NORTHEAST SITE SOLUTIONS
Turnkey Wireless Development

Northeast Site Solutions
Denise Sabo
4 Angela's Way, Burlington CT 06013
203-435-3640
denise@northeastsitesolutions.com

July 21, 2022

Members of the Siting Council
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: Tower Share Application
151 Berkshire Road, Newtown, CT 06470
Latitude: 41.397500
Longitude: -73.23583
Site #: CT13057-A_NJJER01102B_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 151 Berkshire Road, Newtown, Connecticut.

Dish Wireless LLC proposes to install three (3) 600/1900 MHz 5G antennas and six (6) RRUs, at the 85-foot level of the existing 150-foot monopole tower, one (1) Fiber cable will also be installed. Dish Wireless LLC equipment cabinets will be placed within a 7' x 5' lease area within the fenced compound. Included are plans by B+T, dated December 16, 2021, Exhibit C. Also included is a structural analysis prepared by SBA, dated June 7, 2022, confirming that the existing tower is structurally capable of supporting the proposed equipment. Attached as Exhibit D. The facility was approved by the Connecticut Siting Council, Docket No. 220, on June 3, 2022. Please see attached Exhibit A.

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 Rosenthal, First Selectman, and George Benson, Director of Planning for the Town of Newtown, as well as the tower owner (SBA) and property owner (Marnie Uliasz & Tracy Hill).

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 150-feet and the Dish Wireless LLC antennas will be located at a center line height of 85-feet.

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

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Turnkey Wireless Development

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. The combined site operations will result in a total power density of 11.16% as evidenced by Exhibit F.

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 submits 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 D.

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 monopole tower in Newtown. Under the authority granted to the Council, an order of the Council approving the requested shared use would permit Dish Wireless LLC to obtain a building permit for the proposed installation. Further, a Letter of Authorization is included as Exhibit G, authorizing Dish Wireless LLC to file this application for shared use.

C. Environmental Feasibility. The proposed shared use of this facility would have a minimal environmental impact. The installation of Dish Wireless LLC equipment at the 85-foot level of the existing 150-foot tower would have an insignificant visual impact on the area around the tower. Dish Wireless LLC ground equipment would be installed within the existing facility compound. Dish Wireless LLC shared use would therefore not cause any significant alteration in the physical or environmental characteristics of the existing site. Additionally, as evidenced by Exhibit F, 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 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 Newtown.

Sincerely,

Denise Sabo

Denise Sabo
Mobile: 203-435-3640
Fax: 413-521-0558
Office: 4 Angela's Way, Burlington CT 06013
Email: denise@northeastsitesolutions.com

NORTHEAST SITE SOLUTIONS
Turnkey Wireless Development

Attachments

Cc: Daniel Rosenthal, First Selectman
Town of Newtown
3 Primrose Street
Newtown, CT 06470

George Benson, Director of Planning
Town of Newtown
3 Primrose Street
Newtown, CT 06470

Marnie Uliasz & Tracy Hill – Property Owners
151 Berkshire Road
Sandy Hook, CT 06482

SBA - Tower Owner

Exhibit A

Original Facility Approval

DOCKET NO. 220 - Connecticut Agricultural Towers LLC application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a cellular telecommunications facility at 14 Osborn Hill Road, or 151 Berkshire Road (Route 34), Sandy Hook/Newtown, Connecticut. }	} } }	Connecticut Siting Council June 3, 2002

Decision and Order

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, operation, and maintenance of a telecommunications facility at the proposed alternate site in Newtown, Connecticut, including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate either alone or cumulatively with other effects when compared to need, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application and therefore directs that a Certificate of Environmental Compatibility and Public Need, as provided by General Statutes § 16-50k, be issued to James E. Dwyer Company for the construction, maintenance and operation of a cellular telecommunications facility at the proposed alternate site located at 151 Berkshire Road (Route 34), Newtown, Connecticut. We deny certification of the proposed prime site located at 14 Osborn Hill Road, Newtown, Connecticut.

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

1. The tower shall be constructed as a monopole, no taller than necessary to provide the proposed telecommunications services, sufficient to accommodate the antennas of telecommunications providers, both public and private, but such tower shall not exceed a height of 120 feet above ground level, capable of being increased in height as needed by means of a petition to the Council.

2. The Certificate Holder shall prepare a Development and Management (D&M) Plan for this site in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of Connecticut State Agencies. The D&M Plan shall be submitted to and approved by the Council prior to the commencement of facility construction and shall include: a final site plan(s) for site development to include the location and specifications for the tower, tower foundation, antennas, equipment building, security fence, access road, utility line, and landscaping plan. The D&M Plan shall also include construction plans to be submitted prior to construction for site clearing, water drainage, and erosion and sedimentation control consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control .

3. The Certificate Holder shall, prior to the commencement of operation, provide the Council worst-case modeling of electromagnetic radio frequency power density of all proposed entities' antennas at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65, August 1997. The Certificate Holder shall provide a recalculated report of electromagnetic radio frequency power density if and when

circumstances in operation cause a change in power density above the levels calculated and provided pursuant to this Decision and Order.

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

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

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

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

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

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

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

The parties and intervenors to this proceeding are:

Applicant	**Its Representatives**
James E. Dwyer Co., Inc. Its Representative	James E. Dwyer Co., Inc. 106 Sherman Street Fairfield, CT 06430 Stephen J. Humes LeBoeuf, Lamb, Greene & MacRae Goodwin Square 225 Asylum Avenue Hartford, CT 06103

Intervenor Town of Newtown	Robert A. Fuller, Esq. 75 East Meadow Road Wilton, CT 06897

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@po.state.ct.us
www.ct.gov/csc

August 25, 2005

Kenneth C. Baldwin, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103-3597

RE: **EM-VER-097-050713** – Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 151 Berkshire Road, Newtown, Connecticut.

Dear Attorney Baldwin:

At a public meeting held on August 24, 2005, the Connecticut Siting Council (Council) acknowledged your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice dated July 13, 2005, including the placement of all necessary equipment and shelters within the tower compound. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Thank you for your attention and cooperation.

Very truly yours,

Pamela B. Katz, P.E.
Chairman

PBK/laf

c: The Honorable Herbert C. Rosenthal, First Selectman, Town of Newtown
Gary Frenette, Zoning Enforcement Officer, Town of Newtown
Keith Coppins, Vice President of Development, Optasite, Inc.
Christopher B. Fisher, Esq., Cuddy & Feder LLP
Thomas J. Regan, Esq., Brown Rudnick Berlack Israels, LLP
Christine Farrell, T-Mobile USA

G:\EM\BAM-VERIZON\NEWTOWN\dc082405.DOC

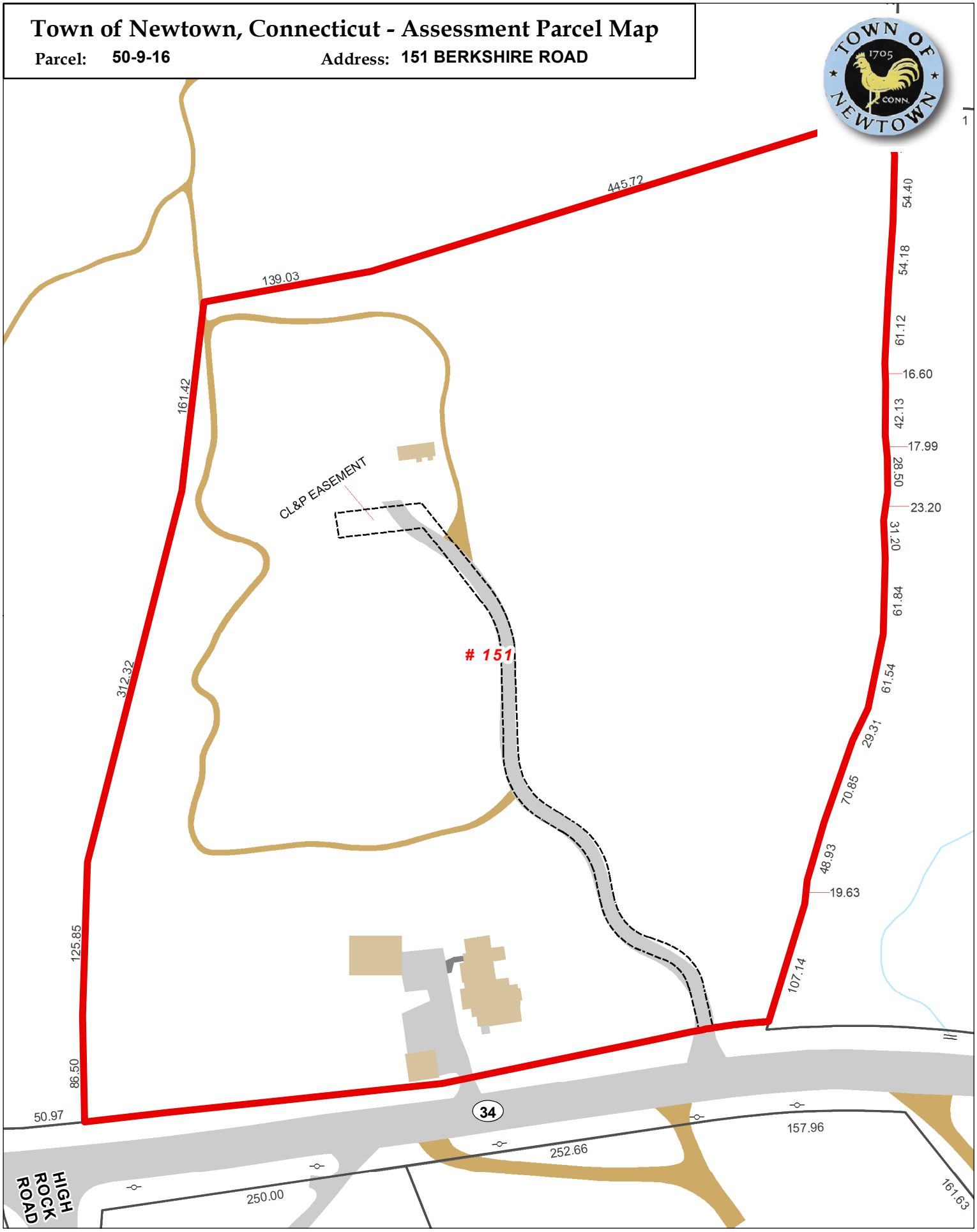
CSC
CONNECTICUT SITING COUNCIL

Exhibit B

Property Card

Town of Newtown, Connecticut - Assessment Parcel Map

Parcel: 50-9-16 **Address:** 151 BERKSHIRE ROAD



Approximate Scale:

0 25 50 75 100 Feet

N W E S

Disclaimer: This map is for informational purposes only. All information is subject to verification by any user. The Town of Newtown and its mapping contractors assume no legal responsibility for the information contained herein.

Map Produced Nov 2020

Town of Newtown, CT

Property Listing Report

Map Block Lot	50-9-16	Account	00713000

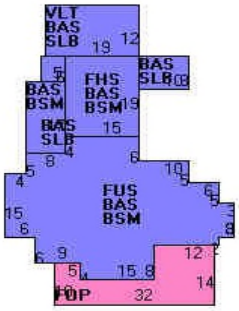
Property Information

Property Location	151 BERKSHIRE ROAD
Owner	ULIASZ MARNIE & HILL TRACY
Co-Owner	
Mailing Address	151 BERKSHIRE ROAD SANDY HOOK CT 06482
Land Use	1010 Single Family
Land Class	R
Zoning Code	R-2
Census Tract	
Sub Lot	

Neighborhood	090
Acreage	9.36
Utilities	Well,Septic
Lot Setting/Desc	
Survey Map	
TC Survey Numbers	

Photo

Sketch



Primary Construction Details

Year Built	1900
Stories	2.00
Building Style	Colonial
Building Use	Residential
Building Condition	B
Floors	Hardwood
Total Rooms	11

Bedrooms	4 Bedrooms
Full Bathrooms	2
Half Bathrooms	0
Bath Style	Typical
Kitchen Style	Old Style
Roof Style	Gable
Roof Cover	Asphalt/F Glas

Exterior Walls	Clapboard
Interior Walls	Drywall
Heating Type	Hot Water
Heating Fuel	Oil
AC Type	None
Gross Bldg Area	5615
Total Living Area	3114

Report Created On 3/14/2022

Town of Newtown, CT

Property Listing Report | Map Block Lot **50-9-16** | Account **00713000**

Valuation Summary

(Assessed value = 70% of Appraised Value)

Item	Appraised	Assessed
Buildings	265080	185560
Extras	0	0
Outbuildings	22100	15470
Land	164881	102810
Total	452061	303840

Outbuilding and Extra Items

Type	Description
1S Barn W/Loft	1260 S.F.
Garage	440 S.F.

Sub Areas

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
First Floor	1851	1851
Basement	1513	0
Finished Half Story	285	171
Open Porch	308	0
Finished Upper Story	1092	1092
Slab	338	0
Vaulted Ceiling	228	0
Total Area	5615	3114

Sales History

Owner of Record	Book/ Page	Sale Date	Sale Price
ULIASZ MARNIE & HILL TRACY	1070/1063	9/2/2015	0
ULIAZ MARIE & HILL TRACY	1060/ 469	2/10/2015	190000
SBA TOWERS V LLC	1035/1004	7/29/2013	675000
FRIEDMAN KEVIN D & KELLY KATHY	0527/0870	12/25/2009	

Report Created On **3/14/2022**

Exhibit C

Construction Drawings

DISH Wireless L.L.C. SITE ID:

NJJER01102B

DISH Wireless L.L.C. SITE ADDRESS:

151 BERKSHIRE ROAD
NEWTOWN, CT 06470

CONNECTICUT CODE OF COMPLIANCE

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES

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

SHEET INDEX

SCOPE OF WORK

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

TOWER SCOPE OF WORK:
- INSTALL (3) PROPOSED PANEL ANTENNAS (1 PER SECTOR)
- INSTALL (1) PROPOSED TOWER 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

GENERAL NOTES

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

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

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

SITE INFORMATION

PROPERTY OWNER:	ULIASZ MARNIE & HILL TRACY
ADDRESS:	151 BERKSHIRE RD SANDY HOOK, CT 06482
TOWER TYPE:	MONOPOLE
TOWER CO SITE ID:	CT13057-A
TOWER APP NUMBER:	163805
COUNTY:	FAIRFIELD
LATITUDE (NAD 83):	41° 23' 50.55" N 41.39737467° N
LONGITUDE (NAD 83):	73° 14' 9.85" W 73.23606911° W
ZONING JURISDICTION:	FAIRFIELD COUNTY
ZONING DISTRICT:	RESIDENTIAL
PARCEL NUMBER:	50-9-16
OCCUPANCY GROUP:	U
CONSTRUCTION TYPE:	II-B
POWER COMPANY:	EVERSOURCE
TELEPHONE COMPANY:	CHARTER COMMUNICATIONS

PROJECT DIRECTORY

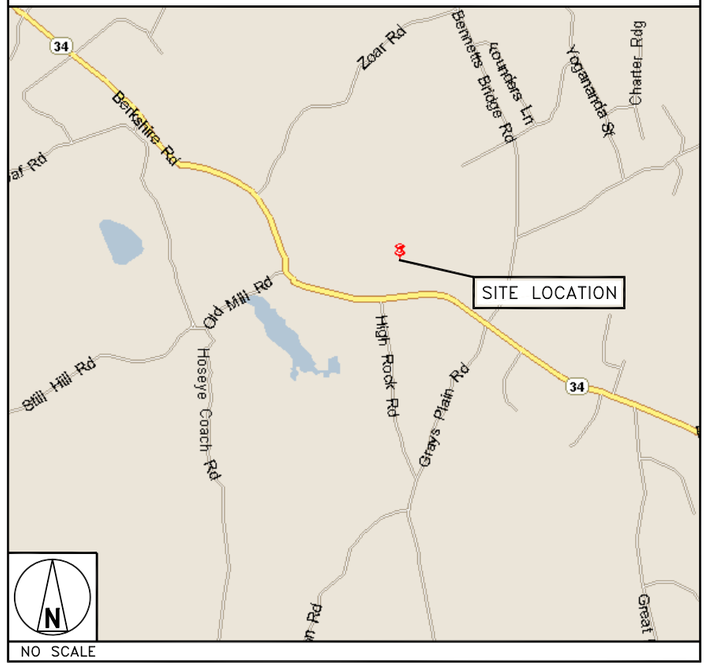
APPLICANT:	DISH Wireless L.L.C. 5701 SOUTH SANTA FE DRIVE LITTLETON, CO 80120
TOWER OWNER:	SBA COMMUNICATAIONS CORP. 8051 CONGRESS AVENUE BOCA RATON, FL 33487 (800) 487-7483
SITE DESIGNER:	B+T GROUP 1717 S. BOULDER AVE, SUITE 300 TULSA, OK 74119 (918) 587-4630
SITE ACQUISITION:	DAVE EVANS devans@sbasite.com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

DIRECTIONS

DIRECTIONS FROM 3 ADP BLVD, ROSELAND, NJ 07068:

TURN LEFT ONTO ADP BLVD. TURN RIGHT TOWARD CHOCTAW WAY. SLIGHT RIGHT ONTO CHOCTAW WAY. USE THE LEFT LANE TO TURN RIGHT ONTO LIVINGSTON AVE. USE THE RIGHT LANE TO TAKE THE RAMP ONTO I-280 E. MERGE ONTO I-280 E. TAKE EXIT 12 TOWARD ORATON PKWY. KEEP LEFT, FOLLOW SIGNS FOR GARDEN STATE PARKWAY AND MERGE ONTO GARDEN STATE PKWY. CONTINUE ONTO NJ-444 N/GARDEN STATE PKWY. CONTINUE ONTO GARDEN STATE PARKWAY CONNECTOR. TAKE EXIT 14-1 TO MERGE ONTO I-287 E/I-87 S. KEEP LEFT AT THE FORK TO CONTINUE ON I-297 E, FOLLOW SIGNS FOR WHITE PLAINS/RYE. TAKE EXIT 9A TO MERGE ONTO I-684 N TOWARD BREWSTER. TAKE EXIT 9E TO MERGE ONTO I-84 E TOWARD DANBURY. TAKE EXIT 11 TOWARD CT-34/DERBY/NEW HEAVEN. TURN RIGHT ONTO WASSERMAN WAY. TURN RIGHT ONTO CT-34 E. TURN LEFT ONTO ACCESS ROAD AND ARRIVE AT NJJER01102B.

VICINITY MAP



NO SCALE

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

SBA
8051 CONGRESS AVENUE
BOCA RATON, FL 33487

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

STATE OF CONNECTICUT
CHAD C. TUTTLE
No. 23924
LICENSED
PROFESSIONAL ENGINEER

12/16/21

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

DRAWN BY:	CHECKED BY:	APPROVED BY:
CH	RMC	RMC

RFDS REV #: 1

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
A	12/6/21	ISSUED FOR REVIEW
0	12/16/21	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER

158613.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION

NJJER01102B
151 BERKSHIRE ROAD
NEWTOWN, CT 06470

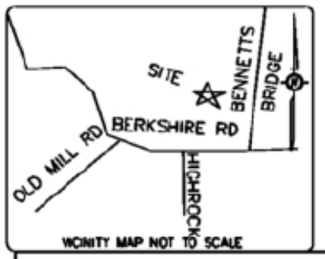
SHEET TITLE

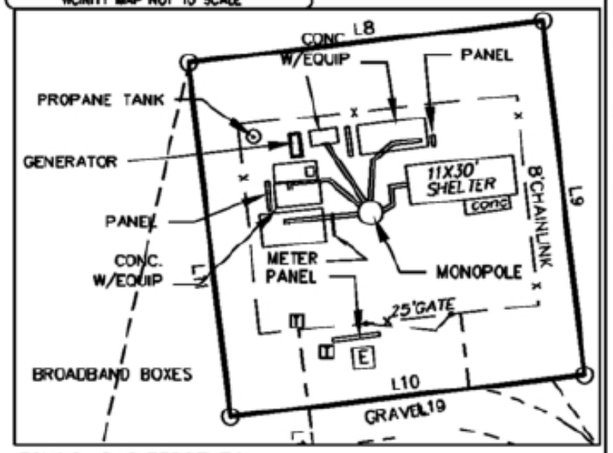
TITLE SHEET

SHEET NUMBER

T-1

158613.001.01_CT13057-A NJJER01102B.dwg – Sheet T-1 – User number – Dec 16, 2021 – 3:30pm





ZONING: R-2 RESIDENTIAL

THIS PARCEL OF LAND LIES WITHIN FLOOD ZONE X WHICH IS NOT A SPECIAL FLOOD HAZARD AREA AS PER F.I.R.M. PANEL NUMBER: 09001C0190F
EFFECTIVE DATE: 6/18/10

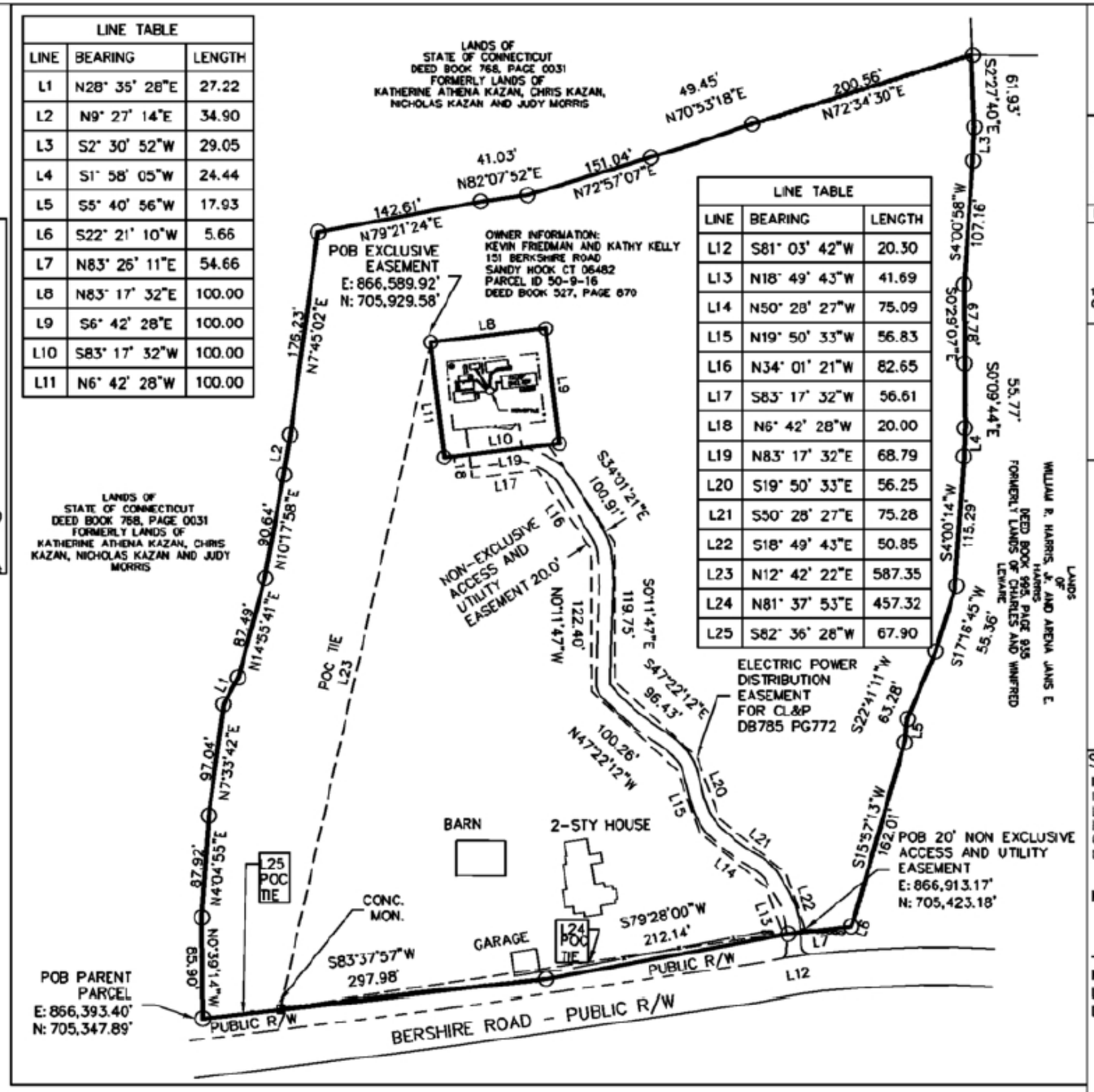
LEGEND

- ● :SET 5/8" REBAR.
- O :FOUND 1/2" REBAR AS NOTED.
- (___) :RECORD DESCRIPTION DATA.
- P.O.B. :POINT OF BEGINNING.
- P.O.C. :POINT OF COMMENCEMENT.
- —o— :FENCE AS NOTED.
- —OH— :OVER HEAD UTILITY LINES.
- :WOOD UTILITY POLE.
- E :ELECTRIC TRANSFORMER.
- T :TELCO PEDESTAL.
- WM :WATER METER.
- CATV :CABLE TELEVISION

AREA	SQUARE FEET	ACRE
PARENT PARCEL	410041	9.4
EXCLUSIVE EASEMENT	10000	0.23
COMPOUND AREA	4605	0.105
ACCESS/UTILITY EASEMENT	11038	0.25
UTILITY EASEMENT	N/A	N/A

SHEET 1 OF 2

LINE TABLE		
LINE	BEARING	LENGTH
L1	N28° 35' 28"E	27.22
L2	N9° 27' 14"E	34.90
L3	S2° 30' 52"W	29.05
L4	S1° 58' 05"W	24.44
L5	S5° 40' 56"W	17.93
L6	S22° 21' 10"W	5.66
L7	N83° 26' 11"E	54.66
L8	N83° 17' 32"E	100.00
L9	S6° 42' 28"E	100.00
L10	S83° 17' 32"W	100.00
L11	N6° 42' 28"W	100.00



LINE TABLE		
LINE	BEARING	LENGTH
L12	S81° 03' 42"W	20.30
L13	N18° 49' 43"W	41.69
L14	N50° 28' 27"W	75.09
L15	N19° 50' 33"W	56.83
L16	N34° 01' 21"W	82.65
L17	S83° 17' 32"W	56.61
L18	N6° 42' 28"W	20.00
L19	N83° 17' 32"E	68.79
L20	S19° 50' 33"E	56.25
L21	S50° 28' 27"E	75.28
L22	S18° 49' 43"E	50.85
L23	N12° 42' 22"E	587.35
L24	N81° 37' 53"E	457.32
L25	S82° 36' 28"W	67.90

AS-BUILT SURVEY

PREPARED FOR SBA

SITE: NEWTOWN
ID: CT13057-A
ADDRESS: 151 BERKSHIRE ROAD
SANDY HOOK CT 06482
FAIRFIELD COUNTY

NATIONAL SURVEY SERVICES COORDINATION BY:

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

SURVEY WORK PERFORMED BY:

JONATHAN MURPHY
Professional Land Surveying
10505 Leafwood Place (919) 280-8189
Raleigh NC 27615 FAX 905-9616
E-MAIL : ralph@murphygeomatics.com FIRM C-1757

SURVEYOR'S NOTES

1. BASIS OF BEARING:
CT GRID NAD 83

2. NO SUBSURFACE INVESTIGATION WAS PERFORMED TO LOCATE UNDERGROUND UTILITIES. UTILITIES SHOWN HEREON ARE LIMITED TO AND ARE PER OBSERVED EVIDENCE ONLY.

3. THIS SURVEY REPRESENTS A CONNECTICUT A-2 BOUNDARY SURVEY OF THE PARENT PARCEL.

4. ALL VISIBLE TOWER EQUIPMENT AND IMPROVEMENTS ARE CONTAINED WITH IN THE DESCRIBED AREA.

5. AT THE TIME OF THE SURVEY THERE WERE NO VISIBLE ENCROACHMENT ONTO OR BEYOND THE SUBJECT PROPERTY

SURVEYOR'S CERTIFICATION

I HEREBY CERTIFY SBA INFRASTRUCTURE LLC, A DELAWARE LIMITED LIABILITY COMPANY AND FIDELITY NATIONAL TITLE INSURANCE COMPANY COMMITMENT NO. 16612922 WITH AN EFFECTIVE DATE OF APRIL 19, 2013

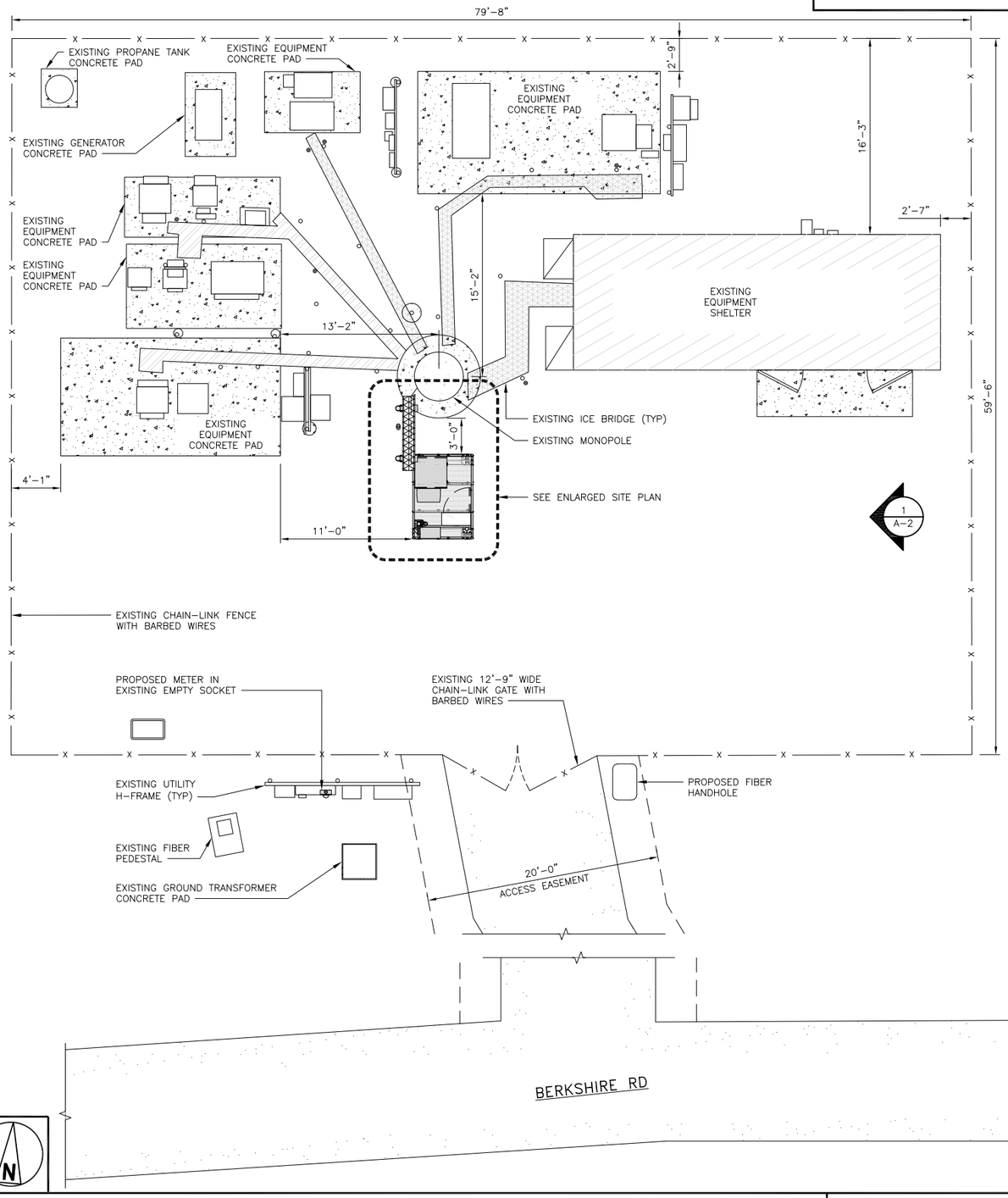
MURPHY GEOMATICS

MATTHEW BATTEY
LAND SURVEYOR -
DATE: 5/10/13

STATE OF CONNECTICUT
MATTHEW R. BATTEY
No. 70389
LICENSED LAND SURVEYOR

NOTES

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



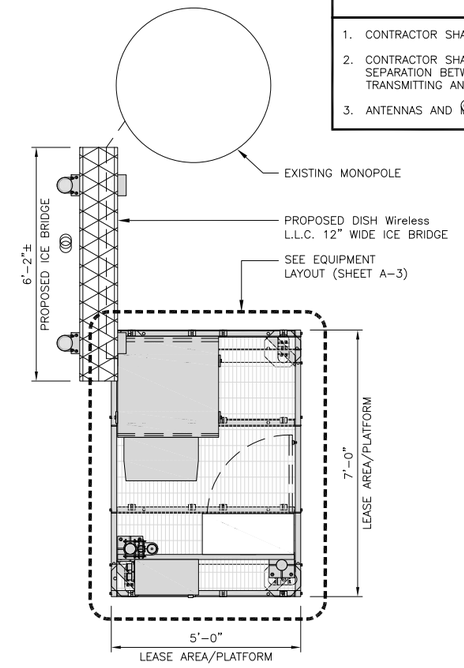
OVERALL SITE PLAN

6' 4' 2' 0 5' 10'
3/16"=1'-0"

1

NOTES

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



ENLARGED SITE PLAN

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

2

NOT USED

NO SCALE

3

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SUITE 300
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www.btgrp.com

STATE OF CONNECTICUT
CHAD TUTTLE
No. 23924
LICENSED
PROFESSIONAL ENGINEER
12/16/21
B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/22

DRAWN BY:	CHECKED BY:	APPROVED BY:
CH	RMC	RMC

RFDS REV #: 1

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
A	12/6/21	ISSUED FOR REVIEW
0	12/16/21	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER

158613.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION

NJJER01102B
151 BERKSHIRE ROAD
NEWTOWN, CT 06470

SHEET TITLE

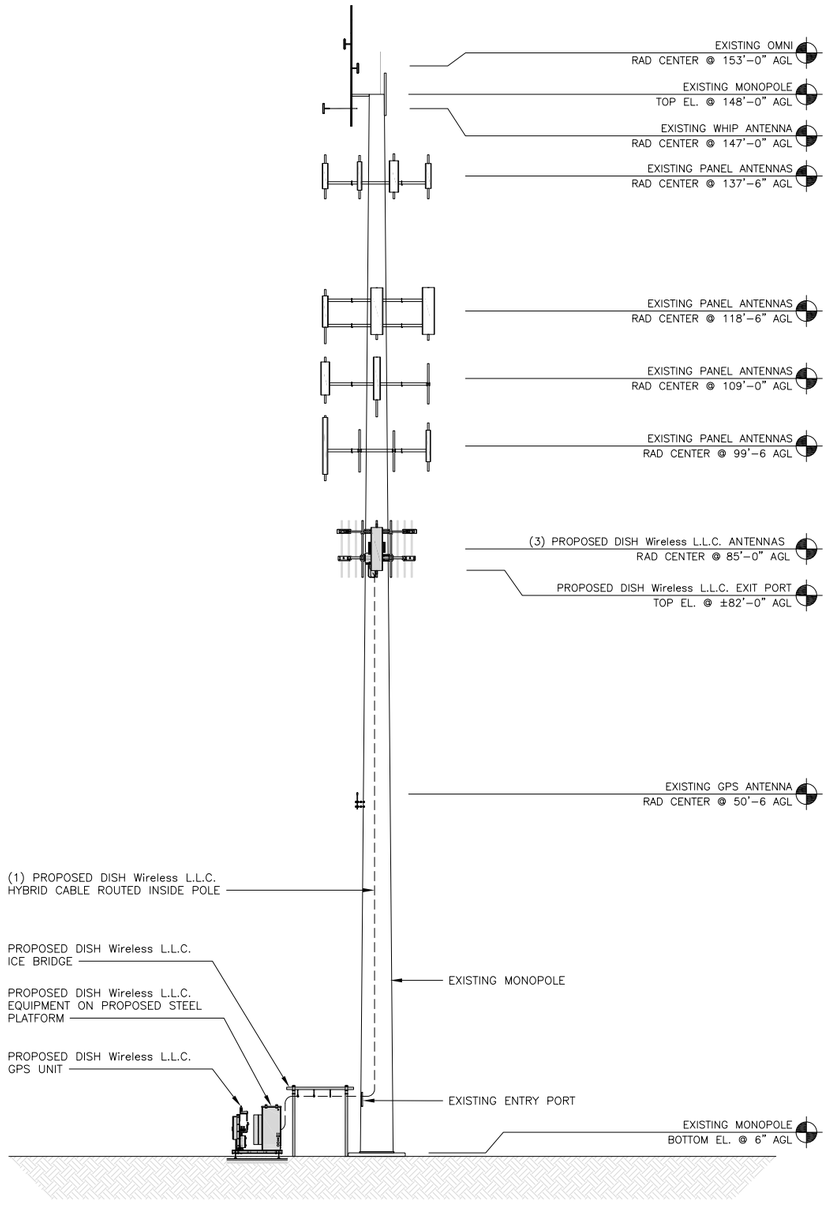
OVERALL AND ENLARGED SITE PLAN

SHEET NUMBER

A-1

NOTES

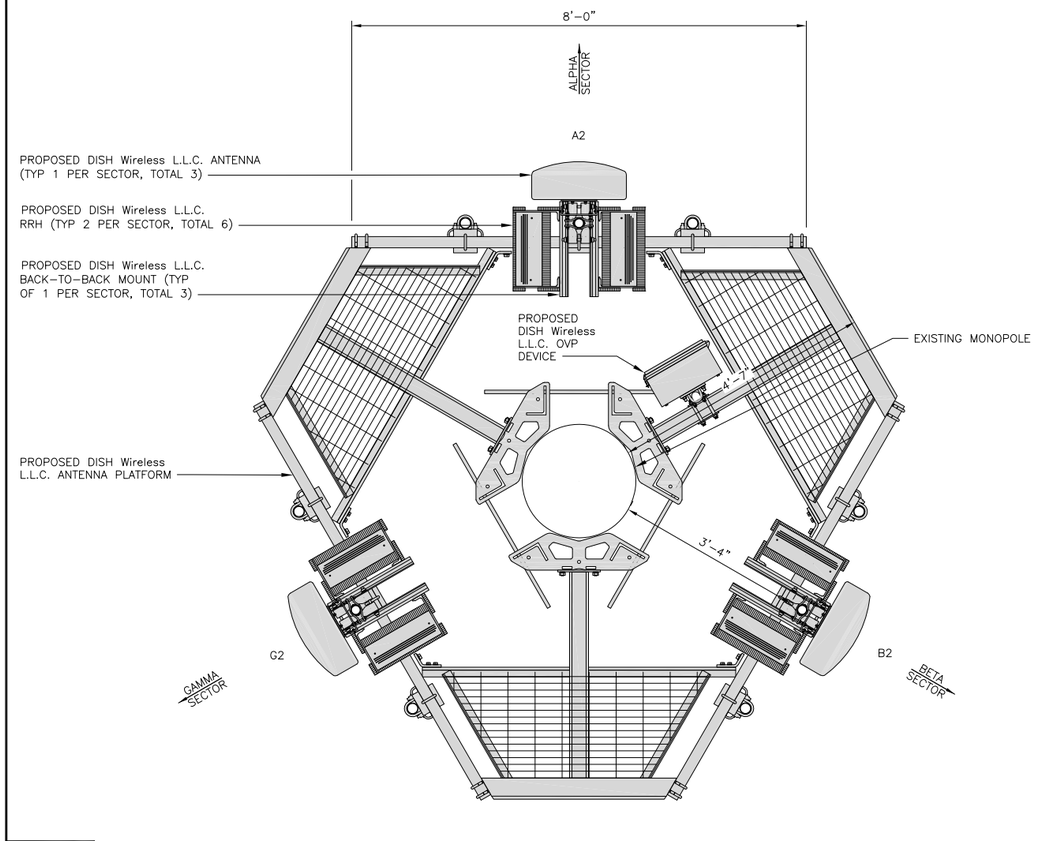
1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. ANTENNA AND MW DISH SPECIFICATIONS REFER TO ANTENNA SCHEDULE AND TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS
3. EXISTING EQUIPMENT AND FENCE OMITTED FOR CLARITY.



PROPOSED EAST ELEVATION

12' 8' 4' 0 10' 20'
3/32"=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
A1	--	--	--	--	--	(1) HIGH-CAPACITY HYBRID CABLE (115' LONG)	FUJITSU – TA08025-B605	5G	A2	(1) RAYCAP RDIDC-9181-PF-48
A2	PROPOSED	COMMSCOPE – FFVV-65B-R2	5G	0°	85'-0"		FUJITSU – TA08025-B604	5G	A2	
A3	--	--	--	--	--		--	--	--	
B1	--	--	--	--	--	SHARED W/ALPHA	FUJITSU – TA08025-B605	5G	B2	SHARED W/ALPHA
B2	PROPOSED	COMMSCOPE – FFVV-65B-R2	5G	120°	85'-0"		FUJITSU – TA08025-B604	5G	B2	
B3	--	--	--	--	--		--	--	--	
C1	--	--	--	--	--	SHARED W/ALPHA	FUJITSU – TA08025-B605	5G	C2	SHARED W/ALPHA
C2	PROPOSED	COMMSCOPE – FFVV-65B-R2	5G	240°	85'-0"		FUJITSU – TA08025-B604	5G	C2	
C3	--	--	--	--	--		--	--	--	

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

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DISH Wireless L.L.C.
PROJECT INFORMATION

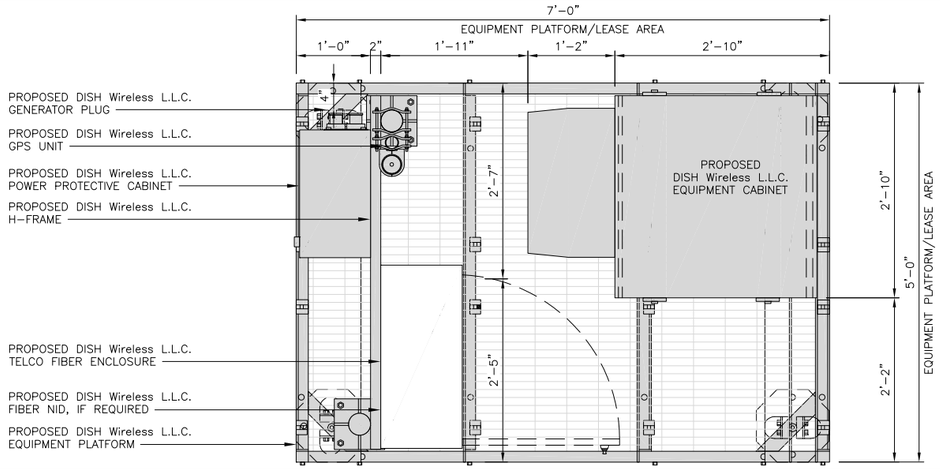
NJJER01102B
151 BERKSHIRE ROAD
NEWTOWN, CT 06470

SHEET TITLE

ELEVATION, ANTENNA LAYOUT AND SCHEDULE

SHEET NUMBER

A-2



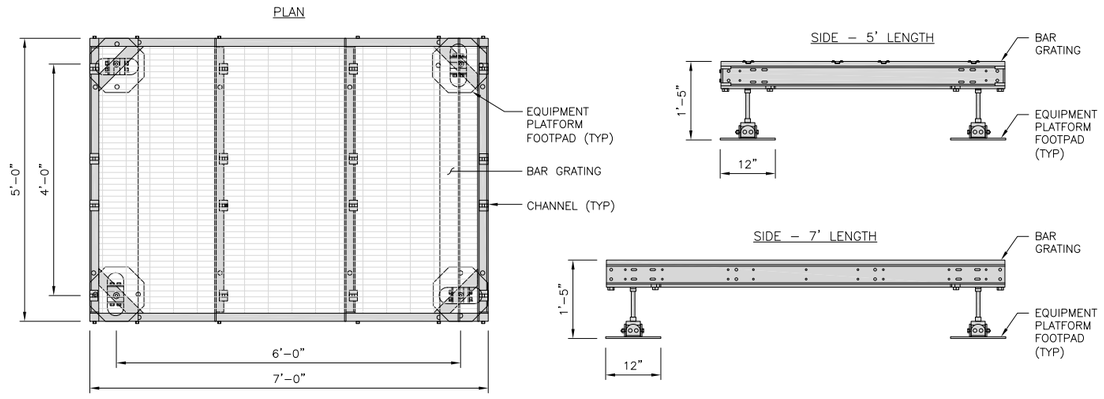
PLATFORM EQUIPMENT PLAN

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

1

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

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



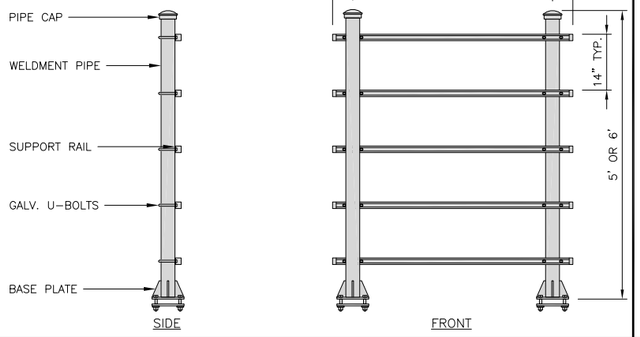
PLATFORM DETAIL

NO SCALE

2

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

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



H-FRAME DETAIL

NO SCALE

3

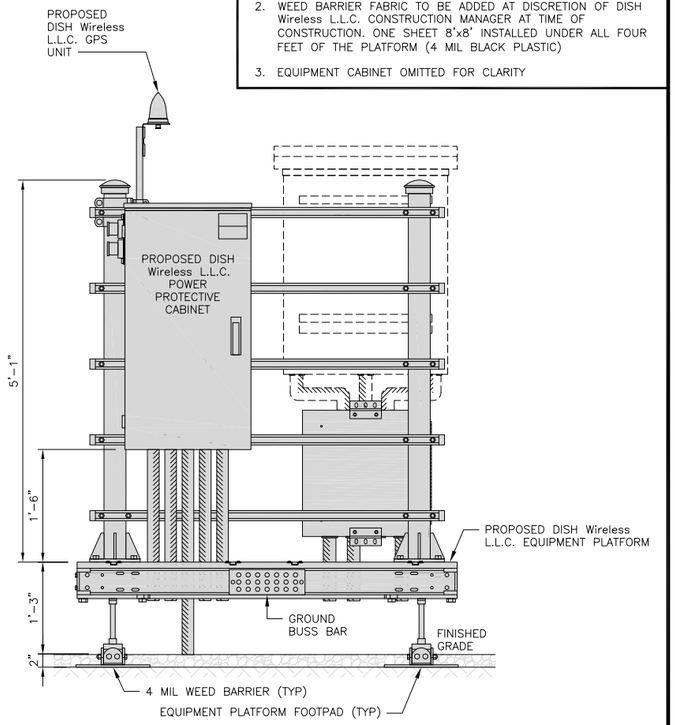
NOT USED

NO SCALE

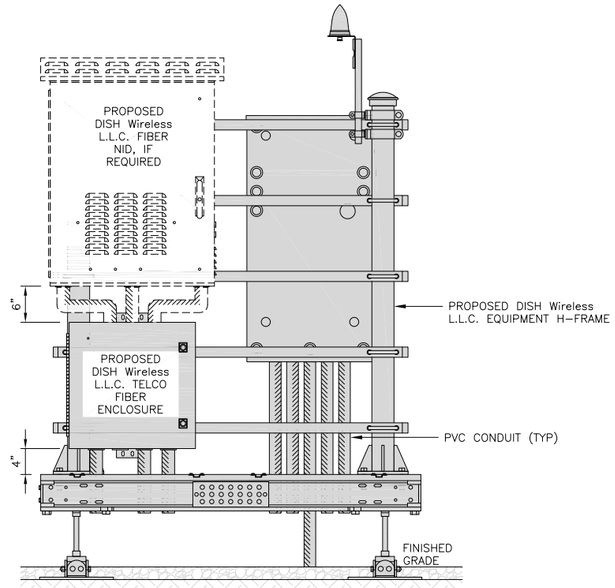
4

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



FRONT ELEVATION



BACK ELEVATION

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

5

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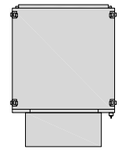
158613.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION
NJJER01102B
151 BERKSHIRE ROAD
NEWTOWN, CT 06470

SHEET TITLE
EQUIPMENT PLATFORM AND H-FRAME DETAILS

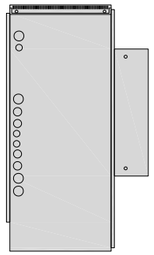
SHEET NUMBER
A-3

ENERSYS HEX 20000059996	
DIMENSIONS (HxWxD)	73"x30"x32"
POWER SYSTEM	-48V ALPHA/600A
HEATER	800W
TOTAL WEIGHT (EMPTY)	376 lbs

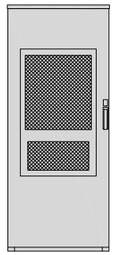


PLAN

BACK



SIDE

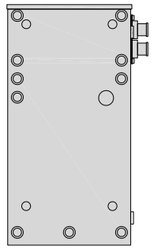


FRONT

CABINET DETAIL — NO SCALE — 1

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

TOP



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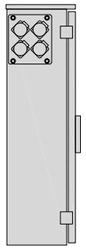
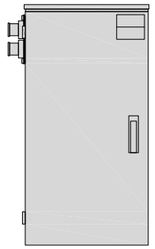
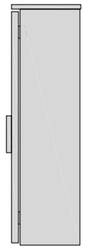


SIDE



FRONT

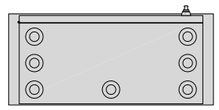


SIDE

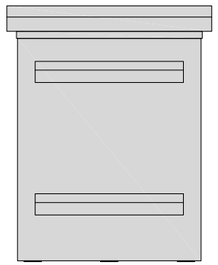
POWER PROTECTION CABINET (PPC) DETAIL — NO SCALE — 2

NOT USED — NO SCALE — 3

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



BOTTOM



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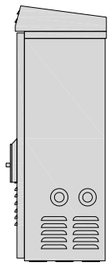
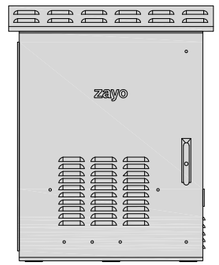


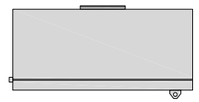
SIDE



FRONT

FIBER NID ENCLOSURE DETAIL — NO SCALE — 4

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



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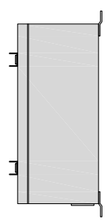

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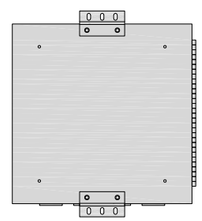
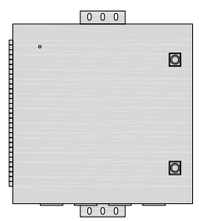


BACK

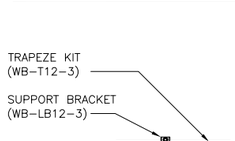


FRONT

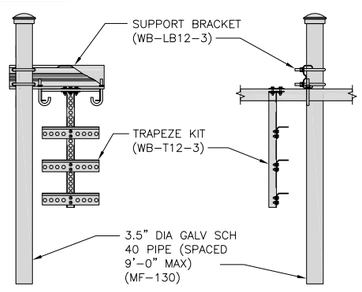
FIBER TELCO ENCLOSURE DETAIL — NO SCALE — 5

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

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

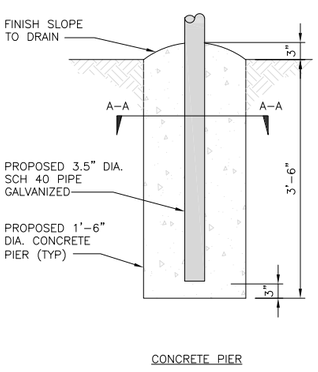


PLAN

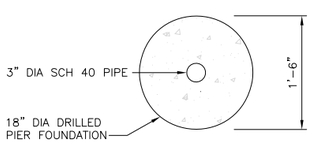


FRONT SIDE

ICE BRIDGE DETAIL — NO SCALE — 7

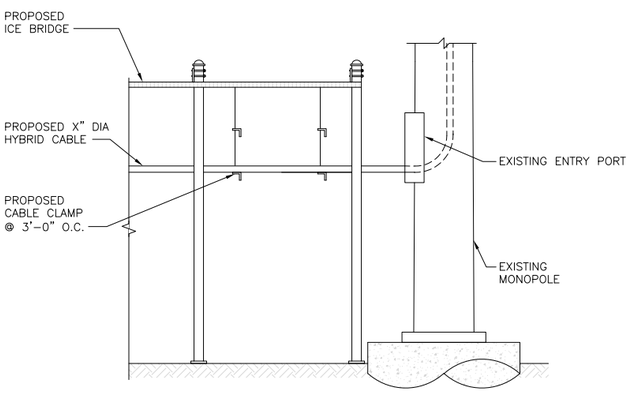


CONCRETE PIER



A-A SECTION

TYPICAL ICE BRIDGE CONCRETE PIER DETAIL — NO SCALE — 8



HYBRID CABLE RUN — NO SCALE — 9

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PROJECT INFORMATION

NJJER01102B
151 BERKSHIRE ROAD
NEWTOWN, CT 06470

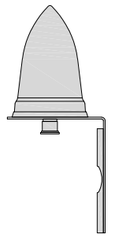
SHEET TITLE

EQUIPMENT DETAILS

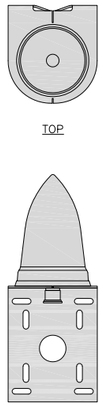
SHEET NUMBER

A-4

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



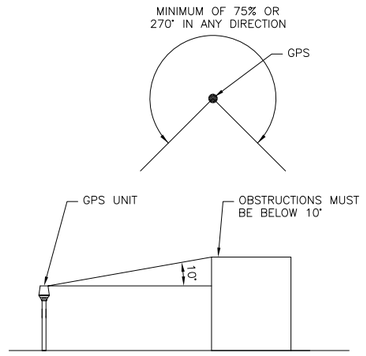
BACK



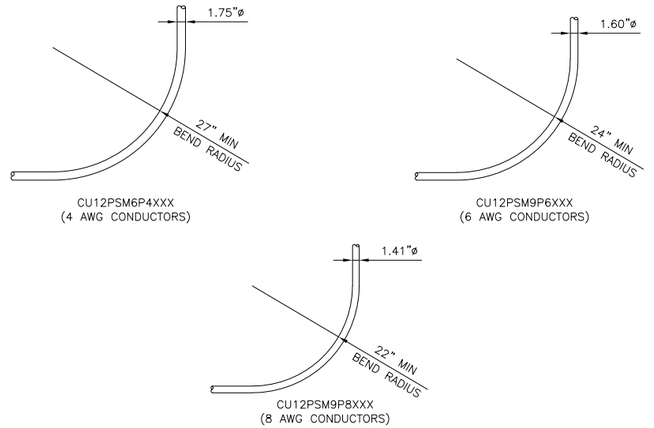
TOP

SIDE

GPS DETAIL | NO SCALE | 1



GPS MINIMUM SKY VIEW REQUIREMENTS | NO SCALE | 2



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

NOT USED | NO SCALE | 4

NOT USED | NO SCALE | 5

NOT USED | NO SCALE | 6

NOT USED | NO SCALE | 7

NOT USED | NO SCALE | 8

NOT USED | NO SCALE | 9

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12/16/21

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

DRAWN BY:	CHECKED BY:	APPROVED BY:
CH	RMC	RMC

RFDS REV #: 1

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	12/6/21	ISSUED FOR REVIEW
0	12/16/21	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER

158613.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION

NJJER01102B
151 BERKSHIRE ROAD
NEWTOWN, CT 06470

SHEET TITLE

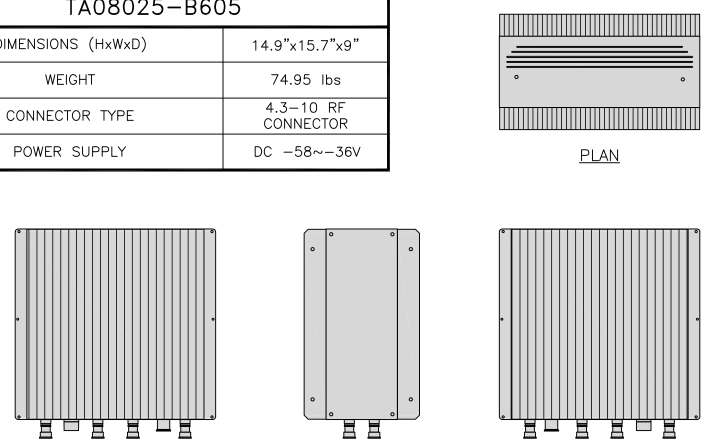
EQUIPMENT DETAILS

SHEET NUMBER

A-5

FUJITSU TRIPLE BAND TA08025-B605

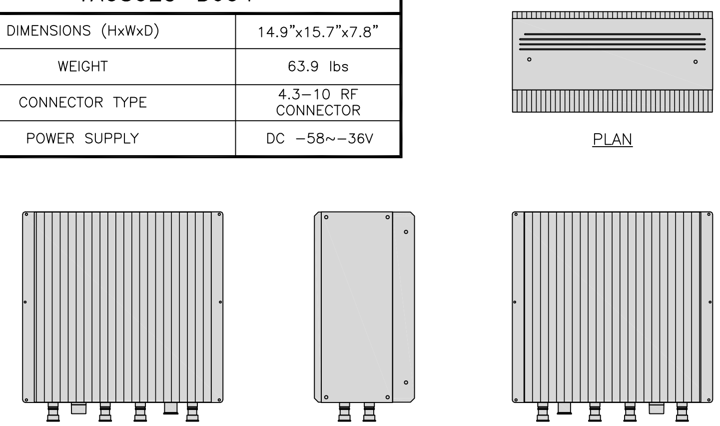
DIMENSIONS (HxWxD)	14.9"x15.7"x9"
WEIGHT	74.95 lbs
CONNECTOR TYPE	4.3-10 RF CONNECTOR
POWER SUPPLY	DC -58~-36V



RRH DETAIL — NO SCALE — 1

FUJITSU DUAL BAND TA08025-B604

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

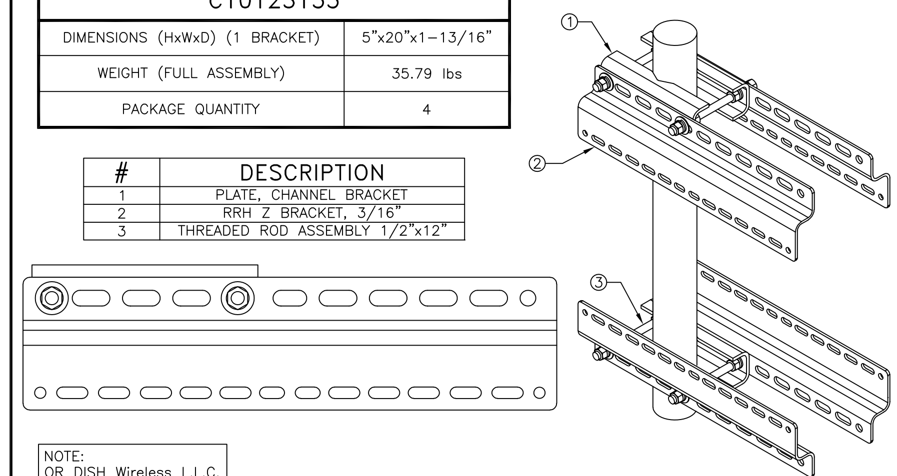


RRH DETAIL — NO SCALE — 2

SABRE DOUBLE Z-BRACKET C10123155

DIMENSIONS (HxWxD) (1 BRACKET)	5"x20"x1-13/16"
WEIGHT (FULL ASSEMBLY)	35.79 lbs
PACKAGE QUANTITY	4

#	DESCRIPTION
1	PLATE, CHANNEL BRACKET
2	RRH Z BRACKET, 3/16"
3	THREADED ROD ASSEMBLY 1/2"x12"

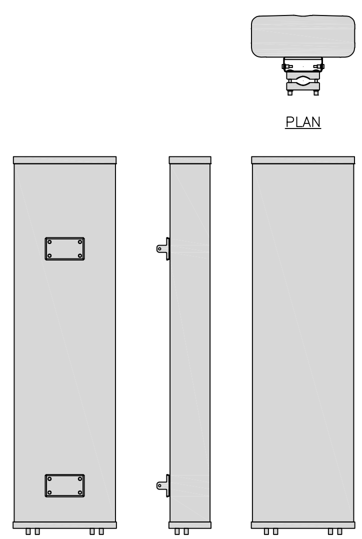


NOTE:
OR DISH Wireless L.L.C. APPROVED EQUIVALENT

RRH MOUNT DETAIL — NO SCALE — 3

COMMSCOPE FFVV-65B-R2

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



ANTENNA DETAIL — NO SCALE — 4

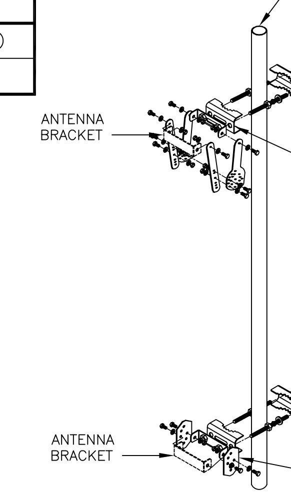
NOT USED — NO SCALE — 5

JMA ANTENNA MOUNT BRACKET #91900318

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

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

ANTENNA BRACKET NOT PART OF KIT

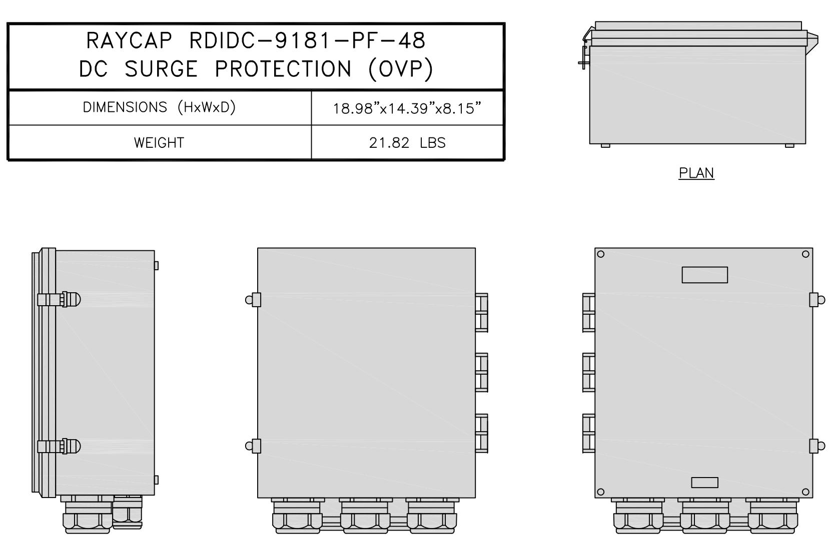


NOTE:
OR DISH Wireless L.L.C. APPROVED EQUIVALENT

ANTENNA BRACKET DETAIL — NO SCALE — 6

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

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

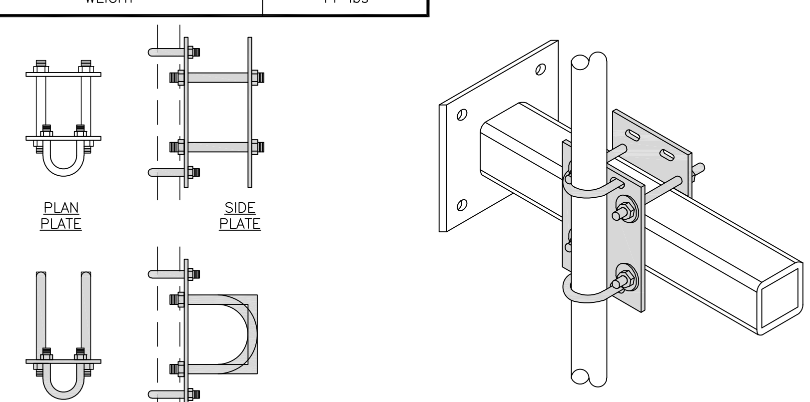


SURGE SUPPRESSION DETAIL (OVP) — NO SCALE — 7

COMMSCOPE XP-2040 CROSSOVER PLATE

DIMENSIONS (HxW)	10"x12"
WEIGHT	11 lbs

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

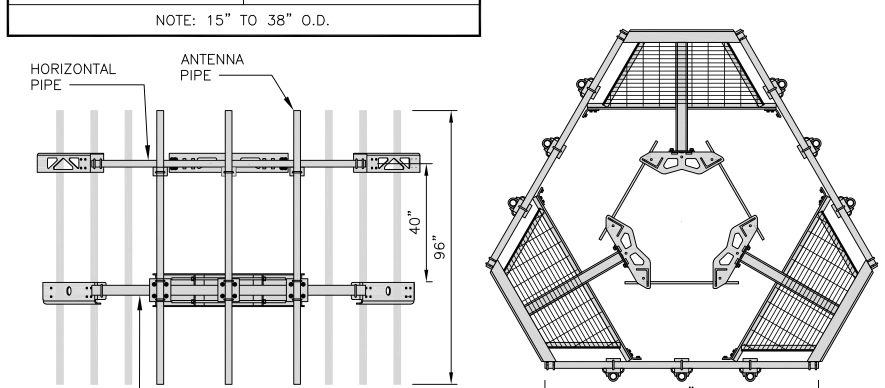


RRH/OVP MOUNT DETAIL — NO SCALE — 8

COMMSCOPE MC-PK8-DSH

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

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



ANTENNA PLATFORM DETAIL — NO SCALE — 9

DISH Wireless L.L.C. TEMPLATE VERSION 45 – 10/08/2021

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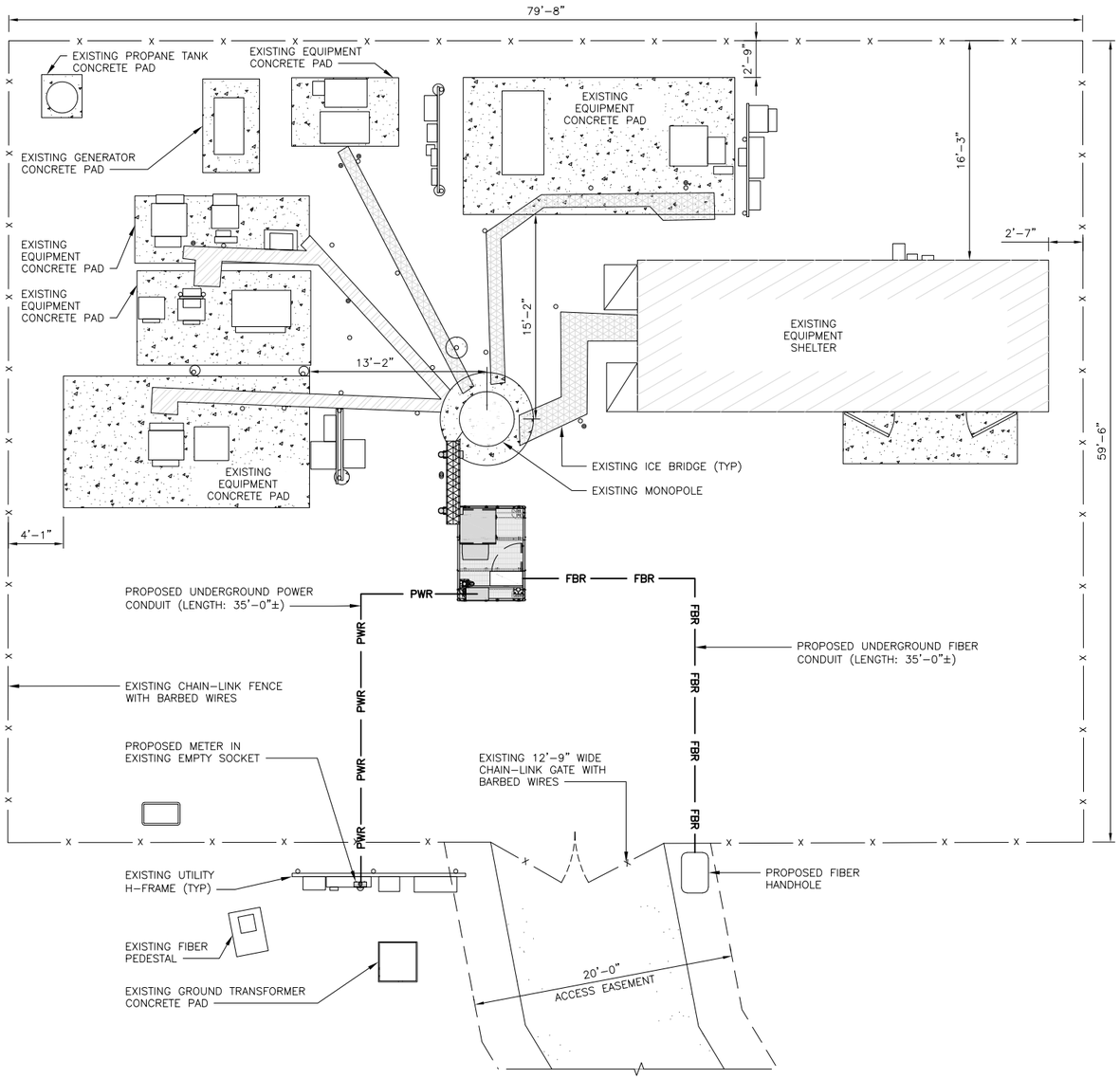
DISH Wireless L.L.C. PROJECT INFORMATION
NJJER01102B
151 BERKSHIRE ROAD
NEWTOWN, CT 06470

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 TOWER OWNER AS FURTHER COORDINATION MAY BE NEEDED.



UTILITY ROUTE PLAN

6' 4' 2' 0 5' 10'
3/16"=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

NOT USED

NO SCALE

2

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DISH Wireless L.L.C.
PROJECT INFORMATION

NJJER01102B
151 BERKSHIRE ROAD
NEWTOWN, CT 06470

SHEET TITLE

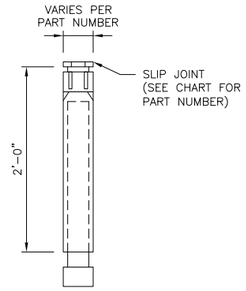
ELECTRICAL/FIBER ROUTE PLAN AND NOTES

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"

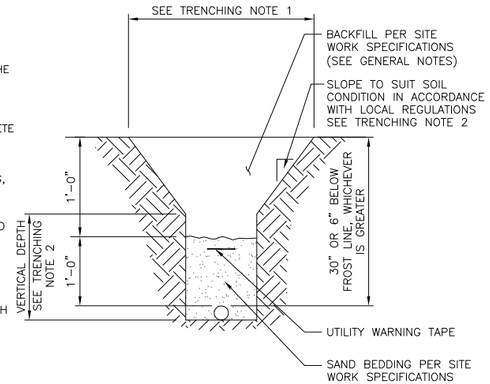


NOTE:
CONTRACTOR TO INSTALL EXPANSION FITTING SLIP JOINT AT METER CENTER CONDUIT TERMINATION, AS PER LOCAL UTILITY POLICY, ORDINANCE AND/OR SPECIFIED REQUIREMENT.

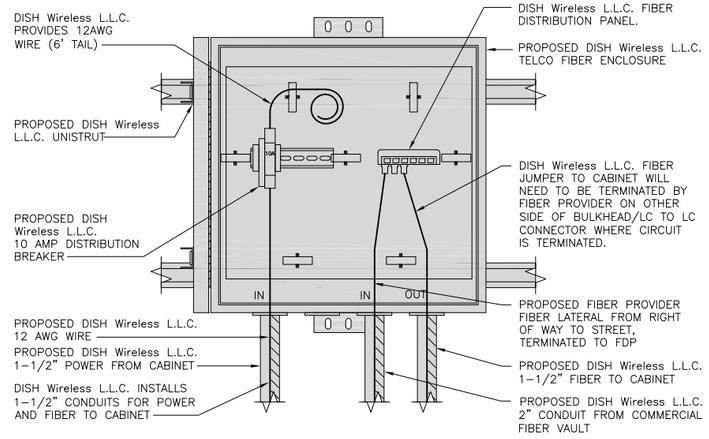
EXPANSION JOINT DETAIL | NO SCALE | 1

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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PROJECT INFORMATION

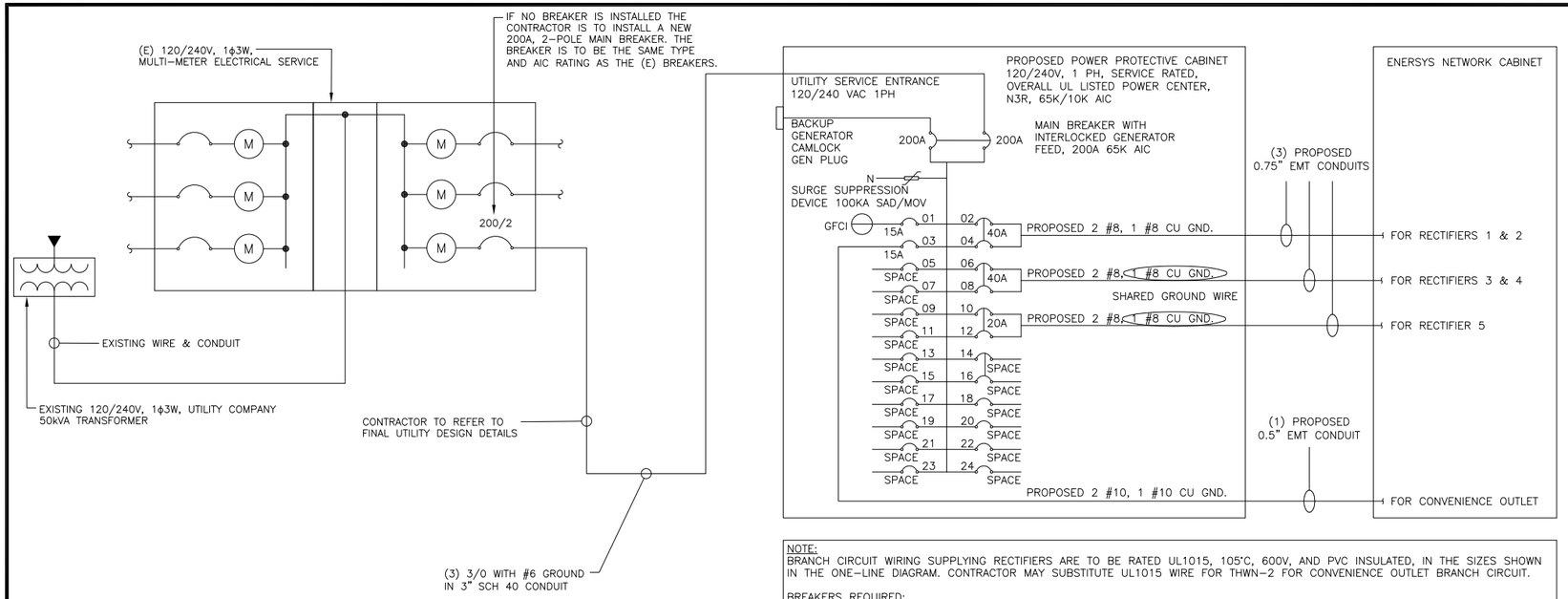
NJJER01102B
151 BERKSHIRE ROAD
NEWTOWN, CT 06470

SHEET TITLE

ELECTRICAL DETAILS

SHEET NUMBER

E-2



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

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

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.

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

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

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

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

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

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

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

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

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

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

PPC ONE-LINE DIAGRAM

NO SCALE | 1

PROPOSED ENERSYS PANEL SCHEDULE

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

PANEL SCHEDULE | NO SCALE | 2

NOT USED | NO SCALE | 3

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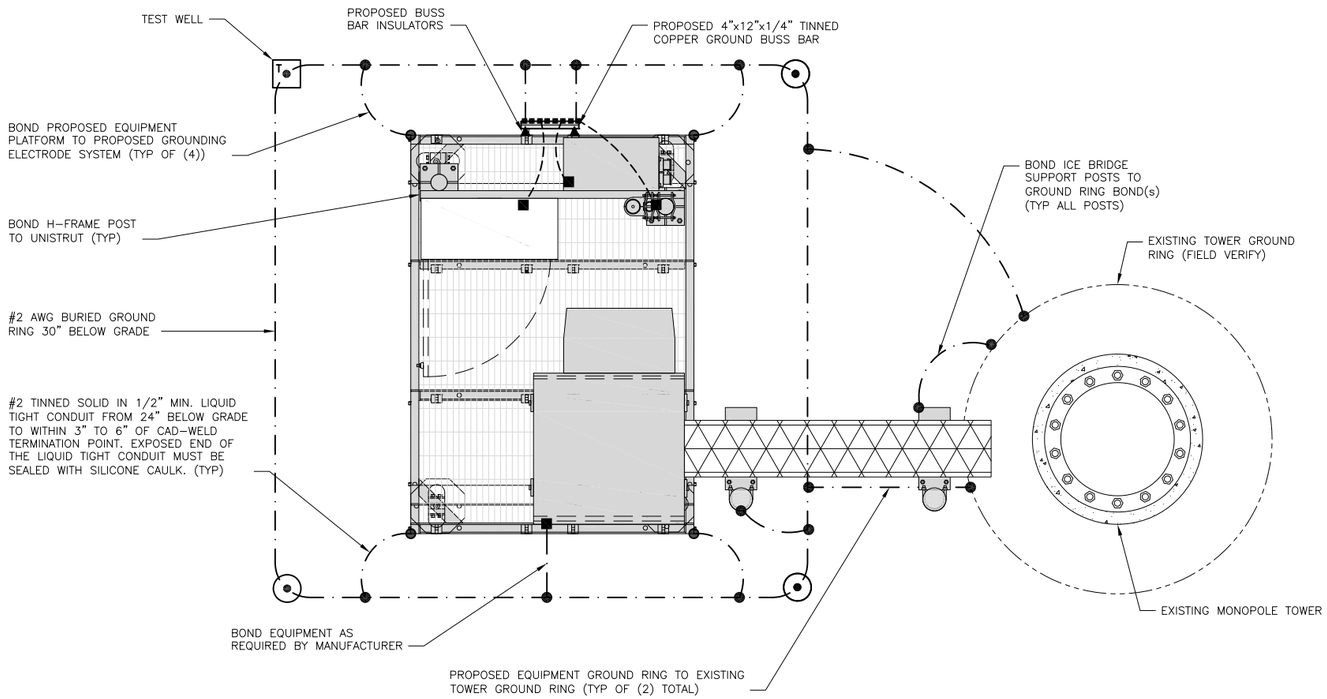
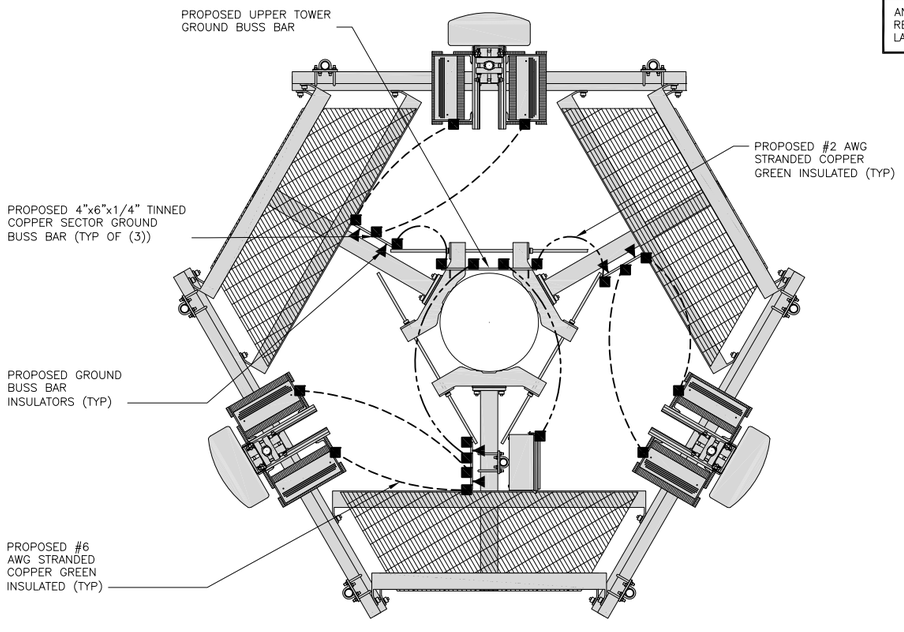
NJJER01102B
151 BERKSHIRE ROAD
NEWTOWN, CT 06470

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

SHEET NUMBER
E-3



TYPICAL EQUIPMENT GROUNDING PLAN | NO SCALE | 1



TYPICAL ANTENNA GROUNDING PLAN | NO SCALE | 2

NOTES

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

- EXOTHERMIC CONNECTION
- MECHANICAL CONNECTION
- GROUND BUS BAR
- GROUND ROD
- TEST GROUND ROD WITH INSPECTION SLEEVE
- #6 AWG STRANDED & INSULATED
- #2 AWG SOLID COPPER TINNED
- #2 AWG STRANDED & INSULATED
- 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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CHAD TUTTLE
No. 23924
LICENSED
PROFESSIONAL ENGINEER
12/16/21
B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/22

DRAWN BY:	CHECKED BY:	APPROVED BY:
CH	RMC	RMC

RFDS REV #: 1

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
A	12/6/21	ISSUED FOR REVIEW
0	12/16/21	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER

158613.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION

NJJER01102B
151 BERKSHIRE ROAD
NEWTOWN, CT 06470

SHEET TITLE

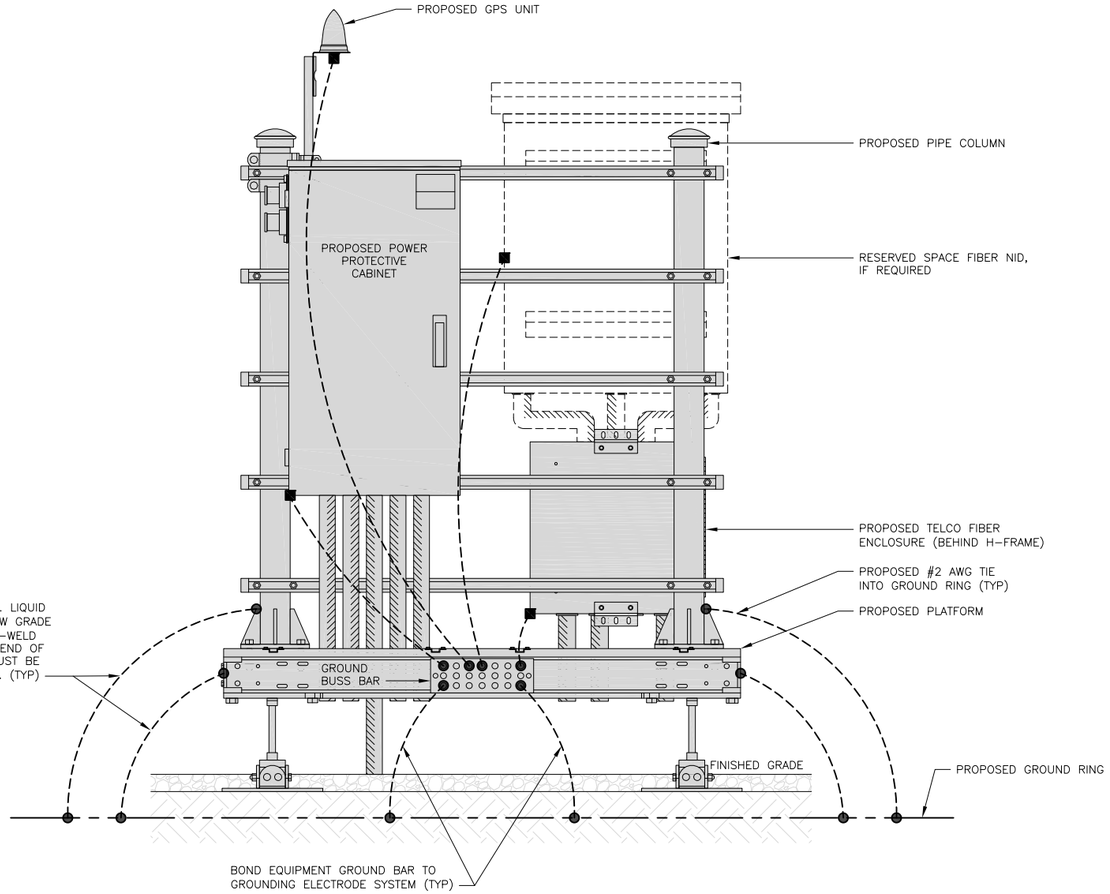
GROUNDING PLANS AND NOTES

SHEET NUMBER

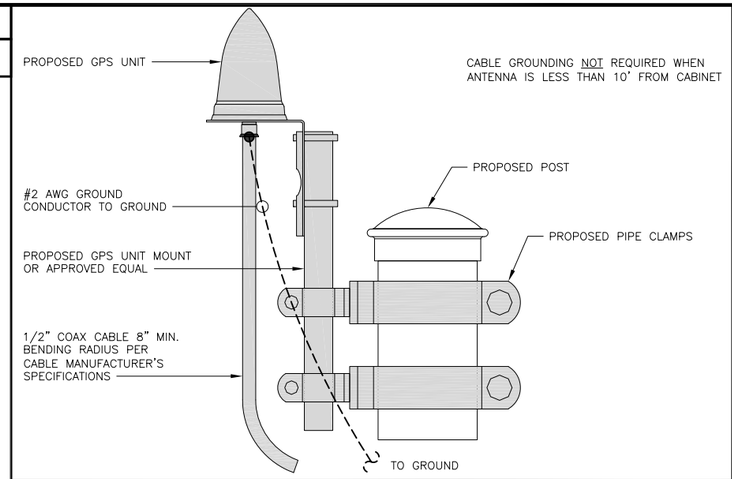
G-1

NOTES

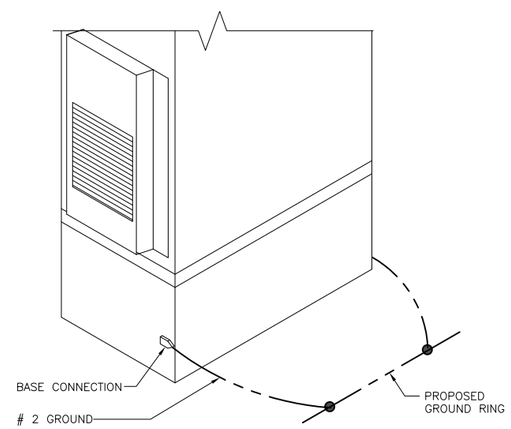
EQUIPMENT CABINET OMITTED FOR CLARITY



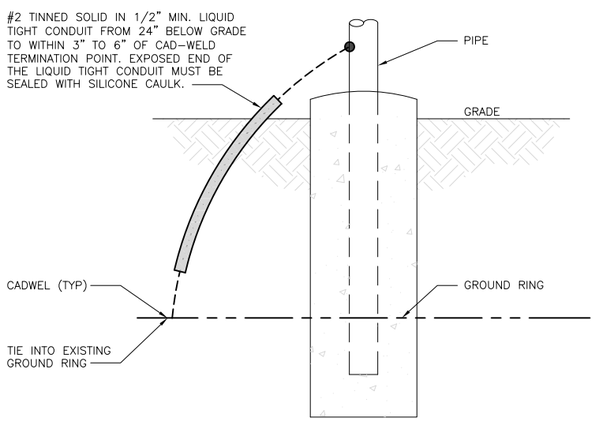
H-FRAME GROUNDING DETAIL | NO SCALE | 1



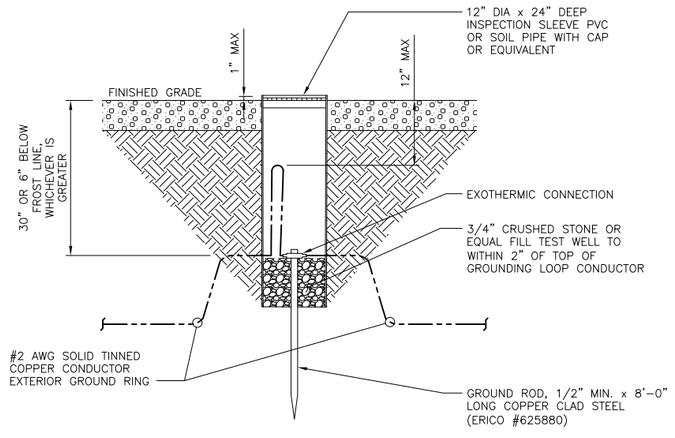
TYPICAL GPS UNIT GROUNDING | NO SCALE | 2



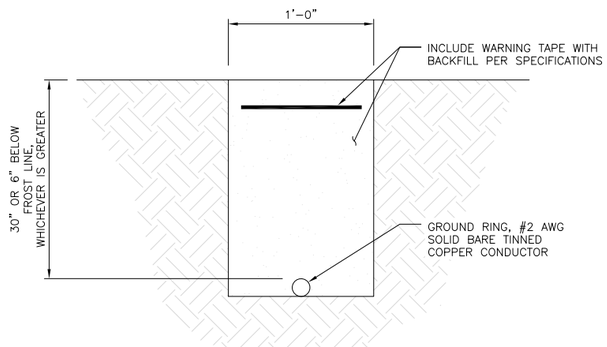
OUTDOOR CABINET GROUNDING | NO SCALE | 3



TRANSITIONING GROUND DETAIL | NO SCALE | 4



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



TYPICAL GROUND RING TRENCH | NO SCALE | 6

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SHEET TITLE

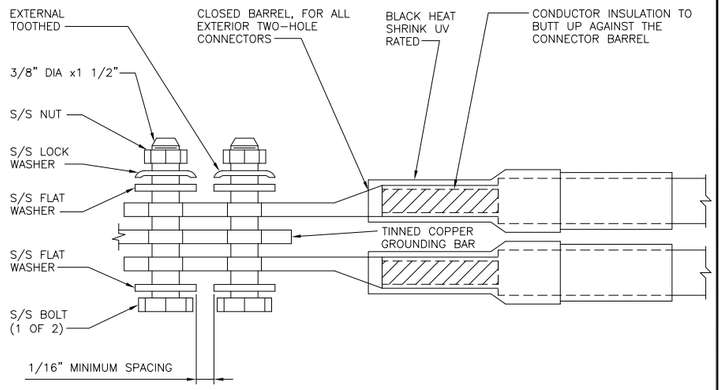
GROUNDING DETAILS

SHEET NUMBER

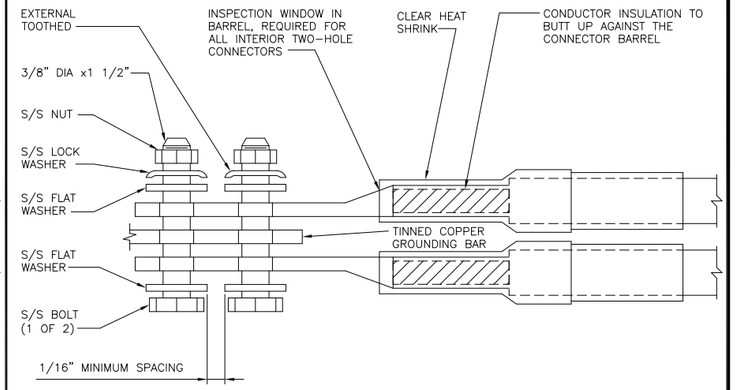
G-2

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

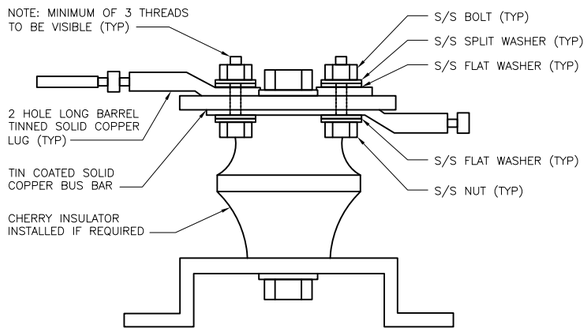
TYPICAL GROUNDING NOTES | NO SCALE | 1



TYPICAL EXTERIOR TWO HOLE LUG | NO SCALE | 2



TYPICAL INTERIOR TWO HOLE LUG | NO SCALE | 3



LUG DETAIL | NO SCALE | 4

NOT USED | NO SCALE | 5

NOT USED | NO SCALE | 6

NOT USED | NO SCALE | 7

NOT USED | NO SCALE | 8

NOT USED | NO SCALE | 9

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SHEET TITLE

GROUNDING DETAILS

SHEET NUMBER

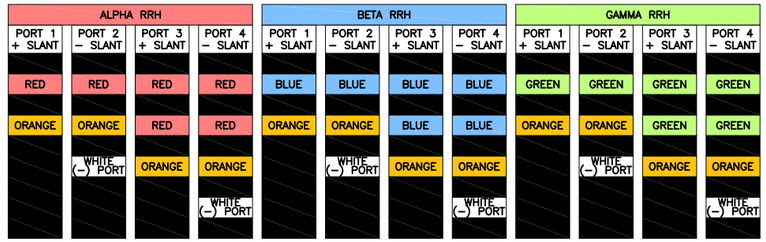
G-3

HYBRID/DISCREET CABLES

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

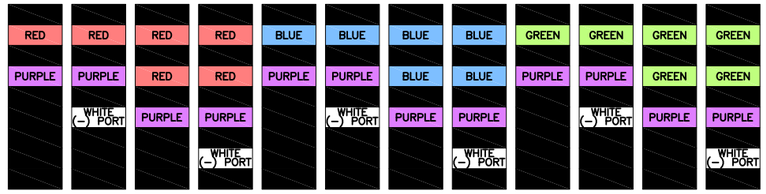
LOW–BAND RRH
(600 MHz N71 BASEBAND) +
(850 MHz N26 BAND) +
(700 MHz N29 BAND) – OPTIONAL PER MARKET

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



MID–BAND RRH
(AWS BANDS N66+N70)

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



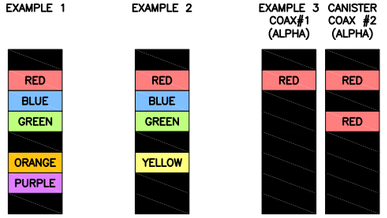
HYBRID/DISCREET CABLES

INCLUDE SECTOR BANDS BEING SUPPORTED ALONG WITH FREQUENCY BANDS.

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

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

EXAMPLE 3 – MAIN COAX WITH GROUND MOUNTED RRHs.



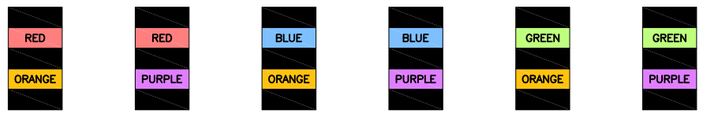
CONTRACTOR TO REFER TO FINAL CONSTRUCTION RFDS FOR ALL RD DETAILS. FINAL RFDS IS IN NEXSYSONE.

FIBER JUMPERS TO RRHs

LOW–BAND HHR FIBER CABLES HAVE SECTOR STRIPE ONLY.

POWER CABLES TO RRHs

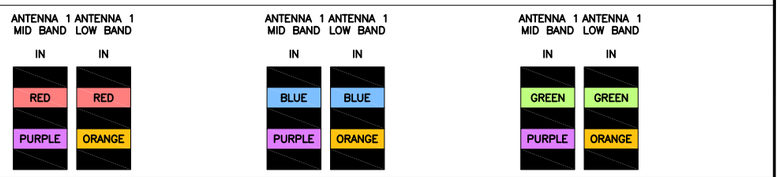
LOW–BAND RRH POWER CABLES HAVE SECTOR STRIPE ONLY



RET MOTORS AT ANTENNAS

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

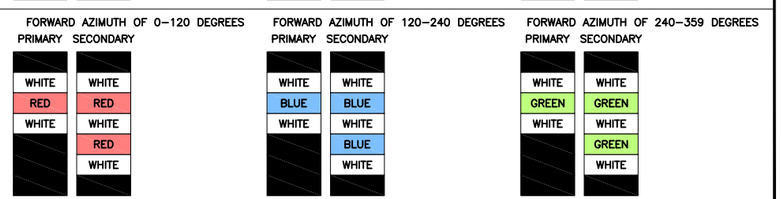
SEPARATE RET CABLES ARE USED WHEN ANTENNA PORTS PROVIDE INPUTS FOR BOTH LOW AND MID BANDS.



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.



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

AWS
(N66+N70+H–BLOCK)
PURPLE

CBRS TECH
(3 GHz)
YELLOW

NEGATIVE SLANT PORT
ON ANT/RRH
WHITE

ALPHA SECTOR
RED

BETA SECTOR
BLUE

GAMMA SECTOR
GREEN

NOT USED

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DISH Wireless L.L.C.
PROJECT INFORMATION
NJJER01102B
151 BERKSHIRE ROAD
NEWTOWN, CT 06470

SHEET TITLE
RF
CABLE COLOR CODES

SHEET NUMBER
RF-1

EXOTHERMIC CONNECTION

MECHANICAL CONNECTION

BUSS BAR INSULATOR

CHEMICAL ELECTROLYTIC GROUNDING SYSTEM

TEST CHEMICAL ELECTROLYTIC GROUNDING SYSTEM

EXOTHERMIC WITH INSPECTION SLEEVE

GROUNDING BAR

GROUND ROD

TEST GROUND ROD WITH INSPECTION SLEEVE

SINGLE POLE SWITCH

DUPLEX RECEPTACLE

DUPLEX GFCI RECEPTACLE

FLUORESCENT LIGHTING FIXTURE (2) TWO LAMPS 48–T8

SMOKE DETECTION (DC)

EMERGENCY LIGHTING (DC)

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

CHAIN LINK FENCE

WOOD/WROUGHT IRON FENCE

WALL STRUCTURE

LEASE AREA

PROPERTY LINE (PL)

SETBACKS

ICE BRIDGE

CABLE TRAY

WATER LINE

UNDERGROUND POWER

UNDERGROUND TELCO

OVERHEAD POWER

OVERHEAD TELCO

UNDERGROUND TELCO/POWER

ABOVE GROUND POWER

ABOVE GROUND TELCO

ABOVE GROUND TELCO/POWER

WORKPOINT

W.P.

SECTION REFERENCE

XX
X–X

DETAIL REFERENCE

XX
X–X

LEGEND

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

ABBREVIATIONS

dish wireless.

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PROJECT INFORMATION

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151 BERKSHIRE ROAD
NEWTOWN, CT 06470

SHEET TITLE

LEGEND AND ABBREVIATIONS

SHEET NUMBER

GN-1

SITE ACTIVITY REQUIREMENTS:

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

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

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

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

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

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

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

7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.

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

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

10. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION E) CONSTRUCTION SAFETY PROCEDURES.

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

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

13. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF DISH Wireless L.L.C. AND TOWER OWNER, AND/OR LOCAL UTILITIES.

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

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

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

17. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.

18. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.

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

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

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

22. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

GENERAL NOTES:

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

CONTRACTOR:GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION

CARRIER:DISH Wireless L.L.C.

TOWER OWNER:TOWER OWNER

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

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

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

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

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

7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.

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

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

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

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

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

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

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

dish wireless.

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CHAD TUTTLE
No. 23924
LICENSED
PROFESSIONAL ENGINEER

12/16/21

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

DRAWN BY:	CHECKED BY:	APPROVED BY:
CH	RMC	RMC

RFDS REV #: 1

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
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0	12/16/21	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER

158613.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION

NJJER01102B
151 BERKSHIRE ROAD
NEWTOWN, CT 06470

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-2

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

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

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

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

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

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

#4 BARS AND SMALLER 40 ksi

#5 BARS AND LARGER 60 ksi

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

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

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

ELECTRICAL INSTALLATION NOTES:

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

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

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

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

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

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

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

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

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

8. TIE WRAPS ARE NOT ALLOWED.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

dish wireless

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12/16/21

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

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CH	RMC	RMC

RFDS REV #: 1

CONSTRUCTION DOCUMENTS

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158613.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION

NJJER01102B
151 BERKSHIRE ROAD
NEWTOWN, CT 06470

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-3

GROUNDING NOTES:

1. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GES'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.

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

3. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.

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

5. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.

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

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

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

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

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

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

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

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

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

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

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

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

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

19. GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (i.e., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.

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

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

dish wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

SBA

8051 CONGRESS AVENUE
BOCA RATON, FL 33487

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

12/16/21

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

DRAWN BY:	CHECKED BY:	APPROVED BY:
CH	RMC	RMC

RFDS REV #: 1

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
A	12/6/21	ISSUED FOR REVIEW
0	12/16/21	ISSUED FOR CONSTRUCTION

A&E PROJECT NUMBER

158613.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION

NJJER01102B
151 BERKSHIRE ROAD
NEWTOWN, CT 06470

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-4

Exhibit D

Structural Analysis Report

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

T + 561 995 7670
F + 561 995 7626

sbasite.com

Structural Analysis Report

Client: Dish Wireless

Client Site ID / Name: NJJER01102B / 0
Application #: 163805, v1

SBA Site ID / Name: CT13057-A / Newtown

148 ft Monopole

151 Berkshire Road
Newtown, Connecticut 06470
Lat: 41.397375, Long: -73.236069

Project number: CT13057-DW-060722

Analysis Results

Tower	99.8%	Pass
Foundation	56.0%	Pass

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

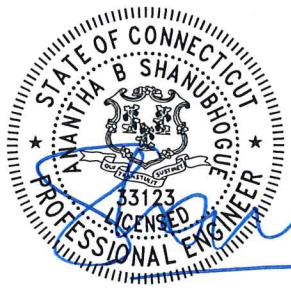
Prepared by:

Serge Berthomieux
Structural Engineer I
561-226-9365
SBerthomieux@sbasite.com

Reviewed by:

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

June 7, 2022



06/07/22

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Senior Manager, Structural Engineering
561-981-7390
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June 7, 2022

Table of Contents

Introduction

The purpose of this report is to summarize the analysis results on the 148 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	PennSummit/PJF, Job # 29203-0081, dated 4/22/2003
Foundation drawings	PennSummit/PJF, Job # 29203-0081, dated 4/28/2003
Geotechnical report	Dennis Morrissey, dated 06/20/2002
Mount MOD Drawing	Colliers Engineering & Design, Job # 21777745A, dated 12/17/2021
Post-MOD	Maser Consulting Connecticut, Project # 21777745A (Rev 1), dated 12/17/2021
Modification drawings	N/A
Latest SA	SBAE, Project # CT13057-VZW-021422, dated 02/21/2022

Analysis Criteria

Table 2 Code Related Data

Jurisdiction (State/County/City)	Connecticut/Fairfield/Newtown
Governing Codes	ANSI/TIA/EIA 222-G, 2015 IBC / 2018 CSBC
Basic Wind Speed (3-Sec gust)	93.0 mph (Ultimate Wind Speed: 120 mph)
Wind Speed with Ice (3-Sec gust)	50 mph
Service Wind Speed (3-Sec gust)	60 mph
Ice Thickness	0.75”
Structural Class*	II
Exposure Category	C
Topographic Category	1
Crest Height	0 ft
Ground Elevation	602.3 ft.
Seismic Parameter S_s**	0.208
Seismic Parameter S_1	0.066

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

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

Appurtenance Loading

Existing Loading:

Table 3 Existing Appurtenances

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1	148.0	1	Decibel - DB-TDD6492A-A - Whip	(1) 2 ft. Standoff	(1) 7/8"	Town of Newtown
2	147.0	1	Trombone - Whip		(1) 7/8"	
7	137.5	3	Swedcom SC-E 6014 Rev2 - Panel	(1) Low Profile Platform Modified	(6) 1 5/8" (1) 1/2" (1) 12x24 Hybrid	Verizon
8		6	JMA Wireless MX06FRO660-03 - Panel			
9		3	Samsung MT6407-77A - Panel			
10		3	Commscope TD-850B-LTE78-43			
11		3	Samsung RF4439d-25A RRU			
12		3	Samsung RF4440d-13A RRU			
13		1	Commscope FE-16148-OVP-B12 Junction Box			
14	118.5	3	Powerwave 7770 - Panel	Low Profile Platform + (1) RRH Collar Mount w/SitePro Sitepro 1 P/N HRK12-Handrail Kit/3 2-1/2" std. (2.88" O.D.)-Pipe Mast	(6) 1 5/8" (2) 1/2" Fiber (4) 3/4" DC	AT&T
15		6	Powerwave LGP21401 TMA			
16		2	Raycap DC6-48-60-18-8F (24x11" 32.8 lbs))			
17		6	Kathrein 800-10965 - Panel			
18		3	Ericsson 4449 B5/B12 RRU			
19		3	Ericsson RRUS 8843 B2 B66A RRU			
20	109.0	3	RFS APXVSPP18-C-A20 - Panel	(3) T-Arms w/ Working Platforms	(4) 1 1/4"	Sprint
21		3	RFS APXVTM14-C-I20 - Panel			
22		3	ALU 1900MHz RRH - RRU			
23		3	ALU 800 MHz RRH - RRU			
24		3	ALU 800MHz RRH Filter			
25		3	ALU TD-RRH8x20 - RRU			
26		4	RFS ACU-A20-N - RET			
27	99.5	6	Commscope - RR65-18-00DPL2 - Panel	Platform w/ Hand Rail	(12) 1 1/4"	T-Mobile
28		3	RFS APXV18-206513-C-A20 - Panel			
29		3	Commscope LNX-6515DS-A1M - Panel			
30		3	RFS ATMAA1412D-1A2 - TMA			
31		3	Kathrein 782 11054 - Bias Ts			
36	50.5	1	Decibel - 260B - GPS	(1) 3ft. Standoff	(1) 1/2"	Sprint

Proposed Loading:

Information pertaining to proposed antennas and transmission lines were based upon the Application #: 163805, 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
32	85.0	3	Commscope FFVV-65B-R2 - Panel	(1) Platform w/HRK Commscope: MC-PK8-DSH	(1) 1.75" Hybrid	Dish Wireless
33		3	Fujitsu TA08025-B605 RRU			
34		3	Fujitsu TA08025-B604 RRU			
35		1	Raycap RDIDC-9181-PF-48			

Analysis Results

Tower

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

Table 5 Tower Analysis Summary

	Pole shafts	Anchor Bolts	Base Plate	Flange Connection
Max. Usage:	69.5%	65.1%	71.0%	99.8%
Pass/Fail	Pass	Pass	Pass	Pass

Foundation

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

Table 6 Foundation Analysis Summary

Structural Component	Max Usage (%)	Analysis Result
Foundation	56.0%	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.

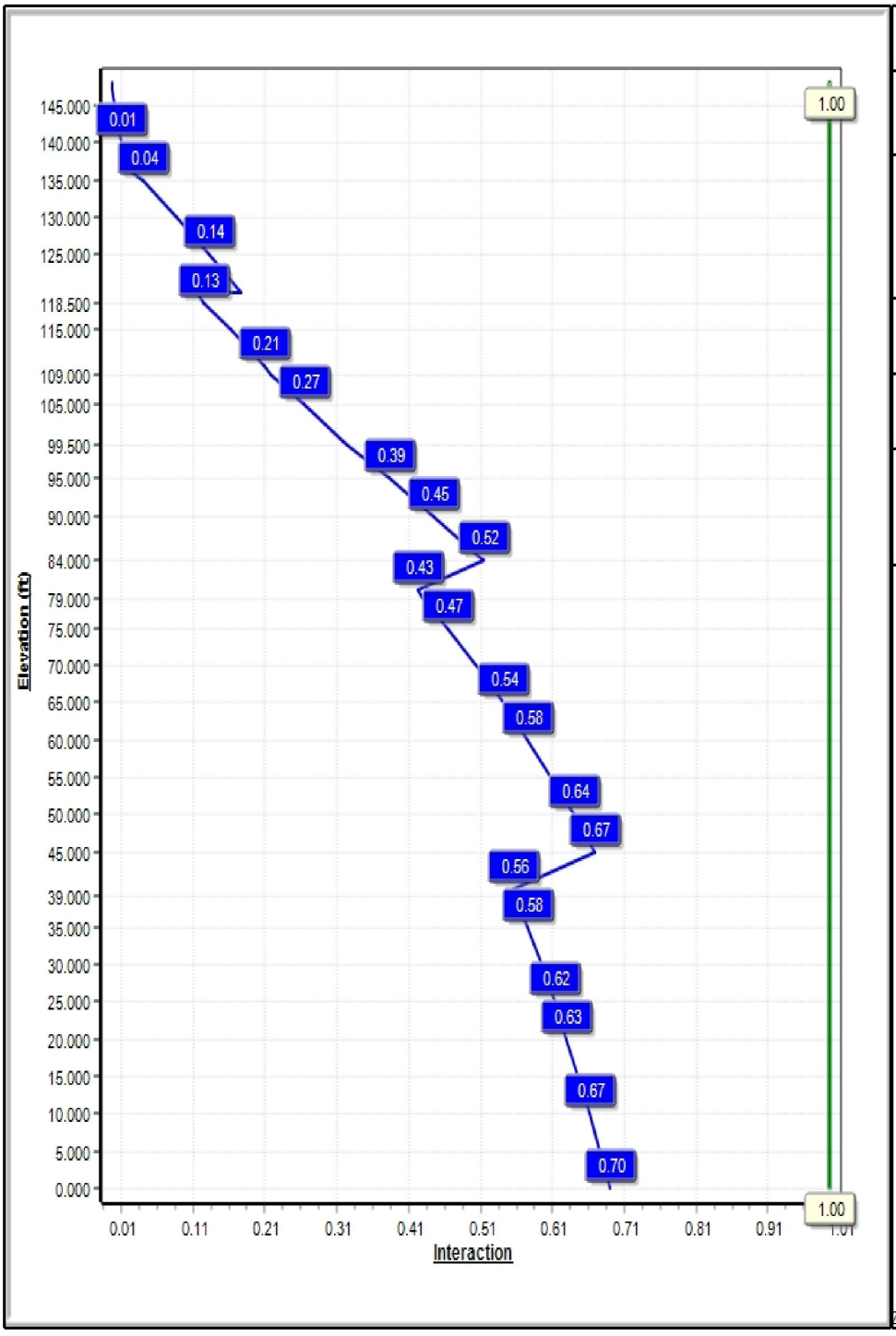
Appendix

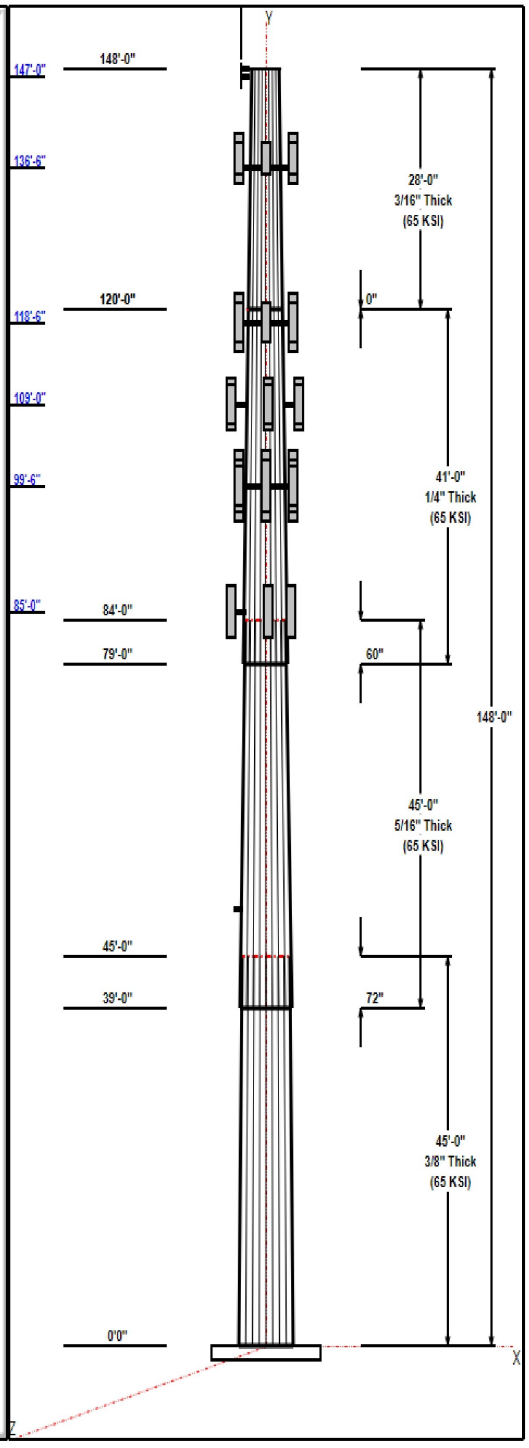
Usage Diagram - Max Ratio 69.55% at 0.0ft

Structure:	CT13057-A	**Code:**	EIA/TIA-222-G	6/7/2022
Site Name:	Newtown	**Exposure:**	C	
Height:	148.00 (ft)	**Gh:**	1.1	
Base Elev:	0.000 (ft)			Page: 1

Dead Load Factor:	1.20	**Iterations:**	24
Wind Load Factor:	1.60		

Load Case : 1.2D + 1.6W 93 mph Wind





Structure: CT13057-A

Type: Tapered
Site Name: Newtown
Height: 148.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: 18 Sided
Taper: 0.20983

6/7/2022

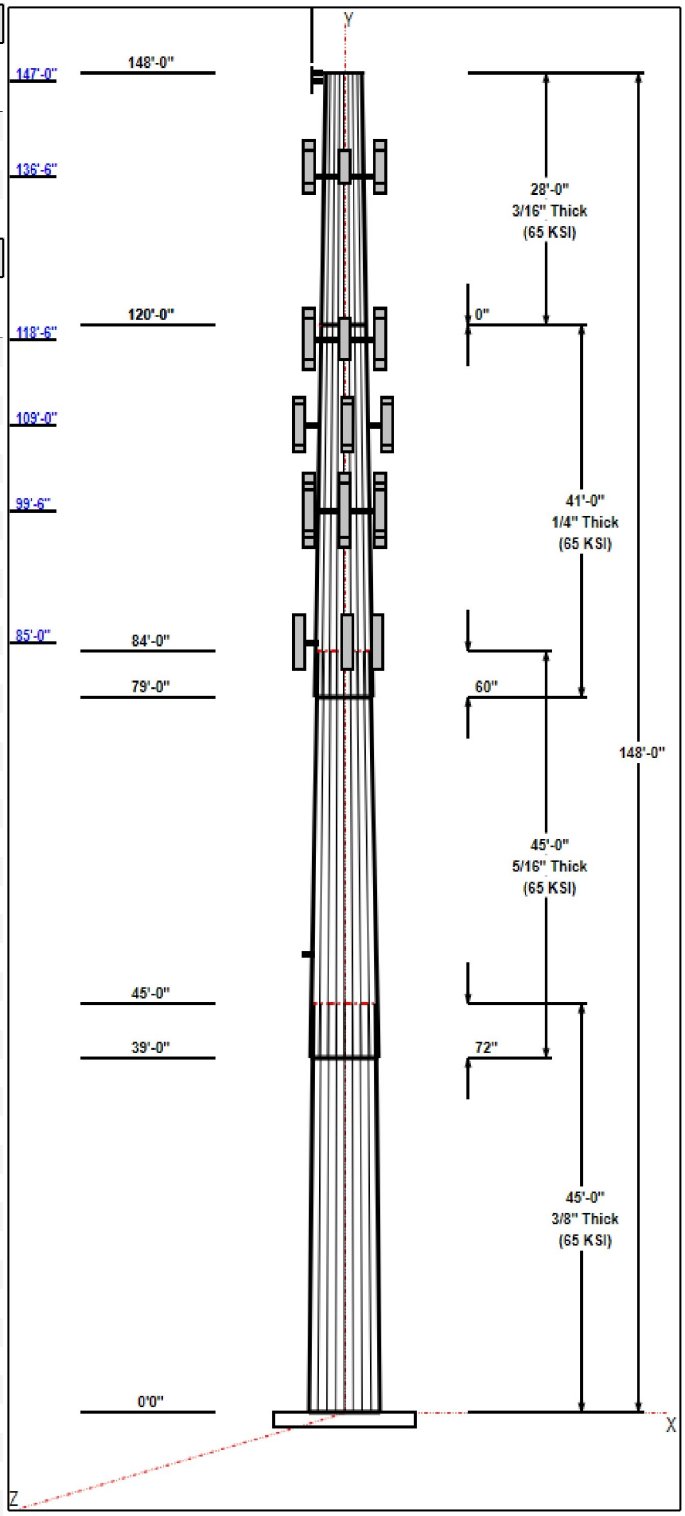
Shaft Properties

Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	45.00	45.99	55.43	0.375		0.20983	65
2	45.00	38.43	47.87	0.313	Slip	0.20983	65
3	41.00	31.38	39.98	0.250	Slip	0.20983	65
4	28.00	25.50	31.38	0.188	Butt	0.20983	65

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
148.00	153.00	1	DB-TDD6492A-A	Town of Newtown
148.00	150.00	1	Pipe Mount	Town of Newtown
148.00	151.00	1	6' Lightning rod	Tower
147.00	147.00	1	Standoff	Town of Newtown
147.00	147.00	1	Trombone	Town of Newtown
136.50	137.50	3	Swedcom SC-E 6014	Verizon
136.50	137.50	6	JMA Wireless	Verizon
136.50	137.50	3	Samsung MT6407-77A	Verizon
136.50	137.50	3	Commscope	Verizon
136.50	137.50	3	Samsung RF4439d-25A	Verizon
136.50	137.50	3	Samsung RF4440d-13A	Verizon
136.50	137.50	1	Commscope	Verizon
136.50	136.50	1	Platform w/ Rails	Verizon
118.50	118.50	3	Powerwave 7770	AT&T
118.50	118.50	6	Powerwave LGP21401	AT&T
118.50	118.50	1	Low Profile Platform	AT&T
118.50	118.50	2	Raycap DC6-48-60-18-8F	AT&T
118.50	118.50	1	RRH Collar Mount	AT&T
118.50	118.50	6	Kathrein 800-10965	AT&T
118.50	118.50	3	Ericsson 4449 B5/B12	AT&T
118.50	118.50	3	Ericsson RRUS 8843 B2	AT&T
118.50	118.50	1	SitePro Sitepro 1 P/N	AT&T
118.50	118.50	3	Pipe Mast	AT&T
109.00	109.00	3	RFS APXVSPP18-C-A20	Sprint
109.00	109.00	3	RFS APXVTM14-C-I20	Sprint
109.00	109.00	3	ALU 1900MHz RRH - RRU	Sprint
109.00	109.00	3	ALU 800 MHz RRH - RRU	Sprint
109.00	109.00	3	ALU 800MHz RRH Filter	Sprint
109.00	109.00	3	ALU TD-RRH8x20 - RRU	Sprint
109.00	109.00	4	RFS ACU-A20-N - RET	Sprint
109.00	109.00	3	T-Arms w/ Working	Sprint
99.50	99.50	1	Platform w/ Hand Rail	T-Mobile
99.50	99.50	6	RR65-18-00DPL2	T-Mobile
99.50	99.50	3	RFS	T-Mobile
99.50	99.50	3	Commscope	T-Mobile
99.50	99.50	3	RFS ATMAA1412D-1A2 -	T-Mobile
99.50	99.50	3	Kathrein 782 11054 - Bias	T-Mobile
85.00	85.00	3	Commscope	Dish Wireless
85.00	85.00	3	Fujitsu TA08025-B605	Dish Wireless
85.00	85.00	3	Fujitsu TA08025-B604	Dish Wireless
85.00	85.00	1	Raycap	Dish Wireless
85.00	85.00	1	Platform w/HRK	Dish Wireless
50.50	50.50	1	Decibel 260B GPS	Sprint
50.50	50.50	1	3 ft Standoff	Sprint

Linear Appurtenances



Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	148.00	Inside	7/8" Coax	Town of Newtown
0.00	147.00	Inside	7/8" Coax	Town of Newtown
0.00	137.50	Inside	1 5/8" Coax	Verizon
0.00	137.50	Inside	1/2" Coax	Verizon
0.00	137.50	Inside	12x24 Hybrid	Verizon
0.00	118.50	Inside	1 5/8" Coax	AT&T
0.00	118.50	Inside	1/2" Fiber	AT&T
0.00	118.50	Inside	3/4" DC	AT&T
0.00	109.00	Inside	1 1/4" Coax	Sprint
0.00	99.50	Inside	1 1/4" Coax	T-Mobile
0.00	85.00	Inside	1.75" Hybrid	Dish Wireless
0.00	50.50	Outside	1/2" Coax	Sprint

Anchor Bolts

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

Base Plate

Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
2.7500	61.0	55.0	Clipped

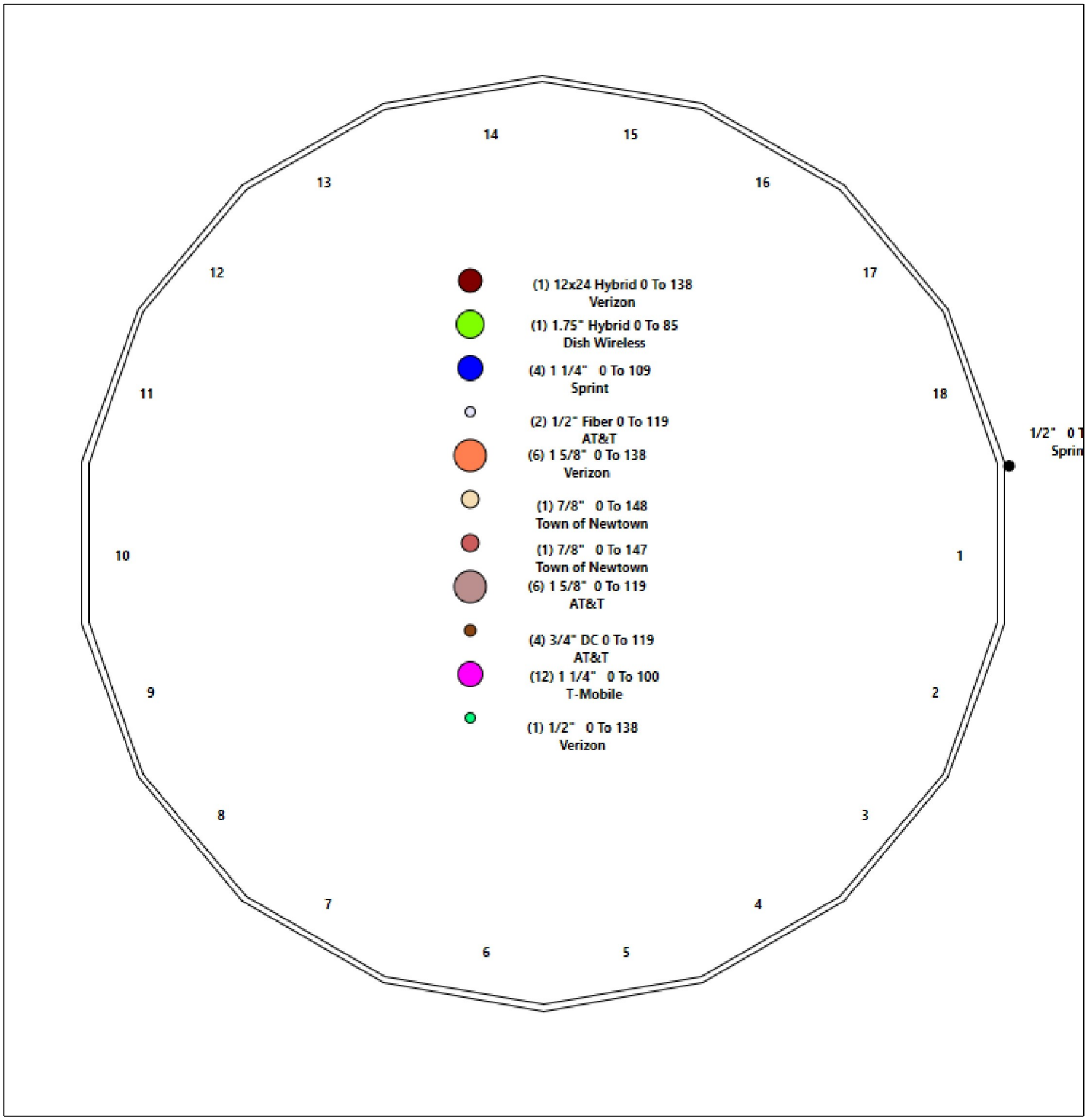
Reactions

Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.6W 93 mph Wind	3315.4	33.2	45.0
0.9D + 1.6W 93 mph Wind	3286.9	33.2	33.8
1.2D + 1.0Di + 1.0Wi 50 mph Wind	1062.4	10.5	74.6
1.2D + 1.0E	126.1	1.3	45.1
0.9D + 1.0E	125.0	1.3	33.8
1.0D + 1.0W 60 mph Wind	858.1	8.6	37.6

Structure: CT13057-A - Coax Line Placement

Type: Monopole
Site Name: Newtown
Height: 148.00 (ft)

6/7/2022



Shaft Properties

Structure:	CT13057-A		**Code:**	TIA-222-G	6/7/2022
Site Name:	Newtown		**Exposure:**	C	
Height:	148.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (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	45.000	0.3750	65		0.00	9,173
2	18	45.000	0.3125	65	Slip	72.00	6,506
3	18	41.000	0.2500	65	Slip	60.00	3,922
4	18	28.000	0.1875	65	Flange	0.00	1,602
					Total Shaft Weight:		**21,203**

	Bottom						Top						
Sec. No.	**Dia (in)**	**Elev (ft)**	**Area (sqin)**	**Ix (in^4)**	**W/t Ratio**	**D/t Ratio**	**Dia (in)**	**Elev (ft)**	**Area (sqin)**	**Ix (in^4)**	**W/t Ratio**	**D/t Ratio**	**Taper**
1	55.43	0.00	65.53	25093.77	24.65	147.81	45.99	45.00	54.29	14270.2	20.21	122.6	0.209831
2	47.87	39.00	47.17	13480.16	25.60	153.19	38.43	84.00	37.81	6939.69	20.27	122.9	0.209831
3	39.98	79.00	31.52	6286.17	26.79	159.91	31.38	120.00	24.70	3022.90	20.72	125.5	0.209831
4	31.38	120.0	18.56	2280.86	28.10	167.33	25.50	148.00	15.06	1219.41	22.57	136.0	0.209831

Load Summary

Structure:	CT13057-A	**Code:**	TIA-222-G	6/7/2022	
Site Name:	Newtown	**Exposure:**	C		
Height:	148.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 6	

Discrete Appurtenances

				No Ice			Ice				
No.	Elev (ft)	Description	Qty	Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor	Hor. Ecc. (ft)	Vert Ecc (ft)
1	148.00	DB-TDD6492A-A	1	21.00	2.41	1.00	82.34	5.194	1.00	0.00	5.00
2	148.00	Pipe Mount	1	40.00	2.63	1.00	120.17	8.591	1.00	0.00	2.00
3	148.00	6' Lightning rod	1	6.50	0.38	1.00	42.75	1.466	1.00	0.00	3.00
4	147.00	Standoff	1	40.00	2.63	1.00	120.12	8.587	1.00	0.00	0.00
5	147.00	Trombone	1	6.00	1.00	1.00	14.68	2.712	1.00	0.00	0.00
6	136.50	Swedcom SC-E 6014 Rev2	3	15.00	3.33	0.98	108.90	4.983	0.98	0.00	1.00
7	136.50	JMA Wireless MX06FRO660-03	6	60.00	9.87	0.87	326.07	11.232	0.89	0.00	1.00
8	136.50	Samsung MT6407-77A	3	87.10	4.70	0.70	206.40	5.365	0.71	0.00	1.00
9	136.50	Commscope TD-850B-LTE78-43	3	52.91	1.96	0.67	116.88	2.533	0.67	0.00	1.00
10	136.50	Samsung RF4439d-25A RRU	3	74.70	1.87	0.67	150.26	2.426	0.67	0.00	1.00
11	136.50	Samsung RF4440d-13A RRU	3	74.70	1.87	0.67	150.26	2.426	0.67	0.00	1.00
12	136.50	Commscope FE-16148-OVP-B12	1	15.21	1.87	0.50	83.27	2.429	0.50	0.00	1.00
13	136.50	Platform w/ Rails	1	1588.50	23.81	1.00	2961.63	42.745	1.00	0.00	0.00
14	118.50	Powerwave 7770	3	35.00	5.50	0.73	166.32	6.539	0.84	0.00	0.00
15	118.50	Powerwave LGP21401 TMA	6	14.10	1.29	0.70	38.52	2.106	0.70	0.00	0.00
16	118.50	Low Profile Platform	1	1500.00	22.00	1.00	2778.42	39.250	1.00	0.00	0.00
17	118.50	Raycap DC6-48-60-18-8F (24x11"	2	32.80	0.92	0.75	95.08	1.348	1.00	0.00	0.00
18	118.50	RRH Collar Mount	1	250.00	5.00	0.75	846.60	13.523	0.75	0.00	0.00
19	118.50	Kathrein 800-10965	6	108.60	13.81	0.71	398.79	15.352	1.00	0.00	0.00
20	118.50	Ericsson 4449 B5/B12 RRU	3	71.00	1.97	0.67	123.14	2.505	1.00	0.00	0.00
21	118.50	Ericsson RRUS 8843 B2 B66A RRU	3	70.00	1.64	0.67	114.91	2.144	1.00	0.00	0.00
22	118.50	SitePro Sitepro 1 P/N HRK12	1	406.61	9.75	1.00	877.91	19.057	1.00	0.00	0.00
23	118.50	Pipe Mast	3	60.00	1.55	0.75	117.27	3.452	1.00	0.00	0.00
24	109.00	RFS APXVSPP18-C-A20	3	57.00	8.02	0.83	224.42	10.726	0.83	0.00	0.00
25	109.00	RFS APXVTM14-C-I20	3	56.00	6.34	0.85	210.38	7.416	0.85	0.00	0.00
26	109.00	ALU 1900MHz RRH - RRU	3	44.00	3.80	0.67	149.73	5.146	0.67	0.00	0.00
27	109.00	ALU 800 MHz RRH - RRU	3	53.00	2.49	0.67	124.64	3.598	0.67	0.00	0.00
28	109.00	ALU 800MHz RRH Filter	3	8.80	0.78	0.67	25.89	1.407	0.67	0.00	0.00
29	109.00	ALU TD-RRH8x20 - RRU	3	70.00	4.05	0.67	176.29	4.836	0.67	0.00	0.00
30	109.00	RFS ACU-A20-N - RET	4	1.00	0.14	0.50	5.16	0.427	0.50	0.00	0.00
31	109.00	T-Arms w/ Working Platforms	3	350.00	12.00	0.75	586.65	22.142	0.75	0.00	0.00
32	99.50	Platform w/ Hand Rail (round)	1	1600.00	32.00	1.00	3615.39	58.800	1.00	0.00	0.00
33	99.50	RR65-18-00DPL2	6	13.50	4.36	0.85	107.11	5.303	0.85	0.00	0.00
34	99.50	RFS APXV18-206513-C-A20	3	26.40	5.17	0.84	115.94	7.449	0.84	0.00	0.00
35	99.50	Commscope LNX-6515DS-A1M	3	49.80	11.47	0.80	270.12	14.605	0.80	0.00	0.00
36	99.50	RFS ATMAA1412D-1A2 - TMA	3	13.00	1.17	0.70	38.51	1.921	0.74	0.00	0.00
37	99.50	Kathrein 782 11054 - Bias Ts	3	2.60	0.28	0.70	8.87	0.665	0.71	0.00	0.00
38	85.00	Commscope FFVV-65B-R2	3	70.80	12.27	0.73	311.66	13.306	0.74	0.00	0.00
39	85.00	Fujitsu TA08025-B605 RRU	3	74.95	1.96	0.80	141.59	2.913	0.81	0.00	0.00
40	85.00	Fujitsu TA08025-B604 RRU	3	63.93	1.96	0.76	120.77	2.913	0.77	0.00	0.00
41	85.00	Raycap RDIDC-9181-PF-48	1	21.85	2.01	1.00	74.45	2.450	1.00	0.00	0.00
42	85.00	Platform w/HRK Commscope:	1	1727.00	22.92	1.00	3150.78	48.165	1.00	0.00	0.00
43	50.50	Decibel 260B GPS	1	1.00	0.09	1.00	5.86	0.248	1.00	0.00	0.00
44	50.50	3 ft Standoff	1	40.00	2.63	1.00	112.00	7.983	1.00	0.00	0.00
		Totals:	**114**	**12,952.54**			**31,599.48**				

Linear Appurtenances

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)
Bottom Elev. (ft)	**Top Elev. (ft)**	**Description**		**Exposed Width**		**Exposed**					
0.00	148.00	(1) 7/8" Coax		0.00		Inside					
0.00	147.00	(1) 7/8" Coax		0.00		Inside					
0.00	137.50	(6) 1 5/8" Coax		0.00		Inside					
0.00	137.50	(1) 1/2" Coax		0.00		Inside					
0.00	137.50	(1) 12x24 Hybrid		0.00		Inside					
0.00	118.50	(6) 1 5/8" Coax		0.00		Inside					
0.00	118.50	(2) 1/2" Fiber		0.00		Inside					
0.00	118.50	(4) 3/4" DC		0.00		Inside					
0.00	109.00	(4) 1 1/4" Coax		0.00		Inside					
0.00	99.50	(12) 1 1/4" Coax		0.00		Inside					
0.00	85.00	(1) 1.75" Hybrid		0.00		Inside					
0.00	50.50	(1) 1/2" Coax		0.65		Outside					

Shaft Section Properties

Structure:	CT13057-A	**Code:**	TIA-222-G	6/7/2022	
Site Name:	Newtown	**Exposure:**	C		
Height:	148.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 8	

Increment Length: **5 (ft)**

Elev (ft)	Description	Thick (in)	Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fpy (ksi)	S (in^3)	Weight (lb)
0.00		0.3750	55.430	65.527	25093.8	24.65	147.81	72.4	891.7	0.0
5.00		0.3750	54.381	64.278	23686.3	24.16	145.02	73.0	857.9	1104.2
10.00		0.3750	53.332	63.029	22332.5	23.67	142.22	73.6	824.8	1083.0
15.00		0.3750	52.283	61.781	21031.3	23.17	139.42	74.1	792.3	1061.8
20.00		0.3750	51.233	60.532	19781.7	22.68	136.62	74.7	760.5	1040.5
25.00		0.3750	50.184	59.283	18582.5	22.19	133.82	75.3	729.3	1019.3
30.00		0.3750	49.135	58.035	17432.9	21.69	131.03	75.9	698.8	998.0
35.00		0.3750	48.086	56.786	16331.6	21.20	128.23	76.5	668.9	976.8
39.00	Bot - Section 2	0.3750	47.247	55.787	15484.8	20.80	125.99	76.9	645.5	766.1
40.00		0.3750	47.037	55.537	15277.7	20.71	125.43	77.0	639.7	349.6
45.00	Top - Section 1	0.3125	46.613	45.922	12437.7	24.89	149.16	0.0	0.0	1724.4
50.00		0.3125	45.563	44.882	11611.2	24.30	145.80	72.8	501.9	772.5
50.50		0.3125	45.459	44.778	11530.6	24.24	145.47	72.9	499.6	76.3
55.00		0.3125	44.514	43.841	10822.2	23.71	142.45	73.5	478.8	678.5
60.00		0.3125	43.465	42.800	10069.7	23.11	139.09	74.2	456.3	737.1
65.00		0.3125	42.416	41.760	9352.9	22.52	135.73	74.9	434.3	719.4
70.00		0.3125	41.367	40.719	8671.0	21.93	132.37	75.6	412.9	701.6
75.00		0.3125	40.318	39.679	8023.1	21.34	129.02	76.3	391.9	683.9
79.00	Bot - Section 3	0.3125	39.478	38.846	7528.6	20.86	126.33	76.9	375.6	534.4
80.00		0.3125	39.269	38.638	7408.3	20.75	125.66	77.0	371.6	238.8
84.00	Top - Section 2	0.2500	38.929	30.691	5801.2	26.05	155.72	0.0	0.0	942.5
85.00		0.2500	38.719	30.524	5707.3	25.90	154.88	70.9	290.3	104.2
90.00		0.2500	37.670	29.692	5252.9	25.16	150.68	71.8	274.7	512.3
95.00		0.2500	36.621	28.859	4823.4	24.42	146.48	72.7	259.4	498.1
99.50		0.2500	35.677	28.110	4457.4	23.75	142.71	73.5	246.1	436.2
100.00		0.2500	35.572	28.027	4417.9	23.68	142.29	73.6	244.6	47.8
105.00		0.2500	34.523	27.194	4035.8	22.94	138.09	74.4	230.3	469.8
109.00		0.2500	33.683	26.528	3746.5	22.35	134.73	75.1	219.1	365.6
110.00		0.2500	33.474	26.362	3676.4	22.20	133.89	75.3	216.3	90.0
115.00		0.2500	32.424	25.529	3339.0	21.46	129.70	76.2	202.8	441.4
118.50		0.2500	31.690	24.947	3115.5	20.94	126.76	76.8	193.6	300.6
120.00	Top - Section 3	0.2500	31.375	24.697	3022.9	20.72	125.50	77.0	189.8	126.7
120.00	Bot - Section 4	0.1875	31.375	18.560	2280.9	27.62	167.33	68.4	143.2	
125.00		0.1875	30.326	17.936	2058.3	27.11	161.74	69.5	133.7	310.5
130.00		0.1875	29.277	17.311	1850.8	26.12	156.14	70.7	124.5	299.8
135.00		0.1875	28.228	16.687	1657.7	25.14	150.55	71.8	115.7	289.2
136.50		0.1875	27.913	16.500	1602.5	24.84	148.87	72.2	113.1	84.7
140.00		0.1875	27.179	16.063	1478.5	24.15	144.95	73.0	107.1	193.9
145.00		0.1875	26.129	15.438	1312.7	23.16	139.36	74.2	98.9	268.0
147.00		0.1875	25.710	15.188	1250.0	22.77	137.12	74.6	95.8	104.2
148.00		0.1875	25.500	15.064	1219.4	22.57	136.00	74.9	94.2	51.5
										21202.9

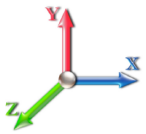
Wind Loading - Shaft

Structure:	CT13057-A	**Code:**	TIA-222-G	6/7/2022	
Site Name:	Newtown	**Exposure:**	C		
Height:	148.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 9	

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 24

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	17.879	19.67	402.17	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	17.879	19.67	394.55	0.650	0.000	5.00	23.230	15.10	475.1	0.0	1325.1
10.00		1.00	0.85	17.879	19.67	386.94	0.650	0.000	5.00	22.786	14.81	466.1	0.0	1299.6
15.00		1.00	0.85	17.879	19.67	379.33	0.650	0.000	5.00	22.342	14.52	457.0	0.0	1274.1
20.00		1.00	0.90	18.971	20.87	382.89	0.650	0.000	5.00	21.899	14.23	475.2	0.0	1248.6
25.00		1.00	0.95	19.883	21.87	383.97	0.650	0.000	5.00	21.455	13.95	488.0	0.0	1223.1
30.00		1.00	0.98	20.661	22.73	383.22	0.650	0.000	5.00	21.011	13.66	496.6	0.0	1197.6
35.00		1.00	1.01	21.343	23.48	381.18	0.650	0.000	5.00	20.567	13.37	502.2	0.0	1172.1
39.00	Bot - Section 2	1.00	1.04	21.834	24.02	378.81	0.650	0.000	4.00	16.134	10.49	403.0	0.0	919.3
40.00		1.00	1.04	21.951	24.15	378.14	0.650	0.000	1.00	4.042	2.63	101.5	0.0	419.5
45.00	Top - Section 1	1.00	1.07	22.502	24.75	374.32	0.650	0.000	5.00	19.943	12.96	513.4	0.0	2069.3
50.00		1.00	1.09	23.007	25.31	375.00	0.650	0.000	5.00	19.500	12.67	513.2	0.0	927.0
50.50	Appurtenance(s)	1.00	1.10	23.055	25.36	374.53	0.650	0.000	0.50	1.926	1.25	50.8	0.0	91.5
55.00		1.00	1.12	23.473	25.82	370.06	0.650	0.000	4.50	17.130	11.13	460.0	0.0	814.2
60.00		1.00	1.14	23.907	26.30	364.66	0.650	0.000	5.00	18.612	12.10	509.0	0.0	884.5
65.00		1.00	1.16	24.313	26.74	358.87	0.650	0.000	5.00	18.168	11.81	505.3	0.0	863.2
70.00		1.00	1.17	24.696	27.17	352.73	0.650	0.000	5.00	17.724	11.52	500.7	0.0	842.0
75.00		1.00	1.19	25.057	27.56	346.29	0.650	0.000	5.00	17.280	11.23	495.3	0.0	820.7
79.00	Bot - Section 3	1.00	1.20	25.333	27.87	340.95	0.650	0.000	4.00	13.504	8.78	391.4	0.0	641.3
80.00		1.00	1.21	25.400	27.94	339.58	0.650	0.000	1.00	3.374	2.19	98.0	0.0	286.6
84.00	Top - Section 2	1.00	1.22	25.662	28.23	334.04	0.650	0.000	4.00	13.319	8.66	391.0	0.0	1131.0
85.00	Appurtenance(s)	1.00	1.22	25.726	28.30	336.98	0.650	0.000	1.00	3.285	2.14	96.7	0.0	125.0
90.00		1.00	1.24	26.037	28.64	329.82	0.650	0.000	5.00	16.160	10.50	481.4	0.0	614.7
95.00		1.00	1.25	26.336	28.97	322.47	0.650	0.000	5.00	15.716	10.22	473.5	0.0	597.7
99.50	Appurtenance(s)	1.00	1.26	26.593	29.25	315.69	0.650	0.000	4.50	13.765	8.95	418.8	0.0	523.4
100.00		1.00	1.27	26.621	29.28	314.93	0.650	0.000	0.50	1.507	0.98	45.9	0.0	57.3
105.00		1.00	1.28	26.896	29.59	307.21	0.650	0.000	5.00	14.828	9.64	456.3	0.0	563.7
109.00	Appurtenance(s)	1.00	1.29	27.109	29.82	300.92	0.650	0.000	4.00	11.543	7.50	358.0	0.0	438.7
110.00		1.00	1.29	27.161	29.88	299.34	0.650	0.000	1.00	2.841	1.85	88.3	0.0	108.0
115.00		1.00	1.30	27.416	30.16	291.32	0.650	0.000	5.00	13.941	9.06	437.2	0.0	529.7
118.50	Appurtenance(s)	1.00	1.31	27.590	30.35	285.62	0.650	0.000	3.50	9.494	6.17	299.7	0.0	360.7
120.00	Top - Section 3	1.00	1.32	27.663	30.43	283.15	0.650	0.000	1.50	4.002	2.60	126.7	0.0	152.0
125.00		1.00	1.33	27.902	30.69	274.87	0.650	0.000	5.00	13.053	8.48	416.6	0.0	372.6
130.00		1.00	1.34	28.133	30.95	266.45	0.650	0.000	5.00	12.609	8.20	405.8	0.0	359.8
135.00		1.00	1.35	28.358	31.19	257.93	0.650	0.000	5.00	12.165	7.91	394.6	0.0	347.1
136.50	Appurtenance(s)	1.00	1.35	28.424	31.27	255.35	0.650	0.000	1.50	3.563	2.32	115.9	0.0	101.6
140.00		1.00	1.36	28.576	31.43	249.29	0.650	0.000	3.50	8.158	5.30	266.7	0.0	232.7
145.00		1.00	1.37	28.788	31.67	240.56	0.650	0.000	5.00	11.277	7.33	371.4	0.0	321.6
147.00	Appurtenance(s)	1.00	1.37	28.871	31.76	237.04	0.650	0.000	2.00	4.387	2.85	144.9	0.0	125.1
148.00	Appurtenance(s)	1.00	1.37	28.912	31.80	235.27	0.650	0.000	1.00	2.167	1.41	71.7	0.0	61.8
								Totals:	**148.00**			**13,762.9**		**25,443.5**

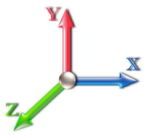
Discrete Appurtenance Forces

Structure:	CT13057-A	**Code:**	TIA-222-G	6/7/2022	
Site Name:	Newtown	**Exposure:**	C		
Height:	148.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 10	

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



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	148.00	Pipe Mount	1	28.994	31.893	1.00	1.00	2.63	48.00	0.000	2.000	134.21	0.00	268.41
2	148.00	DB-TDD6492A-A	1	29.115	32.026	1.00	1.00	2.41	25.20	0.000	5.000	123.49	0.00	617.47
3	148.00	6' Lightning rod	1	29.034	31.938	1.00	1.00	0.38	7.80	0.000	3.000	19.42	0.00	58.25
4	147.00	Trombone	1	28.871	31.758	1.00	1.00	1.00	7.20	0.000	0.000	50.81	0.00	0.00
5	147.00	Standoff	1	28.871	31.758	1.00	1.00	2.63	48.00	0.000	0.000	133.64	0.00	0.00
6	136.50	Commscope	3	28.467	31.314	0.50	0.75	2.95	190.48	0.000	1.000	148.04	0.00	148.04
7	136.50	Swedcom SC-E 6014	3	28.467	31.314	0.73	0.75	7.34	54.00	0.000	1.000	367.89	0.00	367.89
8	136.50	JMA Wireless	6	28.467	31.314	0.65	0.75	38.64	432.00	0.000	1.000	1936.02	0.00	1936.02
9	136.50	Samsung MT6407-77A	3	28.467	31.314	0.52	0.75	7.40	313.56	0.000	1.000	370.89	0.00	370.89
10	136.50	Samsung RF4440d-13A	3	28.467	31.314	0.50	0.75	2.82	268.92	0.000	1.000	141.24	0.00	141.24
11	136.50	Commscope	1	28.467	31.314	0.38	0.75	0.70	18.25	0.000	1.000	35.13	0.00	35.13
12	136.50	Platform w/ Rails	1	28.424	31.266	1.00	1.00	23.81	1906.20	0.000	0.000	1191.11	0.00	0.00
13	136.50	Samsung RF4439d-25A	3	28.467	31.314	0.50	0.75	2.82	268.92	0.000	1.000	141.24	0.00	141.24
14	118.50	RRH Collar Mount	1	27.590	30.349	0.56	0.75	2.81	300.00	0.000	0.000	136.57	0.00	0.00
15	118.50	Powerwave LGP21401	6	27.590	30.349	0.52	0.75	4.06	101.52	0.000	0.000	197.32	0.00	0.00
16	118.50	Low Profile Platform	1	27.590	30.349	1.00	1.00	22.00	1800.00	0.000	0.000	1068.29	0.00	0.00
17	118.50	Raycap DC6-48-60-18-8F	2	27.590	30.349	0.56	0.75	1.04	78.72	0.000	0.000	50.26	0.00	0.00
18	118.50	Ericsson RRUS 8843 B2	3	27.590	30.349	0.50	0.75	2.47	252.00	0.000	0.000	120.05	0.00	0.00
19	118.50	Kathrein 800-10965	6	27.590	30.349	0.53	0.75	44.12	781.92	0.000	0.000	2142.54	0.00	0.00
20	118.50	Ericsson 4449 B5/B12	3	27.590	30.349	0.50	0.75	2.97	255.60	0.000	0.000	144.21	0.00	0.00
21	118.50	SitePro Sitepro 1 P/N	1	27.590	30.349	1.00	1.00	9.75	487.93	0.000	0.000	473.44	0.00	0.00
22	118.50	Pipe Mast	3	27.590	30.349	0.56	0.75	2.62	216.00	0.000	0.000	127.01	0.00	0.00
23	118.50	Powerwave 7770	3	27.590	30.349	0.55	0.75	9.03	126.00	0.000	0.000	438.66	0.00	0.00
24	109.00	ALU 800 MHz RRH - RRU	3	27.109	29.820	0.54	0.80	4.00	190.80	0.000	0.000	191.03	0.00	0.00
25	109.00	RFS APXVSPP18-C-A20	3	27.109	29.820	0.66	0.80	15.98	205.20	0.000	0.000	762.23	0.00	0.00
26	109.00	RFS APXVTM14-C-I20	3	27.109	29.820	0.68	0.80	12.93	201.60	0.000	0.000	617.08	0.00	0.00
27	109.00	ALU 1900MHz RRH - RRU	3	27.109	29.820	0.54	0.80	6.11	158.40	0.000	0.000	291.54	0.00	0.00
28	109.00	T-Arms w/ Working	3	27.109	29.820	0.56	0.75	20.25	1260.00	0.000	0.000	966.16	0.00	0.00
29	109.00	ALU 800MHz RRH Filter	3	27.109	29.820	0.54	0.80	1.25	31.68	0.000	0.000	59.84	0.00	0.00
30	109.00	ALU TD-RRH8x20 - RRU	3	27.109	29.820	0.54	0.80	6.51	252.00	0.000	0.000	310.72	0.00	0.00
31	109.00	RFS ACU-A20-N - RET	4	27.109	29.820	0.40	0.80	0.22	4.80	0.000	0.000	10.69	0.00	0.00
32	99.50	Platform w/ Hand Rail	1	26.593	29.253	1.00	1.00	32.00	1920.00	0.000	0.000	1497.74	0.00	0.00
33	99.50	RR65-18-00DPL2	6	26.593	29.253	0.68	0.80	17.79	97.20	0.000	0.000	832.59	0.00	0.00
34	99.50	RFS	3	26.593	29.253	0.67	0.80	10.42	95.04	0.000	0.000	487.83	0.00	0.00
35	99.50	Commscope	3	26.593	29.253	0.64	0.80	22.02	179.28	0.000	0.000	1030.75	0.00	0.00
36	99.50	RFS ATMAA1412D-1A2 -	3	26.593	29.253	0.56	0.80	1.97	46.80	0.000	0.000	92.00	0.00	0.00
37	99.50	Kathrein 782 11054 - Bias	3	26.593	29.253	0.56	0.80	0.47	9.36	0.000	0.000	22.02	0.00	0.00
38	85.00	Platform w/HRK	1	25.726	28.299	1.00	1.00	22.92	2072.40	0.000	0.000	1037.77	0.00	0.00
39	85.00	Raycap	1	25.726	28.299	0.80	0.80	1.61	26.22	0.000	0.000	72.81	0.00	0.00
40	85.00	Fujitsu TA08025-B604	3	25.726	28.299	0.61	0.80	3.58	230.15	0.000	0.000	161.87	0.00	0.00
41	85.00	Fujitsu TA08025-B605	3	25.726	28.299	0.64	0.80	3.76	269.82	0.000	0.000	170.39	0.00	0.00
42	85.00	Commscope	3	25.726	28.299	0.58	0.80	21.50	254.88	0.000	0.000	973.34	0.00	0.00
43	50.50	3 ft Standoff	1	23.055	25.361	1.00	1.00	2.63	48.00	0.000	0.000	106.72	0.00	0.00
44	50.50	Decibel 260B GPS	1	23.055	25.361	1.00	1.00	0.09	1.20	0.000	0.000	3.65	0.00	0.00
							Totals:		**15,543.05**			**19,390.25**		

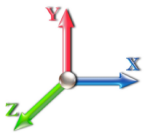
Total Applied Force Summary

Structure:	CT13057-A		**Code:**	TIA-222-G	6/7/2022
Site Name:	Newtown		**Exposure:**	C	
Height:	148.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 11

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 24

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		475.15	1500.57	0.00	0.00
10.00		466.07	1475.08	0.00	0.00
15.00		456.99	1449.59	0.00	0.00
20.00		475.25	1424.09	0.00	0.00
25.00		488.01	1398.60	0.00	0.00
30.00		496.61	1373.10	0.00	0.00
35.00		502.16	1347.61	0.00	0.00
39.00		403.00	1059.73	0.00	0.00
40.00		101.50	454.57	0.00	0.00
45.00		513.39	2244.82	0.00	0.00
50.00		513.23	1102.44	0.00	0.00
50.50	(2) attachments	161.16	158.28	0.00	0.00
55.00		460.00	971.25	0.00	0.00
60.00		509.03	1058.99	0.00	0.00
65.00		505.33	1037.74	0.00	0.00
70.00		500.74	1016.50	0.00	0.00
75.00		495.34	995.25	0.00	0.00
79.00		391.37	780.90	0.00	0.00
80.00		98.04	321.48	0.00	0.00
84.00		391.00	1270.63	0.00	0.00
85.00	(11) attachments	2512.86	3013.35	0.00	0.00
90.00		481.36	781.43	0.00	0.00
95.00		473.49	764.43	0.00	0.00
99.50	(19) attachments	4381.70	3021.14	0.00	0.00
100.00		45.90	69.23	0.00	0.00
105.00		456.26	682.92	0.00	0.00
109.00	(25) attachments	3567.27	2838.58	0.00	0.00
110.00		88.29	128.66	0.00	0.00
115.00		437.24	633.09	0.00	0.00
118.50	(29) attachments	5198.02	4832.74	0.00	0.00
120.00		126.66	168.35	0.00	0.00
125.00		416.64	426.96	0.00	0.00
130.00		405.81	414.21	0.00	0.00
135.00		394.65	401.47	0.00	0.00
136.50	(23) attachments	4447.42	3570.28	0.00	3140.45
140.00		266.69	246.68	0.00	0.00
145.00		371.39	327.81	0.00	0.00
147.00	(2) attachments	329.33	182.75	0.00	0.00
148.00	(3) attachments	348.78	143.39	0.00	944.13
	Totals:	**33,153.12**	**45,088.70**	**0.00**	**4,084.58**

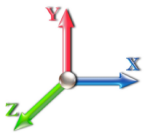
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13057-A		**Code:**	TIA-222-G	6/7/2022
Site Name:	Newtown		**Exposure:**	C	
Height:	148.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 12

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 24

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.012	0.000	17.879	0.00	0.96
10.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.012	0.000	17.879	0.00	0.96
15.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.012	0.000	17.879	0.00	0.96
20.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.012	0.000	18.971	0.00	0.96
25.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.013	0.000	19.883	0.00	0.96
30.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.013	0.000	20.661	0.00	0.96
35.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.013	0.000	21.343	0.00	0.96
39.00	1/2" Coax	Yes	4.00	0.000	0.65	0.22	0.00	0.013	0.000	21.834	0.00	0.77
40.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.014	0.000	21.951	0.00	0.19
45.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.014	0.000	22.502	0.00	0.96
50.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.014	0.000	23.007	0.00	0.96
50.50	1/2" Coax	Yes	0.50	0.000	0.65	0.03	0.00	0.014	0.000	23.055	0.00	0.10
										Totals:	**0.0**	**9.7**

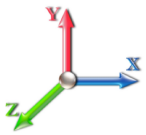
Calculated Forces

Structure:	CT13057-A	**Code:**	TIA-222-G	6/7/2022	
Site Name:	Newtown	**Exposure:**	C		
Height:	148.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 13

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 24

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-45.03	-33.23	0.00	-3315.3	0.00	3315.37	4270.00	2135.00	9669.74	4842.06	0.00	0.000	0.000	0.695
5.00	-43.43	-32.89	0.00	-3149.2	0.00	3149.23	4222.20	2111.10	9378.04	4695.99	0.10	-0.183	0.000	0.681
10.00	-41.85	-32.55	0.00	-2984.7	0.00	2984.79	4173.09	2086.54	9087.66	4550.58	0.39	-0.367	0.000	0.666
15.00	-40.30	-32.21	0.00	-2822.0	0.00	2822.04	4122.67	2061.34	8798.75	4405.92	0.87	-0.552	0.000	0.651
20.00	-38.78	-31.85	0.00	-2660.9	0.00	2660.99	4070.95	2035.48	8511.51	4262.08	1.55	-0.738	0.000	0.634
25.00	-37.29	-31.46	0.00	-2501.7	0.00	2501.76	4017.93	2008.97	8226.08	4119.16	2.43	-0.923	0.000	0.617
30.00	-35.82	-31.05	0.00	-2344.4	0.00	2344.46	3963.61	1981.80	7942.65	3977.23	3.49	-1.109	0.000	0.599
35.00	-34.40	-30.62	0.00	-2189.1	0.00	2189.19	3907.97	1953.99	7661.39	3836.39	4.75	-1.294	0.000	0.580
39.00	-33.30	-30.25	0.00	-2066.7	0.00	2066.70	3862.53	1931.27	7438.05	3724.55	5.90	-1.442	0.000	0.564
40.00	-32.79	-30.20	0.00	-2036.4	0.00	2036.45	3851.04	1925.52	7382.46	3696.72	6.21	-1.480	0.000	0.560
45.00	-30.46	-29.72	0.00	-1885.4	0.00	1885.45	2980.94	1490.47	5677.43	2842.94	7.86	-1.662	0.000	0.674
50.00	-29.33	-29.23	0.00	-1736.8	0.00	1736.84	2941.52	1470.76	5474.55	2741.34	9.70	-1.843	0.000	0.644
50.50	-29.12	-29.11	0.00	-1722.2	0.00	1722.23	2937.50	1468.75	5454.31	2731.21	9.89	-1.864	0.000	0.641
55.00	-28.07	-28.71	0.00	-1591.2	0.00	1591.22	2900.79	1450.39	5272.72	2640.28	11.74	-2.048	0.000	0.613
60.00	-26.93	-28.26	0.00	-1447.6	0.00	1447.65	2858.76	1429.38	5072.11	2539.83	13.99	-2.248	0.000	0.580
65.00	-25.83	-27.80	0.00	-1306.3	0.00	1306.36	2815.42	1407.71	4872.91	2440.07	16.45	-2.442	0.000	0.545
70.00	-24.74	-27.33	0.00	-1167.3	0.00	1167.37	2770.78	1385.39	4675.26	2341.11	19.11	-2.630	0.000	0.508
75.00	-23.70	-26.86	0.00	-1030.7	0.00	1030.71	2724.84	1362.42	4479.35	2243.01	21.96	-2.811	0.000	0.469
79.00	-22.90	-26.46	0.00	-923.29	0.00	923.29	2687.14	1343.57	4323.99	2165.21	24.38	-2.949	0.000	0.435
80.00	-22.55	-26.38	0.00	-896.83	0.00	896.83	2677.59	1338.79	4285.35	2145.86	25.00	-2.984	0.000	0.427
84.00	-21.26	-25.95	0.00	-791.32	0.00	791.32	1954.67	977.33	3110.93	1557.78	27.56	-3.113	0.000	0.520
85.00	-18.35	-23.31	0.00	-765.37	0.00	765.37	1948.85	974.42	3084.73	1544.66	28.21	-3.145	0.000	0.505
90.00	-17.53	-22.84	0.00	-648.82	0.00	648.82	1918.95	959.48	2954.04	1479.22	31.60	-3.322	0.000	0.448
95.00	-16.74	-22.36	0.00	-534.64	0.00	534.64	1887.76	943.88	2824.00	1414.10	35.17	-3.482	0.000	0.388
99.50	-13.97	-17.82	0.00	-434.01	0.00	434.01	1858.56	929.28	2707.66	1355.84	38.51	-3.610	0.000	0.328
100.00	-13.88	-17.78	0.00	-425.10	0.00	425.10	1855.26	927.63	2694.78	1349.39	38.89	-3.624	0.000	0.323
105.00	-13.20	-17.31	0.00	-336.18	0.00	336.18	1821.45	910.73	2566.54	1285.18	42.75	-3.747	0.000	0.269
109.00	-10.59	-13.57	0.00	-266.95	0.00	266.95	1793.47	896.73	2464.77	1234.22	45.93	-3.832	0.000	0.222
110.00	-10.46	-13.48	0.00	-253.38	0.00	253.38	1786.34	893.17	2439.46	1221.54	46.73	-3.851	0.000	0.214
115.00	-9.84	-13.02	0.00	-185.96	0.00	185.96	1749.93	874.96	2313.70	1158.57	50.81	-3.936	0.000	0.166
118.50	-5.37	-7.50	0.00	-140.40	0.00	140.40	1723.66	861.83	2226.56	1114.93	53.71	-3.985	0.000	0.129
120.00	-5.21	-7.37	0.00	-129.15	0.00	129.15	1712.21	856.11	2189.45	1096.35	54.97	-4.004	0.000	0.121
120.00	-5.21	-7.37	0.00	-129.15	0.00	129.15	1141.82	570.91	1465.94	734.06	54.97	-4.004	0.000	0.181
125.00	-4.81	-6.92	0.00	-92.32	0.00	92.32	1122.14	561.07	1391.92	696.99	59.19	-4.056	0.000	0.137
130.00	-4.42	-6.49	0.00	-57.71	0.00	57.71	1101.16	550.58	1318.05	660.01	63.46	-4.108	0.000	0.092
135.00	-4.04	-6.07	0.00	-25.24	0.00	25.24	1078.87	539.43	1244.50	623.18	67.78	-4.139	0.000	0.044
136.50	-0.80	-1.38	0.00	-12.99	0.00	12.99	1071.93	535.96	1222.52	612.17	69.08	-4.145	0.000	0.022
140.00	-0.58	-1.09	0.00	-8.17	0.00	8.17	1055.28	527.64	1171.44	586.59	72.12	-4.151	0.000	0.014
145.00	-0.28	-0.70	0.00	-2.70	0.00	2.70	1030.38	515.19	1099.04	550.33	76.47	-4.157	0.000	0.005
147.00	-0.12	-0.36	0.00	-1.30	0.00	1.30	1020.06	510.03	1070.30	535.94	78.21	-4.157	0.000	0.003
148.00	0.00	-0.35	0.00	-0.94	0.00	0.94	1014.82	507.41	1055.98	528.78	79.08	-4.158	0.000	0.002

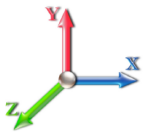
Wind Loading - Shaft

Structure:	CT13057-A	**Code:**	TIA-222-G	6/7/2022	
Site Name:	Newtown	**Exposure:**	C		
Height:	148.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 14	

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 23

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	17.879	19.67	402.17	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	17.879	19.67	394.55	0.650	0.000	5.00	23.230	15.10	475.1	0.0	993.8
10.00		1.00	0.85	17.879	19.67	386.94	0.650	0.000	5.00	22.786	14.81	466.1	0.0	974.7
15.00		1.00	0.85	17.879	19.67	379.33	0.650	0.000	5.00	22.342	14.52	457.0	0.0	955.6
20.00		1.00	0.90	18.971	20.87	382.89	0.650	0.000	5.00	21.899	14.23	475.2	0.0	936.5
25.00		1.00	0.95	19.883	21.87	383.97	0.650	0.000	5.00	21.455	13.95	488.0	0.0	917.3
30.00		1.00	0.98	20.661	22.73	383.22	0.650	0.000	5.00	21.011	13.66	496.6	0.0	898.2
35.00		1.00	1.01	21.343	23.48	381.18	0.650	0.000	5.00	20.567	13.37	502.2	0.0	879.1
39.00	Bot - Section 2	1.00	1.04	21.834	24.02	378.81	0.650	0.000	4.00	16.134	10.49	403.0	0.0	689.5
40.00		1.00	1.04	21.951	24.15	378.14	0.650	0.000	1.00	4.042	2.63	101.5	0.0	314.6
45.00	Top - Section 1	1.00	1.07	22.502	24.75	374.32	0.650	0.000	5.00	19.943	12.96	513.4	0.0	1552.0
50.00		1.00	1.09	23.007	25.31	375.00	0.650	0.000	5.00	19.500	12.67	513.2	0.0	695.2
50.50	Appurtenance(s)	1.00	1.10	23.055	25.36	374.53	0.650	0.000	0.50	1.926	1.25	50.8	0.0	68.6
55.00		1.00	1.12	23.473	25.82	370.06	0.650	0.000	4.50	17.130	11.13	460.0	0.0	610.6
60.00		1.00	1.14	23.907	26.30	364.66	0.650	0.000	5.00	18.612	12.10	509.0	0.0	663.3
65.00		1.00	1.16	24.313	26.74	358.87	0.650	0.000	5.00	18.168	11.81	505.3	0.0	647.4
70.00		1.00	1.17	24.696	27.17	352.73	0.650	0.000	5.00	17.724	11.52	500.7	0.0	631.5
75.00		1.00	1.19	25.057	27.56	346.29	0.650	0.000	5.00	17.280	11.23	495.3	0.0	615.5
79.00	Bot - Section 3	1.00	1.20	25.333	27.87	340.95	0.650	0.000	4.00	13.504	8.78	391.4	0.0	481.0
80.00		1.00	1.21	25.400	27.94	339.58	0.650	0.000	1.00	3.374	2.19	98.0	0.0	214.9
84.00	Top - Section 2	1.00	1.22	25.662	28.23	334.04	0.650	0.000	4.00	13.319	8.66	391.0	0.0	848.3
85.00	Appurtenance(s)	1.00	1.22	25.726	28.30	336.98	0.650	0.000	1.00	3.285	2.14	96.7	0.0	93.7
90.00		1.00	1.24	26.037	28.64	329.82	0.650	0.000	5.00	16.160	10.50	481.4	0.0	461.0
95.00		1.00	1.25	26.336	28.97	322.47	0.650	0.000	5.00	15.716	10.22	473.5	0.0	448.3
99.50	Appurtenance(s)	1.00	1.26	26.593	29.25	315.69	0.650	0.000	4.50	13.765	8.95	418.8	0.0	392.6
100.00		1.00	1.27	26.621	29.28	314.93	0.650	0.000	0.50	1.507	0.98	45.9	0.0	43.0
105.00		1.00	1.28	26.896	29.59	307.21	0.650	0.000	5.00	14.828	9.64	456.3	0.0	422.8
109.00	Appurtenance(s)	1.00	1.29	27.109	29.82	300.92	0.650	0.000	4.00	11.543	7.50	358.0	0.0	329.1
110.00		1.00	1.29	27.161	29.88	299.34	0.650	0.000	1.00	2.841	1.85	88.3	0.0	81.0
115.00		1.00	1.30	27.416	30.16	291.32	0.650	0.000	5.00	13.941	9.06	437.2	0.0	397.3
118.50	Appurtenance(s)	1.00	1.31	27.590	30.35	285.62	0.650	0.000	3.50	9.494	6.17	299.7	0.0	270.5
120.00	Top - Section 3	1.00	1.32	27.663	30.43	283.15	0.650	0.000	1.50	4.002	2.60	126.7	0.0	114.0
125.00		1.00	1.33	27.902	30.69	274.87	0.650	0.000	5.00	13.053	8.48	416.6	0.0	279.4
130.00		1.00	1.34	28.133	30.95	266.45	0.650	0.000	5.00	12.609	8.20	405.8	0.0	269.9
135.00		1.00	1.35	28.358	31.19	257.93	0.650	0.000	5.00	12.165	7.91	394.6	0.0	260.3
136.50	Appurtenance(s)	1.00	1.35	28.424	31.27	255.35	0.650	0.000	1.50	3.563	2.32	115.9	0.0	76.2
140.00		1.00	1.36	28.576	31.43	249.29	0.650	0.000	3.50	8.158	5.30	266.7	0.0	174.5
145.00		1.00	1.37	28.788	31.67	240.56	0.650	0.000	5.00	11.277	7.33	371.4	0.0	241.2
147.00	Appurtenance(s)	1.00	1.37	28.871	31.76	237.04	0.650	0.000	2.00	4.387	2.85	144.9	0.0	93.8
148.00	Appurtenance(s)	1.00	1.37	28.912	31.80	235.27	0.650	0.000	1.00	2.167	1.41	71.7	0.0	46.3
								Totals:	**148.00**			**13,762.9**		**19,082.6**

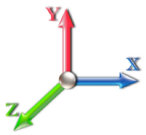
Discrete Appurtenance Forces

Structure:	CT13057-A	**Code:**	TIA-222-G	6/7/2022	
Site Name:	Newtown	**Exposure:**	C		
Height:	148.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 15	

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 23

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	148.00	Pipe Mount	1	28.994	31.893	1.00	1.00	2.63	36.00	0.000	2.000	134.21	0.00	268.41
2	148.00	DB-TDD6492A-A	1	29.115	32.026	1.00	1.00	2.41	18.90	0.000	5.000	123.49	0.00	617.47
3	148.00	6' Lightning rod	1	29.034	31.938	1.00	1.00	0.38	5.85	0.000	3.000	19.42	0.00	58.25
4	147.00	Trombone	1	28.871	31.758	1.00	1.00	1.00	5.40	0.000	0.000	50.81	0.00	0.00
5	147.00	Standoff	1	28.871	31.758	1.00	1.00	2.63	36.00	0.000	0.000	133.64	0.00	0.00
6	136.50	Commscope	3	28.467	31.314	0.50	0.75	2.95	142.86	0.000	1.000	148.04	0.00	148.04
7	136.50	Swedcom SC-E 6014	3	28.467	31.314	0.73	0.75	7.34	40.50	0.000	1.000	367.89	0.00	367.89
8	136.50	JMA Wireless	6	28.467	31.314	0.65	0.75	38.64	324.00	0.000	1.000	1936.02	0.00	1936.02
9	136.50	Samsung MT6407-77A	3	28.467	31.314	0.52	0.75	7.40	235.17	0.000	1.000	370.89	0.00	370.89
10	136.50	Samsung RF4440d-13A	3	28.467	31.314	0.50	0.75	2.82	201.69	0.000	1.000	141.24	0.00	141.24
11	136.50	Commscope	1	28.467	31.314	0.38	0.75	0.70	13.69	0.000	1.000	35.13	0.00	35.13
12	136.50	Platform w/ Rails	1	28.424	31.266	1.00	1.00	23.81	1429.65	0.000	0.000	1191.11	0.00	0.00
13	136.50	Samsung RF4439d-25A	3	28.467	31.314	0.50	0.75	2.82	201.69	0.000	1.000	141.24	0.00	141.24
14	118.50	RRH Collar Mount	1	27.590	30.349	0.56	0.75	2.81	225.00	0.000	0.000	136.57	0.00	0.00
15	118.50	Powerwave LGP21401	6	27.590	30.349	0.52	0.75	4.06	76.14	0.000	0.000	197.32	0.00	0.00
16	118.50	Low Profile Platform	1	27.590	30.349	1.00	1.00	22.00	1350.00	0.000	0.000	1068.29	0.00	0.00
17	118.50	Raycap DC6-48-60-18-8F	2	27.590	30.349	0.56	0.75	1.04	59.04	0.000	0.000	50.26	0.00	0.00
18	118.50	Ericsson RRUS 8843 B2	3	27.590	30.349	0.50	0.75	2.47	189.00	0.000	0.000	120.05	0.00	0.00
19	118.50	Kathrein 800-10965	6	27.590	30.349	0.53	0.75	44.12	586.44	0.000	0.000	2142.54	0.00	0.00
20	118.50	Ericsson 4449 B5/B12	3	27.590	30.349	0.50	0.75	2.97	191.70	0.000	0.000	144.21	0.00	0.00
21	118.50	SitePro Sitepro 1 P/N	1	27.590	30.349	1.00	1.00	9.75	365.95	0.000	0.000	473.44	0.00	0.00
22	118.50	Pipe Mast	3	27.590	30.349	0.56	0.75	2.62	162.00	0.000	0.000	127.01	0.00	0.00
23	118.50	Powerwave 7770	3	27.590	30.349	0.55	0.75	9.03	94.50	0.000	0.000	438.66	0.00	0.00
24	109.00	ALU 800 MHz RRH - RRU	3	27.109	29.820	0.54	0.80	4.00	143.10	0.000	0.000	191.03	0.00	0.00
25	109.00	RFS APXVSPP18-C-A20	3	27.109	29.820	0.66	0.80	15.98	153.90	0.000	0.000	762.23	0.00	0.00
26	109.00	RFS APXVTM14-C-I20	3	27.109	29.820	0.68	0.80	12.93	151.20	0.000	0.000	617.08	0.00	0.00
27	109.00	ALU 1900MHz RRH - RRU	3	27.109	29.820	0.54	0.80	6.11	118.80	0.000	0.000	291.54	0.00	0.00
28	109.00	T-Arms w/ Working	3	27.109	29.820	0.56	0.75	20.25	945.00	0.000	0.000	966.16	0.00	0.00
29	109.00	ALU 800MHz RRH Filter	3	27.109	29.820	0.54	0.80	1.25	23.76	0.000	0.000	59.84	0.00	0.00
30	109.00	ALU TD-RRH8x20 - RRU	3	27.109	29.820	0.54	0.80	6.51	189.00	0.000	0.000	310.72	0.00	0.00
31	109.00	RFS ACU-A20-N - RET	4	27.109	29.820	0.40	0.80	0.22	3.60	0.000	0.000	10.69	0.00	0.00
32	99.50	Platform w/ Hand Rail	1	26.593	29.253	1.00	1.00	32.00	1440.00	0.000	0.000	1497.74	0.00	0.00
33	99.50	RR65-18-00DPL2	6	26.593	29.253	0.68	0.80	17.79	72.90	0.000	0.000	832.59	0.00	0.00
34	99.50	RFS	3	26.593	29.253	0.67	0.80	10.42	71.28	0.000	0.000	487.83	0.00	0.00
35	99.50	Commscope	3	26.593	29.253	0.64	0.80	22.02	134.46	0.000	0.000	1030.75	0.00	0.00
36	99.50	RFS ATMAA1412D-1A2 -	3	26.593	29.253	0.56	0.80	1.97	35.10	0.000	0.000	92.00	0.00	0.00
37	99.50	Kathrein 782 11054 - Bias	3	26.593	29.253	0.56	0.80	0.47	7.02	0.000	0.000	22.02	0.00	0.00
38	85.00	Platform w/HRK	1	25.726	28.299	1.00	1.00	22.92	1554.30	0.000	0.000	1037.77	0.00	0.00
39	85.00	Raycap	1	25.726	28.299	0.80	0.80	1.61	19.67	0.000	0.000	72.81	0.00	0.00
40	85.00	Fujitsu TA08025-B604	3	25.726	28.299	0.61	0.80	3.58	172.61	0.000	0.000	161.87	0.00	0.00
41	85.00	Fujitsu TA08025-B605	3	25.726	28.299	0.64	0.80	3.76	202.37	0.000	0.000	170.39	0.00	0.00
42	85.00	Commscope	3	25.726	28.299	0.58	0.80	21.50	191.16	0.000	0.000	973.34	0.00	0.00
43	50.50	3 ft Standoff	1	23.055	25.361	1.00	1.00	2.63	36.00	0.000	0.000	106.72	0.00	0.00
44	50.50	Decibel 260B GPS	1	23.055	25.361	1.00	1.00	0.09	0.90	0.000	0.000	3.65	0.00	0.00
							Totals:		**11,657.29**			**19,390.25**		

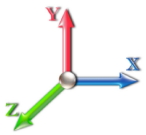
Total Applied Force Summary

Structure:	CT13057-A		**Code:**	TIA-222-G	6/7/2022
Site Name:	Newtown		**Exposure:**	C	
Height:	148.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 16

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 23

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		475.15	1125.43	0.00	0.00
10.00		466.07	1106.31	0.00	0.00
15.00		456.99	1087.19	0.00	0.00
20.00		475.25	1068.07	0.00	0.00
25.00		488.01	1048.95	0.00	0.00
30.00		496.61	1029.83	0.00	0.00
35.00		502.16	1010.71	0.00	0.00
39.00		403.00	794.80	0.00	0.00
40.00		101.50	340.93	0.00	0.00
45.00		513.39	1683.62	0.00	0.00
50.00		513.23	826.83	0.00	0.00
50.50	(2) attachments	161.16	118.71	0.00	0.00
55.00		460.00	728.44	0.00	0.00
60.00		509.03	794.24	0.00	0.00
65.00		505.33	778.31	0.00	0.00
70.00		500.74	762.37	0.00	0.00
75.00		495.34	746.44	0.00	0.00
79.00		391.37	585.68	0.00	0.00
80.00		98.04	241.11	0.00	0.00
84.00		391.00	952.97	0.00	0.00
85.00	(11) attachments	2512.86	2260.02	0.00	0.00
90.00		481.36	586.07	0.00	0.00
95.00		473.49	573.32	0.00	0.00
99.50	(19) attachments	4381.70	2265.85	0.00	0.00
100.00		45.90	51.92	0.00	0.00
105.00		456.26	512.19	0.00	0.00
109.00	(25) attachments	3567.27	2128.93	0.00	0.00
110.00		88.29	96.49	0.00	0.00
115.00		437.24	474.82	0.00	0.00
118.50	(29) attachments	5198.02	3624.56	0.00	0.00
120.00		126.66	126.27	0.00	0.00
125.00		416.64	320.22	0.00	0.00
130.00		405.81	310.66	0.00	0.00
135.00		394.65	301.10	0.00	0.00
136.50	(23) attachments	4447.42	2677.71	0.00	3140.45
140.00		266.69	185.01	0.00	0.00
145.00		371.39	245.86	0.00	0.00
147.00	(2) attachments	329.33	137.07	0.00	0.00
148.00	(3) attachments	348.78	107.54	0.00	944.13
	Totals:	**33,153.12**	**33,816.52**	**0.00**	**4,084.58**

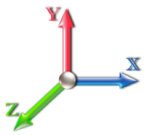
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13057-A		**Code:**	TIA-222-G	6/7/2022
Site Name:	Newtown		**Exposure:**	C	
Height:	148.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 17

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 23

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.012	0.000	17.879	0.00	0.72
10.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.012	0.000	17.879	0.00	0.72
15.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.012	0.000	17.879	0.00	0.72
20.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.012	0.000	18.971	0.00	0.72
25.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.013	0.000	19.883	0.00	0.72
30.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.013	0.000	20.661	0.00	0.72
35.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.013	0.000	21.343	0.00	0.72
39.00	1/2" Coax	Yes	4.00	0.000	0.65	0.22	0.00	0.013	0.000	21.834	0.00	0.58
40.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.014	0.000	21.951	0.00	0.14
45.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.014	0.000	22.502	0.00	0.72
50.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.014	0.000	23.007	0.00	0.72
50.50	1/2" Coax	Yes	0.50	0.000	0.65	0.03	0.00	0.014	0.000	23.055	0.00	0.07
										Totals:	**0.0**	**7.3**

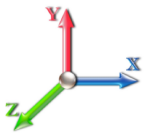
Calculated Forces

Structure:	CT13057-A	**Code:**	TIA-222-G	6/7/2022	
Site Name:	Newtown	**Exposure:**	C		
Height:	148.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 18

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 23

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-33.76	-33.21	0.00	-3286.9	0.00	3286.91	4270.00	2135.00	9669.74	4842.06	0.00	0.000	0.000	0.687
5.00	-32.53	-32.83	0.00	-3120.8	0.00	3120.88	4222.20	2111.10	9378.04	4695.99	0.10	-0.182	0.000	0.673
10.00	-31.33	-32.46	0.00	-2956.7	0.00	2956.71	4173.09	2086.54	9087.66	4550.58	0.39	-0.364	0.000	0.657
15.00	-30.14	-32.09	0.00	-2794.4	0.00	2794.40	4122.67	2061.34	8798.75	4405.92	0.87	-0.547	0.000	0.642
20.00	-28.98	-31.70	0.00	-2633.9	0.00	2633.94	4070.95	2035.48	8511.51	4262.08	1.54	-0.731	0.000	0.625
25.00	-27.83	-31.29	0.00	-2475.4	0.00	2475.45	4017.93	2008.97	8226.08	4119.16	2.40	-0.915	0.000	0.608
30.00	-26.71	-30.86	0.00	-2319.0	0.00	2319.02	3963.61	1981.80	7942.65	3977.23	3.46	-1.098	0.000	0.590
35.00	-25.63	-30.41	0.00	-2164.7	0.00	2164.74	3907.97	1953.99	7661.39	3836.39	4.71	-1.281	0.000	0.571
39.00	-24.79	-30.02	0.00	-2043.1	0.00	2043.12	3862.53	1931.27	7438.05	3724.55	5.85	-1.428	0.000	0.555
40.00	-24.40	-29.96	0.00	-2013.0	0.00	2013.09	3851.04	1925.52	7382.46	3696.72	6.15	-1.465	0.000	0.551
45.00	-22.64	-29.47	0.00	-1863.2	0.00	1863.29	2980.94	1490.47	5677.43	2842.94	7.78	-1.645	0.000	0.663
50.00	-21.78	-28.97	0.00	-1715.9	0.00	1715.92	2941.52	1470.76	5474.55	2741.34	9.60	-1.824	0.000	0.634
50.50	-21.61	-28.85	0.00	-1701.4	0.00	1701.43	2937.50	1468.75	5454.31	2731.21	9.79	-1.845	0.000	0.631
55.00	-20.80	-28.43	0.00	-1571.6	0.00	1571.62	2900.79	1450.39	5272.72	2640.28	11.62	-2.026	0.000	0.603
60.00	-19.94	-27.96	0.00	-1429.4	0.00	1429.47	2858.76	1429.38	5072.11	2539.83	13.85	-2.224	0.000	0.570
65.00	-19.09	-27.49	0.00	-1289.6	0.00	1289.66	2815.42	1407.71	4872.91	2440.07	16.28	-2.416	0.000	0.536
70.00	-18.26	-27.01	0.00	-1152.2	0.00	1152.22	2770.78	1385.39	4675.26	2341.11	18.91	-2.601	0.000	0.499
75.00	-17.47	-26.53	0.00	-1017.1	0.00	1017.16	2724.84	1362.42	4479.35	2243.01	21.73	-2.779	0.000	0.460
79.00	-16.86	-26.14	0.00	-911.04	0.00	911.04	2687.14	1343.57	4323.99	2165.21	24.12	-2.916	0.000	0.427
80.00	-16.59	-26.05	0.00	-884.91	0.00	884.91	2677.59	1338.79	4285.35	2145.86	24.74	-2.950	0.000	0.419
84.00	-15.62	-25.63	0.00	-780.71	0.00	780.71	1954.67	977.33	3110.93	1557.78	27.26	-3.078	0.000	0.510
85.00	-13.46	-23.02	0.00	-755.08	0.00	755.08	1948.85	974.42	3084.73	1544.66	27.91	-3.109	0.000	0.496
90.00	-12.84	-22.55	0.00	-639.97	0.00	639.97	1918.95	959.48	2954.04	1479.22	31.26	-3.283	0.000	0.440
95.00	-12.24	-22.07	0.00	-527.23	0.00	527.23	1887.76	943.88	2824.00	1414.10	34.79	-3.441	0.000	0.380
99.50	-10.22	-17.57	0.00	-427.91	0.00	427.91	1858.56	929.28	2707.66	1355.84	38.09	-3.568	0.000	0.321
100.00	-10.15	-17.53	0.00	-419.12	0.00	419.12	1855.26	927.63	2694.78	1349.39	38.47	-3.582	0.000	0.316
105.00	-9.64	-17.06	0.00	-331.45	0.00	331.45	1821.45	910.73	2566.54	1285.18	42.28	-3.702	0.000	0.264
109.00	-7.74	-13.37	0.00	-263.20	0.00	263.20	1793.47	896.73	2464.77	1234.22	45.42	-3.786	0.000	0.218
110.00	-7.64	-13.28	0.00	-249.82	0.00	249.82	1786.34	893.17	2439.46	1221.54	46.22	-3.806	0.000	0.209
115.00	-7.18	-12.82	0.00	-183.40	0.00	183.40	1749.93	874.96	2313.70	1158.57	50.25	-3.890	0.000	0.163
118.50	-3.91	-7.39	0.00	-138.52	0.00	138.52	1723.66	861.83	2226.56	1114.93	53.12	-3.938	0.000	0.127
120.00	-3.79	-7.26	0.00	-127.43	0.00	127.43	1712.21	856.11	2189.45	1096.35	54.36	-3.956	0.000	0.119
120.00	-3.79	-7.26	0.00	-127.43	0.00	127.43	1141.82	570.91	1465.94	734.06	54.36	-3.956	0.000	0.177
125.00	-3.49	-6.83	0.00	-91.12	0.00	91.12	1122.14	561.07	1391.92	696.99	58.53	-4.007	0.000	0.134
130.00	-3.21	-6.40	0.00	-56.99	0.00	56.99	1101.16	550.58	1318.05	660.01	62.75	-4.058	0.000	0.089
135.00	-2.93	-5.99	0.00	-24.98	0.00	24.98	1078.87	539.43	1244.50	623.18	67.01	-4.090	0.000	0.043
136.50	-0.58	-1.36	0.00	-12.86	0.00	12.86	1071.93	535.96	1222.52	612.17	68.30	-4.095	0.000	0.022
140.00	-0.41	-1.08	0.00	-8.10	0.00	8.10	1055.28	527.64	1171.44	586.59	71.30	-4.102	0.000	0.014
145.00	-0.20	-0.69	0.00	-2.69	0.00	2.69	1030.38	515.19	1099.04	550.33	75.60	-4.107	0.000	0.005
147.00	-0.08	-0.36	0.00	-1.30	0.00	1.30	1020.06	510.03	1070.30	535.94	77.32	-4.108	0.000	0.003
148.00	0.00	-0.35	0.00	-0.94	0.00	0.94	1014.82	507.41	1055.98	528.78	78.18	-4.108	0.000	0.002

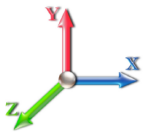
Wind Loading - Shaft

Structure:	CT13057-A	**Code:**	TIA-222-G	6/7/2022	
Site Name:	Newtown	**Exposure:**	C		
Height:	148.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 19	

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 23

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	5.168	5.68	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	5.168	5.68	0.00	1.200	1.242	5.00	24.265	29.12	165.5	432.8	1757.9
10.00		1.00	0.85	5.168	5.68	0.00	1.200	1.331	5.00	23.896	28.67	163.0	455.8	1755.4
15.00		1.00	0.85	5.168	5.68	0.00	1.200	1.386	5.00	23.498	28.20	160.3	466.1	1740.2
20.00		1.00	0.90	5.483	6.03	0.00	1.200	1.427	5.00	23.087	27.70	167.1	470.6	1719.2
25.00		1.00	0.95	5.747	6.32	0.00	1.200	1.459	5.00	22.670	27.20	172.0	471.9	1695.1
30.00		1.00	0.98	5.972	6.57	0.00	1.200	1.486	5.00	22.249	26.70	175.4	471.1	1668.7
35.00		1.00	1.01	6.169	6.79	0.00	1.200	1.509	5.00	21.824	26.19	177.7	468.7	1640.8
39.00	Bot - Section 2	1.00	1.04	6.311	6.94	0.00	1.200	1.525	4.00	17.151	20.58	142.9	372.8	1292.1
40.00		1.00	1.04	6.345	6.98	0.00	1.200	1.529	1.00	4.297	5.16	36.0	94.2	513.7
45.00	Top - Section 1	1.00	1.07	6.504	7.15	0.00	1.200	1.547	5.00	21.233	25.48	182.3	466.7	2536.1
50.00		1.00	1.09	6.650	7.32	0.00	1.200	1.564	5.00	20.803	24.96	182.6	461.6	1388.5
50.50	Appurtenance(s)	1.00	1.10	6.664	7.33	0.00	1.200	1.565	0.50	2.056	2.47	18.1	46.1	137.6
55.00		1.00	1.12	6.785	7.46	0.00	1.200	1.579	4.50	18.314	21.98	164.0	410.2	1224.4
60.00		1.00	1.14	6.910	7.60	0.00	1.200	1.592	5.00	19.939	23.93	181.9	449.4	1333.9
65.00		1.00	1.16	7.028	7.73	0.00	1.200	1.605	5.00	19.506	23.41	180.9	442.6	1305.8
70.00		1.00	1.17	7.138	7.85	0.00	1.200	1.617	5.00	19.072	22.89	179.7	435.4	1277.3
75.00		1.00	1.19	7.243	7.97	0.00	1.200	1.628	5.00	18.637	22.36	178.2	427.8	1248.5
79.00	Bot - Section 3	1.00	1.20	7.322	8.05	0.00	1.200	1.637	4.00	14.596	17.51	141.1	337.2	978.5
80.00		1.00	1.21	7.342	8.08	0.00	1.200	1.639	1.00	3.647	4.38	35.3	85.0	371.6
84.00	Top - Section 2	1.00	1.22	7.418	8.16	0.00	1.200	1.647	4.00	14.417	17.30	141.2	334.8	1465.8
85.00	Appurtenance(s)	1.00	1.22	7.436	8.18	0.00	1.200	1.649	1.00	3.560	4.27	34.9	83.4	208.4
90.00		1.00	1.24	7.526	8.28	0.00	1.200	1.658	5.00	17.542	21.05	174.3	408.4	1023.1
95.00		1.00	1.25	7.612	8.37	0.00	1.200	1.667	5.00	17.106	20.53	171.9	399.8	997.5
99.50	Appurtenance(s)	1.00	1.26	7.687	8.46	0.00	1.200	1.675	4.50	15.021	18.03	152.4	352.6	876.0
100.00		1.00	1.27	7.695	8.46	0.00	1.200	1.676	0.50	1.647	1.98	16.7	39.1	96.4
105.00		1.00	1.28	7.774	8.55	0.00	1.200	1.684	5.00	16.232	19.48	166.6	381.8	945.6
109.00	Appurtenance(s)	1.00	1.29	7.836	8.62	0.00	1.200	1.690	4.00	12.670	15.20	131.0	299.6	738.3
110.00		1.00	1.29	7.851	8.64	0.00	1.200	1.692	1.00	3.123	3.75	32.4	74.5	182.5
115.00		1.00	1.30	7.925	8.72	0.00	1.200	1.699	5.00	15.357	18.43	160.6	363.1	892.9
118.50	Appurtenance(s)	1.00	1.31	7.975	8.77	0.00	1.200	1.705	3.50	10.489	12.59	110.4	249.5	610.2
120.00	Top - Section 3	1.00	1.32	7.996	8.80	0.00	1.200	1.707	1.50	4.429	5.31	46.7	106.1	258.1
125.00		1.00	1.33	8.065	8.87	0.00	1.200	1.714	5.00	14.481	17.38	154.2	343.8	716.4
130.00		1.00	1.34	8.132	8.95	0.00	1.200	1.720	5.00	14.043	16.85	150.7	333.9	693.7
135.00		1.00	1.35	8.197	9.02	0.00	1.200	1.727	5.00	13.604	16.32	147.2	323.9	671.0
136.50	Appurtenance(s)	1.00	1.35	8.216	9.04	0.00	1.200	1.729	1.50	3.995	4.79	43.3	96.3	197.9
140.00		1.00	1.36	8.260	9.09	0.00	1.200	1.733	3.50	9.169	11.00	100.0	219.6	452.3
145.00		1.00	1.37	8.321	9.15	0.00	1.200	1.739	5.00	12.727	15.27	139.8	303.5	625.0
147.00	Appurtenance(s)	1.00	1.37	8.345	9.18	0.00	1.200	1.742	2.00	4.967	5.96	54.7	119.7	244.8
148.00	Appurtenance(s)	1.00	1.37	8.357	9.19	0.00	1.200	1.743	1.00	2.457	2.95	27.1	59.5	121.2
								Totals:	**148.00**			**4,960.2**		**37,602.3**

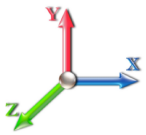
Discrete Appurtenance Forces

Structure:	CT13057-A	**Code:**	TIA-222-G	6/7/2022	
Site Name:	Newtown	**Exposure:**	C		
Height:	148.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 20	

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 23

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	148.00	Pipe Mount	1	8.381	9.219	1.00	1.00	8.59	105.17	0.000	2.000	79.19	0.00	158.39
2	148.00	DB-TDD6492A-A	1	8.416	9.257	1.00	1.00	5.19	68.94	0.000	5.000	48.08	0.00	240.41
3	148.00	6' Lightning rod	1	8.392	9.232	1.00	1.00	1.47	38.75	0.000	3.000	13.54	0.00	40.61
4	147.00	Trombone	1	8.345	9.180	1.00	1.00	2.71	-5.02	0.000	0.000	24.90	0.00	0.00
5	147.00	Standoff	1	8.345	9.180	1.00	1.00	8.59	105.12	0.000	0.000	78.82	0.00	0.00
6	136.50	Commscope	3	8.229	9.051	0.50	0.75	3.82	382.39	0.000	1.000	34.57	0.00	34.57
7	136.50	Swedcom SC-E 6014	3	8.229	9.051	0.73	0.75	10.99	254.39	0.000	1.000	99.46	0.00	99.46
8	136.50	JMA Wireless	6	8.229	9.051	0.67	0.75	44.88	2028.39	0.000	1.000	406.26	0.00	406.26
9	136.50	Samsung MT6407-77A	3	8.229	9.051	0.53	0.75	8.57	671.46	0.000	1.000	77.57	0.00	77.57
10	136.50	Samsung RF4440d-13A	3	8.229	9.051	0.50	0.75	3.66	495.60	0.000	1.000	33.10	0.00	33.10
11	136.50	Commscope	1	8.229	9.051	0.38	0.75	0.91	86.31	0.000	1.000	8.24	0.00	8.24
12	136.50	Platform w/ Rails	1	8.216	9.037	1.00	1.00	42.75	3067.83	0.000	0.000	386.31	0.00	0.00
13	136.50	Samsung RF4439d-25A	3	8.229	9.051	0.50	0.75	3.66	495.60	0.000	1.000	33.10	0.00	33.10
14	118.50	RRH Collar Mount	1	7.975	8.772	0.56	0.75	7.61	721.60	0.000	0.000	66.73	0.00	0.00
15	118.50	Powerwave LGP21401	6	7.975	8.772	0.52	0.75	6.63	205.43	0.000	0.000	58.20	0.00	0.00
16	118.50	Low Profile Platform	1	7.975	8.772	1.00	1.00	39.25	2778.42	0.000	0.000	344.32	0.00	0.00
17	118.50	Raycap DC6-48-60-18-8F	2	7.975	8.772	0.75	0.75	2.02	169.89	0.000	0.000	17.74	0.00	0.00
18	118.50	Ericsson RRUS 8843 B2	3	7.975	8.772	0.75	0.75	4.82	352.84	0.000	0.000	42.32	0.00	0.00
19	118.50	Kathrein 800-10965	6	7.975	8.772	0.75	0.75	69.09	2523.09	0.000	0.000	606.05	0.00	0.00
20	118.50	Ericsson 4449 B5/B12	3	7.975	8.772	0.75	0.75	5.64	371.21	0.000	0.000	49.44	0.00	0.00
21	118.50	SitePro Sitepro 1 P/N	1	7.975	8.772	1.00	1.00	19.06	1365.84	0.000	0.000	167.17	0.00	0.00
22	118.50	Pipe Mast	3	7.975	8.772	0.75	0.75	7.77	402.82	0.000	0.000	68.14	0.00	0.00
23	118.50	Powerwave 7770	3	7.975	8.772	0.63	0.75	12.36	519.97	0.000	0.000	108.41	0.00	0.00
24	109.00	ALU 800 MHz RRH - RRU	3	7.836	8.619	0.54	0.80	5.79	342.41	0.000	0.000	49.87	0.00	0.00
25	109.00	RFS APXVSPP18-C-A20	3	7.836	8.619	0.66	0.80	21.37	558.96	0.000	0.000	184.16	0.00	0.00
26	109.00	RFS APXVTM14-C-I20	3	7.836	8.619	0.68	0.80	15.13	664.75	0.000	0.000	130.40	0.00	0.00
27	109.00	ALU 1900MHz RRH - RRU	3	7.836	8.619	0.54	0.80	8.28	382.00	0.000	0.000	71.33	0.00	0.00
28	109.00	T-Arms w/ Working	3	7.836	8.619	0.56	0.75	37.37	1759.96	0.000	0.000	322.07	0.00	0.00
29	109.00	ALU 800MHz RRH Filter	3	7.836	8.619	0.54	0.80	2.26	67.95	0.000	0.000	19.49	0.00	0.00
30	109.00	ALU TD-RRH8x20 - RRU	3	7.836	8.619	0.54	0.80	7.78	570.87	0.000	0.000	67.02	0.00	0.00
31	109.00	RFS ACU-A20-N - RET	4	7.836	8.619	0.40	0.80	0.68	16.24	0.000	0.000	5.89	0.00	0.00
32	99.50	Platform w/ Hand Rail	1	7.687	8.456	1.00	1.00	58.80	3335.39	0.000	0.000	497.19	0.00	0.00
33	99.50	RR65-18-00DPL2	6	7.687	8.456	0.68	0.80	21.63	658.84	0.000	0.000	182.93	0.00	0.00
34	99.50	RFS	3	7.687	8.456	0.67	0.80	15.02	283.55	0.000	0.000	126.98	0.00	0.00
35	99.50	Commscope	3	7.687	8.456	0.64	0.80	28.04	642.84	0.000	0.000	237.11	0.00	0.00
36	99.50	RFS ATMAA1412D-1A2 -	3	7.687	8.456	0.59	0.80	3.41	100.54	0.000	0.000	28.85	0.00	0.00
37	99.50	Kathrein 782 11054 - Bias	3	7.687	8.456	0.57	0.80	1.13	22.47	0.000	0.000	9.58	0.00	0.00
38	85.00	Platform w/HRK	1	7.436	8.180	1.00	1.00	48.16	5073.18	0.000	0.000	393.98	0.00	0.00
39	85.00	Raycap	1	7.436	8.180	0.80	0.80	1.96	48.77	0.000	0.000	16.03	0.00	0.00
40	85.00	Fujitsu TA08025-B604	3	7.436	8.180	0.62	0.80	5.38	398.05	0.000	0.000	44.03	0.00	0.00
41	85.00	Fujitsu TA08025-B605	3	7.436	8.180	0.65	0.80	5.66	500.18	0.000	0.000	46.32	0.00	0.00
42	85.00	Commscope	3	7.436	8.180	0.59	0.80	23.63	-21.85	0.000	0.000	193.30	0.00	0.00
43	50.50	3 ft Standoff	1	6.664	7.331	1.00	1.00	7.98	97.00	0.000	0.000	58.52	0.00	0.00
44	50.50	Decibel 260B GPS	1	6.664	7.331	1.00	1.00	0.25	4.56	0.000	0.000	1.82	0.00	0.00
							Totals:		**32,712.69**			**5,538.55**		

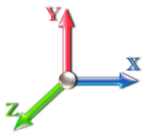
Total Applied Force Summary

Structure:	CT13057-A		**Code:**	TIA-222-G	6/7/2022
Site Name:	Newtown		**Exposure:**	C	
Height:	148.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (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 23

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		165.53	1946.11	0.00	0.00
10.00		163.01	1945.28	0.00	0.00
15.00		160.30	1931.06	0.00	0.00
20.00		167.11	1910.94	0.00	0.00
25.00		171.98	1887.41	0.00	0.00
30.00		175.39	1861.63	0.00	0.00
35.00		177.72	1834.23	0.00	0.00
39.00		142.88	1447.09	0.00	0.00
40.00		35.99	552.47	0.00	0.00
45.00		182.30	2730.27	0.00	0.00
50.00		182.61	1583.06	0.00	0.00
50.50	(2) attachments	78.43	258.64	0.00	0.00
55.00		164.02	1381.42	0.00	0.00
60.00		181.88	1508.38	0.00	0.00
65.00		180.95	1480.32	0.00	0.00
70.00		179.70	1451.85	0.00	0.00
75.00		178.18	1423.03	0.00	0.00
79.00		141.08	1118.09	0.00	0.00
80.00		35.35	406.48	0.00	0.00
84.00		141.16	1605.44	0.00	0.00
85.00	(11) attachments	728.60	6241.58	0.00	0.00
90.00		174.27	1189.87	0.00	0.00
95.00		171.88	1164.22	0.00	0.00
99.50	(19) attachments	1235.06	6069.72	0.00	0.00
100.00		16.73	108.32	0.00	0.00
105.00		166.57	1064.76	0.00	0.00
109.00	(25) attachments	981.29	5196.79	0.00	0.00
110.00		32.37	203.17	0.00	0.00
115.00		160.64	996.23	0.00	0.00
118.50	(29) attachments	1638.93	10093.66	0.00	0.00
120.00		46.75	274.42	0.00	0.00
125.00		154.16	770.76	0.00	0.00
130.00		150.74	748.12	0.00	0.00
135.00		147.19	725.35	0.00	0.00
136.50	(23) attachments	1121.95	7696.18	0.00	692.31
140.00		99.97	466.30	0.00	0.00
145.00		139.79	631.28	0.00	0.00
147.00	(2) attachments	158.44	347.38	0.00	0.00
148.00	(3) attachments	167.92	334.71	0.00	439.40
	Totals:	**10,498.79**	**74,586.01**	**0.00**	**1,131.72**

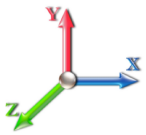
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13057-A		**Code:**	TIA-222-G	6/7/2022
Site Name:	Newtown		**Exposure:**	C	
Height:	148.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (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 23

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	1/2" Coax	Yes	5.00	0.000	0.65	1.31	0.00	0.012	0.000	5.168	0.00	13.70
10.00	1/2" Coax	Yes	5.00	0.000	0.65	1.38	0.00	0.012	0.000	5.168	0.00	15.33
15.00	1/2" Coax	Yes	5.00	0.000	0.65	1.43	0.00	0.012	0.000	5.168	0.00	16.38
20.00	1/2" Coax	Yes	5.00	0.000	0.65	1.46	0.00	0.012	0.000	5.483	0.00	17.18
25.00	1/2" Coax	Yes	5.00	0.000	0.65	1.49	0.00	0.013	0.000	5.747	0.00	17.83
30.00	1/2" Coax	Yes	5.00	0.000	0.65	1.51	0.00	0.013	0.000	5.972	0.00	18.38
35.00	1/2" Coax	Yes	5.00	0.000	0.65	1.53	0.00	0.013	0.000	6.169	0.00	18.86
39.00	1/2" Coax	Yes	4.00	0.000	0.65	1.23	0.00	0.013	0.000	6.311	0.00	15.36
40.00	1/2" Coax	Yes	1.00	0.000	0.65	0.31	0.00	0.014	0.000	6.345	0.00	3.86
45.00	1/2" Coax	Yes	5.00	0.000	0.65	1.56	0.00	0.014	0.000	6.504	0.00	19.67
50.00	1/2" Coax	Yes	5.00	0.000	0.65	1.57	0.00	0.014	0.000	6.650	0.00	20.02
50.50	1/2" Coax	Yes	0.50	0.000	0.65	0.16	0.00	0.014	0.000	6.664	0.00	2.01
										Totals:	**0.0**	**178.6**

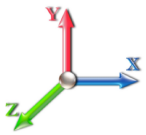
Calculated Forces

Structure:	CT13057-A	**Code:**	TIA-222-G	6/7/2022	
Site Name:	Newtown	**Exposure:**	C		
Height:	148.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (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 23

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-74.58	-10.54	0.00	-1062.4	0.00	1062.44	4270.00	2135.00	9669.74	4842.06	0.00	0.000	0.000	0.237
5.00	-72.62	-10.45	0.00	-1009.7	0.00	1009.75	4222.20	2111.10	9378.04	4695.99	0.03	-0.059	0.000	0.232
10.00	-70.67	-10.35	0.00	-957.52	0.00	957.52	4173.09	2086.54	9087.66	4550.58	0.13	-0.118	0.000	0.227
15.00	-68.73	-10.26	0.00	-905.76	0.00	905.76	4122.67	2061.34	8798.75	4405.92	0.28	-0.177	0.000	0.222
20.00	-66.81	-10.15	0.00	-854.47	0.00	854.47	4070.95	2035.48	8511.51	4262.08	0.50	-0.237	0.000	0.217
25.00	-64.91	-10.04	0.00	-803.70	0.00	803.70	4017.93	2008.97	8226.08	4119.16	0.78	-0.296	0.000	0.211
30.00	-63.04	-9.92	0.00	-753.50	0.00	753.50	3963.61	1981.80	7942.65	3977.23	1.12	-0.356	0.000	0.205
35.00	-61.20	-9.79	0.00	-703.90	0.00	703.90	3907.97	1953.99	7661.39	3836.39	1.53	-0.415	0.000	0.199
39.00	-59.75	-9.66	0.00	-664.75	0.00	664.75	3862.53	1931.27	7438.05	3724.55	1.89	-0.463	0.000	0.194
40.00	-59.19	-9.66	0.00	-655.08	0.00	655.08	3851.04	1925.52	7382.46	3696.72	1.99	-0.475	0.000	0.193
45.00	-56.45	-9.51	0.00	-606.78	0.00	606.78	2980.94	1490.47	5677.43	2842.94	2.52	-0.534	0.000	0.232
50.00	-54.86	-9.34	0.00	-559.22	0.00	559.22	2941.52	1470.76	5474.55	2741.34	3.11	-0.592	0.000	0.223
50.50	-54.60	-9.30	0.00	-554.55	0.00	554.55	2937.50	1468.75	5454.31	2731.21	3.18	-0.599	0.000	0.222
55.00	-53.21	-9.17	0.00	-512.72	0.00	512.72	2900.79	1450.39	5272.72	2640.28	3.77	-0.658	0.000	0.213
60.00	-51.69	-9.03	0.00	-466.85	0.00	466.85	2858.76	1429.38	5072.11	2539.83	4.49	-0.722	0.000	0.202
65.00	-50.21	-8.89	0.00	-421.70	0.00	421.70	2815.42	1407.71	4872.91	2440.07	5.28	-0.785	0.000	0.191
70.00	-48.75	-8.74	0.00	-377.28	0.00	377.28	2770.78	1385.39	4675.26	2341.11	6.14	-0.846	0.000	0.179
75.00	-47.32	-8.58	0.00	-333.60	0.00	333.60	2724.84	1362.42	4479.35	2243.01	7.06	-0.904	0.000	0.166
79.00	-46.20	-8.44	0.00	-299.29	0.00	299.29	2687.14	1343.57	4323.99	2165.21	7.83	-0.949	0.000	0.155
80.00	-45.79	-8.42	0.00	-290.85	0.00	290.85	2677.59	1338.79	4285.35	2145.86	8.03	-0.960	0.000	0.153
84.00	-44.18	-8.27	0.00	-257.17	0.00	257.17	1954.67	977.33	3110.93	1557.78	8.86	-1.002	0.000	0.188
85.00	-37.95	-7.46	0.00	-248.90	0.00	248.90	1948.85	974.42	3084.73	1544.66	9.07	-1.013	0.000	0.181
90.00	-36.76	-7.30	0.00	-211.62	0.00	211.62	1918.95	959.48	2954.04	1479.22	10.16	-1.070	0.000	0.162
95.00	-35.59	-7.13	0.00	-175.14	0.00	175.14	1887.76	943.88	2824.00	1414.10	11.31	-1.123	0.000	0.143
99.50	-29.55	-5.79	0.00	-143.05	0.00	143.05	1858.56	929.28	2707.66	1355.84	12.39	-1.165	0.000	0.121
100.00	-29.44	-5.78	0.00	-140.16	0.00	140.16	1855.26	927.63	2694.78	1349.39	12.51	-1.169	0.000	0.120
105.00	-28.37	-5.61	0.00	-111.26	0.00	111.26	1821.45	910.73	2566.54	1285.18	13.76	-1.210	0.000	0.102
109.00	-23.19	-4.52	0.00	-88.84	0.00	88.84	1793.47	896.73	2464.77	1234.22	14.79	-1.238	0.000	0.085
110.00	-22.99	-4.49	0.00	-84.31	0.00	84.31	1786.34	893.17	2439.46	1221.54	15.05	-1.245	0.000	0.082
115.00	-22.00	-4.32	0.00	-61.85	0.00	61.85	1749.93	874.96	2313.70	1158.57	16.37	-1.273	0.000	0.066
118.50	-11.94	-2.46	0.00	-46.73	0.00	46.73	1723.66	861.83	2226.56	1114.93	17.31	-1.289	0.000	0.049
120.00	-11.67	-2.41	0.00	-43.05	0.00	43.05	1712.21	856.11	2189.45	1096.35	17.71	-1.295	0.000	0.046
120.00	-11.67	-2.41	0.00	-43.05	0.00	43.05	1141.82	570.91	1465.94	734.06	17.71	-1.295	0.000	0.069
125.00	-10.90	-2.24	0.00	-31.02	0.00	31.02	1122.14	561.07	1391.92	696.99	19.08	-1.313	0.000	0.054
130.00	-10.16	-2.07	0.00	-19.83	0.00	19.83	1101.16	550.58	1318.05	660.01	20.46	-1.330	0.000	0.039
135.00	-9.43	-1.91	0.00	-9.47	0.00	9.47	1078.87	539.43	1244.50	623.18	21.86	-1.341	0.000	0.024
136.50	-1.77	-0.61	0.00	-5.91	0.00	5.91	1071.93	535.96	1222.52	612.17	22.28	-1.344	0.000	0.011
140.00	-1.30	-0.50	0.00	-3.78	0.00	3.78	1055.28	527.64	1171.44	586.59	23.27	-1.347	0.000	0.008
145.00	-0.67	-0.34	0.00	-1.30	0.00	1.30	1030.38	515.19	1099.04	550.33	24.68	-1.349	0.000	0.003
147.00	-0.33	-0.18	0.00	-0.62	0.00	0.62	1020.06	510.03	1070.30	535.94	25.25	-1.349	0.000	0.001
148.00	0.00	-0.17	0.00	-0.44	0.00	0.44	1014.82	507.41	1055.98	528.78	25.53	-1.350	0.000	0.001

Seismic Segment Forces (Factored)

Structure:	CT13057-A		**Code:**	TIA-222-G	6/7/2022
Site Name:	Newtown		**Exposure:**	C	
Height:	148.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 24

Load Case:	1.2D + 1.0E							**Iterations**	21
Gust Response Factor	1.10				**Sds**	0.22		**Ss**	0.21
Dead Load Factor	1.20	**Seismic Load Factor**	1.00		**Sd1**	0.11		**S1**	0.07
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.35		**SA**	0.04	**Seismic Importance Factor**		1.00

Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	0.00	
5.00		1104.2	0.00	0.03	0.02	25.07	
10.00		1083.0	0.01	0.05	0.03	35.13	
15.00		1061.7	0.02	0.06	0.04	39.41	
20.00		1040.5	0.03	0.07	0.04	41.08	
25.00		1019.2	0.05	0.07	0.04	41.64	
30.00		998.02	0.08	0.07	0.04	41.83	
35.00		976.77	0.11	0.07	0.04	41.95	
39.00	Bot - Section 2	766.12	0.13	0.07	0.03	33.53	
40.00		349.56	0.14	0.07	0.03	15.37	
45.00	Top - Section 1	1724.4	0.17	0.07	0.03	77.01	
50.00		772.46	0.22	0.06	0.02	34.40	
50.50	Appurtenance(s)	117.27	0.22	0.06	0.02	5.21	
55.00		678.49	0.26	0.05	0.02	29.03	
60.00		737.05	0.31	0.04	0.01	28.33	
65.00		719.35	0.36	0.03	0.01	21.87	
70.00		701.65	0.42	0.01	0.01	12.71	
75.00		683.94	0.49	-0.01	0.01	1.48	
79.00	Bot - Section 3	534.41	0.54	-0.03	0.01	-6.26	
80.00		238.81	0.55	-0.04	0.01	-3.61	
84.00	Top - Section 2	942.51	0.61	-0.06	0.02	-26.15	
85.00	Appurtenance(s)	2482.0	0.62	-0.06	0.02	-75.75	
90.00		512.26	0.70	-0.09	0.03	-21.16	
95.00		498.09	0.78	-0.11	0.05	-22.97	
99.50	Appurtenance(s)	2392.5	0.85	-0.12	0.07	-107.76	
100.00		47.76	0.86	-0.12	0.07	-2.13	
105.00		469.76	0.95	-0.12	0.11	-17.34	
109.00	Appurtenance(s)	2286.0	1.03	-0.10	0.14	-60.39	
110.00		89.99	1.04	-0.10	0.15	-2.09	
115.00		441.44	1.14	-0.04	0.21	-1.58	
118.50	Appurtenance(s)	3966.9	1.21	0.02	0.26	54.16	
120.00	Top - Section 3	126.70	1.24	0.05	0.29	2.78	
125.00		310.47	1.35	0.19	0.38	16.57	
130.00		299.84	1.46	0.40	0.49	27.25	
135.00		289.22	1.57	0.70	0.63	38.92	
136.50	Appurtenance(s)	2961.6	1.61	0.80	0.68	441.04	
140.00		193.90	1.69	1.09	0.80	35.80	
145.00		267.97	1.81	1.60	1.00	64.62	
147.00	Appurtenance(s)	150.22	1.86	1.85	1.09	39.90	
148.00	Appurtenance(s)	118.97	1.89	1.98	1.14	33.10	
	Totals:	**34,155.5**				**932.0**	**Total Wind:** **33,153.1**

Calculated Forces

Structure:	CT13057-A		**Code:**	TIA-222-G	6/7/2022
Site Name:	Newtown		**Exposure:**	C	
Height:	148.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 25

Load Case:	1.2D + 1.0E							**Iterations**	21
Gust Response Factor	1.10			**Sds**	0.22			**Ss**	0.21
Dead Load Factor	1.20	**Seismic Load Factor**	1.00	**Sd1**	0.11			**S1**	0.07
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.35	**SA**	0.04	**Seismic Importance Factor**			1.00

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-45.09	-1.28	0.00	-126.13	0.00	126.13	4270.00	2135.00	9669.74	4842.06		0.00	0.00	0.037
5.00	-43.59	-1.26	0.00	-119.72	0.00	119.72	4222.20	2111.10	9378.04	4695.99		0.00	-0.01	0.036
10.00	-42.11	-1.23	0.00	-113.41	0.00	113.41	4173.09	2086.54	9087.66	4550.58		0.01	-0.01	0.035
15.00	-40.66	-1.20	0.00	-107.26	0.00	107.26	4122.67	2061.34	8798.75	4405.92		0.03	-0.02	0.034
20.00	-39.24	-1.16	0.00	-101.28	0.00	101.28	4070.95	2035.48	8511.51	4262.08		0.06	-0.03	0.033
25.00	-37.84	-1.12	0.00	-95.48	0.00	95.48	4017.93	2008.97	8226.08	4119.16		0.09	-0.04	0.033
30.00	-36.47	-1.08	0.00	-89.87	0.00	89.87	3963.61	1981.80	7942.65	3977.23		0.13	-0.04	0.032
35.00	-35.12	-1.04	0.00	-84.45	0.00	84.45	3907.97	1953.99	7661.39	3836.39		0.18	-0.05	0.031
39.00	-34.06	-1.01	0.00	-80.27	0.00	80.27	3862.53	1931.27	7438.05	3724.55		0.22	-0.06	0.030
40.00	-33.60	-1.00	0.00	-79.26	0.00	79.26	3851.04	1925.52	7382.46	3696.72		0.24	-0.06	0.030
45.00	-31.36	-0.92	0.00	-74.27	0.00	74.27	2980.94	1490.47	5677.43	2842.94		0.30	-0.06	0.037
50.00	-30.26	-0.89	0.00	-69.65	0.00	69.65	2941.52	1470.76	5474.55	2741.34		0.37	-0.07	0.036
50.50	-30.10	-0.89	0.00	-69.21	0.00	69.21	2937.50	1468.75	5454.31	2731.21		0.38	-0.07	0.036
55.00	-29.13	-0.86	0.00	-65.22	0.00	65.22	2900.79	1450.39	5272.72	2640.28		0.45	-0.08	0.035
60.00	-28.07	-0.83	0.00	-60.92	0.00	60.92	2858.76	1429.38	5072.11	2539.83		0.54	-0.09	0.034
65.00	-27.03	-0.81	0.00	-56.74	0.00	56.74	2815.42	1407.71	4872.91	2440.07		0.63	-0.10	0.033
70.00	-26.01	-0.80	0.00	-52.67	0.00	52.67	2770.78	1385.39	4675.26	2341.11		0.74	-0.10	0.032
75.00	-25.02	-0.80	0.00	-48.65	0.00	48.65	2724.84	1362.42	4479.35	2243.01		0.85	-0.11	0.031
79.00	-24.24	-0.80	0.00	-45.43	0.00	45.43	2687.14	1343.57	4323.99	2165.21		0.95	-0.12	0.030
80.00	-23.92	-0.81	0.00	-44.63	0.00	44.63	2677.59	1338.79	4285.35	2145.86		0.97	-0.12	0.030
84.00	-22.65	-0.80	0.00	-41.41	0.00	41.41	1954.67	977.33	3110.93	1557.78		1.08	-0.13	0.038
85.00	-19.63	-0.80	0.00	-40.60	0.00	40.60	1948.85	974.42	3084.73	1544.66		1.10	-0.13	0.036
90.00	-18.85	-0.80	0.00	-36.61	0.00	36.61	1918.95	959.48	2954.04	1479.22		1.24	-0.14	0.035
95.00	-18.09	-0.80	0.00	-32.60	0.00	32.60	1887.76	943.88	2824.00	1414.10		1.39	-0.15	0.033
99.50	-15.06	-0.79	0.00	-28.99	0.00	28.99	1858.56	929.28	2707.66	1355.84		1.54	-0.16	0.029
100.00	-15.00	-0.80	0.00	-28.60	0.00	28.60	1855.26	927.63	2694.78	1349.39		1.55	-0.16	0.029
105.00	-14.31	-0.80	0.00	-24.62	0.00	24.62	1821.45	910.73	2566.54	1285.18		1.72	-0.17	0.027
109.00	-11.47	-0.79	0.00	-21.43	0.00	21.43	1793.47	896.73	2464.77	1234.22		1.87	-0.17	0.024
110.00	-11.35	-0.79	0.00	-20.65	0.00	20.65	1786.34	893.17	2439.46	1221.54		1.90	-0.17	0.023
115.00	-10.71	-0.79	0.00	-16.70	0.00	16.70	1749.93	874.96	2313.70	1158.57		2.09	-0.18	0.021
118.50	-5.88	-0.72	0.00	-13.94	0.00	13.94	1723.66	861.83	2226.56	1114.93		2.22	-0.19	0.016
120.00	-5.71	-0.72	0.00	-12.86	0.00	12.86	1712.21	856.11	2189.45	1096.35		2.28	-0.19	0.015
120.00	-5.71	-0.72	0.00	-12.86	0.00	12.86	1141.82	570.91	1465.94	734.06		2.28	-0.19	0.023
125.00	-5.28	-0.70	0.00	-9.29	0.00	9.29	1122.14	561.07	1391.92	696.99		2.48	-0.19	0.018
130.00	-4.87	-0.67	0.00	-5.79	0.00	5.79	1101.16	550.58	1318.05	660.01		2.68	-0.20	0.013
135.00	-4.47	-0.63	0.00	-2.44	0.00	2.44	1078.87	539.43	1244.50	623.18		2.89	-0.20	0.008
136.50	-0.90	-0.18	0.00	-1.50	0.00	1.50	1071.93	535.96	1222.52	612.17		2.96	-0.20	0.003
140.00	-0.65	-0.14	0.00	-0.88	0.00	0.88	1055.28	527.64	1171.44	586.59		3.11	-0.20	0.002
145.00	-0.33	-0.07	0.00	-0.18	0.00	0.18	1030.38	515.19	1099.04	550.33		3.32	-0.20	0.001
147.00	-0.14	-0.03	0.00	-0.03	0.00	0.03	1020.06	510.03	1070.30	535.94		3.40	-0.20	0.000
148.00	0.00	-0.03	0.00	0.00	0.00	0.00	1014.82	507.41	1055.98	528.78		3.45	-0.20	0.000

Seismic Segment Forces (Factored)

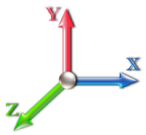
Structure:	CT13057-A		**Code:**	TIA-222-G	6/7/2022
Site Name:	Newtown		**Exposure:**	C	
Height:	148.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 26

Load Case:	0.9D + 1.0E							**Iterations**	21
Gust Response Factor	1.10				**Sds**	0.22		**Ss**	0.21
Dead Load Factor	0.90	**Seismic Load Factor**	1.00		**Sd1**	0.11		**S1**	0.07
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.35		**SA**	0.04	**Seismic Importance Factor**		1.00

Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	0.00	
5.00		1104.2	0.00	0.03	0.02	25.07	
10.00		1083.0	0.01	0.05	0.03	35.13	
15.00		1061.7	0.02	0.06	0.04	39.41	
20.00		1040.5	0.03	0.07	0.04	41.08	
25.00		1019.2	0.05	0.07	0.04	41.64	
30.00		998.02	0.08	0.07	0.04	41.83	
35.00		976.77	0.11	0.07	0.04	41.95	
39.00	Bot - Section 2	766.12	0.13	0.07	0.03	33.53	
40.00		349.56	0.14	0.07	0.03	15.37	
45.00	Top - Section 1	1724.4	0.17	0.07	0.03	77.01	
50.00		772.46	0.22	0.06	0.02	34.40	
50.50	Appurtenance(s)	117.27	0.22	0.06	0.02	5.21	
55.00		678.49	0.26	0.05	0.02	29.03	
60.00		737.05	0.31	0.04	0.01	28.33	
65.00		719.35	0.36	0.03	0.01	21.87	
70.00		701.65	0.42	0.01	0.01	12.71	
75.00		683.94	0.49	-0.01	0.01	1.48	
79.00	Bot - Section 3	534.41	0.54	-0.03	0.01	-6.26	
80.00		238.81	0.55	-0.04	0.01	-3.61	
84.00	Top - Section 2	942.51	0.61	-0.06	0.02	-26.15	
85.00	Appurtenance(s)	2482.0	0.62	-0.06	0.02	-75.75	
90.00		512.26	0.70	-0.09	0.03	-21.16	
95.00		498.09	0.78	-0.11	0.05	-22.97	
99.50	Appurtenance(s)	2392.5	0.85	-0.12	0.07	-107.76	
100.00		47.76	0.86	-0.12	0.07	-2.13	
105.00		469.76	0.95	-0.12	0.11	-17.34	
109.00	Appurtenance(s)	2286.0	1.03	-0.10	0.14	-60.39	
110.00		89.99	1.04	-0.10	0.15	-2.09	
115.00		441.44	1.14	-0.04	0.21	-1.58	
118.50	Appurtenance(s)	3966.9	1.21	0.02	0.26	54.16	
120.00	Top - Section 3	126.70	1.24	0.05	0.29	2.78	
125.00		310.47	1.35	0.19	0.38	16.57	
130.00		299.84	1.46	0.40	0.49	27.25	
135.00		289.22	1.57	0.70	0.63	38.92	
136.50	Appurtenance(s)	2961.6	1.61	0.80	0.68	441.04	
140.00		193.90	1.69	1.09	0.80	35.80	
145.00		267.97	1.81	1.60	1.00	64.62	
147.00	Appurtenance(s)	150.22	1.86	1.85	1.09	39.90	
148.00	Appurtenance(s)	118.97	1.89	1.98	1.14	33.10	
	Totals:	**34,155.5**				**932.0**	**Total Wind:** **33,153.1**

Calculated Forces

Structure:	CT13057-A		**Code:**	TIA-222-G	6/7/2022
Site Name:	Newtown		**Exposure:**	C	
Height:	148.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 27

Load Case:	0.9D + 1.0E							**Iterations**	21
Gust Response Factor	1.10			**Sds**	0.22			**Ss**	0.21
Dead Load Factor	0.90	**Seismic Load Factor**	1.00	**Sd1**	0.11			**S1**	0.07
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.35	**SA**	0.04		**Seismic Importance Factor**		1.00

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-33.82	-1.28	0.00	-124.97	0.00	124.97	4270.00	2135.00	9669.74	4842.06		0.00	0.00	0.034
5.00	-32.69	-1.26	0.00	-118.57	0.00	118.57	4222.20	2111.10	9378.04	4695.99		0.00	-0.01	0.033
10.00	-31.58	-1.23	0.00	-112.27	0.00	112.27	4173.09	2086.54	9087.66	4550.58		0.01	-0.01	0.032
15.00	-30.50	-1.19	0.00	-106.13	0.00	106.13	4122.67	2061.34	8798.75	4405.92		0.03	-0.02	0.031
20.00	-29.43	-1.15	0.00	-100.17	0.00	100.17	4070.95	2035.48	8511.51	4262.08		0.06	-0.03	0.031
25.00	-28.38	-1.12	0.00	-94.40	0.00	94.40	4017.93	2008.97	8226.08	4119.16		0.09	-0.03	0.030
30.00	-27.35	-1.08	0.00	-88.82	0.00	88.82	3963.61	1981.80	7942.65	3977.23		0.13	-0.04	0.029
35.00	-26.34	-1.04	0.00	-83.44	0.00	83.44	3907.97	1953.99	7661.39	3836.39		0.18	-0.05	0.028
39.00	-25.54	-1.00	0.00	-79.30	0.00	79.30	3862.53	1931.27	7438.05	3724.55		0.22	-0.05	0.028
40.00	-25.20	-0.99	0.00	-78.30	0.00	78.30	3851.04	1925.52	7382.46	3696.72		0.23	-0.06	0.028
45.00	-23.52	-0.91	0.00	-73.35	0.00	73.35	2980.94	1490.47	5677.43	2842.94		0.30	-0.06	0.034
50.00	-22.69	-0.88	0.00	-68.78	0.00	68.78	2941.52	1470.76	5474.55	2741.34		0.37	-0.07	0.033
50.50	-22.57	-0.88	0.00	-68.34	0.00	68.34	2937.50	1468.75	5454.31	2731.21		0.37	-0.07	0.033
55.00	-21.85	-0.85	0.00	-64.40	0.00	64.40	2900.79	1450.39	5272.72	2640.28		0.44	-0.08	0.032
60.00	-21.05	-0.82	0.00	-60.15	0.00	60.15	2858.76	1429.38	5072.11	2539.83		0.53	-0.09	0.031
65.00	-20.27	-0.80	0.00	-56.03	0.00	56.03	2815.42	1407.71	4872.91	2440.07		0.63	-0.09	0.030
70.00	-19.51	-0.79	0.00	-52.02	0.00	52.02	2770.78	1385.39	4675.26	2341.11		0.73	-0.10	0.029
75.00	-18.76	-0.79	0.00	-48.06	0.00	48.06	2724.84	1362.42	4479.35	2243.01		0.84	-0.11	0.028
79.00	-18.18	-0.79	0.00	-44.90	0.00	44.90	2687.14	1343.57	4323.99	2165.21		0.94	-0.12	0.028
80.00	-17.94	-0.79	0.00	-44.11	0.00	44.11	2677.59	1338.79	4285.35	2145.86		0.96	-0.12	0.027
84.00	-16.98	-0.79	0.00	-40.94	0.00	40.94	1954.67	977.33	3110.93	1557.78		1.06	-0.13	0.035
85.00	-14.72	-0.79	0.00	-40.15	0.00	40.15	1948.85	974.42	3084.73	1544.66		1.09	-0.13	0.034
90.00	-14.14	-0.79	0.00	-36.21	0.00	36.21	1918.95	959.48	2954.04	1479.22		1.23	-0.14	0.032
95.00	-13.56	-0.79	0.00	-32.27	0.00	32.27	1887.76	943.88	2824.00	1414.10		1.38	-0.15	0.030
99.50	-11.30	-0.78	0.00	-28.72	0.00	28.72	1858.56	929.28	2707.66	1355.84		1.52	-0.15	0.027
100.00	-11.25	-0.79	0.00	-28.32	0.00	28.32	1855.26	927.63	2694.78	1349.39		1.54	-0.16	0.027
105.00	-10.73	-0.79	0.00	-24.40	0.00	24.40	1821.45	910.73	2566.54	1285.18		1.70	-0.16	0.025
109.00	-8.61	-0.78	0.00	-21.26	0.00	21.26	1793.47	896.73	2464.77	1234.22		1.84	-0.17	0.022
110.00	-8.51	-0.78	0.00	-20.48	0.00	20.48	1786.34	893.17	2439.46	1221.54		1.88	-0.17	0.022
115.00	-8.03	-0.78	0.00	-16.58	0.00	16.58	1749.93	874.96	2313.70	1158.57		2.06	-0.18	0.019
118.50	-4.41	-0.71	0.00	-13.85	0.00	13.85	1723.66	861.83	2226.56	1114.93		2.20	-0.18	0.015
120.00	-4.28	-0.71	0.00	-12.78	0.00	12.78	1712.21	856.11	2189.45	1096.35		2.26	-0.19	0.014
120.00	-4.28	-0.71	0.00	-12.78	0.00	12.78	1141.82	570.91	1465.94	734.06		2.26	-0.19	0.021
125.00	-3.96	-0.69	0.00	-9.23	0.00	9.23	1122.14	561.07	1391.92	696.99		2.45	-0.19	0.017
130.00	-3.65	-0.67	0.00	-5.76	0.00	5.76	1101.16	550.58	1318.05	660.01		2.65	-0.20	0.012
135.00	-3.35	-0.63	0.00	-2.43	0.00	2.43	1078.87	539.43	1244.50	623.18		2.86	-0.20	0.007
136.50	-0.67	-0.18	0.00	-1.49	0.00	1.49	1071.93	535.96	1222.52	612.17		2.92	-0.20	0.003
140.00	-0.49	-0.14	0.00	-0.88	0.00	0.88	1055.28	527.64	1171.44	586.59		3.07	-0.20	0.002
145.00	-0.24	-0.07	0.00	-0.18	0.00	0.18	1030.38	515.19	1099.04	550.33		3.28	-0.20	0.001
147.00	-0.11	-0.03	0.00	-0.03	0.00	0.03	1020.06	510.03	1070.30	535.94		3.36	-0.20	0.000
148.00	0.00	-0.03	0.00	0.00	0.00	0.00	1014.82	507.41	1055.98	528.78		3.41	-0.20	0.000

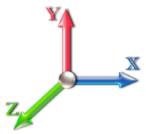
Wind Loading - Shaft

Structure:	CT13057-A	**Code:**	TIA-222-G	6/7/2022	
Site Name:	Newtown	**Exposure:**	C		
Height:	148.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 28	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 22

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	7.442	8.19	259.46	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	7.442	8.19	254.55	0.650	0.000	5.00	23.230	15.10	123.6	0.0	1104.2
10.00		1.00	0.85	7.442	8.19	249.64	0.650	0.000	5.00	22.786	14.81	121.2	0.0	1083.0
15.00		1.00	0.85	7.442	8.19	244.73	0.650	0.000	5.00	22.342	14.52	118.9	0.0	1061.8
20.00		1.00	0.90	7.896	8.69	247.03	0.650	0.000	5.00	21.899	14.23	123.6	0.0	1040.5
25.00		1.00	0.95	8.276	9.10	247.72	0.650	0.000	5.00	21.455	13.95	127.0	0.0	1019.3
30.00		1.00	0.98	8.600	9.46	247.24	0.650	0.000	5.00	21.011	13.66	129.2	0.0	998.0
35.00		1.00	1.01	8.883	9.77	245.92	0.650	0.000	5.00	20.567	13.37	130.6	0.0	976.8
39.00	Bot - Section 2	1.00	1.04	9.088	10.00	244.40	0.650	0.000	4.00	16.134	10.49	104.8	0.0	766.1
40.00		1.00	1.04	9.137	10.05	243.96	0.650	0.000	1.00	4.042	2.63	26.4	0.0	349.6
45.00	Top - Section 1	1.00	1.07	9.366	10.30	241.49	0.650	0.000	5.00	19.943	12.96	133.6	0.0	1724.4
50.00		1.00	1.09	9.576	10.53	241.94	0.650	0.000	5.00	19.500	12.67	133.5	0.0	772.5
50.50	Appurtenance(s)	1.00	1.10	9.596	10.56	241.63	0.650	0.000	0.50	1.926	1.25	13.2	0.0	76.3
55.00		1.00	1.12	9.770	10.75	238.75	0.650	0.000	4.50	17.130	11.13	119.7	0.0	678.5
60.00		1.00	1.14	9.951	10.95	235.27	0.650	0.000	5.00	18.612	12.10	132.4	0.0	737.1
65.00		1.00	1.16	10.120	11.13	231.53	0.650	0.000	5.00	18.168	11.81	131.5	0.0	719.4
70.00		1.00	1.17	10.279	11.31	227.57	0.650	0.000	5.00	17.724	11.52	130.3	0.0	701.6
75.00		1.00	1.19	10.430	11.47	223.42	0.650	0.000	5.00	17.280	11.23	128.9	0.0	683.9
79.00	Bot - Section 3	1.00	1.20	10.544	11.60	219.96	0.650	0.000	4.00	13.504	8.78	101.8	0.0	534.4
80.00		1.00	1.21	10.572	11.63	219.09	0.650	0.000	1.00	3.374	2.19	25.5	0.0	238.8
84.00	Top - Section 2	1.00	1.22	10.681	11.75	215.51	0.650	0.000	4.00	13.319	8.66	101.7	0.0	942.5
85.00	Appurtenance(s)	1.00	1.22	10.708	11.78	217.40	0.650	0.000	1.00	3.285	2.14	25.2	0.0	104.2
90.00		1.00	1.24	10.838	11.92	212.79	0.650	0.000	5.00	16.160	10.50	125.2	0.0	512.3
95.00		1.00	1.25	10.962	12.06	208.04	0.650	0.000	5.00	15.716	10.22	123.2	0.0	498.1
99.50	Appurtenance(s)	1.00	1.26	11.069	12.18	203.67	0.650	0.000	4.50	13.765	8.95	108.9	0.0	436.2
100.00		1.00	1.27	11.081	12.19	203.18	0.650	0.000	0.50	1.507	0.98	11.9	0.0	47.8
105.00		1.00	1.28	11.195	12.31	198.20	0.650	0.000	5.00	14.828	9.64	118.7	0.0	469.8
109.00	Appurtenance(s)	1.00	1.29	11.284	12.41	194.14	0.650	0.000	4.00	11.543	7.50	93.1	0.0	365.6
110.00		1.00	1.29	11.305	12.44	193.12	0.650	0.000	1.00	2.841	1.85	23.0	0.0	90.0
115.00		1.00	1.30	11.412	12.55	187.95	0.650	0.000	5.00	13.941	9.06	113.7	0.0	441.4
118.50	Appurtenance(s)	1.00	1.31	11.484	12.63	184.27	0.650	0.000	3.50	9.494	6.17	78.0	0.0	300.6
120.00	Top - Section 3	1.00	1.32	11.514	12.67	182.68	0.650	0.000	1.50	4.002	2.60	33.0	0.0	126.7
125.00		1.00	1.33	11.614	12.78	177.33	0.650	0.000	5.00	13.053	8.48	108.4	0.0	310.5
130.00		1.00	1.34	11.710	12.88	171.91	0.650	0.000	5.00	12.609	8.20	105.6	0.0	299.8
135.00		1.00	1.35	11.803	12.98	166.41	0.650	0.000	5.00	12.165	7.91	102.7	0.0	289.2
136.50	Appurtenance(s)	1.00	1.35	11.831	13.01	164.74	0.650	0.000	1.50	3.563	2.32	30.1	0.0	84.7
140.00		1.00	1.36	11.894	13.08	160.83	0.650	0.000	3.50	8.158	5.30	69.4	0.0	193.9
145.00		1.00	1.37	11.982	13.18	155.20	0.650	0.000	5.00	11.277	7.33	96.6	0.0	268.0
147.00	Appurtenance(s)	1.00	1.37	12.017	13.22	152.93	0.650	0.000	2.00	4.387	2.85	37.7	0.0	104.2
148.00	Appurtenance(s)	1.00	1.37	12.034	13.24	151.79	0.650	0.000	1.00	2.167	1.41	18.6	0.0	51.5
								Totals:	**148.00**			**3,580.4**		**21,202.9**

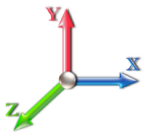
Discrete Appurtenance Forces

Structure:	CT13057-A	**Code:**	TIA-222-G	6/7/2022	
Site Name:	Newtown	**Exposure:**	C		
Height:	148.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 29	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 22

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	148.00	Pipe Mount	1	12.068	13.275	1.00	1.00	2.63	40.00	0.000	2.000	34.91	0.00	69.83
2	148.00	DB-TDD6492A-A	1	12.119	13.330	1.00	1.00	2.41	21.00	0.000	5.000	32.13	0.00	160.63
3	148.00	6' Lightning rod	1	12.085	13.294	1.00	1.00	0.38	6.50	0.000	3.000	5.05	0.00	15.15
4	147.00	Trombone	1	12.017	13.219	1.00	1.00	1.00	6.00	0.000	0.000	13.22	0.00	0.00
5	147.00	Standoff	1	12.017	13.219	1.00	1.00	2.63	40.00	0.000	0.000	34.76	0.00	0.00
6	136.50	Commscope	3	11.849	13.034	0.50	0.75	2.95	158.73	0.000	1.000	38.51	0.00	38.51
7	136.50	Swedcom SC-E 6014	3	11.849	13.034	0.73	0.75	7.34	45.00	0.000	1.000	95.70	0.00	95.70
8	136.50	JMA Wireless	6	11.849	13.034	0.65	0.75	38.64	360.00	0.000	1.000	503.65	0.00	503.65
9	136.50	Samsung MT6407-77A	3	11.849	13.034	0.52	0.75	7.40	261.30	0.000	1.000	96.48	0.00	96.48
10	136.50	Samsung RF4440d-13A	3	11.849	13.034	0.50	0.75	2.82	224.10	0.000	1.000	36.74	0.00	36.74
11	136.50	Commscope	1	11.849	13.034	0.38	0.75	0.70	15.21	0.000	1.000	9.14	0.00	9.14
12	136.50	Platform w/ Rails	1	11.831	13.014	1.00	1.00	23.81	1588.50	0.000	0.000	309.86	0.00	0.00
13	136.50	Samsung RF4439d-25A	3	11.849	13.034	0.50	0.75	2.82	224.10	0.000	1.000	36.74	0.00	36.74
14	118.50	RRH Collar Mount	1	11.484	12.632	0.56	0.75	2.81	250.00	0.000	0.000	35.53	0.00	0.00
15	118.50	Powerwave LGP21401	6	11.484	12.632	0.52	0.75	4.06	84.60	0.000	0.000	51.33	0.00	0.00
16	118.50	Low Profile Platform	1	11.484	12.632	1.00	1.00	22.00	1500.00	0.000	0.000	277.91	0.00	0.00
17	118.50	Raycap DC6-48-60-18-8F	2	11.484	12.632	0.56	0.75	1.04	65.60	0.000	0.000	13.07	0.00	0.00
18	118.50	Ericsson RRUS 8843 B2	3	11.484	12.632	0.50	0.75	2.47	210.00	0.000	0.000	31.23	0.00	0.00
19	118.50	Kathrein 800-10965	6	11.484	12.632	0.53	0.75	44.12	651.60	0.000	0.000	557.37	0.00	0.00
20	118.50	Ericsson 4449 B5/B12	3	11.484	12.632	0.50	0.75	2.97	213.00	0.000	0.000	37.51	0.00	0.00
21	118.50	SitePro Sitepro 1 P/N	1	11.484	12.632	1.00	1.00	9.75	406.61	0.000	0.000	123.16	0.00	0.00
22	118.50	Pipe Mast	3	11.484	12.632	0.56	0.75	2.62	180.00	0.000	0.000	33.04	0.00	0.00
23	118.50	Powerwave 7770	3	11.484	12.632	0.55	0.75	9.03	105.00	0.000	0.000	114.12	0.00	0.00
24	109.00	ALU 800 MHz RRH - RRU	3	11.284	12.412	0.54	0.80	4.00	159.00	0.000	0.000	49.70	0.00	0.00
25	109.00	RFS APXVSPP18-C-A20	3	11.284	12.412	0.66	0.80	15.98	171.00	0.000	0.000	198.29	0.00	0.00
26	109.00	RFS APXVTM14-C-I20	3	11.284	12.412	0.68	0.80	12.93	168.00	0.000	0.000	160.53	0.00	0.00
27	109.00	ALU 1900MHz RRH - RRU	3	11.284	12.412	0.54	0.80	6.11	132.00	0.000	0.000	75.84	0.00	0.00
28	109.00	T-Arms w/ Working	3	11.284	12.412	0.56	0.75	20.25	1050.00	0.000	0.000	251.34	0.00	0.00
29	109.00	ALU 800MHz RRH Filter	3	11.284	12.412	0.54	0.80	1.25	26.40	0.000	0.000	15.57	0.00	0.00
30	109.00	ALU TD-RRH8x20 - RRU	3	11.284	12.412	0.54	0.80	6.51	210.00	0.000	0.000	80.83	0.00	0.00
31	109.00	RFS ACU-A20-N - RET	4	11.284	12.412	0.40	0.80	0.22	4.00	0.000	0.000	2.78	0.00	0.00
32	99.50	Platform w/ Hand Rail	1	11.069	12.176	1.00	1.00	32.00	1600.00	0.000	0.000	389.63	0.00	0.00
33	99.50	RR65-18-00DPL2	6	11.069	12.176	0.68	0.80	17.79	81.00	0.000	0.000	216.60	0.00	0.00
34	99.50	RFS	3	11.069	12.176	0.67	0.80	10.42	79.20	0.000	0.000	126.91	0.00	0.00
35	99.50	Commscope	3	11.069	12.176	0.64	0.80	22.02	149.40	0.000	0.000	268.14	0.00	0.00
36	99.50	RFS ATMAA1412D-1A2 -	3	11.069	12.176	0.56	0.80	1.97	39.00	0.000	0.000	23.93	0.00	0.00
37	99.50	Kathrein 782 11054 - Bias	3	11.069	12.176	0.56	0.80	0.47	7.80	0.000	0.000	5.73	0.00	0.00
38	85.00	Platform w/HRK	1	10.708	11.779	1.00	1.00	22.92	1727.00	0.000	0.000	269.97	0.00	0.00
39	85.00	Raycap	1	10.708	11.779	0.80	0.80	1.61	21.85	0.000	0.000	18.94	0.00	0.00
40	85.00	Fujitsu TA08025-B604	3	10.708	11.779	0.61	0.80	3.58	191.79	0.000	0.000	42.11	0.00	0.00
41	85.00	Fujitsu TA08025-B605	3	10.708	11.779	0.64	0.80	3.76	224.85	0.000	0.000	44.33	0.00	0.00
42	85.00	Commscope	3	10.708	11.779	0.58	0.80	21.50	212.40	0.000	0.000	253.21	0.00	0.00
43	50.50	3 ft Standoff	1	9.596	10.556	1.00	1.00	2.63	40.00	0.000	0.000	27.76	0.00	0.00
44	50.50	Decibel 260B GPS	1	9.596	10.556	1.00	1.00	0.09	1.00	0.000	0.000	0.95	0.00	0.00
							Totals:		**12,952.54**				**5,044.29**	

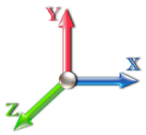
Total Applied Force Summary

Structure:	CT13057-A		**Code:**	TIA-222-G	6/7/2022
Site Name:	Newtown		**Exposure:**	C	
Height:	148.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 30

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 22

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		123.61	1250.48	0.00	0.00
10.00		121.25	1229.23	0.00	0.00
15.00		118.88	1207.99	0.00	0.00
20.00		123.63	1186.74	0.00	0.00
25.00		126.95	1165.50	0.00	0.00
30.00		129.19	1144.25	0.00	0.00
35.00		130.63	1123.01	0.00	0.00
39.00		104.84	883.11	0.00	0.00
40.00		26.41	378.81	0.00	0.00
45.00		133.56	1870.68	0.00	0.00
50.00		133.51	918.70	0.00	0.00
50.50	(2) attachments	41.92	131.90	0.00	0.00
55.00		119.67	809.38	0.00	0.00
60.00		132.42	882.49	0.00	0.00
65.00		131.46	864.79	0.00	0.00
70.00		130.26	847.08	0.00	0.00
75.00		128.86	829.38	0.00	0.00
79.00		101.81	650.75	0.00	0.00
80.00		25.50	267.90	0.00	0.00
84.00		101.72	1058.86	0.00	0.00
85.00	(11) attachments	653.71	2511.13	0.00	0.00
90.00		125.22	651.19	0.00	0.00
95.00		123.18	637.03	0.00	0.00
99.50	(19) attachments	1139.88	2517.61	0.00	0.00
100.00		11.94	57.69	0.00	0.00
105.00		118.69	569.10	0.00	0.00
109.00	(25) attachments	928.01	2365.48	0.00	0.00
110.00		22.97	107.21	0.00	0.00
115.00		113.75	527.57	0.00	0.00
118.50	(29) attachments	1352.24	4027.28	0.00	0.00
120.00		32.95	140.30	0.00	0.00
125.00		108.39	355.80	0.00	0.00
130.00		105.57	345.18	0.00	0.00
135.00		102.67	334.56	0.00	0.00
136.50	(23) attachments	1156.98	2975.24	0.00	816.97
140.00		69.38	205.57	0.00	0.00
145.00		96.62	273.17	0.00	0.00
147.00	(2) attachments	85.67	152.30	0.00	0.00
148.00	(3) attachments	90.73	119.49	0.00	245.61
	Totals:	**8,624.64**	**37,573.92**	**0.00**	**1,062.59**

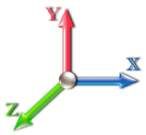
Linear Appurtenance Segment Forces (Factored)

Structure:	CT13057-A	**Code:**	TIA-222-G	6/7/2022	
Site Name:	Newtown	**Exposure:**	C		
Height:	148.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (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 22

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.012	0.000	7.442	0.00	0.80
10.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.012	0.000	7.442	0.00	0.80
15.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.012	0.000	7.442	0.00	0.80
20.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.012	0.000	7.896	0.00	0.80
25.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.013	0.000	8.276	0.00	0.80
30.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.013	0.000	8.600	0.00	0.80
35.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.013	0.000	8.883	0.00	0.80
39.00	1/2" Coax	Yes	4.00	0.000	0.65	0.22	0.00	0.013	0.000	9.088	0.00	0.64
40.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.014	0.000	9.137	0.00	0.16
45.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.014	0.000	9.366	0.00	0.80
50.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.014	0.000	9.576	0.00	0.80
50.50	1/2" Coax	Yes	0.50	0.000	0.65	0.03	0.00	0.014	0.000	9.596	0.00	0.08
										Totals:	**0.0**	**8.1**

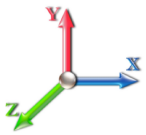
Calculated Forces

Structure:	CT13057-A	**Code:**	TIA-222-G	6/7/2022	
Site Name:	Newtown	**Exposure:**	C		
Height:	148.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (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 22

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-37.57	-8.64	0.00	-858.08	0.00	858.08	4270.00	2135.00	9669.74	4842.06	0.00	0.000	0.000	0.186
5.00	-36.31	-8.55	0.00	-814.88	0.00	814.88	4222.20	2111.10	9378.04	4695.99	0.03	-0.047	0.000	0.182
10.00	-35.08	-8.45	0.00	-772.15	0.00	772.15	4173.09	2086.54	9087.66	4550.58	0.10	-0.095	0.000	0.178
15.00	-33.86	-8.36	0.00	-729.90	0.00	729.90	4122.67	2061.34	8798.75	4405.92	0.23	-0.143	0.000	0.174
20.00	-32.67	-8.26	0.00	-688.10	0.00	688.10	4070.95	2035.48	8511.51	4262.08	0.40	-0.191	0.000	0.169
25.00	-31.50	-8.15	0.00	-646.81	0.00	646.81	4017.93	2008.97	8226.08	4119.16	0.63	-0.239	0.000	0.165
30.00	-30.35	-8.04	0.00	-606.04	0.00	606.04	3963.61	1981.80	7942.65	3977.23	0.90	-0.287	0.000	0.160
35.00	-29.22	-7.93	0.00	-565.82	0.00	565.82	3907.97	1953.99	7661.39	3836.39	1.23	-0.335	0.000	0.155
39.00	-28.33	-7.83	0.00	-534.10	0.00	534.10	3862.53	1931.27	7438.05	3724.55	1.53	-0.373	0.000	0.151
40.00	-27.95	-7.82	0.00	-526.26	0.00	526.26	3851.04	1925.52	7382.46	3696.72	1.61	-0.383	0.000	0.150
45.00	-26.07	-7.69	0.00	-487.18	0.00	487.18	2980.94	1490.47	5677.43	2842.94	2.03	-0.430	0.000	0.180
50.00	-25.15	-7.56	0.00	-448.73	0.00	448.73	2941.52	1470.76	5474.55	2741.34	2.51	-0.477	0.000	0.172
50.50	-25.02	-7.53	0.00	-444.94	0.00	444.94	2937.50	1468.75	5454.31	2731.21	2.56	-0.482	0.000	0.171
55.00	-24.20	-7.42	0.00	-411.06	0.00	411.06	2900.79	1450.39	5272.72	2640.28	3.04	-0.530	0.000	0.164
60.00	-23.32	-7.30	0.00	-373.94	0.00	373.94	2858.76	1429.38	5072.11	2539.83	3.62	-0.581	0.000	0.155
65.00	-22.45	-7.18	0.00	-337.41	0.00	337.41	2815.42	1407.71	4872.91	2440.07	4.25	-0.631	0.000	0.146
70.00	-21.59	-7.06	0.00	-301.50	0.00	301.50	2770.78	1385.39	4675.26	2341.11	4.94	-0.680	0.000	0.137
75.00	-20.76	-6.94	0.00	-266.19	0.00	266.19	2724.84	1362.42	4479.35	2243.01	5.68	-0.727	0.000	0.126
79.00	-20.11	-6.83	0.00	-238.44	0.00	238.44	2687.14	1343.57	4323.99	2165.21	6.30	-0.762	0.000	0.118
80.00	-19.84	-6.81	0.00	-231.61	0.00	231.61	2677.59	1338.79	4285.35	2145.86	6.47	-0.771	0.000	0.115
84.00	-18.78	-6.70	0.00	-204.36	0.00	204.36	1954.67	977.33	3110.93	1557.78	7.13	-0.805	0.000	0.141
85.00	-16.28	-6.02	0.00	-197.66	0.00	197.66	1948.85	974.42	3084.73	1544.66	7.30	-0.813	0.000	0.136
90.00	-15.62	-5.90	0.00	-167.55	0.00	167.55	1918.95	959.48	2954.04	1479.22	8.17	-0.858	0.000	0.121
95.00	-14.98	-5.78	0.00	-138.05	0.00	138.05	1887.76	943.88	2824.00	1414.10	9.09	-0.900	0.000	0.106
99.50	-12.48	-4.60	0.00	-112.06	0.00	112.06	1858.56	929.28	2707.66	1355.84	9.96	-0.933	0.000	0.089
100.00	-12.42	-4.59	0.00	-109.76	0.00	109.76	1855.26	927.63	2694.78	1349.39	10.06	-0.937	0.000	0.088
105.00	-11.85	-4.47	0.00	-86.80	0.00	86.80	1821.45	910.73	2566.54	1285.18	11.06	-0.968	0.000	0.074
109.00	-9.50	-3.50	0.00	-68.93	0.00	68.93	1793.47	896.73	2464.77	1234.22	11.88	-0.990	0.000	0.061
110.00	-9.40	-3.48	0.00	-65.43	0.00	65.43	1786.34	893.17	2439.46	1221.54	12.08	-0.995	0.000	0.059
115.00	-8.87	-3.36	0.00	-48.03	0.00	48.03	1749.93	874.96	2313.70	1158.57	13.14	-1.017	0.000	0.047
118.50	-4.87	-1.94	0.00	-36.27	0.00	36.27	1723.66	861.83	2226.56	1114.93	13.89	-1.030	0.000	0.035
120.00	-4.73	-1.90	0.00	-33.36	0.00	33.36	1712.21	856.11	2189.45	1096.35	14.21	-1.035	0.000	0.033
120.00	-4.73	-1.90	0.00	-33.36	0.00	33.36	1141.82	570.91	1465.94	734.06	14.21	-1.035	0.000	0.050
125.00	-4.37	-1.79	0.00	-23.86	0.00	23.86	1122.14	561.07	1391.92	696.99	15.31	-1.048	0.000	0.038
130.00	-4.03	-1.68	0.00	-14.92	0.00	14.92	1101.16	550.58	1318.05	660.01	16.41	-1.061	0.000	0.026
135.00	-3.70	-1.57	0.00	-6.53	0.00	6.53	1078.87	539.43	1244.50	623.18	17.53	-1.070	0.000	0.014
136.50	-0.74	-0.36	0.00	-3.36	0.00	3.36	1071.93	535.96	1222.52	612.17	17.86	-1.071	0.000	0.006
140.00	-0.54	-0.28	0.00	-2.12	0.00	2.12	1055.28	527.64	1171.44	586.59	18.65	-1.073	0.000	0.004
145.00	-0.27	-0.18	0.00	-0.70	0.00	0.70	1030.38	515.19	1099.04	550.33	19.77	-1.074	0.000	0.002
147.00	-0.12	-0.09	0.00	-0.34	0.00	0.34	1020.06	510.03	1070.30	535.94	20.22	-1.074	0.000	0.001
148.00	0.00	-0.09	0.00	-0.25	0.00	0.25	1014.82	507.41	1055.98	528.78	20.45	-1.074	0.000	0.000

Final Analysis Summary

Structure:	CT13057-A		**Code:**	TIA-222-G	6/7/2022
Site Name:	Newtown		**Exposure:**	C	
Height:	148.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 33

Reactions

Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)
1.2D + 1.6W 93 mph Wind	33.2	0.00	45.03	0.00	0.00	3315.37
0.9D + 1.6W 93 mph Wind	33.2	0.00	33.76	0.00	0.00	3286.91
1.2D + 1.0Di + 1.0Wi 50 mph Wind	10.5	0.00	74.58	0.00	0.00	1062.44
1.2D + 1.0E	1.3	0.00	45.09	0.00	0.00	126.13
0.9D + 1.0E	1.3	0.00	33.82	0.00	0.00	124.97
1.0D + 1.0W 60 mph Wind	8.6	0.00	37.57	0.00	0.00	858.08

Max Stresses

Load Case	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Elev (ft)	Stress Ratio
1.2D + 1.6W 93 mph Wind	-45.03	-33.23	0.00	-3315.3	0.00	-3315.3	4270.00	2135.0	9669.74	4842.06	0.00	0.695
0.9D + 1.6W 93 mph Wind	-33.76	-33.21	0.00	-3286.9	0.00	-3286.9	4270.00	2135.0	9669.74	4842.06	0.00	0.687
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-74.58	-10.54	0.00	-1062.4	0.00	-1062.4	4270.00	2135.0	9669.74	4842.06	0.00	0.237
1.2D + 1.0E	-22.65	-0.80	0.00	-41.41	0.00	-41.41	1954.67	977.33	3110.93	1557.78	84.00	0.038
0.9D + 1.0E	-16.98	-0.79	0.00	-40.94	0.00	-40.94	1954.67	977.33	3110.93	1557.78	84.00	0.035
1.0D + 1.0W 60 mph Wind	-37.57	-8.64	0.00	-858.08	0.00	-858.08	4270.00	2135.0	9669.74	4842.06	0.00	0.186

Base Plate Summary

Structure:	CT13057-A		**Code:**	TIA-222-G	6/7/2022
Site Name:	Newtown		**Exposure:**	C	
Height:	148.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 34

Reactions

Original Design

Moment (kip-ft):	3750.00
Axial (kip):	38.00
Shear (kip):	35.00

Analysis (1.2D + 1.6W)

Moment (kip-ft):	3315.37
Axial (kip):	45.03
Shear (kip):	33.23

Base Plate

Yield (ksi):	55.00
Width (in):	61.00
Style:	Clipped
Polygon Sides:	0.00
Clip Length (in):	10.00
Effective Len (in):	8.16
Moment (kip-in):	542.29
Allow Stress (ksi):	74.25
Applied Stress (ksi):	52.72
Stress Ratio:	0.71

Anchor Bolts

Bolt Circle:	62.00
Number Bolts:	16.00
Bolt Type:	2.25" 18J
Bolt Diameter (in):	2.25
Yield (ksi):	75.00
Ultimate (ksi):	100.00
Arrangement:	Clustered
Cluster Dist (in):	6.00
Start Angle (deg):	45.00

Compression

Force (kip):	165.08
Allowable (kip):	260.00
Ratio:	0.65

Tension

Force (kip):	155.76
Allowable (kip):	260.00
Ratio:	0.62

Monopole Mat Foundation Design

				Date
				6/7/2022
Customer Name:	Dish Wireless	**TIA Standard:**	TIA-222-G
Site Name:	Newtown	**Structure Height (Ft.):**	148
Site Number:	CT13057-A	**Engineer Name:**	S. Berthomieux
Engr. Number:		**Engineer Login ID:**	

Foundation Info Obtained from: Drawings/Calculations

Structure Type: Monopole

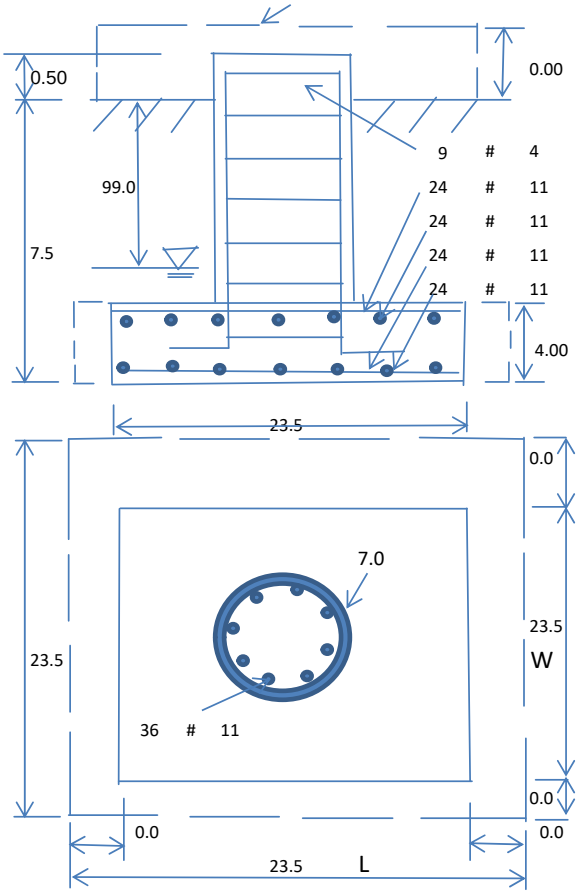
Analysis or Design? Analysis

Base Reactions (Factored):

Axial Load (Kips):	45.0	Shear Force (Kips):	33.2
Uplift Force (Kips):	0.0	Moment (Kips-ft):	3315.4
Allowable overstress %:	5.0%		

Foundation Geometries:

		Mods required -Yes/No ?:	No
Diameter of Pier (ft.):	7.0	Depth of Base BG (ft.):	7.5
Pier Height A. G. (ft.):	0.50	Thickness of Pad (ft):	4.00
Length of Pad (ft.):	23.5	Width of Pad (ft.):	23.5
Final Length of pad (ft)	23.5	Final width of pad (ft):	23.5



Material Properties and Reabr Info:

Concrete Strength (psi):	3000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield (ksi):	60	
Vertical Rebar Size #:	11	Tie / Stirrup Size #:	4	
Qty. of Vertical Rebars:	36	Tie Spacing (in):	12.0	
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	11	
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):	24	Qty. of Rebar in Pad (W):	24

Rebar at the top of the concrete pad:

Qty. of Rebar in Pad (L):	24	Qty. of Rebar in Pad (W):	24
Apply 1.35 factor for e/w Per G:	1.35		

Soil Design Parameters:

Soil Unit Weight (pcf):	110.0	Soil Buoyant Weight:	47.6	Pcf		
Water Table B.G.S. (ft):	99.0	Unit Weight of Water:	62.4	pcf	Angle from Top of Pad:	30
Ultimate Bearing Pressure (psf):	8000	Ultimate Skin Friction:	0	Psf	Angle from Bottm of Pad:	25
Consider Friction for O.T.M. (Y/N):	No	Consider Friction for bearing (Y/N):	No		Angle from Bottm of Pad:	25
Consider soil hor. resist. for OTM.:	No	Reduction factor on the maximum soil bearing pressure:	1.00			

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

Total Dry Soil Volume (cu. Ft.):	1798.18	Total Dry Soil Weight (Kips):	197.80
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	197.80	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	2362.94	Total Dry Concrete Weight (Kips):	354.44
Total Buoyant Concrete Volume (cu. Ft.):	0.00	Total Buoyant Concrete Weight (Kips):	0.00
Total Effective Concrete Weight (Kips):	354.44	Total Vertical Load on Base (Kips):	597.24

Check Soil Capacities:

				Load/ Capacity Ratio	
Calculated Maxium Net Soil Pressure under the base (psf):	3015	<	Allowable Factored Soil Bearing (psf): 6000	0.50	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	6368.7	>	Design Factored Momont (kips-ft): 3581	0.56	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	1.78	OK!			

Check the capacities of Reinforceing Concrete:

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

(1) Concrete Pier:

				Load/ Capacity Ratio	
Vertical Steel Rebar Area (sq. in./each):	1.56		Tie / Stirrup Area (sq. in./each): 0.20		
Calculated Moment Capacity (Mn,Kips-Ft):	8832.5	>	Design Factored Moment (Mu, Kips-Ft 3448.2	0.39	OK!
Calculated Shear Capacity (Kips):	589.7	>	Design Factored Shear (Kips): 33.2	0.06	OK!
Calculated Tension Capacity (Tn, Kips):	3032.6	>	Design Factored Tension (Tu Kips): 0.0	0.00	OK!
Calculated Compression Capacity (Pn, Kips):	7273.9	>	Design Factored Axial Load (Pu Kips): 45.0	0.01	OK!
Moment & Axial Strength Combination:	0.39	OK!	Check Tie Spacing (Design/Required):	1	OK!
Pier Reinforcement Ratio:	0.010	Reinforcement Ratio is satisfied per ACI			

(2).Concrete Pad:

One-Way Design Shear Capacity (L-Direction, Kips):	1026.7	>	One-Way Factored Shear (L-D. Kips): 197.1	0.19	OK!
One-Way Design Shear Capacity (W-Direction, Kips):	1026.7	>	One-Way Factored Shear (W-D., Kips) 197.1	0.19	OK!
One-Way Design Shear Capacity (Corner-Corner. Kips):	823.5	>	One-Way Factored Shear (C-C, Kips): 186.8	0.23	OK!
Lower Steel Pad Reinforcement Ratio (L-Direct.):	0.0030	OK!	Lower Steel Pad Reinf. Ratio (W-Direc 0.0030		
Lower Steel Pad Moment Capacity (L-Direction. Kips-ft):	7202.6	>	Moment at Bottom (L-Dir. K-Ft): 1193.4	0.17	OK!
Lower Steel Pad Moment Capacity (W-Direction. Kips-ft):	7202.6	>	Moment at Bottom (W-Dir. K-Ft): 1193.4	0.17	OK!
Lower Steel Pad Moment Capacity (Corner-Corner,K-ft):	10086.7	>	Moment at Bottom (C-C Dir. K-Ft): 1687.7	0.17	OK!
Upper Steel Pad Reinforcement Ratio (L-Direct.):	0.0030	OK!	Upper Steel Reinf. Ratio (W-Dir.): 0.0030		
Upper Steel Pad Moment Capacity (L-Direc. Kips-ft):	7202.6	>	Moment at the top (L-Dir K-Ft): 531.5	0.07	OK!
Upper Steel Pad Moment Capacity (W-Direc. Kips-ft):	7202.6	>	Moment at the top (W-Dir K-Ft): 531.5	0.07	OK!
Upper Steel Pad Moment Capacity (Corner-Corner. K-ft):	10086.7	>	Moment at the top (C-C Dir. K-Ft): 500.0	0.05	OK!

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

Moment transferred by punching shear:	1326.2	k-ft.	Max. factored shear stress v_{u_CD}:	2.9	Psi
Max. factored shear stress v_{u_AB}:	6.6	Psi	Factored shear Strength ϕv_n:	164.3	Psi
Max. factored shear stress v_u:	6.6	Psi	Check Usage of Punching Shear Capacity:	0.04	OK!

Exhibit E

Mount Analysis

November 2, 2021

Sherri Knapik
SBA Network Services, LLC.
134 Flanders Road, Suite 125
Westborough, MA 01581
(508) 251-0720 x 3805

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

Subject:	**Appurtenance Mount Analysis Report**	
Carrier Designation:	***Dish Wireless* Co-Locate**	
	Site Number:	NJJER01102B
	Site Name:	N/A
***SBA Network Services Designation*:**	**Site Number:**	CT13057-A
	Site Name:	Newtown
	Application Number:	163805, v1
Engineering Firm Designation:	**B+T Group Project Number:**	158613.003.01
Site Data:	**151 Berkshire Road, Newtown, CT, 06470, Fairfield County** **Latitude *41.397375*°, Longitude *-73.236069*°** **Monopole** **8' Platform Mount**	

Dear Ms. Knapik,

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

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

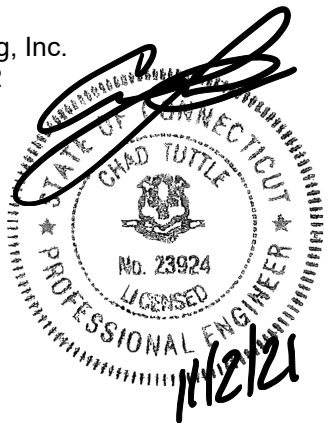
Proposed Equipment Note: See Table 1 for the final loading configuration	**Sufficient Capacity** **(Passing at 51.9%)**

This analysis utilizes an ultimate 3-second gust wind speed of 117 mph (converted to an equivalent 91 mph nominal 3-second gust wind speed per Section 1609.3.1 for use with ANSI/TIA-222 G) as required by the 2018 Connecticut State Building Code (2015 IBC). Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

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

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

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



Chad E. Tuttle, P.E.

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1) INTRODUCTION

The appurtenance mount consists of Commscope Platform mounts (Part #MC-PK8-DSH) at 85 ft., attached to monopole at 151 Berkshire Road, Newtown, CT, 06470, Fairfield County. The proposed antenna loading information was obtained from SBA Network Services, LLC. All information provided to B+T Group was assumed accurate and complete.

2) ANALYSIS CRITERIA

The structural analysis was performed for this mount in accordance with the ANSI/TIA-222-H-2017 Structural Standard for Antenna Supporting Structures and Antennas and Small Wind Turbine Support Structures using a 3-second gust wind speed of 91 mph with no ice and 50 mph with 1 inch escalated ice thickness. Exposure Category C, Topographic Category 1 and Risk Category II were used in this analysis. In addition, the platform mount has been analyzed for various live loading conditions consisting of a 250-lb man live load applied individually at the midpoint and cantilevered ends of horizontal members as well as a 500-pound man live load applied individually at mount pipe locations using a 3-second gust of 30 mph. The mount was analyzed under 30º increments in the wind direction. The analyzed loading is detailed in Table 1.

Table 1 – Proposed Equipment Information

Loading	RAD Center Elev. (ft.)	Position	Qty.	Description	Note
Proposed	85	1	3	Commscope FFVV-65B-R2	1
			3	Fujitsu TA08025-B605	2
			3	Fujitsu TA08025-B604	
		--	1	Raycap RDIDC-9181-PF-48	3

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

Table 2 - Documents Provided

Documents	Remarks	Reference	Source
Collo App	Proposed Loading	Date: 09/23/2021	SBA Network Services, LLC.
RFDS		Date: 06/04/2021	

3) ANALYSIS PROCEDURE

3.1) Analysis Method

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

Manufacturers drawing were used to create the model.

3.2) Assumptions

1. The mount was built in accordance with the manufacturer's specifications.
2. The mount has been maintained in accordance with the manufacturer's specifications and is free of damage.
3. The configuration of antennas and other appurtenances are as specified in Table 1.
4. All mount components have been assumed to be in sufficient condition to carry their full design capacity for the analysis.

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

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

4) ANALYSIS RESULTS

Table 3 – Mount Component Stresses vs. Capacity

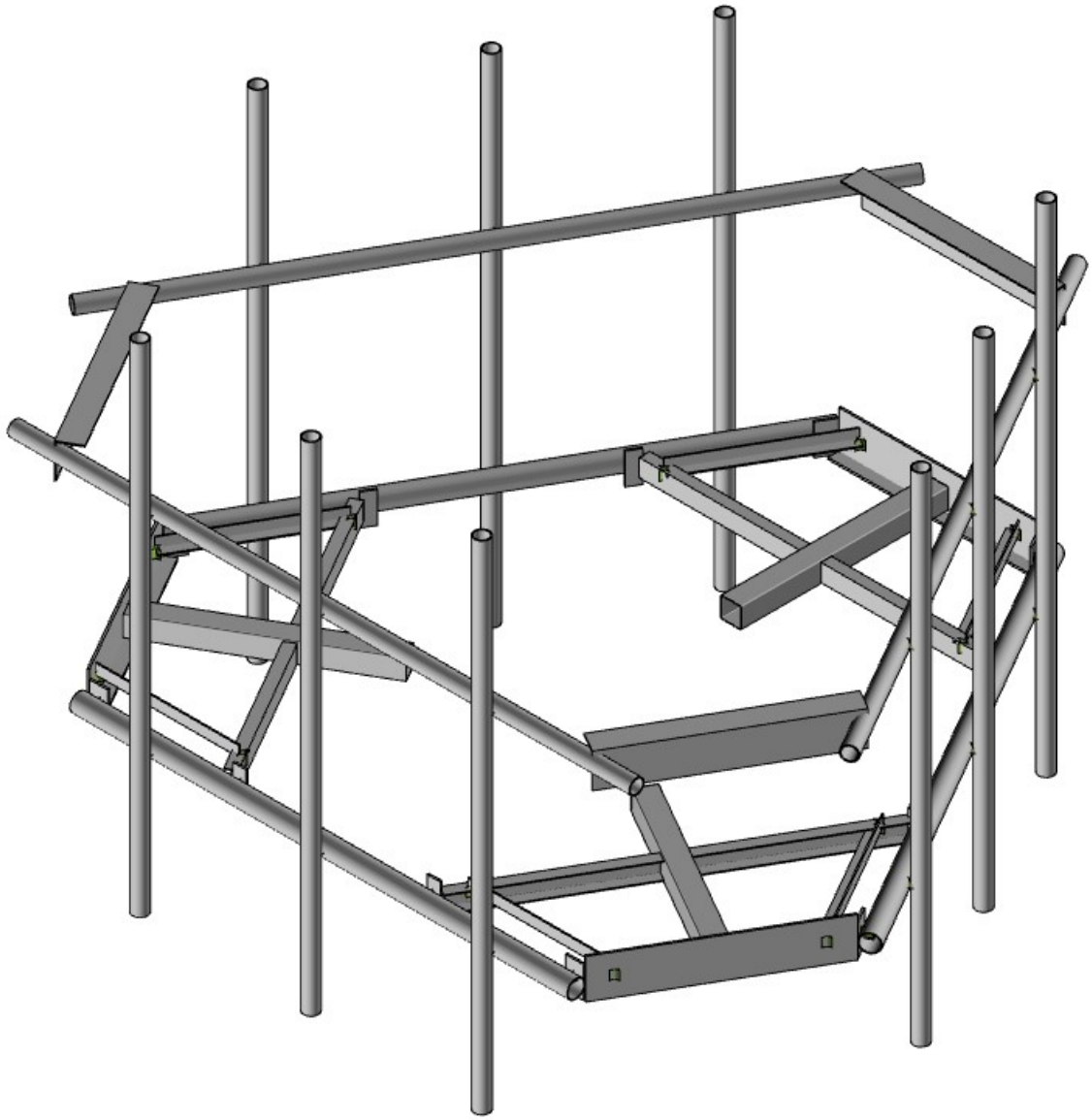
Notes	Component	Elevation (ft.)	% Capacity	Pass / Fail
-	Main Horizontals	85	8.0	Pass
-	Support Rails	85	15.7	Pass
-	Support Tubes	85	51.9	Pass
-	Support Channels	85	37.1	Pass
-	Support Angles	85	39.0	Pass
-	Mount Pipes	85	16.4	Pass
-	Connection Plates	85	20.2	Pass
-	Connection Angles	85	25.3	Pass

5) RECOMMENDATIONS

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

APPENDIX A

(RISA-3D Output)



B+T Group	CT13057-A - Newtown	VP1
VP		Nov 02, 2021
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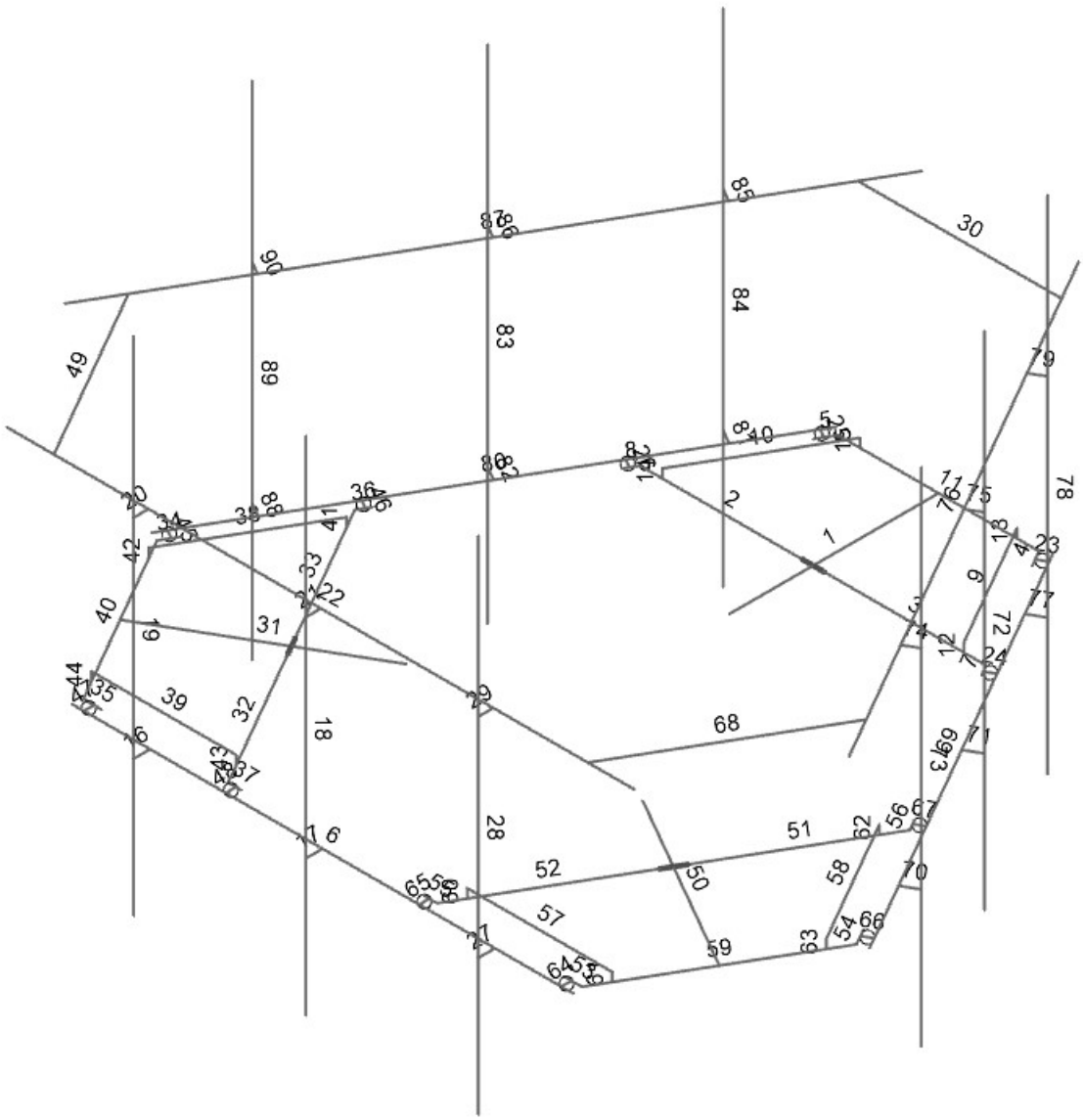

B+T Group	CT13057-A - Newtown	VP2
VP		Nov 02, 2021
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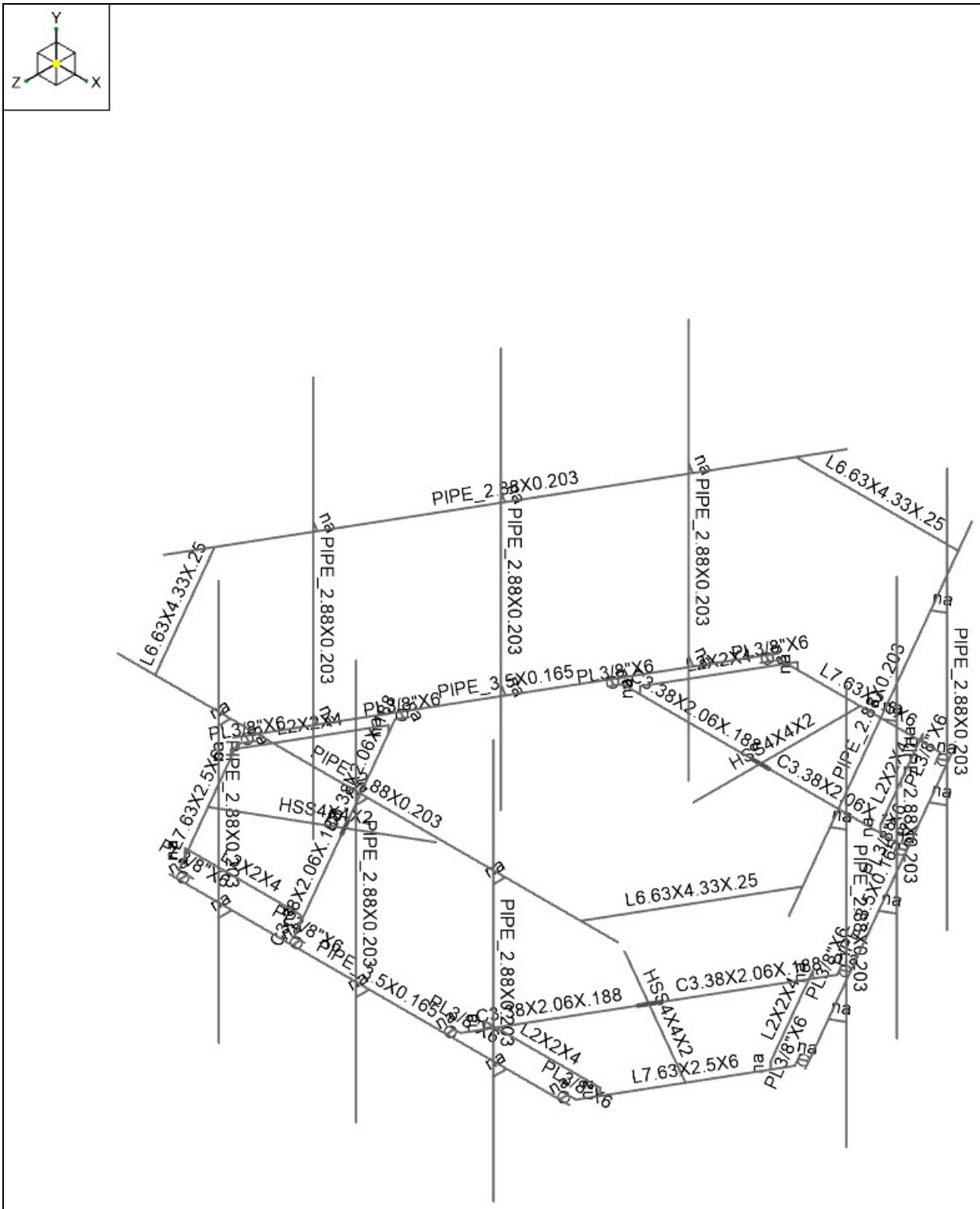

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VP		Nov 02, 2021
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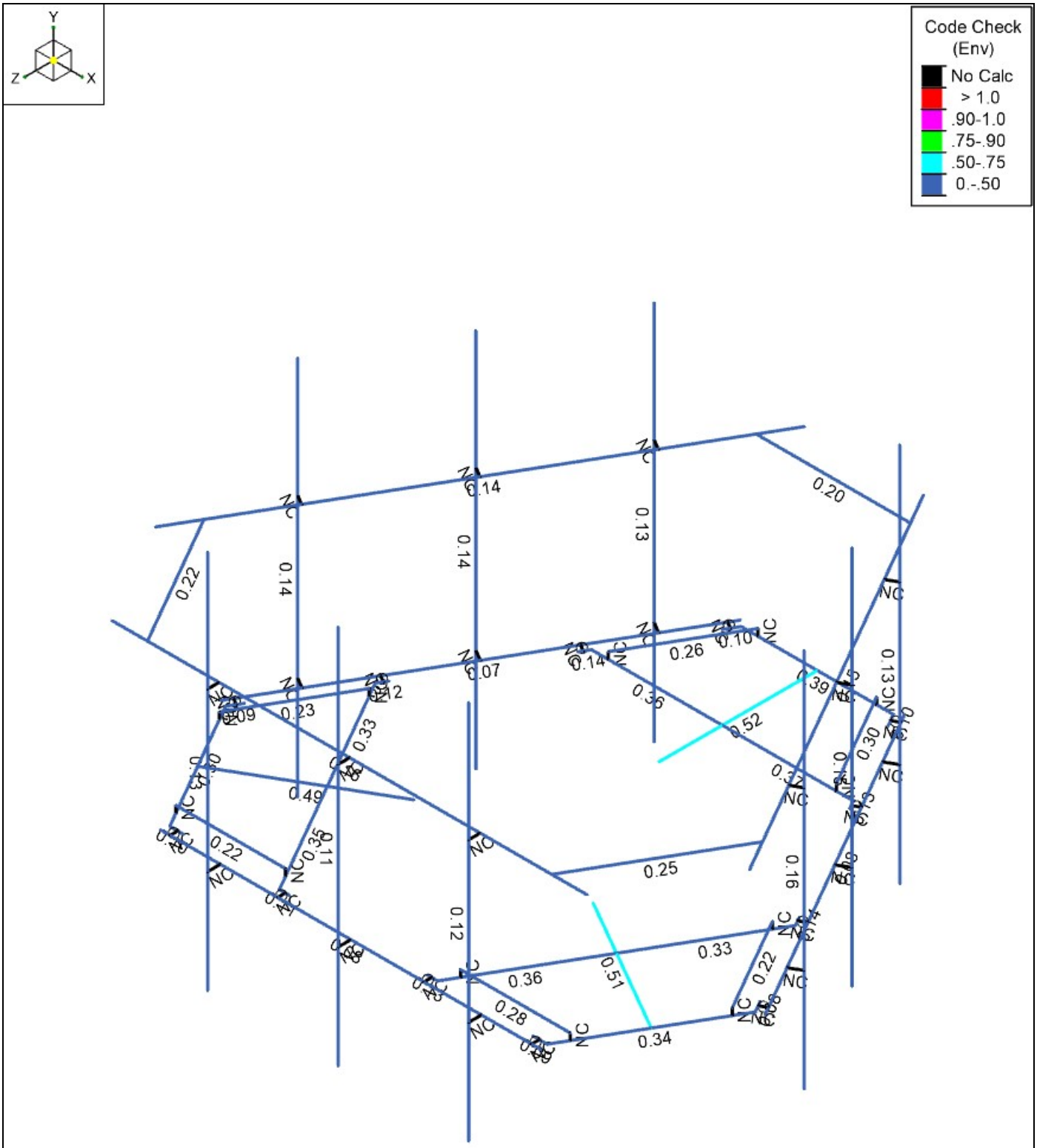

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VP		Nov 02, 2021
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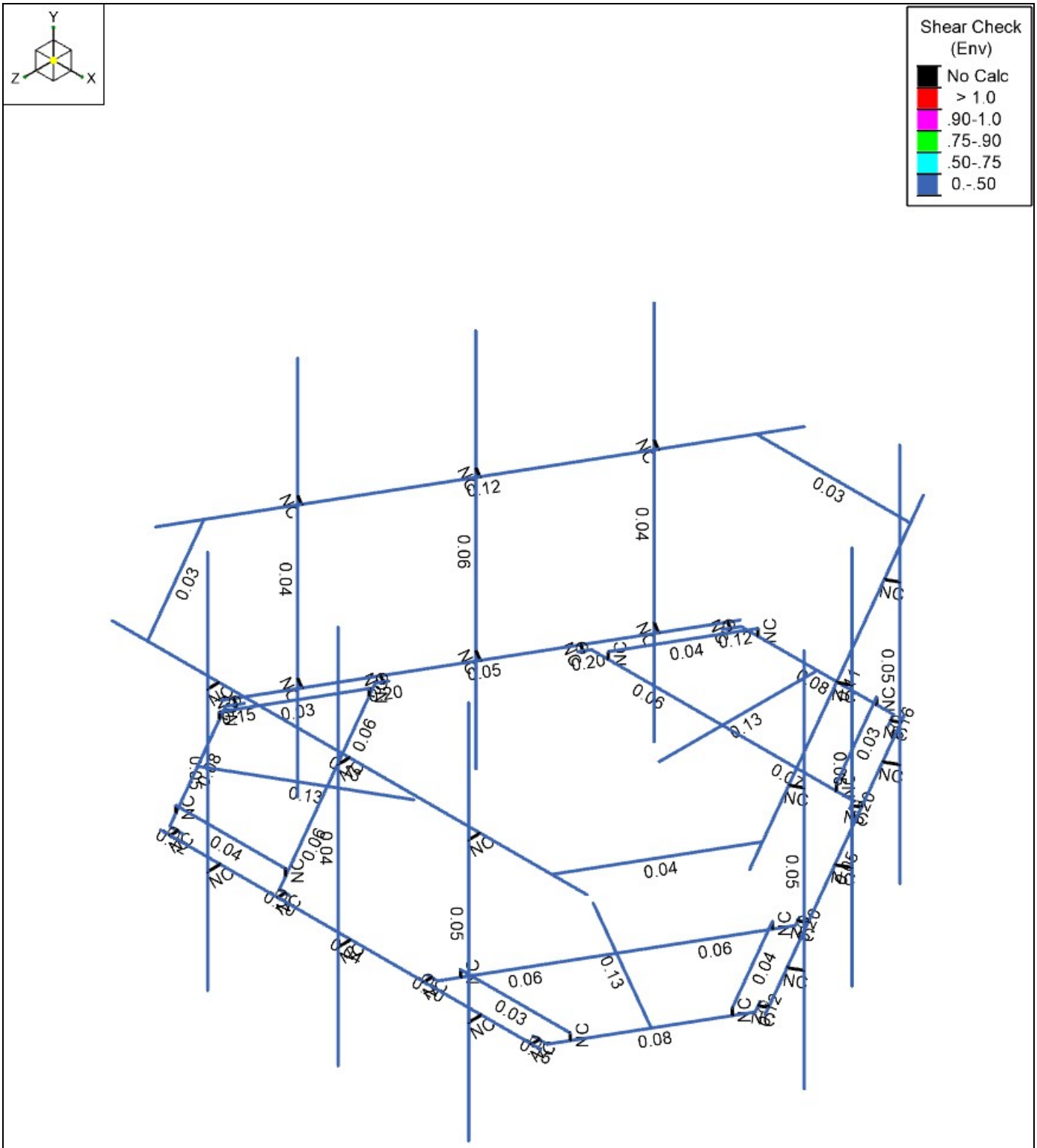

B+T Group	CT13057-A - Newtown	VP5
VP		Nov 02, 2021
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Node Coordinates

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
1	1	0	0	-2.184205	
2	2	0	0	-5.517538	
3	3	0	0	-3.517538	
4	4	2.758333	0	-3.517538	
5	5	-2.758333	0	-3.517538	
6	6	-1.603633	0	-5.517538	
7	7	1.603633	0	-5.517538	
8	8	1.749466	0	-5.264947	
9	9	-1.749466	0	-5.264947	
10	10	1.686966	0	-5.3732	
11	11	1.826817	0	-5.453943	
12	12	-1.686966	0	-5.3732	
13	13	-1.826817	0	-5.453943	
14	14	-3.999998	0	4.309042	
15	15	3.999998	0	4.309042	
16	16	2.8625	0	-3.337116	
17	17	2.820833	0	-3.409286	
18	18	2.960684	0	-3.490029	
19	19	-2.8625	0	-3.337116	
20	20	-2.820833	0	-3.409286	
21	21	-2.960684	0	-3.490029	
22	22	-1.25	0.140833	-5.517538	
23	23	-2.404701	0.140833	-3.517538	
24	24	2.404701	0.140833	-3.517538	
25	25	1.25	0.140833	-5.517538	
26	26	-1.25	0	-5.517538	
27	27	-2.404701	0	-3.517538	
28	28	2.404701	0	-3.517538	
29	29	1.25	0	-5.517538	
30	30	-2.749998	0	4.309042	
31	31	0.000002	0	4.309042	
32	32	-2.749998	0	4.574667	
33	33	0.000002	0	4.574667	
34	34	-2.749998	-2.166667	4.574667	
35	35	0.000002	-2.166667	4.574667	
36	36	-2.749998	5.833335	4.574667	
37	37	0.000002	5.833335	4.574667	
38	38	-2.749998	3.333337	4.574667	
39	39	0.000002	3.333337	4.574667	
40	40	-2.749998	3.333337	4.335083	
41	41	0.000002	3.333337	4.335083	
42	42	-5	3.333337	4.335083	
43	43	5	3.333337	4.335083	
44	44	2.749998	0	4.309042	
45	45	2.749998	0	4.574667	
46	46	2.749998	-2.166667	4.574667	
47	47	2.749998	5.833335	4.574667	
48	48	2.749998	3.333337	4.574667	
49	49	2.749998	3.333337	4.335083	
50	50	0	0	0	
51	51	1.625033	3.333337	-5.855527	
52	52	-1.625033	3.333337	-5.855527	
53	53	-1.891577	0	1.092102	
54	54	-4.778328	0	2.758769	
55	55	-3.046277	0	1.758769	
56	56	-4.425444	0	-0.630018	
57	57	-1.667111	0	4.147556	
58	58	-3.976512	0	4.147556	
59	59	-5.580144	0	1.369982	
60	60	-5.434311	0	1.117391	

Node Coordinates (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
61	61	-3.684845	0	4.147556	
62	62	-5.496811	0	1.225645	
63	63	-5.636662	0	1.144902	
64	64	-3.809845	0	4.147556	
65	65	-3.809845	0	4.309042	
66	66	-4.321277	0	-0.81044	
67	67	-4.362944	0	-0.73827	
68	68	-4.502795	0	-0.819013	
69	69	-1.458777	0	4.147556	
70	70	-1.542112	0	4.147556	
71	71	-1.542112	0	4.309042	
72	72	-4.153328	0.140833	3.841301	
73	73	-1.843927	0.140833	3.841301	
74	74	-4.248627	0.140833	-0.323763	
75	75	-5.403328	0.140833	1.676237	
76	76	-4.153328	0	3.841301	
77	77	-1.843927	0	3.841301	
78	78	-4.248627	0	-0.323763	
79	79	-5.403328	0	1.676237	
80	80	-5.883552	3.333337	1.520444	
81	81	-4.258519	3.333337	4.335083	
82	82	1.891577	0	1.092102	
83	83	4.778328	0	2.758769	
84	84	3.046277	0	1.758769	
85	85	1.667111	0	4.147556	
86	86	4.425444	0	-0.630018	
87	87	5.580144	0	1.369982	
88	88	3.976512	0	4.147556	
89	89	3.684845	0	4.147556	
90	90	5.434311	0	1.117391	
91	91	3.809845	0	4.147556	
92	92	3.809845	0	4.309042	
93	93	5.496811	0	1.225645	
94	94	5.636662	0	1.144902	
95	95	1.458777	0	4.147556	
96	96	1.542112	0	4.147556	
97	97	1.542112	0	4.309042	
98	98	4.321277	0	-0.81044	
99	99	4.362944	0	-0.73827	
100	100	4.502795	0	-0.819013	
101	101	5.403328	0.140833	1.676237	
102	102	4.248627	0.140833	-0.323763	
103	103	1.843927	0.140833	3.841301	
104	104	4.153328	0.140833	3.841301	
105	105	5.403328	0	1.676237	
106	106	4.248627	0	-0.323763	
107	107	1.843927	0	3.841301	
108	108	4.153328	0	3.841301	
109	109	4.258519	3.333337	4.335083	
110	110	5.883552	3.333337	1.520444	
111	111	5.731739	0	1.309579	
112	112	1.731741	0	-5.618621	
113	113	5.106739	0	0.227047	
114	114	3.731739	0	-2.154523	
115	115	5.336777	0	0.094235	
116	116	3.961777	0	-2.287335	
117	117	5.336777	-2.166667	0.094235	
118	118	3.961777	-2.166667	-2.287335	
119	119	5.336777	5.833335	0.094235	
120	120	3.961777	5.833335	-2.287335	

Node Coordinates (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
121	121	5.336777	3.333337	0.094235	
122	122	3.961777	3.333337	-2.287335	
123	123	5.129291	3.333337	0.214026	
124	124	3.754291	3.333337	-2.167543	
125	125	6.254292	3.333337	2.162585	
126	126	1.254292	3.333337	-6.497669	
127	127	2.356741	0	-4.536089	
128	128	2.586779	0	-4.668902	
129	129	2.586779	-2.166667	-4.668902	
130	130	2.586779	5.833335	-4.668902	
131	131	2.586779	3.333337	-4.668902	
132	132	2.379293	3.333337	-4.54911	
133	133	-1.731741	0	-5.618621	
134	134	-5.731739	0	1.309579	
135	135	-2.356741	0	-4.536089	
136	136	-3.731741	0	-2.154519	
137	137	-2.586779	0	-4.668902	
138	138	-3.961779	0	-2.287332	
139	139	-2.586779	-2.166667	-4.668902	
140	140	-3.961779	-2.166667	-2.287332	
141	141	-2.586779	5.833335	-4.668902	
142	142	-3.961779	5.833335	-2.287332	
143	143	-2.586779	3.333337	-4.668902	
144	144	-3.961779	3.333337	-2.287332	
145	145	-2.379293	3.333337	-4.54911	
146	146	-3.754293	3.333337	-2.16754	
147	147	-1.254292	3.333337	-6.497669	
148	148	-6.254292	3.333337	2.162585	
149	149	-5.106739	0	0.227047	
150	150	-5.336777	0	0.094235	
151	151	-5.336777	-2.166667	0.094235	
152	152	-5.336777	5.833335	0.094235	
153	153	-5.336777	3.333337	0.094235	
154	154	-5.129291	3.333337	0.214026	

Node Boundary Conditions

	Node Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot [k-ft/rad]	Y Rot [k-ft/rad]	Z Rot [k-ft/rad]
1	1	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	2						
3	3						
4	4						
5	5						
6	16						
7	17						
8	19						
9	20						
10	22						
11	25						
12	26						
13	29						
14	53	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
15	54						
16	55						
17	56						
18	57						
19	66						
20	67						
21	69						
22	70						

Node Boundary Conditions (Continued)

	Node Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot [k-ft/rad]	Y Rot [k-ft/rad]	Z Rot [k-ft/rad]
23	72						
24	75						
25	76						
26	79						
27	82	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
28	83						
29	84						
30	85						
31	86						
32	95						
33	96						
34	98						
35	99						
36	101						
37	104						
38	105						
39	108						

Hot Rolled Steel Properties

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

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in^{2}]	Iyy [in^{4}]	Izz [in^{4}]	J [in^{4}]
1	MF-H1	PIPE_3.5x0.165	Beam	Pipe	A500 Gr.C	Typical	1.729	2.409	2.409	4.819
2	MF-H2	PIPE_2.88x0.203	Beam	Pipe	A500 Gr.C	Typical	1.707	1.538	1.538	3.076
3	SF-H1	HSS4X4X2	Beam	Tube	A500 Gr.B Rect	Typical	1.77	4.4	4.4	6.91
4	SF-H2	C3.38x2.06x.188	Beam	Channel	A36 Gr.36	Typical	1.339	0.562	2.4	0.015
5	SF-H3	L2x2x4	Beam	Single Angle	A36 Gr.36	Typical	0.944	0.346	0.346	0.021
6	SF-H4	L7.63x2.5x6	Beam	Single Angle	A36 Gr.36	Typical	3.658	1.307	22.092	0.163
7	MF-P1	PIPE_2.88x0.203	Column	Pipe	A500 Gr.C	Typical	1.707	1.538	1.538	3.076
8	MF-CP1	PL3/8"x6	Beam	RECT	A36 Gr.36	Typical	2.25	0.026	6.75	0.101
9	MF-H3	L6.63x4.33x.25	Beam	Single Angle	A36 Gr.36	Typical	2.678	4.383	12.502	0.054

Member Primary Data

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
1	1	1	2		SF-H1	Beam	Tube	A500 Gr.B Rect	Typical
2	2	5	3	180	SF-H2	Beam	Channel	A36 Gr.36	Typical
3	3	3	4	180	SF-H2	Beam	Channel	A36 Gr.36	Typical
4	4	7	8		MF-CP1	Beam	RECT	A36 Gr.36	Typical
5	5	6	9		MF-CP1	Beam	RECT	A36 Gr.36	Typical
6	6	14	15		MF-H1	Beam	Pipe	A500 Gr.C	Typical
7	7	16	4		MF-CP1	Beam	RECT	A36 Gr.36	Typical
8	8	5	19		MF-CP1	Beam	RECT	A36 Gr.36	Typical
9	9	25	24		SF-H3	Beam	Single Angle	A36 Gr.36	Typical
10	10	23	22		SF-H3	Beam	Single Angle	A36 Gr.36	Typical
11	11	6	7		SF-H4	Beam	Single Angle	A36 Gr.36	Typical
12	12	28	24		RIGID	None	None	RIGID	Typical
13	13	29	25		RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
14	14	27	23		RIGID	None	None	RIGID	Typical
15	15	26	22		RIGID	None	None	RIGID	Typical
16	16	32	30		RIGID	None	None	RIGID	Typical
17	17	33	31		RIGID	None	None	RIGID	Typical
18	18	37	35		MF-P1	Column	Pipe	A500 Gr.C	Typical
19	19	36	34		MF-P1	Column	Pipe	A500 Gr.C	Typical
20	20	38	40		RIGID	None	None	RIGID	Typical
21	21	39	41		RIGID	None	None	RIGID	Typical
22	22	42	43		MF-H2	Beam	Pipe	A500 Gr.C	Typical
23	23	11	10		RIGID	None	None	RIGID	Typical
24	24	18	17		RIGID	None	None	RIGID	Typical
25	25	13	12		RIGID	None	None	RIGID	Typical
26	26	21	20		RIGID	None	None	RIGID	Typical
27	27	45	44		RIGID	None	None	RIGID	Typical
28	28	47	46		MF-P1	Column	Pipe	A500 Gr.C	Typical
29	29	48	49		RIGID	None	None	RIGID	Typical
30	30	51	52	180	MF-H3	Beam	Single Angle	A36 Gr.36	Typical
31	31	53	54		SF-H1	Beam	Tube	A500 Gr.B Rect	Typical
32	32	57	55	180	SF-H2	Beam	Channel	A36 Gr.36	Typical
33	33	55	56	180	SF-H2	Beam	Channel	A36 Gr.36	Typical
34	34	59	60		MF-CP1	Beam	RECT	A36 Gr.36	Typical
35	35	58	61		MF-CP1	Beam	RECT	A36 Gr.36	Typical
36	36	66	56		MF-CP1	Beam	RECT	A36 Gr.36	Typical
37	37	57	69		MF-CP1	Beam	RECT	A36 Gr.36	Typical
38	38	75	74		SF-H3	Beam	Single Angle	A36 Gr.36	Typical
39	39	73	72		SF-H3	Beam	Single Angle	A36 Gr.36	Typical
40	40	58	59		SF-H4	Beam	Single Angle	A36 Gr.36	Typical
41	41	78	74		RIGID	None	None	RIGID	Typical
42	42	79	75		RIGID	None	None	RIGID	Typical
43	43	77	73		RIGID	None	None	RIGID	Typical
44	44	76	72		RIGID	None	None	RIGID	Typical
45	45	63	62		RIGID	None	None	RIGID	Typical
46	46	68	67		RIGID	None	None	RIGID	Typical
47	47	65	64		RIGID	None	None	RIGID	Typical
48	48	71	70		RIGID	None	None	RIGID	Typical
49	49	80	81	180	MF-H3	Beam	Single Angle	A36 Gr.36	Typical
50	50	82	83		SF-H1	Beam	Tube	A500 Gr.B Rect	Typical
51	51	86	84	180	SF-H2	Beam	Channel	A36 Gr.36	Typical
52	52	84	85	180	SF-H2	Beam	Channel	A36 Gr.36	Typical
53	53	88	89		MF-CP1	Beam	RECT	A36 Gr.36	Typical
54	54	87	90		MF-CP1	Beam	RECT	A36 Gr.36	Typical
55	55	95	85		MF-CP1	Beam	RECT	A36 Gr.36	Typical
56	56	86	98		MF-CP1	Beam	RECT	A36 Gr.36	Typical
57	57	104	103		SF-H3	Beam	Single Angle	A36 Gr.36	Typical
58	58	102	101		SF-H3	Beam	Single Angle	A36 Gr.36	Typical
59	59	87	88		SF-H4	Beam	Single Angle	A36 Gr.36	Typical
60	60	107	103		RIGID	None	None	RIGID	Typical
61	61	108	104		RIGID	None	None	RIGID	Typical
62	62	106	102		RIGID	None	None	RIGID	Typical
63	63	105	101		RIGID	None	None	RIGID	Typical
64	64	92	91		RIGID	None	None	RIGID	Typical
65	65	97	96		RIGID	None	None	RIGID	Typical
66	66	94	93		RIGID	None	None	RIGID	Typical
67	67	100	99		RIGID	None	None	RIGID	Typical
68	68	109	110	180	MF-H3	Beam	Single Angle	A36 Gr.36	Typical
69	69	111	112		MF-H1	Beam	Pipe	A500 Gr.C	Typical
70	70	115	113		RIGID	None	None	RIGID	Typical
71	71	116	114		RIGID	None	None	RIGID	Typical
72	72	120	118		MF-P1	Column	Pipe	A500 Gr.C	Typical
73	73	119	117		MF-P1	Column	Pipe	A500 Gr.C	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
74	74	121	123		RIGID	None	None	RIGID	Typical
75	75	122	124		RIGID	None	None	RIGID	Typical
76	76	125	126		MF-H2	Beam	Pipe	A500 Gr.C	Typical
77	77	128	127		RIGID	None	None	RIGID	Typical
78	78	130	129		MF-P1	Column	Pipe	A500 Gr.C	Typical
79	79	131	132		RIGID	None	None	RIGID	Typical
80	80	133	134		MF-H1	Beam	Pipe	A500 Gr.C	Typical
81	81	137	135		RIGID	None	None	RIGID	Typical
82	82	138	136		RIGID	None	None	RIGID	Typical
83	83	142	140		MF-P1	Column	Pipe	A500 Gr.C	Typical
84	84	141	139		MF-P1	Column	Pipe	A500 Gr.C	Typical
85	85	143	145		RIGID	None	None	RIGID	Typical
86	86	144	146		RIGID	None	None	RIGID	Typical
87	87	147	148		MF-H2	Beam	Pipe	A500 Gr.C	Typical
88	88	150	149		RIGID	None	None	RIGID	Typical
89	89	152	151		MF-P1	Column	Pipe	A500 Gr.C	Typical
90	90	153	154		RIGID	None	None	RIGID	Typical

Member Advanced Data

	Label	I Release	I Offset [in]	J Offset [in]	Physical	Deflection Ratio Options	Seismic DR
1	1				Yes	N/A	None
2	2			2	Yes	N/A	None
3	3		2		Yes	N/A	None
4	4				Yes	N/A	None
5	5				Yes	N/A	None
6	6				Yes	Default	None
7	7				Yes	N/A	None
8	8				Yes	N/A	None
9	9				Yes	N/A	None
10	10				Yes	N/A	None
11	11				Yes	N/A	None
12	12				Yes	** NA **	None
13	13				Yes	** NA **	None
14	14				Yes	** NA **	None
15	15				Yes	** NA **	None
16	16				Yes	** NA **	None
17	17				Yes	** NA **	None
18	18				Yes	** NA **	None
19	19				Yes	** NA **	None
20	20				Yes	** NA **	None
21	21				Yes	** NA **	None
22	22				Yes	N/A	None
23	23	OOOOOX			Yes	** NA **	None
24	24	OOOOOX			Yes	** NA **	None
25	25	OOOOOX			Yes	** NA **	None
26	26	OOOOOX			Yes	** NA **	None
27	27				Yes	** NA **	None
28	28				Yes	** NA **	None
29	29				Yes	** NA **	None
30	30				Yes	N/A	None
31	31				Yes	N/A	None
32	32			2	Yes	N/A	None
33	33		2		Yes	N/A	None
34	34				Yes	N/A	None
35	35				Yes	N/A	None
36	36				Yes	N/A	None
37	37				Yes	N/A	None
38	38				Yes	N/A	None
39	39				Yes	N/A	None

Member Advanced Data (Continued)

	Label	I Release	I Offset [in]	J Offset [in]	Physical	Deflection Ratio Options	Seismic DR
40	40				Yes	N/A	None
41	41				Yes	** NA **	None
42	42				Yes	** NA **	None
43	43				Yes	** NA **	None
44	44				Yes	** NA **	None
45	45	OOOOOX			Yes	** NA **	None
46	46	OOOOOX			Yes	** NA **	None
47	47	OOOOOX			Yes	** NA **	None
48	48	OOOOOX			Yes	** NA **	None
49	49				Yes	N/A	None
50	50				Yes	N/A	None
51	51			2	Yes	N/A	None
52	52		2		Yes	N/A	None
53	53				Yes	N/A	None
54	54				Yes	N/A	None
55	55				Yes	N/A	None
56	56				Yes	N/A	None
57	57				Yes	N/A	None
58	58				Yes	N/A	None
59	59				Yes	N/A	None
60	60				Yes	** NA **	None
61	61				Yes	** NA **	None
62	62				Yes	** NA **	None
63	63				Yes	** NA **	None
64	64	OOOOOX			Yes	** NA **	None
65	65	OOOOOX			Yes	** NA **	None
66	66	OOOOOX			Yes	** NA **	None
67	67	OOOOOX			Yes	** NA **	None
68	68				Yes	N/A	None
69	69				Yes	Default	None
70	70				Yes	** NA **	None
71	71				Yes	** NA **	None
72	72				Yes	** NA **	None
73	73				Yes	** NA **	None
74	74				Yes	** NA **	None
75	75				Yes	** NA **	None
76	76				Yes	N/A	None
77	77				Yes	** NA **	None
78	78				Yes	** NA **	None
79	79				Yes	** NA **	None
80	80				Yes	Default	None
81	81				Yes	** NA **	None
82	82				Yes	** NA **	None
83	83				Yes	** NA **	None
84	84				Yes	** NA **	None
85	85				Yes	** NA **	None
86	86				Yes	** NA **	None
87	87				Yes	N/A	None
88	88				Yes	** NA **	None
89	89				Yes	** NA **	None
90	90				Yes	** NA **	None

Hot Rolled Steel Design Parameters

	Label	Shape	Length [ft]	Lcomp top [ft]	Function
1	1	SF-H1	3.333	Lbyy	Lateral
2	2	SF-H2	2.758	Lbyy	Lateral
3	3	SF-H2	2.758	Lbyy	Lateral
4	4	MF-CP1	0.292	Lbyy	Lateral
5	5	MF-CP1	0.292	Lbyy	Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length [ft]	Lcomp top [ft]	Function
6	6	MF-H1	8	Lbyy	Lateral
7	7	MF-CP1	0.208	Lbyy	Lateral
8	8	MF-CP1	0.208	Lbyy	Lateral
9	9	SF-H3	2.309	Lbyy	Lateral
10	10	SF-H3	2.309	Lbyy	Lateral
11	11	SF-H4	3.207	Lbyy	Lateral
12	18	MF-P1	8	Lbyy	Lateral
13	19	MF-P1	8	Lbyy	Lateral
14	22	MF-H2	10	Lbyy	Lateral
15	28	MF-P1	8	Lbyy	Lateral
16	30	MF-H3	3.25	Lbyy	Lateral
17	31	SF-H1	3.333	Lbyy	Lateral
18	32	SF-H2	2.758	Lbyy	Lateral
19	33	SF-H2	2.758	Lbyy	Lateral
20	34	MF-CP1	0.292	Lbyy	Lateral
21	35	MF-CP1	0.292	Lbyy	Lateral
22	36	MF-CP1	0.208	Lbyy	Lateral
23	37	MF-CP1	0.208	Lbyy	Lateral
24	38	SF-H3	2.309	Lbyy	Lateral
25	39	SF-H3	2.309	Lbyy	Lateral
26	40	SF-H4	3.207	Lbyy	Lateral
27	49	MF-H3	3.25	Lbyy	Lateral
28	50	SF-H1	3.333	Lbyy	Lateral
29	51	SF-H2	2.758	Lbyy	Lateral
30	52	SF-H2	2.758	Lbyy	Lateral
31	53	MF-CP1	0.292	Lbyy	Lateral
32	54	MF-CP1	0.292	Lbyy	Lateral
33	55	MF-CP1	0.208	Lbyy	Lateral
34	56	MF-CP1	0.208	Lbyy	Lateral
35	57	SF-H3	2.309	Lbyy	Lateral
36	58	SF-H3	2.309	Lbyy	Lateral
37	59	SF-H4	3.207	Lbyy	Lateral
38	68	MF-H3	3.25	Lbyy	Lateral
39	69	MF-H1	8	Lbyy	Lateral
40	72	MF-P1	8	Lbyy	Lateral
41	73	MF-P1	8	Lbyy	Lateral
42	76	MF-H2	10	Lbyy	Lateral
43	78	MF-P1	8	Lbyy	Lateral
44	80	MF-H1	8	Lbyy	Lateral
45	83	MF-P1	8	Lbyy	Lateral
46	84	MF-P1	8	Lbyy	Lateral
47	87	MF-H2	10	Lbyy	Lateral
48	89	MF-P1	8	Lbyy	Lateral

Member Point Loads (BLC 1 : Dead)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	28	Y	-0.035	%15
2	28	Y	-0.035	%85
3	28	Y	-0.064	%20
4	28	Y	-0.075	%50
5	28	Y	0	0
6	89	Y	-0.035	%15
7	89	Y	-0.035	%85
8	89	Y	-0.064	%20
9	89	Y	-0.075	%50
10	89	Y	0	0
11	78	Y	-0.035	%15
12	78	Y	-0.035	%85
13	78	Y	-0.064	%20

Member Point Loads (BLC 1 : Dead) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
14	78	Y	-0.075	%50
15	78	Y	0	0
16	31	Y	-0.022	%20
17	31	Y	0	0
18	31	Y	0	0
19	31	Y	0	0
20	31	Y	0	0

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

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	28	Z	-0.22	%15
2	28	Z	-0.22	%85
3	28	Z	-0.07	%20
4	28	Z	-0.07	%50
5	28	Z	0	0
6	89	Z	-0.22	%15
7	89	Z	-0.22	%85
8	89	Z	-0.07	%20
9	89	Z	-0.07	%50
10	89	Z	0	0
11	78	Z	-0.22	%15
12	78	Z	-0.22	%85
13	78	Z	-0.07	%20
14	78	Z	-0.07	%50
15	78	Z	0	0
16	31	Z	-0.072	%20
17	31	Z	0	0
18	31	Z	0	0
19	31	Z	0	0
20	31	Z	0	0

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

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	28	X	-0.088	%15
2	28	X	-0.088	%85
3	28	X	-0.037	%20
4	28	X	-0.043	%50
5	28	X	0	0
6	89	X	-0.088	%15
7	89	X	-0.088	%85
8	89	X	-0.037	%20
9	89	X	-0.043	%50
10	89	X	0	0
11	78	X	-0.088	%15
12	78	X	-0.088	%85
13	78	X	-0.037	%20
14	78	X	-0.043	%50
15	78	X	0	0
16	31	X	-0.04	%20
17	31	X	0	0
18	31	X	0	0
19	31	X	0	0
20	31	X	0	0

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

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	28	Z	-0.04	%15
2	28	Z	-0.04	%85
3	28	Z	-0.013	%20
4	28	Z	-0.013	%50
5	28	Z	0	0
6	89	Z	-0.04	%15
7	89	Z	-0.04	%85
8	89	Z	-0.013	%20
9	89	Z	-0.013	%50
10	89	Z	0	0
11	78	Z	-0.04	%15
12	78	Z	-0.04	%85
13	78	Z	-0.013	%20
14	78	Z	-0.013	%50
15	78	Z	0	0
16	31	Z	-0.013	%20
17	31	Z	0	0
18	31	Z	0	0
19	31	Z	0	0
20	31	Z	0	0

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

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	28	X	-0.016	%15
2	28	X	-0.016	%85
3	28	X	-0.007	%20
4	28	X	-0.008	%50
5	28	X	0	0
6	89	X	-0.016	%15
7	89	X	-0.016	%85
8	89	X	-0.007	%20
9	89	X	-0.008	%50
10	89	X	0	0
11	78	X	-0.016	%15
12	78	X	-0.016	%85
13	78	X	-0.007	%20
14	78	X	-0.008	%50
15	78	X	0	0
16	31	X	-0.007	%20
17	31	X	0	0
18	31	X	0	0
19	31	X	0	0
20	31	X	0	0

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

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	28	Z	-0.015	%15
2	28	Z	-0.015	%85
3	28	Z	-0.005	%20
4	28	Z	-0.005	%50
5	28	Z	0	0
6	89	Z	-0.015	%15
7	89	Z	-0.015	%85
8	89	Z	-0.005	%20
9	89	Z	-0.005	%50
10	89	Z	0	0
11	78	Z	-0.015	%15

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

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
12	78	Z	-0.015	%85
13	78	Z	-0.005	%20
14	78	Z	-0.005	%50
15	78	Z	0	0
16	31	Z	-0.005	%20
17	31	Z	0	0
18	31	Z	0	0
19	31	Z	0	0
20	31	Z	0	0

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

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	28	X	-0.006	%15
2	28	X	-0.006	%85
3	28	X	-0.002	%20
4	28	X	-0.003	%50
5	28	X	0	0
6	89	X	-0.006	%15
7	89	X	-0.006	%85
8	89	X	-0.002	%20
9	89	X	-0.003	%50
10	89	X	0	0
11	78	X	-0.006	%15
12	78	X	-0.006	%85
13	78	X	-0.002	%20
14	78	X	-0.003	%50
15	78	X	0	0
16	31	X	-0.003	%20
17	31	X	0	0
18	31	X	0	0
19	31	X	0	0
20	31	X	0	0

Member Point Loads (BLC 8 : Ice)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	28	Y	-0.089	%15
2	28	Y	-0.089	%85
3	28	Y	-0.032	%20
4	28	Y	-0.033	%50
5	28	Y	0	0
6	89	Y	-0.089	%15
7	89	Y	-0.089	%85
8	89	Y	-0.032	%20
9	89	Y	-0.033	%50
10	89	Y	0	0
11	78	Y	-0.089	%15
12	78	Y	-0.089	%85
13	78	Y	-0.032	%20
14	78	Y	-0.033	%50
15	78	Y	0	0
16	31	Y	-0.033	%20
17	31	Y	0	0
18	31	Y	0	0
19	31	Y	0	0
20	31	Y	0	0

Member Point Loads (BLC 9 : 0 Seismic)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	28	Z	-0.01	%15
2	28	Z	-0.01	%85
3	28	Z	-0.009	%20
4	28	Z	-0.011	%50
5	28	Z	0	0
6	89	Z	-0.01	%15
7	89	Z	-0.01	%85
8	89	Z	-0.009	%20
9	89	Z	-0.011	%50
10	89	Z	0	0
11	78	Z	-0.01	%15
12	78	Z	-0.01	%85
13	78	Z	-0.009	%20
14	78	Z	-0.011	%50
15	78	Z	0	0
16	31	Z	-0.003	%20
17	31	Z	0	0
18	31	Z	0	0
19	31	Z	0	0
20	31	Z	0	0

Member Point Loads (BLC 10 : 90 Seismic)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	28	X	-0.01	%15
2	28	X	-0.01	%85
3	28	X	-0.009	%20
4	28	X	-0.011	%50
5	28	X	0	0
6	89	X	-0.01	%15
7	89	X	-0.01	%85
8	89	X	-0.009	%20
9	89	X	-0.011	%50
10	89	X	0	0
11	78	X	-0.01	%15
12	78	X	-0.01	%85
13	78	X	-0.009	%20
14	78	X	-0.011	%50
15	78	X	0	0
16	31	X	-0.003	%20
17	31	X	0	0
18	31	X	0	0
19	31	X	0	0
20	31	X	0	0

Member Point Loads (BLC 15 : Maint LL 1)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	22	Y	-0.25	%5

Member Point Loads (BLC 16 : Maint LL 2)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	6	Y	-0.25	%5

Member Point Loads (BLC 17 : Maint LL 3)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	22	Y	-0.25	%95

Member Point Loads (BLC 18 : Maint LL 4)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	6	Y	-0.25	%95

Member Point Loads (BLC 19 : Maint LL 5)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	87	Y	-0.25	%5

Member Point Loads (BLC 20 : Maint LL 6)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	80	Y	-0.25	%5

Member Point Loads (BLC 21 : Maint LL 7)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	87	Y	-0.25	%95

Member Point Loads (BLC 22 : Maint LL 8)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	80	Y	-0.25	%95

Member Point Loads (BLC 23 : Maint LL 9)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	76	Y	-0.25	%5

Member Point Loads (BLC 24 : Maint LL 10)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	69	Y	-0.25	%5

Member Point Loads (BLC 25 : Maint LL 11)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	76	Y	-0.25	%95

Member Point Loads (BLC 26 : Maint LL 12)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	69	Y	-0.25	%95

Member Point Loads (BLC 27 : Maint LL 13)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	31	Y	-0.25	%95

Member Point Loads (BLC 28 : Maint LL 14)

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

Member Point Loads (BLC 29 : Maint LL 15)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	50	Y	-0.25	%95

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

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Z	-0.018	-0.018	0	%100
2	2	Z	-0.015	-0.015	0	%100
3	3	Z	-0.015	-0.015	0	%100
4	4	Z	-0.022	-0.022	0	%100
5	5	Z	-0.022	-0.022	0	%100
6	6	Z	-0.013	-0.013	0	%100
7	7	Z	-0.022	-0.022	0	%100
8	8	Z	-0.022	-0.022	0	%100
9	9	Z	-0.01	-0.01	0	%100
10	10	Z	-0.01	-0.01	0	%100
11	11	Z	-0.029	-0.029	0	%100
12	18	Z	-0.01	-0.01	0	%100
13	19	Z	-0.01	-0.01	0	%100
14	22	Z	-0.01	-0.01	0	%100
15	28	Z	-0.01	-0.01	0	%100
16	30	Z	-0.026	-0.026	0	%100
17	31	Z	-0.018	-0.018	0	%100
18	32	Z	-0.015	-0.015	0	%100
19	33	Z	-0.015	-0.015	0	%100
20	34	Z	-0.022	-0.022	0	%100
21	35	Z	-0.022	-0.022	0	%100
22	36	Z	-0.022	-0.022	0	%100
23	37	Z	-0.022	-0.022	0	%100
24	38	Z	-0.01	-0.01	0	%100
25	39	Z	-0.01	-0.01	0	%100
26	40	Z	-0.029	-0.029	0	%100
27	49	Z	-0.026	-0.026	0	%100
28	50	Z	-0.018	-0.018	0	%100
29	51	Z	-0.015	-0.015	0	%100
30	52	Z	-0.015	-0.015	0	%100
31	53	Z	-0.022	-0.022	0	%100
32	54	Z	-0.022	-0.022	0	%100
33	55	Z	-0.022	-0.022	0	%100
34	56	Z	-0.022	-0.022	0	%100
35	57	Z	-0.01	-0.01	0	%100
36	58	Z	-0.01	-0.01	0	%100
37	59	Z	-0.029	-0.029	0	%100
38	68	Z	-0.026	-0.026	0	%100
39	69	Z	-0.013	-0.013	0	%100
40	72	Z	-0.01	-0.01	0	%100
41	73	Z	-0.01	-0.01	0	%100
42	76	Z	-0.01	-0.01	0	%100
43	78	Z	-0.01	-0.01	0	%100
44	80	Z	-0.013	-0.013	0	%100
45	83	Z	-0.01	-0.01	0	%100
46	84	Z	-0.01	-0.01	0	%100
47	87	Z	-0.01	-0.01	0	%100
48	89	Z	-0.01	-0.01	0	%100

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

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	X	-0.018	-0.018	0	%100
2	2	X	-0.015	-0.015	0	%100
3	3	X	-0.015	-0.015	0	%100
4	4	X	-0.022	-0.022	0	%100
5	5	X	-0.022	-0.022	0	%100
6	6	X	-0.013	-0.013	0	%100
7	7	X	-0.022	-0.022	0	%100
8	8	X	-0.022	-0.022	0	%100
9	9	X	-0.01	-0.01	0	%100
10	10	X	-0.01	-0.01	0	%100
11	11	X	-0.029	-0.029	0	%100
12	18	X	-0.01	-0.01	0	%100
13	19	X	-0.01	-0.01	0	%100
14	22	X	-0.01	-0.01	0	%100
15	28	X	-0.01	-0.01	0	%100
16	30	X	-0.026	-0.026	0	%100
17	31	X	-0.018	-0.018	0	%100
18	32	X	-0.015	-0.015	0	%100
19	33	X	-0.015	-0.015	0	%100
20	34	X	-0.022	-0.022	0	%100
21	35	X	-0.022	-0.022	0	%100
22	36	X	-0.022	-0.022	0	%100
23	37	X	-0.022	-0.022	0	%100
24	38	X	-0.01	-0.01	0	%100
25	39	X	-0.01	-0.01	0	%100
26	40	X	-0.029	-0.029	0	%100
27	49	X	-0.026	-0.026	0	%100
28	50	X	-0.018	-0.018	0	%100
29	51	X	-0.015	-0.015	0	%100
30	52	X	-0.015	-0.015	0	%100
31	53	X	-0.022	-0.022	0	%100
32	54	X	-0.022	-0.022	0	%100
33	55	X	-0.022	-0.022	0	%100
34	56	X	-0.022	-0.022	0	%100
35	57	X	-0.01	-0.01	0	%100
36	58	X	-0.01	-0.01	0	%100
37	59	X	-0.029	-0.029	0	%100
38	68	X	-0.026	-0.026	0	%100
39	69	X	-0.013	-0.013	0	%100
40	72	X	-0.01	-0.01	0	%100
41	73	X	-0.01	-0.01	0	%100
42	76	X	-0.01	-0.01	0	%100
43	78	X	-0.01	-0.01	0	%100
44	80	X	-0.013	-0.013	0	%100
45	83	X	-0.01	-0.01	0	%100
46	84	X	-0.01	-0.01	0	%100
47	87	X	-0.01	-0.01	0	%100
48	89	X	-0.01	-0.01	0	%100

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

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Z	-0.005	-0.005	0	%100
2	2	Z	-0.005	-0.005	0	%100
3	3	Z	-0.005	-0.005	0	%100
4	4	Z	-0.009	-0.009	0	%100
5	5	Z	-0.009	-0.009	0	%100
6	6	Z	-0.002	-0.002	0	%100
7	7	Z	-0.01	-0.01	0	%100

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

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
8	8	Z	-0.01	-0.01	0	%100
9	9	Z	-0.004	-0.004	0	%100
10	10	Z	-0.004	-0.004	0	%100
11	11	Z	-0.007	-0.007	0	%100
12	18	Z	-0.002	-0.002	0	%100
13	19	Z	-0.002	-0.002	0	%100
14	22	Z	-0.002	-0.002	0	%100
15	28	Z	-0.002	-0.002	0	%100
16	30	Z	-0.007	-0.007	0	%100
17	31	Z	-0.005	-0.005	0	%100
18	32	Z	-0.005	-0.005	0	%100
19	33	Z	-0.005	-0.005	0	%100
20	34	Z	-0.009	-0.009	0	%100
21	35	Z	-0.009	-0.009	0	%100
22	36	Z	-0.01	-0.01	0	%100
23	37	Z	-0.01	-0.01	0	%100
24	38	Z	-0.004	-0.004	0	%100
25	39	Z	-0.004	-0.004	0	%100
26	40	Z	-0.007	-0.007	0	%100
27	49	Z	-0.007	-0.007	0	%100
28	50	Z	-0.005	-0.005	0	%100
29	51	Z	-0.005	-0.005	0	%100
30	52	Z	-0.005	-0.005	0	%100
31	53	Z	-0.009	-0.009	0	%100
32	54	Z	-0.009	-0.009	0	%100
33	55	Z	-0.01	-0.01	0	%100
34	56	Z	-0.01	-0.01	0	%100
35	57	Z	-0.004	-0.004	0	%100
36	58	Z	-0.004	-0.004	0	%100
37	59	Z	-0.007	-0.007	0	%100
38	68	Z	-0.007	-0.007	0	%100
39	69	Z	-0.002	-0.002	0	%100
40	72	Z	-0.002	-0.002	0	%100
41	73	Z	-0.002	-0.002	0	%100
42	76	Z	-0.002	-0.002	0	%100
43	78	Z	-0.002	-0.002	0	%100
44	80	Z	-0.002	-0.002	0	%100
45	83	Z	-0.002	-0.002	0	%100
46	84	Z	-0.002	-0.002	0	%100
47	87	Z	-0.002	-0.002	0	%100
48	89	Z	-0.002	-0.002	0	%100

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

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	X	-0.005	-0.005	0	%100
2	2	X	-0.005	-0.005	0	%100
3	3	X	-0.005	-0.005	0	%100
4	4	X	-0.009	-0.009	0	%100
5	5	X	-0.009	-0.009	0	%100
6	6	X	-0.002	-0.002	0	%100
7	7	X	-0.01	-0.01	0	%100
8	8	X	-0.01	-0.01	0	%100
9	9	X	-0.004	-0.004	0	%100
10	10	X	-0.004	-0.004	0	%100
11	11	X	-0.007	-0.007	0	%100
12	18	X	-0.002	-0.002	0	%100
13	19	X	-0.002	-0.002	0	%100
14	22	X	-0.002	-0.002	0	%100
15	28	X	-0.002	-0.002	0	%100

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

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
16	30	X	-0.007	-0.007	0	%100
17	31	X	-0.005	-0.005	0	%100
18	32	X	-0.005	-0.005	0	%100
19	33	X	-0.005	-0.005	0	%100
20	34	X	-0.009	-0.009	0	%100
21	35	X	-0.009	-0.009	0	%100
22	36	X	-0.01	-0.01	0	%100
23	37	X	-0.01	-0.01	0	%100
24	38	X	-0.004	-0.004	0	%100
25	39	X	-0.004	-0.004	0	%100
26	40	X	-0.007	-0.007	0	%100
27	49	X	-0.007	-0.007	0	%100
28	50	X	-0.005	-0.005	0	%100
29	51	X	-0.005	-0.005	0	%100
30	52	X	-0.005	-0.005	0	%100
31	53	X	-0.009	-0.009	0	%100
32	54	X	-0.009	-0.009	0	%100
33	55	X	-0.01	-0.01	0	%100
34	56	X	-0.01	-0.01	0	%100
35	57	X	-0.004	-0.004	0	%100
36	58	X	-0.004	-0.004	0	%100
37	59	X	-0.007	-0.007	0	%100
38	68	X	-0.007	-0.007	0	%100
39	69	X	-0.002	-0.002	0	%100
40	72	X	-0.002	-0.002	0	%100
41	73	X	-0.002	-0.002	0	%100
42	76	X	-0.002	-0.002	0	%100
43	78	X	-0.002	-0.002	0	%100
44	80	X	-0.002	-0.002	0	%100
45	83	X	-0.002	-0.002	0	%100
46	84	X	-0.002	-0.002	0	%100
47	87	X	-0.002	-0.002	0	%100
48	89	X	-0.002	-0.002	0	%100

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

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Z	-0.001	-0.001	0	%100
2	2	Z	-0.001	-0.001	0	%100
3	3	Z	-0.001	-0.001	0	%100
4	4	Z	-0.001	-0.001	0	%100
5	5	Z	-0.001	-0.001	0	%100
6	6	Z	-0.0004	-0.0004	0	%100
7	7	Z	-0.001	-0.001	0	%100
8	8	Z	-0.001	-0.001	0	%100
9	9	Z	-0.0006	-0.0006	0	%100
10	10	Z	-0.0006	-0.0006	0	%100
11	11	Z	-0.002	-0.002	0	%100
12	18	Z	-0.0003	-0.0003	0	%100
13	19	Z	-0.0003	-0.0003	0	%100
14	22	Z	-0.0003	-0.0003	0	%100
15	28	Z	-0.0003	-0.0003	0	%100
16	30	Z	-0.002	-0.002	0	%100
17	31	Z	-0.001	-0.001	0	%100
18	32	Z	-0.001	-0.001	0	%100
19	33	Z	-0.001	-0.001	0	%100
20	34	Z	-0.001	-0.001	0	%100
21	35	Z	-0.001	-0.001	0	%100
22	36	Z	-0.001	-0.001	0	%100
23	37	Z	-0.001	-0.001	0	%100

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

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
24	38	Z	-0.0006	-0.0006	0	%100
25	39	Z	-0.0006	-0.0006	0	%100
26	40	Z	-0.002	-0.002	0	%100
27	49	Z	-0.002	-0.002	0	%100
28	50	Z	-0.001	-0.001	0	%100
29	51	Z	-0.001	-0.001	0	%100
30	52	Z	-0.001	-0.001	0	%100
31	53	Z	-0.001	-0.001	0	%100
32	54	Z	-0.001	-0.001	0	%100
33	55	Z	-0.001	-0.001	0	%100
34	56	Z	-0.001	-0.001	0	%100
35	57	Z	-0.0006	-0.0006	0	%100
36	58	Z	-0.0006	-0.0006	0	%100
37	59	Z	-0.002	-0.002	0	%100
38	68	Z	-0.002	-0.002	0	%100
39	69	Z	-0.0004	-0.0004	0	%100
40	72	Z	-0.0003	-0.0003	0	%100
41	73	Z	-0.0003	-0.0003	0	%100
42	76	Z	-0.0003	-0.0003	0	%100
43	78	Z	-0.0003	-0.0003	0	%100
44	80	Z	-0.0004	-0.0004	0	%100
45	83	Z	-0.0003	-0.0003	0	%100
46	84	Z	-0.0003	-0.0003	0	%100
47	87	Z	-0.0003	-0.0003	0	%100
48	89	Z	-0.0003	-0.0003	0	%100

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

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	X	-0.001	-0.001	0	%100
2	2	X	-0.001	-0.001	0	%100
3	3	X	-0.001	-0.001	0	%100
4	4	X	-0.001	-0.001	0	%100
5	5	X	-0.001	-0.001	0	%100
6	6	X	-0.0004	-0.0004	0	%100
7	7	X	-0.001	-0.001	0	%100
8	8	X	-0.001	-0.001	0	%100
9	9	X	-0.0006	-0.0006	0	%100
10	10	X	-0.0006	-0.0006	0	%100
11	11	X	-0.002	-0.002	0	%100
12	18	X	-0.0003	-0.0003	0	%100
13	19	X	-0.0003	-0.0003	0	%100
14	22	X	-0.0003	-0.0003	0	%100
15	28	X	-0.0003	-0.0003	0	%100
16	30	X	-0.002	-0.002	0	%100
17	31	X	-0.001	-0.001	0	%100
18	32	X	-0.001	-0.001	0	%100
19	33	X	-0.001	-0.001	0	%100
20	34	X	-0.001	-0.001	0	%100
21	35	X	-0.001	-0.001	0	%100
22	36	X	-0.001	-0.001	0	%100
23	37	X	-0.001	-0.001	0	%100
24	38	X	-0.0006	-0.0006	0	%100
25	39	X	-0.0006	-0.0006	0	%100
26	40	X	-0.002	-0.002	0	%100
27	49	X	-0.002	-0.002	0	%100
28	50	X	-0.001	-0.001	0	%100
29	51	X	-0.001	-0.001	0	%100
30	52	X	-0.001	-0.001	0	%100
31	53	X	-0.001	-0.001	0	%100

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

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
32	54	X	-0.001	-0.001	0	%100
33	55	X	-0.001	-0.001	0	%100
34	56	X	-0.001	-0.001	0	%100
35	57	X	-0.0006	-0.0006	0	%100
36	58	X	-0.0006	-0.0006	0	%100
37	59	X	-0.002	-0.002	0	%100
38	68	X	-0.002	-0.002	0	%100
39	69	X	-0.0004	-0.0004	0	%100
40	72	X	-0.0003	-0.0003	0	%100
41	73	X	-0.0003	-0.0003	0	%100
42	76	X	-0.0003	-0.0003	0	%100
43	78	X	-0.0003	-0.0003	0	%100
44	80	X	-0.0004	-0.0004	0	%100
45	83	X	-0.0003	-0.0003	0	%100
46	84	X	-0.0003	-0.0003	0	%100
47	87	X	-0.0003	-0.0003	0	%100
48	89	X	-0.0003	-0.0003	0	%100

Member Distributed Loads (BLC 8 : Ice)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Y	-0.009	-0.009	0	%100
2	2	Y	-0.007	-0.007	0	%100
3	3	Y	-0.007	-0.007	0	%100
4	4	Y	-0.01	-0.01	0	%100
5	5	Y	-0.01	-0.01	0	%100
6	6	Y	-0.006	-0.006	0	%100
7	7	Y	-0.01	-0.01	0	%100
8	8	Y	-0.01	-0.01	0	%100
9	9	Y	-0.005	-0.005	0	%100
10	10	Y	-0.005	-0.005	0	%100
11	11	Y	-0.012	-0.012	0	%100
12	18	Y	-0.005	-0.005	0	%100
13	19	Y	-0.005	-0.005	0	%100
14	22	Y	-0.005	-0.005	0	%100
15	28	Y	-0.005	-0.005	0	%100
16	30	Y	-0.012	-0.012	0	%100
17	31	Y	-0.009	-0.009	0	%100
18	32	Y	-0.007	-0.007	0	%100
19	33	Y	-0.007	-0.007	0	%100
20	34	Y	-0.01	-0.01	0	%100
21	35	Y	-0.01	-0.01	0	%100
22	36	Y	-0.01	-0.01	0	%100
23	37	Y	-0.01	-0.01	0	%100
24	38	Y	-0.005	-0.005	0	%100
25	39	Y	-0.005	-0.005	0	%100
26	40	Y	-0.012	-0.012	0	%100
27	49	Y	-0.012	-0.012	0	%100
28	50	Y	-0.009	-0.009	0	%100
29	51	Y	-0.007	-0.007	0	%100
30	52	Y	-0.007	-0.007	0	%100
31	53	Y	-0.01	-0.01	0	%100
32	54	Y	-0.01	-0.01	0	%100
33	55	Y	-0.01	-0.01	0	%100
34	56	Y	-0.01	-0.01	0	%100
35	57	Y	-0.005	-0.005	0	%100
36	58	Y	-0.005	-0.005	0	%100
37	59	Y	-0.012	-0.012	0	%100
38	68	Y	-0.012	-0.012	0	%100
39	69	Y	-0.006	-0.006	0	%100

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

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
40	72	Y	-0.005	-0.005	0	%100
41	73	Y	-0.005	-0.005	0	%100
42	76	Y	-0.005	-0.005	0	%100
43	78	Y	-0.005	-0.005	0	%100
44	80	Y	-0.006	-0.006	0	%100
45	83	Y	-0.005	-0.005	0	%100
46	84	Y	-0.005	-0.005	0	%100
47	87	Y	-0.005	-0.005	0	%100
48	89	Y	-0.005	-0.005	0	%100

Member Distributed Loads (BLC 9 : 0 Seismic)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Z	-0.0009	-0.0009	0	%100
2	2	Z	-0.0006	-0.0006	0	%100
3	3	Z	-0.0006	-0.0006	0	%100
4	4	Z	-0.001	-0.001	0	%100
5	5	Z	-0.001	-0.001	0	%100
6	6	Z	-0.0008	-0.0008	0	%100
7	7	Z	-0.001	-0.001	0	%100
8	8	Z	-0.001	-0.001	0	%100
9	9	Z	-0.0005	-0.0005	0	%100
10	10	Z	-0.0005	-0.0005	0	%100
11	11	Z	-0.002	-0.002	0	%100
12	18	Z	-0.0008	-0.0008	0	%100
13	19	Z	-0.0008	-0.0008	0	%100
14	22	Z	-0.0008	-0.0008	0	%100
15	28	Z	-0.0008	-0.0008	0	%100
16	30	Z	-0.001	-0.001	0	%100
17	31	Z	-0.0009	-0.0009	0	%100
18	32	Z	-0.0006	-0.0006	0	%100
19	33	Z	-0.0006	-0.0006	0	%100
20	34	Z	-0.001	-0.001	0	%100
21	35	Z	-0.001	-0.001	0	%100
22	36	Z	-0.001	-0.001	0	%100
23	37	Z	-0.001	-0.001	0	%100
24	38	Z	-0.0005	-0.0005	0	%100
25	39	Z	-0.0005	-0.0005	0	%100
26	40	Z	-0.002	-0.002	0	%100
27	49	Z	-0.001	-0.001	0	%100
28	50	Z	-0.0009	-0.0009	0	%100
29	51	Z	-0.0006	-0.0006	0	%100
30	52	Z	-0.0006	-0.0006	0	%100
31	53	Z	-0.001	-0.001	0	%100
32	54	Z	-0.001	-0.001	0	%100
33	55	Z	-0.001	-0.001	0	%100
34	56	Z	-0.001	-0.001	0	%100
35	57	Z	-0.0005	-0.0005	0	%100
36	58	Z	-0.0005	-0.0005	0	%100
37	59	Z	-0.002	-0.002	0	%100
38	68	Z	-0.001	-0.001	0	%100
39	69	Z	-0.0008	-0.0008	0	%100
40	72	Z	-0.0008	-0.0008	0	%100
41	73	Z	-0.0008	-0.0008	0	%100
42	76	Z	-0.0008	-0.0008	0	%100
43	78	Z	-0.0008	-0.0008	0	%100
44	80	Z	-0.0008	-0.0008	0	%100
45	83	Z	-0.0008	-0.0008	0	%100
46	84	Z	-0.0008	-0.0008	0	%100
47	87	Z	-0.0008	-0.0008	0	%100

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

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
48	89	Z	-0.0008	-0.0008	0	%100

Member Distributed Loads (BLC 10 : 90 Seismic)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	X	-0.0009	-0.0009	0	%100
2	2	X	-0.0006	-0.0006	0	%100
3	3	X	-0.0006	-0.0006	0	%100
4	4	X	-0.001	-0.001	0	%100
5	5	X	-0.001	-0.001	0	%100
6	6	X	-0.0008	-0.0008	0	%100
7	7	X	-0.001	-0.001	0	%100
8	8	X	-0.001	-0.001	0	%100
9	9	X	-0.0005	-0.0005	0	%100
10	10	X	-0.0005	-0.0005	0	%100
11	11	X	-0.002	-0.002	0	%100
12	18	X	-0.0008	-0.0008	0	%100
13	19	X	-0.0008	-0.0008	0	%100
14	22	X	-0.0008	-0.0008	0	%100
15	28	X	-0.0008	-0.0008	0	%100
16	30	X	-0.001	-0.001	0	%100
17	31	X	-0.0009	-0.0009	0	%100
18	32	X	-0.0006	-0.0006	0	%100
19	33	X	-0.0006	-0.0006	0	%100
20	34	X	-0.001	-0.001	0	%100
21	35	X	-0.001	-0.001	0	%100
22	36	X	-0.001	-0.001	0	%100
23	37	X	-0.001	-0.001	0	%100
24	38	X	-0.0005	-0.0005	0	%100
25	39	X	-0.0005	-0.0005	0	%100
26	40	X	-0.002	-0.002	0	%100
27	49	X	-0.001	-0.001	0	%100
28	50	X	-0.0009	-0.0009	0	%100
29	51	X	-0.0006	-0.0006	0	%100
30	52	X	-0.0006	-0.0006	0	%100
31	53	X	-0.001	-0.001	0	%100
32	54	X	-0.001	-0.001	0	%100
33	55	X	-0.001	-0.001	0	%100
34	56	X	-0.001	-0.001	0	%100
35	57	X	-0.0005	-0.0005	0	%100
36	58	X	-0.0005	-0.0005	0	%100
37	59	X	-0.002	-0.002	0	%100
38	68	X	-0.001	-0.001	0	%100
39	69	X	-0.0008	-0.0008	0	%100
40	72	X	-0.0008	-0.0008	0	%100
41	73	X	-0.0008	-0.0008	0	%100
42	76	X	-0.0008	-0.0008	0	%100
43	78	X	-0.0008	-0.0008	0	%100
44	80	X	-0.0008	-0.0008	0	%100
45	83	X	-0.0008	-0.0008	0	%100
46	84	X	-0.0008	-0.0008	0	%100
47	87	X	-0.0008	-0.0008	0	%100
48	89	X	-0.0008	-0.0008	0	%100

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

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	10	Y	-0.02	-0.026	1.27	2.309
2	38	Y	-0.014	-0.02	0	2.078
3	39	Y	0.0006164	-0.016	0	1.155

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

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
4	39	Y	-0.016	-0.035	1.155	2.309
5	57	Y	-0.035	-0.016	0	1.155
6	57	Y	-0.016	0.0006163	1.155	2.309
7	58	Y	-0.018	-0.016	0.231	2.309
8	9	Y	-0.015	-0.015	0	2.078
9	10	Y	-0.014	-0.02	0.231	1.27

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

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	9	Y	-0.008	-0.008	0	2.078
2	10	Y	-0.007	-0.011	0.231	1.27
3	10	Y	-0.011	-0.014	1.27	2.309
4	38	Y	-0.007	-0.011	0	2.078
5	39	Y	0.0003232	-0.008	0	1.155
6	39	Y	-0.008	-0.018	1.155	2.309
7	57	Y	-0.018	-0.008	0	1.155
8	57	Y	-0.008	0.0003231	1.155	2.309
9	58	Y	-0.009	-0.008	0.231	2.309

Member Area Loads (BLC 1 : Dead)

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]
1	23	22	25	24	Y	Two Way	-0.01
2	73	72	75	74	Y	Two Way	-0.01
3	102	101	104	103	Y	Two Way	-0.01

Member Area Loads (BLC 8 : Ice)

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]
1	23	22	25	24	Y	Two Way	-0.005
2	73	72	75	74	Y	Two Way	-0.005
3	102	101	104	103	Y	Two Way	-0.005

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

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	30	L	Y	-0.5
2	113	L	Y	-0.5
3	135	L	Y	-0.5

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

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	31	L	Y	-0.5
2	114	L	Y	-0.5
3	136	L	Y	-0.5

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

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	44	L	Y	-0.5
2	127	L	Y	-0.5
3	149	L	Y	-0.5

Basic Load Cases

	BLC Description	Category	Y Gravity	Nodal	Point	Distributed	Area(Member)
1	Dead	DL	-1		20		3
2	0 Wind - No Ice	WLZ			20	48	
3	90 Wind - No Ice	WLX			20	48	
4	0 Wind - Ice	WLZ			20	48	
5	90 Wind - Ice	WLX			20	48	
6	0 Wind - Service	WLZ			20	48	
7	90 Wind - Service	WLX			20	48	
8	Ice	OL1			20	48	3
9	0 Seismic	ELZ			20	48	
10	90 Seismic	ELX			20	48	
11	Live Load a	LL		3			
12	Live Load b	LL		3			
13	Live Load c	LL		3			
14	Live Load d	LL					
15	Maint LL 1	LL			1		
16	Maint LL 2	LL			1		
17	Maint LL 3	LL			1		
18	Maint LL 4	LL			1		
19	Maint LL 5	LL			1		
20	Maint LL 6	LL			1		
21	Maint LL 7	LL			1		
22	Maint LL 8	LL			1		
23	Maint LL 9	LL			1		
24	Maint LL 10	LL			1		
25	Maint LL 11	LL			1		
26	Maint LL 12	LL			1		
27	Maint LL 13	LL			1		
28	Maint LL 14	LL			1		
29	Maint LL 15	LL			1		
30	BLC 1 Transient Area Loads	None				9	
31	BLC 8 Transient Area Loads	None				9	

Load Combinations

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
1	1.4 Dead	Yes	Y	1	1.4						
2	1.2 D + 1.0 - 0 W	Yes	Y	1	1.2	2	1				
3	1.2 D + 1.0 - 30 W	Yes	Y	1	1.2	2	0.866	3	0.5		
4	1.2 D + 1.0 - 60 W	Yes	Y	1	1.2	3	0.866	2	0.5		
5	1.2 D + 1.0 - 90 W	Yes	Y	1	1.2	3	1				
6	1.2 D + 1.0 - 120 W	Yes	Y	1	1.2	3	0.866	2	-0.5		
7	1.2 D + 1.0 - 150 W	Yes	Y	1	1.2	2	-0.866	3	0.5		
8	1.2 D + 1.0 - 180 W	Yes	Y	1	1.2	2	-1				
9	1.2 D + 1.0 - 210 W	Yes	Y	1	1.2	2	-0.866	3	-0.5		
10	1.2 D + 1.0 - 240 W	Yes	Y	1	1.2	3	-0.866	2	-0.5		
11	1.2 D + 1.0 - 270 W	Yes	Y	1	1.2	3	-1				
12	1.2 D + 1.0 - 300 W	Yes	Y	1	1.2	3	-0.866	2	0.5		
13	1.2 D + 1.0 - 330 W	Yes	Y	1	1.2	2	0.866	3	-0.5		
14	1.2 D + 1.0 - 0 W/Ice	Yes	Y	1	1.2	4	1			8	1
15	1.2 D + 1.0 - 30 W/Ice	Yes	Y	1	1.2	4	0.866	5	0.5	8	1
16	1.2 D + 1.0 - 60 W/Ice	Yes	Y	1	1.2	5	0.866	4	0.5	8	1
17	1.2 D + 1.0 - 90 W/Ice	Yes	Y	1	1.2	5	1			8	1
18	1.2 D + 1.0 - 120 W/Ice	Yes	Y	1	1.2	5	0.866	4	-0.5	8	1
19	1.2 D + 1.0 - 150 W/Ice	Yes	Y	1	1.2	4	-0.866	5	0.5	8	1
20	1.2 D + 1.0 - 180 W/Ice	Yes	Y	1	1.2	4	-1			8	1
21	1.2 D + 1.0 - 210 W/Ice	Yes	Y	1	1.2	4	-0.866	5	-0.5	8	1
22	1.2 D + 1.0 - 240 W/Ice	Yes	Y	1	1.2	5	-0.866	4	-0.5	8	1
23	1.2 D + 1.0 - 270 W/Ice	Yes	Y	1	1.2	5	-1			8	1
24	1.2 D + 1.0 - 300 W/Ice	Yes	Y	1	1.2	5	-0.866	4	0.5	8	1

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
25	1.2 D + 1.0 - 330 W/Ice	Yes	Y	1	1.2	4	0.866	5	-0.5	8	1
26	1.2 D + 1.0 E - 0	Yes	Y	1	1.2	9	1				
27	1.2 D + 1.0 E - 30	Yes	Y	1	1.2	9	0.866	10	0.5		
28	1.2 D + 1.0 E - 60	Yes	Y	1	1.2	10	0.866	9	0.5		
29	1.2 D + 1.0 E - 90	Yes	Y	1	1.2	10	1				
30	1.2 D + 1.0 E - 120	Yes	Y	1	1.2	10	0.866	9	-0.5		
31	1.2 D + 1.0 E - 150	Yes	Y	1	1.2	9	-0.866	10	0.5		
32	1.2 D + 1.0 E - 180	Yes	Y	1	1.2	9	-1				
33	1.2 D + 1.0 E - 210	Yes	Y	1	1.2	9	-0.866	10	-0.5		
34	1.2 D + 1.0 E - 240	Yes	Y	1	1.2	10	-0.866	9	-0.5		
35	1.2 D + 1.0 E - 270	Yes	Y	1	1.2	10	-1				
36	1.2 D + 1.0 E - 300	Yes	Y	1	1.2	10	-0.866	9	0.5		
37	1.2 D + 1.0 E - 330	Yes	Y	1	1.2	9	0.866	10	-0.5		
38	1.2 D + 1.5 LL a + Service - 0 W	Yes	Y	1	1.2	6	1			11	1.5
39	1.2 D + 1.5 LL a + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	11	1.5
40	1.2 D + 1.5 LL a + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	11	1.5
41	1.2 D + 1.5 LL a + Service - 90 W	Yes	Y	1	1.2	7	1			11	1.5
42	1.2 D + 1.5 LL a + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	11	1.5
43	1.2 D + 1.5 LL a + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	11	1.5
44	1.2 D + 1.5 LL a + Service - 180 W	Yes	Y	1	1.2	6	-1			11	1.5
45	1.2 D + 1.5 LL a + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	11	1.5
46	1.2 D + 1.5 LL a + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	11	1.5
47	1.2 D + 1.5 LL a + Service - 270 W	Yes	Y	1	1.2	7	-1			11	1.5
48	1.2 D + 1.5 LL a + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	11	1.5
49	1.2 D + 1.5 LL a + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	11	1.5
50	1.2 D + 1.5 LL b + Service - 0 W	Yes	Y	1	1.2	6	1			12	1.5
51	1.2 D + 1.5 LL b + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	12	1.5
52	1.2 D + 1.5 LL b + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	12	1.5
53	1.2 D + 1.5 LL b + Service - 90 W	Yes	Y	1	1.2	7	1			12	1.5
54	1.2 D + 1.5 LL b + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	12	1.5
55	1.2 D + 1.5 LL b + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	12	1.5
56	1.2 D + 1.5 LL b + Service - 180 W	Yes	Y	1	1.2	6	-1			12	1.5
57	1.2 D + 1.5 LL b + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	12	1.5
58	1.2 D + 1.5 LL b + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	12	1.5
59	1.2 D + 1.5 LL b + Service - 270 W	Yes	Y	1	1.2	7	-1			12	1.5
60	1.2 D + 1.5 LL b + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	12	1.5
61	1.2 D + 1.5 LL b + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	12	1.5
62	1.2 D + 1.5 LL c + Service - 0 W	Yes	Y	1	1.2	6	1			13	1.5
63	1.2 D + 1.5 LL c + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	13	1.5
64	1.2 D + 1.5 LL c + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	13	1.5
65	1.2 D + 1.5 LL c + Service - 90 W	Yes	Y	1	1.2	7	1			13	1.5
66	1.2 D + 1.5 LL c + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	13	1.5
67	1.2 D + 1.5 LL c + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	13	1.5
68	1.2 D + 1.5 LL c + Service - 180 W	Yes	Y	1	1.2	6	-1			13	1.5
69	1.2 D + 1.5 LL c + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	13	1.5
70	1.2 D + 1.5 LL c + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	13	1.5
71	1.2 D + 1.5 LL c + Service - 270 W	Yes	Y	1	1.2	7	-1			13	1.5
72	1.2 D + 1.5 LL c + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	13	1.5
73	1.2 D + 1.5 LL c + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	13	1.5
74	1.2 D + 1.5 LL d + Service - 0 W	Yes	Y	1	1.2	6	1			14	1.5
75	1.2 D + 1.5 LL d + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	14	1.5
76	1.2 D + 1.5 LL d + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	14	1.5
77	1.2 D + 1.5 LL d + Service - 90 W	Yes	Y	1	1.2	7	1			14	1.5
78	1.2 D + 1.5 LL d + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	14	1.5
79	1.2 D + 1.5 LL d + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	14	1.5
80	1.2 D + 1.5 LL d + Service - 180 W	Yes	Y	1	1.2	6	-1			14	1.5
81	1.2 D + 1.5 LL d + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	14	1.5
82	1.2 D + 1.5 LL d + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	14	1.5
83	1.2 D + 1.5 LL d + Service - 270 W	Yes	Y	1	1.2	7	-1			14	1.5
84	1.2 D + 1.5 LL d + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	14	1.5

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
85	1.2 D + 1.5 LL d + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	14	1.5
86	1.2 D + 1.5 LL Maint (1)	Yes	Y	1	1.2					15	1.5
87	1.2 D + 1.5 LL Maint (2)	Yes	Y	1	1.2					16	1.5
88	1.2 D + 1.5 LL Maint (3)	Yes	Y	1	1.2					17	1.5
89	1.2 D + 1.5 LL Maint (4)	Yes	Y	1	1.2					18	1.5
90	1.2 D + 1.5 LL Maint (5)	Yes	Y	1	1.2					19	1.5
91	1.2 D + 1.5 LL Maint (6)	Yes	Y	1	1.2					20	1.5
92	1.2 D + 1.5 LL Maint (7)	Yes	Y	1	1.2					21	1.5
93	1.2 D + 1.5 LL Maint (8)	Yes	Y	1	1.2					22	1.5
94	1.2 D + 1.5 LL Maint (9)	Yes	Y	1	1.2					23	1.5
95	1.2 D + 1.5 LL Maint (10)	Yes	Y	1	1.2					24	1.5
96	1.2 D + 1.5 LL Maint (11)	Yes	Y	1	1.2					25	1.5
97	1.2 D + 1.5 LL Maint (12)	Yes	Y	1	1.2					26	1.5
98	1.2 D + 1.5 LL Maint (13)	Yes	Y	1	1.2					27	1.5
99	1.2 D + 1.5 LL Maint (14)	Yes	Y	1	1.2					28	1.5
100	1.2 D + 1.5 LL Maint (15)	Yes	Y	1	1.2					29	1.5

Envelope Node Reactions

	Node Label		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	1	max	1.03	5	1.738	2	1.416	2	3.886	2	1.05	11	0.387	97
2		min	-1.03	11	-0.142	8	-1.541	8	-0.807	8	-1.046	5	-0.22	91
3	53	max	1.152	5	1.673	18	1.356	2	0.239	13	1.305	3	0.187	12
4		min	-1.258	11	0.093	12	-1.294	8	-1.743	43	-1.301	9	-2.984	6
5	82	max	1.112	5	1.61	22	1.532	2	0.198	3	1.322	7	2.854	10
6		min	-1.006	11	0.06	4	-1.469	8	-1.903	9	-1.318	13	-0.279	4
7	Totals:	max	3.294	5	4.669	60	4.305	2						
8		min	-3.294	11	2.419	6	-4.305	8						

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	Dir	LC	phi*Pnc [k]	phi*Pnt [k]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
1	1	HSS4X4X2	0.519	0	13	0.127	0	y	73	70.173	73.278	8.24	8.24	2.023	H1-1b
2	2	C3.38x2.06x.188	0.356	2.592	3	0.06	0.351	y	64	35.676	43.394	1.694	4.483	1.601	H1-1b
3	3	C3.38x2.06x.188	0.371	0	13	0.071	2.241	z	8	35.676	43.394	1.694	4.483	1.597	H1-1b
4	4	PL3/8"x6	0.104	0	2	0.163	0	y	2	68.997	72.9	0.57	9.113	2.239	H1-1b
5	5	PL3/8"x6	0.103	0	2	0.123	0	y	2	68.997	72.9	0.57	9.113	1.945	H1-1b
6	6	PIPE_3.5x0.165	0.077	6.75	7	0.038	4		5	45.872	71.57	6.336	6.336	1.987	H1-1b
7	7	PL3/8"x6	0.13	0.208	8	0.197	0.208	y	50	70.882	72.9	0.57	9.113	1.399	H1-1b
8	8	PL3/8"x6	0.138	0	13	0.2	0	y	50	70.882	72.9	0.57	9.113	2.867	H1-1b
9	9	L2x2x4	0.296	0	8	0.031	2.309	y	48	23.349	30.586	0.691	1.577	1.5	H2-1
10	10	L2x2x4	0.263	2.309	8	0.036	0	y	63	23.349	30.586	0.691	1.577	1.5	H2-1
11	11	L7.63x2.5x6	0.39	1.604	8	0.079	0	z	62	75.414	118.523	1.798	13.75	1.243	H2-1
12	18	PIPE_2.88x0.203	0.114	5.833	5	0.044	5.833		6	35.519	70.68	5.029	5.029	3	H1-1b
13	19	PIPE_2.88x0.203	0.134	2.5	9	0.051	5.833		8	35.519	70.68	5.029	5.029	3	H1-1b
14	22	PIPE_2.88x0.203	0.157	7.812	2	0.133	9.167		2	24.131	70.68	5.029	5.029	2.401	H1-1b
15	28	PIPE_2.88x0.203	0.125	2.5	7	0.052	2.5		9	35.519	70.68	5.029	5.029	3	H1-1b
16	30	L6.63x4.33x.25	0.201	3.25	6	0.028	3.25	z	12	51.794	86.751	2.311	6.976	1.5	H2-1
17	31	HSS4X4X2	0.492	0	7	0.129	0	y	65	70.173	73.278	8.24	8.24	2.052	H1-1b
18	32	C3.38x2.06x.188	0.349	2.592	7	0.061	0.351	y	68	35.676	43.394	1.694	4.483	1.601	H1-1b
19	33	C3.38x2.06x.188	0.33	0	56	0.063	2.241	y	48	35.676	43.394	1.703	4.483	1.621	H1-1b
20	34	PL3/8"x6	0.086	0	6	0.149	0	y	67	68.997	72.9	0.57	9.113	2.224	H1-1b
21	35	PL3/8"x6	0.098	0	7	0.118	0	y	42	68.997	72.9	0.57	9.113	1.774	H1-1b
22	36	PL3/8"x6	0.116	0.208	13	0.196	0.208	y	54	70.882	72.9	0.57	9.113	1.918	H1-1b
23	37	PL3/8"x6	0.111	0	5	0.202	0	y	55	70.882	72.9	0.57	9.113	2.942	H1-1b
24	38	L2x2x4	0.227	0	12	0.031	2.309	y	40	23.349	30.586	0.691	1.577	1.5	H2-1
25	39	L2x2x4	0.216	2.309	12	0.035	0	y	68	23.349	30.586	0.691	1.577	1.5	H2-1
26	40	L7.63x2.5x6	0.298	1.604	12	0.079	0	z	66	75.414	118.523	1.798	13.837	1.262	H2-1
27	49	L6.63x4.33x.25	0.222	0	2	0.032	3.25	y	9	51.794	86.751	2.311	6.976	1.5	H2-1
28	50	HSS4X4X2	0.512	0	9	0.129	0	y	69	70.173	73.278	8.24	8.24	2.026	H1-1b

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	Dir	LC	phi*Pnc [k]	phi*Pnt [k]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
29	51	C3.38x2.06x.188	0.327	2.592	57	0.06	0.351	y	73	35.676	43.394	1.703	4.483	1.619	H1-1b
30	52	C3.38x2.06x.188	0.362	0	9	0.063	2.241	y	39	35.676	43.394	1.694	4.483	1.596	H1-1b
31	53	PL3/8"x6	0.088	0	9	0.147	0	y	70	68.997	72.9	0.57	9.113	2.106	H1-1b
32	54	PL3/8"x6	0.08	0	10	0.121	0	y	45	68.997	72.9	0.57	9.113	1.908	H1-1b
33	55	PL3/8"x6	0.134	0.085	3	0.197	0.208	y	57	70.882	72.9	0.57	9.113	1.526	H1-1b
34	56	PL3/8"x6	0.139	0	9	0.199	0	y	58	70.882	72.9	0.57	9.113	2.881	H1-1b
35	57	L2x2x4	0.278	0	3	0.031	2.309	y	44	23.349	30.586	0.691	1.577	1.5	H2-1
36	58	L2x2x4	0.221	2.309	4	0.036	0	y	72	23.349	30.586	0.691	1.577	1.5	H2-1
37	59	L7.63x2.5x6	0.34	1.604	3	0.08	0	z	70	75.414	118.523	1.798	14.291	1.369	H2-1
38	68	L6.63x4.33x.25	0.253	3.25	2	0.037	3.25	z	8	51.794	86.751	2.311	6.976	1.5	H2-1
39	69	PIPE_3.5x0.165	0.08	4	8	0.051	4		9	45.872	71.57	6.336	6.336	1.516	H1-1b
40	72	PIPE_2.88x0.203	0.145	5.833	9	0.051	5.833		9	35.519	70.68	5.029	5.029	3	H1-1b
41	73	PIPE_2.88x0.203	0.164	2.5	2	0.048	5.833		13	35.519	70.68	5.029	5.029	3	H1-1b
42	76	PIPE_2.88x0.203	0.15	2.188	13	0.106	2.188		13	24.131	70.68	5.029	5.029	2.274	H1-1b
43	78	PIPE_2.88x0.203	0.127	5.833	9	0.055	2.5		13	35.519	70.68	5.029	5.029	3	H1-1b
44	80	PIPE_3.5x0.165	0.073	6.75	63	0.049	2.5		13	45.872	71.57	6.336	6.336	2.395	H1-1b
45	83	PIPE_2.88x0.203	0.144	5.833	13	0.058	5.833		2	35.519	70.68	5.029	5.029	3	H1-1b
46	84	PIPE_2.88x0.203	0.129	2.5	6	0.037	5.833		4	35.519	70.68	5.029	5.029	3	H1-1b
47	87	PIPE_2.88x0.203	0.142	7.813	9	0.115	9.167		9	24.131	70.68	5.029	5.029	2.533	H1-1b
48	89	PIPE_2.88x0.203	0.144	5.833	2	0.039	5.833		6	35.519	70.68	5.029	5.029	3	H1-1b

APPENDIX B

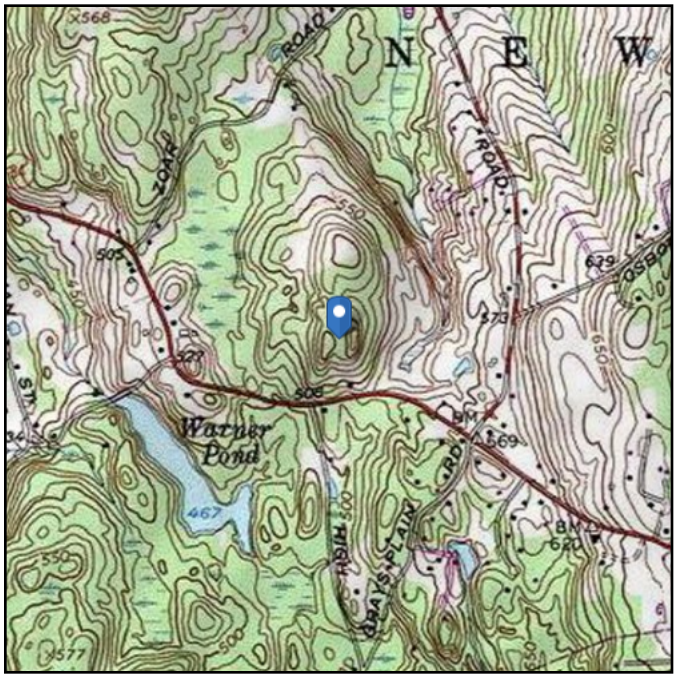
(Additional Calculations)

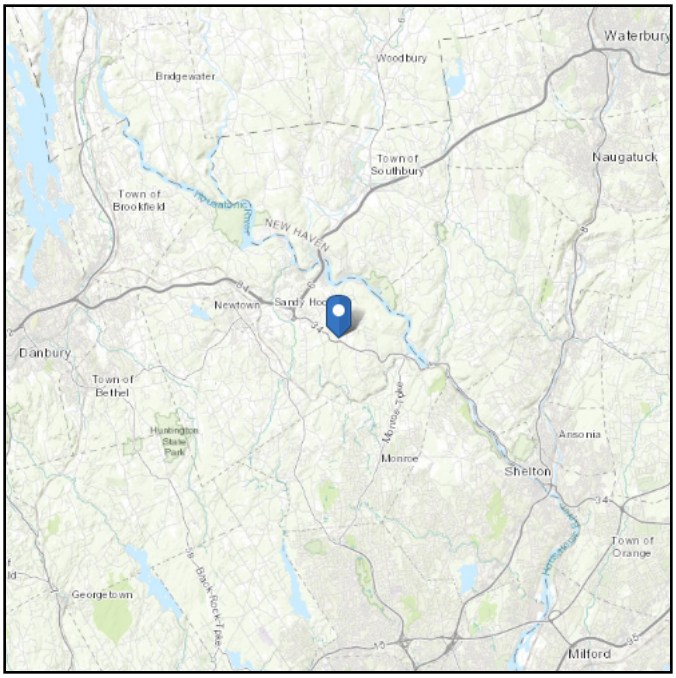
ASCE 7 Hazards Report

Address:
No Address at This Location

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

Elevation: 602.3 ft (NAVD 88)
Latitude: 41.397375
Longitude: -73.236069





Wind

Results:

Wind Speed:	117 Vmph
10-year MRI	75 Vmph
25-year MRI	84 Vmph
50-year MRI	90 Vmph
100-year MRI	97 Vmph

Data Source:	ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed:	Tue Nov 02 2021

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

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

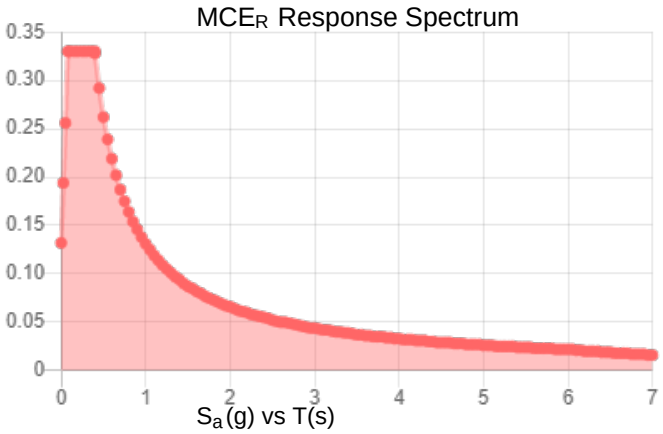
Seismic

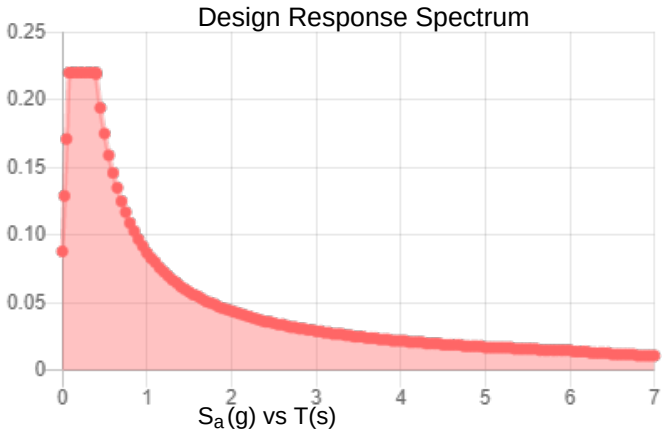
Site Soil Class: D - Default (see Section 11.4.3)

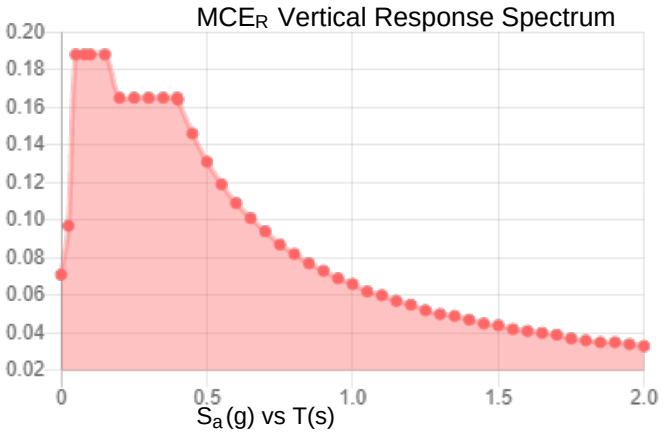
Results:

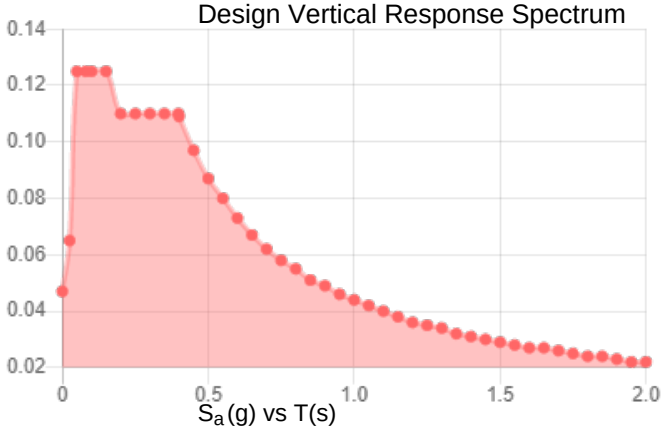
S_S :	0.206	S_{D1} :	0.087
S_1 :	0.055	T_L :	6
F_a :	1.6	PGA :	0.116
F_v :	2.4	PGA_M :	0.182
S_{MS} :	0.33	F_{PGA} :	1.567
S_{M1} :	0.131	I_e :	1
S_{DS} :	0.22	C_v :	0.712

Seismic Design Category B









Data Accessed: Tue Nov 02 2021

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

Ice

Results:

Ice Thickness:	1.00 in.
Concurrent Temperature:	15 F
Gust Speed:	50 mph
Data Source:	Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8
Date Accessed:	Tue Nov 02 2021

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

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

Exhibit F

Power Density/RF Emissions Report

APPROVED
By Pawan Madahar at 3:28 pm, Mar 03, 2022

Pinnacle Telecom Group

Professional and Technical Services

Antenna Site FCC RF Compliance Assessment and Report for Municipal Submission

Prepared for:	Dish Wireless, LLC
Site ID:	NJJER01102B
Site Address:	151 Berkshire Road Newtown, CT
Latitude:	N 41.39737467
Longitude:	W 73.23606911
Structure type:	Monopole
Report date:	February 25, 2022
Compliance Conclusion:	Dish Wireless, LLC will be in compliance with the rules and regulations as described in OET Bulletin 65, following the implementation of the proposed mitigation as detailed in the report.

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

Contents

Introduction and Summary

At the request of Dish Wireless, LLC ("Dish"), Pinnacle Telecom Group has performed an independent expert assessment of radiofrequency (RF) levels and related FCC compliance for proposed wireless base station antenna operations on an existing monopole located at 151 Berkshire Road in Newtown, CT. Dish refers to the antenna site by the code "NJJER01102B", and its proposed operation involves directional panel antennas and transmission in the 600 MHz, 2000 MHz and 2100 MHz frequency bands licensed to it by the FCC.

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

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

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

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

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

- At street level, the conservatively calculated maximum RF level from the combination of proposed and existing antenna operations at the site is 11.1635 percent of the FCC general population MPE limit – well below the 100-percent reference for compliance. In other words, the worst-case calculated RF level – intentionally and significantly overstated by the calculations – is still more than nine times below the FCC limit for safe, continuous exposure of the general public.
- A supplemental analysis of the RF levels at the same height as the Dish antennas indicate that the FCC MPE limit is potentially exceeded. Therefore, it is recommended that two Caution signs be installed six feet below the antennas. In addition, NOC Information signs are to be installed at the base of the monopole.
- The results of the calculations, along with the proposed mitigation, combine to satisfy the FCC requirements and associated guidelines on RF compliance at street level around the site and on the subject roof. Moreover, because of the significant conservatism incorporated in the analysis, RF levels actually caused by the antennas will be lower than these calculations indicate.

The remainder of this report provides the following:

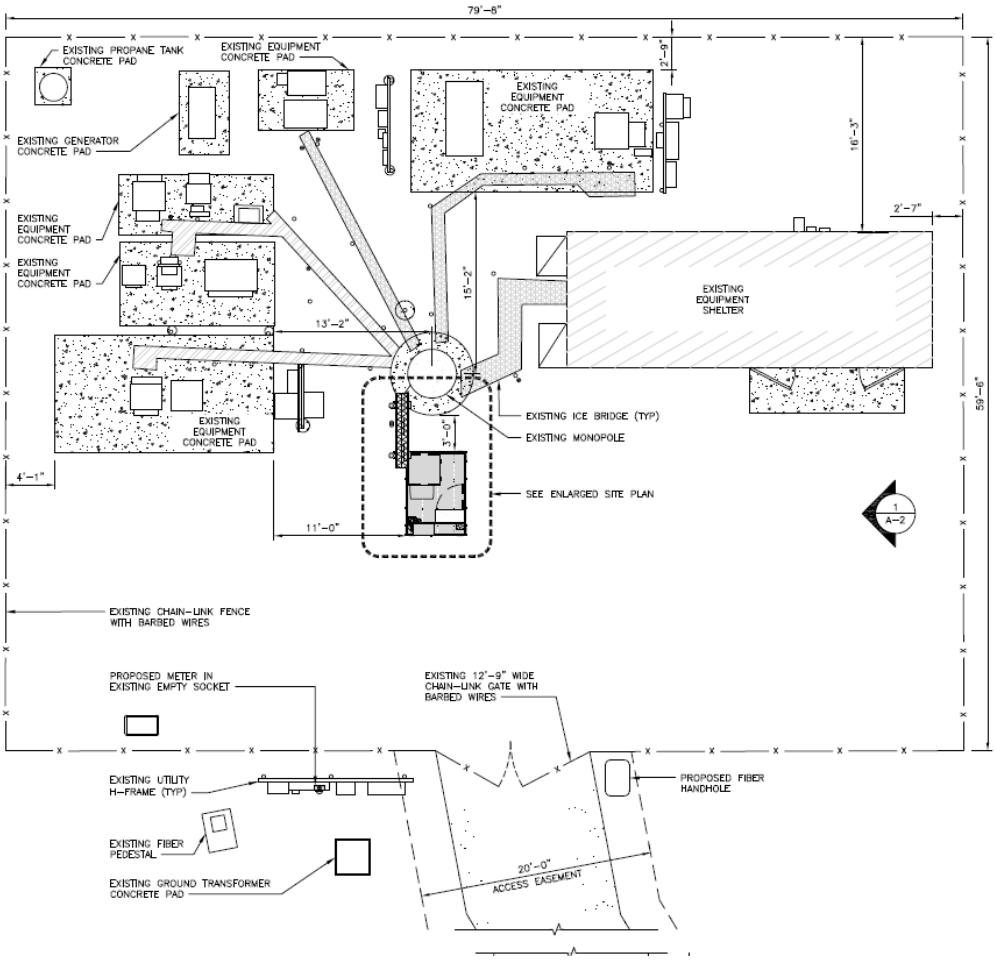
- relevant technical data on the proposed Dish antenna operations at the site, as well as on the other existing antenna operations;
- a description of the applicable FCC mathematical model for calculating RF levels, and application of the relevant technical data to that model;
- analysis of the results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

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

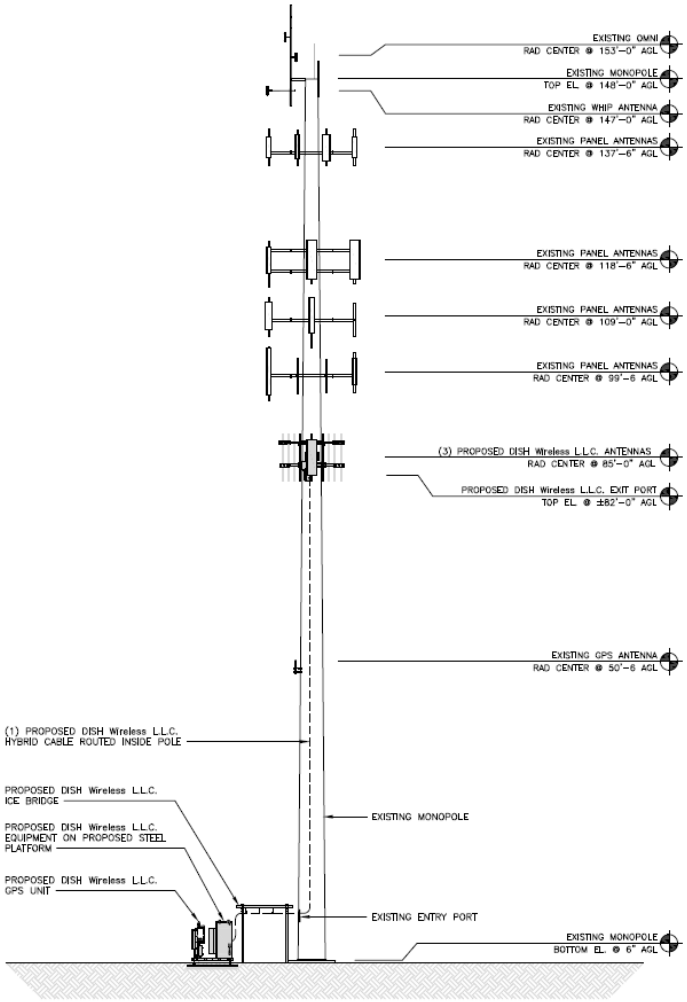
Antenna and Transmission Data

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

Plan View:



Elevation View:



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

Ant. ID	Carrier	Antenna Manufacturer	Antenna Model	Type	Freq (MHz)	Ant. Dim. (ft.)	Total Input Power (watts)	Total ERP (watts)	Z AGL (ft)	Ant. Gain (dBd)	B/W	Azimuth	EDT	MDT
❶	Dish	Commscope	FFVV-65B-R2	Panel	600	6	120	2110	85	12.46	64	0	2	0
❶	Dish	Commscope	FFVV-65B-R2	Panel	2000	6	160	7396	85	16.66	67	0	2	0
❶	Dish	Commscope	FFVV-65B-R2	Panel	2100	6	160	7396	85	16.66	67	0	2	0
❷	Dish	Commscope	FFVV-65B-R2	Panel	600	6	120	2110	85	12.46	64	120	2	0
❷	Dish	Commscope	FFVV-65B-R2	Panel	2000	6	160	7396	85	16.66	67	120	2	0
❷	Dish	Commscope	FFVV-65B-R2	Panel	2100	6	160	7396	85	16.66	67	120	2	0
❸	Dish	Commscope	FFVV-65B-R2	Panel	600	6	120	2110	85	12.46	64	240	2	0
❸	Dish	Commscope	FFVV-65B-R2	Panel	2000	6	160	7396	85	16.66	67	240	2	0
❸	Dish	Commscope	FFVV-65B-R2	Panel	2100	6	160	7396	85	16.66	67	240	2	0

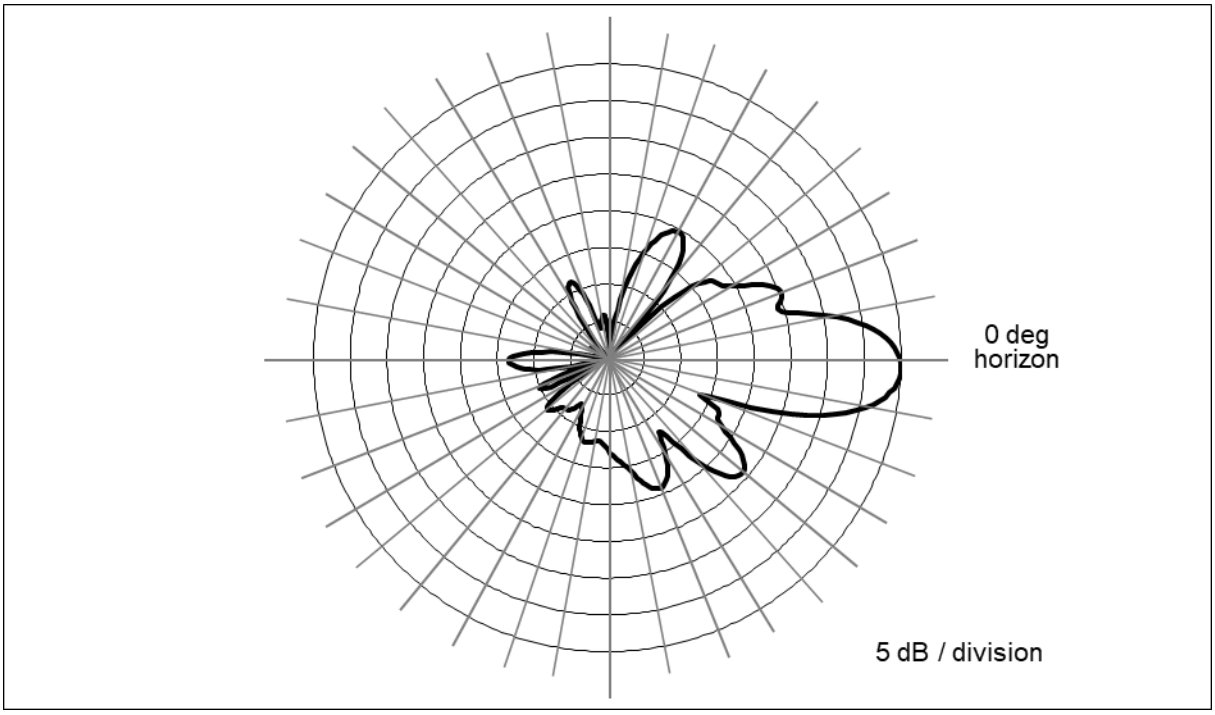
The area below the antennas, at street level, is of interest in terms of potential "uncontrolled" exposure of the general public, so the antenna's vertical-plane emission characteristic is used in the calculations, as it is a key determinant of the relative amount of RF emissions in the "downward" direction.

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

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

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

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



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

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

Carrier	*Antenna Manufacturer*	*Antenna Model*	*Type*	*Freq (MHz)*	*Total ERP (watts)*	*Ant. Gain (dBd)*	*Azimuth*
AT&T	Generic	Generic	Panel	700	4945	11.26	N/A
AT&T	Generic	Generic	Panel	850	2400	11.76	N/A
AT&T	Generic	Generic	Panel	1900	5756	15.56	N/A
AT&T	Generic	Generic	Panel	2100	5890	15.66	N/A
AT&T	Generic	Generic	Panel	2300	4131	16.16	N/A
Sprint	Generic	Generic	Panel	800	2168	13.36	N/A
Sprint	Generic	Generic	Panel	1900	6168	15.86	N/A
Sprint	Generic	Generic	Panel	2500	4669	15.90	N/A
T-Mobile	Generic	Generic	Panel	600	3163	12.96	N/A
T-Mobile	Generic	Generic	Panel	700	867	13.36	N/A
T-Mobile	Generic	Generic	Panel	1900	4123	15.36	N/A
T-Mobile	Generic	Generic	Panel	1900	1452	15.60	N/A
T-Mobile	Generic	Generic	Panel	2100	4626	15.86	N/A
T-Mobile	Generic	Generic	Panel	1900	1419	15.50	N/A
T-Mobile	Generic	Generic	Panel	2500	12804	22.35	N/A
Verizon Wireless	Generic	Generic	Panel	746	2400	11.76	N/A
Verizon Wireless	Generic	Generic	Panel	869	5166	12.36	N/A
Verizon Wireless	Generic	Generic	Panel	1900	5372	15.26	N/A
Verizon Wireless	Generic	Generic	Panel	2100	5625	15.46	N/A
Town of Newtown	Generic	Generic	Omnidirectional	151	75	0	N/A
Town of Newtown	Generic	Generic	Omnidirectional	152	75	0	N/A

Compliance Analysis

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

Street Level Analysis

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

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

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

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

where

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

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

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

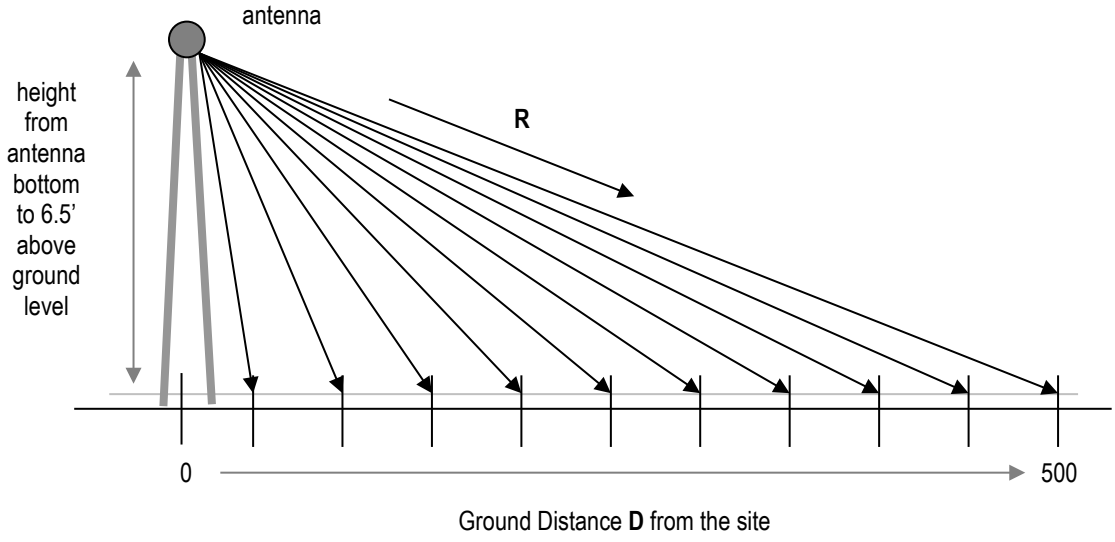


Figure 2. Street-level MPE% Calculation Geometry

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

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

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

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

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

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

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

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

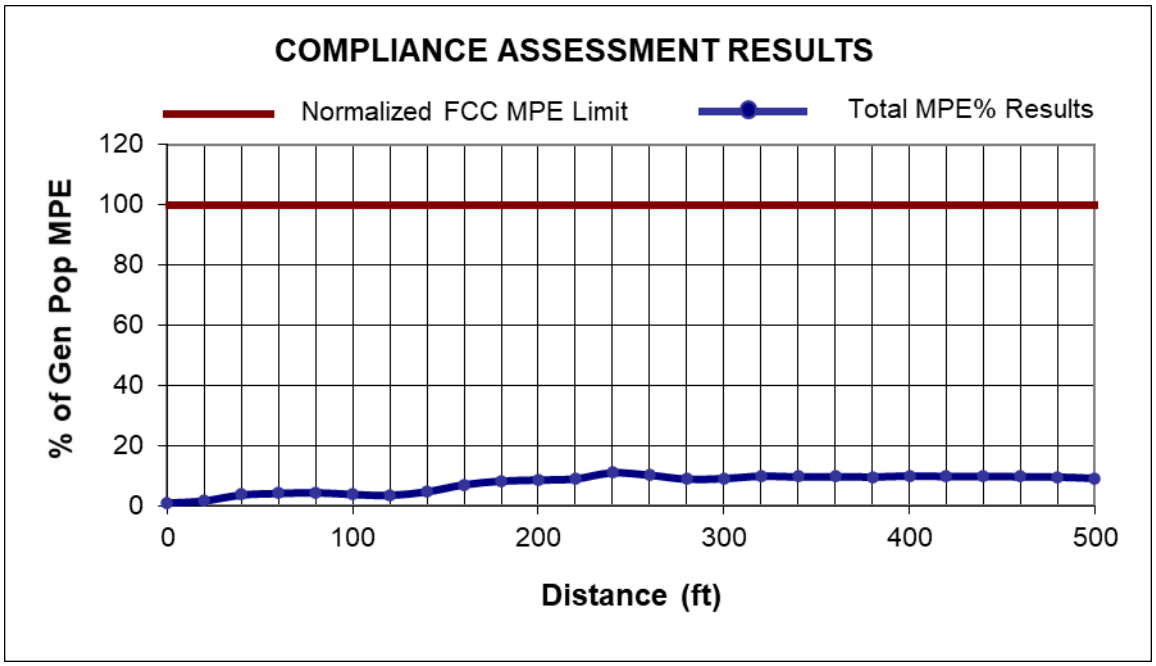
The net result of these assumptions is to intentionally and significantly overstate the calculated RF levels relative to the levels that will actually result from the antenna operations – and the purpose of this conservatism is to allow very "safe-side" conclusions about compliance.

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

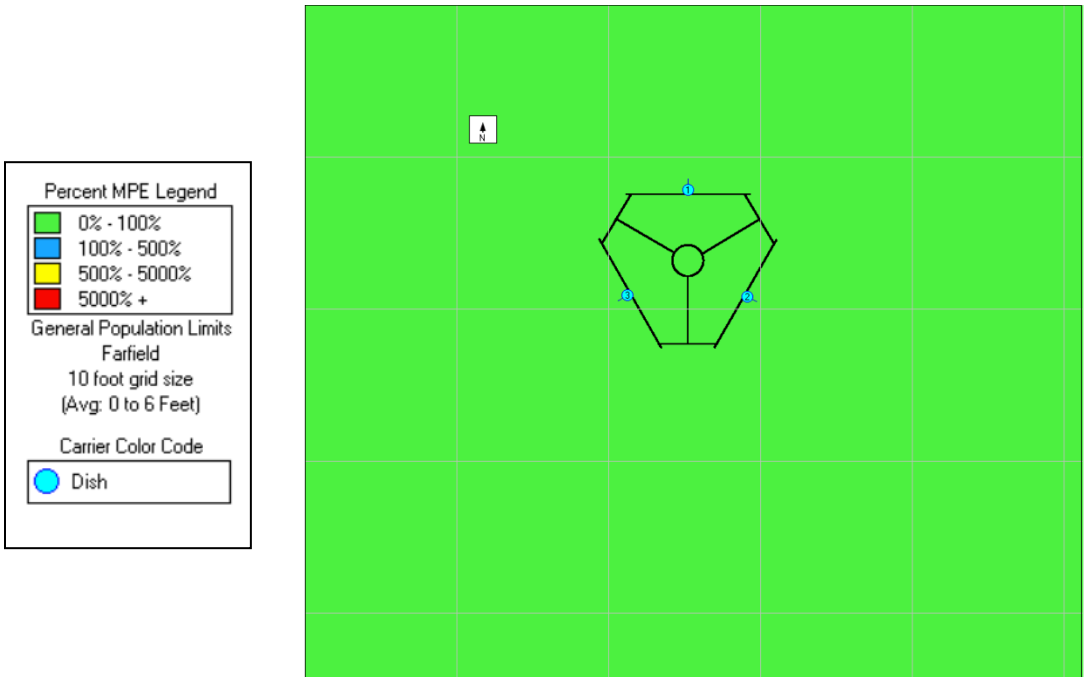
Ground Distance (ft)	Dish 600 MHz MPE%	Dish 2000 MHz MPE%	Dish 2100 MHz MPE%	AT&T MPE%	Sprint MPE%	T-Mobile MPE%	Verizon Wireless MPE%	Town of Newtown MPE%	Total MPE%
0	0.0854	0.0040	0.0006	0.0962	0.0397	0.4885	0.4412	0.0008	1.1564
20	0.2433	0.0222	0.0427	0.1205	0.0146	0.6950	0.6126	0.0808	1.8317
40	0.2109	0.1414	0.1060	0.2430	0.0179	1.6957	1.1750	0.2253	3.8152
60	0.1183	0.4724	0.2184	0.3750	0.0538	1.2282	1.4321	0.4117	4.3099
80	0.5390	0.3899	0.5781	0.5396	0.1022	0.6339	1.2402	0.5434	4.5663
100	0.3745	0.2264	0.4896	0.4664	0.0942	0.8786	0.8539	0.6447	4.0283
120	0.1079	0.0644	0.0464	0.7816	0.1373	1.3990	0.4921	0.6756	3.7043
140	0.0563	0.0659	0.0355	0.9371	0.2499	2.1643	0.7088	0.6582	4.8760
160	0.0399	0.1391	0.2367	0.9613	0.1145	3.6312	1.4236	0.6265	7.1728
180	0.0168	0.0676	0.0463	1.0406	0.0592	4.5016	2.1171	0.5773	8.4265
200	0.0335	0.2152	0.1297	1.0594	0.0676	3.8092	2.9285	0.5217	8.7648
220	0.1189	0.1075	0.2201	0.8362	0.0947	3.8632	3.4331	0.4791	9.1528
240	**0.1828**	**0.0325**	**0.1391**	**0.5175**	**0.1137**	**5.4837**	**4.2622**	**0.4320**	**11.1635**
260	0.2608	0.0083	0.0588	0.3005	0.1148	5.3426	3.9361	0.3827	10.4046
280	0.3521	0.0076	0.0177	0.2442	0.1091	4.9775	3.0130	0.3485	9.0697
300	0.4524	0.0058	0.0056	0.2221	0.0700	4.9644	3.1958	0.3117	9.2278
320	0.5579	0.0114	0.0035	0.2495	0.0326	4.6671	4.2584	0.2867	10.0671
340	0.6646	0.0431	0.0166	0.2882	0.0217	4.2161	4.2700	0.2587	9.7790
360	0.7675	0.0974	0.0571	0.3871	0.0415	4.0080	4.3102	0.2345	9.9033
380	0.6919	0.0878	0.0515	0.3505	0.0752	3.8675	4.4318	0.2134	9.7696
400	0.7800	0.1184	0.0949	0.5150	0.0799	3.7412	4.6013	0.1994	10.1301
420	0.7097	0.1078	0.0864	0.7461	0.0921	3.4874	4.5474	0.1827	9.9596
440	0.7832	0.0850	0.0927	1.0108	0.1062	3.2864	4.4665	0.1680	9.9988
460	0.7184	0.0779	0.0851	0.9295	0.0975	3.1283	4.6739	0.1550	9.8656
480	0.7750	0.0259	0.0478	1.1594	0.1195	2.8968	4.5993	0.1433	9.7670
500	0.7156	0.0239	0.0442	1.0726	0.1105	2.6771	4.5570	0.1329	9.3338

As indicated, the maximum calculated overall RF level is 11.1635 percent of the FCC MPE limit – well below the 100-percent reference for compliance.

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



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

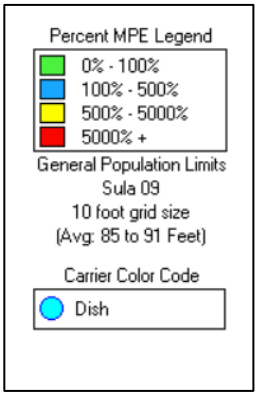


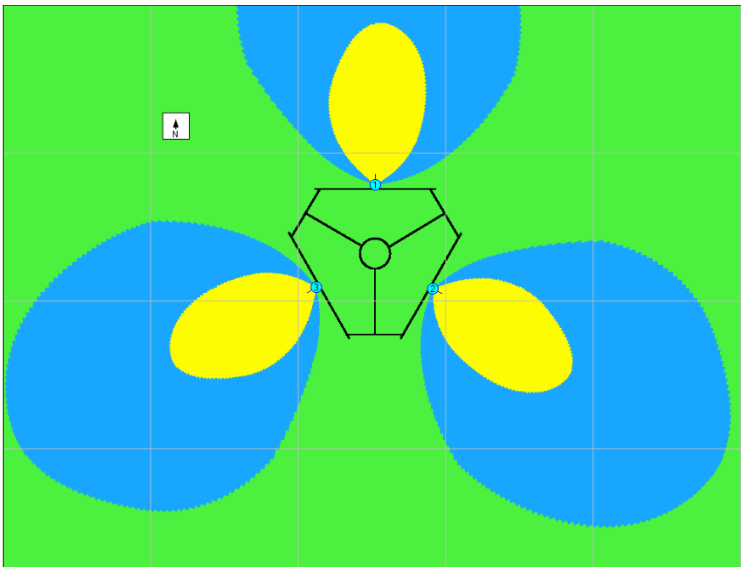
Near-field Analysis

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

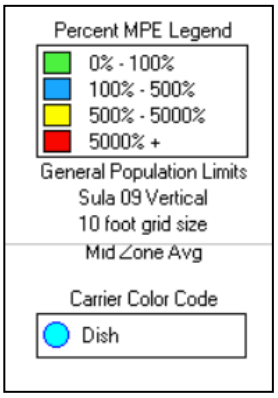
RF levels in the near field of an antenna depend on the power input to the antenna, the antenna's length and horizontal beamwidth, the mounting height of the antenna above nearby roof, and one's position and distance from the antenna. RF levels in front of a directional antenna are higher than they are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

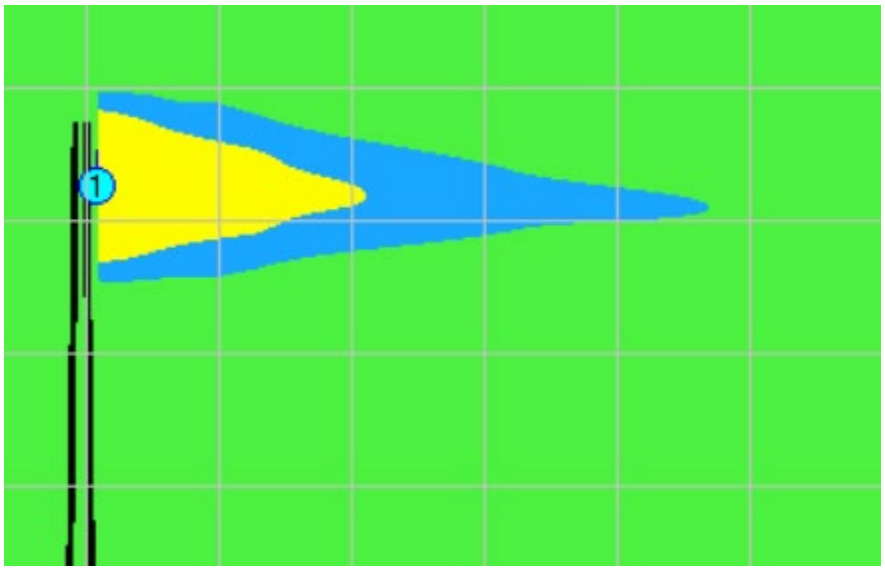
The RoofMaster graphic outputs for the same height as the Dish antennas are reproduced on the next page.





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





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

Compliance Conclusion

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

The conservative analysis in this case shows that the maximum calculated RF level from the proposed modifications to the existing antenna operations at the site is 11.1635 percent of the FCC general population MPE limit. At the same height as the antennas, the analysis shows that the calculated RF levels potentially exceed the FCC MPE limit. Per Dish guidelines, and consistent with FCC guidance on compliance, it is recommended that two Caution signs be six feet below the antennas. In addition, NOC Information signs be installed at the base of the monopole.

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

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

Certification

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

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

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

2/25/22
Date

Appendix A. Documents Used to Prepare the Analysis

RFDS: RFDS-NJJER01102B-Final-20211222-v.0_20211222094029

CD: NJJER01102B_FinalStampedCDs_20211220122906

Appendix B. Background on the FCC MPE Limit

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

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

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

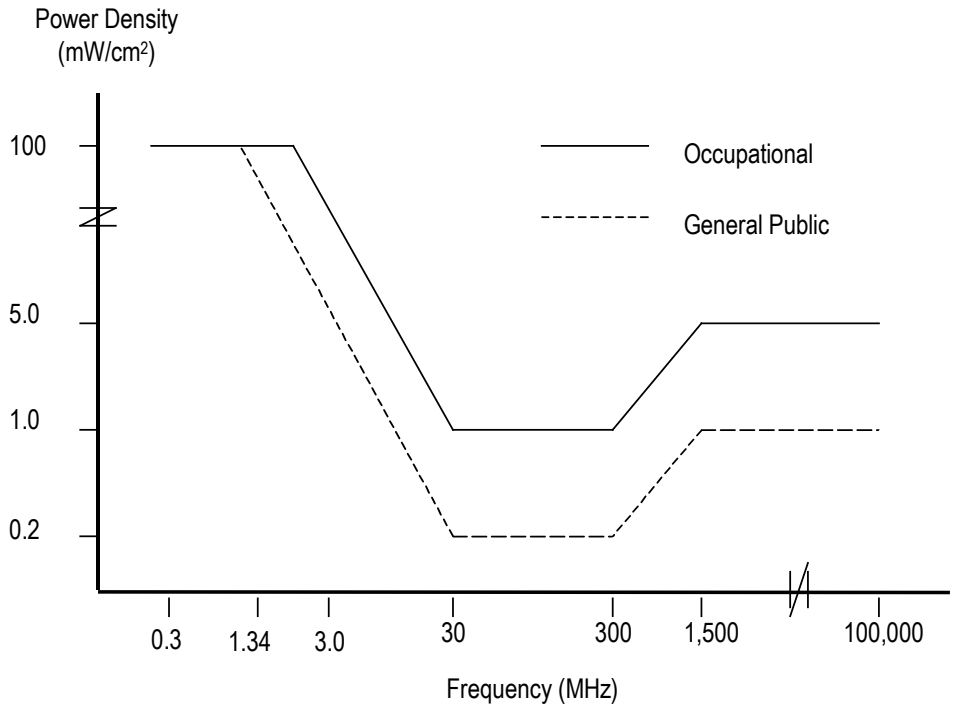
The specified continuous exposure MPE limits are based on known variation of human body susceptibility in different frequency ranges, and a Specific Absorption Rate (SAR) of 4 watts per kilogram, which is universally considered to accurately represent human capacity to dissipate incident RF energy (in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

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

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

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

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



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

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

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

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

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

FCC References on RF Compliance

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

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

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

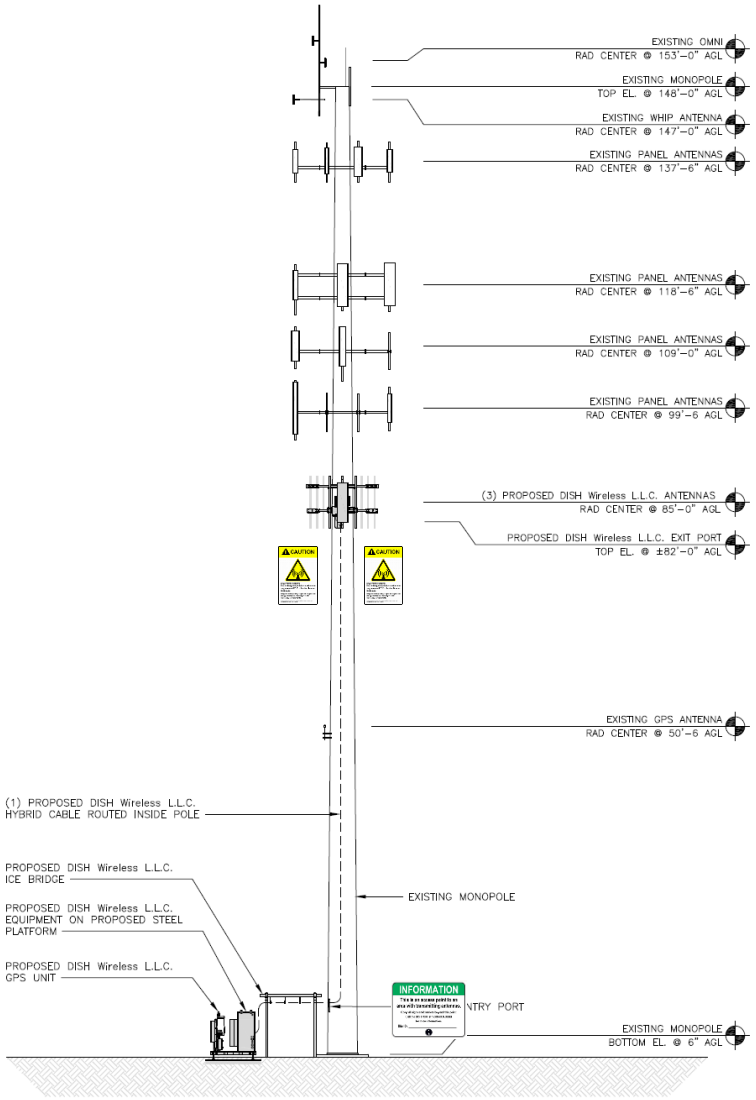
FCC Report and Order, ET Docket 93-62, *In the Matter of Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation*, released August 1, 1996.

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

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

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

Appendix C. Proposed Signage



NOC Information Sign		Caution Sign	
Guidelines Sign		Warning Sign	
Notice Sign			

Appendix D. Summary of Expert Qualifications

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

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

Exhibit G

Letter of Authorization

SBA Letter of Authorization

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

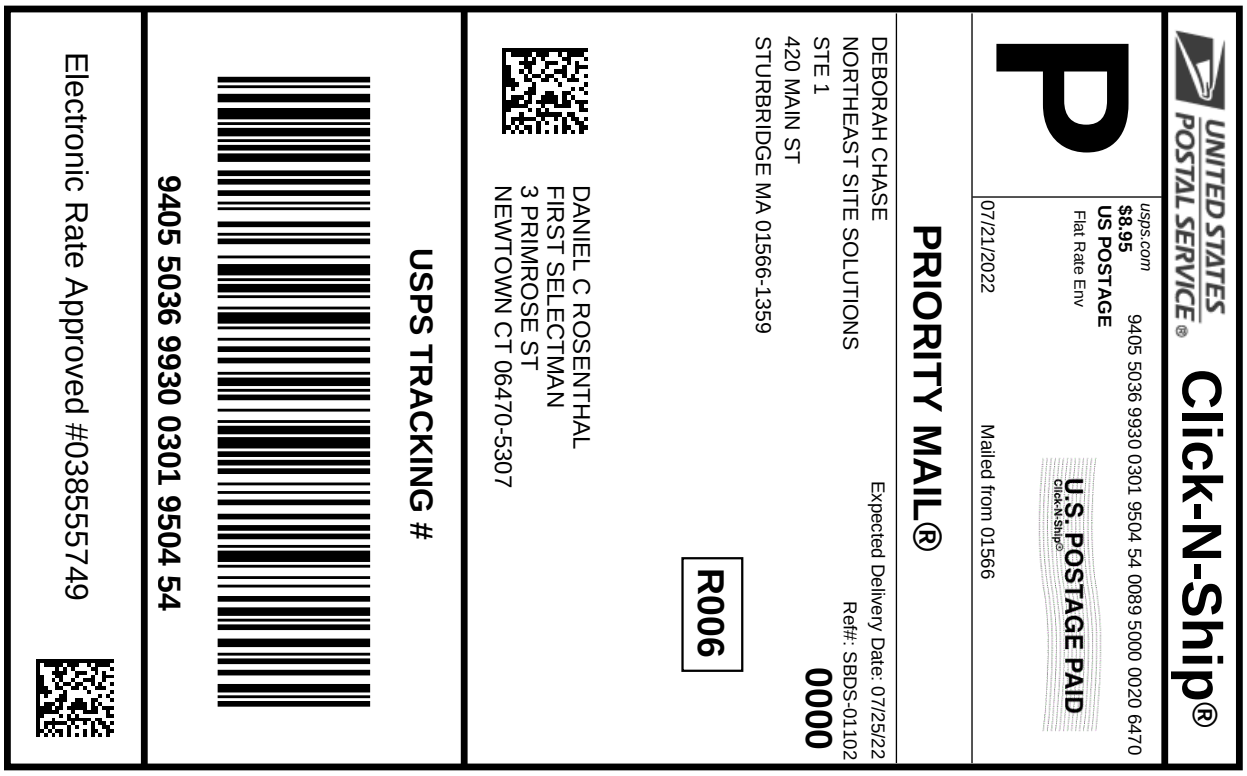
Re: Tower Share Application

SBA COMMUNICATIONS CORPORATION hereby authorizes DISH Wireless LLC, including their Agent, to act as our Agent in the processing of all zoning applications, building permits and approvals through the CONNECTICUT SITING COUNCIL for existing wireless communications towers.

Kri Pelletier
Site Development Manager
SBA COMMUNICATIONS CORPORATION
134 Flanders Road, Suite 125
Westboro, MA 01581

Exhibit H

Recipient Mailings



Cut on dotted line.

Instructions

1. **Each Click-N-Ship® label is unique. Labels are to be used as printed and used only once. DO NOT PHOTO COPY OR ALTER LABEL.**
2. **Place your label so it does not wrap around the edge of the package.**
3. **Adhere your label to the package. A self-adhesive label is recommended. If tape or glue is used, DO NOT TAPE OVER BARCODE. Be sure all edges are secure.**
4. **To mail your package with PC Postage®, you may schedule a Package Pickup online, hand to your letter carrier, take to a Post Office™, or drop in a USPS collection box.**
5. **Mail your package on the "Ship Date" you selected when creating this label.**

Click-N-Ship® Label Record

USPS TRACKING # :
9405 5036 9930 0301 9504 54

Trans. #:	568068842
Print Date:	07/21/2022
Ship Date:	07/21/2022
Expected Delivery Date:	07/25/2022

Priority Mail® Postage:	**$8.95**
Total:	**$8.95**

From: DEBORAH CHASE
NORTHEAST SITE SOLUTIONS
STE 1
420 MAIN ST
STURBRIDGE MA 01566-1359

Ref#: SBDS-01102

To: DANIEL C ROSENTHAL
FIRST SELECTMAN
3 PRIMROSE ST
NEWTOWN CT 06470-5307

* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.

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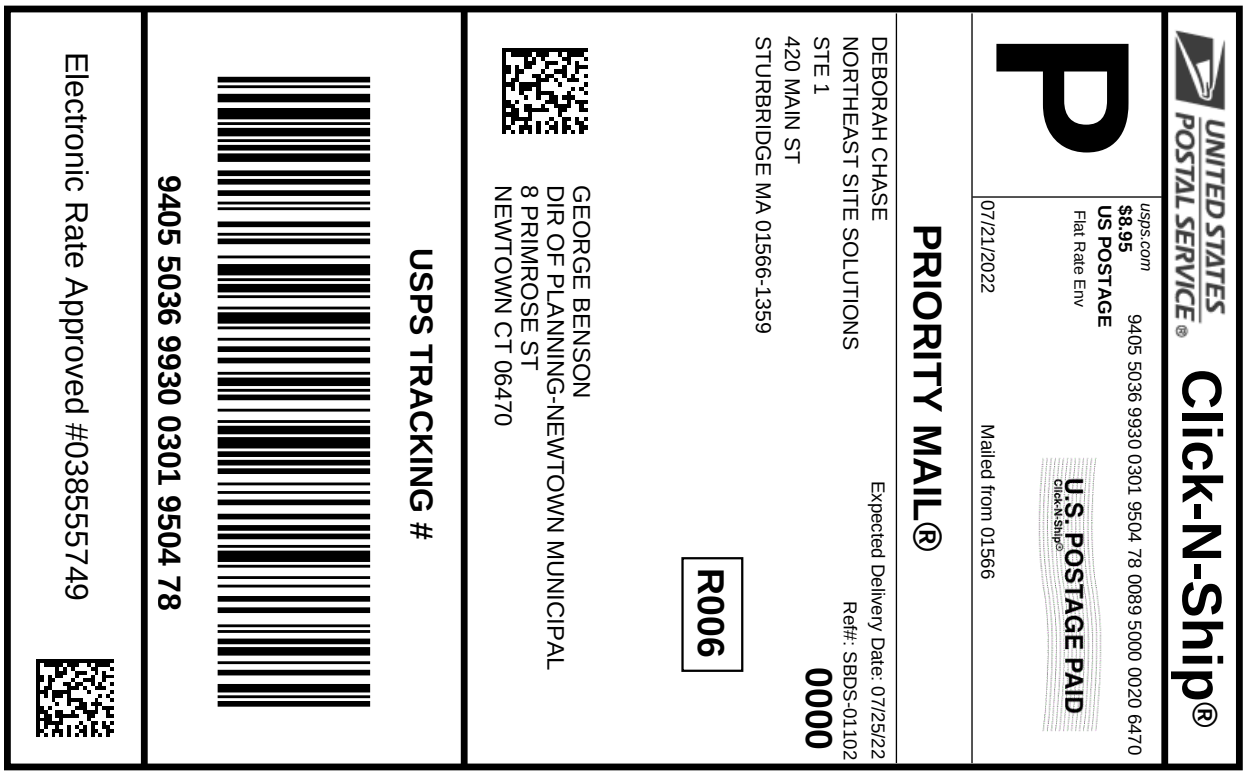

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Click-N-Ship® Label Record

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Print Date:	07/21/2022
Ship Date:	07/21/2022
Expected Delivery Date:	07/25/2022

Priority Mail® Postage:	**$8.95**
Total:	**$8.95**

From: DEBORAH CHASE
NORTHEAST SITE SOLUTIONS
STE 1
420 MAIN ST
STURBRIDGE MA 01566-1359

Ref#: SBDS-01102

To: GEORGE BENSON
DIR OF PLANNING-NEWTOWN MUNICIPAL BLDG
8 PRIMROSE ST
NEWTOWN CT 06470

* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.

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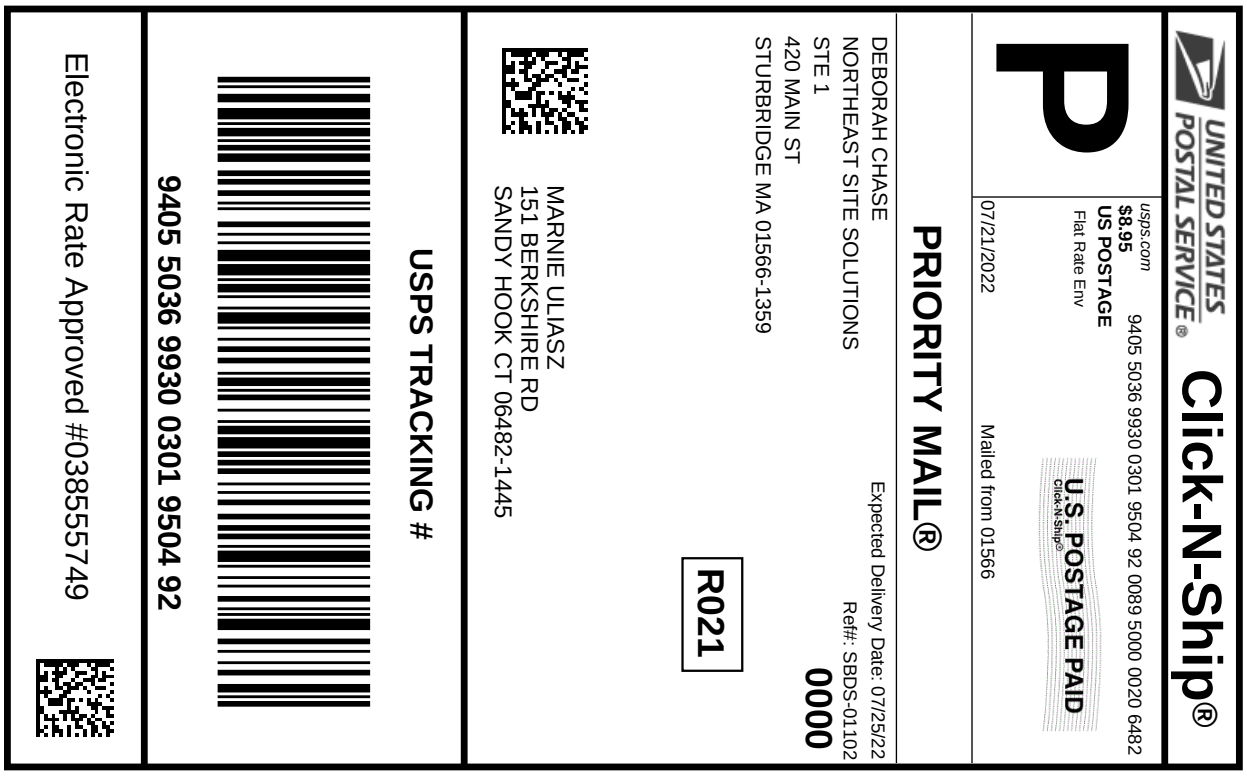

Cut on dotted line.

Instructions

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3. **Adhere your label to the package. A self-adhesive label is recommended. If tape or glue is used, DO NOT TAPE OVER BARCODE. Be sure all edges are secure.**
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5. **Mail your package on the "Ship Date" you selected when creating this label.**

Click-N-Ship® Label Record

USPS TRACKING # :
9405 5036 9930 0301 9504 92

Trans. #:	568068842
Print Date:	07/21/2022
Ship Date:	07/21/2022
Expected Delivery Date:	07/25/2022

Priority Mail® Postage:	**$8.95**
Total:	**$8.95**

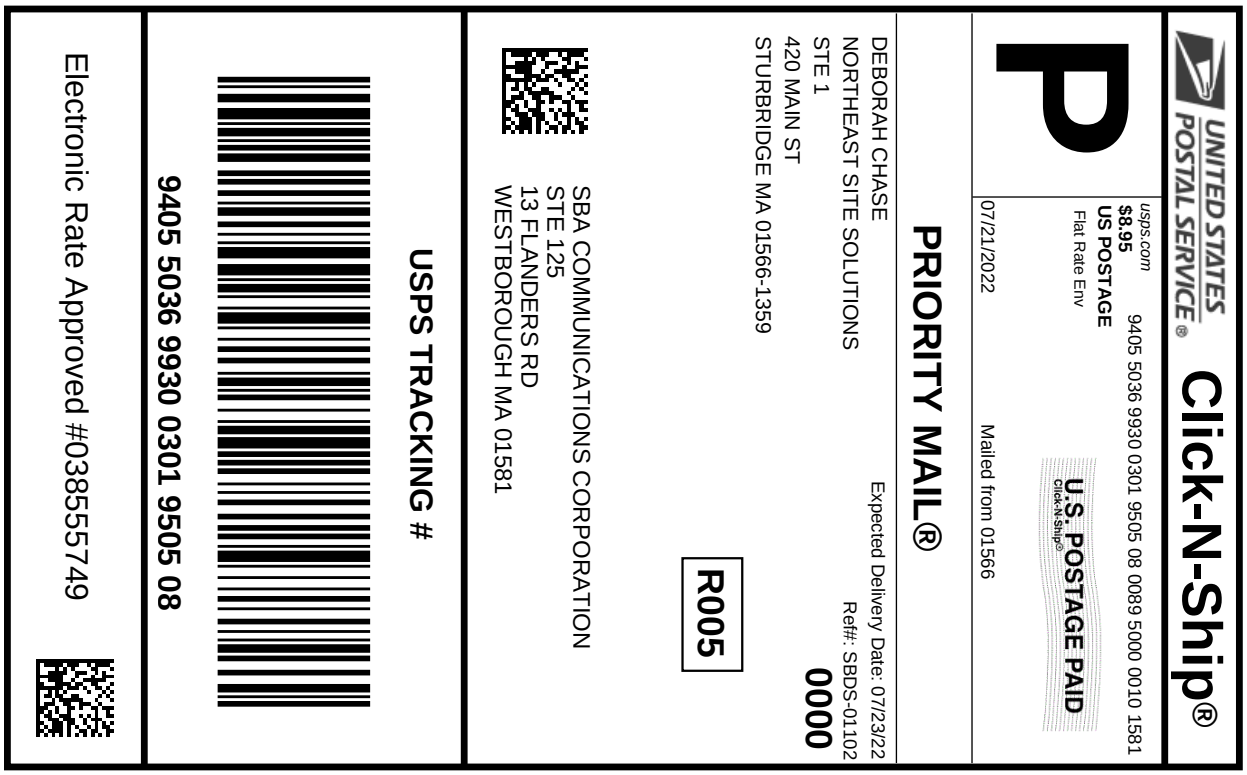
From: DEBORAH CHASE
NORTHEAST SITE SOLUTIONS
STE 1
420 MAIN ST
STURBRIDGE MA 01566-1359

Ref#: SBDS-01102

To: MARNIE ULIASZ
151 BERKSHIRE RD
SANDY HOOK CT 06482-1445

* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.

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



Cut on dotted line.

Instructions

1. **Each Click-N-Ship® label is unique. Labels are to be used as printed and used only once. DO NOT PHOTO COPY OR ALTER LABEL.**
2. **Place your label so it does not wrap around the edge of the package.**
3. **Adhere your label to the package. A self-adhesive label is recommended. If tape or glue is used, DO NOT TAPE OVER BARCODE. Be sure all edges are secure.**
4. **To mail your package with PC Postage®, you may schedule a Package Pickup online, hand to your letter carrier, take to a Post Office™, or drop in a USPS collection box.**
5. **Mail your package on the "Ship Date" you selected when creating this label.**

Click-N-Ship® Label Record

USPS TRACKING # :
9405 5036 9930 0301 9505 08

Trans. #:	568068842
Print Date:	07/21/2022
Ship Date:	07/21/2022
Expected Delivery Date:	07/23/2022

Priority Mail® Postage:	**$8.95**
Total:	**$8.95**

From: DEBORAH CHASE
NORTHEAST SITE SOLUTIONS
STE 1
420 MAIN ST
STURBRIDGE MA 01566-1359

Ref#: SBDS-01102

To: SBA COMMUNICATIONS CORPORATION
STE 125
13 FLANDERS RD
WESTBOROUGH MA 01581

* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.

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UNITED STATES POSTAL SERVICE.

FARMINGTON
210 MAIN ST
FARMINGTON, CT 06032-9998
(800)275-8777

07/25/2022 03:03 PM

Product	Qty	Unit Price	Price
Prepaid Mail Westborough, MA 01581 Weight: 0 lb 1.90 oz Acceptance Date: Mon 07/25/2022 Tracking #: 9405 5036 9930 0301 9505 08	1		$0.00
Prepaid Mail Sandy Hook, CT 06482 Weight: 0 lb 13.90 oz Acceptance Date: Mon 07/25/2022 Tracking #: 9405 5036 9930 0301 9504 92	1		$0.00
Prepaid Mail Newtown, CT 06470 Weight: 0 lb 13.90 oz Acceptance Date: Mon 07/25/2022 Tracking #: 9405 5036 9930 0301 9504 78	1		$0.00
Prepaid Mail Newtown, CT 06470 Weight: 0 lb 13.90 oz Acceptance Date: Mon 07/25/2022 Tracking #: 9405 5036 9930 0301 9504 54	1		$0.00
Grand Total:			$0.00

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Every household in the U.S. is now
eligible to receive a third set
of 8 free test kits.
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or scan this code with your mobile device,

or call 1-800-410-7420.