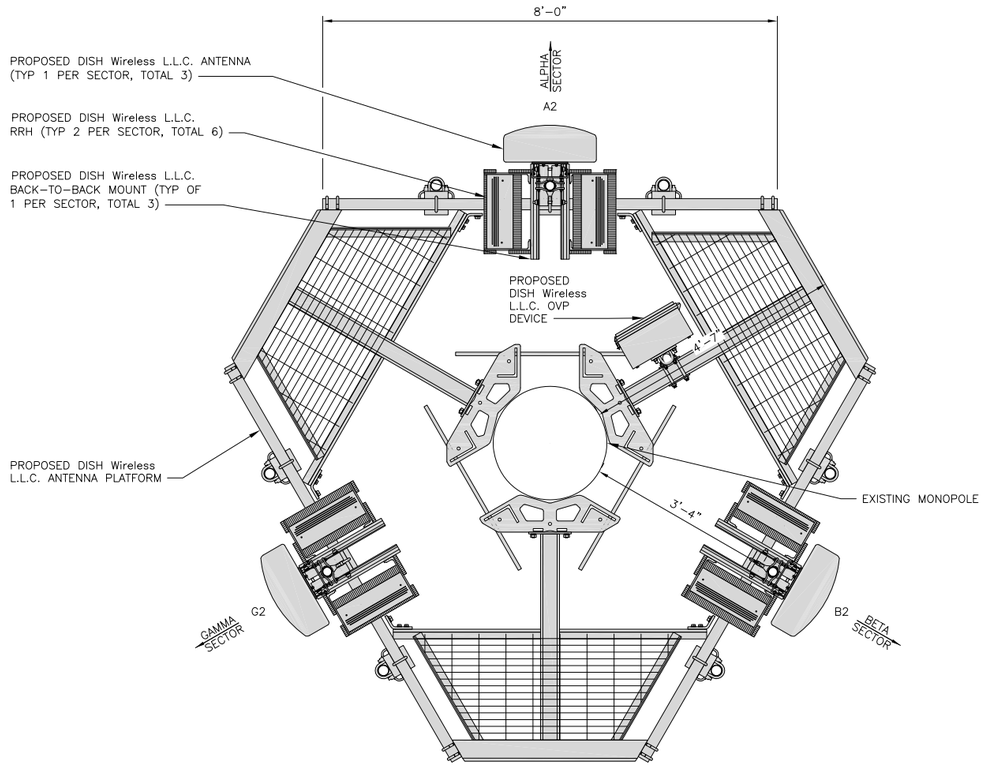
1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. ANTENNA AND MW DISH SPECIFICATIONS REFER TO ANTENNA SCHEDULE AND TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS
3. EXISTING EQUIPMENT AND FENCE OMITTED FOR CLARITY.



PROPOSED WEST ELEVATION

8' 4' 0 8' 16'
1/8"=1'-0"

1



N

ANTENNA LAYOUT

12" 6" 0 1' 2' 3'
3/4"=1'-0"

2

SECTOR	POSITION	ANTENNA						TRANSMISSION CABLE
		EXISTING OR PROPOSED	MANUFACTURER – MODEL NUMBER	TECHNOLOGY	SIZE (HxW)	AZIMUTH	RAD CENTER	FEED LINE TYPE AND LENGTH
ALPHA	A2	PROPOSED	COMMSCOPE – FFVV-65B-R2	5G	72.0" x 19.6"	0°	110'-0"	(1) HIGH-CAPACITY HYBRID CABLE (170' LONG)
BETA	B2	PROPOSED	COMMSCOPE – FFVV-65B-R2	5G	72.0" x 19.6"	120°	110'-0"	
GAMMA	G2	PROPOSED	COMMSCOPE – FFVV-65B-R2	5G	72.0" x 19.6"	240°	110'-0"	

SECTOR	POSITION	RRH	
		MANUFACTURER – MODEL NUMBER	TECHNOLOGY
ALPHA	A2	FUJITSU – TA08025-B605	5G
	A2	FUJITSU – TA08025-B604	5G
BETA	B2	FUJITSU – TA08025-B605	5G
	B2	FUJITSU – TA08025-B604	5G
GAMMA	G2	FUJITSU – TA08025-B605	5G
	G2	FUJITSU – TA08025-B604	5G

NOTES

1. CONTRACTOR TO REFER TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS.
2. ANTENNA AND RRH MODELS MAY CHANGE DUE TO EQUIPMENT AVAILABILITY. ALL EQUIPMENT CHANGES MUST BE APPROVED AND REMAIN IN COMPLIANCE WITH THE PROPOSED DESIGN AND STRUCTURAL ANALYSES.

OVP		
EXISTING OR PROPOSED	MANUFACTURER – MODEL NUMBER	SIZE (HxWxD)
PROPOSED	RAYCAP-RDIDC-9181-PF-48	18.98"x14.39"x8.15"

ANTENNA SCHEDULE

NO SCALE

3

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10/29/21

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/22

DRAWN BY:	CHECKED BY:	APPROVED BY:
NGN	RMC	RMC

RFDS REV #: 1

CONSTRUCTION DOCUMENTS

SUBMITTALS

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A&E PROJECT NUMBER

156469.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION

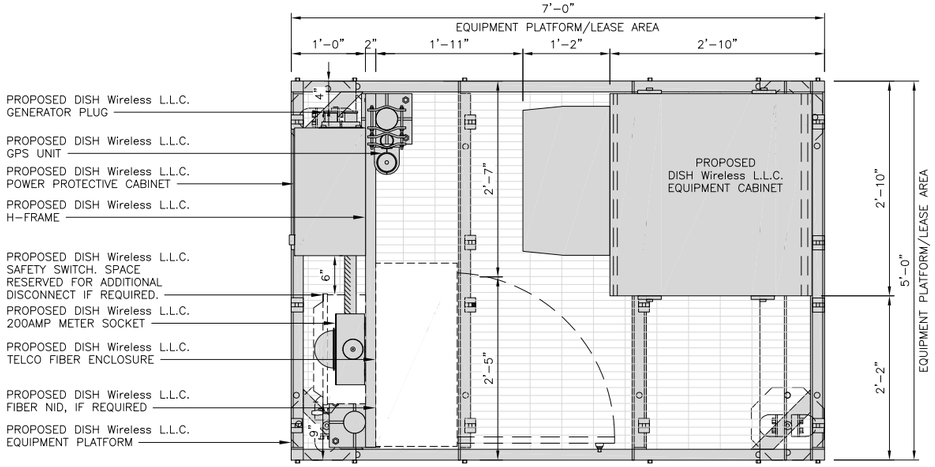
NJJER01101B
500 MOOSEHILL ROAD
MONROE, CT 06468

SHEET TITLE

ELEVATION, ANTENNA LAYOUT AND SCHEDULE

SHEET NUMBER

A-2



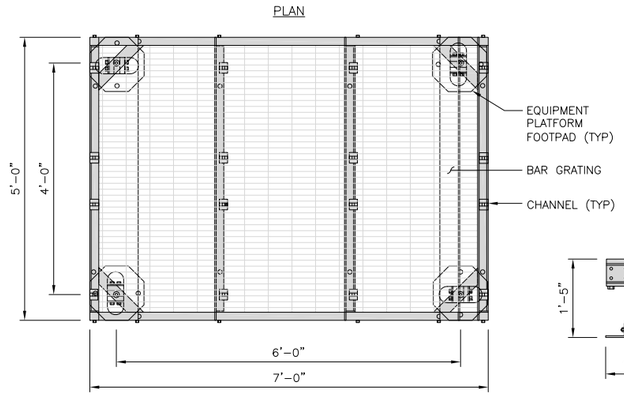
PLATFORM EQUIPMENT PLAN

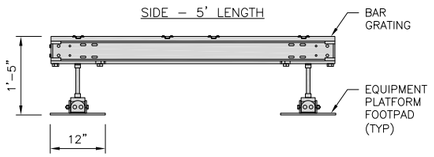
12" 9" 6" 3" 0 1' 2'
1"=1'-0"

1

COMMSCOPE MTC4045LP 5X7 PLATFORM	
DIMENSIONS (HxWxD)	16"x84"x60"
TOTAL WEIGHT	423 LBS

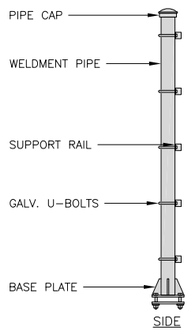
NOTE:
GC TO PROVIDE EXTENDED THREAD FOR PLATFORM IF REQUIRED HEIGHT EXCEEDS 17"





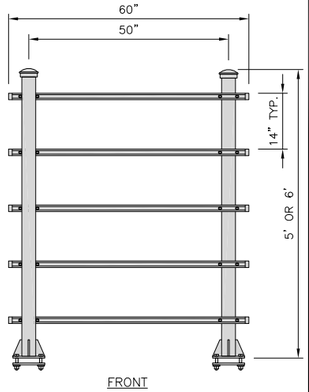
PLATFORM DETAIL | NO SCALE | 2

COMMSCOPE MTC4045HFLD H-FRAME	
UNISTRUT/SUPPORT RAILS QTY	5
WEIGHT	59.74 lbs



SIDE

NOTE:
OR DISH Wireless L.L.C. APPROVED EQUIVALENT



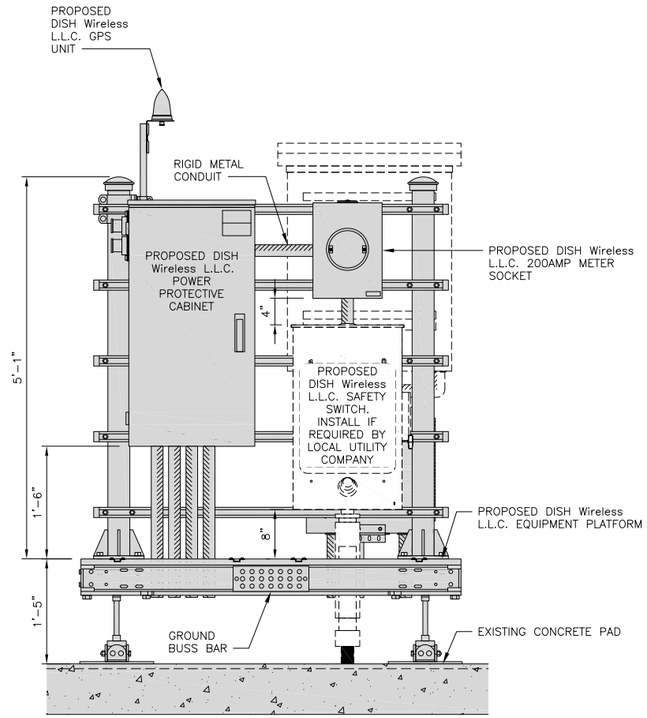
FRONT

H-FRAME DETAIL | NO SCALE | 3

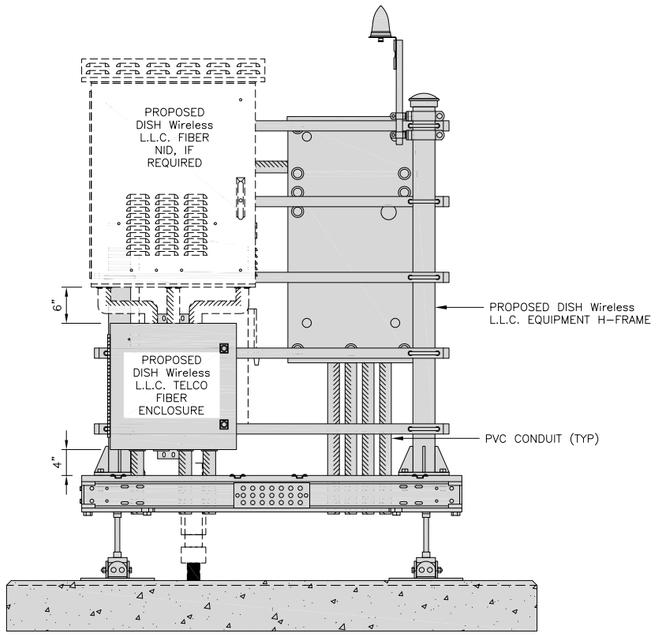
NOT USED | NO SCALE | 4

NOTES

1. EQUIPMENT CABINET OMITTED FOR CLARITY



FRONT ELEVATION



BACK ELEVATION

H-FRAME EQUIPMENT ELEVATION | 12" 9" 6" 3" 0 1' 2' 1"=1'-0" | 5

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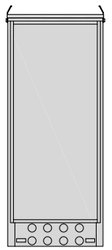
PROJECT INFORMATION
NJJER01101B
500 MOOSEHILL ROAD
MONROE, CT 06468

SHEET TITLE
EQUIPMENT PLATFORM AND H-FRAME DETAILS

SHEET NUMBER
A-3

ENERSYS HVAC 2000005995	
DIMENSIONS (HxWxD)	73"x30"x32"
POWER SYSTEM	-48V ALPHA/600A
HVAC	600W
TOTAL WEIGHT (EMPTY)	371 lbs

PLAN



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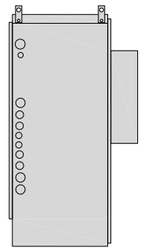
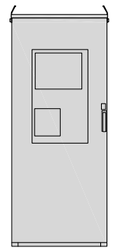


SIDE

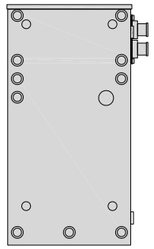


FRONT

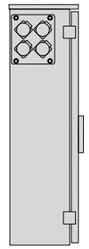
CABINET DETAIL — NO SCALE — 1

RAYCAP PPC RDIAC-2465-P-240-MTS	
ENCLOSURE DIMENSIONS (HxWxD):	39"x22.855"x12.593
WEIGHT:	80 lbs
OPERATING AC VOLTAGE	240/120 1 PHASE 3W+G

TOP



BACK



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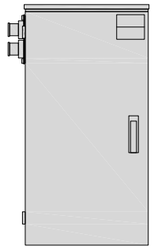

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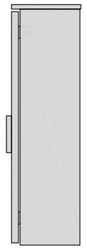
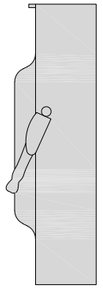


SIDE

POWER PROTECTION CABINET (PPC) DETAIL — NO SCALE — 2

SQUARE D SAFETY SWITCHES D224NRB	
ENCLOSURE DIM (HxWxD)	29.25"x19.00"x8.50"
ENCLOSURE TYPE	NEMA 3R RAINPROOF
UL LISTED	FILE E-2875

TOP



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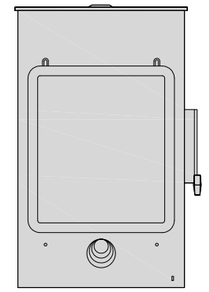
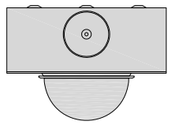


FRONT

SAFETY SWITCH DETAIL — NO SCALE — 3

EATON METER SOCKET UNRRS213BEUSE	
DIMENSIONS (HxWxD)	16"x12"x6"
TYPE	RING
AMPERAGE RATING	200 CONT. AMP
WEIGHT	18 lbs



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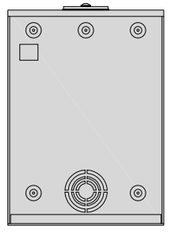

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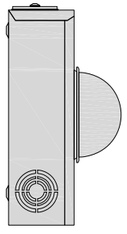
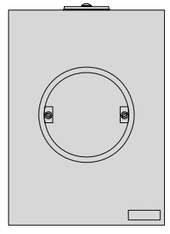


SIDE

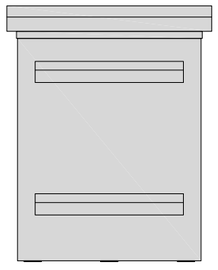


FRONT

METER BANK DETAIL — NO SCALE — 4

ZAYO 5RU (LEFT SWING DOOR) FIBER NID ENCLOSURE	
DIMENSIONS (HxWxD)	36.1"x29"x12.9"
WEIGHT	85 lbs

BOTTOM



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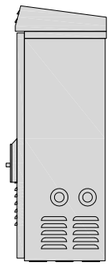
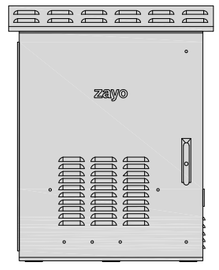


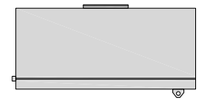
SIDE



FRONT

FIBER NID ENCLOSURE DETAIL — NO SCALE — 5

CHARLES CFIT-PF2020DSH1 FIBER TELCO ENCLOSURE	
ENCLOSURE DIMS (HxWxD)	20"x20"x9"
ENCLOSURE WEIGHT	20 lbs
MOUNTING	WALL
COMPLIANCE	TYPE 4



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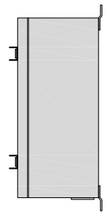
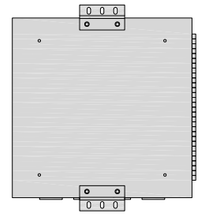


SIDE



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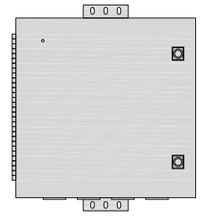
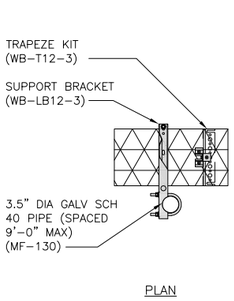


FRONT

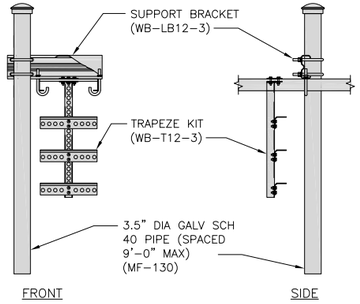
FIBER TELCO ENCLOSURE DETAIL — NO SCALE — 6

COMMSCOPE WB-K110-B WAVEGUIDE BRIDGE KIT	
DIMENSIONS (HxL)	160"x10'
WEIGHT/ VOLUME	325.0 LBS
CABLE RUN (QTY)	12

INCLUDED PRODUCTS:	WB-T12-3 TRAPEZE KIT, 3 RUNGS
	WB-LB12-3 SUPPORT BRACKET
	MF-130 DIRECT BURIAL PIPE COLUMN, 13'-4"

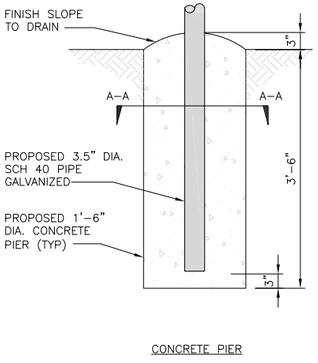


PLAN

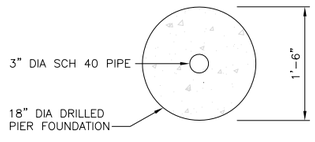


FRONT SIDE

ICE BRIDGE DETAIL — NO SCALE — 7

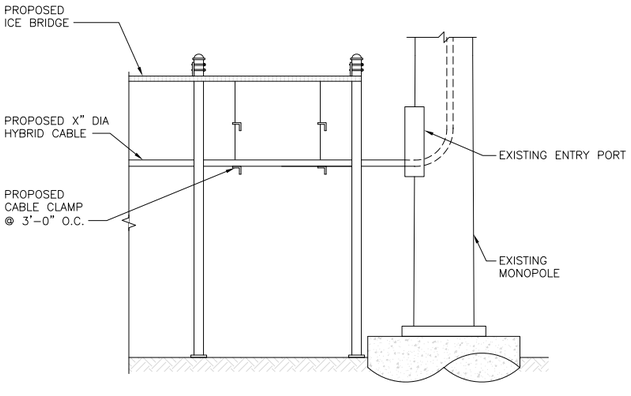


CONCRETE PIER



A-A SECTION

TYPICAL ICE BRIDGE CONCRETE PIER DETAIL — NO SCALE — 8



HYBRID CABLE RUN — NO SCALE — 9

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DISH Wireless L.L.C.
PROJECT INFORMATION

NJJER01101B
500 MOOSEHILL ROAD
MONROE, CT 06468

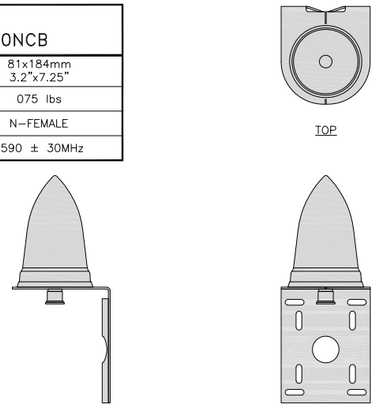
SHEET TITLE

EQUIPMENT DETAILS

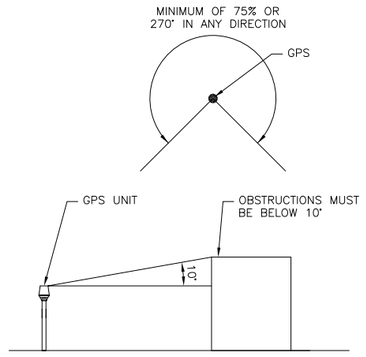
SHEET NUMBER

A-4

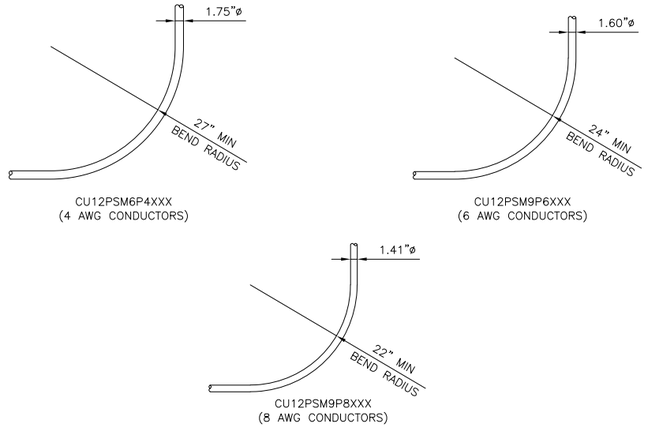
PCTEL GPSGL-TMG-SPI-40NCB	
DIMENSIONS (DIAxH) MM/INCH	81x184mm 3.2"x7.25"
WEIGHT W/ACCESSORIES	075 lbs
CONNECTOR	N-FEMALE
FREQUENCY RANGE	1590 ± 30MHz



GPS DETAIL | NO SCALE | 1



GPS MINIMUM SKY VIEW REQUIREMENTS | NO SCALE | 2



CABLES UNLIMITED HYBRID CABLE
MINIMUM BEND RADIUSES | NO SCALE | 3

NOT USED | NO SCALE | 4

NOT USED | NO SCALE | 5

NOT USED | NO SCALE | 6

NOT USED | NO SCALE | 7

NOT USED | NO SCALE | 8

NOT USED | NO SCALE | 9

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PROJECT INFORMATION

NJJER01101B
500 MOOSEHILL ROAD
MONROE, CT 06468

SHEET TITLE

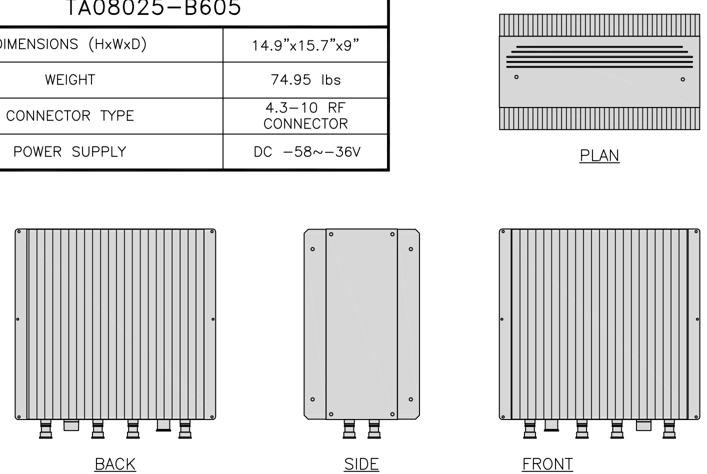
EQUIPMENT DETAILS

SHEET NUMBER

A-5

FUJITSU TRIPLE BAND TA08025-B605

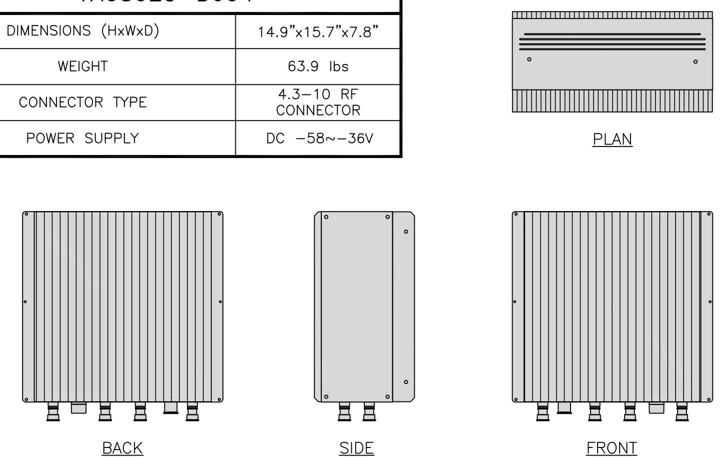
DIMENSIONS (HxWxD)	14.9"x15.7"x9"
WEIGHT	74.95 lbs
CONNECTOR TYPE	4.3-10 RF CONNECTOR
POWER SUPPLY	DC -58~-36V



RRH DETAIL — NO SCALE — 1

FUJITSU DUAL BAND TA08025-B604

DIMENSIONS (HxWxD)	14.9"x15.7"x7.8"
WEIGHT	63.9 lbs
CONNECTOR TYPE	4.3-10 RF CONNECTOR
POWER SUPPLY	DC -58~-36V

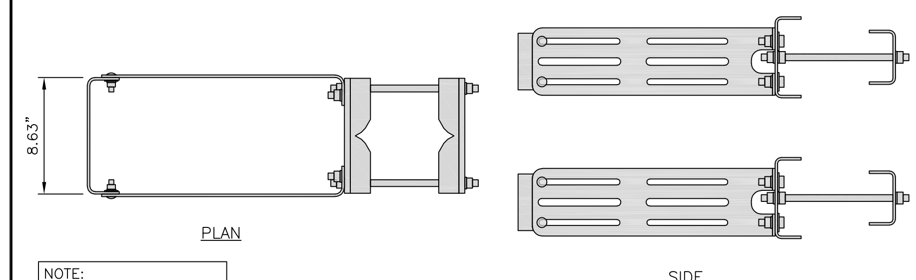


RRH DETAIL — NO SCALE — 2

COMMSCOPE RR-FA2 LARGE STABILIZER

DIMENSIONS (HxWxD)	16.4"x8.5"x18"
WEIGHT	39.2 lbs

DESIGN NOTES:
MOUNT WILL FIT LEGS UP TO:
- 5.6" ROUND
- 6.0" 60° ANGLE
- 4.5" 90° ANGLE

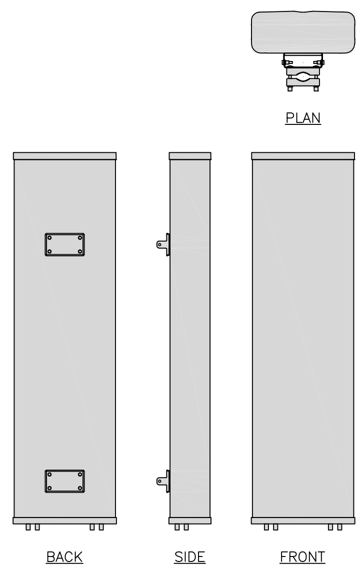


NOTE:
OR DISH Wireless L.L.C. APPROVED EQUIVALENT

RRH MOUNT DETAIL — NO SCALE — 3

COMMSCOPE FFVV-65B-R2

DIMENSIONS (HxWxD)(MM/IN)	1828x498x197 72"x19.6"x7.8"
RF CONNECTOR INTERFACE	4.3-10 FEMALE
WEIGHT	70.8 lbs
WEIGHT WITH BRACKETS	98.1 lbs



ANTENNA DETAIL — NO SCALE — 4

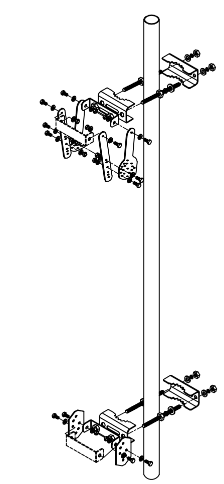
NOT USED — NO SCALE — 5

JMA ANTENNA MOUNT BRACKET #91900318

TOTAL WEIGHT (WITH BRACKETS)	18 lbs (8.18 Kg)
POLE DIAMETER RANGE	2.5" TO 4.5"

NOTE:
KIT #91900318: TOP AND BOTTOM BRACKETS FOR 4-,6-, AND 8-FOOT ANTENNAS

ANTENNA BRACKET NOT PART OF KIT

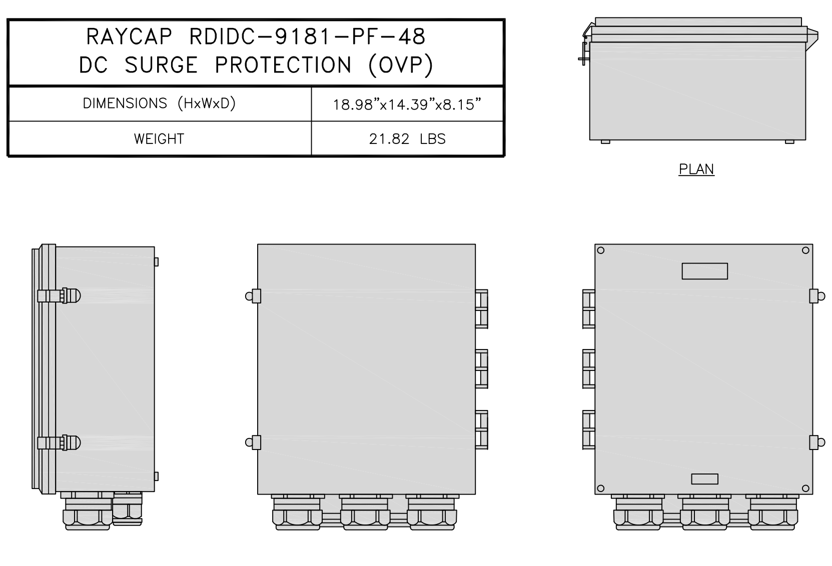


NOTE:
OR DISH Wireless L.L.C. APPROVED EQUIVALENT

ANTENNA BRACKET DETAIL — NO SCALE — 6

RAYCAP RDIDC-9181-PF-48 DC SURGE PROTECTION (OVP)

DIMENSIONS (HxWxD)	18.98"x14.39"x8.15"
WEIGHT	21.82 LBS

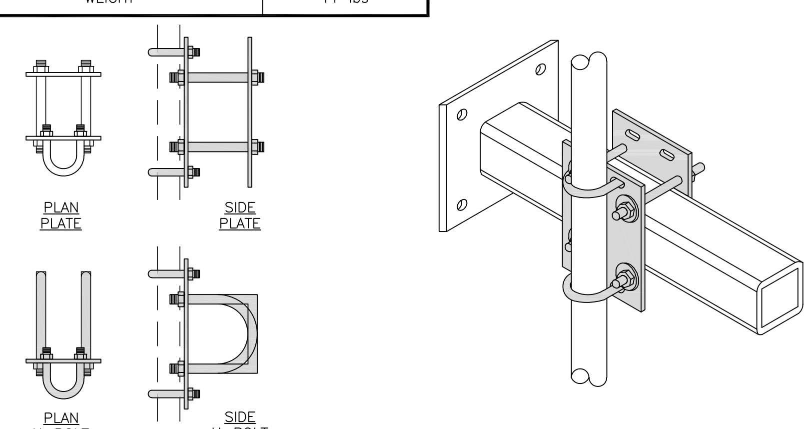


SURGE SUPPRESSION DETAIL (OVP) — NO SCALE — 7

COMMSCOPE XP-2040 CROSSOVER PLATE

DIMENSIONS (HxW)	10"x12"
WEIGHT	11 lbs

NOTE:
OR DISH Wireless L.L.C. APPROVED EQUIVALENT

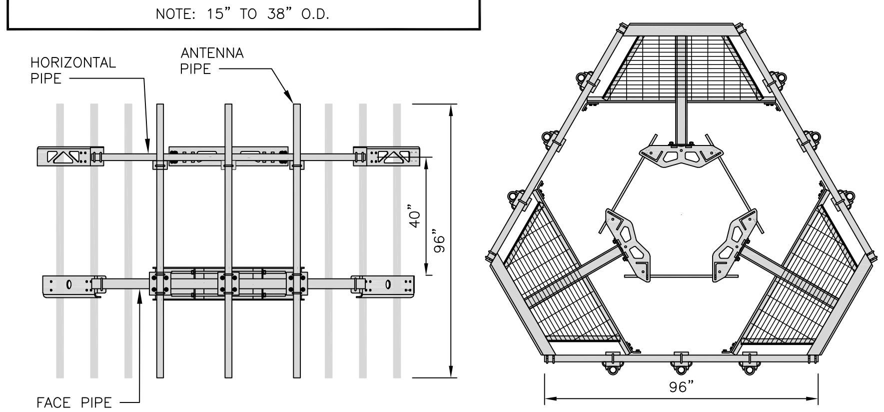


RRH/OVP MOUNT DETAIL — NO SCALE — 8

COMMSCOPE MC-PK8-DSH

FACE WIDTH	96"
WEIGHT	1373.08 lbs
NOTE: 15" TO 38" O.D.	

NOTE:
OR DISH Wireless L.L.C. APPROVED EQUIVALENT



ANTENNA PLATFORM DETAIL — NO SCALE — 9

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RFDS REV #: 1

CONSTRUCTION DOCUMENTS

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1	10/29/21	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER
156469.001.01

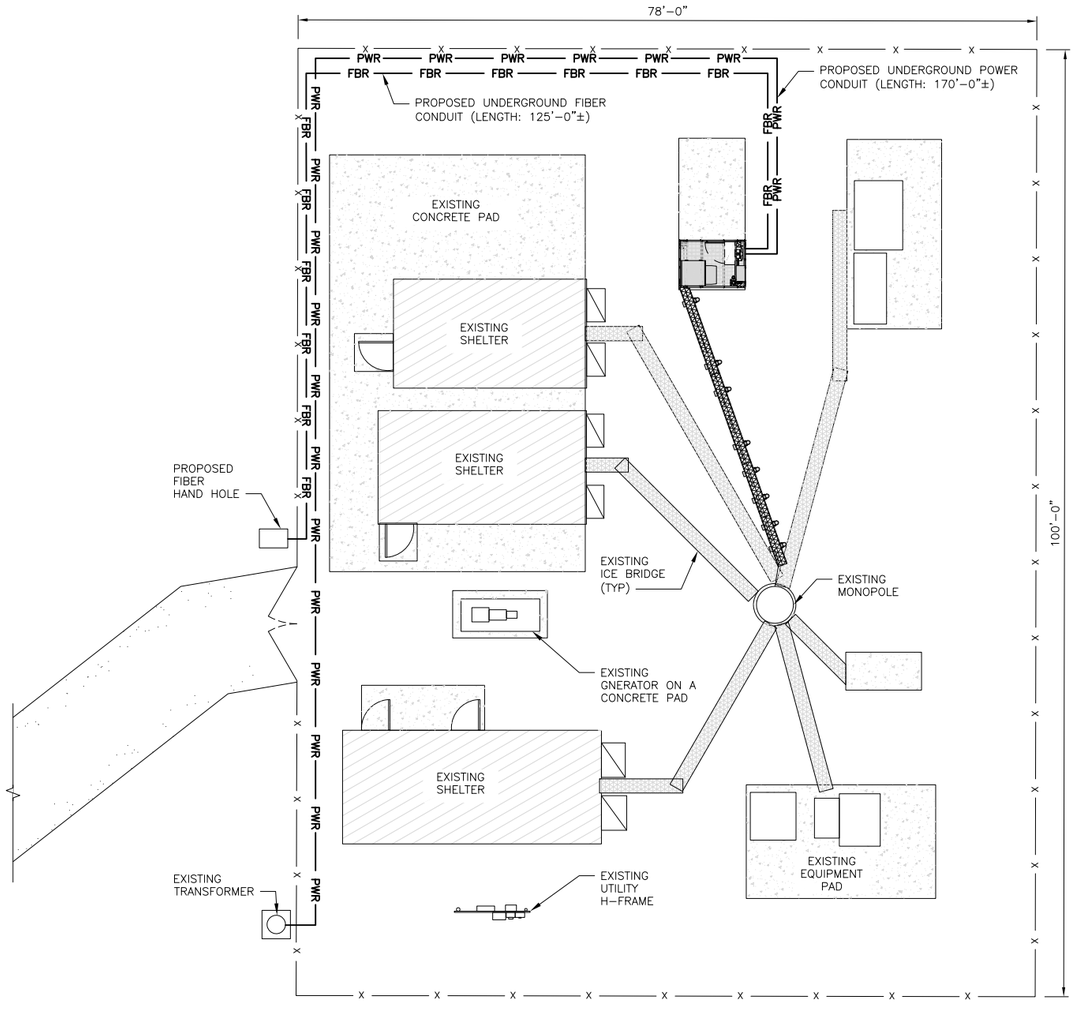
DISH Wireless L.L.C. PROJECT INFORMATION
NJJER01101B
500 MOOSEHILL ROAD
MONROE, CT 06468

SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
A-6

NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL PROPOSED UNDERGROUND UTILITY CONDUIT ROUTE.
2. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.



DC POWER WIRING SHALL BE COLOR CODED AT EACH END FOR IDENTIFYING +24V AND −48V CONDUCTORS. RED MARKINGS SHALL IDENTIFY +24V AND BLUE MARKINGS SHALL IDENTIFY −48V.

1. CONTRACTOR SHALL INSPECT THE EXISTING CONDITIONS PRIOR TO SUBMITTING A BID. ANY QUESTIONS ARISING DURING THE BID PERIOD IN REGARDS TO THE CONTRACTOR'S FUNCTIONS, THE SCOPE OF WORK, OR ANY OTHER ISSUE RELATED TO THIS PROJECT SHALL BE BROUGHT UP DURING THE BID PERIOD WITH THE PROJECT MANAGER FOR CLARIFICATION, NOT AFTER THE CONTRACT HAS BEEN AWARDED.
2. ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH CURRENT NATIONAL ELECTRICAL CODES AND ALL STATE AND LOCAL CODES, LAWS, AND ORDINANCES. PROVIDE ALL COMPONENTS AND WIRING SIZES AS REQUIRED TO MEET NEC STANDARDS.
3. LOCATION OF EQUIPMENT, CONDUIT AND DEVICES SHOWN ON THE DRAWINGS ARE APPROXIMATE AND SHALL BE COORDINATED WITH FIELD CONDITIONS PRIOR TO CONSTRUCTION.
4. CONDUIT ROUGH-IN SHALL BE COORDINATED WITH THE MECHANICAL EQUIPMENT TO AVOID LOCATION CONFLICTS. VERIFY WITH THE MECHANICAL EQUIPMENT CONTRACTOR AND COMPLY AS REQUIRED.
5. CONTRACTOR SHALL PROVIDE ALL BREAKERS, CONDUITS AND CIRCUITS AS REQUIRED FOR A COMPLETE SYSTEM.
6. CONTRACTOR SHALL PROVIDE PULL BOXES AND JUNCTION BOXES AS REQUIRED BY THE NEC ARTICLE 314.
7. CONTRACTOR SHALL PROVIDE ALL STRAIN RELIEF AND CABLE SUPPORTS FOR ALL CABLE ASSEMBLIES. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
8. ALL DISCONNECTS AND CONTROLLING DEVICES SHALL BE PROVIDED WITH ENGRAVED PHENOLIC NAMEPLATES INDICATING EQUIPMENT CONTROLLED, BRANCH CIRCUITS INSTALLED ON, AND PANEL FIELD LOCATIONS FED FROM.
9. INSTALL AN EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS PER THE SPECIFICATIONS AND NEC 250. THE EQUIPMENT GROUNDING CONDUCTORS SHALL BE BONDED AT ALL JUNCTION BOXES, PULL BOXES, AND ALL DISCONNECT SWITCHES, AND EQUIPMENT CABINETS.
10. ALL NEW MATERIAL SHALL HAVE A U.L. LABEL.
11. PANEL SCHEDULE LOADING AND CIRCUIT ARRANGEMENTS REFLECT POST-CONSTRUCTION EQUIPMENT.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR AS-BUILT PANEL SCHEDULE AND SITE DRAWINGS.
13. ALL TRENCHES IN COMPOUND TO BE HAND DUG

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A&E PROJECT NUMBER

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DISH Wireless L.L.C.
PROJECT INFORMATION

NJJER01101B
500 MOOSEHILL ROAD
MONROE, CT 06468

SHEET TITLE

ELECTRICAL/FIBER ROUTE PLAN AND NOTES

SHEET NUMBER

E-1

UTILITY ROUTE PLAN

8' 4' 0 8' 16"
1/8"=1'-0"

1

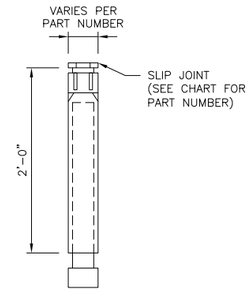
ELECTRICAL NOTES

NO SCALE

2

CARLON EXPANSION FITTINGS

COUPLING END PART#	MALE TERMINAL ADAPTER END PART#	SIZE	STD CTN QTY.	TRAVEL LENGTH
E945D	E945DX	1/2"	20	4"
E945E	E945EX	3/4"	15	4"
E945F	E945FX	1"	10	4"
E945G	E945GX	1 1/4"	5	4"
E945H	E945HX	1 1/2"	5	4"
E945J	E945JX	2"	15	8"
E945K	E945KX	2 1/2"	10	8"
E945L	E945LX	3"	10	8"
E945M	E945MX	3 1/2"	5	8"
E945N	E945NX	4"	5	8"
E945P	E945PX	5"	1	8"
E945R	E945RX	6"	1	8"

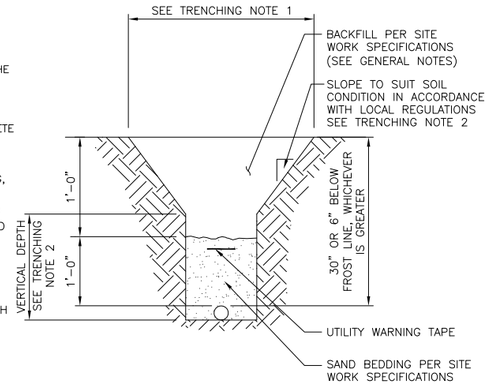


NOTE:
CONTRACTOR TO INSTALL EXPANSION FITTING SLIP JOINT AT METER CENTER CONDUIT TERMINATION, AS PER LOCAL UTILITY POLICY, ORDINANCE AND/OR SPECIFIED REQUIREMENT.

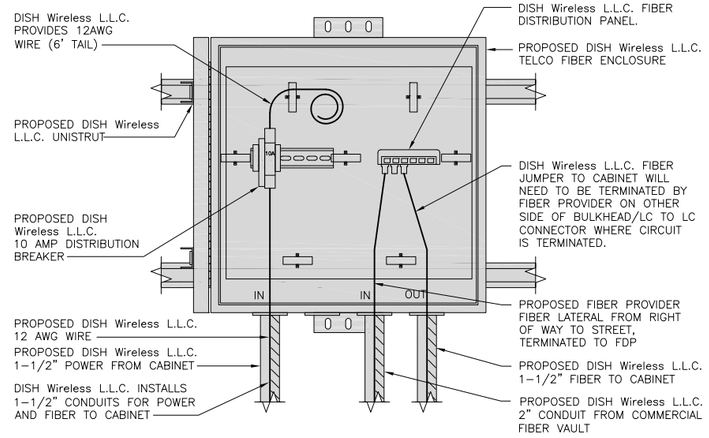
EXPANSION JOINT DETAIL | NO SCALE | 1

TRENCHING NOTES

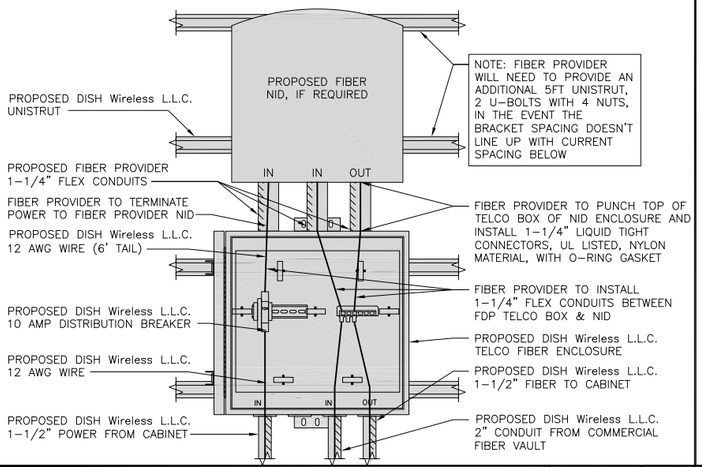
1. CONTRACTOR SHALL RESTORE THE TRENCH TO ITS ORIGINAL CONDITIONS BY EITHER SEEDING OR SODDING GRASS AREAS, OR REPLACING ASPHALT OR CONCRETE AREAS TO ITS ORIGINAL CROSS SECTION.
2. TRENCHING SAFETY; INCLUDING, BUT NOT LIMITED TO SOIL CLASSIFICATION, SLOPING, AND SHORING, SHALL BE GOVERNED BY THE CURRENT OSHA TRENCHING AND EXCAVATION SAFETY STANDARDS.
3. ALL CONDUITS SHALL BE INSTALLED IN COMPLIANCE WITH THE CURRENT NATIONAL ELECTRIC CODE (NEC) OR AS REQUIRED BY THE LOCAL JURISDICTION, WHICHEVER IS THE MOST STRINGENT.



TYPICAL UNDERGROUND TRENCH DETAIL | NO SCALE | 2



DARK TELCO BOX – INTERIOR WIRING LAYOUT | NO SCALE | 3



LIT TELCO BOX – INTERIOR WIRING LAYOUT (OPTIONAL) | NO SCALE | 4

NOT USED | NO SCALE | 5

NOT USED | NO SCALE | 6

NOT USED | NO SCALE | 7

NOT USED | NO SCALE | 8

NOT USED | NO SCALE | 9

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DISH Wireless L.L.C.
PROJECT INFORMATION

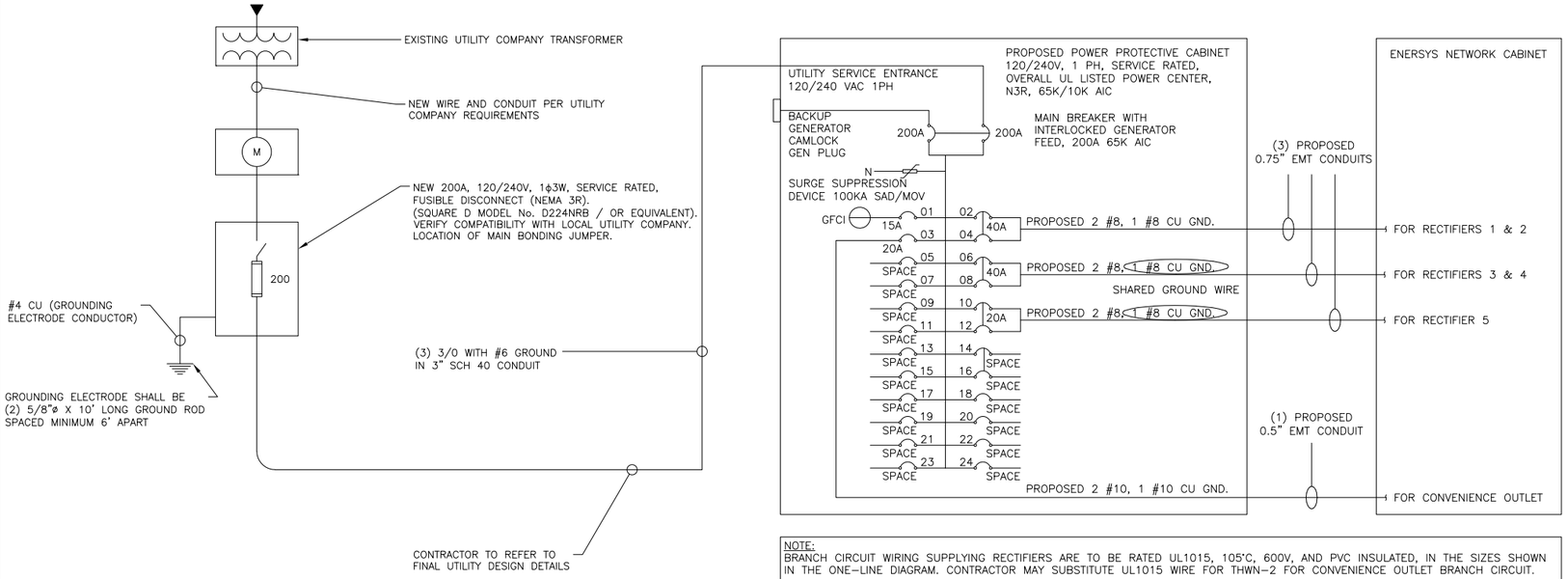
NJJER01101B
500 MOOSEHILL ROAD
MONROE, CT 06468

SHEET TITLE

ELECTRICAL DETAILS

SHEET NUMBER

E-2



NOTE:
BRANCH CIRCUIT WIRING SUPPLYING RECTIFIERS ARE TO BE RATED UL1015, 105°C, 600V, AND PVC INSULATED, IN THE SIZES SHOWN IN THE ONE-LINE DIAGRAM. CONTRACTOR MAY SUBSTITUTE UL1015 WIRE FOR THWN-2 FOR CONVENIENCE OUTLET BRANCH CIRCUIT.

BREAKERS REQUIRED:
(2) 40A, 2P BREAKER - SQUARE D P/N:QO240
(1) 20A, 2P BREAKER - SQUARE D P/N:QO220
(1) 20A, 1P BREAKER - SQUARE D P/N:QO120

PPC ONE-LINE DIAGRAM

NO SCALE | 1

NOTES

CONDUIT SIZING: AT 40% FILL PER NEC CHAPTER 9, TABLE 4, ARTICLE 358.
0.5" CONDUIT - 0.122 SQ. IN AREA
0.75" CONDUIT - 0.213 SQ. IN AREA
2.0" CONDUIT - 1.316 SQ. IN AREA
3.0" CONDUIT - 2.907 SQ. IN AREA

CABINET CONVENIENCE OUTLET CONDUCTORS (1 CONDUIT): USING THWN-2, CU.

#10 - 0.0211 SQ. IN X 2 = 0.0422 SQ. IN
#10 - 0.0211 SQ. IN X 1 = 0.0211 SQ. IN <GROUND
TOTAL = 0.0633 SQ. IN

0.5" EMT CONDUIT IS ADEQUATE TO HANDLE THE TOTAL OF (3) WIRES, INCLUDING GROUND WIRE, AS INDICATED ABOVE.

RECTIFIER CONDUCTORS (3 CONDUITS): USING UL1015, CU.

#8 - 0.0552 SQ. IN X 2 = 0.1103 SQ. IN
#8 - 0.0131 SQ. IN X 1 = 0.0131 SQ. IN <BARE GROUND
TOTAL = 0.1234 SQ. IN

0.75" EMT CONDUIT IS ADEQUATE TO HANDLE THE TOTAL OF (3) WIRES, INCLUDING GROUND WIRE, AS INDICATED ABOVE.

PPC FEED CONDUCTORS (1 CONDUIT): USING THWN, CU.

3/0 - 0.2679 SQ. IN X 3 = 0.8037 SQ. IN
#6 - 0.0507 SQ. IN X 1 = 0.0507 SQ. IN <GROUND
TOTAL = 0.8544 SQ. IN

3.0" SCH 40 PVC CONDUIT IS ADEQUATE TO HANDLE THE TOTAL OF (4) WIRES, INCLUDING GROUND WIRE, AS INDICATED ABOVE.

PROPOSED ENERSYS PANEL SCHEDULE

LOAD SERVED	VOLT AMPS (WATTS) L1	VOLT AMPS (WATTS) L2	TRIP	CKT #	PHASE	CKT #	TRIP	VOLT AMPS (WATTS) L1	VOLT AMPS (WATTS) L2	LOAD SERVED
PPC GFCI OUTLET	180		15A	1	A	2	40A	3840		ENERSYS ALPHA CORDEX
ENERSYS GFCI OUTLET		180	20A	3	B	4			3840	RECTIFIERS 1 & 2
-SPACE-				5	A	6	40A	3840		ENERSYS ALPHA CORDEX
-SPACE-				7	B	8			3840	RECTIFIER 3 & 4
-SPACE-				9	A	10	20A	1920		ENERSYS ALPHA CORDEX
-SPACE-				11	B	12			1920	RECTIFIER 5
-SPACE-				13	A	14				-SPACE-
-SPACE-				15	B	16				-SPACE-
-SPACE-				17	A	18				-SPACE-
-SPACE-				19	B	20				-SPACE-
-SPACE-				21	A	22				-SPACE-
-SPACE-				23	B	24				-SPACE-
VOLTAGE AMPS	180	180						9500	9500	
200A MCB, 1ϕ, 24 SPACE, 120/240V			L1		L2					
MB RATING: 65,000 AIC			9680		9680		VOLTAGE AMPS			
			81		81		AMPS			
			81				MAX AMPS			
			102				MAX 125%			

PANEL SCHEDULE

NO SCALE | 2

NOT USED

NO SCALE | 3

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DISH Wireless L.L.C.
PROJECT INFORMATION

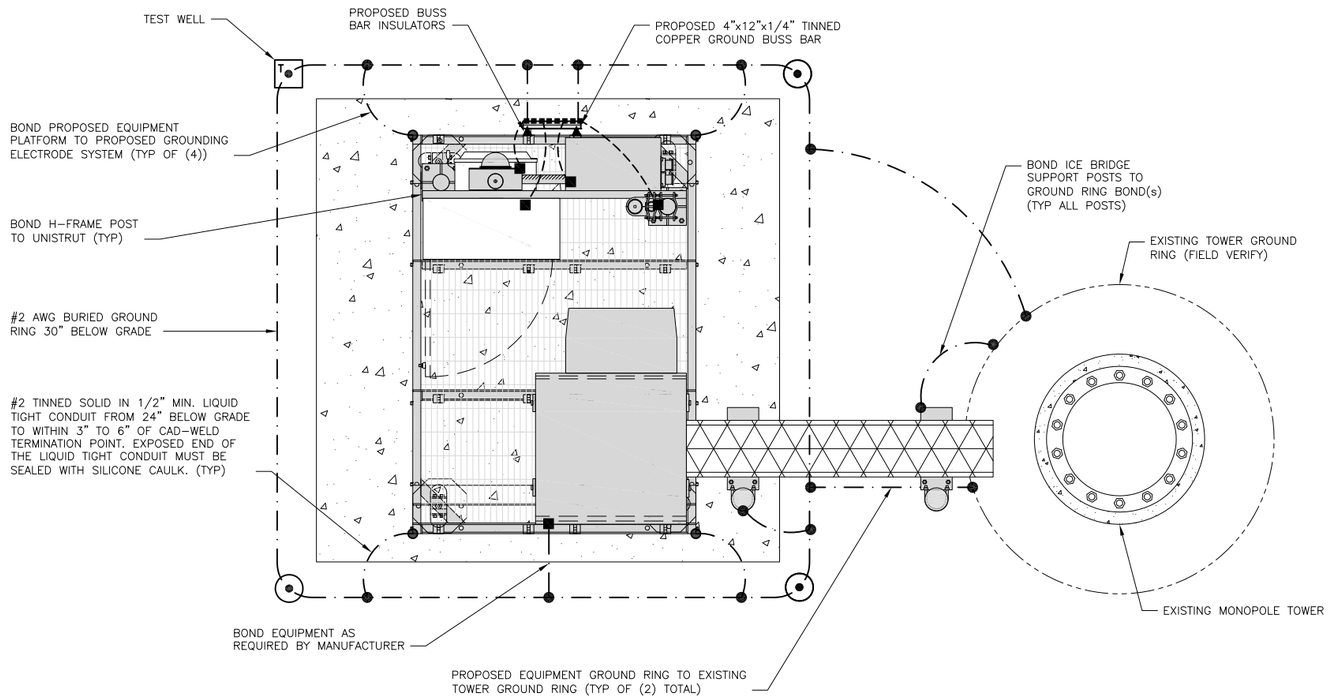
NJJER01101B
500 MOOSEHILL ROAD
MONROE, CT 06468

SHEET TITLE

ELECTRICAL ONE-LINE, FAULT CALCS & PANEL SCHEDULE

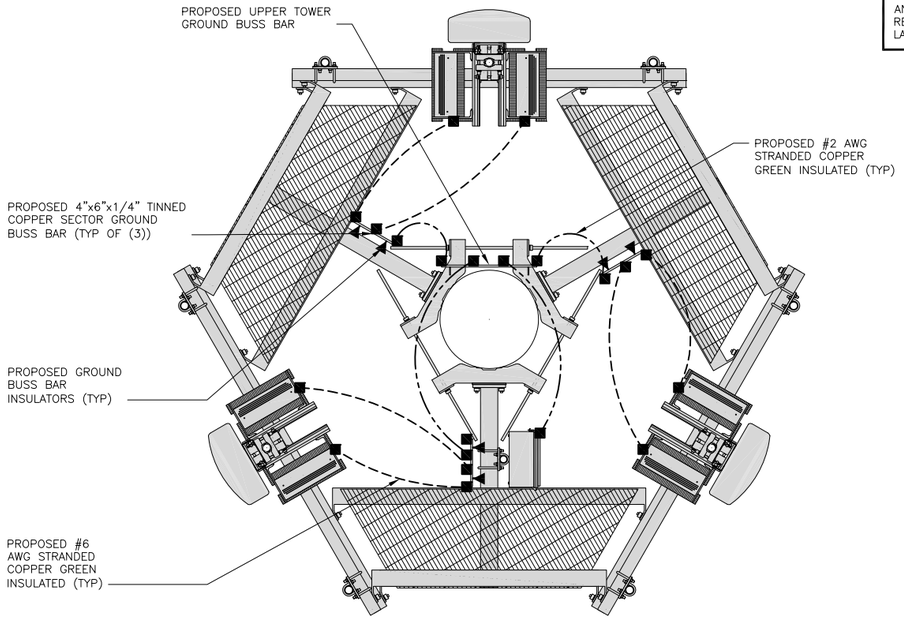
SHEET NUMBER

E-3



TYPICAL EQUIPMENT GROUNDING PLAN

NO SCALE | 1



TYPICAL ANTENNA GROUNDING PLAN

NO SCALE | 2

NOTES

ANTENNAS AND OVP SHOWN ARE GENERIC AND NOT REFERENCING TO A SPECIFIC MANUFACTURER. THIS LAYOUT IS FOR REFERENCE PURPOSES ONLY

EXOTHERMIC CONNECTION
MECHANICAL CONNECTION
GROUND BUS BAR
GROUND ROD
TEST GROUND ROD WITH INSPECTION SLEEVE
#6 AWG STRANDED & INSULATED
#2 AWG SOLID COPPER TINNED
BUSS BAR INSULATOR

GROUNDING LEGEND

1. GROUNDING IS SHOWN DIAGRAMMATICALLY ONLY.
2. CONTRACTOR SHALL GROUND ALL EQUIPMENT AS A COMPLETE SYSTEM. GROUNDING SHALL BE IN COMPLIANCE WITH NEC SECTION 250 AND DISH Wireless L.L.C. GROUNDING AND BONDING REQUIREMENTS AND MANUFACTURER'S SPECIFICATIONS.
3. ALL GROUND CONDUCTORS SHALL BE COPPER; NO ALUMINUM CONDUCTORS SHALL BE USED.

GROUNDING KEY NOTES

(A) EXTERIOR GROUND RING: #2 AWG SOLID COPPER, BURIED AT A DEPTH OF AT LEAST 30 INCHES BELOW GRADE, OR 6 INCHES BELOW THE FROST LINE AND APPROXIMATELY 24 INCHES FROM THE EXTERIOR WALL OR FOOTING.

(B) TOWER GROUND RING: THE GROUND RING SYSTEM SHALL BE INSTALLED AROUND AN ANTENNA TOWER'S LEGS, AND/OR GUY ANCHORS. WHERE SEPARATE SYSTEMS HAVE BEEN PROVIDED FOR THE TOWER AND THE BUILDING, AT LEAST TWO BONDS SHALL BE MADE BETWEEN THE TOWER RING GROUND SYSTEM AND THE BUILDING RING GROUND SYSTEM USING MINIMUM #2 AWG SOLID COPPER CONDUCTORS.

(C) INTERIOR GROUND RING: #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTOR EXTENDED AROUND THE PERIMETER OF THE EQUIPMENT AREA. ALL NON-TELECOMMUNICATIONS RELATED METALLIC OBJECTS FOUND WITHIN A SITE SHALL BE GROUNDED TO THE INTERIOR GROUND RING WITH #6 AWG STRANDED GREEN INSULATED CONDUCTOR.

(D) BOND TO INTERIOR GROUND RING: #2 AWG SOLID TINNED COPPER WIRE PRIMARY BONDS SHALL BE PROVIDED AT LEAST AT FOUR POINTS ON THE INTERIOR GROUND RING, LOCATED AT THE CORNERS OF THE BUILDING.

(E) GROUND ROD: UL LISTED COPPER CLAD STEEL. MINIMUM 1/2" DIAMETER BY EIGHT FEET LONG. GROUND RODS SHALL BE INSTALLED WITH INSPECTION SLEEVES. GROUND RODS SHALL BE DRIVEN TO THE DEPTH OF GROUND RING CONDUCTOR.

(F) CELL REFERENCE GROUND BAR: POINT OF GROUND REFERENCE FOR ALL COMMUNICATIONS EQUIPMENT FRAMES. ALL BONDS ARE MADE WITH #2 AWG UNLESS NOTED OTHERWISE STRANDED GREEN INSULATED COPPER CONDUCTORS. BOND TO GROUND RING WITH (2) #2 SOLID TINNED COPPER CONDUCTORS.

(G) HATCH PLATE GROUND BAR: BOND TO THE INTERIOR GROUND RING WITH TWO #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS. WHEN A HATCH-PLATE AND A CELL REFERENCE GROUND BAR ARE BOTH PRESENT, THE CRGB MUST BE CONNECTED TO THE HATCH-PLATE AND TO THE INTERIOR GROUND RING USING (2) TWO #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS EACH.

(H) EXTERIOR CABLE ENTRY PORT GROUND BARS: LOCATED AT THE ENTRANCE TO THE CELL SITE BUILDING. BOND TO GROUND RING WITH A #2 AWG SOLID TINNED COPPER CONDUCTORS WITH AN EXOTHERMIC WELD AND INSPECTION SLEEVE.

(I) TELCO GROUND BAR: BOND TO BOTH CELL REFERENCE GROUND BAR OR EXTERIOR GROUND RING.

(J) FRAME BONDING: THE BONDING POINT FOR TELECOM EQUIPMENT FRAMES SHALL BE THE GROUND BUS THAT IS NOT ISOLATED FROM THE EQUIPMENTS METAL FRAMEWORK.

(K) INTERIOR UNIT BONDS: METAL FRAMES, CABINETS AND INDIVIDUAL METALLIC UNITS LOCATED WITH THE AREA OF THE INTERIOR GROUND RING REQUIRE A #6 AWG STRANDED GREEN INSULATED COPPER BOND TO THE INTERIOR GROUND RING.

(L) FENCE AND GATE GROUNDING: METAL FENCES WITHIN 7 FEET OF THE EXTERIOR GROUND RING OR OBJECTS BONDED TO THE EXTERIOR GROUND RING SHALL BE BONDED TO THE GROUND RING WITH A #2 AWG SOLID TINNED COPPER CONDUCTOR AT AN INTERVAL NOT EXCEEDING 25 FEET. BONDS SHALL BE MADE AT EACH GATE POST AND ACROSS GATE OPENINGS.

(M) EXTERIOR UNIT BONDS: METALLIC OBJECTS, EXTERNAL TO OR MOUNTED TO THE BUILDING, SHALL BE BONDED TO THE EXTERIOR GROUND RING. USING #2 TINNED SOLID COPPER WIRE

(N) ICE BRIDGE SUPPORTS: EACH ICE BRIDGE LEG SHALL BE BONDED TO THE GROUND RING WITH #2 AWG BARE TINNED COPPER CONDUCTOR. PROVIDE EXOTHERMIC WELDS AT BOTH THE ICE BRIDGE LEG AND BURIED GROUND RING.

(O) DURING ALL DC POWER SYSTEM CHANGES INCLUDING DC SYSTEM CHANGE OUTS, RECTIFIER REPLACEMENTS OR ADDITIONS, BREAKER DISTRIBUTION CHANGES, BATTERY ADDITIONS, BATTERY REPLACEMENTS AND INSTALLATIONS OR CHANGES TO DC CONVERTER SYSTEMS IT SHALL BE REQUIRED THAT SERVICE CONTRACTORS VERIFY ALL DC POWER SYSTEMS ARE EQUIPPED WITH A MASTER DC SYSTEM RETURN GROUND CONDUCTOR FROM THE DC POWER SYSTEM COMMON RETURN BUS DIRECTLY CONNECTED TO THE CELL SITE REFERENCE GROUND BAR

(P) TOWER TOP COLLECTOR BUSS BAR IS TO BE MECHANICALLY BONDED TO PROPOSED ANTENNA MOUNT COLLAR.

REFER TO DISH Wireless L.L.C. GROUNDING NOTES.

GROUNDING KEY NOTES

NO SCALE | 3

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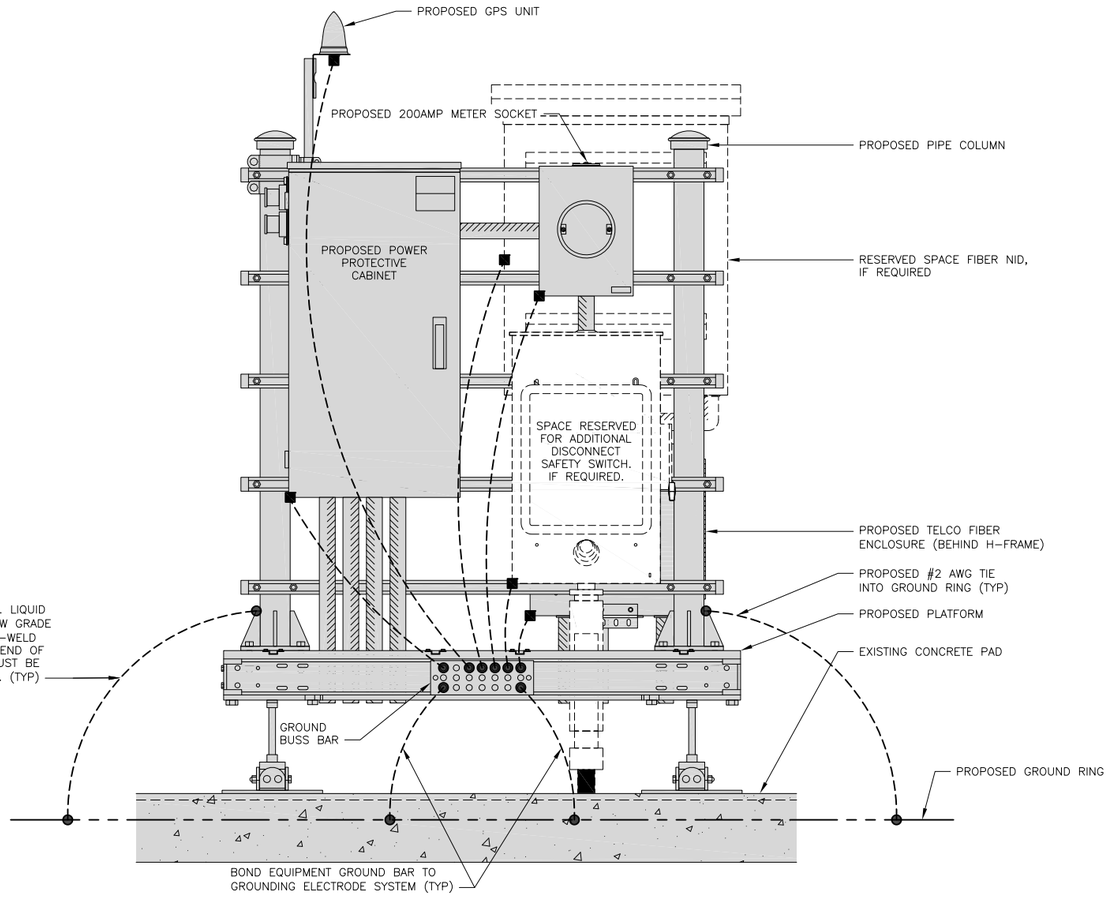
DISH Wireless L.L.C.
PROJECT INFORMATION
NJJER01101B
500 MOOSEHILL ROAD
MONROE, CT 06468

SHEET TITLE
GROUNDING PLANS AND NOTES

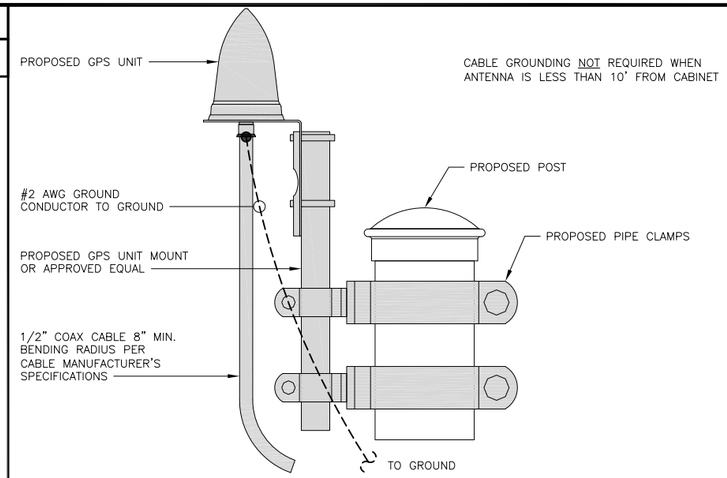
SHEET NUMBER
G-1

NOTES

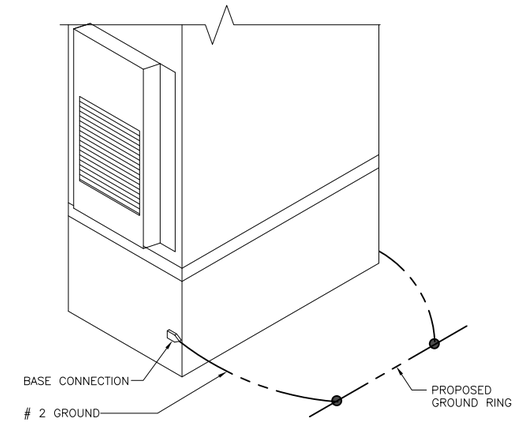
EQUIPMENT CABINET OMITTED FOR CLARITY



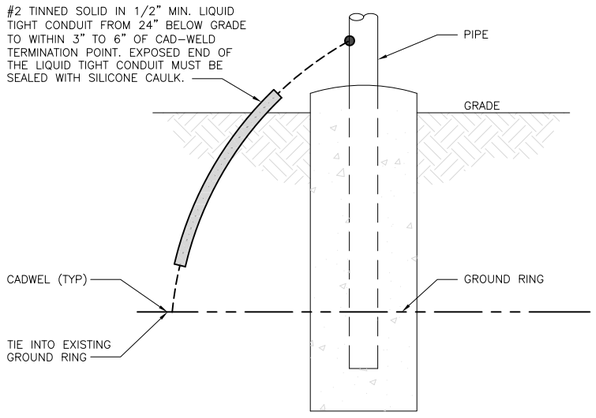
H-FRAME GROUNDING DETAIL | NO SCALE | 1



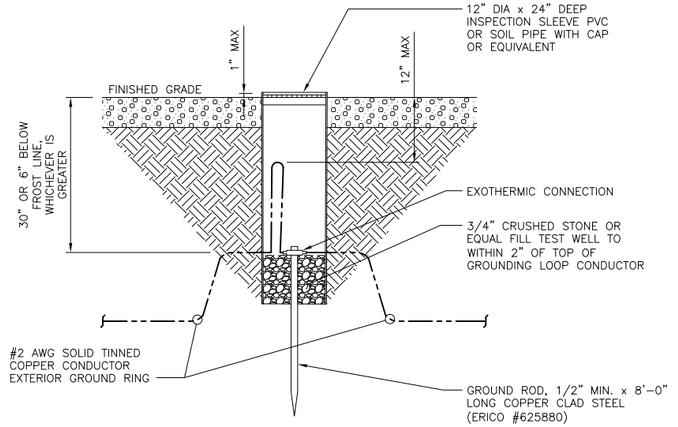
TYPICAL GPS UNIT GROUNDING | NO SCALE | 2



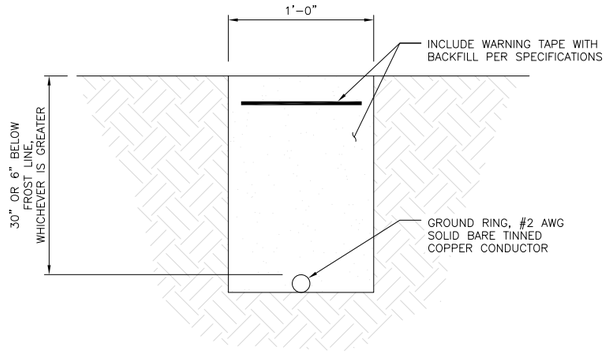
OUTDOOR CABINET GROUNDING | NO SCALE | 3



TRANSITIONING GROUND DETAIL | NO SCALE | 4



TYPICAL TEST GROUND ROD WITH INSPECTION SLEEVE | NO SCALE | 5



TYPICAL GROUND RING TRENCH | NO SCALE | 6

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10/29/21

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/22

DRAWN BY:	CHECKED BY:	APPROVED BY:
NGN	RMC	RMC

RFDS REV #: 1

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A&E PROJECT NUMBER

156469.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION

NJJER01101B
500 MOOSEHILL ROAD
MONROE, CT 06468

SHEET TITLE

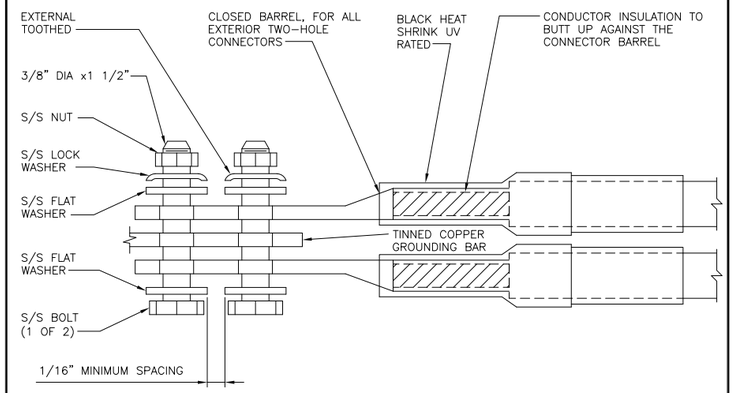
GROUNDING DETAILS

SHEET NUMBER

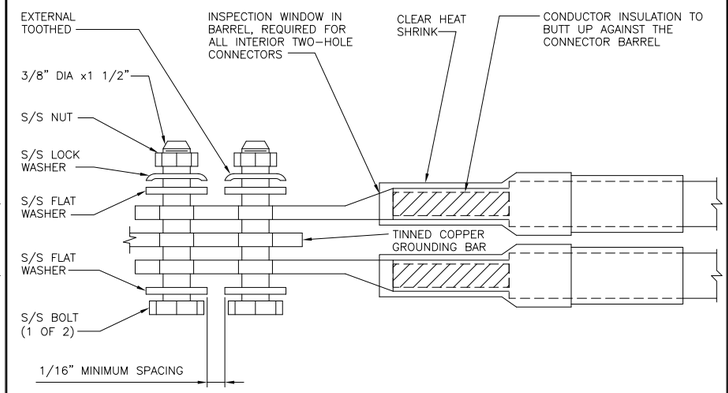
G-2

1. EXOTHERMIC WELD (2) TWO, #2 AWG BARE TINNED SOLID COPPER CONDUCTORS TO GROUND BAR, ROUTE CONDUCTORS TO BURIED GROUND RING AND PROVIDE PARALLEL EXOTHERMIC WELD.
2. ALL EXTERIOR GROUNDING HARDWARE SHALL BE STAINLESS STEEL 3/8" DIAMETER OR LARGER. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING LOCK WASHERS, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
3. FOR GROUND BOND TO STEEL ONLY: COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
4. DO NOT INSTALL CABLE GROUNDING KIT AT A BEND AND ALWAYS DIRECT GROUND CONDUCTOR DOWN TO GROUNDING BUS.
5. NUT & WASHER SHALL BE PLACED ON THE FRONT SIDE OF THE GROUND BAR AND BOLTED ON THE BACK SIDE.
6. ALL GROUNDING PARTS AND EQUIPMENT TO BE SUPPLIED AND INSTALLED BY CONTRACTOR.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ADDITIONAL GROUND BAR AS REQUIRED.
8. ENSURE THE WIRE INSULATION TERMINATION IS WITHIN 1/8" OF THE BARREL (NO SHINERS).

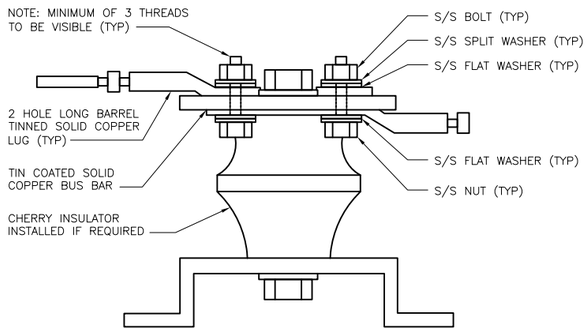
TYPICAL GROUNDING NOTES | NO SCALE | 1



TYPICAL EXTERIOR TWO HOLE LUG | NO SCALE | 2



TYPICAL INTERIOR TWO HOLE LUG | NO SCALE | 3



LUG DETAIL | NO SCALE | 4

NOT USED | NO SCALE | 5

NOT USED | NO SCALE | 6

NOT USED | NO SCALE | 7

NOT USED | NO SCALE | 8

NOT USED | NO SCALE | 9

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500 MOOSEHILL ROAD
MONROE, CT 06468

SHEET TITLE

GROUNDING DETAILS

SHEET NUMBER

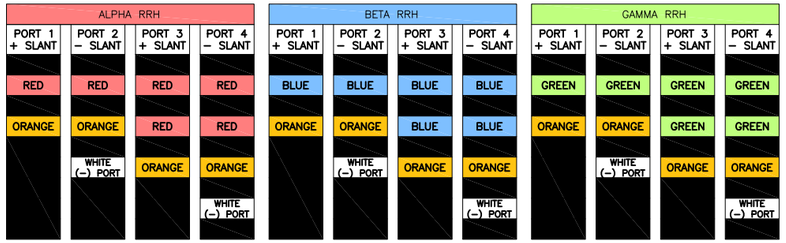
G-3

RF JUMPER COLOR CODING

3/4" TAPE WIDTHS WITH 3/4" SPACING

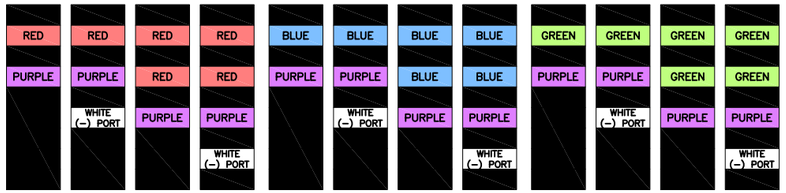
LOW-BAND RRH –
(600MHz N71 BASEBAND) +
(850MHz N26 BAND) +
(700MHz N29 BAND) – OPTIONAL PER MARKET

ADD FREQUENCY COLOR TO SECTOR BAND
(CBRS WILL USE YELLOW BANDS)



MID-BAND RRH –
(AWS BANDS N66+N70)

ADD FREQUENCY COLOR TO SECTOR BAND
(CBRS WILL USE YELLOW BANDS)

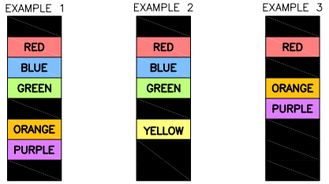


HYBRID/DISCREET CABLES

INCLUDE SECTOR BANDS BEING SUPPORTED
ALONG WITH FREQUENCY BANDS

EXAMPLE 1 – HYBRID, OR DISCREET, SUPPORTS
ALL SECTORS, BOTH LOW-BANDS AND MID-BANDS

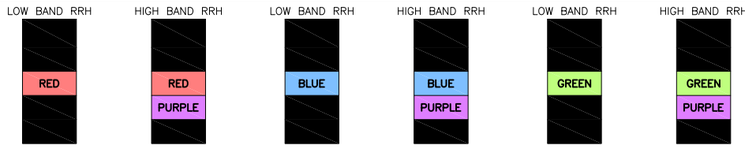
EXAMPLE 2 – HYBRID, OR DISCREET, SUPPORTS
CBRS ONLY, ALL SECTORS



CONTRACTOR TO REFER TO FINAL
CONSTRUCTION RFDS FOR ALL RD DETAILS.
FINAL RFDS IS IN NEXSYSONE.

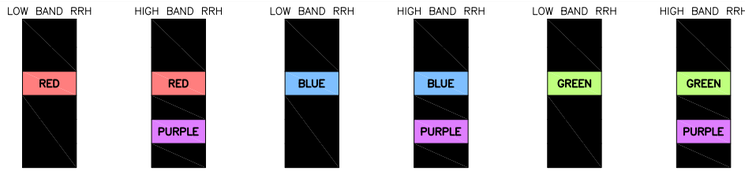
FIBER JUMPERS TO RRHs

LOW-BAND RRH FIBER CABLES HAVE SECTOR
STRIPE ONLY

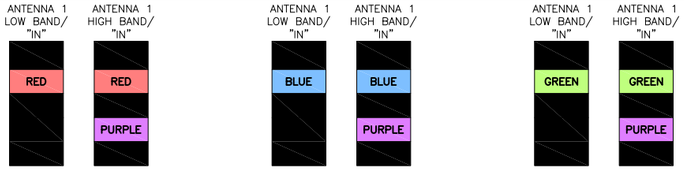


POWER CABLES TO RRHs

LOW-BAND RRH POWER CABLES HAVE SECTOR
STRIPE ONLY



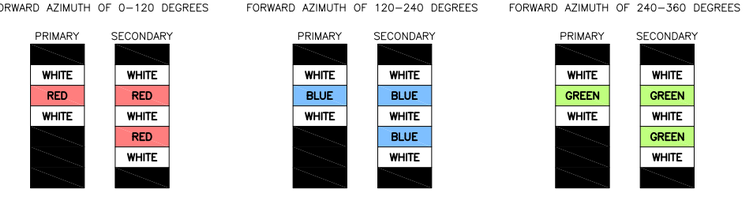
RET MOTORS AT ANTENNAS



MICROWAVE RADIO LINKS

LINKS WILL HAVE A 1.5-2 INCH WHITE WRAP WITH
THE AZIMUTH COLOR OVERLAPPING IN THE MIDDLE.
ADD ADDITIONAL SECTOR COLOR BANDS FOR EACH
ADDITIONAL MW RADIO.

MICROWAVE CABLES WILL REQUIRE P-TOUCH
LABELS INSIDE THE CABINET TO IDENTIFY THE
LOCAL AND REMOTE SITE ID'S



RF CABLE COLOR CODES	NO SCALE	1

LOW BANDS (N71+N26)
OPTIONAL – (N29)
ORANGE

AWS
(N66+N70+H-BLOCK)
PURPLE

CBRS TECH
(3 GHz)
YELLOW

NEGATIVE SLANT PORT
ON ANT/RRH
WHITE

ALPHA SECTOR
RED

BETA SECTOR
BLUE

GAMMA SECTOR
GREEN

COLOR IDENTIFIER	NO SCALE	2

NOT USED	NO SCALE	3

NOT USED	NO SCALE	4

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500 MOOSEHILL ROAD
MONROE, CT 06468

SHEET TITLE

RF
CABLE COLOR CODES

SHEET NUMBER

RF-1

EXOTHERMIC CONNECTION

MECHANICAL CONNECTION

BUSS BAR INSULATOR

CHEMICAL ELECTROLYTIC GROUNDING SYSTEM

TEST CHEMICAL ELECTROLYTIC GROUNDING SYSTEM

EXOTHERMIC WITH INSPECTION SLEEVE

GROUNDING BAR

GROUND ROD

TEST GROUND ROD WITH INSPECTION SLEEVE

SINGLE POLE SWITCH

DUPLEX RECEPTACLE

DUPLEX GFCI RECEPTACLE

FLUORESCENT LIGHTING FIXTURE (2) TWO LAMPS 48–T8

SMOKE DETECTION (DC)

EMERGENCY LIGHTING (DC)

SECURITY LIGHT W/PHOTOCELL LITHONIA ALXW LED–1–25A400/51K–SR4–120–PE–DDBTXD

CHAIN LINK FENCE

WOOD/WROUGHT IRON FENCE

WALL STRUCTURE

LEASE AREA

PROPERTY LINE (PL)

SETBACKS

ICE BRIDGE

CABLE TRAY

WATER LINE

UNDERGROUND POWER

UNDERGROUND TELCO

OVERHEAD POWER

OVERHEAD TELCO

UNDERGROUND TELCO/POWER

ABOVE GROUND POWER

ABOVE GROUND TELCO

ABOVE GROUND TELCO/POWER

WORKPOINT

W.P.

SECTION REFERENCE

XX
X–X

DETAIL REFERENCE

XX
X–X

LEGEND

AB	ANCHOR BOLT
ABV	ABOVE
AC	ALTERNATING CURRENT
ADDL	ADDITIONAL
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AGL	ABOVE GROUND LEVEL
AIC	AMPERAGE INTERRUPTION CAPACITY
ALUM	ALUMINUM
ALT	ALTERNATE
ANT	ANTENNA
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BATT	BATTERY
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM
BTC	BARE TINNED COPPER CONDUCTOR
BOF	BOTTOM OF FOOTING
CAB	CABINET
CANT	CANTILEVERED
CHG	CHARGING
CLG	CEILING
CLR	CLEAR
COL	COLUMN
COMM	COMMON
CONC	CONCRETE
CONSTR	CONSTRUCTION
DBL	DOUBLE
DC	DIRECT CURRENT
DEPT	DEPARTMENT
DF	DOUGLAS FIR
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DWG	DRAWING
DWL	DOWEL
EA	EACH
EC	ELECTRICAL CONDUCTOR
EL.	ELEVATION
ELEC	ELECTRICAL
EMT	ELECTRICAL METALLIC TUBING
ENG	ENGINEER
EQ	EQUAL
EXP	EXPANSION
EXT	EXTERIOR
EW	EACH WAY
FAB	FABRICATION
FF	FINISH FLOOR
FG	FINISH GRADE
FIF	FACILITY INTERFACE FRAME
FIN	FINISH(ED)
FLR	FLOOR
FDN	FOUNDATION
FOC	FACE OF CONCRETE
FOM	FACE OF MASONRY
FOS	FACE OF STUD
FOW	FACE OF WALL
FS	FINISH SURFACE
FT	FOOT
FTG	FOOTING
GA	GAUGE
GEN	GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GLB	GLUE LAMINATED BEAM
GLV	GALVANIZED
GPS	GLOBAL POSITIONING SYSTEM
GND	GROUND
GSM	GLOBAL SYSTEM FOR MOBILE
HDG	HOT DIPPED GALVANIZED
HDR	HEADER
HGR	HANGER
HVAC	HEAT/VENTILATION/AIR CONDITIONING
HT	HEIGHT
IGR	INTERIOR GROUND RING
IN	INCH
INT	INTERIOR
LB(S)	POUND(S)
LF	LINEAR FEET
LTE	LONG TERM EVOLUTION
MAS	MASONRY
MAX	MAXIMUM
MB	MACHINE BOLT
MECH	MECHANICAL
MFR	MANUFACTURER
MGB	MASTER GROUND BAR
MIN	MINIMUM
MISC	MISCELLANEOUS
MTL	METAL
MTS	MANUAL TRANSFER SWITCH
MW	MICROWAVE
NEC	NATIONAL ELECTRIC CODE
NM	NEWTON METERS
NO.	NUMBER
#	NUMBER
NTS	NOT TO SCALE
OC	ON–CENTER
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
OPNG	OPENING
P/C	PRECAST CONCRETE
PCS	PERSONAL COMMUNICATION SERVICES
PCU	PRIMARY CONTROL UNIT
PRC	PRIMARY RADIO CABINET
PP	POLARIZING PRESERVING
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
PWR	POWER CABINET
QTY	QUANTITY
RAD	RADIUS
RECT	RECTIFIER
REF	REFERENCE
REINF	REINFORCEMENT
REQ'D	REQUIRED
RET	REMOTE ELECTRIC TILT
RF	RADIO FREQUENCY
RMC	RIGID METALLIC CONDUIT
RRH	REMOTE RADIO HEAD
RRU	REMOTE RADIO UNIT
RWY	RACEWAY
SCH	SCHEDULE
SHT	SHEET
SIAD	SMART INTEGRATED ACCESS DEVICE
SIM	SIMILAR
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
TEMP	TEMPORARY
THK	THICKNESS
TMA	TOWER MOUNTED AMPLIFIER
TN	TOE NAIL
TOA	TOP OF ANTENNA
TOC	TOP OF CURB
TOF	TOP OF FOUNDATION
TOP	TOP OF PLATE (PARAPET)
TOS	TOP OF STEEL
TOW	TOP OF WALL
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
TYP	TYPICAL
UG	UNDERGROUND
UL	UNDERWRITERS LABORATORY
UNO	UNLESS NOTED OTHERWISE
UMTS	UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
UPS	UNITERRUPTIBLE POWER SYSTEM (DC POWER PLANT)
VIF	VERIFIED IN FIELD
W	WIDE
W/	WITH
WD	WOOD
WP	WEATHERPROOF
WT	WEIGHT

ABBREVIATIONS

dish wireless.

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DISH Wireless L.L.C.
PROJECT INFORMATION

NJJER01101B
500 MOOSEHILL ROAD
MONROE, CT 06468

SHEET TITLE

LEGEND AND ABBREVIATIONS

SHEET NUMBER

GN-1

SITE ACTIVITY REQUIREMENTS:

1. NOTICE TO PROCEED – NO WORK SHALL COMMENCE PRIOR TO CONTRACTOR RECEIVING A WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE DISH Wireless L.L.C. AND TOWER OWNER NOC & THE DISH Wireless L.L.C. AND TOWER OWNER CONSTRUCTION MANAGER.

2. "LOOK UP" – DISH Wireless L.L.C. AND TOWER OWNER SAFETY CLIMB REQUIREMENT:

THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR DISH Wireless L.L.C. AND DISH Wireless L.L.C. AND TOWER OWNER POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.

3. PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ONSITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS.

4. ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN, AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND DISH Wireless L.L.C. AND TOWER OWNER STANDARDS, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA–322 (LATEST EDITION).

5. ALL SITE WORK TO COMPLY WITH DISH Wireless L.L.C. AND TOWER OWNER INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON DISH Wireless L.L.C. AND TOWER OWNER TOWER SITE AND LATEST VERSION OF ANSI/TIA–1019–A–2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS."

6. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY DISH Wireless L.L.C. AND TOWER OWNER PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.

7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR 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.

8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.

9. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES INCLUDING PRIVATE LOCATES SERVICES PRIOR TO THE START OF CONSTRUCTION.

10. 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 CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR 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 AND EXCAVATION E) CONSTRUCTION SAFETY PROCEDURES.

11. ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND DISH PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.

12. CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.

13. 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, SUBJECT TO THE APPROVAL OF DISH Wireless L.L.C. AND TOWER OWNER, AND/OR LOCAL UTILITIES.

14. THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE REQUIRED BY LOCAL JURISDICTION AND SIGNAGE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROOMS, AND SHELTERS.

15. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.

16. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.

17. THE AREAS OF THE OWNERS 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 AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.

18. CONTRACTOR 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.

19. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.

20. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS AND RADIOS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.

21. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

22. 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.

GENERAL NOTES:

1.FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:

CONTRACTOR:GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION

CARRIER:DISH Wireless L.L.C.

TOWER OWNER:TOWER OWNER

2. THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCALITIES. IT IS ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.

3. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, FORMWORK, SHORING, ETC. SITE VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.

4. NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE GREATER, MORE STRICT REQUIREMENTS, SHALL GOVERN. IF FURTHER CLARIFICATION IS REQUIRED CONTACT THE ENGINEER OF RECORD.

5. SUBSTANTIAL EFFORT HAS BEEN MADE TO PROVIDE ACCURATE DIMENSIONS AND MEASUREMENTS ON THE DRAWINGS TO ASSIST IN THE FABRICATION AND/OR PLACEMENT OF CONSTRUCTION ELEMENTS BUT IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS, MEASUREMENTS, AND/OR CLEARANCES SHOWN IN THE CONSTRUCTION DRAWINGS PRIOR TO FABRICATION OR CUTTING OF ANY NEW OR EXISTING CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SOON AS POSSIBLE.

6. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CARRIER POC AND TOWER OWNER.

7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR 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.

8. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.

9. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.

10. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CARRIER AND TOWER OWNER PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.

11. CONTRACTOR IS TO PERFORM A SITE INVESTIGATION, BEFORE SUBMITTING BIDS, TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN DRAWINGS.

12. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF DISH Wireless L.L.C. AND TOWER OWNER

13. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.

14. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

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10/29/21

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/22

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NGN	RMC	RMC

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DISH Wireless L.L.C.
PROJECT INFORMATION

NJJER01101B
500 MOOSEHILL ROAD
MONROE, CT 06468

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-2

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST–IN–PLACE CONCRETE.

2. UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psf.

3. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 3000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90°f AT TIME OF PLACEMENT.

4. CONCRETE EXPOSED TO FREEZE–THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER–TO–CEMENT RATIO (W/C) OF 0.45.

5. ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL SPLICES SHALL BE CLASS "B" TENSION SPLICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (Fy) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:

#4 BARS AND SMALLER 40 ksi

#5 BARS AND LARGER 60 ksi

6. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:

- CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3"
- CONCRETE EXPOSED TO EARTH OR WEATHER:
- #6 BARS AND LARGER 2"
- #5 BARS AND SMALLER 1–1/2"
- CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
- SLAB AND WALLS 3/4"
- BEAMS AND COLUMNS 1–1/2"

7. A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

ELECTRICAL INSTALLATION NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.

2. CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.

3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.

4. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.

4.1. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.

4.2. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIC MINIMUM. VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PRE THE GOVERNING JURISDICTION.

5. EACH END OF EVERY POWER PHASE CONDUCTOR, GROUNDING CONDUCTOR, AND TELCO CONDUCTOR OR CABLE SHALL BE LABELED WITH COLOR–CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.

6. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMICOID TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (i.e. PANEL BOARD AND CIRCUIT ID'S).

7. PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.

8. TIE WRAPS ARE NOT ALLOWED.

9. ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THHW, THWN, THWN–2, XHHW, XHHW–2, THW, THW–2, RHW, OR RHW–2 INSULATION UNLESS OTHERWISE SPECIFIED.

10. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THHW, THWN, THWN–2, XHHW, XHHW–2, THW, THW–2, RHW, OR RHW–2 INSULATION UNLESS OTHERWISE SPECIFIED.

11. POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI–CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.

12. POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI–CONDUCTOR, TYPE TC CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN–2, XHHW, XHHW–2, THW, THW–2, RHW, OR RHW–2 INSULATION UNLESS OTHERWISE SPECIFIED.

13. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP–STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT LESS THAN 75° C (90° C IF AVAILABLE).

14. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.

15. ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.

16. ELECTRICAL METALLIC TUBING (EMT) OR METAL–CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.

17. SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.

18. LIQUID–TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID–TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.

19. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION–TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.

20. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND THE NEC.

21. WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREMOLD SPECMATE WIREWAY).

22. SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).

23. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON–PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES (i.e. POWDER–ACTUATED) FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.

24. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY–COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3 (OR BETTER) FOR EXTERIOR LOCATIONS.

25. METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY–COATED OR NON–CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.

26. NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.

27. THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR DISH Wireless L.L.C. AND TOWER OWNER BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.

28. THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.

29. INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "DISH Wireless L.L.C.".

30. ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.

dish wireless

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10/29/21

B&T ENGINEERING, INC.
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DISH Wireless L.L.C.
PROJECT INFORMATION

NJJER01101B
500 MOOSEHILL ROAD
MONROE, CT 06468

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-3

GROUNDING NOTES:

1. 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.

2. THE CONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.

3. THE CONTRACTOR 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 AND PROVIDE TESTING RESULTS.

4. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.

5. 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.

6. EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BTS.

7. CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.

8. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.

9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.

10. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.

11. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.

12. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.

13. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.

14. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.

15. APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.

16. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.

17. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.

18. BOND ALL METALLIC OBJECTS WITHIN 6 ft OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.

19. GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING 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 CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (i.e., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.

20. ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4" NON-METALLIC, FLEXIBLE CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).

21. BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY). DO NOT ATTACH GROUNDING TO FIRE SPRINKLER SYSTEM PIPES.

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