January 18, 2024

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: 49 Brainerd Rd, Niantic, CT
Dish Wireless Site No: BOBOS01209A
SBA Site No: CT011794-S

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 **49 Brainerd Road, Niantic, CT**.

SBA Properties, 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 135' for antennas and associated equipment.

Thank you,

Catherine Ware

Catherine Ware
Site Development Specialist
SBA COMMUNICATIONS CORPORATION
134 Flanders Road, Suite 125
Westboro, MA 01581

(917)868-8365 + C
CWare@sbasite.com

January 18, 2024

Melanie Bachman
Connecticut Siting Council Ten Franklin Square
New Britain, CT 06051

RE: Tower Share Application

49 Brainerd Road, Niantic, CT 06357
Latitude: Lat.: 41.307583
Longitude: 72.223916
Site#: CT11794-S_BOBOS01209A_SBA_DISH

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 49 Brainerd Road, Niantic, CT

Dish Wireless LLC proposes to install three (3)600/1900/2100 MHz antennas and six (6) RRUs, at the 135-foot level of the existing 170-foot monopole tower, one (1) Fiber cables will also be installed. Dish Wireless LLC equipment cabinets will be placed in a 5'x7' leased area.Included are plans by Kimley Horn dated 9/26/2023, Exhibit 6. Also included is a structural analysis prepared by SBA Engineering dated 8/24/2023, confirming that the existing tower is structurally capable of supporting the proposed equipment, attached as Exhibit 7. Also included is a mount analysis prepared by Kimley Horn dated 9/05/2023 confirming that the mount is structurally capable of supporting the proposed equipment, attached as Exhibit 8. This facility was approved by the CT Siting Council on 3/03/2011 Docket #396. Please see attached Exhibit 5.

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 Daniel Cunningham, First Selectman and to William Mulholland Zoning Enforcement Officer both from East Lyme/Niantic. (Separate notice is being sent to the ground owner).

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 existing tower is 170feet and the Dish Wireless LLC antennas will be located at a center line height of 135-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 11.53% as evidenced by Exhibit 9.

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 7.

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 Sterling. 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.

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 135-foot level of the existing 170-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 9, 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 monopole 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 Niantic .

Sincerely,

Catherine Ware

Catherine Ware
Site Development Specialist
SBA Communications Corporation
134 Flanders Road, Suite 125
Westborough, MA 01581
(917)868-8365+ **T**
Cware@sbasite.com

Attachments:

cc:

Daniel Cunningham, East Lyme CT / Town of Niantic First Selectman,
108 Pennsylvania Avenue
Niantic, CT 06357
860-691-4110

William Mulholland, East Lyme CT / Town of Niantic, Zoning Enforcement
108 Pennsylvania Avenue
Niantic, CT 06357
860-691-4114

Christopher Samuelsen – Ground Owner
49 Brainerd Road
Niantic, CT 06357
(860)625-5292

EXHIBIT LIST

Exhibit 1	Copy of Check	X
Exhibit 2	Notification Receipts	x
Exhibit 3	Property Card	x
Exhibit 4	Property Map	x
Exhibit 5	Original Zoning Approval	3/03/2011 Docket #396
Exhibit 6	Construction Drawings	Kimley Horn 9/26/2023
Exhibit 7	Structural Analysis	SBA Engineering 8/24/2023
Exhibit 8	Mount Analysis	Kimley Horn 9/05/2023
Exhibit 9	EME	Fox Hill Telecom – 12/04/2023

EXHIBIT 1

Copy of Check for filing fee.

EXHIBIT 2

FedEx Labels

ORIGIN ID:BBFA (917) 868-8365
CATHERINE WARE
SBA COMMUNICATIONS CORPORATION
134 FLANDERS ROAD
SUITE 125
WESTBOROUGH, MA 01581
UNITED STATES US

SHIP DATE: 18JAN24
ACTWGT: 2.00 LB
CAD: 255382542/INET4535

BILL SENDER

TO **MELANIE BACHMAN**
CONNECTICUT SITING COUNCIL
TEN FRANKLIN SQUARE

NEW BRITAIN CT 06051
(860) 827-2951
INV:
PO:
REF: 10-56-92009-6089
DEPT:

583J3/B014/9AE3

J241024011001uv

FedEx Express

FRI - 19 JAN 10:30A
PRIORITY OVERNIGHT

TRK# 0201 **7748 5922 5747**

EB BDLA

06051

CT-US BDL

After printing this label:
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1. Fold the printed page along the horizontal line.
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CATHERINE WARE
SBA COMMUNICATIONS CORPORATION
134 FLANDERS ROAD
SUITE 125
WESTBOROUGH, MA 01581
UNITED STATES US

SHIP DATE: 18JAN24
ACTWGT: 2.00 LB
CAD: 255382542/INET4535

BILL SENDER

TO **WILLIAM MULHOLLAND**
EAST LYME- NIANTIC ZONING
108 PENNSYLVANIA AVENUE

NIANTIC CT 06357
(860) 691-4114
INV:
PO:
REF: 10-56-92009-6089
DEPT:

583J3/B014/9AE3

J241024011001uv

FedEx Express

FRI - 19 JAN 10:30A
PRIORITY OVERNIGHT

TRK# 0201 **7748 5944 7324**

EB SKKA

06357
CT-US BDL

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ORIGIN ID:BBFA (917) 868-8365
CATHERINE WARE
SBA COMMUNICATIONS CORPORATION
134 FLANDERS ROAD
SUITE 125
WESTBOROUGH, MA 01581
UNITED STATES US

SHIP DATE: 18JAN24
ACTWGT: 2.00 LB
CAD: 255382542/INET4535

BILL SENDER

TO **DANIEL CUNNINGHAM**
EAST LYME / NIANTIC 1ST SELECTMAN
108 PENNSYLVANIA AVENUE

NIANTIC CT 06357
(860) 691-4110
INV:
PO:
REF: 10-56-92009-6089
DEPT:

583J3/B014/9AE3

J241024011001uv

FedEx Express

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PRIORITY OVERNIGHT

TRK# 0201 **7748 5935 0887**

EB SKKA

06357
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ORIGIN ID:BBFA (917) 868-8365
CATHERINE WARE
SBA COMMUNICATIONS CORPORATION
134 FLANDERS ROAD
SUITE 125
WESTBOROUGH, MA 01581
UNITED STATES US

SHIP DATE: 18JAN24
ACTWGT: 2.00 LB
CAD: 255382542/INET4535

BILL SENDER

TO **CHRISTOPHER SAMUELSON**

49 BRAINERD ROAD

NIANTIC CT 06357

(860) 625-5292

REF: 10-56-92009-6089

INV:

PO:

DEPT:

583J3/B014/9AE3

J241024011001uv

FedEx Express

FRI - 19 JAN 12:00P

PRIORITY OVERNIGHT

TRK# 0201 **7748 5951 5744**

RES

06357

EB SKKA

CT-US BDL

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Transaction Record

01/19/2024 1:55 PM

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DO NOT ATTACH TO SHIPMENT

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Westborough, MA 01581
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774872490218
774859350887
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Scan here to learn more about
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fedex.com/welisten

EXHIBIT 3

Property Card

49 BRAINERD RD

Location	49 BRAINERD RD	**Mblu**	07.4/ 21/ / /
Acct#	005680	**Owner**	SAMUELSEN CHRISTOPHER
Assessment	$359,810	**Appraisal**	$667,600
PID	5939	**Building Count**	1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2016	$231,700	$435,900	$667,600
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2016	$162,190	$197,620	$359,810

Owner of Record

Owner	SAMUELSEN CHRISTOPHER	**Sale Price**	$0
Co-Owner		**Certificate**	
Address	49 BRAINERD RD NIANTIC, CT 06357	**Book & Page**	0831/0222
		Sale Date	07/10/2009
		Instrument	04

Ownership History

Ownership History					
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Instrument**	**Sale Date**
SAMUELSEN CHRISTOPHER &	$0		0788/0266	04	10/24/2007
SAMUELSEN CHRISTOPHER	$560,000		0748/0207	07	07/13/2006
BOUTIN WYNN R	$0		0737/0532	01	04/03/2006
BOUTIN ZACHARY H OR WYNN R	$0		0542/0147	08	10/01/2001

Building Information

Building 1 : Section 1

Year Built:	1890
Living Area:	2,485
Replacement Cost:	$284,098

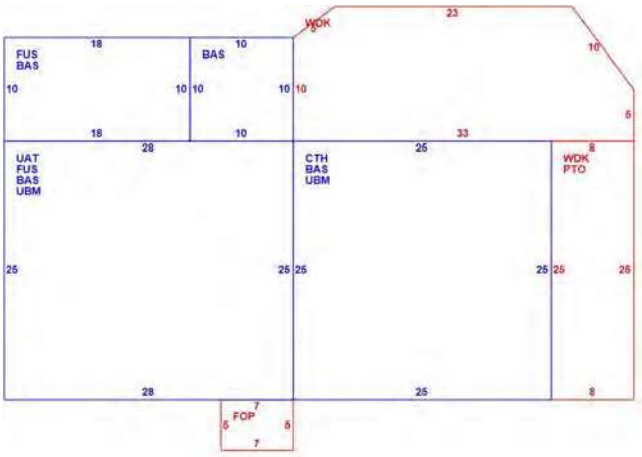
Building Percent Good: 67
Replacement Cost
Less Depreciation: $190,300

Building Attributes	
Field	**Description**
Style:	Conventional
Model	Residential
Grade:	Good
Stories:	2 Stories
Occupancy	1
Exterior Wall 1	Wood Shingle
Exterior Wall 2	
Roof Structure:	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Flr 1	Hardwood
Interior Flr 2	Ceram Clay Til
Heat Fuel	Oil
Heat Type:	Hot Water
AC Type:	Central
Total Bedrooms:	4 Bedrooms
Total Bthrms:	2
Total Half Baths:	1
Total Xtra Fixtrs:	
Total Rooms:	8 Rooms
Bath Style:	Modern
Kitchen Style:	Modern
Num Kitchens	01
Cndtn	
Num Park	
Fireplaces	
Fndtn Cndtn	
Basement	

Building Photo

(http://images.vgsi.com/photos2/EastLymeCTPhotos//\01\00\60\94.jpg)

Building Layout



(ParcelSketch.ashx?pid=5939&bid=6060)

Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	1,605	1,605
FUS	Upper Story, Finished	880	880
CTH	Cathedral Ceiling	625	0
FOP	Porch, Open, Finished	35	0
PTO	Patio	200	0
UAT	Attic, Unfinished	700	0
UBM	Basement, Unfinished	1,325	0
WDK	Deck, Wood	599	0
		5,969	2,485

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code	1010
Description	Single Fam M-01
Zone	R40
Neighborhood	0060
Alt Land Appr	No
Category	

Land Line Valuation

Size (Acres)	51.31
Frontage	0
Depth	0
Assessed Value	$197,620
Appraised Value	$435,900

Outbuildings

Outbuildings						Legend
Code	**Description**	**Sub Code**	**Sub Description**	**Size**	**Value**	**Bldg #**
BRN4	1 STY LFT&BSMT			378.00 S.F.	$3,400	1
SHP1	WORK SHOP AVE			841.00 S.F.	$21,000	1
FGR2	GARAGE-GOOD			841.00 S.F.	$16,800	1
SHD1	SHED FRAME			45.00 S.F.	$200	1

Valuation History

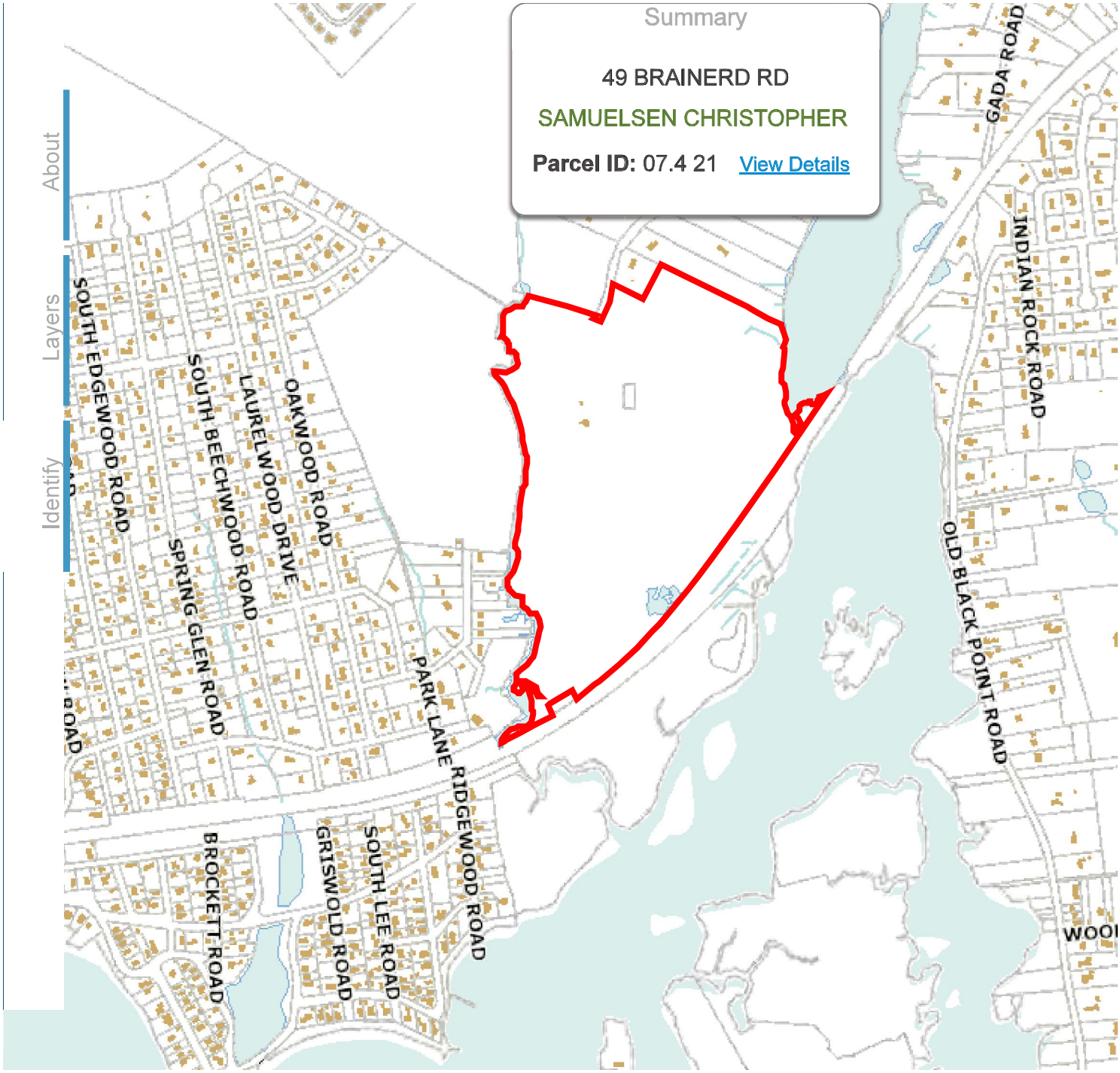
Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2020	$231,700	$435,900	$667,600
2019	$231,700	$435,900	$667,600
2018	$231,700	$435,900	$667,600

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2020	$162,190	$197,620	$359,810
2019	$162,190	$197,620	$359,810
2018	$162,190	$197,620	$359,810

EXHIBIT 4

Property Map

49 Brainerd



Email Map Link

Copy and paste the following string into an email to link to the current map view:

0.2km
1000ft

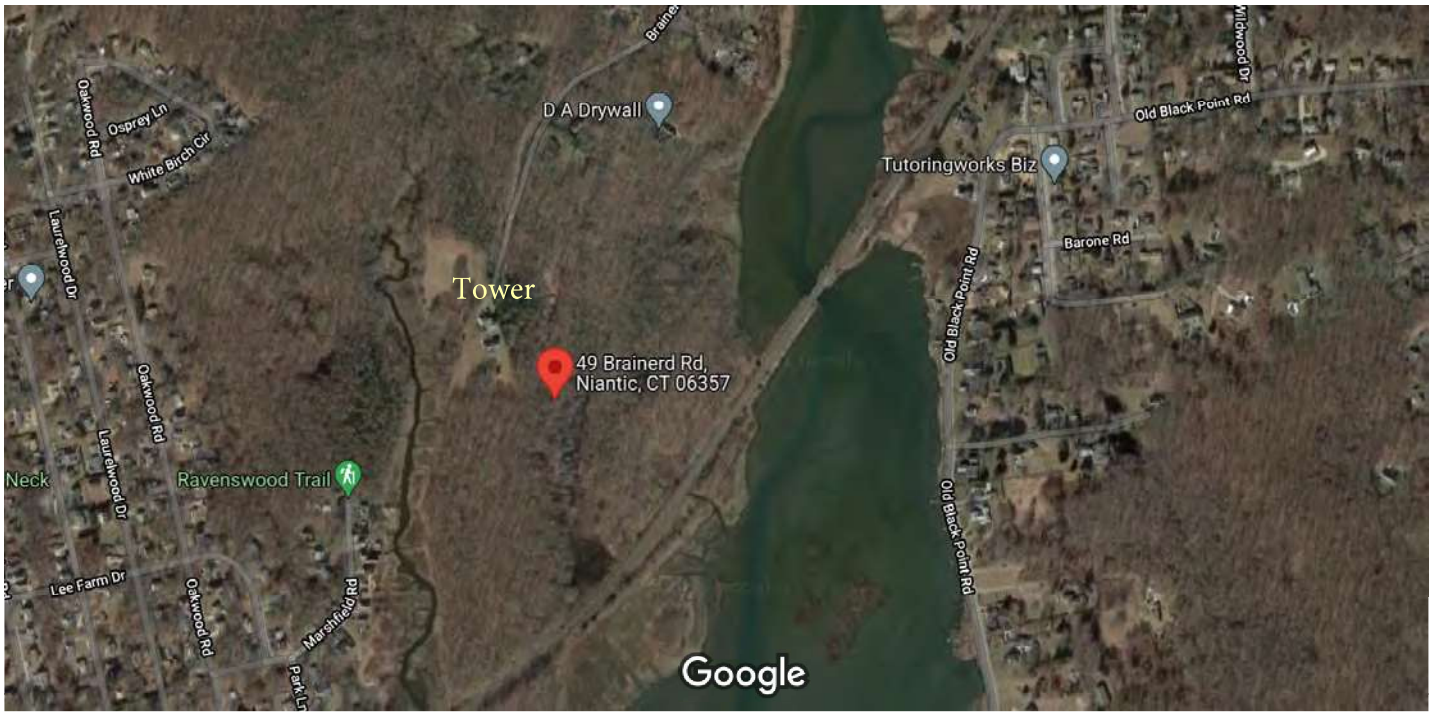
Close

Print Map

Tighe&Bond

lat:41.3028, long:-72.2134

Google Maps 49 Brainerd Rd



Imagery ©2021 CNES / Airbus, Maxar Technologies, New York GIS, U.S. Geological Survey, USDA Farm Service Agency, Map data ©2021 500 ft

EXHIBIT 5

Zoning Documents

DOCKET NO. 396 – SBA Towers II, LLC application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and management of a telecommunications facility located at 49 Brainerd Road, Niantic (East Lyme), Connecticut.	}	Connecticut Siting Council March 3, 2011

Findings of Fact

Introduction

1. SBA Towers II LLC (SBA), in accordance with provisions of Connecticut General Statutes (C.G.S.) § 16-50g through 16-50aa, applied to the Connecticut Siting Council (Council) on December 7, 2009 for the construction, maintenance, and management of a 170-foot wireless telecommunications facility, which would include a 170-foot tall monopole tower, to be located at 49 Brainerd Road in the Town of East Lyme, Connecticut. (SBA 1, pp. 1-2)

2. SBA is a Delaware limited liability company and a subsidiary of SBA Communications Corporation, a publicly traded company that owns and operates wireless infrastructure facilities nationwide. Its offices are at One Research Drive, Suite 200C, Westborough, Massachusetts. (SBA 1, p. 3)

3. The parties in this proceeding are SBA, Town of East Lyme, and Friends of the Pattagansett Trust. The intervenors to this proceeding are Cellco Partnership d/b/a Verizon Wireless (Cellco), New Cingular Wireless PCS, LLC (AT&T), Russell Brown, and Joseph Raia. (Transcript, February 23, 2010, 3:10 p.m. [Tr. 1], pp. 6-7)

4. Intervenors Cellco and AT&T are licensed by the Federal Communications Commission to provide wireless telecommunications services in New London County, Connecticut. (AT&T 1; Cellco 1)

5. The purpose of the proposed facility would be to provide service along Route 156 and the Amtrak corridor in East Lyme, as well as adjacent areas. (AT&T 1, p. 1)

6. Pursuant to C.G.S. § 16-50m, the Council, after giving due notice thereof, held a public hearing on February 23, 2010, beginning at 3:10 p.m. and continuing at 7:03 p.m. at Camp Rell, Nett Hall, Smith Street, East Lyme. (Council's Hearing Notice dated January 14, 2010; Tr. 1, p. 3; Transcript 2 – 7:03 p.m. [Tr. 2], p. 3)

7. The Council held continued public hearings in New Britain on March 23, 2010 and April 22, 2010. (Transcript 3 – March 23, 2010 at 1:30 p.m. [Tr. 3], p. 3; Transcript 4 – April 22, 2010 at 2:05 p.m. [Tr. 4], p. 4)

8. The Council and its staff conducted an inspection of the proposed site on February 23, 2010, beginning at 2:00 p.m. During the field inspection, the applicant flew a balloon at the proposed site to simulate the height of the proposed tower. Weather conditions during the field review were not conducive to a balloon flight and included a 10 mile-per-hour wind with rain and sleet. The balloon was tethered at 170 feet above ground level to simulate the height of the tower. It could not be maintained at the proposed height for any significant amount of time due to the weather conditions. The balloon was aloft from 7:00 a.m. to 9:00 a.m. and from 1:00 p.m. to approximately 5:00 p.m. for the convenience of the public. (Council's Hearing Notice dated January 14, 2010; Tr. 1, p. 16)

9. Pursuant to C.G.S. § 16-50l (b), public notice of the application was published in The Day on November 18, 2009 and November 20, 2009. (SBA 1, p. 4)

10. Pursuant to C.G.S. § 16-50l(b), notice of the application was provided to all abutting property owners by certified mail. SBA received return receipts from all abutters. (SBA 1, p. 4; SBA 3, response 2)

11. Pursuant to C.G.S. § 16-50l (b), SBA provided notice to all federal, state and local officials and agencies listed therein. (SBA 1, p. 3)

12. On July 26, 2010, SBA filed a motion to reopen the evidentiary record limited to wetland issues. (SBA Motion to Reopen dated July 26, 2010)

13. On July 29, 2010, the Council granted the motion to reopen the evidentiary record limited to wetland issues. (Council Memo dated July 30, 2010)

14. On October 7, 2010, SBA filed a motion to reopen the evidentiary record with respect to T-Mobile's lease with SBA. (SBA Motion to Reopen dated October 7, 2010)

15. On October 7, 2010, the Council granted SBA's motion to reopen the evidentiary record. However, the Council ruled that the reopening would not be limited to the lease with T-Mobile. (Council Memo dated October 12, 2010)

16. On October 21, 2010, the Council closed the evidentiary record, denied the application without prejudice, and reopened the decision to deny the application without prejudice on its own motion under CGS §4-181a(b). (Council Memo dated October 25, 2010)

17. Pursuant to C.G.S. § 16-50m, the Council, after giving due notice thereof, held a public hearing on December 21, 2010, beginning at 2:05 p.m. in Hearing Room 1, 10 Franklin Square, New Britain, Connecticut. (Council's Hearing Notice dated November 10, 2010; Transcript 5 – 2:05 p.m. [Tr. 5], p. 3)

State Agency Comment

18. Pursuant to C.G.S. § 16-50j (h), on January 14, 2010 and May 20, 2010, the following State agencies were solicited by the Council to submit written comments regarding the proposed facility: Department of Environmental Protection (DEP); Department of Public Health (DPH); Council on Environmental Quality (CEQ); Department of Public Utility Control (DPUC); Office of Policy and Management (OPM); Department of Economic and Community Development (DECD); Department of Agriculture (DOAg); Department of Transportation (DOT); and Department of Emergency Management and Homeland Security (DEMHS). (Record)

19. The DOT's Bureau of Engineering and Highway Operations responded to the Council's solicitation for comments on February 10, 2010, but had no comments. (DOT Comments dated February 10, 2010)

20. The DPH's Drinking Water Section responded to the Council's solicitation for comments on February 10, 2010. The DPH indicated that it had reviewed the application for potential impacts to any sources of public drinking water supply. The project does not appear to be in a public water supply source water area. DPH had no further comments. (DPH Comments dated February 17, 2010)

21. The DEP's Office of Long Island Sound Programs responded to the Council's solicitation for comments on February 17, 2010 and May 12, 2010 with concerns regarding visual impact on coastal resources. (DEP Comments dated February 17, 2010 and May 12, 2010)

22. The CEQ responded to the Council's solicitation for comments on March 12, 2010. The CEQ is concerned about adverse impacts per the Connecticut Coastal Management Act (CCMA) and impacts to birds. (CEQ Comments dated March 12, 2010)

23. The CEQ also notes that the visual impact of the proposed tower cannot be fully assessed without a virtual simulation of its appearance when viewed from the waters of Long Island Sound, a major recreational resource. (CEQ Comments dated March 12, 2010)

24. The following agencies did not respond with comments on the application: DPUC, OPM, DECD, DOAg, and DEMHS. (Record)

Municipal Consultation

25. SBA notified the Town of East Lyme (Town) of the proposal on September 10, 2009 by sending a technical report to First Selectman Paul Formica. SBA met with First Selectman Formica, Chris Taylor – Deputy Fire Marshal, and Brooks Gianakos – Town Emergency Services Consultant on September 24, 2009 to discuss the proposed facility. (SBA 1, p. 16)

26. SBA representatives also attended a public informational meeting with the East Lyme Board of Selectman on November 18, 2009. (SBA 1, pp. 16-17)

27. The Board of Selectman (Board) voted unanimously to become a party in the Council proceeding to express their opposition to the proposed site. The Board's various concerns included the site's proximity to the Pattagansett River, which is considered a sensitive estuary, and Raven's Woods, a 26-acre nature preserve owned by East Lyme Land Trust. (Town 1)

28. At a public hearing held on February 23, 2010, First Selectman Formica provided a limited appearance statement. Mr. Formica noted that many East Lyme citizens and their legislative representatives are concerned that the tower would be located within a coastal boundary and is not consistent with the Town's Plan of Development and Conservation. Mr. Formica also expressed concerns about adverse effects to the coastal landscape. Mr. Formica encouraged the exploration of alternative sites to find one more suitable for all those involved. (Tr. 1, pp. 9-11)

29. The Town's Plan of Development and Conservation does not specifically refer to telecommunications facilities, but does adopt the CCMA. (Tr. 1, pp. 87-89)

30. SBA would provide space on the tower for the Town's emergency communication services for no compensation. The Town is interested in co-locating emergency services antennas on the proposed tower, but the details have been not finalized. (SBA 1, p. 5; Tr. 1, p. 48)

Federal Designation for Public Need

31. In 1996, the United States Congress recognized a nationwide need for high quality wireless telecommunications services, including cellular telephone service. Through the Federal Telecommunications Act of 1996, Congress seeks to promote competition, encourage technical innovations, and foster lower prices for telecommunications services. (Council Administrative Notice Item No. 7)

32. In issuing cellular licenses, the Federal government has preempted the determination of public need for cellular service by the states, and has established design standards to ensure technical integrity and nationwide compatibility among all systems. (Council Administrative Notice Item No. 7)

33. The Telecommunications Act of 1996 prohibits local and state entities from discriminating among providers of functionally equivalent services. (Council Administrative Notice Item No. 7)

34. The Telecommunications Act of 1996, a Federal law passed by the United States Congress, prohibits any state or local entity from regulating telecommunications towers on the basis of the environmental effects, which include human health effects, of radio frequency emissions to the extent that such towers and equipment comply with FCC's regulations concerning such emissions. This Act also blocks the Council from prohibiting or acting with the effect of prohibiting the provision of personal wireless service. (Council Administrative Notice Item No. 7)

35. The Wireless Communications and Public Safety Act of 1999 (E911 Act) was enacted by Congress to promote and enhance public safety by making 9-1-1 the universal emergency assistance number, by furthering deployment of wireless 9-1-1 capabilities, and by encouraging construction and operation of seamless ubiquitous and reliable networks for wireless services. (SBA 1, pp. 5-6)

36. In 1999, Congress passed the Wireless Communications and Public Safety Act (the 911 Act) to facilitate and encourage the prompt deployment of a nationwide, seamless communication infrastructure for emergency services. SBA's facility would be in compliance with the requirements of the 911 Act. (SBA 1, p. 6)

Existing and Proposed Wireless Coverage – AT&T

37. AT&T seeks to provide coverage to Route 156 to the north, the Amtrak corridor and shoreline areas to the south, Black Point to the east, Giant's Neck to the west, as well as adjacent areas. (SBA 1, Tab F)

38. AT&T operates in the 850 MHz (cellular) band and the 1900 MHz (PCS) band at a signal level service design of -74 dBm for this area, sufficient for in-building coverage. The signal level threshold for in-vehicle coverage is -82 dBm. (AT&T 3, responses 3, 4, 8)

39. AT&T would initially provide cellular service and would expand to PCS service as needed in the future. AT&T also plans to deploy 700 MHz (LTE) service on its network beginning in 2011. (AT&T 3, responses 7, 8)

40. AT&T currently experiences a coverage gap on Route 156 of 0.5 miles. (AT&T 3, response 1)

41. The minimum height at which AT&T could achieve its coverage objective from the proposed site is 167 feet. (AT&T 3, response 5; AT&T 9; Tr. 5, p. 60)

42. AT&T's antennas at the proposed site at 167 feet would provide cellular coverage on Route 156 for 1.6 miles. AT&T's antennas would also provide about 2.2 miles of cellular coverage on the Amtrak corridor. AT&T's cellular coverage area at this antenna height would be 3.29 square miles. (SBA 1, Tab F; AT&T 3, responses 10, 12 and 13; Tr. 3, p. 137)

EXHIBIT 6

Construction Drawings

DISH Wireless L.L.C. SITE ID:

BOBOS01209A

DISH Wireless L.L.C. SITE ADDRESS:

49 BRAINERD ROAD
NIANTIC, CT 06357

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	2022 CT STATE BUILDING CODE/2021 IBC W/ CT AMENDMENTS
MECHANICAL	2022 CT STATE BUILDING CODE/2021 IMC W/ CT AMENDMENTS
ELECTRICAL	2022 CT STATE BUILDING CODE/2020 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 FIBER NID (IF REQUIRED)

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

811

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

TOWER TYPE:	MONOPOLE
SBA SITE ID:	CT11794-S
SBA APP NUMBER:	234520
COUNTY:	NEW LONDON
LATITUDE (NAD 83):	41° 18' 27.30" N 41.307583° N
LONGITUDE (NAD 83):	72° 13' 26.10" W 72.223916° W
ZONING JURISDICTION:	EAST LYME
ZONING DISTRICT:	4330
PARCEL NUMBER:	45-07.4 21-1
OCCUPANCY GROUP:	U
CONSTRUCTION TYPE:	II-B
POWER COMPANY:	EVERSOURCE
FIBER PROVIDER:	TBD

PROJECT DIRECTORY

APPLICANT:	DISH Wireless L.L.C. 5701 SOUTH SANTA FE DRIVE LITTLETON, CO 80120 (303) 706-5008
TOWER OWNER:	SBA COMMUNICATIONS 470 DAVIDSON ROAD PITTSBURGH, PA 15239
SITE DESIGNER:	KIMLEY-HORN & ASSOCIATES COA: PEC.0000728 3875 EMBASSY PKWY, SUITE 280 AKRON, OH 44333 (216) 505-7771
SITE ACQUISITION:	APRIL PARROTT APRIL.PARROTT@DISH.COM
CONSTRUCTION MANAGER:	RICHARD BUKER RICHARD.BUKER@DISH.COM
RF ENGINEER:	DIPESH PARIKH DIPESH.PARIKH@DISH.COM

DIRECTIONS

DIRECTIONS FROM BRADLEY INTERNATIONAL AIRPORT:

- HEAD NORTH TOWARD BRADLEY INTERNATIONAL AIRPORT
- SLIGHT LEFT ONTO BRADLEY INTERNATIONAL AIRPORT
- CONTINUE STRAIGHT
- KEEP RIGHT TO CONTINUE TOWARD BRADLEY INTERNATIONAL AIRPORT CON
- CONTINUE ONTO BRADLEY INTERNATIONAL AIRPORT CON
- CONTINUE ONTO CT-20 E/BRADLEY INTERNATIONAL AIRPORT CON
- MERGE ONTO I-91 S TOWARD HARTFORD
- TAKE EXIT 22S TO MERGE ONTO CT-9 S TOWARD MIDDLETOWN/OLD SAYBROOK
- MERGE ONTO I-95 N/US-1 N TOWARD NEW LONDON/PROVIDENCE
- TAKE EXIT 72 TOWARD ROCKY NCK/STATE PK
- CONTINUE ONTO ROCKY NECK CON
- TURN LEFT ONTO CT-156 E/W MAIN ST
- TURN RIGHT ONTO FAIRHAVEN RD
- TURN RIGHT ONTO BRAINERD RD

VICINITY MAP

NO SCALE

dish wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

Kimley»Horn

COA: PEC.0000728
421 FAYETTEVILLE ST, SUITE 600
RALEIGH, NC 27601

SBA

470 DAVIDSON ROAD
PITTSBURGH, PA 15239
TEL: (740) 260-9710

STATE OF CONNECTICUT
WILLIAM C. EDMONSON
36630
LICENSED
PROFESSIONAL ENGINEER
9/26/23

DRAWN BY:	CHECKED BY:	APPROVED BY:
LMS	MCK	KJC

APPLICATION REV #: 1

CONSTRUCTION DOCUMENTS

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REV	DATE	DESCRIPTION
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0	08/25/2023	ISSUED FOR PERMIT

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KHCLE-47791

DISH Wireless L.L.C.
PROJECT INFORMATION

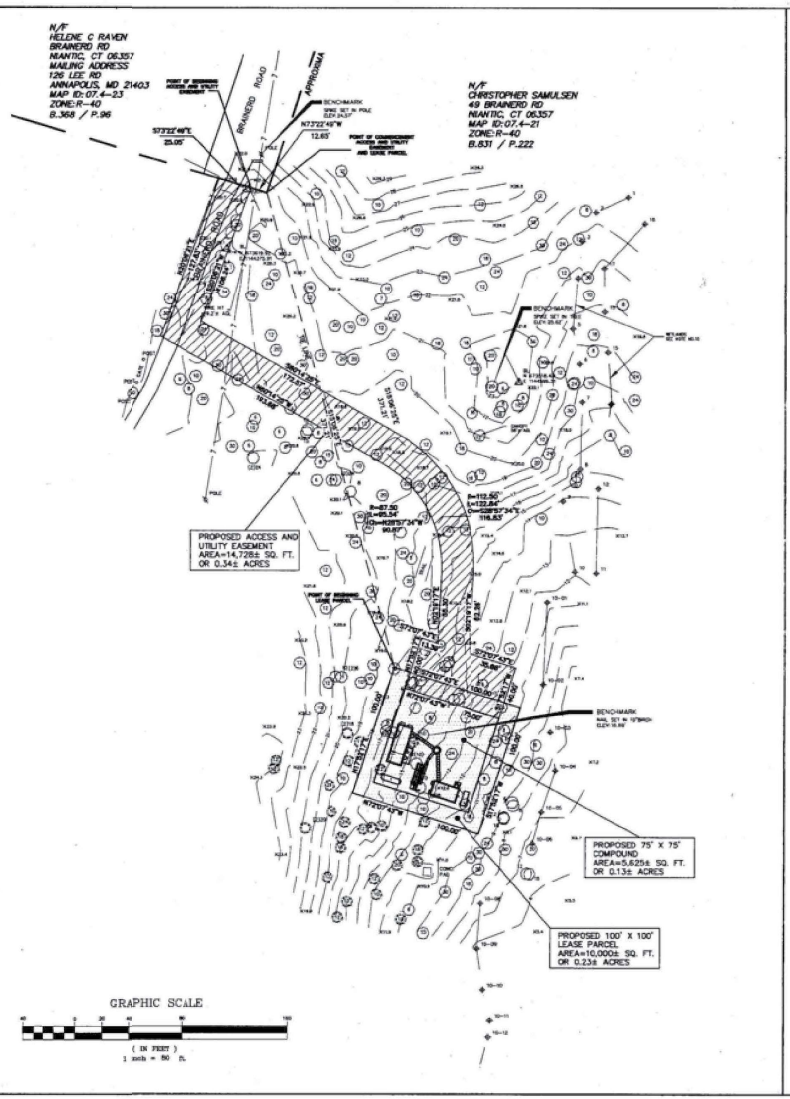
BOBOS01209A
49 BRAINERD ROAD
NIANTIC, CT 06357

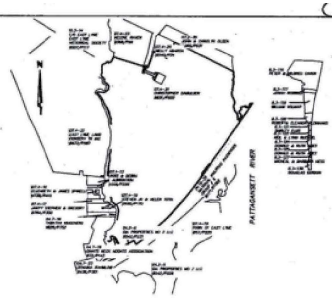
SHEET TITLE

TITLE SHEET

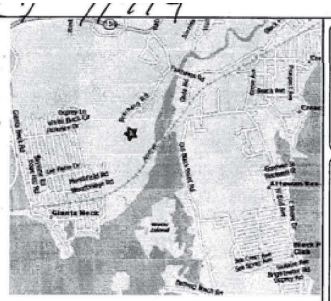
SHEET NUMBER

T-1





TAX MAP LOCATION MAP



SITE LOCATION MAP

PARENT PARCEL

ALL THAT TRACT OR PARCEL OF LAND SITUATE, LYING AND BEING WESTERLY OF THE PATTAGANSETT RIVER AND NATIONAL PASSENGER RAILROAD GROUP #5 RAILROAD, EASTERLY OF RED BROOK, IN THE TOWN OF EAST LYME, COUNTY OF NEW LONDON AND STATE OF CONNECTICUT, BEING MORE PARTICULARLY BOUNDED AND DESCRIBED IN BOOK 831 OF DEEDS AT PAGE 222 AND AS SHOWN ON THE TOWN OF EAST LYME ASSESSORS MAP 07.4, PARCEL 21.

LEASE PARCEL

ALL THAT TRACT OR PARCEL OF LAND SITUATE, LYING AND BEING WESTERLY OF THE PATTAGANSETT RIVER AND NATIONAL PASSENGER RAILROAD GROUP #5 RAILROAD, EASTERLY OF RED BROOK, IN THE TOWN OF EAST LYME, COUNTY OF NEW LONDON AND STATE OF CONNECTICUT, BEING MORE PARTICULARLY BOUNDED AND DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT ON THE TERMINUS OF BRAINERD ROAD AT ITS INTERSECTION WITH PROPERTY DIVISION LINE BETWEEN LANDS NOW OR FORMERLY OF CHRISTOPHER SAMULSEN AS DESCRIBED IN BOOK 831 OF DEEDS AT PAGE 222 AT THE EASTERLY STREET BOUNDARY SAID BRAINERD ROAD; THENCE THROUGH THE ABOVE SAID LANDS OF CHRISTOPHER SAMULSEN SOUTH 10°-06'-25" EAST, A DISTANCE OF 371.2' FEET TO THE POINT OR PLACE OF BEGINNING; THENCE CONTINUING THROUGH THE SAID LANDS OF SAMULSEN THE FOLLOWING FOUR (4) COURSES AND DISTANCES:
1) SOUTH 72°-07'-43" EAST, A DISTANCE OF 100.00 FEET TO A POINT,
2) SOUTH 17°-52'-17" WEST, A DISTANCE OF 100.00 FEET TO A POINT,
3) NORTH 72°-07'-43" WEST, A DISTANCE OF 100.00 FEET TO A POINT AND
4) NORTH 17°-52'-17" EAST, A DISTANCE OF 100.00 FEET TO THE POINT OR PLACE OF BEGINNING AND BEING 10,000 SQUARE FEET OR 0.23 ACRES OF LAND MORE OR LESS.

ACCESS AND UTILITY EASEMENT

ALL THAT TRACT OR PARCEL OF LAND SITUATE, LYING AND BEING WESTERLY OF THE PATTAGANSETT RIVER AND NATIONAL PASSENGER RAILROAD GROUP #5 RAILROAD, EASTERLY OF RED BROOK, IN THE TOWN OF EAST LYME, COUNTY OF NEW LONDON AND STATE OF CONNECTICUT, BEING MORE PARTICULARLY BOUNDED AND DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT ON THE TERMINUS OF BRAINERD ROAD AT ITS INTERSECTION WITH PROPERTY DIVISION LINE BETWEEN LANDS NOW OR FORMERLY OF CHRISTOPHER SAMULSEN AS DESCRIBED IN BOOK 831 OF DEEDS AT PAGE 222 AT THE EASTERLY STREET BOUNDARY SAID BRAINERD ROAD; THENCE THROUGH THE ABOVE SAID LANDS OF CHRISTOPHER SAMULSEN NORTH 73°-22'-48" WEST, A DISTANCE OF 12.65 FEET TO THE POINT OR PLACE OF BEGINNING; THENCE CONTINUING THROUGH THE SAID LANDS OF SAMULSEN THE FOLLOWING THIRTEEN (13) COURSES AND DISTANCES:
1) SOUTH 20°-06'-21" WEST, A DISTANCE OF 108.24 FEET TO A POINT,
2) SOUTH 80°-14'-25" EAST, A DISTANCE OF 170.57 FEET TO A POINT,
3) ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 112.50, LENGTH OF 122.84' AND A CHORD OF SOUTH 28°-57'-34" EAST, A DISTANCE OF 116.83 FEET TO A POINT,
4) SOUTH 02°-19'-17" WEST, A DISTANCE OF 62.24 FEET TO A POINT,
5) SOUTH 72°-07'-43" EAST, A DISTANCE OF 35.66 FEET TO A POINT,
6) SOUTH 17°-52'-17" WEST, A DISTANCE OF 40.00 FEET TO A POINT IN A PROPOSED LEASE PARCEL,
7) NORTH 72°-07'-43" WEST, THROUGH SAID LEASE PARCEL, A DISTANCE OF 75.00 FEET TO A POINT,
8) NORTH 17°-52'-17" EAST, A DISTANCE OF 40.00 FEET TO A POINT ON A PROPOSED LEASE PARCEL,
9) SOUTH 72°-07'-43" EAST, A DISTANCE OF 13.39 FEET TO A POINT,
10) NORTH 02°-19'-17" EAST, A DISTANCE OF 55.30 FEET TO A POINT,
11) ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 87.50, LENGTH OF 95.54' AND A CHORD OF NORTH 28°-57'-34" WEST, A DISTANCE OF 90.87 FEET TO A POINT,
12) NORTH 80°-14'-25" WEST, A DISTANCE OF 163.68 FEET TO A POINT, AND
13) NORTH 20°-06'-21" EAST, A DISTANCE OF 127.83 FEET TO A POINT ON THE ABOVE SAID TERMINUS OF BRAINERD ROAD; THENCE SOUTH 73°-22'-48" EAST, ALONG THE SAID TERMINUS OF BRAINERD ROAD A DISTANCE OF 25.05 FEET TO THE POINT OR PLACE OF BEGINNING AND BEING 14,728 SQUARE FEET OR 0.34 ACRES OF LAND MORE OR LESS.

NOTES:

1. THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996. THE BOUNDARY LINES SHOWN ON THIS PLAN WERE COMPILED FROM OTHER MAPS, RECORD RESEARCH OR OTHER SOURCES OF INFORMATION. IT IS NOT TO BE CONSTRUED AS HAVING BEEN ESTABLISHED AS THE RESULT OF A FIELD SURVEY, AND IS SUBJECT TO SUCH CHANGE AS AN ACCURATE FIELD SURVEY MAY DISCLOSE.

TYPE OF SURVEY: COMPILATION PLAN

BOUNDARY DETERMINATION CATEGORY: NONE

CLASS OF ACCURACY: HORIZONTAL CLASS A-2
VERTICAL CLASS V-2
TOPOGRAPHIC CLASS T-2

2. PROPERTY LINE SHOWN HEREON ARE FROM RECORD DEEDS PLOTS AND TAX MAPS, AS OVERLAID ON ANY MONUMENTATION OR OTHER EVIDENCE THAT MAY HAVE BEEN LOCATED DURING THE TOPOGRAPHIC SURVEY. A PROPERTY SURVEY WAS NOT PERFORMED BY CHA AND AS A RESULT THE PROPERTY LINES SHOWN ARE APPROXIMATE AND TO NOT PRESENT A PROPERTY/BOUNDARY OPINION.

3. BASE MAPPING PREPARED BY CHA FROM AN AUGUST 2009 AND AUGUST 2010 FIELD SURVEY.

4. NORTH ORIENTATION IS TRUE NORTH BASED ON GPS OBSERVATIONS TAKEN AT THE TIME OF THE FIELD SURVEY.

5. UNDERGROUND UTILITIES, STRUCTURES AND FACILITIES HAVE BEEN SHOWN FROM SURFACE LOCATIONS AND MEASUREMENTS OBTAINED FROM A FIELD SURVEY. THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHER UTILITIES WHICH THE EXISTENCE OF ARE NOT KNOWN. SIZE, TYPE AND LOCATION OF ALL UTILITIES AND STRUCTURES MUST BE VERIFIED BY PROPER AUTHORITIES PRIOR TO ANY AND ALL CONSTRUCTION. CALL DIG SAFE PRIOR.

6. SUBJECT TO ANY STATEMENT OF FACTS THAT AN UP-TO-DATE ABSTRACT OF TITLE WOULD DISCLOSE.

7. SUBJECT TO ALL RIGHTS, EASEMENTS, COVENANTS OR RESTRICTIONS OF RECORD.

8. LATITUDE/LONGITUDE/ELEVATIONS WERE OBTAINED FROM GPS OBSERVATION. LATITUDE/LONGITUDE ARE REFERENCED TO NAD83 CONNECTICUT ZONE. COORDINATES SHOWN, IF ANY, ARE EXPRESSED IN U.S. SURVEY FEET. ELEVATIONS ARE REFERENCED TO NAVD88. TOP OF STRUCTURE HEIGHT AS SHOWN, IF ANY, DETERMINED BY VERTICAL ANGLE OR BY ACTUAL LOCATION.
INFORMATION SHOWN BASED ON FAA 2C CERTIFICATION ACCURACY LEVEL DEFINED AS:
HORIZONTAL: ±50 FEET / 15 METERS
VERTICAL: ±20 FEET / 6 METERS

9. SITE FALLS WITHIN ZONE "C" DEFINED AS AREAS OF MINIMAL FLOODING AS SHOWN ON FLOOD INSURANCE RATE MAP, TOWN OF EAST LYME, CONNECTICUT, NEW LONDON COUNTY, PANEL 11 OF 15, COMMUNITY PANEL NUMBER 090096 0011 C, REVISED JUNE 15, 1984.

10. WETLANDS SHOWN AS DELINEATED BY WHISPLE HANSEN BRUTSUN, INC. ON 7/29/09 AND LOCATED BY CHA DURING THE TIME OF THE FIELD SURVEY.

MAP REFERENCES:

1. MAP ENTITLED "PROPERTY SURVEY OF A PORTION OF PROPERTY NOW OR FORMERLY OF ELSIE B. RAVEN" PREPARED BY ROBERT L. BUCHER L.S. DATED APRIL 1978 AND FILED IN THE OFFICE OF THE TOWN CLERK OF EAST LYME IN DRAWER NO 1 AS MAP NO. 27.

2. MAP ENTITLED "MAP OF THE PRELIMINARY AND FINAL PLAN OF A SUBDIVISION TO BE KNOWN AS MINER SUBDIVISION (BRAINERD ROAD"

SURVEYOR FOUND NO CONFLICT WITH ANY OTHER RECORDED EASEMENT, DEED/RESTRICTION OR COVENANT RUNNING THRU THE PARENT PARCEL OR ADJACENT LANDS WHICH WE ARE UTILIZING FOR OUR LEASE AREA AND EASEMENTS INCLUDES THE LEASE AREA AND ANY OTHER EASEMENT RIGHTS THAT WE HAVE UNDER GROUND LEASE.

SBA
SBA TOWERS II LLC
5900 BROKEN SOUND PARKWAY, NW
BOCA RATON, FL 33487-2797
TEL: (561) 226-9523
FAX: (561) 226-9368

CHA
2139 Silas Deane Highway, Suite 212 - Rocky Hill, CT 06067-2306

"TO MY KNOWLEDGE AND BELIEF, MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON"

WILLIAM S. LUCARELLI CT LS 16529

REVISIONS

NO.	DATE	DESCRIPTION
1	09/10/10	MAP ISSUED

DRAWN BY: WTM CHECKED BY: WSL

PROJECT No.
15363-1046-1601

SITE NAME:
EAST LYME

SITE NUMBER:
CT11794

SITE ADDRESS:
49 BRAINERD ROAD
NIANTIC, CT 06357

DESIGN TYPE:
RAW LAND

SHEET TITLE:
PRELIMINARY SURVEY

DRAWING NO.: PS-1
REVISION: A

dish wireless.
5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

Kimley»Horn
COA: PEC.0000728
421 FAYETTEVILLE ST, SUITE 600
RALEIGH, NC 27601

SBA
470 DAVIDSON ROAD
PITTSBURGH, PA 15239
TEL: (740) 260-9710

FOR REFERENCE PURPOSES ONLY

DRAWN BY:	CHECKED BY:	APPROVED BY:
LMS	MCK	KJC

APPLICATION REV #: 1

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
A	09/11/2023	ISSUED FOR REVIEW
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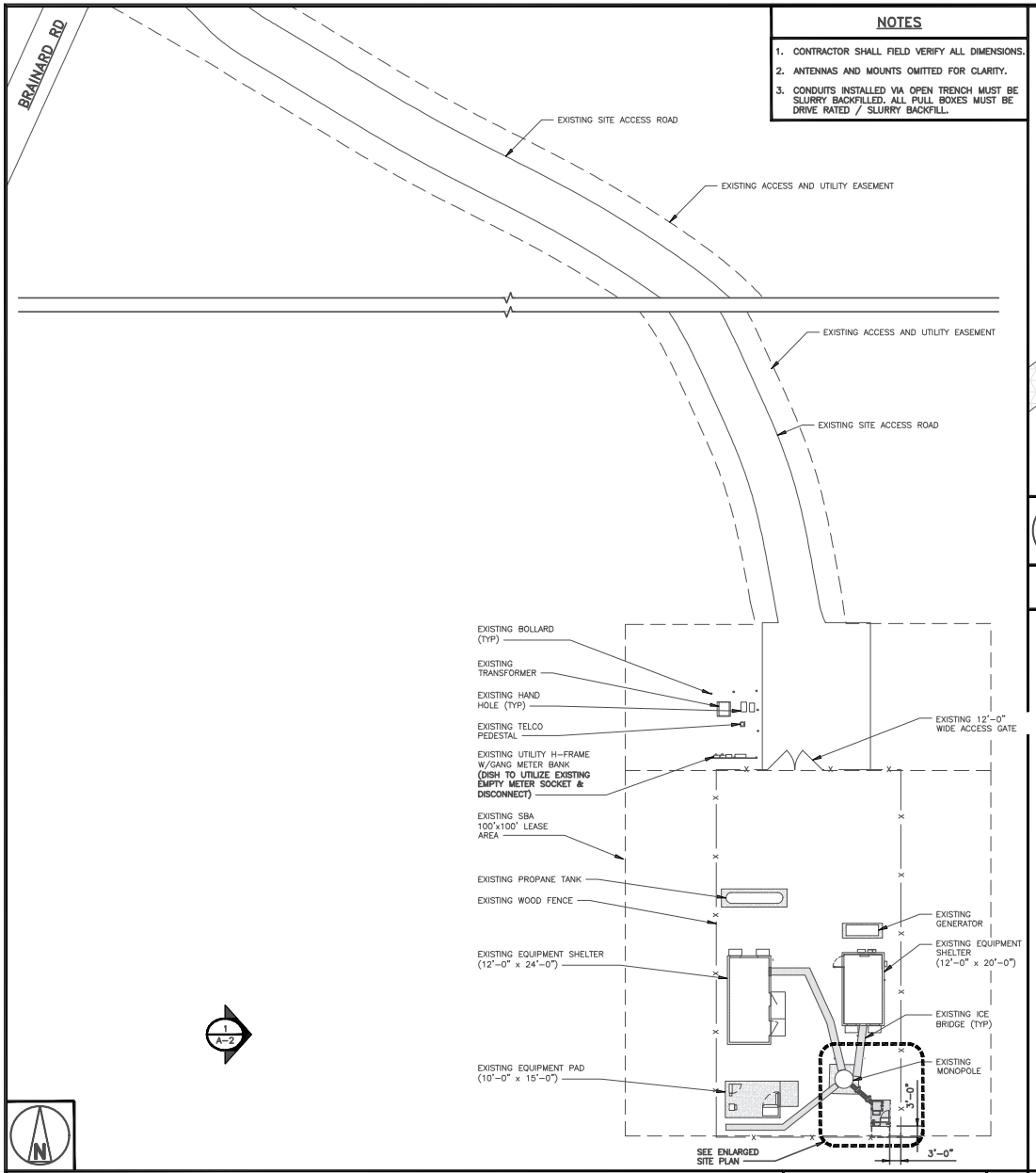
A&E PROJECT NUMBER
KHCLE-47791

DISH Wireless L.L.C.
PROJECT INFORMATION
BOBOS01209A
49 BRAINERD ROAD
NIANTIC, CT 06357

SHEET TITLE
SITE SURVEY

SHEET NUMBER
LS-1



OVERALL SITE PLAN

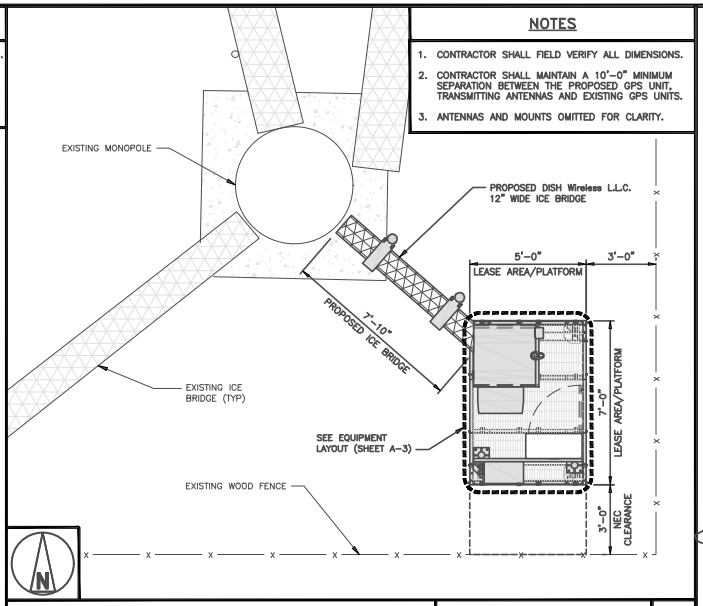
16' 12' 8' 4' 0 16' 32'

1/16"=1'-0"

1

NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.
3. CONDUITS INSTALLED VIA OPEN TRENCH MUST BE SLURRY BACKFILLED. ALL PULL BOXES MUST BE DRIVE RATED / SLURRY BACKFILL.



ENLARGED SITE PLAN

12" 6" 0 1' 2' 3' 4' 5' 6' 7'

3/8"=1'-0"

2

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.

NOT USED

3

dish wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

Kimley»Horn

COA: PEC.0000728
421 FAYETTEVILLE ST, SUITE 600
RALEIGH, NC 27601

SBA

470 DAVIDSON ROAD
PITTSBURGH, PA 15239
TEL: (740) 260-9710

STATE OF CONNECTICUT
WILLIAM C. EDMONSON
35630
LICENSED
PROFESSIONAL ENGINEER
9/26/23

DRAWN BY:	CHECKED BY:	APPROVED BY:
LMS	MCK	KJC

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DISH Wireless L.L.C.
PROJECT INFORMATION

BOBOS01209A
49 BRAINERD ROAD
NIANTIC, CT 06357

SHEET TITLE

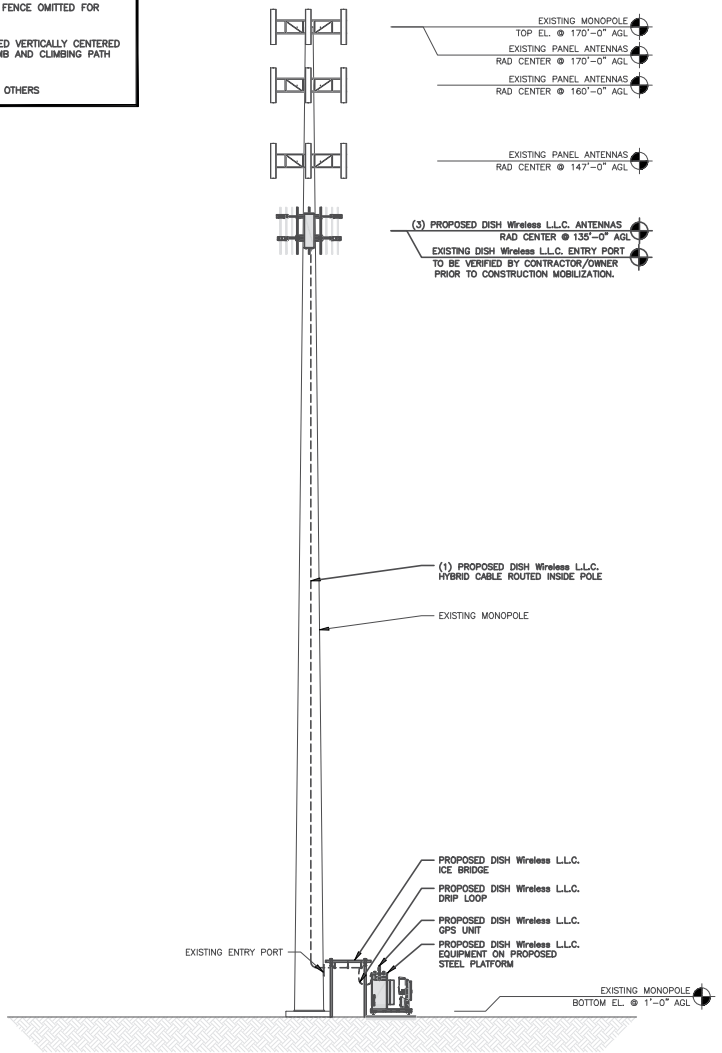
OVERALL AND ENLARGED SITE PLAN

SHEET NUMBER

A-1

NOTES

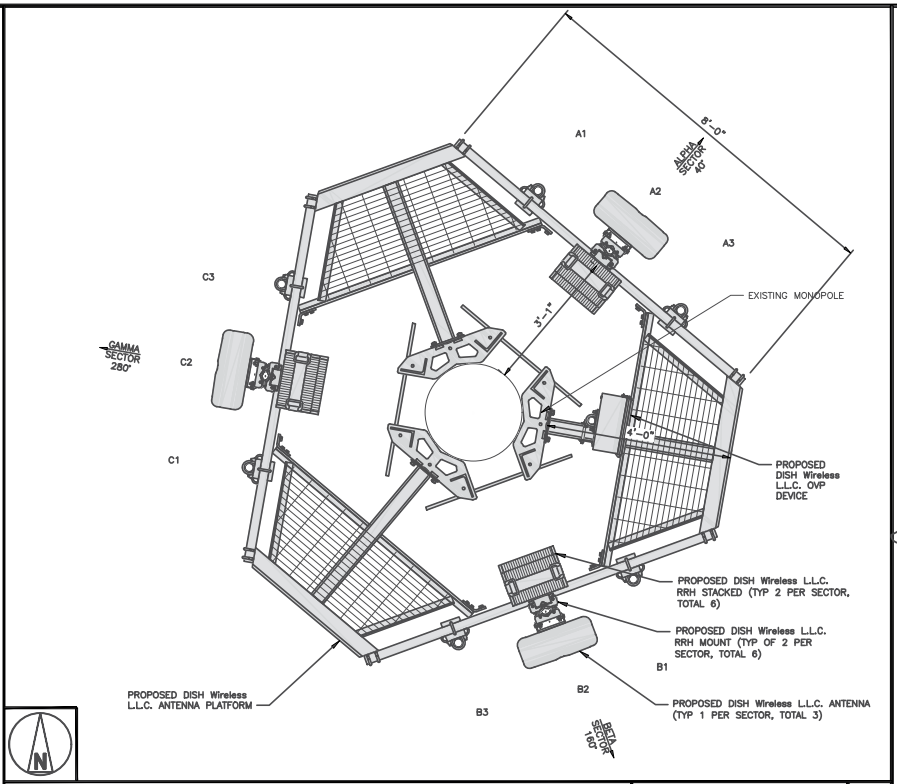
1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. ANTENNA SPECIFICATIONS REFER TO ANTENNA SCHEDULE AND TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS
3. EXISTING EQUIPMENT AND FENCE OMITTED FOR CLARITY.
4. ANTENNAS TO BE INSTALLED VERTICALLY CENTERED ON MOUNTS. SAFETY CLIMB AND CLIMBING PATH MUST REMAIN CLEAR.
5. STRUCTURAL ANALYSIS BY OTHERS



PROPOSED WEST ELEVATION

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

1



ANTENNA LAYOUT

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

2

SECTOR POS.	ANTENNA					TRANSMISSION CABLE	RRH			OVP
	EXISTING OR PROPOSED	MANUFACTURER – MODEL NUMBER	TECH	AZIMUTH	RAD CENTER	FEED LINE TYPE AND LENGTH	MANUFACTURER – MODEL NUMBER	TECH	POS	MANUFACTURER MODEL
A–1	--	--	--	--	--	(1) HIGH-CAPACITY HYBRID CABLE (180' LONG)	SAMSUNG – RF4451D-70A/ SFG-ARR3KM01DI	5G	A2	RAYCAP RDIDC – 9181–PF–48
A–2	PROPOSED	COMMSCOPE – FFVV–65B–R2	5G	40°	135'–0"		SAMSUNG – RF4450T–71A/ SFG–ARR3J601DI	5G	A2	
A–3	--	--	--	--	--		--	--	--	
B–1	--	--	--	--	--	SHARED W/ALPHA	SAMSUNG – RF4451D–70A/ SFG–ARR3KM01DI	5G	B2	SHARED W/ALPHA
B–2	PROPOSED	COMMSCOPE – FFVV–65B–R2	5G	160°	135'–0"		SAMSUNG – RF4450T–71A/ SFG–ARR3J601DI	5G	B2	
B–3	--	--	--	--	--		--	--	--	
C–1	--	--	--	--	--	SHARED W/ALPHA	SAMSUNG – RF4451D–70A/ SFG–ARR3KM01DI	5G	C2	SHARED W/ALPHA
C–2	PROPOSED	COMMSCOPE – FFVV–65B–R2	5G	280°	135'–0"		SAMSUNG – RF4450T–71A/ SFG–ARR3J601DI	5G	C2	
C–3	--	--	--	--	--		--	--	--	

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.

ANTENNA SCHEDULE

NO SCALE

3

dish wireless.
5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

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STATE OF CONNECTICUT
WILLIAM C. EDMONSON
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LICENSED
PROFESSIONAL ENGINEER
9/26/23

DRAWN BY:	CHECKED BY:	APPROVED BY:
LMS	MCK	KJC

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DISH Wireless L.L.C.
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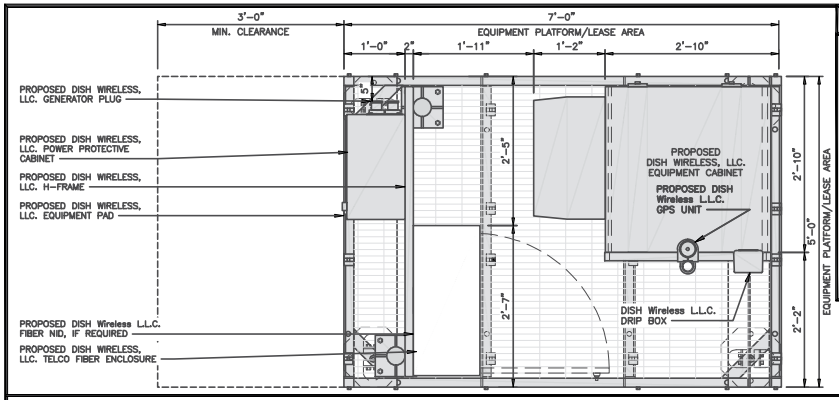
49 BRAINERD ROAD
NIANTIC, CT 06357

SHEET TITLE
ELEVATION, ANTENNA LAYOUT AND SCHEDULE

SHEET NUMBER
A-2



NOTES

1. INSTALL POSTS BASES TO GRATING JUST INSIDE PLATFORM FRAME. NO DRILLING REQUIRED.
2. GPS MAY BE MOVED TO ICE BRIDGE OR H-FRAME.
3. ALL CONDUIT TO BE ROUTED THROUGH PLATFORM GRATING USING LIQUIDTIGHT, EMT, RIGID OR PVC COUPLERS. CONDUIT QUANTITY AND SIZES ARE PER ONE-LINE DIAGRAM ON E-3 SHEET OF CDS. (DC PLANT DEPENDENT.)
4. CONTRACTOR MAY FIELD INSTALL CONDUIT HOLES IN BOTTOM OF PPC CABINET TO MATCH CONDUIT SIZES. (SEAL TO PPC MANUFACTURER SPECIFICATIONS).
5. H-FRAME POSTS ARE STAGGERED TO ALLOW FIBER NID BOXES TO BE INSTALLED CLOSE TO PERIMETER FRAME OF PLATFORM.
6. CONDUITS FROM PPC/FIBER DEMARK CABINETS TO EQUIPMENT CABINET (BBU) SHALL BE INSTALLED INSIDE PERIMETER OF PLATFORM AND UNDER GRATING.
7. KIMLEY-HORN DID NOT EVALUATE THE PLATFORM STRUCTURE TO SUPPORT THE PROPOSED EQUIPMENT CONFIGURATION. CONTRACTOR TO OBTAIN PASSING PLATFORM ANALYSIS REPORT PRIOR TO INSTALLING THE PROPOSED PLATFORM.

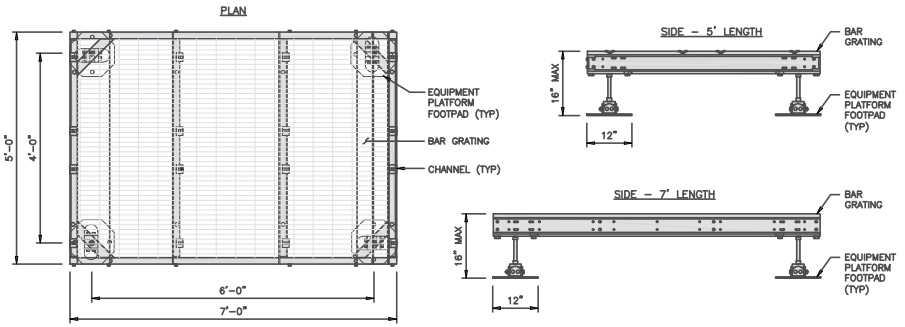
PLATFORM EQUIPMENT PLAN

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:
1. GC TO PROVIDE EXTENDED THREAD FOR PLATFORM IF REQUIRED HEIGHT EXCEEDS 16"
2. PLATFORM TO BE LEVEL WITHIN 1"

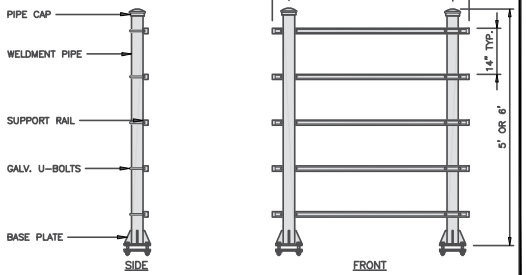


PLATFORM DETAIL

NO SCALE

2

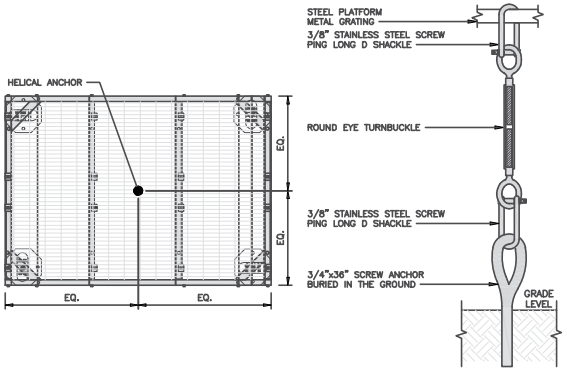
COMMSCOPE MTC4045HFLD H-FRAME	
UNISTRUT/SUPPORT RAILS QTY	5
WEIGHT	59.74 lbs



H-FRAME DETAIL

NO SCALE

3



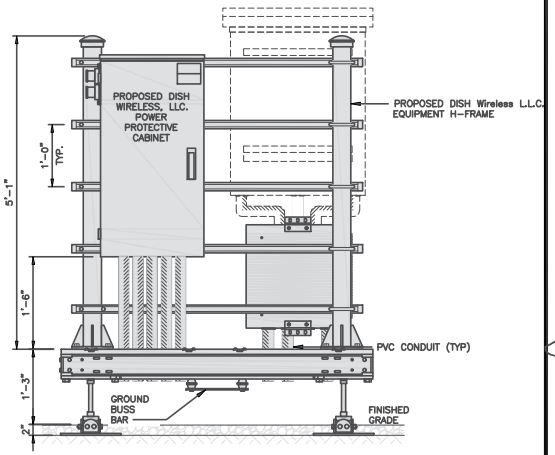
PLATFORM ANCHORAGE DETAIL

NO SCALE

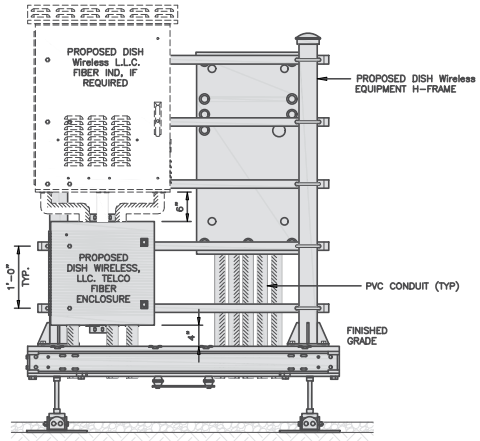
4

NOTES

1. CONTRACTOR TO BURY PLATFORM FEET WITH A MINIMUM OF 2" OF FILL PER EXISTING SITE SURFACE
2. WEED BARRIER FABRIC TO BE ADDED AT DISCRETION OF DISH Wireless L.L.C. CONSTRUCTION MANAGER AT TIME OF CONSTRUCTION. ONE SHEET 8'x8' INSTALLED UNDER ALL FOUR FEET OF THE PLATFORM (4 MIL BLACK PLASTIC)
3. EQUIPMENT CABINET OMITTED FOR CLARITY
4. NOTE FOR FIELD CREWS: CONSULT WITH DISH CM FOR H-FRAME POSTS AND UNISTRUT PLACEMENTS



FRONT ELEVATION



BACK ELEVATION

H-FRAME EQUIPMENT ELEVATION

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

5

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STATE OF CONNECTICUT
WILLIAM C. EDMONSON
35630
LICENSED PROFESSIONAL ENGINEER
9/26/23

DRAWN BY:	CHECKED BY:	APPROVED BY:
LMS	MCK	KJC

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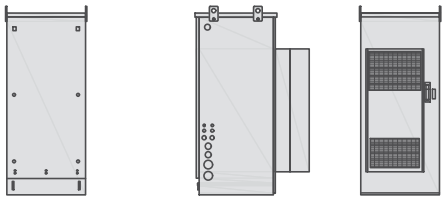
A&E PROJECT NUMBER
KHCLE-47791

DISH Wireless L.L.C.
PROJECT INFORMATION
BOBOS01209A
49 BRAINERD ROAD
NIANTIC, CT 06357

SHEET TITLE
EQUIPMENT PLATFORM AND H-FRAME DETAILS

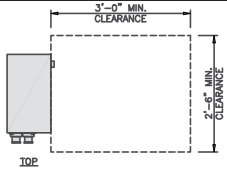
SHEET NUMBER
A-3

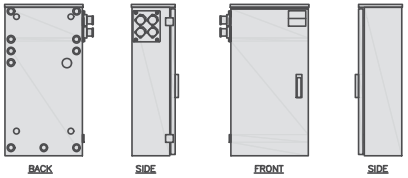
CHARLES INDUSTRY HEX CUBE–PM639155N4	
DIMENSIONS (HxWxD)	74"x32"x32"
POWER PLANT	–48VDC ABB/600W
TOTAL WEIGHT (EMPTY)	408 lbs



CABINET DETAIL | NO SCALE | 1

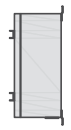
RAYCAP PPC RDIAC–2465–P–240–MTS	
ENCLOSURE DIMENSIONS (HxWxD):	39"x22.855"x12.593
WEIGHT:	80 lbs
OPERATING AC VOLTAGE	240/120 1 PHASE 3W+G

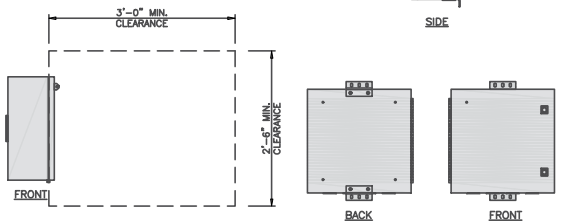




POWER PROTECTION CABINET (PPC) DETAIL | NO SCALE | 2

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





FIBER TELCO ENCLOSURE DETAIL | NO SCALE | 3

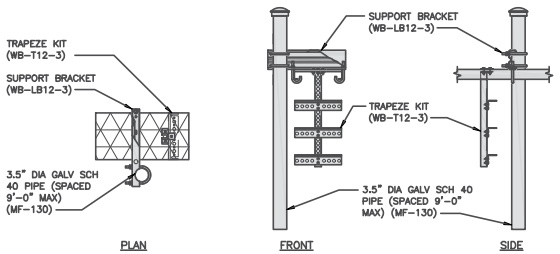
NOT USED | NO SCALE | 4

NOT USED | NO SCALE | 5

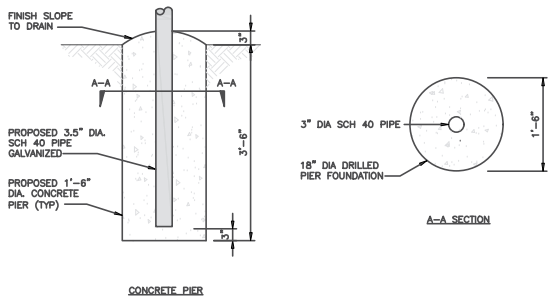
NOT USED | NO SCALE | 6

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

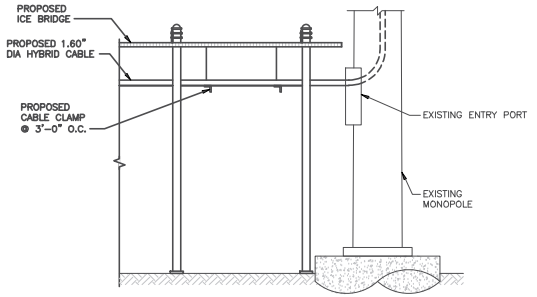
INCLUDED PRODUCTS:
- WB–T12–3 TRAPEZE KIT, 3 RUNGS
- WB–LB12–3 SUPPORT BRACKET
- MF–130 DIRECT BURIAL PIPE COLUMN, 13'–4"



ICE BRIDGE DETAIL | NO SCALE | 7



TYPICAL ICE BRIDGE CONCRETE PIER DETAIL | NO SCALE | 8



HYBRID CABLE RUN | NO SCALE | 9

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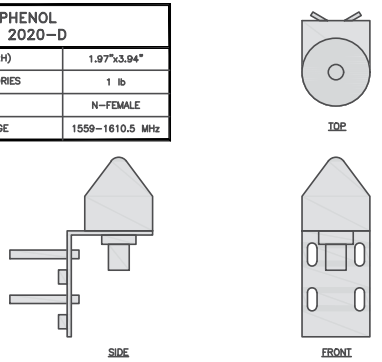
DISH Wireless L.L.C.
PROJECT INFORMATION
BOBOS01209A
49 BRAINERD ROAD
NIANTIC, CT 06357

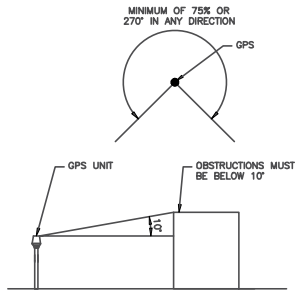
SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
A-4

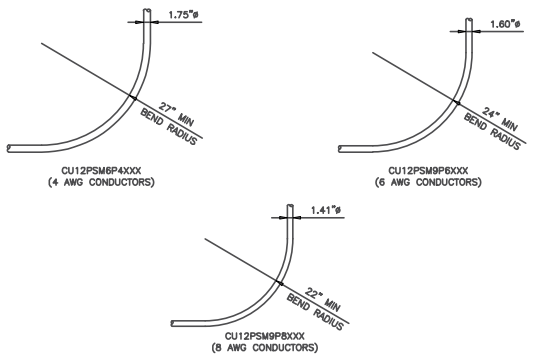
AMPHENOL GNS 2020–D	
DIMENSIONS (DIAxH)	1.97"x3.94"
WEIGHT W/ACCESSORIES	1 lb
CONNECTOR	N–FEMALE
FREQUENCY RANGE	1559–1610.5 MHz



GPS DETAIL | NO SCALE | 1



GPS MINIMUM SKY VIEW REQUIREMENTS | NO SCALE | 2

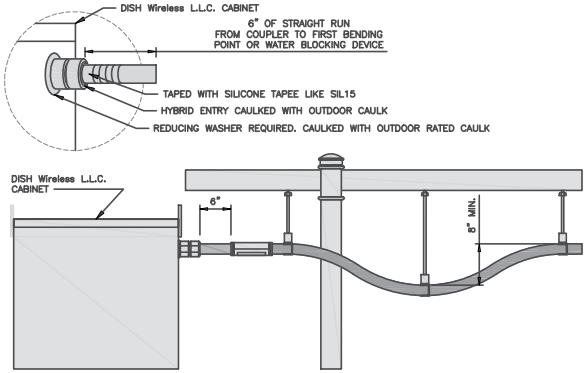


CABLES UNLIMITED HYBRID CABLE MINIMUM BEND RADIUSES | NO SCALE | 3

NOTE:

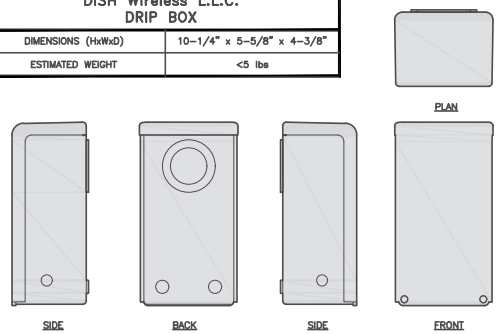
CONTRACTOR SHALL NOT LOOP EXCESS HYBRID OUTSIDE CABINET. EXCESS HYBRID LENGTH IS TO BE ADJUSTED BY STRIPPING JACKET AND SHIELDING AND TERMINATING DC CABLE TO LENGTH. FIBER EXCESS IS TO BE COILED IN FIBER SLACK TRAY INSIDE NETWORK CABINET.

HYBRID CABLE INSTALLATION NOTE | NO SCALE | 4



HYBRID CABLE INSTALLATION DETAIL | NO SCALE | 5

DISH Wireless L.L.C. DRIP BOX	
DIMENSIONS (HxWxD)	10–1/4" x 5–5/8" x 4–3/8"
ESTIMATED WEIGHT	<5 lbs



DISH Wireless L.L.C. DRIP BOX DETAIL | NO SCALE | 6

NOT USED | NO SCALE | 7

NOT USED | NO SCALE | 8

NOT USED | NO SCALE | 9

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LICENSED PROFESSIONAL ENGINEER
9/26/23

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DISH Wireless L.L.C.
PROJECT INFORMATION

BOBOS01209A
49 BRAINERD ROAD
NIANTIC, CT 06357

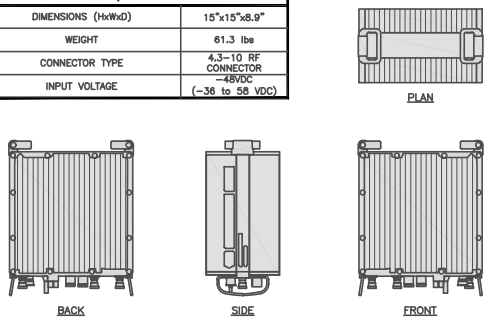
SHEET TITLE

EQUIPMENT DETAILS

SHEET NUMBER

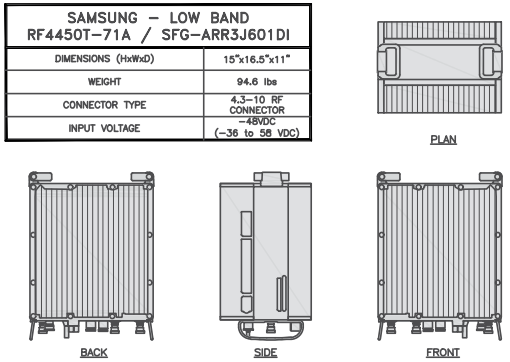
A-5

SAMSUNG – MID BAND RF4451D-70A / SFG-ARR3KM01DI	
DIMENSIONS (HxWxD)	15"x15"x8.9"
WEIGHT	61.3 lbs
CONNECTOR TYPE	4.3-10 RF CONNECTOR
INPUT VOLTAGE	-48VDC (-36 to 58 VDC)



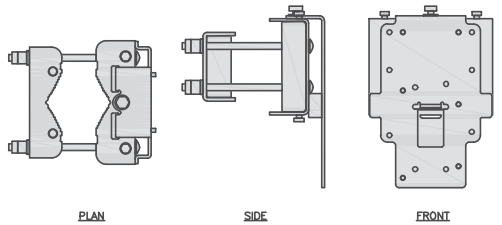
RRH DETAIL | NO SCALE | 1

SAMSUNG – LOW BAND RF4450T-71A / SFG-ARR3J601DI	
DIMENSIONS (HxWxD)	15"x16.5"x11"
WEIGHT	94.6 lbs
CONNECTOR TYPE	4.3-10 RF CONNECTOR
INPUT VOLTAGE	-48VDC (-36 to 58 VDC)



RRH DETAIL | NO SCALE | 2

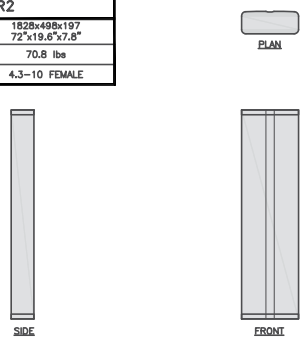
SAMSUNG FDD RRH POLE MOUNT	
DIMENSIONS (HxWxD)	9.8"x7"x10"
WEIGHT	TBD



RRH MOUNT DETAIL | NO SCALE | 3

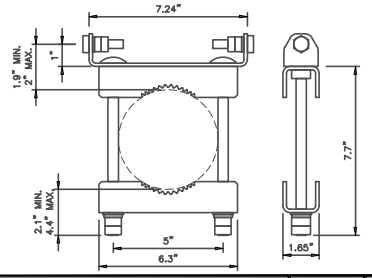
NOT USED | NO SCALE | 4

COMMSCOPE FFVV-65B-R2	
DIMENSIONS (HxWxD)(MM/IN)	1828x498x197 72"x19.6"x7.8"
TOTAL WEIGHT	70.8 lbs
RF CONNECTOR INTERFACE	4.3-10 FEMALE



ANTENNA DETAIL | NO SCALE | 5

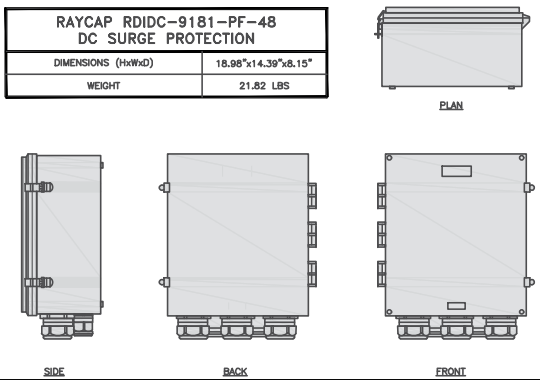
COMMSCOPE ANTENNA BRACKET BSAMNT-F	
DIAMETER COMPATIBILITY	2.402" – 4.5"
NET WEIGHT	7.937 lbs



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

ANTENNA BRACKET DETAIL | NO SCALE | 6

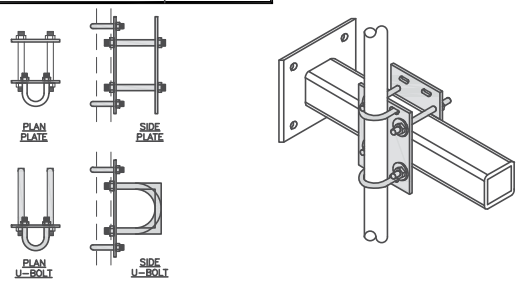
RAYCAP RDIDC-9181-PF-48 DC SURGE PROTECTION	
DIMENSIONS (HxWxD)	18.98"x14.39"x8.15"
WEIGHT	21.82 LBS



SURGE SUPPRESSION DETAIL | NO SCALE | 7

COMMSCOPE XP-2040 CROSSOVER PLATE	
DIMENSIONS (HxW)	10"x12"
WEIGHT	11 lbs

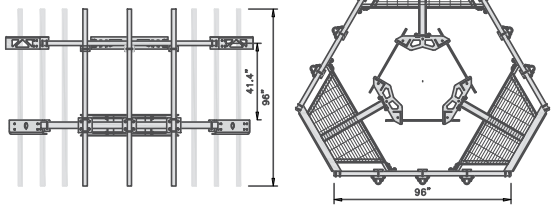
NOTE:
OR DISH Wireless L.L.C.
APPROVED EQUIVALENT



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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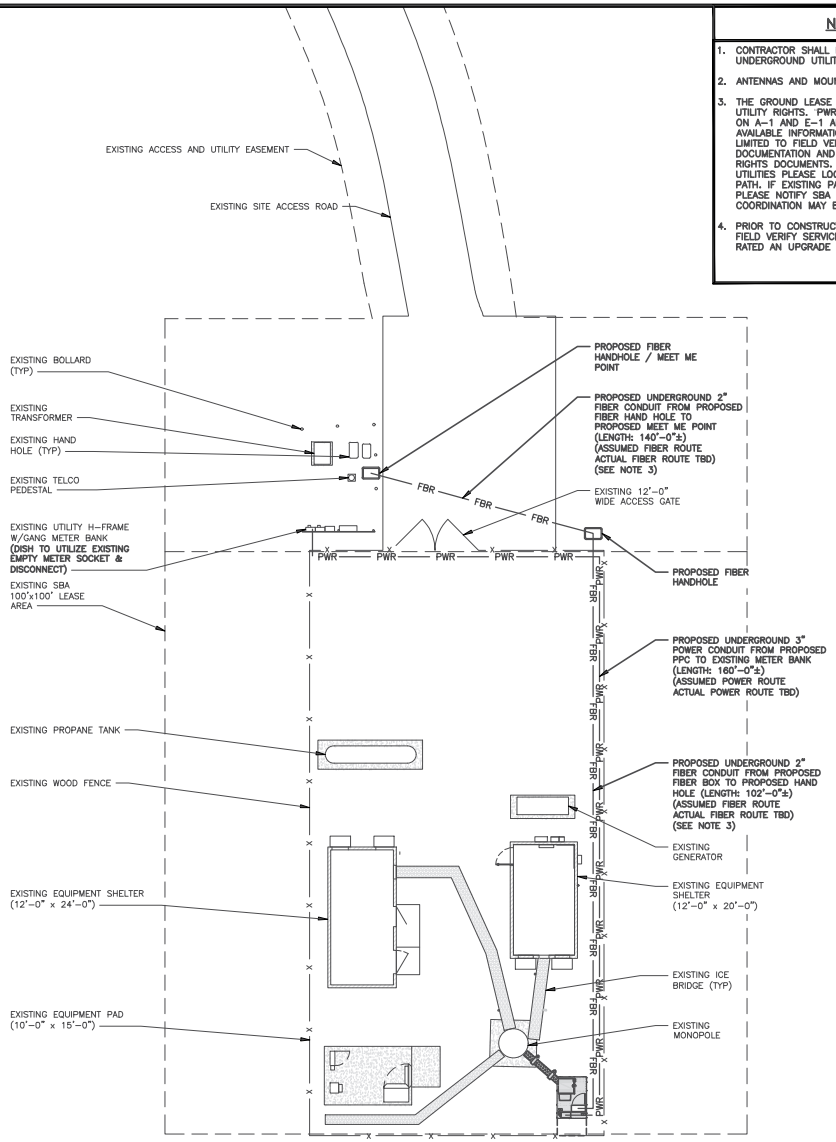
SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
A-6



NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL PROPOSED UNDERGROUND UTILITY CONDUIT ROUTE.
2. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.
3. THE GROUND LEASE PROVIDES BROAD/BLANKET UTILITY RIGHTS. 'PWR' AND 'FBR' PATH DEPICTED ON A-1 AND E-1 ARE BASED ON BEST AVAILABLE INFORMATION INCLUDING BUT NOT LIMITED TO FIELD VERIFICATION, PRIOR PROJECT DOCUMENTATION AND OTHER REAL PROPERTY RIGHTS DOCUMENTS. WHEN INSTALLING THE UTILITIES PLEASE LOCATE AND FOLLOW EXISTING PATH. IF EXISTING PATH IS NOT AN OPTION, PLEASE NOTIFY SBA REAL ESTATE AS FURTHER COORDINATION MAY BE NEEDED.
4. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL FIELD VERIFY SERVICE CONDUCTOR SIZE IS 200A RATED AN UPGRADE AS REQUIRED.

UTILITY ROUTE PLAN

12' 8' 4' 0 10' 20'
3/32"=1'-0"

1

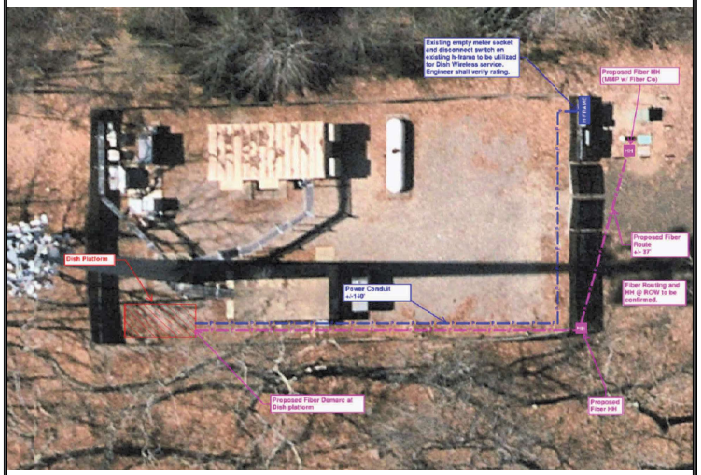
DC POWER WIRING SHALL BE COLOR CODED AT EACH END FOR IDENTIFYING +24V AND -48V CONDUCTORS. RED MARKINGS SHALL IDENTIFY +24V AND BLUE MARKINGS SHALL IDENTIFY -48V.

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

ELECTRICAL NOTES

NO SCALE

2



UTILITY ROUTING PLAN

NO SCALE

3

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STATE OF CONNECTICUT
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LICENSED
PROFESSIONAL ENGINEER
9/26/23

DRAWN BY:	CHECKED BY:	APPROVED BY:
LMS	MCK	KJC

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A&E PROJECT NUMBER
KHCLE-47791

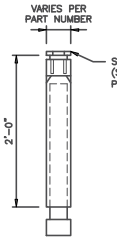
DISH Wireless L.L.C.
PROJECT INFORMATION
BOBOS01209A
49 BRAINERD ROAD
NIANTIC, CT 06357

SHEET TITLE
ELECTRICAL/FIBER ROUTE PLAN AND NOTES

SHEET NUMBER
E-1

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"

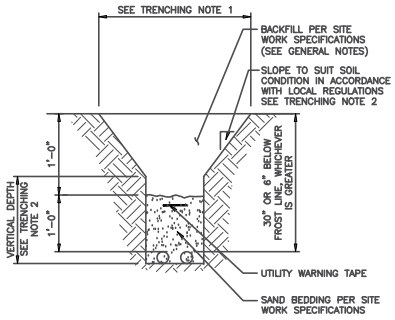


NOTE:
CONTRACTOR TO INSTALL EXPANSION FITTING SLIP JOINT AT METER CENTER CONDUIT TERMINATION, AS PER LOCAL UTILITY POLICY, ORDINANCE AND/OR SPECIFIED REQUIREMENT.

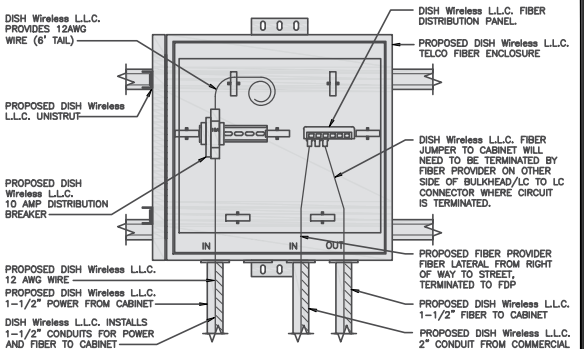
EXPANSION JOINT DETAIL | NO SCALE | 1

TRENCHING NOTES

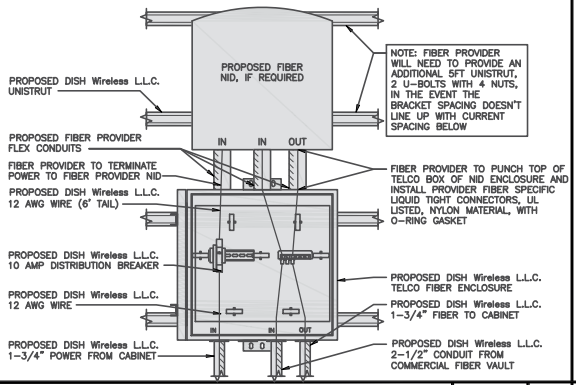
1. CONTRACTOR SHALL RESTORE THE TRENCH TO ITS ORIGINAL CONDITIONS BY EITHER SEEDING OR SODDING GRASS AREAS, OR REPLACING ASPHALT OR CONCRETE AREAS TO ITS ORIGINAL CROSS SECTION.
2. TRENCHING SAFETY; INCLUDING, BUT NOT LIMITED TO SOIL CLASSIFICATION, SLOPING, AND SHORING, SHALL BE GOVERNED BY THE CURRENT 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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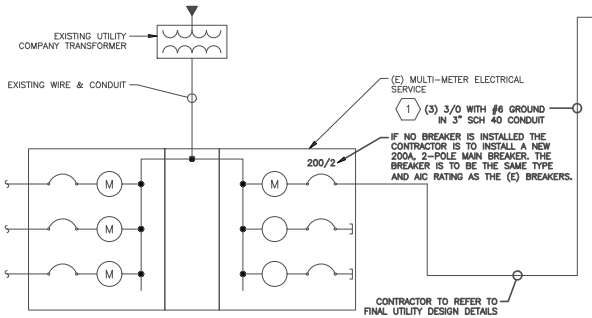
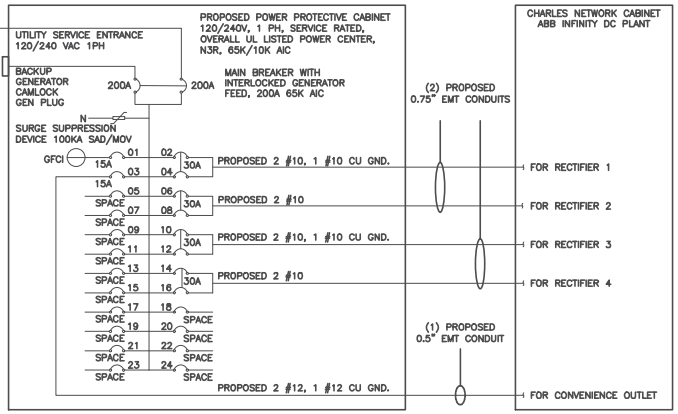
DISH Wireless L.L.C.
PROJECT INFORMATION
BOBOS01209A
49 BRAINERD ROAD
NIANTIC, CT 06357

SHEET TITLE
ELECTRICAL DETAILS

SHEET NUMBER
E-2





SERVICE/FEEDER CONDUCTOR LENGTH TABLE (BASED ON INDUSTRY STANDARD 3% VOLTAGE DROP AND 5% NEC ALLOWABLE LIMIT)						
	CONDUCTOR SIZES					
DESIGN LOADS	250 kcmil AL	300 kcmil AL	3/0 CU	4/0 CU	250 kcmil CU	300 kcmil CU
DISH Wireless L.L.C. MAXIMUM CONTINUOUS LOAD (160A) (NEC ARTICLE 220 & 230 3% VOLTAGE DROP)	130'	155'	145'	180'	215'	255'
DISH Wireless L.L.C. MAXIMUM CONTINUOUS LOAD (160A) (NEC ARTICLE 220 & 230 5% VOLTAGE DROP)	220'	260'	240'	300'	360'	425'

NOTES:
1. 250 MCM/KCMIL AL + #2 AL GRD MAY BE USED AS A REPLACEMENT FOR 3/0 CU + #6 CU GRD SERVICE CONDUCTOR FROM THE DISH Wireless L.L.C. FIRST MEANS OF DISCONNECT/UTILITY COMPANY MEET-ME POINT. REFER TO VALUES ABOVE TO LIMIT VOLTAGE DROP TO 3%.
2. ALUMINUM/COPPER CONDUCTORS MUST BE RATED 75°C.
3. ALUMINUM TO COPPER BUSS CONNECTIONS MUST MEET AND CONFORM TO ANSI AND BE UL LISTED. USE ANTI CORROSION CONDUCTIVE LUBRICANT ON CONNECTIONS
4. PPC MAIN DISCONNECT CIRCUIT BREAKERS ACCEPT #4 – 300KCMIL AL OR CU CONDUCTORS.
5. VOLTAGE DROP FOR SINGLE METER ENCLOSURE FED FROM TRANSFORMER WITH MULTIPLE CUSTOMERS IS CALCULATED FROM THE TRANSFORMER TO PPC. (SERVICE AND FEEDER CONDUCTOR LENGTH)
6. VOLTAGE DROP FOR MULTI-METER ENCLOSURE IS CALCULATED FROM THE METER TO PPC. (FEEDER CONDUCTOR LENGTH)
7. VOLTAGE DROP CALCULATIONS ARE BASED ON A POWER FACTOR OF 1, A LINE TO GROUND VOLTAGE PER CONDUCTOR OF 120V, NO CORRECTION FACTOR FOR AMBIENT TEMPERATURE OR ADJUSTMENT FACTOR FOR MORE THAN THREE CURRENT-CARRYING CONDUCTORS IN A SINGLE CONDUCT OR RACEWAY. A POWER FACTOR LESS THAN 1 OR VOLTAGE LESS THAN 120 WILL RESULT IN SHORTER DISTANCES THAN SHOWN IN TABLE.

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:
(4) 30A, 2P BREAKER – SQUARE D P/N:QO230
(2) 15A, 1P BREAKER – SQUARE D P/N:QO115

NOTES

THE ENGINEER OF RECORD HAS PERFORMED ALL REQUIRED SHORT CIRCUIT CALCULATIONS AND THE AIC RATINGS FOR EACH DEVICE IS ADEQUATE TO PROTECT THE EQUIPMENT AND THE ELECTRICAL SYSTEM.

THE ENGINEER OF RECORD HAS PERFORMED ALL REQUIRED VOLTAGE DROP CALCULATIONS AND ALL BRANCH CIRCUIT AND FEEDERS COMPLY WITH THE NEC (LISTED ON T-1) ARTICLE 210.19(A)(1) FPN NO. 4.

THE (2) CONDUITS WITH (4) CURRENT CARRYING CONDUCTORS EACH, SHALL APPLY THE ADJUSTMENT FACTOR OF 80% PER 2014/17 NEC TABLE 310.15(B)(3)(a) OR 2020 NEC TABLE 310.15(C)(1) FOR UL1015 WIRE.

#12 FOR 15A-20A/1P BREAKER: 0.8 x 30A = 24.0A
#10 FOR 25A-30A/2P BREAKER: 0.8 x 40A = 32.0A
#8 FOR 35A-40A/2P BREAKER: 0.8 x 55A = 44.0A
#6 FOR 45A-60A/2P BREAKER: 0.8 x 75A = 60.0A

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.

#12 – 0.0050 SQ. IN X 2 = 0.0100 SQ. IN
#12 – 0.0050 SQ. IN X 1 = 0.0050 SQ. IN <GROUND
TOTAL = 0.0150 SQ. IN

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

RECTIFIER CONDUCTORS (2 CONDUITS): USING UL1015, CU.

#10 – 0.0266 SQ. IN X 4 = 0.1064 SQ. IN
#10 – 0.0082 SQ. IN X 1 = 0.0082 SQ. IN <BARE GROUND
TOTAL = 0.1146 SQ. IN

0.75" EMT CONDUIT IS ADEQUATE TO HANDLE THE TOTAL OF (5) 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.

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

250kcmil AL – 0.3970 SQ. IN X 3 = 1.191 SQ. IN
#4 AL – 0.0824 SQ. IN X 1 = 0.0824 SQ.IN <GROUND
TOTAL = 1.2734 SQ. IN

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

PPC ONE-LINE DIAGRAM | NO SCALE | 1

PROPOSED CHARLES 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	30A	2880		ABB/GE INFINITY RECTIFIER 1
CHARLES GFCI OUTLET		180	15A	3	B	4			2880	
–SPACE–				5	A	6	30A	2880		ABB/GE INFINITY RECTIFIER 2
–SPACE–				7	B	8			2880	
–SPACE–				9	A	10	30A	2880		ABB/GE INFINITY RECTIFIER 3
–SPACE–				11	B	12			2880	
–SPACE–				13	A	14	30A	2880		ABB/GE INFINITY RECTIFIER 4
–SPACE–				15	B	16			2880	
–SPACE–				17	A	18				–SPACE–
–SPACE–				19	B	20				–SPACE–
–SPACE–				21	A	22				–SPACE–
–SPACE–				23	B	24				–SPACE–
VOLTAGE AMPS	180	180						11520	11520	
200A MCB, 1ø, 24 SPACE, 120/240V			L1		L2					
MB RATING: 65,000 AIC			11700		11700		VOLTAGE AMPS			
			98		98		AMPS			
			98				MAX AMPS			
			123				MAX 125%			

PANEL SCHEDULE | NO SCALE | 2

NOT USED | NO SCALE | 3

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WILLIAM C. EDMONSON
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LICENSED PROFESSIONAL ENGINEER
9/26/23

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A&E PROJECT NUMBER
KHCLE-47791

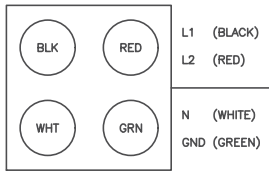
DISH Wireless L.L.C.
PROJECT INFORMATION
BOBOS01209A
49 BRAINERD ROAD
NIANTIC, CT 06357

SHEET TITLE
ELECTRICAL ONE-LINE, FAULT CALCS & PANEL SCHEDULE

SHEET NUMBER
E-3

NOTES:

1. HAZARD OF ELECTRICAL SHOCK OR BURN. TURN OFF POWER SUPPLYING THIS EQUIPMENT BEFORE WORKING INSIDE.
2. 100 OR 200 AMP, 240 VOLTS, SINGLE PHASE ALTERNATING CURRENT CIRCUIT ONLY
3. GENERATOR SHORT CIRCUIT RATING: 10,000 / 20,000 AMPS RMS SYMMETRICAL, AMPERES AT 240 VOLTS
4. UTILITY SHORT CIRCUIT RATING: 65,000 AMPS RMS SYMMETRICAL, AMPERES AT 240 VOLTS
5. SUITABLE FOR USE AS SERVICE EQUIPMENT
6. SUITABLE FOR USE IN ACCORDANCE WITH ARTICLE 702 OF THE NATIONAL ELECTRIC CODE ANSI/NFPA 70
7. BONDED NEUTRAL WHEN INSTALLED AS SHOWN IN WIRING DIAGRAM
8. RAIN PROOF TYPE 3R
9. USE CU–AL WIRE 60–75 °C
10. EQUIPPED WITH SLIDE BAR MECHANICAL INTERLOCK
11. INTERLOCK PROHIBITS BOTH POWER SOURCES FROM BEING IN THE ON POSITION SIMULTANEOUSLY
12. EQUIPPED WITH SQUARE D BREAKERS OR ALTERNATIVE MANUFACTURER EQUIVALENT
13. WHEN REPLACE LOAD CENTER BREAKERS, USE ONLY SQUARE D (QO TYPE) OF THE SAME RATING OR EQUIVALENT
14. WHEN RESETTING BREAKERS TURN TO OFF POSITION, THEN TO ON POSITION
15. WARNING: MAKE CONTINUITY CHECK WITH OHM METER TO VERIFY CORRECT PHASING AND GROUNDING CONNECTIONS BEFORE POWER UP
16. VERIFY PIN OUT CONFIGURATION OF GENERATOR PRIOR TO USE.
17. RISK OF ELECTRIC SHOCK, BOTH ENDS OF DISCONNECTING MEANS MAY BE ENERGIZED. TEST BEFORE SERVICING
18. THIS SWITCH BOARD MAY CONTAIN A TAP ON THE SERVICE SIDE OF THE MAIN POWER DISCONNECT FOR REMOTE MONITORING OF UTILITY/STANDBY POWER
19. THE NORMAL AC POWER MONITORING CIRCUIT MUST UTILIZE A DISCONNECTING MEANS WITH A SHORT CIRCUIT RATING GREATER THAN THE AVAILABLE INTERRUPTING CURRENT
20. A RED PUSH–TO–TRIP BUTTON PROVIDES A MEANS TO MECHANICALLY TRIP THE CIRCUIT BREAKER. THIS ACTION EXERCISES THE TRIPPING PORTION OF THE MECHANISM AND ALLOWS MAINTENANCE CHECK ON THE BREAKER



CAM–LOCK GENERATOR RECEPTACLE

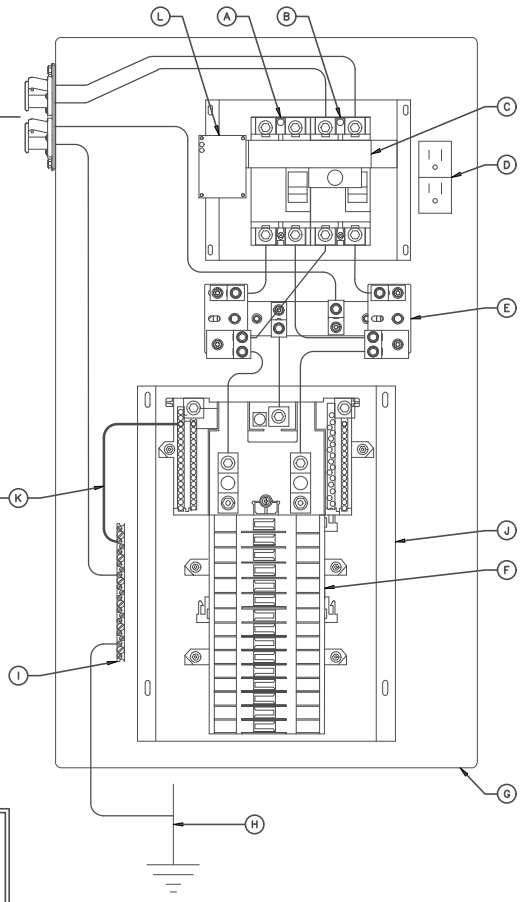
(AS VIEWED FROM OUTSIDE OF ENCLOSURE)
USE LINE UP PIN AS REFERENCE

REFER TO RECEPTACLE FOR MODEL NUMBER

DANGER:

HAZARD OF ELECTRICAL SHOCK OR BURN. TURN OFF POWER SUPPLYING THIS EQUIPMENT BEFORE WORKING INSIDE.

RAYCAP CUSTOMER SERVICE
(800) 890–2569



SUITABLE FOR USE AS SERVICE EQUIPMENT

ELECTRICAL RATING 120/240 VOLTS SINGLE PHASE 60 Hz	
NORMAL AC POWER 100A☐ 200A☐	GENERATOR POWER 100A☐ 200A☐

CAUTION:

- THE OPERATING HANDLE ASSUMES A CENTER POSITION WHEN THE CIRCUIT BREAKER IS TRIPPED
- THE BREAKER CAN BE RESET BY OPERATING THE HANDLE TO THE EXTREME OFF POSITION AND THEN TO ON
- SLIDE BAR MECHANICAL INTERLOCK TRANSFERS NORMAL AC POWER TO GENERATOR POWER. THE SLIDE BAR MECHANICAL INTERLOCK PROHIBITS BOTH POWER SOURCES FROM BEING IN THE ON POSITION SIMULTANEOUSLY
- TO TRANSFER FROM ON POWER SOURCE TO THE OTHER POWER SOURCE, SWITCH ON BREAKER TO THE OFF POSITION, MOVE THE SLIDE BAR TO THE OTHER SIDE AND THE SWITCH THE OTHER BREAKER TO THE ON POSITION

200A UTILITY FEED

THIS SWITCHBOARD UTILITY MAN BREAKER IS SUITABLE FOR USE ON CIRCUIT CAPABLE OF DELIVERING NOT MORE THAN 65,000 RMS SYMMETRICAL AMPS, 240 VOLTS MAXIMUM.

LOAD SIZE CIRCUIT BREAKERS				LINE SIDE MAIN CIRCUIT BREAKER					
MFR.	TYPE	POLES	AMP RATING	MFR.	TYPE	AMP RATING	SYMMET. AMP RMS	VOLTS AC	PHASES
SQ–D	QO	1/2	15–100A	SQ–D	QGL	200A	65,000A	240V	2

200A GENERATOR FEED

THIS SWITCHBOARD GENERATOR POWER CIRCUIT IS SUITABLE FOR USE ON A CIRCUIT CAPABLE OF DELIVERING NOT MORE THAN 10,000 RMS SYMMETRICAL AMPS, 240 VOLTS MAXIMUM.

LOAD SIZE CIRCUIT BREAKERS				LINE SIDE MAIN CIRCUIT BREAKER					
MFR.	TYPE	POLES	AMP RATING	MFR.	TYPE	AMP RATING	SYMMET. AMP RMS	VOLTS AC	PHASES
SQ–D	QO	1/2	15–100A	SQ–D	QGL	200A	65,000A	240V	2

MAXIMUM CONTINUOUS LOADS NOT TO EXCEED 80% OF THE OVER–CURRENT PROTECTIVE DEVICE (CIRCUIT BREAKER AND FUSES) RATINGS EMPLOYED IN OTHER THAN MOTOR CIRCUITS, EXCEPT FOR THOSE CIRCUITS EMPLOYING CIRCUIT BREAKERS MARKED AS SUITABLE FOR CONTINUOUS OPERATION AT 100% OF THEIR RATINGS. CONDUCTORS ARE NOT TO ENTER OR LEAVE THE ENCLOSURE DIRECTLY OPPOSITE THE WIRING TERMINAL

NEUTRAL–TO–GROUND NOTES:

- WHEN THE PPC IS USED AS THE SERVICE ENTRANCE DEVICE, THE NEUTRAL TO GROUND BOND NEEDS TO BE ESTABLISHED IN THE PPC.
- WHEN THE SERVICE ENTRY DEVICE IS A MULTI–METER CENTER OR A PRE–PPC DISCONNECT IS USED AND HAS "NEUTRAL TO GROUND" ACCOMMODATIONS, THE NEUTRAL TO GROUND WIRE IN THE PPC IS NOT REQUIRED.
- THE GREEN #6 WIRE IS PROVIDED WITH THE PPC CABINET AS A SEPARATE UNINSTALLED PART TO BE INSTALLED BY CONTRACTOR IF NEEDED.

NEUTRAL–TO–GROUND CONDING JUMPER

INSTALLTION INSTRUCTIONS:

- IF REQUIRED, THE N–G BONDING KIT SHOULD BE INSTALLED BY QUALIFIED PERSONNEL
- ENSURE THE MAIN BREAKERS ARE OFF
- USE THE GREEN #6 WIRE PROVIDED WITH THE PPC
- INSTALL THE JUMPER AS SHOWN IN THE WIRING DIAGRAM
- TIGHTEN TERMINALS TO TORQUE VALUE SHOWN IN TORQUE TABLE
- PLACE THE PROVIDED "SERVICE" LABEL IN THE SPACE BELOW THE WORDS "AC POWER" LOCATED ABODE THE MAIN CIRCUIT BREAKER IN THE UPPER PORTION OF THE DEAD FRONT

LEGEND:

A. UTILITY DISCONNECT (SERVICE RATED)
B. GENERATOR DISCONNECT
C. MAIN DISCONNECT CIRCUIT BREAKERS W/ MECHANICAL INTERLOCK
D. GFCI RECEPTACLE 15A
E. SPD STRIKESORB KELVIN CONNECTION (TYP OF 2)
F. BREAKER PANEL – 24 POSITION (CONTRACTOR TO ADD APPROPRIATE BREAKER PER ONE–LINE DIAGRAM PANEL SCHEDULE)
G. POWER PROTECTION CABINET (PPC) (FULLY ASSEMBLED FROM MANUFACTURER)
H. CONTRACTOR TO ATTACH TO UNDERGROUND GROUNDING HALO OR INSTALL GROUND ROD WHEN REQUIRED BY CODE
I. GROUND BAR
J. SQUARE D Q SERIES LOAD CENTER
K. NETURAL–TO–GROUND (N–G) BONDING JUMPER (CONTRACTOR INSTALLED IF REQUIRED)
L. OPTIONAL SPD STATUS INDICATORS

RAYCAP POWER PROTECTION CABINET – RDIAC–2465–P–240–MTS (NEUTRAL–TO–GROUND)

NO SCALE

1

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49 BRAINERD ROAD
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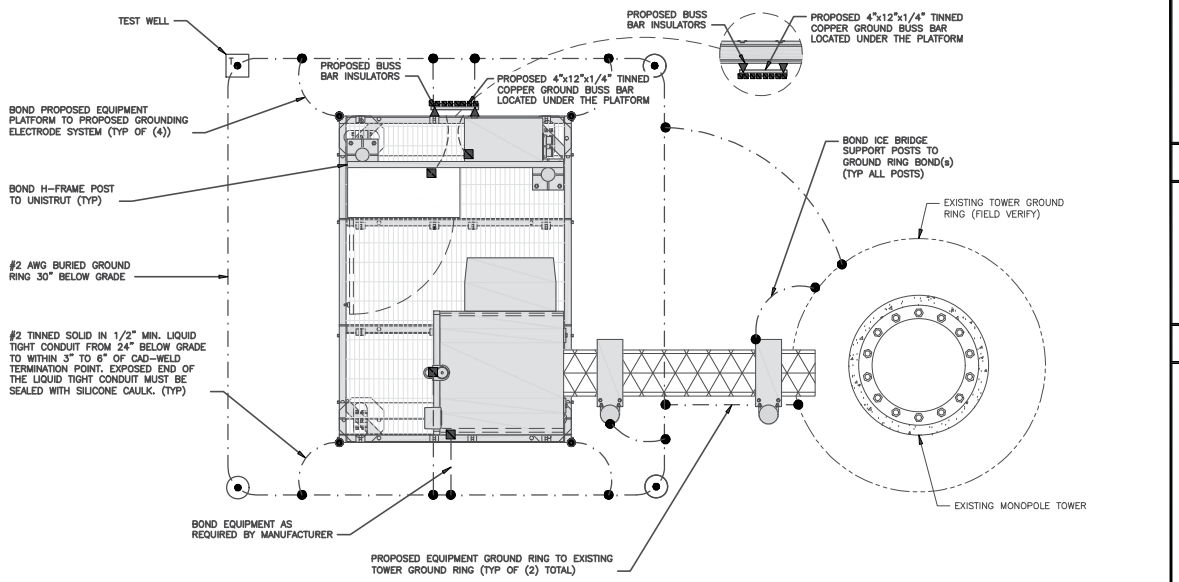
SHEET TITLE

PPC NEUTRAL–TO–GROUND SCHEMATIC

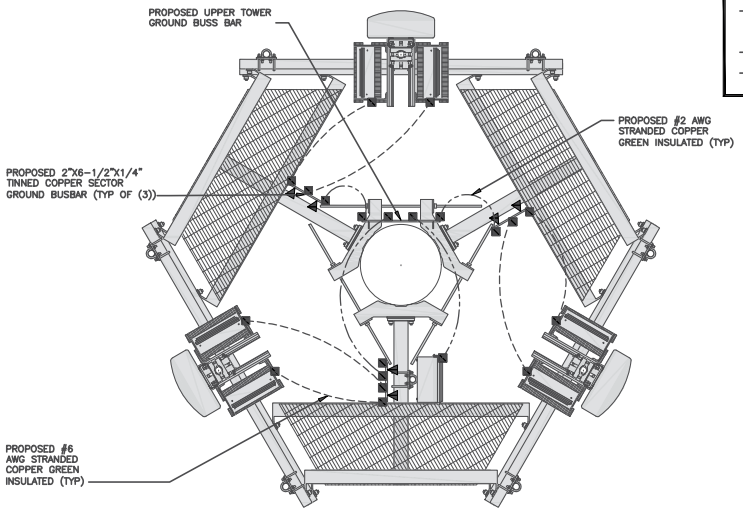
SHEET NUMBER

E-4



TYPICAL EQUIPMENT GROUNDING PLAN

NO SCALE | 1



NOTES

- ANTENNAS AND OVP SHOWN ARE GENERIC AND NOT REFERENCING TO A SPECIFIC MANUFACTURER. THIS LAYOUT IS FOR REFERENCE PURPOSES ONLY
- SECTOR BUSSBARS SHALL BE INSTALLED WITH INSULATORS
- UPPER TOWER BUSSBAR SHALL BE INSTALLED WITH OUT INSULATORS

TYPICAL ANTENNA GROUNDING PLAN

NO SCALE | 2

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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WILLIAM C. EDMONSON
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9/26/23

DRAWN BY:	CHECKED BY:	APPROVED BY:
LMS	MCK	KJC

APPLICATION REV #: 1

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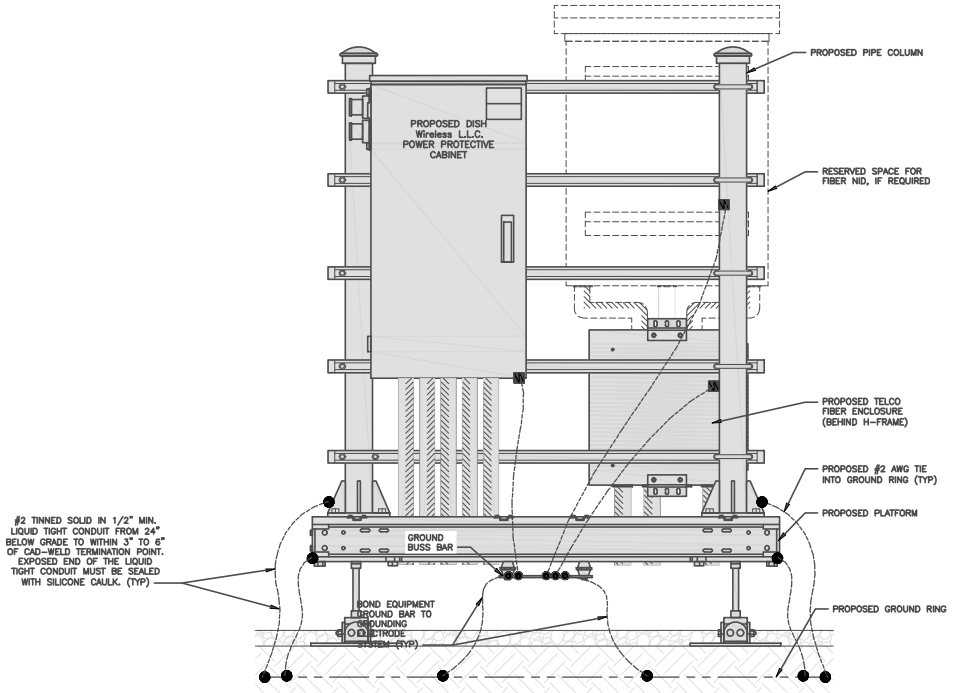
DISH Wireless L.L.C.
PROJECT INFORMATION
BOBOS01209A
49 BRAINERD ROAD
NIANTIC, CT 06357

SHEET TITLE
GROUNDING PLANS AND NOTES

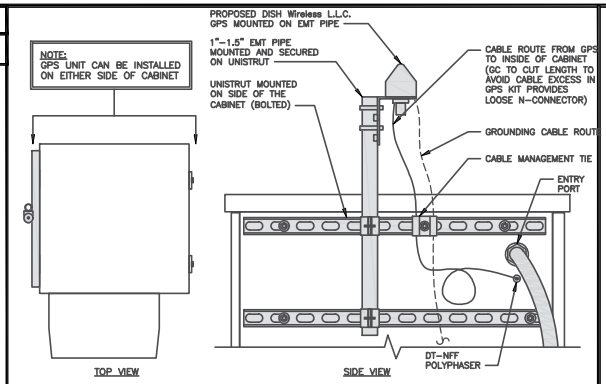
SHEET NUMBER
G-1

NOTES

EQUIPMENT CABINET OMITTED FOR CLARITY

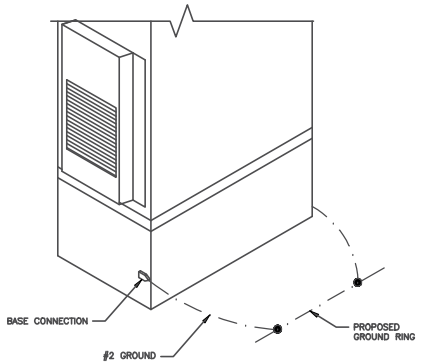


H-FRAME GROUNDING DETAIL — NO SCALE — 1

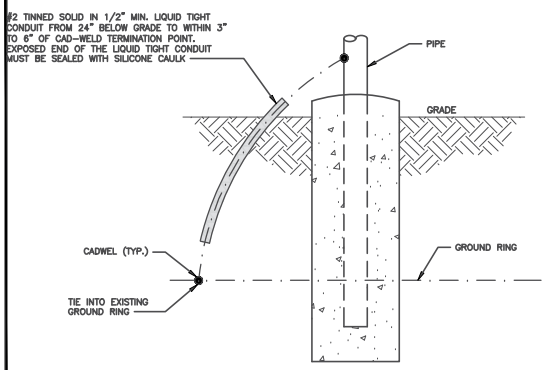


TYPICAL PCTEL GPS UNIT GROUNDING — NO SCALE — 2

NOT USED — NO SCALE — 3



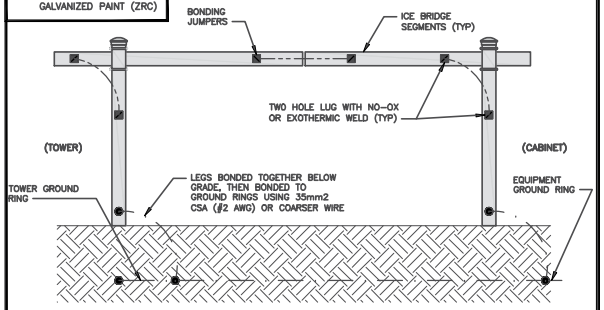
OUTDOOR CABINET GROUNDING — NO SCALE — 4



TRANSITIONING GROUND DETAIL — NO SCALE — 5

NOTES

- DRILLED HOLES TO BE SPRAYED WITH GALVANIZED PAINT (ZRC)



ICE BRIDGE GROUNDING DETAIL — NO SCALE — 6

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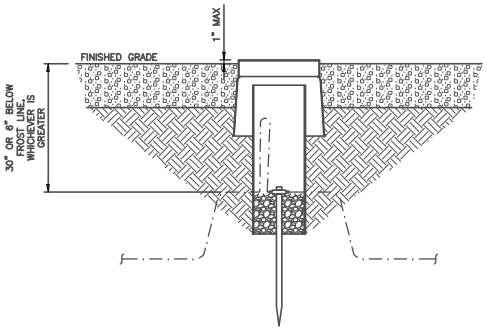
NIANTIC, CT 06357

SHEET TITLE

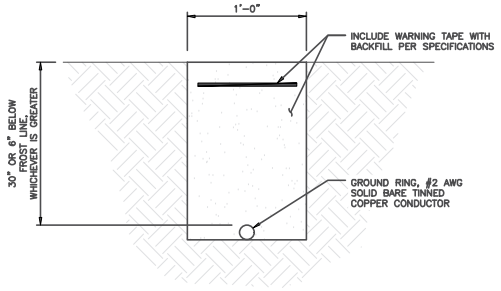
GROUNDING DETAILS

SHEET NUMBER

G-2



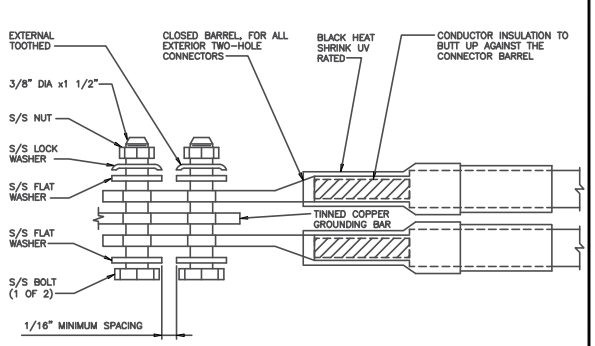
TYPICAL TEST GROUND ROD WITH INSPECTION SLEEVE | NO SCALE | 1



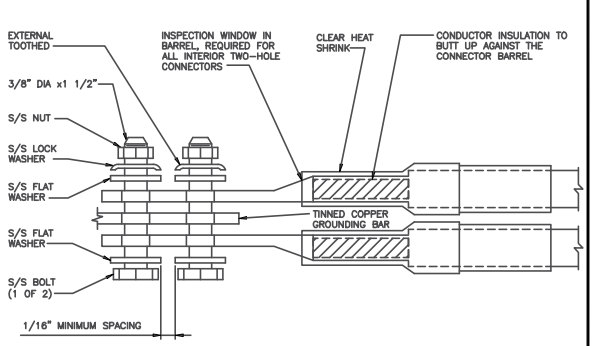
TYPICAL GROUND RING TRENCH | NO SCALE | 2

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).

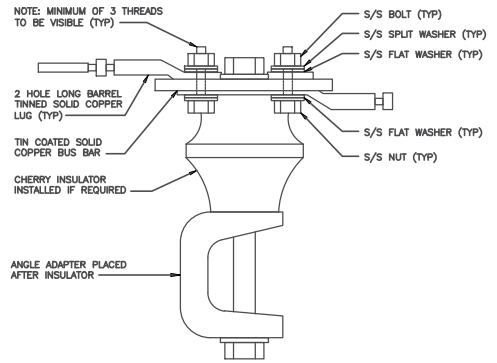
TYPICAL GROUNDING NOTES | NO SCALE | 3



TYPICAL EXTERIOR TWO HOLE LUG | NO SCALE | 4



TYPICAL INTERIOR TWO HOLE LUG | NO SCALE | 5



LUG DETAIL | NO SCALE | 6

NOT USED | NO SCALE | 7

NOT USED | NO SCALE | 8

NOT USED | NO SCALE | 9

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PROJECT INFORMATION
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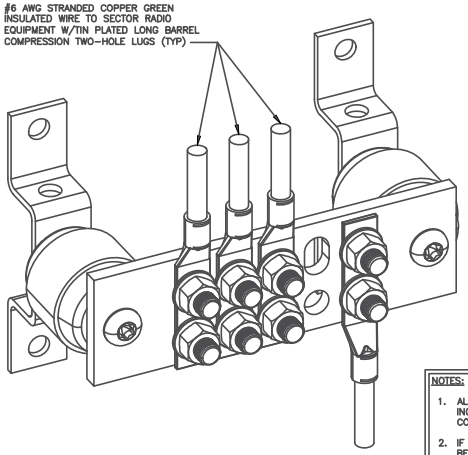
49 BRAINERD ROAD
NIANTIC, CT 06357

SHEET TITLE
GROUNDING DETAILS

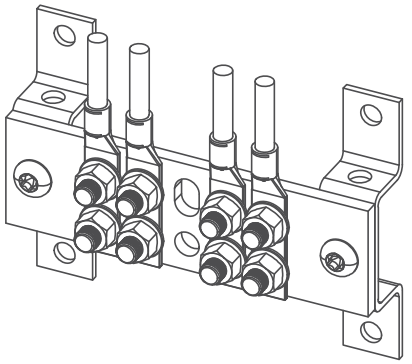
SHEET NUMBER
G-3



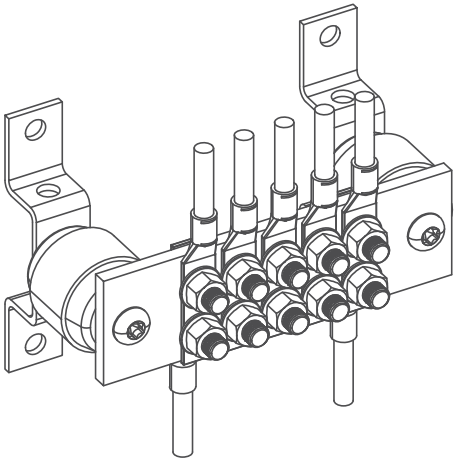
NOTES:

1. ALL HARDWARE SHALL BE BE 18-8 STAINLESS STEEL INCLUDING WASHERS. COAT ALL SURFACES WITH NO-OX COMPOUND BEFORE MATING.
2. IF BONDING TO STEEL, INSERT A TOOTH WASHER BETWEEN LUG AND STEEL AND COAT ALL SURFACE WITH NO-OX COMPOUND.
3. USE A THIN COAT OF NO-OX OR UL LISTED ANTIOXIDANT COMPOUND BETWEEN GROUNDING CONNECTIONS.

SECTOR GROUND BUSBAR DETAIL | NO SCALE | 1



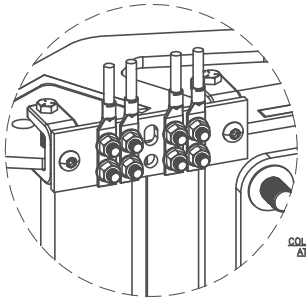
UPPER TOWER GROUND BUSBAR DETAIL | NO SCALE | 2



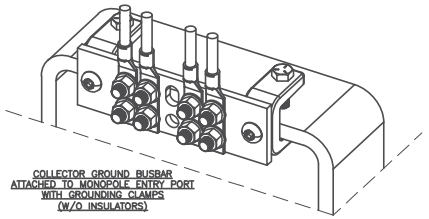
NOTES:

1. IN CASES OF SHEATHED STRANDED WIRES, CONNECTOR SHALL HAVE INSPECTION WINDOW AND NO MORE THAN 1/8" GAP BETWEEN CONNECTOR BODY AND SHEATH.

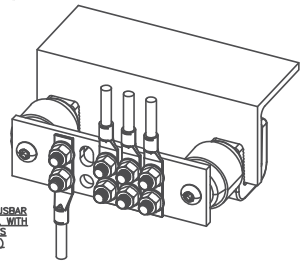
EQUIPMENT GROUND BUSBAR DETAIL | NO SCALE | 3



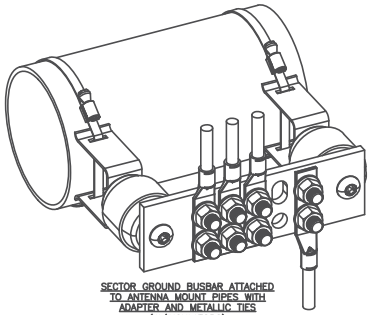
COLLECTOR GROUND BUSBAR ATTACHED TO COLLAR OR SECTOR MOUNT (W/O INSULATORS)



COLLECTOR GROUND BUSBAR ATTACHED TO MONOPOLE ENTRY PORT WITH GROUNDING CLAMPS (W/O INSULATORS)



SECTOR GROUND BUSBAR ATTACHED TO METAL WITH ANGLE ADAPTERS (W/INSULATORS)



SECTOR GROUND BUSBAR ATTACHED TO ANTENNA MOUNT PIPES WITH ADAPTER AND METALLIC TIES (W/INSULATORS)

GROUND BUSBAR ATTACHMENT OPTIONS | NO SCALE | 4

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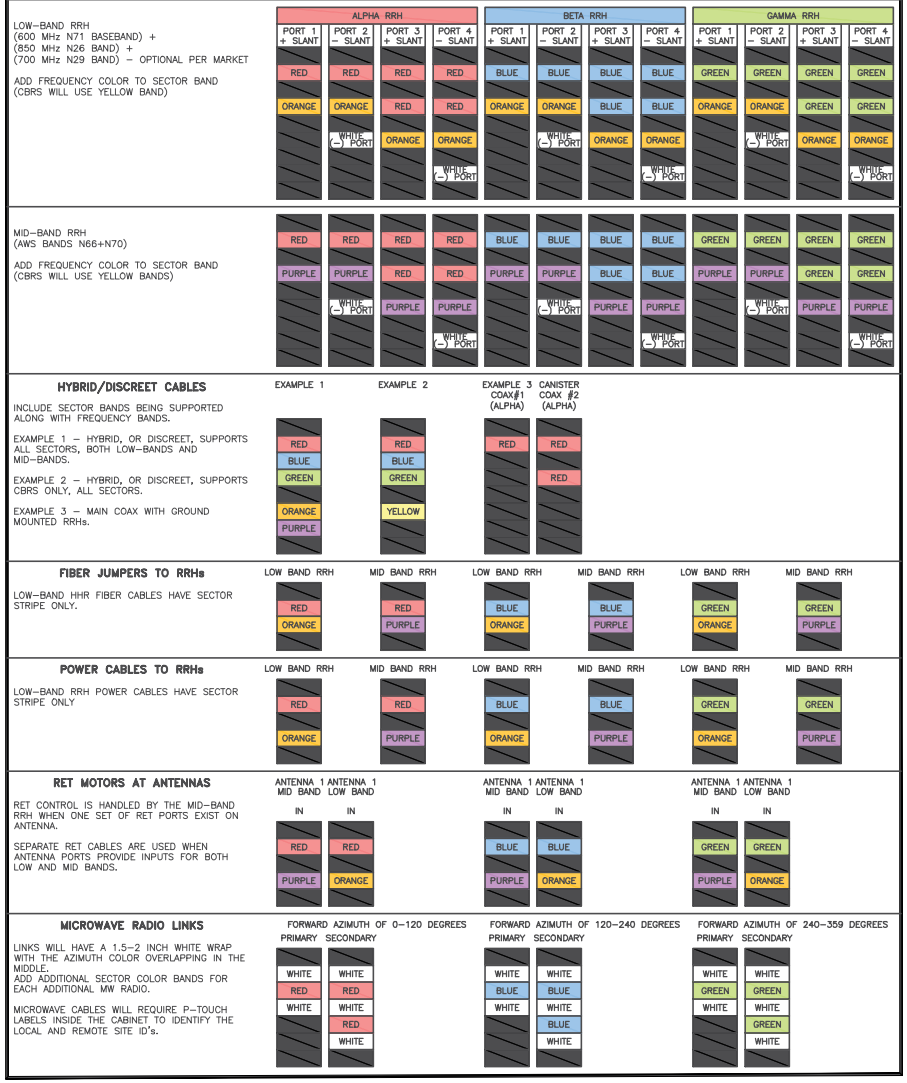
SHEET TITLE

GROUNDING DETAILS

SHEET NUMBER

G-4

HYBRID/DISCREET CABLES — 3/4" TAPE WIDTHS WITH 3/4" SPACING



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.

EXAMPLE 3 – MAIN COAX WITH GROUND MOUNTED RRHs.

FIBER JUMPERS TO RRHs

LOW-BAND HHR FIBER CABLES HAVE SECTOR STRIPE ONLY.

POWER CABLES TO RRHs

LOW-BAND RRH POWER CABLES HAVE SECTOR STRIPE ONLY

RET MOTORS AT ANTENNAS

RET CONTROL IS HANDLED BY THE MID-BAND RRH WHEN ONE SET OF RET PORTS EXIST ON ANTENNA.

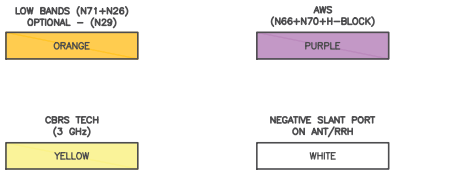
SEPARATE RET CABLES ARE USED WHEN ANTENNA PORTS PROVIDE INPUTS FOR BOTH LOW AND MID BANDS.

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 | 1



COLOR IDENTIFIER | 2

NOT USED | 3

NOT USED | 4

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SHEET TITLE

RF
CABLE COLOR CODES

SHEET NUMBER

RF-1

LEGEND

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

SECTION REFERENCE

DETAIL REFERENCE

ABBREVIATIONS

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	UNINTERRUPTIBLE POWER SYSTEM (DC POWER PLANT)
VIF	VERIFIED IN FIELD
W	WIDE
W/	WITH
WD	WOOD
WP	WEATHERPROOF
WT	WEIGHT

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STATE OF CONNECTICUT
WILLIAM C. EDMONSON
35630
LICENSED
PROFESSIONAL ENGINEER
9/26/23

DRAWN BY:	CHECKED BY:	APPROVED BY:
LMS	MCK	KJC

APPLICATION REV #: 1

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
A	08/11/2023	ISSUED FOR REVIEW
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A&E PROJECT NUMBER

KHCLE–47791

DISH Wireless L.L.C.
PROJECT INFORMATION

BOBOS01209A
49 BRAINERD ROAD
NIANTIC, CT 06357

SHEET TITLE

LEGEND AND ABBREVIATIONS

SHEET NUMBER

GN-1

SIGN TYPES

TYPE	COLOR	COLOR CODE PURPOSE
INFORMATION	GREEN	**"INFORMATIONAL SIGN"** TO NOTIFY OTHERS OF SITE OWNERSHIP & CONTACT NUMBER AND POTENTIAL RF EXPOSURE.
NOTICE	BLUE	**"NOTICE BEYOND THIS POINT"** RF FIELDS BEYOND THIS POINT MAY EXCEED THE FCC GENERAL PUBLIC EXPOSURE LIMIT. OBEY ALL POSTED SIGNS AND SITE GUIDELINES FOR WORKING IN RF ENVIRONMENTS. IN ACCORDANCE WITH FEDERAL COMMUNICATIONS COMMISSION RULES ON RADIO FREQUENCY EMISSIONS 47 CFR-1.1307(b)
CAUTION	YELLOW	**"CAUTION BEYOND THIS POINT"** RF FIELDS BEYOND THIS POINT MAY EXCEED THE FCC GENERAL PUBLIC EXPOSURE LIMIT. OBEY ALL POSTED SIGNS AND SITE GUIDELINES FOR WORKING IN RF ENVIRONMENTS. IN ACCORDANCE WITH FEDERAL COMMUNICATIONS COMMISSION RULES ON RADIO FREQUENCY EMISSIONS 47 CFR-1.1307(b)
WARNING	ORANGE/RED	**"WARNING BEYOND THIS POINT"** RF FIELDS AT THIS SITE EXCEED FCC RULES FOR HUMAN EXPOSURE. FAILURE TO OBEY ALL POSTED SIGNS AND SITE GUIDELINES FOR WORKING IN RF ENVIRONMENTS COULD RESULT IN SERIOUS INJURY. IN ACCORDANCE WITH FEDERAL COMMUNICATIONS COMMISSION RULES ON RADIO FREQUENCY EMISSIONS 47 CFR-1.1307(b)

SIGN PLACEMENT:

- RF SIGNAGE PLACEMENT SHALL FOLLOW THE RECOMMENDATIONS OF AN EXISTING EME REPORT, CREATED BY A THIRD PARTY PREVIOUSLY AUTHORIZED BY DISH Wireless L.L.C.
- INFORMATION SIGN (GREEN) SHALL BE LOCATED ON EXISTING DISH Wireless L.L.C EQUIPMENT.
  A) IF THE INFORMATION SIGN IS A STICKER, IT SHALL BE PLACED ON EXISTING DISH Wireless L.L.C EQUIPMENT CABINET.
  B) IF THE INFORMATION SIGH IS A METAL SIGN IT SHALL BE PLACED ON EXISTING DISH Wireless L.L.C H-FRAME WITH A SECURE ATTACH METHOD.
- IF EME REPORT IS NOT AVAILABLE AT THE TIME OF CREATION OF CONSTRUCTION DOCUMENTS; PLEASE CONTACT DISH Wireless L.L.C. CONSTRUCTION MANAGER FOR FURTHER INSTRUCTION ON HOW TO PROCEED.

NOTES:

1. FOR DISH Wireless L.L.C. LOGO, SEE DISH Wireless L.L.C. DESIGN SPECIFICATIONS (PROVIDED BY DISH Wireless L.L.C.)
2. SITE ID SHALL BE APPLIED TO SIGNS USING "LASER ENGRAVING" OR ANY OTHER WEATHER RESISTANT METHOD (DISH Wireless L.L.C. APPROVAL REQUIRED)
3. TEXT FOR SIGNAGE SHALL INDICATE CORRECT SITE NAME AND NUMBER AS PER DISH Wireless L.L.C. CONSTRUCTION MANAGER RECOMMENDATIONS.
4. CABINET/SHELTER MOUNTING APPLICATION REQUIRES ANOTHER PLATE APPLIED TO THE FACE OF THE CABINET WITH WATER PROOF POLYURETHANE ADHESIVE
5. ALL SIGNS WILL BE SECURED WITH EITHER STAINLESS STEEL ZIP TIES OR STAINLESS STEEL TECH SCREWS
6. ALL SIGNS TO BE 8.5"x11" AND MADE WITH 0.04" OF ALUMINUM MATERIAL

INFORMATION

This is an access point to an area with transmitting antennas.

Obey all signs and barriers beyond this point.
Call the DISH Wireless L.L.C. NOC at 1-866-624-6874

Site ID: BOBOS01209A

THIS SIGN IS FOR REFERENCE PURPOSES ONLY

NOTICE

Transmitting Antenna(s)

Radio frequency fields beyond this point MAY *EXCEED* the FCC Occupational exposure limit.

Obey all posted signs and site guidelines for working in radio frequency environments.

Call the DISH Wireless L.L.C. NOC at 1-866-624-6874 prior to working beyond this point.

Site ID: BOBOS01209A

dish

THIS SIGN IS FOR REFERENCE PURPOSES ONLY

CAUTION

Transmitting Antenna(s)

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dish

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dish

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RF SIGNAGE

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DISH Wireless L.L.C.
PROJECT INFORMATION
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49 BRAINERD ROAD
NIANTIC, CT 06357

SHEET TITLE
RF SIGNAGE

SHEET NUMBER
GN-2

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.

dish wireless.

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SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-3

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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WILLIAM C. EDMONSON
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LICENSED
PROFESSIONAL ENGINEER
9/26/23

DRAWN BY:	CHECKED BY:	APPROVED BY:
LMS	MCK	KJC

APPLICATION REV #: 1

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
A	08/11/2023	ISSUED FOR REVIEW
0	08/25/2023	ISSUED FOR PERMIT

A&E PROJECT NUMBER

KHCLE-47791

DISH Wireless L.L.C.
PROJECT INFORMATION

BOBOS01209A
49 BRAINERD ROAD
NIANTIC, CT 06357

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-4

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.

dish wireless.

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SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-5

EXHIBIT 7

Structural Analysis

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sbasite.com

Structural Analysis Report

Client: Dish Wireless

Client Site ID / Name: BOBOS01209A / 0
Application #: 234520, v1

SBA Site ID / Name: CT11794-S / East Lyme 1

170 ft Monopole

49 Brainerd Road
Niantic, Connecticut 06357
Lat: 41.307583, Long: -72.223917

Project number: CT11794-DW-082323

Analysis Results

Tower	83.1%	Pass
Foundation	94.0%	Pass

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

Prepared by:

Serge Berthomieux
Structural Engineer I
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Reviewed by:

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August 24, 2023

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08/24/23

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August 24, 2023

Table of Contents

Introduction

The purpose of this report is to summarize the analysis results on the 170 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 Towers & Poles, Job# 42498. Dated 04/06/2011
Foundation drawings	Sabre Towers & Poles, Job# 42498. Dated 04/06/2011
Geotechnical report	Tower Engineering Professionals, Project #: 103196.01. Dated 03/18/2011.
Mount Analysis	N/A
Modification drawings	N/A
Latest SA	SBAE, Project # CT11794-ATT-031023, Dated 03/13/2022

Analysis Criteria

Table 2 Code Related Data

Jurisdiction (State/County/City)	Connecticut/NEW LONDON/Niantic
Governing Codes	ANSI/TIA/EIA 222-H, 2021 IBC / 2022 CSBC
Ultimate Wind Speed (3-Sec gust)	126.0 mph
Wind Speed with Ice (3-Sec gust)	50 mph
Service Wind Speed (3-Sec gust)	60 mph
Ice Thickness	1.00”
Risk Category	II
Exposure Category	C
Topographic Category	1
Crest Height	0 ft
Ground Elevation	13.5 ft.
Seismic Parameter S_s	0.195
Seismic Parameter S_1	0.053

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

Appurtenance Loading

Existing Loading:

Table 3 Existing Appurtenances

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1	171.75	3	Ericsson AIR 6419 B77G - Panel	(3) Reinforced T-Arms	(1) 2" Conduit housing (1) 3/8" Fiber & (2) 0.64" Fiber (1) 1/2" Fiber (4) 0.64" DC Power (6) 1 5/8" (1) 1.5" Fiber	AT&T
2	170.0	6	Ericsson RRUS-12			
3		3	Ericsson RRUS-32			
4		6	Ericsson RRUS A2			
5		3	Raycap DC6-48-60-18-8F			
6		3	CCI DTMABP7819VG12A TMA			
7		1	CCI TPA65R-BU4DA-K - Panel			
8		1	CCI TPA65R-BU6DA-K - Panel			
9		1	CCI TPA65R-BU8DA-K - Panel			
10		3	Ericsson 8843 B2 B66A RRU			
11		1	CCI OPA65R-BU4DA - Panel			
12		1	Commscope NNHH-65B-R4 - Panel			
13		1	Commscope OPA65R-BU8DA - Panel			
14		3	Ericsson RRUS 4478 B14 RRU			
15		3	Ericsson 4449 B5/B12 RRU			
16	168.75	3	Ericsson AIR 6449 B77D - Panel			
17	160.0	3	Ericsson KRY 112 144/1 TMA	(3) Modified T-Arm w/ Site Pro 1: PRK-1245L and PRK-SFS-L	(7) 1 5/8" (3) 1 5/8" Fiber (2) 1.9" Fiber	T-Mobile
18		3	Ericsson AIR 6419 B41 - Panel			
19		3	Commscope VV-65A-R1 - Panel			
20		3	RFS APXVAALL24_43-U-NA20 - Panel			
21		3	Ericsson 4449 B71 + B85 RRU			
22		3	Ericsson 4460 B25/B66A RRU			
23	147.0	3	Samsung MT6407-77A - Panel	Low Profile Platform Mofidied	(12) 1 5/8" (2) 1 5/8" Hybrid	Verizon
24		6	JMA Wireless MX06FRO660-03 - Panel			
25		3	Samsung RF4439d-25A			
26		3	Samsung RF4440d-13A			
27		1	Raycap 12 OVP			

Proposed Loading:

Information pertaining to proposed antennas and transmission lines were based upon the Application #: 234520, v1 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
28	135.0	3	Commscope FFVV-65B-R2 - Panel	Platform w/HRK Commscope: MC-PK8-DSH	(1) 1.60" Hybrid	Dish Wireless
29		3	Samsung RF4450t-71A RRU			
30		3	Samsung RF4451d-70A RRU			
31		1	Raycap RDIDC-9181-PF-48			

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
Max. Usage:	83.1%	81.4%	48.9%
Pass/Fail	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	94.0%	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 83.08% at 0.0ft

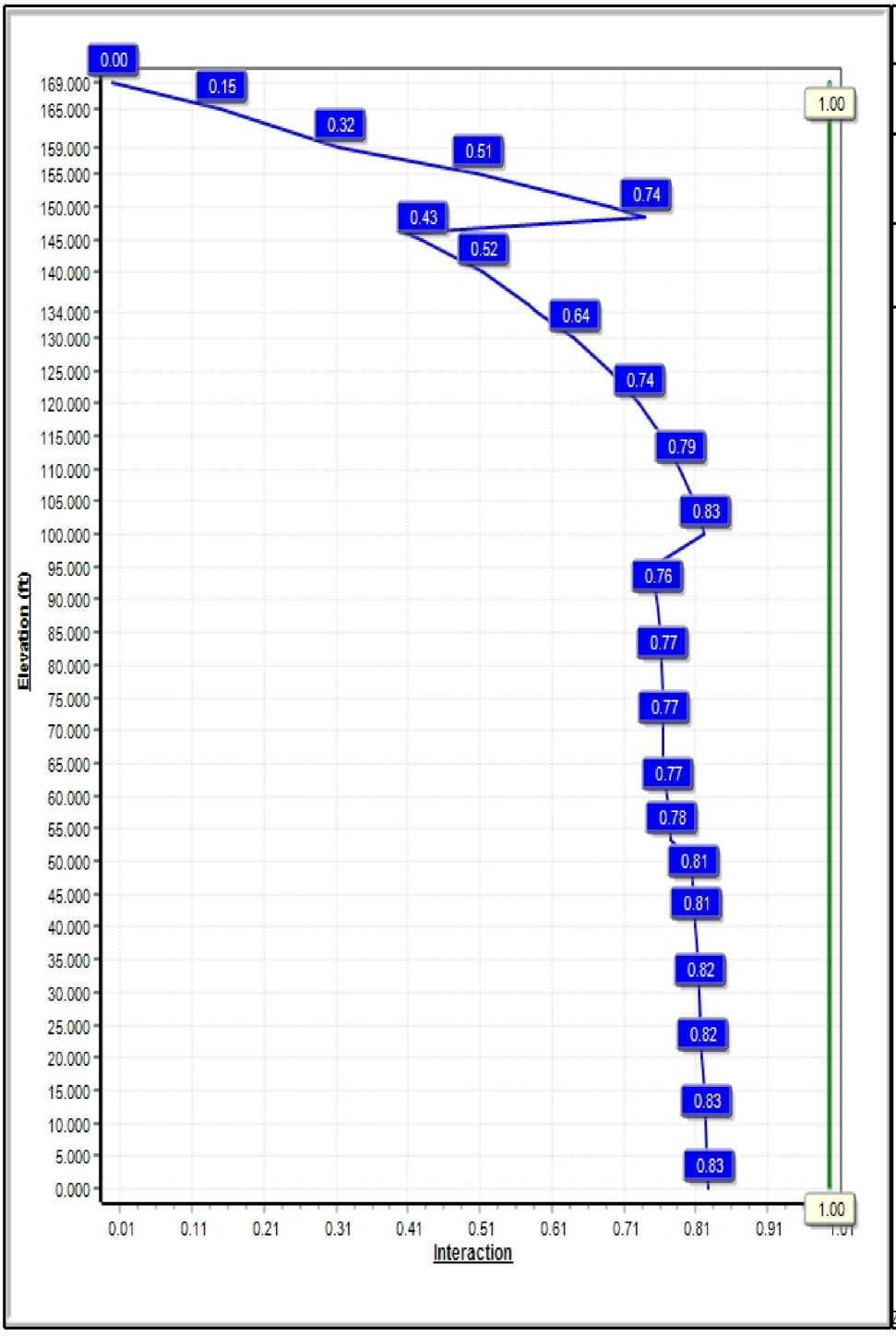
Structure:	CT11794-S	**Code:**	EIA/TIA-222-H	8/24/2023
Site Name:	East Lyme 1	**Exposure:**	C	
Height:	169.00 (ft)	**Gh:**	1.1	
Base Elev:	1.000 (ft)			Page: 1

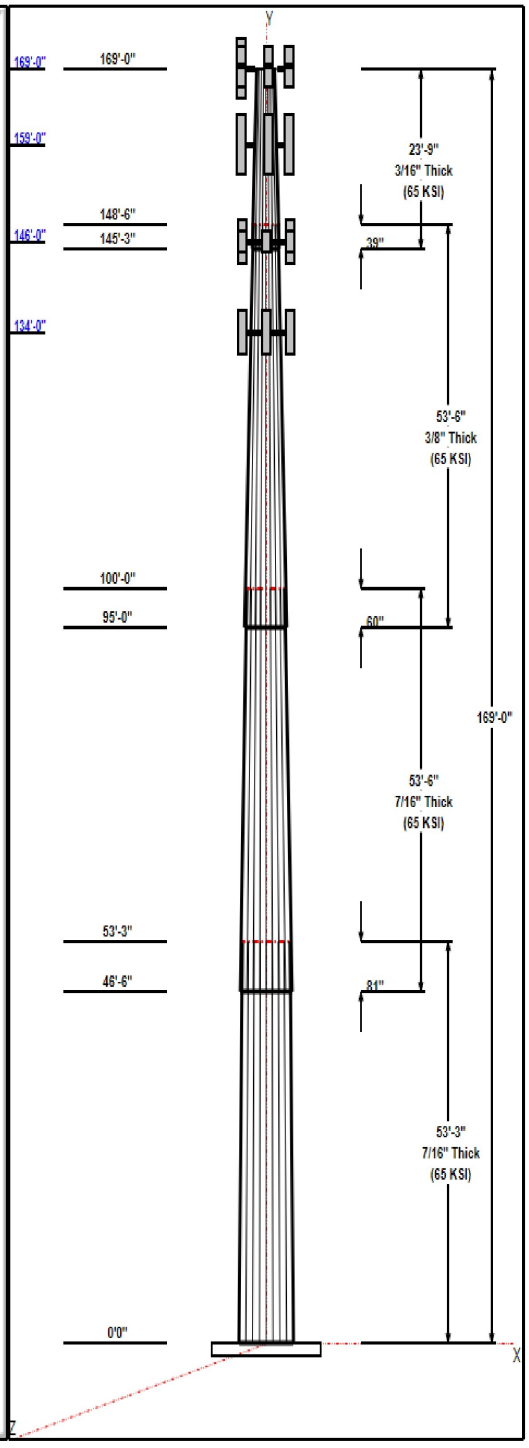
SBA

Dead Load Factor:	1.20
Wind Load Factor:	1.00

Load Case : 1.2D + 1.0W 126 mph Wind

Iterations: 26





Structure: CT11794-S

Type: Tapered
Site Name: East Lyme 1
Height: 169.00 (ft)
Base Elev: 1.00 (ft)

Base Shape: 18 Sided
Taper: 0.27302

8/24/2023

Shaft Properties

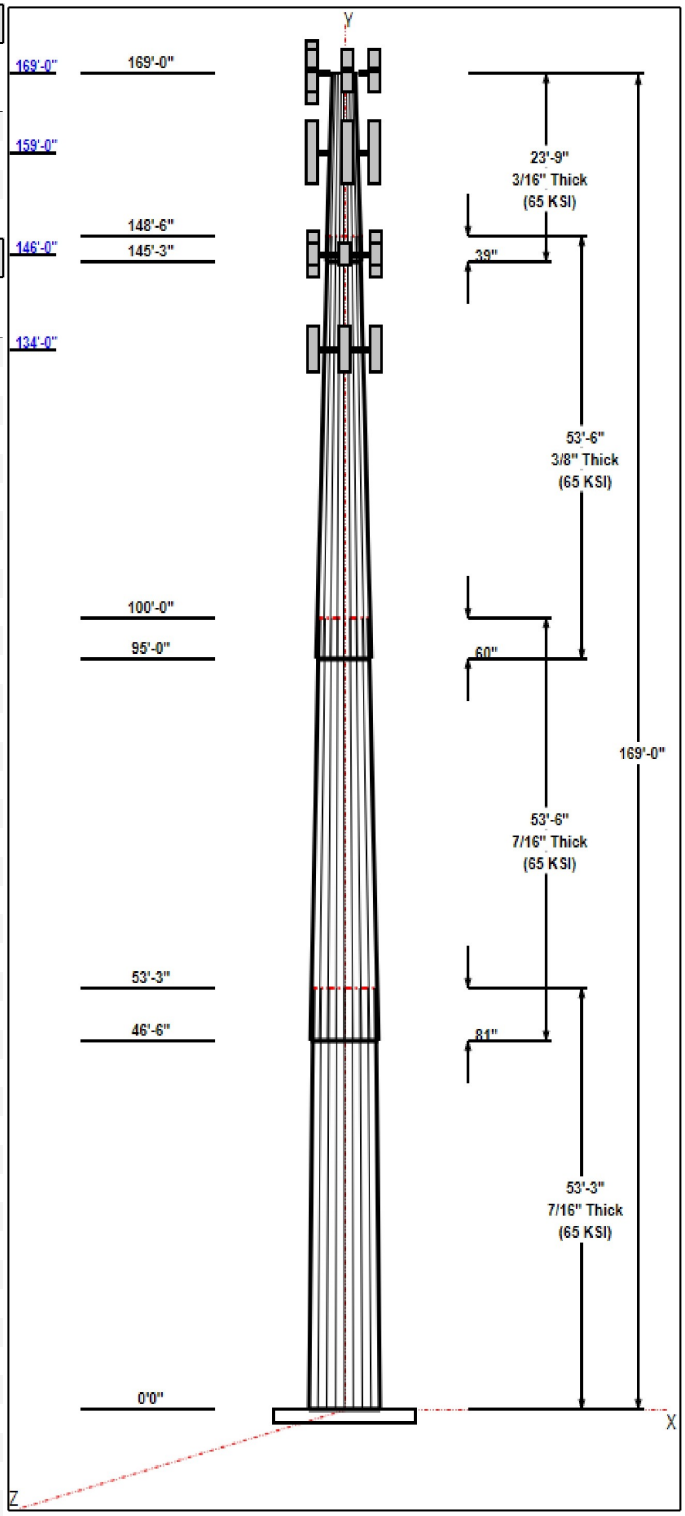
Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	53.25	45.60	60.14	0.438		0.27302	65
2	53.50	33.71	48.32	0.438	Slip	0.27302	65
3	53.50	21.22	35.83	0.375	Slip	0.27302	65
4	23.75	16.00	22.48	0.188	Slip	0.27302	65

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
169.00	169.00	6	Ericsson RRUS-12 RRU	AT&T
169.00	169.00	3	Ericsson RRUS 32 RRU	AT&T
169.00	169.00	6	Ericsson RRUS A2 RRU	AT&T
169.00	169.00	3	Raycap DC6-48-60-18-8F	AT&T
169.00	169.00	3	Reinforced T-Arms	AT&T
169.00	169.00	3	CCI DTMABP7819VG12A	AT&T
169.00	167.75	3	Ericsson AIR 6449 B77D	AT&T
169.00	170.75	3	Ericsson AIR 6419 B77G	AT&T
169.00	169.00	1	CCI TPA65R-BU4DA-K	AT&T
169.00	169.00	1	CCI TPA65R-BU6DA-K	AT&T
169.00	169.00	1	CCI TPA65R-BU8DA-K	AT&T
169.00	169.00	3	Ericsson 8843 B2 B66A	AT&T
169.00	169.00	1	CCI OPA65R-BU4DA	AT&T
169.00	169.00	1	Commscope	AT&T
169.00	169.00	1	Commscope	AT&T
169.00	169.00	3	Ericsson RRUS 4478 B14	AT&T
169.00	169.00	3	Ericsson 4449 B5/B12	AT&T
169.00	169.00	12	mount pipe	T-Mobile
159.00	159.00	12	mount pipe	T-Mobile
159.00	159.00	3	Ericsson KRY 112 144/1	T-Mobile
159.00	159.00	1	PRK-1245L	T-Mobile
159.00	159.00	1	PRK-SFS-L	T-Mobile
159.00	159.00	3	T-Arm	T-Mobile
159.00	159.00	3	Ericsson AIR 6419 B41	T-Mobile
159.00	159.00	3	Commscope VV-65A-R1	T-Mobile
159.00	159.00	3	RFS	T-Mobile
159.00	159.00	3	Ericsson 4449 B71 + B85	T-Mobile
159.00	159.00	3	Ericsson 4460 B25/B66A	T-Mobile
146.00	146.00	3	Samsung MT6407-77A	Verizon
146.00	146.00	6	JMA Wireless	Verizon
146.00	146.00	3	Samsung RF4439d-25A	Verizon
146.00	146.00	3	Samsung RF4440d-13A	Verizon
146.00	146.00	1	Raycap 12 OVP	Verizon
146.00	146.00	1	Mods	Verizon
146.00	146.00	1	Low Profile Platform	Verizon
146.00	146.00	12	mount pipe	Verizon
134.00	134.00	3	Commscope	Dish Wireless
134.00	134.00	3	Samsung RF4450t-71A	Dish Wireless
134.00	134.00	3	Samsung RF4451d-70A	Dish Wireless
134.00	134.00	1	Raycap	Dish Wireless
134.00	134.00	1	Platform w/HRK	Dish Wireless

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	169.00	Inside	0.64" DC Power	AT&T



0.00	169.00	Inside	0.64" Fiber	AT&T
0.00	169.00	Inside	1 5/8" Coax	AT&T
0.00	169.00	Inside	1.5" Fiber	AT&T
0.00	169.00	Inside	1/2" Fiber	AT&T
0.00	169.00	Inside	2" Conduit	AT&T
0.00	169.00	Inside	3/8" Fiber	AT&T
0.00	169.00	Outside	Safety Cable	
0.00	169.00	Outside	Step bolts	
0.00	159.00	Inside	1 5/8" Coax	T-Mobile
0.00	159.00	Inside	1 5/8" Fiber	T-Mobile
0.00	159.00	Inside	1.9" Fiber	T-Mobile
0.00	146.00	Inside	1 5/8" Coax	Verizon
0.00	146.00	Inside	1 5/8" Hybrid	Verizon
0.00	134.00	Inside	1.60" Hybrid	Dish Wireless

Anchor Bolts

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

Base Plate

Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
2.7500	72.8	50.0	Round

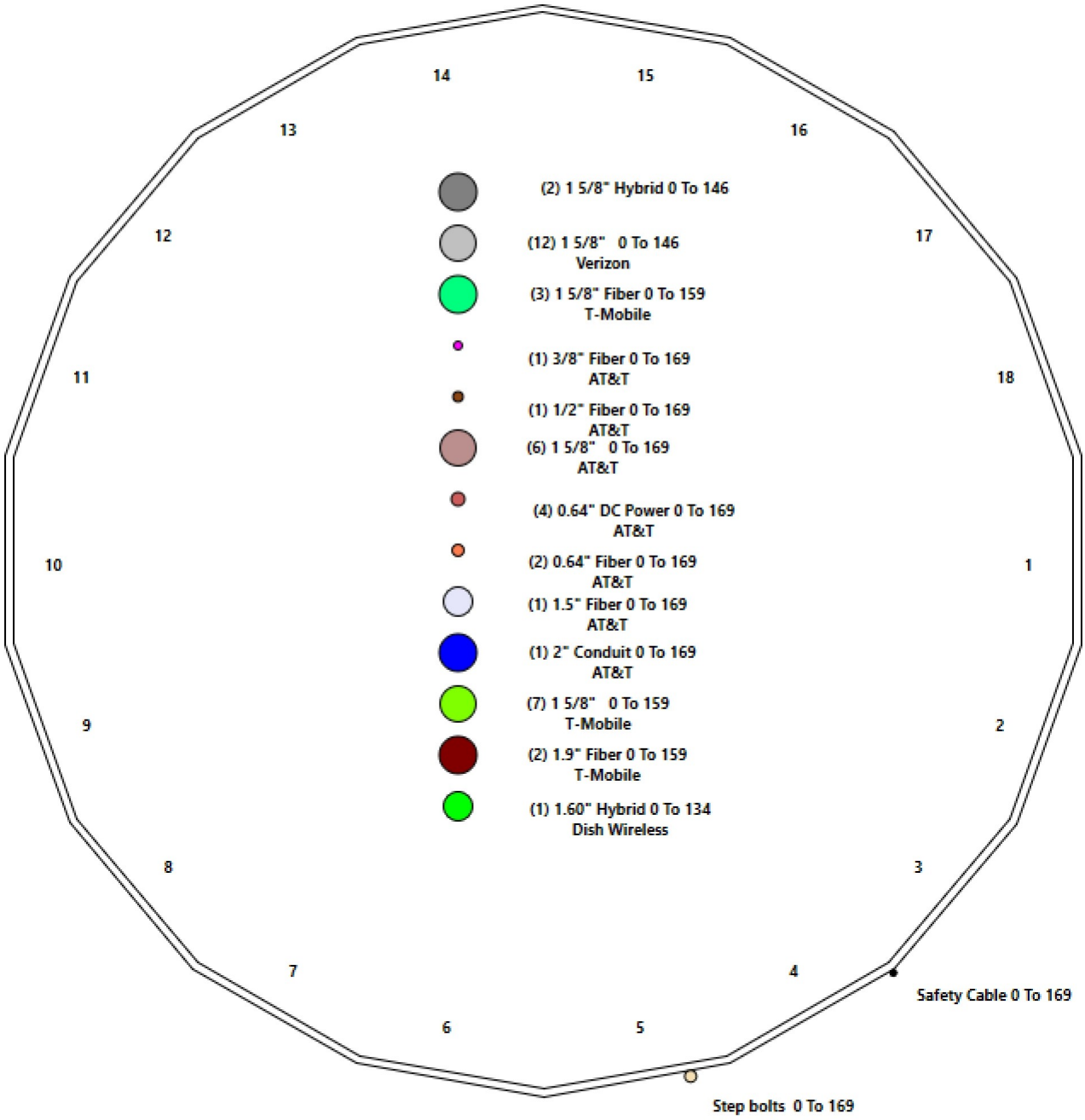
Reactions

Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.0W 126 mph Wind	5599.3	43.7	60.4
0.9D + 1.0W 126 mph Wind	5515.4	43.6	45.2
1.2D + 1.0Di + 1.0Wi 50 mph Wind	1248.6	10.3	62.3
1.2D + 1.0Ev + 1.0Eh	120.6	0.8	62.6
0.9D + 1.0Ev + 1.0Eh	119.2	0.8	47.4
1.0D + 1.0W 60 mph Wind	1128.6	8.9	50.4

Structure: CT11794-S - Coax Line Placement

Type: Monopole
Site Name: East Lyme 1
Height: 169.00 (ft)

8/24/2023



Shaft Properties

Structure:	CT11794-S		**Code:**	TIA-222-H	8/24/2023
Site Name:	East Lyme 1		**Exposure:**	C	
Height:	169.00 (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	0.4375	65		0.00	13,193
2	18	53.500	0.4375	65	Slip	81.00	10,258
3	18	53.500	0.3750	65	Slip	60.00	6,099
4	18	23.750	0.1875	65	Slip	39.00	916
					Total Shaft Weight:		**30,466**

	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	60.14	0.00	82.90	37333.61	22.83	137.46	45.60	53.25	62.71	16162.5	16.97	104.2	0.273018
2	48.32	46.50	66.49	19259.46	18.06	110.44	33.71	100.00	46.21	6464.05	12.18	77.06	0.273018
3	35.83	95.00	42.20	6701.10	15.44	95.54	21.22	148.50	24.81	1362.38	8.57	56.59	0.273018
4	22.48	145.2	13.27	833.42	19.73	119.92	16.00	169.00	9.41	297.27	13.64	85.33	0.273018

Load Summary

Structure:	CT11794-S	**Code:**	TIA-222-H	8/24/2023	
Site Name:	East Lyme 1	**Exposure:**	C		
Height:	169.00 (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	169.00	Ericsson RRUS-12 RRU	6	58.00	3.15	0.67	117.87	3.618	0.67	0.00	0.00
2	169.00	Ericsson RRUS 32 RRU	3	77.00	3.87	0.67	148.61	3.836	0.67	0.00	0.00
3	169.00	Ericsson RRUS A2 RRU	6	22.00	1.86	0.67	47.30	2.517	0.67	0.00	0.00
4	169.00	Raycap DC6-48-60-18-8F	3	32.80	1.47	0.67	74.53	1.942	0.67	0.00	0.00
5	169.00	Reinforced T-Arms	3	450.00	14.00	1.00	662.06	22.247	1.00	0.00	0.00
6	169.00	CCI DTMABP7819VG12A TMA	3	19.18	1.14	0.67	36.39	1.659	0.67	0.00	0.00
7	169.00	Ericsson AIR 6449 B77D	3	88.00	4.13	0.85	175.35	4.697	0.85	0.00	-1.25
8	169.00	Ericsson AIR 6419 B77G	3	66.10	3.80	0.76	131.05	4.337	0.76	0.00	1.75
9	169.00	CCI TPA65R-BU4DA-K	1	67.50	12.87	0.72	269.05	13.865	0.72	0.00	0.00
10	169.00	CCI TPA65R-BU6DA-K	1	67.50	12.87	0.72	269.05	13.865	0.72	0.00	0.00
11	169.00	CCI TPA65R-BU8DA-K	1	82.50	17.87	0.72	350.22	19.083	0.72	0.00	0.00
12	169.00	Ericsson 8843 B2 B66A RRU	3	72.00	1.64	0.67	103.62	1.975	0.67	0.00	0.00
13	169.00	CCI OPA65R-BU4DA	1	43.00	4.96	0.94	138.89	5.605	0.94	0.00	0.00
14	169.00	Commscope NNHH-65B-R4	1	79.00	12.27	1.00	259.63	13.253	1.00	0.00	0.00
15	169.00	Commscope OPA65R-BU8DA	1	79.00	17.87	1.00	322.17	19.083	1.00	0.00	0.00
16	169.00	Ericsson RRUS 4478 B14 RRU	3	59.40	1.65	0.67	87.39	2.000	0.67	0.00	0.00
17	169.00	Ericsson 4449 B5/B12 RRU	3	71.00	1.97	0.67	107.04	2.340	0.67	0.00	0.00
18	169.00	mount pipe	12	30.00	1.36	1.00	44.14	2.161	1.00	0.00	0.00
19	159.00	mount pipe	12	30.00	1.38	1.00	44.05	2.188	1.00	0.00	0.00
20	159.00	Ericsson KRY 112 144/1 TMA	3	11.00	0.41	0.70	18.23	0.729	0.70	0.00	0.00
21	159.00	PRK-1245L	1	464.91	9.50	1.00	682.68	16.175	1.00	0.00	0.00
22	159.00	PRK-SFS-L	1	394.00	16.60	1.00	879.74	24.764	1.00	0.00	0.00
23	159.00	T-Arm	3	400.00	8.00	1.00	587.36	12.684	1.00	0.00	0.00
24	159.00	Ericsson AIR 6419 B41	3	133.20	6.53	0.70	237.07	7.239	0.70	0.00	0.00
25	159.00	Commscope VV-65A-R1	3	29.50	7.90	0.74	138.13	8.740	0.74	0.00	0.00
26	159.00	RFS APXVAALL24_43-U-NA20	3	122.80	20.24	0.73	398.08	21.499	0.73	0.00	0.00
27	159.00	Ericsson 4449 B71 + B85 RRU	3	73.20	1.97	0.67	111.94	2.352	0.67	0.00	0.00
28	159.00	Ericsson 4460 B25/B66A RRU	3	72.00	1.64	0.67	103.43	1.973	0.67	0.00	0.00
29	146.00	Samsung MT6407-77A	3	79.40	4.69	0.70	153.93	5.289	0.71	0.00	0.00
30	146.00	JMA Wireless MX06FRO660-03	6	60.00	9.87	0.87	226.48	10.759	0.88	0.00	0.00
31	146.00	Samsung RF4439d-25A RRU	3	74.71	1.87	0.84	108.33	2.231	0.85	0.00	0.00
32	146.00	Samsung RF4440d-13A RRU	3	70.33	1.87	0.80	103.03	2.231	0.82	0.00	0.00
33	146.00	Raycap 12 OVP	1	32.00	4.06	1.00	107.89	4.603	1.00	0.00	0.00
34	146.00	Mods	1	389.00	13.79	1.00	660.01	20.195	1.00	0.00	0.00
35	146.00	Low Profile Platform	1	1250.00	14.69	1.00	1975.71	22.877	1.00	0.00	0.00
36	146.00	mount pipe	12	30.00	1.47	1.00	47.42	2.289	1.00	0.00	0.00
37	134.00	Commscope FFVV-65B-R2	3	70.80	12.27	0.73	246.89	13.229	0.75	0.00	0.00
38	134.00	Samsung RF4450t-71A RRU	3	94.58	2.06	0.67	158.34	2.658	0.67	0.00	0.00
39	134.00	Samsung RF4451d-70A RRU	3	61.30	1.88	0.67	102.63	2.425	0.67	0.00	0.00
40	134.00	Raycap RDIDC-9181-PF-48	1	21.85	2.01	1.00	49.87	2.641	1.00	0.00	0.00
41	134.00	Platform w/HRK Commscope:	1	1736.00	34.19	1.00	3238.97	53.871	1.00	0.00	0.00
		Totals:	**133**	**13,311.16**			**25,161.34**				

Linear Appurtenances

Bottom Elev. (ft)	Top Elev. (ft)	Description	Exposed Width	Exposed

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)
0.00	169.00	(4) 0.64" DC Power			0.00	Inside					
0.00	169.00	(2) 0.64" Fiber			0.00	Inside					
0.00	169.00	(6) 1 5/8" Coax			0.00	Inside					
0.00	169.00	(1) 1.5" Fiber			0.00	Inside					
0.00	169.00	(1) 1/2" Fiber			0.00	Inside					
0.00	169.00	(1) 2" Conduit			0.00	Inside					
0.00	169.00	(1) 3/8" Fiber			0.00	Inside					
0.00	169.00	(1) Safety Cable			0.38	Outside					
0.00	169.00	(1) Step bolts			0.63	Outside					
0.00	159.00	(7) 1 5/8" Coax			0.00	Inside					
0.00	159.00	(3) 1 5/8" Fiber			0.00	Inside					
0.00	159.00	(2) 1.9" Fiber			0.00	Inside					
0.00	146.00	(12) 1 5/8" Coax			0.00	Inside					
0.00	146.00	(2) 1 5/8" Hybrid			0.00	Inside					
0.00	134.00	(1) 1.60" Hybrid			0.00	Inside					

Shaft Section Properties

Structure:	CT11794-S		**Code:**	TIA-222-H	8/24/2023
Site Name:	East Lyme 1		**Exposure:**	C	
Height:	169.00 (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		0.4375	60.140	82.901	37333.6	22.83	137.46	74.6	1222.	0.0
5.00		0.4375	58.775	81.006	34830.8	22.28	134.34	75.2	1167.	1394.4
10.00		0.4375	57.410	79.110	32442.5	21.73	131.22	75.8	1113.	1362.1
15.00		0.4375	56.045	77.215	30165.9	21.18	128.10	76.5	1060.	1329.8
20.00		0.4375	54.680	75.319	27998.4	20.63	124.98	77.1	1008.	1297.6
25.00		0.4375	53.315	73.424	25937.3	20.08	121.86	77.8	958.2	1265.3
30.00		0.4375	51.949	71.528	23979.9	19.53	118.74	78.4	909.2	1233.1
35.00		0.4375	50.584	69.633	22123.5	18.98	115.62	79.1	861.4	1200.8
40.00		0.4375	49.219	67.737	20365.5	18.43	112.50	79.7	815.0	1168.6
45.00		0.4375	47.854	65.842	18703.2	17.88	109.38	80.4	769.8	1136.3
46.50	Bot - Section 2	0.4375	47.445	65.273	18222.8	17.71	108.44	80.6	756.5	334.6
50.00		0.4375	46.489	63.946	17133.9	17.33	106.26	81.0	725.9	1553.4
53.25	Top - Section 1	0.4375	46.477	63.929	17120.2	17.32	106.23	0.0	0.0	1414.2
55.00		0.4375	45.999	63.266	16592.7	17.13	105.14	81.3	710.5	378.7
60.00		0.4375	44.634	61.370	15145.5	16.58	102.02	81.9	668.3	1060.3
65.00		0.4375	43.269	59.475	13785.0	16.03	98.90	82.5	627.5	1028.0
70.00		0.4375	41.904	57.579	12508.5	15.48	95.78	82.5	587.9	995.8
75.00		0.4375	40.539	55.683	11313.4	14.93	92.66	82.5	549.7	963.5
80.00		0.4375	39.174	53.788	10196.9	14.38	89.54	82.5	512.7	931.3
85.00		0.4375	37.808	51.892	9156.4	13.83	86.42	82.5	477.0	899.0
90.00		0.4375	36.443	49.997	8189.2	13.28	83.30	82.5	442.6	866.8
95.00	Bot - Section 3	0.4375	35.078	48.101	7292.7	12.73	80.18	82.5	409.5	834.5
100.00	Top - Section 2	0.3750	34.463	40.572	5956.5	14.79	91.90	0.0	0.0	1506.4
105.00		0.3750	33.098	38.947	5269.1	14.15	88.26	82.5	313.6	676.5
110.00		0.3750	31.733	37.323	4636.8	13.51	84.62	82.5	287.8	648.8
115.00		0.3750	30.368	35.698	4057.3	12.87	80.98	82.5	263.1	621.2
120.00		0.3750	29.003	34.073	3528.1	12.23	77.34	82.5	239.6	593.5
125.00		0.3750	27.638	32.448	3047.1	11.58	73.70	82.5	217.2	565.9
130.00		0.3750	26.273	30.824	2611.9	10.94	70.06	82.5	195.8	538.3
134.00		0.3750	25.181	29.524	2295.2	10.43	67.15	82.5	179.5	410.7
135.00		0.3750	24.908	29.199	2220.3	10.30	66.42	82.5	175.6	99.9
140.00		0.3750	23.543	27.574	1869.9	9.66	62.78	82.5	156.4	483.0
145.00		0.3750	22.177	25.949	1558.4	9.02	59.14	82.5	138.4	455.3
145.25	Bot - Section 4	0.3750	22.109	25.868	1543.8	8.99	58.96	82.5	137.5	22.0
146.00		0.3750	21.904	25.624	1500.6	8.89	58.41	82.5	134.9	99.4
148.50	Top - Section 3	0.1875	21.597	12.741	737.8	18.90	115.18	0.0	0.0	324.6
150.00		0.1875	21.187	12.497	696.3	18.51	113.00	79.6	64.7	64.4
155.00		0.1875	19.822	11.685	569.1	17.23	105.72	81.1	56.6	205.7
159.00		0.1875	18.730	11.035	479.4	16.20	99.89	82.3	50.4	154.6
160.00		0.1875	18.457	10.872	458.5	15.95	98.44	82.5	48.9	37.3
165.00		0.1875	17.092	10.060	363.2	14.66	91.16	82.5	41.9	178.1
169.00		0.1875	16.000	9.410	297.3	13.64	85.33	82.5	36.6	132.5
										30466.3

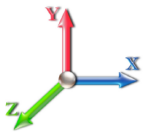
Wind Loading - Shaft

Structure:	CT11794-S	**Code:**	TIA-222-H	8/24/2023	
Site Name:	East Lyme 1	**Exposure:**	C		
Height:	169.00 (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 + 1.0W 126 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 26

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	32.803	36.08	591.02	0.730	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	32.803	36.08	577.61	0.730	0.000	5.00	25.156	18.36	662.6	0.0	1673.2
10.00		1.00	0.85	32.803	36.08	564.19	0.730	0.000	5.00	24.579	17.94	647.4	0.0	1634.5
15.00		1.00	0.86	33.208	36.53	554.17	0.730	0.000	5.00	24.001	17.52	640.0	0.0	1595.8
20.00		1.00	0.91	35.165	38.68	556.37	0.730	0.000	5.00	23.423	17.10	661.4	0.0	1557.1
25.00		1.00	0.95	36.782	40.46	554.81	0.730	0.000	5.00	22.846	16.68	674.8	0.0	1518.4
30.00		1.00	0.99	38.169	41.99	550.71	0.730	0.000	5.00	22.268	16.26	682.5	0.0	1479.7
35.00		1.00	1.02	39.390	43.33	544.75	0.730	0.000	5.00	21.691	15.83	686.1	0.0	1441.0
40.00		1.00	1.05	40.483	44.53	537.35	0.730	0.000	5.00	21.113	15.41	686.3	0.0	1402.3
45.00		1.00	1.07	41.476	45.62	528.82	0.730	0.000	5.00	20.536	14.99	683.9	0.0	1363.6
46.50	Bot - Section 2	1.00	1.08	41.757	45.93	526.06	0.730	0.000	1.50	6.048	4.42	202.8	0.0	401.5
50.00		1.00	1.10	42.387	46.63	519.34	0.730	0.000	3.50	14.169	10.34	482.3	0.0	1864.1
53.25	Top - Section 1	1.00	1.11	42.942	47.24	512.75	0.730	0.000	3.25	12.904	9.42	444.9	0.0	1697.0
55.00		1.00	1.12	43.230	47.55	518.95	0.730	0.000	1.75	6.847	5.00	237.7	0.0	454.5
60.00		1.00	1.14	44.015	48.42	508.10	0.730	0.000	5.00	19.173	14.00	677.7	0.0	1272.3
65.00		1.00	1.16	44.751	49.23	496.66	0.730	0.000	5.00	18.596	13.57	668.2	0.0	1233.6
70.00		1.00	1.18	45.444	49.99	484.71	0.730	0.000	5.00	18.018	13.15	657.5	0.0	1194.9
75.00		1.00	1.19	46.100	50.71	472.29	0.730	0.000	5.00	17.440	12.73	645.6	0.0	1156.2
80.00		1.00	1.21	46.723	51.40	459.46	0.730	0.000	5.00	16.863	12.31	632.7	0.0	1117.5
85.00		1.00	1.23	47.316	52.05	446.25	0.730	0.000	5.00	16.285	11.89	618.8	0.0	1078.8
90.00		1.00	1.24	47.882	52.67	432.70	0.730	0.000	5.00	15.708	11.47	604.0	0.0	1040.1
95.00	Bot - Section 3	1.00	1.25	48.424	53.27	418.85	0.730	0.000	5.00	15.130	11.05	588.3	0.0	1001.4
100.00	Top - Section 2	1.00	1.27	48.945	53.84	404.70	0.730	0.000	5.00	14.870	10.86	584.4	0.0	1807.7
105.00		1.00	1.28	49.445	54.39	399.35	0.730	0.000	5.00	14.292	10.43	567.5	0.0	811.8
110.00		1.00	1.29	49.927	54.92	384.74	0.730	0.000	5.00	13.715	10.01	549.8	0.0	778.6
115.00		1.00	1.31	50.392	55.43	369.90	0.730	0.000	5.00	13.137	9.59	531.6	0.0	745.4
120.00		1.00	1.32	50.842	55.93	354.84	0.730	0.000	5.00	12.560	9.17	512.8	0.0	712.2
125.00		1.00	1.33	51.277	56.41	339.59	0.730	0.000	5.00	11.982	8.75	493.4	0.0	679.1
130.00		1.00	1.34	51.699	56.87	324.14	0.730	0.000	5.00	11.405	8.33	473.5	0.0	645.9
134.00	Appurtenance(s)	1.00	1.35	52.028	57.23	311.65	0.730	0.000	4.00	8.708	6.36	363.8	0.0	492.8
135.00		1.00	1.35	52.109	57.32	308.51	0.730	0.000	1.00	2.119	1.55	88.7	0.0	119.9
140.00		1.00	1.36	52.506	57.76	292.71	0.730	0.000	5.00	10.249	7.48	432.1	0.0	579.6
145.00		1.00	1.37	52.893	58.18	276.75	0.730	0.000	5.00	9.672	7.06	410.8	0.0	546.4
145.25	Bot - Section 4	1.00	1.37	52.912	58.20	275.95	0.730	0.000	0.25	0.468	0.34	19.9	0.0	26.4
146.00	Appurtenance(s)	1.00	1.37	52.969	58.27	273.54	0.730	0.000	0.75	1.420	1.04	60.4	0.0	119.3
148.50	Top - Section 3	1.00	1.38	53.157	58.47	265.49	0.730	0.000	2.50	4.641	3.39	198.1	0.0	389.6
150.00		1.00	1.38	53.269	58.60	265.34	0.730	0.000	1.50	2.715	1.98	116.1	0.0	77.3
155.00		1.00	1.39	53.636	59.00	249.09	0.730	0.000	5.00	8.675	6.33	373.6	0.0	246.9
159.00	Appurtenance(s)	1.00	1.40	53.922	59.31	236.00	0.730	0.000	4.00	6.525	4.76	282.5	0.0	185.5
160.00		1.00	1.40	53.993	59.39	232.71	0.730	0.000	1.00	1.573	1.15	68.2	0.0	44.7
165.00		1.00	1.41	54.342	59.78	216.20	0.730	0.000	5.00	7.520	5.49	328.2	0.0	213.7
169.00	Appurtenance(s)	1.00	1.42	54.615	60.08	202.89	0.730	0.000	4.00	5.600	4.09	245.6	0.0	159.0
								Totals:	**169.00**			**19,186.6**		**36,559.6**

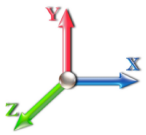
Discrete Appurtenance Forces

Structure:	CT11794-S	**Code:**	TIA-222-H	8/24/2023	
Site Name:	East Lyme 1	**Exposure:**	C		
Height:	169.00 (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 + 1.0W 126 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 26

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor 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	169.00	CCI TPA65R-BU4DA-K	1	54.615	60.076	0.54	0.75	6.95	81.00	0.000	0.000	417.52	0.00	0.00
2	169.00	Ericsson RRUS-12 RRU	6	54.615	60.076	0.50	0.75	9.50	417.60	0.000	0.000	570.56	0.00	0.00
3	169.00	Ericsson RRUS 32 RRU	3	54.615	60.076	0.50	0.75	5.83	277.20	0.000	0.000	350.49	0.00	0.00
4	169.00	Ericsson RRUS A2 RRU	6	54.615	60.076	0.50	0.75	5.61	158.40	0.000	0.000	336.90	0.00	0.00
5	169.00	Raycap DC6-48-60-18-8F	3	54.615	60.076	0.50	0.75	2.22	118.08	0.000	0.000	133.13	0.00	0.00
6	169.00	Reinforced T-Arms	3	54.615	60.076	0.75	0.75	31.50	1620.00	0.000	0.000	1892.41	0.00	0.00
7	169.00	CCI DTMABP7819VG12A	3	54.615	60.076	0.50	0.75	1.72	69.05	0.000	0.000	103.24	0.00	0.00
8	169.00	Ericsson AIR 6449 B77D	3	54.530	59.983	0.64	0.75	7.90	316.80	0.000	-1.250	473.78	0.00	-592.23
9	169.00	Ericsson AIR 6419 B77G	3	54.733	60.206	0.57	0.75	6.50	237.96	0.000	1.750	391.22	0.00	684.63
10	169.00	mount pipe	12	54.615	60.076	0.75	0.75	12.24	432.00	0.000	0.000	735.33	0.00	0.00
11	169.00	CCI TPA65R-BU6DA-K	1	54.615	60.076	0.54	0.75	6.95	81.00	0.000	0.000	417.52	0.00	0.00
12	169.00	CCI TPA65R-BU8DA-K	1	54.615	60.076	0.54	0.75	9.65	99.00	0.000	0.000	579.72	0.00	0.00
13	169.00	Ericsson 8843 B2 B66A	3	54.615	60.076	0.50	0.75	2.47	259.20	0.000	0.000	148.53	0.00	0.00
14	169.00	CCI OPA65R-BU4DA	1	54.615	60.076	0.70	0.75	3.50	51.60	0.000	0.000	210.08	0.00	0.00
15	169.00	Commscope	1	54.615	60.076	0.75	0.75	9.20	94.80	0.000	0.000	552.85	0.00	0.00
16	169.00	Commscope	1	54.615	60.076	0.75	0.75	13.40	94.80	0.000	0.000	805.17	0.00	0.00
17	169.00	Ericsson RRUS 4478 B14	3	54.615	60.076	0.54	0.80	2.65	213.84	0.000	0.000	159.39	0.00	0.00
18	169.00	Ericsson 4449 B5/B12	3	54.615	60.076	0.50	0.75	2.97	255.60	0.000	0.000	178.41	0.00	0.00
19	159.00	Ericsson 4460 B25/B66A	3	53.922	59.314	0.54	0.80	2.64	259.20	0.000	0.000	156.42	0.00	0.00
20	159.00	Ericsson 4449 B71 + B85	3	53.922	59.314	0.54	0.80	3.17	263.52	0.000	0.000	187.89	0.00	0.00
21	159.00	RFS	3	53.922	59.314	0.58	0.80	35.46	442.08	0.000	0.000	2103.32	0.00	0.00
22	159.00	Commscope VV-65A-R1	3	53.922	59.314	0.59	0.80	14.03	106.20	0.000	0.000	832.21	0.00	0.00
23	159.00	Ericsson AIR 6419 B41	3	53.922	59.314	0.56	0.80	10.97	479.52	0.000	0.000	650.70	0.00	0.00
24	159.00	T-Arm	3	53.922	59.314	0.75	0.75	18.00	1440.00	0.000	0.000	1067.66	0.00	0.00
25	159.00	PRK-SFS-L	1	53.922	59.314	1.00	1.00	16.60	472.80	0.000	0.000	984.62	0.00	0.00
26	159.00	PRK-1245L	1	53.922	59.314	1.00	1.00	9.50	557.89	0.000	0.000	563.49	0.00	0.00
27	159.00	Ericsson KRY 112 144/1	3	53.922	59.314	0.52	0.75	0.65	39.60	0.000	0.000	38.30	0.00	0.00
28	159.00	mount pipe	12	53.922	59.314	0.75	0.75	12.42	432.00	0.000	0.000	736.69	0.00	0.00
29	146.00	Samsung RF4439d-25A	3	52.969	58.266	0.63	0.75	3.53	268.96	0.000	0.000	205.93	0.00	0.00
30	146.00	Samsung RF4440d-13A	3	52.969	58.266	0.60	0.75	3.37	253.19	0.000	0.000	196.12	0.00	0.00
31	146.00	JMA Wireless	6	52.969	58.266	0.65	0.75	38.64	432.00	0.000	0.000	2251.45	0.00	0.00
32	146.00	Samsung MT6407-77A	3	52.969	58.266	0.52	0.75	7.39	285.84	0.000	0.000	430.39	0.00	0.00
33	146.00	Mods	1	52.969	58.266	1.00	1.00	13.79	466.80	0.000	0.000	803.48	0.00	0.00
34	146.00	Raycap 12 OVP	1	52.969	58.266	0.75	0.75	3.04	38.40	0.000	0.000	177.42	0.00	0.00
35	146.00	Low Profile Platform	1	52.969	58.266	1.00	1.00	14.69	1500.00	0.000	0.000	855.92	0.00	0.00
36	146.00	mount pipe	12	52.969	58.266	0.75	0.75	13.23	432.00	0.000	0.000	770.85	0.00	0.00
37	134.00	Platform w/HRK	1	52.028	57.230	0.67	0.67	22.91	2083.20	0.000	0.000	1310.99	0.00	0.00
38	134.00	Raycap	1	52.028	57.230	0.75	0.75	1.51	26.22	0.000	0.000	86.27	0.00	0.00
39	134.00	Samsung RF4451d-70A	3	52.028	57.230	0.50	0.75	2.83	220.68	0.000	0.000	162.20	0.00	0.00
40	134.00	Samsung RF4450t-71A	3	52.028	57.230	0.50	0.75	3.11	340.49	0.000	0.000	177.73	0.00	0.00
41	134.00	Commscope	3	52.028	57.230	0.55	0.75	20.15	254.88	0.000	0.000	1153.39	0.00	0.00
							Totals:		**15,973.39**			**24,359.72**		

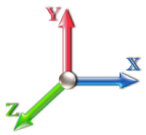
Total Applied Force Summary

Structure:	CT11794-S		**Code:**	TIA-222-H	8/24/2023
Site Name:	East Lyme 1		**Exposure:**	C	
Height:	169.00 (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

Load Case: 1.2D + 1.0W 126 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 26

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		662.63	1925.24	0.00	0.00
10.00		647.42	1886.54	0.00	0.00
15.00		640.01	1847.84	0.00	0.00
20.00		661.41	1809.14	0.00	0.00
25.00		674.77	1770.44	0.00	0.00
30.00		682.52	1731.74	0.00	0.00
35.00		686.08	1693.04	0.00	0.00
40.00		686.35	1654.34	0.00	0.00
45.00		683.94	1615.64	0.00	0.00
46.50		202.80	477.14	0.00	0.00
50.00		482.27	2040.53	0.00	0.00
53.25		444.95	1860.82	0.00	0.00
55.00		237.68	542.66	0.00	0.00
60.00		677.66	1524.34	0.00	0.00
65.00		668.24	1485.64	0.00	0.00
70.00		657.51	1446.94	0.00	0.00
75.00		645.62	1408.24	0.00	0.00
80.00		632.67	1369.54	0.00	0.00
85.00		618.75	1330.84	0.00	0.00
90.00		603.95	1292.14	0.00	0.00
95.00		588.33	1253.44	0.00	0.00
100.00		584.43	2059.67	0.00	0.00
105.00		567.47	1063.78	0.00	0.00
110.00		549.85	1030.61	0.00	0.00
115.00		531.60	997.43	0.00	0.00
120.00		512.77	964.26	0.00	0.00
125.00		493.37	931.09	0.00	0.00
130.00		473.46	897.92	0.00	0.00
134.00	(11) attachments	3254.38	3619.92	0.00	0.00
135.00		88.67	168.98	0.00	0.00
140.00		432.14	824.98	0.00	0.00
145.00		410.79	791.80	0.00	0.00
145.25		19.90	38.72	0.00	0.00
146.00	(30) attachments	5751.99	3833.29	0.00	0.00
148.50		198.10	468.24	0.00	0.00
150.00		116.15	124.49	0.00	0.00
155.00		373.65	404.19	0.00	0.00
159.00	(35) attachments	7603.81	4804.23	0.00	0.00
160.00		68.22	59.63	0.00	0.00
165.00		328.16	288.22	0.00	0.00
169.00	(57) attachments	8701.88	5096.56	0.00	92.40
	Totals:	**43,546.35**	**60,434.23**	**0.00**	**92.40**

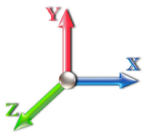
Linear Appurtenance Segment Forces (Factored)

Structure:	CT11794-S	**Code:**	TIA-222-H	8/24/2023	
Site Name:	East Lyme 1	**Exposure:**	C		
Height:	169.00 (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 + 1.0W 126 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 26

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	0.017	0.000	32.803	0.00	1.64
5.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.017	0.000	32.803	0.00	6.24
10.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.017	0.000	32.803	0.00	1.64
10.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.017	0.000	32.803	0.00	6.24
15.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.018	0.000	33.208	0.00	1.64
15.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.018	0.000	33.208	0.00	6.24
20.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.018	0.000	35.165	0.00	1.64
20.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.018	0.000	35.165	0.00	6.24
25.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.018	0.000	36.782	0.00	1.64
25.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.018	0.000	36.782	0.00	6.24
30.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.019	0.000	38.169	0.00	1.64
30.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.019	0.000	38.169	0.00	6.24
35.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.019	0.000	39.390	0.00	1.64
35.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.019	0.000	39.390	0.00	6.24
40.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.020	0.000	40.483	0.00	1.64
40.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.020	0.000	40.483	0.00	6.24
45.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.020	0.000	41.476	0.00	1.64
45.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.020	0.000	41.476	0.00	6.24
46.50	Safety Cable	Yes	1.50	0.000	0.38	0.05	0.00	0.021	0.000	41.757	0.00	0.49
46.50	Step bolts	Yes	1.50	0.000	0.63	0.08	0.00	0.021	0.000	41.757	0.00	1.87
50.00	Safety Cable	Yes	3.50	0.000	0.38	0.11	0.00	0.021	0.000	42.387	0.00	1.15
50.00	Step bolts	Yes	3.50	0.000	0.63	0.18	0.00	0.021	0.000	42.387	0.00	4.37
53.25	Safety Cable	Yes	3.25	0.000	0.38	0.10	0.00	0.022	0.000	42.942	0.00	1.06
53.25	Step bolts	Yes	3.25	0.000	0.63	0.17	0.00	0.022	0.000	42.942	0.00	4.06
55.00	Safety Cable	Yes	1.75	0.000	0.38	0.06	0.00	0.022	0.000	43.230	0.00	0.57
55.00	Step bolts	Yes	1.75	0.000	0.63	0.09	0.00	0.022	0.000	43.230	0.00	2.18
60.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.022	0.000	44.015	0.00	1.64
60.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.022	0.000	44.015	0.00	6.24
65.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.023	0.000	44.751	0.00	1.64
65.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.023	0.000	44.751	0.00	6.24
70.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.023	0.000	45.444	0.00	1.64
70.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.023	0.000	45.444	0.00	6.24
75.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.024	0.000	46.100	0.00	1.64
75.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.024	0.000	46.100	0.00	6.24
80.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.025	0.000	46.723	0.00	1.64
80.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.025	0.000	46.723	0.00	6.24
85.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.026	0.000	47.316	0.00	1.64
85.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.026	0.000	47.316	0.00	6.24
90.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.027	0.000	47.882	0.00	1.64
90.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.027	0.000	47.882	0.00	6.24
95.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.028	0.000	48.424	0.00	1.64
95.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.028	0.000	48.424	0.00	6.24
100.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.029	0.000	48.945	0.00	1.64
100.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.029	0.000	48.945	0.00	6.24
105.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.029	0.000	49.445	0.00	1.64
105.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.029	0.000	49.445	0.00	6.24
110.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.031	0.000	49.927	0.00	1.64

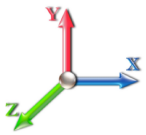
Linear Appurtenance Segment Forces (Factored)

Structure:	CT11794-S	**Code:**	TIA-222-H	8/24/2023	
Site Name:	East Lyme 1	**Exposure:**	C		
Height:	169.00 (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 + 1.0W 126 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 26

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)
110.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.031	0.000	49.927	0.00	6.24
115.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.032	0.000	50.392	0.00	1.64
115.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.032	0.000	50.392	0.00	6.24
120.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.034	0.000	50.842	0.00	1.64
120.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.034	0.000	50.842	0.00	6.24
125.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.035	0.000	51.277	0.00	1.64
125.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.035	0.000	51.277	0.00	6.24
130.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.037	0.000	51.699	0.00	1.64
130.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.037	0.000	51.699	0.00	6.24
134.00	Safety Cable	Yes	4.00	0.000	0.38	0.13	0.00	0.039	0.000	52.028	0.00	1.31
134.00	Step bolts	Yes	4.00	0.000	0.63	0.21	0.00	0.039	0.000	52.028	0.00	4.99
135.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.040	0.000	52.109	0.00	0.33
135.00	Step bolts	Yes	1.00	0.000	0.63	0.05	0.00	0.040	0.000	52.109	0.00	1.25
140.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.041	0.000	52.506	0.00	1.64
140.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.041	0.000	52.506	0.00	6.24
145.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.044	0.000	52.893	0.00	1.64
145.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.044	0.000	52.893	0.00	6.24
145.25	Safety Cable	Yes	0.25	0.000	0.38	0.01	0.00	0.045	0.000	52.912	0.00	0.08
145.25	Step bolts	Yes	0.25	0.000	0.63	0.01	0.00	0.045	0.000	52.912	0.00	0.31
146.00	Safety Cable	Yes	0.75	0.000	0.38	0.02	0.00	0.045	0.000	52.969	0.00	0.25
146.00	Step bolts	Yes	0.75	0.000	0.63	0.04	0.00	0.045	0.000	52.969	0.00	0.94
148.50	Safety Cable	Yes	2.50	0.000	0.38	0.08	0.00	0.046	0.000	53.157	0.00	0.82
148.50	Step bolts	Yes	2.50	0.000	0.63	0.13	0.00	0.046	0.000	53.157	0.00	3.12
150.00	Safety Cable	Yes	1.50	0.000	0.38	0.05	0.00	0.046	0.000	53.269	0.00	0.49
150.00	Step bolts	Yes	1.50	0.000	0.63	0.08	0.00	0.046	0.000	53.269	0.00	1.87
155.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.049	0.000	53.636	0.00	1.64
155.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.049	0.000	53.636	0.00	6.24
159.00	Safety Cable	Yes	4.00	0.000	0.38	0.13	0.00	0.052	0.000	53.922	0.00	1.31
159.00	Step bolts	Yes	4.00	0.000	0.63	0.21	0.00	0.052	0.000	53.922	0.00	4.99
160.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.053	0.000	53.993	0.00	0.33
160.00	Step bolts	Yes	1.00	0.000	0.63	0.05	0.00	0.053	0.000	53.993	0.00	1.25
165.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.056	0.000	54.342	0.00	1.64
165.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.056	0.000	54.342	0.00	6.24
169.00	Safety Cable	Yes	4.00	0.000	0.38	0.13	0.00	0.060	0.000	54.615	0.00	1.31
169.00	Step bolts	Yes	4.00	0.000	0.63	0.21	0.00	0.060	0.000	54.615	0.00	4.99
									Totals:		**0.0**	**266.3**

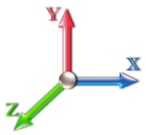
Calculated Forces

Structure:	CT11794-S	**Code:**	TIA-222-H	8/24/2023	
Site Name:	East Lyme 1	**Exposure:**	C		
Height:	169.00 (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 + 1.0W 126 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 26

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	-60.35	-43.66	0.00	-5599.3	0.00	5599.34	5562.36	1454.92	7206.86	6836.50	0.00	0.000	0.000	0.831
5.00	-58.27	-43.21	0.00	-5381.0	0.00	5381.05	5482.35	1421.65	6881.06	6582.98	0.11	-0.209	0.000	0.829
10.00	-56.22	-42.77	0.00	-5165.0	0.00	5165.01	5400.13	1388.39	6562.80	6331.40	0.45	-0.425	0.000	0.827
15.00	-54.22	-42.32	0.00	-4951.1	0.00	4951.19	5315.71	1355.12	6252.07	6081.95	1.01	-0.646	0.000	0.825
20.00	-52.25	-41.85	0.00	-4739.5	0.00	4739.58	5229.08	1321.85	5948.87	5834.81	1.81	-0.875	0.000	0.823
25.00	-50.32	-41.35	0.00	-4530.3	0.00	4530.34	5140.25	1288.59	5653.22	5590.18	2.85	-1.110	0.000	0.821
30.00	-48.42	-40.84	0.00	-4323.5	0.00	4323.58	5049.20	1255.32	5365.09	5348.24	4.15	-1.353	0.000	0.819
35.00	-46.57	-40.32	0.00	-4119.3	0.00	4119.37	4955.95	1222.05	5084.51	5109.18	5.70	-1.604	0.000	0.817
40.00	-44.76	-39.79	0.00	-3917.7	0.00	3917.77	4860.49	1188.79	4811.46	4873.19	7.52	-1.862	0.000	0.814
45.00	-43.05	-39.18	0.00	-3718.8	0.00	3718.83	4762.82	1155.52	4545.94	4640.45	9.61	-2.129	0.000	0.812
46.50	-42.48	-39.07	0.00	-3660.0	0.00	3660.06	4733.09	1145.54	4467.75	4571.29	10.29	-2.213	0.000	0.811
50.00	-40.33	-38.64	0.00	-3523.3	0.00	3523.33	4662.94	1122.25	4287.96	4411.15	11.99	-2.409	0.000	0.809
53.25	-38.40	-38.21	0.00	-3397.7	0.00	3397.77	4662.03	1121.95	4285.67	4409.10	13.69	-2.596	0.000	0.780
55.00	-37.74	-38.07	0.00	-3330.9	0.00	3330.91	4626.54	1110.31	4197.18	4329.70	14.66	-2.699	0.000	0.779
60.00	-36.07	-37.50	0.00	-3140.5	0.00	3140.56	4523.67	1077.04	3949.44	4105.38	17.64	-2.977	0.000	0.774
65.00	-34.43	-36.92	0.00	-2953.0	0.00	2953.08	4418.66	1043.78	3709.24	3885.01	20.91	-3.263	0.000	0.769
70.00	-32.84	-36.35	0.00	-2768.4	0.00	2768.46	4277.83	1010.51	3476.57	3640.10	24.48	-3.558	0.000	0.770
75.00	-31.28	-35.79	0.00	-2586.7	0.00	2586.70	4137.00	977.25	3251.43	3403.17	28.37	-3.863	0.000	0.769
80.00	-29.76	-35.23	0.00	-2407.7	0.00	2407.76	3996.18	943.98	3033.84	3174.21	32.58	-4.177	0.000	0.767
85.00	-28.28	-34.67	0.00	-2231.6	0.00	2231.63	3855.35	910.71	2823.78	2953.23	37.12	-4.500	0.000	0.764
90.00	-26.84	-34.12	0.00	-2058.2	0.00	2058.28	3714.52	877.45	2621.25	2740.21	42.01	-4.834	0.000	0.760
95.00	-25.44	-33.58	0.00	-1887.6	0.00	1887.67	3573.69	844.18	2426.26	2535.17	47.25	-5.176	0.000	0.753
100.00	-23.24	-32.95	0.00	-1719.7	0.00	1719.75	3014.30	712.04	2013.83	2107.62	52.85	-5.528	0.000	0.826
105.00	-22.03	-32.43	0.00	-1554.9	0.00	1554.99	2893.59	683.53	1855.77	1941.32	58.82	-5.888	0.000	0.811
110.00	-20.84	-31.92	0.00	-1392.8	0.00	1392.84	2772.88	655.01	1704.17	1781.85	65.19	-6.286	0.000	0.792
115.00	-19.68	-31.42	0.00	-1233.2	0.00	1233.24	2652.17	626.50	1559.02	1629.21	71.98	-6.689	0.000	0.767
120.00	-18.57	-30.93	0.00	-1076.1	0.00	1076.14	2531.46	597.98	1420.34	1483.41	79.19	-7.094	0.000	0.735
125.00	-17.50	-30.44	0.00	-921.52	0.00	921.52	2410.75	569.47	1288.11	1344.44	86.82	-7.497	0.000	0.696
130.00	-16.49	-29.95	0.00	-769.31	0.00	769.31	2290.04	540.95	1162.35	1212.31	94.86	-7.891	0.000	0.645
134.00	-13.27	-26.27	0.00	-649.50	0.00	649.50	2193.47	518.14	1066.39	1111.53	101.58	-8.201	0.000	0.593
135.00	-13.02	-26.21	0.00	-623.23	0.00	623.23	2169.33	512.44	1043.04	1087.01	103.31	-8.279	0.000	0.582
140.00	-12.11	-25.73	0.00	-492.20	0.00	492.20	2048.62	483.93	930.19	968.55	112.14	-8.637	0.000	0.517
145.00	-11.32	-25.24	0.00	-363.54	0.00	363.54	1927.91	455.41	823.80	856.92	121.33	-8.962	0.000	0.433
145.25	-11.27	-25.22	0.00	-357.23	0.00	357.23	1921.88	453.99	818.65	851.51	121.80	-8.979	0.000	0.428
146.00	-8.35	-18.95	0.00	-338.32	0.00	338.32	1903.77	449.71	803.30	835.41	123.21	-9.027	0.000	0.411
148.50	-7.88	-18.70	0.00	-290.95	0.00	290.95	907.84	223.60	397.18	399.56	127.96	-9.176	0.000	0.744
150.00	-7.69	-18.60	0.00	-262.90	0.00	262.90	895.57	219.32	382.13	386.55	130.84	-9.263	0.000	0.696
155.00	-7.24	-18.21	0.00	-169.90	0.00	169.90	853.23	205.07	334.07	344.13	140.75	-9.705	0.000	0.510
159.00	-3.78	-9.91	0.00	-97.06	0.00	97.06	817.77	193.66	297.94	311.31	148.97	-9.972	0.000	0.319
160.00	-3.71	-9.84	0.00	-87.16	0.00	87.16	807.76	190.81	289.23	302.92	151.05	-10.026	0.000	0.295
165.00	-3.46	-9.47	0.00	-37.97	0.00	37.97	747.41	176.55	247.62	259.13	161.61	-10.220	0.000	0.154
169.00	0.00	-8.70	0.00	-0.09	0.00	0.09	699.12	165.15	216.66	226.56	170.17	-10.280	0.000	0.003

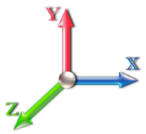
Wind Loading - Shaft

Structure:	CT11794-S	**Code:**	TIA-222-H	8/24/2023	
Site Name:	East Lyme 1	**Exposure:**	C		
Height:	169.00 (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: 0.9D + 1.0W 126 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00



Iterations 25

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	32.803	36.08	591.02	0.730	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	32.803	36.08	577.61	0.730	0.000	5.00	25.156	18.36	662.6	0.0	1254.9
10.00		1.00	0.85	32.803	36.08	564.19	0.730	0.000	5.00	24.579	17.94	647.4	0.0	1225.9
15.00		1.00	0.86	33.208	36.53	554.17	0.730	0.000	5.00	24.001	17.52	640.0	0.0	1196.9
20.00		1.00	0.91	35.165	38.68	556.37	0.730	0.000	5.00	23.423	17.10	661.4	0.0	1167.8
25.00		1.00	0.95	36.782	40.46	554.81	0.730	0.000	5.00	22.846	16.68	674.8	0.0	1138.8
30.00		1.00	0.99	38.169	41.99	550.71	0.730	0.000	5.00	22.268	16.26	682.5	0.0	1109.8
35.00		1.00	1.02	39.390	43.33	544.75	0.730	0.000	5.00	21.691	15.83	686.1	0.0	1080.8
40.00		1.00	1.05	40.483	44.53	537.35	0.730	0.000	5.00	21.113	15.41	686.3	0.0	1051.7
45.00		1.00	1.07	41.476	45.62	528.82	0.730	0.000	5.00	20.536	14.99	683.9	0.0	1022.7
46.50	Bot - Section 2	1.00	1.08	41.757	45.93	526.06	0.730	0.000	1.50	6.048	4.42	202.8	0.0	301.2
50.00		1.00	1.10	42.387	46.63	519.34	0.730	0.000	3.50	14.169	10.34	482.3	0.0	1398.1
53.25	Top - Section 1	1.00	1.11	42.942	47.24	512.75	0.730	0.000	3.25	12.904	9.42	444.9	0.0	1272.8
55.00		1.00	1.12	43.230	47.55	518.95	0.730	0.000	1.75	6.847	5.00	237.7	0.0	340.8
60.00		1.00	1.14	44.015	48.42	508.10	0.730	0.000	5.00	19.173	14.00	677.7	0.0	954.2
65.00		1.00	1.16	44.751	49.23	496.66	0.730	0.000	5.00	18.596	13.57	668.2	0.0	925.2
70.00		1.00	1.18	45.444	49.99	484.71	0.730	0.000	5.00	18.018	13.15	657.5	0.0	896.2
75.00		1.00	1.19	46.100	50.71	472.29	0.730	0.000	5.00	17.440	12.73	645.6	0.0	867.2
80.00		1.00	1.21	46.723	51.40	459.46	0.730	0.000	5.00	16.863	12.31	632.7	0.0	838.1
85.00		1.00	1.23	47.316	52.05	446.25	0.730	0.000	5.00	16.285	11.89	618.8	0.0	809.1
90.00		1.00	1.24	47.882	52.67	432.70	0.730	0.000	5.00	15.708	11.47	604.0	0.0	780.1
95.00	Bot - Section 3	1.00	1.25	48.424	53.27	418.85	0.730	0.000	5.00	15.130	11.05	588.3	0.0	751.1
100.00	Top - Section 2	1.00	1.27	48.945	53.84	404.70	0.730	0.000	5.00	14.870	10.86	584.4	0.0	1355.7
105.00		1.00	1.28	49.445	54.39	399.35	0.730	0.000	5.00	14.292	10.43	567.5	0.0	608.8
110.00		1.00	1.29	49.927	54.92	384.74	0.730	0.000	5.00	13.715	10.01	549.8	0.0	583.9
115.00		1.00	1.31	50.392	55.43	369.90	0.730	0.000	5.00	13.137	9.59	531.6	0.0	559.1
120.00		1.00	1.32	50.842	55.93	354.84	0.730	0.000	5.00	12.560	9.17	512.8	0.0	534.2
125.00		1.00	1.33	51.277	56.41	339.59	0.730	0.000	5.00	11.982	8.75	493.4	0.0	509.3
130.00		1.00	1.34	51.699	56.87	324.14	0.730	0.000	5.00	11.405	8.33	473.5	0.0	484.4
134.00	Appurtenance(s)	1.00	1.35	52.028	57.23	311.65	0.730	0.000	4.00	8.708	6.36	363.8	0.0	369.6
135.00		1.00	1.35	52.109	57.32	308.51	0.730	0.000	1.00	2.119	1.55	88.7	0.0	89.9
140.00		1.00	1.36	52.506	57.76	292.71	0.730	0.000	5.00	10.249	7.48	432.1	0.0	434.7
145.00		1.00	1.37	52.893	58.18	276.75	0.730	0.000	5.00	9.672	7.06	410.8	0.0	409.8
145.25	Bot - Section 4	1.00	1.37	52.912	58.20	275.95	0.730	0.000	0.25	0.468	0.34	19.9	0.0	19.8
146.00	Appurtenance(s)	1.00	1.37	52.969	58.27	273.54	0.730	0.000	0.75	1.420	1.04	60.4	0.0	89.5
148.50	Top - Section 3	1.00	1.38	53.157	58.47	265.49	0.730	0.000	2.50	4.641	3.39	198.1	0.0	292.2
150.00		1.00	1.38	53.269	58.60	265.34	0.730	0.000	1.50	2.715	1.98	116.1	0.0	58.0
155.00		1.00	1.39	53.636	59.00	249.09	0.730	0.000	5.00	8.675	6.33	373.6	0.0	185.1
159.00	Appurtenance(s)	1.00	1.40	53.922	59.31	236.00	0.730	0.000	4.00	6.525	4.76	282.5	0.0	139.2
160.00		1.00	1.40	53.993	59.39	232.71	0.730	0.000	1.00	1.573	1.15	68.2	0.0	33.5
165.00		1.00	1.41	54.342	59.78	216.20	0.730	0.000	5.00	7.520	5.49	328.2	0.0	160.3
169.00	Appurtenance(s)	1.00	1.42	54.615	60.08	202.89	0.730	0.000	4.00	5.600	4.09	245.6	0.0	119.3
								Totals:	**169.00**			**19,186.6**		**27,419.7**

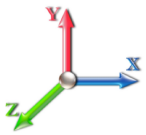
Discrete Appurtenance Forces

Structure:	CT11794-S	**Code:**	TIA-222-H	8/24/2023	
Site Name:	East Lyme 1	**Exposure:**	C		
Height:	169.00 (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: 0.9D + 1.0W 126 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00



Iterations 25

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor 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	169.00	CCI TPA65R-BU4DA-K	1	54.615	60.076	0.54	0.75	6.95	60.75	0.000	0.000	417.52	0.00	0.00
2	169.00	Ericsson RRUS-12 RRU	6	54.615	60.076	0.50	0.75	9.50	313.20	0.000	0.000	570.56	0.00	0.00
3	169.00	Ericsson RRUS 32 RRU	3	54.615	60.076	0.50	0.75	5.83	207.90	0.000	0.000	350.49	0.00	0.00
4	169.00	Ericsson RRUS A2 RRU	6	54.615	60.076	0.50	0.75	5.61	118.80	0.000	0.000	336.90	0.00	0.00
5	169.00	Raycap DC6-48-60-18-8F	3	54.615	60.076	0.50	0.75	2.22	88.56	0.000	0.000	133.13	0.00	0.00
6	169.00	Reinforced T-Arms	3	54.615	60.076	0.75	0.75	31.50	1215.00	0.000	0.000	1892.41	0.00	0.00
7	169.00	CCI DTMABP7819VG12A	3	54.615	60.076	0.50	0.75	1.72	51.79	0.000	0.000	103.24	0.00	0.00
8	169.00	Ericsson AIR 6449 B77D	3	54.530	59.983	0.64	0.75	7.90	237.60	0.000	-1.250	473.78	0.00	-592.23
9	169.00	Ericsson AIR 6419 B77G	3	54.733	60.206	0.57	0.75	6.50	178.47	0.000	1.750	391.22	0.00	684.63
10	169.00	mount pipe	12	54.615	60.076	0.75	0.75	12.24	324.00	0.000	0.000	735.33	0.00	0.00
11	169.00	CCI TPA65R-BU6DA-K	1	54.615	60.076	0.54	0.75	6.95	60.75	0.000	0.000	417.52	0.00	0.00
12	169.00	CCI TPA65R-BU8DA-K	1	54.615	60.076	0.54	0.75	9.65	74.25	0.000	0.000	579.72	0.00	0.00
13	169.00	Ericsson 8843 B2 B66A	3	54.615	60.076	0.50	0.75	2.47	194.40	0.000	0.000	148.53	0.00	0.00
14	169.00	CCI OPA65R-BU4DA	1	54.615	60.076	0.70	0.75	3.50	38.70	0.000	0.000	210.08	0.00	0.00
15	169.00	Commscope	1	54.615	60.076	0.75	0.75	9.20	71.10	0.000	0.000	552.85	0.00	0.00
16	169.00	Commscope	1	54.615	60.076	0.75	0.75	13.40	71.10	0.000	0.000	805.17	0.00	0.00
17	169.00	Ericsson RRUS 4478 B14	3	54.615	60.076	0.54	0.80	2.65	160.38	0.000	0.000	159.39	0.00	0.00
18	169.00	Ericsson 4449 B5/B12	3	54.615	60.076	0.50	0.75	2.97	191.70	0.000	0.000	178.41	0.00	0.00
19	159.00	Ericsson 4460 B25/B66A	3	53.922	59.314	0.54	0.80	2.64	194.40	0.000	0.000	156.42	0.00	0.00
20	159.00	Ericsson 4449 B71 + B85	3	53.922	59.314	0.54	0.80	3.17	197.64	0.000	0.000	187.89	0.00	0.00
21	159.00	RFS	3	53.922	59.314	0.58	0.80	35.46	331.56	0.000	0.000	2103.32	0.00	0.00
22	159.00	Commscope VV-65A-R1	3	53.922	59.314	0.59	0.80	14.03	79.65	0.000	0.000	832.21	0.00	0.00
23	159.00	Ericsson AIR 6419 B41	3	53.922	59.314	0.56	0.80	10.97	359.64	0.000	0.000	650.70	0.00	0.00
24	159.00	T-Arm	3	53.922	59.314	0.75	0.75	18.00	1080.00	0.000	0.000	1067.66	0.00	0.00
25	159.00	PRK-SFS-L	1	53.922	59.314	1.00	1.00	16.60	354.60	0.000	0.000	984.62	0.00	0.00
26	159.00	PRK-1245L	1	53.922	59.314	1.00	1.00	9.50	418.42	0.000	0.000	563.49	0.00	0.00
27	159.00	Ericsson KRY 112 144/1	3	53.922	59.314	0.52	0.75	0.65	29.70	0.000	0.000	38.30	0.00	0.00
28	159.00	mount pipe	12	53.922	59.314	0.75	0.75	12.42	324.00	0.000	0.000	736.69	0.00	0.00
29	146.00	Samsung RF4439d-25A	3	52.969	58.266	0.63	0.75	3.53	201.72	0.000	0.000	205.93	0.00	0.00
30	146.00	Samsung RF4440d-13A	3	52.969	58.266	0.60	0.75	3.37	189.89	0.000	0.000	196.12	0.00	0.00
31	146.00	JMA Wireless	6	52.969	58.266	0.65	0.75	38.64	324.00	0.000	0.000	2251.45	0.00	0.00
32	146.00	Samsung MT6407-77A	3	52.969	58.266	0.52	0.75	7.39	214.38	0.000	0.000	430.39	0.00	0.00
33	146.00	Mods	1	52.969	58.266	1.00	1.00	13.79	350.10	0.000	0.000	803.48	0.00	0.00
34	146.00	Raycap 12 OVP	1	52.969	58.266	0.75	0.75	3.04	28.80	0.000	0.000	177.42	0.00	0.00
35	146.00	Low Profile Platform	1	52.969	58.266	1.00	1.00	14.69	1125.00	0.000	0.000	855.92	0.00	0.00
36	146.00	mount pipe	12	52.969	58.266	0.75	0.75	13.23	324.00	0.000	0.000	770.85	0.00	0.00
37	134.00	Platform w/HRK	1	52.028	57.230	0.67	0.67	22.91	1562.40	0.000	0.000	1310.99	0.00	0.00
38	134.00	Raycap	1	52.028	57.230	0.75	0.75	1.51	19.67	0.000	0.000	86.27	0.00	0.00
39	134.00	Samsung RF4451d-70A	3	52.028	57.230	0.50	0.75	2.83	165.51	0.000	0.000	162.20	0.00	0.00
40	134.00	Samsung RF4450t-71A	3	52.028	57.230	0.50	0.75	3.11	255.37	0.000	0.000	177.73	0.00	0.00
41	134.00	Commscope	3	52.028	57.230	0.55	0.75	20.15	191.16	0.000	0.000	1153.39	0.00	0.00
							Totals:		**11,980.04**			**24,359.72**		

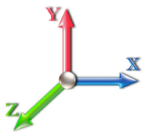
Total Applied Force Summary

Structure:	CT11794-S		**Code:**	TIA-222-H	8/24/2023
Site Name:	East Lyme 1		**Exposure:**	C	
Height:	169.00 (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: 0.9D + 1.0W 126 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00



Iterations 25

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		662.63	1443.93	0.00	0.00
10.00		647.42	1414.90	0.00	0.00
15.00		640.01	1385.88	0.00	0.00
20.00		661.41	1356.85	0.00	0.00
25.00		674.77	1327.83	0.00	0.00
30.00		682.52	1298.80	0.00	0.00
35.00		686.08	1269.78	0.00	0.00
40.00		686.35	1240.75	0.00	0.00
45.00		683.94	1211.73	0.00	0.00
46.50		202.80	357.86	0.00	0.00
50.00		482.27	1530.40	0.00	0.00
53.25		444.95	1395.62	0.00	0.00
55.00		237.68	407.00	0.00	0.00
60.00		677.66	1143.26	0.00	0.00
65.00		668.24	1114.23	0.00	0.00
70.00		657.51	1085.20	0.00	0.00
75.00		645.62	1056.18	0.00	0.00
80.00		632.67	1027.15	0.00	0.00
85.00		618.75	998.13	0.00	0.00
90.00		603.95	969.10	0.00	0.00
95.00		588.33	940.08	0.00	0.00
100.00		584.43	1544.75	0.00	0.00
105.00		567.47	797.83	0.00	0.00
110.00		549.85	772.95	0.00	0.00
115.00		531.60	748.08	0.00	0.00
120.00		512.77	723.20	0.00	0.00
125.00		493.37	698.32	0.00	0.00
130.00		473.46	673.44	0.00	0.00
134.00	(11) attachments	3254.38	2714.94	0.00	0.00
135.00		88.67	126.73	0.00	0.00
140.00		432.14	618.73	0.00	0.00
145.00		410.79	593.85	0.00	0.00
145.25		19.90	29.04	0.00	0.00
146.00	(30) attachments	5751.99	2874.97	0.00	0.00
148.50		198.10	351.18	0.00	0.00
150.00		116.15	93.37	0.00	0.00
155.00		373.65	303.15	0.00	0.00
159.00	(35) attachments	7603.81	3603.17	0.00	0.00
160.00		68.22	44.73	0.00	0.00
165.00		328.16	216.17	0.00	0.00
169.00	(57) attachments	8701.88	3822.42	0.00	92.40
	Totals:	**43,546.35**	**45,325.67**	**0.00**	**92.40**

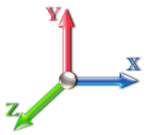
Linear Appurtenance Segment Forces (Factored)

Structure:	CT11794-S	**Code:**	TIA-222-H	8/24/2023	
Site Name:	East Lyme 1	**Exposure:**	C		
Height:	169.00 (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: 0.9D + 1.0W 126 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.017	0.000	32.803	0.00	1.23
5.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.017	0.000	32.803	0.00	4.68
10.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.017	0.000	32.803	0.00	1.23
10.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.017	0.000	32.803	0.00	4.68
15.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.018	0.000	33.208	0.00	1.23
15.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.018	0.000	33.208	0.00	4.68
20.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.018	0.000	35.165	0.00	1.23
20.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.018	0.000	35.165	0.00	4.68
25.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.018	0.000	36.782	0.00	1.23
25.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.018	0.000	36.782	0.00	4.68
30.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.019	0.000	38.169	0.00	1.23
30.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.019	0.000	38.169	0.00	4.68
35.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.019	0.000	39.390	0.00	1.23
35.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.019	0.000	39.390	0.00	4.68
40.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.020	0.000	40.483	0.00	1.23
40.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.020	0.000	40.483	0.00	4.68
45.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.020	0.000	41.476	0.00	1.23
45.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.020	0.000	41.476	0.00	4.68
46.50	Safety Cable	Yes	1.50	0.000	0.38	0.05	0.00	0.021	0.000	41.757	0.00	0.37
46.50	Step bolts	Yes	1.50	0.000	0.63	0.08	0.00	0.021	0.000	41.757	0.00	1.40
50.00	Safety Cable	Yes	3.50	0.000	0.38	0.11	0.00	0.021	0.000	42.387	0.00	0.86
50.00	Step bolts	Yes	3.50	0.000	0.63	0.18	0.00	0.021	0.000	42.387	0.00	3.28
53.25	Safety Cable	Yes	3.25	0.000	0.38	0.10	0.00	0.022	0.000	42.942	0.00	0.80
53.25	Step bolts	Yes	3.25	0.000	0.63	0.17	0.00	0.022	0.000	42.942	0.00	3.04
55.00	Safety Cable	Yes	1.75	0.000	0.38	0.06	0.00	0.022	0.000	43.230	0.00	0.43
55.00	Step bolts	Yes	1.75	0.000	0.63	0.09	0.00	0.022	0.000	43.230	0.00	1.64
60.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.022	0.000	44.015	0.00	1.23
60.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.022	0.000	44.015	0.00	4.68
65.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.023	0.000	44.751	0.00	1.23
65.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.023	0.000	44.751	0.00	4.68
70.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.023	0.000	45.444	0.00	1.23
70.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.023	0.000	45.444	0.00	4.68
75.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.024	0.000	46.100	0.00	1.23
75.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.024	0.000	46.100	0.00	4.68
80.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.025	0.000	46.723	0.00	1.23
80.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.025	0.000	46.723	0.00	4.68
85.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.026	0.000	47.316	0.00	1.23
85.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.026	0.000	47.316	0.00	4.68
90.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.027	0.000	47.882	0.00	1.23
90.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.027	0.000	47.882	0.00	4.68
95.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.028	0.000	48.424	0.00	1.23
95.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.028	0.000	48.424	0.00	4.68
100.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.029	0.000	48.945	0.00	1.23
100.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.029	0.000	48.945	0.00	4.68
105.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.029	0.000	49.445	0.00	1.23
105.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.029	0.000	49.445	0.00	4.68
110.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.031	0.000	49.927	0.00	1.23

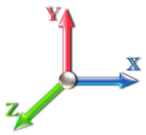
Linear Appurtenance Segment Forces (Factored)

Structure:	CT11794-S	**Code:**	TIA-222-H	8/24/2023	
Site Name:	East Lyme 1	**Exposure:**	C		
Height:	169.00 (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: 0.9D + 1.0W 126 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
110.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.031	0.000	49.927	0.00	4.68
115.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.032	0.000	50.392	0.00	1.23
115.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.032	0.000	50.392	0.00	4.68
120.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.034	0.000	50.842	0.00	1.23
120.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.034	0.000	50.842	0.00	4.68
125.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.035	0.000	51.277	0.00	1.23
125.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.035	0.000	51.277	0.00	4.68
130.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.037	0.000	51.699	0.00	1.23
130.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.037	0.000	51.699	0.00	4.68
134.00	Safety Cable	Yes	4.00	0.000	0.38	0.13	0.00	0.039	0.000	52.028	0.00	0.98
134.00	Step bolts	Yes	4.00	0.000	0.63	0.21	0.00	0.039	0.000	52.028	0.00	3.74
135.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.040	0.000	52.109	0.00	0.25
135.00	Step bolts	Yes	1.00	0.000	0.63	0.05	0.00	0.040	0.000	52.109	0.00	0.94
140.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.041	0.000	52.506	0.00	1.23
140.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.041	0.000	52.506	0.00	4.68
145.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.044	0.000	52.893	0.00	1.23
145.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.044	0.000	52.893	0.00	4.68
145.25	Safety Cable	Yes	0.25	0.000	0.38	0.01	0.00	0.045	0.000	52.912	0.00	0.06
145.25	Step bolts	Yes	0.25	0.000	0.63	0.01	0.00	0.045	0.000	52.912	0.00	0.23
146.00	Safety Cable	Yes	0.75	0.000	0.38	0.02	0.00	0.045	0.000	52.969	0.00	0.18
146.00	Step bolts	Yes	0.75	0.000	0.63	0.04	0.00	0.045	0.000	52.969	0.00	0.70
148.50	Safety Cable	Yes	2.50	0.000	0.38	0.08	0.00	0.046	0.000	53.157	0.00	0.61
148.50	Step bolts	Yes	2.50	0.000	0.63	0.13	0.00	0.046	0.000	53.157	0.00	2.34
150.00	Safety Cable	Yes	1.50	0.000	0.38	0.05	0.00	0.046	0.000	53.269	0.00	0.37
150.00	Step bolts	Yes	1.50	0.000	0.63	0.08	0.00	0.046	0.000	53.269	0.00	1.40
155.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.049	0.000	53.636	0.00	1.23
155.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.049	0.000	53.636	0.00	4.68
159.00	Safety Cable	Yes	4.00	0.000	0.38	0.13	0.00	0.052	0.000	53.922	0.00	0.98
159.00	Step bolts	Yes	4.00	0.000	0.63	0.21	0.00	0.052	0.000	53.922	0.00	3.74
160.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.053	0.000	53.993	0.00	0.25
160.00	Step bolts	Yes	1.00	0.000	0.63	0.05	0.00	0.053	0.000	53.993	0.00	0.94
165.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.056	0.000	54.342	0.00	1.23
165.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.056	0.000	54.342	0.00	4.68
169.00	Safety Cable	Yes	4.00	0.000	0.38	0.13	0.00	0.060	0.000	54.615	0.00	0.98
169.00	Step bolts	Yes	4.00	0.000	0.63	0.21	0.00	0.060	0.000	54.615	0.00	3.74
									Totals:		**0.0**	**199.7**

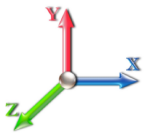
Calculated Forces

Structure:	CT11794-S	**Code:**	TIA-222-H	8/24/2023	
Site Name:	East Lyme 1	**Exposure:**	C		
Height:	169.00 (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: 0.9D + 1.0W 126 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00



Iterations 25

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-45.25	-43.63	0.00	-5515.4	0.00	5515.42	5562.36	1454.92	7206.86	6836.50	0.00	0.000	0.000	0.816
5.00	-43.65	-43.12	0.00	-5297.2	0.00	5297.28	5482.35	1421.65	6881.06	6582.98	0.11	-0.206	0.000	0.814
10.00	-42.07	-42.63	0.00	-5081.6	0.00	5081.67	5400.13	1388.39	6562.80	6331.40	0.44	-0.418	0.000	0.811
15.00	-40.53	-42.13	0.00	-4868.5	0.00	4868.54	5315.71	1355.12	6252.07	6081.95	1.00	-0.636	0.000	0.809
20.00	-39.02	-41.61	0.00	-4657.8	0.00	4657.89	5229.08	1321.85	5948.87	5834.81	1.78	-0.861	0.000	0.807
25.00	-37.53	-41.06	0.00	-4449.8	0.00	4449.86	5140.25	1288.59	5653.22	5590.18	2.81	-1.092	0.000	0.804
30.00	-36.08	-40.51	0.00	-4244.5	0.00	4244.55	5049.20	1255.32	5365.09	5348.24	4.08	-1.330	0.000	0.802
35.00	-34.65	-39.94	0.00	-4042.0	0.00	4042.02	4955.95	1222.05	5084.51	5109.18	5.60	-1.576	0.000	0.799
40.00	-33.26	-39.37	0.00	-3842.3	0.00	3842.32	4860.49	1188.79	4811.46	4873.19	7.39	-1.830	0.000	0.796
45.00	-31.95	-38.74	0.00	-3645.4	0.00	3645.49	4762.82	1155.52	4545.94	4640.45	9.45	-2.091	0.000	0.793
46.50	-31.51	-38.60	0.00	-3587.3	0.00	3587.39	4733.09	1145.54	4467.75	4571.29	10.12	-2.174	0.000	0.793
50.00	-29.88	-38.15	0.00	-3452.3	0.00	3452.30	4662.94	1122.25	4287.96	4411.15	11.78	-2.366	0.000	0.790
53.25	-28.41	-37.72	0.00	-3328.3	0.00	3328.30	4662.03	1121.95	4285.67	4409.10	13.46	-2.549	0.000	0.762
55.00	-27.89	-37.55	0.00	-3262.3	0.00	3262.30	4626.54	1110.31	4197.18	4329.70	14.41	-2.651	0.000	0.761
60.00	-26.60	-36.95	0.00	-3074.5	0.00	3074.53	4523.67	1077.04	3949.44	4105.38	17.33	-2.922	0.000	0.756
65.00	-25.35	-36.35	0.00	-2889.7	0.00	2889.78	4418.66	1043.78	3709.24	3885.01	20.54	-3.202	0.000	0.751
70.00	-24.12	-35.75	0.00	-2708.0	0.00	2708.03	4277.83	1010.51	3476.57	3640.10	24.05	-3.491	0.000	0.751
75.00	-22.92	-35.16	0.00	-2529.2	0.00	2529.26	4137.00	977.25	3251.43	3403.17	27.86	-3.789	0.000	0.750
80.00	-21.75	-34.58	0.00	-2353.4	0.00	2353.44	3996.18	943.98	3033.84	3174.21	31.99	-4.096	0.000	0.748
85.00	-20.61	-34.01	0.00	-2180.5	0.00	2180.54	3855.35	910.71	2823.78	2953.23	36.45	-4.412	0.000	0.745
90.00	-19.50	-33.44	0.00	-2010.5	0.00	2010.51	3714.52	877.45	2621.25	2740.21	41.24	-4.738	0.000	0.740
95.00	-18.42	-32.88	0.00	-1843.3	0.00	1843.31	3573.69	844.18	2426.26	2535.17	46.37	-5.072	0.000	0.734
100.00	-16.74	-32.26	0.00	-1678.9	0.00	1678.90	3014.30	712.04	2013.83	2107.62	51.86	-5.416	0.000	0.804
105.00	-15.80	-31.72	0.00	-1517.5	0.00	1517.59	2893.59	683.53	1855.77	1941.32	57.71	-5.768	0.000	0.789
110.00	-14.87	-31.20	0.00	-1358.9	0.00	1358.98	2772.88	655.01	1704.17	1781.85	63.95	-6.156	0.000	0.770
115.00	-13.98	-30.68	0.00	-1203.0	0.00	1203.00	2652.17	626.50	1559.02	1629.21	70.60	-6.549	0.000	0.746
120.00	-13.11	-30.18	0.00	-1049.5	0.00	1049.59	2531.46	597.98	1420.34	1483.41	77.66	-6.944	0.000	0.715
125.00	-12.28	-29.69	0.00	-898.69	0.00	898.69	2410.75	569.47	1288.11	1344.44	85.12	-7.337	0.000	0.676
130.00	-11.50	-29.20	0.00	-750.25	0.00	750.25	2290.04	540.95	1162.35	1212.31	92.99	-7.722	0.000	0.627
134.00	-9.17	-25.63	0.00	-633.46	0.00	633.46	2193.47	518.14	1066.39	1111.53	99.58	-8.023	0.000	0.577
135.00	-8.96	-25.56	0.00	-607.82	0.00	607.82	2169.33	512.44	1043.04	1087.01	101.26	-8.100	0.000	0.566
140.00	-8.27	-25.09	0.00	-480.02	0.00	480.02	2048.62	483.93	930.19	968.55	109.90	-8.448	0.000	0.502
145.00	-7.67	-24.62	0.00	-354.55	0.00	354.55	1927.91	455.41	823.80	856.92	118.90	-8.766	0.000	0.421
145.25	-7.63	-24.60	0.00	-348.39	0.00	348.39	1921.88	453.99	818.65	851.51	119.35	-8.782	0.000	0.416
146.00	-5.64	-18.49	0.00	-329.94	0.00	329.94	1903.77	449.71	803.30	835.41	120.73	-8.829	0.000	0.400
148.50	-5.29	-18.25	0.00	-283.73	0.00	283.73	907.84	223.60	397.18	399.56	125.38	-8.974	0.000	0.723
150.00	-5.13	-18.14	0.00	-256.36	0.00	256.36	895.57	219.32	382.13	386.55	128.20	-9.059	0.000	0.676
155.00	-4.78	-17.75	0.00	-165.65	0.00	165.65	853.23	205.07	334.07	344.13	137.89	-9.490	0.000	0.494
159.00	-2.48	-9.66	0.00	-94.64	0.00	94.64	817.77	193.66	297.94	311.31	145.93	-9.750	0.000	0.310
160.00	-2.42	-9.59	0.00	-84.98	0.00	84.98	807.76	190.81	289.23	302.92	147.96	-9.803	0.000	0.286
165.00	-2.25	-9.23	0.00	-37.03	0.00	37.03	747.41	176.55	247.62	259.13	158.29	-9.993	0.000	0.149
169.00	0.00	-8.70	0.00	-0.09	0.00	0.09	699.12	165.15	216.66	226.56	166.66	-10.051	0.000	0.003

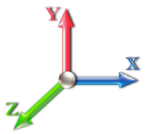
Wind Loading - Shaft

Structure:	CT11794-S	**Code:**	TIA-222-H	8/24/2023	
Site Name:	East Lyme 1	**Exposure:**	C		
Height:	169.00 (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: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 24

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	5.165	5.68	0.00	1.200	0.705	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	5.165	5.68	0.00	1.200	0.843	5.00	25.859	31.03	176.3	315.0	1988.2
10.00		1.00	0.85	5.165	5.68	0.00	1.200	0.896	5.00	25.325	30.39	172.7	327.3	1961.8
15.00		1.00	0.86	5.229	5.75	0.00	1.200	0.930	5.00	24.776	29.73	171.0	332.0	1927.8
20.00		1.00	0.91	5.537	6.09	0.00	1.200	0.956	5.00	24.220	29.06	177.0	333.2	1890.3
25.00		1.00	0.95	5.792	6.37	0.00	1.200	0.976	5.00	23.660	28.39	180.9	332.1	1850.5
30.00		1.00	0.99	6.011	6.61	0.00	1.200	0.994	5.00	23.096	27.72	183.2	329.6	1809.3
35.00		1.00	1.02	6.203	6.82	0.00	1.200	1.009	5.00	22.531	27.04	184.5	326.0	1767.1
40.00		1.00	1.05	6.375	7.01	0.00	1.200	1.022	5.00	21.965	26.36	184.8	321.7	1724.0
45.00		1.00	1.07	6.531	7.18	0.00	1.200	1.034	5.00	21.397	25.68	184.5	316.6	1680.2
46.50	Bot - Section 2	1.00	1.08	6.576	7.23	0.00	1.200	1.037	1.50	6.307	7.57	54.7	94.5	496.0
50.00		1.00	1.10	6.675	7.34	0.00	1.200	1.044	3.50	14.778	17.73	130.2	221.7	2085.8
53.25	Top - Section 1	1.00	1.11	6.762	7.44	0.00	1.200	1.051	3.25	13.473	16.17	120.3	203.4	1900.4
55.00		1.00	1.12	6.807	7.49	0.00	1.200	1.054	1.75	7.155	8.59	64.3	108.8	563.2
60.00		1.00	1.14	6.931	7.62	0.00	1.200	1.063	5.00	20.059	24.07	183.5	304.4	1576.7
65.00		1.00	1.16	7.047	7.75	0.00	1.200	1.072	5.00	19.489	23.39	181.3	297.7	1531.3
70.00		1.00	1.18	7.156	7.87	0.00	1.200	1.080	5.00	18.918	22.70	178.7	290.7	1485.6
75.00		1.00	1.19	7.259	7.99	0.00	1.200	1.087	5.00	18.346	22.02	175.8	283.4	1439.7
80.00		1.00	1.21	7.357	8.09	0.00	1.200	1.094	5.00	17.775	21.33	172.6	275.9	1393.5
85.00		1.00	1.23	7.451	8.20	0.00	1.200	1.101	5.00	17.202	20.64	169.2	268.2	1347.0
90.00		1.00	1.24	7.540	8.29	0.00	1.200	1.107	5.00	16.630	19.96	165.5	260.3	1300.4
95.00	Bot - Section 3	1.00	1.25	7.625	8.39	0.00	1.200	1.113	5.00	16.057	19.27	161.6	252.2	1253.7
100.00	Top - Section 2	1.00	1.27	7.707	8.48	0.00	1.200	1.118	5.00	15.802	18.96	160.8	249.2	2056.9
105.00		1.00	1.28	7.786	8.56	0.00	1.200	1.124	5.00	15.229	18.27	156.5	240.9	1052.6
110.00		1.00	1.29	7.862	8.65	0.00	1.200	1.129	5.00	14.656	17.59	152.1	232.4	1011.0
115.00		1.00	1.31	7.935	8.73	0.00	1.200	1.134	5.00	14.082	16.90	147.5	223.7	969.1
120.00		1.00	1.32	8.006	8.81	0.00	1.200	1.139	5.00	13.509	16.21	142.8	215.0	927.2
125.00		1.00	1.33	8.075	8.88	0.00	1.200	1.143	5.00	12.935	15.52	137.9	206.1	885.2
130.00		1.00	1.34	8.141	8.96	0.00	1.200	1.148	5.00	12.361	14.83	132.8	197.1	843.0
134.00	Appurtenance(s)	1.00	1.35	8.193	9.01	0.00	1.200	1.151	4.00	9.475	11.37	102.5	151.9	644.7
135.00		1.00	1.35	8.206	9.03	0.00	1.200	1.152	1.00	2.311	2.77	25.0	37.6	157.5
140.00		1.00	1.36	8.268	9.09	0.00	1.200	1.156	5.00	11.213	13.46	122.4	178.8	758.4
145.00		1.00	1.37	8.329	9.16	0.00	1.200	1.160	5.00	10.639	12.77	117.0	169.6	716.0
145.25	Bot - Section 4	1.00	1.37	8.332	9.17	0.00	1.200	1.161	0.25	0.517	0.62	5.7	8.5	34.9
146.00	Appurtenance(s)	1.00	1.37	8.341	9.18	0.00	1.200	1.161	0.75	1.566	1.88	17.2	25.6	144.9
148.50	Top - Section 3	1.00	1.38	8.371	9.21	0.00	1.200	1.163	2.50	5.126	6.15	56.6	82.9	472.5
150.00		1.00	1.38	8.388	9.23	0.00	1.200	1.164	1.50	3.006	3.61	33.3	48.9	126.2
155.00		1.00	1.39	8.446	9.29	0.00	1.200	1.168	5.00	9.649	11.58	107.6	153.5	400.4
159.00	Appurtenance(s)	1.00	1.40	8.491	9.34	0.00	1.200	1.171	4.00	7.305	8.77	81.9	116.7	302.3
160.00		1.00	1.40	8.502	9.35	0.00	1.200	1.172	1.00	1.769	2.12	19.8	28.8	73.5
165.00		1.00	1.41	8.557	9.41	0.00	1.200	1.175	5.00	8.500	10.20	96.0	134.4	348.1
169.00	Appurtenance(s)	1.00	1.42	8.600	9.46	0.00	1.200	1.178	4.00	6.386	7.66	72.5	101.4	260.4
								Totals:	**169.00**			**5,260.6**		**45,157.3**

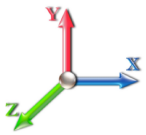
Discrete Appurtenance Forces

Structure:	CT11794-S	**Code:**	TIA-222-H	8/24/2023	
Site Name:	East Lyme 1	**Exposure:**	C		
Height:	169.00 (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: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 24

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor 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	169.00	CCI TPA65R-BU4DA-K	1	8.600	9.460	0.54	0.75	7.49	214.25	0.000	0.000	70.83	0.00	0.00
2	169.00	Ericsson RRUS-12 RRU	6	8.600	9.460	0.50	0.75	10.91	776.81	0.000	0.000	103.18	0.00	0.00
3	169.00	Ericsson RRUS 32 RRU	3	8.600	9.460	0.50	0.75	5.78	492.03	0.000	0.000	54.70	0.00	0.00
4	169.00	Ericsson RRUS A2 RRU	6	8.600	9.460	0.50	0.75	7.59	253.78	0.000	0.000	71.80	0.00	0.00
5	169.00	Raycap DC6-48-60-18-8F	3	8.600	9.460	0.50	0.75	2.93	190.18	0.000	0.000	27.70	0.00	0.00
6	169.00	Reinforced T-Arms	3	8.600	9.460	0.75	0.75	50.06	2166.19	0.000	0.000	473.54	0.00	0.00
7	169.00	CCI DTMABP7819VG12A	3	8.600	9.460	0.50	0.75	2.50	98.72	0.000	0.000	23.67	0.00	0.00
8	169.00	Ericsson AIR 6449 B77D	3	8.587	9.446	0.64	0.75	8.98	578.85	0.000	-1.250	84.84	0.00	-106.05
9	169.00	Ericsson AIR 6419 B77G	3	8.619	9.481	0.57	0.75	7.42	364.70	0.000	1.750	70.31	0.00	123.05
10	169.00	mount pipe	12	8.600	9.460	0.75	0.75	19.45	-4798.35	0.000	0.000	184.00	0.00	0.00
11	169.00	CCI TPA65R-BU6DA-K	1	8.600	9.460	0.54	0.75	7.49	214.25	0.000	0.000	70.83	0.00	0.00
12	169.00	CCI TPA65R-BU8DA-K	1	8.600	9.460	0.54	0.75	10.30	275.92	0.000	0.000	97.48	0.00	0.00
13	169.00	Ericsson 8843 B2 B66A	3	8.600	9.460	0.50	0.75	2.98	318.07	0.000	0.000	28.17	0.00	0.00
14	169.00	CCI OPA65R-BU4DA	1	8.600	9.460	0.70	0.75	3.95	145.39	0.000	0.000	37.38	0.00	0.00
15	169.00	Commscope	1	8.600	9.460	0.75	0.75	9.94	275.43	0.000	0.000	94.03	0.00	0.00
16	169.00	Commscope	1	8.600	9.460	0.75	0.75	14.31	337.97	0.000	0.000	135.40	0.00	0.00
17	169.00	Ericsson RRUS 4478 B14	3	8.600	9.460	0.54	0.80	3.22	269.62	0.000	0.000	30.42	0.00	0.00
18	169.00	Ericsson 4449 B5/B12	3	8.600	9.460	0.50	0.75	3.53	322.91	0.000	0.000	33.36	0.00	0.00
19	159.00	Ericsson 4460 B25/B66A	3	8.491	9.340	0.54	0.80	3.17	317.50	0.000	0.000	29.64	0.00	0.00
20	159.00	Ericsson 4449 B71 + B85	3	8.491	9.340	0.54	0.80	3.78	204.55	0.000	0.000	35.33	0.00	0.00
21	159.00	RFS	3	8.491	9.340	0.58	0.80	37.67	1267.92	0.000	0.000	351.82	0.00	0.00
22	159.00	Commscope VV-65A-R1	3	8.491	9.340	0.59	0.80	15.52	432.08	0.000	0.000	144.98	0.00	0.00
23	159.00	Ericsson AIR 6419 B41	3	8.491	9.340	0.56	0.80	12.16	791.14	0.000	0.000	113.59	0.00	0.00
24	159.00	T-Arm	3	8.491	9.340	0.75	0.75	28.54	1762.08	0.000	0.000	266.56	0.00	0.00
25	159.00	PRK-SFS-L	1	8.491	9.340	1.00	1.00	24.76	778.54	0.000	0.000	231.31	0.00	0.00
26	159.00	PRK-1245L	1	8.491	9.340	1.00	1.00	16.17	680.57	0.000	0.000	151.08	0.00	0.00
27	159.00	Ericsson KRY 112 144/1	3	8.491	9.340	0.52	0.75	1.15	52.00	0.000	0.000	10.72	0.00	0.00
28	159.00	mount pipe	12	8.491	9.340	0.75	0.75	19.69	-4799.37	0.000	0.000	183.93	0.00	0.00
29	146.00	Samsung RF4439d-25A	3	8.341	9.175	0.64	0.75	4.27	353.66	0.000	0.000	39.15	0.00	0.00
30	146.00	Samsung RF4440d-13A	3	8.341	9.175	0.61	0.75	4.12	321.97	0.000	0.000	37.77	0.00	0.00
31	146.00	JMA Wireless	6	8.341	9.175	0.66	0.75	42.61	1538.27	0.000	0.000	390.92	0.00	0.00
32	146.00	Samsung MT6407-77A	3	8.341	9.175	0.53	0.75	8.45	621.33	0.000	0.000	77.52	0.00	0.00
33	146.00	Mods	1	8.341	9.175	1.00	1.00	20.19	-373.19	0.000	0.000	185.29	0.00	0.00
34	146.00	Raycap 12 OVP	1	8.341	9.175	0.75	0.75	3.45	100.29	0.000	0.000	31.68	0.00	0.00
35	146.00	Low Profile Platform	1	8.341	9.175	1.00	1.00	22.88	1975.71	0.000	0.000	209.90	0.00	0.00
36	146.00	mount pipe	12	8.341	9.175	0.75	0.75	20.60	-16999.0	0.000	0.000	189.04	0.00	0.00
37	134.00	Platform w/HRK	1	8.193	9.012	0.67	0.67	36.09	3122.17	0.000	0.000	325.28	0.00	0.00
38	134.00	Raycap	1	8.193	9.012	0.75	0.75	1.98	26.59	0.000	0.000	17.85	0.00	0.00
39	134.00	Samsung RF4451d-70A	3	8.193	9.012	0.50	0.75	3.66	296.06	0.000	0.000	32.95	0.00	0.00
40	134.00	Samsung RF4450t-71A	3	8.193	9.012	0.50	0.75	4.01	583.02	0.000	0.000	36.11	0.00	0.00
41	134.00	Commscope	3	8.193	9.012	0.56	0.75	22.32	783.16	0.000	0.000	201.19	0.00	0.00
							Totals:		**-3,666.27**			**4,985.28**		

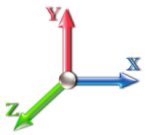
Total Applied Force Summary

Structure:	CT11794-S		**Code:**	TIA-222-H	8/24/2023
Site Name:	East Lyme 1		**Exposure:**	C	
Height:	169.00 (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

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 24

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		176.32	2252.41	0.00	0.00
10.00		172.68	2227.34	0.00	0.00
15.00		171.02	2194.27	0.00	0.00
20.00		177.03	2157.39	0.00	0.00
25.00		180.89	2118.22	0.00	0.00
30.00		183.24	2077.50	0.00	0.00
35.00		184.48	2035.66	0.00	0.00
40.00		184.83	1992.94	0.00	0.00
45.00		184.47	1949.54	0.00	0.00
46.50		54.75	576.86	0.00	0.00
50.00		130.21	2274.59	0.00	0.00
53.25		120.26	2075.79	0.00	0.00
55.00		64.29	657.70	0.00	0.00
60.00		183.52	1846.92	0.00	0.00
65.00		181.28	1801.76	0.00	0.00
70.00		178.70	1756.30	0.00	0.00
75.00		175.80	1710.56	0.00	0.00
80.00		172.62	1664.57	0.00	0.00
85.00		169.19	1618.36	0.00	0.00
90.00		165.52	1571.95	0.00	0.00
95.00		161.63	1525.35	0.00	0.00
100.00		160.76	2328.77	0.00	0.00
105.00		156.52	1324.68	0.00	0.00
110.00		152.10	1283.16	0.00	0.00
115.00		147.51	1241.51	0.00	0.00
120.00		142.76	1199.73	0.00	0.00
125.00		137.87	1157.83	0.00	0.00
130.00		132.84	1115.81	0.00	0.00
134.00	(11) attachments	715.85	5674.05	0.00	0.00
135.00		25.03	210.76	0.00	0.00
140.00		122.38	1024.87	0.00	0.00
145.00		116.97	982.56	0.00	0.00
145.25		5.68	48.23	0.00	0.00
146.00	(30) attachments	1178.52	-12276.12	0.00	0.00
148.50		56.63	561.76	0.00	0.00
150.00		33.29	179.77	0.00	0.00
155.00		107.57	579.14	0.00	0.00
159.00	(35) attachments	1600.83	1932.37	0.00	0.00
160.00		19.85	92.75	0.00	0.00
165.00		96.01	444.31	0.00	0.00
169.00	(57) attachments	1764.16	2834.09	0.00	17.00
	Totals:	**10,245.85**	**50,026.02**	**0.00**	**17.00**

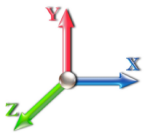
Linear Appurtenance Segment Forces (Factored)

Structure:	CT11794-S	**Code:**	TIA-222-H	8/24/2023	
Site Name:	East Lyme 1	**Exposure:**	C		
Height:	169.00 (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: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 24

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	Safety Cable	Yes	5.00	0.000	0.38	0.86	0.00	0.017	0.000	5.165	0.00	7.27
5.00	Step bolts	Yes	5.00	0.000	0.63	0.97	0.00	0.017	0.000	5.165	0.00	12.80
10.00	Safety Cable	Yes	5.00	0.000	0.38	0.90	0.00	0.017	0.000	5.165	0.00	7.91
10.00	Step bolts	Yes	5.00	0.000	0.63	1.01	0.00	0.017	0.000	5.165	0.00	13.48
15.00	Safety Cable	Yes	5.00	0.000	0.38	0.93	0.00	0.018	0.000	5.229	0.00	8.34
15.00	Step bolts	Yes	5.00	0.000	0.63	1.04	0.00	0.018	0.000	5.229	0.00	13.95
20.00	Safety Cable	Yes	5.00	0.000	0.38	0.95	0.00	0.018	0.000	5.537	0.00	8.67
20.00	Step bolts	Yes	5.00	0.000	0.63	1.06	0.00	0.018	0.000	5.537	0.00	14.31
25.00	Safety Cable	Yes	5.00	0.000	0.38	0.97	0.00	0.018	0.000	5.792	0.00	8.94
25.00	Step bolts	Yes	5.00	0.000	0.63	1.08	0.00	0.018	0.000	5.792	0.00	14.60
30.00	Safety Cable	Yes	5.00	0.000	0.38	0.99	0.00	0.019	0.000	6.011	0.00	9.18
30.00	Step bolts	Yes	5.00	0.000	0.63	1.09	0.00	0.019	0.000	6.011	0.00	14.85
35.00	Safety Cable	Yes	5.00	0.000	0.38	1.00	0.00	0.019	0.000	6.203	0.00	9.38
35.00	Step bolts	Yes	5.00	0.000	0.63	1.10	0.00	0.019	0.000	6.203	0.00	15.07
40.00	Safety Cable	Yes	5.00	0.000	0.38	1.01	0.00	0.020	0.000	6.375	0.00	9.57
40.00	Step bolts	Yes	5.00	0.000	0.63	1.11	0.00	0.020	0.000	6.375	0.00	15.27
45.00	Safety Cable	Yes	5.00	0.000	0.38	1.02	0.00	0.020	0.000	6.531	0.00	9.73
45.00	Step bolts	Yes	5.00	0.000	0.63	1.12	0.00	0.020	0.000	6.531	0.00	15.44
46.50	Safety Cable	Yes	1.50	0.000	0.38	0.31	0.00	0.021	0.000	6.576	0.00	2.93
46.50	Step bolts	Yes	1.50	0.000	0.63	0.34	0.00	0.021	0.000	6.576	0.00	4.65
50.00	Safety Cable	Yes	3.50	0.000	0.38	0.72	0.00	0.021	0.000	6.675	0.00	6.92
50.00	Step bolts	Yes	3.50	0.000	0.63	0.79	0.00	0.021	0.000	6.675	0.00	10.92
53.25	Safety Cable	Yes	3.25	0.000	0.38	0.67	0.00	0.022	0.000	6.762	0.00	6.48
53.25	Step bolts	Yes	3.25	0.000	0.63	0.74	0.00	0.022	0.000	6.762	0.00	10.21
55.00	Safety Cable	Yes	1.75	0.000	0.38	0.36	0.00	0.022	0.000	6.807	0.00	3.51
55.00	Step bolts	Yes	1.75	0.000	0.63	0.40	0.00	0.022	0.000	6.807	0.00	5.51
60.00	Safety Cable	Yes	5.00	0.000	0.38	1.04	0.00	0.022	0.000	6.931	0.00	10.15
60.00	Step bolts	Yes	5.00	0.000	0.63	1.15	0.00	0.022	0.000	6.931	0.00	15.89
65.00	Safety Cable	Yes	5.00	0.000	0.38	1.05	0.00	0.023	0.000	7.047	0.00	10.28
65.00	Step bolts	Yes	5.00	0.000	0.63	1.16	0.00	0.023	0.000	7.047	0.00	16.03
70.00	Safety Cable	Yes	5.00	0.000	0.38	1.06	0.00	0.023	0.000	7.156	0.00	10.39
70.00	Step bolts	Yes	5.00	0.000	0.63	1.16	0.00	0.023	0.000	7.156	0.00	16.15
75.00	Safety Cable	Yes	5.00	0.000	0.38	1.06	0.00	0.024	0.000	7.259	0.00	10.50
75.00	Step bolts	Yes	5.00	0.000	0.63	1.17	0.00	0.024	0.000	7.259	0.00	16.26
80.00	Safety Cable	Yes	5.00	0.000	0.38	1.07	0.00	0.025	0.000	7.357	0.00	10.60
80.00	Step bolts	Yes	5.00	0.000	0.63	1.17	0.00	0.025	0.000	7.357	0.00	16.37
85.00	Safety Cable	Yes	5.00	0.000	0.38	1.08	0.00	0.026	0.000	7.451	0.00	10.70
85.00	Step bolts	Yes	5.00	0.000	0.63	1.18	0.00	0.026	0.000	7.451	0.00	16.48
90.00	Safety Cable	Yes	5.00	0.000	0.38	1.08	0.00	0.027	0.000	7.540	0.00	10.79
90.00	Step bolts	Yes	5.00	0.000	0.63	1.18	0.00	0.027	0.000	7.540	0.00	16.58
95.00	Safety Cable	Yes	5.00	0.000	0.38	1.09	0.00	0.028	0.000	7.625	0.00	10.88
95.00	Step bolts	Yes	5.00	0.000	0.63	1.19	0.00	0.028	0.000	7.625	0.00	16.67
100.00	Safety Cable	Yes	5.00	0.000	0.38	1.09	0.00	0.029	0.000	7.707	0.00	10.97
100.00	Step bolts	Yes	5.00	0.000	0.63	1.19	0.00	0.029	0.000	7.707	0.00	16.76
105.00	Safety Cable	Yes	5.00	0.000	0.38	1.09	0.00	0.029	0.000	7.786	0.00	11.05
105.00	Step bolts	Yes	5.00	0.000	0.63	1.20	0.00	0.029	0.000	7.786	0.00	16.85
110.00	Safety Cable	Yes	5.00	0.000	0.38	1.10	0.00	0.031	0.000	7.862	0.00	11.13

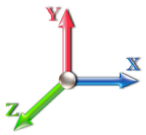
Linear Appurtenance Segment Forces (Factored)

Structure:	CT11794-S	**Code:**	TIA-222-H	8/24/2023	
Site Name:	East Lyme 1	**Exposure:**	C		
Height:	169.00 (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: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 24

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
110.00	Step bolts	Yes	5.00	0.000	0.63	1.20	0.00	0.031	0.000	7.862	0.00	16.93
115.00	Safety Cable	Yes	5.00	0.000	0.38	1.10	0.00	0.032	0.000	7.935	0.00	11.21
115.00	Step bolts	Yes	5.00	0.000	0.63	1.21	0.00	0.032	0.000	7.935	0.00	17.01
120.00	Safety Cable	Yes	5.00	0.000	0.38	1.11	0.00	0.034	0.000	8.006	0.00	11.28
120.00	Step bolts	Yes	5.00	0.000	0.63	1.21	0.00	0.034	0.000	8.006	0.00	17.09
125.00	Safety Cable	Yes	5.00	0.000	0.38	1.11	0.00	0.035	0.000	8.075	0.00	11.35
125.00	Step bolts	Yes	5.00	0.000	0.63	1.22	0.00	0.035	0.000	8.075	0.00	17.17
130.00	Safety Cable	Yes	5.00	0.000	0.38	1.11	0.00	0.037	0.000	8.141	0.00	11.42
130.00	Step bolts	Yes	5.00	0.000	0.63	1.22	0.00	0.037	0.000	8.141	0.00	17.24
134.00	Safety Cable	Yes	4.00	0.000	0.38	0.89	0.00	0.039	0.000	8.193	0.00	9.18
134.00	Step bolts	Yes	4.00	0.000	0.63	0.98	0.00	0.039	0.000	8.193	0.00	13.84
135.00	Safety Cable	Yes	1.00	0.000	0.38	0.22	0.00	0.040	0.000	8.206	0.00	2.30
135.00	Step bolts	Yes	1.00	0.000	0.63	0.24	0.00	0.040	0.000	8.206	0.00	3.46
140.00	Safety Cable	Yes	5.00	0.000	0.38	1.12	0.00	0.041	0.000	8.268	0.00	11.55
140.00	Step bolts	Yes	5.00	0.000	0.63	1.23	0.00	0.041	0.000	8.268	0.00	17.38
145.00	Safety Cable	Yes	5.00	0.000	0.38	1.13	0.00	0.044	0.000	8.329	0.00	11.61
145.00	Step bolts	Yes	5.00	0.000	0.63	1.23	0.00	0.044	0.000	8.329	0.00	17.45
145.25	Safety Cable	Yes	0.25	0.000	0.38	0.06	0.00	0.045	0.000	8.332	0.00	0.58
145.25	Step bolts	Yes	0.25	0.000	0.63	0.06	0.00	0.045	0.000	8.332	0.00	0.87
146.00	Safety Cable	Yes	0.75	0.000	0.38	0.17	0.00	0.045	0.000	8.341	0.00	1.74
146.00	Step bolts	Yes	0.75	0.000	0.63	0.18	0.00	0.045	0.000	8.341	0.00	2.62
148.50	Safety Cable	Yes	2.50	0.000	0.38	0.56	0.00	0.046	0.000	8.371	0.00	5.83
148.50	Step bolts	Yes	2.50	0.000	0.63	0.62	0.00	0.046	0.000	8.371	0.00	8.75
150.00	Safety Cable	Yes	1.50	0.000	0.38	0.34	0.00	0.046	0.000	8.388	0.00	3.50
150.00	Step bolts	Yes	1.50	0.000	0.63	0.37	0.00	0.046	0.000	8.388	0.00	5.25
155.00	Safety Cable	Yes	5.00	0.000	0.38	1.13	0.00	0.049	0.000	8.446	0.00	11.73
155.00	Step bolts	Yes	5.00	0.000	0.63	1.24	0.00	0.049	0.000	8.446	0.00	17.58
159.00	Safety Cable	Yes	4.00	0.000	0.38	0.91	0.00	0.052	0.000	8.491	0.00	9.42
159.00	Step bolts	Yes	4.00	0.000	0.63	0.99	0.00	0.052	0.000	8.491	0.00	14.10
160.00	Safety Cable	Yes	1.00	0.000	0.38	0.23	0.00	0.053	0.000	8.502	0.00	2.36
160.00	Step bolts	Yes	1.00	0.000	0.63	0.25	0.00	0.053	0.000	8.502	0.00	3.53
165.00	Safety Cable	Yes	5.00	0.000	0.38	1.14	0.00	0.056	0.000	8.557	0.00	11.85
165.00	Step bolts	Yes	5.00	0.000	0.63	1.24	0.00	0.056	0.000	8.557	0.00	17.70
169.00	Safety Cable	Yes	4.00	0.000	0.38	0.91	0.00	0.060	0.000	8.600	0.00	9.51
169.00	Step bolts	Yes	4.00	0.000	0.63	1.00	0.00	0.060	0.000	8.600	0.00	14.20
									Totals:		**0.0**	**900.0**

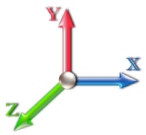
Calculated Forces

Structure:	CT11794-S	**Code:**	TIA-222-H	8/24/2023	
Site Name:	East Lyme 1	**Exposure:**	C		
Height:	169.00 (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: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 24

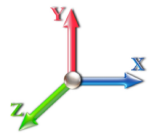
Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-62.30	-10.27	0.00	-1248.5	0.00	1248.56	5562.36	1454.92	7206.86	6836.50	0.00	0.000	0.000	0.194
5.00	-60.04	-10.14	0.00	-1197.2	0.00	1197.20	5482.35	1421.65	6881.06	6582.98	0.03	-0.047	0.000	0.193
10.00	-57.80	-10.02	0.00	-1146.4	0.00	1146.49	5400.13	1388.39	6562.80	6331.40	0.10	-0.094	0.000	0.192
15.00	-55.60	-9.89	0.00	-1096.4	0.00	1096.40	5315.71	1355.12	6252.07	6081.95	0.23	-0.144	0.000	0.191
20.00	-53.43	-9.75	0.00	-1046.9	0.00	1046.96	5229.08	1321.85	5948.87	5834.81	0.40	-0.194	0.000	0.190
25.00	-51.31	-9.61	0.00	-998.19	0.00	998.19	5140.25	1288.59	5653.22	5590.18	0.63	-0.246	0.000	0.189
30.00	-49.22	-9.47	0.00	-950.13	0.00	950.13	5049.20	1255.32	5365.09	5348.24	0.92	-0.300	0.000	0.187
35.00	-47.18	-9.32	0.00	-902.80	0.00	902.80	4955.95	1222.05	5084.51	5109.18	1.26	-0.355	0.000	0.186
40.00	-45.18	-9.16	0.00	-856.23	0.00	856.23	4860.49	1188.79	4811.46	4873.19	1.67	-0.411	0.000	0.185
45.00	-43.22	-8.99	0.00	-810.41	0.00	810.41	4762.82	1155.52	4545.94	4640.45	2.13	-0.469	0.000	0.184
46.50	-42.64	-8.96	0.00	-796.93	0.00	796.93	4733.09	1145.54	4467.75	4571.29	2.28	-0.488	0.000	0.183
50.00	-40.36	-8.83	0.00	-765.58	0.00	765.58	4662.94	1122.25	4287.96	4411.15	2.65	-0.530	0.000	0.182
53.25	-38.28	-8.71	0.00	-736.88	0.00	736.88	4662.03	1121.95	4285.67	4409.10	3.03	-0.571	0.000	0.175
55.00	-37.62	-8.67	0.00	-721.63	0.00	721.63	4626.54	1110.31	4197.18	4329.70	3.24	-0.593	0.000	0.175
60.00	-35.77	-8.51	0.00	-678.27	0.00	678.27	4523.67	1077.04	3949.44	4105.38	3.89	-0.653	0.000	0.173
65.00	-33.96	-8.34	0.00	-635.75	0.00	635.75	4418.66	1043.78	3709.24	3885.01	4.61	-0.715	0.000	0.171
70.00	-32.19	-8.17	0.00	-594.05	0.00	594.05	4277.83	1010.51	3476.57	3640.10	5.39	-0.778	0.000	0.171
75.00	-30.48	-8.01	0.00	-553.18	0.00	553.18	4137.00	977.25	3251.43	3403.17	6.24	-0.844	0.000	0.170
80.00	-28.81	-7.85	0.00	-513.13	0.00	513.13	3996.18	943.98	3033.84	3174.21	7.16	-0.911	0.000	0.169
85.00	-27.18	-7.68	0.00	-473.91	0.00	473.91	3855.35	910.71	2823.78	2953.23	8.15	-0.980	0.000	0.168
90.00	-25.60	-7.52	0.00	-435.49	0.00	435.49	3714.52	877.45	2621.25	2740.21	9.22	-1.050	0.000	0.166
95.00	-24.07	-7.36	0.00	-397.89	0.00	397.89	3573.69	844.18	2426.26	2535.17	10.36	-1.123	0.000	0.164
100.00	-21.74	-7.18	0.00	-361.08	0.00	361.08	3014.30	712.04	2013.83	2107.62	11.57	-1.197	0.000	0.179
105.00	-20.41	-7.03	0.00	-325.17	0.00	325.17	2893.59	683.53	1855.77	1941.32	12.87	-1.272	0.000	0.175
110.00	-19.12	-6.87	0.00	-290.04	0.00	290.04	2772.88	655.01	1704.17	1781.85	14.24	-1.355	0.000	0.170
115.00	-17.87	-6.72	0.00	-255.68	0.00	255.68	2652.17	626.50	1559.02	1629.21	15.71	-1.439	0.000	0.164
120.00	-16.66	-6.57	0.00	-222.08	0.00	222.08	2531.46	597.98	1420.34	1483.41	17.26	-1.523	0.000	0.156
125.00	-15.50	-6.42	0.00	-189.23	0.00	189.23	2410.75	569.47	1288.11	1344.44	18.90	-1.606	0.000	0.147
130.00	-14.38	-6.28	0.00	-157.11	0.00	157.11	2290.04	540.95	1162.35	1212.31	20.63	-1.686	0.000	0.136
134.00	-8.73	-5.40	0.00	-132.01	0.00	132.01	2193.47	518.14	1066.39	1111.53	22.07	-1.749	0.000	0.123
135.00	-8.51	-5.37	0.00	-126.61	0.00	126.61	2169.33	512.44	1043.04	1087.01	22.43	-1.765	0.000	0.121
140.00	-7.49	-5.23	0.00	-99.75	0.00	99.75	2048.62	483.93	930.19	968.55	24.32	-1.838	0.000	0.107
145.00	-6.51	-5.08	0.00	-73.62	0.00	73.62	1927.91	455.41	823.80	856.92	26.28	-1.904	0.000	0.089
145.25	-6.46	-5.07	0.00	-72.35	0.00	72.35	1921.88	453.99	818.65	851.51	26.38	-1.907	0.000	0.088
146.00	-6.50	-3.90	0.00	-68.54	0.00	68.54	1903.77	449.71	803.30	835.41	26.68	-1.917	0.000	0.086
148.50	-5.94	-3.83	0.00	-58.79	0.00	58.79	907.84	223.60	397.18	399.56	27.70	-1.947	0.000	0.154
150.00	-5.75	-3.79	0.00	-53.05	0.00	53.05	895.57	219.32	382.13	386.55	28.31	-1.965	0.000	0.144
155.00	-5.17	-3.67	0.00	-34.09	0.00	34.09	853.23	205.07	334.07	344.13	30.42	-2.054	0.000	0.105
159.00	-3.30	-2.00	0.00	-19.41	0.00	19.41	817.77	193.66	297.94	311.31	32.16	-2.107	0.000	0.066
160.00	-3.21	-1.98	0.00	-17.40	0.00	17.40	807.76	190.81	289.23	302.92	32.61	-2.118	0.000	0.062
165.00	-2.77	-1.87	0.00	-7.50	0.00	7.50	747.41	176.55	247.62	259.13	34.85	-2.157	0.000	0.033
169.00	0.00	-1.76	0.00	-0.02	0.00	0.02	699.12	165.15	216.66	226.56	36.66	-2.168	0.000	0.000

Seismic Segment Forces (Factored)

Structure:	CT11794-S		**Code:**	TIA-222-H	8/24/2023
Site Name:	East Lyme 1		**Exposure:**	C	
Height:	169.00 (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: 1.2D + 1.0Ev + 1.0Eh

Gust Response Factor	1.10			**Sds**	0.21	**Iterations**	22
Dead Load Factor	1.20	**Seismic Load Factor**	1.00	**Sd1**	0.08	**Ss**	0.20
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.31	**SA**	0.03	**S1**	0.05
						Seismic Importance Factor	1.00



Top Elev (ft)	Description	Wz (lb)	Hz (lb)	Vertical Ev (lb)	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	
5.00		1646.3	2.50	68.49	0.01	
10.00		1614.1	7.50	67.15	0.07	
15.00		1581.8	12.50	65.81	0.20	
20.00		1549.6	17.50	64.46	0.37	
25.00		1517.3	22.50	63.12	0.59	
30.00		1485.1	27.50	61.78	0.85	
35.00		1452.8	32.50	60.44	1.13	
40.00		1420.6	37.50	59.10	1.44	
45.00		1388.3	42.50	57.76	1.77	
46.50	Bot - Section 2	410.22	45.75	17.07	0.18	
50.00		1729.8	48.25	71.96	3.54	
53.25	Top - Section 1	1577.9	51.63	65.64	3.37	
55.00		466.92	54.13	19.42	0.32	
60.00		1312.2	57.50	54.59	2.89	
65.00		1280.0	62.50	53.25	3.25	
70.00		1247.7	67.50	51.91	3.60	
75.00		1215.5	72.50	50.57	3.94	
80.00		1183.2	77.50	49.22	4.27	
85.00		1151.0	82.50	47.88	4.58	
90.00		1118.7	87.50	46.54	4.86	
95.00	Bot - Section 3	1086.5	92.50	45.20	5.13	
100.00	Top - Section 2	1758.3	97.50	73.15	14.92	
105.00		928.48	102.50	38.62	4.60	
110.00		900.84	107.50	37.48	4.76	
115.00		873.20	112.50	36.33	4.90	
120.00		845.56	117.50	35.18	5.01	
125.00		817.91	122.50	34.03	5.10	
130.00		790.27	127.50	32.88	5.15	
134.00	Appurtenance(s)	3050.2	132.00	126.89	82.28	
135.00		148.99	134.50	6.20	0.20	
140.00		728.38	137.50	30.30	5.09	
145.00		700.74	142.50	29.15	5.06	
145.25	Bot - Section 4	34.31	145.13	1.43	0.01	
146.00	Appurtenance(s)	3200.5	145.63	133.14	110.26	
148.50	Top - Section 3	403.31	147.25	16.78	1.79	
150.00		111.61	149.25	4.64	0.14	
155.00		363.05	152.50	15.10	1.56	
159.00	Appurtenance(s)	4024.5	157.00	167.42	202.64	
160.00		52.18	159.50	2.17	0.04	
165.00		252.61	162.50	10.51	0.86	
169.00	Appurtenance(s)	4257.0	167.00	177.09	256.54	
	Totals:	**51,678.7**		**2,149.8**	**757.3**	**Total Wind:** **43,546.4**

Calculated Forces

Structure:	CT11794-S		**Code:**	TIA-222-H	8/24/2023
Site Name:	East Lyme 1		**Exposure:**	C	
Height:	169.00 (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:	1.2D + 1.0Ev + 1.0Eh							**Iterations**	22
Gust Response Factor	1.10			**Sds**	0.21			**Ss**	0.20
Dead Load Factor	1.20	**Seismic Load Factor**	1.00	**Sd1**	0.08			**S1**	0.05
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.31	**SA**	0.03	**Seismic Importance Factor**			1.00

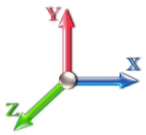
Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-62.58	-0.76	0.00	-120.61	0.00	120.61	5562.36	1454.92	7206.86	6836.50		0.00	0.00	0.029
5.00	-60.59	-0.76	0.00	-116.81	0.00	116.81	5482.35	1421.65	6881.06	6582.98		0.00	0.00	0.029
10.00	-58.64	-0.77	0.00	-113.00	0.00	113.00	5400.13	1388.39	6562.80	6331.40		0.01	-0.01	0.029
15.00	-56.72	-0.77	0.00	-109.16	0.00	109.16	5315.71	1355.12	6252.07	6081.95		0.02	-0.01	0.029
20.00	-54.85	-0.78	0.00	-105.29	0.00	105.29	5229.08	1321.85	5948.87	5834.81		0.04	-0.02	0.029
25.00	-53.02	-0.78	0.00	-101.41	0.00	101.41	5140.25	1288.59	5653.22	5590.18		0.06	-0.02	0.028
30.00	-51.22	-0.78	0.00	-97.51	0.00	97.51	5049.20	1255.32	5365.09	5348.24		0.09	-0.03	0.028
35.00	-49.47	-0.79	0.00	-93.59	0.00	93.59	4955.95	1222.05	5084.51	5109.18		0.12	-0.04	0.028
40.00	-47.75	-0.79	0.00	-89.66	0.00	89.66	4860.49	1188.79	4811.46	4873.19		0.17	-0.04	0.028
45.00	-46.08	-0.79	0.00	-85.72	0.00	85.72	4762.82	1155.52	4545.94	4640.45		0.21	-0.05	0.028
46.50	-45.59	-0.79	0.00	-84.53	0.00	84.53	4733.09	1145.54	4467.75	4571.29		0.23	-0.05	0.028
50.00	-43.47	-0.79	0.00	-81.76	0.00	81.76	4662.94	1122.25	4287.96	4411.15		0.27	-0.05	0.028
53.25	-41.55	-0.79	0.00	-79.20	0.00	79.20	4662.03	1121.95	4285.67	4409.10		0.30	-0.06	0.027
55.00	-40.99	-0.79	0.00	-77.82	0.00	77.82	4626.54	1110.31	4197.18	4329.70		0.33	-0.06	0.027
60.00	-39.41	-0.79	0.00	-73.88	0.00	73.88	4523.67	1077.04	3949.44	4105.38		0.39	-0.07	0.027
65.00	-37.87	-0.79	0.00	-69.94	0.00	69.94	4418.66	1043.78	3709.24	3885.01		0.47	-0.07	0.027
70.00	-36.37	-0.79	0.00	-66.00	0.00	66.00	4277.83	1010.51	3476.57	3640.10		0.55	-0.08	0.027
75.00	-34.91	-0.79	0.00	-62.07	0.00	62.07	4137.00	977.25	3251.43	3403.17		0.64	-0.09	0.027
80.00	-33.49	-0.78	0.00	-58.14	0.00	58.14	3996.18	943.98	3033.84	3174.21		0.73	-0.10	0.027
85.00	-32.11	-0.78	0.00	-54.23	0.00	54.23	3855.35	910.71	2823.78	2953.23		0.84	-0.10	0.027
90.00	-30.77	-0.78	0.00	-50.33	0.00	50.33	3714.52	877.45	2621.25	2740.21		0.95	-0.11	0.027
95.00	-29.47	-0.77	0.00	-46.44	0.00	46.44	3573.69	844.18	2426.26	2535.17		1.07	-0.12	0.027
100.00	-27.34	-0.76	0.00	-42.57	0.00	42.57	3014.30	712.04	2013.83	2107.62		1.20	-0.13	0.029
105.00	-26.24	-0.76	0.00	-38.77	0.00	38.77	2893.59	683.53	1855.77	1941.32		1.34	-0.14	0.029
110.00	-25.17	-0.75	0.00	-34.99	0.00	34.99	2772.88	655.01	1704.17	1781.85		1.49	-0.15	0.029
115.00	-24.14	-0.75	0.00	-31.23	0.00	31.23	2652.17	626.50	1559.02	1629.21		1.65	-0.16	0.028
120.00	-23.14	-0.75	0.00	-27.48	0.00	27.48	2531.46	597.98	1420.34	1483.41		1.82	-0.17	0.028
125.00	-22.17	-0.74	0.00	-23.75	0.00	23.75	2410.75	569.47	1288.11	1344.44		2.01	-0.18	0.027
130.00	-21.24	-0.74	0.00	-20.04	0.00	20.04	2290.04	540.95	1162.35	1212.31		2.20	-0.19	0.026
134.00	-17.50	-0.64	0.00	-17.09	0.00	17.09	2193.47	518.14	1066.39	1111.53		2.36	-0.20	0.023
135.00	-17.32	-0.65	0.00	-16.44	0.00	16.44	2169.33	512.44	1043.04	1087.01		2.40	-0.20	0.023
140.00	-16.46	-0.64	0.00	-13.22	0.00	13.22	2048.62	483.93	930.19	968.55		2.62	-0.21	0.022
145.00	-15.64	-0.63	0.00	-10.02	0.00	10.02	1927.91	455.41	823.80	856.92		2.84	-0.22	0.020
145.25	-15.60	-0.63	0.00	-9.86	0.00	9.86	1921.88	453.99	818.65	851.51		2.85	-0.22	0.020
146.00	-11.64	-0.51	0.00	-9.39	0.00	9.39	1903.77	449.71	803.30	835.41		2.88	-0.22	0.017
148.50	-11.15	-0.51	0.00	-8.12	0.00	8.12	907.84	223.60	397.18	399.56		3.00	-0.22	0.033
150.00	-11.02	-0.51	0.00	-7.36	0.00	7.36	895.57	219.32	382.13	386.55		3.07	-0.23	0.031
155.00	-10.60	-0.50	0.00	-4.83	0.00	4.83	853.23	205.07	334.07	344.13		3.31	-0.24	0.026
159.00	-5.63	-0.28	0.00	-2.81	0.00	2.81	817.77	193.66	297.94	311.31		3.52	-0.25	0.016
160.00	-5.57	-0.28	0.00	-2.53	0.00	2.53	807.76	190.81	289.23	302.92		3.57	-0.25	0.015
165.00	-5.27	-0.28	0.00	-1.12	0.00	1.12	747.41	176.55	247.62	259.13		3.83	-0.25	0.011
169.00	0.00	-0.26	0.00	0.00	0.00	0.00	699.12	165.15	216.66	226.56		4.04	-0.25	0.000

Seismic Segment Forces (Factored)

Structure:	CT11794-S		**Code:**	TIA-222-H	8/24/2023
Site Name:	East Lyme 1		**Exposure:**	C	
Height:	169.00 (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 + 1.0Ev + 1.0Eh

Gust Response Factor	1.10			**Sds**	0.21	**Iterations**	22
Dead Load Factor	0.90	**Seismic Load Factor**	1.00	**Sd1**	0.08	**Ss**	0.20
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.31	**SA**	0.03	**S1**	0.05
						Seismic Importance Factor	1.00



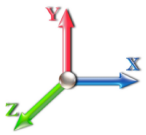
Top Elev (ft)	Description	Wz (lb)	Hz (lb)	Vertical Ev (lb)	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	
5.00		1583.3	2.50	65.87	0.01	
10.00		1551.1	7.50	64.53	0.07	
15.00		1518.8	12.50	63.18	0.19	
20.00		1486.6	17.50	61.84	0.35	
25.00		1454.3	22.50	60.50	0.56	
30.00		1422.1	27.50	59.16	0.80	
35.00		1389.8	32.50	57.82	1.06	
40.00		1357.6	37.50	56.48	1.35	
45.00		1325.3	42.50	55.14	1.65	
46.50	Bot - Section 2	391.32	45.75	16.28	0.17	
50.00		1685.7	48.25	70.13	3.45	
53.25	Top - Section 1	1537.0	51.63	63.94	3.28	
55.00		444.87	54.13	18.51	0.30	
60.00		1249.2	57.50	51.97	2.69	
65.00		1217.0	62.50	50.63	3.02	
70.00		1184.7	67.50	49.29	3.34	
75.00		1152.5	72.50	47.95	3.64	
80.00		1120.2	77.50	46.60	3.93	
85.00		1088.0	82.50	45.26	4.20	
90.00		1055.7	87.50	43.92	4.45	
95.00	Bot - Section 3	1023.5	92.50	42.58	4.67	
100.00	Top - Section 2	1695.3	97.50	70.53	14.25	
105.00		865.48	102.50	36.00	4.10	
110.00		837.84	107.50	34.85	4.23	
115.00		810.19	112.50	33.70	4.33	
120.00		782.55	117.50	32.55	4.41	
125.00		754.91	122.50	31.40	4.46	
130.00		727.26	127.50	30.25	4.48	
134.00	Appurtenance(s)	2999.8	132.00	124.79	81.76	
135.00		136.72	134.50	5.69	0.18	
140.00		667.03	137.50	27.75	4.39	
145.00		639.39	142.50	26.60	4.33	
145.25	Bot - Section 4	31.24	145.13	1.30	0.01	
146.00	Appurtenance(s)	3191.3	145.63	132.76	112.63	
148.50	Top - Section 3	383.65	147.25	15.96	1.66	
150.00		99.81	149.25	4.15	0.12	
155.00		323.72	152.50	13.47	1.27	
159.00	Appurtenance(s)	3993.0	157.00	166.11	204.95	
160.00		48.45	159.50	2.02	0.03	
165.00		233.97	162.50	9.73	0.75	
169.00	Appurtenance(s)	4242.1	167.00	176.47	261.72	
	Totals:	**49,703.4**		**2,067.7**	**757.3**	**Total Wind:** **43,546.4**

Calculated Forces

Structure:	CT11794-S		**Code:**	TIA-222-H	8/24/2023
Site Name:	East Lyme 1		**Exposure:**	C	
Height:	169.00 (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

SBA

Load Case: 0.9D + 1.0Ev + 1.0Eh



Gust Response Factor	1.10			**Sds**	0.21			**Iterations**	22
Dead Load Factor	0.90	**Seismic Load Factor**	1.00	**Sd1**	0.08			**Ss**	0.20
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.31	**SA**	0.03			**S1**	0.05
								Seismic Importance Factor	1.00

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-47.39	-0.76	0.00	-119.18	0.00	119.18	5562.36	1454.92	7206.86	6836.50		0.00	0.00	0.026
5.00	-45.88	-0.76	0.00	-115.39	0.00	115.39	5482.35	1421.65	6881.06	6582.98		0.00	0.00	0.026
10.00	-44.40	-0.77	0.00	-111.58	0.00	111.58	5400.13	1388.39	6562.80	6331.40		0.01	-0.01	0.026
15.00	-42.95	-0.77	0.00	-107.76	0.00	107.76	5315.71	1355.12	6252.07	6081.95		0.02	-0.01	0.026
20.00	-41.54	-0.77	0.00	-103.92	0.00	103.92	5229.08	1321.85	5948.87	5834.81		0.04	-0.02	0.026
25.00	-40.15	-0.77	0.00	-100.06	0.00	100.06	5140.25	1288.59	5653.22	5590.18		0.06	-0.02	0.026
30.00	-38.79	-0.78	0.00	-96.19	0.00	96.19	5049.20	1255.32	5365.09	5348.24		0.09	-0.03	0.026
35.00	-37.46	-0.78	0.00	-92.31	0.00	92.31	4955.95	1222.05	5084.51	5109.18		0.12	-0.04	0.026
40.00	-36.16	-0.78	0.00	-88.42	0.00	88.42	4860.49	1188.79	4811.46	4873.19		0.16	-0.04	0.026
45.00	-34.90	-0.78	0.00	-84.52	0.00	84.52	4762.82	1155.52	4545.94	4640.45		0.21	-0.05	0.026
46.50	-34.52	-0.78	0.00	-83.35	0.00	83.35	4733.09	1145.54	4467.75	4571.29		0.22	-0.05	0.026
50.00	-32.92	-0.78	0.00	-80.61	0.00	80.61	4662.94	1122.25	4287.96	4411.15		0.26	-0.05	0.025
53.25	-31.46	-0.78	0.00	-78.08	0.00	78.08	4662.03	1121.95	4285.67	4409.10		0.30	-0.06	0.024
55.00	-31.04	-0.78	0.00	-76.73	0.00	76.73	4626.54	1110.31	4197.18	4329.70		0.32	-0.06	0.024
60.00	-29.84	-0.78	0.00	-72.84	0.00	72.84	4523.67	1077.04	3949.44	4105.38		0.39	-0.07	0.024
65.00	-28.68	-0.78	0.00	-68.95	0.00	68.95	4418.66	1043.78	3709.24	3885.01		0.46	-0.07	0.024
70.00	-27.54	-0.77	0.00	-65.08	0.00	65.08	4277.83	1010.51	3476.57	3640.10		0.54	-0.08	0.024
75.00	-26.44	-0.77	0.00	-61.20	0.00	61.20	4137.00	977.25	3251.43	3403.17		0.63	-0.09	0.024
80.00	-25.36	-0.77	0.00	-57.34	0.00	57.34	3996.18	943.98	3033.84	3174.21		0.72	-0.09	0.024
85.00	-24.32	-0.77	0.00	-53.49	0.00	53.49	3855.35	910.71	2823.78	2953.23		0.83	-0.10	0.024
90.00	-23.31	-0.76	0.00	-49.65	0.00	49.65	3714.52	877.45	2621.25	2740.21		0.94	-0.11	0.024
95.00	-22.33	-0.76	0.00	-45.83	0.00	45.83	3573.69	844.18	2426.26	2535.17		1.06	-0.12	0.024
100.00	-20.71	-0.75	0.00	-42.02	0.00	42.02	3014.30	712.04	2013.83	2107.62		1.19	-0.13	0.027
105.00	-19.88	-0.74	0.00	-38.29	0.00	38.29	2893.59	683.53	1855.77	1941.32		1.32	-0.14	0.027
110.00	-19.07	-0.74	0.00	-34.57	0.00	34.57	2772.88	655.01	1704.17	1781.85		1.47	-0.15	0.026
115.00	-18.29	-0.74	0.00	-30.87	0.00	30.87	2652.17	626.50	1559.02	1629.21		1.63	-0.16	0.026
120.00	-17.53	-0.73	0.00	-27.18	0.00	27.18	2531.46	597.98	1420.34	1483.41		1.80	-0.17	0.025
125.00	-16.80	-0.73	0.00	-23.50	0.00	23.50	2410.75	569.47	1288.11	1344.44		1.98	-0.18	0.024
130.00	-16.10	-0.73	0.00	-19.85	0.00	19.85	2290.04	540.95	1162.35	1212.31		2.17	-0.19	0.023
134.00	-13.26	-0.64	0.00	-16.94	0.00	16.94	2193.47	518.14	1066.39	1111.53		2.33	-0.19	0.021
135.00	-13.12	-0.64	0.00	-16.30	0.00	16.30	2169.33	512.44	1043.04	1087.01		2.37	-0.20	0.021
140.00	-12.48	-0.63	0.00	-13.12	0.00	13.12	2048.62	483.93	930.19	968.55		2.58	-0.21	0.020
145.00	-11.86	-0.63	0.00	-9.95	0.00	9.95	1927.91	455.41	823.80	856.92		2.80	-0.21	0.018
145.25	-11.83	-0.63	0.00	-9.80	0.00	9.80	1921.88	453.99	818.65	851.51		2.81	-0.22	0.018
146.00	-8.82	-0.50	0.00	-9.33	0.00	9.33	1903.77	449.71	803.30	835.41		2.85	-0.22	0.016
148.50	-8.45	-0.50	0.00	-8.07	0.00	8.07	907.84	223.60	397.18	399.56		2.96	-0.22	0.030
150.00	-8.36	-0.50	0.00	-7.31	0.00	7.31	895.57	219.32	382.13	386.55		3.03	-0.22	0.028
155.00	-8.04	-0.50	0.00	-4.80	0.00	4.80	853.23	205.07	334.07	344.13		3.27	-0.24	0.023
159.00	-4.27	-0.28	0.00	-2.80	0.00	2.80	817.77	193.66	297.94	311.31		3.47	-0.24	0.014
160.00	-4.22	-0.28	0.00	-2.52	0.00	2.52	807.76	190.81	289.23	302.92		3.52	-0.24	0.014
165.00	-4.00	-0.28	0.00	-1.12	0.00	1.12	747.41	176.55	247.62	259.13		3.78	-0.25	0.010
169.00	0.00	-0.26	0.00	0.00	0.00	0.00	699.12	165.15	216.66	226.56		3.99	-0.25	0.000

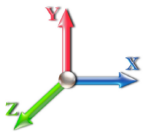
Wind Loading - Shaft

Structure:	CT11794-S	**Code:**	TIA-222-H	8/24/2023	
Site Name:	East Lyme 1	**Exposure:**	C		
Height:	169.00 (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: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 24

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	6.655	7.32	281.44	0.730	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	6.655	7.32	275.05	0.730	0.000	5.00	25.156	18.36	134.4	0.0	1394.4
10.00		1.00	0.85	6.655	7.32	268.66	0.730	0.000	5.00	24.579	17.94	131.4	0.0	1362.1
15.00		1.00	0.86	6.737	7.41	263.89	0.730	0.000	5.00	24.001	17.52	129.9	0.0	1329.8
20.00		1.00	0.91	7.134	7.85	264.94	0.730	0.000	5.00	23.423	17.10	134.2	0.0	1297.6
25.00		1.00	0.95	7.463	8.21	264.20	0.730	0.000	5.00	22.846	16.68	136.9	0.0	1265.3
30.00		1.00	0.99	7.744	8.52	262.24	0.730	0.000	5.00	22.268	16.26	138.5	0.0	1233.1
35.00		1.00	1.02	7.992	8.79	259.40	0.730	0.000	5.00	21.691	15.83	139.2	0.0	1200.8
40.00		1.00	1.05	8.214	9.03	255.88	0.730	0.000	5.00	21.113	15.41	139.3	0.0	1168.6
45.00		1.00	1.07	8.415	9.26	251.82	0.730	0.000	5.00	20.536	14.99	138.8	0.0	1136.3
46.50	Bot - Section 2	1.00	1.08	8.472	9.32	250.51	0.730	0.000	1.50	6.048	4.42	41.1	0.0	334.6
50.00		1.00	1.10	8.600	9.46	247.31	0.730	0.000	3.50	14.169	10.34	97.8	0.0	1553.4
53.25	Top - Section 1	1.00	1.11	8.712	9.58	244.17	0.730	0.000	3.25	12.904	9.42	90.3	0.0	1414.2
55.00		1.00	1.12	8.771	9.65	247.12	0.730	0.000	1.75	6.847	5.00	48.2	0.0	378.7
60.00		1.00	1.14	8.930	9.82	241.95	0.730	0.000	5.00	19.173	14.00	137.5	0.0	1060.3
65.00		1.00	1.16	9.079	9.99	236.51	0.730	0.000	5.00	18.596	13.57	135.6	0.0	1028.0
70.00		1.00	1.18	9.220	10.14	230.81	0.730	0.000	5.00	18.018	13.15	133.4	0.0	995.8
75.00		1.00	1.19	9.353	10.29	224.90	0.730	0.000	5.00	17.440	12.73	131.0	0.0	963.5
80.00		1.00	1.21	9.480	10.43	218.79	0.730	0.000	5.00	16.863	12.31	128.4	0.0	931.3
85.00		1.00	1.23	9.600	10.56	212.50	0.730	0.000	5.00	16.285	11.89	125.5	0.0	899.0
90.00		1.00	1.24	9.715	10.69	206.05	0.730	0.000	5.00	15.708	11.47	122.5	0.0	866.8
95.00	Bot - Section 3	1.00	1.25	9.825	10.81	199.45	0.730	0.000	5.00	15.130	11.05	119.4	0.0	834.5
100.00	Top - Section 2	1.00	1.27	9.930	10.92	192.72	0.730	0.000	5.00	14.870	10.86	118.6	0.0	1506.4
105.00		1.00	1.28	10.032	11.03	190.17	0.730	0.000	5.00	14.292	10.43	115.1	0.0	676.5
110.00		1.00	1.29	10.130	11.14	183.21	0.730	0.000	5.00	13.715	10.01	111.6	0.0	648.8
115.00		1.00	1.31	10.224	11.25	176.14	0.730	0.000	5.00	13.137	9.59	107.9	0.0	621.2
120.00		1.00	1.32	10.315	11.35	168.97	0.730	0.000	5.00	12.560	9.17	104.0	0.0	593.5
125.00		1.00	1.33	10.404	11.44	161.71	0.730	0.000	5.00	11.982	8.75	100.1	0.0	565.9
130.00		1.00	1.34	10.489	11.54	154.35	0.730	0.000	5.00	11.405	8.33	96.1	0.0	538.3
134.00	Appurtenance(s)	1.00	1.35	10.556	11.61	148.41	0.730	0.000	4.00	8.708	6.36	73.8	0.0	410.7
135.00		1.00	1.35	10.572	11.63	146.91	0.730	0.000	1.00	2.119	1.55	18.0	0.0	99.9
140.00		1.00	1.36	10.653	11.72	139.39	0.730	0.000	5.00	10.249	7.48	87.7	0.0	483.0
145.00		1.00	1.37	10.731	11.80	131.79	0.730	0.000	5.00	9.672	7.06	83.3	0.0	455.3
145.25	Bot - Section 4	1.00	1.37	10.735	11.81	131.41	0.730	0.000	0.25	0.468	0.34	4.0	0.0	22.0
146.00	Appurtenance(s)	1.00	1.37	10.747	11.82	130.26	0.730	0.000	0.75	1.420	1.04	12.3	0.0	99.4
148.50	Top - Section 3	1.00	1.38	10.785	11.86	126.42	0.730	0.000	2.50	4.641	3.39	40.2	0.0	324.6
150.00		1.00	1.38	10.808	11.89	126.35	0.730	0.000	1.50	2.715	1.98	23.6	0.0	64.4
155.00		1.00	1.39	10.882	11.97	118.62	0.730	0.000	5.00	8.675	6.33	75.8	0.0	205.7
159.00	Appurtenance(s)	1.00	1.40	10.940	12.03	112.38	0.730	0.000	4.00	6.525	4.76	57.3	0.0	154.6
160.00		1.00	1.40	10.955	12.05	110.82	0.730	0.000	1.00	1.573	1.15	13.8	0.0	37.3
165.00		1.00	1.41	11.025	12.13	102.95	0.730	0.000	5.00	7.520	5.49	66.6	0.0	178.1
169.00	Appurtenance(s)	1.00	1.42	11.081	12.19	96.61	0.730	0.000	4.00	5.600	4.09	49.8	0.0	132.5
								Totals:	**169.00**			**3,892.7**		**30,466.3**

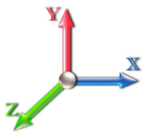
Discrete Appurtenance Forces

Structure:	CT11794-S	**Code:**	TIA-222-H	8/24/2023	
Site Name:	East Lyme 1	**Exposure:**	C		
Height:	169.00 (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: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 24

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor 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	169.00	CCI TPA65R-BU4DA-K	1	11.081	12.189	0.54	0.75	6.95	67.50	0.000	0.000	84.71	0.00	0.00
2	169.00	Ericsson RRUS-12 RRU	6	11.081	12.189	0.50	0.75	9.50	348.00	0.000	0.000	115.76	0.00	0.00
3	169.00	Ericsson RRUS 32 RRU	3	11.081	12.189	0.50	0.75	5.83	231.00	0.000	0.000	71.11	0.00	0.00
4	169.00	Ericsson RRUS A2 RRU	6	11.081	12.189	0.50	0.75	5.61	132.00	0.000	0.000	68.35	0.00	0.00
5	169.00	Raycap DC6-48-60-18-8F	3	11.081	12.189	0.50	0.75	2.22	98.40	0.000	0.000	27.01	0.00	0.00
6	169.00	Reinforced T-Arms	3	11.081	12.189	0.75	0.75	31.50	1350.00	0.000	0.000	383.95	0.00	0.00
7	169.00	CCI DTMABP7819VG12A	3	11.081	12.189	0.50	0.75	1.72	57.54	0.000	0.000	20.95	0.00	0.00
8	169.00	Ericsson AIR 6449 B77D	3	11.064	12.170	0.64	0.75	7.90	264.00	0.000	-1.250	96.13	0.00	-120.16
9	169.00	Ericsson AIR 6419 B77G	3	11.105	12.215	0.57	0.75	6.50	198.30	0.000	1.750	79.37	0.00	138.90
10	169.00	mount pipe	12	11.081	12.189	0.75	0.75	12.24	360.00	0.000	0.000	149.19	0.00	0.00
11	169.00	CCI TPA65R-BU6DA-K	1	11.081	12.189	0.54	0.75	6.95	67.50	0.000	0.000	84.71	0.00	0.00
12	169.00	CCI TPA65R-BU8DA-K	1	11.081	12.189	0.54	0.75	9.65	82.50	0.000	0.000	117.62	0.00	0.00
13	169.00	Ericsson 8843 B2 B66A	3	11.081	12.189	0.50	0.75	2.47	216.00	0.000	0.000	30.13	0.00	0.00
14	169.00	CCI OPA65R-BU4DA	1	11.081	12.189	0.70	0.75	3.50	43.00	0.000	0.000	42.62	0.00	0.00
15	169.00	Commscope	1	11.081	12.189	0.75	0.75	9.20	79.00	0.000	0.000	112.17	0.00	0.00
16	169.00	Commscope	1	11.081	12.189	0.75	0.75	13.40	79.00	0.000	0.000	163.36	0.00	0.00
17	169.00	Ericsson RRUS 4478 B14	3	11.081	12.189	0.54	0.80	2.65	178.20	0.000	0.000	32.34	0.00	0.00
18	169.00	Ericsson 4449 B5/B12	3	11.081	12.189	0.50	0.75	2.97	213.00	0.000	0.000	36.20	0.00	0.00
19	159.00	Ericsson 4460 B25/B66A	3	10.940	12.034	0.54	0.80	2.64	216.00	0.000	0.000	31.74	0.00	0.00
20	159.00	Ericsson 4449 B71 + B85	3	10.940	12.034	0.54	0.80	3.17	219.60	0.000	0.000	38.12	0.00	0.00
21	159.00	RFS	3	10.940	12.034	0.58	0.80	35.46	368.40	0.000	0.000	426.74	0.00	0.00
22	159.00	Commscope VV-65A-R1	3	10.940	12.034	0.59	0.80	14.03	88.50	0.000	0.000	168.84	0.00	0.00
23	159.00	Ericsson AIR 6419 B41	3	10.940	12.034	0.56	0.80	10.97	399.60	0.000	0.000	132.02	0.00	0.00
24	159.00	T-Arm	3	10.940	12.034	0.75	0.75	18.00	1200.00	0.000	0.000	216.62	0.00	0.00
25	159.00	PRK-SFS-L	1	10.940	12.034	1.00	1.00	16.60	394.00	0.000	0.000	199.77	0.00	0.00
26	159.00	PRK-1245L	1	10.940	12.034	1.00	1.00	9.50	464.91	0.000	0.000	114.32	0.00	0.00
27	159.00	Ericsson KRY 112 144/1	3	10.940	12.034	0.52	0.75	0.65	33.00	0.000	0.000	7.77	0.00	0.00
28	159.00	mount pipe	12	10.940	12.034	0.75	0.75	12.42	360.00	0.000	0.000	149.46	0.00	0.00
29	146.00	Samsung RF4439d-25A	3	10.747	11.821	0.63	0.75	3.53	224.13	0.000	0.000	41.78	0.00	0.00
30	146.00	Samsung RF4440d-13A	3	10.747	11.821	0.60	0.75	3.37	210.99	0.000	0.000	39.79	0.00	0.00
31	146.00	JMA Wireless	6	10.747	11.821	0.65	0.75	38.64	360.00	0.000	0.000	456.79	0.00	0.00
32	146.00	Samsung MT6407-77A	3	10.747	11.821	0.52	0.75	7.39	238.20	0.000	0.000	87.32	0.00	0.00
33	146.00	Mods	1	10.747	11.821	1.00	1.00	13.79	389.00	0.000	0.000	163.02	0.00	0.00
34	146.00	Raycap 12 OVP	1	10.747	11.821	0.75	0.75	3.04	32.00	0.000	0.000	36.00	0.00	0.00
35	146.00	Low Profile Platform	1	10.747	11.821	1.00	1.00	14.69	1250.00	0.000	0.000	173.66	0.00	0.00
36	146.00	mount pipe	12	10.747	11.821	0.75	0.75	13.23	360.00	0.000	0.000	156.40	0.00	0.00
37	134.00	Platform w/HRK	1	10.556	11.611	0.67	0.67	22.91	1736.00	0.000	0.000	265.99	0.00	0.00
38	134.00	Raycap	1	10.556	11.611	0.75	0.75	1.51	21.85	0.000	0.000	17.50	0.00	0.00
39	134.00	Samsung RF4451d-70A	3	10.556	11.611	0.50	0.75	2.83	183.90	0.000	0.000	32.91	0.00	0.00
40	134.00	Samsung RF4450t-71A	3	10.556	11.611	0.50	0.75	3.11	283.74	0.000	0.000	36.06	0.00	0.00
41	134.00	Commscope	3	10.556	11.611	0.55	0.75	20.15	212.40	0.000	0.000	234.01	0.00	0.00
							Totals:		**13,311.16**			**4,942.30**		

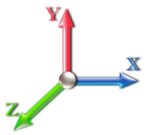
Total Applied Force Summary

Structure:	CT11794-S		**Code:**	TIA-222-H	8/24/2023
Site Name:	East Lyme 1		**Exposure:**	C	
Height:	169.00 (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: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 24

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		134.44	1604.37	0.00	0.00
10.00		131.35	1572.11	0.00	0.00
15.00		129.85	1539.86	0.00	0.00
20.00		134.19	1507.61	0.00	0.00
25.00		136.90	1475.36	0.00	0.00
30.00		138.48	1443.11	0.00	0.00
35.00		139.20	1410.86	0.00	0.00
40.00		139.25	1378.61	0.00	0.00
45.00		138.76	1346.36	0.00	0.00
46.50		41.15	397.62	0.00	0.00
50.00		97.85	1700.44	0.00	0.00
53.25		90.27	1550.68	0.00	0.00
55.00		48.22	452.22	0.00	0.00
60.00		137.49	1270.28	0.00	0.00
65.00		135.58	1238.03	0.00	0.00
70.00		133.40	1205.78	0.00	0.00
75.00		130.99	1173.53	0.00	0.00
80.00		128.36	1141.28	0.00	0.00
85.00		125.54	1109.03	0.00	0.00
90.00		122.53	1076.78	0.00	0.00
95.00		119.37	1044.53	0.00	0.00
100.00		118.57	1716.39	0.00	0.00
105.00		115.13	886.48	0.00	0.00
110.00		111.56	858.84	0.00	0.00
115.00		107.86	831.20	0.00	0.00
120.00		104.03	803.55	0.00	0.00
125.00		100.10	775.91	0.00	0.00
130.00		96.06	748.27	0.00	0.00
134.00	(11) attachments	660.28	3016.60	0.00	0.00
135.00		17.99	140.81	0.00	0.00
140.00		87.68	687.48	0.00	0.00
145.00		83.35	659.84	0.00	0.00
145.25		4.04	32.27	0.00	0.00
146.00	(30) attachments	1167.01	3194.41	0.00	0.00
148.50		40.19	390.20	0.00	0.00
150.00		23.56	103.74	0.00	0.00
155.00		75.81	336.83	0.00	0.00
159.00	(35) attachments	1542.72	4003.52	0.00	0.00
160.00		13.84	49.70	0.00	0.00
165.00		66.58	240.18	0.00	0.00
169.00	(57) attachments	1765.51	4247.14	0.00	18.75
	Totals:	**8,835.04**	**50,361.85**	**0.00**	**18.75**

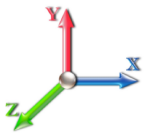
Linear Appurtenance Segment Forces (Factored)

Structure:	CT11794-S	**Code:**	TIA-222-H	8/24/2023	
Site Name:	East Lyme 1	**Exposure:**	C		
Height:	169.00 (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: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 24

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.017	0.000	6.655	0.00	1.37
5.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.017	0.000	6.655	0.00	5.20
10.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.017	0.000	6.655	0.00	1.37
10.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.017	0.000	6.655	0.00	5.20
15.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.018	0.000	6.737	0.00	1.37
15.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.018	0.000	6.737	0.00	5.20
20.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.018	0.000	7.134	0.00	1.37
20.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.018	0.000	7.134	0.00	5.20
25.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.018	0.000	7.463	0.00	1.37
25.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.018	0.000	7.463	0.00	5.20
30.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.019	0.000	7.744	0.00	1.37
30.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.019	0.000	7.744	0.00	5.20
35.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.019	0.000	7.992	0.00	1.37
35.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.019	0.000	7.992	0.00	5.20
40.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.020	0.000	8.214	0.00	1.37
40.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.020	0.000	8.214	0.00	5.20
45.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.020	0.000	8.415	0.00	1.37
45.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.020	0.000	8.415	0.00	5.20
46.50	Safety Cable	Yes	1.50	0.000	0.38	0.05	0.00	0.021	0.000	8.472	0.00	0.41
46.50	Step bolts	Yes	1.50	0.000	0.63	0.08	0.00	0.021	0.000	8.472	0.00	1.56
50.00	Safety Cable	Yes	3.50	0.000	0.38	0.11	0.00	0.021	0.000	8.600	0.00	0.96
50.00	Step bolts	Yes	3.50	0.000	0.63	0.18	0.00	0.021	0.000	8.600	0.00	3.64
53.25	Safety Cable	Yes	3.25	0.000	0.38	0.10	0.00	0.022	0.000	8.712	0.00	0.89
53.25	Step bolts	Yes	3.25	0.000	0.63	0.17	0.00	0.022	0.000	8.712	0.00	3.38
55.00	Safety Cable	Yes	1.75	0.000	0.38	0.06	0.00	0.022	0.000	8.771	0.00	0.48
55.00	Step bolts	Yes	1.75	0.000	0.63	0.09	0.00	0.022	0.000	8.771	0.00	1.82
60.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.022	0.000	8.930	0.00	1.37
60.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.022	0.000	8.930	0.00	5.20
65.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.023	0.000	9.079	0.00	1.37
65.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.023	0.000	9.079	0.00	5.20
70.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.023	0.000	9.220	0.00	1.37
70.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.023	0.000	9.220	0.00	5.20
75.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.024	0.000	9.353	0.00	1.37
75.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.024	0.000	9.353	0.00	5.20
80.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.025	0.000	9.480	0.00	1.37
80.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.025	0.000	9.480	0.00	5.20
85.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.026	0.000	9.600	0.00	1.37
85.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.026	0.000	9.600	0.00	5.20
90.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.027	0.000	9.715	0.00	1.37
90.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.027	0.000	9.715	0.00	5.20
95.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.028	0.000	9.825	0.00	1.37
95.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.028	0.000	9.825	0.00	5.20
100.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.029	0.000	9.930	0.00	1.37
100.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.029	0.000	9.930	0.00	5.20
105.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.029	0.000	10.032	0.00	1.37
105.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.029	0.000	10.032	0.00	5.20
110.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.031	0.000	10.130	0.00	1.37

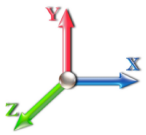
Linear Appurtenance Segment Forces (Factored)

Structure:	CT11794-S	**Code:**	TIA-222-H	8/24/2023	
Site Name:	East Lyme 1	**Exposure:**	C		
Height:	169.00 (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	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 24

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
110.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.031	0.000	10.130	0.00	5.20
115.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.032	0.000	10.224	0.00	1.37
115.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.032	0.000	10.224	0.00	5.20
120.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.034	0.000	10.315	0.00	1.37
120.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.034	0.000	10.315	0.00	5.20
125.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.035	0.000	10.404	0.00	1.37
125.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.035	0.000	10.404	0.00	5.20
130.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.037	0.000	10.489	0.00	1.37
130.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.037	0.000	10.489	0.00	5.20
134.00	Safety Cable	Yes	4.00	0.000	0.38	0.13	0.00	0.039	0.000	10.556	0.00	1.09
134.00	Step bolts	Yes	4.00	0.000	0.63	0.21	0.00	0.039	0.000	10.556	0.00	4.16
135.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.040	0.000	10.572	0.00	0.27
135.00	Step bolts	Yes	1.00	0.000	0.63	0.05	0.00	0.040	0.000	10.572	0.00	1.04
140.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.041	0.000	10.653	0.00	1.37
140.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.041	0.000	10.653	0.00	5.20
145.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.044	0.000	10.731	0.00	1.37
145.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.044	0.000	10.731	0.00	5.20
145.25	Safety Cable	Yes	0.25	0.000	0.38	0.01	0.00	0.045	0.000	10.735	0.00	0.07
145.25	Step bolts	Yes	0.25	0.000	0.63	0.01	0.00	0.045	0.000	10.735	0.00	0.26
146.00	Safety Cable	Yes	0.75	0.000	0.38	0.02	0.00	0.045	0.000	10.747	0.00	0.20
146.00	Step bolts	Yes	0.75	0.000	0.63	0.04	0.00	0.045	0.000	10.747	0.00	0.78
148.50	Safety Cable	Yes	2.50	0.000	0.38	0.08	0.00	0.046	0.000	10.785	0.00	0.68
148.50	Step bolts	Yes	2.50	0.000	0.63	0.13	0.00	0.046	0.000	10.785	0.00	2.60
150.00	Safety Cable	Yes	1.50	0.000	0.38	0.05	0.00	0.046	0.000	10.808	0.00	0.41
150.00	Step bolts	Yes	1.50	0.000	0.63	0.08	0.00	0.046	0.000	10.808	0.00	1.56
155.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.049	0.000	10.882	0.00	1.37
155.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.049	0.000	10.882	0.00	5.20
159.00	Safety Cable	Yes	4.00	0.000	0.38	0.13	0.00	0.052	0.000	10.940	0.00	1.09
159.00	Step bolts	Yes	4.00	0.000	0.63	0.21	0.00	0.052	0.000	10.940	0.00	4.16
160.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.053	0.000	10.955	0.00	0.27
160.00	Step bolts	Yes	1.00	0.000	0.63	0.05	0.00	0.053	0.000	10.955	0.00	1.04
165.00	Safety Cable	Yes	5.00	0.000	0.38	0.16	0.00	0.056	0.000	11.025	0.00	1.37
165.00	Step bolts	Yes	5.00	0.000	0.63	0.26	0.00	0.056	0.000	11.025	0.00	5.20
169.00	Safety Cable	Yes	4.00	0.000	0.38	0.13	0.00	0.060	0.000	11.081	0.00	1.09
169.00	Step bolts	Yes	4.00	0.000	0.63	0.21	0.00	0.060	0.000	11.081	0.00	4.16
									Totals:		**0.0**	**221.9**

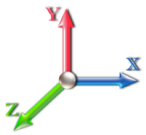
Calculated Forces

Structure:	CT11794-S	**Code:**	TIA-222-H	8/24/2023	
Site Name:	East Lyme 1	**Exposure:**	C		
Height:	169.00 (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: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



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	-50.36	-8.85	0.00	-1128.6	0.00	1128.60	5562.36	1454.92	7206.86	6836.50	0.00	0.000	0.000	0.174
5.00	-48.75	-8.75	0.00	-1084.3	0.00	1084.33	5482.35	1421.65	6881.06	6582.98	0.02	-0.042	0.000	0.174
10.00	-47.17	-8.66	0.00	-1040.5	0.00	1040.56	5400.13	1388.39	6562.80	6331.40	0.09	-0.086	0.000	0.173
15.00	-45.62	-8.56	0.00	-997.27	0.00	997.27	5315.71	1355.12	6252.07	6081.95	0.20	-0.130	0.000	0.173
20.00	-44.11	-8.46	0.00	-954.46	0.00	954.46	5229.08	1321.85	5948.87	5834.81	0.36	-0.176	0.000	0.172
25.00	-42.63	-8.35	0.00	-912.17	0.00	912.17	5140.25	1288.59	5653.22	5590.18	0.57	-0.224	0.000	0.172
30.00	-41.18	-8.24	0.00	-870.41	0.00	870.41	5049.20	1255.32	5365.09	5348.24	0.84	-0.273	0.000	0.171
35.00	-39.76	-8.13	0.00	-829.19	0.00	829.19	4955.95	1222.05	5084.51	5109.18	1.15	-0.323	0.000	0.170
40.00	-38.37	-8.02	0.00	-788.53	0.00	788.53	4860.49	1188.79	4811.46	4873.19	1.51	-0.375	0.000	0.170
45.00	-37.02	-7.89	0.00	-748.43	0.00	748.43	4762.82	1155.52	4545.94	4640.45	1.94	-0.429	0.000	0.169
46.50	-36.62	-7.87	0.00	-736.59	0.00	736.59	4733.09	1145.54	4467.75	4571.29	2.07	-0.446	0.000	0.169
50.00	-34.92	-7.78	0.00	-709.05	0.00	709.05	4662.94	1122.25	4287.96	4411.15	2.41	-0.485	0.000	0.168
53.25	-33.36	-7.69	0.00	-683.76	0.00	683.76	4662.03	1121.95	4285.67	4409.10	2.76	-0.523	0.000	0.162
55.00	-32.91	-7.66	0.00	-670.30	0.00	670.30	4626.54	1110.31	4197.18	4329.70	2.95	-0.544	0.000	0.162
60.00	-31.63	-7.54	0.00	-631.98	0.00	631.98	4523.67	1077.04	3949.44	4105.38	3.55	-0.599	0.000	0.161
65.00	-30.39	-7.43	0.00	-594.26	0.00	594.26	4418.66	1043.78	3709.24	3885.01	4.21	-0.657	0.000	0.160
70.00	-29.18	-7.31	0.00	-557.13	0.00	557.13	4277.83	1010.51	3476.57	3640.10	4.93	-0.716	0.000	0.160
75.00	-28.00	-7.19	0.00	-520.58	0.00	520.58	4137.00	977.25	3251.43	3403.17	5.71	-0.778	0.000	0.160
80.00	-26.85	-7.08	0.00	-484.61	0.00	484.61	3996.18	943.98	3033.84	3174.21	6.56	-0.841	0.000	0.159
85.00	-25.73	-6.97	0.00	-449.22	0.00	449.22	3855.35	910.71	2823.78	2953.23	7.48	-0.906	0.000	0.159
90.00	-24.65	-6.86	0.00	-414.39	0.00	414.39	3714.52	877.45	2621.25	2740.21	8.46	-0.973	0.000	0.158
95.00	-23.60	-6.75	0.00	-380.11	0.00	380.11	3573.69	844.18	2426.26	2535.17	9.52	-1.042	0.000	0.157
100.00	-21.88	-6.62	0.00	-346.38	0.00	346.38	3014.30	712.04	2013.83	2107.62	10.65	-1.113	0.000	0.172
105.00	-20.99	-6.52	0.00	-313.26	0.00	313.26	2893.59	683.53	1855.77	1941.32	11.85	-1.185	0.000	0.169
110.00	-20.12	-6.42	0.00	-280.67	0.00	280.67	2772.88	655.01	1704.17	1781.85	13.14	-1.266	0.000	0.165
115.00	-19.28	-6.32	0.00	-248.59	0.00	248.59	2652.17	626.50	1559.02	1629.21	14.51	-1.347	0.000	0.160
120.00	-18.47	-6.22	0.00	-217.00	0.00	217.00	2531.46	597.98	1420.34	1483.41	15.96	-1.428	0.000	0.154
125.00	-17.69	-6.13	0.00	-185.90	0.00	185.90	2410.75	569.47	1288.11	1344.44	17.50	-1.510	0.000	0.146
130.00	-16.94	-6.03	0.00	-155.27	0.00	155.27	2290.04	540.95	1162.35	1212.31	19.13	-1.589	0.000	0.136
134.00	-13.94	-5.29	0.00	-131.15	0.00	131.15	2193.47	518.14	1066.39	1111.53	20.48	-1.652	0.000	0.124
135.00	-13.79	-5.28	0.00	-125.86	0.00	125.86	2169.33	512.44	1043.04	1087.01	20.83	-1.668	0.000	0.122
140.00	-13.10	-5.19	0.00	-99.45	0.00	99.45	2048.62	483.93	930.19	968.55	22.62	-1.740	0.000	0.109
145.00	-12.44	-5.09	0.00	-73.49	0.00	73.49	1927.91	455.41	823.80	856.92	24.48	-1.806	0.000	0.092
145.25	-12.41	-5.09	0.00	-72.22	0.00	72.22	1921.88	453.99	818.65	851.51	24.57	-1.809	0.000	0.091
146.00	-9.25	-3.83	0.00	-68.40	0.00	68.40	1903.77	449.71	803.30	835.41	24.86	-1.819	0.000	0.087
148.50	-8.86	-3.78	0.00	-58.84	0.00	58.84	907.84	223.60	397.18	399.56	25.82	-1.849	0.000	0.157
150.00	-8.76	-3.76	0.00	-53.17	0.00	53.17	895.57	219.32	382.13	386.55	26.40	-1.866	0.000	0.148
155.00	-8.42	-3.68	0.00	-34.38	0.00	34.38	853.23	205.07	334.07	344.13	28.41	-1.956	0.000	0.110
159.00	-4.47	-2.00	0.00	-19.65	0.00	19.65	817.77	193.66	297.94	311.31	30.07	-2.010	0.000	0.069
160.00	-4.42	-1.99	0.00	-17.64	0.00	17.64	807.76	190.81	289.23	302.92	30.49	-2.021	0.000	0.064
165.00	-4.18	-1.92	0.00	-7.69	0.00	7.69	747.41	176.55	247.62	259.13	32.63	-2.060	0.000	0.035
169.00	0.00	-1.77	0.00	-0.02	0.00	0.02	699.12	165.15	216.66	226.56	34.36	-2.072	0.000	0.000

Final Analysis Summary

Structure:	CT11794-S		**Code:**	TIA-222-H	8/24/2023
Site Name:	East Lyme 1		**Exposure:**	C	
Height:	169.00 (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

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 + 1.0W 126 mph Wind	43.7	0.00	60.35	0.00	0.00	5599.34
0.9D + 1.0W 126 mph Wind	43.6	0.00	45.25	0.00	0.00	5515.42
1.2D + 1.0Di + 1.0Wi 50 mph Wind	10.3	0.00	62.30	0.00	0.00	1248.56
1.2D + 1.0Ev + 1.0Eh	0.8	0.00	62.58	0.00	0.00	120.61
0.9D + 1.0Ev + 1.0Eh	0.8	0.00	47.39	0.00	0.00	119.18
1.0D + 1.0W 60 mph Wind	8.9	0.00	50.36	0.00	0.00	1128.60

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 + 1.0W 126 mph Wind	-60.35	-43.66	0.00	-5599.3	0.00	-5599.3	5562.36	1454.9	7206.86	6836.50	0.00	0.831
0.9D + 1.0W 126 mph Wind	-45.25	-43.63	0.00	-5515.4	0.00	-5515.4	5562.36	1454.9	7206.86	6836.50	0.00	0.816
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-62.30	-10.27	0.00	-1248.5	0.00	-1248.5	5562.36	1454.9	7206.86	6836.50	0.00	0.194
1.2D + 1.0Ev + 1.0Eh	-11.15	-0.51	0.00	-8.12	0.00	-8.12	907.84	223.60	397.18	399.56	148.50	0.033
0.9D + 1.0Ev + 1.0Eh	-8.45	-0.50	0.00	-8.07	0.00	-8.07	907.84	223.60	397.18	399.56	148.50	0.030
1.0D + 1.0W 60 mph Wind	-50.36	-8.85	0.00	-1128.6	0.00	-1128.6	5562.36	1454.9	7206.86	6836.50	0.00	0.174

Base Plate Summary

Structure:	CT11794-S		**Code:**	TIA-222-H	8/24/2023
Site Name:	East Lyme 1		**Exposure:**	C	
Height:	169.00 (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

Reactions

Original Design

Moment (kip-ft):	6776.67
Axial (kip):	62.81
Shear (kip):	55.54

Analysis (1.2D + 1.0W)

Moment (kip-ft):	5599.34
Axial (kip):	60.35
Shear (kip):	43.66

Base Plate

Yield (ksi):	50.00
Width (in):	72.75
Style:	Round
Polygon Sides:	0.00
Clip Length (in):	0.00
Effective Len (in):	16.23
Moment (kip-in):	675.35
Allow Stress (ksi):	67.50
Applied Stress (ksi):	33.08
Stress Ratio:	0.49

Anchor Bolts

Bolt Circle:	66.75
Number Bolts:	20.00
Bolt Type:	2.25" 18J
Bolt Diameter (in):	2.25
Yield (ksi):	75.00
Ultimate (ksi):	100.00
Arrangement:	Radial
Cluster Dist (in):	0.00
Start Angle (deg):	0.00

Compression

Force (kip):	204.34
Allowable (kip):	268.39
Ratio:	0.76

Tension

Force (kip):	198.31
Allowable (kip):	243.75
Ratio:	0.81

Monopole Mat Foundation Design

				Date
				8/23/2023
Customer Name:	Dish Wireless	**TIA Standard:**	TIA-222-H	
Site Name:	East Lyme 1	**Structure Height (Ft.):**	170	
Site Number:	CT11794-S	**Engineer Name:**	S. Berthomieux	
Engr. Number:		**Engineer Login ID:**		

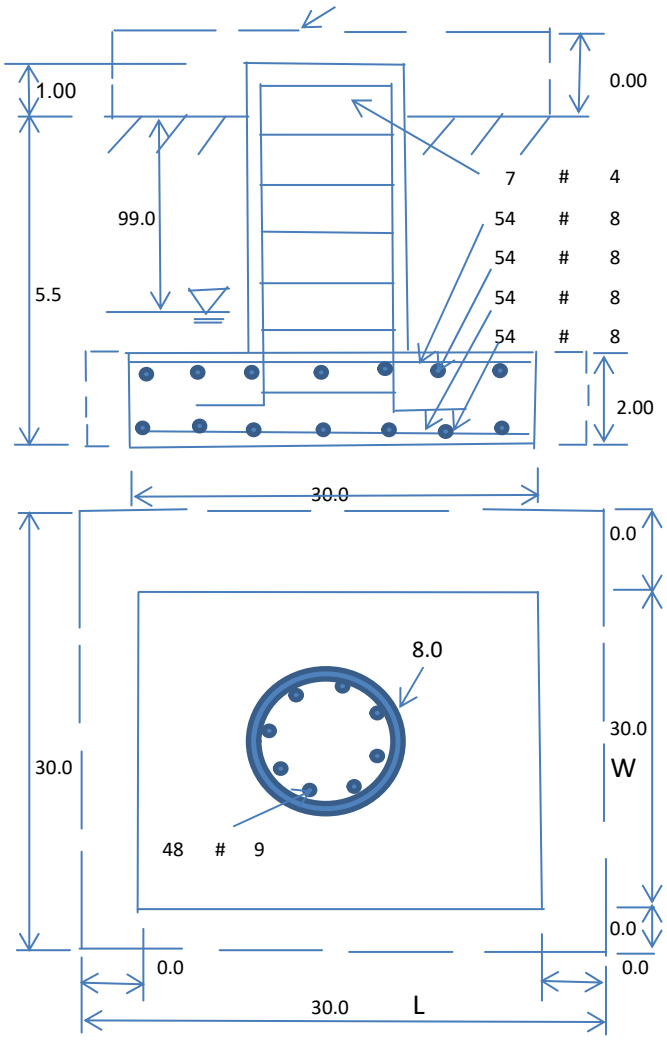
Foundation Info Obtained from:	Drawings/Calculations
Structure Type:	Monopole
Analysis or Design?	Analysis

Base Reactions (Factored):

Axial Load (Kips):	60.4	Shear Force (Kips):	43.7
Uplift Force (Kips):	0.0	Moment (Kips-ft):	5599.3
Allowable overstress %:	5.0%		

Foundation Geometries:

		Mods required -Yes/No ?:	No
Diameter of Pier (ft.):	8.0	Depth of Base BG (ft.):	5.5
Pier Height A. G. (ft.):	1.00	Thickness of Pad (ft):	2.00
Length of Pad (ft.):	30	Width of Pad (ft.):	30
Final Length of pad (ft)	30.0	Final width of pad (ft):	30.0



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:	48	Tie Spacing (in):	12.0	
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	8	
Concrete Cover (in.):	3	Unit Weight of Concrete:	150.0	pcf
Rebar at the bottom of the concrete pad:				
Qty. of Rebar in Pad (L):	54	Qty. of Rebar in Pad (W):	54	
Rebar at the top of the concrete pad:				
Qty. of Rebar in Pad (L):	54	Qty. of Rebar in Pad (W):	54	
Apply 1.35 factor for e/w Per G:	1.35			

Soil Design Parameters:

Soil Unit Weight (pcf):	124.0	Soil Buoyant Weight:	61.6	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):	20000	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.):	2974.07	Total Dry Soil Weight (Kips):	368.78
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	368.78	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	2026.19	Total Dry Concrete Weight (Kips):	303.93
Total Buoyant Concrete Volume (cu. Ft.):	0.00	Total Buoyant Concrete Weight (Kips):	0.00
Total Effective Concrete Weight (Kips):	303.93	Total Vertical Load on Base (Kips):	733.06

Check Soil Capacities:

					Load/ Capacity Ratio	
Calculated Maxium Net Soil Pressure under the base (psf):	2397	<	Allowable Factored Soil Bearing (psf):	15000	0.16	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	9986.9	>	Design Factored Momont (kips-ft):	5883	0.59	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	1.70	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		
					Load/ Capacity Ratio	
(1) Concrete Pier:						
Vertical Steel Rebar Area (sq. in./each):	1.00		Tie / Stirrup Area (sq. in./each):	0.20		
Calculated Moment Capacity (Mn,Kips-Ft):	9280.8	>	Design Factored Moment (Mu, Kips-Ft	5796.0	0.62	OK!
Calculated Shear Capacity (Kips):	840.3	>	Design Factored Shear (Kips):	43.7	0.05	OK!
Calculated Tension Capacity (Tn, Kips):	2592.0	>	Design Factored Tension (Tu Kips):	0.0	0.00	OK!
Calculated Compression Capacity (Pn, Kips):	12712.3	>	Design Factored Axial Load (Pu Kips):	60.4	0.00	OK!
Moment & Axial Strength Combination:	0.62	OK!	Check Tie Spacing (Design/Required):		1	OK!
Pier Reinforcement Ratio:	0.007		Reinforcement Ratio is satisfied per ACI			
(2).Concrete Pad:						
One-Way Design Shear Capacity (L-Direction, Kips):	700.1	>	One-Way Factored Shear (L-D. Kips):	327.1	0.47	OK!
One-Way Design Shear Capacity (W-Direction, Kips):	700.1	>	One-Way Factored Shear (W-D., Kips):	327.1	0.47	OK!
One-Way Design Shear Capacity (Corner-Corner. Kips):	723.7	>	One-Way Factored Shear (C-C, Kips):	340.8	0.47	OK!
Lower Steel Pad Reinforcement Ratio (L-Direct.):	0.0058	OK!	Lower Steel Pad Reinf. Ratio (W-Direct	0.0058		
Lower Steel Pad Moment Capacity (L-Direction. Kips-ft):	3734.7	>	Moment at Bottom (L-Dir. K-Ft):	1946.4	0.52	OK!
Lower Steel Pad Moment Capacity (W-Direction. Kips-ft):	3734.7	>	Moment at Bottom (W-Dir. K-Ft):	1946.4	0.52	OK!
Lower Steel Pad Moment Capacity (Corner-Corner,K-ft):	5215.6	>	Moment at Bottom (C-C Dir. K-Ft):	2752.6	0.53	OK!
Upper Steel Pad Reinforcement Ratio (L-Direct.):	0.0058	OK!	Upper Steel Reinf. Ratio (W-Dir.):	0.0058		
Upper Steel Pad Moment Capacity (L-Direc. Kips-ft):	3734.7	>	Moment at the top (L-Dir K-Ft):	941.8	0.25	OK!
Upper Steel Pad Moment Capacity (W-Direc. Kips-ft):	3734.7	>	Moment at the top (W-Dir K-Ft):	941.8	0.25	OK!
Upper Steel Pad Moment Capacity (Corner-Corner. K-ft):	5215.6	>	Moment at the top (C-C Dir. K-Ft):	882.1	0.17	OK!
(3).Check Punching Shear Capacity due to Moment in the Pier:						
Moment transferred by punching shear:	2239.7	k-ft.	Max. factored shear stress v_{u_CD}:		4.3	Psi
Max. factored shear stress v_{u_AB}:	18.0	Psi	Factored shear Strength ϕv_n:		189.7	Psi
Max. factored shear stress v_u:	18.0	Psi	Check Usage of Punching Shear Capacity:		0.09	OK!
(4).Check Bending Capacity of the Pad Within the Effective Slab Width:						
Overturning moment to be transferred by flexure:	1679.8	k-ft.	Effective Width for resisting OT moment:		14.0	ft.
Calculated number of Rebar in Effective width:	26		Actual number of Rebar in Effective width:		26	
Steel Pad Moment Capacity (L-Direc. Kips-ft):	1795.1	k-ft.	Check Usage of the Flexure Capacity:		0.94	OK!

EXHIBIT 8

Mount Anaysis

Kimley»Horn

Mount Analysis for

Proposed Platform with Support Rails
Commscope Part #: MC-PK8-DSH

September 5, 2023

Site Name:	**East Lyme 1**
SBA Site Number:	**CT11794-S**
Dish Site Number:	**BOBOS01209A**
Site Address:	**49 Brainerd Road** **Niantic, CT 06357** **New London County**
Site Coordinates:	**41.307583°, -72.223917°**

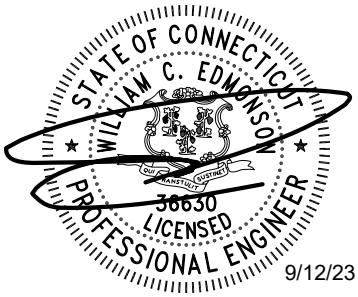
Kimley-Horn Job Number: 180000025.1.202
Kimley-Horn JIRA Ticket: KHCLE-47794

Analysis Results

Proposed Platform with Support Rails	**25.6%**	**Sufficient**
Mount Connections	**24.2%**	**Sufficient**

See additional details in the Conclusions and Recommendation section.

Prepared By:
Kevin Fraleigh, P.E.



9/12/23

Reviewed and Signed By:
Cole Edmonson, P.E.
Lic. #PEN.0036630, Exp. 01/31/2024
Kimley-Horn and Associates, Inc. COA #PEC.0000738

▪ SUPPORTING DOCUMENTATION

Information on existing and proposed antennas as well as mount geometry was provided to Kimley-Horn and Associates in the documents listed below. It is assumed that all information provided to Kimley-Horn & Associates, Inc. is accurate. In the absence of information to the contrary, we assume the structure has been properly erected and maintained per the original design drawings and the capacity has not significantly changed from the "as new" condition.

Tenant Loading	Dish Wireless Collo App, dated 8/31/2023
Mount Design	Commscope Part #: MC-PK8-DSH, dated 3/17/2021

▪ ANALYSIS CRITERIA

Code	ANSI/TIA-222-H / 2021 IBC / 2022 CSBC / ASCE 7
Basic Wind Speed	126 mph (3-Second Gust, Vult)
Basic Wind Speed w/ Ice	50 mph (3-sec Gust) with 1.0" radial ice (escalating)
Risk Category	II
Exposure Category	C
Topographic Factor	K_{zt} = 1.0

This analysis utilizes an ultimate 3-second gust windspeed of 126 mph as required by the Connecticut State Building Code. Applicable Standard references and design criteria are listed in Section 2-Analysis Criteria.

▪ APPURTENANCE LISTING

The tables below will show the final equipment configuration considered in the analysis. If the final equipment observed in the field deviates from the information shown below, Kimley-Horn & Associates, Inc. should be contacted to perform an analysis revision immediately.

Final Equipment Configuration:

Antenna RAD (ft)	Description	Feedlines	Mount Type	Mount Elevation (ft)	Carrier
135	(3) Commscope FFVV-65B-R2 Panel (3) Samsung RF4450t-71A RRU (3) Samsung RF4451d-70A RRU (1) Raycap RDIDC-9181-PF-48 OVP	(1) 1.60" Hybrid	Platform with Support Rails	135	Dish

▪ CONCLUSIONS AND RECOMMENDATIONS

Per our rigorous structural analysis, the proposed Platform with Support Rails have been found to be **SUFFICIENT**. The mount can support the referenced loading in accordance with the structural strength requirements of ANSI/TIA-222-H and 2021 IBC with local amendments.

▪ ASSUMPTIONS AND LIMITATIONS

This report is not a condition assessment of the mount; It is an engineering analysis based upon the theoretical capacity of the structure. Unless told otherwise, we assume the mount components and connections to be in "like new" condition. If these assumptions are not accurate, Kimley-Horn & Associates, Inc. should be notified immediately to perform a revised analysis.

All services are performed, results obtained, and recommendation made in accordance with generally accepted engineering principles and practices. Kimley-Horn & Associates, Inc. is not responsible for the conclusions, opinions and recommendations made by others based on the information in this report.

Kimley-Horn makes no warranties, expressed or implied in connection with this report and disclaims any liability arising from original design, material, fabrication, section deficiencies, corrosion, or insufficient maintenance of the structure.

APPENDIX

General Criteria	
TIA Standard	H
IBC Edition	2021
Structure Class	-
Risk Category	II

Site-Specific Criteria	
Exposure Category	C
Topographic Factor, K_{zt}	1.00
Structure Base Elev. (AMSL), z_s (ft)	15.00
Ground Effect Factor, K_e	1.00

Mount & Structure Criteria	
Mount Elevation (AGL) (ft)	135.00
Structure Height (ft)	170.00
Structure Type	Monopole

Constants	
Wind Direction Probability Factor, K_d	0.95
Gust Effect Factor, G_h	1
Shielding Factor, K_a **(antenna)**	0.9
Shielding Factor, K_a **(mount)**	0.9

Wind Summary	
Basic Wind Speed w/o Ice, **V** (mph)	126.00
Velocity Pressure Coeff., K_z	1.35
Velocity Pressure, q_z **(w/o Ice)** (psf)	52.02

Ice Load Summary	
Basic Wind Speed w/ Ice, V_i (mph)	50.00
Design Ice Thick. (ASCE 7-16) , t_i (in)	1
Velocity Pressure, q_z **(w/ Ice)** (psf)	8.19
Escalated Ice Thick. @ Mount, t_{iz} (in)	1.15

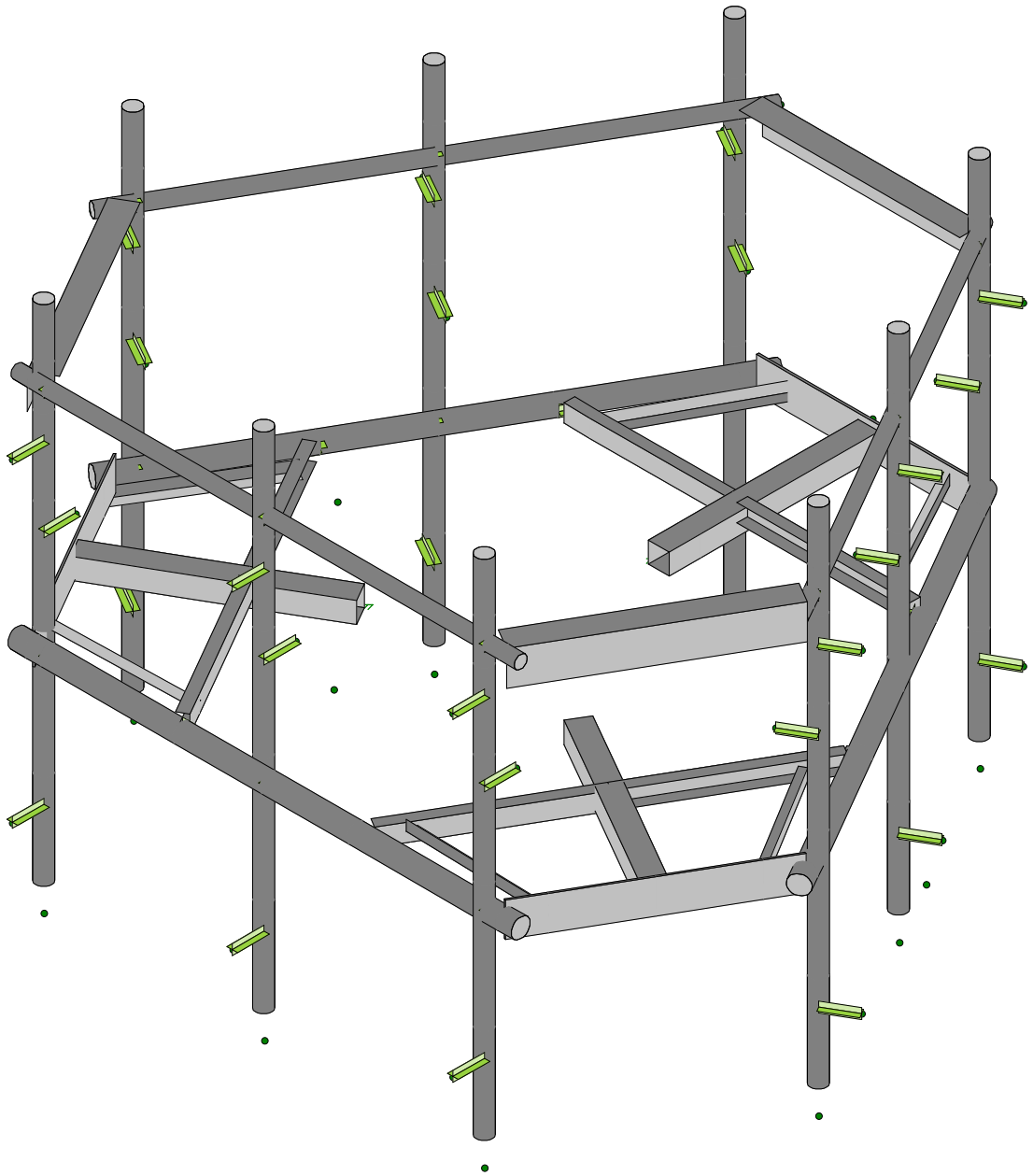
Seismic Load Summary	
Spectral Response (Short Periods), S_s	0.195
Spectral Response (1-Sec. Period), S_1	0.053
Site Class	D
Seismic Design Category	B
Seismic Risk Category	II

Snow Load Summary	
Ground Snow Load, p_g (psf)	-
Snow Load on Flat Roofs, p_f (psf)	-

Kimley»Horn

Date	September 05, 2023
Client	SBA
Site #	CT11794-S
Site Name	East Lyme 1
Project #	KHCLE-47794

Antenna Name	Qty	Shape	Dimensions (in)			Weight (lb)	Joint Labels								EPA (ft^2)		Wind Force, F_A (lb)			
																	No Ice		With Ice	
			H	W	D		Alpha		Beta		Gamma		Delta		Front	Side	Front	Side	Front	Side
FFVV-65B-R2	3	Flat	72	19.6	7.8	84.5	A2T	A2B	B2T	B2B	G2T	G2B			12.27	5.75	574.56	269.23	103.3	54.26
RF4450t-71A	3	Flat	16.5	15	11	94.6	A2R		B2R		G2R				0.76	1.03	35.41	48.29	7.68	9.99
RF4451d-70A	3	Flat	15	15	8.9	61.3	A2R		B2R		G2R				0.56	0.94	26.04	43.9	5.95	9.2
RDIDC-9181-PF-48	1	Flat	16.6	14.6	8.5	21.9	DCU								2.01	1.17	94.2	54.7	19.57	12.48



Envelope Only Solution

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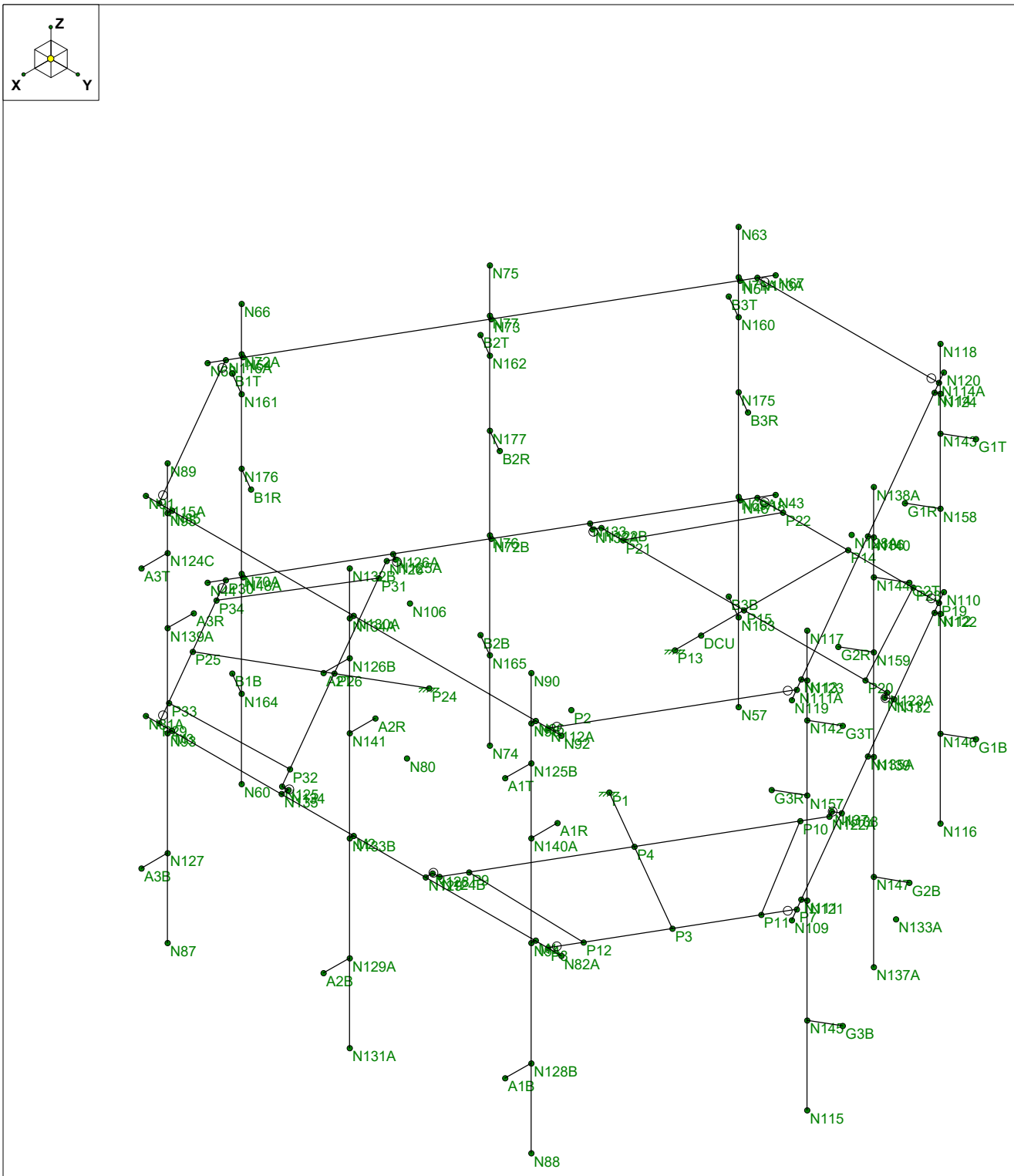

Envelope Only Solution

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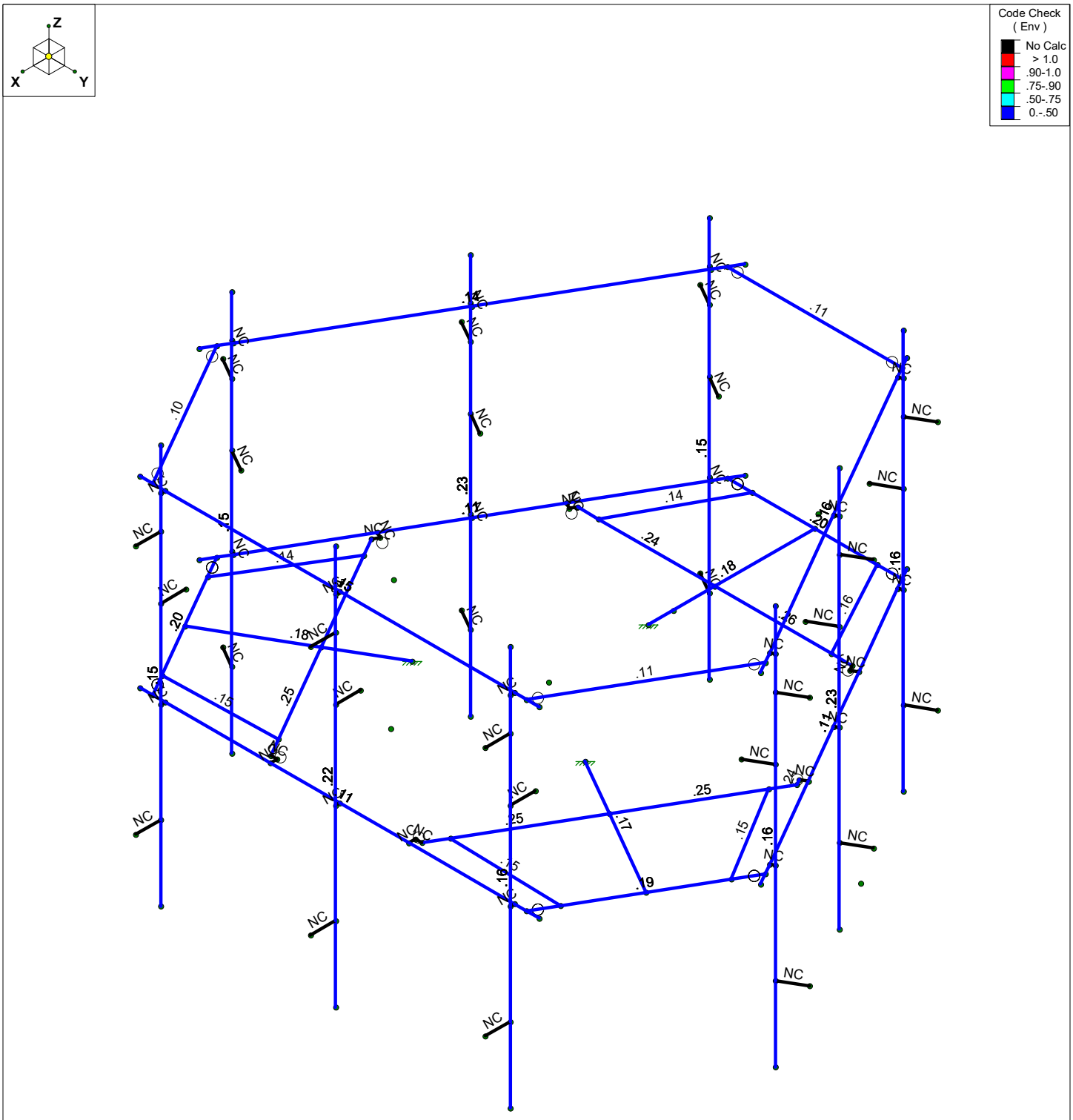
		MC-PK8DSH.r3d



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

CommScope	MC-PK8-C	SK - 3
		Sept 5, 2023 at 1:42 PM
		MC-PK8DSH.r3d

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (\1E...	Density[k/ft...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	.3	.65	.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	.3	.65	.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	.3	.65	.49	35	1.6	60	1.2
7	A1085	29000	11154	.3	.65	.49	50	1.4	65	1.3
8	A913 Gr.65	29000	11154	.3	.65	.49	65	1.1	80	1.1
9	A500 GR.C	29000	11154	.3	.65	.49	46	1.6	60	1.2
10	A529 Gr. 50	29000	11154	.3	.65	.49	50	1.1	65	1.1
11	A1011-33Ksi	29000	11154	.3	.65	.49	33	1.5	58	1.2
12	A1011 36 Ksi	29000	11154	.3	.65	.49	36	1.5	58	1.2
13	A1018 50 Ksi	29000	11154	.3	.65	.49	50	1.5	65	1.2

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Ru...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	6.5"x0.37" Plate	PL6.5x0.375	Beam	None	A1011 36 Ksi	Typical	2.438	.029	8.582	.11
2	6"x0.37" Plate	Plate 6x.37	Beam	None	A1011 36 Ksi	Typical	2.22	.025	6.66	.097
3	L 2"x2"x1/4"	L2x2x4	Beam	None	A529 Gr. 50	Typical	.944	.346	.346	.021
4	Face Pipes(3.5x.16)	Pipe3.5x0.165	Beam	None	A500 GR.C	Typical	1.729	2.409	2.409	4.819
5	Antenna Pipes	Pipe 2.875x0.12	Beam	None	A500 GR.C	Typical	1.039	.987	.987	1.975
6	Channel(3.38x2.06)	C3.38x2.06x0....	Beam	None	A1011 36 Ksi	Typical	1.75	.715	3.026	.034
7	Square Tubing	HSS4X4X6	Beam	None	A500 GR.C	Typical	4.78	10.3	10.3	17.5
8	Handrail Connector	L6.6x4.46x0.25	Beam	None	A1011 36 Ksi	Typical	2.703	4.759	12.473	.055
9	Handrail	PIPE_2.0	Beam	None	A500 GR.C	Typical	1.02	.627	.627	1.25

Joint Coordinates and Temperatures

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
1	P1	12.	20.78461	-0.	0	
2	P2	0	0	0	0	
3	P3	32.	55.425626	-0.	0	
4	P4	20.	34.641016	0.	0	
5	P7	13.813467	65.925626	0.	0	
6	P8	50.186533	44.925626	-0.	0	
7	P9	44.248711	20.641016	-0.	0	
8	P10	-4.248711	48.641016	0.	0	
9	P11	19.009619	62.925626	0.	0	
10	P12	44.990381	47.925626	-0.	0	
11	P13	-24	0.	0.	0	
12	P14	-64	-0.	0.	0	
13	P15	-40	0.	0.	0	
14	P18	-64.	-21	0.	0	
15	P19	-64	21	0.	0	
16	P20	-40	28	0.	0	
17	P21	-40	-28	0.	0	
18	P22	-64	-15.	0.	0	
19	P23	-64.	15	0.	0	
20	P24	12	-20.78461	-0.	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
21	P25	32	-55.425626	-0.	0	
22	P26	20	-34.641016	-0.	0	
23	P29	50.186533	-44.925626	-0.	0	
24	P30	13.813467	-65.925626	-0.	0	
25	P31	-4.248711	-48.641016	-0.	0	
26	P32	44.248711	-20.641016	-0.	0	
27	P33	44.990381	-47.925626	-0.	0	
28	P34	19.009619	-62.925626	-0.	0	
29	N43	-66.662486	-19.462813	0.	0	
30	N44	16.475953	-67.462813	-0.	0	
31	N45	-61.466333	-22.462813	0.	0	
32	N48A	11.2798	-64.462813	-0.	0	
33	N51	-61.466333	-22.462813	44	0	
34	N54	11.2798	-64.462813	44	0	
35	N57	-61.966333	-23.328838	-42	0	
36	N60	10.7798	-65.328838	-42	0	
37	N63	-61.966333	-23.328838	54	0	
38	N66	10.7798	-65.328838	54	0	
39	N67	-66.662486	-19.462813	44	0	
40	N68	16.475953	-67.462813	44	0	
41	N111A	13.813467	65.925626	44	0	
42	N112A	50.186533	44.925626	44	0	
43	N113A	-64.	-21	44	0	
44	N114A	-64	21	44	0	
45	N115A	50.186533	-44.925626	44	0	
46	N116A	13.813467	-65.925626	44	0	
47	N69A	-61.966333	-23.328838	0.	0	
48	N70A	10.7798	-65.328838	-0.	0	
49	N71A	-61.966333	-23.328838	44	0	
50	N72A	10.7798	-65.328838	44	0	
51	N122A	-8.578838	51.141016	0.	0	
52	N124B	48.578838	18.141016	-0.	0	
53	N122B	-40.	-33.	0.	0	
54	N123A	-40.	33.	0.	0	
55	N125	48.578838	-18.141016	-0.	0	
56	N126	-8.578838	-51.141016	-0.	0	
57	N125A	-9.877877	-50.391016	-0.	0	
58	N126A	-10.681724	-51.783321	-0.	0	
59	N128	48.578838	16.641016	-0.	0	
60	N129	50.186533	16.641016	-0.	0	
61	N131	-38.700962	33.75	0.	0	
62	N132	-39.504809	35.142305	0.	0	
63	N132A	-38.700962	-33.75	0.	0	
64	N133	-39.504809	-35.142305	0.	0	
65	N134	48.578838	-16.641016	-0.	0	
66	N135	50.186533	-16.641016	-0.	0	
67	N137	-9.877877	50.391016	0.	0	
68	N138	-10.681724	51.783321	0.	0	
69	N72B	-25.093267	-43.462813	0.	0	
70	N73	-25.093267	-43.462813	44	0	
71	N74	-25.593267	-44.328838	-42	0	
72	N75	-25.593267	-44.328838	54	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
73	N76	-25.593267	-44.328838	0.	0	
74	N77	-25.593267	-44.328838	44	0	
75	N80	-13.468911	-51.328838	-42	0	
76	N81A	50.186533	-48.	-0.	0	
77	N82A	50.186533	48.	-0.	0	
78	M3	50.186533	-42.	-0.	0	
79	M1	50.186533	42.	-0.	0	
80	N85	50.186533	-42.	44	0	
81	N86	50.186533	42.	44	0	
82	N87	51.186533	-42.	-42	0	
83	N88	51.186533	42.	-42	0	
84	N89	51.186533	-42.	54	0	
85	N90	51.186533	42.	54	0	
86	N91	50.186533	-48.	44	0	
87	N92	50.186533	48.	44	0	
88	N93	51.186533	-42.	-0.	0	
89	N94	51.186533	42.	-0.	0	
90	N95	51.186533	-42.	44	0	
91	N96	51.186533	42.	44	0	
92	N106	51.186533	14.	54	0	
93	N109	16.475952	67.462813	0.	0	
94	N110	-66.662486	19.462813	0.	0	
95	N111	11.2798	64.462813	0.	0	
96	N112	-61.466334	22.462813	0.	0	
97	N113	11.2798	64.462813	44	0	
98	N114	-61.466334	22.462813	44	0	
99	N115	10.7798	65.328838	-42	0	
100	N116	-61.966334	23.328838	-42	0	
101	N117	10.7798	65.328838	54	0	
102	N118	-61.966334	23.328838	54	0	
103	N119	16.475952	67.462813	44	0	
104	N120	-66.662486	19.462813	44	0	
105	N121	10.7798	65.328838	0.	0	
106	N122	-61.966334	23.328838	0.	0	
107	N123	10.7798	65.328838	44	0	
108	N124	-61.966334	23.328838	44	0	
109	N128A	-13.468911	51.328838	54	0	
110	N133A	-37.717623	37.328838	-42	0	
111	M2	50.186533	0.	-0.	0	
112	N130A	50.186533	0.	44	0	
113	N131A	51.186533	0.	-42	0	
114	N132B	51.186533	0.	54	0	
115	N133B	51.186533	0.	-0.	0	
116	N134A	51.186533	0.	44	0	
117	N135A	-25.093267	43.462813	0.	0	
118	N136	-25.093267	43.462813	44	0	
119	N137A	-25.593267	44.328838	-42	0	
120	N138A	-25.593267	44.328838	54	0	
121	N139	-25.593267	44.328838	0.	0	
122	N140	-25.593267	44.328838	44	0	
123	N124C	51.186533	-42.	36	0	
124	N125B	51.186533	42.	36	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
125	N126B	51.186533	0.	36	0	
126	N127	51.186533	-42.	-24	0	
127	N128B	51.186533	42.	-24	0	
128	N129A	51.186533	0.	-24	0	
129	A3T	57.186533	-42.	36	0	
130	A1T	57.186533	42.	36	0	
131	A2T	57.186533	0.	36	0	
132	A3B	57.186533	-42.	-24	0	
133	A1B	57.186533	42.	-24	0	
134	A2B	57.186533	0.	-24	0	
135	A3R	45.186533	-42.	21	0	
136	A1R	45.186533	42.	21	0	
137	A2R	45.186533	0.	21	0	
138	N139A	51.186533	-42.	21	0	
139	N140A	51.186533	42.	21	0	
140	N141	51.186533	0.	21	0	
141	N142	10.7798	65.328838	36	0	
142	N143	-61.966334	23.328838	36	0	
143	N144	-25.593267	44.328838	36	0	
144	N145	10.7798	65.328838	-24	0	
145	N146	-61.966334	23.328838	-24	0	
146	N147	-25.593267	44.328838	-24	0	
147	G3T	7.7798	70.524991	36	0	
148	G1T	-64.966334	28.524991	36	0	
149	G2T	-28.593267	49.524991	36	0	
150	G3B	7.7798	70.524991	-24	0	
151	G1B	-64.966334	28.524991	-24	0	
152	G2B	-28.593267	49.524991	-24	0	
153	G3R	13.7798	60.132686	21	0	
154	G1R	-58.966334	18.132686	21	0	
155	G2R	-22.593267	39.132686	21	0	
156	N157	10.7798	65.328838	21	0	
157	N158	-61.966334	23.328838	21	0	
158	N159	-25.593267	44.328838	21	0	
159	N160	-61.966333	-23.328838	36	0	
160	N161	10.7798	-65.328838	36	0	
161	N162	-25.593267	-44.328838	36	0	
162	N163	-61.966333	-23.328838	-24	0	
163	N164	10.7798	-65.328838	-24	0	
164	N165	-25.593267	-44.328838	-24	0	
165	B3T	-64.966333	-28.524991	36	0	
166	B1T	7.7798	-70.524991	36	0	
167	B2T	-28.593267	-49.524991	36	0	
168	B3B	-64.966333	-28.524991	-24	0	
169	B1B	7.7798	-70.524991	-24	0	
170	B2B	-28.593267	-49.524991	-24	0	
171	B3R	-58.966333	-18.132686	21	0	
172	B1R	13.7798	-60.132686	21	0	
173	B2R	-22.593267	-39.132686	21	0	
174	N175	-61.966333	-23.328838	21	0	
175	N176	10.7798	-65.328838	21	0	
176	N177	-25.593267	-44.328838	21	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
177	DCU	-30	0	0	0	

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M2	P3	P1			Square Tubing	Beam	None	A500 GR.C	Typical
2	M3	P9	P12		270	L 2"x2"x1/4"	Beam	None	A529 Gr. 50	Typical
3	M4	P10	P11			L 2"x2"x1/4"	Beam	None	A529 Gr. 50	Typical
4	M5	P7	P8			6.5"x0.37" Pla...	Beam	None	A1011 36 Ksi	Typical
5	M7	P14	P13			Square Tubing	Beam	None	A500 GR.C	Typical
6	M8	P20	P23		270	L 2"x2"x1/4"	Beam	None	A529 Gr. 50	Typical
7	M9	P21	P22			L 2"x2"x1/4"	Beam	None	A529 Gr. 50	Typical
8	M10	P18	P19			6.5"x0.37" Pla...	Beam	None	A1011 36 Ksi	Typical
9	M12	P25	P24			Square Tubing	Beam	None	A500 GR.C	Typical
10	M13	P31	P34		270	L 2"x2"x1/4"	Beam	None	A529 Gr. 50	Typical
11	M14	P32	P33			L 2"x2"x1/4"	Beam	None	A529 Gr. 50	Typical
12	M15	P29	P30			6.5"x0.37" Pla...	Beam	None	A1011 36 Ksi	Typical
13	M18	N43	N44			Face Pipes(3....	Beam	None	A500 GR.C	Typical
14	MP9	N60	N66			Antenna Pipes	Beam	None	A500 GR.C	Typical
15	MP7	N57	N63			Antenna Pipes	Beam	None	A500 GR.C	Typical
16	M25	N67	N68			Handrail	Beam	None	A500 GR.C	Typical
17	M28	N114A	N113A		180	Handrail Conn...	Beam	None	A1011 36 Ksi	Typical
18	M29	N112A	N111A		180	Handrail Conn...	Beam	None	A1011 36 Ksi	Typical
19	M30	N116A	N115A		180	Handrail Conn...	Beam	None	A1011 36 Ksi	Typical
20	M32	N48A	N70A			RIGID	None	None	RIGID	Typical
21	M35	N45	N69A			RIGID	None	None	RIGID	Typical
22	M36	N51	N71A			RIGID	None	None	RIGID	Typical
23	M39A	N54	N72A			RIGID	None	None	RIGID	Typical
24	M61A	P4	N122A			Channel(3.38...	Beam	None	A1011 36 Ksi	Typical
25	M63A	P4	N124B			Channel(3.38...	Beam	None	A1011 36 Ksi	Typical
26	M60A	P15	N122B			Channel(3.38...	Beam	None	A1011 36 Ksi	Typical
27	M61B	P15	N123A			Channel(3.38...	Beam	None	A1011 36 Ksi	Typical
28	M62A	P26	N125			Channel(3.38...	Beam	None	A1011 36 Ksi	Typical
29	M63B	P26	N126			Channel(3.38...	Beam	None	A1011 36 Ksi	Typical
30	M64	N126A	N125A			RIGID	None	None	RIGID	Typical
31	M65	N126	N125A			RIGID	None	None	RIGID	Typical
32	M66	N129	N128			RIGID	None	None	RIGID	Typical
33	M67	N124B	N128			RIGID	None	None	RIGID	Typical
34	M68	N132	N131			RIGID	None	None	RIGID	Typical
35	M69	N123A	N131			RIGID	None	None	RIGID	Typical
36	M70	N133	N132A			RIGID	None	None	RIGID	Typical
37	M71	N122B	N132A			RIGID	None	None	RIGID	Typical
38	M72	N135	N134			RIGID	None	None	RIGID	Typical
39	M73	N125	N134			RIGID	None	None	RIGID	Typical
40	M74	N138	N137			RIGID	None	None	RIGID	Typical
41	M75	N122A	N137			PL 2.375x0.5	None	None	A36 Gr.36	Typical
42	MP8	N74	N75			Antenna Pipes	Beam	None	A500 GR.C	Typical
43	M43	N72B	N76			RIGID	None	None	RIGID	Typical
44	M44	N73	N77			RIGID	None	None	RIGID	Typical
45	M48	N81A	N82A			Face Pipes(3....	Beam	None	A500 GR.C	Typical
46	MP3	N88	N90			Antenna Pipes	Beam	None	A500 GR.C	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
47	MP1	N87	N89			Antenna Pipes	Beam	None	A500 GR.C	Typical
48	M51	N91	N92			Handrail	Beam	None	A500 GR.C	Typical
49	M52	M1	N94			RIGID	None	None	RIGID	Typical
50	M53	M3	N93			RIGID	None	None	RIGID	Typical
51	M54	N85	N95			RIGID	None	None	RIGID	Typical
52	M55	N86	N96			RIGID	None	None	RIGID	Typical
53	M62	N109	N110			Face Pipes(3...	Beam	None	A500 GR.C	Typical
54	MP6	N116	N118			Antenna Pipes	Beam	None	A500 GR.C	Typical
55	MP4	N115	N117			Antenna Pipes	Beam	None	A500 GR.C	Typical
56	M65A	N119	N120			Handrail	Beam	None	A500 GR.C	Typical
57	M66A	N112	N122			RIGID	None	None	RIGID	Typical
58	M67A	N111	N121			RIGID	None	None	RIGID	Typical
59	M68A	N113	N123			RIGID	None	None	RIGID	Typical
60	M69A	N114	N124			RIGID	None	None	RIGID	Typical
61	MP2	N131A	N132B			Antenna Pipes	Beam	None	A500 GR.C	Typical
62	M68B	M2	N133B			RIGID	None	None	RIGID	Typical
63	M69B	N130A	N134A			RIGID	None	None	RIGID	Typical
64	MP5	N137A	N138A			Antenna Pipes	Beam	None	A500 GR.C	Typical
65	M71B	N135A	N139			RIGID	None	None	RIGID	Typical
66	M72B	N136	N140			RIGID	None	None	RIGID	Typical
67	M67B	A1B	N128B			RIGID	None	None	RIGID	Typical
68	M68C	A2B	N129A			RIGID	None	None	RIGID	Typical
69	M69C	A3B	N127			RIGID	None	None	RIGID	Typical
70	M70A	A3T	N124C			RIGID	None	None	RIGID	Typical
71	M71A	A2T	N126B			RIGID	None	None	RIGID	Typical
72	M72A	A1T	N125B			RIGID	None	None	RIGID	Typical
73	M73A	N139A	A3R			RIGID	None	None	RIGID	Typical
74	M74A	N141	A2R			RIGID	None	None	RIGID	Typical
75	M75A	N140A	A1R			RIGID	None	None	RIGID	Typical
76	M76	G1B	N146			RIGID	None	None	RIGID	Typical
77	M77	G2B	N147			RIGID	None	None	RIGID	Typical
78	M78	G3B	N145			RIGID	None	None	RIGID	Typical
79	M79	G3T	N142			RIGID	None	None	RIGID	Typical
80	M80	G2T	N144			RIGID	None	None	RIGID	Typical
81	M81	G1T	N143			RIGID	None	None	RIGID	Typical
82	M82	N157	G3R			RIGID	None	None	RIGID	Typical
83	M83	N159	G2R			RIGID	None	None	RIGID	Typical
84	M84	N158	G1R			RIGID	None	None	RIGID	Typical
85	M85	B1B	N164			RIGID	None	None	RIGID	Typical
86	M86	B2B	N165			RIGID	None	None	RIGID	Typical
87	M87	B3B	N163			RIGID	None	None	RIGID	Typical
88	M88	B3T	N160			RIGID	None	None	RIGID	Typical
89	M89	B2T	N162			RIGID	None	None	RIGID	Typical
90	M90	B1T	N161			RIGID	None	None	RIGID	Typical
91	M91	N175	B3R			RIGID	None	None	RIGID	Typical
92	M92	N177	B2R			RIGID	None	None	RIGID	Typical
93	M93	N176	B1R			RIGID	None	None	RIGID	Typical

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
1	Dead	DL			-1	13				
2	Dead of Ice	RL				13		37		
4	Structure Wind (0)	None						74		
5	Structure Wind (30)	None						74		
6	Structure Wind (45)	None						74		
7	Structure Wind (60)	None						74		
8	Structure Wind (90)	None						74		
9	Structure Wind (120)	None						74		
10	Structure Wind (135)	None						74		
11	Structure Wind (150)	None						74		
12	Structure Wind w/ Ice...	None						74		
13	Structure Wind w/ Ice...	None						74		
14	Structure Wind w/ Ice...	None						74		
15	Structure Wind w/ Ice...	None						74		
16	Structure Wind w/ Ice...	None						74		
17	Structure Wind w/ Ice...	None						74		
18	Structure Wind w/ Ice...	None						74		
19	Structure Wind w/ Ice...	None						74		
20	Antenna Wind (0)	None				26				
21	Antenna Wind (30)	None				26				
22	Antenna Wind (45)	None				26				
23	Antenna Wind (60)	None				26				
24	Antenna Wind (90)	None				26				
25	Antenna Wind (120)	None				26				
26	Antenna Wind (135)	None				26				
27	Antenna Wind (150)	None				26				
28	Antenna Wind w/ Ice ...	None				26				
29	Antenna Wind w/ Ice ...	None				26				
30	Antenna Wind w/ Ice ...	None				26				
31	Antenna Wind w/ Ice ...	None				26				
32	Antenna Wind w/ Ice ...	None				26				
33	Antenna Wind w/ Ice ...	None				26				
34	Antenna Wind w/ Ice ...	None				26				
35	Antenna Wind w/ Ice ...	None				26				
36	Seismic X	ELX				13		37		
37	Seismic Y	ELY				13		37		
38	Maintenance Live Lm ...	OL1				1				
39	Maintenance Live Lm ...	OL2				1				
40	Maintenance Live Lm ...	OL3				1				
43	Maintenance Live Lv (...	OL6					1			

Load Combinations

	Description	So...	P...	S...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...
1	Summary: 1.0D + ...	Yes	Y		DL	1	20	1																
2	1.4D	Yes	Y		DL	1.4																		
3	1.2D + 1.0W(0)	Yes	Y		DL	1.2	4	1	20	1														
4	1.2D + 1.0W(30)	Yes	Y		DL	1.2	5	1	21	1														
5	1.2D + 1.0W(45)	Yes	Y		DL	1.2	6	1	22	1														
6	1.2D + 1.0W(60)	Yes	Y		DL	1.2	7	1	23	1														

Load Combinations (Continued)

	Description	So...	P...	S...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...
7	1.2D + 1.0W(90)	Yes	Y		DL	1.2	8	1	24	1														
8	1.2D + 1.0W(120)	Yes	Y		DL	1.2	9	1	25	1														
9	1.2D + 1.0W(135)	Yes	Y		DL	1.2	10	1	26	1														
10	1.2D + 1.0W(150)	Yes	Y		DL	1.2	11	1	27	1														
11	1.2D + 1.0W(180)	Yes	Y		DL	1.2	4	-1	20	-1														
12	1.2D + 1.0W(210)	Yes	Y		DL	1.2	5	-1	21	-1														
13	1.2D + 1.0W(225)	Yes	Y		DL	1.2	6	-1	22	-1														
14	1.2D + 1.0W(240)	Yes	Y		DL	1.2	7	-1	23	-1														
15	1.2D + 1.0W(270)	Yes	Y		DL	1.2	8	-1	24	-1														
16	1.2D + 1.0W(300)	Yes	Y		DL	1.2	9	-1	25	-1														
17	1.2D + 1.0W(315)	Yes	Y		DL	1.2	10	-1	26	-1														
18	1.2D + 1.0W(330)	Yes	Y		DL	1.2	11	-1	27	-1														
19	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	RL	1	12	1	28	1												
20	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	RL	1	13	1	29	1												
21	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	RL	1	14	1	30	1												
22	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	RL	1	15	1	31	1												
23	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	RL	1	16	1	32	1												
24	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	RL	1	17	1	33	1												
25	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	RL	1	18	1	34	1												
26	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	RL	1	19	1	35	1												
27	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	RL	1	12	-1	28	-1												
28	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	RL	1	13	-1	39	-1												
29	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	RL	1	14	-1	30	-1												
30	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	RL	1	15	-1	31	-1												
31	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	RL	1	16	-1	32	-1												
32	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	RL	1	17	-1	33	-1												
33	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	RL	1	18	-1	34	-1												
34	1.2D + 1.0Di + 1.0...	Yes	Y		DL	1.2	RL	1	19	-1	35	-1												
35	1.2D + 1.0E(0)	Yes	Y		DL	1.2	ELX	-1	ELY															
36	1.2D + 1.0E(30)	Yes	Y		DL	1.2	ELX	-.866	ELY	.5														
37	1.2D + 1.0E(45)	Yes	Y		DL	1.2	ELX	-.707	ELY	.707														
38	1.2D + 1.0E(60)	Yes	Y		DL	1.2	ELX	-.5	ELY	.866														
39	1.2D + 1.0E(90)	Yes	Y		DL	1.2	ELX	-2.2...	ELY	1														
40	1.2D + 1.0E(120)	Yes	Y		DL	1.2	ELX	.5	ELY	.866														
41	1.2D + 1.0E(135)	Yes	Y		DL	1.2	ELX	.707	ELY	.707														
42	1.2D + 1.0E(150)	Yes	Y		DL	1.2	ELX	.866	ELY	.5														
43	1.2D + 1.0E(180)	Yes	Y		DL	1.2	ELX	1	ELY	4.5...														
44	1.2D + 1.0E(210)	Yes	Y		DL	1.2	ELX	.866	ELY	-.5														
45	1.2D + 1.0E(225)	Yes	Y		DL	1.2	ELX	.707	ELY	-.707														
46	1.2D + 1.0E(240)	Yes	Y		DL	1.2	ELX	.5	ELY	-.866														
47	1.2D + 1.0E(270)	Yes	Y		DL	1.2	ELX	6.8...	ELY	-1														
48	1.2D + 1.0E(300)	Yes	Y		DL	1.2	ELX	-.5	ELY	-.866														
49	1.2D + 1.0E(315)	Yes	Y		DL	1.2	ELX	-.707	ELY	-.707														
50	1.2D + 1.0E(330)	Yes	Y		DL	1.2	ELX	-.866	ELY	-.5														
51	0.9D + 1.0E(0)	Yes	Y		DL	.9	ELX	-1	ELY															
52	0.9D + 1.0E(30)	Yes	Y		DL	.9	ELX	-.866	ELY	.5														
53	0.9D + 1.0E(45)	Yes	Y		DL	.9	ELX	-.707	ELY	.707														
54	0.9D + 1.0E(60)	Yes	Y		DL	.9	ELX	-.5	ELY	.866														
55	0.9D + 1.0E(90)	Yes	Y		DL	.9	ELX	-2.2...	ELY	1														
56	0.9D + 1.0E(120)	Yes	Y		DL	.9	ELX	.5	ELY	.866														
57	0.9D + 1.0E(135)	Yes	Y		DL	.9	ELX	.707	ELY	.707														
58	0.9D + 1.0E(150)	Yes	Y		DL	.9	ELX	.866	ELY	.5														

Load Combinations (Continued)

	Description	So...	P...	S...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...
59	0.9D + 1.0E(180)	Yes	Y		DL	.9	ELX	1	ELY	4.5...														
60	0.9D + 1.0E(210)	Yes	Y		DL	.9	ELX	.866	ELY	-.5														
61	0.9D + 1.0E(225)	Yes	Y		DL	.9	ELX	.707	ELY	-.707														
62	0.9D + 1.0E(240)	Yes	Y		DL	.9	ELX	.5	ELY	-.866														
63	0.9D + 1.0E(270)	Yes	Y		DL	.9	ELX	6.8...	ELY	-1														
64	0.9D + 1.0E(300)	Yes	Y		DL	.9	ELX	-.5	ELY	-.866														
65	0.9D + 1.0E(315)	Yes	Y		DL	.9	ELX	-.707	ELY	-.707														
66	0.9D + 1.0E(330)	Yes	Y		DL	.9	ELX	-.866	ELY	-.5														
67	1.2D + 1.5Lm(1) +...	Yes	Y		DL	1.2	4	.057	20	.057	OL1	1.5												
68	1.2D + 1.5Lm(1) +...	Yes	Y		DL	1.2	5	.057	21	.057	OL1	1.5												
69	1.2D + 1.5Lm(1) +...	Yes	Y		DL	1.2	6	.057	22	.057	OL1	1.5												
70	1.2D + 1.5Lm(1) +...	Yes	Y		DL	1.2	7	.057	23	.057	OL1	1.5												
71	1.2D + 1.5Lm(1) +...	Yes	Y		DL	1.2	8	.057	24	.057	OL1	1.5												
72	1.2D + 1.5Lm(1) +...	Yes	Y		DL	1.2	9	.057	25	.057	OL1	1.5												
73	1.2D + 1.5Lm(1) +...	Yes	Y		DL	1.2	10	.057	26	.057	OL1	1.5												
74	1.2D + 1.5Lm(1) +...	Yes	Y		DL	1.2	11	.057	27	.057	OL1	1.5												
75	1.2D + 1.5Lm(1) +...	Yes	Y		DL	1.2	4	-.057	20	-.057	OL1	1.5												
76	1.2D + 1.5Lm(1) +...	Yes	Y		DL	1.2	5	-.057	21	-.057	OL1	1.5												
77	1.2D + 1.5Lm(1) +...	Yes	Y		DL	1.2	6	-.057	22	-.057	OL1	1.5												
78	1.2D + 1.5Lm(1) +...	Yes	Y		DL	1.2	7	-.057	23	-.057	OL1	1.5												
79	1.2D + 1.5Lm(1) +...	Yes	Y		DL	1.2	8	-.057	24	-.057	OL1	1.5												
80	1.2D + 1.5Lm(1) +...	Yes	Y		DL	1.2	9	-.057	25	-.057	OL1	1.5												
81	1.2D + 1.5Lm(1) +...	Yes	Y		DL	1.2	10	-.057	26	-.057	OL1	1.5												
82	1.2D + 1.5Lm(1) +...	Yes	Y		DL	1.2	11	-.057	27	-.057	OL1	1.5												
83	1.2D + 1.5Lm(2) +...	Yes	Y		DL	1.2	4	.057	20	.057	OL2	1.5												
84	1.2D + 1.5Lm(2) +...	Yes	Y		DL	1.2	5	.057	21	.057	OL2	1.5												
85	1.2D + 1.5Lm(2) +...	Yes	Y		DL	1.2	6	.057	22	.057	OL2	1.5												
86	1.2D + 1.5Lm(2) +...	Yes	Y		DL	1.2	7	.057	23	.057	OL2	1.5												
87	1.2D + 1.5Lm(2) +...	Yes	Y		DL	1.2	8	.057	24	.057	OL2	1.5												
88	1.2D + 1.5Lm(2) +...	Yes	Y		DL	1.2	9	.057	25	.057	OL2	1.5												
89	1.2D + 1.5Lm(2) +...	Yes	Y		DL	1.2	10	.057	26	.057	OL2	1.5												
90	1.2D + 1.5Lm(2) +...	Yes	Y		DL	1.2	11	.057	27	.057	OL2	1.5												
91	1.2D + 1.5Lm(2) +...	Yes	Y		DL	1.2	4	-.057	20	-.057	OL2	1.5												
92	1.2D + 1.5Lm(2) +...	Yes	Y		DL	1.2	5	-.057	21	-.057	OL2	1.5												
93	1.2D + 1.5Lm(2) +...	Yes	Y		DL	1.2	6	-.057	22	-.057	OL2	1.5												
94	1.2D + 1.5Lm(2) +...	Yes	Y		DL	1.2	7	-.057	23	-.057	OL2	1.5												
95	1.2D + 1.5Lm(2) +...	Yes	Y		DL	1.2	8	-.057	24	-.057	OL2	1.5												
96	1.2D + 1.5Lm(2) +...	Yes	Y		DL	1.2	9	-.057	25	-.057	OL2	1.5												
97	1.2D + 1.5Lm(2) +...	Yes	Y		DL	1.2	10	-.057	26	-.057	OL2	1.5												
98	1.2D + 1.5Lm(2) +...	Yes	Y		DL	1.2	11	-.057	27	-.057	OL2	1.5												
99	1.2D + 1.5Lm(3) +...	Yes	Y		DL	1.2	4	.057	20	.057	OL3	1.5												
100	1.2D + 1.5Lm(3) +...	Yes	Y		DL	1.2	5	.057	21	.057	OL3	1.5												
101	1.2D + 1.5Lm(3) +...	Yes	Y		DL	1.2	6	.057	22	.057	OL3	1.5												
102	1.2D + 1.5Lm(3) +...	Yes	Y		DL	1.2	7	.057	23	.057	OL3	1.5												
103	1.2D + 1.5Lm(3) +...	Yes	Y		DL	1.2	8	.057	24	.057	OL3	1.5												
104	1.2D + 1.5Lm(3) +...	Yes	Y		DL	1.2	9	.057	25	.057	OL3	1.5												
105	1.2D + 1.5Lm(3) +...	Yes	Y		DL	1.2	10	.057	26	.057	OL3	1.5												
106	1.2D + 1.5Lm(3) +...	Yes	Y		DL	1.2	11	.057	27	.057	OL3	1.5												
107	1.2D + 1.5Lm(3) +...	Yes	Y		DL	1.2	4	-.057	20	-.057	OL3	1.5												
108	1.2D + 1.5Lm(3) +...	Yes	Y		DL	1.2	5	-.057	21	-.057	OL3	1.5												
109	1.2D + 1.5Lm(3) +...	Yes	Y		DL	1.2	6	-.057	22	-.057	OL3	1.5												
110	1.2D + 1.5Lm(3) +...	Yes	Y		DL	1.2	7	-.057	23	-.057	OL3	1.5												

Load Combinations (Continued)

	Description	So...	P...	S...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...
111	1.2D + 1.5Lm(3) +...	Yes	Y		DL	1.2	8	-.057	24	-.057	OL3	1.5														
112	1.2D + 1.5Lm(3) +...	Yes	Y		DL	1.2	9	-.057	25	-.057	OL3	1.5														
113	1.2D + 1.5Lm(3) +...	Yes	Y		DL	1.2	10	-.057	26	-.057	OL3	1.5														
114	1.2D + 1.5Lm(3) +...	Yes	Y		DL	1.2	11	-.057	27	-.057	OL3	1.5														
115	1.2D + 1.5Lv(1) + ...	Yes	Y		DL	1.2	4	.057	20	.057	OL6	1.5														
116	1.2D + 1.5Lv(1) + ...	Yes	Y		DL	1.2	5	.057	21	.057	OL6	1.5														
117	1.2D + 1.5Lv(1) + ...	Yes	Y		DL	1.2	6	.057	22	.057	OL6	1.5														
118	1.2D + 1.5Lv(1) + ...	Yes	Y		DL	1.2	7	.057	23	.057	OL6	1.5														
119	1.2D + 1.5Lv(1) + ...	Yes	Y		DL	1.2	8	.057	24	.057	OL6	1.5														
120	1.2D + 1.5Lv(1) + ...	Yes	Y		DL	1.2	9	.057	25	.057	OL6	1.5														
121	1.2D + 1.5Lv(1) + ...	Yes	Y		DL	1.2	10	.057	26	.057	OL6	1.5														
122	1.2D + 1.5Lv(1) + ...	Yes	Y		DL	1.2	11	.057	27	.057	OL6	1.5														
123	1.2D + 1.5Lv(1) + ...	Yes	Y		DL	1.2	4	-.057	20	-.057	OL6	1.5														
124	1.2D + 1.5Lv(1) + ...	Yes	Y		DL	1.2	5	-.057	21	-.057	OL6	1.5														
125	1.2D + 1.5Lv(1) + ...	Yes	Y		DL	1.2	6	-.057	22	-.057	OL6	1.5														
126	1.2D + 1.5Lv(1) + ...	Yes	Y		DL	1.2	7	-.057	23	-.057	OL6	1.5														
127	1.2D + 1.5Lv(1) + ...	Yes	Y		DL	1.2	8	-.057	24	-.057	OL6	1.5														
128	1.2D + 1.5Lv(1) + ...	Yes	Y		DL	1.2	9	-.057	25	-.057	OL6	1.5														
129	1.2D + 1.5Lv(1) + ...	Yes	Y		DL	1.2	10	-.057	26	-.057	OL6	1.5														
130	1.2D + 1.5Lv(1) + ...	Yes	Y		DL	1.2	11	-.057	27	-.057	OL6	1.5														

Joint Loads and Enforced Displacements (BLC 1 : Dead)

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
1	A2T	L	Z	-42.25
2	A2B	L	Z	-42.25
3	B2T	L	Z	-42.25
4	B2B	L	Z	-42.25
5	G2T	L	Z	-42.25
6	G2B	L	Z	-42.25
7	A2R	L	Z	-94.6
8	B2R	L	Z	-94.6
9	G2R	L	Z	-94.6
10	A2R	L	Z	-61.3
11	B2R	L	Z	-61.3
12	G2R	L	Z	-61.3
13	DCU	L	Z	-21.9

Joint Loads and Enforced Displacements (BLC 2 : Dead of Ice)

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
1	A2T	L	Z	-86.016
2	A2B	L	Z	-86.016
3	B2T	L	Z	-86.016
4	B2B	L	Z	-86.016
5	G2T	L	Z	-86.016
6	G2B	L	Z	-86.016
7	A2R	L	Z	-50.06
8	B2R	L	Z	-50.06
9	G2R	L	Z	-50.06
10	A2R	L	Z	-41.963
11	B2R	L	Z	-41.963

Joint Loads and Enforced Displacements (BLC 2 : Dead of Ice) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
12	G2R	L	Z	-41.963
13	DCU	L	Z	-43.017

Joint Loads and Enforced Displacements (BLC 20 : Antenna Wind (0))

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
1	A2T	L	X	-287.281
2	A2T	L	Y	0
3	A2B	L	X	-287.281
4	A2B	L	Y	0
5	B2T	L	X	-172.781
6	B2T	L	Y	0
7	B2B	L	X	-172.781
8	B2B	L	Y	0
9	G2T	L	X	-172.781
10	G2T	L	Y	0
11	G2B	L	X	-172.781
12	G2B	L	Y	0
13	A2R	L	X	-35.409
14	A2R	L	Y	0
15	B2R	L	X	-45.066
16	B2R	L	Y	0
17	G2R	L	X	-45.066
18	G2R	L	Y	0
19	A2R	L	X	-26.045
20	A2R	L	Y	0
21	B2R	L	X	-39.433
22	B2R	L	Y	0
23	G2R	L	X	-39.433
24	G2R	L	Y	0
25	DCU	L	X	-94.201
26	DCU	L	Y	0

Joint Loads and Enforced Displacements (BLC 21 : Antenna Wind (30))

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
1	A2T	L	X	-215.739
2	A2T	L	Y	124.557
3	A2B	L	X	-215.739
4	A2B	L	Y	124.557
5	B2T	L	X	-116.579
6	B2T	L	Y	67.307
7	B2B	L	X	-116.579
8	B2B	L	Y	67.307
9	G2T	L	X	-215.739
10	G2T	L	Y	124.557
11	G2B	L	X	-215.739
12	G2B	L	Y	124.557
13	A2R	L	X	-33.453
14	A2R	L	Y	19.314
15	B2R	L	X	-41.816
16	B2R	L	Y	24.143
17	G2R	L	X	-33.453

Joint Loads and Enforced Displacements (BLC 21 : Antenna Wind (30)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
18	G2R	L	Y	19.314
19	A2R	L	X	-26.42
20	A2R	L	Y	15.254
21	B2R	L	X	-38.015
22	B2R	L	Y	21.948
23	G2R	L	X	-26.42
24	G2R	L	Y	15.254
25	DCU	L	X	-73.027
26	DCU	L	Y	42.162

Joint Loads and Enforced Displacements (BLC 22 : Antenna Wind (45))

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
1	A2T	L	X	-149.162
2	A2T	L	Y	149.162
3	A2B	L	X	-149.162
4	A2B	L	Y	149.162
5	B2T	L	X	-102.418
6	B2T	L	Y	102.418
7	B2B	L	X	-102.418
8	B2B	L	Y	102.418
9	G2T	L	X	-195.907
10	G2T	L	Y	195.907
11	G2B	L	X	-195.907
12	G2B	L	Y	195.907
13	A2R	L	X	-29.591
14	A2R	L	Y	29.591
15	B2R	L	X	-33.533
16	B2R	L	Y	33.533
17	G2R	L	X	-25.648
18	G2R	L	Y	25.648
19	A2R	L	X	-24.728
20	A2R	L	Y	24.728
21	B2R	L	X	-30.194
22	B2R	L	Y	30.194
23	G2R	L	X	-19.262
24	G2R	L	Y	19.262
25	DCU	L	X	-52.643
26	DCU	L	Y	52.643

Joint Loads and Enforced Displacements (BLC 23 : Antenna Wind (60))

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
1	A2T	L	X	-86.39
2	A2T	L	Y	149.633
3	A2B	L	X	-86.39
4	A2B	L	Y	149.633
5	B2T	L	X	-86.39
6	B2T	L	Y	149.633
7	B2B	L	X	-86.39
8	B2B	L	Y	149.633
9	G2T	L	X	-143.641
10	G2T	L	Y	248.793

Joint Loads and Enforced Displacements (BLC 23 : Antenna Wind (60)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
11	G2B	L	X	-143.641
12	G2B	L	Y	248.793
13	A2R	L	X	-22.533
14	A2R	L	Y	39.029
15	B2R	L	X	-22.533
16	B2R	L	Y	39.029
17	G2R	L	X	-17.705
18	G2R	L	Y	30.665
19	A2R	L	X	-19.717
20	A2R	L	Y	34.15
21	B2R	L	X	-19.717
22	B2R	L	Y	34.15
23	G2R	L	X	-13.022
24	G2R	L	Y	22.556
25	DCU	L	X	-32.287
26	DCU	L	Y	55.922

Joint Loads and Enforced Displacements (BLC 24 : Antenna Wind (90))

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
1	A2T	L	X	-3.053e-5
2	A2T	L	Y	134.614
3	A2B	L	X	-3.053e-5
4	A2B	L	Y	134.614
5	B2T	L	X	-5.65e-5
6	B2T	L	Y	249.114
7	B2B	L	X	-5.65e-5
8	B2B	L	Y	249.114
9	G2T	L	X	-5.65e-5
10	G2T	L	Y	249.114
11	G2B	L	X	-5.65e-5
12	G2B	L	Y	249.114
13	A2R	L	X	-1.095e-5
14	A2R	L	Y	48.286
15	B2R	L	X	-8.761e-6
16	B2R	L	Y	38.628
17	G2R	L	X	-8.761e-6
18	G2R	L	Y	38.628
19	A2R	L	X	-9.955e-6
20	A2R	L	Y	43.896
21	B2R	L	X	-6.919e-6
22	B2R	L	Y	30.508
23	G2R	L	X	-6.919e-6
24	G2R	L	Y	30.508
25	DCU	L	X	-1.241e-5
26	DCU	L	Y	54.697

Joint Loads and Enforced Displacements (BLC 25 : Antenna Wind (120))

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
1	A2T	L	X	86.39
2	A2T	L	Y	149.633
3	A2B	L	X	86.39

Joint Loads and Enforced Displacements (BLC 25 : Antenna Wind (120)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
4	A2B	L	Y	149.633
5	B2T	L	X	143.64
6	B2T	L	Y	248.793
7	B2B	L	X	143.64
8	B2B	L	Y	248.793
9	G2T	L	X	86.39
10	G2T	L	Y	149.633
11	G2B	L	X	86.39
12	G2B	L	Y	149.633
13	A2R	L	X	22.533
14	A2R	L	Y	39.029
15	B2R	L	X	17.705
16	B2R	L	Y	30.665
17	G2R	L	X	22.533
18	G2R	L	Y	39.029
19	A2R	L	X	19.717
20	A2R	L	Y	34.15
21	B2R	L	X	13.022
22	B2R	L	Y	22.556
23	G2R	L	X	19.717
24	G2R	L	Y	34.15
25	DCU	L	X	32.286
26	DCU	L	Y	55.922

Joint Loads and Enforced Displacements (BLC 26 : Antenna Wind (135))

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
1	A2T	L	X	149.162
2	A2T	L	Y	149.162
3	A2B	L	X	149.162
4	A2B	L	Y	149.162
5	B2T	L	X	195.907
6	B2T	L	Y	195.907
7	B2B	L	X	195.907
8	B2B	L	Y	195.907
9	G2T	L	X	102.418
10	G2T	L	Y	102.418
11	G2B	L	X	102.418
12	G2B	L	Y	102.418
13	A2R	L	X	29.591
14	A2R	L	Y	29.591
15	B2R	L	X	25.648
16	B2R	L	Y	25.648
17	G2R	L	X	33.533
18	G2R	L	Y	33.533
19	A2R	L	X	24.728
20	A2R	L	Y	24.728
21	B2R	L	X	19.262
22	B2R	L	Y	19.262
23	G2R	L	X	30.194
24	G2R	L	Y	30.194
25	DCU	L	X	52.643

Joint Loads and Enforced Displacements (BLC 26 : Antenna Wind (135)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
26	DCU	L	Y	52.643

Joint Loads and Enforced Displacements (BLC 27 : Antenna Wind (150))

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
1	A2T	L	X	215.739
2	A2T	L	Y	124.557
3	A2B	L	X	215.739
4	A2B	L	Y	124.557
5	B2T	L	X	215.739
6	B2T	L	Y	124.557
7	B2B	L	X	215.739
8	B2B	L	Y	124.557
9	G2T	L	X	116.579
10	G2T	L	Y	67.307
11	G2B	L	X	116.579
12	G2B	L	Y	67.307
13	A2R	L	X	33.453
14	A2R	L	Y	19.314
15	B2R	L	X	33.453
16	B2R	L	Y	19.314
17	G2R	L	X	41.816
18	G2R	L	Y	24.143
19	A2R	L	X	26.42
20	A2R	L	Y	15.254
21	B2R	L	X	26.42
22	B2R	L	Y	15.254
23	G2R	L	X	38.015
24	G2R	L	Y	21.948
25	DCU	L	X	73.027
26	DCU	L	Y	42.162

Joint Loads and Enforced Displacements (BLC 28 : Antenna Wind w/ Ice (0))

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
1	A2T	L	X	-51.649
2	A2T	L	Y	0
3	A2B	L	X	-51.649
4	A2B	L	Y	0
5	B2T	L	X	-33.261
6	B2T	L	Y	0
7	B2B	L	X	-33.261
8	B2B	L	Y	0
9	G2T	L	X	-33.261
10	G2T	L	Y	0
11	G2B	L	X	-33.261
12	G2B	L	Y	0
13	A2R	L	X	-7.684
14	A2R	L	Y	0
15	B2R	L	X	-9.417
16	B2R	L	Y	0
17	G2R	L	X	-9.417
18	G2R	L	Y	0

Joint Loads and Enforced Displacements (BLC 28 : Antenna Wind w/ Ice (0)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
19	A2R	L	X	-5.955
20	A2R	L	Y	0
21	B2R	L	X	-8.387
22	B2R	L	Y	0
23	G2R	L	X	-8.387
24	G2R	L	Y	0
25	DCU	L	X	-19.565
26	DCU	L	Y	0

Joint Loads and Enforced Displacements (BLC 29 : Antenna Wind w/ Ice (30))

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
1	A2T	L	X	-39.421
2	A2T	L	Y	22.76
3	A2B	L	X	-39.421
4	A2B	L	Y	22.76
5	B2T	L	X	-23.497
6	B2T	L	Y	13.566
7	B2B	L	X	-23.497
8	B2B	L	Y	13.566
9	G2T	L	X	-39.421
10	G2T	L	Y	22.76
11	G2B	L	X	-39.421
12	G2B	L	Y	22.76
13	A2R	L	X	-7.155
14	A2R	L	Y	4.131
15	B2R	L	X	-8.656
16	B2R	L	Y	4.997
17	G2R	L	X	-7.155
18	G2R	L	Y	4.131
19	A2R	L	X	-5.859
20	A2R	L	Y	3.383
21	B2R	L	X	-7.965
22	B2R	L	Y	4.599
23	G2R	L	X	-5.859
24	G2R	L	Y	3.383
25	DCU	L	X	-15.41
26	DCU	L	Y	8.897

Joint Loads and Enforced Displacements (BLC 30 : Antenna Wind w/ Ice (45))

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
1	A2T	L	X	-27.853
2	A2T	L	Y	27.853
3	A2B	L	X	-27.853
4	A2B	L	Y	27.853
5	B2T	L	X	-20.346
6	B2T	L	Y	20.346
7	B2B	L	X	-20.346
8	B2B	L	Y	20.346
9	G2T	L	X	-35.36
10	G2T	L	Y	35.36
11	G2B	L	X	-35.36

Joint Loads and Enforced Displacements (BLC 30 : Antenna Wind w/ Ice (45)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
12	G2B	L	Y	35.36
13	A2R	L	X	-6.25
14	A2R	L	Y	6.25
15	B2R	L	X	-6.958
16	B2R	L	Y	6.958
17	G2R	L	X	-5.543
18	G2R	L	Y	5.543
19	A2R	L	X	-5.357
20	A2R	L	Y	5.357
21	B2R	L	X	-6.35
22	B2R	L	Y	6.35
23	G2R	L	X	-4.364
24	G2R	L	Y	4.364
25	DCU	L	X	-11.33
26	DCU	L	Y	11.33

Joint Loads and Enforced Displacements (BLC 31 : Antenna Wind w/ Ice (60))

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
1	A2T	L	X	-16.631
2	A2T	L	Y	28.805
3	A2B	L	X	-16.631
4	A2B	L	Y	28.805
5	B2T	L	X	-16.631
6	B2T	L	Y	28.805
7	B2B	L	X	-16.631
8	B2B	L	Y	28.805
9	G2T	L	X	-25.824
10	G2T	L	Y	44.729
11	G2B	L	X	-25.824
12	G2B	L	Y	44.729
13	A2R	L	X	-4.709
14	A2R	L	Y	8.155
15	B2R	L	X	-4.709
16	B2R	L	Y	8.155
17	G2R	L	X	-3.842
18	G2R	L	Y	6.655
19	A2R	L	X	-4.193
20	A2R	L	Y	7.263
21	B2R	L	X	-4.193
22	B2R	L	Y	7.263
23	G2R	L	X	-2.977
24	G2R	L	Y	5.157
25	DCU	L	X	-7.126
26	DCU	L	Y	12.342

Joint Loads and Enforced Displacements (BLC 32 : Antenna Wind w/ Ice (90))

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
1	A2T	L	X	-6.153e-6
2	A2T	L	Y	27.132
3	A2B	L	X	-6.153e-6
4	A2B	L	Y	27.132

Joint Loads and Enforced Displacements (BLC 32 : Antenna Wind w/ Ice (90)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
5	B2T	L	X	-1.032e-5
6	B2T	L	Y	45.52
7	B2B	L	X	-1.032e-5
8	B2B	L	Y	45.52
9	G2T	L	X	-1.032e-5
10	G2T	L	Y	45.52
11	G2B	L	X	-1.032e-5
12	G2B	L	Y	45.52
13	A2R	L	X	-2.267e-6
14	A2R	L	Y	9.995
15	B2R	L	X	-1.874e-6
16	B2R	L	Y	8.262
17	G2R	L	X	-1.874e-6
18	G2R	L	Y	8.262
19	A2R	L	X	-2.086e-6
20	A2R	L	Y	9.197
21	B2R	L	X	-1.534e-6
22	B2R	L	Y	6.765
23	G2R	L	X	-1.534e-6
24	G2R	L	Y	6.765
25	DCU	L	X	-2.83e-6
26	DCU	L	Y	12.48

Joint Loads and Enforced Displacements (BLC 33 : Antenna Wind w/ Ice (120))

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
1	A2T	L	X	16.63
2	A2T	L	Y	28.805
3	A2B	L	X	16.63
4	A2B	L	Y	28.805
5	B2T	L	X	25.824
6	B2T	L	Y	44.729
7	B2B	L	X	25.824
8	B2B	L	Y	44.729
9	G2T	L	X	16.63
10	G2T	L	Y	28.805
11	G2B	L	X	16.63
12	G2B	L	Y	28.805
13	A2R	L	X	4.709
14	A2R	L	Y	8.155
15	B2R	L	X	3.842
16	B2R	L	Y	6.655
17	G2R	L	X	4.709
18	G2R	L	Y	8.155
19	A2R	L	X	4.193
20	A2R	L	Y	7.263
21	B2R	L	X	2.977
22	B2R	L	Y	5.157
23	G2R	L	X	4.193
24	G2R	L	Y	7.263
25	DCU	L	X	7.126
26	DCU	L	Y	12.342

Joint Loads and Enforced Displacements (BLC 34 : Antenna Wind w/ Ice (135))

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
1	A2T	L	X	27.853
2	A2T	L	Y	27.853
3	A2B	L	X	27.853
4	A2B	L	Y	27.853
5	B2T	L	X	35.36
6	B2T	L	Y	35.36
7	B2B	L	X	35.36
8	B2B	L	Y	35.36
9	G2T	L	X	20.346
10	G2T	L	Y	20.346
11	G2B	L	X	20.346
12	G2B	L	Y	20.346
13	A2R	L	X	6.25
14	A2R	L	Y	6.25
15	B2R	L	X	5.543
16	B2R	L	Y	5.543
17	G2R	L	X	6.958
18	G2R	L	Y	6.958
19	A2R	L	X	5.357
20	A2R	L	Y	5.357
21	B2R	L	X	4.364
22	B2R	L	Y	4.364
23	G2R	L	X	6.35
24	G2R	L	Y	6.35
25	DCU	L	X	11.33
26	DCU	L	Y	11.33

Joint Loads and Enforced Displacements (BLC 35 : Antenna Wind w/ Ice (150))

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
1	A2T	L	X	39.421
2	A2T	L	Y	22.76
3	A2B	L	X	39.421
4	A2B	L	Y	22.76
5	B2T	L	X	39.421
6	B2T	L	Y	22.76
7	B2B	L	X	39.421
8	B2B	L	Y	22.76
9	G2T	L	X	23.497
10	G2T	L	Y	13.566
11	G2B	L	X	23.497
12	G2B	L	Y	13.566
13	A2R	L	X	7.155
14	A2R	L	Y	4.131
15	B2R	L	X	7.155
16	B2R	L	Y	4.131
17	G2R	L	X	8.656
18	G2R	L	Y	4.997
19	A2R	L	X	5.859
20	A2R	L	Y	3.383
21	B2R	L	X	5.859
22	B2R	L	Y	3.383

Joint Loads and Enforced Displacements (BLC 35 : Antenna Wind w/ Ice (150)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
23	G2R	L	X	7.965
24	G2R	L	Y	4.599
25	DCU	L	X	15.41
26	DCU	L	Y	8.897

Joint Loads and Enforced Displacements (BLC 36 : Seismic X)

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
1	A2T	L	X	4.394
2	A2B	L	X	4.394
3	B2T	L	X	4.394
4	B2B	L	X	4.394
5	G2T	L	X	4.394
6	G2B	L	X	4.394
7	A2R	L	X	9.838
8	B2R	L	X	9.838
9	G2R	L	X	9.838
10	A2R	L	X	6.375
11	B2R	L	X	6.375
12	G2R	L	X	6.375
13	DCU	L	X	2.278

Joint Loads and Enforced Displacements (BLC 37 : Seismic Y)

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
1	A2T	L	Y	4.394
2	A2B	L	Y	4.394
3	B2T	L	Y	4.394
4	B2B	L	Y	4.394
5	G2T	L	Y	4.394
6	G2B	L	Y	4.394
7	A2R	L	Y	9.838
8	B2R	L	Y	9.838
9	G2R	L	Y	9.838
10	A2R	L	Y	6.375
11	B2R	L	Y	6.375
12	G2R	L	Y	6.375
13	DCU	L	Y	2.278

Joint Loads and Enforced Displacements (BLC 38 : Maintenance Live Lm (1))

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
1	M1	L	Z	-500

Joint Loads and Enforced Displacements (BLC 39 : Maintenance Live Lm (2))

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
1	M2	L	Z	-500

Joint Loads and Enforced Displacements (BLC 40 : Maintenance Live Lm (3))

	Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
1	M3	L	Z	-500

Member Point Loads (BLC 43 : Maintenance Live Lv (1))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[in,%]
1	M48	Z	-250	%50

Member Distributed Loads (BLC 2 : Dead of Ice)

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	M2	Z	-8.783	-8.783	0	0
2	M3	Z	-5.09	-5.09	0	0
3	M4	Z	-5.09	-5.09	0	0
4	M5	Z	-7.776	-7.776	0	0
5	M7	Z	-8.783	-8.783	0	0
6	M8	Z	-5.09	-5.09	0	0
7	M9	Z	-5.09	-5.09	0	0
8	M10	Z	-7.776	-7.776	0	0
9	M12	Z	-8.783	-8.783	0	0
10	M13	Z	-5.09	-5.09	0	0
11	M14	Z	-5.09	-5.09	0	0
12	M15	Z	-7.776	-7.776	0	0
13	M18	Z	-6.542	-6.542	0	0
14	MP9	Z	-5.663	-5.663	0	0
15	MP7	Z	-5.663	-5.663	0	0
16	M25	Z	-4.96	-4.96	0	0
17	M28	Z	-11.412	-11.412	0	0
18	M29	Z	-11.412	-11.412	0	0
19	M30	Z	-11.412	-11.412	0	0
20	M61A	Z	-7.89	-7.89	0	0
21	M63A	Z	-7.89	-7.89	0	0
22	M60A	Z	-7.89	-7.89	0	0
23	M61B	Z	-7.89	-7.89	0	0
24	M62A	Z	-7.89	-7.89	0	0
25	M63B	Z	-7.89	-7.89	0	0
26	M75	Z	-4.194	-4.194	0	0
27	MP8	Z	-5.663	-5.663	0	0
28	M48	Z	-6.542	-6.542	0	0
29	MP3	Z	-5.663	-5.663	0	0
30	MP1	Z	-5.663	-5.663	0	0
31	M51	Z	-4.96	-4.96	0	0
32	M62	Z	-6.542	-6.542	0	0
33	MP6	Z	-5.663	-5.663	0	0
34	MP4	Z	-5.663	-5.663	0	0
35	M65A	Z	-4.96	-4.96	0	0
36	MP2	Z	-5.663	-5.663	0	0
37	MP5	Z	-5.663	-5.663	0	0

Member Distributed Loads (BLC 4 : Structure Wind (0))

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	M2	X	-23.411	-23.411	0	0
2	M2	Y	0	0	0	0
3	M3	X	-15.596	-15.596	0	0
4	M3	Y	0	0	0	0
5	M4	X	-4.275	-4.275	0	0

Member Distributed Loads (BLC 4 : Structure Wind (0)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
6	M4	Y	0	0	0	0
7	M5	X	-12.681	-12.681	0	0
8	M5	Y	0	0	0	0
9	M7	X	-2.886e-25	-2.886e-25	0	0
10	M7	Y	0	0	0	0
11	M8	X	-3.54	-3.54	0	0
12	M8	Y	0	0	0	0
13	M9	X	-3.54	-3.54	0	0
14	M9	Y	0	0	0	0
15	M10	X	-50.724	-50.724	0	0
16	M10	Y	0	0	0	0
17	M12	X	-23.411	-23.411	0	0
18	M12	Y	0	0	0	0
19	M13	X	-4.275	-4.275	0	0
20	M13	Y	0	0	0	0
21	M14	X	-15.596	-15.596	0	0
22	M14	Y	0	0	0	0
23	M15	X	-12.681	-12.681	0	0
24	M15	Y	0	0	0	0
25	M18	X	-4.097	-4.097	0	0
26	M18	Y	0	0	0	0
27	MP9	X	-13.461	-13.461	0	0
28	MP9	Y	0	0	0	0
29	MP7	X	-13.461	-13.461	0	0
30	MP7	Y	0	0	0	0
31	M25	X	-2.78	-2.78	0	0
32	M25	Y	0	0	0	0
33	M28	X	-51.505	-51.505	0	0
34	M28	Y	0	0	0	0
35	M29	X	-12.876	-12.876	0	0
36	M29	Y	0	0	0	0
37	M30	X	-12.876	-12.876	0	0
38	M30	Y	0	0	0	0
39	M61A	X	-6.594	-6.594	0	0
40	M61A	Y	0	0	0	0
41	M63A	X	-6.594	-6.594	0	0
42	M63A	Y	0	0	0	0
43	M60A	X	-26.377	-26.377	0	0
44	M60A	Y	0	0	0	0
45	M61B	X	-26.377	-26.377	0	0
46	M61B	Y	0	0	0	0
47	M62A	X	-6.594	-6.594	0	0
48	M62A	Y	0	0	0	0
49	M63B	X	-6.594	-6.594	0	0
50	M63B	Y	0	0	0	0
51	M75	X	-4.633	-4.633	0	0
52	M75	Y	0	0	0	0
53	MP8	X	-13.461	-13.461	0	0
54	MP8	Y	0	0	0	0
55	M48	X	-16.388	-16.388	0	0
56	M48	Y	0	0	0	0
57	MP3	X	-13.461	-13.461	0	0

Member Distributed Loads (BLC 4 : Structure Wind (0)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
58	MP3	Y	0	0	0	0
59	MP1	X	-13.461	-13.461	0	0
60	MP1	Y	0	0	0	0
61	M51	X	-11.12	-11.12	0	0
62	M51	Y	0	0	0	0
63	M62	X	-4.097	-4.097	0	0
64	M62	Y	0	0	0	0
65	MP6	X	-13.461	-13.461	0	0
66	MP6	Y	0	0	0	0
67	MP4	X	-13.461	-13.461	0	0
68	MP4	Y	0	0	0	0
69	M65A	X	-2.78	-2.78	0	0
70	M65A	Y	0	0	0	0
71	MP2	X	-13.461	-13.461	0	0
72	MP2	Y	0	0	0	0
73	MP5	X	-13.461	-13.461	0	0
74	MP5	Y	0	0	0	0

Member Distributed Loads (BLC 5 : Structure Wind (30))

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	M2	X	-27.033	-27.033	0	0
2	M2	Y	15.607	15.607	0	0
3	M3	X	-10.45	-10.45	0	0
4	M3	Y	6.033	6.033	0	0
5	M4	X	-10.45	-10.45	0	0
6	M4	Y	6.033	6.033	0	0
7	M5	X	-3.326e-13	-3.326e-13	0	0
8	M5	Y	1.92e-13	1.92e-13	0	0
9	M7	X	-6.758	-6.758	0	0
10	M7	Y	3.902	3.902	0	0
11	M8	X	-9.814	-9.814	0	0
12	M8	Y	5.666	5.666	0	0
13	M9	X	-.01	-.01	0	0
14	M9	Y	.006	.006	0	0
15	M10	X	-32.946	-32.946	0	0
16	M10	Y	19.022	19.022	0	0
17	M12	X	-6.758	-6.758	0	0
18	M12	Y	3.902	3.902	0	0
19	M13	X	-.01	-.01	0	0
20	M13	Y	.006	.006	0	0
21	M14	X	-9.814	-9.814	0	0
22	M14	Y	5.666	5.666	0	0
23	M15	X	-32.946	-32.946	0	0
24	M15	Y	19.022	19.022	0	0
25	M18	X	-8.111e-14	-8.111e-14	0	0
26	M18	Y	4.683e-14	4.683e-14	0	0
27	MP9	X	-11.658	-11.658	0	0
28	MP9	Y	6.731	6.731	0	0
29	MP7	X	-11.658	-11.658	0	0
30	MP7	Y	6.731	6.731	0	0
31	M25	X	-5.504e-14	-5.504e-14	0	0

Member Distributed Loads (BLC 5 : Structure Wind (30)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
32	M25	Y	3.178e-14	3.178e-14	0	0
33	M28	X	-33.453	-33.453	0	0
34	M28	Y	19.314	19.314	0	0
35	M29	X	-3.377e-13	-3.377e-13	0	0
36	M29	Y	1.95e-13	1.95e-13	0	0
37	M30	X	-33.453	-33.453	0	0
38	M30	Y	19.314	19.314	0	0
39	M61A	X	-1.27e-13	-1.27e-13	0	0
40	M61A	Y	7.331e-14	7.331e-14	0	0
41	M63A	X	-1.344e-13	-1.344e-13	0	0
42	M63A	Y	7.761e-14	7.761e-14	0	0
43	M60A	X	-17.132	-17.132	0	0
44	M60A	Y	9.891	9.891	0	0
45	M61B	X	-17.132	-17.132	0	0
46	M61B	Y	9.891	9.891	0	0
47	M62A	X	-17.132	-17.132	0	0
48	M62A	Y	9.891	9.891	0	0
49	M63B	X	-17.132	-17.132	0	0
50	M63B	Y	9.891	9.891	0	0
51	M75	X	-12.038	-12.038	0	0
52	M75	Y	6.95	6.95	0	0
53	MP8	X	-11.658	-11.658	0	0
54	MP8	Y	6.731	6.731	0	0
55	M48	X	-10.644	-10.644	0	0
56	M48	Y	6.145	6.145	0	0
57	MP3	X	-11.658	-11.658	0	0
58	MP3	Y	6.731	6.731	0	0
59	MP1	X	-11.658	-11.658	0	0
60	MP1	Y	6.731	6.731	0	0
61	M51	X	-7.223	-7.223	0	0
62	M51	Y	4.17	4.17	0	0
63	M62	X	-10.644	-10.644	0	0
64	M62	Y	6.145	6.145	0	0
65	MP6	X	-11.658	-11.658	0	0
66	MP6	Y	6.731	6.731	0	0
67	MP4	X	-11.658	-11.658	0	0
68	MP4	Y	6.731	6.731	0	0
69	M65A	X	-7.223	-7.223	0	0
70	M65A	Y	4.17	4.17	0	0
71	MP2	X	-11.658	-11.658	0	0
72	MP2	Y	6.731	6.731	0	0
73	MP5	X	-11.658	-11.658	0	0
74	MP5	Y	6.731	6.731	0	0

Member Distributed Loads (BLC 6 : Structure Wind (45))

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	M2	X	-20.594	-20.594	0	0
2	M2	Y	20.594	20.594	0	0
3	M3	X	-5.818	-5.818	0	0
4	M3	Y	5.818	5.818	0	0
5	M4	X	-10.44	-10.44	0	0

Member Distributed Loads (BLC 6 : Structure Wind (45)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
6	M4	Y	10.44	10.44	0	0
7	M5	X	-2.403	-2.403	0	0
8	M5	Y	2.403	2.403	0	0
9	M7	X	-11.036	-11.036	0	0
10	M7	Y	11.036	11.036	0	0
11	M8	X	-10.14	-10.14	0	0
12	M8	Y	10.14	10.14	0	0
13	M9	X	-.896	-.896	0	0
14	M9	Y	.896	.896	0	0
15	M10	X	-17.934	-17.934	0	0
16	M10	Y	17.934	17.934	0	0
17	M12	X	-1.479	-1.479	0	0
18	M12	Y	1.479	1.479	0	0
19	M13	X	-.596	-.596	0	0
20	M13	Y	.596	.596	0	0
21	M14	X	-5.218	-5.218	0	0
22	M14	Y	5.218	5.218	0	0
23	M15	X	-33.465	-33.465	0	0
24	M15	Y	33.465	33.465	0	0
25	M18	X	-.776	-.776	0	0
26	M18	Y	.776	.776	0	0
27	MP9	X	-9.519	-9.519	0	0
28	MP9	Y	9.519	9.519	0	0
29	MP7	X	-9.519	-9.519	0	0
30	MP7	Y	9.519	9.519	0	0
31	M25	X	-.527	-.527	0	0
32	M25	Y	.527	.527	0	0
33	M28	X	-18.21	-18.21	0	0
34	M28	Y	18.21	18.21	0	0
35	M29	X	-2.44	-2.44	0	0
36	M29	Y	2.44	2.44	0	0
37	M30	X	-33.98	-33.98	0	0
38	M30	Y	33.98	33.98	0	0
39	M61A	X	-1.249	-1.249	0	0
40	M61A	Y	1.249	1.249	0	0
41	M63A	X	-1.249	-1.249	0	0
42	M63A	Y	1.249	1.249	0	0
43	M60A	X	-9.326	-9.326	0	0
44	M60A	Y	9.326	9.326	0	0
45	M61B	X	-9.326	-9.326	0	0
46	M61B	Y	9.326	9.326	0	0
47	M62A	X	-17.402	-17.402	0	0
48	M62A	Y	17.402	17.402	0	0
49	M63B	X	-17.402	-17.402	0	0
50	M63B	Y	17.402	17.402	0	0
51	M75	X	-12.228	-12.228	0	0
52	M75	Y	12.228	12.228	0	0
53	MP8	X	-9.519	-9.519	0	0
54	MP8	Y	9.519	9.519	0	0
55	M48	X	-5.794	-5.794	0	0
56	M48	Y	5.794	5.794	0	0
57	MP3	X	-9.519	-9.519	0	0

Member Distributed Loads (BLC 6 : Structure Wind (45)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
58	MP3	Y	9.519	9.519	0	0
59	MP1	X	-9.519	-9.519	0	0
60	MP1	Y	9.519	9.519	0	0
61	M51	X	-3.932	-3.932	0	0
62	M51	Y	3.932	3.932	0	0
63	M62	X	-10.812	-10.812	0	0
64	M62	Y	10.812	10.812	0	0
65	MP6	X	-9.519	-9.519	0	0
66	MP6	Y	9.519	9.519	0	0
67	MP4	X	-9.519	-9.519	0	0
68	MP4	Y	9.519	9.519	0	0
69	M65A	X	-7.337	-7.337	0	0
70	M65A	Y	7.337	7.337	0	0
71	MP2	X	-9.519	-9.519	0	0
72	MP2	Y	9.519	9.519	0	0
73	MP5	X	-9.519	-9.519	0	0
74	MP5	Y	9.519	9.519	0	0

Member Distributed Loads (BLC 7 : Structure Wind (60))

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	M2	X	-11.706	-11.706	0	0
2	M2	Y	20.275	20.275	0	0
3	M3	X	-2.137	-2.137	0	0
4	M3	Y	3.702	3.702	0	0
5	M4	X	-7.798	-7.798	0	0
6	M4	Y	13.506	13.506	0	0
7	M5	X	-6.341	-6.341	0	0
8	M5	Y	10.982	10.982	0	0
9	M7	X	-11.706	-11.706	0	0
10	M7	Y	20.275	20.275	0	0
11	M8	X	-7.798	-7.798	0	0
12	M8	Y	13.506	13.506	0	0
13	M9	X	-2.137	-2.137	0	0
14	M9	Y	3.702	3.702	0	0
15	M10	X	-6.341	-6.341	0	0
16	M10	Y	10.982	10.982	0	0
17	M12	X	-3.479e-13	-3.479e-13	0	0
18	M12	Y	6.026e-13	6.026e-13	0	0
19	M13	X	-1.77	-1.77	0	0
20	M13	Y	3.066	3.066	0	0
21	M14	X	-1.77	-1.77	0	0
22	M14	Y	3.066	3.066	0	0
23	M15	X	-25.362	-25.362	0	0
24	M15	Y	43.928	43.928	0	0
25	M18	X	-2.048	-2.048	0	0
26	M18	Y	3.548	3.548	0	0
27	MP9	X	-6.731	-6.731	0	0
28	MP9	Y	11.658	11.658	0	0
29	MP7	X	-6.731	-6.731	0	0
30	MP7	Y	11.658	11.658	0	0
31	M25	X	-1.39	-1.39	0	0

Member Distributed Loads (BLC 7 : Structure Wind (60)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
32	M25	Y	2.408	2.408	0	0
33	M28	X	-6.438	-6.438	0	0
34	M28	Y	11.151	11.151	0	0
35	M29	X	-6.438	-6.438	0	0
36	M29	Y	11.151	11.151	0	0
37	M30	X	-25.752	-25.752	0	0
38	M30	Y	44.604	44.604	0	0
39	M61A	X	-3.297	-3.297	0	0
40	M61A	Y	5.711	5.711	0	0
41	M63A	X	-3.297	-3.297	0	0
42	M63A	Y	5.711	5.711	0	0
43	M60A	X	-3.297	-3.297	0	0
44	M60A	Y	5.711	5.711	0	0
45	M61B	X	-3.297	-3.297	0	0
46	M61B	Y	5.711	5.711	0	0
47	M62A	X	-13.188	-13.188	0	0
48	M62A	Y	22.843	22.843	0	0
49	M63B	X	-13.188	-13.188	0	0
50	M63B	Y	22.843	22.843	0	0
51	M75	X	-9.267	-9.267	0	0
52	M75	Y	16.051	16.051	0	0
53	MP8	X	-6.731	-6.731	0	0
54	MP8	Y	11.658	11.658	0	0
55	M48	X	-2.048	-2.048	0	0
56	M48	Y	3.548	3.548	0	0
57	MP3	X	-6.731	-6.731	0	0
58	MP3	Y	11.658	11.658	0	0
59	MP1	X	-6.731	-6.731	0	0
60	MP1	Y	11.658	11.658	0	0
61	M51	X	-1.39	-1.39	0	0
62	M51	Y	2.408	2.408	0	0
63	M62	X	-8.194	-8.194	0	0
64	M62	Y	14.192	14.192	0	0
65	MP6	X	-6.731	-6.731	0	0
66	MP6	Y	11.658	11.658	0	0
67	MP4	X	-6.731	-6.731	0	0
68	MP4	Y	11.658	11.658	0	0
69	M65A	X	-5.56	-5.56	0	0
70	M65A	Y	9.63	9.63	0	0
71	MP2	X	-6.731	-6.731	0	0
72	MP2	Y	11.658	11.658	0	0
73	MP5	X	-6.731	-6.731	0	0
74	MP5	Y	11.658	11.658	0	0

Member Distributed Loads (BLC 8 : Structure Wind (90))

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	M2	X	-1.77e-6	-1.77e-6	0	0
2	M2	Y	7.804	7.804	0	0
3	M3	X	-2.614e-9	-2.614e-9	0	0
4	M3	Y	.012	.012	0	0
5	M4	X	-2.57e-6	-2.57e-6	0	0

Member Distributed Loads (BLC 8 : Structure Wind (90)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
6	M4	Y	11.333	11.333	0	0
7	M5	X	-8.628e-6	-8.628e-6	0	0
8	M5	Y	38.043	38.043	0	0
9	M7	X	-7.079e-6	-7.079e-6	0	0
10	M7	Y	31.215	31.215	0	0
11	M8	X	-2.737e-6	-2.737e-6	0	0
12	M8	Y	12.067	12.067	0	0
13	M9	X	-2.737e-6	-2.737e-6	0	0
14	M9	Y	12.067	12.067	0	0
15	M10	X	-5.917e-19	-5.917e-19	0	0
16	M10	Y	2.609e-12	2.609e-12	0	0
17	M12	X	-1.77e-6	-1.77e-6	0	0
18	M12	Y	7.804	7.804	0	0
19	M13	X	-2.57e-6	-2.57e-6	0	0
20	M13	Y	11.333	11.333	0	0
21	M14	X	-2.614e-9	-2.614e-9	0	0
22	M14	Y	.012	.012	0	0
23	M15	X	-8.628e-6	-8.628e-6	0	0
24	M15	Y	38.043	38.043	0	0
25	M18	X	-2.788e-6	-2.788e-6	0	0
26	M18	Y	12.291	12.291	0	0
27	MP9	X	-3.053e-6	-3.053e-6	0	0
28	MP9	Y	13.461	13.461	0	0
29	MP7	X	-3.053e-6	-3.053e-6	0	0
30	MP7	Y	13.461	13.461	0	0
31	M25	X	-1.892e-6	-1.892e-6	0	0
32	M25	Y	8.34	8.34	0	0
33	M28	X	-6.008e-19	-6.008e-19	0	0
34	M28	Y	2.649e-12	2.649e-12	0	0
35	M29	X	-8.761e-6	-8.761e-6	0	0
36	M29	Y	38.628	38.628	0	0
37	M30	X	-8.761e-6	-8.761e-6	0	0
38	M30	Y	38.628	38.628	0	0
39	M61A	X	-4.487e-6	-4.487e-6	0	0
40	M61A	Y	19.782	19.782	0	0
41	M63A	X	-4.487e-6	-4.487e-6	0	0
42	M63A	Y	19.782	19.782	0	0
43	M60A	X	-2.941e-19	-2.941e-19	0	0
44	M60A	Y	1.297e-12	1.297e-12	0	0
45	M61B	X	-3.215e-19	-3.215e-19	0	0
46	M61B	Y	1.418e-12	1.418e-12	0	0
47	M62A	X	-4.487e-6	-4.487e-6	0	0
48	M62A	Y	19.782	19.782	0	0
49	M63B	X	-4.487e-6	-4.487e-6	0	0
50	M63B	Y	19.782	19.782	0	0
51	M75	X	-3.153e-6	-3.153e-6	0	0
52	M75	Y	13.9	13.9	0	0
53	MP8	X	-3.053e-6	-3.053e-6	0	0
54	MP8	Y	13.461	13.461	0	0
55	M48	X	-1.912e-19	-1.912e-19	0	0
56	M48	Y	8.429e-13	8.429e-13	0	0
57	MP3	X	-3.053e-6	-3.053e-6	0	0

Member Distributed Loads (BLC 8 : Structure Wind (90)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
58	MP3	Y	13.461	13.461	0	0
59	MP1	X	-3.053e-6	-3.053e-6	0	0
60	MP1	Y	13.461	13.461	0	0
61	M51	X	-1.297e-19	-1.297e-19	0	0
62	M51	Y	5.72e-13	5.72e-13	0	0
63	M62	X	-2.788e-6	-2.788e-6	0	0
64	M62	Y	12.291	12.291	0	0
65	MP6	X	-3.053e-6	-3.053e-6	0	0
66	MP6	Y	13.461	13.461	0	0
67	MP4	X	-3.053e-6	-3.053e-6	0	0
68	MP4	Y	13.461	13.461	0	0
69	M65A	X	-1.892e-6	-1.892e-6	0	0
70	M65A	Y	8.34	8.34	0	0
71	MP2	X	-3.053e-6	-3.053e-6	0	0
72	MP2	Y	13.461	13.461	0	0
73	MP5	X	-3.053e-6	-3.053e-6	0	0
74	MP5	Y	13.461	13.461	0	0

Member Distributed Loads (BLC 9 : Structure Wind (120))

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	M2	X	1.427e-12	1.427e-12	0	0
2	M2	Y	2.472e-12	2.472e-12	0	0
3	M3	X	1.77	1.77	0	0
4	M3	Y	3.066	3.066	0	0
5	M4	X	1.77	1.77	0	0
6	M4	Y	3.066	3.066	0	0
7	M5	X	25.362	25.362	0	0
8	M5	Y	43.928	43.928	0	0
9	M7	X	11.706	11.706	0	0
10	M7	Y	20.275	20.275	0	0
11	M8	X	2.137	2.137	0	0
12	M8	Y	3.702	3.702	0	0
13	M9	X	7.798	7.798	0	0
14	M9	Y	13.506	13.506	0	0
15	M10	X	6.341	6.341	0	0
16	M10	Y	10.982	10.982	0	0
17	M12	X	11.706	11.706	0	0
18	M12	Y	20.275	20.275	0	0
19	M13	X	7.798	7.798	0	0
20	M13	Y	13.506	13.506	0	0
21	M14	X	2.137	2.137	0	0
22	M14	Y	3.702	3.702	0	0
23	M15	X	6.341	6.341	0	0
24	M15	Y	10.982	10.982	0	0
25	M18	X	8.194	8.194	0	0
26	M18	Y	14.192	14.192	0	0
27	MP9	X	6.731	6.731	0	0
28	MP9	Y	11.658	11.658	0	0
29	MP7	X	6.731	6.731	0	0
30	MP7	Y	11.658	11.658	0	0
31	M25	X	5.56	5.56	0	0

Member Distributed Loads (BLC 9 : Structure Wind (120)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
32	M25	Y	9.63	9.63	0	0
33	M28	X	6.438	6.438	0	0
34	M28	Y	11.151	11.151	0	0
35	M29	X	25.752	25.752	0	0
36	M29	Y	44.604	44.604	0	0
37	M30	X	6.438	6.438	0	0
38	M30	Y	11.151	11.151	0	0
39	M61A	X	13.188	13.188	0	0
40	M61A	Y	22.843	22.843	0	0
41	M63A	X	13.188	13.188	0	0
42	M63A	Y	22.843	22.843	0	0
43	M60A	X	3.297	3.297	0	0
44	M60A	Y	5.711	5.711	0	0
45	M61B	X	3.297	3.297	0	0
46	M61B	Y	5.711	5.711	0	0
47	M62A	X	3.297	3.297	0	0
48	M62A	Y	5.711	5.711	0	0
49	M63B	X	3.297	3.297	0	0
50	M63B	Y	5.711	5.711	0	0
51	M75	X	2.317	2.317	0	0
52	M75	Y	4.013	4.013	0	0
53	MP8	X	6.731	6.731	0	0
54	MP8	Y	11.658	11.658	0	0
55	M48	X	2.048	2.048	0	0
56	M48	Y	3.548	3.548	0	0
57	MP3	X	6.731	6.731	0	0
58	MP3	Y	11.658	11.658	0	0
59	MP1	X	6.731	6.731	0	0
60	MP1	Y	11.658	11.658	0	0
61	M51	X	1.39	1.39	0	0
62	M51	Y	2.408	2.408	0	0
63	M62	X	2.048	2.048	0	0
64	M62	Y	3.548	3.548	0	0
65	MP6	X	6.731	6.731	0	0
66	MP6	Y	11.658	11.658	0	0
67	MP4	X	6.731	6.731	0	0
68	MP4	Y	11.658	11.658	0	0
69	M65A	X	1.39	1.39	0	0
70	M65A	Y	2.408	2.408	0	0
71	MP2	X	6.731	6.731	0	0
72	MP2	Y	11.658	11.658	0	0
73	MP5	X	6.731	6.731	0	0
74	MP5	Y	11.658	11.658	0	0

Member Distributed Loads (BLC 10 : Structure Wind (135))

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	M2	X	1.479	1.479	0	0
2	M2	Y	1.479	1.479	0	0
3	M3	X	5.218	5.218	0	0
4	M3	Y	5.218	5.218	0	0
5	M4	X	.596	.596	0	0

Member Distributed Loads (BLC 10 : Structure Wind (135)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
6	M4	Y	.596	.596	0	0
7	M5	X	33.465	33.465	0	0
8	M5	Y	33.465	33.465	0	0
9	M7	X	11.036	11.036	0	0
10	M7	Y	11.036	11.036	0	0
11	M8	X	.896	.896	0	0
12	M8	Y	.896	.896	0	0
13	M9	X	10.14	10.14	0	0
14	M9	Y	10.14	10.14	0	0
15	M10	X	17.934	17.934	0	0
16	M10	Y	17.934	17.934	0	0
17	M12	X	20.594	20.594	0	0
18	M12	Y	20.594	20.594	0	0
19	M13	X	10.44	10.44	0	0
20	M13	Y	10.44	10.44	0	0
21	M14	X	5.818	5.818	0	0
22	M14	Y	5.818	5.818	0	0
23	M15	X	2.403	2.403	0	0
24	M15	Y	2.403	2.403	0	0
25	M18	X	10.812	10.812	0	0
26	M18	Y	10.812	10.812	0	0
27	MP9	X	9.519	9.519	0	0
28	MP9	Y	9.519	9.519	0	0
29	MP7	X	9.519	9.519	0	0
30	MP7	Y	9.519	9.519	0	0
31	M25	X	7.337	7.337	0	0
32	M25	Y	7.337	7.337	0	0
33	M28	X	18.21	18.21	0	0
34	M28	Y	18.21	18.21	0	0
35	M29	X	33.98	33.98	0	0
36	M29	Y	33.98	33.98	0	0
37	M30	X	2.44	2.44	0	0
38	M30	Y	2.44	2.44	0	0
39	M61A	X	17.402	17.402	0	0
40	M61A	Y	17.402	17.402	0	0
41	M63A	X	17.402	17.402	0	0
42	M63A	Y	17.402	17.402	0	0
43	M60A	X	9.326	9.326	0	0
44	M60A	Y	9.326	9.326	0	0
45	M61B	X	9.326	9.326	0	0
46	M61B	Y	9.326	9.326	0	0
47	M62A	X	1.249	1.249	0	0
48	M62A	Y	1.249	1.249	0	0
49	M63B	X	1.249	1.249	0	0
50	M63B	Y	1.249	1.249	0	0
51	M75	X	.878	.878	0	0
52	M75	Y	.878	.878	0	0
53	MP8	X	9.519	9.519	0	0
54	MP8	Y	9.519	9.519	0	0
55	M48	X	5.794	5.794	0	0
56	M48	Y	5.794	5.794	0	0
57	MP3	X	9.519	9.519	0	0

Member Distributed Loads (BLC 10 : Structure Wind (135)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
58	MP3	Y	9.519	9.519	0	0
59	MP1	X	9.519	9.519	0	0
60	MP1	Y	9.519	9.519	0	0
61	M51	X	3.932	3.932	0	0
62	M51	Y	3.932	3.932	0	0
63	M62	X	.776	.776	0	0
64	M62	Y	.776	.776	0	0
65	MP6	X	9.519	9.519	0	0
66	MP6	Y	9.519	9.519	0	0
67	MP4	X	9.519	9.519	0	0
68	MP4	Y	9.519	9.519	0	0
69	M65A	X	.527	.527	0	0
70	M65A	Y	.527	.527	0	0
71	MP2	X	9.519	9.519	0	0
72	MP2	Y	9.519	9.519	0	0
73	MP5	X	9.519	9.519	0	0
74	MP5	Y	9.519	9.519	0	0

Member Distributed Loads (BLC 11 : Structure Wind (150))

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	M2	X	6.758	6.758	0	0
2	M2	Y	3.902	3.902	0	0
3	M3	X	9.814	9.814	0	0
4	M3	Y	5.666	5.666	0	0
5	M4	X	.01	.01	0	0
6	M4	Y	.006	.006	0	0
7	M5	X	32.946	32.946	0	0
8	M5	Y	19.022	19.022	0	0
9	M7	X	6.758	6.758	0	0
10	M7	Y	3.902	3.902	0	0
11	M8	X	.01	.01	0	0
12	M8	Y	.006	.006	0	0
13	M9	X	9.814	9.814	0	0
14	M9	Y	5.666	5.666	0	0
15	M10	X	32.946	32.946	0	0
16	M10	Y	19.022	19.022	0	0
17	M12	X	27.033	27.033	0	0
18	M12	Y	15.607	15.607	0	0
19	M13	X	10.45	10.45	0	0
20	M13	Y	6.033	6.033	0	0
21	M14	X	10.45	10.45	0	0
22	M14	Y	6.033	6.033	0	0
23	M15	X	5.903e-12	5.903e-12	0	0
24	M15	Y	3.408e-12	3.408e-12	0	0
25	M18	X	10.644	10.644	0	0
26	M18	Y	6.145	6.145	0	0
27	MP9	X	11.658	11.658	0	0
28	MP9	Y	6.731	6.731	0	0
29	MP7	X	11.658	11.658	0	0
30	MP7	Y	6.731	6.731	0	0
31	M25	X	7.223	7.223	0	0

Member Distributed Loads (BLC 11 : Structure Wind (150)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
32	M25	Y	4.17	4.17	0	0
33	M28	X	33.453	33.453	0	0
34	M28	Y	19.314	19.314	0	0
35	M29	X	33.453	33.453	0	0
36	M29	Y	19.314	19.314	0	0
37	M30	X	5.994e-12	5.994e-12	0	0
38	M30	Y	3.461e-12	3.461e-12	0	0
39	M61A	X	17.132	17.132	0	0
40	M61A	Y	9.891	9.891	0	0
41	M63A	X	17.132	17.132	0	0
42	M63A	Y	9.891	9.891	0	0
43	M60A	X	17.132	17.132	0	0
44	M60A	Y	9.891	9.891	0	0
45	M61B	X	17.132	17.132	0	0
46	M61B	Y	9.891	9.891	0	0
47	M62A	X	3.245e-12	3.245e-12	0	0
48	M62A	Y	1.874e-12	1.874e-12	0	0
49	M63B	X	3.282e-12	3.282e-12	0	0
50	M63B	Y	1.895e-12	1.895e-12	0	0
51	M75	X	2.293e-12	2.293e-12	0	0
52	M75	Y	1.324e-12	1.324e-12	0	0
53	MP8	X	11.658	11.658	0	0
54	MP8	Y	6.731	6.731	0	0
55	M48	X	10.644	10.644	0	0
56	M48	Y	6.145	6.145	0	0
57	MP3	X	11.658	11.658	0	0
58	MP3	Y	6.731	6.731	0	0
59	MP1	X	11.658	11.658	0	0
60	MP1	Y	6.731	6.731	0	0
61	M51	X	7.223	7.223	0	0
62	M51	Y	4.17	4.17	0	0
63	M62	X	2.028e-12	2.028e-12	0	0
64	M62	Y	1.171e-12	1.171e-12	0	0
65	MP6	X	11.658	11.658	0	0
66	MP6	Y	6.731	6.731	0	0
67	MP4	X	11.658	11.658	0	0
68	MP4	Y	6.731	6.731	0	0
69	M65A	X	1.376e-12	1.376e-12	0	0
70	M65A	Y	7.944e-13	7.944e-13	0	0
71	MP2	X	11.658	11.658	0	0
72	MP2	Y	6.731	6.731	0	0
73	MP5	X	11.658	11.658	0	0
74	MP5	Y	6.731	6.731	0	0

Member Distributed Loads (BLC 12 : Structure Wind w/ Ice (0))

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	M2	X	-1.58	-1.58	0	0
2	M2	Y	0	0	0	0
3	M3	X	-1.901	-1.901	0	0
4	M3	Y	0	0	0	0
5	M4	X	-.521	-.521	0	0

Member Distributed Loads (BLC 12 : Structure Wind w/ Ice (0)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
6	M4	Y	0	0	0	0
7	M5	X	-1.625	-1.625	0	0
8	M5	Y	0	0	0	0
9	M7	X	-1.95e-26	-1.95e-26	0	0
10	M7	Y	0	0	0	0
11	M8	X	-.432	-.432	0	0
12	M8	Y	0	0	0	0
13	M9	X	-.432	-.432	0	0
14	M9	Y	0	0	0	0
15	M10	X	-6.498	-6.498	0	0
16	M10	Y	0	0	0	0
17	M12	X	-1.58	-1.58	0	0
18	M12	Y	0	0	0	0
19	M13	X	-.521	-.521	0	0
20	M13	Y	0	0	0	0
21	M14	X	-1.901	-1.901	0	0
22	M14	Y	0	0	0	0
23	M15	X	-1.625	-1.625	0	0
24	M15	Y	0	0	0	0
25	M18	X	-1.07	-1.07	0	0
26	M18	Y	0	0	0	0
27	MP9	X	-3.817	-3.817	0	0
28	MP9	Y	0	0	0	0
29	MP7	X	-3.817	-3.817	0	0
30	MP7	Y	0	0	0	0
31	M25	X	-.862	-.862	0	0
32	M25	Y	0	0	0	0
33	M28	X	-2.374	-2.374	0	0
34	M28	Y	0	0	0	0
35	M29	X	-.593	-.593	0	0
36	M29	Y	0	0	0	0
37	M30	X	-.593	-.593	0	0
38	M30	Y	0	0	0	0
39	M61A	X	-.511	-.511	0	0
40	M61A	Y	0	0	0	0
41	M63A	X	-.511	-.511	0	0
42	M63A	Y	0	0	0	0
43	M60A	X	-2.044	-2.044	0	0
44	M60A	Y	0	0	0	0
45	M61B	X	-2.044	-2.044	0	0
46	M61B	Y	0	0	0	0
47	M62A	X	-.511	-.511	0	0
48	M62A	Y	0	0	0	0
49	M63B	X	-.511	-.511	0	0
50	M63B	Y	0	0	0	0
51	M75	X	-.872	-.872	0	0
52	M75	Y	0	0	0	0
53	MP8	X	-3.817	-3.817	0	0
54	MP8	Y	0	0	0	0
55	M48	X	-4.278	-4.278	0	0
56	M48	Y	0	0	0	0
57	MP3	X	-3.817	-3.817	0	0

Member Distributed Loads (BLC 12 : Structure Wind w/ Ice (0)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
58	MP3	Y	0	0	0	0
59	MP1	X	-3.817	-3.817	0	0
60	MP1	Y	0	0	0	0
61	M51	X	-3.449	-3.449	0	0
62	M51	Y	0	0	0	0
63	M62	X	-1.07	-1.07	0	0
64	M62	Y	0	0	0	0
65	MP6	X	-3.817	-3.817	0	0
66	MP6	Y	0	0	0	0
67	MP4	X	-3.817	-3.817	0	0
68	MP4	Y	0	0	0	0
69	M65A	X	-.862	-.862	0	0
70	M65A	Y	0	0	0	0
71	MP2	X	-3.817	-3.817	0	0
72	MP2	Y	0	0	0	0
73	MP5	X	-3.817	-3.817	0	0
74	MP5	Y	0	0	0	0

Member Distributed Loads (BLC 13 : Structure Wind w/ Ice (30))

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	M2	X	-1.825	-1.825	0	0
2	M2	Y	1.054	1.054	0	0
3	M3	X	-1.274	-1.274	0	0
4	M3	Y	.735	.735	0	0
5	M4	X	-1.274	-1.274	0	0
6	M4	Y	.735	.735	0	0
7	M5	X	-4.261e-14	-4.261e-14	0	0
8	M5	Y	2.46e-14	2.46e-14	0	0
9	M7	X	-.456	-.456	0	0
10	M7	Y	.263	.263	0	0
11	M8	X	-1.196	-1.196	0	0
12	M8	Y	.691	.691	0	0
13	M9	X	-.001	-.001	0	0
14	M9	Y	.0007024	.0007024	0	0
15	M10	X	-4.221	-4.221	0	0
16	M10	Y	2.437	2.437	0	0
17	M12	X	-.456	-.456	0	0
18	M12	Y	.263	.263	0	0
19	M13	X	-.001	-.001	0	0
20	M13	Y	.0007024	.0007024	0	0
21	M14	X	-1.196	-1.196	0	0
22	M14	Y	.691	.691	0	0
23	M15	X	-4.221	-4.221	0	0
24	M15	Y	2.437	2.437	0	0
25	M18	X	-2.118e-14	-2.118e-14	0	0
26	M18	Y	1.223e-14	1.223e-14	0	0
27	MP9	X	-3.306	-3.306	0	0
28	MP9	Y	1.909	1.909	0	0
29	MP7	X	-3.306	-3.306	0	0
30	MP7	Y	1.909	1.909	0	0
31	M25	X	-1.707e-14	-1.707e-14	0	0

Member Distributed Loads (BLC 13 : Structure Wind w/ Ice (30)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
32	M25	Y	9.855e-15	9.855e-15	0	0
33	M28	X	-1.542	-1.542	0	0
34	M28	Y	.89	.89	0	0
35	M29	X	-1.556e-14	-1.556e-14	0	0
36	M29	Y	8.986e-15	8.986e-15	0	0
37	M30	X	-1.542	-1.542	0	0
38	M30	Y	.89	.89	0	0
39	M61A	X	-9.839e-15	-9.839e-15	0	0
40	M61A	Y	5.68e-15	5.68e-15	0	0
41	M63A	X	-1.042e-14	-1.042e-14	0	0
42	M63A	Y	6.013e-15	6.013e-15	0	0
43	M60A	X	-1.328	-1.328	0	0
44	M60A	Y	.766	.766	0	0
45	M61B	X	-1.328	-1.328	0	0
46	M61B	Y	.766	.766	0	0
47	M62A	X	-1.328	-1.328	0	0
48	M62A	Y	.766	.766	0	0
49	M63B	X	-1.328	-1.328	0	0
50	M63B	Y	.766	.766	0	0
51	M75	X	-2.265	-2.265	0	0
52	M75	Y	1.308	1.308	0	0
53	MP8	X	-3.306	-3.306	0	0
54	MP8	Y	1.909	1.909	0	0
55	M48	X	-2.779	-2.779	0	0
56	M48	Y	1.604	1.604	0	0
57	MP3	X	-3.306	-3.306	0	0
58	MP3	Y	1.909	1.909	0	0
59	MP1	X	-3.306	-3.306	0	0
60	MP1	Y	1.909	1.909	0	0
61	M51	X	-2.24	-2.24	0	0
62	M51	Y	1.293	1.293	0	0
63	M62	X	-2.779	-2.779	0	0
64	M62	Y	1.604	1.604	0	0
65	MP6	X	-3.306	-3.306	0	0
66	MP6	Y	1.909	1.909	0	0
67	MP4	X	-3.306	-3.306	0	0
68	MP4	Y	1.909	1.909	0	0
69	M65A	X	-2.24	-2.24	0	0
70	M65A	Y	1.293	1.293	0	0
71	MP2	X	-3.306	-3.306	0	0
72	MP2	Y	1.909	1.909	0	0
73	MP5	X	-3.306	-3.306	0	0
74	MP5	Y	1.909	1.909	0	0

Member Distributed Loads (BLC 14 : Structure Wind w/ Ice (45))

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	M2	X	-1.39	-1.39	0	0
2	M2	Y	1.39	1.39	0	0
3	M3	X	-.709	-.709	0	0
4	M3	Y	.709	.709	0	0
5	M4	X	-1.273	-1.273	0	0

Member Distributed Loads (BLC 14 : Structure Wind w/ Ice (45)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
6	M4	Y	1.273	1.273	0	0
7	M5	X	-.308	-.308	0	0
8	M5	Y	.308	.308	0	0
9	M7	X	-.745	-.745	0	0
10	M7	Y	.745	.745	0	0
11	M8	X	-1.236	-1.236	0	0
12	M8	Y	1.236	1.236	0	0
13	M9	X	-.109	-.109	0	0
14	M9	Y	.109	.109	0	0
15	M10	X	-2.297	-2.297	0	0
16	M10	Y	2.297	2.297	0	0
17	M12	X	-.1	-.1	0	0
18	M12	Y	.1	.1	0	0
19	M13	X	-.073	-.073	0	0
20	M13	Y	.073	.073	0	0
21	M14	X	-.636	-.636	0	0
22	M14	Y	.636	.636	0	0
23	M15	X	-4.287	-4.287	0	0
24	M15	Y	4.287	4.287	0	0
25	M18	X	-.203	-.203	0	0
26	M18	Y	.203	.203	0	0
27	MP9	X	-2.699	-2.699	0	0
28	MP9	Y	2.699	2.699	0	0
29	MP7	X	-2.699	-2.699	0	0
30	MP7	Y	2.699	2.699	0	0
31	M25	X	-.163	-.163	0	0
32	M25	Y	.163	.163	0	0
33	M28	X	-.839	-.839	0	0
34	M28	Y	.839	.839	0	0
35	M29	X	-.112	-.112	0	0
36	M29	Y	.112	.112	0	0
37	M30	X	-1.566	-1.566	0	0
38	M30	Y	1.566	1.566	0	0
39	M61A	X	-.097	-.097	0	0
40	M61A	Y	.097	.097	0	0
41	M63A	X	-.097	-.097	0	0
42	M63A	Y	.097	.097	0	0
43	M60A	X	-.723	-.723	0	0
44	M60A	Y	.723	.723	0	0
45	M61B	X	-.723	-.723	0	0
46	M61B	Y	.723	.723	0	0
47	M62A	X	-1.348	-1.348	0	0
48	M62A	Y	1.348	1.348	0	0
49	M63B	X	-1.348	-1.348	0	0
50	M63B	Y	1.348	1.348	0	0
51	M75	X	-2.301	-2.301	0	0
52	M75	Y	2.301	2.301	0	0
53	MP8	X	-2.699	-2.699	0	0
54	MP8	Y	2.699	2.699	0	0
55	M48	X	-1.513	-1.513	0	0
56	M48	Y	1.513	1.513	0	0
57	MP3	X	-2.699	-2.699	0	0

Member Distributed Loads (BLC 14 : Structure Wind w/ Ice (45)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
58	MP3	Y	2.699	2.699	0	0
59	MP1	X	-2.699	-2.699	0	0
60	MP1	Y	2.699	2.699	0	0
61	M51	X	-1.219	-1.219	0	0
62	M51	Y	1.219	1.219	0	0
63	M62	X	-2.823	-2.823	0	0
64	M62	Y	2.823	2.823	0	0
65	MP6	X	-2.699	-2.699	0	0
66	MP6	Y	2.699	2.699	0	0
67	MP4	X	-2.699	-2.699	0	0
68	MP4	Y	2.699	2.699	0	0
69	M65A	X	-2.275	-2.275	0	0
70	M65A	Y	2.275	2.275	0	0
71	MP2	X	-2.699	-2.699	0	0
72	MP2	Y	2.699	2.699	0	0
73	MP5	X	-2.699	-2.699	0	0
74	MP5	Y	2.699	2.699	0	0

Member Distributed Loads (BLC 15 : Structure Wind w/ Ice (60))

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	M2	X	-.79	-.79	0	0
2	M2	Y	1.369	1.369	0	0
3	M3	X	-.261	-.261	0	0
4	M3	Y	.451	.451	0	0
5	M4	X	-.951	-.951	0	0
6	M4	Y	1.646	1.646	0	0
7	M5	X	-.812	-.812	0	0
8	M5	Y	1.407	1.407	0	0
9	M7	X	-.79	-.79	0	0
10	M7	Y	1.369	1.369	0	0
11	M8	X	-.951	-.951	0	0
12	M8	Y	1.646	1.646	0	0
13	M9	X	-.261	-.261	0	0
14	M9	Y	.451	.451	0	0
15	M10	X	-.812	-.812	0	0
16	M10	Y	1.407	1.407	0	0
17	M12	X	-2.349e-14	-2.349e-14	0	0
18	M12	Y	4.068e-14	4.068e-14	0	0
19	M13	X	-.216	-.216	0	0
20	M13	Y	.374	.374	0	0
21	M14	X	-.216	-.216	0	0
22	M14	Y	.374	.374	0	0
23	M15	X	-3.249	-3.249	0	0
24	M15	Y	5.628	5.628	0	0
25	M18	X	-.535	-.535	0	0
26	M18	Y	.926	.926	0	0
27	MP9	X	-1.909	-1.909	0	0
28	MP9	Y	3.306	3.306	0	0
29	MP7	X	-1.909	-1.909	0	0
30	MP7	Y	3.306	3.306	0	0
31	M25	X	-.431	-.431	0	0

Member Distributed Loads (BLC 15 : Structure Wind w/ Ice (60)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
32	M25	Y	.747	.747	0	0
33	M28	X	-.297	-.297	0	0
34	M28	Y	.514	.514	0	0
35	M29	X	-.297	-.297	0	0
36	M29	Y	.514	.514	0	0
37	M30	X	-1.187	-1.187	0	0
38	M30	Y	2.056	2.056	0	0
39	M61A	X	-.255	-.255	0	0
40	M61A	Y	.443	.443	0	0
41	M63A	X	-.255	-.255	0	0
42	M63A	Y	.443	.443	0	0
43	M60A	X	-.255	-.255	0	0
44	M60A	Y	.443	.443	0	0
45	M61B	X	-.255	-.255	0	0
46	M61B	Y	.443	.443	0	0
47	M62A	X	-1.022	-1.022	0	0
48	M62A	Y	1.77	1.77	0	0
49	M63B	X	-1.022	-1.022	0	0
50	M63B	Y	1.77	1.77	0	0
51	M75	X	-1.744	-1.744	0	0
52	M75	Y	3.02	3.02	0	0
53	MP8	X	-1.909	-1.909	0	0
54	MP8	Y	3.306	3.306	0	0
55	M48	X	-.535	-.535	0	0
56	M48	Y	.926	.926	0	0
57	MP3	X	-1.909	-1.909	0	0
58	MP3	Y	3.306	3.306	0	0
59	MP1	X	-1.909	-1.909	0	0
60	MP1	Y	3.306	3.306	0	0
61	M51	X	-.431	-.431	0	0
62	M51	Y	.747	.747	0	0
63	M62	X	-2.139	-2.139	0	0
64	M62	Y	3.705	3.705	0	0
65	MP6	X	-1.909	-1.909	0	0
66	MP6	Y	3.306	3.306	0	0
67	MP4	X	-1.909	-1.909	0	0
68	MP4	Y	3.306	3.306	0	0
69	M65A	X	-1.724	-1.724	0	0
70	M65A	Y	2.987	2.987	0	0
71	MP2	X	-1.909	-1.909	0	0
72	MP2	Y	3.306	3.306	0	0
73	MP5	X	-1.909	-1.909	0	0
74	MP5	Y	3.306	3.306	0	0

Member Distributed Loads (BLC 16 : Structure Wind w/ Ice (90))

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	M2	X	-1.195e-7	-1.195e-7	0	0
2	M2	Y	.527	.527	0	0
3	M3	X	-3.186e-10	-3.186e-10	0	0
4	M3	Y	.001	.001	0	0
5	M4	X	-3.133e-7	-3.133e-7	0	0

Member Distributed Loads (BLC 16 : Structure Wind w/ Ice (90)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
6	M4	Y	1.381	1.381	0	0
7	M5	X	-1.105e-6	-1.105e-6	0	0
8	M5	Y	4.874	4.874	0	0
9	M7	X	-4.779e-7	-4.779e-7	0	0
10	M7	Y	2.107	2.107	0	0
11	M8	X	-3.336e-7	-3.336e-7	0	0
12	M8	Y	1.471	1.471	0	0
13	M9	X	-3.336e-7	-3.336e-7	0	0
14	M9	Y	1.471	1.471	0	0
15	M10	X	-7.58e-20	-7.58e-20	0	0
16	M10	Y	3.342e-13	3.342e-13	0	0
17	M12	X	-1.195e-7	-1.195e-7	0	0
18	M12	Y	.527	.527	0	0
19	M13	X	-3.133e-7	-3.133e-7	0	0
20	M13	Y	1.381	1.381	0	0
21	M14	X	-3.186e-10	-3.186e-10	0	0
22	M14	Y	.001	.001	0	0
23	M15	X	-1.105e-6	-1.105e-6	0	0
24	M15	Y	4.874	4.874	0	0
25	M18	X	-7.277e-7	-7.277e-7	0	0
26	M18	Y	3.209	3.209	0	0
27	MP9	X	-8.658e-7	-8.658e-7	0	0
28	MP9	Y	3.817	3.817	0	0
29	MP7	X	-8.658e-7	-8.658e-7	0	0
30	MP7	Y	3.817	3.817	0	0
31	M25	X	-5.866e-7	-5.866e-7	0	0
32	M25	Y	2.587	2.587	0	0
33	M28	X	-2.769e-20	-2.769e-20	0	0
34	M28	Y	1.221e-13	1.221e-13	0	0
35	M29	X	-4.037e-7	-4.037e-7	0	0
36	M29	Y	1.78	1.78	0	0
37	M30	X	-4.037e-7	-4.037e-7	0	0
38	M30	Y	1.78	1.78	0	0
39	M61A	X	-3.476e-7	-3.476e-7	0	0
40	M61A	Y	1.533	1.533	0	0
41	M63A	X	-3.476e-7	-3.476e-7	0	0
42	M63A	Y	1.533	1.533	0	0
43	M60A	X	-2.279e-20	-2.279e-20	0	0
44	M60A	Y	1.005e-13	1.005e-13	0	0
45	M61B	X	-2.492e-20	-2.492e-20	0	0
46	M61B	Y	1.099e-13	1.099e-13	0	0
47	M62A	X	-3.476e-7	-3.476e-7	0	0
48	M62A	Y	1.533	1.533	0	0
49	M63B	X	-3.476e-7	-3.476e-7	0	0
50	M63B	Y	1.533	1.533	0	0
51	M75	X	-5.932e-7	-5.932e-7	0	0
52	M75	Y	2.615	2.615	0	0
53	MP8	X	-8.658e-7	-8.658e-7	0	0
54	MP8	Y	3.817	3.817	0	0
55	M48	X	-4.991e-20	-4.991e-20	0	0
56	M48	Y	2.201e-13	2.201e-13	0	0
57	MP3	X	-8.658e-7	-8.658e-7	0	0

Member Distributed Loads (BLC 16 : Structure Wind w/ Ice (90)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
58	MP3	Y	3.817	3.817	0	0
59	MP1	X	-8.658e-7	-8.658e-7	0	0
60	MP1	Y	3.817	3.817	0	0
61	M51	X	-4.023e-20	-4.023e-20	0	0
62	M51	Y	1.774e-13	1.774e-13	0	0
63	M62	X	-7.277e-7	-7.277e-7	0	0
64	M62	Y	3.209	3.209	0	0
65	MP6	X	-8.658e-7	-8.658e-7	0	0
66	MP6	Y	3.817	3.817	0	0
67	MP4	X	-8.658e-7	-8.658e-7	0	0
68	MP4	Y	3.817	3.817	0	0
69	M65A	X	-5.866e-7	-5.866e-7	0	0
70	M65A	Y	2.587	2.587	0	0
71	MP2	X	-8.658e-7	-8.658e-7	0	0
72	MP2	Y	3.817	3.817	0	0
73	MP5	X	-8.658e-7	-8.658e-7	0	0
74	MP5	Y	3.817	3.817	0	0

Member Distributed Loads (BLC 17 : Structure Wind w/ Ice (120))

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	M2	X	9.635e-14	9.635e-14	0	0
2	M2	Y	1.669e-13	1.669e-13	0	0
3	M3	X	.216	.216	0	0
4	M3	Y	.374	.374	0	0
5	M4	X	.216	.216	0	0
6	M4	Y	.374	.374	0	0
7	M5	X	3.249	3.249	0	0
8	M5	Y	5.628	5.628	0	0
9	M7	X	.79	.79	0	0
10	M7	Y	1.369	1.369	0	0
11	M8	X	.261	.261	0	0
12	M8	Y	.451	.451	0	0
13	M9	X	.951	.951	0	0
14	M9	Y	1.646	1.646	0	0
15	M10	X	.812	.812	0	0
16	M10	Y	1.407	1.407	0	0
17	M12	X	.79	.79	0	0
18	M12	Y	1.369	1.369	0	0
19	M13	X	.951	.951	0	0
20	M13	Y	1.646	1.646	0	0
21	M14	X	.261	.261	0	0
22	M14	Y	.451	.451	0	0
23	M15	X	.812	.812	0	0
24	M15	Y	1.407	1.407	0	0
25	M18	X	2.139	2.139	0	0
26	M18	Y	3.705	3.705	0	0
27	MP9	X	1.909	1.909	0	0
28	MP9	Y	3.306	3.306	0	0
29	MP7	X	1.909	1.909	0	0
30	MP7	Y	3.306	3.306	0	0
31	M25	X	1.724	1.724	0	0

Member Distributed Loads (BLC 17 : Structure Wind w/ Ice (120)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
32	M25	Y	2.987	2.987	0	0
33	M28	X	.297	.297	0	0
34	M28	Y	.514	.514	0	0
35	M29	X	1.187	1.187	0	0
36	M29	Y	2.056	2.056	0	0
37	M30	X	.297	.297	0	0
38	M30	Y	.514	.514	0	0
39	M61A	X	1.022	1.022	0	0
40	M61A	Y	1.77	1.77	0	0
41	M63A	X	1.022	1.022	0	0
42	M63A	Y	1.77	1.77	0	0
43	M60A	X	.255	.255	0	0
44	M60A	Y	.443	.443	0	0
45	M61B	X	.255	.255	0	0
46	M61B	Y	.443	.443	0	0
47	M62A	X	.255	.255	0	0
48	M62A	Y	.443	.443	0	0
49	M63B	X	.255	.255	0	0
50	M63B	Y	.443	.443	0	0
51	M75	X	.436	.436	0	0
52	M75	Y	.755	.755	0	0
53	MP8	X	1.909	1.909	0	0
54	MP8	Y	3.306	3.306	0	0
55	M48	X	.535	.535	0	0
56	M48	Y	.926	.926	0	0
57	MP3	X	1.909	1.909	0	0
58	MP3	Y	3.306	3.306	0	0
59	MP1	X	1.909	1.909	0	0
60	MP1	Y	3.306	3.306	0	0
61	M51	X	.431	.431	0	0
62	M51	Y	.747	.747	0	0
63	M62	X	.535	.535	0	0
64	M62	Y	.926	.926	0	0
65	MP6	X	1.909	1.909	0	0
66	MP6	Y	3.306	3.306	0	0
67	MP4	X	1.909	1.909	0	0
68	MP4	Y	3.306	3.306	0	0
69	M65A	X	.431	.431	0	0
70	M65A	Y	.747	.747	0	0
71	MP2	X	1.909	1.909	0	0
72	MP2	Y	3.306	3.306	0	0
73	MP5	X	1.909	1.909	0	0
74	MP5	Y	3.306	3.306	0	0

Member Distributed Loads (BLC 18 : Structure Wind w/ Ice (135))

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	M2	X	.1	.1	0	0
2	M2	Y	.1	.1	0	0
3	M3	X	.636	.636	0	0
4	M3	Y	.636	.636	0	0
5	M4	X	.073	.073	0	0

Member Distributed Loads (BLC 18 : Structure Wind w/ Ice (135)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
6	M4	Y	.073	.073	0	0
7	M5	X	4.287	4.287	0	0
8	M5	Y	4.287	4.287	0	0
9	M7	X	.745	.745	0	0
10	M7	Y	.745	.745	0	0
11	M8	X	.109	.109	0	0
12	M8	Y	.109	.109	0	0
13	M9	X	1.236	1.236	0	0
14	M9	Y	1.236	1.236	0	0
15	M10	X	2.297	2.297	0	0
16	M10	Y	2.297	2.297	0	0
17	M12	X	1.39	1.39	0	0
18	M12	Y	1.39	1.39	0	0
19	M13	X	1.273	1.273	0	0
20	M13	Y	1.273	1.273	0	0
21	M14	X	.709	.709	0	0
22	M14	Y	.709	.709	0	0
23	M15	X	.308	.308	0	0
24	M15	Y	.308	.308	0	0
25	M18	X	2.823	2.823	0	0
26	M18	Y	2.823	2.823	0	0
27	MP9	X	2.699	2.699	0	0
28	MP9	Y	2.699	2.699	0	0
29	MP7	X	2.699	2.699	0	0
30	MP7	Y	2.699	2.699	0	0
31	M25	X	2.275	2.275	0	0
32	M25	Y	2.275	2.275	0	0
33	M28	X	.839	.839	0	0
34	M28	Y	.839	.839	0	0
35	M29	X	1.566	1.566	0	0
36	M29	Y	1.566	1.566	0	0
37	M30	X	.112	.112	0	0
38	M30	Y	.112	.112	0	0
39	M61A	X	1.348	1.348	0	0
40	M61A	Y	1.348	1.348	0	0
41	M63A	X	1.348	1.348	0	0
42	M63A	Y	1.348	1.348	0	0
43	M60A	X	.723	.723	0	0
44	M60A	Y	.723	.723	0	0
45	M61B	X	.723	.723	0	0
46	M61B	Y	.723	.723	0	0
47	M62A	X	.097	.097	0	0
48	M62A	Y	.097	.097	0	0
49	M63B	X	.097	.097	0	0
50	M63B	Y	.097	.097	0	0
51	M75	X	.165	.165	0	0
52	M75	Y	.165	.165	0	0
53	MP8	X	2.699	2.699	0	0
54	MP8	Y	2.699	2.699	0	0
55	M48	X	1.513	1.513	0	0
56	M48	Y	1.513	1.513	0	0
57	MP3	X	2.699	2.699	0	0

Member Distributed Loads (BLC 18 : Structure Wind w/ Ice (135)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
58	MP3	Y	2.699	2.699	0	0
59	MP1	X	2.699	2.699	0	0
60	MP1	Y	2.699	2.699	0	0
61	M51	X	1.219	1.219	0	0
62	M51	Y	1.219	1.219	0	0
63	M62	X	.203	.203	0	0
64	M62	Y	.203	.203	0	0
65	MP6	X	2.699	2.699	0	0
66	MP6	Y	2.699	2.699	0	0
67	MP4	X	2.699	2.699	0	0
68	MP4	Y	2.699	2.699	0	0
69	M65A	X	.163	.163	0	0
70	M65A	Y	.163	.163	0	0
71	MP2	X	2.699	2.699	0	0
72	MP2	Y	2.699	2.699	0	0
73	MP5	X	2.699	2.699	0	0
74	MP5	Y	2.699	2.699	0	0

Member Distributed Loads (BLC 19 : Structure Wind w/ Ice (150))

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	M2	X	.456	.456	0	0
2	M2	Y	.263	.263	0	0
3	M3	X	1.196	1.196	0	0
4	M3	Y	.691	.691	0	0
5	M4	X	.001	.001	0	0
6	M4	Y	.0007023	.0007023	0	0
7	M5	X	4.221	4.221	0	0
8	M5	Y	2.437	2.437	0	0
9	M7	X	.456	.456	0	0
10	M7	Y	.263	.263	0	0
11	M8	X	.001	.001	0	0
12	M8	Y	.0007024	.0007024	0	0
13	M9	X	1.196	1.196	0	0
14	M9	Y	.691	.691	0	0
15	M10	X	4.221	4.221	0	0
16	M10	Y	2.437	2.437	0	0
17	M12	X	1.825	1.825	0	0
18	M12	Y	1.054	1.054	0	0
19	M13	X	1.274	1.274	0	0
20	M13	Y	.735	.735	0	0
21	M14	X	1.274	1.274	0	0
22	M14	Y	.735	.735	0	0
23	M15	X	7.562e-13	7.562e-13	0	0
24	M15	Y	4.366e-13	4.366e-13	0	0
25	M18	X	2.779	2.779	0	0
26	M18	Y	1.604	1.604	0	0
27	MP9	X	3.306	3.306	0	0
28	MP9	Y	1.909	1.909	0	0
29	MP7	X	3.306	3.306	0	0
30	MP7	Y	1.909	1.909	0	0
31	M25	X	2.24	2.24	0	0

Member Distributed Loads (BLC 19 : Structure Wind w/ Ice (150)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
32	M25	Y	1.293	1.293	0	0
33	M28	X	1.542	1.542	0	0
34	M28	Y	.89	.89	0	0
35	M29	X	1.542	1.542	0	0
36	M29	Y	.89	.89	0	0
37	M30	X	2.762e-13	2.762e-13	0	0
38	M30	Y	1.595e-13	1.595e-13	0	0
39	M61A	X	1.328	1.328	0	0
40	M61A	Y	.766	.766	0	0
41	M63A	X	1.328	1.328	0	0
42	M63A	Y	.766	.766	0	0
43	M60A	X	1.328	1.328	0	0
44	M60A	Y	.766	.766	0	0
45	M61B	X	1.328	1.328	0	0
46	M61B	Y	.766	.766	0	0
47	M62A	X	2.515e-13	2.515e-13	0	0
48	M62A	Y	1.452e-13	1.452e-13	0	0
49	M63B	X	2.543e-13	2.543e-13	0	0
50	M63B	Y	1.468e-13	1.468e-13	0	0
51	M75	X	4.315e-13	4.315e-13	0	0
52	M75	Y	2.491e-13	2.491e-13	0	0
53	MP8	X	3.306	3.306	0	0
54	MP8	Y	1.909	1.909	0	0
55	M48	X	2.779	2.779	0	0
56	M48	Y	1.604	1.604	0	0
57	MP3	X	3.306	3.306	0	0
58	MP3	Y	1.909	1.909	0	0
59	MP1	X	3.306	3.306	0	0
60	MP1	Y	1.909	1.909	0	0
61	M51	X	2.24	2.24	0	0
62	M51	Y	1.293	1.293	0	0
63	M62	X	5.294e-13	5.294e-13	0	0
64	M62	Y	3.056e-13	3.056e-13	0	0
65	MP6	X	3.306	3.306	0	0
66	MP6	Y	1.909	1.909	0	0
67	MP4	X	3.306	3.306	0	0
68	MP4	Y	1.909	1.909	0	0
69	M65A	X	4.267e-13	4.267e-13	0	0
70	M65A	Y	2.464e-13	2.464e-13	0	0
71	MP2	X	3.306	3.306	0	0
72	MP2	Y	1.909	1.909	0	0
73	MP5	X	3.306	3.306	0	0
74	MP5	Y	1.909	1.909	0	0

Member Distributed Loads (BLC 36 : Seismic X)

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	M2	X	1.692	1.692	0	0
2	M3	X	.334	.334	0	0
3	M4	X	.334	.334	0	0
4	M5	X	.863	.863	0	0
5	M7	X	1.692	1.692	0	0

Member Distributed Loads (BLC 36 : Seismic X) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
6	M8	X	.334	.334	0	0
7	M9	X	.334	.334	0	0
8	M10	X	.863	.863	0	0
9	M12	X	1.692	1.692	0	0
10	M13	X	.334	.334	0	0
11	M14	X	.334	.334	0	0
12	M15	X	.863	.863	0	0
13	M18	X	.612	.612	0	0
14	MP9	X	.368	.368	0	0
15	MP7	X	.368	.368	0	0
16	M25	X	.361	.361	0	0
17	M28	X	.956	.956	0	0
18	M29	X	.956	.956	0	0
19	M30	X	.956	.956	0	0
20	M61A	X	.619	.619	0	0
21	M63A	X	.619	.619	0	0
22	M60A	X	.619	.619	0	0
23	M61B	X	.619	.619	0	0
24	M62A	X	.619	.619	0	0
25	M63B	X	.619	.619	0	0
26	M75	X	.42	.42	0	0
27	MP8	X	.368	.368	0	0
28	M48	X	.612	.612	0	0
29	MP3	X	.368	.368	0	0
30	MP1	X	.368	.368	0	0
31	M51	X	.361	.361	0	0
32	M62	X	.612	.612	0	0
33	MP6	X	.368	.368	0	0
34	MP4	X	.368	.368	0	0
35	M65A	X	.361	.361	0	0
36	MP2	X	.368	.368	0	0
37	MP5	X	.368	.368	0	0

Member Distributed Loads (BLC 37 : Seismic Y)

	Member Label	Direction	Start Magnitude[lb/ft,F,p..	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
1	M2	Y	1.692	1.692	0	0
2	M3	Y	.334	.334	0	0
3	M4	Y	.334	.334	0	0
4	M5	Y	.863	.863	0	0
5	M7	Y	1.692	1.692	0	0
6	M8	Y	.334	.334	0	0
7	M9	Y	.334	.334	0	0
8	M10	Y	.863	.863	0	0
9	M12	Y	1.692	1.692	0	0
10	M13	Y	.334	.334	0	0
11	M14	Y	.334	.334	0	0
12	M15	Y	.863	.863	0	0
13	M18	Y	.612	.612	0	0
14	MP9	Y	.368	.368	0	0
15	MP7	Y	.368	.368	0	0
16	M25	Y	.361	.361	0	0

Member Distributed Loads (BLC 37 : Seismic Y) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,p...	End Magnitude[lb/ft,...	Start Location[in,%]	End Location[in,%]
17	M28	Y	.956	.956	0	0
18	M29	Y	.956	.956	0	0
19	M30	Y	.956	.956	0	0
20	M61A	Y	.619	.619	0	0
21	M63A	Y	.619	.619	0	0
22	M60A	Y	.619	.619	0	0
23	M61B	Y	.619	.619	0	0
24	M62A	Y	.619	.619	0	0
25	M63B	Y	.619	.619	0	0
26	M75	Y	.42	.42	0	0
27	MP8	Y	.368	.368	0	0
28	M48	Y	.612	.612	0	0
29	MP3	Y	.368	.368	0	0
30	MP1	Y	.368	.368	0	0
31	M51	Y	.361	.361	0	0
32	M62	Y	.612	.612	0	0
33	MP6	Y	.368	.368	0	0
34	MP4	Y	.368	.368	0	0
35	M65A	Y	.361	.361	0	0
36	MP2	Y	.368	.368	0	0
37	MP5	Y	.368	.368	0	0

Member Area Loads

Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]
No Data to Print ...						

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	P24	max	1667.165	18	1091.436	16	1481.495	110	-.062	6	-.042	7	2.154	18
2		min	-1668.998	10	-1093.446	8	261.437	6	-2.722	30	-2.874	111	-2.168	10
3	P13	max	798.681	3	1957.313	15	1476.873	19	.204	15	3.083	19	2.157	7
4		min	-804.363	11	-1961.391	7	275.511	11	-.18	7	.071	11	-2.131	15
5	P1	max	1629.399	4	1081.499	14	1447.422	72	2.552	24	-.003	15	2.064	12
6		min	-1624.184	12	-1075.27	6	234.606	16	.037	16	-2.823	71	-2.077	4
7	Totals:	max	3906.905	3	3868.614	15	4061.623	29						
8		min	-3906.908	11	-3868.616	7	1539.864	52						

Envelope AISC 15th(360-16): LRFD Steel Code Checks

	Member	Shape	Code...	Loc[in]	LC	Shear Check	Loc[...	Dir	LC	phi*Pn...	phi*Pnt...	phi*Mn...	phi*Mn...	Cb	Eqn
1	M61B	C3.38x2.06x0....	.256	0	3	.034	28.1...	y	28	47760....	56700	2.203	5.752	1...	H1-1b
2	M62A	C3.38x2.06x0....	.251	0	14	.032	28.1...	y	85	47760....	56700	2.203	5.752	1...	H1-1b
3	M61A	C3.38x2.06x0....	.250	0	8	.031	28.1...	y	32	47760....	56700	2.203	5.752	1...	H1-1b
4	M63A	C3.38x2.06x0....	.245	0	8	.032	28.1...	y	33	47760....	56700	2.203	5.752	1...	H1-1b
5	M63B	C3.38x2.06x0....	.244	0	14	.032	28.1...	y	22	47760....	56700	2.203	5.752	1...	H1-1b
6	M60A	C3.38x2.06x0....	.242	0	3	.031	28.1...	y	28	47760....	56700	2.203	5.752	1...	H1-1b
7	M75	PL 2.375x0.5	.238	1.5	11	.168	0	y	22	38256....	38475	.401	1.904	2...	H1-1b
8	MP8	Pipe 2.875x0.12	.232	42	8	.078	63		12	22398....	42998....	3.144	3.144	1...	H1-1b

Envelope AISC 15th(360-16): LRFD Steel Code Checks (Continued)

	Member	Shape	Code...	Loc[in]	LC	Shear Check	Loc[...	Dir	LC	phi*Pn...	phi*Pnt...	phi*Mn...	phi*Mn...	Cb	Eqn
9	MP5	Pipe 2.875x0.12	.227	42	14	.086	63		18	22398....	42998....	3.144	3.144	1...	H1-1b
10	MP2	Pipe 2.875x0.12	.222	42	3	.083	63		15	22398....	42998....	3.144	3.144	1...	H1-1b
11	M10	PL6.5x0.375	.202	21	3	.082	36.3...	y	14	3658.14	78975	.617	7.434	1...	H1-1b
12	M15	PL6.5x0.375	.199	21	14	.088	5.687	y	99	3658.14	78975	.617	7.421	1...	H1-1b
13	M5	PL6.5x0.375	.193	21	8	.087	36.3...	y	67	3658.14	78975	.617	7.434	1...	H1-1b
14	M12	HSS4X4X6	.182	40	11	.092	40	y	112	18825...	197892	22.046	22.046	1...	H1-1b
15	M7	HSS4X4X6	.181	40	6	.049	40	z	15	18825...	197892	22.046	22.046	1...	H1-1b
16	M2	HSS4X4X6	.174	40	6	.091	40	y	70	18825...	197892	22.046	22.046	1...	H1-1b
17	M8	L2x2x4	.162	0	3	.015	0	y	11	29527....	42480	.96	2.19	2...	H2-1
18	MP4	Pipe 2.875x0.12	.161	42	10	.062	42		12	22398....	42998....	3.144	3.144	2...	H1-1b
19	MP3	Pipe 2.875x0.12	.161	42	7	.065	42		4	22398....	42998....	3.144	3.144	2...	H1-1b
20	MP6	Pipe 2.875x0.12	.156	42	18	.062	42		15	22398....	42998....	3.144	3.144	1...	H1-1b
21	M65A	PIPE 2.0	.155	6	10	.056	90		17	15369....	42228	2.46	2.46	1...	H1-1b
22	MP7	Pipe 2.875x0.12	.155	42	4	.067	42		7	22398....	42998....	3.144	3.144	2...	H1-1b
23	M14	L2x2x4	.154	0	14	.015	0	z	5	29527....	42480	.96	2.19	2...	H2-1
24	M4	L2x2x4	.153	0	8	.014	0	z	16	29527....	42480	.96	2.19	2...	H2-1
25	M51	PIPE 2.0	.153	90	7	.051	6		16	15369....	42228	2.46	2.46	1...	H1-1b
26	MP1	Pipe 2.875x0.12	.148	42	15	.065	42		18	22398....	42998....	3.144	3.144	1...	H1-1b
27	MP9	Pipe 2.875x0.12	.148	42	12	.067	42		10	22398....	42998....	3.144	3.144	2...	H1-1b
28	M3	L2x2x4	.145	0	16	.014	0	y	16	29527....	42480	.96	2.19	2...	H2-1
29	M13	L2x2x4	.144	0	6	.014	0	y	6	29527....	42480	.96	2.19	2...	H2-1
30	M9	L2x2x4	.141	0	11	.014	0	z	11	29527....	42480	.96	2.19	2...	H2-1
31	M25	PIPE 2.0	.139	6	5	.048	6		5	15369....	42228	2.46	2.46	1...	H1-1b
32	M48	Pipe3.5x0.165	.114	48	95	.045	48		15	45873....	71580.6	6.338	6.338	1...	H1-1b
33	M62	Pipe3.5x0.165	.109	65	8	.051	48		17	45873....	71580.6	6.338	6.338	1...	H1-1b
34	M29	L6.6x4.46x0.25	.108	41.562	18	.013	21	z	4	51170....	87561	2.465	7.125	1...	H2-1
35	M28	L6.6x4.46x0.25	.106	.438	10	.014	0	z	7	51170....	87561	2.465	7.125	1...	H2-1
36	M18	Pipe3.5x0.165	.105	31	14	.042	32		5	45873....	71580.6	6.338	6.338	1...	H1-1b
37	M30	L6.6x4.46x0.25	.099	41.562	7	.014	0	z	10	51170....	87561	2.465	7.125	1...	H2-1

Square/Rectangular Flange Connection

TIA-222-H

Site Number	CT11794-S
Job number	
Code	TIA-222-H

Member/Node Under Consideration	
Controlling Load Combination	

Normalize usages per TIA-222-H, Sec. 15.5	☐

REACTIONS		
Moment, Mu (kip-ft)	3.083	*About X*
Axial, Pu (kips) - *Negative for tension*	-1.668	
Shear, Vu (kips)	1.476	

BOLT CONFIGURATION	
Bolt Quantity, n_b	4
Bolt Diameter, d_b (in)	0.625
Bolt Grade	A325
Width between bolts, s (in)	7.00

BOLT USAGE	
Maximum Tension in Bolt, Tub (kip)	4.154
Nominal Tensile Strength, ϕRnt (kip)	20.340
Tensile Usage (Section 4.9.6.1)	**20.4%**

PLATE CONFIGURATION	
Plate Grade	A572-50
Thickness of plate, t (in)	0.750
Width of plate, w (in)	9.00

PLATE USAGE	
Ultimate flexural load in plate, Mu (kip-in)	6.873
Factored flexural capacity, ϕMn (kip-in)	28.430
Flexural Usage	**24.2%**

SUPPORT ARM CONFIGURATION	
Member Shape	Square
Member Grade	A500-50
Thickness of Member, t (in)	0.375
Width of member, w (in)	4.000

SUPPORT ARM USAGE	
Ultimate flexural load in member, Mu (kip-ft)	3.083
Factored flexural capacity, ϕMn (kip-ft)	27.817
Flexural Usage	**11.1%**

Stiffeners present?	☐

EXHIBIT 9

EME Report

FOX HILL TELECOM

Radio Frequency Emissions Analysis Report

Site ID: BOBOS01209A

49 Brainerd Road
Niantic, CT 06357

December 5, 2023

Fox Hill Telecom Project Number: 231074

Site Compliance Summary	
Compliance Status:	**COMPLIANT**
Site total MPE% of FCC general population allowable limit:	**11.53 %**

FOX HILL TELECOM

December 5, 2023

Dish Wireless
5701 South Santa Fe Drive
Littleton, CO 80120

Emissions Analysis for Site: **BOBOS01209A**

Fox Hill Telecom, Inc ("Fox Hill") was directed to analyze the proposed radio installation for Dish Wireless, LLC (Dish) facility located at **49 Brainerd Road, Niantic, CT**, for the purpose of determining whether the emissions from the Proposed Dish radio and antenna installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter (µW/cm2). The number of $\mu W/cm^2$ calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

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

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

Population exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu W/cm^2$). The general population exposure limit for the 600 MHz band is approximately 400 $\mu W/cm^2$. The general population exposure limit for the 1900 MHz (PCS) and 2100 MHz (AWS / AWS-4) bands is 1000 $\mu W/cm^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report the percentage of MPE rather than power density.

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

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were performed for the proposed upgrades to the Dish Wireless antenna facility located at **49 Brainerd Road, Niantic, CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65 for far field modeling calculations.

In OET-65, plane wave power densities in the Far Field of an antenna are calculated by considering antenna gain and reflective waves that would contribute to exposure.

Since the radiation pattern of an antenna has developed in the **Far Field** region the power gain in specific directions needs to be considered in exposure predictions to yield an Effective Radiated Power (ERP) in each specific direction from the antenna. Also, since the vertical radiation pattern of the antenna is considered, the exposure calculations would most likely be reduced significantly at ground level, resulting in a more realistic estimate of the actual exposure levels. To determine a worst-case scenario at each point along the calculation radials, each point was calculated using the antenna gain value at each angle of incident and compared against the result using an isotropic radiator at the antenna height with the greater of the two used to yield the more pessimistic far field value for each point along the calculation radial.

Additionally, to model a truly "worst case" prediction of exposure levels at or near a surface, such as at ground-level or on a rooftop, reflection off the surface of antenna radiation power can be assumed, resulting in a potential 1.6 times increase in power density in calculating far field power density values.

With these factors Considered, the worst case **Far Field prediction model** utilized in this analysis is determined by the following equation:

Equation 9 per FCC OET65 for Far Field Modeling

$$S = \frac{33.4\ ERP}{R^2}$$

S = Power Density (in μw/cm^2)
ERP = Effective Radiated Power from antenna (watts)
R = Distance from the antenna (meters)

Predicted far field power density values for all carriers identified in this report were calculated 6 feet above the ground level and are displayed as a percentage of the applicable FCC standards. All emissions values for other carriers were calculated using the same Far Field model outlined above, using industry standard radio configurations and frequency band selection based upon available licenses in this geographic area for emissions contribution estimates.

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

Technology	Frequency Band	Channel Count	Transmit Power per Channel (W)
5G	n71 (600 MHz)	4	61.5
5G	n70 (AWS-4 / 1995-2020)	4	40
5G	n66 (AWS-4 / 2180-2200)	4	40

Table 1: Channel Data Table

The following **Dish** antennas listed in *Table 2* were used in the modeling for transmission in the 600 MHz (n71) frequency band and the 2100 MHz (AWS 4) frequency bands at 1995-2020 MHz (n70) and 2180-2200 MHz (n66). This is based on feedback from Dish regarding anticipated antenna selection. Maximum gain values for all antennas are listed in the Inventory and Power Data table below.

Sector	Antenna Number	Antenna Make / Model	Antenna Centerline (ft)
A	1	Commscope FFVV-65B-R2	135
B	1	Commscope FFVV-65B-R2	135
C	1	Commscope FFVV-65B-R2	135

Table 2: Antenna Data

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

RESULTS

Per the calculations completed for the proposed **Dish** configurations *Table 3* shows resulting emissions power levels and percentages of the FCC's allowable general population limit.

Antenna ID	Antenna Make / Model	Frequency Bands	Antenna Gain (dBd)	Channel Count	Total TX Power (W)	ERP (W)	MPE %
Antenna A1	Commscope FFVV-65B-R2	n71 (600 MHz) / n70 (AWS-4 / 1995-2020) / n66 (AWS-4 / 2180-2200)	12.15 / 15.95 / 16.25	12	566	17,079.80	2.05
						Sector A Composite MPE%	**2.05**
Antenna B1	Commscope FFVV-65B-R2	n71 (600 MHz) / n70 (AWS-4 / 1995-2020) / n66 (AWS-4 / 2180-2200)	12.15 / 15.95 / 16.25	12	566	17,079.80	2.05
						Sector B Composite MPE%	**2.05**
Antenna C1	Commscope FFVV-65B-R2	n71 (600 MHz) / n70 (AWS-4 / 1995-2020) / n66 (AWS-4 / 2180-2200)	12.15 / 15.95 / 16.25	12	566	17,079.80	2.05
						Sector C Composite MPE%	**2.05**

Table 3: Dish Emissions Levels

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

Site Composite MPE%	
Carrier	**MPE%**
Dish – Max Per Sector Value	**2.05 %**
AT&T	3.36 %
T-Mobile	2.69 %
Verizon Wireless	3.43 %
Site Total MPE %:	**11.53 %**

Table 4: All Carrier MPE Contributions

Dish Sector A Total:	2.05 %
Dish Sector B Total:	2.05 %
Dish Sector C Total:	2.05 %
Site Total:	11.53 %

Table 5: Site MPE Summary

Table 6 below details a breakdown by frequency band and technology for the MPE power values for the maximum calculated **Dish** sector(s). For this site, all three sectors have the same configuration yielding the same results for all three sectors.

Dish _ Frequency Band / Technology Max Power Values (Per Sector)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu W/cm^2$)	Frequency (MHz)	Allowable MPE ($\mu W/cm^2$)	Calculated % MPE
Dish n71 (600 MHz) 5G	4	1,008.96	135	5.40	n71 (600 MHz)	400	1.35%
Dish n70 (AWS-4 / 1995-2020) 5G	4	1,574.20	135	3.50	n70 (AWS-4 / 1995-2020)	1000	0.35%
Dish n66 (AWS-4 / 2180-2200) 5G	4	1,686.79	135	3.50	n66 (AWS-4 / 2180-2200)	1000	0.35%
						Total:	**2.05 %**

Table 6: Dish Maximum Sector MPE Power Values

Summary

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

The anticipated maximum composite contributions from the Dish facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

Dish Sector	Power Density Value (%)
Sector A:	2.05 %
Sector B:	2.05 %
Sector C:	2.05 %
Dish Maximum Total (per sector):	2.05 %
Site Total:	11.53 %
Site Compliance Status:	**COMPLIANT**

The anticipated composite emissions value for this site, assuming all carriers present, is **11.53 %** of the allowable FCC established general population limit sampled at the ground level. This is based upon the far field calculations performed for all carriers identified in this report.

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

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