

October 19, 2023

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

Re: **Notice of Exempt Modification – Facility Modification
67 (a/k/a 50) Fairchild Road, Middletown, Connecticut**

Dear Attorney Bachman:

Cellco Partnership d/b/a Verizon Wireless (“Cellco”) currently maintains a wireless telecommunications facility at the above-referenced address (the “Property”). Cellco’s facility consists of antennas and remote radio heads attached to a tower. Equipment associated with the facility is located on the ground adjacent to the tower. The original 120-foot tower was approved by the Siting Council (the “Council”) in November of 2006 (Docket No. 316).¹ Cellco’s shared use of the tower was approved by the Siting Council in May of 2008 (EM-VER-083-080404). A copy of the Docket No. 316 Decision and Order and Cellco’s EM-VER-083-080404 approval are included in Attachment 1.

Cellco’s proposed modification involves the installation of four (4) interference mitigation filters (“Filters”) on its existing antenna platform and antenna mounting assembly. The Filter specification sheet is included in Attachment 2.

Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Middletown’s Chief Elected Official and Land Use Officer. A copy of this letter is being sent to the owners of the Property.

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

¹ AT&T received Council approval to extend the Fairchild Road tower to 130 feet in August of 2011 (Docket No. 316A).

Melanie A. Bachman, Esq.

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1. The proposed modifications will not result in an increase in the height of the existing tower. The Filters will be installed on Cellco's existing antenna platform and mounting assembly.

2. The proposed modifications will not involve any change to ground-mounted equipment and, therefore, will not require the extension of the site boundary.

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

4. The installation of Cellco's new Filters will not result in a change to radio frequency (RF) emissions from the facility. Therefore, no new RF emissions information is included in this filing.

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

6. According to the attached Structural Analysis Report ("SA") and Antenna Mount Analysis Report ("MA"), the existing tower, foundation, antenna platform and mounting assembly can support Cellco's proposed modifications. A copy of the SA and MA are included in Attachment 3.

A copy of the parcel map and Property owner information is included in Attachment 4. A Certificate of Mailing verifying that this filing was sent to municipal officials and the property owner is included in Attachment 5.

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

Sincerely,



Kenneth C. Baldwin

Enclosures

Copy to:

Benjamin Florsheim, Mayor

Marek Kozikowski, Director of Land Use

Stephen and Barbara Borrelli, Property Owners

Alex Tyurin, Verizon Wireless

ATTACHMENT 1

DOCKET NO. 316 – Optasite, Inc. application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility at 50 Fairchild Road in Middletown, Connecticut.

Connecticut
Siting
Council

November 14, 2006

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 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 Optasite, Inc. for the construction, maintenance and operation of a wireless telecommunications facility to be located at 50 Fairchild Road in Middletown, 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 designed as a monopole and shall be constructed no taller than 120 feet above ground level to provide telecommunications services to both public and private entities.
2. All telecommunications antennas providing cellular and/or PCS service shall be flush-mounted to the tower.
3. 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 served on the City of Middletown and all parties and intervenors, as listed in the service list, and submitted to and approved by the Council prior to the commencement of facility construction and shall include:
 - a) a final site plan(s) of site development to include specifications for the tower, tower foundation, tower color, antenna mountings, equipment building, access road, utility line, and landscaping; and
 - b) construction plans for site clearing, water drainage, and erosion and sedimentation control consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as amended.

4. 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 ensure a recalculated report of electromagnetic radio frequency power density is submitted to the Council in the event other carriers locate at this facility or if circumstances in operation cause a change in power density above the levels calculated and provided pursuant to this Decision and Order.
5. 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.
6. 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.
7. The Certificate Holder shall provide reasonable space on the tower for no compensation for any City of Middletown public safety services (police, fire and medical services), provided such use can be accommodated and is compatible with the structural integrity of the tower.
8. If the facility authorized herein is not fully constructed and providing wireless services within eighteen months from the date of the mailing of the Council's Findings of Fact, Opinion, and Decision and Order (collectively called "Final Decision"), 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. The time between the filing and resolution of any appeals of the Council's Final Decision shall not be counted in calculating this deadline.
9. If the facility ceases to provide wireless services for a period of one year, 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.
10. The Certificate Holder shall remove any nonfunctioning antenna, and associated antenna mounting equipment, within 60 days of the date the antenna ceased to function.
11. Any request for extension of the time periods referred to in Conditions 8, 9, and 10 shall be filed with the Council not later than sixty days prior to the expiration date of this Certificate and shall be served on all parties and intervenors and the City of Middletown, as listed in the service list. Any proposed modifications to this Decision and Order shall likewise be so served.

12. In accordance with Section 16-50j-77 of the Regulations of Connecticut State Agencies, the Certificate Holder shall provide the Council with written notice two weeks prior to the commencement of construction activities. In addition, the Certificate Holder shall provide the Council with written notice of the completion of site construction and the commencement of site operation.

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 Middletown Press.

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 in this proceeding are:

Status Granted	Status Holder (name, address & phone number)	Representative (name, address & phone number)
Applicant	Optasite, Inc.	Lucia Chiocchio, Esq. Cuddy & Feder, LLP 90 Maple Avenue White Plains, NY 10601 (914) 761-1300 (914) 761-5372/6405 fax lchiocchio@cuddyfeder.com Jennifer Young Gaudet 345 Taylor Street Talcottville, CT 06066
Intervenor (approved 06/27/06)	Nextel Communications of the Mid-Atlantic, Inc.	Thomas J. Regan, Esq. Brown Rudnick Berlack Israels LLP 185 Asylum Street, CityPlace I Hartford, CT 06103-3402 (860) 509-6522 (860) 509-6501 tregan@brownrudnick.com mkozlik@brownrudnick.com
Intervenor (granted 07/27/06)	Barbara Melia 379 Bow Lane Middletown, CT 06457 (860) 346-4334 bardebdaye@yahoo.com	
Intervenor (granted 07/27/06)	Debora Bagley and Michael Bagley 393 Bow Lane Middletown, CT 06457 (860) 346-5373	
Intervenor (granted 07/27/06)	Earle Roberts 785 Bow Lane Middletown, CT 06457 (860) 346-0068 (860) 344-9327 eroberts4675@sbcglobal.net	

May 7, 2008

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

RE: **EM-VER-083-080404** – Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 50 Fairchild Road, Middletown, Connecticut.

Dear Attorney Baldwin:

The Connecticut Siting Council (Council) hereby acknowledges 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 April 4, 2008, 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,

S. Derek Phelps
Executive Director

SDP/MP

c: Honorable Sebastian N. Giuliano, Mayor, City of Middletown
William Warner, AICP Director, City of Middletown
Optasite Towers LLC

ATTACHMENT 2

BSF0020F3V1-1

TWIN BANDSTOP 900MHZ INTERFERENCE MITIGATION FILTER

The BSF0020 is ideal for co-located 700, 850 and 900 networks. Utilising a 2.6MHz guardband the BSF0020 provides rejection of the 900 UL band while passing 700/850 UL and DL bands. Capable of being used in an outdoor environment the BSF0020 contains two identical bandstop filters, suitable for 2x2 MIMO configuration, offering excellent insertion loss, group delay and rejection.

FEATURES

- Passes full 700 and 850 bands
- Low insertion loss
- Rejection of 900MHz uplink
- DC/AISG pass
- Twin unit
- Dual twin mounting available



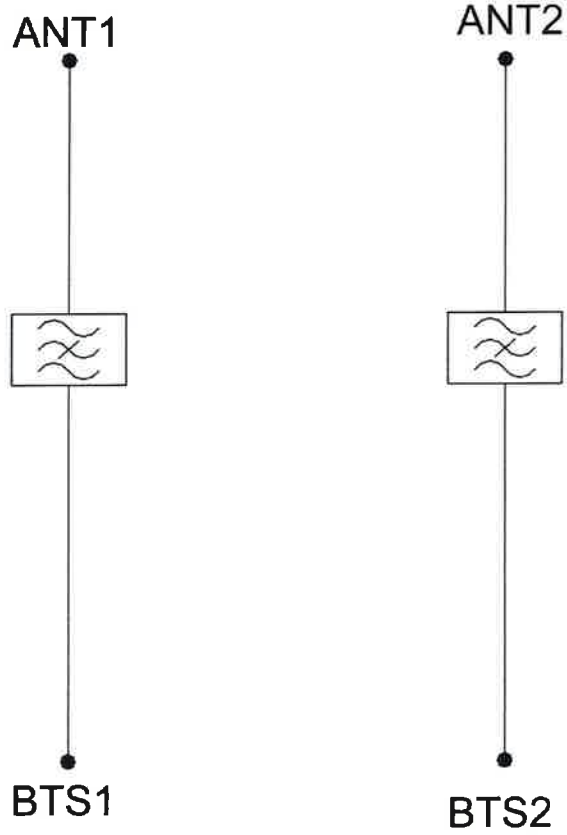
TECHNICAL SPECIFICATIONS

BAND NAME	700 PATH / 850 UPLINK PATH	850 DOWNLINK PATH
Passband	698 - 849MHz	869 - 891.5MHz
Insertion loss	0.1dB typical / 0.3dB maximum	0.5dB typical, 1.45dB maximum
Return loss	24dB typical, 18dB minimum	
Maximum input power (Per Port)	100W average	200W average and 66W per 5MHz
Rejection	53dB minimum @ 894.1 - 896.5MHz	
ELECTRICAL		
Impedance	50Ohms	
Intermodulation products	-160dBc maximum in UL Band (assuming 20MHz Signal), with 2 x 43dBm carriers -153dBc maximum with 2 x 43dBm	
DC / AISG		
Passband	0 - 13MHz	
Insertion loss	0.3dB maximum	
Return loss	15dB minimum	
Input voltage range	± 33V	
DC current rating	2A continuous, 4A peak	
Compliance	3GPP TS 25.461	
ENVIRONMENTAL		
For further details of environmental compliance, please contact Kaelus.		
Temperature range	-20°C to +60°C -4°F to +140°F	
Ingress protection	IP67	
Altitude	2600m 8530ft	
Lightning protection	RF port: ±5kA maximum (8/20us), IEC 61000-4-5 – Unit must be terminated with some lightning protection circuits.	
MTBF	>1,000,000 hours	
Compliance	ETSI EN 300 019 class 4.1H, RoHS, NEBS GR-487-CORE	
MECHANICAL		
Dimensions H x D x W	269 x 277 x 80mm 10.60 x 10.90 x 3.15in (Excluding brackets and connectors)	
Weight	8.0 kg 17.6 lbs (no bracket)	
Finish	Powder coated, light grey (RAL7035)	
Connectors	RF: 4.3-10 (F) x 4	
Mounting	Optional pole/wall bracket supplied with two metal clamps 45-178mm diameter poles or custom bracket. See ordering information.	

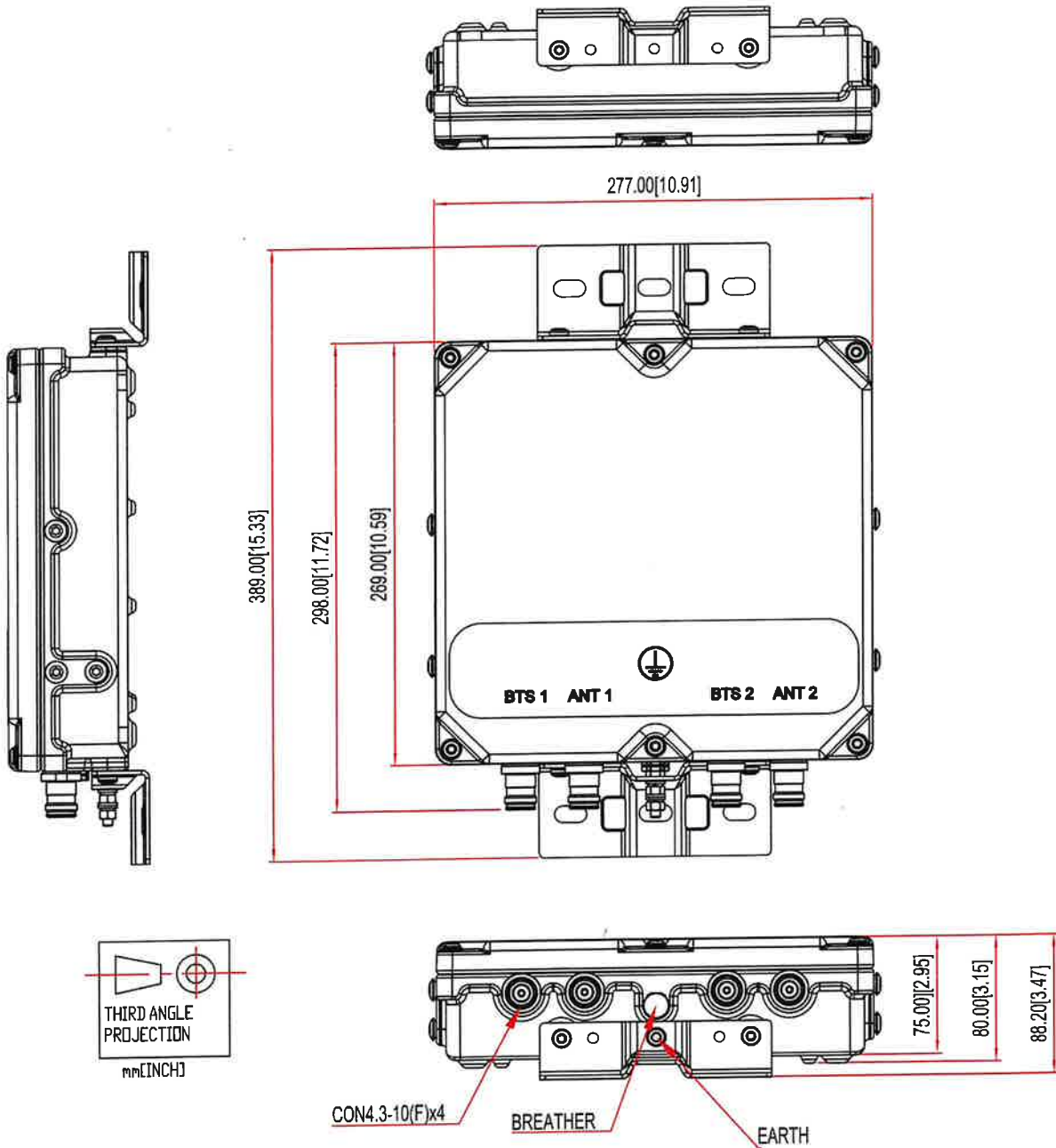
ORDERING INFORMATION

PART NUMBER	CONFIGURATION	OPTIONAL FEATURES	CONNECTORS
BSF0020F3V1	TWIN, 2 in / 2 out	DC/AISG PASS NO BRACKET	4.3-10 (F)
BSF0020F3V1-1	TWIN, 2 in / 2 out	DC/AISG PASS	4.3-10 (F)
BSF0020F3V1-2	QUAD, 4 in / 4 out	DC/AISG PASS	4.3-10 (F)

ELECTRICAL BLOCK DIAGRAM



MECHANICAL BLOCK DIAGRAM



ATTACHMENT 3



Tower Engineering Solutions

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

Structural Analysis Report

Existing 130 ft Rohn Monopole

Customer Name: SBA Communications Corp

Customer Site Number: CT13064-A

Customer Site Name: Middletown 2 CT

Carrier Name: Verizon (App#: 236101, V#1)

Carrier Site ID / Name: 5000185987 / SOUTH FARMS CT

Site Location: 67 Fairchild Road

Middletown, Connecticut

Middlesex County

Latitude: 41.545011

Longitude: -72.620766



Analysis Result:

Max Structural Usage: 98.1% [Pass]

Max Foundation Usage: 97% [Pass]

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

Report Prepared By: Nedim Maric



Tower Engineering Solutions

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

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Report Prepared By: Nedim Maric

Introduction

The purpose of this report is to summarize the analysis results on the 130 ft Rohn Monopole to support the proposed antennas and transmission lines in addition to those currently installed. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

Sources of Information

Tower Drawings	Rohn Parent File # 57886EH, Eng. File # 060-3494, Dwg. # A060995, dated 12/15/2006
Foundation Drawing	Rohn Parent File # 57886EH, Eng. File # 060-3494, Dwg. # A060998, dated 12/15/2006
Geotechnical Report	Gemini Geotechnical Associates Project # 06161CT, dated 11/30/2006
Modification Drawings	FDH Project # 11-01248E S1, dated 09/21/2001; FDH Project # 12-08192E S2, dated 11/14/2012; FDH Project # 15BVXK1400, dated 08/06/2015; TES Job # 13064, dated 11/05/2015; TES Job # 56931, dated 08/24/2018 TES Job # 92080, dated 04/20/2020; TES Job # 121134, dated 02/14/2022
Proposed Modification	TES Job # 134991, dated 12/07/2022
Mount Analysis	Colliers Engineering & Design, Project #23777154 dated 07/24/2023

Analysis Criteria

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

Wind Speed Used in the Analysis:	120.0 mph (3-Sec. Gust) (Ultimate wind speed)
Wind Speed with Ice:	50 mph (3-Sec. Gust) with 1" radial ice concurrent
Service Load Wind Speed:	60 mph + 0" Radial ice
Standard/Codes:	TIA-222-H / 2021 IBC / 2022 Connecticut State Building Code
Exposure Category:	C
Risk Category:	II
Topographic Category:	1
Crest Height:	0 ft
Seismic Parameters:	$S_s = 0.211$, $S_1 = 0.056$

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

Existing Antennas, Mounts and Transmission Lines

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

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1	132.0	3	Ericsson AIR6419 - Panel	Platform w/ Hand Rail (Commscope MTC3607R) + Platform Reinforcement Kit (SitePro1 PRK-FMA), (6) P2.5" X-STR Pipe Masts, (6) Channel Reinforcement Angles L2x2x1/4 (3) Pipe Mast (6) Steel Tube Stand off (3) Horizontal Pipes	*(5) 2" Conduits (Housing (6) 1.496" Fiber & (8) 0.645" DC cables) (1) 1/2"	AT&T
2	130.0	3	Cci DMP65R-BU6DA - Panel			
3		3	Quintel QD6616-7 - Panel			
4		6	Ericsson - RRUS 32 - RRU			
5		3	Ericsson - RRUS 4478 B14 - RRU			
6		3	Ericsson - RRUS 8843 B2 B66A - RRU			
7		3	Ericsson - 4449 B5/B12 - RRU			
8		3	Ericsson - RRUS E2 B29 - RRU			
9		2	Raycap - DC6-48-60-18-8F - OVP			
10		2	Raycap - DC6-48-60-0-8C-EV - OVP			
11	128.0	3	Ericsson AIR6449 - Panel	Platform w/ Handrails Commscope MC-PK8-DSH	(1) 1.6" Hybrid	Dish Wireless
12	120.0	3	JMA Wireless MX08FRO665-21 - Panel			
13		3	Fujitsu TA08025-B605 - RRU			
14		3	Fujitsu TA08025-B604 - RRU			
15		1	Raycap RDIDC-9181-PF-48 - OVP			
-	111.0	3	Andrew - CBC721-DF - Panel	(3) T-Arms	(12) 1 5/8" (2) 1 5/8" Hybrid	Verizon
-	110.0	6	Andrew - SBNHH-1D65B - Panel			
-		3	Alcatel - RRH2X60-1900A-4R			
-		3	Alcatel - B13 RRH4X30-4R			
-		3	Alcatel - B4 RRH2X60-4R			
-		2	RFS - DB-T1-6Z-8AB-OZ			
-	109.0	3	Andrew - CBC721-DF - Panel	(3) T-Arms (Site Pro P/N RMV12-3xx) Modified w/ Support rails [(3) P1374+(3) SP1-SKF4]	(6) 1 5/8" (3) 1.9" Fiber	T-Mobile
23	100.0	3	Ericsson AIR21 B2A B4P - Panel			
24		3	Ericsson AIR21 B4A B2P - Panel			
25		3	Kathrein 782 11056			
26		3	RFS APXVAALL24_43-U-NA20 - Panel			
27		3	Ericsson 4480 B71 + B85 - RRU	Platform w/ Handrails (Site Pro F3P-10W w/HRK10)	(3) 1-1/4" Fiber (1) 1.689" Fiber (2) 1/2" Fiber	Sprint Nextel
28	90.0	3	Nokia - AAHC - MIMO - Panel			
29		3	Commscope - NNVV-65B-R4 - Panel			
30		3	ALU - 1900 Mhz - RRU			
31		6	ALU - 800 Mhz - RRU			
32		2	Andrew - VHLP2-11 - Dish			

*Inside (5) 2" Conduits

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

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

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
16	111.0	3	COMMSCOPE SDX1926Q-43 - Diplexer	(3) T-Arms	(12) 1 5/8" Coax (1) 1 5/8" Hybrid	Verizon
17	110.0	3	JMA MX10FIT665-02 - Panel			
18		3	SAMSUNG MT6407-77A - Panel			
19		3	SAMSUNG B2/B66ARRH-ORAN RF4439D-25A - RRU			
20		3	3 SAMSUNG B5/B13RRH-ORAN RF 4440d-13A - RRU			
21		1	RFS RVZDC-6627-PF-48 - OVP			
22		4	Kaelus KA-6030 - Filter			

See the attached coax layout for the line placement considered in the analysis.

Analysis Results

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

	Pole shafts	Anchor Bolts	Base Plate	Flange
Max. Usage:	89.8%	98.1%	48.8%	57%
Pass/Fail	Pass	Pass	Pass	Pass

Foundations

	Moment (Kip-Ft)	Shear (Kips)	Axial (Kips)
Analysis Reactions	3304.6	33.1	40.8

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

Service Load Condition (Rigidity):

The maximum twist and sway of the microwave dishes under the operational wind speed as specified in the Analysis Criteria are listed in the table below:

Elevation (ft)	Antenna / Dish	Carrier	Twist (deg)	Sway (deg)
90.0	Andrew - VHLP2-11 - Dish	Sprint Nextel	0.000	1.010

It is recommended that the carriers review the twist and sway values of the microwave dishes.

Conclusions

Based on the analysis results, the existing structure meets the requirements per the TIA-222 Standard under the design basic wind speed specified in the Analysis Criteria. This analysis considers the modifications outlined in the TES Modification package as listed above installed. The results of this analysis will only be valid after the modifications have been installed.

Standard Conditions

1. This analysis was performed based on the information supplied to **(TES) Tower Engineering Solutions, LLC**. Verification of the information provided was not included in the Scope of Work for **TES**. The accuracy of the analysis is dependent on the accuracy of the information provided.
2. The structural analysis was performance based upon the evidence available at the time of this report. All information provided by the client is considered to be accurate.
3. The analyses will be performed based on the codes as specified by the client or based on the best knowledge of the engineering staff of **TES**. In the absence of information to the contrary, all work will be performed in accordance with the latest relevant revision of ANSI/TIA-222. If wind speed and/or ice loads are different from the minimum values recommended by the ANSI/TIA-222 standard or other codes, **TES** should be notified in writing and the applicable minimum values provided by the client.
4. The configuration of the existing mounts, antennas, coax and other appurtenances were supplied by the customer for the current structural analysis. **TES** has not visited the tower site to verify the adequacy of the information provided. If there is any discrepancy found in the report regarding the existing conditions, **TES** should be notified immediately to evaluate the effect of the discrepancy on the analysis results.
5. The client will assume responsibility for rework associated with the differences in initially provided information, including tower and foundation information, existing and/or proposed equipment and transmission lines.
6. If a feasibility analysis was performed, final acceptance of changed conditions shall be based upon a rigorous structural analysis.

Usage Diagram - Max Ratio 86.46% at 91.3ft

Structure: CT13064-A-SBA
Site Name: Middletown 2 CT
Height: 130.00 (ft)
Base Elev: 0.000 (ft)

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

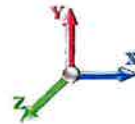
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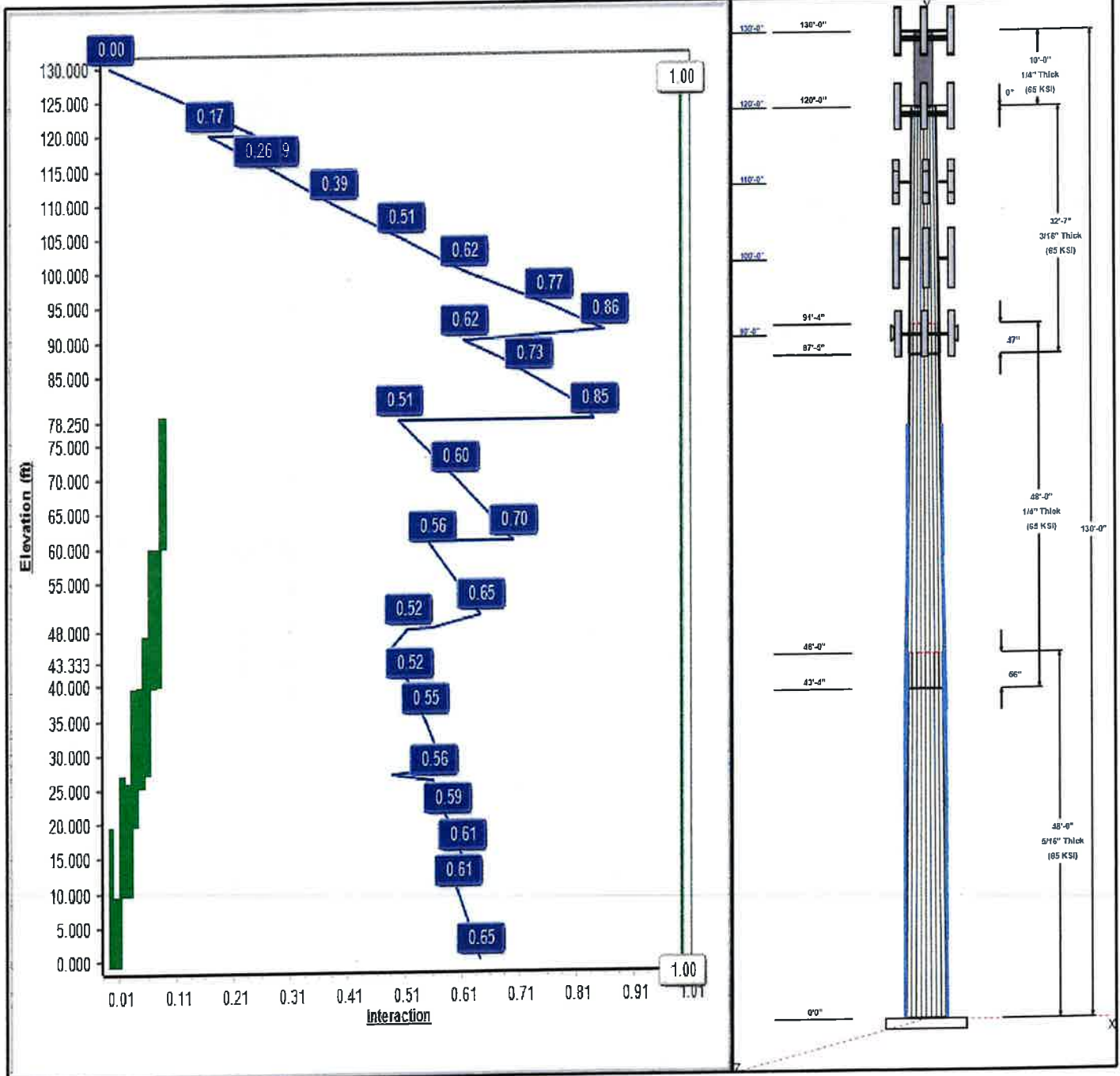
Dead Load Factor: 1.20
Wind Load Factor: 1.00

Load Case : 1.2D + 1.0W 120 mph Wind



Iterations: 21

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Structure: CT13064-A-SBA

Type: Custom
Site Name: Middletown 2 CT
Height: 130.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: 18 Sided
Taper: 0.15529

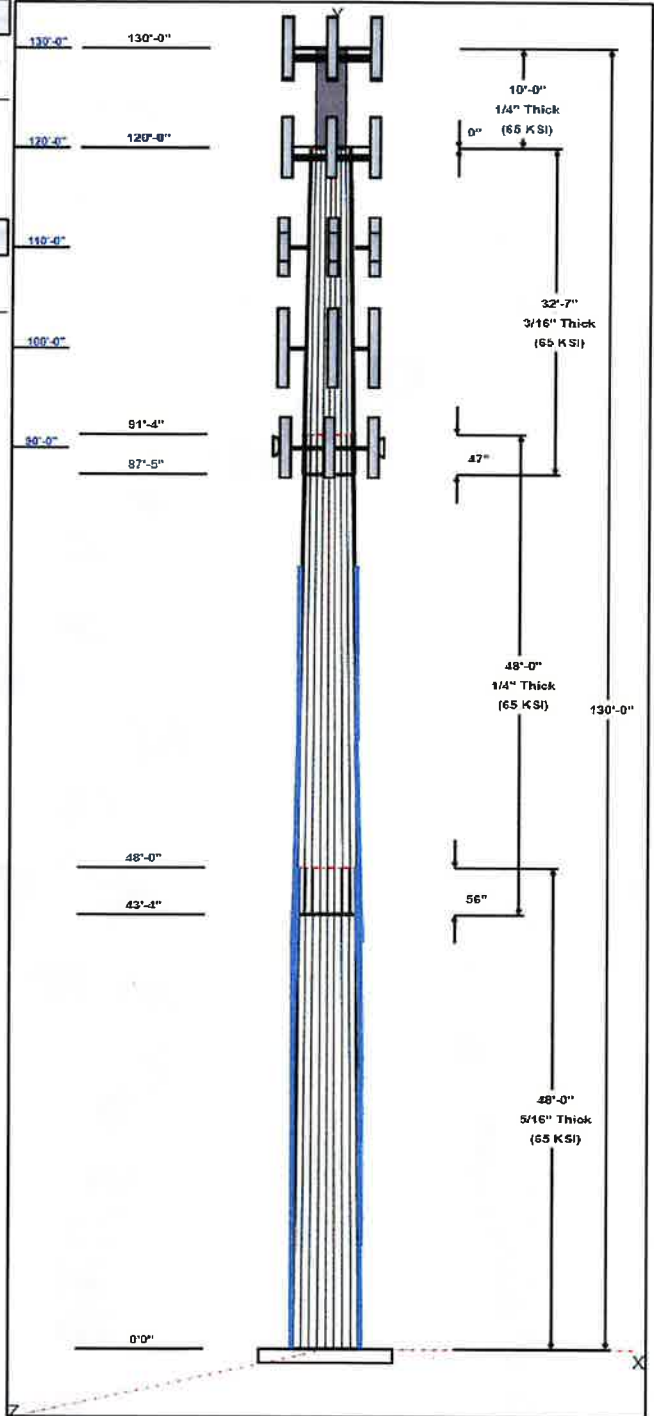
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Shaft Properties							
Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	48.00	35.05	42.50	0.313		0.15529	65
2	48.00	28.82	36.27	0.250	Slip	0.15529	65
3	32.58	24.74	29.80	0.188	Slip	0.15529	65
4	10.00	18.00	18.00	0.250	Butt	0.00000	65

Discrete Appurtenances				
Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
130.00	133.00	1	6' Lightning rod	
130.00	130.00	1	MTC3607 Platform + HR &	AT&T
130.00	130.00	1	Angle Reinforcement kit	AT&T
130.00	130.00	3	Cci DMP65R-BU6DA	AT&T
130.00	130.00	6	RRUS 32	AT&T
130.00	130.00	3	RRUS 4478 B14	AT&T
130.00	130.00	3	B2 B66A 8843	AT&T
130.00	130.00	3	4449 B5/B12	AT&T
130.00	128.00	3	Ericsson AIR6449	AT&T
130.00	130.00	3	Quinte QD6616-7	AT&T
130.00	132.00	3	Ericsson AIR6419	AT&T
130.00	130.00	1	(3) Horizontal bracing	AT&T
130.00	130.00	3	Additional mount pipe	AT&T
130.00	130.00	3	RRUS E2 B29	AT&T
130.00	130.00	2	DC6-48-60-18-8F	AT&T
130.00	130.00	2	DC6-48-60-0-8C	AT&T
120.00	120.00	3	MX08FRO665-21	Dish Wireless
120.00	120.00	3	TA08025-B605	Dish Wireless
120.00	120.00	3	TA08025-B604	Dish Wireless
120.00	120.00	1	RDIDC-9181-OF-48	Dish Wireless
120.00	120.00	1	MC-PK8-DSH	Dish Wireless
110.00	110.00	3	T-Arms (Round)	Verizon
110.00	110.00	4	Kaelus KA-6030	Verizon
110.00	111.00	3	COMMSCOPE	Verizon
110.00	110.00	3	JMA MX10FIT665-02	Verizon
110.00	110.00	3	SAMSUNG MT6407-77A	Verizon
110.00	110.00	1	RFS RVZDC-6627-PF-48	Verizon
110.00	110.00	3	SAMSUNG	Verizon
110.00	110.00	3	SAMSUNG	Verizon
100.00	100.00	3	RFS	T-Mobile
100.00	100.00	3	Ericsson 4480 B71 + B85	T-Mobile
100.00	100.00	3	Ericsson AIR21 B2A B4P	T-Mobile
100.00	100.00	3	Ericsson AIR21 B4A B2P	T-Mobile
100.00	100.00	3	Kathrein 782 11056	T-Mobile
100.00	100.00	6	T-Arm (Round)	T-Mobile
90.00	90.00	2	Andrew - VHLP2-11	Sprint Nextel
90.00	90.00	3	ALU - 1900MHz - RRU	Sprint Nextel
90.00	90.00	6	ALU - 800 MHz - RRU	Sprint Nextel
90.00	90.00	1	F3P-HRK10	Sprint Nextel
90.00	90.00	3	AAHC	Sprint Nextel
90.00	90.00	3	NNVV-65B-R4	Sprint Nextel
90.00	90.00	1	F3P-10W	Sprint Nextel



Linear Appurtenances				
Elev From (ft)	Elev To (ft)	Placement	Description	Carrier

Structure: CT13064-A-SBA

Type: Custom
Site Name: Middletown 2 CT
Height: 130.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: 18 Sided
Taper: 0.00000

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0.00	130.00	Inside	0.645" DC Cables	AT&T
0.00	130.00	Inside	1.496" Hybrid	AT&T
0.00	130.00	Inside	1/2" Coax	AT&T
0.00	130.00	Outside	2" Conduit	AT&T
0.00	130.00	Inside	2" Conduit	AT&T
0.00	130.00	Inside	3/4" DC	AT&T
0.00	120.00	Inside	1.6" Hybrid	Dish Wireless
0.00	110.00	Inside	1 5/8" Coax	Verizon
0.00	110.00	Inside	1 5/8" Hybrid	Verizon
0.00	100.00	Inside	1 5/8" Coax	T-Mobile
0.00	100.00	Inside	1.9" Fiber	T-Mobile
0.00	90.00	Inside	1-1/4" Fiber	Sprint Nextel
0.00	90.00	Inside	1.689" Fiber	Sprint Nextel
0.00	90.00	Inside	1/2" Fiber	Sprint Nextel
0.00	81.00	Outside	1" Reinforcing plate	
23.33	63.33	Outside	1" Reinforcing plate	
30.50	50.50	Outside	1" Reinforcing plate	
0.00	30.50	Outside	1" Reinforcing plate	

Anchor Bolts

Qty	Specifications	Grade (ksi)	Arrangement
14	1.5" F1554 105	105.0	Radial

Base Plate

Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
1.5000	51.8	50.0	Round

Reactions

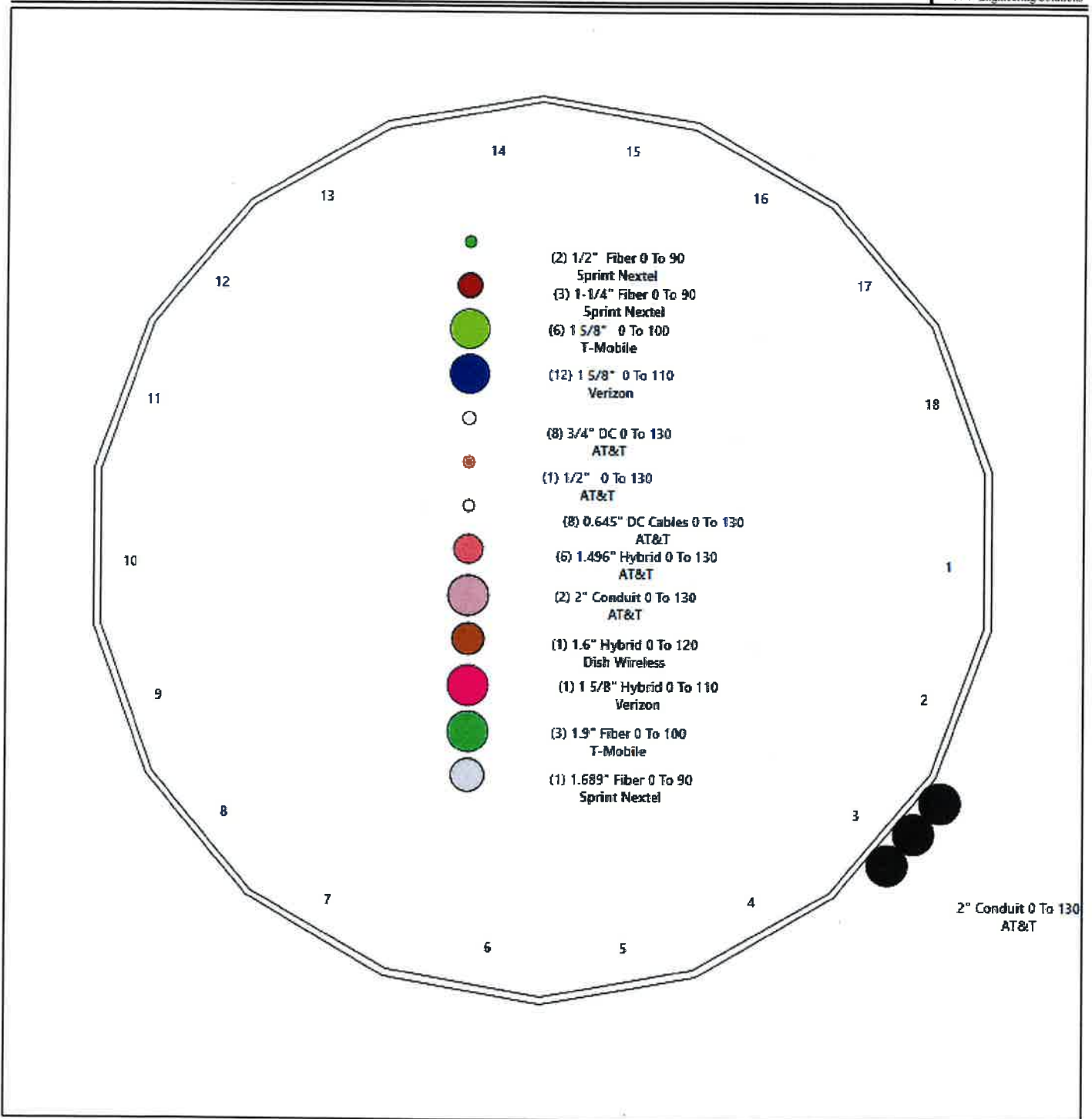
Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.0W 120 mph Wind	3304.6	33.1	40.8
0.9D + 1.0W 120 mph Wind	3268.7	33.0	30.5
1.2D + 1.0Di + 1.0Wi 50 mph Wind	860.2	8.6	58.2
1.2D + 1.0Ev + 1.0Eh	50.1	0.4	42.4
0.9D + 1.0Ev + 1.0Eh	49.6	0.4	32.1
1.0D + 1.0W 60 mph Wind	734.8	7.4	34.0

Structure: CT13064-A-SBA - Coax Line Placement

Type: Monopole
 Site Name: Middletown 2 CT
 Height: 130.00 (ft)

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Shaft Properties

Structure: CT13064-A-SBA
Site Name: Middletown 2 CT
Height: 130.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: TIA-222-H
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

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Topography: 1

Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	18	48.000	0.3125	65		0.00	6,231
2	18	48.000	0.2500	65	Slip	56.00	4,185
3	18	32.583	0.1875	65	Slip	47.00	1,787
4	R	10.000	0.2500	65	Flange	0.00	474
Total Shaft Weight:							12,677

Sec. No.	Bottom						Top						Taper
	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	
1	42.50	0.00	41.84	9409.05	22.57	136.00	35.05	48.00	34.45	5250.98	18.36	112.1	0.155292
2	36.27	43.33	28.58	4685.33	24.17	145.08	28.82	91.33	22.67	2337.03	18.91	115.2	0.155292
3	29.80	87.42	17.62	1952.39	26.61	158.93	24.74	120.00	14.61	1112.84	21.86	131.9	0.155292
4	18.00	120.0	13.94	549.45	0.00	72.00	18.00	130.00	13.94	549.45	0.00	72.00	0.000000

Additional Steel

Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Fu (ksi)	Offset (in)	Intermediate Connectors			Termination Connectors		
							Spacing (in)	Description	Spacing (in)	Lower Qty	Upper Qty	
0.00	20.50	4	PLT 6"x1" (1.25" Hole)	65	80	0.00	AJM20&sleeve	16.00	AJM20&sleeve	3.00		8
0.00	10.25	4	PLT 5.5"x1 1/4"(1.25"hol	65	80	0.00	AJM20&sleeve	16.00	AJM20&sleeve	3.00		9
10.25	27.88	2	LNP LP6X100-G-20CC	65	80	0.00	5/8" Hollo Bolt	24.00	5/8" Hollo Bolt	3.00	10	
10.25	26.88	2	LNP LP6X100-G-20CT	65	80	0.00	5/8" Hollo Bolt	24.00	5/8" Hollo Bolt	3.00	10	9
20.50	40.50	4	PLT 6"x1" (1.25" Hole)	65	80	0.00	AJM20&sleeve	16.00	AJM20&sleeve	3.00		
25.96	40.71	2	LNP LP6X100-G-20TC	65	80	0.00	5/8" Hollo Bolt	24.00	5/8" Hollo Bolt	3.00	8	10
27.88	48.12	2	LNP LP6X100-G-20CT	65	80	0.00	5/8" Hollo Bolt	24.00	5/8" Hollo Bolt	3.00	10	10
40.50	60.75	4	PLT 6"x1" (1.25" Hole)	65	80	0.00	AJM20&sleeve	16.00	AJM20&sleeve	3.00		
40.71	60.71	2	LNP LP6X100-G-20CT	65	80	0.00	5/8" Hollo Bolt	24.00	5/8" Hollo Bolt	3.00	10	10
60.75	78.25	4	PLT 6"x1" (1.25" Hole)	65	80	0.00	AJM20&sleeve	16.00	AJM20&sleeve	3.00		10

Load Summary

Structure: CT13064-A-SBA	Code: TIA-222-H	9/27/2023
Site Name: Middletown 2 CT	Exposure: C	
Height: 130.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice			Ice			Hor. Ecc. (ft)	Vert Ecc (ft)
				Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor		
1	130.00	6' Lightning rod	1	6.50	0.38	1.00	30.36	1.095	1.00	0.00	3.00
2	130.00	MTC3607 Platform + HR & Kicker	1	2246.00	51.70	1.00	3791.62	76.842	1.00	0.00	0.00
3	130.00	Angle Reinforcement kit	1	250.00	5.80	1.00	444.98	9.525	1.00	0.00	0.00
4	130.00	Cci DMP65R-BU6DA	3	63.30	12.71	0.72	261.24	13.690	0.74	0.00	0.00
5	130.00	RRUS 32	6	77.00	1.65	0.50	147.65	2.029	0.50	0.00	0.00
6	130.00	RRUS 4478 B14	3	59.40	1.65	0.50	86.65	1.991	0.50	0.00	0.00
7	130.00	B2 B66A 8843	3	70.00	1.64	0.50	100.22	1.979	0.50	0.00	0.00
8	130.00	4449 B5/B12	3	71.00	1.97	0.50	106.08	2.330	0.50	0.00	0.00
9	130.00	Ericsson AIR6449	3	88.00	4.13	0.85	172.75	4.681	0.85	0.00	-2.00
10	130.00	Quinte QD6616-7	3	59.10	13.58	0.75	330.24	14.826	0.77	0.00	0.00
11	130.00	Ericsson AIR6419	3	66.10	3.80	0.76	129.33	4.323	0.76	0.00	2.00
12	130.00	(3) Horizontal bracing Pipes	1	137.25	5.94	1.00	225.40	10.841	1.00	0.00	0.00
13	130.00	Additional mount pipe	3	17.00	1.75	0.75	39.42	4.360	0.75	0.00	0.00
14	130.00	RRUS E2 B29	3	59.40	3.15	0.50	101.91	3.612	0.50	0.00	0.00
15	130.00	DC6-48-60-18-8F	2	31.80	0.92	1.00	72.43	1.208	1.00	0.00	0.00
16	130.00	DC6-48-60-0-8C	2	16.00	4.78	1.00	97.32	5.361	1.00	0.00	0.00
17	120.00	MX08FRO665-21	3	64.50	12.49	0.74	254.14	13.445	0.74	0.00	0.00
18	120.00	TA08025-B605	3	75.00	1.96	0.50	109.10	2.326	0.50	0.00	0.00
19	120.00	TA08025-B604	3	63.90	1.96	0.50	96.91	2.326	0.50	0.00	0.00
20	120.00	RDIDC-9181-OF-48	1	21.90	2.01	1.00	56.62	2.381	1.00	0.00	0.00
21	120.00	MC-PK8-DSH	1	1727.00	37.59	1.00	2827.39	68.384	1.00	0.00	0.00
22	110.00	T-Arms (Round)	3	183.80	4.90	0.88	356.29	7.663	0.88	0.00	0.00
23	110.00	Kaelus KA-6030	4	17.60	0.96	0.50	35.21	1.223	0.50	0.00	0.00
24	110.00	COMMSCOPE SDX1926Q-43	3	6.60	0.40	0.50	16.51	0.583	0.50	0.00	1.00
25	110.00	JMA MX10FIT665-02	3	53.40	8.09	0.84	235.28	9.824	0.86	0.00	0.00
26	110.00	SAMSUNG MT6407-77A	3	87.10	4.69	0.70	158.72	5.295	0.70	0.00	0.00
27	110.00	RFS RVZDC-6627-PF-48	1	32.00	4.06	1.00	105.63	4.591	1.00	0.00	0.00
28	110.00	SAMSUNG B2/B66ARRH-BR049	3	74.70	1.87	0.50	120.05	2.229	0.50	0.00	0.00
29	110.00	SAMSUNG B5/B13RRH-BR04C	3	70.33	1.87	0.50	115.68	2.229	0.50	0.00	0.00
30	100.00	RFS APXVAALL24_43-U-NA20	3	122.80	20.24	0.73	384.41	21.440	0.73	0.00	0.00
31	100.00	Ericsson 4480 B71 + B85	3	93.00	2.85	0.74	139.05	3.282	0.74	0.00	0.00
32	100.00	Ericsson AIR21 B2A B4P	3	91.50	6.09	0.80	192.18	6.775	0.83	0.00	0.00
33	100.00	Ericsson AIR21 B4A B2P	3	90.40	6.09	0.80	191.08	6.775	0.83	0.00	0.00
34	100.00	Kathrein 782 11056	3	1.80	0.13	0.50	3.39	0.317	0.50	0.00	0.00
35	100.00	T-Arm (Round)	6	350.00	8.00	0.75	506.41	12.469	0.75	0.00	0.00
36	90.00	Andrew - VHLP2-11	2	27.00	4.68	1.00	88.99	5.487	1.00	0.00	0.00
37	90.00	ALU - 1900MHz - RRU	3	44.00	3.80	0.50	113.15	4.681	0.50	0.00	0.00
38	90.00	ALU - 800 MHz - RRU	6	53.00	2.49	0.50	99.85	3.215	0.50	0.00	0.00
39	90.00	F3P-HRK10	1	391.00	7.12	1.00	650.36	10.269	1.00	0.00	0.00
40	90.00	AAHC	3	104.00	4.20	0.75	180.35	4.713	0.75	0.00	0.00
41	90.00	NNVV-65B-R4	3	77.40	12.27	0.74	258.29	13.192	0.74	0.00	0.00
42	90.00	F3P-10W	1	2122.00	51.77	1.00	3435.73	92.978	1.00	0.00	0.00
Totals:			115	15,606.24			29,507.18				

Linear Appurtenances

Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice			Ice			Hor. Ecc. (ft)	Vert Ecc (ft)
				Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor		
	Bottom Elev. (ft)	Top Elev. (ft)		Exposed Width		Exposed					
0.00	130.00	(8) 0.645" DC Cables		0.00		Inside					
0.00	130.00	(6) 1.496" Hybrid		0.00		Inside					
0.00	130.00	(1) 1/2" Coax		0.00		Inside					
0.00	130.00	(3) 2" Conduit		2.00		Outside					
0.00	130.00	(2) 2" Conduit		0.00		Inside					
0.00	130.00	(8) 3/4" DC		0.00		Inside					
0.00	120.00	(1) 1.6" Hybrid		0.00		Inside					
0.00	110.00	(12) 1 5/8" Coax		0.00		Inside					
0.00	110.00	(1) 1 5/8" Hybrid		0.00		Inside					
0.00	100.00	(6) 1 5/8" Coax		0.00		Inside					
0.00	100.00	(3) 1.9" Fiber		0.00		Inside					
0.00	90.00	(3) 1-1/4" Fiber		0.00		Inside					
0.00	90.00	(1) 1.689" Fiber		0.00		Inside					
0.00	90.00	(2) 1/2" Fiber		0.00		Inside					
0.00	81.00	(4) 1" Reinforcing plate		1.00		Outside					
23.33	63.33	(2) 1" Reinforcing plate		0.00		Outside					
30.50	50.50	(2) 1" Reinforcing plate		0.00		Outside					
0.00	30.50	(4) 1" Reinforcing plate		0.00		Outside					

Shaft Section Properties

Structure: CT13064-A-SBA

Code: TIA-222-H

9/27/2023

Site Name: Middletown 2 CT

Exposure: C

Height: 130.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

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Increment Length: 5 (ft)

Elev (ft)	Description	Thick (in)	Flat			W/t Ratio	D/t Ratio	Fy (ksi)	Fb (ksi)	Weight (lb)	Additional Reinforcing			
			Dia (in)	Area (in^2)	Ix (in^4)						Area (in^2)	Ixp (in^4)	Iyp (in^4)	Weight (lb)
0.00	RB1 RB2	0.3125	42.500	41.843	9409.0	22.57	136.00	65	75	0.0	51.50	14174.7	10484.2	
5.00		0.3125	41.724	41.073	8899.0	22.13	133.52	65	75	705.4	51.50	13677.0	10117.3	876.2
10.00		0.3125	40.947	40.303	8407.8	21.69	131.03	65	76	692.3	51.50	13188.2	9756.9	876.2
10.25	RT2 RB3 RB4	0.3125	40.908	40.264	8383.7	21.67	130.91	65	76	34.3	75.50	18437.6	15048.5	64.2
15.00		0.3125	40.171	39.533	7935.0	21.26	128.55	65	76	644.9	48.00	11900.8	8587.5	775.8
20.00		0.3125	39.394	38.763	7480.2	20.82	126.06	65	77	666.1	48.00	11458.8	8269.5	816.7
20.50	RT1 RB5	0.3125	39.317	38.686	7435.7	20.77	125.81	65	77	65.9	72.00	17938.1	11520.0	122.5
25.00		0.3125	38.618	37.993	7043.2	20.38	123.58	65	77	587.1	48.00	11025.2	7957.5	735.0
25.96	RB6	0.3125	38.469	37.845	6961.3	20.30	123.10	65	78	123.9	60.00	13155.0	9930.1	196.0
26.88	RT4	0.3125	38.326	37.703	6883.3	20.21	122.64	65	78	118.3	60.00	13060.3	9859.0	187.8
27.88	RT3 RB7	0.3125	38.170	37.549	6799.3	20.13	122.15	65	78	128.0	60.00	13812.0	8107.3	204.2
30.00		0.3125	37.841	37.222	6623.5	19.94	121.09	65	78	269.7	48.00	10863.5	6850.9	346.3
35.00		0.3125	37.065	36.452	6220.8	19.50	118.61	65	78	628.7	48.00	10434.4	6581.8	816.7
40.00		0.3125	36.288	35.682	5834.8	19.06	116.12	65	79	613.6	48.00	10014.1	6318.3	816.7
40.50	RT5 RB8	0.3125	36.211	35.605	5797.1	19.02	115.87	65	79	60.6	72.00	15670.0	9123.5	122.5
40.71	RT6 RB9	0.3125	36.178	35.573	5781.3	19.00	115.77	65	79	25.4	60.00	11391.7	8268.7	42.9
43.33	Bot - Section 2	0.3125	35.771	35.169	5586.6	18.77	114.47	65	79	315.7	48.00	9738.7	6145.6	428.5
45.00		0.3125	35.512	34.912	5465.1	18.63	113.64	65	79	360.2	48.00	9865.5	6225.1	272.2
48.00	Top - Section 1	0.2500	35.546	28.006	4408.2	23.66	142.18	65	74	641.8	48.00	9619.3	6070.8	490.0
48.12	RT7	0.2500	35.527	27.992	4401.2	23.65	142.11	65	74	11.4	48.00	9595.6	6055.8	19.6
50.00		0.2500	35.235	27.760	4292.8	23.44	140.94	65	74	178.3	36.00	7112.8	4424.8	230.3
55.00		0.2500	34.459	27.144	4013.3	22.89	137.84	65	74	467.1	36.00	6811.5	4239.4	612.5
60.00		0.2500	33.682	26.528	3746.2	22.35	134.73	65	75	456.6	36.00	6517.0	4058.0	612.5
60.71	RT9	0.2500	33.572	26.440	3709.3	22.27	134.29	65	75	64.0	36.00	6475.7	4032.5	87.0
60.75	RT8 RB10	0.2500	33.566	26.435	3707.2	22.26	134.26	65	75	3.6	48.00	9591.0	4800.2	6.5
65.00		0.2500	32.906	25.912	3491.2	21.80	131.62	65	76	378.5	24.00	4618.1	2315.6	347.1
70.00		0.2500	32.130	25.296	3248.0	21.25	128.52	65	76	435.6	24.00	4410.5	2212.3	408.3
75.00		0.2500	31.353	24.679	3016.5	20.70	125.41	65	77	425.1	24.00	4207.7	2111.4	408.3
78.25	RT10	0.2500	30.848	24.279	2872.0	20.35	123.39	65	77	270.7	24.00	4078.5	2047.2	265.4
80.00		0.2500	30.577	24.063	2796.1	20.16	122.31	65	78	143.9				
85.00		0.2500	29.800	23.447	2586.8	19.61	119.20	65	78	404.2				
87.42	Bot - Section 3	0.2500	29.425	23.149	2489.5	19.34	117.70	65	79	191.6				
90.00		0.2500	29.024	22.831	2388.2	19.06	116.09	65	79	356.0				
91.33	Top - Section 2	0.1875	29.192	17.260	1834.5	26.04	155.69	65	71	181.8				
95.00		0.1875	28.622	16.922	1728.6	25.51	152.65	65	71	213.2				
100.00		0.1875	27.846	16.460	1590.8	24.78	148.51	65	72	284.0				
105.00		0.1875	27.069	15.997	1460.6	24.05	144.37	65	73	276.1				
110.00		0.1875	26.293	15.535	1337.6	23.32	140.23	65	74	268.2				
115.00		0.1875	25.516	15.073	1221.8	22.59	136.09	65	75	260.4				
120.00	Top - Section 3	0.1875	24.740	14.611	1112.8	21.86	131.95	65	76	252.5				
120.00	Bot - Section 4	0.2500	18.000	13.941	549.4	16.39	98.96	65	59					
125.00		0.2500	18.000	13.941	549.4	0.00	72.00	65	59	237.2				
130.00		0.2500	18.000	13.941	549.4	0.00	72.00	65	59	237.2				
Total Weight										12677.2				
											11187.9			

Wind Loading - Shaft

Structure: CT13064-A-SBA
Site Name: Middletown 2 CT
Height: 130.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Topography: 1

Code: TIA-222-H
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

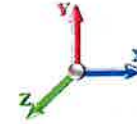
9/27/2023

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Load Case: 1.2D + 1.0W 120 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 21

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00	RB1 RB2	1.00	0.85	29.565	32.52	396.52	0.730	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	29.565	32.52	389.27	0.730	0.000	5.00	17.817	13.01	423.0	0.0	846.4
10.00		1.00	0.85	29.565	32.52	382.03	0.730	0.000	5.00	17.489	12.77	415.2	0.0	830.7
10.25	RT2 RB3 RB4	1.00	0.85	29.565	32.52	381.67	0.730	0.000	0.25	0.866	0.63	20.6	0.0	41.1
15.00		1.00	0.85	29.565	32.52	374.78	0.730	0.000	4.75	16.294	11.89	386.8	0.0	773.9
20.00		1.00	0.90	31.369	34.51	378.59	0.730	0.000	5.00	16.832	12.29	424.0	0.0	799.3
20.50	RT1 RB5	1.00	0.91	31.533	34.69	378.83	0.730	0.000	0.50	1.665	1.22	42.2	0.0	79.1
25.00		1.00	0.95	32.878	36.17	379.95	0.730	0.000	4.50	14.838	10.83	391.7	0.0	704.5
25.96	RB6	1.00	0.95	33.140	36.45	379.99	0.730	0.000	0.96	3.131	2.29	83.3	0.0	148.6
26.88	RT4	1.00	0.96	33.384	36.72	379.97	0.730	0.000	0.92	2.989	2.18	80.1	0.0	141.9
27.88	RT3 RB7	1.00	0.97	33.642	37.01	379.88	0.730	0.000	1.00	3.237	2.36	87.4	0.0	153.6
30.00		1.00	0.98	34.165	37.58	379.52	0.730	0.000	2.12	6.818	4.98	187.0	0.0	323.6
35.00		1.00	1.01	35.292	38.82	377.82	0.730	0.000	5.00	15.846	11.57	449.1	0.0	752.1
40.00		1.00	1.04	36.298	39.93	375.14	0.730	0.000	5.00	15.518	11.33	452.3	0.0	736.4
40.50	RT5 RB8	1.00	1.05	36.393	40.03	374.83	0.730	0.000	0.50	1.534	1.12	44.8	0.0	72.8
40.71	RT6 RB9	1.00	1.05	36.433	40.08	374.69	0.730	0.000	0.21	0.643	0.47	18.8	0.0	30.5
43.33	Bot - Section 2	1.00	1.06	36.915	40.61	372.92	0.730	0.000	2.62	7.986	5.83	236.7	0.0	378.9
45.00		1.00	1.07	37.209	40.93	371.69	0.730	0.000	1.67	5.097	3.72	152.3	0.0	432.3
48.00	Top - Section 1	1.00	1.08	37.718	41.49	369.32	0.730	0.000	3.00	9.083	6.63	275.1	0.0	770.2
48.12	RT7	1.00	1.08	37.738	41.51	374.49	0.730	0.000	0.12	0.361	0.26	10.9	0.0	13.7
50.00		1.00	1.09	38.044	41.85	372.91	0.730	0.000	1.88	5.629	4.11	171.9	0.0	214.0
55.00		1.00	1.12	38.815	42.70	368.37	0.730	0.000	5.00	14.744	10.76	459.5	0.0	560.5
60.00		1.00	1.14	39.532	43.49	363.38	0.730	0.000	5.00	14.415	10.52	457.6	0.0	547.9
60.71	RT9	1.00	1.14	39.630	43.59	362.64	0.730	0.000	0.71	2.020	1.47	64.3	0.0	76.8
60.75	RT8 RB10	1.00	1.14	39.636	43.60	362.60	0.730	0.000	0.04	0.114	0.08	3.6	0.0	4.3
65.00		1.00	1.16	40.204	44.22	358.01	0.730	0.000	4.25	11.953	8.73	385.9	0.0	454.2
70.00		1.00	1.17	40.836	44.92	352.30	0.730	0.000	5.00	13.758	10.04	451.2	0.0	522.7
75.00		1.00	1.19	41.434	45.58	346.29	0.730	0.000	5.00	13.430	9.80	446.8	0.0	510.2
78.25	RT10	1.00	1.20	41.806	45.99	342.24	0.730	0.000	3.25	8.553	6.24	287.1	0.0	324.9
80.00		1.00	1.21	42.001	46.20	340.02	0.730	0.000	1.75	4.548	3.32	153.4	0.0	172.7
85.00		1.00	1.22	42.540	46.79	333.51	0.730	0.000	5.00	12.773	9.32	436.3	0.0	485.0
87.42	Bot - Section 3	1.00	1.23	42.792	47.07	330.28	0.730	0.000	2.42	6.056	4.42	208.1	0.0	229.9
90.00	Appurtenance(s)	1.00	1.24	43.055	47.36	326.78	0.730	0.000	2.58	6.470	4.72	223.7	0.0	427.1
91.33	Top - Section 2	1.00	1.24	43.189	47.51	324.95	0.730	0.000	1.33	3.305	2.41	114.6	0.0	218.2
95.00		1.00	1.25	43.548	47.90	324.10	0.730	0.000	3.67	8.969	6.55	313.6	0.0	255.9
100.00	Appurtenance(s)	1.00	1.27	44.021	48.42	317.01	0.730	0.000	5.00	11.946	8.72	422.3	0.0	340.8
105.00		1.00	1.28	44.475	48.92	309.76	0.730	0.000	5.00	11.617	8.48	414.9	0.0	331.3
110.00	Appurtenance(s)	1.00	1.29	44.913	49.40	302.35	0.730	0.000	5.00	11.289	8.24	407.1	0.0	321.9
115.00		1.00	1.30	45.335	49.87	294.80	0.730	0.000	5.00	10.960	8.00	399.0	0.0	312.5
120.00	Top - Section 3	1.00	1.32	45.743	50.32	287.11	0.730	0.000	5.00	10.632	7.76	390.5	0.0	303.0
125.00		1.00	1.33	46.138	50.75	206.60	0.620 *	0.000	5.00	7.500	4.65	236.0	0.0	284.6
130.00	Appurtenance(s)	1.00	1.34	46.521	51.17	207.46	0.620 *	0.000	5.00	7.500	4.65	238.0	0.0	284.6
								Totals:	130.00			10,866.9		15,212.6

* Cf Adjusted by Linear Load Ra Effect

Discrete Appurtenance Forces

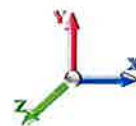
Structure: CT13064-A-SBA	Code: TIA-222-H	9/27/2023
Site Name: Middletown 2 CT	Exposure: C	
Height: 130.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
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Load Case: 1.2D + 1.0W 120 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 21

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	130.00	4449 B5/B12	3	46.521	51.173	0.38	0.75	2.22	255.60	0.000	0.000	113.41	0.00	0.00
2	130.00	6' Lightning rod	1	46.745	51.419	1.00	1.00	0.38	7.80	0.000	3.000	19.54	0.00	58.62
3	130.00	MTC3607 Platform + HR &	1	46.521	51.173	1.00	1.00	51.70	2695.20	0.000	0.000	2645.63	0.00	0.00
4	130.00	Angle Reinforcement kit	1	46.521	51.173	1.00	1.00	5.80	300.00	0.000	0.000	296.80	0.00	0.00
5	130.00	Cci DMP65R-BU6DA	3	46.521	51.173	0.54	0.75	20.62	227.88	0.000	0.000	1055.12	0.00	0.00
6	130.00	RRUS 32	6	46.521	51.173	0.38	0.75	3.71	554.40	0.000	0.000	189.98	0.01	0.00
7	130.00	RRUS 4478 B14	3	46.521	51.173	0.38	0.75	1.86	213.84	0.000	0.000	94.99	0.00	0.00
8	130.00	B2 B66A 8843	3	46.521	51.173	0.38	0.75	1.84	252.00	0.000	0.000	94.41	0.00	0.00
9	130.00	DC6-48-60-0-8C	2	46.521	51.173	0.75	0.75	7.17	38.40	0.000	0.000	366.91	0.00	0.00
10	130.00	Additional mount pipe	3	46.521	51.173	0.56	0.75	2.95	61.20	0.000	0.000	151.12	0.00	0.00
11	130.00	DC6-48-60-18-8F	2	46.521	51.173	0.75	0.75	1.38	76.32	0.000	0.000	70.62	0.00	0.00
12	130.00	RRUS E2 B29	3	46.521	51.173	0.38	0.75	3.54	213.84	0.000	0.000	181.34	0.00	0.00
13	130.00	Ericsson AIR6449	3	46.369	51.006	0.64	0.75	7.90	316.80	0.000	-2.000	402.88	0.00	-805.75
14	130.00	(3) Horizontal bracing	1	46.521	51.173	0.75	0.75	4.45	164.70	0.000	0.000	227.88	0.00	0.00
15	130.00	Ericsson AIR6419	3	46.670	51.337	0.57	0.75	6.50	237.96	0.000	2.000	333.59	0.00	667.18
16	130.00	Quinte QD6616-7	3	46.521	51.173	0.56	0.75	22.92	212.76	0.000	0.000	1172.69	0.00	0.00
17	120.00	MC-PK8-DSH	1	45.743	50.318	1.00	1.00	37.59	2072.40	0.000	0.000	1891.44	0.00	0.00
18	120.00	RDIDC-9181-OF-48	1	45.743	50.318	0.75	0.75	1.51	26.28	0.000	0.000	75.85	0.00	0.00
19	120.00	TA08025-B604	3	45.743	50.318	0.38	0.75	2.21	230.04	0.000	0.000	110.95	0.00	0.00
20	120.00	TA08025-B605	3	45.743	50.318	0.38	0.75	2.21	270.00	0.000	0.000	110.95	0.00	0.00
21	120.00	MX08FRO665-21	3	45.743	50.318	0.55	0.75	20.80	232.20	0.000	0.000	1046.40	0.00	0.00
22	110.00	SAMSUNG	3	44.913	49.404	0.40	0.80	2.24	253.19	0.000	0.000	110.86	0.00	0.00
23	110.00	RFS RVZDC-6627-PF-48	1	44.913	49.404	0.80	0.80	3.25	38.40	0.000	0.000	160.47	0.00	0.00
24	110.00	SAMSUNG MT6407-77A	3	44.913	49.404	0.56	0.80	7.88	313.56	0.000	0.000	389.27	0.00	0.00
25	110.00	JMA MX10FIT665-02	3	44.913	49.404	0.67	0.80	16.27	192.24	0.000	0.000	803.84	0.00	0.00
26	110.00	COMMSCOPE	3	44.999	49.499	0.40	0.80	0.48	23.76	0.000	1.000	23.76	0.00	23.76
27	110.00	Kaelus KA-6030	4	44.913	49.404	0.40	0.80	1.54	84.48	0.000	0.000	75.89	0.00	0.00
28	110.00	T-Arms (Round)	3	44.913	49.404	0.66	0.75	9.70	661.68	0.000	0.000	479.32	0.00	0.00
29	110.00	SAMSUNG	3	44.913	49.404	0.40	0.80	2.24	268.92	0.000	0.000	110.86	0.00	0.00
30	100.00	Ericsson AIR21 B2A B4P	3	44.021	48.423	0.64	0.80	11.69	329.40	0.000	0.000	566.20	0.00	0.00
31	100.00	RFS	3	44.021	48.423	0.58	0.80	35.46	442.08	0.000	0.000	1717.10	0.00	0.00
32	100.00	Ericsson 4480 B71 + B85	3	44.021	48.423	0.59	0.80	5.06	334.80	0.000	0.000	245.10	0.00	0.00
33	100.00	Ericsson AIR21 B4A B2P	3	44.021	48.423	0.64	0.80	11.69	325.44	0.000	0.000	566.20	0.00	0.00
34	100.00	Kathrein 782 11056	3	44.021	48.423	0.40	0.80	0.16	6.48	0.000	0.000	7.55	0.00	0.00
35	100.00	T-Arm (Round)	6	44.021	48.423	0.56	0.75	27.00	2520.00	0.000	0.000	1307.42	0.00	0.00
36	90.00	F3P-10W	1	43.055	47.361	1.00	1.00	51.77	2546.40	0.000	0.000	2451.86	0.00	0.00
37	90.00	NNVV-65B-R4	3	43.055	47.361	0.55	0.75	20.43	278.64	0.000	0.000	967.56	0.00	0.00
38	90.00	AAHC	3	43.055	47.361	0.56	0.75	7.09	374.40	0.000	0.000	335.67	0.00	0.00
39	90.00	F3P-HRK10	1	43.055	47.361	1.00	1.00	7.12	469.20	0.000	0.000	337.21	0.00	0.00
40	90.00	ALU - 800 MHz - RRU	6	43.055	47.361	0.38	0.75	5.60	381.60	0.000	0.000	265.34	0.00	0.00
41	90.00	ALU - 1900MHz - RRU	3	43.055	47.361	0.38	0.75	4.27	158.40	0.000	0.000	202.47	0.00	0.00
42	90.00	Andrew - VHLP2-11	2	43.055	47.361	0.75	0.75	7.02	64.80	0.000	0.000	332.47	0.00	0.00
Totals:									18,727.49			22,108.90		

Total Applied Force Summary

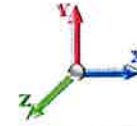
Structure: CT13064-A-SBA	Code: TIA-222-H	9/27/2023
Site Name: Middletown 2 CT	Exposure: C	
Height: 130.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0W 120 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 21

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		422.99	1145.43	0.00	0.00
10.00		415.19	1129.71	0.00	0.00
10.25		20.55	56.07	0.00	0.00
15.00		386.84	1057.91	0.00	0.00
20.00		423.98	1098.26	0.00	0.00
20.50		42.16	108.96	0.00	0.00
25.00		391.74	973.57	0.00	0.00
25.96		83.32	206.05	0.00	0.00
26.88		80.13	196.92	0.00	0.00
27.88		87.43	213.44	0.00	0.00
30.00		187.05	450.41	0.00	0.00
35.00		449.07	1051.09	0.00	0.00
40.00		452.30	1035.37	0.00	0.00
40.50		44.82	102.67	0.00	0.00
40.71		18.82	43.08	0.00	0.00
43.33		236.72	535.76	0.00	0.00
45.00		152.29	531.95	0.00	0.00
48.00		275.09	949.58	0.00	0.00
48.12		10.94	20.90	0.00	0.00
50.00		171.95	326.41	0.00	0.00
55.00		459.53	859.47	0.00	0.00
60.00		457.60	846.89	0.00	0.00
60.71		64.29	119.24	0.00	0.00
60.75		3.62	6.71	0.00	0.00
65.00		385.88	708.36	0.00	0.00
70.00		451.15	821.73	0.00	0.00
75.00		446.82	809.15	0.00	0.00
78.25		287.12	519.20	0.00	0.00
80.00		153.39	277.37	0.00	0.00
85.00		436.31	784.00	0.00	0.00
87.42		208.08	374.42	0.00	0.00
90.00	(19) attachments	5116.27	4855.07	0.00	0.00
91.33		114.63	291.20	0.00	0.00
95.00		313.64	456.75	0.00	0.00
100.00	(21) attachments	4831.83	4572.87	0.00	0.00
105.00		414.89	547.99	0.00	0.00
110.00	(23) attachments	2561.39	2374.79	0.00	23.76
115.00		399.00	447.64	0.00	0.00
120.00	(11) attachments	3626.11	3269.13	0.00	0.00
125.00		236.00	408.89	0.00	0.00
130.00	(41) attachments	7854.86	6237.59	0.00	-79.95
	Totals:	32,975.79	40,821.99	0.00	-56.20

Linear Appurtenance Segment Forces (Factored)

Structure: CT13064-A-SBA
Site Name: Middletown 2 CT
Height: 130.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: TIA-222-H
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

9/27/2023
 Page: 12



Load Case: 1.2D + 1.0W 120 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 21

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	2" Conduit	Yes	5.00	2.00	0.83	0.00	0.070	0.000	29.565	0.00	28.98
5.00	1" Reinforcing plate	Yes	5.00	1.00	0.42	0.00	0.070	0.000	29.565	0.00	0.00
5.00	1" Reinforcing plate	Yes	5.00	0.00	0.00	0.00	0.070	0.000	29.565	0.00	0.00
10.00	2" Conduit	Yes	5.00	2.00	0.83	0.00	0.071	0.000	29.565	0.00	28.98
10.00	1" Reinforcing plate	Yes	5.00	1.00	0.42	0.00	0.071	0.000	29.565	0.00	0.00
10.00	1" Reinforcing plate	Yes	5.00	0.00	0.00	0.00	0.071	0.000	29.565	0.00	0.00
10.25	2" Conduit	Yes	0.25	2.00	0.04	0.00	0.072	0.000	29.565	0.00	1.45
10.25	1" Reinforcing plate	Yes	0.25	1.00	0.02	0.00	0.072	0.000	29.565	0.00	0.00
10.25	1" Reinforcing plate	Yes	0.25	0.00	0.00	0.00	0.072	0.000	29.565	0.00	0.00
15.00	2" Conduit	Yes	4.75	2.00	0.79	0.00	0.073	0.000	29.565	0.00	27.53
15.00	1" Reinforcing plate	Yes	4.75	1.00	0.40	0.00	0.073	0.000	29.565	0.00	0.00
15.00	1" Reinforcing plate	Yes	4.75	0.00	0.00	0.00	0.073	0.000	29.565	0.00	0.00
20.00	2" Conduit	Yes	5.00	2.00	0.83	0.00	0.074	0.000	31.369	0.00	28.98
20.00	1" Reinforcing plate	Yes	5.00	1.00	0.42	0.00	0.074	0.000	31.369	0.00	0.00
20.00	1" Reinforcing plate	Yes	5.00	0.00	0.00	0.00	0.074	0.000	31.369	0.00	0.00
20.50	2" Conduit	Yes	0.50	2.00	0.08	0.00	0.075	0.000	31.533	0.00	2.90
20.50	1" Reinforcing plate	Yes	0.50	1.00	0.04	0.00	0.075	0.000	31.533	0.00	0.00
20.50	1" Reinforcing plate	Yes	0.50	0.00	0.00	0.00	0.075	0.000	31.533	0.00	0.00
25.00	2" Conduit	Yes	4.50	2.00	0.75	0.00	0.076	0.000	32.878	0.00	26.08
25.00	1" Reinforcing plate	Yes	4.50	1.00	0.38	0.00	0.076	0.000	32.878	0.00	0.00
25.00	1" Reinforcing plate	Yes	1.67	0.00	0.00	0.00	0.076	0.000	32.878	0.00	0.00
25.00	1" Reinforcing plate	Yes	4.50	0.00	0.00	0.00	0.076	0.000	32.878	0.00	0.00
25.96	2" Conduit	Yes	0.96	2.00	0.16	0.00	0.077	0.000	33.140	0.00	5.56
25.96	1" Reinforcing plate	Yes	0.96	1.00	0.08	0.00	0.077	0.000	33.140	0.00	0.00
25.96	1" Reinforcing plate	Yes	0.96	0.00	0.00	0.00	0.077	0.000	33.140	0.00	0.00
25.96	1" Reinforcing plate	Yes	0.96	0.00	0.00	0.00	0.077	0.000	33.140	0.00	0.00
26.88	2" Conduit	Yes	0.92	2.00	0.15	0.00	0.077	0.000	33.384	0.00	5.33
26.88	1" Reinforcing plate	Yes	0.92	1.00	0.08	0.00	0.077	0.000	33.384	0.00	0.00
26.88	1" Reinforcing plate	Yes	0.92	0.00	0.00	0.00	0.077	0.000	33.384	0.00	0.00
26.88	1" Reinforcing plate	Yes	0.92	0.00	0.00	0.00	0.077	0.000	33.384	0.00	0.00
27.88	2" Conduit	Yes	1.00	2.00	0.17	0.00	0.077	0.000	33.642	0.00	5.80
27.88	1" Reinforcing plate	Yes	1.00	1.00	0.08	0.00	0.077	0.000	33.642	0.00	0.00
27.88	1" Reinforcing plate	Yes	1.00	0.00	0.00	0.00	0.077	0.000	33.642	0.00	0.00
27.88	1" Reinforcing plate	Yes	1.00	0.00	0.00	0.00	0.077	0.000	33.642	0.00	0.00
30.00	2" Conduit	Yes	2.12	2.00	0.35	0.00	0.078	0.000	34.165	0.00	12.29
30.00	1" Reinforcing plate	Yes	2.12	1.00	0.18	0.00	0.078	0.000	34.165	0.00	0.00
30.00	1" Reinforcing plate	Yes	2.12	0.00	0.00	0.00	0.078	0.000	34.165	0.00	0.00
30.00	1" Reinforcing plate	Yes	2.12	0.00	0.00	0.00	0.078	0.000	34.165	0.00	0.00
35.00	2" Conduit	Yes	5.00	2.00	0.83	0.00	0.079	0.000	35.292	0.00	28.98
35.00	1" Reinforcing plate	Yes	5.00	1.00	0.42	0.00	0.079	0.000	35.292	0.00	0.00
35.00	1" Reinforcing plate	Yes	5.00	0.00	0.00	0.00	0.079	0.000	35.292	0.00	0.00
35.00	1" Reinforcing plate	Yes	4.50	0.00	0.00	0.00	0.079	0.000	35.292	0.00	0.00
35.00	1" Reinforcing plate	Yes	0.50	0.00	0.00	0.00	0.079	0.000	35.292	0.00	0.00
40.00	2" Conduit	Yes	5.00	2.00	0.83	0.00	0.081	0.000	36.298	0.00	28.98
40.00	1" Reinforcing plate	Yes	5.00	1.00	0.42	0.00	0.081	0.000	36.298	0.00	0.00
40.00	1" Reinforcing plate	Yes	5.00	0.00	0.00	0.00	0.081	0.000	36.298	0.00	0.00
40.00	1" Reinforcing plate	Yes	5.00	0.00	0.00	0.00	0.081	0.000	36.298	0.00	0.00

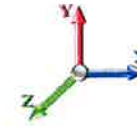
Linear Appurtenance Segment Forces (Factored)

Structure: CT13064-A-SBA **Code:** TIA-222-H 9/27/2023
Site Name: Middletown 2 CT **Exposure:** C
Height: 130.00 (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 + 1.0W 120 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 21

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)
40.50	2" Conduit	Yes	0.50	0.000	2.00	0.08	0.00	0.082	0.000	36.393	0.00	2.90
40.50	1" Reinforcing plate	Yes	0.50	0.000	1.00	0.04	0.00	0.082	0.000	36.393	0.00	0.00
40.50	1" Reinforcing plate	Yes	0.50	0.000	0.00	0.00	0.00	0.082	0.000	36.393	0.00	0.00
40.50	1" Reinforcing plate	Yes	0.50	0.000	0.00	0.00	0.00	0.082	0.000	36.393	0.00	0.00
40.71	2" Conduit	Yes	0.21	0.000	2.00	0.04	0.00	0.082	0.000	36.433	0.00	1.22
40.71	1" Reinforcing plate	Yes	0.21	0.000	1.00	0.02	0.00	0.082	0.000	36.433	0.00	0.00
40.71	1" Reinforcing plate	Yes	0.21	0.000	0.00	0.00	0.00	0.082	0.000	36.433	0.00	0.00
40.71	1" Reinforcing plate	Yes	0.21	0.000	0.00	0.00	0.00	0.082	0.000	36.433	0.00	0.00
43.33	2" Conduit	Yes	2.62	0.000	2.00	0.44	0.00	0.082	0.000	36.915	0.00	15.20
43.33	1" Reinforcing plate	Yes	2.62	0.000	1.00	0.22	0.00	0.082	0.000	36.915	0.00	0.00
43.33	1" Reinforcing plate	Yes	2.62	0.000	0.00	0.00	0.00	0.082	0.000	36.915	0.00	0.00
43.33	1" Reinforcing plate	Yes	2.62	0.000	0.00	0.00	0.00	0.082	0.000	36.915	0.00	0.00
45.00	2" Conduit	Yes	1.67	0.000	2.00	0.28	0.00	0.083	0.000	37.209	0.00	9.66
45.00	1" Reinforcing plate	Yes	1.67	0.000	1.00	0.14	0.00	0.083	0.000	37.209	0.00	0.00
45.00	1" Reinforcing plate	Yes	1.67	0.000	0.00	0.00	0.00	0.083	0.000	37.209	0.00	0.00
45.00	1" Reinforcing plate	Yes	1.67	0.000	0.00	0.00	0.00	0.083	0.000	37.209	0.00	0.00
48.00	2" Conduit	Yes	3.00	0.000	2.00	0.50	0.00	0.084	0.000	37.718	0.00	17.39
48.00	1" Reinforcing plate	Yes	3.00	0.000	1.00	0.25	0.00	0.084	0.000	37.718	0.00	0.00
48.00	1" Reinforcing plate	Yes	3.00	0.000	0.00	0.00	0.00	0.084	0.000	37.718	0.00	0.00
48.00	1" Reinforcing plate	Yes	3.00	0.000	0.00	0.00	0.00	0.084	0.000	37.718	0.00	0.00
48.12	2" Conduit	Yes	0.12	0.000	2.00	0.02	0.00	0.083	0.000	37.738	0.00	0.70
48.12	1" Reinforcing plate	Yes	0.12	0.000	1.00	0.01	0.00	0.083	0.000	37.738	0.00	0.00
48.12	1" Reinforcing plate	Yes	0.12	0.000	0.00	0.00	0.00	0.083	0.000	37.738	0.00	0.00
48.12	1" Reinforcing plate	Yes	0.12	0.000	0.00	0.00	0.00	0.083	0.000	37.738	0.00	0.00
50.00	2" Conduit	Yes	1.88	0.000	2.00	0.31	0.00	0.084	0.000	38.044	0.00	10.90
50.00	1" Reinforcing plate	Yes	1.88	0.000	1.00	0.16	0.00	0.084	0.000	38.044	0.00	0.00
50.00	1" Reinforcing plate	Yes	1.88	0.000	0.00	0.00	0.00	0.084	0.000	38.044	0.00	0.00
50.00	1" Reinforcing plate	Yes	1.88	0.000	0.00	0.00	0.00	0.084	0.000	38.044	0.00	0.00
55.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.085	0.000	38.815	0.00	28.98
55.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	0.42	0.00	0.085	0.000	38.815	0.00	0.00
55.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.085	0.000	38.815	0.00	0.00
55.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.085	0.000	38.815	0.00	0.00
60.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.087	0.000	39.532	0.00	28.98
60.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	0.42	0.00	0.087	0.000	39.532	0.00	0.00
60.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.087	0.000	39.532	0.00	0.00
60.71	2" Conduit	Yes	0.71	0.000	2.00	0.12	0.00	0.088	0.000	39.630	0.00	4.12
60.71	1" Reinforcing plate	Yes	0.71	0.000	1.00	0.06	0.00	0.088	0.000	39.630	0.00	0.00
60.71	1" Reinforcing plate	Yes	0.71	0.000	0.00	0.00	0.00	0.088	0.000	39.630	0.00	0.00
60.71	1" Reinforcing plate	Yes	0.71	0.000	0.00	0.00	0.00	0.088	0.000	39.630	0.00	0.00
60.75	2" Conduit	Yes	0.04	0.000	2.00	0.01	0.00	0.088	0.000	39.636	0.00	0.23
60.75	1" Reinforcing plate	Yes	0.04	0.000	1.00	0.00	0.00	0.088	0.000	39.636	0.00	0.00
60.75	1" Reinforcing plate	Yes	0.04	0.000	0.00	0.00	0.00	0.088	0.000	39.636	0.00	0.00
60.75	1" Reinforcing plate	Yes	0.04	0.000	0.00	0.00	0.00	0.088	0.000	39.636	0.00	0.00
65.00	2" Conduit	Yes	4.25	0.000	2.00	0.71	0.00	0.089	0.000	40.204	0.00	24.63
65.00	1" Reinforcing plate	Yes	4.25	0.000	1.00	0.35	0.00	0.089	0.000	40.204	0.00	0.00
65.00	1" Reinforcing plate	Yes	4.25	0.000	0.00	0.00	0.00	0.089	0.000	40.204	0.00	0.00
70.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.091	0.000	40.836	0.00	28.98
70.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	0.42	0.00	0.091	0.000	40.836	0.00	0.00
75.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.093	0.000	41.434	0.00	28.98

Linear Appurtenance Segment Forces (Factored)

Structure: CT13064-A-SBA	Code: TIA-222-H	9/27/2023
Site Name: Middletown 2 CT	Exposure: C	
Height: 130.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

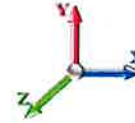


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Load Case: 1.2D + 1.0W 120 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 21

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)
75.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	0.42	0.00	0.093	0.000	41.434	0.00	0.00
78.25	2" Conduit	Yes	3.25	0.000	2.00	0.54	0.00	0.095	0.000	41.806	0.00	18.84
78.25	1" Reinforcing plate	Yes	3.25	0.000	1.00	0.27	0.00	0.095	0.000	41.806	0.00	0.00
80.00	2" Conduit	Yes	1.75	0.000	2.00	0.29	0.00	0.096	0.000	42.001	0.00	10.14
80.00	1" Reinforcing plate	Yes	1.75	0.000	1.00	0.15	0.00	0.096	0.000	42.001	0.00	0.00
85.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.072	0.000	42.540	0.00	28.98
85.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.072	0.000	42.540	0.00	0.00
87.42	2" Conduit	Yes	2.42	0.000	2.00	0.40	0.00	0.067	0.000	42.792	0.00	14.01
90.00	2" Conduit	Yes	2.58	0.000	2.00	0.43	0.00	0.067	0.000	43.055	0.00	14.97
91.33	2" Conduit	Yes	1.33	0.000	2.00	0.22	0.00	0.068	0.000	43.189	0.00	7.73
95.00	2" Conduit	Yes	3.67	0.000	2.00	0.61	0.00	0.068	0.000	43.548	0.00	21.25
100.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.070	0.000	44.021	0.00	28.98
105.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.072	0.000	44.475	0.00	28.98
110.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.074	0.000	44.913	0.00	28.98
115.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.076	0.000	45.335	0.00	28.98
120.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.078	0.000	45.743	0.00	28.98
125.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.111	1.033	46.138	0.00	28.98
130.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.111	1.033	46.521	0.00	28.98
Totals:											0.0	753.5

Calculated Forces

Structure: CT13064-A-SBA
Site Name: Middletown 2 CT
Height: 130.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Topography: 1

Code: TIA-222-H
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

9/27/2023

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Load Case: 1.2D + 1.0W 120 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 21

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-40.75	-33.06	0.00	-3304.5	0.00	3304.56	2818.94	734.35	2570.40	2448.04	0.00	0.000	0.000	0.647
5.00	-39.48	-32.79	0.00	-3139.2	0.00	3139.27	2786.10	720.83	2476.65	2374.66	0.12	-0.230	0.000	0.627
10.00	-38.28	-32.45	0.00	-2975.3	0.00	2975.31	2752.56	707.32	2384.65	2301.75	0.49	-0.459	0.000	0.607
10.25	-38.18	-32.49	0.00	-2967.2	0.00	2967.20	2750.86	706.64	2380.10	2298.12	0.51	-0.471	0.000	0.605
15.00	-37.01	-32.22	0.00	-2812.8	0.00	2812.88	2718.29	693.80	2294.39	2229.33	1.06	-0.637	0.000	0.614
20.00	-35.85	-31.86	0.00	-2651.7	0.00	2651.78	2683.32	680.29	2205.87	2157.44	1.86	-0.873	0.000	0.592
20.50	-35.68	-31.88	0.00	-2635.8	0.00	2635.85	2679.78	678.93	2197.11	2150.28	1.95	-0.896	0.000	0.590
25.00	-34.66	-31.54	0.00	-2492.3	0.00	2492.38	2647.62	666.77	2119.09	2086.12	2.88	-1.070	0.000	0.569
25.96	-34.43	-31.48	0.00	-2462.1	0.00	2462.10	2640.69	664.18	2102.62	2072.49	3.10	-1.115	0.000	0.565
26.88	-34.21	-31.42	0.00	-2433.1	0.00	2433.15	2634.02	661.69	2086.91	2059.45	3.32	-1.153	0.000	0.492
27.88	-33.96	-31.36	0.00	-2401.7	0.00	2401.73	2626.74	658.99	2069.89	2045.30	3.56	-1.194	0.000	0.585
30.00	-33.43	-31.27	0.00	-2335.2	0.00	2335.24	2611.22	653.25	2034.05	2015.39	4.11	-1.288	0.000	0.575
35.00	-32.26	-30.92	0.00	-2178.9	0.00	2178.91	2574.10	639.74	1950.75	1945.30	5.59	-1.525	0.000	0.550
40.00	-31.17	-30.51	0.00	-2024.3	0.00	2024.30	2536.26	626.22	1869.20	1875.87	7.31	-1.757	0.000	0.523
40.50	-31.06	-30.47	0.00	-2009.0	0.00	2009.05	2532.44	624.87	1861.14	1868.96	7.50	-1.781	0.000	0.521
40.71	-30.99	-30.48	0.00	-2002.6	0.00	2002.65	2530.83	624.30	1857.76	1866.07	7.58	-1.789	0.000	0.520
43.33	-30.41	-30.28	0.00	-1922.6	0.00	1922.69	2510.64	617.21	1815.79	1829.97	8.59	-1.893	0.000	0.506
45.00	-29.83	-30.16	0.00	-1872.2	0.00	1872.23	2497.71	612.71	1789.38	1807.14	9.26	-1.969	0.000	0.490
48.00	-28.86	-29.89	0.00	-1781.7	0.00	1781.75	1854.44	491.51	1439.37	1347.80	10.54	-2.102	0.000	0.521
48.12	-28.81	-29.90	0.00	-1778.1	0.00	1778.17	1853.85	491.25	1437.86	1346.66	10.60	-2.108	0.000	0.563
50.00	-28.40	-29.80	0.00	-1721.9	0.00	1721.96	1844.56	487.19	1414.16	1328.74	11.44	-2.197	0.000	0.647
55.00	-27.42	-29.44	0.00	-1572.9	0.00	1572.94	1819.35	476.37	1352.08	1281.29	13.89	-2.465	0.000	0.606
60.00	-26.52	-29.01	0.00	-1425.7	0.00	1425.77	1793.44	465.56	1291.40	1234.16	16.61	-2.723	0.000	0.564
60.71	-26.40	-28.95	0.00	-1405.1	0.00	1405.17	1789.70	464.03	1282.90	1227.50	17.01	-2.759	0.000	0.557
60.75	-26.34	-28.99	0.00	-1404.0	0.00	1404.02	1789.49	463.94	1282.42	1227.12	17.04	-2.761	0.000	0.705
65.00	-25.53	-28.68	0.00	-1280.8	0.00	1280.82	1766.81	454.75	1232.11	1187.39	19.58	-2.952	0.000	0.659
70.00	-24.59	-28.30	0.00	-1137.4	0.00	1137.45	1739.46	443.94	1174.22	1141.01	22.83	-3.248	0.000	0.603
75.00	-23.71	-27.90	0.00	-995.93	0.00	995.93	1711.40	433.12	1117.71	1095.05	26.38	-3.525	0.000	0.545
78.25	-23.14	-27.64	0.00	-905.24	0.00	905.24	1692.78	426.10	1081.74	1065.41	28.84	-3.696	0.000	0.506
78.25	-23.14	-27.64	0.00	-905.24	0.00	905.24	1692.78	426.10	1081.74	1065.41	28.84	-3.696	0.000	0.847
80.00	-22.75	-27.57	0.00	-856.88	0.00	856.88	1682.63	422.31	1062.61	1049.54	30.21	-3.785	0.000	0.834
85.00	-21.87	-27.19	0.00	-719.06	0.00	719.06	1653.14	411.50	1008.89	1004.53	34.39	-4.186	0.000	0.733
87.42	-21.42	-27.02	0.00	-653.36	0.00	653.36	1638.63	406.27	983.43	982.97	36.56	-4.369	0.000	0.682
90.00	-16.93	-21.58	0.00	-583.57	0.00	583.57	1622.94	400.69	956.57	960.05	38.97	-4.551	0.000	0.621
91.33	-16.59	-21.49	0.00	-554.80	0.00	554.80	1099.39	302.92	728.96	657.00	40.26	-4.642	0.000	0.865
95.00	-16.05	-21.22	0.00	-476.00	0.00	476.00	1087.40	296.97	700.62	637.00	43.91	-4.872	0.000	0.767
100.00	-11.83	-16.07	0.00	-369.90	0.00	369.90	1070.43	288.87	662.88	609.82	49.20	-5.220	0.000	0.621
105.00	-11.25	-15.66	0.00	-289.54	0.00	289.54	1052.74	280.76	626.19	582.80	54.82	-5.515	0.000	0.511
110.00	-9.09	-12.91	0.00	-211.22	0.00	211.22	1034.34	272.65	590.53	555.96	60.72	-5.758	0.000	0.391
115.00	-8.65	-12.49	0.00	-146.66	0.00	146.66	1015.23	264.54	555.93	529.34	66.85	-5.949	0.000	0.288
120.00	-5.77	-8.56	0.00	-84.19	0.00	84.19	995.40	256.43	522.37	502.97	73.15	-6.083	0.000	0.174
120.00	-5.77	-8.56	0.00	-84.19	0.00	84.19	735.22	244.66	14507.7	335.79	73.15	-6.083	0.000	0.260
125.00	-5.37	-8.28	0.00	-41.42	0.00	41.42	735.22	244.66	14507.7	335.79	79.56	-6.163	0.000	0.132
130.00	0.00	-7.65	0.00	0.00	0.00	0.00	735.22	244.66	14507.7	335.79	86.04	-6.217	0.000	0.001

Wind Loading - Shaft

Structure: CT13064-A-SBA
Site Name: Middletown 2 CT
Height: 130.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: TIA-222-H
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

9/27/2023



TES

Tower Engineering Solutions

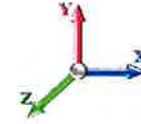
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Topography: 1

Load Case: 0.9D + 1.0W 120 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00



Iterations 21

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00	RB1 RB2	1.00	0.85	29.565	32.52	396.52	0.730	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	29.565	32.52	389.27	0.730	0.000	5.00	17.817	13.01	423.0	0.0	634.8
10.00		1.00	0.85	29.565	32.52	382.03	0.730	0.000	5.00	17.489	12.77	415.2	0.0	623.0
10.25	RT2 RB3 RB4	1.00	0.85	29.565	32.52	381.67	0.730	0.000	0.25	0.866	0.63	20.6	0.0	30.8
15.00		1.00	0.85	29.565	32.52	374.78	0.730	0.000	4.75	16.294	11.89	386.8	0.0	580.4
20.00		1.00	0.90	31.369	34.51	378.59	0.730	0.000	5.00	16.832	12.29	424.0	0.0	599.5
20.50	RT1 RB5	1.00	0.91	31.533	34.69	378.83	0.730	0.000	0.50	1.665	1.22	42.2	0.0	59.3
25.00		1.00	0.95	32.878	36.17	379.95	0.730	0.000	4.50	14.838	10.83	391.7	0.0	528.4
25.96	RB6	1.00	0.95	33.140	36.45	379.99	0.730	0.000	0.96	3.131	2.29	83.3	0.0	111.5
26.88	RT4	1.00	0.96	33.384	36.72	379.97	0.730	0.000	0.92	2.989	2.18	80.1	0.0	106.4
27.88	RT3 RB7	1.00	0.97	33.642	37.01	379.88	0.730	0.000	1.00	3.237	2.36	87.4	0.0	115.2
30.00		1.00	0.98	34.165	37.58	379.52	0.730	0.000	2.12	6.818	4.98	187.0	0.0	242.7
35.00		1.00	1.01	35.292	38.82	377.82	0.730	0.000	5.00	15.846	11.57	449.1	0.0	564.1
40.00		1.00	1.04	36.298	39.93	375.14	0.730	0.000	5.00	15.518	11.33	452.3	0.0	552.3
40.50	RT5 RB8	1.00	1.05	36.393	40.03	374.83	0.730	0.000	0.50	1.534	1.12	44.8	0.0	54.6
40.71	RT6 RB9	1.00	1.05	36.433	40.08	374.69	0.730	0.000	0.21	0.643	0.47	18.8	0.0	22.9
43.33	Bot - Section 2	1.00	1.06	36.915	40.61	372.92	0.730	0.000	2.62	7.986	5.83	236.7	0.0	284.2
45.00		1.00	1.07	37.209	40.93	371.69	0.730	0.000	1.67	5.097	3.72	152.3	0.0	324.2
48.00	Top - Section 1	1.00	1.08	37.718	41.49	369.32	0.730	0.000	3.00	9.083	6.63	275.1	0.0	577.6
48.12	RT7	1.00	1.08	37.738	41.51	374.49	0.730	0.000	0.12	0.361	0.26	10.9	0.0	10.3
50.00		1.00	1.09	38.044	41.85	372.91	0.730	0.000	1.88	5.629	4.11	171.9	0.0	160.5
55.00		1.00	1.12	38.815	42.70	368.37	0.730	0.000	5.00	14.744	10.76	459.5	0.0	420.4
60.00		1.00	1.14	39.532	43.49	363.38	0.730	0.000	5.00	14.415	10.52	457.6	0.0	410.9
60.71	RT9	1.00	1.14	39.630	43.59	362.64	0.730	0.000	0.71	2.020	1.47	64.3	0.0	57.6
60.75	RT8 RB10	1.00	1.14	39.636	43.60	362.60	0.730	0.000	0.04	0.114	0.08	3.6	0.0	3.2
65.00		1.00	1.16	40.204	44.22	358.01	0.730	0.000	4.25	11.953	8.73	385.9	0.0	340.7
70.00		1.00	1.17	40.836	44.92	352.30	0.730	0.000	5.00	13.758	10.04	451.2	0.0	392.1
75.00		1.00	1.19	41.434	45.58	346.29	0.730	0.000	5.00	13.430	9.80	446.8	0.0	382.6
78.25	RT10	1.00	1.20	41.806	45.99	342.24	0.730	0.000	3.25	8.553	6.24	287.1	0.0	243.6
80.00		1.00	1.21	42.001	46.20	340.02	0.730	0.000	1.75	4.548	3.32	153.4	0.0	129.5
85.00		1.00	1.22	42.540	46.79	333.51	0.730	0.000	5.00	12.773	9.32	436.3	0.0	363.8
87.42	Bot - Section 3	1.00	1.23	42.792	47.07	330.28	0.730	0.000	2.42	6.056	4.42	208.1	0.0	172.4
90.00	Appurtenance(s)	1.00	1.24	43.055	47.36	326.78	0.730	0.000	2.58	6.470	4.72	223.7	0.0	320.4
91.33	Top - Section 2	1.00	1.24	43.189	47.51	324.95	0.730	0.000	1.33	3.305	2.41	114.6	0.0	163.6
95.00		1.00	1.25	43.548	47.90	324.10	0.730	0.000	3.67	8.969	6.55	313.6	0.0	191.9
100.00	Appurtenance(s)	1.00	1.27	44.021	48.42	317.01	0.730	0.000	5.00	11.946	8.72	422.3	0.0	255.6
105.00		1.00	1.28	44.475	48.92	309.76	0.730	0.000	5.00	11.617	8.48	414.9	0.0	248.5
110.00	Appurtenance(s)	1.00	1.29	44.913	49.40	302.35	0.730	0.000	5.00	11.289	8.24	407.1	0.0	241.4
115.00		1.00	1.30	45.335	49.87	294.80	0.730	0.000	5.00	10.960	8.00	399.0	0.0	234.3
120.00	Top - Section 3	1.00	1.32	45.743	50.32	287.11	0.730	0.000	5.00	10.632	7.76	390.5	0.0	227.3
125.00		1.00	1.33	46.138	50.75	206.60	0.620 *	0.000	5.00	7.500	4.65	236.0	0.0	213.5
130.00	Appurtenance(s)	1.00	1.34	46.521	51.17	207.46	0.620 *	0.000	5.00	7.500	4.65	238.0	0.0	213.5
								Totals:		130.00		10,866.9		11,409.5

* Cf Adjusted by Linear Load Ra Effect

Discrete Appurtenance Forces

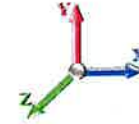
Structure: CT13064-A-SBA
Site Name: Middletown 2 CT
Height: 130.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: TIA-222-H
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

9/27/2023
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Load Case: 0.9D + 1.0W 120 mph Wind
Dead Load Factor 0.90
Wind Load Factor 1.00



Iterations 21

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	130.00	4449 B5/B12	3	46.521	51.173	0.38	0.75	2.22	191.70	0.000	0.000	113.41	0.00	0.00
2	130.00	6' Lightning rod	1	46.745	51.419	1.00	1.00	0.38	5.85	0.000	3.000	19.54	0.00	58.62
3	130.00	MTC3607 Platform + HR &	1	46.521	51.173	1.00	1.00	51.70	2021.40	0.000	0.000	2645.63	0.00	0.00
4	130.00	Angle Reinforcement kit	1	46.521	51.173	1.00	1.00	5.80	225.00	0.000	0.000	296.80	0.00	0.00
5	130.00	Cci DMP65R-BU6DA	3	46.521	51.173	0.54	0.75	20.62	170.91	0.000	0.000	1055.12	0.00	0.00
6	130.00	RRUS 32	6	46.521	51.173	0.38	0.75	3.71	415.80	0.000	0.000	189.98	0.00	0.00
7	130.00	RRUS 4478 B14	3	46.521	51.173	0.38	0.75	1.86	160.38	0.000	0.000	94.99	0.00	0.00
8	130.00	B2 B66A 8843	3	46.521	51.173	0.38	0.75	1.84	189.00	0.000	0.000	94.41	0.00	0.00
9	130.00	DC6-48-60-0-8C	2	46.521	51.173	0.75	0.75	7.17	28.80	0.000	0.000	366.91	0.00	0.00
10	130.00	Additional mount pipe	3	46.521	51.173	0.56	0.75	2.95	45.90	0.000	0.000	151.12	0.00	0.00
11	130.00	DC6-48-60-18-8F	2	46.521	51.173	0.75	0.75	1.38	57.24	0.000	0.000	70.62	0.00	0.00
12	130.00	RRUS E2 B29	3	46.521	51.173	0.38	0.75	3.54	160.38	0.000	0.000	181.34	0.00	0.00
13	130.00	Ericsson AIR6449	3	46.369	51.006	0.64	0.75	7.90	237.60	0.000	-2.000	402.88	0.00	-805.75
14	130.00	(3) Horizontal bracing	1	46.521	51.173	0.75	0.75	4.45	123.53	0.000	0.000	227.88	0.00	0.00
15	130.00	Ericsson AIR6419	3	46.670	51.337	0.57	0.75	6.50	178.47	0.000	2.000	333.59	0.00	667.18
16	130.00	Quinte QD6616-7	3	46.521	51.173	0.56	0.75	22.92	159.57	0.000	0.000	1172.69	0.00	0.00
17	120.00	MC-PK8-DSH	1	45.743	50.318	1.00	1.00	37.59	1554.30	0.000	0.000	1891.44	0.00	0.00
18	120.00	RDIDC-9181-OF-48	1	45.743	50.318	0.75	0.75	1.51	19.71	0.000	0.000	75.85	0.00	0.00
19	120.00	TA08025-B604	3	45.743	50.318	0.38	0.75	2.21	172.53	0.000	0.000	110.95	0.00	0.00
20	120.00	TA08025-B605	3	45.743	50.318	0.38	0.75	2.21	202.50	0.000	0.000	110.95	0.00	0.00
21	120.00	MX08FRO665-21	3	45.743	50.318	0.55	0.75	20.80	174.15	0.000	0.000	1046.40	0.00	0.00
22	110.00	SAMSUNG	3	44.913	49.404	0.40	0.80	2.24	189.89	0.000	0.000	110.86	0.00	0.00
23	110.00	RFS RVZDC-6627-PF-48	1	44.913	49.404	0.80	0.80	3.25	28.80	0.000	0.000	160.47	0.00	0.00
24	110.00	SAMSUNG MT6407-77A	3	44.913	49.404	0.56	0.80	7.88	235.17	0.000	0.000	389.27	0.00	0.00
25	110.00	JMA MX10FIT665-02	3	44.913	49.404	0.67	0.80	16.27	144.18	0.000	0.000	803.84	0.00	0.00
26	110.00	COMMSCOPE	3	44.999	49.499	0.40	0.80	0.48	17.82	0.000	1.000	23.76	0.00	23.76
27	110.00	Kaelus KA-6030	4	44.913	49.404	0.40	0.80	1.54	63.36	0.000	0.000	75.89	0.00	0.00
28	110.00	T-Arms (Round)	3	44.913	49.404	0.66	0.75	9.70	496.26	0.000	0.000	479.32	0.00	0.00
29	110.00	SAMSUNG	3	44.913	49.404	0.40	0.80	2.24	201.69	0.000	0.000	110.86	0.00	0.00
30	100.00	Ericsson AIR21 B2A B4P	3	44.021	48.423	0.64	0.80	11.69	247.05	0.000	0.000	566.20	0.00	0.00
31	100.00	RFS	3	44.021	48.423	0.58	0.80	35.46	331.56	0.000	0.000	1717.10	0.00	0.00
32	100.00	Ericsson 4480 B71 + B85	3	44.021	48.423	0.59	0.80	5.06	251.10	0.000	0.000	245.10	0.00	0.00
33	100.00	Ericsson AIR21 B4A B2P	3	44.021	48.423	0.64	0.80	11.69	244.08	0.000	0.000	566.20	0.00	0.00
34	100.00	Kathrein 782 11056	3	44.021	48.423	0.40	0.80	0.16	4.86	0.000	0.000	7.55	0.00	0.00
35	100.00	T-Arm (Round)	6	44.021	48.423	0.56	0.75	27.00	1890.00	0.000	0.000	1307.42	0.00	0.00
36	90.00	F3P-10W	1	43.055	47.361	1.00	1.00	51.77	1909.80	0.000	0.000	2451.86	0.00	0.00
37	90.00	NNVV-65B-R4	3	43.055	47.361	0.55	0.75	20.43	208.98	0.000	0.000	967.56	0.00	0.00
38	90.00	AAHC	3	43.055	47.361	0.56	0.75	7.09	280.80	0.000	0.000	335.67	0.00	0.00
39	90.00	F3P-HRK10	1	43.055	47.361	1.00	1.00	7.12	351.90	0.000	0.000	337.21	0.00	0.00
40	90.00	ALU - 800 MHz - RRU	6	43.055	47.361	0.38	0.75	5.60	286.20	0.000	0.000	265.34	0.00	0.00
41	90.00	ALU - 1900MHz - RRU	3	43.055	47.361	0.38	0.75	4.27	118.80	0.000	0.000	202.47	0.00	0.00
42	90.00	Andrew - VHLP2-11	2	43.055	47.361	0.75	0.75	7.02	48.60	0.000	0.000	332.47	0.00	0.00
Totals:									14,045.62			22,108.90		

Total Applied Force Summary

Structure: CT13064-A-SBA	Code: TIA-222-H	9/27/2023
Site Name: Middletown 2 CT	Exposure: C	
Height: 130.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

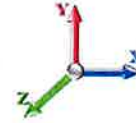


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Load Case: 0.9D + 1.0W 120 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00



Iterations 21

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		422.99	859.07	0.00	0.00
10.00		415.19	847.28	0.00	0.00
10.25		20.55	42.05	0.00	0.00
15.00		386.84	793.43	0.00	0.00
20.00		423.98	823.69	0.00	0.00
20.50		42.16	81.72	0.00	0.00
25.00		391.74	730.18	0.00	0.00
25.96		83.32	154.54	0.00	0.00
26.88		80.13	147.69	0.00	0.00
27.88		87.43	160.08	0.00	0.00
30.00		187.05	337.81	0.00	0.00
35.00		449.07	788.32	0.00	0.00
40.00		452.30	776.52	0.00	0.00
40.50		44.82	77.00	0.00	0.00
40.71		18.82	32.31	0.00	0.00
43.33		236.72	401.82	0.00	0.00
45.00		152.29	398.96	0.00	0.00
48.00		275.09	712.19	0.00	0.00
48.12		10.94	15.67	0.00	0.00
50.00		171.95	244.81	0.00	0.00
55.00		459.53	644.60	0.00	0.00
60.00		457.60	635.17	0.00	0.00
60.71		64.29	89.43	0.00	0.00
60.75		3.62	5.03	0.00	0.00
65.00		385.88	531.27	0.00	0.00
70.00		451.15	616.30	0.00	0.00
75.00		446.82	606.86	0.00	0.00
78.25		287.12	389.40	0.00	0.00
80.00		153.39	208.03	0.00	0.00
85.00		436.31	588.00	0.00	0.00
87.42		208.08	280.82	0.00	0.00
90.00	(19) attachments	5116.27	3641.30	0.00	0.00
91.33		114.63	218.40	0.00	0.00
95.00		313.64	342.56	0.00	0.00
100.00	(21) attachments	4831.83	3429.65	0.00	0.00
105.00		414.89	410.99	0.00	0.00
110.00	(23) attachments	2561.39	1781.09	0.00	23.76
115.00		399.00	335.73	0.00	0.00
120.00	(11) attachments	3626.11	2451.85	0.00	0.00
125.00		236.00	306.66	0.00	0.00
130.00	(41) attachments	7654.86	4678.19	0.00	-79.95
	Totals:	32,975.79	30,616.49	0.00	-56.20

Linear Appurtenance Segment Forces (Factored)

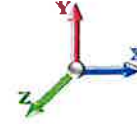
Structure: CT13064-A-SBA	Code: TIA-222-H	9/27/2023
Site Name: Middletown 2 CT	Exposure: C	
Height: 130.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.0W 120 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.00



Iterations 21

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	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.070	0.000	29.565	0.00	21.74
5.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	0.42	0.00	0.070	0.000	29.565	0.00	0.00
5.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.070	0.000	29.565	0.00	0.00
10.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.071	0.000	29.565	0.00	21.74
10.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	0.42	0.00	0.071	0.000	29.565	0.00	0.00
10.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.071	0.000	29.565	0.00	0.00
10.25	2" Conduit	Yes	0.25	0.000	2.00	0.04	0.00	0.072	0.000	29.565	0.00	1.09
10.25	1" Reinforcing plate	Yes	0.25	0.000	1.00	0.02	0.00	0.072	0.000	29.565	0.00	0.00
10.25	1" Reinforcing plate	Yes	0.25	0.000	0.00	0.00	0.00	0.072	0.000	29.565	0.00	0.00
15.00	2" Conduit	Yes	4.75	0.000	2.00	0.79	0.00	0.073	0.000	29.565	0.00	20.65
15.00	1" Reinforcing plate	Yes	4.75	0.000	1.00	0.40	0.00	0.073	0.000	29.565	0.00	0.00
15.00	1" Reinforcing plate	Yes	4.75	0.000	0.00	0.00	0.00	0.073	0.000	29.565	0.00	0.00
20.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.074	0.000	31.369	0.00	21.74
20.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	0.42	0.00	0.074	0.000	31.369	0.00	0.00
20.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.074	0.000	31.369	0.00	0.00
20.50	2" Conduit	Yes	0.50	0.000	2.00	0.08	0.00	0.075	0.000	31.533	0.00	2.17
20.50	1" Reinforcing plate	Yes	0.50	0.000	1.00	0.04	0.00	0.075	0.000	31.533	0.00	0.00
20.50	1" Reinforcing plate	Yes	0.50	0.000	0.00	0.00	0.00	0.075	0.000	31.533	0.00	0.00
25.00	2" Conduit	Yes	4.50	0.000	2.00	0.75	0.00	0.076	0.000	32.878	0.00	19.56
25.00	1" Reinforcing plate	Yes	4.50	0.000	1.00	0.38	0.00	0.076	0.000	32.878	0.00	0.00
25.00	1" Reinforcing plate	Yes	1.67	0.000	0.00	0.00	0.00	0.076	0.000	32.878	0.00	0.00
25.00	1" Reinforcing plate	Yes	4.50	0.000	0.00	0.00	0.00	0.076	0.000	32.878	0.00	0.00
25.96	2" Conduit	Yes	0.96	0.000	2.00	0.16	0.00	0.077	0.000	33.140	0.00	4.17
25.96	1" Reinforcing plate	Yes	0.96	0.000	1.00	0.08	0.00	0.077	0.000	33.140	0.00	0.00
25.96	1" Reinforcing plate	Yes	0.96	0.000	0.00	0.00	0.00	0.077	0.000	33.140	0.00	0.00
25.96	1" Reinforcing plate	Yes	0.96	0.000	0.00	0.00	0.00	0.077	0.000	33.140	0.00	0.00
26.88	2" Conduit	Yes	0.92	0.000	2.00	0.15	0.00	0.077	0.000	33.384	0.00	4.00
26.88	1" Reinforcing plate	Yes	0.92	0.000	1.00	0.08	0.00	0.077	0.000	33.384	0.00	0.00
26.88	1" Reinforcing plate	Yes	0.92	0.000	0.00	0.00	0.00	0.077	0.000	33.384	0.00	0.00
26.88	1" Reinforcing plate	Yes	0.92	0.000	0.00	0.00	0.00	0.077	0.000	33.384	0.00	0.00
27.88	2" Conduit	Yes	1.00	0.000	2.00	0.17	0.00	0.077	0.000	33.642	0.00	4.35
27.88	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.077	0.000	33.642	0.00	0.00
27.88	1" Reinforcing plate	Yes	1.00	0.000	0.00	0.00	0.00	0.077	0.000	33.642	0.00	0.00
27.88	1" Reinforcing plate	Yes	1.00	0.000	0.00	0.00	0.00	0.077	0.000	33.642	0.00	0.00
30.00	2" Conduit	Yes	2.12	0.000	2.00	0.35	0.00	0.078	0.000	34.165	0.00	9.22
30.00	1" Reinforcing plate	Yes	2.12	0.000	1.00	0.18	0.00	0.078	0.000	34.165	0.00	0.00
30.00	1" Reinforcing plate	Yes	2.12	0.000	0.00	0.00	0.00	0.078	0.000	34.165	0.00	0.00
30.00	1" Reinforcing plate	Yes	2.12	0.000	0.00	0.00	0.00	0.078	0.000	34.165	0.00	0.00
35.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.079	0.000	35.292	0.00	21.74
35.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	0.42	0.00	0.079	0.000	35.292	0.00	0.00
35.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.079	0.000	35.292	0.00	0.00
35.00	1" Reinforcing plate	Yes	4.50	0.000	0.00	0.00	0.00	0.079	0.000	35.292	0.00	0.00
35.00	1" Reinforcing plate	Yes	0.50	0.000	0.00	0.00	0.00	0.079	0.000	35.292	0.00	0.00
40.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.081	0.000	36.298	0.00	21.74
40.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	0.42	0.00	0.081	0.000	36.298	0.00	0.00
40.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.081	0.000	36.298	0.00	0.00
40.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.081	0.000	36.298	0.00	0.00

Linear Appurtenance Segment Forces (Factored)

Structure: CT13064-A-SBA	Code: TIA-222-H	9/27/2023
Site Name: Middletown 2 CT	Exposure: C	
Height: 130.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

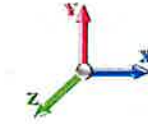


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Load Case: 0.9D + 1.0W 120 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00



Iterations 21

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)
40.50	2" Conduit	Yes	0.50	0.000	2.00	0.08	0.00	0.082	0.000	36.393	0.00	2.17
40.50	1" Reinforcing plate	Yes	0.50	0.000	1.00	0.04	0.00	0.082	0.000	36.393	0.00	0.00
40.50	1" Reinforcing plate	Yes	0.50	0.000	0.00	0.00	0.00	0.082	0.000	36.393	0.00	0.00
40.50	1" Reinforcing plate	Yes	0.50	0.000	0.00	0.00	0.00	0.082	0.000	36.393	0.00	0.00
40.71	2" Conduit	Yes	0.21	0.000	2.00	0.04	0.00	0.082	0.000	36.433	0.00	0.91
40.71	1" Reinforcing plate	Yes	0.21	0.000	1.00	0.02	0.00	0.082	0.000	36.433	0.00	0.00
40.71	1" Reinforcing plate	Yes	0.21	0.000	0.00	0.00	0.00	0.082	0.000	36.433	0.00	0.00
40.71	1" Reinforcing plate	Yes	0.21	0.000	0.00	0.00	0.00	0.082	0.000	36.433	0.00	0.00
43.33	2" Conduit	Yes	2.62	0.000	2.00	0.44	0.00	0.082	0.000	36.915	0.00	11.40
43.33	1" Reinforcing plate	Yes	2.62	0.000	1.00	0.22	0.00	0.082	0.000	36.915	0.00	0.00
43.33	1" Reinforcing plate	Yes	2.62	0.000	0.00	0.00	0.00	0.082	0.000	36.915	0.00	0.00
43.33	1" Reinforcing plate	Yes	2.62	0.000	0.00	0.00	0.00	0.082	0.000	36.915	0.00	0.00
45.00	2" Conduit	Yes	1.67	0.000	2.00	0.28	0.00	0.083	0.000	37.209	0.00	7.25
45.00	1" Reinforcing plate	Yes	1.67	0.000	1.00	0.14	0.00	0.083	0.000	37.209	0.00	0.00
45.00	1" Reinforcing plate	Yes	1.67	0.000	0.00	0.00	0.00	0.083	0.000	37.209	0.00	0.00
45.00	1" Reinforcing plate	Yes	1.67	0.000	0.00	0.00	0.00	0.083	0.000	37.209	0.00	0.00
48.00	2" Conduit	Yes	3.00	0.000	2.00	0.50	0.00	0.084	0.000	37.718	0.00	13.04
48.00	1" Reinforcing plate	Yes	3.00	0.000	1.00	0.25	0.00	0.084	0.000	37.718	0.00	0.00
48.00	1" Reinforcing plate	Yes	3.00	0.000	0.00	0.00	0.00	0.084	0.000	37.718	0.00	0.00
48.00	1" Reinforcing plate	Yes	3.00	0.000	0.00	0.00	0.00	0.084	0.000	37.718	0.00	0.00
48.12	2" Conduit	Yes	0.12	0.000	2.00	0.02	0.00	0.083	0.000	37.738	0.00	0.52
48.12	1" Reinforcing plate	Yes	0.12	0.000	1.00	0.01	0.00	0.083	0.000	37.738	0.00	0.00
48.12	1" Reinforcing plate	Yes	0.12	0.000	0.00	0.00	0.00	0.083	0.000	37.738	0.00	0.00
48.12	1" Reinforcing plate	Yes	0.12	0.000	0.00	0.00	0.00	0.083	0.000	37.738	0.00	0.00
50.00	2" Conduit	Yes	1.88	0.000	2.00	0.31	0.00	0.084	0.000	38.044	0.00	8.17
50.00	1" Reinforcing plate	Yes	1.88	0.000	1.00	0.16	0.00	0.084	0.000	38.044	0.00	0.00
50.00	1" Reinforcing plate	Yes	1.88	0.000	0.00	0.00	0.00	0.084	0.000	38.044	0.00	0.00
50.00	1" Reinforcing plate	Yes	1.88	0.000	0.00	0.00	0.00	0.084	0.000	38.044	0.00	0.00
55.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.085	0.000	38.815	0.00	21.74
55.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	0.42	0.00	0.085	0.000	38.815	0.00	0.00
55.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.085	0.000	38.815	0.00	0.00
55.00	1" Reinforcing plate	Yes	0.50	0.000	0.00	0.00	0.00	0.085	0.000	38.815	0.00	0.00
60.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.087	0.000	39.532	0.00	21.74
60.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	0.42	0.00	0.087	0.000	39.532	0.00	0.00
60.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.087	0.000	39.532	0.00	0.00
60.71	2" Conduit	Yes	0.71	0.000	2.00	0.12	0.00	0.088	0.000	39.630	0.00	3.09
60.71	1" Reinforcing plate	Yes	0.71	0.000	1.00	0.06	0.00	0.088	0.000	39.630	0.00	0.00
60.71	1" Reinforcing plate	Yes	0.71	0.000	0.00	0.00	0.00	0.088	0.000	39.630	0.00	0.00
60.75	2" Conduit	Yes	0.04	0.000	2.00	0.01	0.00	0.088	0.000	39.636	0.00	0.17
60.75	1" Reinforcing plate	Yes	0.04	0.000	1.00	0.00	0.00	0.088	0.000	39.636	0.00	0.00
60.75	1" Reinforcing plate	Yes	0.04	0.000	0.00	0.00	0.00	0.088	0.000	39.636	0.00	0.00
65.00	2" Conduit	Yes	4.25	0.000	2.00	0.71	0.00	0.089	0.000	40.204	0.00	18.47
65.00	1" Reinforcing plate	Yes	4.25	0.000	1.00	0.35	0.00	0.089	0.000	40.204	0.00	0.00
65.00	1" Reinforcing plate	Yes	2.58	0.000	0.00	0.00	0.00	0.089	0.000	40.204	0.00	0.00
70.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.091	0.000	40.836	0.00	21.74
70.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	0.42	0.00	0.091	0.000	40.836	0.00	0.00
75.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.093	0.000	41.434	0.00	21.74

Linear Appurtenance Segment Forces (Factored)

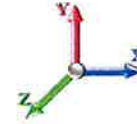
Structure: CT13064-A-SBA	Code: TIA-222-H	9/27/2023
Site Name: Middletown 2 CT	Exposure: C	
Height: 130.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.0W 120 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.00



Iterations 21

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)
75.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	0.42	0.00	0.093	0.000	41.434	0.00	0.00
78.25	2" Conduit	Yes	3.25	0.000	2.00	0.54	0.00	0.095	0.000	41.806	0.00	14.13
78.25	1" Reinforcing plate	Yes	3.25	0.000	1.00	0.27	0.00	0.095	0.000	41.806	0.00	0.00
80.00	2" Conduit	Yes	1.75	0.000	2.00	0.29	0.00	0.096	0.000	42.001	0.00	7.61
80.00	1" Reinforcing plate	Yes	1.75	0.000	1.00	0.15	0.00	0.096	0.000	42.001	0.00	0.00
85.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.072	0.000	42.540	0.00	21.74
85.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.072	0.000	42.540	0.00	0.00
87.42	2" Conduit	Yes	2.42	0.000	2.00	0.40	0.00	0.067	0.000	42.792	0.00	10.51
90.00	2" Conduit	Yes	2.58	0.000	2.00	0.43	0.00	0.067	0.000	43.055	0.00	11.23
91.33	2" Conduit	Yes	1.33	0.000	2.00	0.22	0.00	0.068	0.000	43.189	0.00	5.80
95.00	2" Conduit	Yes	3.67	0.000	2.00	0.61	0.00	0.068	0.000	43.548	0.00	15.94
100.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.070	0.000	44.021	0.00	21.74
105.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.072	0.000	44.475	0.00	21.74
110.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.074	0.000	44.913	0.00	21.74
115.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.076	0.000	45.335	0.00	21.74
120.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.078	0.000	45.743	0.00	21.74
125.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.111	1.033	46.138	0.00	21.74
130.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.111	1.033	46.521	0.00	21.74
Totals:											0.0	565.1

Calculated Forces

Structure: CT13064-A-SBA

Code: TIA-222-H

9/27/2023

Site Name: Middletown 2 CT

Exposure: C

Height: 130.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

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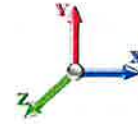


Load Case: 0.9D + 1.0W 120 mph Wind

Iterations 21

Dead Load Factor 0.90

Wind Load Factor 1.00



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-30.55	-33.04	0.00	-3268.7	0.00	3268.75	2818.94	734.35	2570.40	2448.04	0.00	0.000	0.000	0.638
5.00	-29.56	-32.73	0.00	-3103.5	0.00	3103.57	2786.10	720.83	2476.65	2374.66	0.12	-0.228	0.000	0.618
10.00	-28.65	-32.37	0.00	-2939.9	0.00	2939.92	2752.56	707.32	2384.65	2301.75	0.48	-0.454	0.000	0.598
10.25	-28.56	-32.39	0.00	-2931.8	0.00	2931.83	2750.86	706.64	2380.10	2298.12	0.51	-0.465	0.000	0.597
15.00	-27.66	-32.09	0.00	-2777.9	0.00	2777.97	2718.29	693.80	2294.39	2229.33	1.05	-0.630	0.000	0.605
20.00	-26.77	-31.72	0.00	-2617.5	0.00	2617.50	2683.32	680.29	2205.87	2157.44	1.84	-0.862	0.000	0.583
20.50	-26.63	-31.72	0.00	-2601.6	0.00	2601.64	2679.78	678.93	2197.11	2150.28	1.93	-0.886	0.000	0.581
25.00	-25.85	-31.36	0.00	-2458.9	0.00	2458.90	2647.62	666.77	2119.09	2086.12	2.84	-1.057	0.000	0.560
25.96	-25.68	-31.30	0.00	-2428.7	0.00	2428.79	2640.69	664.18	2102.62	2072.49	3.06	-1.101	0.000	0.556
26.88	-25.51	-31.23	0.00	-2400.0	0.00	2400.00	2634.02	661.69	2086.91	2059.45	3.28	-1.139	0.000	0.484
27.88	-25.32	-31.17	0.00	-2368.7	0.00	2368.77	2626.74	658.99	2069.89	2045.30	3.52	-1.179	0.000	0.576
30.00	-24.89	-31.05	0.00	-2302.6	0.00	2302.69	2611.22	653.25	2034.05	2015.39	4.07	-1.272	0.000	0.566
35.00	-23.99	-30.68	0.00	-2147.4	0.00	2147.45	2574.10	639.74	1950.75	1945.30	5.52	-1.506	0.000	0.540
40.00	-23.16	-30.25	0.00	-1994.0	0.00	1994.07	2536.26	626.22	1869.20	1875.87	7.22	-1.735	0.000	0.514
40.50	-23.08	-30.21	0.00	-1978.9	0.00	1978.94	2532.44	624.87	1861.14	1868.96	7.41	-1.758	0.000	0.512
40.71	-23.02	-30.21	0.00	-1972.6	0.00	1972.60	2530.83	624.30	1857.76	1866.07	7.48	-1.766	0.000	0.511
43.33	-22.58	-30.00	0.00	-1893.3	0.00	1893.34	2510.64	617.21	1815.79	1829.97	8.48	-1.868	0.000	0.497
45.00	-22.13	-29.87	0.00	-1843.3	0.00	1843.34	2497.71	612.71	1789.38	1807.14	9.15	-1.944	0.000	0.481
48.00	-21.39	-29.60	0.00	-1753.7	0.00	1753.71	1854.44	491.51	1439.37	1347.80	10.41	-2.074	0.000	0.512
48.12	-21.35	-29.61	0.00	-1750.1	0.00	1750.16	1853.85	491.25	1437.86	1346.66	10.46	-2.079	0.000	0.552
50.00	-21.02	-29.49	0.00	-1694.5	0.00	1694.50	1844.56	487.19	1414.16	1328.74	11.30	-2.167	0.000	0.635
55.00	-20.27	-29.10	0.00	-1547.0	0.00	1547.05	1819.35	476.37	1352.08	1281.29	13.71	-2.431	0.000	0.594
60.00	-19.58	-28.66	0.00	-1401.5	0.00	1401.57	1793.44	465.56	1291.40	1234.16	16.39	-2.685	0.000	0.552
60.71	-19.49	-28.60	0.00	-1381.2	0.00	1381.22	1789.70	464.03	1282.90	1227.50	16.79	-2.721	0.000	0.546
60.75	-19.43	-28.63	0.00	-1380.0	0.00	1380.07	1789.49	463.94	1282.42	1227.12	16.82	-2.723	0.000	0.691
65.00	-18.80	-28.30	0.00	-1258.4	0.00	1258.41	1766.81	454.75	1232.11	1187.39	19.33	-2.910	0.000	0.646
70.00	-18.07	-27.90	0.00	-1116.9	0.00	1116.94	1739.46	443.94	1174.22	1141.01	22.53	-3.200	0.000	0.591
75.00	-17.39	-27.49	0.00	-977.43	0.00	977.43	1711.40	433.12	1117.71	1095.05	26.03	-3.473	0.000	0.533
78.25	-16.96	-27.21	0.00	-888.11	0.00	888.11	1692.78	426.10	1081.74	1065.41	28.45	-3.641	0.000	0.495
78.25	-16.96	-27.21	0.00	-888.11	0.00	888.11	1692.78	426.10	1081.74	1065.41	28.45	-3.641	0.000	0.829
80.00	-16.64	-27.12	0.00	-840.48	0.00	840.48	1682.63	422.31	1062.61	1049.54	29.80	-3.728	0.000	0.815
85.00	-15.96	-26.72	0.00	-704.89	0.00	704.89	1653.14	411.50	1008.89	1004.53	33.92	-4.121	0.000	0.716
87.42	-15.61	-26.54	0.00	-640.32	0.00	640.32	1638.63	406.27	983.43	982.97	36.05	-4.300	0.000	0.665
90.00	-12.32	-21.19	0.00	-571.75	0.00	571.75	1622.94	400.69	956.57	960.05	38.42	-4.479	0.000	0.606
91.33	-12.05	-21.09	0.00	-543.50	0.00	543.50	1099.39	302.92	728.96	657.00	39.69	-4.567	0.000	0.843
95.00	-11.63	-20.81	0.00	-466.16	0.00	466.16	1087.40	296.97	700.62	637.00	43.28	-4.793	0.000	0.747
100.00	-8.55	-15.75	0.00	-362.11	0.00	362.11	1070.43	288.87	662.88	609.82	48.48	-5.134	0.000	0.605
105.00	-8.11	-15.33	0.00	-283.37	0.00	283.37	1052.74	280.76	626.19	582.80	54.01	-5.422	0.000	0.497
110.00	-6.54	-12.64	0.00	-206.68	0.00	206.68	1034.34	272.65	590.53	555.96	59.82	-5.661	0.000	0.380
115.00	-6.21	-12.22	0.00	-143.50	0.00	143.50	1015.23	264.54	555.93	529.34	65.84	-5.847	0.000	0.279
120.00	-4.13	-8.37	0.00	-82.39	0.00	82.39	995.40	256.43	522.37	502.97	72.03	-5.979	0.000	0.169
120.00	-4.13	-8.37	0.00	-82.39	0.00	82.39	735.22	244.66	14507.7	335.79	72.03	-5.979	0.000	0.252
125.00	-3.84	-8.11	0.00	-40.54	0.00	40.54	735.22	244.66	14507.7	335.79	78.33	-6.057	0.000	0.127
130.00	0.00	-7.65	0.00	0.00	0.00	0.00	735.22	244.66	14507.7	335.79	84.70	-6.110	0.000	0.001

Wind Loading - Shaft

Structure: CT13064-A-SBA
Site Name: Middletown 2 CT
Height: 130.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Topography: 1

Code: TIA-222-H
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

9/27/2023

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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 20

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00	RB1 RB2	1.00	0.85	5.133	5.65	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	5.133	5.65	0.00	1.200	0.828	5.00	18.507	22.21	125.4	218.5	1064.9
10.00		1.00	0.85	5.133	5.65	0.00	1.200	0.887	5.00	18.228	21.87	123.5	230.2	1060.9
10.25	RT2 RB3 RB4	1.00	0.85	5.133	5.65	0.00	1.200	0.890	0.25	0.903	1.08	6.1	11.5	52.7
15.00		1.00	0.85	5.133	5.65	0.00	1.200	0.924	4.75	17.026	20.43	115.4	223.7	997.6
20.00		1.00	0.90	5.446	5.99	0.00	1.200	0.951	5.00	17.624	21.15	126.7	237.9	1037.2
20.50	RT1 RB5	1.00	0.91	5.474	6.02	0.00	1.200	0.954	0.50	1.745	2.09	12.6	23.8	102.9
25.00		1.00	0.95	5.708	6.28	0.00	1.200	0.973	4.50	15.568	18.68	117.3	214.9	919.4
25.96	RB6	1.00	0.95	5.753	6.33	0.00	1.200	0.976	0.96	3.287	3.94	25.0	45.8	194.5
26.88	RT4	1.00	0.96	5.796	6.38	0.00	1.200	0.980	0.92	3.139	3.77	24.0	43.9	185.8
27.88	RT3 RB7	1.00	0.97	5.841	6.42	0.00	1.200	0.983	1.00	3.400	4.08	26.2	47.7	201.4
30.00		1.00	0.98	5.931	6.52	0.00	1.200	0.991	2.12	7.168	8.60	56.1	101.1	424.8
35.00		1.00	1.01	6.127	6.74	0.00	1.200	1.006	5.00	16.684	20.02	134.9	237.4	989.5
40.00		1.00	1.04	6.302	6.93	0.00	1.200	1.019	5.00	16.367	19.64	136.1	235.8	972.2
40.50	RT5 RB8	1.00	1.05	6.318	6.95	0.00	1.200	1.021	0.50	1.619	1.94	13.5	23.6	96.3
40.71	RT6 RB9	1.00	1.05	6.325	6.96	0.00	1.200	1.021	0.21	0.679	0.81	5.7	9.9	40.4
43.33	Bot - Section 2	1.00	1.06	6.409	7.05	0.00	1.200	1.028	2.62	8.435	10.12	71.4	123.0	501.9
45.00		1.00	1.07	6.460	7.11	0.00	1.200	1.032	1.67	5.384	6.46	45.9	79.0	511.3
48.00	Top - Section 1	1.00	1.08	6.548	7.20	0.00	1.200	1.038	3.00	9.602	11.52	83.0	141.3	911.5
48.12	RT7	1.00	1.08	6.552	7.21	0.00	1.200	1.038	0.12	0.382	0.46	3.3	5.7	19.4
50.00		1.00	1.09	6.605	7.27	0.00	1.200	1.042	1.88	5.955	7.15	51.9	88.2	302.2
55.00		1.00	1.12	6.739	7.41	0.00	1.200	1.052	5.00	15.621	18.74	138.9	231.7	792.2
60.00		1.00	1.14	6.863	7.55	0.00	1.200	1.062	5.00	15.300	18.36	138.6	228.7	776.6
60.71	RT9	1.00	1.14	6.880	7.57	0.00	1.200	1.063	0.71	2.146	2.58	19.5	32.4	109.2
60.75	RT8 RB10	1.00	1.14	6.881	7.57	0.00	1.200	1.063	0.04	0.121	0.14	1.1	1.8	6.1
65.00		1.00	1.16	6.980	7.68	0.00	1.200	1.070	4.25	12.711	15.25	117.1	191.6	645.8
70.00		1.00	1.17	7.090	7.80	0.00	1.200	1.078	5.00	14.657	17.59	137.2	222.0	744.7
75.00		1.00	1.19	7.193	7.91	0.00	1.200	1.086	5.00	14.334	17.20	136.1	218.3	728.5
78.25	RT10	1.00	1.20	7.258	7.98	0.00	1.200	1.090	3.25	9.144	10.97	87.6	140.3	465.2
80.00		1.00	1.21	7.292	8.02	0.00	1.200	1.093	1.75	4.867	5.84	46.8	75.1	247.8
85.00		1.00	1.22	7.385	8.12	0.00	1.200	1.099	5.00	13.689	16.43	133.4	210.6	695.6
87.42	Bot - Section 3	1.00	1.23	7.429	8.17	0.00	1.200	1.102	2.42	6.500	7.80	63.7	100.8	330.7
90.00	Appurtenance(s)	1.00	1.24	7.475	8.22	0.00	1.200	1.106	2.58	6.946	8.34	68.5	108.0	535.2
91.33	Top - Section 2	1.00	1.24	7.498	8.25	0.00	1.200	1.107	1.33	3.551	4.26	35.1	55.5	273.6
95.00		1.00	1.25	7.560	8.32	0.00	1.200	1.112	3.67	9.648	11.58	96.3	150.3	406.1
100.00	Appurtenance(s)	1.00	1.27	7.642	8.41	0.00	1.200	1.117	5.00	12.877	15.45	129.9	200.6	541.4
105.00		1.00	1.28	7.721	8.49	0.00	1.200	1.123	5.00	12.553	15.06	127.9	196.2	527.5
110.00	Appurtenance(s)	1.00	1.29	7.797	8.58	0.00	1.200	1.128	5.00	12.229	14.67	125.9	191.7	513.6
115.00		1.00	1.30	7.871	8.66	0.00	1.200	1.133	5.00	11.904	14.29	123.7	187.2	499.6
120.00	Top - Section 3	1.00	1.32	7.942	8.74	0.00	1.200	1.138	5.00	11.580	13.90	121.4	182.5	485.5
125.00		1.00	1.33	8.010	8.81	0.00	1.240 *	1.142	5.00	8.452	10.48	92.3	133.6	418.2
130.00	Appurtenance(s)	1.00	1.34	8.077	8.88	0.00	1.240 *	1.147	5.00	8.456	10.49	93.2	134.1	418.8
								Totals:	130.00			3,338.4	20,748.7	

* Cf Adjusted by Linear Load Ra Effect

Discrete Appurtenance Forces

Structure: CT13064-A-SBA
Site Name: Middletown 2 CT
Height: 130.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: TIA-222-H
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

9/27/2023

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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 20

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	130.00	4449 B5/B12	3	8.077	8.884	0.38	0.75	2.62	320.04	0.000	0.000	23.28	0.00	0.00
2	130.00	6' Lightning rod	1	8.115	8.927	1.00	1.00	1.09	26.36	0.000	3.000	9.77	0.00	29.32
3	130.00	MTC3607 Platform + HR &	1	8.077	8.884	1.00	1.00	76.84	3236.82	0.000	0.000	682.68	0.00	0.00
4	130.00	Angle Reinforcement kit	1	8.077	8.884	1.00	1.00	9.53	744.98	0.000	0.000	84.62	0.00	0.00
5	130.00	Cci DMP65R-BU6DA	3	8.077	8.884	0.56	0.75	22.82	619.80	0.000	0.000	202.77	0.00	0.00
6	130.00	RRUS 32	6	8.077	8.884	0.38	0.75	4.56	923.11	0.000	0.000	40.55	0.00	0.00
7	130.00	RRUS 4478 B14	3	8.077	8.884	0.38	0.75	2.24	267.39	0.000	0.000	19.90	0.00	0.00
8	130.00	B2 B66A 8843	3	8.077	8.884	0.38	0.75	2.23	308.76	0.000	0.000	19.78	0.00	0.00
9	130.00	DC6-48-60-0-8C	2	8.077	8.884	0.75	0.75	8.04	141.44	0.000	0.000	71.44	0.00	0.00
10	130.00	Additional mount pipe	3	8.077	8.884	0.56	0.75	7.36	-9.53	0.000	0.000	65.37	0.00	0.00
11	130.00	DC6-48-60-18-8F	2	8.077	8.884	0.75	0.75	1.81	122.18	0.000	0.000	16.10	0.00	0.00
12	130.00	RRUS E2 B29	3	8.077	8.884	0.38	0.75	4.06	288.28	0.000	0.000	36.11	0.00	0.00
13	130.00	Ericsson AIR6449	3	8.050	8.855	0.64	0.75	8.95	571.04	0.000	-2.000	79.27	0.00	-158.55
14	130.00	(3) Horizontal bracing	1	8.077	8.884	0.75	0.75	8.13	210.10	0.000	0.000	72.23	0.00	0.00
15	130.00	Ericsson AIR6419	3	8.103	8.913	0.57	0.75	7.39	359.54	0.000	2.000	65.89	0.00	131.77
16	130.00	Quinte QD6616-7	3	8.077	8.884	0.57	0.75	25.55	713.57	0.000	0.000	227.01	0.00	0.00
17	120.00	MC-PK8-DSH	1	7.942	8.736	1.00	1.00	68.38	2799.79	0.000	0.000	597.39	0.00	0.00
18	120.00	RDIDC-9181-OF-48	1	7.942	8.736	0.75	0.75	1.79	48.30	0.000	0.000	15.60	0.00	0.00
19	120.00	TA08025-B604	3	7.942	8.736	0.38	0.75	2.62	292.76	0.000	0.000	22.86	0.00	0.00
20	120.00	TA08025-B605	3	7.942	8.736	0.38	0.75	2.62	334.50	0.000	0.000	22.86	0.00	0.00
21	120.00	MX08FRO665-21	3	7.942	8.736	0.55	0.75	22.39	599.51	0.000	0.000	195.56	0.00	0.00
22	110.00	SAMSUNG	3	7.797	8.577	0.40	0.80	2.67	389.24	0.000	0.000	22.94	0.00	0.00
23	110.00	RFS RVZDC-6627-PF-48	1	7.797	8.577	0.80	0.80	3.67	86.83	0.000	0.000	31.50	0.00	0.00
24	110.00	SAMSUNG MT6407-77A	3	7.797	8.577	0.56	0.80	8.90	528.43	0.000	0.000	76.31	0.00	0.00
25	110.00	JMA MX10FIT665-02	3	7.797	8.577	0.69	0.80	20.21	642.17	0.000	0.000	173.31	0.00	0.00
26	110.00	COMMSCOPE	3	7.812	8.593	0.40	0.80	0.70	53.49	0.000	1.000	6.01	0.00	6.01
27	110.00	Kaelus KA-6030	4	7.797	8.577	0.40	0.80	1.96	154.92	0.000	0.000	16.79	0.00	0.00
28	110.00	T-Arms (Round)	3	7.797	8.577	0.66	0.75	15.17	1730.54	0.000	0.000	130.15	0.00	0.00
29	110.00	SAMSUNG	3	7.797	8.577	0.40	0.80	2.67	404.97	0.000	0.000	22.94	0.00	0.00
30	100.00	Ericsson AIR21 B2A B4P	3	7.642	8.407	0.66	0.80	13.50	631.45	0.000	0.000	113.46	0.00	0.00
31	100.00	RFS	3	7.642	8.407	0.58	0.80	37.56	1226.90	0.000	0.000	315.79	0.00	0.00
32	100.00	Ericsson 4480 B71 + B85	3	7.642	8.407	0.59	0.80	5.83	421.95	0.000	0.000	49.00	0.00	0.00
33	100.00	Ericsson AIR21 B4A B2P	3	7.642	8.407	0.66	0.80	13.50	627.49	0.000	0.000	113.46	0.00	0.00
34	100.00	Kathrein 782 11056	3	7.642	8.407	0.40	0.80	0.38	4.64	0.000	0.000	3.20	0.00	0.00
35	100.00	T-Arm (Round)	6	7.642	8.407	0.56	0.75	42.08	3038.49	0.000	0.000	353.78	0.00	0.00
36	90.00	F3P-10W	1	7.475	8.222	1.00	1.00	92.98	3260.13	0.000	0.000	764.50	0.00	0.00
37	90.00	NNVV-65B-R4	3	7.475	8.222	0.55	0.75	21.97	623.92	0.000	0.000	180.61	0.00	0.00
38	90.00	AAHC	3	7.475	8.222	0.56	0.75	7.95	603.44	0.000	0.000	65.40	0.00	0.00
39	90.00	F3P-HRK10	1	7.475	8.222	1.00	1.00	10.27	647.56	0.000	0.000	84.43	0.00	0.00
40	90.00	ALU - 800 MHz - RRU	6	7.475	8.222	0.38	0.75	7.23	536.11	0.000	0.000	59.47	0.00	0.00
41	90.00	ALU - 1900MHz - RRU	3	7.475	8.222	0.38	0.75	5.27	272.26	0.000	0.000	43.30	0.00	0.00
42	90.00	Andrew - VHLP2-11	2	7.475	8.222	0.75	0.75	8.23	132.78	0.000	0.000	67.68	0.00	0.00
Totals:									28,936.48			5,265.02		

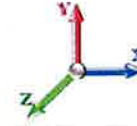
Total Applied Force Summary

Structure: CT13064-A-SBA	Code: TIA-222-H	9/27/2023
Site Name: Middletown 2 CT	Exposure: C	
Height: 130.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Page: 25
	Struct Class: II	



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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 20

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		125.39	1429.91	0.00	0.00
10.00		123.50	1431.02	0.00	0.00
10.25		6.12	71.17	0.00	0.00
15.00		115.36	1352.23	0.00	0.00
20.00		126.70	1412.92	0.00	0.00
20.50		12.61	140.46	0.00	0.00
25.00		117.30	1263.97	0.00	0.00
25.96		24.97	269.79	0.00	0.00
26.88		24.02	258.07	0.00	0.00
27.88		26.22	279.98	0.00	0.00
30.00		56.12	591.72	0.00	0.00
35.00		134.94	1377.24	0.00	0.00
40.00		136.15	1360.42	0.00	0.00
40.50		13.50	135.17	0.00	0.00
40.71		5.67	56.72	0.00	0.00
43.33		71.36	706.05	0.00	0.00
45.00		45.91	641.09	0.00	0.00
48.00		83.00	1145.60	0.00	0.00
48.12		3.30	28.74	0.00	0.00
50.00		51.92	449.04	0.00	0.00
55.00		138.95	1169.68	0.00	0.00
60.00		138.61	1153.28	0.00	0.00
60.71		19.49	162.70	0.00	0.00
60.75		1.10	9.16	0.00	0.00
65.00		117.11	961.25	0.00	0.00
70.00		137.16	1106.50	0.00	0.00
75.00		136.11	1090.76	0.00	0.00
78.25		87.60	700.85	0.00	0.00
80.00		46.84	374.76	0.00	0.00
85.00		133.45	1037.84	0.00	0.00
87.42		63.74	493.69	0.00	0.00
90.00	(19) attachments	1333.91	6785.61	0.00	0.00
91.33		35.15	356.88	0.00	0.00
95.00		96.29	635.23	0.00	0.00
100.00	(21) attachments	1078.58	6804.90	0.00	0.00
105.00		127.94	783.11	0.00	0.00
110.00	(23) attachments	605.80	4759.99	0.00	6.01
115.00		123.68	674.09	0.00	0.00
120.00	(11) attachments	975.64	4735.05	0.00	0.00
125.00		92.35	582.12	0.00	0.00
130.00	(41) attachments	1809.93	9426.74	0.00	2.54
	Totals:	8,603.43	58,205.47	0.00	8.55

Linear Appurtenance Segment Forces (Factored)

Structure: CT13064-A-SBA
Site Name: Middletown 2 CT
Height: 130.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: TIA-222-H
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

9/27/2023

Page: 26



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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 20

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	2" Conduit	Yes	5.00	0.000	2.00	1.52	0.00	0.070	0.000	5.133	0.00	57.50
5.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	1.11	0.00	0.070	0.000	5.133	0.00	18.74
5.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.070	0.000	5.133	0.00	18.74
10.00	2" Conduit	Yes	5.00	0.000	2.00	1.57	0.00	0.071	0.000	5.133	0.00	59.51
10.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	1.16	0.00	0.071	0.000	5.133	0.00	20.29
10.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.071	0.000	5.133	0.00	20.29
10.25	2" Conduit	Yes	0.25	0.000	2.00	0.08	0.00	0.072	0.000	5.133	0.00	2.98
10.25	1" Reinforcing plate	Yes	0.25	0.000	1.00	0.06	0.00	0.072	0.000	5.133	0.00	1.02
10.25	1" Reinforcing plate	Yes	0.25	0.000	0.00	0.00	0.00	0.072	0.000	5.133	0.00	1.02
15.00	2" Conduit	Yes	4.75	0.000	2.00	1.52	0.00	0.073	0.000	5.133	0.00	57.73
15.00	1" Reinforcing plate	Yes	4.75	0.000	1.00	1.13	0.00	0.073	0.000	5.133	0.00	20.20
15.00	1" Reinforcing plate	Yes	4.75	0.000	0.00	0.00	0.00	0.073	0.000	5.133	0.00	20.20
20.00	2" Conduit	Yes	5.00	0.000	2.00	1.63	0.00	0.074	0.000	5.446	0.00	61.71
20.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	1.21	0.00	0.074	0.000	5.446	0.00	21.99
20.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.074	0.000	5.446	0.00	21.99
20.50	2" Conduit	Yes	0.50	0.000	2.00	0.16	0.00	0.075	0.000	5.474	0.00	6.18
20.50	1" Reinforcing plate	Yes	0.50	0.000	1.00	0.12	0.00	0.075	0.000	5.474	0.00	2.21
20.50	1" Reinforcing plate	Yes	0.50	0.000	0.00	0.00	0.00	0.075	0.000	5.474	0.00	2.21
25.00	2" Conduit	Yes	4.50	0.000	2.00	1.48	0.00	0.076	0.000	5.708	0.00	56.21
25.00	1" Reinforcing plate	Yes	4.50	0.000	1.00	1.10	0.00	0.076	0.000	5.708	0.00	20.32
25.00	1" Reinforcing plate	Yes	1.67	0.000	0.00	0.00	0.00	0.076	0.000	5.708	0.00	4.74
25.00	1" Reinforcing plate	Yes	4.50	0.000	0.00	0.00	0.00	0.076	0.000	5.708	0.00	20.32
25.96	2" Conduit	Yes	0.96	0.000	2.00	0.32	0.00	0.077	0.000	5.753	0.00	12.02
25.96	1" Reinforcing plate	Yes	0.96	0.000	1.00	0.24	0.00	0.077	0.000	5.753	0.00	4.35
25.96	1" Reinforcing plate	Yes	0.96	0.000	0.00	0.00	0.00	0.077	0.000	5.753	0.00	2.74
25.96	1" Reinforcing plate	Yes	0.96	0.000	0.00	0.00	0.00	0.077	0.000	5.753	0.00	4.35
26.88	2" Conduit	Yes	0.92	0.000	2.00	0.30	0.00	0.077	0.000	5.796	0.00	11.54
26.88	1" Reinforcing plate	Yes	0.92	0.000	1.00	0.23	0.00	0.077	0.000	5.796	0.00	4.19
26.88	1" Reinforcing plate	Yes	0.92	0.000	0.00	0.00	0.00	0.077	0.000	5.796	0.00	2.63
26.88	1" Reinforcing plate	Yes	0.92	0.000	0.00	0.00	0.00	0.077	0.000	5.796	0.00	4.19
27.88	2" Conduit	Yes	1.00	0.000	2.00	0.33	0.00	0.077	0.000	5.841	0.00	12.57
27.88	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.25	0.00	0.077	0.000	5.841	0.00	4.57
27.88	1" Reinforcing plate	Yes	1.00	0.000	0.00	0.00	0.00	0.077	0.000	5.841	0.00	2.88
27.88	1" Reinforcing plate	Yes	1.00	0.000	0.00	0.00	0.00	0.077	0.000	5.841	0.00	4.57
30.00	2" Conduit	Yes	2.12	0.000	2.00	0.70	0.00	0.078	0.000	5.931	0.00	26.75
30.00	1" Reinforcing plate	Yes	2.12	0.000	1.00	0.53	0.00	0.078	0.000	5.931	0.00	9.78
30.00	1" Reinforcing plate	Yes	2.12	0.000	0.00	0.00	0.00	0.078	0.000	5.931	0.00	6.16
30.00	1" Reinforcing plate	Yes	2.12	0.000	0.00	0.00	0.00	0.078	0.000	5.931	0.00	9.78
35.00	2" Conduit	Yes	5.00	0.000	2.00	1.67	0.00	0.079	0.000	6.127	0.00	63.64
35.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	1.25	0.00	0.079	0.000	6.127	0.00	23.50
35.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.079	0.000	6.127	0.00	14.84
35.00	1" Reinforcing plate	Yes	4.50	0.000	0.00	0.00	0.00	0.079	0.000	6.127	0.00	13.36
35.00	1" Reinforcing plate	Yes	0.50	0.000	0.00	0.00	0.00	0.079	0.000	6.127	0.00	2.35
40.00	2" Conduit	Yes	5.00	0.000	2.00	1.68	0.00	0.081	0.000	6.302	0.00	64.12
40.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	1.27	0.00	0.081	0.000	6.302	0.00	23.88
40.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.081	0.000	6.302	0.00	15.11
40.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.081	0.000	6.302	0.00	15.11

Linear Appurtenance Segment Forces (Factored)

Structure: CT13064-A-SBA
Site Name: Middletown 2 CT
Height: 130.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

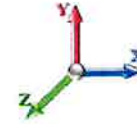
Code: TIA-222-H
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

9/27/2023
 Page: 27



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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 20

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)
40.50	2" Conduit	Yes	0.50	0.000	2.00	0.17	0.00	0.082	0.000	6.318	0.00	6.42
40.50	1" Reinforcing plate	Yes	0.50	0.000	1.00	0.13	0.00	0.082	0.000	6.318	0.00	2.39
40.50	1" Reinforcing plate	Yes	0.50	0.000	0.00	0.00	0.00	0.082	0.000	6.318	0.00	1.51
40.50	1" Reinforcing plate	Yes	0.50	0.000	0.00	0.00	0.00	0.082	0.000	6.318	0.00	1.51
40.71	2" Conduit	Yes	0.21	0.000	2.00	0.07	0.00	0.082	0.000	6.325	0.00	2.70
40.71	1" Reinforcing plate	Yes	0.21	0.000	1.00	0.05	0.00	0.082	0.000	6.325	0.00	1.00
40.71	1" Reinforcing plate	Yes	0.21	0.000	0.00	0.00	0.00	0.082	0.000	6.325	0.00	0.64
40.71	1" Reinforcing plate	Yes	0.21	0.000	0.00	0.00	0.00	0.082	0.000	6.325	0.00	0.64
40.71	1" Reinforcing plate	Yes	0.21	0.000	0.00	0.00	0.00	0.082	0.000	6.325	0.00	0.64
43.33	2" Conduit	Yes	2.62	0.000	2.00	0.89	0.00	0.082	0.000	6.409	0.00	33.80
43.33	1" Reinforcing plate	Yes	2.62	0.000	1.00	0.67	0.00	0.082	0.000	6.409	0.00	12.65
43.33	1" Reinforcing plate	Yes	2.62	0.000	0.00	0.00	0.00	0.082	0.000	6.409	0.00	8.02
43.33	1" Reinforcing plate	Yes	2.62	0.000	0.00	0.00	0.00	0.082	0.000	6.409	0.00	8.02
43.33	1" Reinforcing plate	Yes	2.62	0.000	0.00	0.00	0.00	0.082	0.000	6.409	0.00	8.02
45.00	2" Conduit	Yes	1.67	0.000	2.00	0.56	0.00	0.083	0.000	6.460	0.00	21.52
45.00	1" Reinforcing plate	Yes	1.67	0.000	1.00	0.43	0.00	0.083	0.000	6.460	0.00	8.07
45.00	1" Reinforcing plate	Yes	1.67	0.000	0.00	0.00	0.00	0.083	0.000	6.460	0.00	5.12
45.00	1" Reinforcing plate	Yes	1.67	0.000	0.00	0.00	0.00	0.083	0.000	6.460	0.00	5.12
45.00	1" Reinforcing plate	Yes	1.67	0.000	0.00	0.00	0.00	0.083	0.000	6.460	0.00	5.12
48.00	2" Conduit	Yes	3.00	0.000	2.00	1.02	0.00	0.084	0.000	6.548	0.00	38.88
48.00	1" Reinforcing plate	Yes	3.00	0.000	1.00	0.77	0.00	0.084	0.000	6.548	0.00	14.64
48.00	1" Reinforcing plate	Yes	3.00	0.000	0.00	0.00	0.00	0.084	0.000	6.548	0.00	9.30
48.00	1" Reinforcing plate	Yes	3.00	0.000	0.00	0.00	0.00	0.084	0.000	6.548	0.00	9.30
48.00	1" Reinforcing plate	Yes	3.00	0.000	0.00	0.00	0.00	0.084	0.000	6.548	0.00	9.30
48.12	2" Conduit	Yes	0.12	0.000	2.00	0.04	0.00	0.083	0.000	6.552	0.00	1.56
48.12	1" Reinforcing plate	Yes	0.12	0.000	1.00	0.03	0.00	0.083	0.000	6.552	0.00	0.59
48.12	1" Reinforcing plate	Yes	0.12	0.000	0.00	0.00	0.00	0.083	0.000	6.552	0.00	0.37
48.12	1" Reinforcing plate	Yes	0.12	0.000	0.00	0.00	0.00	0.083	0.000	6.552	0.00	0.37
50.00	2" Conduit	Yes	1.88	0.000	2.00	0.64	0.00	0.084	0.000	6.605	0.00	24.42
50.00	1" Reinforcing plate	Yes	1.88	0.000	1.00	0.48	0.00	0.084	0.000	6.605	0.00	9.22
50.00	1" Reinforcing plate	Yes	1.88	0.000	0.00	0.00	0.00	0.084	0.000	6.605	0.00	5.86
50.00	1" Reinforcing plate	Yes	1.88	0.000	0.00	0.00	0.00	0.084	0.000	6.605	0.00	5.86
50.00	1" Reinforcing plate	Yes	1.88	0.000	0.00	0.00	0.00	0.084	0.000	6.605	0.00	5.86
55.00	2" Conduit	Yes	5.00	0.000	2.00	1.71	0.00	0.085	0.000	6.739	0.00	65.31
55.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	1.29	0.00	0.085	0.000	6.739	0.00	24.81
55.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.085	0.000	6.739	0.00	15.79
55.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.085	0.000	6.739	0.00	1.58
55.00	1" Reinforcing plate	Yes	0.50	0.000	0.00	0.00	0.00	0.085	0.000	6.739	0.00	1.58
60.00	2" Conduit	Yes	5.00	0.000	2.00	1.72	0.00	0.087	0.000	6.863	0.00	65.64
60.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	1.30	0.00	0.087	0.000	6.863	0.00	25.07
60.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.087	0.000	6.863	0.00	15.98
60.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.087	0.000	6.863	0.00	15.98
60.71	2" Conduit	Yes	0.71	0.000	2.00	0.24	0.00	0.088	0.000	6.880	0.00	9.33
60.71	1" Reinforcing plate	Yes	0.71	0.000	1.00	0.18	0.00	0.088	0.000	6.880	0.00	3.56
60.71	1" Reinforcing plate	Yes	0.71	0.000	0.00	0.00	0.00	0.088	0.000	6.880	0.00	2.27
60.71	1" Reinforcing plate	Yes	0.71	0.000	0.00	0.00	0.00	0.088	0.000	6.880	0.00	2.27
60.75	2" Conduit	Yes	0.04	0.000	2.00	0.01	0.00	0.088	0.000	6.881	0.00	0.53
60.75	1" Reinforcing plate	Yes	0.04	0.000	1.00	0.01	0.00	0.088	0.000	6.881	0.00	0.20
60.75	1" Reinforcing plate	Yes	0.04	0.000	0.00	0.00	0.00	0.088	0.000	6.881	0.00	0.13
60.75	1" Reinforcing plate	Yes	0.04	0.000	0.00	0.00	0.00	0.088	0.000	6.881	0.00	0.13
65.00	2" Conduit	Yes	4.25	0.000	2.00	1.47	0.00	0.089	0.000	6.980	0.00	56.06
65.00	1" Reinforcing plate	Yes	4.25	0.000	1.00	1.11	0.00	0.089	0.000	6.980	0.00	21.51
65.00	1" Reinforcing plate	Yes	4.25	0.000	0.00	0.00	0.00	0.089	0.000	6.980	0.00	8.34
65.00	1" Reinforcing plate	Yes	2.58	0.000	0.00	0.00	0.00	0.089	0.000	6.980	0.00	8.34
70.00	2" Conduit	Yes	5.00	0.000	2.00	1.73	0.00	0.091	0.000	7.090	0.00	66.24
70.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	1.32	0.00	0.091	0.000	7.090	0.00	25.54
70.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	1.32	0.00	0.091	0.000	7.090	0.00	25.54
75.00	2" Conduit	Yes	5.00	0.000	2.00	1.74	0.00	0.093	0.000	7.193	0.00	66.52

Linear Appurtenance Segment Forces (Factored)

Structure: CT13064-A-SBA
Site Name: Middletown 2 CT
Height: 130.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: TIA-222-H
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

9/27/2023
 Page: 28



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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 20

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)
75.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	1.32	0.00	0.093	0.000	7.193	0.00	25.75
78.25	2" Conduit	Yes	3.25	0.000	2.00	1.13	0.00	0.095	0.000	7.258	0.00	43.35
78.25	1" Reinforcing plate	Yes	3.25	0.000	1.00	0.86	0.00	0.095	0.000	7.258	0.00	16.83
80.00	2" Conduit	Yes	1.75	0.000	2.00	0.61	0.00	0.096	0.000	7.292	0.00	23.37
80.00	1" Reinforcing plate	Yes	1.75	0.000	1.00	0.46	0.00	0.096	0.000	7.292	0.00	9.09
85.00	2" Conduit	Yes	5.00	0.000	2.00	1.75	0.00	0.072	0.000	7.385	0.00	67.02
85.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.27	0.00	0.072	0.000	7.385	0.00	5.23
87.42	2" Conduit	Yes	2.42	0.000	2.00	0.85	0.00	0.067	0.000	7.429	0.00	32.45
90.00	2" Conduit	Yes	2.58	0.000	2.00	0.91	0.00	0.067	0.000	7.475	0.00	34.75
91.33	2" Conduit	Yes	1.33	0.000	2.00	0.47	0.00	0.068	0.000	7.498	0.00	17.95
95.00	2" Conduit	Yes	3.67	0.000	2.00	1.29	0.00	0.068	0.000	7.560	0.00	49.48
100.00	2" Conduit	Yes	5.00	0.000	2.00	1.76	0.00	0.070	0.000	7.642	0.00	67.68
105.00	2" Conduit	Yes	5.00	0.000	2.00	1.77	0.00	0.072	0.000	7.721	0.00	67.88
110.00	2" Conduit	Yes	5.00	0.000	2.00	1.77	0.00	0.074	0.000	7.797	0.00	68.08
115.00	2" Conduit	Yes	5.00	0.000	2.00	1.78	0.00	0.076	0.000	7.871	0.00	68.26
120.00	2" Conduit	Yes	5.00	0.000	2.00	1.78	0.00	0.078	0.000	7.942	0.00	68.44
125.00	2" Conduit	Yes	5.00	0.000	2.00	1.79	0.00	0.111	1.033	8.010	0.00	68.62
130.00	2" Conduit	Yes	5.00	0.000	2.00	1.79	0.00	0.111	1.033	8.077	0.00	68.79
Totals:											0.0	2,391.9

Calculated Forces

Structure: CT13064-A-SBA
Site Name: Middletown 2 CT
Height: 130.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Topography: 1

Code: TIA-222-H
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 20

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	-58.20	-8.63	0.00	-860.15	0.00	860.15	2818.94	734.35	2570.40	2448.04	0.00	0.000	0.000	0.176
5.00	-56.76	-8.57	0.00	-816.99	0.00	816.99	2786.10	720.83	2476.65	2374.66	0.03	-0.060	0.000	0.170
10.00	-55.33	-8.47	0.00	-774.15	0.00	774.15	2752.56	707.32	2384.65	2301.75	0.13	-0.119	0.000	0.165
10.25	-55.25	-8.49	0.00	-772.04	0.00	772.04	2750.86	706.64	2380.10	2298.12	0.13	-0.123	0.000	0.164
15.00	-53.89	-8.42	0.00	-731.72	0.00	731.72	2718.29	693.80	2294.39	2229.33	0.28	-0.166	0.000	0.167
20.00	-52.48	-8.32	0.00	-689.63	0.00	689.63	2683.32	680.29	2205.87	2157.44	0.48	-0.227	0.000	0.161
20.50	-52.33	-8.33	0.00	-685.48	0.00	685.48	2679.78	678.93	2197.11	2150.28	0.51	-0.233	0.000	0.160
25.00	-51.06	-8.23	0.00	-648.00	0.00	648.00	2647.62	666.77	2119.09	2086.12	0.75	-0.278	0.000	0.155
25.96	-50.79	-8.21	0.00	-640.10	0.00	640.10	2640.69	664.18	2102.62	2072.49	0.81	-0.290	0.000	0.153
26.88	-50.53	-8.20	0.00	-632.55	0.00	632.55	2634.02	661.69	2086.91	2059.45	0.86	-0.300	0.000	0.134
27.88	-50.25	-8.18	0.00	-624.35	0.00	624.35	2626.74	658.99	2069.89	2045.30	0.93	-0.311	0.000	0.159
30.00	-49.65	-8.16	0.00	-607.00	0.00	607.00	2611.22	653.25	2034.05	2015.39	1.07	-0.335	0.000	0.156
35.00	-48.27	-8.07	0.00	-566.19	0.00	566.19	2574.10	639.74	1950.75	1945.30	1.45	-0.397	0.000	0.149
40.00	-46.90	-7.95	0.00	-525.85	0.00	525.85	2536.26	626.22	1869.20	1875.87	1.90	-0.457	0.000	0.142
40.50	-46.77	-7.94	0.00	-521.87	0.00	521.87	2532.44	624.87	1861.14	1868.96	1.95	-0.463	0.000	0.141
40.71	-46.71	-7.95	0.00	-520.20	0.00	520.20	2530.83	624.30	1857.76	1866.07	1.97	-0.465	0.000	0.141
43.33	-46.00	-7.89	0.00	-499.36	0.00	499.36	2510.64	617.21	1815.79	1829.97	2.23	-0.492	0.000	0.137
45.00	-45.36	-7.86	0.00	-486.22	0.00	486.22	2497.71	612.71	1789.38	1807.14	2.41	-0.512	0.000	0.133
48.00	-44.21	-7.78	0.00	-462.65	0.00	462.65	1854.44	491.51	1439.37	1347.80	2.74	-0.547	0.000	0.141
48.12	-44.18	-7.78	0.00	-461.71	0.00	461.71	1853.85	491.25	1437.86	1346.66	2.76	-0.548	0.000	0.153
50.00	-43.72	-7.76	0.00	-447.08	0.00	447.08	1844.56	487.19	1414.16	1328.74	2.98	-0.571	0.000	0.176
55.00	-42.55	-7.66	0.00	-408.27	0.00	408.27	1819.35	476.37	1352.08	1281.29	3.61	-0.641	0.000	0.165
60.00	-41.39	-7.54	0.00	-369.97	0.00	369.97	1793.44	465.56	1291.40	1234.16	4.32	-0.708	0.000	0.154
60.71	-41.23	-7.52	0.00	-364.61	0.00	364.61	1789.70	464.03	1282.90	1227.50	4.43	-0.717	0.000	0.152
60.75	-41.22	-7.54	0.00	-364.31	0.00	364.31	1789.49	463.94	1282.42	1227.12	4.43	-0.718	0.000	0.192
65.00	-40.25	-7.45	0.00	-332.29	0.00	332.29	1766.81	454.75	1232.11	1187.39	5.09	-0.767	0.000	0.180
70.00	-39.13	-7.35	0.00	-295.03	0.00	295.03	1739.46	443.94	1174.22	1141.01	5.94	-0.844	0.000	0.165
75.00	-38.04	-7.23	0.00	-258.29	0.00	258.29	1711.40	433.12	1117.71	1095.05	6.86	-0.916	0.000	0.150
78.25	-37.33	-7.16	0.00	-234.78	0.00	234.78	1692.78	426.10	1081.74	1065.41	7.50	-0.960	0.000	0.140
78.25	-37.33	-7.16	0.00	-234.78	0.00	234.78	1692.78	426.10	1081.74	1065.41	7.50	-0.960	0.000	0.228
80.00	-36.95	-7.15	0.00	-222.25	0.00	222.25	1682.63	422.31	1062.61	1049.54	7.86	-0.983	0.000	0.234
85.00	-35.91	-7.04	0.00	-186.52	0.00	186.52	1653.14	411.50	1008.89	1004.53	8.94	-1.087	0.000	0.208
87.42	-35.41	-7.00	0.00	-169.51	0.00	169.51	1638.63	406.27	983.43	982.97	9.51	-1.135	0.000	0.194
90.00	-28.65	-5.54	0.00	-151.43	0.00	151.43	1622.94	400.69	956.57	960.05	10.13	-1.182	0.000	0.176
91.33	-28.29	-5.52	0.00	-144.04	0.00	144.04	1099.39	302.92	728.96	657.00	10.47	-1.205	0.000	0.245
95.00	-27.65	-5.45	0.00	-123.80	0.00	123.80	1087.40	296.97	700.62	637.00	11.42	-1.265	0.000	0.220
100.00	-20.86	-4.24	0.00	-96.55	0.00	96.55	1070.43	288.87	662.88	609.82	12.79	-1.356	0.000	0.178
105.00	-20.08	-4.12	0.00	-75.33	0.00	75.33	1052.74	280.76	626.19	582.80	14.25	-1.433	0.000	0.149
110.00	-15.33	-3.41	0.00	-54.71	0.00	54.71	1034.34	272.65	590.53	555.96	15.79	-1.496	0.000	0.113
115.00	-14.66	-3.28	0.00	-37.66	0.00	37.66	1015.23	264.54	555.93	529.34	17.39	-1.545	0.000	0.086
120.00	-9.95	-2.18	0.00	-21.27	0.00	21.27	995.40	256.43	522.37	502.97	19.02	-1.579	0.000	0.052
120.00	-9.95	-2.18	0.00	-21.27	0.00	21.27	735.22	244.66	14507.7	335.79	19.02	-1.579	0.000	0.077
125.00	-9.37	-2.07	0.00	-10.37	0.00	10.37	735.22	244.66	14507.7	335.79	20.69	-1.600	0.000	0.044
130.00	0.00	-1.81	0.00	0.00	0.00	0.00	735.22	244.66	14507.7	335.79	22.37	-1.613	0.000	0.000

Seismic Segment Forces (Factored)

Structure: CT13064-A-SBA
Site Name: Middletown 2 CT
Height: 130.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: TIA-222-H
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

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Load Case: 1.2D + 1.0Ev + 1.0Eh

Iterations 18

Gust Response Factor 1.10

Sds 0.23

Ss 0.21

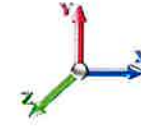
Dead Load Factor 1.20 **Seismic Load Factor** 1.00

Sd1 0.09

S1 0.06

Wind Load Factor 0.00 **Structure Frequency (f1)** 0.24

SA 0.02 **Seismic Importance Factor** 1.00



Top Elev (ft)	Description	Wz (lb)	Hz (lb)	Vertical Ev (lb)	Lateral Fs (lb)	R: 1.50
0.00	RB1 RB2	0.00	0.00	0.00	0.00	
5.00		1004.3	2.50	45.21	0.00	
10.00		991.25	7.50	44.62	0.03	
10.25	RT2 RB3 RB4	49.22	10.13	2.22	0.00	
15.00		928.93	12.63	41.81	0.06	
20.00		965.05	17.50	43.44	0.13	
20.50	RT1 RB5	95.78	20.25	4.31	0.00	
25.00		856.16	22.75	38.54	0.18	
25.96	RB6	181.27	25.48	8.16	0.01	
26.88	RT4	173.27	26.42	7.80	0.01	
27.88	RT3 RB7	187.83	27.38	8.45	0.01	
30.00		396.47	28.94	17.85	0.06	
35.00		925.74	32.50	41.67	0.42	
40.00		912.64	37.50	41.08	0.54	
40.50	RT5 RB8	90.54	40.25	4.08	0.01	
40.71	RT6 RB9	37.99	40.61	1.71	0.00	
43.33	Bot - Section 2	472.61	42.02	21.27	0.18	
45.00		459.90	44.17	20.70	0.19	
48.00	Top - Section 1	821.22	46.50	36.97	0.67	
48.12	RT7	18.61	48.06	0.84	0.00	
50.00		290.75	49.06	13.09	0.09	
55.00		766.06	52.50	34.48	0.75	
60.00		755.57	57.50	34.01	0.87	
60.71	RT9	106.44	60.36	4.79	0.02	
60.75	RT8 RB10	5.99	60.73	0.27	0.00	
65.00		632.66	62.88	28.48	0.73	
70.00		734.61	67.50	33.07	1.14	
75.00		724.13	72.50	32.60	1.27	
78.25	RT10	465.06	76.63	20.93	0.59	
80.00		248.58	79.13	11.19	0.18	
85.00		703.16	82.50	31.65	1.55	
87.42	Bot - Section 3	336.10	86.21	15.13	0.39	
90.00	Appurtenance(s)	4071.6	88.71	183.28	60.25	
91.33	Top - Section 2	254.84	90.67	11.47	0.25	
95.00		414.10	93.17	18.64	0.69	
100.00	Appurtenance(s)	3856.3	97.50	173.59	65.30	
105.00		492.77	102.50	22.18	1.18	
110.00	Appurtenance(s)	2015.1	107.50	90.71	21.67	
115.00		395.57	112.50	17.81	0.91	
120.00	Top - Section 3	2746.8	117.50	123.64	48.11	
125.00		361.45	122.50	16.27	0.91	
130.00	Appurtenance(s)	5218.7	127.50	234.91	204.49	
Totals:		35,165.3		1,582.9	413.8	Total Wind: 32,975.8

Calculated Forces

Structure: CT13064-A-SBA
Site Name: Middletown 2 CT
Height: 130.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: TIA-222-H
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

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Load Case: 1.2D + 1.0Ev + 1.0Eh						Iterations 18
Gust Response Factor	1.10	Sds	0.23	Ss	0.21	
Dead Load Factor	1.20	Seismic Load Factor	1.00	Sd1	0.09	
Wind Load Factor	0.00	Structure Frequency (f1)	0.24	SA	0.02	
Seismic Importance Factor 1.00						

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-42.40	-0.41	0.00	-50.09	0.00	50.09	2818.94	734.35	2570.40	2448.04	0.00	0.00	0.00	0.016
5.00	-41.21	-0.42	0.00	-48.02	0.00	48.02	2786.10	720.83	2476.65	2374.66	0.00	0.00	0.00	0.016
10.00	-40.04	-0.42	0.00	-45.94	0.00	45.94	2752.56	707.32	2384.65	2301.75	0.01	-0.01	0.016	0.016
10.25	-39.98	-0.42	0.00	-45.83	0.00	45.83	2750.86	706.64	2380.10	2298.12	0.01	-0.01	0.016	0.016
15.00	-38.88	-0.42	0.00	-43.84	0.00	43.84	2718.29	693.80	2294.39	2229.33	0.02	-0.01	0.016	0.016
20.00	-37.74	-0.42	0.00	-41.74	0.00	41.74	2683.32	680.29	2205.87	2157.44	0.03	-0.01	0.015	0.015
20.50	-37.63	-0.42	0.00	-41.53	0.00	41.53	2679.78	678.93	2197.11	2150.28	0.03	-0.01	0.015	0.015
25.00	-36.61	-0.42	0.00	-39.62	0.00	39.62	2647.62	666.77	2119.09	2086.12	0.04	-0.02	0.015	0.015
25.96	-36.40	-0.42	0.00	-39.22	0.00	39.22	2640.69	664.18	2102.62	2072.49	0.05	-0.02	0.015	0.015
26.88	-36.20	-0.42	0.00	-38.83	0.00	38.83	2634.02	661.69	2086.91	2059.45	0.05	-0.02	0.013	0.013
27.88	-35.97	-0.42	0.00	-38.40	0.00	38.40	2626.74	658.99	2069.89	2045.30	0.05	-0.02	0.015	0.015
30.00	-35.51	-0.43	0.00	-37.50	0.00	37.50	2611.22	653.25	2034.05	2015.39	0.06	-0.02	0.015	0.015
35.00	-34.41	-0.43	0.00	-35.37	0.00	35.37	2574.10	639.74	1950.75	1945.30	0.09	-0.02	0.015	0.015
40.00	-33.34	-0.43	0.00	-33.23	0.00	33.23	2536.26	626.22	1869.20	1875.87	0.11	-0.03	0.014	0.014
40.50	-33.23	-0.43	0.00	-33.02	0.00	33.02	2532.44	624.87	1861.14	1868.96	0.12	-0.03	0.014	0.014
40.71	-33.18	-0.43	0.00	-32.93	0.00	32.93	2530.83	624.30	1857.76	1866.07	0.12	-0.03	0.014	0.014
43.33	-32.63	-0.43	0.00	-31.80	0.00	31.80	2510.64	617.21	1815.79	1829.97	0.13	-0.03	0.014	0.014
45.00	-32.08	-0.43	0.00	-31.09	0.00	31.09	2497.71	612.71	1789.38	1807.14	0.14	-0.03	0.013	0.013
48.00	-31.09	-0.43	0.00	-29.80	0.00	29.80	1854.44	491.51	1439.37	1347.80	0.16	-0.03	0.014	0.014
48.12	-31.07	-0.43	0.00	-29.75	0.00	29.75	1853.85	491.25	1437.86	1346.66	0.17	-0.03	0.015	0.015
50.00	-30.73	-0.43	0.00	-28.94	0.00	28.94	1844.56	487.19	1414.16	1328.74	0.18	-0.03	0.018	0.018
55.00	-29.83	-0.43	0.00	-26.79	0.00	26.79	1819.35	476.37	1352.08	1281.29	0.22	-0.04	0.017	0.017
60.00	-28.95	-0.43	0.00	-24.63	0.00	24.63	1793.44	465.56	1291.40	1234.16	0.26	-0.04	0.016	0.016
60.71	-28.83	-0.43	0.00	-24.32	0.00	24.32	1789.70	464.03	1282.90	1227.50	0.27	-0.04	0.016	0.016
60.75	-28.82	-0.43	0.00	-24.30	0.00	24.30	1789.49	463.94	1282.42	1227.12	0.27	-0.04	0.020	0.020
65.00	-28.08	-0.43	0.00	-22.47	0.00	22.47	1766.81	454.75	1232.11	1187.39	0.31	-0.05	0.020	0.020
70.00	-27.23	-0.43	0.00	-20.30	0.00	20.30	1739.46	443.94	1174.22	1141.01	0.36	-0.05	0.019	0.019
75.00	-26.39	-0.43	0.00	-18.13	0.00	18.13	1711.40	433.12	1117.71	1095.05	0.42	-0.06	0.018	0.018
78.25	-25.85	-0.43	0.00	-16.72	0.00	16.72	1692.78	426.10	1081.74	1065.41	0.46	-0.06	0.017	0.017
78.25	-25.85	-0.43	0.00	-16.72	0.00	16.72	1692.78	426.10	1081.74	1065.41	0.46	-0.06	0.023	0.023
80.00	-25.56	-0.44	0.00	-15.97	0.00	15.97	1682.63	422.31	1062.61	1049.54	0.48	-0.06	0.030	0.030
85.00	-24.74	-0.43	0.00	-13.79	0.00	13.79	1653.14	411.50	1008.89	1004.53	0.56	-0.07	0.029	0.029
87.42	-24.35	-0.44	0.00	-12.74	0.00	12.74	1638.63	406.27	983.43	982.97	0.59	-0.07	0.028	0.028
90.00	-19.32	-0.37	0.00	-11.61	0.00	11.61	1622.94	400.69	956.57	960.05	0.63	-0.08	0.024	0.024
91.33	-19.01	-0.37	0.00	-11.12	0.00	11.12	1099.39	302.92	728.96	657.00	0.65	-0.08	0.034	0.034
95.00	-18.54	-0.37	0.00	-9.76	0.00	9.76	1087.40	296.97	700.62	637.00	0.72	-0.08	0.032	0.032
100.00	-13.79	-0.30	0.00	-7.91	0.00	7.91	1070.43	288.87	662.88	609.82	0.81	-0.09	0.026	0.026
105.00	-13.22	-0.30	0.00	-6.41	0.00	6.41	1052.74	280.76	626.19	582.80	0.91	-0.10	0.024	0.024
110.00	-10.76	-0.27	0.00	-4.92	0.00	4.92	1034.34	272.65	590.53	555.96	1.01	-0.10	0.019	0.019
115.00	-10.29	-0.27	0.00	-3.55	0.00	3.55	1015.23	264.54	555.93	529.34	1.13	-0.11	0.017	0.017
120.00	-6.90	-0.22	0.00	-2.18	0.00	2.18	995.40	256.43	522.37	502.97	1.24	-0.11	0.011	0.011
120.00	-6.90	-0.22	0.00	-2.18	0.00	2.18	735.22	244.66	14507.7	335.79	1.24	-0.11	0.016	0.016
125.00	-6.47	-0.22	0.00	-1.09	0.00	1.09	735.22	244.66	14507.7	335.79	1.36	-0.11	0.012	0.012
130.00	0.00	-0.20	0.00	0.00	0.00	0.00	735.22	244.66	14507.7	335.79	1.48	-0.11	0.000	0.000

Seismic Segment Forces (Factored)

Structure: CT13064-A-SBA
Site Name: Middletown 2 CT
Height: 130.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: TIA-222-H
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

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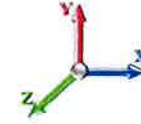
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Load Case: 0.9D + 1.0Ev + 1.0Eh

Iterations 18

Gust Response Factor	1.10	Sds	0.23	Ss	0.21
Dead Load Factor	0.90	Seismic Load Factor	1.00	Sd1	0.09
Wind Load Factor	0.00	Structure Frequency (f1)	0.24	SA	0.02
				Seismic Importance Factor	1.00



Top Elev (ft)	Description	Wz (lb)	Hz (lb)	Vertical Ev (lb)	Lateral Fs (lb)	R: 1.50
0.00	RB1 RB2	0.00	0.00	0.00	0.00	
5.00		929.61	2.50	41.84	0.00	
10.00		916.51	7.50	41.25	0.02	
10.25	RT2 RB3 RB4	45.48	10.13	2.05	0.00	
15.00		857.92	12.63	38.62	0.06	
20.00		890.30	17.50	40.08	0.12	
20.50	RT1 RB5	88.31	20.25	3.98	0.00	
25.00		788.89	22.75	35.51	0.15	
25.96	RB6	166.92	25.48	7.51	0.01	
26.88	RT4	159.51	26.42	7.18	0.01	
27.88	RT3 RB7	172.88	27.38	7.78	0.01	
30.00		364.78	28.94	16.42	0.05	
35.00		850.99	32.50	38.31	0.36	
40.00		837.89	37.50	37.72	0.47	
40.50	RT5 RB8	83.07	40.25	3.74	0.01	
40.71	RT6 RB9	34.85	40.61	1.57	0.00	
43.33	Bot - Section 2	433.40	42.02	19.51	0.16	
45.00		434.98	44.17	19.58	0.18	
48.00	Top - Section 1	776.37	46.50	34.95	0.62	
48.12	RT7	16.81	48.06	0.76	0.00	
50.00		262.64	49.06	11.82	0.08	
55.00		691.31	52.50	31.12	0.62	
60.00		680.83	57.50	30.65	0.73	
60.71	RT9	95.83	60.36	4.31	0.02	
60.75	RT8 RB10	5.39	60.73	0.24	0.00	
65.00		569.12	62.88	25.62	0.61	
70.00		659.86	67.50	29.70	0.94	
75.00		649.38	72.50	29.23	1.05	
78.25	RT10	416.47	76.63	18.75	0.48	
80.00		222.42	79.13	10.01	0.15	
85.00		628.41	82.50	28.29	1.27	
87.42	Bot - Section 3	299.98	86.21	13.50	0.32	
90.00	Appurtenance(s)	4033.0	88.71	181.54	60.69	
91.33	Top - Section 2	236.58	90.67	10.65	0.22	
95.00		363.89	93.17	16.38	0.55	
100.00	Appurtenance(s)	3787.9	97.50	170.51	64.68	
105.00		438.61	102.50	19.74	0.96	
110.00	Appurtenance(s)	1960.9	107.50	88.27	21.07	
115.00		361.77	112.50	16.28	0.79	
120.00	Top - Section 3	2713.0	117.50	122.12	48.19	
125.00		330.38	122.50	14.87	0.78	
130.00	Appurtenance(s)	5187.6	127.50	233.51	207.45	
Totals:		33,444.8		1,505.5	413.8	Total Wind: 32,975.8

Calculated Forces

Structure: CT13064-A-SBA
Site Name: Middletown 2 CT
Height: 130.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: TIA-222-H
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

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Load Case: 0.9D + 1.0Ev + 1.0Eh						Iterations 18
Gust Response Factor	1.10	Sds	0.23	Ss	0.21	
Dead Load Factor	0.90	Seismic Load Factor	1.00	Sd1	0.09	
Wind Load Factor	0.00	Structure Frequency (f1)	0.24	SA	0.02	

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-32.12	-0.41	0.00	-49.63	0.00	49.63	2818.94	734.35	2570.40	2448.04		0.00	0.00	0.015
5.00	-31.22	-0.42	0.00	-47.56	0.00	47.56	2786.10	720.83	2476.65	2374.66		0.00	0.00	0.014
10.00	-30.33	-0.42	0.00	-45.48	0.00	45.48	2752.56	707.32	2384.65	2301.75		0.01	-0.01	0.014
10.25	-30.29	-0.42	0.00	-45.38	0.00	45.38	2750.86	706.64	2380.10	2298.12		0.01	-0.01	0.014
15.00	-29.46	-0.42	0.00	-43.39	0.00	43.39	2718.29	693.80	2294.39	2229.33		0.02	-0.01	0.014
20.00	-28.59	-0.42	0.00	-41.30	0.00	41.30	2683.32	680.29	2205.87	2157.44		0.03	-0.01	0.014
20.50	-28.51	-0.42	0.00	-41.09	0.00	41.09	2679.78	678.93	2197.11	2150.28		0.03	-0.01	0.014
25.00	-27.74	-0.42	0.00	-39.19	0.00	39.19	2647.62	666.77	2119.09	2086.12		0.04	-0.02	0.013
25.96	-27.58	-0.42	0.00	-38.79	0.00	38.79	2640.69	664.18	2102.62	2072.49		0.05	-0.02	0.013
26.88	-27.42	-0.42	0.00	-38.40	0.00	38.40	2634.02	661.69	2086.91	2059.45		0.05	-0.02	0.012
27.88	-27.26	-0.42	0.00	-37.98	0.00	37.98	2626.74	658.99	2069.89	2045.30		0.05	-0.02	0.014
30.00	-26.90	-0.42	0.00	-37.09	0.00	37.09	2611.22	653.25	2034.05	2015.39		0.06	-0.02	0.014
35.00	-26.08	-0.42	0.00	-34.97	0.00	34.97	2574.10	639.74	1950.75	1945.30		0.09	-0.02	0.013
40.00	-25.26	-0.42	0.00	-32.85	0.00	32.85	2536.26	626.22	1869.20	1875.87		0.11	-0.03	0.013
40.50	-25.18	-0.42	0.00	-32.64	0.00	32.64	2532.44	624.87	1861.14	1868.96		0.12	-0.03	0.013
40.71	-25.15	-0.42	0.00	-32.55	0.00	32.55	2530.83	624.30	1857.76	1866.07		0.12	-0.03	0.013
43.33	-24.73	-0.42	0.00	-31.44	0.00	31.44	2510.64	617.21	1815.79	1829.97		0.13	-0.03	0.012
45.00	-24.31	-0.43	0.00	-30.73	0.00	30.73	2497.71	612.71	1789.38	1807.14		0.14	-0.03	0.012
48.00	-23.56	-0.42	0.00	-29.45	0.00	29.45	1854.44	491.51	1439.37	1347.80		0.16	-0.03	0.013
48.12	-23.54	-0.43	0.00	-29.40	0.00	29.40	1853.85	491.25	1437.86	1346.66		0.16	-0.03	0.014
50.00	-23.29	-0.43	0.00	-28.60	0.00	28.60	1844.56	487.19	1414.16	1328.74		0.18	-0.03	0.016
55.00	-22.61	-0.43	0.00	-26.47	0.00	26.47	1819.35	476.37	1352.08	1281.29		0.22	-0.04	0.015
60.00	-21.94	-0.43	0.00	-24.34	0.00	24.34	1793.44	465.56	1291.40	1234.16		0.26	-0.04	0.015
60.71	-21.85	-0.43	0.00	-24.04	0.00	24.04	1789.70	464.03	1282.90	1227.50		0.27	-0.04	0.015
60.75	-21.85	-0.43	0.00	-24.02	0.00	24.02	1789.49	463.94	1282.42	1227.12		0.27	-0.04	0.018
65.00	-21.29	-0.43	0.00	-22.20	0.00	22.20	1766.81	454.75	1232.11	1187.39		0.31	-0.05	0.017
70.00	-20.64	-0.43	0.00	-20.06	0.00	20.06	1739.46	443.94	1174.22	1141.01		0.36	-0.05	0.017
75.00	-20.01	-0.43	0.00	-17.92	0.00	17.92	1711.40	433.12	1117.71	1095.05		0.42	-0.06	0.016
78.25	-19.60	-0.43	0.00	-16.53	0.00	16.53	1692.78	426.10	1081.74	1065.41		0.46	-0.06	0.015
78.25	-19.60	-0.43	0.00	-16.53	0.00	16.53	1692.78	426.10	1081.74	1065.41		0.46	-0.06	0.021
80.00	-19.38	-0.43	0.00	-15.79	0.00	15.79	1682.63	422.31	1062.61	1049.54		0.48	-0.06	0.027
85.00	-18.76	-0.43	0.00	-13.64	0.00	13.64	1653.14	411.50	1008.89	1004.53		0.55	-0.07	0.025
87.42	-18.47	-0.43	0.00	-12.61	0.00	12.61	1638.63	406.27	983.43	982.97		0.59	-0.07	0.024
90.00	-14.65	-0.36	0.00	-11.50	0.00	11.50	1622.94	400.69	956.57	960.05		0.63	-0.08	0.021
91.33	-14.42	-0.36	0.00	-11.01	0.00	11.01	1099.39	302.92	728.96	657.00		0.65	-0.08	0.030
95.00	-14.06	-0.36	0.00	-9.67	0.00	9.67	1087.40	296.97	700.62	637.00		0.71	-0.08	0.028
100.00	-10.46	-0.30	0.00	-7.85	0.00	7.85	1070.43	288.87	662.88	609.82		0.80	-0.09	0.023
105.00	-10.03	-0.30	0.00	-6.37	0.00	6.37	1052.74	280.76	626.19	582.80		0.90	-0.10	0.020
110.00	-8.16	-0.27	0.00	-4.89	0.00	4.89	1034.34	272.65	590.53	555.96		1.00	-0.10	0.017
115.00	-7.81	-0.27	0.00	-3.53	0.00	3.53	1015.23	264.54	555.93	529.34		1.11	-0.11	0.014
120.00	-5.23	-0.22	0.00	-2.18	0.00	2.18	995.40	256.43	522.37	502.97		1.23	-0.11	0.010
120.00	-5.23	-0.22	0.00	-2.18	0.00	2.18	735.22	244.66	14507.7	335.79		1.23	-0.11	0.014
125.00	-4.91	-0.22	0.00	-1.09	0.00	1.09	735.22	244.66	14507.7	335.79		1.34	-0.11	0.010
130.00	0.00	-0.21	0.00	0.00	0.00	0.00	735.22	244.66	14507.7	335.79		1.46	-0.11	0.000

Wind Loading - Shaft

Structure: CT13064-A-SBA
Site Name: Middletown 2 CT
Height: 130.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: TIA-222-H
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 20

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00	RB1 RB2	1.00	0.85	6.613	7.27	198.26	0.730	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	6.613	7.27	194.64	0.730	0.000	5.00	17.817	13.01	94.6	0.0	705.4
10.00		1.00	0.85	6.613	7.27	191.01	0.730	0.000	5.00	17.489	12.77	92.9	0.0	692.3
10.25	RT2 RB3 RB4	1.00	0.85	6.613	7.27	190.83	0.730	0.000	0.25	0.866	0.63	4.6	0.0	34.3
15.00		1.00	0.85	6.613	7.27	187.39	0.730	0.000	4.75	16.294	11.89	86.5	0.0	644.9
20.00		1.00	0.90	7.017	7.72	189.30	0.730	0.000	5.00	16.832	12.29	94.8	0.0	666.1
20.50	RT1 RB5	1.00	0.91	7.053	7.76	189.41	0.730	0.000	0.50	1.665	1.22	9.4	0.0	65.9
25.00		1.00	0.95	7.354	8.09	189.97	0.730	0.000	4.50	14.838	10.83	87.6	0.0	587.1
25.96	RB6	1.00	0.95	7.413	8.15	189.99	0.730	0.000	0.96	3.131	2.29	18.6	0.0	123.9
26.88	RT4	1.00	0.96	7.467	8.21	189.98	0.730	0.000	0.92	2.989	2.18	17.9	0.0	118.3
27.88	RT3 RB7	1.00	0.97	7.525	8.28	189.94	0.730	0.000	1.00	3.237	2.36	19.6	0.0	128.0
30.00		1.00	0.98	7.642	8.41	189.76	0.730	0.000	2.12	6.818	4.98	41.8	0.0	269.7
35.00		1.00	1.01	7.894	8.68	188.91	0.730	0.000	5.00	15.846	11.57	100.4	0.0	626.7
40.00		1.00	1.04	8.119	8.93	187.57	0.730	0.000	5.00	15.518	11.33	101.2	0.0	613.6
40.50	RT5 RB8	1.00	1.05	8.141	8.95	187.41	0.730	0.000	0.50	1.534	1.12	10.0	0.0	60.6
40.71	RT6 RB9	1.00	1.05	8.149	8.96	187.35	0.730	0.000	0.21	0.643	0.47	4.2	0.0	25.4
43.33	Bot - Section 2	1.00	1.06	8.257	9.08	186.46	0.730	0.000	2.62	7.986	5.83	52.9	0.0	315.7
45.00		1.00	1.07	8.323	9.16	185.85	0.730	0.000	1.67	5.097	3.72	34.1	0.0	360.2
48.00	Top - Section 1	1.00	1.08	8.437	9.28	184.66	0.730	0.000	3.00	9.083	6.63	61.5	0.0	641.8
48.12	RT7	1.00	1.08	8.441	9.29	187.24	0.730	0.000	0.12	0.361	0.26	2.4	0.0	11.4
50.00		1.00	1.09	8.510	9.36	186.46	0.730	0.000	1.88	5.629	4.11	38.5	0.0	178.3
55.00		1.00	1.12	8.682	9.55	184.19	0.730	0.000	5.00	14.744	10.76	102.8	0.0	467.1
60.00		1.00	1.14	8.843	9.73	181.69	0.730	0.000	5.00	14.415	10.52	102.4	0.0	456.6
60.71	RT9	1.00	1.14	8.865	9.75	181.32	0.730	0.000	0.71	2.020	1.47	14.4	0.0	64.0
60.75	RT8 RB10	1.00	1.14	8.866	9.75	181.30	0.730	0.000	0.04	0.114	0.08	0.8	0.0	3.6
65.00		1.00	1.16	8.993	9.89	179.01	0.730	0.000	4.25	11.953	8.73	86.3	0.0	378.5
70.00		1.00	1.17	9.134	10.05	176.15	0.730	0.000	5.00	13.758	10.04	100.9	0.0	435.6
75.00		1.00	1.19	9.268	10.19	173.15	0.730	0.000	5.00	13.430	9.80	99.9	0.0	425.1
78.25	RT10	1.00	1.20	9.351	10.29	171.12	0.730	0.000	3.25	8.553	6.24	64.2	0.0	270.7
80.00		1.00	1.21	9.395	10.33	170.01	0.730	0.000	1.75	4.548	3.32	34.3	0.0	143.9
85.00		1.00	1.22	9.516	10.47	166.75	0.730	0.000	5.00	12.773	9.32	97.6	0.0	404.2
87.42	Bot - Section 3	1.00	1.23	9.572	10.53	165.14	0.730	0.000	2.42	6.056	4.42	46.5	0.0	191.6
90.00	Appurtenance(s)	1.00	1.24	9.631	10.59	163.39	0.730	0.000	2.58	6.470	4.72	50.0	0.0	356.0
91.33	Top - Section 2	1.00	1.24	9.661	10.63	162.47	0.730	0.000	1.33	3.305	2.41	25.6	0.0	181.8
95.00		1.00	1.25	9.741	10.72	162.05	0.730	0.000	3.67	8.969	6.55	70.2	0.0	213.2
100.00	Appurtenance(s)	1.00	1.27	9.847	10.83	158.51	0.730	0.000	5.00	11.946	8.72	94.5	0.0	284.0
105.00		1.00	1.28	9.948	10.94	154.88	0.730	0.000	5.00	11.617	8.48	92.8	0.0	276.1
110.00	Appurtenance(s)	1.00	1.29	10.046	11.05	151.18	0.730	0.000	5.00	11.289	8.24	91.1	0.0	268.2
115.00		1.00	1.30	10.141	11.15	147.40	0.730	0.000	5.00	10.960	8.00	89.2	0.0	260.4
120.00	Top - Section 3	1.00	1.32	10.232	11.26	143.56	0.730	0.000	5.00	10.632	7.76	87.4	0.0	252.5
125.00		1.00	1.33	10.320	11.35	103.30	0.620 *	0.000	5.00	7.500	4.65	52.8	0.0	237.2
130.00	Appurtenance(s)	1.00	1.34	10.406	11.45	103.73	0.620 *	0.000	5.00	7.500	4.65	53.2	0.0	237.2
									Totals:	130.00		2,430.8		12,677.2

* Cf Adjusted by Linear Load Ra Effect

Discrete Appurtenance Forces

Structure: CT13064-A-SBA
Site Name: Middletown 2 CT
Height: 130.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

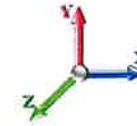
Code: TIA-222-H
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II
Topography: 1

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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 20

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	130.00	4449 B5/B12	3	10.406	11.447	0.38	0.75	2.22	213.00	0.000	0.000	25.37	0.00	0.00
2	130.00	6' Lightning rod	1	10.456	11.502	1.00	1.00	0.38	6.50	0.000	3.000	4.37	0.00	13.11
3	130.00	MTC3607 Platform + HR &	1	10.406	11.447	1.00	1.00	51.70	2246.00	0.000	0.000	591.79	0.00	0.00
4	130.00	Angle Reinforcement kit	1	10.406	11.447	1.00	1.00	5.80	250.00	0.000	0.000	66.39	0.00	0.00
5	130.00	Cci DMP65R-BU6DA	3	10.406	11.447	0.54	0.75	20.62	189.90	0.000	0.000	236.01	0.00	0.00
6	130.00	RRUS 32	6	10.406	11.447	0.38	0.75	3.71	462.00	0.000	0.000	42.50	0.00	0.00
7	130.00	RRUS 4478 B14	3	10.406	11.447	0.38	0.75	1.86	178.20	0.000	0.000	21.25	0.00	0.00
8	130.00	B2 B66A 8843	3	10.406	11.447	0.38	0.75	1.84	210.00	0.000	0.000	21.12	0.00	0.00
9	130.00	DC6-48-60-0-8C	2	10.406	11.447	0.75	0.75	7.17	32.00	0.000	0.000	82.07	0.00	0.00
10	130.00	Additional mount pipe	3	10.406	11.447	0.56	0.75	2.95	51.00	0.000	0.000	33.80	0.00	0.00
11	130.00	DC6-48-60-18-8F	2	10.406	11.447	0.75	0.75	1.38	63.60	0.000	0.000	15.80	0.00	0.00
12	130.00	RRUS E2 B29	3	10.406	11.447	0.38	0.75	3.54	178.20	0.000	0.000	40.56	0.00	0.00
13	130.00	Ericsson AIR6449	3	10.372	11.409	0.64	0.75	7.90	264.00	0.000	-2.000	90.12	0.00	-180.23
14	130.00	(3) Horizontal bracing	1	10.406	11.447	0.75	0.75	4.45	137.25	0.000	0.000	50.97	0.00	0.00
15	130.00	Ericsson AIR6419	3	10.439	11.483	0.57	0.75	6.50	198.30	0.000	2.000	74.62	0.00	149.24
16	130.00	Quinte QD6616-7	3	10.406	11.447	0.56	0.75	22.92	177.30	0.000	0.000	262.31	0.00	0.00
17	120.00	MC-PK8-DSH	1	10.232	11.255	1.00	1.00	37.59	1727.00	0.000	0.000	423.09	0.00	0.00
18	120.00	RDIDC-9181-OF-48	1	10.232	11.255	0.75	0.75	1.51	21.90	0.000	0.000	16.97	0.00	0.00
19	120.00	TA08025-B604	3	10.232	11.255	0.38	0.75	2.21	191.70	0.000	0.000	24.82	0.00	0.00
20	120.00	TA08025-B605	3	10.232	11.255	0.38	0.75	2.21	225.00	0.000	0.000	24.82	0.00	0.00
21	120.00	MX08FRO665-21	3	10.232	11.255	0.55	0.75	20.80	193.50	0.000	0.000	234.06	0.00	0.00
22	110.00	SAMSUNG	3	10.046	11.051	0.40	0.80	2.24	210.99	0.000	0.000	24.80	0.00	0.00
23	110.00	RFS RVZDC-6627-PF-48	1	10.046	11.051	0.80	0.80	3.25	32.00	0.000	0.000	35.89	0.00	0.00
24	110.00	SAMSUNG MT6407-77A	3	10.046	11.051	0.56	0.80	7.88	261.30	0.000	0.000	87.07	0.00	0.00
25	110.00	JMA MX10FIT665-02	3	10.046	11.051	0.67	0.80	16.27	160.20	0.000	0.000	179.81	0.00	0.00
26	110.00	COMMSCOPE	3	10.065	11.072	0.40	0.80	0.48	19.80	0.000	1.000	5.31	0.00	5.31
27	110.00	Kaelus KA-6030	4	10.046	11.051	0.40	0.80	1.54	70.40	0.000	0.000	16.97	0.00	0.00
28	110.00	T-Arms (Round)	3	10.046	11.051	0.66	0.75	9.70	551.40	0.000	0.000	107.22	0.00	0.00
29	110.00	SAMSUNG	3	10.046	11.051	0.40	0.80	2.24	224.10	0.000	0.000	24.80	0.00	0.00
30	100.00	Ericsson AIR21 B2A B4P	3	9.847	10.831	0.64	0.80	11.69	274.50	0.000	0.000	126.65	0.00	0.00
31	100.00	RFS	3	9.847	10.831	0.58	0.80	35.46	368.40	0.000	0.000	384.09	0.00	0.00
32	100.00	Ericsson 4480 B71 + B85	3	9.847	10.831	0.59	0.80	5.06	279.00	0.000	0.000	54.82	0.00	0.00
33	100.00	Ericsson AIR21 B4A B2P	3	9.847	10.831	0.64	0.80	11.69	271.20	0.000	0.000	126.65	0.00	0.00
34	100.00	Kathrein 782 11056	3	9.847	10.831	0.40	0.80	0.16	5.40	0.000	0.000	1.69	0.00	0.00
35	100.00	T-Arm (Round)	6	9.847	10.831	0.56	0.75	27.00	2100.00	0.000	0.000	292.45	0.00	0.00
36	90.00	F3P-10W	1	9.631	10.594	1.00	1.00	51.77	2122.00	0.000	0.000	548.44	0.00	0.00
37	90.00	NNVV-65B-R4	3	9.631	10.594	0.55	0.75	20.43	232.20	0.000	0.000	216.43	0.00	0.00
38	90.00	AAHC	3	9.631	10.594	0.56	0.75	7.09	312.00	0.000	0.000	75.08	0.00	0.00
39	90.00	F3P-HRK10	1	9.631	10.594	1.00	1.00	7.12	391.00	0.000	0.000	75.43	0.00	0.00
40	90.00	ALU - 800 MHz - RRU	6	9.631	10.594	0.38	0.75	5.60	318.00	0.000	0.000	59.35	0.00	0.00
41	90.00	ALU - 1900MHz - RRU	3	9.631	10.594	0.38	0.75	4.27	132.00	0.000	0.000	45.29	0.00	0.00
42	90.00	Andrew - VHLP2-11	2	9.631	10.594	0.75	0.75	7.02	54.00	0.000	0.000	74.37	0.00	0.00
Totals:									15,606.24			4,945.41		

Total Applied Force Summary

Structure: CT13064-A-SBA	Code: TIA-222-H	9/27/2023
Site Name: Middletown 2 CT	Exposure: C	
Height: 130.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 20

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		94.62	954.52	0.00	0.00
10.00		92.87	941.42	0.00	0.00
10.25		4.60	46.73	0.00	0.00
15.00		86.53	881.59	0.00	0.00
20.00		94.84	915.22	0.00	0.00
20.50		9.43	90.80	0.00	0.00
25.00		87.63	811.31	0.00	0.00
25.96		18.64	171.71	0.00	0.00
26.88		17.92	164.10	0.00	0.00
27.88		19.56	177.87	0.00	0.00
30.00		41.84	375.34	0.00	0.00
35.00		100.45	875.91	0.00	0.00
40.00		101.17	862.81	0.00	0.00
40.50		10.03	85.56	0.00	0.00
40.71		4.21	35.90	0.00	0.00
43.33		52.95	446.47	0.00	0.00
45.00		34.07	443.29	0.00	0.00
48.00		61.53	791.32	0.00	0.00
48.12		2.45	17.41	0.00	0.00
50.00		38.46	272.01	0.00	0.00
55.00		102.79	716.22	0.00	0.00
60.00		102.36	705.74	0.00	0.00
60.71		14.38	99.37	0.00	0.00
60.75		0.81	5.59	0.00	0.00
65.00		86.32	590.30	0.00	0.00
70.00		100.92	684.78	0.00	0.00
75.00		99.95	674.29	0.00	0.00
78.25		64.23	432.67	0.00	0.00
80.00		34.31	231.14	0.00	0.00
85.00		97.59	653.33	0.00	0.00
87.42		46.54	312.02	0.00	0.00
90.00	(19) attachments	1144.43	4045.89	0.00	0.00
91.33		25.64	242.67	0.00	0.00
95.00		70.16	380.63	0.00	0.00
100.00	(21) attachments	1080.80	3810.72	0.00	0.00
105.00		92.80	456.66	0.00	0.00
110.00	(23) attachments	572.94	1978.99	0.00	5.31
115.00		89.25	373.04	0.00	0.00
120.00	(11) attachments	811.10	2724.28	0.00	0.00
125.00		52.79	340.74	0.00	0.00
130.00	(41) attachments	1712.27	5197.99	0.00	-17.88
	Totals:	7,376.16	34,018.32	0.00	-12.57

Linear Appurtenance Segment Forces (Factored)

Structure: CT13064-A-SBA
Site Name: Middletown 2 CT
Height: 130.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: TIA-222-H
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

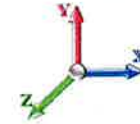
9/27/2023



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 20

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	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.070	0.000	6.613	0.00	24.15
5.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	0.42	0.00	0.070	0.000	6.613	0.00	0.00
5.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.070	0.000	6.613	0.00	0.00
10.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.071	0.000	6.613	0.00	24.15
10.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	0.42	0.00	0.071	0.000	6.613	0.00	0.00
10.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.071	0.000	6.613	0.00	0.00
10.25	2" Conduit	Yes	0.25	0.000	2.00	0.04	0.00	0.072	0.000	6.613	0.00	1.21
10.25	1" Reinforcing plate	Yes	0.25	0.000	1.00	0.02	0.00	0.072	0.000	6.613	0.00	0.00
10.25	1" Reinforcing plate	Yes	0.25	0.000	0.00	0.00	0.00	0.072	0.000	6.613	0.00	0.00
15.00	2" Conduit	Yes	4.75	0.000	2.00	0.79	0.00	0.073	0.000	6.613	0.00	22.94
15.00	1" Reinforcing plate	Yes	4.75	0.000	1.00	0.40	0.00	0.073	0.000	6.613	0.00	0.00
15.00	1" Reinforcing plate	Yes	4.75	0.000	0.00	0.00	0.00	0.073	0.000	6.613	0.00	0.00
20.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.074	0.000	7.017	0.00	24.15
20.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	0.42	0.00	0.074	0.000	7.017	0.00	0.00
20.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.074	0.000	7.017	0.00	0.00
20.50	2" Conduit	Yes	0.50	0.000	2.00	0.08	0.00	0.075	0.000	7.053	0.00	2.42
20.50	1" Reinforcing plate	Yes	0.50	0.000	1.00	0.04	0.00	0.075	0.000	7.053	0.00	0.00
20.50	1" Reinforcing plate	Yes	0.50	0.000	0.00	0.00	0.00	0.075	0.000	7.053	0.00	0.00
25.00	2" Conduit	Yes	4.50	0.000	2.00	0.75	0.00	0.076	0.000	7.354	0.00	21.73
25.00	1" Reinforcing plate	Yes	4.50	0.000	1.00	0.38	0.00	0.076	0.000	7.354	0.00	0.00
25.00	1" Reinforcing plate	Yes	1.67	0.000	0.00	0.00	0.00	0.076	0.000	7.354	0.00	0.00
25.00	1" Reinforcing plate	Yes	4.50	0.000	0.00	0.00	0.00	0.076	0.000	7.354	0.00	0.00
25.96	2" Conduit	Yes	0.96	0.000	2.00	0.16	0.00	0.077	0.000	7.413	0.00	4.64
25.96	1" Reinforcing plate	Yes	0.96	0.000	1.00	0.08	0.00	0.077	0.000	7.413	0.00	0.00
25.96	1" Reinforcing plate	Yes	0.96	0.000	0.00	0.00	0.00	0.077	0.000	7.413	0.00	0.00
25.96	1" Reinforcing plate	Yes	0.96	0.000	0.00	0.00	0.00	0.077	0.000	7.413	0.00	0.00
25.96	1" Reinforcing plate	Yes	0.96	0.000	0.00	0.00	0.00	0.077	0.000	7.413	0.00	0.00
26.88	2" Conduit	Yes	0.92	0.000	2.00	0.15	0.00	0.077	0.000	7.467	0.00	4.44
26.88	1" Reinforcing plate	Yes	0.92	0.000	1.00	0.08	0.00	0.077	0.000	7.467	0.00	0.00
26.88	1" Reinforcing plate	Yes	0.92	0.000	0.00	0.00	0.00	0.077	0.000	7.467	0.00	0.00
26.88	1" Reinforcing plate	Yes	0.92	0.000	0.00	0.00	0.00	0.077	0.000	7.467	0.00	0.00
26.88	1" Reinforcing plate	Yes	0.92	0.000	0.00	0.00	0.00	0.077	0.000	7.467	0.00	0.00
27.88	2" Conduit	Yes	1.00	0.000	2.00	0.17	0.00	0.077	0.000	7.525	0.00	4.83
27.88	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.077	0.000	7.525	0.00	0.00
27.88	1" Reinforcing plate	Yes	1.00	0.000	0.00	0.00	0.00	0.077	0.000	7.525	0.00	0.00
27.88	1" Reinforcing plate	Yes	1.00	0.000	0.00	0.00	0.00	0.077	0.000	7.525	0.00	0.00
27.88	1" Reinforcing plate	Yes	1.00	0.000	0.00	0.00	0.00	0.077	0.000	7.525	0.00	0.00
30.00	2" Conduit	Yes	2.12	0.000	2.00	0.35	0.00	0.078	0.000	7.642	0.00	10.24
30.00	1" Reinforcing plate	Yes	2.12	0.000	1.00	0.18	0.00	0.078	0.000	7.642	0.00	0.00
30.00	1" Reinforcing plate	Yes	2.12	0.000	0.00	0.00	0.00	0.078	0.000	7.642	0.00	0.00
30.00	1" Reinforcing plate	Yes	2.12	0.000	0.00	0.00	0.00	0.078	0.000	7.642	0.00	0.00
35.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.079	0.000	7.894	0.00	24.15
35.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	0.42	0.00	0.079	0.000	7.894	0.00	0.00
35.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.079	0.000	7.894	0.00	0.00
35.00	1" Reinforcing plate	Yes	4.50	0.000	0.00	0.00	0.00	0.079	0.000	7.894	0.00	0.00
35.00	1" Reinforcing plate	Yes	0.50	0.000	0.00	0.00	0.00	0.079	0.000	7.894	0.00	0.00
40.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.081	0.000	8.119	0.00	24.15
40.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	0.42	0.00	0.081	0.000	8.119	0.00	0.00
40.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.081	0.000	8.119	0.00	0.00
40.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.081	0.000	8.119	0.00	0.00

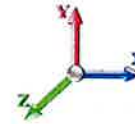
Linear Appurtenance Segment Forces (Factored)

Structure: CT13064-A-SBA	Code: TIA-222-H	9/27/2023
Site Name: Middletown 2 CT	Exposure: C	
Height: 130.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 20

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)
40.50	2" Conduit	Yes	0.50	0.000	2.00	0.08	0.00	0.082	0.000	8.141	0.00	2.42
40.50	1" Reinforcing plate	Yes	0.50	0.000	1.00	0.04	0.00	0.082	0.000	8.141	0.00	0.00
40.50	1" Reinforcing plate	Yes	0.50	0.000	0.00	0.00	0.00	0.082	0.000	8.141	0.00	0.00
40.50	1" Reinforcing plate	Yes	0.50	0.000	0.00	0.00	0.00	0.082	0.000	8.141	0.00	0.00
40.71	2" Conduit	Yes	0.21	0.000	2.00	0.04	0.00	0.082	0.000	8.149	0.00	1.01
40.71	1" Reinforcing plate	Yes	0.21	0.000	1.00	0.02	0.00	0.082	0.000	8.149	0.00	0.00
40.71	1" Reinforcing plate	Yes	0.21	0.000	0.00	0.00	0.00	0.082	0.000	8.149	0.00	0.00
40.71	1" Reinforcing plate	Yes	0.21	0.000	0.00	0.00	0.00	0.082	0.000	8.149	0.00	0.00
43.33	2" Conduit	Yes	2.62	0.000	2.00	0.44	0.00	0.082	0.000	8.257	0.00	12.67
43.33	1" Reinforcing plate	Yes	2.62	0.000	1.00	0.22	0.00	0.082	0.000	8.257	0.00	0.00
43.33	1" Reinforcing plate	Yes	2.62	0.000	0.00	0.00	0.00	0.082	0.000	8.257	0.00	0.00
43.33	1" Reinforcing plate	Yes	2.62	0.000	0.00	0.00	0.00	0.082	0.000	8.257	0.00	0.00
45.00	2" Conduit	Yes	1.67	0.000	2.00	0.28	0.00	0.083	0.000	8.323	0.00	8.05
45.00	1" Reinforcing plate	Yes	1.67	0.000	1.00	0.14	0.00	0.083	0.000	8.323	0.00	0.00
45.00	1" Reinforcing plate	Yes	1.67	0.000	0.00	0.00	0.00	0.083	0.000	8.323	0.00	0.00
45.00	1" Reinforcing plate	Yes	1.67	0.000	0.00	0.00	0.00	0.083	0.000	8.323	0.00	0.00
48.00	2" Conduit	Yes	3.00	0.000	2.00	0.50	0.00	0.084	0.000	8.437	0.00	14.49
48.00	1" Reinforcing plate	Yes	3.00	0.000	1.00	0.25	0.00	0.084	0.000	8.437	0.00	0.00
48.00	1" Reinforcing plate	Yes	3.00	0.000	0.00	0.00	0.00	0.084	0.000	8.437	0.00	0.00
48.00	1" Reinforcing plate	Yes	3.00	0.000	0.00	0.00	0.00	0.084	0.000	8.437	0.00	0.00
48.12	2" Conduit	Yes	0.12	0.000	2.00	0.02	0.00	0.083	0.000	8.441	0.00	0.58
48.12	1" Reinforcing plate	Yes	0.12	0.000	1.00	0.01	0.00	0.083	0.000	8.441	0.00	0.00
48.12	1" Reinforcing plate	Yes	0.12	0.000	0.00	0.00	0.00	0.083	0.000	8.441	0.00	0.00
48.12	1" Reinforcing plate	Yes	0.12	0.000	0.00	0.00	0.00	0.083	0.000	8.441	0.00	0.00
50.00	2" Conduit	Yes	1.88	0.000	2.00	0.31	0.00	0.084	0.000	8.510	0.00	9.08
50.00	1" Reinforcing plate	Yes	1.88	0.000	1.00	0.16	0.00	0.084	0.000	8.510	0.00	0.00
50.00	1" Reinforcing plate	Yes	1.88	0.000	0.00	0.00	0.00	0.084	0.000	8.510	0.00	0.00
50.00	1" Reinforcing plate	Yes	1.88	0.000	0.00	0.00	0.00	0.084	0.000	8.510	0.00	0.00
55.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.085	0.000	8.682	0.00	24.15
55.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	0.42	0.00	0.085	0.000	8.682	0.00	0.00
55.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.085	0.000	8.682	0.00	0.00
55.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.085	0.000	8.682	0.00	0.00
60.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.087	0.000	8.843	0.00	24.15
60.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	0.42	0.00	0.087	0.000	8.843	0.00	0.00
60.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.087	0.000	8.843	0.00	0.00
60.71	2" Conduit	Yes	0.71	0.000	2.00	0.12	0.00	0.088	0.000	8.865	0.00	3.43
60.71	1" Reinforcing plate	Yes	0.71	0.000	1.00	0.06	0.00	0.088	0.000	8.865	0.00	0.00
60.71	1" Reinforcing plate	Yes	0.71	0.000	0.00	0.00	0.00	0.088	0.000	8.865	0.00	0.00
60.75	2" Conduit	Yes	0.04	0.000	2.00	0.01	0.00	0.088	0.000	8.866	0.00	0.19
60.75	1" Reinforcing plate	Yes	0.04	0.000	1.00	0.00	0.00	0.088	0.000	8.866	0.00	0.00
60.75	1" Reinforcing plate	Yes	0.04	0.000	0.00	0.00	0.00	0.088	0.000	8.866	0.00	0.00
65.00	2" Conduit	Yes	4.25	0.000	2.00	0.71	0.00	0.089	0.000	8.993	0.00	20.53
65.00	1" Reinforcing plate	Yes	4.25	0.000	1.00	0.35	0.00	0.089	0.000	8.993	0.00	0.00
65.00	1" Reinforcing plate	Yes	4.25	0.000	0.00	0.00	0.00	0.089	0.000	8.993	0.00	0.00
70.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.091	0.000	9.134	0.00	24.15
70.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	0.42	0.00	0.091	0.000	9.134	0.00	0.00
75.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.093	0.000	9.268	0.00	24.15

Linear Appurtenance Segment Forces (Factored)

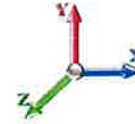
Structure: CT13064-A-SBA	Code: TIA-222-H	9/27/2023
Site Name: Middletown 2 CT	Exposure: C	
Height: 130.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 20

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)
75.00	1" Reinforcing plate	Yes	5.00	0.000	1.00	0.42	0.00	0.093	0.000	9.268	0.00	0.00
78.25	2" Conduit	Yes	3.25	0.000	2.00	0.54	0.00	0.095	0.000	9.351	0.00	15.70
78.25	1" Reinforcing plate	Yes	3.25	0.000	1.00	0.27	0.00	0.095	0.000	9.351	0.00	0.00
80.00	2" Conduit	Yes	1.75	0.000	2.00	0.29	0.00	0.096	0.000	9.395	0.00	8.45
80.00	1" Reinforcing plate	Yes	1.75	0.000	1.00	0.15	0.00	0.096	0.000	9.395	0.00	0.00
85.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.072	0.000	9.516	0.00	24.15
85.00	1" Reinforcing plate	Yes	1.00	0.000	1.00	0.08	0.00	0.072	0.000	9.516	0.00	0.00
87.42	2" Conduit	Yes	2.42	0.000	2.00	0.40	0.00	0.067	0.000	9.572	0.00	11.67
90.00	2" Conduit	Yes	2.58	0.000	2.00	0.43	0.00	0.067	0.000	9.631	0.00	12.48
91.33	2" Conduit	Yes	1.33	0.000	2.00	0.22	0.00	0.068	0.000	9.661	0.00	6.44
95.00	2" Conduit	Yes	3.67	0.000	2.00	0.61	0.00	0.068	0.000	9.741	0.00	17.71
100.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.070	0.000	9.847	0.00	24.15
105.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.072	0.000	9.948	0.00	24.15
110.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.074	0.000	10.046	0.00	24.15
115.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.076	0.000	10.141	0.00	24.15
120.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.078	0.000	10.232	0.00	24.15
125.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.111	1.033	10.320	0.00	24.15
130.00	2" Conduit	Yes	5.00	0.000	2.00	0.83	0.00	0.111	1.033	10.406	0.00	24.15
Totals:											0.0	627.9

Calculated Forces

Structure: CT13064-A-SBA
Site Name: Middletown 2 CT
Height: 130.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: TIA-222-H
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

9/27/2023

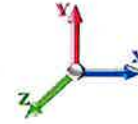
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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 20

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	-34.01	-7.39	0.00	-734.82	0.00	734.82	2818.94	734.35	2570.40	2448.04	0.00	0.000	0.000	0.147
5.00	-33.05	-7.33	0.00	-697.86	0.00	697.86	2786.10	720.83	2476.65	2374.66	0.03	-0.051	0.000	0.143
10.00	-32.11	-7.25	0.00	-661.23	0.00	661.23	2752.56	707.32	2384.65	2301.75	0.11	-0.102	0.000	0.138
10.25	-32.06	-7.25	0.00	-659.42	0.00	659.42	2750.86	706.64	2380.10	2298.12	0.11	-0.105	0.000	0.138
15.00	-31.17	-7.19	0.00	-624.97	0.00	624.97	2718.29	693.80	2294.39	2229.33	0.24	-0.142	0.000	0.140
20.00	-30.25	-7.11	0.00	-589.03	0.00	589.03	2683.32	680.29	2205.87	2157.44	0.41	-0.194	0.000	0.135
20.50	-30.16	-7.11	0.00	-585.48	0.00	585.48	2679.78	678.93	2197.11	2150.28	0.43	-0.199	0.000	0.134
25.00	-29.35	-7.03	0.00	-553.49	0.00	553.49	2647.62	666.77	2119.09	2086.12	0.64	-0.238	0.000	0.130
25.96	-29.17	-7.01	0.00	-546.74	0.00	546.74	2640.69	664.18	2102.62	2072.49	0.69	-0.248	0.000	0.129
26.88	-29.01	-7.00	0.00	-540.29	0.00	540.29	2634.02	661.69	2086.91	2059.45	0.74	-0.256	0.000	0.112
27.88	-28.83	-6.99	0.00	-533.29	0.00	533.29	2626.74	658.99	2069.89	2045.30	0.79	-0.265	0.000	0.133
30.00	-28.45	-6.96	0.00	-518.48	0.00	518.48	2611.22	653.25	2034.05	2015.39	0.91	-0.286	0.000	0.131
35.00	-27.57	-6.88	0.00	-483.66	0.00	483.66	2574.10	639.74	1950.75	1945.30	1.24	-0.339	0.000	0.125
40.00	-26.70	-6.79	0.00	-449.25	0.00	449.25	2536.26	626.22	1869.20	1875.87	1.62	-0.390	0.000	0.119
40.50	-26.62	-6.78	0.00	-445.86	0.00	445.86	2532.44	624.87	1861.14	1868.96	1.67	-0.396	0.000	0.118
40.71	-26.58	-6.78	0.00	-444.43	0.00	444.43	2530.83	624.30	1857.76	1866.07	1.68	-0.397	0.000	0.118
43.33	-26.13	-6.73	0.00	-426.64	0.00	426.64	2510.64	617.21	1815.79	1829.97	1.91	-0.420	0.000	0.115
45.00	-25.69	-6.71	0.00	-415.42	0.00	415.42	2497.71	612.71	1789.38	1807.14	2.06	-0.437	0.000	0.111
48.00	-24.89	-6.65	0.00	-395.30	0.00	395.30	1854.44	491.51	1439.37	1347.80	2.34	-0.467	0.000	0.118
48.12	-24.87	-6.65	0.00	-394.50	0.00	394.50	1853.85	491.25	1437.86	1346.66	2.35	-0.468	0.000	0.128
50.00	-24.60	-6.62	0.00	-382.00	0.00	382.00	1844.56	487.19	1414.16	1328.74	2.54	-0.488	0.000	0.147
55.00	-23.88	-6.54	0.00	-348.88	0.00	348.88	1819.35	476.37	1352.08	1281.29	3.09	-0.547	0.000	0.138
60.00	-23.17	-6.44	0.00	-316.18	0.00	316.18	1793.44	465.56	1291.40	1234.16	3.69	-0.605	0.000	0.128
60.71	-23.07	-6.43	0.00	-311.60	0.00	311.60	1789.70	464.03	1282.90	1227.50	3.78	-0.613	0.000	0.127
60.75	-23.06	-6.44	0.00	-311.35	0.00	311.35	1789.49	463.94	1282.42	1227.12	3.79	-0.613	0.000	0.161
65.00	-22.46	-6.37	0.00	-283.99	0.00	283.99	1766.81	454.75	1232.11	1187.39	4.35	-0.655	0.000	0.150
70.00	-21.77	-6.28	0.00	-252.16	0.00	252.16	1739.46	443.94	1174.22	1141.01	5.07	-0.721	0.000	0.138
75.00	-21.10	-6.19	0.00	-220.75	0.00	220.75	1711.40	433.12	1117.71	1095.05	5.86	-0.782	0.000	0.125
78.25	-20.66	-6.13	0.00	-200.64	0.00	200.64	1692.78	426.10	1081.74	1065.41	6.41	-0.820	0.000	0.116
78.25	-20.66	-6.13	0.00	-200.64	0.00	200.64	1692.78	426.10	1081.74	1065.41	6.41	-0.820	0.000	0.192
80.00	-20.42	-6.11	0.00	-189.91	0.00	189.91	1682.63	422.31	1062.61	1049.54	6.71	-0.840	0.000	0.193
85.00	-19.77	-6.03	0.00	-159.34	0.00	159.34	1653.14	411.50	1008.89	1004.53	7.64	-0.929	0.000	0.171
87.42	-19.45	-5.99	0.00	-144.78	0.00	144.78	1638.63	406.27	983.43	982.97	8.12	-0.969	0.000	0.159
90.00	-15.42	-4.78	0.00	-129.31	0.00	129.31	1622.94	400.69	956.57	960.05	8.66	-1.010	0.000	0.144
91.33	-15.18	-4.76	0.00	-122.93	0.00	122.93	1099.39	302.92	728.96	657.00	8.94	-1.030	0.000	0.201
95.00	-14.79	-4.70	0.00	-105.47	0.00	105.47	1087.40	296.97	700.62	637.00	9.75	-1.081	0.000	0.179
100.00	-11.00	-3.56	0.00	-81.96	0.00	81.96	1070.43	288.87	662.88	609.82	10.93	-1.158	0.000	0.145
105.00	-10.54	-3.47	0.00	-64.16	0.00	64.16	1052.74	280.76	626.19	582.80	12.18	-1.223	0.000	0.120
110.00	-8.57	-2.86	0.00	-46.80	0.00	46.80	1034.34	272.65	590.53	555.96	13.49	-1.277	0.000	0.093
115.00	-8.20	-2.77	0.00	-32.50	0.00	32.50	1015.23	264.54	555.93	529.34	14.85	-1.319	0.000	0.070
120.00	-5.50	-1.90	0.00	-18.66	0.00	18.66	995.40	256.43	522.37	502.97	16.25	-1.349	0.000	0.043
120.00	-5.50	-1.90	0.00	-18.66	0.00	18.66	735.22	244.66	14507.7	335.79	16.25	-1.349	0.000	0.063
125.00	-5.16	-1.84	0.00	-9.18	0.00	9.18	735.22	244.66	14507.7	335.79	17.67	-1.367	0.000	0.034
130.00	0.00	-1.71	0.00	0.00	0.00	0.00	735.22	244.66	14507.7	335.79	19.11	-1.379	0.000	0.000

Final Analysis Summary

Structure: CT13064-A-SBA
Site Name: Middletown 2 CT
Height: 130.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: TIA-222-H
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

9/27/2023

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Reactions

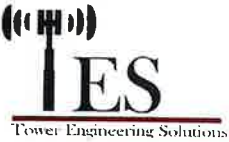
Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)
1.2D + 1.0W 120 mph Wind	33.1	0.00	40.75	0.00	0.00	3304.56
0.9D + 1.0W 120 mph Wind	33.0	0.00	30.55	0.00	0.00	3268.75
1.2D + 1.0Di + 1.0Wi 50 mph Wind	8.6	0.00	58.20	0.00	0.00	860.15
1.2D + 1.0Ev + 1.0Eh	0.4	0.00	42.40	0.00	0.00	50.09
0.9D + 1.0Ev + 1.0Eh	0.4	0.00	32.12	0.00	0.00	49.63
1.0D + 1.0W 60 mph Wind	7.4	0.00	34.01	0.00	0.00	734.82

Max Stresses

Load Case	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Elev (ft)	Stress Ratio
1.2D + 1.0W 120 mph Wind	-16.59	-21.49	0.00	-554.80	0.00	-554.80	1099.39	302.92	728.96	657.00	91.33	0.865
0.9D + 1.0W 120 mph Wind	-12.05	-21.09	0.00	-543.50	0.00	-543.50	1099.39	302.92	728.96	657.00	91.33	0.843
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-28.29	-5.52	0.00	-144.04	0.00	-144.04	1099.39	302.92	728.96	657.00	91.33	0.245
1.2D + 1.0Ev + 1.0Eh	-19.01	-0.37	0.00	-11.12	0.00	-11.12	1099.39	302.92	728.96	657.00	91.33	0.034
0.9D + 1.0Ev + 1.0Eh	-14.42	-0.36	0.00	-11.01	0.00	-11.01	1099.39	302.92	728.96	657.00	91.33	0.030
1.0D + 1.0W 60 mph Wind	-15.18	-4.76	0.00	-122.93	0.00	-122.93	1099.39	302.92	728.96	657.00	91.33	0.201

Additional Steel Summary

Elev From (ft)	Elev To (ft)	Member	Intermediate Connectors			Lower Termination			Upper Termination			Max Member			Ratio		
			VQ/I (lb/in)	Vu (kips)	phi Vn (kips)	MQ/I (kips)	phi Vn (kips)	Num Reqd	Num Actual	MQ/I (kips)	phi Vn (kips)	Num Reqd	Num Actual	Pu (kips)		phi Pn (kips)	phi Tn (kips)
0.0	20.5	(4) PLT-6"x1" (1.25" Hole)	236.4	3.78	37.1	244.6	37.1	7	0	234.5	33.4		8	244.65	326.3	281.25	0.870
0.0	10.3	(4) PLT-5.5"x1 1/4" (1.25" hol	244.2	3.91	37.1	282.0	37.1	8	0	267.6	33.4	8	9	282.03	383.8	314.06	0.898
10.3	27.9	(2) LNP-LP6X100-G-20CC	-240.9	-5.78	25.3	184.0	22.7	8	10	215.9	25.3		9	242.53	297.8	288.75	0.840
10.3	26.9	(2) LNP-LP6X100-G-20CT	226.8	5.44	25.3	181.5	22.7	8	10	195.2	22.7	9	9	228.60	297.8	288.75	0.792
20.5	40.5	(4) PLT-6"x1" (1.25" Hole)	266.8	4.27	37.1	234.5	37.1			211.1	37.1		10	234.52	326.3	281.25	0.834
26.0	40.7	(2) LNP-LP6X100-G-20TC	-279.8	-6.71	25.3	189.0	22.7	8	8	220.6	22.7		10	244.15	297.8	288.75	0.846
27.9	48.1	(2) LNP-LP6X100-G-20CT	270.0	6.48	25.3	177.5	22.7		10	192.7	22.7	9	10	212.55	297.8	288.75	0.736
40.5	60.8	(4) PLT-6"x1" (1.25" Hole)	-424.3	-6.79	37.1	211.1	37.1			246.6	37.1			246.61	326.3	281.25	0.877
40.7	60.7	(2) LNP-LP6X100-G-20CT	-350.9	-8.42	25.3	178.0	22.7		10	204.4	22.7	9	10	233.52	297.8	288.75	0.809
60.8	78.3	(4) PLT-6"x1" (1.25" Hole)	-460.2	-7.36	37.1	246.6	37.1			180.9	33.4	6	10	246.61	326.3	281.25	0.877

	Monopole Mat Foundation Design		<i>Date</i>	
			8/28/2023	
	Customer Name:	Verizon	TIA Standard:	TIA-222-H
	Site Name:		Structure Height (Ft.):	130
	Site Number:	CT13064-A-SBA	Engineer Name:	J. Tibbetts
Engr. Number:	142286	Engineer Login ID:		

Foundation Info Obtained from:

Structure Type:

Analysis or Design?

Base Reactions (Factored):

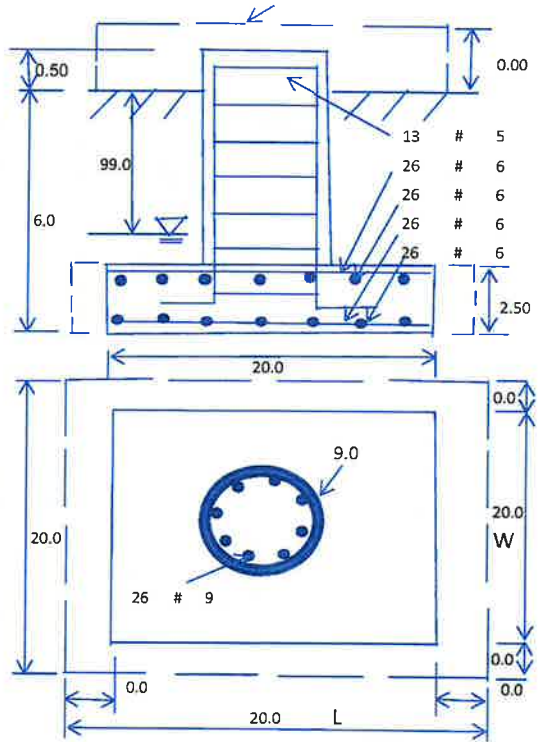
Axial Load (Kips):	40.8	Shear Force (Kips):	33.1
Uplift Force (Kips):	0.0	Moment (Kips-ft):	3304.6

Foundation Geometries:

Diameter of Pier (ft.):	9.0	Mods required -Yes/No ?:	No
Pier Height A. G. (ft.):	0.50	Depth of Base BG (ft.):	6.0
Length of Pad (ft.):	20	Thickness of Pad (ft.):	2.50
		Width of Pad (ft.):	20
Final Length of pad (ft)	20.0	Final width of pad (ft):	20.0

Material Properties and Rebar Info:

Concrete Strength (psi):	4000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield (ksi):	60	
Vertical Rebar Size #:	9	Tie / Stirrup Size #:	5	
Qty. of Vertical Rebars:	26	Tie Spacing (in):	6.0	
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	6	
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):	26	Qty. of Rebar in Pad (W):	26	
Rebar at the top of the concrete pad:				
Qty. of Rebar in Pad (L):	26	Qty. of Rebar in Pad (W):	26	



Soil Design Parameters:

Soil Unit Weight (pcf):	130.0	Soil Buoyant Weight:	50.0	Pcf	
Water Table B.G.S. (ft):	99.0	Unit Weight of Water:	62.4	pcf	Angle from Top of Pad: 30
Ultimate Bearing Pressure (psf):	16000	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.:	Yes	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.):	1177.34	Total Dry Soil Weight (Kips):	153.05
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	153.05	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	1254.47	Total Dry Concrete Weight (Kips):	188.17
Total Buoyant Concrete Volume (cu. Ft.):	0.00	Total Buoyant Concrete Weight (Kips):	0.00
Total Effective Concrete Weight (Kips):	188.17	Total Vertical Load on Base (Kips):	382.02

Check Soil Capacities:

Calculated Maxium Net Soil Pressure under the base (psf):	5847	<	Allowable Factored Soil Bearing (psf):	12000	0.49	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	3479.0	>	Design Factored Momont (kips-ft):	3384	0.97	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	1.03					

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 compression):	0.65	Wind Load Factor on Concrete Design:	1.00		
				Capacity	
				Ratio	
<u>(1) Concrete Pier:</u>					
Vertical Steel Rebar Area (sq. in./each):	1.00	Tie / Stirrup Area (sq. in./each):	0.31		
Calculated Moment Capacity (Mn,Kips-Ft):	5889.6	> Design Factored Moment (Mu, Kips-F	3437.0	0.58	OK!
Calculated Shear Capacity (Kips):	1404.8	> Design Factored Shear (Kips):	33.1	0.02	OK!
Calculated Tension Capacity (Tn, Kips):	1404.0	> Design Factored Tension (Tu Kips):	0.0	0.00	OK!
Calculated Compression Capacity (Pn, Kips):	16150.5	> Design Factored Axial Load (Pu Kips):	40.8	0.00	OK!
Moment & Axial Strength Combination:	0.58	OK! Check Tie Spacing (Design/Required):		0.5	OK!
Pier Reinforcement Ratio:	0.003	Reinforcement Ratio is too small			
<u>(2) Concrete Pad:</u>					
One-Way Design Shear Capacity (L-Direction, Kips):	606.2	> One-Way Factored Shear (L-D. Kips):	203.1	0.34	OK!
One-Way Design Shear Capacity (W-Direction, Kips):	606.2	> One-Way Factored Shear (W-D., Kips)	203.1	0.34	OK!
One-Way Design Shear Capacity (Corner-Corner. Kips):	450.0	> One-Way Factored Shear (C-C, Kips):	203.9	0.45	OK!
Lower Steel Pad Reinforcement Ratio (L-Direct.):	0.0018	OK! Lower Steel Pad Reinf. Ratio (W-Direc	0.0018		
Lower Steel Pad Moment Capacity (L-Direction. Kips-ft):	1349.0	> Moment at Bottom (L-Dir. K-Ft):	724.5	0.54	OK!
Lower Steel Pad Moment Capacity (W-Direction. Kips-ft):	1349.0	> Moment at Bottom (W-Dir. K-Ft):	724.5	0.54	OK!
Lower Steel Pad Moment Capacity (Corner-Corner,K-ft):	1893.5	> Moment at Bottom (C-C Dir. K-Ft):	1024.5	0.54	OK!
Upper Steel Pad Reinforcement Ratio (L-Direct.):	0.0018	OK! Upper Steel Reinf. Ratio (W-Dir.):	0.0018		
Upper Steel Pad Moment Capacity (L-Direc. Kips-ft):	1349.0	> Moment at the top (L-Dir K-Ft):	293.1	0.22	OK!
Upper Steel Pad Moment Capacity (W-Direc. Kips-ft):	1349.0	> Moment at the top (W-Dir K-Ft):	293.1	0.22	OK!
Upper Steel Pad Moment Capacity (Corner-Corner. K-ft):	1893.5	> Moment at the top (C-C Dir. K-Ft):	289.5	0.15	OK!
<u>(3) Check Punching Shear Capacity due to Moment in the Pier:</u>					
Moment transferred by punching shear:	1321.8	k-ft. Max. factored shear stress $v_{u,CD}$:		1.2	Psi
Max. factored shear stress $v_{u,AB}$:	7.3	Psi Factored shear Strength ϕv_n :		189.7	Psi
Max. factored shear stress v_u :	7.3	Psi Check Usage of Punching Shear Capacity:		0.04	OK!
<u>(4) Check Bending Capacity of the Pad Within the Effective Slab Width:</u>					
Overturning moment to be transferred by flexure:	991.4	k-ft. Effective Width for resisting OT moment:		16.5	ft.
Calculated number of Rebar in Effective width:	22	Actual number of Rebar in Effective width:		22	
Steel Pad Moment Capacity (L-Direc. Kips-ft):	1141.0	k-ft. Check Usage of the Flexure Capacity:		0.87	OK!



Colliers Engineering & Design CT. P.C.
 1055 Washington Boulevard
 Stamford, CT 06901
 203.324.0800
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Antenna Mount Analysis Report and PMI Requirements

Mount ReAnalysis

SMART Tool Project #: 10207134
 Colliers Engineering & Design CT. P.C. Project #: 23777154

July 24, 2023

Site Information

Site ID: 5000185987-VZW / SOUTH FARMS CT
 Site Name: SOUTH FARMS CT
 Carrier Name: Verizon Wireless
 Address: 50 Fairchild Rd.
 Middletown, Connecticut 06457
 Middlesex County
 Latitude: 41.54501111°
 Longitude: -72.62076667°

Structure Information

Tower Type: 130-Ft Monopole
 Mount Type: 4.00-Ft T-Arm

FUZE ID # 17123773

Analysis Results

T-Arm: 31.1% Pass*

***Antennas and equipment to be installed in compliance with PMI Requirements of this mount analysis.**

***Contractor PMI Requirements:

Included at the end of this MA report
 Available & Submitted via portal at <https://pmi.vzwsmart.com>

For additional questions and support, please reach out to:
pmisupport@colliersengineering.com

Report Prepared By: Selene Chen



Executive Summary:

The objective of this report is to determine the capacity of the antenna support mount at the subject facility for the final wireless telecommunications configuration, per the applicable codes and standards. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

This analysis is inclusive of the mount structure only and does not address the structural capacity of the supporting structure. This mounting frame was not analyzed as an anchor attachment point for fall protection. All climbing activities are required to have a fall protection plan completed by a competent person.

Sources of Information:

Document Type	Remarks
Radio Frequency Data Sheet (RFDS)	Verizon RFDS, Site ID: 675042, dated August 22, 2022
Desktop Mount Mapping Report	Colliers Engineering & Design CT. P.C., Project #: 21777971, dated May 17, 2021
Previous Mount Analysis Report	Colliers Engineering & Design CT. P.C., Project #: 21777971 (Rev.2), dated May 23, 2023
Filter Add Scope	Provided by Verizon Wireless

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H 2022 Connecticut State Building Code (CSBC), Effective October 1, 2022
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT} : 120 mph Ice Wind Speed (3-sec. Gust): 50 mph Design Ice Thickness: 1.00 in Risk Category: II Exposure Category: C Topographic Category: 1 Topographic Feature Considered: N/A Topographic Method: N/A Ground Elevation Factor, K_e : 0.993
Seismic Parameters:	S_s : 0.209 g S_1 : 0.056 g
Maintenance Parameters:	Wind Speed (3-sec. Gust): 30 mph Maintenance Load, L_v : 250 lbs. Maintenance Load, L_m : 500 lbs.
Analysis Software:	RISA-3D (V17)

Final Loading Configuration:

The following equipment has been considered for the analysis of the mounts:

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
109.50	110.00	3	Commscope	SDX1926Q-43	Retained
		3	Samsung	MT6407-77A	
		3	JMA Wireless	MX10FIT665-xx	
		3	Samsung	RF4439d-25A	
		3	Samsung	RF4440d-13A	
		1	Raycap	RVZDC-6627-PF-48*	
		4	KAelus	KA-6030	Added

* Equipment is flush mounted directly to the Monopole. They are not mounted on the T-Arms and are not included in this mount analysis.

It is acceptable to install up to any three (3) of the OVP model numbers listed below as required at any location other than the mount face without affecting the structural capacity of the mount. If OVP units are installed on the mount face, a mount re-analysis may be required unless replacing an existing OVP.

Model Number	Ports	AKA
DB-B1-6C-12AB-0Z	6	OVP-6
RVZDC-6627-PF-48	12	OVP-12

Standard Conditions:

1. All engineering services are performed on the basis that the information provided to Colliers Engineering & Design CT. P.C. and used in this analysis is current and correct. The existing equipment loading has been applied at locations determined from the supplied documentation. Any deviation from the loading locations specified in this report shall be communicated to Colliers Engineering & Design CT. P.C. to verify deviation will not adversely impact the analysis.
2. Mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping and reported in the Mount Mapping Report are assumed to be corrected and documented as part of the PMI process and are not considered in the mount analysis.

The mount analysis and the mount mapping are not a condition assessment of the mount. Proper maintenance and condition assessments are still required post analysis.

3. For mount analyses completed from other data sources (including new replacement mounts) and not specifically mapped in accordance with the NSTD-446 Standard, the mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.
4. 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.

5. The mount was checked up to, and including, the bolts that fasten it to the mount collar/attachment and threaded rod connections in collar members if applicable. Local deformation and interaction between the mount collar/attachment and the supporting tower structure are outside the scope of this analysis.
6. All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. Colliers Engineering & Design CT. P.C. is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.
7. Structural Steel Grades have been assumed as follows, if applicable, unless otherwise noted in this analysis:
 - o Channel, Solid Round, Angle, Plate ASTM A36 (Gr. 36)
 - o HSS (Rectangular) ASTM 500 (Gr. B-46)
 - o Pipe ASTM A53 (Gr. B-35)
 - o Threaded Rod F1554 (Gr. 36)
 - o Bolts ASTM A325

Discrepancies between in-field conditions and the assumptions listed above may render this analysis invalid unless explicitly approved by Colliers Engineering & Design CT. P.C..

Analysis Results:

Component	Utilization %	Pass/Fail
Standoff Arm	13.5 %	Pass
Horizontal	31.1 %	Pass
Antenna Pipe	20.0 %	Pass
Connection Check	21.1 %	Pass

Structure Rating – (Controlling Utilization of all Components)	31.1%*
---	---------------

*The mount has been found structurally adequate for all steel and external connection capacities. Serviceability in accordance with TIA-222-H Section 4.9.11.3 has not been considered.

BASELINE mount weight per SBA agreement: 511.29 lbs

Increase in mount weight due to Verizon loading change per SBA agreement: No Change

The weights listed above include 3 sectors.

Mount Steel (EPA)a per ANSI/TIA-222-H Section 2.6.11.2:

Ice Thickness (In)	Mount Pipes Excluded		Mount Pipes Included	
	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)
0	1.5	0.3	4.9	3.7
0.5	2.0	0.3	6.9	5.2
1	2.5	0.4	8.8	6.7

Notes:

- (EPA)a values listed above may be used in the absence of more precise information
- (EPA)a values in the table above include 1 sector(s).
- Ka factors included in (EPA)a calculations

Requirements:

The existing mounts are **SUFFICIENT** for the final loading configuration shown in attachment 2 and do not require modifications. Additional requirements are noted below.

Contractor shall verify previous project by Colliers Engineering & Design CT. P.C. dated 05/23/2023 have been installed prior to installation of equipment. **Escalate any discrepancies to EOR immediately as it may render the results of this analysis invalid and require additional modifications.**

If required, ANSI/ASSP rigging plan review services compliant with the requirements of ANSI/TIA 322 are available for a Construction Class IV site or other. Separate review fees will apply.

Attachments:

1. **Contractor Required Post Installation Inspection (PMI) Report Deliverables**
2. Antenna Placement Diagrams
3. Mount Photos
4. Desktop Mount Mapping Form (for reference only)
5. Analysis Calculations

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – **Passing Mount Analysis**

Passing Mount Analysis requires a PMI due to a modification in loading.

Electronic pdf version of this can be downloaded at <https://pmi.vzwsmart.com>.

For additional questions and support, please reach out to pmisupport@colliersengineering.com

MDG #: 5000185987

SMART Project #: 10207134

Fuze Project ID: 17123773

Purpose – to provide SMART Tool structural vendor the proper documentation in order to complete the required Mount Desktop review of the Post Modification Inspection Report.

- Contractor is responsible for making certain the photos provided as noted below provide confirmation that the installation was completed in accordance with this Passing Mount Analysis.
- Contractor shall relay any data that can impact the performance of the mount, this includes safety issues.

Base Requirements:

- If installation will cause damage to the structure, the climbing facility, or safety climb if present or any installed system, SMART Tool vendor to be notified prior to install. Any special photos outside of the standard requirements will be indicated on the drawings.
- Provide “as built mount drawings” showing contractor’s name, contact information, preparer’s signature, and date. Any deviations from the drawings (Proposed modification) shall be shown. NOTE: If loading is different than what is conveyed in the passing mount analysis (MA) contact the SMART Tool vendor immediately.
- Each photo should be time and date stamped
- Photos should be high resolution.
- Contractor shall ensure that the safety climb wire rope is supported and not adversely impacted by the install of the modification components. This may involve the install of wire rope guides, or other items to protect the wire rope. If there is conflict, contact the SMART Tool engineer for recommendations.
- The PMI can be accessed at the following portal: <https://pmi.vzwsmart.com>

Photo Requirements:

- **Photos taken at ground level!**
 - Photo of Gate Signs showing the tower owner, site name, and number.
 - Overall tower structure after installation.
 - Photos of the mount after installation; if the mounts are at different rad elevations, pictures must be provided for all elevations that equipment was installed.
- **Photos taken at Mount Elevation**
 - Photos showing the safety climb wire rope above and below the mount prior to installation.
 - Photos showing the climbing facility and safety climb if present.
 - Photos showing each individual sector after installation. Each entire sector shall be in one photo to show the interconnection of members.

- These photos shall also certify that the placement and geometry of the equipment on the mount is as depicted in the antenna placement diagram in this form.
- Photos that show the model number of each antenna and piece of equipment installed per sector.

Antenna & equipment placement and Geometry Confirmation:

- The contractor shall certify that the antenna & equipment placement and geometry is in accordance with the sketch and table as included in the mount analysis and noted below.

The contractor certifies that the photos support and the equipment on the mount is as depicted on the sketch and table included in this form and with the mount analysis provided.

OR

The contractor notes that the equipment on the mount is not in accordance with the sketch and has noted the differences below and provided photo documentation of any alterations.

Special Instructions / Validation as required from the MA or any other information the contractor deems necessary to share that was identified:

Issue:

Contractor shall verify previous project by Colliers Engineering & Design CT, P.C. dated 05/23/2023 have been installed prior to installation of equipment. **Escalate any discrepancies to EOR immediately as it may render the results of this analysis invalid and require additional modifications.**

Response:

Special Instruction Confirmation:

The contractor has read and acknowledges the above special instructions.

All hardware listed in the Special Instructions above (if applicable) has been properly installed, and the existing hardware was inspected.

The material utilized was as specified in the SMART Tool engineering vendor Special Instructions above (if applicable) and included in the material certification folder is a packing list or invoice for these materials.

OR

The material utilized was approved by a SMART Tool engineering vendor as an "equivalent" and this approval is included as part of the contractor submission.

Comments:

--

Contractor certifies that the climbing facility / safety climb was not damaged prior to starting work:

Yes No

Contractor certifies no new damage created during the current installation:

Yes No

Contractor to certify the condition of the safety climb and verify no damage when leaving the site:

Safety Climb in Good Condition Safety Climb Damaged

Certifying Individual:

Company:	
Employee Name:	
Contact Phone:	
Email:	
Date:	

Structure: 5000185987-VZW - SOUTH FARMS CT

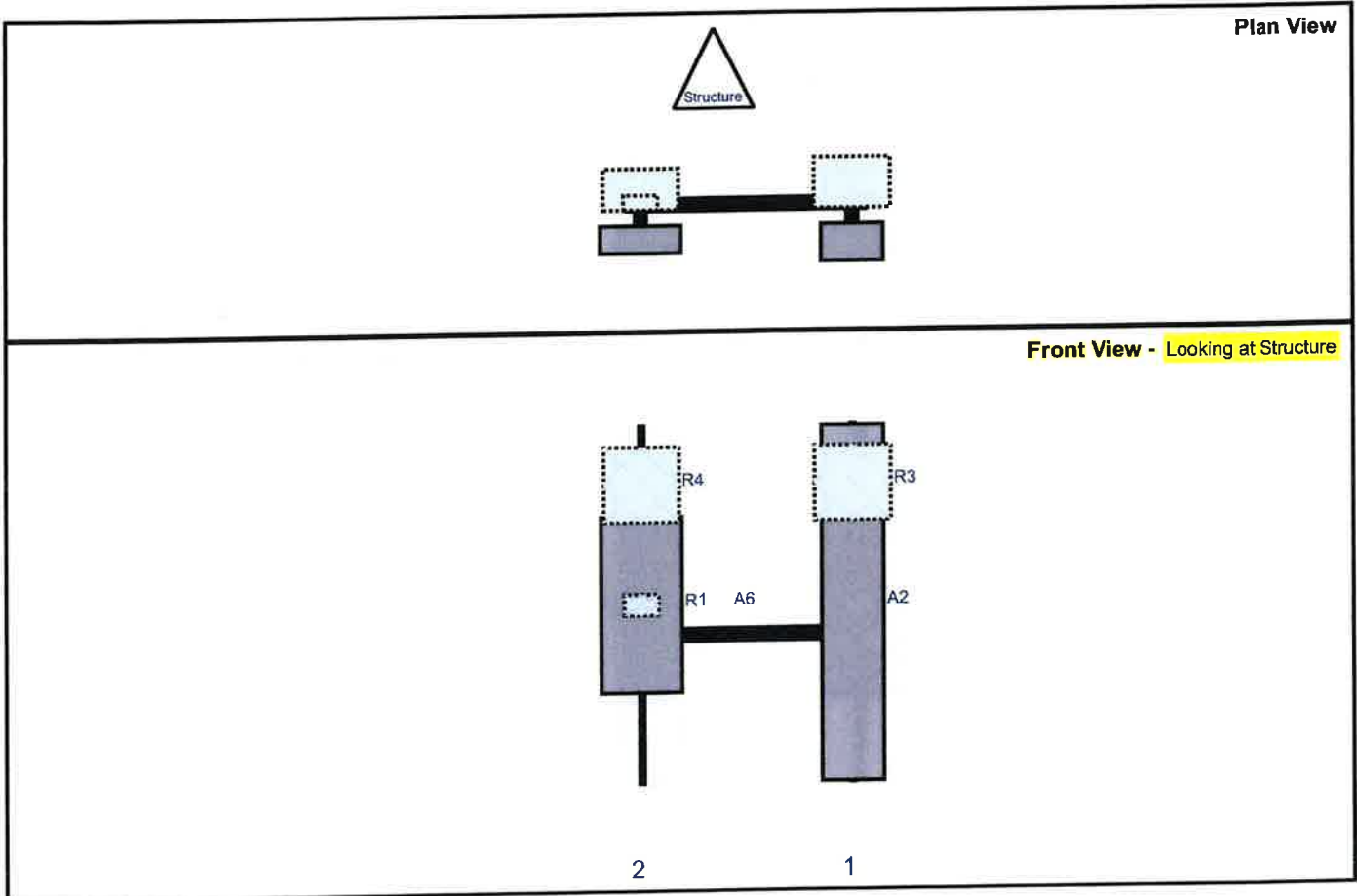
Sector: **A**
 Structure Type: Monopole
 Mount Elev: 109.50

10207134

7/20/2023



Page: 1



Ref#	Model	Height (in)	Width (in)	H Dist Fm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A2	MX10FIT665-xx	70.9	12.2	45	1	a	Front	36	0	Retained	
R3	RF4439d-25A	15	15	45	1	a	Behind	12	0	Retained	
R1	MT6407-77A	35.1	16.1	3	2	a	Front	36	0	Retained	
R4	RF4440d-13A	15	15	3	2	a	Behind	12	0	Retained	
A6	SDX1926Q-43	4.2	6.9	3	2	a	Behind	36	0	Retained	

Structure: 5000185987-VZW - SOUTH FARMS CT

Sector: B

7/20/2023

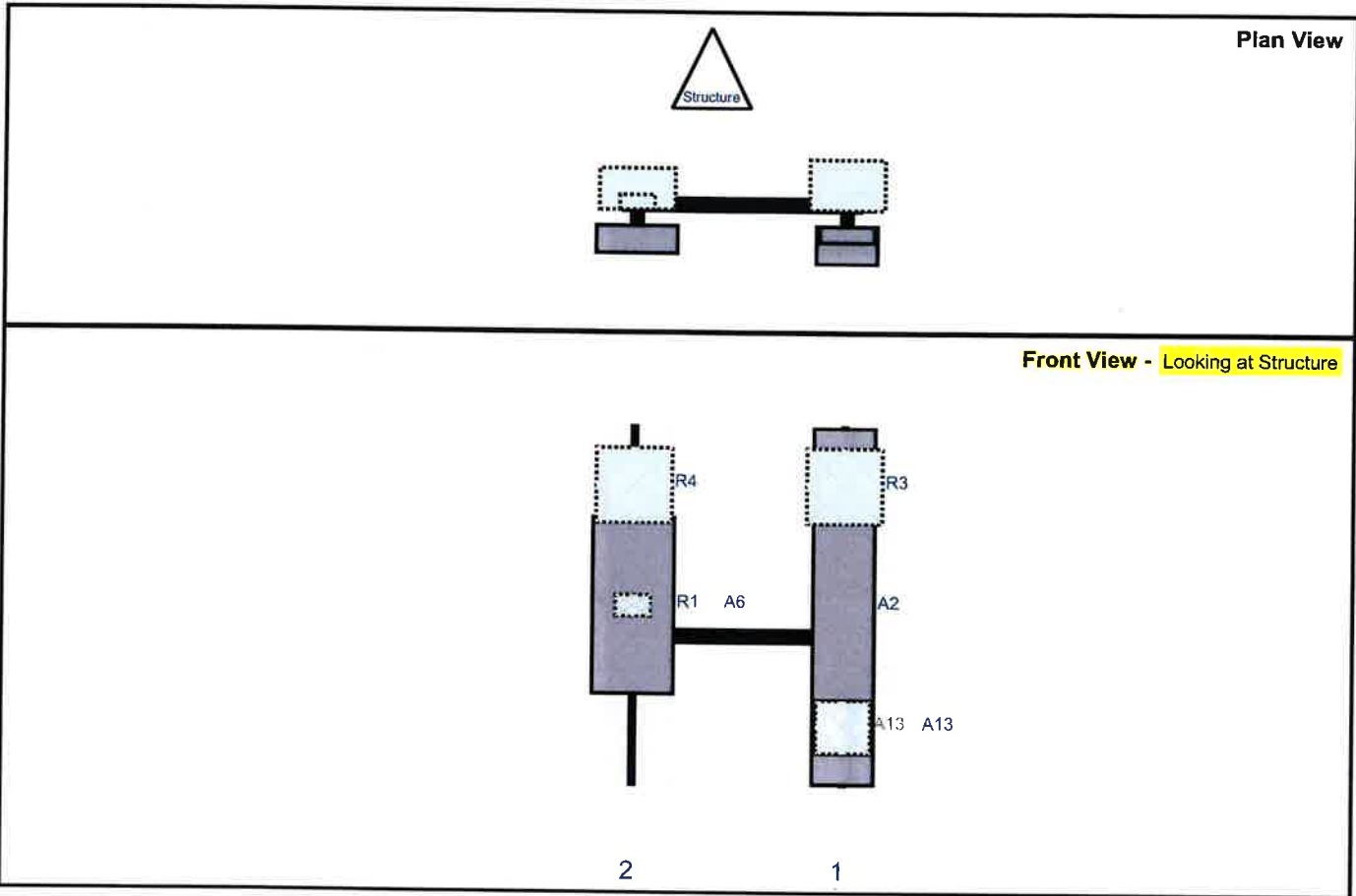
Structure Type: Monopole

10207134



Mount Elev: 109.50

Page: 2



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A2	MX10FIT665-xx	70.9	12.2	45	1	a	Front	36	0	Retained	
R3	RF4439d-25A	15	15	45	1	a	Behind	12	0	Retained	
A13	KA-6030	10.6	10.9	45	1	a	Front	60	0	Added	
A13	KA-6030	10.6	10.9	45	1	b	Behind	60	0	Added	
R1	MT6407-77A	35.1	16.1	3	2	a	Front	36	0	Retained	
R4	RF4440d-13A	15	15	3	2	a	Behind	12	0	Retained	
A6	SDX1926Q-43	4.2	6.9	3	2	a	Behind	36	0	Retained	

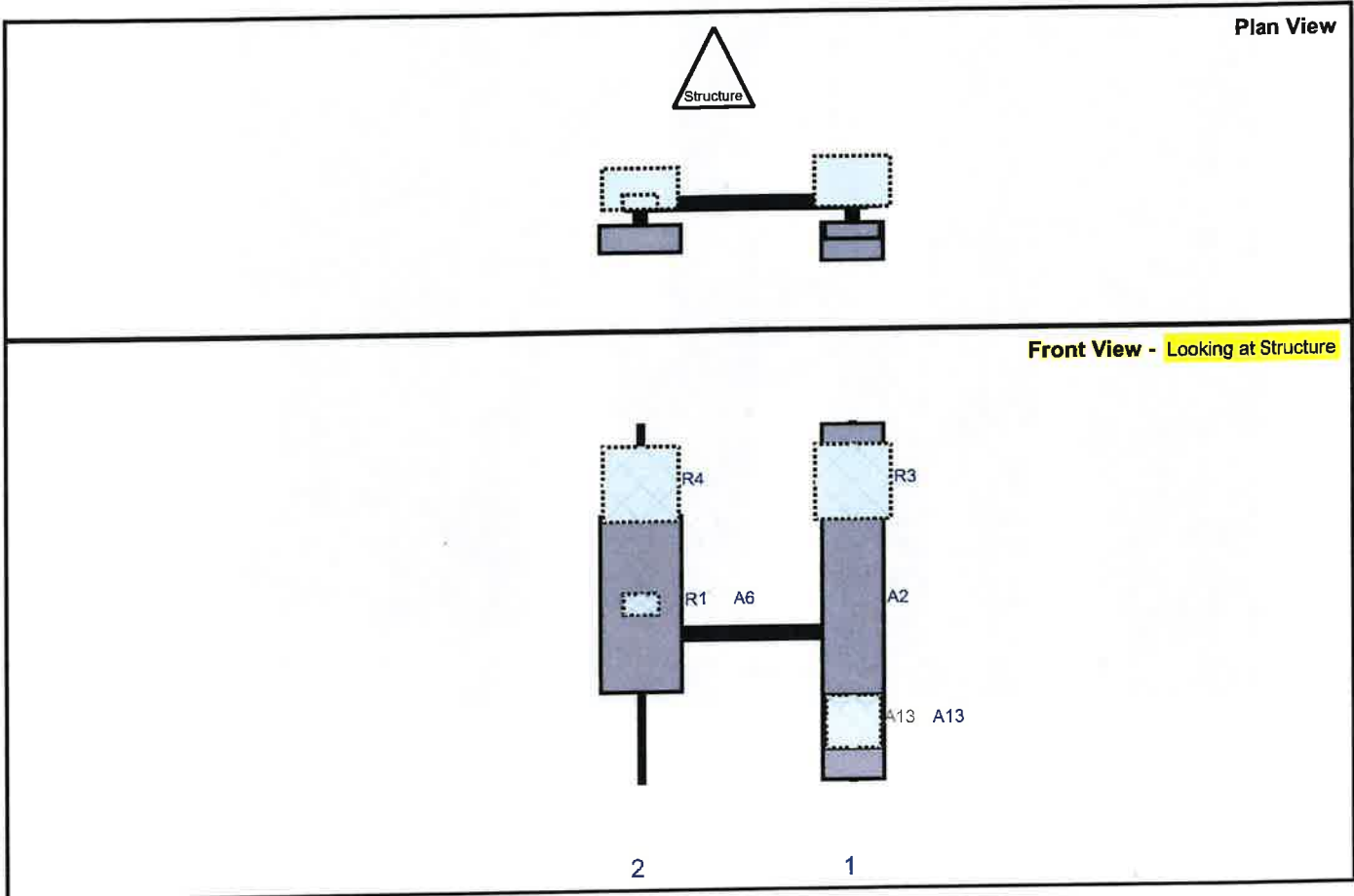
Sector: C

Structure Type: Monopole

10207134

Mount Elev: 109.50

Page: 3



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A2	MX10FIT665-xx	70.9	12.2	45	1	a	Front	36	0	Retained	
R3	RF4439d-25A	15	15	45	1	a	Behind	12	0	Retained	
A13	KA-6030	10.6	10.9	45	1	a	Front	60	0	Added	
A13	KA-6030	10.6	10.9	45	1	b	Behind	60	0	Added	
R1	MT6407-77A	35.1	16.1	3	2	a	Front	36	0	Retained	
R4	RF4440d-13A	15	15	3	2	a	Behind	12	0	Retained	
A6	SDX1926Q-43	4.2	6.9	3	2	a	Behind	36	0	Retained	

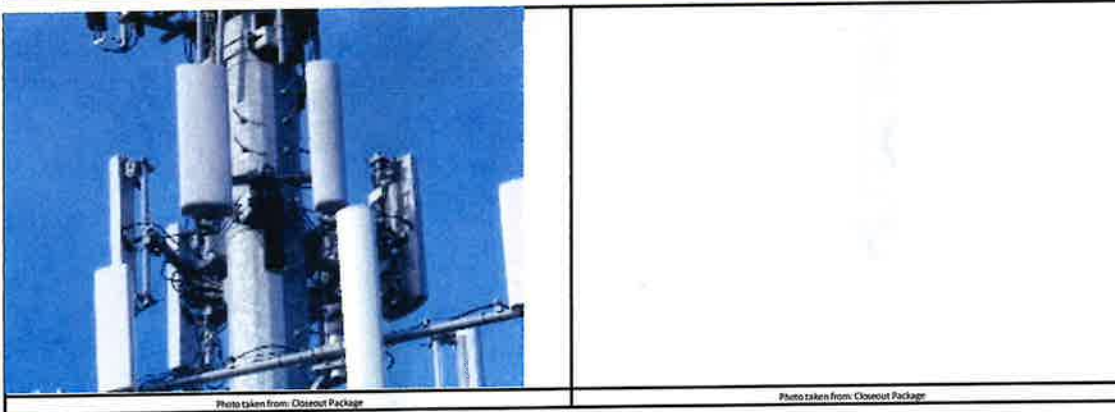


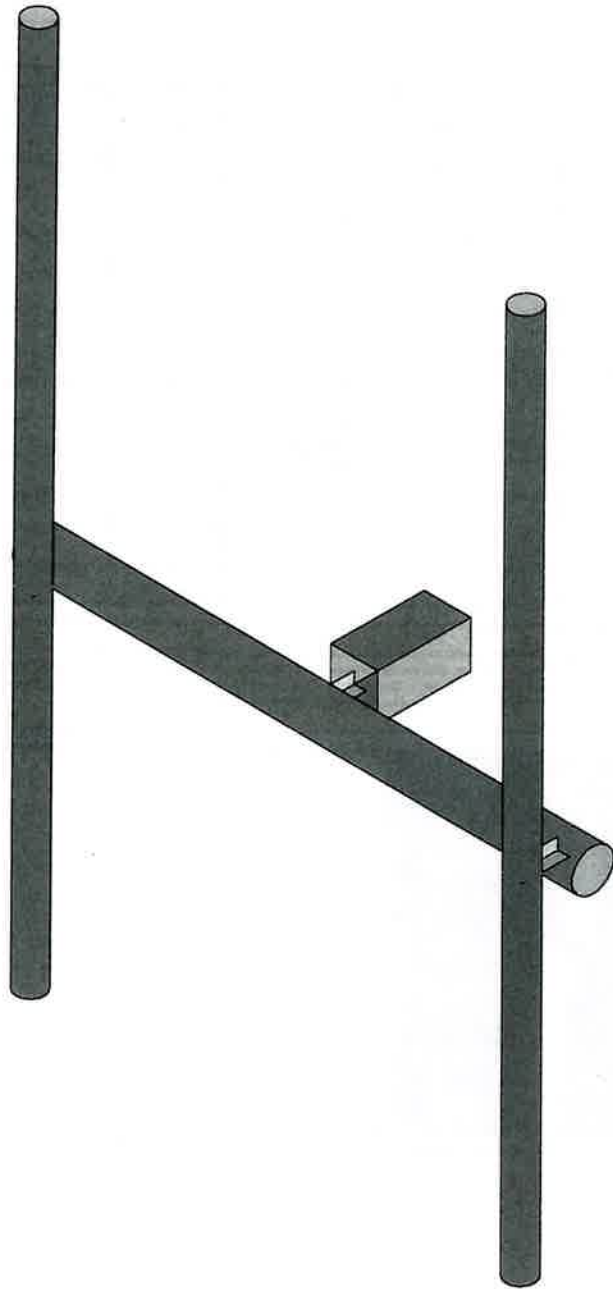
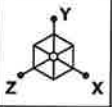
Desktop Mount Mapping Form				
	Site Name:	South Farms CT	Tower Type:	Monopole
	Site ID:	635834	Tower Owner:	
	FUZE Project ID:		Tower Height (FL):	130
	Customer:	Verizon Wireless	Mount Elevation (FL):	110
	Colliers Project No.:	21777971	Date:	5/17/2021

The information contained herein is considered confidential in nature and is to be used only for the specific customer it was intended for. Reproduction, transmission, publication, modification or disclosure by any method is prohibited except by express written permission of Colliers Engineering & Design.

Document Type	Provided? (Yes/No)	Source Name	Project No.	Dated	Comments/Remarks
Previous Mount Mapping	No				
Previous Mapping Photos	No				
Previous Mount Analysis	No				
Previous Mount Modifications	No				
Previous Structural Analysis	No				
Construction Drawings	Yes	On Air Engineering	Not Provided	1/15/2014	
Closeout Package	No				
Closeout Photos	Yes	Unknown	Not Provided	4/27/2016	
Handover Package	No				
New Build 445 Documentation	No				
Other	No				
Previous PMI	No				

The **desktop mount mapping** is based on the engineering review of the available site documents in FUZE, as listed above, in place of a full mount mapping. It is assumed that the information provided in the documents listed above, provide an accurate representation of the existing mount. EOR reserves the right and will typically require additional clarification and verification as will be included in the PMI requirements. During the Post Modification Inspection (PMI) process, the GC on site will be required to confirm all questions, confirmations, and validations as posed by the EOR. The engineering review for this desktop mount mapping was performed in accordance to the ANSI/TIA-222-H requirements and Verizon's NSTD446 standard.



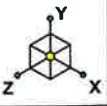


Envelope Only Solution

SK - 1

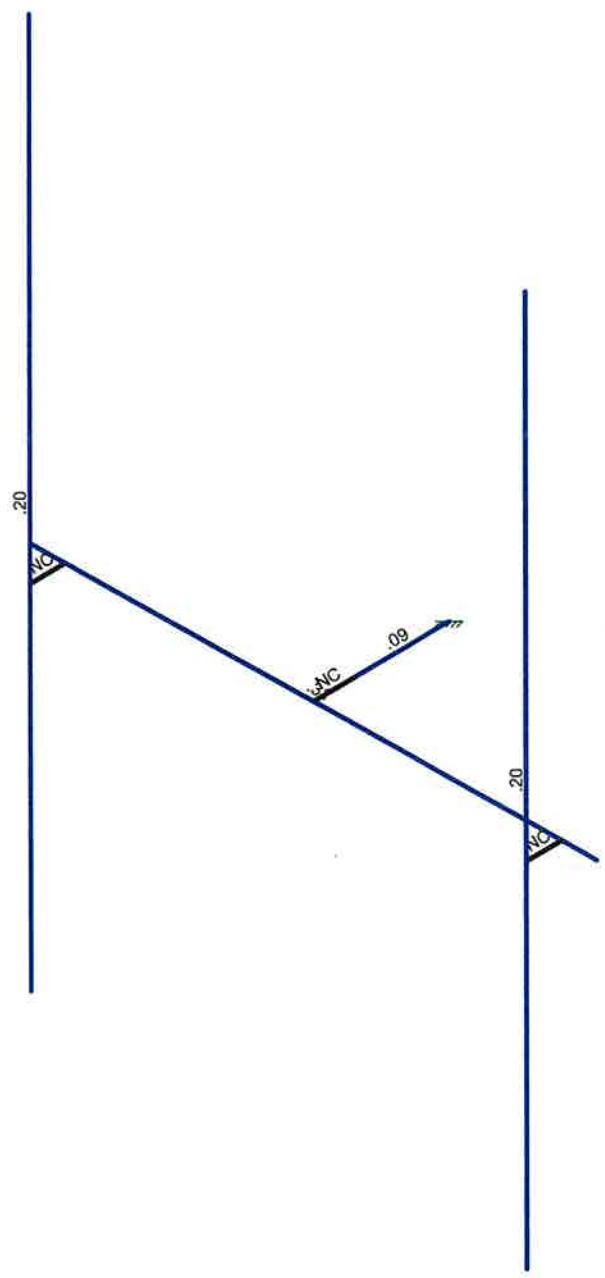
July 20, 2023 at 11:24 AM

5000185987-VZW_MT_LOT_B_H....



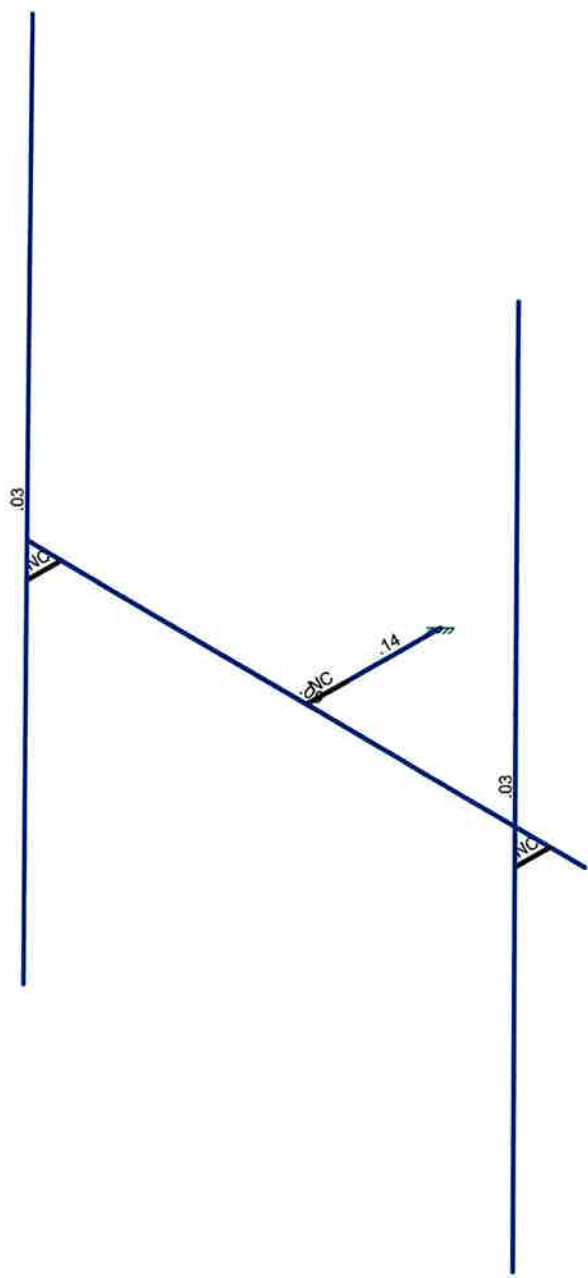
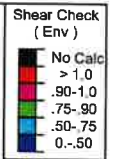
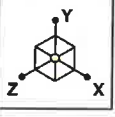
Code Check
(Env)

- No Calc
- > 1.0
- .90-1.0
- .75-.90
- .50-.75
- 0-.50



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

		SK - 2
		July 20, 2023 at 11:24 AM
		5000185987-VZW_MT_LOT_B_H....



Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

		SK - 3
		July 20, 2023 at 11:24 AM
		5000185987-VZW_MT_LOT_B_H....



Company :
 Designer :
 Job Number :
 Model Name :

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 Checked By: _____

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me...	Surface(...
1	Antenna D	None					27		
2	Antenna Di	None					27		
3	Antenna Wo (0 Deg)	None					27		
4	Antenna Wo (30 Deg)	None					27		
5	Antenna Wo (60 Deg)	None					27		
6	Antenna Wo (90 Deg)	None					27		
7	Antenna Wo (120 Deg)	None					27		
8	Antenna Wo (150 Deg)	None					27		
9	Antenna Wo (180 Deg)	None					27		
10	Antenna Wo (210 Deg)	None					27		
11	Antenna Wo (240 Deg)	None					27		
12	Antenna Wo (270 Deg)	None					27		
13	Antenna Wo (300 Deg)	None					27		
14	Antenna Wo (330 Deg)	None					27		
15	Antenna Wi (0 Deg)	None					27		
16	Antenna Wi (30 Deg)	None					27		
17	Antenna Wi (60 Deg)	None					27		
18	Antenna Wi (90 Deg)	None					27		
19	Antenna Wi (120 Deg)	None					27		
20	Antenna Wi (150 Deg)	None					27		
21	Antenna Wi (180 Deg)	None					27		
22	Antenna Wi (210 Deg)	None					27		
23	Antenna Wi (240 Deg)	None					27		
24	Antenna Wi (270 Deg)	None					27		
25	Antenna Wi (300 Deg)	None					27		
26	Antenna Wi (330 Deg)	None					27		
27	Antenna Wm (0 Deg)	None					27		
28	Antenna Wm (30 Deg)	None					27		
29	Antenna Wm (60 Deg)	None					27		
30	Antenna Wm (90 Deg)	None					27		
31	Antenna Wm (120 Deg)	None					27		
32	Antenna Wm (150 Deg)	None					27		
33	Antenna Wm (180 Deg)	None					27		
34	Antenna Wm (210 Deg)	None					27		
35	Antenna Wm (240 Deg)	None					27		
36	Antenna Wm (270 Deg)	None					27		
37	Antenna Wm (300 Deg)	None					27		
38	Antenna Wm (330 Deg)	None					27		
39	Structure D	None		-1					
40	Structure Di	None						4	
41	Structure Wo (0 Deg)	None						8	
42	Structure Wo (30 Deg)	None						8	
43	Structure Wo (60 Deg)	None						8	
44	Structure Wo (90 Deg)	None						8	
45	Structure Wo (120 Deg)	None						8	
46	Structure Wo (150 Deg)	None						8	
47	Structure Wo (180 Deg)	None						8	
48	Structure Wo (210 Deg)	None						8	
49	Structure Wo (240 Deg)	None						8	
50	Structure Wo (270 Deg)	None						8	
51	Structure Wo (300 Deg)	None						8	
52	Structure Wo (330 Deg)	None						8	
53	Structure Wi (0 Deg)	None						8	
54	Structure Wi (30 Deg)	None						8	
55	Structure Wi (60 Deg)	None						8	
56	Structure Wi (90 Deg)	None						8	



Company :
 Designer :
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Basic Load Cases (Continued)

BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me... Surface(...
57 Structure Wi (120 Deg)	None						8
58 Structure Wi (150 Deg)	None						8
59 Structure Wi (180 Deg)	None						8
60 Structure Wi (210 Deg)	None						8
61 Structure Wi (240 Deg)	None						8
62 Structure Wi (270 Deg)	None						8
63 Structure Wi (300 Deg)	None						8
64 Structure Wi (330 Deg)	None						8
65 Structure Wm (0 Deg)	None						8
66 Structure Wm (30 Deg)	None						8
67 Structure Wm (60 Deg)	None						8
68 Structure Wm (90 Deg)	None						8
69 Structure Wm (120 Deg)	None						8
70 Structure Wm (150 Deg)	None						8
71 Structure Wm (180 Deg)	None						8
72 Structure Wm (210 Deg)	None						8
73 Structure Wm (240 Deg)	None						8
74 Structure Wm (270 Deg)	None						8
75 Structure Wm (300 Deg)	None						8
76 Structure Wm (330 Deg)	None						8
77 Lm1	None					1	
78 Lm2	None					1	
79 Lv1	None					1	
80 Lv2	None					1	
81 Antenna Ev	None					27	
82 Antenna Eh (0 Deg)	None					18	
83 Antenna Eh (90 Deg)	None					18	
84 Structure Ev	ELY		-045				
85 Structure Eh (0 Deg)	ELZ			-111			
86 Structure Eh (90 Deg)	ELX	.111					

Load Combinations

Description	So...	P...	S...	BLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.
1 1.2D+1.0Wo (0 Deg)	Yes	Y		1	1.2	39	1.2	3	1	41	1				
2 1.2D+1.0Wo (30 Deg)	Yes	Y		1	1.2	39	1.2	4	1	42	1				
3 1.2D+1.0Wo (60 Deg)	Yes	Y		1	1.2	39	1.2	5	1	43	1				
4 1.2D+1.0Wo (90 Deg)	Yes	Y		1	1.2	39	1.2	6	1	44	1				
5 1.2D+1.0Wo (120 Deg)	Yes	Y		1	1.2	39	1.2	7	1	45	1				
6 1.2D+1.0Wo (150 Deg)	Yes	Y		1	1.2	39	1.2	8	1	46	1				
7 1.2D+1.0Wo (180 Deg)	Yes	Y		1	1.2	39	1.2	9	1	47	1				
8 1.2D+1.0Wo (210 Deg)	Yes	Y		1	1.2	39	1.2	10	1	48	1				
9 1.2D+1.0Wo (240 Deg)	Yes	Y		1	1.2	39	1.2	11	1	49	1				
10 1.2D+1.0Wo (270 Deg)	Yes	Y		1	1.2	39	1.2	12	1	50	1				
11 1.2D+1.0Wo (300 Deg)	Yes	Y		1	1.2	39	1.2	13	1	51	1				
12 1.2D+1.0Wo (330 Deg)	Yes	Y		1	1.2	39	1.2	14	1	52	1				
13 1.2D + 1.0Di + 1.0Wi (...)	Yes	Y		1	1.2	39	1.2	2	1	40	1	15	1	53	1
14 1.2D + 1.0Di + 1.0Wi (...)	Yes	Y		1	1.2	39	1.2	2	1	40	1	16	1	54	1
15 1.2D + 1.0Di + 1.0Wi (...)	Yes	Y		1	1.2	39	1.2	2	1	40	1	17	1	55	1
16 1.2D + 1.0Di + 1.0Wi (...)	Yes	Y		1	1.2	39	1.2	2	1	40	1	18	1	56	1
17 1.2D + 1.0Di + 1.0Wi (...)	Yes	Y		1	1.2	39	1.2	2	1	40	1	19	1	57	1
18 1.2D + 1.0Di + 1.0Wi (...)	Yes	Y		1	1.2	39	1.2	2	1	40	1	20	1	58	1
19 1.2D + 1.0Di + 1.0Wi (...)	Yes	Y		1	1.2	39	1.2	2	1	40	1	21	1	59	1
20 1.2D + 1.0Di + 1.0Wi (...)	Yes	Y		1	1.2	39	1.2	2	1	40	1	22	1	60	1
21 1.2D + 1.0Di + 1.0Wi (...)	Yes	Y		1	1.2	39	1.2	2	1	40	1	23	1	61	1
22 1.2D + 1.0Di + 1.0Wi (...)	Yes	Y		1	1.2	39	1.2	2	1	40	1	24	1	62	1



Company
Designer
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Load Combinations (Continued)

	Description	So.	P...	S...	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..	BLCFac..			
23	1.2D + 1.0Di + 1.0Wi (...)	Yes	Y		1	1.2	39	1.2	2	1	40	1	25	1	63	1				
24	1.2D + 1.0Di + 1.0Wi (...)	Yes	Y		1	1.2	39	1.2	2	1	40	1	26	1	64	1				
25	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	27	1	65	1						
26	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	28	1	66	1						
27	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	29	1	67	1						
28	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	30	1	68	1						
29	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	31	1	69	1						
30	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	32	1	70	1						
31	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	33	1	71	1						
32	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	34	1	72	1						
33	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	35	1	73	1						
34	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	36	1	74	1						
35	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	37	1	75	1						
36	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	38	1	76	1						
37	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	27	1	65	1						
38	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	28	1	66	1						
39	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	29	1	67	1						
40	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	30	1	68	1						
41	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	31	1	69	1						
42	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	32	1	70	1						
43	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	33	1	71	1						
44	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	34	1	72	1						
45	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	35	1	73	1						
46	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	36	1	74	1						
47	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	37	1	75	1						
48	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	38	1	76	1						
49	1.2D + 1.5Lv1	Yes	Y		1	1.2	39	1.2	79	1.5										
50	1.2D + 1.5Lv2	Yes	Y		1	1.2	39	1.2	80	1.5										
51	1.4D	Yes	Y		1	1.4	39	1.4												
52	1.2D + 1.0Ev + 1.0Eh (...)	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	1	83	ELZ	1	ELX		
53	1.2D + 1.0Ev + 1.0Eh (...)	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.866	83	.5	ELZ	.866	ELX	.5
54	1.2D + 1.0Ev + 1.0Eh (...)	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.5	83	.866	ELZ	.5	ELX	.866
55	1.2D + 1.0Ev + 1.0Eh (...)	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82		83	1	ELZ		ELX	1
56	1.2D + 1.0Ev + 1.0Eh (...)	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.5	83	.866	ELZ	-.5	ELX	.866
57	1.2D + 1.0Ev + 1.0Eh (...)	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.866	83	.5	ELZ	-.866	ELX	.5
58	1.2D + 1.0Ev + 1.0Eh (...)	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-1	83		ELZ	-1	ELX	
59	1.2D + 1.0Ev + 1.0Eh (...)	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.866	83	-.5	ELZ	-.866	ELX	-.5
60	1.2D + 1.0Ev + 1.0Eh (...)	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.5	83	-.866	ELZ	-.5	ELX	-.866
61	1.2D + 1.0Ev + 1.0Eh (...)	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82		83	-1	ELZ		ELX	-1
62	1.2D + 1.0Ev + 1.0Eh (...)	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.5	83	-.866	ELZ	.5	ELX	-.866
63	1.2D + 1.0Ev + 1.0Eh (...)	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.866	83	-.5	ELZ	.866	ELX	-.5
64	0.9D - 1.0Ev + 1.0Eh (...)	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	1	83		ELZ	1	ELX	
65	0.9D - 1.0Ev + 1.0Eh (...)	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.866	83	.5	ELZ	.866	ELX	.5
66	0.9D - 1.0Ev + 1.0Eh (...)	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.5	83	.866	ELZ	.5	ELX	.866
67	0.9D - 1.0Ev + 1.0Eh (...)	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82		83	1	ELZ		ELX	1
68	0.9D - 1.0Ev + 1.0Eh (...)	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.5	83	.866	ELZ	-.5	ELX	.866
69	0.9D - 1.0Ev + 1.0Eh (...)	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.866	83	.5	ELZ	.866	ELX	.5
70	0.9D - 1.0Ev + 1.0Eh (...)	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-1	83		ELZ	-1	ELX	
71	0.9D - 1.0Ev + 1.0Eh (...)	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.866	83	-.5	ELZ	.866	ELX	-.5
72	0.9D - 1.0Ev + 1.0Eh (...)	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.5	83	-.866	ELZ	-.5	ELX	-.866
73	0.9D - 1.0Ev + 1.0Eh (...)	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82		83	-1	ELZ		ELX	-1
74	0.9D - 1.0Ev + 1.0Eh (...)	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.5	83	-.866	ELZ	.5	ELX	-.866
75	0.9D - 1.0Ev + 1.0Eh (...)	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.866	83	-.5	ELZ	.866	ELX	-.5

Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	N1	0	0	1.239583	0	
2	N2	0	0	1.90625	0	
3	N5	0	0	2.197917	0	
4	N6	2	0	2.197917	0	
5	N7	-2	0	2.197917	0	
6	N11	1.75	0	2.197917	0	
7	N12	1.75	0	2.447917	0	
8	N13	1.75	3.5	2.447917	0	
9	N14	1.75	-2.5	2.447917	0	
10	N15	-1.75	0	2.197917	0	
11	N16	-1.75	0	2.447917	0	
12	N17	-1.75	3.5	2.447917	0	
13	N18	-1.75	-2.5	2.447917	0	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design R...	A [in2]	Iy [in4]	Izz [in4]	J [in4]
1	Antenna Pipe	PIPE 2.0	Column	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
2	Standoff Arm	HSS4X4X4	Beam	Tube	A500 Gr.46	Typical	3.37	7.8	7.8	12.8
3	Standoff Pipe	PIPE 3.0	Column	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69
4	Horizontal	PIPE 3.0	Column	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1...	Density[k/f...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
2	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
3	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.42	29000	11154	.3	.65	.49	42	1.4	58	1.3
5	A500 Gr.46	29000	11154	.3	.65	.49	46	1.4	58	1.3
6	A53 Gr. B	29000	11154	.3	.65	.49	35	1.5	60	1.2
7	A500 Gr 50	29000	11154	.3	.65	.49	50	1.5	58	1.2

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N1	N2			Standoff Arm	Beam	Tube	A500 Gr.46	Typical
2	M4	N7	N6			Horizontal	Column	Pipe	A53 Gr. B	Typical
3	MP1A	N13	N14			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
4	M8	N11	N12			RIGID	None	None	RIGID	Typical
5	MP2A	N17	N18			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
6	M10	N15	N16			RIGID	None	None	RIGID	Typical
7	M10A	N2	N5			RIGID	None	None	RIGID	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
1	M1						Yes	Default			None
2	M4						Yes	** NA **			None
3	MP1A						Yes	** NA **			None
4	M8						Yes	** NA **			None
5	MP2A						Yes	** NA **			None
6	M10						Yes	** NA **			None
7	M10A						Yes	** NA **			None



Company :
 Designer :
 Job Number :
 Model Name :

July 20, 2023
 11:24 AM
 Checked By: _____

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	Y	-43.55	2
2	MP2A	My	-.022	2
3	MP2A	Mz	0	2
4	MP2A	Y	-43.55	4
5	MP2A	My	-.022	4
6	MP2A	Mz	0	4
7	MP1A	Y	-36.85	1.5
8	MP1A	My	-.018	1.5
9	MP1A	Mz	0	1.5
10	MP1A	Y	-36.85	4.5
11	MP1A	My	-.018	4.5
12	MP1A	Mz	0	4.5
13	MP1A	Y	-84.4	1
14	MP1A	My	.042	1
15	MP1A	Mz	0	1
16	MP2A	Y	-70.3	1
17	MP2A	My	.035	1
18	MP2A	Mz	0	1
19	MP2A	Y	-6.6	3
20	MP2A	My	.002	3
21	MP2A	Mz	0	3
22	MP1A	Y	-17.6	5
23	MP1A	My	-.006	5
24	MP1A	Mz	0	5
25	MP1A	Y	-17.6	5
26	MP1A	My	.006	5
27	MP1A	Mz	0	5

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	Y	-34.72	2
2	MP2A	My	-.017	2
3	MP2A	Mz	0	2
4	MP2A	Y	-34.72	4
5	MP2A	My	-.017	4
6	MP2A	Mz	0	4
7	MP1A	Y	-60.366	1.5
8	MP1A	My	-.03	1.5
9	MP1A	Mz	0	1.5
10	MP1A	Y	-60.366	4.5
11	MP1A	My	-.03	4.5
12	MP1A	Mz	0	4.5
13	MP1A	Y	-43.757	1
14	MP1A	My	.022	1
15	MP1A	Mz	0	1
16	MP2A	Y	-39.344	1
17	MP2A	My	.02	1
18	MP2A	Mz	0	1
19	MP2A	Y	-6.48	3
20	MP2A	My	.002	3
21	MP2A	Mz	0	3
22	MP1A	Y	6.6	5
23	MP1A	My	.002	5
24	MP1A	Mz	0	5
25	MP1A	Y	6.6	5



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Member Point Loads (BLC 2 : Antenna Di) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
26	MP1A	Mv	-.002	5
27	MP1A	Mz	0	5

Member Point Loads (BLC 3 : Antenna Wo (0 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	0	2
2	MP2A	Z	-79.21	2
3	MP2A	Mx	0	2
4	MP2A	X	0	4
5	MP2A	Z	-79.21	4
6	MP2A	Mx	0	4
7	MP1A	X	0	1.5
8	MP1A	Z	-60.822	1.5
9	MP1A	Mx	0	1.5
10	MP1A	X	0	4.5
11	MP1A	Z	-60.822	4.5
12	MP1A	Mx	0	4.5
13	MP1A	X	0	1
14	MP1A	Z	-62.64	1
15	MP1A	Mx	0	1
16	MP2A	X	0	1
17	MP2A	Z	-62.64	1
18	MP2A	Mx	0	1
19	MP2A	X	0	3
20	MP2A	Z	-9.699	3
21	MP2A	Mx	0	3
22	MP1A	X	0	5
23	MP1A	Z	-38.759	5
24	MP1A	Mx	0	5
25	MP1A	X	0	5
26	MP1A	Z	-38.759	5
27	MP1A	Mx	0	5

Member Point Loads (BLC 4 : Antenna Wo (30 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	33.114	2
2	MP2A	Z	-57.354	2
3	MP2A	Mx	-.017	2
4	MP2A	X	33.114	4
5	MP2A	Z	-57.354	4
6	MP2A	Mx	-.017	4
7	MP1A	X	29.628	1.5
8	MP1A	Z	-51.317	1.5
9	MP1A	Mx	-.015	1.5
10	MP1A	X	29.628	4.5
11	MP1A	Z	-51.317	4.5
12	MP1A	Mx	-.015	4.5
13	MP1A	X	28.744	1
14	MP1A	Z	-49.786	1
15	MP1A	Mx	.014	1
16	MP2A	X	27.784	1
17	MP2A	Z	-48.123	1
18	MP2A	Mx	.014	1
19	MP2A	X	4.15	3
20	MP2A	Z	-7.188	3
21	MP2A	Mx	.001	3



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Member Point Loads (BLC 4 : Antenna Wo (30 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
22	MP1A	X	16.004	5
23	MP1A	Z	-27.72	5
24	MP1A	Mx	-.005	5
25	MP1A	X	16.004	5
26	MP1A	Z	-27.72	5
27	MP1A	Mx	.005	5

Member Point Loads (BLC 5 : Antenna Wo (60 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	34.868	2
2	MP2A	Z	-20.131	2
3	MP2A	Mx	-.017	2
4	MP2A	X	34.868	4
5	MP2A	Z	-20.131	4
6	MP2A	Mx	-.017	4
7	MP1A	X	48.605	1.5
8	MP1A	Z	-28.062	1.5
9	MP1A	Mx	-.024	1.5
10	MP1A	X	48.605	4.5
11	MP1A	Z	-28.062	4.5
12	MP1A	Mx	-.024	4.5
13	MP1A	X	40.861	1
14	MP1A	Z	-23.591	1
15	MP1A	Mx	.02	1
16	MP2A	X	35.874	1
17	MP2A	Z	-20.712	1
18	MP2A	Mx	.018	1
19	MP2A	X	4.764	3
20	MP2A	Z	-2.751	3
21	MP2A	Mx	.001	3
22	MP1A	X	16.027	5
23	MP1A	Z	-9.253	5
24	MP1A	Mx	-.005	5
25	MP1A	X	16.027	5
26	MP1A	Z	-9.253	5
27	MP1A	Mx	.005	5

Member Point Loads (BLC 6 : Antenna Wo (90 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	27.279	2
2	MP2A	Z	0	2
3	MP2A	Mx	-.014	2
4	MP2A	X	27.279	4
5	MP2A	Z	0	4
6	MP2A	Mx	-.014	4
7	MP1A	X	54.558	1.5
8	MP1A	Z	0	1.5
9	MP1A	Mx	-.027	1.5
10	MP1A	X	54.558	4.5
11	MP1A	Z	0	4.5
12	MP1A	Mx	-.027	4.5
13	MP1A	X	42.03	1
14	MP1A	Z	0	1
15	MP1A	Mx	.021	1
16	MP2A	X	34.351	1
17	MP2A	Z	0	1



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Member Point Loads (BLC 6 : Antenna Wo (90 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
18	MP2A	Mx	.017	1
19	MP2A	X	4.102	3
20	MP2A	Z	0	3
21	MP2A	Mx	.001	3
22	MP1A	X	11.756	5
23	MP1A	Z	0	5
24	MP1A	Mx	-.004	5
25	MP1A	X	11.756	5
26	MP1A	Z	0	5
27	MP1A	Mx	.004	5

Member Point Loads (BLC 7 : Antenna Wo (120 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	34.868	2
2	MP2A	Z	20.131	2
3	MP2A	Mx	-.017	2
4	MP2A	X	34.868	4
5	MP2A	Z	20.131	4
6	MP2A	Mx	-.017	4
7	MP1A	X	48.605	1.5
8	MP1A	Z	28.062	1.5
9	MP1A	Mx	-.024	1.5
10	MP1A	X	48.605	4.5
11	MP1A	Z	28.062	4.5
12	MP1A	Mx	-.024	4.5
13	MP1A	X	40.861	1
14	MP1A	Z	23.591	1
15	MP1A	Mx	.02	1
16	MP2A	X	35.874	1
17	MP2A	Z	20.712	1
18	MP2A	Mx	.018	1
19	MP2A	X	4.764	3
20	MP2A	Z	2.751	3
21	MP2A	Mx	.001	3
22	MP1A	X	16.027	5
23	MP1A	Z	9.253	5
24	MP1A	Mx	-.005	5
25	MP1A	X	16.027	5
26	MP1A	Z	9.253	5
27	MP1A	Mx	.005	5

Member Point Loads (BLC 8 : Antenna Wo (150 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	33.114	2
2	MP2A	Z	57.354	2
3	MP2A	Mx	-.017	2
4	MP2A	X	33.114	4
5	MP2A	Z	57.354	4
6	MP2A	Mx	-.017	4
7	MP1A	X	29.628	1.5
8	MP1A	Z	51.317	1.5
9	MP1A	Mx	-.015	1.5
10	MP1A	X	29.628	4.5
11	MP1A	Z	51.317	4.5
12	MP1A	Mx	-.015	4.5
13	MP1A	X	28.744	1



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Member Point Loads (BLC 8 : Antenna Wo (150 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
14	MP1A	Z	49.786	1
15	MP1A	Mx	.014	1
16	MP2A	X	27.784	1
17	MP2A	Z	48.123	1
18	MP2A	Mx	.014	1
19	MP2A	X	4.15	3
20	MP2A	Z	7.188	3
21	MP2A	Mx	.001	3
22	MP1A	X	16.004	5
23	MP1A	Z	27.72	5
24	MP1A	Mx	-.005	5
25	MP1A	X	16.004	5
26	MP1A	Z	27.72	5
27	MP1A	Mx	.005	5

Member Point Loads (BLC 9 : Antenna Wo (180 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	0	2
2	MP2A	Z	79.21	2
3	MP2A	Mx	0	2
4	MP2A	X	0	4
5	MP2A	Z	79.21	4
6	MP2A	Mx	0	4
7	MP1A	X	0	1.5
8	MP1A	Z	60.822	1.5
9	MP1A	Mx	0	1.5
10	MP1A	X	0	4.5
11	MP1A	Z	60.822	4.5
12	MP1A	Mx	0	4.5
13	MP1A	X	0	1
14	MP1A	Z	62.64	1
15	MP1A	Mx	0	1
16	MP2A	X	0	1
17	MP2A	Z	62.64	1
18	MP2A	Mx	0	1
19	MP2A	X	0	3
20	MP2A	Z	9.699	3
21	MP2A	Mx	0	3
22	MP1A	X	0	5
23	MP1A	Z	38.759	5
24	MP1A	Mx	0	5
25	MP1A	X	0	5
26	MP1A	Z	38.759	5
27	MP1A	Mx	0	5

Member Point Loads (BLC 10 : Antenna Wo (210 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	-33.114	2
2	MP2A	Z	57.354	2
3	MP2A	Mx	.017	2
4	MP2A	X	-33.114	4
5	MP2A	Z	57.354	4
6	MP2A	Mx	.017	4
7	MP1A	X	-29.628	1.5
8	MP1A	Z	51.317	1.5
9	MP1A	Mx	.015	1.5



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Member Point Loads (BLC 10 : Antenna Wo (210 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
10	MP1A	X	-29.628	4.5
11	MP1A	Z	51.317	4.5
12	MP1A	Mx	.015	4.5
13	MP1A	X	-28.744	1
14	MP1A	Z	49.786	1
15	MP1A	Mx	-.014	1
16	MP2A	X	-27.784	1
17	MP2A	Z	48.123	1
18	MP2A	Mx	-.014	1
19	MP2A	X	-4.15	3
20	MP2A	Z	7.188	3
21	MP2A	Mx	-.001	3
22	MP1A	X	-16.004	5
23	MP1A	Z	27.72	5
24	MP1A	Mx	.005	5
25	MP1A	X	-16.004	5
26	MP1A	Z	27.72	5
27	MP1A	Mx	-.005	5

Member Point Loads (BLC 11 : Antenna Wo (240 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	-34.868	2
2	MP2A	Z	20.131	2
3	MP2A	Mx	.017	2
4	MP2A	X	-34.868	4
5	MP2A	Z	20.131	4
6	MP2A	Mx	.017	4
7	MP1A	X	-48.605	1.5
8	MP1A	Z	28.062	1.5
9	MP1A	Mx	.024	1.5
10	MP1A	X	-48.605	4.5
11	MP1A	Z	28.062	4.5
12	MP1A	Mx	.024	4.5
13	MP1A	X	-40.861	1
14	MP1A	Z	23.591	1
15	MP1A	Mx	-.02	1
16	MP2A	X	-35.874	1
17	MP2A	Z	20.712	1
18	MP2A	Mx	-.018	1
19	MP2A	X	-4.764	3
20	MP2A	Z	2.751	3
21	MP2A	Mx	-.001	3
22	MP1A	X	-16.027	5
23	MP1A	Z	9.253	5
24	MP1A	Mx	.005	5
25	MP1A	X	-16.027	5
26	MP1A	Z	9.253	5
27	MP1A	Mx	-.005	5

Member Point Loads (BLC 12 : Antenna Wo (270 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	-27.279	2
2	MP2A	Z	0	2
3	MP2A	Mx	.014	2
4	MP2A	X	-27.279	4
5	MP2A	Z	0	4



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Member Point Loads (BLC 12 : Antenna Wo (270 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
6	MP2A	Mx	.014	4
7	MP1A	X	-54.558	1.5
8	MP1A	Z	0	1.5
9	MP1A	Mx	.027	1.5
10	MP1A	X	-54.558	4.5
11	MP1A	Z	0	4.5
12	MP1A	Mx	.027	4.5
13	MP1A	X	-42.03	1
14	MP1A	Z	0	1
15	MP1A	Mx	-.021	1
16	MP2A	X	-34.351	1
17	MP2A	Z	0	1
18	MP2A	Mx	-.017	1
19	MP2A	X	-4.102	3
20	MP2A	Z	0	3
21	MP2A	Mx	-.001	3
22	MP1A	X	-11.756	5
23	MP1A	Z	0	5
24	MP1A	Mx	.004	5
25	MP1A	X	-11.756	5
26	MP1A	Z	0	5
27	MP1A	Mx	-.004	5

Member Point Loads (BLC 13 : Antenna Wo (300 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	-34.868	2
2	MP2A	Z	-20.131	2
3	MP2A	Mx	.017	2
4	MP2A	X	-34.868	4
5	MP2A	Z	-20.131	4
6	MP2A	Mx	.017	4
7	MP1A	X	-48.605	1.5
8	MP1A	Z	-28.062	1.5
9	MP1A	Mx	.024	1.5
10	MP1A	X	-48.605	4.5
11	MP1A	Z	-28.062	4.5
12	MP1A	Mx	.024	4.5
13	MP1A	X	-40.861	1
14	MP1A	Z	-23.591	1
15	MP1A	Mx	-.02	1
16	MP2A	X	-35.874	1
17	MP2A	Z	-20.712	1
18	MP2A	Mx	-.018	1
19	MP2A	X	-4.764	3
20	MP2A	Z	-2.751	3
21	MP2A	Mx	-.001	3
22	MP1A	X	-16.027	5
23	MP1A	Z	-9.253	5
24	MP1A	Mx	.005	5
25	MP1A	X	-16.027	5
26	MP1A	Z	-9.253	5
27	MP1A	Mx	-.005	5

Member Point Loads (BLC 14 : Antenna Wo (330 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	-33.114	2



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Member Point Loads (BLC 14 : Antenna Wo (330 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
2	MP2A	Z	-57.354	2
3	MP2A	Mx	.017	2
4	MP2A	X	-33.114	4
5	MP2A	Z	-57.354	4
6	MP2A	Mx	.017	4
7	MP1A	X	-29.628	1.5
8	MP1A	Z	-51.317	1.5
9	MP1A	Mx	.015	1.5
10	MP1A	X	-29.628	4.5
11	MP1A	Z	-51.317	4.5
12	MP1A	Mx	.015	4.5
13	MP1A	X	-28.744	1
14	MP1A	Z	-49.786	1
15	MP1A	Mx	-.014	1
16	MP2A	X	-27.784	1
17	MP2A	Z	-48.123	1
18	MP2A	Mx	-.014	1
19	MP2A	X	-4.15	3
20	MP2A	Z	-7.188	3
21	MP2A	Mx	-.001	3
22	MP1A	X	-16.004	5
23	MP1A	Z	-27.72	5
24	MP1A	Mx	.005	5
25	MP1A	X	-16.004	5
26	MP1A	Z	-27.72	5
27	MP1A	Mx	-.005	5

Member Point Loads (BLC 15 : Antenna Wi (0 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	0	2
2	MP2A	Z	-18.577	2
3	MP2A	Mx	0	2
4	MP2A	X	0	4
5	MP2A	Z	-18.577	4
6	MP2A	Mx	0	4
7	MP1A	X	0	1.5
8	MP1A	Z	-31.236	1.5
9	MP1A	Mx	0	1.5
10	MP1A	X	0	4.5
11	MP1A	Z	-31.236	4.5
12	MP1A	Mx	0	4.5
13	MP1A	X	0	1
14	MP1A	Z	-15.637	1
15	MP1A	Mx	0	1
16	MP2A	X	0	1
17	MP2A	Z	-15.637	1
18	MP2A	Mx	0	1
19	MP2A	X	0	3
20	MP2A	Z	-2.722	3
21	MP2A	Mx	0	3
22	MP1A	X	0	5
23	MP1A	Z	-8.574	5
24	MP1A	Mx	0	5
25	MP1A	X	0	5
26	MP1A	Z	-8.574	5
27	MP1A	Mx	0	5



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Member Point Loads (BLC 16 : Antenna Wi (30 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	7.954	2
2	MP2A	Z	-13.776	2
3	MP2A	Mx	-.004	2
4	MP2A	X	7.954	4
5	MP2A	Z	-13.776	4
6	MP2A	Mx	-.004	4
7	MP1A	X	14.457	1.5
8	MP1A	Z	-25.04	1.5
9	MP1A	Mx	-.007	1.5
10	MP1A	X	14.457	4.5
11	MP1A	Z	-25.04	4.5
12	MP1A	Mx	-.007	4.5
13	MP1A	X	7.222	1
14	MP1A	Z	-12.509	1
15	MP1A	Mx	.004	1
16	MP2A	X	6.996	1
17	MP2A	Z	-12.117	1
18	MP2A	Mx	.003	1
19	MP2A	X	1.2	3
20	MP2A	Z	-2.078	3
21	MP2A	Mx	.0003	3
22	MP1A	X	3.617	5
23	MP1A	Z	-6.265	5
24	MP1A	Mx	-.001	5
25	MP1A	X	3.617	5
26	MP1A	Z	-6.265	5
27	MP1A	Mx	.001	5

Member Point Loads (BLC 17 : Antenna Wi (60 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	9.152	2
2	MP2A	Z	-5.284	2
3	MP2A	Mx	-.005	2
4	MP2A	X	9.152	4
5	MP2A	Z	-5.284	4
6	MP2A	Mx	-.005	4
7	MP1A	X	21.017	1.5
8	MP1A	Z	-12.134	1.5
9	MP1A	Mx	-.011	1.5
10	MP1A	X	21.017	4.5
11	MP1A	Z	-12.134	4.5
12	MP1A	Mx	-.011	4.5
13	MP1A	X	10.444	1
14	MP1A	Z	-6.03	1
15	MP1A	Mx	.005	1
16	MP2A	X	9.267	1
17	MP2A	Z	-5.35	1
18	MP2A	Mx	.005	1
19	MP2A	X	1.519	3
20	MP2A	Z	-.877	3
21	MP2A	Mx	.00038	3
22	MP1A	X	3.944	5
23	MP1A	Z	-2.277	5
24	MP1A	Mx	-.001	5
25	MP1A	X	3.944	5
26	MP1A	Z	-2.277	5



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Member Point Loads (BLC 17 : Antenna Wi (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
27	MP1A	Mx	.001	5

Member Point Loads (BLC 18 : Antenna Wi (90 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	7.898	2
2	MP2A	Z	0	2
3	MP2A	Mx	-.004	2
4	MP2A	X	7.898	4
5	MP2A	Z	0	4
6	MP2A	Mx	-.004	4
7	MP1A	X	21.947	1.5
8	MP1A	Z	0	1.5
9	MP1A	Mx	-.011	1.5
10	MP1A	X	21.947	4.5
11	MP1A	Z	0	4.5
12	MP1A	Mx	-.011	4.5
13	MP1A	X	10.867	1
14	MP1A	Z	0	1
15	MP1A	Mx	.005	1
16	MP2A	X	9.055	1
17	MP2A	Z	0	1
18	MP2A	Mx	.005	1
19	MP2A	X	1.432	3
20	MP2A	Z	0	3
21	MP2A	Mx	.000358	3
22	MP1A	X	3.215	5
23	MP1A	Z	0	5
24	MP1A	Mx	-.001	5
25	MP1A	X	3.215	5
26	MP1A	Z	0	5
27	MP1A	Mx	.001	5

Member Point Loads (BLC 19 : Antenna Wi (120 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	9.152	2
2	MP2A	Z	5.284	2
3	MP2A	Mx	-.005	2
4	MP2A	X	9.152	4
5	MP2A	Z	5.284	4
6	MP2A	Mx	-.005	4
7	MP1A	X	21.017	1.5
8	MP1A	Z	12.134	1.5
9	MP1A	Mx	-.011	1.5
10	MP1A	X	21.017	4.5
11	MP1A	Z	12.134	4.5
12	MP1A	Mx	-.011	4.5
13	MP1A	X	10.444	1
14	MP1A	Z	6.03	1
15	MP1A	Mx	.005	1
16	MP2A	X	9.267	1
17	MP2A	Z	5.35	1
18	MP2A	Mx	.005	1
19	MP2A	X	1.519	3
20	MP2A	Z	.877	3
21	MP2A	Mx	.00038	3
22	MP1A	X	3.944	5



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Member Point Loads (BLC 19 : Antenna Wi (120 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
23	MP1A	Z	2.277	5
24	MP1A	Mx	-.001	5
25	MP1A	X	3.944	5
26	MP1A	Z	2.277	5
27	MP1A	Mx	.001	5

Member Point Loads (BLC 20 : Antenna Wi (150 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	7.954	2
2	MP2A	Z	13.776	2
3	MP2A	Mx	-.004	2
4	MP2A	X	7.954	4
5	MP2A	Z	13.776	4
6	MP2A	Mx	-.004	4
7	MP1A	X	14.457	1.5
8	MP1A	Z	25.04	1.5
9	MP1A	Mx	-.007	1.5
10	MP1A	X	14.457	4.5
11	MP1A	Z	25.04	4.5
12	MP1A	Mx	-.007	4.5
13	MP1A	X	7.222	1
14	MP1A	Z	12.509	1
15	MP1A	Mx	.004	1
16	MP2A	X	6.996	1
17	MP2A	Z	12.117	1
18	MP2A	Mx	.003	1
19	MP2A	X	1.2	3
20	MP2A	Z	2.078	3
21	MP2A	Mx	.0003	3
22	MP1A	X	3.617	5
23	MP1A	Z	6.265	5
24	MP1A	Mx	-.001	5
25	MP1A	X	3.617	5
26	MP1A	Z	6.265	5
27	MP1A	Mx	.001	5

Member Point Loads (BLC 21 : Antenna Wi (180 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	0	2
2	MP2A	Z	18.577	2
3	MP2A	Mx	0	2
4	MP2A	X	0	4
5	MP2A	Z	18.577	4
6	MP2A	Mx	0	4
7	MP1A	X	0	1.5
8	MP1A	Z	31.236	1.5
9	MP1A	Mx	0	1.5
10	MP1A	X	0	4.5
11	MP1A	Z	31.236	4.5
12	MP1A	Mx	0	4.5
13	MP1A	X	0	1
14	MP1A	Z	15.637	1
15	MP1A	Mx	0	1
16	MP2A	X	0	1
17	MP2A	Z	15.637	1
18	MP2A	Mx	0	1



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Member Point Loads (BLC 21 : Antenna Wi (180 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
19	MP2A	X	0	3
20	MP2A	Z	2.722	3
21	MP2A	Mx	0	3
22	MP1A	X	0	5
23	MP1A	Z	8.574	5
24	MP1A	Mx	0	5
25	MP1A	X	0	5
26	MP1A	Z	8.574	5
27	MP1A	Mx	0	5

Member Point Loads (BLC 22 : Antenna Wi (210 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	-7.954	2
2	MP2A	Z	13.776	2
3	MP2A	Mx	.004	2
4	MP2A	X	-7.954	4
5	MP2A	Z	13.776	4
6	MP2A	Mx	.004	4
7	MP1A	X	-14.457	1.5
8	MP1A	Z	25.04	1.5
9	MP1A	Mx	.007	1.5
10	MP1A	X	-14.457	4.5
11	MP1A	Z	25.04	4.5
12	MP1A	Mx	.007	4.5
13	MP1A	X	-7.222	1
14	MP1A	Z	12.509	1
15	MP1A	Mx	-.004	1
16	MP2A	X	-6.996	1
17	MP2A	Z	12.117	1
18	MP2A	Mx	-.003	1
19	MP2A	X	-1.2	3
20	MP2A	Z	2.078	3
21	MP2A	Mx	-.0003	3
22	MP1A	X	-3.617	5
23	MP1A	Z	6.265	5
24	MP1A	Mx	.001	5
25	MP1A	X	-3.617	5
26	MP1A	Z	6.265	5
27	MP1A	Mx	-.001	5

Member Point Loads (BLC 23 : Antenna Wi (240 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	-9.152	2
2	MP2A	Z	5.284	2
3	MP2A	Mx	.005	2
4	MP2A	X	-9.152	4
5	MP2A	Z	5.284	4
6	MP2A	Mx	.005	4
7	MP1A	X	-21.017	1.5
8	MP1A	Z	12.134	1.5
9	MP1A	Mx	.011	1.5
10	MP1A	X	-21.017	4.5
11	MP1A	Z	12.134	4.5
12	MP1A	Mx	.011	4.5
13	MP1A	X	-10.444	1
14	MP1A	Z	6.03	1



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Member Point Loads (BLC 23 : Antenna Wi (240 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
15	MP1A	Mx	-.005	1
16	MP2A	X	-9.267	1
17	MP2A	Z	5.35	1
18	MP2A	Mx	-.005	1
19	MP2A	X	-1.519	3
20	MP2A	Z	.877	3
21	MP2A	Mx	-.00038	3
22	MP1A	X	-3.944	5
23	MP1A	Z	2.277	5
24	MP1A	Mx	.001	5
25	MP1A	X	-3.944	5
26	MP1A	Z	2.277	5
27	MP1A	Mx	-.001	5

Member Point Loads (BLC 24 : Antenna Wi (270 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	-7.898	2
2	MP2A	Z	0	2
3	MP2A	Mx	.004	2
4	MP2A	X	-7.898	4
5	MP2A	Z	0	4
6	MP2A	Mx	.004	4
7	MP1A	X	-21.947	1.5
8	MP1A	Z	0	1.5
9	MP1A	Mx	.011	1.5
10	MP1A	X	-21.947	4.5
11	MP1A	Z	0	4.5
12	MP1A	Mx	.011	4.5
13	MP1A	X	-10.867	1
14	MP1A	Z	0	1
15	MP1A	Mx	-.005	1
16	MP2A	X	-9.055	1
17	MP2A	Z	0	1
18	MP2A	Mx	-.005	1
19	MP2A	X	-1.432	3
20	MP2A	Z	0	3
21	MP2A	Mx	-.000358	3
22	MP1A	X	-3.215	5
23	MP1A	Z	0	5
24	MP1A	Mx	.001	5
25	MP1A	X	-3.215	5
26	MP1A	Z	0	5
27	MP1A	Mx	-.001	5

Member Point Loads (BLC 25 : Antenna Wi (300 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	-9.152	2
2	MP2A	Z	-5.284	2
3	MP2A	Mx	.005	2
4	MP2A	X	-9.152	4
5	MP2A	Z	-5.284	4
6	MP2A	Mx	.005	4
7	MP1A	X	-21.017	1.5
8	MP1A	Z	-12.134	1.5
9	MP1A	Mx	.011	1.5
10	MP1A	X	-21.017	4.5



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Member Point Loads (BLC 25 : Antenna Wi (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
11	MP1A	Z	-12.134	4.5
12	MP1A	Mx	.011	4.5
13	MP1A	X	-10.444	1
14	MP1A	Z	-6.03	1
15	MP1A	Mx	-.005	1
16	MP2A	X	-9.267	1
17	MP2A	Z	-5.35	1
18	MP2A	Mx	-.005	1
19	MP2A	X	-1.519	3
20	MP2A	Z	-.877	3
21	MP2A	Mx	-.00038	3
22	MP1A	X	-3.944	5
23	MP1A	Z	-2.277	5
24	MP1A	Mx	.001	5
25	MP1A	X	-3.944	5
26	MP1A	Z	-2.277	5
27	MP1A	Mx	-.001	5

Member Point Loads (BLC 26 : Antenna Wi (330 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	-7.954	2
2	MP2A	Z	-13.776	2
3	MP2A	Mx	.004	2
4	MP2A	X	-7.954	4
5	MP2A	Z	-13.776	4
6	MP2A	Mx	.004	4
7	MP1A	X	-14.457	1.5
8	MP1A	Z	-25.04	1.5
9	MP1A	Mx	.007	1.5
10	MP1A	X	-14.457	4.5
11	MP1A	Z	-25.04	4.5
12	MP1A	Mx	.007	4.5
13	MP1A	X	-7.222	1
14	MP1A	Z	-12.509	1
15	MP1A	Mx	-.004	1
16	MP2A	X	-6.996	1
17	MP2A	Z	-12.117	1
18	MP2A	Mx	-.003	1
19	MP2A	X	-1.2	3
20	MP2A	Z	-2.078	3
21	MP2A	Mx	-.0003	3
22	MP1A	X	-3.617	5
23	MP1A	Z	-6.265	5
24	MP1A	Mx	.001	5
25	MP1A	X	-3.617	5
26	MP1A	Z	-6.265	5
27	MP1A	Mx	-.001	5

Member Point Loads (BLC 27 : Antenna Wm (0 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	0	2
2	MP2A	Z	-4.951	2
3	MP2A	Mx	0	2
4	MP2A	X	0	4
5	MP2A	Z	-4.951	4
6	MP2A	Mx	0	4



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Member Point Loads (BLC 27 : Antenna Wm (0 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
7	MP1A	X	0	1.5
8	MP1A	Z	-3.801	1.5
9	MP1A	Mx	0	1.5
10	MP1A	X	0	4.5
11	MP1A	Z	-3.801	4.5
12	MP1A	Mx	0	4.5
13	MP1A	X	0	1
14	MP1A	Z	-3.915	1
15	MP1A	Mx	0	1
16	MP2A	X	0	1
17	MP2A	Z	-3.915	1
18	MP2A	Mx	0	1
19	MP2A	X	0	3
20	MP2A	Z	-.606	3
21	MP2A	Mx	0	3
22	MP1A	X	0	5
23	MP1A	Z	-2.422	5
24	MP1A	Mx	0	5
25	MP1A	X	0	5
26	MP1A	Z	-2.422	5
27	MP1A	Mx	0	5

Member Point Loads (BLC 28 : Antenna Wm (30 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	2.07	2
2	MP2A	Z	-3.585	2
3	MP2A	Mx	-.001	2
4	MP2A	X	2.07	4
5	MP2A	Z	-3.585	4
6	MP2A	Mx	-.001	4
7	MP1A	X	1.852	1.5
8	MP1A	Z	-3.207	1.5
9	MP1A	Mx	-.000926	1.5
10	MP1A	X	1.852	4.5
11	MP1A	Z	-3.207	4.5
12	MP1A	Mx	-.000926	4.5
13	MP1A	X	1.796	1
14	MP1A	Z	-3.112	1
15	MP1A	Mx	.000898	1
16	MP2A	X	1.737	1
17	MP2A	Z	-3.008	1
18	MP2A	Mx	.000868	1
19	MP2A	X	.259	3
20	MP2A	Z	-.449	3
21	MP2A	Mx	6.5e-5	3
22	MP1A	X	1	5
23	MP1A	Z	-1.733	5
24	MP1A	Mx	-.000333	5
25	MP1A	X	1	5
26	MP1A	Z	-1.733	5
27	MP1A	Mx	.000333	5

Member Point Loads (BLC 29 : Antenna Wm (60 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	2.179	2
2	MP2A	Z	-1.258	2



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Member Point Loads (BLC 29 : Antenna Wm (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
3	MP2A	Mx	-.001	2
4	MP2A	X	2.179	4
5	MP2A	Z	-1.258	4
6	MP2A	Mx	-.001	4
7	MP1A	X	3.038	1.5
8	MP1A	Z	-1.754	1.5
9	MP1A	Mx	-.002	1.5
10	MP1A	X	3.038	4.5
11	MP1A	Z	-1.754	4.5
12	MP1A	Mx	-.002	4.5
13	MP1A	X	2.554	1
14	MP1A	Z	-1.474	1
15	MP1A	Mx	.001	1
16	MP2A	X	2.242	1
17	MP2A	Z	-1.294	1
18	MP2A	Mx	.001	1
19	MP2A	X	.298	3
20	MP2A	Z	-.172	3
21	MP2A	Mx	7.4e-5	3
22	MP1A	X	1.002	5
23	MP1A	Z	-.578	5
24	MP1A	Mx	-.000334	5
25	MP1A	X	1.002	5
26	MP1A	Z	-.578	5
27	MP1A	Mx	.000334	5

Member Point Loads (BLC 30 : Antenna Wm (90 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	1.705	2
2	MP2A	Z	0	2
3	MP2A	Mx	-.000853	2
4	MP2A	X	1.705	4
5	MP2A	Z	0	4
6	MP2A	Mx	-.000853	4
7	MP1A	X	3.41	1.5
8	MP1A	Z	0	1.5
9	MP1A	Mx	-.002	1.5
10	MP1A	X	3.41	4.5
11	MP1A	Z	0	4.5
12	MP1A	Mx	-.002	4.5
13	MP1A	X	2.627	1
14	MP1A	Z	0	1
15	MP1A	Mx	.001	1
16	MP2A	X	2.147	1
17	MP2A	Z	0	1
18	MP2A	Mx	.001	1
19	MP2A	X	.256	3
20	MP2A	Z	0	3
21	MP2A	Mx	6.4e-5	3
22	MP1A	X	.735	5
23	MP1A	Z	0	5
24	MP1A	Mx	-.000245	5
25	MP1A	X	.735	5
26	MP1A	Z	0	5
27	MP1A	Mx	.000245	5



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Member Point Loads (BLC 31 : Antenna Wm (120 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	2.179	2
2	MP2A	Z	1.258	2
3	MP2A	Mx	-.001	2
4	MP2A	X	2.179	4
5	MP2A	Z	1.258	4
6	MP2A	Mx	-.001	4
7	MP1A	X	3.038	1.5
8	MP1A	Z	1.754	1.5
9	MP1A	Mx	-.002	1.5
10	MP1A	X	3.038	4.5
11	MP1A	Z	1.754	4.5
12	MP1A	Mx	-.002	4.5
13	MP1A	X	2.554	1
14	MP1A	Z	1.474	1
15	MP1A	Mx	.001	1
16	MP2A	X	2.242	1
17	MP2A	Z	1.294	1
18	MP2A	Mx	.001	1
19	MP2A	X	.298	3
20	MP2A	Z	.172	3
21	MP2A	Mx	7.4e-5	3
22	MP1A	X	1.002	5
23	MP1A	Z	.578	5
24	MP1A	Mx	-.000334	5
25	MP1A	X	1.002	5
26	MP1A	Z	.578	5
27	MP1A	Mx	.000334	5

Member Point Loads (BLC 32 : Antenna Wm (150 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	2.07	2
2	MP2A	Z	3.585	2
3	MP2A	Mx	-.001	2
4	MP2A	X	2.07	4
5	MP2A	Z	3.585	4
6	MP2A	Mx	-.001	4
7	MP1A	X	1.852	1.5
8	MP1A	Z	3.207	1.5
9	MP1A	Mx	-.000926	1.5
10	MP1A	X	1.852	4.5
11	MP1A	Z	3.207	4.5
12	MP1A	Mx	-.000926	4.5
13	MP1A	X	1.796	1
14	MP1A	Z	3.112	1
15	MP1A	Mx	.000898	1
16	MP2A	X	1.737	1
17	MP2A	Z	3.008	1
18	MP2A	Mx	.000868	1
19	MP2A	X	.259	3
20	MP2A	Z	.449	3
21	MP2A	Mx	6.5e-5	3
22	MP1A	X	1	5
23	MP1A	Z	1.733	5
24	MP1A	Mx	-.000333	5
25	MP1A	X	1	5
26	MP1A	Z	1.733	5



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Member Point Loads (BLC 32 : Antenna Wm (150 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
27	MP1A	Mx	.000333	5

Member Point Loads (BLC 33 : Antenna Wm (180 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	0	2
2	MP2A	Z	4.951	2
3	MP2A	Mx	0	2
4	MP2A	X	0	4
5	MP2A	Z	4.951	4
6	MP2A	Mx	0	4
7	MP1A	X	0	1.5
8	MP1A	Z	3.801	1.5
9	MP1A	Mx	0	1.5
10	MP1A	X	0	4.5
11	MP1A	Z	3.801	4.5
12	MP1A	Mx	0	4.5
13	MP1A	X	0	1
14	MP1A	Z	3.915	1
15	MP1A	Mx	0	1
16	MP2A	X	0	1
17	MP2A	Z	3.915	1
18	MP2A	Mx	0	1
19	MP2A	X	0	3
20	MP2A	Z	.606	3
21	MP2A	Mx	0	3
22	MP1A	X	0	5
23	MP1A	Z	2.422	5
24	MP1A	Mx	0	5
25	MP1A	X	0	5
26	MP1A	Z	2.422	5
27	MP1A	Mx	0	5

Member Point Loads (BLC 34 : Antenna Wm (210 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	-2.07	2
2	MP2A	Z	3.585	2
3	MP2A	Mx	.001	2
4	MP2A	X	-2.07	4
5	MP2A	Z	3.585	4
6	MP2A	Mx	.001	4
7	MP1A	X	-1.852	1.5
8	MP1A	Z	3.207	1.5
9	MP1A	Mx	.000926	1.5
10	MP1A	X	-1.852	4.5
11	MP1A	Z	3.207	4.5
12	MP1A	Mx	.000926	4.5
13	MP1A	X	-1.796	1
14	MP1A	Z	3.112	1
15	MP1A	Mx	-.000898	1
16	MP2A	X	-1.737	1
17	MP2A	Z	3.008	1
18	MP2A	Mx	-.000868	1
19	MP2A	X	-.259	3
20	MP2A	Z	.449	3
21	MP2A	Mx	-6.5e-5	3
22	MP1A	X	-1	5



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Member Point Loads (BLC 34 : Antenna Wm (210 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
23	MP1A	Z	1.733	5
24	MP1A	Mx	.000333	5
25	MP1A	X	-1	5
26	MP1A	Z	1.733	5
27	MP1A	Mx	-.000333	5

Member Point Loads (BLC 35 : Antenna Wm (240 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	-2.179	2
2	MP2A	Z	1.258	2
3	MP2A	Mx	.001	2
4	MP2A	X	-2.179	4
5	MP2A	Z	1.258	4
6	MP2A	Mx	.001	4
7	MP1A	X	-3.038	1.5
8	MP1A	Z	1.754	1.5
9	MP1A	Mx	.002	1.5
10	MP1A	X	-3.038	4.5
11	MP1A	Z	1.754	4.5
12	MP1A	Mx	.002	4.5
13	MP1A	X	-2.554	1
14	MP1A	Z	1.474	1
15	MP1A	Mx	-.001	1
16	MP2A	X	-2.242	1
17	MP2A	Z	1.294	1
18	MP2A	Mx	-.001	1
19	MP2A	X	-.298	3
20	MP2A	Z	.172	3
21	MP2A	Mx	-7.4e-5	3
22	MP1A	X	-1.002	5
23	MP1A	Z	.578	5
24	MP1A	Mx	.000334	5
25	MP1A	X	-1.002	5
26	MP1A	Z	.578	5
27	MP1A	Mx	-.000334	5

Member Point Loads (BLC 36 : Antenna Wm (270 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	-1.705	2
2	MP2A	Z	0	2
3	MP2A	Mx	.000853	2
4	MP2A	X	-1.705	4
5	MP2A	Z	0	4
6	MP2A	Mx	.000853	4
7	MP1A	X	-3.41	1.5
8	MP1A	Z	0	1.5
9	MP1A	Mx	.002	1.5
10	MP1A	X	-3.41	4.5
11	MP1A	Z	0	4.5
12	MP1A	Mx	.002	4.5
13	MP1A	X	-2.627	1
14	MP1A	Z	0	1
15	MP1A	Mx	-.001	1
16	MP2A	X	-2.147	1
17	MP2A	Z	0	1
18	MP2A	Mx	-.001	1



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Member Point Loads (BLC 36 : Antenna Wm (270 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
19	MP2A	X	-.256	3
20	MP2A	Z	0	3
21	MP2A	Mx	-6.4e-5	3
22	MP1A	X	-.735	5
23	MP1A	Z	0	5
24	MP1A	Mx	.000245	5
25	MP1A	X	-.735	5
26	MP1A	Z	0	5
27	MP1A	Mx	-.000245	5

Member Point Loads (BLC 37 : Antenna Wm (300 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	-2.179	2
2	MP2A	Z	-1.258	2
3	MP2A	Mx	.001	2
4	MP2A	X	-2.179	4
5	MP2A	Z	-1.258	4
6	MP2A	Mx	.001	4
7	MP1A	X	-3.038	1.5
8	MP1A	Z	-1.754	1.5
9	MP1A	Mx	.002	1.5
10	MP1A	X	-3.038	4.5
11	MP1A	Z	-1.754	4.5
12	MP1A	Mx	.002	4.5
13	MP1A	X	-2.554	1
14	MP1A	Z	-1.474	1
15	MP1A	Mx	-.001	1
16	MP2A	X	-2.242	1
17	MP2A	Z	-1.294	1
18	MP2A	Mx	-.001	1
19	MP2A	X	-.298	3
20	MP2A	Z	-.172	3
21	MP2A	Mx	-7.4e-5	3
22	MP1A	X	-1.002	5
23	MP1A	Z	-.578	5
24	MP1A	Mx	.000334	5
25	MP1A	X	-1.002	5
26	MP1A	Z	-.578	5
27	MP1A	Mx	-.000334	5

Member Point Loads (BLC 38 : Antenna Wm (330 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	-2.07	2
2	MP2A	Z	-3.585	2
3	MP2A	Mx	.001	2
4	MP2A	X	-2.07	4
5	MP2A	Z	-3.585	4
6	MP2A	Mx	.001	4
7	MP1A	X	-1.852	1.5
8	MP1A	Z	-3.207	1.5
9	MP1A	Mx	.000926	1.5
10	MP1A	X	-1.852	4.5
11	MP1A	Z	-3.207	4.5
12	MP1A	Mx	.000926	4.5
13	MP1A	X	-1.796	1
14	MP1A	Z	-3.112	1



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Member Point Loads (BLC 38 : Antenna Wm (330 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
15	MP1A	Mx	-.000898	1
16	MP2A	X	-1.737	1
17	MP2A	Z	-3.008	1
18	MP2A	Mx	-.000868	1
19	MP2A	X	-.259	3
20	MP2A	Z	-.449	3
21	MP2A	Mx	-6.5e-5	3
22	MP1A	X	-1	5
23	MP1A	Z	-1.733	5
24	MP1A	Mx	.000333	5
25	MP1A	X	-1	5
26	MP1A	Z	-1.733	5
27	MP1A	Mx	-.000333	5

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	M8	Y	-500	0

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	M10	Y	-500	0

Member Point Loads (BLC 79 : Lv1)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	M4	Y	-250	0

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	M4	Y	-250	%50

Member Point Loads (BLC 81 : Antenna Ev)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	Y	-1.942	2
2	MP2A	Mv	-.000971	2
3	MP2A	Mz	0	2
4	MP2A	Y	-1.942	4
5	MP2A	Mv	-.000971	4
6	MP2A	Mz	0	4
7	MP1A	Y	-1.643	1.5
8	MP1A	Mv	-.000822	1.5
9	MP1A	Mz	0	1.5
10	MP1A	Y	-1.643	4.5
11	MP1A	Mv	-.000822	4.5
12	MP1A	Mz	0	4.5
13	MP1A	Y	-3.763	1
14	MP1A	My	.002	1
15	MP1A	Mz	0	1
16	MP2A	Y	-3.134	1
17	MP2A	Mv	.002	1
18	MP2A	Mz	0	1
19	MP2A	Y	-.294	3
20	MP2A	Mv	7.4e-5	3
21	MP2A	Mz	0	3
22	MP1A	Y	-.785	5

Member Point Loads (BLC 81 : Antenna Ev) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
23	MP1A	Mv	-.000262	5
24	MP1A	Mz	0	5
25	MP1A	Y	-.785	5
26	MP1A	Mv	.000262	5
27	MP1A	Mz	0	5

Member Point Loads (BLC 82 : Antenna Eh (0 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	Z	-4.854	2
2	MP2A	Mx	0	2
3	MP2A	Z	-4.854	4
4	MP2A	Mx	0	4
5	MP1A	Z	-4.108	1.5
6	MP1A	Mx	0	1.5
7	MP1A	Z	-4.108	4.5
8	MP1A	Mx	0	4.5
9	MP1A	Z	-9.408	1
10	MP1A	Mx	0	1
11	MP2A	Z	-7.836	1
12	MP2A	Mx	0	1
13	MP2A	Z	-.736	3
14	MP2A	Mx	0	3
15	MP1A	Z	-1.962	5
16	MP1A	Mx	0	5
17	MP1A	Z	-1.962	5
18	MP1A	Mx	0	5

Member Point Loads (BLC 83 : Antenna Eh (90 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	4.854	2
2	MP2A	Mx	-.002	2
3	MP2A	X	4.854	4
4	MP2A	Mx	-.002	4
5	MP1A	X	4.108	1.5
6	MP1A	Mx	-.002	1.5
7	MP1A	X	4.108	4.5
8	MP1A	Mx	-.002	4.5
9	MP1A	X	9.408	1
10	MP1A	Mx	.005	1
11	MP2A	X	7.836	1
12	MP2A	Mx	.004	1
13	MP2A	X	.736	3
14	MP2A	Mx	.000184	3
15	MP1A	X	1.962	5
16	MP1A	Mx	-.000654	5
17	MP1A	X	1.962	5
18	MP1A	Mx	.000654	5

Member Distributed Loads (BLC 40 : Structure Di)

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F....]	Start Location[ft.%]	End Location[ft.%]
1	M1	Y	-9.345	-9.345	0	%100
2	M4	Y	-6.374	-6.374	0	%100
3	MP1A	Y	-4.824	-4.824	0	%100
4	MP2A	Y	-4.824	-4.824	0	%100



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Member Distributed Loads (BLC 41 : Structure Wo (0 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M4	X	0	0	0	%100
4	M4	Z	-11.059	-11.059	0	%100
5	MP1A	X	0	0	0	%100
6	MP1A	Z	-9.589	-9.589	0	%100
7	MP2A	X	0	0	0	%100
8	MP2A	Z	-9.589	-9.589	0	%100

Member Distributed Loads (BLC 42 : Structure Wo (30 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	1.43	1.43	0	%100
2	M1	Z	-2.477	-2.477	0	%100
3	M4	X	4.147	4.147	0	%100
4	M4	Z	-7.183	-7.183	0	%100
5	MP1A	X	4.794	4.794	0	%100
6	MP1A	Z	-8.304	-8.304	0	%100
7	MP2A	X	4.794	4.794	0	%100
8	MP2A	Z	-8.304	-8.304	0	%100

Member Distributed Loads (BLC 43 : Structure Wo (60 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	7.43	7.43	0	%100
2	M1	Z	-4.29	-4.29	0	%100
3	M4	X	2.394	2.394	0	%100
4	M4	Z	-1.382	-1.382	0	%100
5	MP1A	X	8.304	8.304	0	%100
6	MP1A	Z	-4.794	-4.794	0	%100
7	MP2A	X	8.304	8.304	0	%100
8	MP2A	Z	-4.794	-4.794	0	%100

Member Distributed Loads (BLC 44 : Structure Wo (90 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	11.439	11.439	0	%100
2	M1	Z	0	0	0	%100
3	M4	X	0	0	0	%100
4	M4	Z	0	0	0	%100
5	MP1A	X	9.589	9.589	0	%100
6	MP1A	Z	0	0	0	%100
7	MP2A	X	9.589	9.589	0	%100
8	MP2A	Z	0	0	0	%100

Member Distributed Loads (BLC 45 : Structure Wo (120 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	7.43	7.43	0	%100
2	M1	Z	4.29	4.29	0	%100
3	M4	X	2.394	2.394	0	%100
4	M4	Z	1.382	1.382	0	%100
5	MP1A	X	8.304	8.304	0	%100
6	MP1A	Z	4.794	4.794	0	%100
7	MP2A	X	8.304	8.304	0	%100
8	MP2A	Z	4.794	4.794	0	%100

Member Distributed Loads (BLC 46 : Structure Wo (150 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[ft.%]	End Location[ft.%]
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Member Distributed Loads (BLC 46 : Structure Wo (150 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	1.43	1.43	0	%100
2	M1	Z	2.477	2.477	0	%100
3	M4	X	4.147	4.147	0	%100
4	M4	Z	7.183	7.183	0	%100
5	MP1A	X	4.794	4.794	0	%100
6	MP1A	Z	8.304	8.304	0	%100
7	MP2A	X	4.794	4.794	0	%100
8	MP2A	Z	8.304	8.304	0	%100

Member Distributed Loads (BLC 47 : Structure Wo (180 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M4	X	0	0	0	%100
4	M4	Z	11.059	11.059	0	%100
5	MP1A	X	0	0	0	%100
6	MP1A	Z	9.589	9.589	0	%100
7	MP2A	X	0	0	0	%100
8	MP2A	Z	9.589	9.589	0	%100

Member Distributed Loads (BLC 48 : Structure Wo (210 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-1.43	-1.43	0	%100
2	M1	Z	2.477	2.477	0	%100
3	M4	X	-4.147	-4.147	0	%100
4	M4	Z	7.183	7.183	0	%100
5	MP1A	X	-4.794	-4.794	0	%100
6	MP1A	Z	8.304	8.304	0	%100
7	MP2A	X	-4.794	-4.794	0	%100
8	MP2A	Z	8.304	8.304	0	%100

Member Distributed Loads (BLC 49 : Structure Wo (240 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-7.43	-7.43	0	%100
2	M1	Z	4.29	4.29	0	%100
3	M4	X	-2.394	-2.394	0	%100
4	M4	Z	1.382	1.382	0	%100
5	MP1A	X	-8.304	-8.304	0	%100
6	MP1A	Z	4.794	4.794	0	%100
7	MP2A	X	-8.304	-8.304	0	%100
8	MP2A	Z	4.794	4.794	0	%100

Member Distributed Loads (BLC 50 : Structure Wo (270 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-11.439	-11.439	0	%100
2	M1	Z	0	0	0	%100
3	M4	X	0	0	0	%100
4	M4	Z	0	0	0	%100
5	MP1A	X	-9.589	-9.589	0	%100
6	MP1A	Z	0	0	0	%100
7	MP2A	X	-9.589	-9.589	0	%100
8	MP2A	Z	0	0	0	%100

Member Distributed Loads (BLC 51 : Structure Wo (300 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
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Member Distributed Loads (BLC 51 : Structure Wo (300 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-7.43	-7.43	0	%100
2	M1	Z	-4.29	-4.29	0	%100
3	M4	X	-2.394	-2.394	0	%100
4	M4	Z	-1.382	-1.382	0	%100
5	MP1A	X	-8.304	-8.304	0	%100
6	MP1A	Z	-4.794	-4.794	0	%100
7	MP2A	X	-8.304	-8.304	0	%100
8	MP2A	Z	-4.794	-4.794	0	%100

Member Distributed Loads (BLC 52 : Structure Wo (330 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-1.43	-1.43	0	%100
2	M1	Z	-2.477	-2.477	0	%100
3	M4	X	-4.147	-4.147	0	%100
4	M4	Z	-7.183	-7.183	0	%100
5	MP1A	X	-4.794	-4.794	0	%100
6	MP1A	Z	-8.304	-8.304	0	%100
7	MP2A	X	-4.794	-4.794	0	%100
8	MP2A	Z	-8.304	-8.304	0	%100

Member Distributed Loads (BLC 53 : Structure Wi (0 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M4	X	0	0	0	%100
4	M4	Z	-3.412	-3.412	0	%100
5	MP1A	X	0	0	0	%100
6	MP1A	Z	-3.245	-3.245	0	%100
7	MP2A	X	0	0	0	%100
8	MP2A	Z	-3.245	-3.245	0	%100

Member Distributed Loads (BLC 54 : Structure Wi (30 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	.367	.367	0	%100
2	M1	Z	-.636	-.636	0	%100
3	M4	X	1.28	1.28	0	%100
4	M4	Z	-2.216	-2.216	0	%100
5	MP1A	X	1.623	1.623	0	%100
6	MP1A	Z	-2.81	-2.81	0	%100
7	MP2A	X	1.623	1.623	0	%100
8	MP2A	Z	-2.81	-2.81	0	%100

Member Distributed Loads (BLC 55 : Structure Wi (60 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	1.909	1.909	0	%100
2	M1	Z	-1.102	-1.102	0	%100
3	M4	X	.739	.739	0	%100
4	M4	Z	-.427	-.427	0	%100
5	MP1A	X	2.81	2.81	0	%100
6	MP1A	Z	-1.623	-1.623	0	%100
7	MP2A	X	2.81	2.81	0	%100
8	MP2A	Z	-1.623	-1.623	0	%100

Member Distributed Loads (BLC 56 : Structure Wi (90 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
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Member Distributed Loads (BLC 56 : Structure Wi (90 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	2.939	2.939	0	%100
2	M1	Z	0	0	0	%100
3	M4	X	0	0	0	%100
4	M4	Z	0	0	0	%100
5	MP1A	X	3.245	3.245	0	%100
6	MP1A	Z	0	0	0	%100
7	MP2A	X	3.245	3.245	0	%100
8	MP2A	Z	0	0	0	%100

Member Distributed Loads (BLC 57 : Structure Wi (120 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	1.909	1.909	0	%100
2	M1	Z	1.102	1.102	0	%100
3	M4	X	.739	.739	0	%100
4	M4	Z	.427	.427	0	%100
5	MP1A	X	2.81	2.81	0	%100
6	MP1A	Z	1.623	1.623	0	%100
7	MP2A	X	2.81	2.81	0	%100
8	MP2A	Z	1.623	1.623	0	%100

Member Distributed Loads (BLC 58 : Structure Wi (150 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	.367	.367	0	%100
2	M1	Z	.636	.636	0	%100
3	M4	X	1.28	1.28	0	%100
4	M4	Z	2.216	2.216	0	%100
5	MP1A	X	1.623	1.623	0	%100
6	MP1A	Z	2.81	2.81	0	%100
7	MP2A	X	1.623	1.623	0	%100
8	MP2A	Z	2.81	2.81	0	%100

Member Distributed Loads (BLC 59 : Structure Wi (180 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M4	X	0	0	0	%100
4	M4	Z	3.412	3.412	0	%100
5	MP1A	X	0	0	0	%100
6	MP1A	Z	3.245	3.245	0	%100
7	MP2A	X	0	0	0	%100
8	MP2A	Z	3.245	3.245	0	%100

Member Distributed Loads (BLC 60 : Structure Wi (210 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-.367	-.367	0	%100
2	M1	Z	.636	.636	0	%100
3	M4	X	-1.28	-1.28	0	%100
4	M4	Z	2.216	2.216	0	%100
5	MP1A	X	-1.623	-1.623	0	%100
6	MP1A	Z	2.81	2.81	0	%100
7	MP2A	X	-1.623	-1.623	0	%100
8	MP2A	Z	2.81	2.81	0	%100

Member Distributed Loads (BLC 61 : Structure Wi (240 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
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 Job Number :
 Model Name :

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Member Distributed Loads (BLC 61 : Structure Wi (240 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-1.909	-1.909	0	%100
2	M1	Z	1.102	1.102	0	%100
3	M4	X	-0.739	-0.739	0	%100
4	M4	Z	0.427	0.427	0	%100
5	MP1A	X	-2.81	-2.81	0	%100
6	MP1A	Z	1.623	1.623	0	%100
7	MP2A	X	-2.81	-2.81	0	%100
8	MP2A	Z	1.623	1.623	0	%100

Member Distributed Loads (BLC 62 : Structure Wi (270 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-2.939	-2.939	0	%100
2	M1	Z	0	0	0	%100
3	M4	X	0	0	0	%100
4	M4	Z	0	0	0	%100
5	MP1A	X	-3.245	-3.245	0	%100
6	MP1A	Z	0	0	0	%100
7	MP2A	X	-3.245	-3.245	0	%100
8	MP2A	Z	0	0	0	%100

Member Distributed Loads (BLC 63 : Structure Wi (300 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-1.909	-1.909	0	%100
2	M1	Z	-1.102	-1.102	0	%100
3	M4	X	-0.739	-0.739	0	%100
4	M4	Z	-0.427	-0.427	0	%100
5	MP1A	X	-2.81	-2.81	0	%100
6	MP1A	Z	-1.623	-1.623	0	%100
7	MP2A	X	-2.81	-2.81	0	%100
8	MP2A	Z	-1.623	-1.623	0	%100

Member Distributed Loads (BLC 64 : Structure Wi (330 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-0.367	-0.367	0	%100
2	M1	Z	-0.636	-0.636	0	%100
3	M4	X	-1.28	-1.28	0	%100
4	M4	Z	-2.216	-2.216	0	%100
5	MP1A	X	-1.623	-1.623	0	%100
6	MP1A	Z	-2.81	-2.81	0	%100
7	MP2A	X	-1.623	-1.623	0	%100
8	MP2A	Z	-2.81	-2.81	0	%100

Member Distributed Loads (BLC 65 : Structure Wm (0 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M4	X	0	0	0	%100
4	M4	Z	-0.691	-0.691	0	%100
5	MP1A	X	0	0	0	%100
6	MP1A	Z	-0.599	-0.599	0	%100
7	MP2A	X	0	0	0	%100
8	MP2A	Z	-0.599	-0.599	0	%100

Member Distributed Loads (BLC 66 : Structure Wm (30 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
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Member Distributed Loads (BLC 66 : Structure Wm (30 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	.089	.089	0	%100
2	M1	Z	-.155	-.155	0	%100
3	M4	X	.259	.259	0	%100
4	M4	Z	-.449	-.449	0	%100
5	MP1A	X	.3	.3	0	%100
6	MP1A	Z	-.519	-.519	0	%100
7	MP2A	X	.3	.3	0	%100
8	MP2A	Z	-.519	-.519	0	%100

Member Distributed Loads (BLC 67 : Structure Wm (60 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	.464	.464	0	%100
2	M1	Z	-.268	-.268	0	%100
3	M4	X	.15	.15	0	%100
4	M4	Z	-.086	-.086	0	%100
5	MP1A	X	.519	.519	0	%100
6	MP1A	Z	-.3	-.3	0	%100
7	MP2A	X	.519	.519	0	%100
8	MP2A	Z	-.3	-.3	0	%100

Member Distributed Loads (BLC 68 : Structure Wm (90 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	.715	.715	0	%100
2	M1	Z	0	0	0	%100
3	M4	X	0	0	0	%100
4	M4	Z	0	0	0	%100
5	MP1A	X	.599	.599	0	%100
6	MP1A	Z	0	0	0	%100
7	MP2A	X	.599	.599	0	%100
8	MP2A	Z	0	0	0	%100

Member Distributed Loads (BLC 69 : Structure Wm (120 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	.464	.464	0	%100
2	M1	Z	.268	.268	0	%100
3	M4	X	.15	.15	0	%100
4	M4	Z	.086	.086	0	%100
5	MP1A	X	.519	.519	0	%100
6	MP1A	Z	.3	.3	0	%100
7	MP2A	X	.519	.519	0	%100
8	MP2A	Z	.3	.3	0	%100

Member Distributed Loads (BLC 70 : Structure Wm (150 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	.089	.089	0	%100
2	M1	Z	.155	.155	0	%100
3	M4	X	.259	.259	0	%100
4	M4	Z	.449	.449	0	%100
5	MP1A	X	.3	.3	0	%100
6	MP1A	Z	.519	.519	0	%100
7	MP2A	X	.3	.3	0	%100
8	MP2A	Z	.519	.519	0	%100

Member Distributed Loads (BLC 71 : Structure Wm (180 Deg))

	Member Label	Direction	Start Magnitude[lb/ft.	End Magnitude[lb/ft.F	Start Location[ft.%]	End Location[ft.%]
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Member Distributed Loads (BLC 71 : Structure Wm (180 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M4	X	0	0	0	%100
4	M4	Z	.691	.691	0	%100
5	MP1A	X	0	0	0	%100
6	MP1A	Z	.599	.599	0	%100
7	MP2A	X	0	0	0	%100
8	MP2A	Z	.599	.599	0	%100

Member Distributed Loads (BLC 72 : Structure Wm (210 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-.089	-.089	0	%100
2	M1	Z	.155	.155	0	%100
3	M4	X	-.259	-.259	0	%100
4	M4	Z	.449	.449	0	%100
5	MP1A	X	-.3	-.3	0	%100
6	MP1A	Z	.519	.519	0	%100
7	MP2A	X	-.3	-.3	0	%100
8	MP2A	Z	.519	.519	0	%100

Member Distributed Loads (BLC 73 : Structure Wm (240 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-.464	-.464	0	%100
2	M1	Z	.268	.268	0	%100
3	M4	X	-.15	-.15	0	%100
4	M4	Z	.086	.086	0	%100
5	MP1A	X	-.519	-.519	0	%100
6	MP1A	Z	.3	.3	0	%100
7	MP2A	X	-.519	-.519	0	%100
8	MP2A	Z	.3	.3	0	%100

Member Distributed Loads (BLC 74 : Structure Wm (270 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-.715	-.715	0	%100
2	M1	Z	0	0	0	%100
3	M4	X	0	0	0	%100
4	M4	Z	0	0	0	%100
5	MP1A	X	-.599	-.599	0	%100
6	MP1A	Z	0	0	0	%100
7	MP2A	X	-.599	-.599	0	%100
8	MP2A	Z	0	0	0	%100

Member Distributed Loads (BLC 75 : Structure Wm (300 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-.464	-.464	0	%100
2	M1	Z	-.268	-.268	0	%100
3	M4	X	-.15	-.15	0	%100
4	M4	Z	-.086	-.086	0	%100
5	MP1A	X	-.519	-.519	0	%100
6	MP1A	Z	-.3	-.3	0	%100
7	MP2A	X	-.519	-.519	0	%100
8	MP2A	Z	-.3	-.3	0	%100

Member Distributed Loads (BLC 76 : Structure Wm (330 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
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Member Distributed Loads (BLC 76 : Structure Wm (330 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-089	-089	0	%100
2	M1	Z	-155	-155	0	%100
3	M4	X	-259	-259	0	%100
4	M4	Z	-449	-449	0	%100
5	MP1A	X	-3	-3	0	%100
6	MP1A	Z	-519	-519	0	%100
7	MP2A	X	-3	-3	0	%100
8	MP2A	Z	-519	-519	0	%100

Member Area Loads

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

Envelope Joint Reactions

Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC	
1	N1	max	394.681	11	1271.724	47	651.864	1	-0.214	1	0.575	9	1.393	28
2		min	-394.681	5	371.908	68	-651.864	7	-1.359	43	-0.574	3	-1.27	46
3	Totals:	max	394.681	11	1271.724	47	651.864	1						
4		min	-394.681	5	371.908	68	-651.864	7						

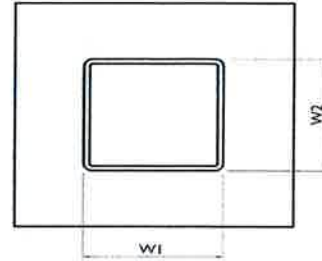
Envelope AISC 15th(360-16): LRFD Steel Code Checks

Member	Shape	Code C...	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y...	phi*Mn z...	Cb	Eqn	
1	M1	HSS4X4X4	.088	0	8	.135	0	v	28	139258.7...	139518	16.181	16.181	1...	H1-1b
2	M4	PIPE 3.0	.311	2	28	.088	2		7	59852.693	65205	5.749	5.749	1...	H1-1b
3	MP1A	PIPE 2.0	.200	3.5	1	.030	3.5		4	20866.733	32130	1.872	1.872	1...	H1-1b
4	MP2A	PIPE 2.0	.195	3.5	1	.027	3.5		8	20866.733	32130	1.872	1.872	1...	H1-1b

Tower Connection Weld Checks

Weld Shape:
Weld Stiffener Configuration:
Weld Size (1/16 in):
W1 (in):
W2 (in):
Weld Total Length (in):
 Z_x (in³/in):
 Z_y (in³/in):
 J_p (in⁴/in):
 c_x (in)
 c_y (in)
Required combined strength (kip/in):
Weld Capacity (kip/in):
Weld Utilization:

Yes
Rectangle
None
4
4
4
16.00
21.33
21.33
85.33
2.25
2.25
0.76
5.57
13.6%



ATTACHMENT 4

67 fairchild

Show search results for 67 f...

67 FAIRCHILD RD

Account Number: R15245

Parcel ID: 15236

Map-Lot: 42-0118

Street Address: 67 FAIRCHILD RD

Owner Name: BORRELLI STEPHEN G &

BARBARA L

Zone: R-30

[View Complete Property Record Card](#)

[Zoom to](#)



Middlesex Hospital Outpatient Center

67 FAIRCHILD RD

Location 67 FAIRCHILD RD

Map-Lot 42 / 0118 / 1

Acct# R15245

Owner BORRELLI STEPHEN G &
BARBARA L

Municipality

Assessment \$578,330

Appraisal \$826,190

PID 15236

Building Count 2

Assessing District

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2022	\$489,970	\$336,220	\$826,190

Assessment			
Valuation Year	Improvements	Land	Total
2022	\$342,980	\$235,350	\$578,330

Parcel Addresses

Additional Addresses
No Additional Addresses available for this parcel

Owner of Record

Owner BORRELLI STEPHEN G & BARBARA L
Co-Owner
Address 67 FAIRCHILD RD
MIDDLETOWN, CT 06457

Sale Price \$0
Certificate
Book & Page 1091/0136
Sale Date 02/28/1996
Instrument 29

Ownership History

Ownership History					
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
BORRELLI STEPHEN G & BARBARA L	\$0		1091/0136	29	02/28/1996

ATTACHMENT 5



Name and Address of Sender

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

TOTAL NO.
of Pieces Listed by Sender

3

TOTAL NO.
of Pieces Received at Post Office™

3

Postmaster, per (name of receiving employee)

[Handwritten Signature]

Affix Stamp Here
Postmark with Date of Receipt.

neopost™
 10/19/2023
US POSTAGE \$003.19
 ZIP 06103
 0411L12203937

USPS® Tracking Number
Firm-specific Identifier

1.

Benjamin Florsheim, Mayor
 City of Middletown
 245 deKoven Drive
 Middletown, CT 06457

2.

Marek Kozikowski, Director of Land Use
 City of Middletown
 245 deKoven Drive
 Middletown, CT 06457

3.

Stephen and Barbara Borelli
 67 Fairchild Road
 Middletown, CT 06457

4.



5.

6.

Parcel Airlift

Special Handling

Fee

Postage