STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
Web Site: portal.ct.gov/csc

VIA ELECTRONIC MAIL

February 18, 2022

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

RE: **EM-VER-118-211004** - Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 76 East Ridge Avenue, Ridgefield, Connecticut

Dear Attorney Baldwin:

The Connecticut Siting Council (Council) received your request to modify Condition No. 1 of its November 26, 2021 approval and the updated Structural Analysis prepared by Tower Engineering Services (TES), dated January 10, 2022, along with the associated Tower Modification Drawings and project plans for the above-referenced facility on February 18, 2022. Thank you for providing this information.

The Council approved the above-referenced request for exempt modification on November 26, 2021 with the following conditions:

1. Prior to Verizon's equipment installation, structural modifications shall be made in accordance with the Structural Analysis prepared by Infinigy, dated September 2, 2021 and stamped and signed by Emmanuel Poulin;
2. Prior to Verizon's antenna installation, antenna mount modifications shall be installed in accordance with the Mount Analysis prepared by Maser Consulting dated June 25, 2021 and stamped and signed by Taqi Khawaja; and
3. Within 45 days following completion of equipment installation, Verizon shall provide documentation certified by a Professional Engineer that its installation complied with the recommendations of the Structural Analysis and Mount Analysis.

The Council hereby grants your request and modifies Condition No. 1 of its November 26, 2021 approval to reference the updated Structural Analysis prepared by TES, dated January 10, 2022. All other conditions of the Council's November 26, 2021 approval remain unchanged.

Thank you for your attention to this matter. Should you have any questions, please feel free to contact me at 860-827-2951

Sincerely,

Melanie Bachman
Executive Director

MAB/CW/emr

c: The Honorable Rudolph Marconi, First Selectman, Town of Ridgefield (selectman@ridgefieldct.org)

Robinson+Cole

KENNETH C. BALDWIN

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Also admitted in Massachusetts
and New York

February 18, 2022

Via Electronic Mail

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

Re: **EM-VER-118-211004 – Approved Modifications to the Ridgefield Police Department tower at 76 East Ridge Avenue, Ridgefield, Connecticut**

Dear Attorney Bachman:

On November 26, 2021, the Siting Council ("Council") acknowledged the Cellco Partnership d/b/a Verizon Wireless ("Cellco") notice of intent to modify its existing wireless facility at the Ridgefield Police Department, 76 East Ridge Road in Ridgefield. Consistent with the Council's submission requirements, Cellco provided the Council information about its proposed modifications including a Structural Analysis ("SA") prepared by Infinigy. The Infinigy SA determined that the tower would need to be reinforced to accommodate Cellco's proposed modifications.

Following the Council's approval and the hand-off of the project to Cellco's construction team and project construction engineers, Tower Engineering Services ("TES") completed a new structural analysis ("SA") to clarify some of the information and assumptions included in the Infinigy SA. The TES SA came to the same general conclusions as the Infinigy SA, that the tower needed to be reinforced to accommodate Cellco's approved modifications. Cellco intends to utilize the TES SA and the associated modification drawing as it proceeds with its facility modifications.

To avoid confusion during the "close out" of the project, Cellco would like to supplement its EM-VER-118-211004 filing and provide the Council with a copy of the TES SA, dated January 10, 2022, Tower Modification Drawings also prepared by TES, dated January 14, 2022 and updated project plans, prepared by Infinigy, dated February 17, 2022 with the appropriate

references to the TES SA and the TES Tower Modification Drawings. The Maser Mounts Analysis ("MA") previously submitted is still valid.

We therefore respectfully request that the Council modify condition no. 1 of its November 26, 2021 approval letter to reference the TES SA dated January 10, 2022. Also, in accordance with condition no. 3 of the Council's approval, Cellco will provide a letter from a Professional Engineer stating that the required modifications comply with the TES SA and MA in the filing.

Please contact me with any questions.

Sincerely,

Kenneth C. Baldwin

Enclosures
Copy to:
Rudy Marconi, Ridgefield First Selectman
Richard Baldelli, Director of Planning & Zoning/ZEO
Aleksey Tyurin

Rudy Marconi, First Selectman
Town of Ridgefield
400 Main Street
Ridgefield, CT 06877

Richard Baldelli, Director of Planning & Zoning/ZEO
Town Hall Annex
66 Prospect Street
Ridgefield, CT 06877

Aleksey Tyurin
Verizon Wireless
20 Alexander Drive
Wallingford, CT 06492

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

Post-Mod Structural Analysis Report

Existing 130 ft Monopole

Customer Name: Verizon New England

Customer Site Number: 468697

Customer Site Name: RIDGEFIELD CT

Carrier Name: Verizon

Carrier Site ID / Name: 468697

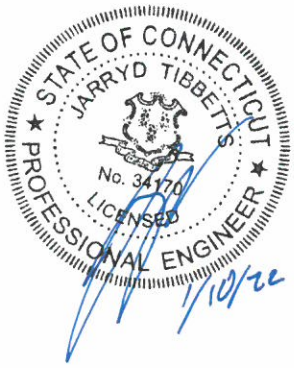
Site Location: 76 EAST RIDGE AVE

RIDGEFIELD, Connecticut

FAIRFIELD County

Latitude: 41.280920

Longitude: -73.492890



Analysis Result:

Max Structural Usage: 95.7% [Pass]

Max Foundation Usage: 91% [Pass]

Report Prepared By: Stacey Hesselbein

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

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Max Structural Usage: 95.7% [Pass]

Max Foundation Usage: 91% [Pass]

Report Prepared By: Stacey Hesselbein

Introduction

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

The proposed modification by **TES** listed under Sources of Information was considered completed and was included in this analysis.

Sources of Information

Tower Drawings	Mapping by Delta Oaks, Project # AGI21-11890-03 Dated 12/06/2021
Foundation Drawing	Mapping by Delta Oaks Project # BGI21-11890-01 Dated 12/01/2021
Geotechnical Report	Delta Oaks Project # GEO21-11890-01 Dated 12/01/2021
RFDS	Verizon RFDS, Site ID: 324770, dated 05/24/2021
Mount Analysis	Maser Engineering Job # 21777243A, SMART Tool Project # 10076918 Dated 06/25/2021
Mount Modification	Maser Engineering, Job # 21777243A Dated 06/24/2021
Existing Modification	N/A
Proposed Modification	TES Job # 121715

Analysis Criteria

The rigorous analysis was performed in accordance with the requirements and stipulations of the TIA-222-G-2**.** In accordance with this standard, the structure was analyzed using **TESPoles,** a proprietary analysis software. The program considers the structure as an elastic 3-D model with second-order effects and temperature effects incorporated in the analysis. The analysis was performed using multiple wind directions.

Wind Speed Used in the Analysis:	Ultimate Design Wind Speed V_{ult} = 120 mph (3-Sec. Gust)/ Nominal Design Wind Speed V_{asd} = 93.0 mph (3-Sec. Gust)
Basic Wind Speed with Ice:	50 mph (3-Sec. Gust) with 3/4" radial ice concurrent
Operational Wind Speed:	60 mph + 0" Radial ice
Standard/Codes:	TIA-222-G-2 / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	B
Structure Class:	III
Topographic Category:	1
Crest Height:	0 ft
Seismic Parameters:	SS = 0.23, S1 = 0.068

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	136.0	1	RFI COL51-160 Omni - Whip	(1) Pipe Mount	(1) 7/8"	Unknown
-	128.0	3	Amphenol QUAD656C0000X Panel	Platform w/ Handrails	(6) 7/8" (2) 1 ¼" Hybrid	Verizon
-		2	Commscope SBNHH-1D65B Panel			
-		4	Commscope SBNHH-1D85B Panel			
-		3	Antel BXA-80080/4CF Panel			
-		3	Samsung XXDWMM-12.5-65-8T-CBRS Panel			
-		3	Commscope CBC78T-DS-43-2X Diplexer			
-		3	Samsung RT4401-48A RRU			
-		3	Samsung B2/B66A RRH-BR049 (RFV01U-D1A) RRU			
-		3	Samsung B5/B13 RRH-BR04C (RFV01U-D2A) RRU			
-		3	Samsung CBRS RRH - RT4401-48A RRU			
-		2	OVP Boxes			
12	127.0	1	RFI 11' 6" Dipole		(2) 1/4"	Unknown
13	114.0	3	Alcatel Lucent RRH 1900-4X45 RRU	Low Profile Platform	(4) 1 1/4"	Sprint
14		3	Alcatel Lucent RRH 8X20-25-FEU RRU			
15		3	RFS APXVSPP18-C-A20 Panel			
16		3	RFS APXVTM14-ALU-120 Panel			
17	112.0	3	Alcatel Lucent RRH 2X50-800 RRU			
18	106.5	1	Commscope VHLP3-11W-6WH/A Dish	(1) Pipe Mount	(1) EW	Unknown
19	106.0	1	BA4040-41-DIN Omni	Platform w/ Handrails	(1) 7/8"	T-Mobile
20	100.0	3	Ericsson AIR 32 B2A B66Aa Panel		(13) 7/8"	
21		3	RFS APXVAARR24_43 Panel			
22		3	Ericsson AIR 6449 B41 Panel			
23		3	Commscope E14F05P86 02			
24	99.0	3	Ericsson 4449 RRU			
25		3	Ericsson 4415 RRU			
26		2	Double TMA 17/21			
27	87.0	1	Commscope VHLP3-11W-6WH/A Dish	(1) Pipe Mount	(1) EW	Unknown
28	86.0	1	10' Omni	(1) Sidearm	(1) 7/8"	
29	84.0	1	Dipole		(1) 7/8"	
30	82.8	1	Commscope VHLP2-11W-6WH/A Dish	(1) Pipe Mount	(1) EW	
31	61.0	1	44' x2'6" Grid Dish	(1) Sidearm	(1) 7/8"	
32	60.0	1	2' Omni	(1) Sidearm	(1) 7/8"	
33	50.5	1	GPS	(1) Sidearm	(1) 1/2"	

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 Verizon New England. The proposed antennas and lines are listed below.

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
2	128.0	3	Antel BXA-80080/4CF Panel	Platform w/ Handrails w/ Proposed Support rail and Support Bracing Kit	(6) 7/8" (1) 6x12 Hybrid (1) 1¼" Hybrid	Verizon
3		3	Samsung XXDWMM-12.5-65-8T-CBRS Panel			
4		6	Andrew JAHH-65B-R3B Panel			
5		3	Samsung MT6407-77A Panel			
6		3	Samsung RT4401-48A RRU			
7		3	Samsung B2/B66A RRH-BR049 (RFV01U-D1A) RRU			
8		3	Samsung B5/B13 RRH-BR04C (RFV01U-D2A) RRU			
9		3	Samsung MT6407-77A RRU			
10		3	Commscope CBC78T-DS-43-2X Diplexer			
11		2	OVP Boxes			

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
Max. Usage:	**95.7%**	**64.7%**	**44.8%**
Pass/Fail	**Pass**	**Pass**	**Pass**

Foundations

	Moment (Kip-Ft)	Shear (Kips)	Axial (Kips)
Analysis Reactions	2789.2	30.2	71.5

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

Operational Condition (Rigidity):

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)
106.5	Commscope VHLP2-11W-6WH/A Dish	Unknown	0.000	1.543
87.0	Commscope VHLP2-11W-6WH/A Dish	Unknown	0.000	1.210
82.8	Commscope VHLP2-11W-6WH/A Dish	Unknown	0.000	0.000
61.0	44' x2'6" Grid Dish	Unknown	0.000	0.754

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

Conclusions

Based on the analysis results, the structure and its foundation will be adequate to safely support the existing and proposed equipment and meet the minimum requirements per the TIA-222-G-2 Standard after the following proposed modification is successfully completed.

- Proposed modification design drawing by **TES** Job # 121715

Pre-Mod Installation Determination

We have also checked this tower to determine if the proposed Verizon equipment loading can be installed prior to the completion of the required modifications. We ran a reduced wind loading case as required by TIA-322 considering a construction period of no more than 6 months.

The tower and foundations passed, so the Carrier can proceed and install their proposed loading prior to the mods completion. Please be aware that this approval is being provided and is based on the method outlined in TIA-322. This approval is not a blanket approval and there is still a risk that the tower will experience a wind event that cannot be predicted by TIA-322 or our Engineers. In the event of an unforeseen wind event, Tower Engineering Solutions will not be liable nor responsible for damage to the tower or the Carriers equipment. Additionally, the tower cannot go beyond the 6 month construction period without the modifications being completed. If the modifications cannot be completed within 6 months from the completed installation of the Carrier's proposed equipment, TES must be notified immediately for further review.

Standard Conditions

1. This analysis was performed based on the information supplied to **(TES) Tower Engineering Solutions, LLC.** Verification of the information provided was not included in the Scope of Work for **TES**. The accuracy of the analysis is dependent on the accuracy of the information provided.

2. The structural analysis was performance based upon the evidence available at the time of this report. All information provided by the client is considered to be accurate.

3. The analyses will be performed based on the codes as specified by the client or based on the best knowledge of the engineering staff of **TES**. In the absence of information to the contrary, all work will be performed in accordance with the latest relevant revision of ANSI/TIA-222. If wind speed and/or ice loads are different from the minimum values recommended by the EIA/TIA-222 standard or other codes, **TES** should be notified in writing and the applicable minimum values provided by the client.

4. The configuration of the existing mounts, antennas, coax and other appurtenances were supplied by the customer for the current structural analysis. **TES** has not visited the tower site to verify the adequacy of the information provided. If there is any discrepancy found in the report regarding the existing conditions, **TES** should be notified immediately to evaluate the effect of the discrepancy on the analysis results.

5. The client will assume responsibility for rework associated with the differences in initially provided information, including tower and foundation information, existing and/or proposed equipment and transmission lines.

6. If a feasibility analysis was performed, final acceptance of changed conditions shall be based upon a rigorous structural analysis.

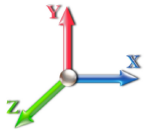
Usage Diagram - Max Ratio 95.72% at 70.0ft

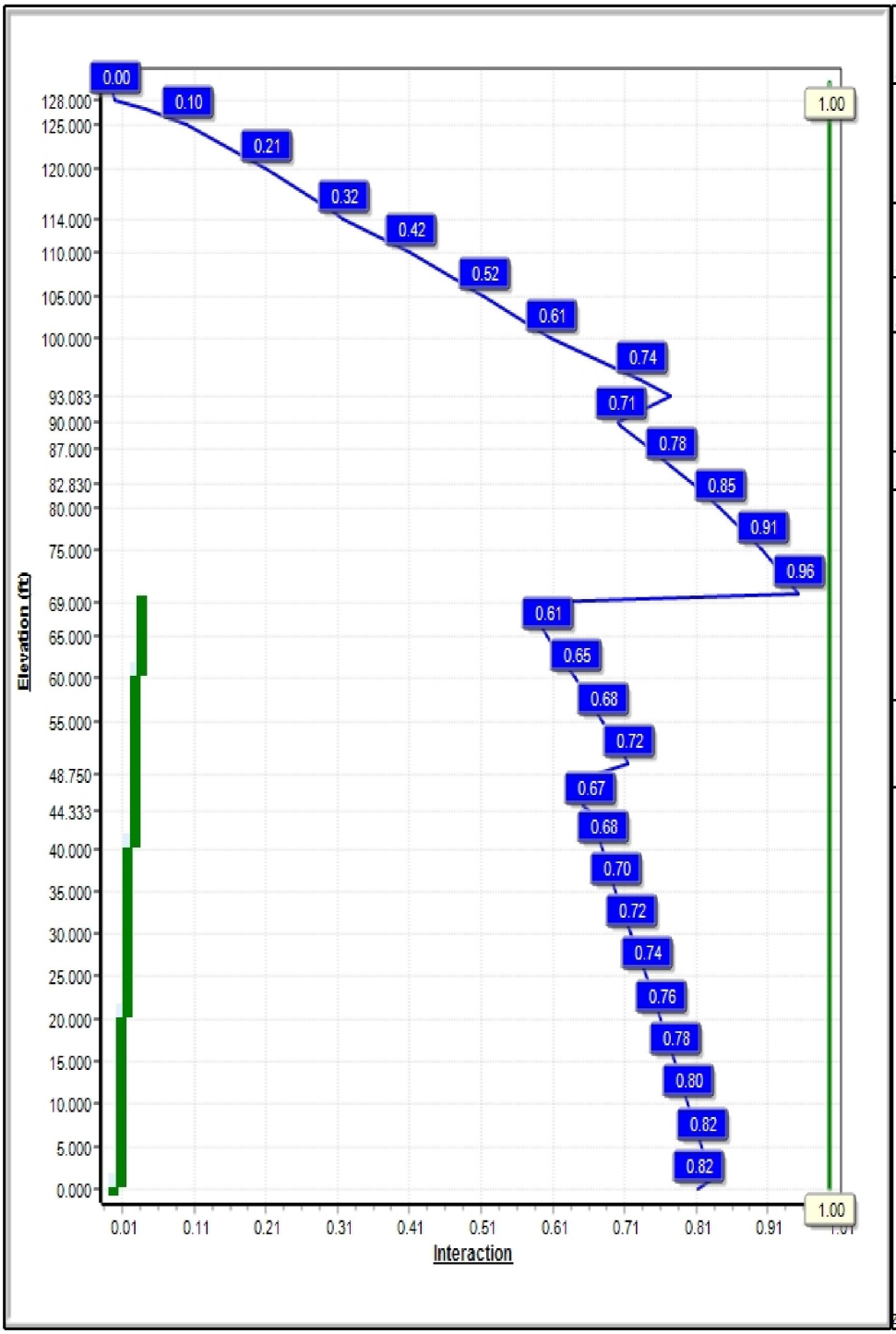
Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022
Site Name:	RIDGEFIELD CT	**Exposure:**	B	
Height:	130.00 (ft)	**Gh:**	1.1	
Base Elev:	0.000 (ft)			Page: 1

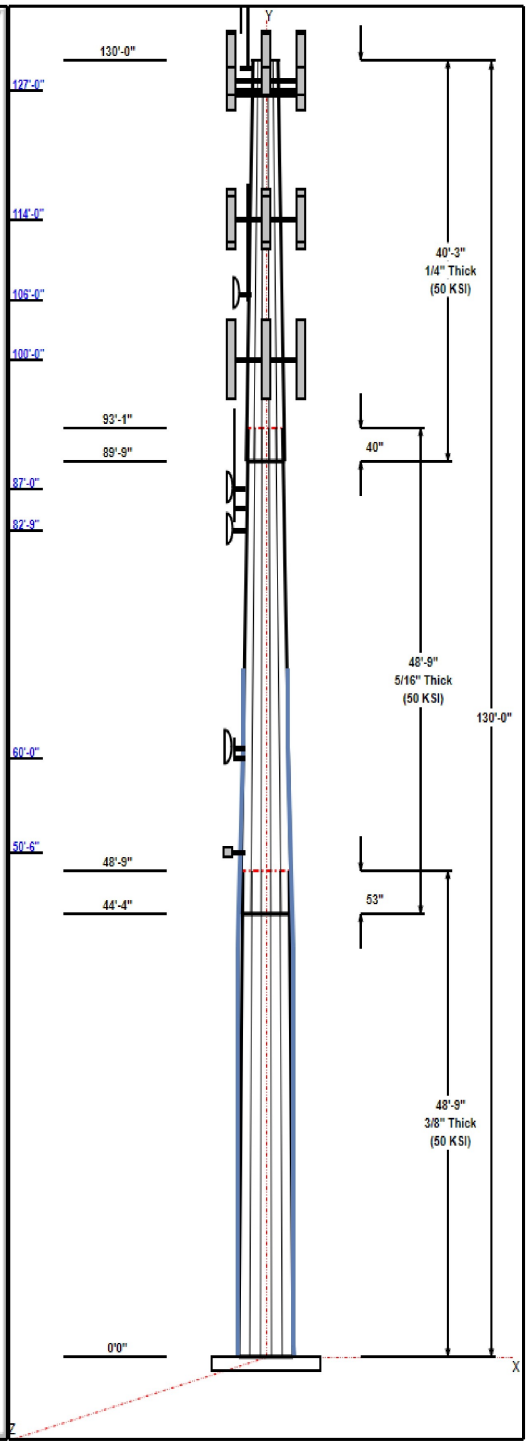
Tower Engineering Solutions

Dead Load Factor:	1.20	**Iterations:**	25
Wind Load Factor:	1.60		

Load Case : 1.2D + 1.6W 93 mph Wind







Structure: 468697-VZW

Type: Tapered
Site Name: RIDGEFIELD CT
Height: 130.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: 12 Sided
Taper: 0.22163

1/10/2022

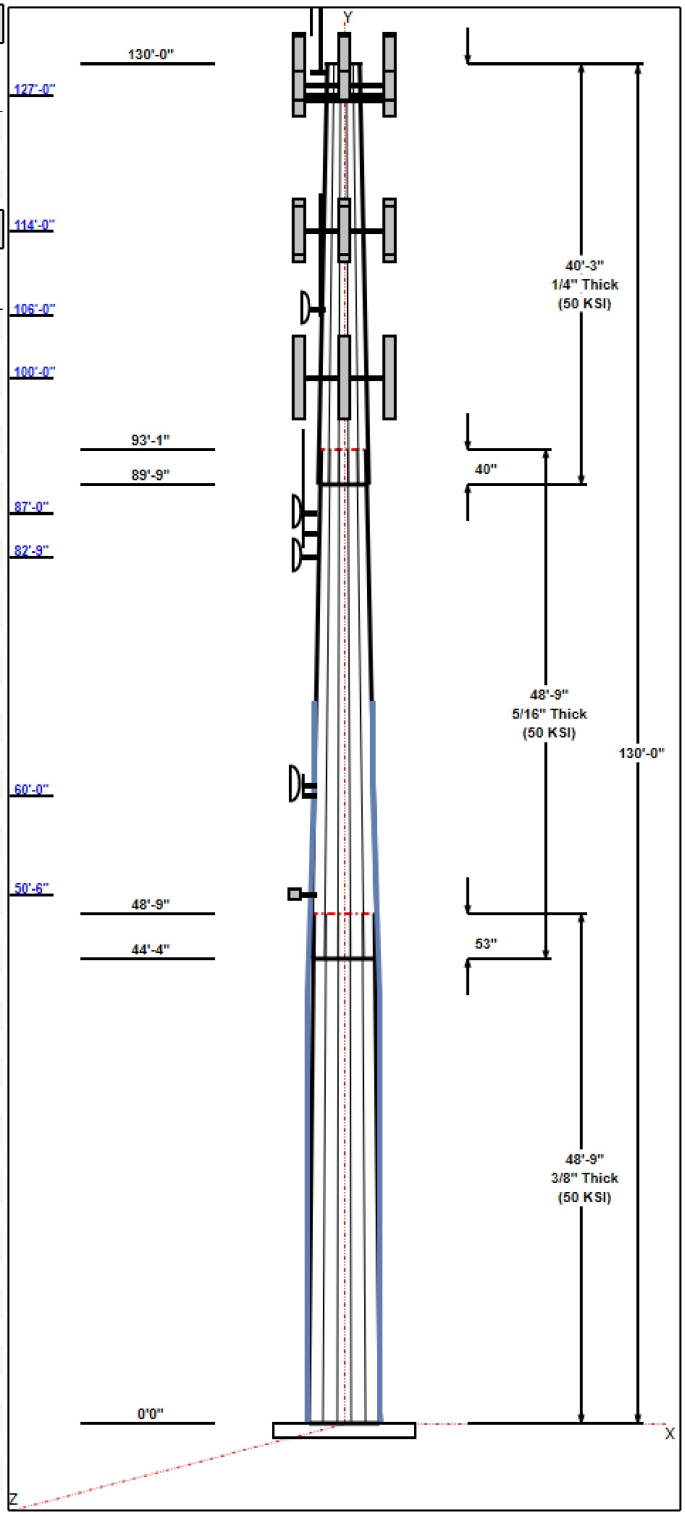
Tower Engineering Solutions

Shaft Properties

Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	48.75	33.07	43.88	0.375		0.22163	50
2	48.75	23.87	34.67	0.313	Slip	0.22163	50
3	40.25	16.19	25.11	0.250	Slip	0.22163	50

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
129.17	129.17	1	Pipe Mount	Unknown
129.17	136.00	1	COL51-160	Unknown
128.00	128.00	1	(3) 12.5' - 2.5" Horizontal	Verizon
128.00	128.00	1	Support Bracing Kit	Verizon
128.00	128.00	2	RRFDC-3315-PF-48	Verizon
128.00	131.00	3	BXA-80080/4CF	Verizon
128.00	131.00	3	XXDWMM-12.5-65-8T	Verizon
128.00	131.00	3	RT4401-48A (RRH only)	Verizon
128.00	131.00	3	B2/B66A RRH-BR049	Verizon
128.00	131.00	3	B5/B13 RRH-BR04C	Verizon
128.00	131.00	3	CBC78T-DS-43-2X	Verizon
128.00	128.00	1	Platform w/ Hand Rails and	Verizon
128.00	128.00	6	JAHH-65B-R3B	Verizon
128.00	128.00	3	MT6407-77A	Verizon
127.00	135.00	1	11'6" Dipole	Unknown
114.00	114.00	3	APXVSPP18-C-A20	Sprint
114.00	114.00	3	APXVTM14-ALU-120	Sprint
114.00	112.00	3	RRH 2X50-800	Sprint
114.00	115.00	3	RRH 1900-4X45	Sprint
114.00	115.00	3	RRH 8X20-25-FEU	Sprint
114.00	114.00	1	Low Profile	Sprint
106.50	106.50	1	VHLP3-11W-6WH/A	Unknown
106.50	106.50	1	Pipe Mount	Unknown
106.00	111.75	1	BA4040-41-DIN	T-Mobile
100.00	100.00	3	AIR 32 B2A/B66Aa	T-Mobile
100.00	100.00	3	APXVAARR24_43	T-Mobile
100.00	100.00	3	AIR 6449 B41	T-Mobile
100.00	99.00	3	4415	T-Mobile
100.00	99.00	3	4449	T-Mobile
100.00	100.00	3	E14F05P86 02	T-Mobile
100.00	99.00	2	Double TMA 17/21	T-Mobile
100.00	100.00	1	Platform w/ Hand Rails	T-Mobile
87.00	87.00	1	VHLP3-11W-6WH/A	Unknown
87.00	87.00	1	Pipe Mount	Unknown
85.00	90.00	1	10' Omni	Unknown
85.00	84.25	1	18" Dipole	Unknown
85.00	85.00	1	Sidearm	Unknown
82.83	82.83	1	VHLP2-11W-6WH/A	Unknown
82.83	82.83	1	Pipe Mount	Unknown
61.00	61.00	1	48"'x30" Grid Dish	Unknown
61.00	61.00	1	Sidearm	Unknown
60.00	61.00	1	2' Omni	Unknown
60.00	60.00	1	Sidearm	Unknown
50.50	50.50	1	GPS	Unknown
50.50	50.50	1	Sidearm	Unknown



Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	129.17	Inside	7/8" Coax	
0.00	128.00	Outside	6x12 Hybrid	Verizon
0.00	128.00	Outside	7/8" Coax	Verizon
0.00	128.00	Outside	Hybrid	Verizon
0.00	127.00	Outside	1/4" Coax	Unknown
0.00	114.00	Outside	1 1/4" Coax	Sprint
0.00	106.50	Outside	EW	Unknown
0.00	106.00	Outside	7/8" Coax	T-Mobile
0.00	100.00	Inside	7/8" Coax	T-Mobile
0.00	100.00	Outside	7/8" Coax	T-Mobile
0.00	87.00	Outside	EW	Unknown
0.00	85.00	Outside	7/8" Coax	Unknown
0.00	85.00	Outside	7/8" Coax	Unknown
0.00	82.83	Outside	EW	Unknown
0.00	70.00	Outside	1" Reinforcing plate	
0.00	61.00	Outside	7/8" Coax	Unknown
0.00	61.00	Outside	7/8" Coax	Unknown
0.00	50.50	Inside	1/2" Coax	Unknown

Anchor Bolts

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

Base Plate

Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
2.5000	56.0	36.0	Clipped

Reactions

Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.6W 93 mph Wind	2789.2	30.2	32.8
0.9D + 1.6W 93 mph Wind	2761.3	30.1	24.6
1.2D + 1.0Di + 1.0Wi 50 mph Wind	732.0	7.3	71.5
1.2D + 1.0E	324.2	3.0	32.8
0.9D + 1.0E	320.5	3.0	24.6
1.0D + 1.0W 60 mph Wind	721.7	7.8	27.3

Structure: 468697-VZW - Coax Line Placement

Type: Monopole
Site Name: RIDGEFIELD CT
Height: 130.00 (ft)

1/10/2022

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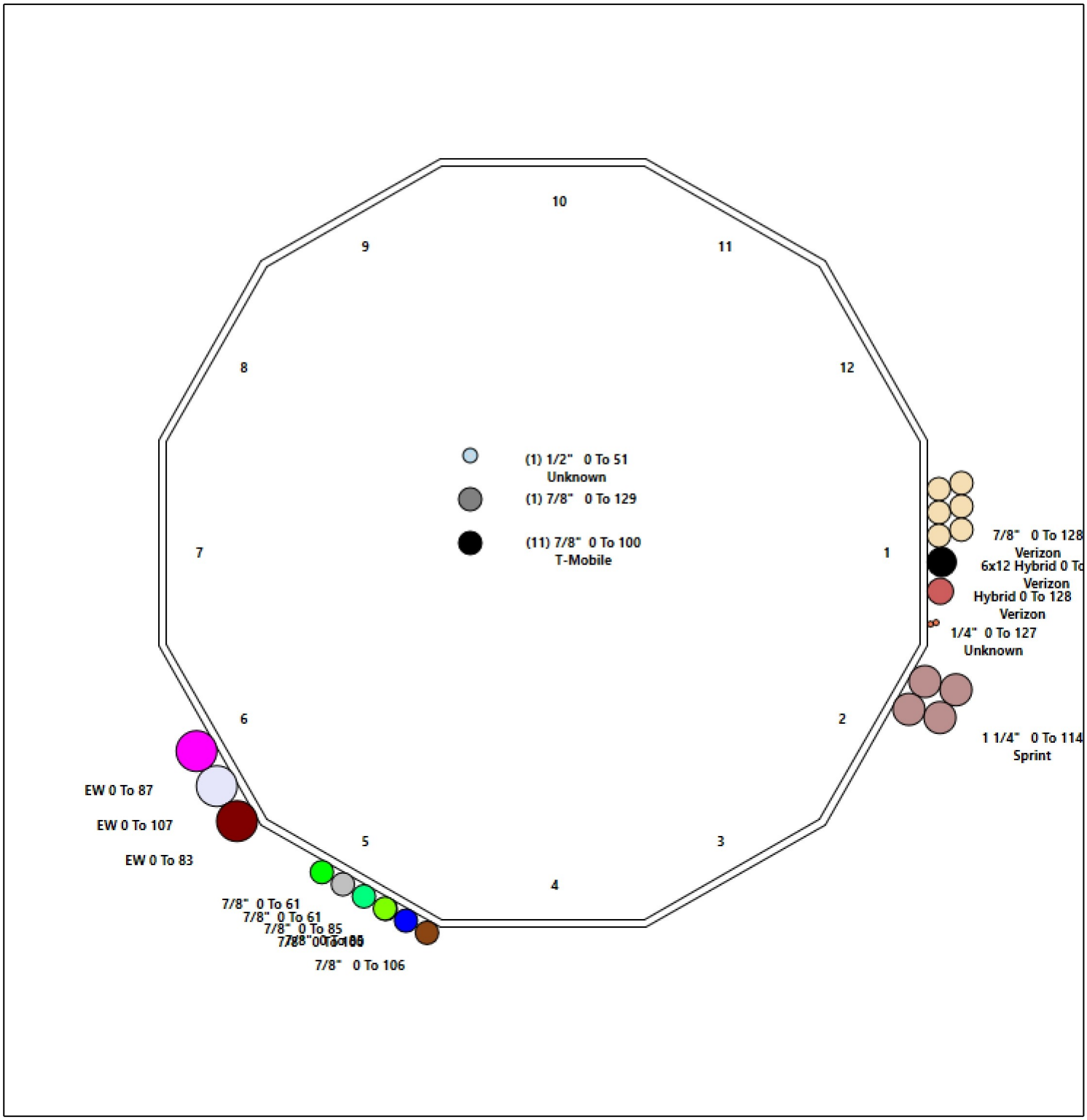

Shaft Properties

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 5	

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Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	12	48.750	0.3750	50		0.00	7,631
2	12	48.750	0.3125	50	Slip	53.00	4,834
3	12	40.250	0.2500	50	Slip	40.00	2,249
					Total Shaft Weight:		**14,714**

	Bottom						Top						
Sec. No.	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Taper
1	43.88	0.00	52.53	12686.47	29.21	117.00	33.07	48.75	39.48	5386.78	21.49	88.19	0.221635
2	34.67	44.33	34.58	5210.94	27.59	110.96	23.87	93.08	23.70	1679.01	18.32	76.38	0.221635
3	25.11	89.75	20.01	1578.32	24.77	100.43	16.19	130.00	12.83	415.95	15.21	64.75	0.221635

Additional Steel

							Intermediate Connectors		Termination Connectors			
Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Fu (ksi)	Offset (in)	Description	Spacing (in)	Description	Spacing (in)	Lower Qty	Upper Qty
0.00	1.00	3	SOL 2 1/4" William R71	128	150	5.63	5/8" Hollo Bolt	12.00	5/8" Hollo Bolt	3.00		
1.00	21.00	3	LNP LP6X100-B-20C	65	80	0.00	5/8" Hollo Bolt	24.00	5/8" Hollo Bolt	3.00		
21.00	41.00	3	LNP LP6X100-G-20CC	65	80	0.00	5/8" Hollo Bolt	24.00	5/8" Hollo Bolt	3.00		
41.00	61.00	3	LNP LP6X100-G-20CC	65	80	0.00	5/8" Hollo Bolt	24.00	5/8" Hollo Bolt	3.00		
61.00	69.00	3	LNP LP6X100-G-10CT	65	80	0.00	5/8" Hollo Bolt	24.00	5/8" Hollo Bolt	3.00		8

Load Summary

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 6	

Tower Engineering Solutions

Discrete Appurtenances

				No Ice			Ice				
No.	Elev (ft)	Description	Qty	Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor	Hor. Ecc. (ft)	Vert Ecc (ft)
1	129.17	Pipe Mount	1	40.00	2.63	1.00	138.86	9.980	1.00	0.00	0.00
2	129.17	COL51-160	1	6.00	1.80	1.00	55.26	7.074	1.00	0.00	6.83
3	128.00	(3) 12.5' - 2.5" Horizontal Pi	1	217.50	7.19	1.00	479.03	18.299	1.00	0.00	0.00
4	128.00	Support Bracing Kit	1	146.00	5.33	1.00	396.79	12.197	1.00	0.00	0.00
5	128.00	RRFDC-3315-PF-48	2	32.00	4.06	1.00	169.42	5.071	1.00	0.00	0.00
6	128.00	BXA-80080/4CF	3	14.30	4.80	0.76	147.42	7.104	0.76	0.00	3.00
7	128.00	XXDWMM-12.5-65-8T	3	22.00	4.26	0.63	122.71	6.199	0.63	0.00	3.00
8	128.00	RT4401-48A (RRH only)	3	18.60	0.99	0.50	52.67	1.509	0.50	0.00	3.00
9	128.00	B2/B66A RRH-BR049	3	84.40	1.87	0.50	183.94	2.591	0.50	0.00	3.00
10	128.00	B5/B13 RRH-BR04C (RFV01U-D2A)	3	70.30	1.87	0.50	160.77	2.591	0.50	0.00	3.00
11	128.00	CBC78T-DS-43-2X	3	10.40	0.37	0.50	38.81	0.735	0.50	0.00	3.00
12	128.00	Platform w/ Hand Rails and Kickers	1	2200.00	47.00	1.00	5034.29	77.275	1.00	0.00	0.00
13	128.00	JAHH-65B-R3B	6	63.30	9.11	0.83	358.24	10.790	0.83	0.00	0.00
14	128.00	MT6407-77A	3	79.40	4.69	0.70	233.69	5.868	0.70	0.00	0.00
15	127.00	11'6" Dipole	1	32.00	5.05	1.00	112.90	17.150	1.00	0.00	8.00
16	114.00	APXVSPP18-C-A20	3	57.00	8.02	0.83	267.22	11.418	0.83	0.00	0.00
17	114.00	APXVTM14-ALU-120	3	56.60	6.34	0.79	260.29	7.713	0.79	0.00	0.00
18	114.00	RRH 2X50-800	3	64.00	2.40	0.50	157.89	3.761	0.50	0.00	-2.00
19	114.00	RRH 1900-4X45	3	60.00	2.71	0.50	158.21	4.247	0.50	0.00	1.00
20	114.00	RRH 8X20-25-FEU	3	70.00	4.05	0.50	210.48	5.056	0.50	0.00	1.00
21	114.00	Low Profile Platform-Round	1	1500.00	22.00	1.00	3091.85	43.479	1.00	0.00	0.00
22	106.50	VHLP3-11W-6WH/A	1	53.00	10.68	1.00	315.74	12.995	1.00	0.00	0.00
23	106.50	Pipe Mount	1	40.00	2.63	1.00	136.97	9.840	1.00	0.00	0.00
24	106.00	BA4040-41-DIN	1	32.00	5.05	1.00	111.46	16.934	1.00	0.00	5.75
25	100.00	AIR 32 B2A/B66Aa	3	132.20	6.51	0.87	361.70	7.933	0.87	0.00	0.00
26	100.00	APXVAARR24_43	3	128.00	20.24	0.70	642.51	22.538	0.70	0.00	0.00
27	100.00	AIR 6449 B41	3	103.00	5.65	0.71	267.59	6.791	0.71	0.00	0.00
28	100.00	4415	3	44.10	1.86	0.50	101.04	2.547	0.50	0.00	-1.00
29	100.00	4449	3	70.00	1.65	0.50	156.21	2.310	0.50	0.00	-1.00
30	100.00	E14F05P86 02	3	4.90	0.42	0.50	18.27	0.760	0.50	0.00	0.00
31	100.00	Double TMA 17/21	2	11.00	0.35	0.50	22.61	0.664	0.50	0.00	-1.00
32	100.00	Platform w/ Hand Rails (flat)	1	2000.00	40.00	1.00	4513.80	65.138	1.00	0.00	0.00
33	87.00	VHLP3-11W-6WH/A	1	53.00	10.68	1.00	310.48	12.948	1.00	0.00	0.00
34	87.00	Pipe Mount	1	40.00	2.63	1.00	135.03	9.695	1.00	0.00	0.00
35	85.00	10' Omni	1	25.00	3.00	1.00	114.82	7.259	1.00	0.00	5.00
36	85.00	18" Dipole	1	6.00	0.28	1.00	20.68	1.131	1.00	0.00	-0.75
37	85.00	Sidearm	1	60.00	4.15	1.00	166.00	10.627	1.00	0.00	0.00
38	82.83	VHLP2-11W-6WH/A	1	53.00	10.68	1.00	309.22	12.937	1.00	0.00	0.00
39	82.83	Pipe Mount	1	40.00	2.00	1.00	134.56	7.346	1.00	0.00	0.00
40	61.00	48'"x30" Grid Dish	1	5.50	3.53	1.00	134.56	31.331	1.00	0.00	0.00
41	61.00	Sidearm	1	70.00	4.15	1.00	189.63	10.416	1.00	0.00	0.00
42	60.00	2' Omni	1	5.00	0.30	1.00	18.07	0.805	1.00	0.00	1.00
43	60.00	Sidearm	1	70.00	4.15	1.00	189.43	10.406	1.00	0.00	0.00
44	50.50	GPS	1	10.00	1.00	1.00	42.87	1.798	1.00	0.00	0.00
45	50.50	Sidearm	1	53.32	2.50	1.00	173.37	8.900	1.00	0.00	0.00
		Totals:	**88**	**10,490.72**			**29,483.48**				

Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice Weight (lb)	No Ice CaAa (sf)	No Ice CaAa Factor	Ice Weight (lb)	Ice CaAa (sf)	Ice CaAa Factor	Hor. Ecc. (ft)	Vert Ecc (ft)

Linear Appurtenances

Bottom Elev. (ft)	Top Elev. (ft)	Description	Exposed Width	Exposed
0.00	129.17	(1) 7/8" Coax	0.00	Inside
0.00	128.00	(1) 6x12 Hybrid	0.00	Outside
0.00	128.00	(6) 7/8" Coax	2.22	Outside
0.00	128.00	(1) Hybrid	0.00	Outside
0.00	127.00	(2) 1/4" Coax	0.00	Outside
0.00	114.00	(4) 1 1/4" Coax	3.10	Outside
0.00	106.50	(1) EW	0.00	Outside
0.00	106.00	(1) 7/8" Coax	0.00	Outside
0.00	100.00	(11) 7/8" Coax	0.00	Inside
0.00	100.00	(2) 7/8" Coax	0.00	Outside
0.00	87.00	(1) EW	0.00	Outside
0.00	85.00	(1) 7/8" Coax	0.00	Outside
0.00	85.00	(1) 7/8" Coax	0.00	Outside
0.00	82.83	(1) EW	0.00	Outside
0.00	70.00	(3) 1" Reinforcing plate	0.00	Outside
0.00	61.00	(1) 7/8" Coax	0.00	Outside
0.00	61.00	(1) 7/8" Coax	0.00	Outside
0.00	50.50	(1) 1/2" Coax	0.00	Inside

Shaft Section Properties

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 8	

Tower Engineering Solutions

Increment Length: **5 (ft)**

Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fy (ksi)	Fb (ksi)	Weight (lb)	Additional Reinforcing Area (in^2)	Ixp (in^4)	Iyp (in^4)	Weight (lb)
0.00	RB1	0.3750	43.875	52.526	12686.5	29.21	117.00	50	59	0.0	12.24	5042.1	5042.1	
1.00	RT1 RB2	0.3750	43.653	52.259	12493.5	29.05	116.41	50	59	178.3	18.00	4514.1	4514.1	61.2
5.00		0.3750	42.767	51.188	11741.4	28.41	114.04	50	60	704.0	18.00	4337.7	4337.7	245.0
10.00		0.3750	41.659	49.850	10844.4	27.62	111.09	50	60	859.5	18.00	4122.2	4122.2	306.2
15.00		0.3750	40.550	48.512	9994.4	26.83	108.13	50	61	836.8	18.00	3912.2	3912.2	306.2
20.00		0.3750	39.442	47.174	9190.0	26.04	105.18	50	61	814.0	18.00	3707.8	3707.8	306.2
21.00	RT2 RB3	0.3750	39.221	46.906	9034.4	25.88	104.59	50	62	160.1	18.00	3667.6	3667.6	61.2
25.00		0.3750	38.334	45.836	8429.9	25.25	102.22	50	62	631.2	18.00	3508.9	3508.9	245.0
30.00		0.3750	37.226	44.498	7712.9	24.46	99.27	50	63	768.5	18.00	3315.5	3315.5	306.2
35.00		0.3750	36.118	43.159	7037.8	23.66	96.31	50	63	745.7	18.00	3127.6	3127.6	306.2
40.00		0.3750	35.010	41.821	6403.3	22.87	93.36	50	63	722.9	18.00	2945.3	2945.3	306.2
41.00	RT3 RB4	0.3750	34.788	41.554	6281.2	22.71	92.77	50	63	141.9	18.00	2909.5	2909.5	61.2
44.33	Bot - Section 2	0.3750	34.049	40.662	5885.2	22.19	90.80	50	63	466.3	18.00	2791.8	2791.8	204.2
45.00		0.3750	33.901	40.483	5808.1	22.08	90.40	50	63	170.3	18.00	2867.5	2867.5	40.8
48.75	Top - Section 1	0.3125	33.695	33.591	4778.2	26.75	107.82	50	61	944.2	18.00	2736.2	2736.2	229.7
50.00		0.3125	33.418	33.313	4660.2	26.51	106.94	50	61	142.3	18.00	2693.1	2693.1	76.6
50.50		0.3125	33.307	33.201	4613.5	26.42	106.58	50	61	56.6	18.00	2676.0	2676.0	30.6
55.00		0.3125	32.310	32.198	4207.7	25.56	103.39	50	62	500.7	18.00	2524.3	2524.3	275.6
60.00		0.3125	31.202	31.082	3785.5	24.61	99.85	50	62	538.3	18.00	2360.9	2360.9	306.2
61.00	RT4 RB5	0.3125	30.980	30.859	3704.6	24.42	99.14	50	63	105.4	18.00	2328.9	2328.9	61.2
65.00		0.3125	30.094	29.967	3392.5	23.66	96.30	50	63	414.0	18.00	2203.1	2203.1	245.0
69.00	RT5	0.3125	29.207	29.075	3098.5	22.90	93.46	50	63	401.8	18.00	2080.8	2080.8	245.0
70.00		0.3125	28.986	28.852	3027.7	22.71	92.75	50	63	98.6				
75.00		0.3125	27.877	27.737	2690.1	21.76	89.21	50	63	481.4				
80.00		0.3125	26.769	26.622	2378.5	20.81	85.66	50	63	462.4				
82.83		0.3125	26.142	25.991	2213.3	20.27	83.65	50	63	253.3				
85.00		0.3125	25.661	25.507	2092.0	19.86	82.12	50	63	190.1				
87.00		0.3125	25.218	25.061	1984.1	19.48	80.70	50	63	172.1				
89.75	Bot - Section 3	0.3125	24.608	24.448	1842.0	18.96	78.75	50	63	231.6				
90.00		0.3125	24.553	24.392	1829.4	18.91	78.57	50	63	37.8				
93.08	Top - Section 2	0.2500	24.370	19.416	1441.7	23.98	97.48	50	63	458.9				
95.00		0.2500	23.945	19.074	1366.9	23.52	95.78	50	63	125.5				
100.00		0.2500	22.837	18.182	1183.9	22.33	91.35	50	63	316.9				
105.00		0.2500	21.728	17.290	1018.1	21.14	86.91	50	63	301.8				
106.00		0.2500	21.507	17.112	986.9	20.91	86.03	50	63	58.5				
106.50		0.2500	21.396	17.022	971.5	20.79	85.58	50	63	29.0				
110.00		0.2500	20.620	16.398	868.5	19.96	82.48	50	63	199.0				
114.00		0.2500	19.734	15.684	760.0	19.01	78.93	50	63	218.3				
115.00		0.2500	19.512	15.506	734.3	18.77	78.05	50	63	53.1				
120.00		0.2500	18.404	14.614	614.7	17.58	73.62	50	63	256.2				
125.00		0.2500	17.296	13.722	508.9	16.39	69.18	50	63	241.0				
127.00		0.2500	16.852	13.365	470.2	15.92	67.41	50	63	92.2				
128.00		0.2500	16.631	13.187	451.6	15.68	66.52	50	63	45.2				
129.17		0.2500	16.371	12.978	430.5	15.40	65.49	50	63	52.1				
130.00		0.2500	16.187	12.830	416.0	15.21	64.75	50	63	36.4				
									Total Weight	**14714.1**				**4226.2**

Wind Loading - Shaft

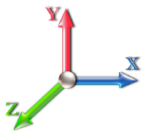
Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	III	Page: 9	

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 25

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00	RB1	1.00	0.70	16.933	18.63	315.84	1.000	0.000	0.00	0.000	0.00	0.0	0.0	0.0
1.00	RT1 RB2	1.00	0.70	16.933	18.63	314.25	1.052 *	0.000	1.00	3.776	3.97	118.4	0.0	213.9
5.00		1.00	0.70	16.933	18.63	307.87	1.057 *	0.000	4.00	14.911	15.76	469.6	0.0	844.8
10.00		1.00	0.70	16.933	18.63	299.89	1.065 *	0.000	5.00	18.209	19.40	578.0	0.0	1031.4
15.00		1.00	0.70	16.933	18.63	291.91	1.075 *	0.000	5.00	17.731	19.06	568.1	0.0	1004.1
20.00		1.00	0.70	16.933	18.63	283.93	1.085 *	0.000	5.00	17.253	18.73	558.1	0.0	976.8
21.00	RT2 RB3	1.00	0.70	16.933	18.63	282.34	1.092 *	0.000	1.00	3.393	3.71	110.4	0.0	192.1
25.00		1.00	0.70	16.933	18.63	275.96	1.098 *	0.000	4.00	13.382	14.69	437.7	0.0	757.4
30.00		1.00	0.70	16.947	18.64	268.09	1.108 *	0.000	5.00	16.297	18.06	538.6	0.0	922.2
35.00		1.00	0.73	17.710	19.48	265.90	1.120 *	0.000	5.00	15.819	17.72	552.4	0.0	894.8
40.00		1.00	0.76	18.399	20.24	262.71	1.133 *	0.000	5.00	15.341	17.39	563.1	0.0	867.5
41.00	RT3 RB4	1.00	0.77	18.529	20.38	261.97	1.142 *	0.000	1.00	3.011	3.44	112.1	0.0	170.2
44.33	Bot - Section 2	1.00	0.78	18.947	20.84	259.28	1.148 *	0.000	3.33	9.898	11.36	378.9	0.0	559.5
45.00		1.00	0.79	19.028	20.93	258.71	1.154 *	0.000	0.67	1.990	2.30	76.9	0.0	204.4
48.75	Top - Section 1	1.00	0.80	19.469	21.42	255.27	1.160 *	0.000	3.75	11.036	12.81	438.8	0.0	1133.0
50.00		1.00	0.81	19.610	21.57	258.89	1.159 *	0.000	1.25	3.619	4.20	144.8	0.0	170.7
50.50	Appurtenance(s)	1.00	0.81	19.666	21.63	258.40	1.162 *	0.000	0.50	1.439	1.67	57.9	0.0	67.9
55.00		1.00	0.83	20.151	22.17	253.74	1.170 *	0.000	4.50	12.737	14.90	528.5	0.0	600.9
60.00	Appurtenance(s)	1.00	0.85	20.659	22.72	248.10	1.185 *	0.000	5.00	13.698	16.24	590.4	0.0	646.0
61.00	RT4 RB5	1.00	0.86	20.756	22.83	246.92	1.196 *	0.000	1.00	2.682	3.21	117.2	0.0	126.5
65.00		1.00	0.87	21.136	23.25	242.04	1.205 *	0.000	4.00	10.538	12.70	472.3	0.0	496.8
69.00	RT5	1.00	0.89	21.500	23.65	236.92	1.220 *	0.000	4.00	10.232	12.48	472.3	0.0	482.2
70.00		1.00	0.89	21.589	23.75	235.61	1.230 *	0.000	1.00	2.510	3.09	117.3	0.0	118.3
75.00		1.00	0.91	22.019	24.22	228.84	1.242 *	0.000	5.00	12.264	15.24	590.4	0.0	577.7
80.00		1.00	0.93	22.428	24.67	221.78	1.264 *	0.000	5.00	11.786	14.90	588.2	0.0	554.9
82.83	Appurtenance(s)	1.00	0.94	22.652	24.92	217.66	1.283 *	0.000	2.83	6.459	8.29	330.3	0.0	304.0
85.00	Appurtenance(s)	1.00	0.94	22.820	25.10	214.45	1.295 *	0.000	2.17	4.849	6.28	252.2	0.0	228.2
87.00	Appurtenance(s)	1.00	0.95	22.972	25.27	211.45	1.200 *	0.000	2.00	4.389	5.27	213.0	0.0	206.5
89.75	Bot - Section 3	1.00	0.96	23.178	25.50	207.26	1.200 *	0.000	2.75	5.911	7.09	289.3	0.0	278.0
90.00		1.00	0.96	23.196	25.52	206.87	1.200 *	0.000	0.25	0.541	0.65	26.5	0.0	45.3
93.08	Top - Section 2	1.00	0.97	23.420	25.76	202.08	1.200 *	0.000	3.08	6.573	7.89	325.1	0.0	550.7
95.00		1.00	0.97	23.557	25.91	203.31	1.200 *	0.000	1.92	3.995	4.79	198.7	0.0	150.6
100.00	Appurtenance(s)	1.00	0.99	23.905	26.30	195.33	1.200 *	0.000	5.00	10.090	12.11	509.4	0.0	380.3
105.00		1.00	1.00	24.240	26.66	187.15	1.200 *	0.000	5.00	9.612	11.53	492.1	0.0	362.1
106.00	Appurtenance(s)	1.00	1.00	24.306	26.74	185.49	1.200 *	0.000	1.00	1.865	2.24	95.7	0.0	70.2
106.50	Appurtenance(s)	1.00	1.01	24.339	26.77	184.66	1.200 *	0.000	0.50	0.925	1.11	47.6	0.0	34.8
110.00		1.00	1.02	24.565	27.02	178.79	1.200 *	0.000	3.50	6.343	7.61	329.1	0.0	238.8
114.00	Appurtenance(s)	1.00	1.03	24.817	27.30	171.98	1.200 *	0.000	4.00	6.963	8.36	364.9	0.0	262.0
115.00		1.00	1.03	24.879	27.37	170.26	1.028 *	0.000	1.00	1.693	1.74	76.2	0.0	63.7
120.00		1.00	1.04	25.183	27.70	161.57	1.039 *	0.000	5.00	8.178	8.50	376.7	0.0	307.5
125.00		1.00	1.05	25.479	28.03	152.73	1.060 *	0.000	5.00	7.700	8.16	366.1	0.0	289.3
127.00	Appurtenance(s)	1.00	1.06	25.594	28.15	149.15	1.077 *	0.000	2.00	2.946	3.17	142.9	0.0	110.6
128.00	Appurtenance(s)	1.00	1.06	25.652	28.22	147.35	1.084 *	0.000	1.00	1.444	1.57	70.7	0.0	54.2
129.17	Appurtenance(s)	1.00	1.06	25.719	28.29	145.25	1.000	0.000	1.17	1.666	1.67	75.4	0.0	62.5
130.00		1.00	1.07	25.766	28.34	143.75	1.000	0.000	0.83	1.166	1.17	52.9	0.0	43.7
								Totals:	**130.00**			**13,815.4**		**17,657.0**

* Cf Adjusted by Linear Load Ra Effect

Discrete Appurtenance Forces

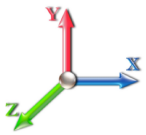
Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	III	Page: 10	

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 25

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	129.17	Pipe Mount	1	25.719	28.290	1.00	1.00	2.63	48.00	0.000	0.000	119.05	0.00	0.00
2	129.17	COL51-160	1	26.100	28.710	1.00	1.00	1.80	7.20	0.000	6.830	82.68	0.00	564.74
3	128.00	RT4401-48A (RRH only)	3	25.822	28.404	0.38	0.75	1.11	66.96	0.000	3.000	50.62	0.00	151.85
4	128.00	(3) 12.5' - 2.5" Horizontal	1	25.652	28.217	1.00	1.00	7.19	261.00	0.000	0.000	324.49	0.00	0.00
5	128.00	Support Bracing Kit	1	25.652	28.217	1.00	1.00	5.33	175.20	0.000	0.000	240.63	0.00	0.00
6	128.00	RRFDC-3315-PF-48	2	25.652	28.217	0.75	0.75	6.09	76.80	0.000	0.000	274.95	0.00	0.00
7	128.00	XXDWMM-12.5-65-8T	3	25.822	28.404	0.47	0.75	6.04	79.20	0.000	3.000	274.43	0.00	823.30
8	128.00	BXA-80080/4CF	3	25.822	28.404	0.57	0.75	8.21	51.48	0.000	3.000	373.03	0.00	1119.09
9	128.00	B2/B66A RRH-BR049	3	25.822	28.404	0.38	0.75	2.10	303.84	0.000	3.000	95.61	0.00	286.83
10	128.00	B5/B13 RRH-BR04C	3	25.822	28.404	0.38	0.75	2.10	253.08	0.000	3.000	95.61	0.00	286.83
11	128.00	CBC78T-DS-43-2X	3	25.822	28.404	0.38	0.75	0.42	37.44	0.000	3.000	18.92	0.00	56.75
12	128.00	Platform w/ Hand Rails	1	25.652	28.217	1.00	1.00	47.00	2640.00	0.000	0.000	2121.91	0.00	0.00
13	128.00	JAHH-65B-R3B	6	25.652	28.217	0.62	0.75	34.03	455.76	0.000	0.000	1536.17	0.00	0.00
14	128.00	MT6407-77A	3	25.652	28.217	0.52	0.75	7.39	285.84	0.000	0.000	333.49	0.00	0.00
15	127.00	11'6" Dipole	1	26.045	28.649	1.00	1.00	5.05	38.40	0.000	8.000	231.49	0.00	1851.90
16	114.00	Low Profile	1	24.817	27.298	1.00	1.00	22.00	1800.00	0.000	0.000	960.90	0.00	0.00
17	114.00	RRH 8X20-25-FEU	3	24.879	27.367	0.40	0.80	4.86	252.00	0.000	1.000	212.80	0.00	212.80
18	114.00	RRH 1900-4X45	3	24.879	27.367	0.40	0.80	3.25	216.00	0.000	1.000	142.39	0.00	142.39
19	114.00	RRH 2X50-800	3	24.692	27.161	0.40	0.80	2.88	230.40	0.000	-2.000	125.16	0.00	-250.31
20	114.00	APXVTM14-ALU-120	3	24.817	27.298	0.63	0.80	12.02	203.76	0.000	0.000	525.03	0.00	0.00
21	114.00	APXVSPP18-C-A20	3	24.817	27.298	0.66	0.80	15.98	205.20	0.000	0.000	697.78	0.00	0.00
22	106.50	Pipe Mount	1	24.339	26.773	1.00	1.00	2.63	48.00	0.000	0.000	112.66	0.00	0.00
23	106.50	VHLP3-11W-6WH/A	1	24.339	26.773	1.00	1.00	10.68	63.60	0.000	0.000	457.49	0.00	0.00
24	106.00	BA4040-41-DIN	1	24.676	27.143	1.00	1.00	5.05	38.40	0.000	5.750	219.32	0.00	1261.08
25	100.00	Platform w/ Hand Rails	1	23.905	26.295	1.00	1.00	40.00	2400.00	0.000	0.000	1682.90	0.00	0.00
26	100.00	Double TMA 17/21	2	23.836	26.220	0.38	0.75	0.26	26.40	0.000	-1.000	11.01	0.00	-11.01
27	100.00	E14F05P86 02	3	23.905	26.295	0.38	0.75	0.47	17.64	0.000	0.000	19.88	0.00	0.00
28	100.00	4449	3	23.836	26.220	0.38	0.75	1.86	252.00	0.000	-1.000	77.87	0.00	-77.87
29	100.00	4415	3	23.836	26.220	0.38	0.75	2.09	158.76	0.000	-1.000	87.78	0.00	-87.78
30	100.00	AIR 6449 B41	3	23.905	26.295	0.53	0.75	9.03	370.80	0.000	0.000	379.74	0.00	0.00
31	100.00	APXVAARR24_43	3	23.905	26.295	0.52	0.75	31.88	460.80	0.000	0.000	1341.19	0.00	0.00
32	100.00	AIR 32 B2A/B66Aa	3	23.905	26.295	0.65	0.75	12.74	475.92	0.000	0.000	536.14	0.00	0.00
33	87.00	VHLP3-11W-6WH/A	1	22.972	25.270	1.00	1.00	10.68	63.60	0.000	0.000	431.81	0.00	0.00
34	87.00	Pipe Mount	1	22.972	25.270	1.00	1.00	2.63	48.00	0.000	0.000	106.33	0.00	0.00
35	85.00	Sidearm	1	22.820	25.102	1.00	1.00	4.15	72.00	0.000	0.000	166.68	0.00	0.00
36	85.00	18" Dipole	1	22.763	25.039	1.00	1.00	0.28	7.20	0.000	-0.750	11.22	0.00	-8.41
37	85.00	10' Omni	1	23.196	25.516	1.00	1.00	3.00	30.00	0.000	5.000	122.47	0.00	612.37
38	82.83	VHLP2-11W-6WH/A	1	22.652	24.917	1.00	1.00	10.68	63.60	0.000	0.000	425.79	0.00	0.00
39	82.83	Pipe Mount	1	22.652	24.917	1.00	1.00	2.00	48.00	0.000	0.000	79.74	0.00	0.00
40	61.00	Sidearm	1	20.756	22.832	1.00	1.00	4.15	84.00	0.000	0.000	151.60	0.00	0.00
41	61.00	48'"x30" Grid Dish	1	20.756	22.832	1.00	1.00	3.53	6.60	0.000	0.000	128.96	0.00	0.00
42	60.00	Sidearm	1	20.659	22.724	1.00	1.00	4.15	84.00	0.000	0.000	150.89	0.00	0.00
43	60.00	2' Omni	1	20.756	22.832	1.00	1.00	0.30	6.00	0.000	1.000	10.96	0.00	10.96
44	50.50	Sidearm	1	19.666	21.632	1.00	1.00	2.50	63.98	0.000	0.000	86.53	0.00	0.00
45	50.50	GPS	1	19.666	21.632	1.00	1.00	1.00	12.00	0.000	0.000	34.61	0.00	0.00
							Totals:		**12,588.86**			**15,670.73**		

Total Applied Force Summary

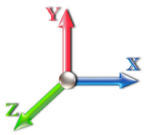
Structure:	468697-VZW		**Code:**	EIA/TIA-222-G	1/10/2022
Site Name:	RIDGEFIELD CT		**Exposure:**	B	
Height:	130.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	III	Page: 11

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 25

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
1.00		118.40	237.94	0.00	0.00
5.00		469.61	940.82	0.00	0.00
10.00		578.04	1151.44	0.00	0.00
15.00		568.07	1124.12	0.00	0.00
20.00		558.10	1096.80	0.00	0.00
21.00		110.42	216.08	0.00	0.00
25.00		437.70	853.40	0.00	0.00
30.00		538.61	1042.16	0.00	0.00
35.00		552.43	1014.84	0.00	0.00
40.00		563.08	987.52	0.00	0.00
41.00		112.10	194.23	0.00	0.00
44.33		378.89	639.52	0.00	0.00
45.00		76.89	220.37	0.00	0.00
48.75		438.78	1222.99	0.00	0.00
50.00		144.81	200.75	0.00	0.00
50.50	(2) attachments	179.03	155.88	0.00	0.00
55.00		528.49	707.99	0.00	0.00
60.00	(2) attachments	752.28	855.03	0.00	10.96
61.00	(2) attachments	397.74	240.87	0.00	0.00
65.00		472.32	587.00	0.00	0.00
69.00		472.34	572.43	0.00	0.00
70.00		117.30	140.83	0.00	0.00
75.00		590.40	690.49	0.00	0.00
80.00		588.18	667.72	0.00	0.00
82.83	(2) attachments	835.84	479.44	0.00	0.00
85.00	(3) attachments	552.62	384.99	0.00	603.96
87.00	(2) attachments	794.13	359.49	0.00	0.00
89.75		349.01	333.22	0.00	0.00
90.00		31.93	50.36	0.00	0.00
93.08		392.76	612.63	0.00	0.00
95.00		241.01	189.12	0.00	0.00
100.00	(21) attachments	4757.84	4643.09	0.00	-176.67
105.00		605.57	422.00	0.00	0.00
106.00	(1) attachments	337.82	120.61	0.00	1261.08
106.50	(2) attachments	629.11	152.12	0.00	0.00
110.00		409.61	276.41	0.00	0.00
114.00	(16) attachments	3121.96	3212.33	0.00	104.88
115.00		76.19	71.25	0.00	0.00
120.00		376.71	345.34	0.00	0.00
125.00		366.13	327.13	0.00	0.00
127.00	(1) attachments	374.38	164.15	0.00	1851.90
128.00	(32) attachments	5810.56	4748.27	0.00	2724.64
129.17	(2) attachments	277.12	118.43	0.00	564.74
130.00		52.86	43.73	0.00	0.00
	Totals:	**30,137.19**	**32,815.32**	**0.00**	**6,945.49**

Linear Appurtenance Segment Forces (Factored)

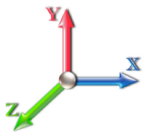
Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	III	Page: 12	

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
1.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	16.933	0.00	1.95
1.00	7/8" Coax	Yes	1.00	0.000	2.22	0.19	0.00	0.117	1.052	16.933	0.00	3.74
1.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	16.933	0.00	1.14
1.00	1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	16.933	0.00	0.11
1.00	1 1/4" Coax	Yes	1.00	0.000	3.10	0.26	0.00	0.117	1.052	16.933	0.00	3.17
1.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	16.933	0.00	0.61
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	16.933	0.00	0.62
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	16.933	0.00	1.25
1.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	16.933	0.00	0.61
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	16.933	0.00	0.62
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	16.933	0.00	0.62
1.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	16.933	0.00	0.61
1.00	1" Reinforcing plate	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	16.933	0.00	0.00
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	16.933	0.00	0.62
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	16.933	0.00	0.62
5.00	6x12 Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	16.933	0.00	7.81
5.00	7/8" Coax	Yes	4.00	0.000	2.22	0.74	0.00	0.119	1.057	16.933	0.00	14.98
5.00	Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	16.933	0.00	4.58
5.00	1/4" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	16.933	0.00	0.43
5.00	1 1/4" Coax	Yes	4.00	0.000	3.10	1.03	0.00	0.119	1.057	16.933	0.00	12.67
5.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	16.933	0.00	2.45
5.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	16.933	0.00	2.50
5.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	16.933	0.00	4.99
5.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	16.933	0.00	2.45
5.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	16.933	0.00	2.50
5.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	16.933	0.00	2.50
5.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	16.933	0.00	2.45
5.00	1" Reinforcing plate	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	16.933	0.00	0.00
5.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	16.933	0.00	2.50
5.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	16.933	0.00	2.50
10.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	16.933	0.00	9.76
10.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.122	1.065	16.933	0.00	18.72
10.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	16.933	0.00	5.72
10.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	16.933	0.00	0.54
10.00	1 1/4" Coax	Yes	5.00	0.000	3.10	1.29	0.00	0.122	1.065	16.933	0.00	15.84
10.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	16.933	0.00	3.06
10.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	16.933	0.00	3.12
10.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	16.933	0.00	6.24
10.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	16.933	0.00	3.06
10.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	16.933	0.00	3.12
10.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	16.933	0.00	3.12
10.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	16.933	0.00	3.06
10.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	16.933	0.00	0.00
10.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	16.933	0.00	3.12
10.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	16.933	0.00	3.12
15.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	16.933	0.00	9.76
15.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.125	1.075	16.933	0.00	18.72

Linear Appurtenance Segment Forces (Factored)

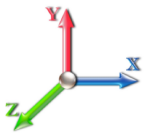
Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	III	Page: 13	

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
15.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	16.933	0.00	5.72
15.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	16.933	0.00	0.54
15.00	1 1/4" Coax	Yes	5.00	0.000	3.10	1.29	0.00	0.125	1.075	16.933	0.00	15.84
15.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	16.933	0.00	3.06
15.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	16.933	0.00	3.12
15.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	16.933	0.00	6.24
15.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	16.933	0.00	3.06
15.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	16.933	0.00	3.12
15.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	16.933	0.00	3.12
15.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	16.933	0.00	3.06
15.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	16.933	0.00	0.00
15.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	16.933	0.00	3.12
15.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	16.933	0.00	3.12
20.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	16.933	0.00	9.76
20.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.128	1.085	16.933	0.00	18.72
20.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	16.933	0.00	5.72
20.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	16.933	0.00	0.54
20.00	1 1/4" Coax	Yes	5.00	0.000	3.10	1.29	0.00	0.128	1.085	16.933	0.00	15.84
20.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	16.933	0.00	3.06
20.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	16.933	0.00	3.12
20.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	16.933	0.00	6.24
20.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	16.933	0.00	3.06
20.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	16.933	0.00	3.12
20.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	16.933	0.00	3.12
20.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	16.933	0.00	3.06
20.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	16.933	0.00	0.00
20.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	16.933	0.00	3.12
20.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	16.933	0.00	3.12
21.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	16.933	0.00	1.95
21.00	7/8" Coax	Yes	1.00	0.000	2.22	0.19	0.00	0.131	1.092	16.933	0.00	3.74
21.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	16.933	0.00	1.14
21.00	1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	16.933	0.00	0.11
21.00	1 1/4" Coax	Yes	1.00	0.000	3.10	0.26	0.00	0.131	1.092	16.933	0.00	3.17
21.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	16.933	0.00	0.61
21.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	16.933	0.00	0.62
21.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	16.933	0.00	1.25
21.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	16.933	0.00	0.61
21.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	16.933	0.00	0.62
21.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	16.933	0.00	0.62
21.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	16.933	0.00	0.61
21.00	1" Reinforcing plate	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	16.933	0.00	0.00
21.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	16.933	0.00	0.62
21.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	16.933	0.00	0.62
25.00	6x12 Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	16.933	0.00	7.81
25.00	7/8" Coax	Yes	4.00	0.000	2.22	0.74	0.00	0.133	1.098	16.933	0.00	14.98
25.00	Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	16.933	0.00	4.58
25.00	1/4" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	16.933	0.00	0.43

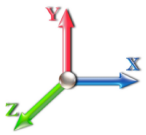
Linear Appurtenance Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 14	

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
25.00	1 1/4" Coax	Yes	4.00	0.000	3.10	1.03	0.00	0.133	1.098	16.933	0.00	12.67
25.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	16.933	0.00	2.45
25.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	16.933	0.00	2.50
25.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	16.933	0.00	4.99
25.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	16.933	0.00	2.45
25.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	16.933	0.00	2.50
25.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	16.933	0.00	2.50
25.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	16.933	0.00	2.45
25.00	1" Reinforcing plate	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	16.933	0.00	0.00
25.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	16.933	0.00	2.50
25.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	16.933	0.00	2.50
30.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	16.947	0.00	9.76
30.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.136	1.108	16.947	0.00	18.72
30.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	16.947	0.00	5.72
30.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	16.947	0.00	0.54
30.00	1 1/4" Coax	Yes	5.00	0.000	3.10	1.29	0.00	0.136	1.108	16.947	0.00	15.84
30.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	16.947	0.00	3.06
30.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	16.947	0.00	3.12
30.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	16.947	0.00	6.24
30.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	16.947	0.00	3.06
30.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	16.947	0.00	3.12
30.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	16.947	0.00	3.12
30.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	16.947	0.00	3.06
30.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	16.947	0.00	0.00
30.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	16.947	0.00	3.12
30.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	16.947	0.00	3.12
35.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	17.710	0.00	9.76
35.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.140	1.120	17.710	0.00	18.72
35.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	17.710	0.00	5.72
35.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	17.710	0.00	0.54
35.00	1 1/4" Coax	Yes	5.00	0.000	3.10	1.29	0.00	0.140	1.120	17.710	0.00	15.84
35.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	17.710	0.00	3.06
35.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	17.710	0.00	3.12
35.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	17.710	0.00	6.24
35.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	17.710	0.00	3.06
35.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	17.710	0.00	3.12
35.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	17.710	0.00	3.12
35.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	17.710	0.00	3.06
35.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	17.710	0.00	0.00
35.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	17.710	0.00	3.12
35.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	17.710	0.00	3.12
40.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	18.399	0.00	9.76
40.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.144	1.133	18.399	0.00	18.72
40.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	18.399	0.00	5.72
40.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	18.399	0.00	0.54
40.00	1 1/4" Coax	Yes	5.00	0.000	3.10	1.29	0.00	0.144	1.133	18.399	0.00	15.84
40.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	18.399	0.00	3.06

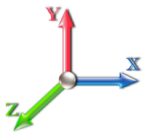
Linear Appurtenance Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 15	

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
40.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	18.399	0.00	3.12
40.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	18.399	0.00	6.24
40.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	18.399	0.00	3.06
40.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	18.399	0.00	3.12
40.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	18.399	0.00	3.12
40.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	18.399	0.00	3.06
40.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	18.399	0.00	0.00
40.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	18.399	0.00	3.12
40.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	18.399	0.00	3.12
41.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	18.529	0.00	1.95
41.00	7/8" Coax	Yes	1.00	0.000	2.22	0.19	0.00	0.147	1.142	18.529	0.00	3.74
41.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	18.529	0.00	1.14
41.00	1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	18.529	0.00	0.11
41.00	1 1/4" Coax	Yes	1.00	0.000	3.10	0.26	0.00	0.147	1.142	18.529	0.00	3.17
41.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	18.529	0.00	0.61
41.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	18.529	0.00	0.62
41.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	18.529	0.00	1.25
41.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	18.529	0.00	0.61
41.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	18.529	0.00	0.62
41.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	18.529	0.00	0.62
41.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	18.529	0.00	0.61
41.00	1" Reinforcing plate	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	18.529	0.00	0.00
41.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	18.529	0.00	0.62
41.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	18.529	0.00	0.62
44.33	6x12 Hybrid	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	18.947	0.00	6.51
44.33	7/8" Coax	Yes	3.33	0.000	2.22	0.62	0.00	0.149	1.148	18.947	0.00	12.48
44.33	Hybrid	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	18.947	0.00	3.82
44.33	1/4" Coax	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	18.947	0.00	0.36
44.33	1 1/4" Coax	Yes	3.33	0.000	3.10	0.86	0.00	0.149	1.148	18.947	0.00	10.56
44.33	EW	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	18.947	0.00	2.04
44.33	7/8" Coax	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	18.947	0.00	2.08
44.33	7/8" Coax	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	18.947	0.00	4.16
44.33	EW	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	18.947	0.00	2.04
44.33	7/8" Coax	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	18.947	0.00	2.08
44.33	7/8" Coax	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	18.947	0.00	2.08
44.33	EW	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	18.947	0.00	2.04
44.33	1" Reinforcing plate	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	18.947	0.00	0.00
44.33	7/8" Coax	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	18.947	0.00	2.08
44.33	7/8" Coax	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	18.947	0.00	2.08
45.00	6x12 Hybrid	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	19.028	0.00	1.30
45.00	7/8" Coax	Yes	0.67	0.000	2.22	0.12	0.00	0.151	1.154	19.028	0.00	2.50
45.00	Hybrid	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	19.028	0.00	0.76
45.00	1/4" Coax	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	19.028	0.00	0.07
45.00	1 1/4" Coax	Yes	0.67	0.000	3.10	0.17	0.00	0.151	1.154	19.028	0.00	2.11
45.00	EW	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	19.028	0.00	0.41
45.00	7/8" Coax	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	19.028	0.00	0.42
45.00	7/8" Coax	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	19.028	0.00	0.83

Linear Appurtenance Segment Forces (Factored)

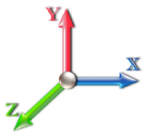
Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	III	Page: 16	

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
45.00	EW	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	19.028	0.00	0.41
45.00	7/8" Coax	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	19.028	0.00	0.42
45.00	7/8" Coax	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	19.028	0.00	0.42
45.00	EW	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	19.028	0.00	0.41
45.00	1" Reinforcing plate	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	19.028	0.00	0.00
45.00	7/8" Coax	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	19.028	0.00	0.42
45.00	7/8" Coax	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	19.028	0.00	0.42
48.75	6x12 Hybrid	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	19.469	0.00	7.32
48.75	7/8" Coax	Yes	3.75	0.000	2.22	0.69	0.00	0.153	1.160	19.469	0.00	14.04
48.75	Hybrid	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	19.469	0.00	4.29
48.75	1/4" Coax	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	19.469	0.00	0.40
48.75	1 1/4" Coax	Yes	3.75	0.000	3.10	0.97	0.00	0.153	1.160	19.469	0.00	11.88
48.75	EW	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	19.469	0.00	2.29
48.75	7/8" Coax	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	19.469	0.00	2.34
48.75	7/8" Coax	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	19.469	0.00	4.68
48.75	EW	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	19.469	0.00	2.29
48.75	7/8" Coax	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	19.469	0.00	2.34
48.75	7/8" Coax	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	19.469	0.00	2.34
48.75	EW	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	19.469	0.00	2.29
48.75	1" Reinforcing plate	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	19.469	0.00	0.00
48.75	7/8" Coax	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	19.469	0.00	2.34
48.75	7/8" Coax	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	19.469	0.00	2.34
50.00	6x12 Hybrid	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	19.610	0.00	2.44
50.00	7/8" Coax	Yes	1.25	0.000	2.22	0.23	0.00	0.153	1.159	19.610	0.00	4.68
50.00	Hybrid	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	19.610	0.00	1.43
50.00	1/4" Coax	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	19.610	0.00	0.14
50.00	1 1/4" Coax	Yes	1.25	0.000	3.10	0.32	0.00	0.153	1.159	19.610	0.00	3.96
50.00	EW	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	19.610	0.00	0.77
50.00	7/8" Coax	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	19.610	0.00	0.78
50.00	7/8" Coax	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	19.610	0.00	1.56
50.00	EW	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	19.610	0.00	0.77
50.00	7/8" Coax	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	19.610	0.00	0.78
50.00	7/8" Coax	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	19.610	0.00	0.78
50.00	EW	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	19.610	0.00	0.77
50.00	1" Reinforcing plate	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	19.610	0.00	0.00
50.00	7/8" Coax	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	19.610	0.00	0.78
50.00	7/8" Coax	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	19.610	0.00	0.78
50.50	6x12 Hybrid	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	19.666	0.00	0.98
50.50	7/8" Coax	Yes	0.50	0.000	2.22	0.09	0.00	0.154	1.162	19.666	0.00	1.87
50.50	Hybrid	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	19.666	0.00	0.57
50.50	1/4" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	19.666	0.00	0.05
50.50	1 1/4" Coax	Yes	0.50	0.000	3.10	0.13	0.00	0.154	1.162	19.666	0.00	1.58
50.50	EW	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	19.666	0.00	0.31
50.50	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	19.666	0.00	0.31
50.50	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	19.666	0.00	0.62
50.50	EW	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	19.666	0.00	0.31
50.50	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	19.666	0.00	0.31

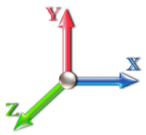
Linear Appurtenance Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 17	

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
50.50	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	19.666	0.00	0.31
50.50	EW	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	19.666	0.00	0.31
50.50	1" Reinforcing plate	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	19.666	0.00	0.00
50.50	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	19.666	0.00	0.31
50.50	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	19.666	0.00	0.31
55.00	6x12 Hybrid	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	20.151	0.00	8.79
55.00	7/8" Coax	Yes	4.50	0.000	2.22	0.83	0.00	0.157	1.170	20.151	0.00	16.85
55.00	Hybrid	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	20.151	0.00	5.15
55.00	1/4" Coax	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	20.151	0.00	0.49
55.00	1 1/4" Coax	Yes	4.50	0.000	3.10	1.16	0.00	0.157	1.170	20.151	0.00	14.26
55.00	EW	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	20.151	0.00	2.75
55.00	7/8" Coax	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	20.151	0.00	2.81
55.00	7/8" Coax	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	20.151	0.00	5.62
55.00	EW	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	20.151	0.00	2.75
55.00	7/8" Coax	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	20.151	0.00	2.81
55.00	7/8" Coax	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	20.151	0.00	2.81
55.00	EW	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	20.151	0.00	2.75
55.00	1" Reinforcing plate	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	20.151	0.00	0.00
55.00	7/8" Coax	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	20.151	0.00	2.81
55.00	7/8" Coax	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	20.151	0.00	2.81
60.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	20.659	0.00	9.76
60.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.162	1.185	20.659	0.00	18.72
60.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	20.659	0.00	5.72
60.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	20.659	0.00	0.54
60.00	1 1/4" Coax	Yes	5.00	0.000	3.10	1.29	0.00	0.162	1.185	20.659	0.00	15.84
60.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	20.659	0.00	3.06
60.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	20.659	0.00	3.12
60.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	20.659	0.00	6.24
60.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	20.659	0.00	3.06
60.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	20.659	0.00	3.12
60.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	20.659	0.00	3.12
60.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	20.659	0.00	3.06
60.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	20.659	0.00	0.00
60.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	20.659	0.00	3.12
60.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	20.659	0.00	3.12
61.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	20.756	0.00	1.95
61.00	7/8" Coax	Yes	1.00	0.000	2.22	0.19	0.00	0.165	1.196	20.756	0.00	3.74
61.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	20.756	0.00	1.14
61.00	1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	20.756	0.00	0.11
61.00	1 1/4" Coax	Yes	1.00	0.000	3.10	0.26	0.00	0.165	1.196	20.756	0.00	3.17
61.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	20.756	0.00	0.61
61.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	20.756	0.00	0.62
61.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	20.756	0.00	1.25
61.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	20.756	0.00	0.61
61.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	20.756	0.00	0.62
61.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	20.756	0.00	0.62
61.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	20.756	0.00	0.61

Linear Appurtenance Segment Forces (Factored)

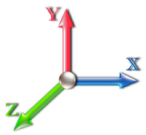
Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	III	Page: 18	

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
61.00	1" Reinforcing plate	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	20.756	0.00	0.00
61.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	20.756	0.00	0.62
61.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	20.756	0.00	0.62
65.00	6x12 Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	21.136	0.00	7.81
65.00	7/8" Coax	Yes	4.00	0.000	2.22	0.74	0.00	0.168	1.205	21.136	0.00	14.98
65.00	Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	21.136	0.00	4.58
65.00	1/4" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	21.136	0.00	0.43
65.00	1 1/4" Coax	Yes	4.00	0.000	3.10	1.03	0.00	0.168	1.205	21.136	0.00	12.67
65.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	21.136	0.00	2.45
65.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	21.136	0.00	2.50
65.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	21.136	0.00	4.99
65.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	21.136	0.00	2.45
65.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	21.136	0.00	2.50
65.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	21.136	0.00	2.50
65.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	21.136	0.00	2.45
65.00	1" Reinforcing plate	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	21.136	0.00	0.00
69.00	6x12 Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	21.500	0.00	7.81
69.00	7/8" Coax	Yes	4.00	0.000	2.22	0.74	0.00	0.173	1.220	21.500	0.00	14.98
69.00	Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	21.500	0.00	4.58
69.00	1/4" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	21.500	0.00	0.43
69.00	1 1/4" Coax	Yes	4.00	0.000	3.10	1.03	0.00	0.173	1.220	21.500	0.00	12.67
69.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	21.500	0.00	2.45
69.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	21.500	0.00	2.50
69.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	21.500	0.00	4.99
69.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	21.500	0.00	2.45
69.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	21.500	0.00	2.50
69.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	21.500	0.00	2.50
69.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	21.500	0.00	2.45
69.00	1" Reinforcing plate	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	21.500	0.00	0.00
70.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	21.589	0.00	1.95
70.00	7/8" Coax	Yes	1.00	0.000	2.22	0.19	0.00	0.177	1.230	21.589	0.00	3.74
70.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	21.589	0.00	1.14
70.00	1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	21.589	0.00	0.11
70.00	1 1/4" Coax	Yes	1.00	0.000	3.10	0.26	0.00	0.177	1.230	21.589	0.00	3.17
70.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	21.589	0.00	0.61
70.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	21.589	0.00	0.62
70.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	21.589	0.00	1.25
70.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	21.589	0.00	0.61
70.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	21.589	0.00	0.62
70.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	21.589	0.00	0.62
70.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	21.589	0.00	0.61
70.00	1" Reinforcing plate	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	21.589	0.00	0.00
75.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	22.019	0.00	9.76
75.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.181	1.242	22.019	0.00	18.72
75.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	22.019	0.00	5.72
75.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	22.019	0.00	0.54
75.00	1 1/4" Coax	Yes	5.00	0.000	3.10	1.29	0.00	0.181	1.242	22.019	0.00	15.84

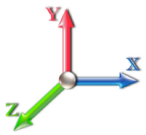
Linear Appurtenance Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 19	

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
75.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	22.019	0.00	3.06
75.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	22.019	0.00	3.12
75.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	22.019	0.00	6.24
75.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	22.019	0.00	3.06
75.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	22.019	0.00	3.12
75.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	22.019	0.00	3.12
75.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	22.019	0.00	3.06
80.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	22.428	0.00	9.76
80.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.188	1.264	22.428	0.00	18.72
80.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	22.428	0.00	5.72
80.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	22.428	0.00	0.54
80.00	1 1/4" Coax	Yes	5.00	0.000	3.10	1.29	0.00	0.188	1.264	22.428	0.00	15.84
80.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	22.428	0.00	3.06
80.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	22.428	0.00	3.12
80.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	22.428	0.00	6.24
80.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	22.428	0.00	3.06
80.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	22.428	0.00	3.12
80.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	22.428	0.00	3.12
80.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	22.428	0.00	3.06
82.83	6x12 Hybrid	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	22.652	0.00	5.53
82.83	7/8" Coax	Yes	2.83	0.000	2.22	0.52	0.00	0.194	1.283	22.652	0.00	10.60
82.83	Hybrid	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	22.652	0.00	3.24
82.83	1/4" Coax	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	22.652	0.00	0.31
82.83	1 1/4" Coax	Yes	2.83	0.000	3.10	0.73	0.00	0.194	1.283	22.652	0.00	8.97
82.83	EW	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	22.652	0.00	1.73
82.83	7/8" Coax	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	22.652	0.00	1.77
82.83	7/8" Coax	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	22.652	0.00	3.53
82.83	EW	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	22.652	0.00	1.73
82.83	7/8" Coax	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	22.652	0.00	1.77
82.83	7/8" Coax	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	22.652	0.00	1.77
82.83	EW	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	22.652	0.00	1.73
85.00	6x12 Hybrid	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	22.820	0.00	4.24
85.00	7/8" Coax	Yes	2.17	0.000	2.22	0.40	0.00	0.198	1.295	22.820	0.00	8.12
85.00	Hybrid	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	22.820	0.00	2.48
85.00	1/4" Coax	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	22.820	0.00	0.23
85.00	1 1/4" Coax	Yes	2.17	0.000	3.10	0.56	0.00	0.198	1.295	22.820	0.00	6.87
85.00	EW	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	22.820	0.00	1.33
85.00	7/8" Coax	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	22.820	0.00	1.35
85.00	7/8" Coax	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	22.820	0.00	2.71
85.00	EW	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	22.820	0.00	1.33
85.00	7/8" Coax	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	22.820	0.00	1.35
85.00	7/8" Coax	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	22.820	0.00	1.35
87.00	6x12 Hybrid	Yes	2.00	0.000	0.00	0.00	0.00	0.202	0.000	22.972	0.00	3.90
87.00	7/8" Coax	Yes	2.00	1.200	2.22	0.37	0.44	0.202	0.000	22.972	17.95	7.49
87.00	Hybrid	Yes	2.00	0.000	0.00	0.00	0.00	0.202	0.000	22.972	0.00	2.29
87.00	1/4" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.202	0.000	22.972	0.00	0.22
87.00	1 1/4" Coax	Yes	2.00	1.200	3.10	0.52	0.62	0.202	0.000	22.972	25.07	6.34

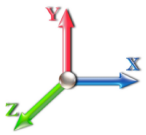
Linear Appurtenance Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 20	

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
87.00	EW	Yes	2.00	0.000	0.00	0.00	0.00	0.202	0.000	22.972	0.00	1.22
87.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.202	0.000	22.972	0.00	1.25
87.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.202	0.000	22.972	0.00	2.50
87.00	EW	Yes	2.00	0.000	0.00	0.00	0.00	0.202	0.000	22.972	0.00	1.22
89.75	6x12 Hybrid	Yes	2.75	0.000	0.00	0.00	0.00	0.206	0.000	23.178	0.00	5.37
89.75	7/8" Coax	Yes	2.75	1.200	2.22	0.51	0.61	0.206	0.000	23.178	24.90	10.30
89.75	Hybrid	Yes	2.75	0.000	0.00	0.00	0.00	0.206	0.000	23.178	0.00	3.15
89.75	1/4" Coax	Yes	2.75	0.000	0.00	0.00	0.00	0.206	0.000	23.178	0.00	0.30
89.75	1 1/4" Coax	Yes	2.75	1.200	3.10	0.71	0.85	0.206	0.000	23.178	34.78	8.71
89.75	EW	Yes	2.75	0.000	0.00	0.00	0.00	0.206	0.000	23.178	0.00	1.68
89.75	7/8" Coax	Yes	2.75	0.000	0.00	0.00	0.00	0.206	0.000	23.178	0.00	1.72
89.75	7/8" Coax	Yes	2.75	0.000	0.00	0.00	0.00	0.206	0.000	23.178	0.00	3.43
90.00	6x12 Hybrid	Yes	0.25	0.000	0.00	0.00	0.00	0.209	0.000	23.196	0.00	0.49
90.00	7/8" Coax	Yes	0.25	1.200	2.22	0.05	0.06	0.209	0.000	23.196	2.27	0.94
90.00	Hybrid	Yes	0.25	0.000	0.00	0.00	0.00	0.209	0.000	23.196	0.00	0.29
90.00	1/4" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.209	0.000	23.196	0.00	0.03
90.00	1 1/4" Coax	Yes	0.25	1.200	3.10	0.06	0.08	0.209	0.000	23.196	3.16	0.79
90.00	EW	Yes	0.25	0.000	0.00	0.00	0.00	0.209	0.000	23.196	0.00	0.15
90.00	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.209	0.000	23.196	0.00	0.16
90.00	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.209	0.000	23.196	0.00	0.31
93.08	6x12 Hybrid	Yes	3.08	0.000	0.00	0.00	0.00	0.212	0.000	23.420	0.00	6.02
93.08	7/8" Coax	Yes	3.08	1.200	2.22	0.57	0.68	0.212	0.000	23.420	28.21	11.54
93.08	Hybrid	Yes	3.08	0.000	0.00	0.00	0.00	0.212	0.000	23.420	0.00	3.53
93.08	1/4" Coax	Yes	3.08	0.000	0.00	0.00	0.00	0.212	0.000	23.420	0.00	0.33
93.08	1 1/4" Coax	Yes	3.08	1.200	3.10	0.80	0.96	0.212	0.000	23.420	39.40	9.77
93.08	EW	Yes	3.08	0.000	0.00	0.00	0.00	0.212	0.000	23.420	0.00	1.89
93.08	7/8" Coax	Yes	3.08	0.000	0.00	0.00	0.00	0.212	0.000	23.420	0.00	1.92
93.08	7/8" Coax	Yes	3.08	0.000	0.00	0.00	0.00	0.212	0.000	23.420	0.00	3.85
95.00	6x12 Hybrid	Yes	1.92	0.000	0.00	0.00	0.00	0.213	0.000	23.557	0.00	3.74
95.00	7/8" Coax	Yes	1.92	1.200	2.22	0.35	0.43	0.213	0.000	23.557	17.64	7.18
95.00	Hybrid	Yes	1.92	0.000	0.00	0.00	0.00	0.213	0.000	23.557	0.00	2.19
95.00	1/4" Coax	Yes	1.92	0.000	0.00	0.00	0.00	0.213	0.000	23.557	0.00	0.21
95.00	1 1/4" Coax	Yes	1.92	1.200	3.10	0.50	0.59	0.213	0.000	23.557	24.63	6.07
95.00	EW	Yes	1.92	0.000	0.00	0.00	0.00	0.213	0.000	23.557	0.00	1.17
95.00	7/8" Coax	Yes	1.92	0.000	0.00	0.00	0.00	0.213	0.000	23.557	0.00	1.20
95.00	7/8" Coax	Yes	1.92	0.000	0.00	0.00	0.00	0.213	0.000	23.557	0.00	2.39
100.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.220	0.000	23.905	0.00	9.76
100.00	7/8" Coax	Yes	5.00	1.200	2.22	0.93	1.11	0.220	0.000	23.905	46.70	18.72
100.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.220	0.000	23.905	0.00	5.72
100.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.220	0.000	23.905	0.00	0.54
100.00	1 1/4" Coax	Yes	5.00	1.200	3.10	1.29	1.55	0.220	0.000	23.905	65.21	15.84
100.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.220	0.000	23.905	0.00	3.06
100.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.220	0.000	23.905	0.00	3.12
100.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.220	0.000	23.905	0.00	6.24
105.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.231	0.000	24.240	0.00	9.76
105.00	7/8" Coax	Yes	5.00	1.200	2.22	0.93	1.11	0.231	0.000	24.240	47.36	18.72
105.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.231	0.000	24.240	0.00	5.72

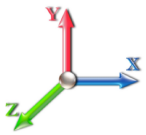
Linear Appurtenance Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 21	

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
105.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.231	0.000	24.240	0.00	0.54
105.00	1 1/4" Coax	Yes	5.00	1.200	3.10	1.29	1.55	0.231	0.000	24.240	66.13	15.84
105.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.231	0.000	24.240	0.00	3.06
105.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.231	0.000	24.240	0.00	3.12
106.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.238	0.000	24.306	0.00	1.95
106.00	7/8" Coax	Yes	1.00	1.200	2.22	0.19	0.22	0.238	0.000	24.306	9.50	3.74
106.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.238	0.000	24.306	0.00	1.14
106.00	1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.238	0.000	24.306	0.00	0.11
106.00	1 1/4" Coax	Yes	1.00	1.200	3.10	0.26	0.31	0.238	0.000	24.306	13.26	3.17
106.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.238	0.000	24.306	0.00	0.61
106.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.238	0.000	24.306	0.00	0.62
106.50	6x12 Hybrid	Yes	0.50	0.000	0.00	0.00	0.00	0.240	0.000	24.339	0.00	0.98
106.50	7/8" Coax	Yes	0.50	1.200	2.22	0.09	0.11	0.240	0.000	24.339	4.75	1.87
106.50	Hybrid	Yes	0.50	0.000	0.00	0.00	0.00	0.240	0.000	24.339	0.00	0.57
106.50	1/4" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.240	0.000	24.339	0.00	0.05
106.50	1 1/4" Coax	Yes	0.50	1.200	3.10	0.13	0.15	0.240	0.000	24.339	6.64	1.58
106.50	EW	Yes	0.50	0.000	0.00	0.00	0.00	0.240	0.000	24.339	0.00	0.31
110.00	6x12 Hybrid	Yes	3.50	0.000	0.00	0.00	0.00	0.245	0.000	24.565	0.00	6.83
110.00	7/8" Coax	Yes	3.50	1.200	2.22	0.65	0.78	0.245	0.000	24.565	33.59	13.10
110.00	Hybrid	Yes	3.50	0.000	0.00	0.00	0.00	0.245	0.000	24.565	0.00	4.01
110.00	1/4" Coax	Yes	3.50	0.000	0.00	0.00	0.00	0.245	0.000	24.565	0.00	0.38
110.00	1 1/4" Coax	Yes	3.50	1.200	3.10	0.90	1.08	0.245	0.000	24.565	46.91	11.09
114.00	6x12 Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.255	0.000	24.817	0.00	7.81
114.00	7/8" Coax	Yes	4.00	1.200	2.22	0.74	0.89	0.255	0.000	24.817	38.79	14.98
114.00	Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.255	0.000	24.817	0.00	4.58
114.00	1/4" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.255	0.000	24.817	0.00	0.43
114.00	1 1/4" Coax	Yes	4.00	1.200	3.10	1.03	1.24	0.255	0.000	24.817	54.16	12.67
115.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.109	1.028	24.879	0.00	1.95
115.00	7/8" Coax	Yes	1.00	0.000	2.22	0.19	0.00	0.109	1.028	24.879	0.00	3.74
115.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.109	1.028	24.879	0.00	1.14
115.00	1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.109	1.028	24.879	0.00	0.11
120.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.113	1.039	25.183	0.00	9.76
120.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.113	1.039	25.183	0.00	18.72
120.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.113	1.039	25.183	0.00	5.72
120.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.113	1.039	25.183	0.00	0.54
125.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.120	1.060	25.479	0.00	9.76
125.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.120	1.060	25.479	0.00	18.72
125.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.120	1.060	25.479	0.00	5.72
125.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.120	1.060	25.479	0.00	0.54
127.00	6x12 Hybrid	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.077	25.594	0.00	3.90
127.00	7/8" Coax	Yes	2.00	0.000	2.22	0.37	0.00	0.126	1.077	25.594	0.00	7.49
127.00	Hybrid	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.077	25.594	0.00	2.29
127.00	1/4" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.077	25.594	0.00	0.22
128.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.084	25.652	0.00	1.95
128.00	7/8" Coax	Yes	1.00	0.000	2.22	0.19	0.00	0.128	1.084	25.652	0.00	3.74
128.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.084	25.652	0.00	1.14

Linear Appurtenance Segment Forces (Factored)

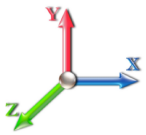
Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	III	Page: 22	

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
										Totals:	**651.0**	**1,792.8**

Calculated Forces

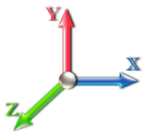
Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	III	Page: 23	

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 25

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-32.80	-30.15	0.00	-2789.1	0.00	2789.18	2791.94	1395.97	5010.03	2474.26	0.00	0.000	0.000	0.817
1.00	-32.51	-30.10	0.00	-2759.0	0.00	2759.03	2783.20	1391.60	4968.67	2453.84	0.01	-0.045	0.000	0.835
5.00	-31.46	-29.74	0.00	-2638.6	0.00	2638.65	2747.66	1373.83	4803.88	2372.46	0.12	-0.225	0.000	0.821
10.00	-30.20	-29.27	0.00	-2489.9	0.00	2489.97	2701.97	1350.99	4599.43	2271.49	0.48	-0.452	0.000	0.803
15.00	-28.96	-28.81	0.00	-2343.6	0.00	2343.61	2654.88	1327.44	4396.87	2171.45	1.07	-0.682	0.000	0.784
20.00	-27.80	-28.30	0.00	-2199.5	0.00	2199.56	2606.39	1303.19	4196.39	2072.44	1.91	-0.914	0.000	0.764
21.00	-27.53	-28.25	0.00	-2171.2	0.00	2171.26	2596.52	1298.26	4156.56	2052.77	2.11	-0.962	0.000	0.760
25.00	-26.58	-27.89	0.00	-2058.2	0.00	2058.27	2556.49	1278.25	3998.19	1974.56	3.00	-1.152	0.000	0.744
30.00	-25.44	-27.44	0.00	-1918.8	0.00	1918.80	2505.19	1252.60	3802.46	1877.89	4.33	-1.389	0.000	0.722
35.00	-24.33	-26.96	0.00	-1781.6	0.00	1781.61	2447.14	1223.57	3601.53	1778.66	5.91	-1.627	0.000	0.701
40.00	-23.29	-26.43	0.00	-1646.8	0.00	1646.81	2371.27	1185.63	3380.54	1669.52	7.75	-1.867	0.000	0.683
41.00	-23.05	-26.35	0.00	-1620.3	0.00	1620.38	2356.09	1178.05	3337.19	1648.11	8.14	-1.917	0.000	0.679
44.33	-22.38	-25.99	0.00	-1532.5	0.00	1532.55	2305.51	1152.76	3194.68	1577.73	9.54	-2.080	0.000	0.666
45.00	-22.11	-25.94	0.00	-1515.2	0.00	1515.22	2295.40	1147.70	3166.55	1563.84	9.83	-2.113	0.000	0.656
48.75	-20.86	-25.50	0.00	-1417.9	0.00	1417.93	1840.18	920.09	2532.27	1250.59	11.56	-2.293	0.000	0.674
50.00	-20.64	-25.37	0.00	-1386.0	0.00	1386.05	1830.15	915.08	2497.37	1233.36	12.17	-2.355	0.000	0.720
50.50	-20.44	-25.23	0.00	-1373.3	0.00	1373.37	1826.12	913.06	2483.45	1226.48	12.42	-2.381	0.000	0.717
55.00	-19.65	-24.75	0.00	-1259.8	0.00	1259.85	1789.15	894.58	2358.94	1164.99	14.78	-2.613	0.000	0.684
60.00	-18.77	-24.01	0.00	-1136.0	0.00	1136.08	1746.75	873.37	2222.49	1097.61	17.65	-2.866	0.000	0.645
61.00	-18.49	-23.64	0.00	-1112.0	0.00	1112.07	1738.10	869.05	2195.46	1084.26	18.25	-2.918	0.000	0.637
65.00	-17.85	-23.20	0.00	-1017.5	0.00	1017.51	1699.15	849.58	2083.60	1029.01	20.78	-3.119	0.000	0.607
69.00	-17.26	-22.73	0.00	-924.71	0.00	924.71	1648.57	824.28	1960.77	968.35	23.48	-3.316	0.000	0.579
69.00	-17.26	-22.73	0.00	-924.71	0.00	924.71	1648.57	824.28	1960.77	968.35	23.48	-3.316	0.000	0.579
70.00	-17.03	-22.68	0.00	-901.98	0.00	901.98	1635.92	817.96	1930.64	953.47	24.18	-3.366	0.000	0.957
75.00	-16.23	-22.16	0.00	-788.59	0.00	788.59	1572.70	786.35	1783.52	880.81	27.92	-3.763	0.000	0.906
80.00	-15.49	-21.60	0.00	-677.82	0.00	677.82	1509.47	754.74	1642.23	811.04	32.07	-4.151	0.000	0.847
82.83	-15.00	-20.79	0.00	-616.68	0.00	616.68	1473.69	736.84	1564.84	772.82	34.59	-4.370	0.000	0.809
85.00	-14.61	-20.25	0.00	-570.97	0.00	570.97	1446.25	723.12	1506.77	744.14	36.62	-4.536	0.000	0.778
87.00	-14.25	-19.47	0.00	-530.48	0.00	530.48	1420.96	710.48	1454.22	718.18	38.55	-4.686	0.000	0.749
89.75	-13.92	-19.12	0.00	-476.94	0.00	476.94	1386.18	693.09	1383.48	683.25	41.30	-4.884	0.000	0.709
90.00	-13.83	-19.11	0.00	-472.16	0.00	472.16	1383.02	691.51	1377.14	680.12	41.56	-4.903	0.000	0.705
93.08	-13.20	-18.71	0.00	-413.24	0.00	413.24	1099.29	549.65	1091.88	539.24	44.79	-5.115	0.000	0.779
95.00	-12.95	-18.50	0.00	-377.39	0.00	377.39	1081.51	540.75	1055.11	521.08	46.87	-5.243	0.000	0.737
100.00	-8.71	-13.38	0.00	-284.87	0.00	284.87	1030.93	515.46	958.23	473.23	52.55	-5.588	0.000	0.611
105.00	-8.31	-12.76	0.00	-217.99	0.00	217.99	980.35	490.17	866.02	427.69	58.56	-5.890	0.000	0.519
106.00	-8.21	-12.42	0.00	-203.97	0.00	203.97	970.23	485.12	848.14	418.86	59.79	-5.949	0.000	0.496
106.50	-8.10	-11.79	0.00	-197.76	0.00	197.76	965.17	482.59	839.27	414.48	60.42	-5.978	0.000	0.486
110.00	-7.84	-11.38	0.00	-156.50	0.00	156.50	929.77	464.88	778.47	384.46	64.86	-6.160	0.000	0.416
114.00	-4.97	-7.93	0.00	-110.88	0.00	110.88	889.30	444.65	711.80	351.53	70.09	-6.335	0.000	0.321
115.00	-4.89	-7.86	0.00	-102.95	0.00	102.95	879.19	439.59	695.59	343.53	71.42	-6.375	0.000	0.306
120.00	-4.58	-7.46	0.00	-63.66	0.00	63.66	828.61	414.30	617.37	304.90	78.18	-6.536	0.000	0.215
125.00	-4.29	-7.06	0.00	-26.38	0.00	26.38	778.02	389.01	543.82	268.57	85.07	-6.640	0.000	0.104
127.00	-4.16	-6.67	0.00	-10.41	0.00	10.41	757.79	378.90	515.71	254.69	87.85	-6.662	0.000	0.047
128.00	-0.12	-0.35	0.00	-1.02	0.00	1.02	747.68	373.84	501.93	247.88	89.24	-6.666	0.000	0.004
129.17	-0.04	-0.06	0.00	-0.05	0.00	0.05	735.84	367.92	486.05	240.04	90.87	-6.667	0.000	0.000
130.00	0.00	-0.05	0.00	0.00	0.00	0.00	727.44	363.72	474.93	234.55	92.03	-6.667	0.000	0.000

Wind Loading - Shaft

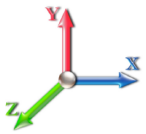
Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	III	Page: 24	

Tower Engineering Solutions

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00	RB1	1.00	0.70	16.933	18.63	315.84	1.000	0.000	0.00	0.000	0.00	0.0	0.0	0.0
1.00	RT1 RB2	1.00	0.70	16.933	18.63	314.25	1.052 *	0.000	1.00	3.776	3.97	118.4	0.0	160.5
5.00		1.00	0.70	16.933	18.63	307.87	1.057 *	0.000	4.00	14.911	15.76	469.6	0.0	633.6
10.00		1.00	0.70	16.933	18.63	299.89	1.065 *	0.000	5.00	18.209	19.40	578.0	0.0	773.6
15.00		1.00	0.70	16.933	18.63	291.91	1.075 *	0.000	5.00	17.731	19.06	568.1	0.0	753.1
20.00		1.00	0.70	16.933	18.63	283.93	1.085 *	0.000	5.00	17.253	18.73	558.1	0.0	732.6
21.00	RT2 RB3	1.00	0.70	16.933	18.63	282.34	1.092 *	0.000	1.00	3.393	3.71	110.4	0.0	144.1
25.00		1.00	0.70	16.933	18.63	275.96	1.098 *	0.000	4.00	13.382	14.69	437.7	0.0	568.0
30.00		1.00	0.70	16.947	18.64	268.09	1.108 *	0.000	5.00	16.297	18.06	538.6	0.0	691.6
35.00		1.00	0.73	17.710	19.48	265.90	1.120 *	0.000	5.00	15.819	17.72	552.4	0.0	671.1
40.00		1.00	0.76	18.399	20.24	262.71	1.133 *	0.000	5.00	15.341	17.39	563.1	0.0	650.6
41.00	RT3 RB4	1.00	0.77	18.529	20.38	261.97	1.142 *	0.000	1.00	3.011	3.44	112.1	0.0	127.7
44.33	Bot - Section 2	1.00	0.78	18.947	20.84	259.28	1.148 *	0.000	3.33	9.898	11.36	378.9	0.0	419.6
45.00		1.00	0.79	19.028	20.93	258.71	1.154 *	0.000	0.67	1.990	2.30	76.9	0.0	153.3
48.75	Top - Section 1	1.00	0.80	19.469	21.42	255.27	1.160 *	0.000	3.75	11.036	12.81	438.8	0.0	849.7
50.00		1.00	0.81	19.610	21.57	258.89	1.159 *	0.000	1.25	3.619	4.20	144.8	0.0	128.1
50.50	Appurtenance(s)	1.00	0.81	19.666	21.63	258.40	1.162 *	0.000	0.50	1.439	1.67	57.9	0.0	50.9
55.00		1.00	0.83	20.151	22.17	253.74	1.170 *	0.000	4.50	12.737	14.90	528.5	0.0	450.6
60.00	Appurtenance(s)	1.00	0.85	20.659	22.72	248.10	1.185 *	0.000	5.00	13.698	16.24	590.4	0.0	484.5
61.00	RT4 RB5	1.00	0.86	20.756	22.83	246.92	1.196 *	0.000	1.00	2.682	3.21	117.2	0.0	94.8
65.00		1.00	0.87	21.136	23.25	242.04	1.205 *	0.000	4.00	10.538	12.70	472.3	0.0	372.6
69.00	RT5	1.00	0.89	21.500	23.65	236.92	1.220 *	0.000	4.00	10.232	12.48	472.3	0.0	361.6
70.00		1.00	0.89	21.589	23.75	235.61	1.230 *	0.000	1.00	2.510	3.09	117.3	0.0	88.7
75.00		1.00	0.91	22.019	24.22	228.84	1.242 *	0.000	5.00	12.264	15.24	590.4	0.0	433.3
80.00		1.00	0.93	22.428	24.67	221.78	1.264 *	0.000	5.00	11.786	14.90	588.2	0.0	416.2
82.83	Appurtenance(s)	1.00	0.94	22.652	24.92	217.66	1.283 *	0.000	2.83	6.459	8.29	330.3	0.0	228.0
85.00	Appurtenance(s)	1.00	0.94	22.820	25.10	214.45	1.295 *	0.000	2.17	4.849	6.28	252.2	0.0	171.1
87.00	Appurtenance(s)	1.00	0.95	22.972	25.27	211.45	1.200 *	0.000	2.00	4.389	5.27	213.0	0.0	154.9
89.75	Bot - Section 3	1.00	0.96	23.178	25.50	207.26	1.200 *	0.000	2.75	5.911	7.09	289.3	0.0	208.5
90.00		1.00	0.96	23.196	25.52	206.87	1.200 *	0.000	0.25	0.541	0.65	26.5	0.0	34.0
93.08	Top - Section 2	1.00	0.97	23.420	25.76	202.08	1.200 *	0.000	3.08	6.573	7.89	325.1	0.0	413.0
95.00		1.00	0.97	23.557	25.91	203.31	1.200 *	0.000	1.92	3.995	4.79	198.7	0.0	113.0
100.00	Appurtenance(s)	1.00	0.99	23.905	26.30	195.33	1.200 *	0.000	5.00	10.090	12.11	509.4	0.0	285.2
105.00		1.00	1.00	24.240	26.66	187.15	1.200 *	0.000	5.00	9.612	11.53	492.1	0.0	271.6
106.00	Appurtenance(s)	1.00	1.00	24.306	26.74	185.49	1.200 *	0.000	1.00	1.865	2.24	95.7	0.0	52.7
106.50	Appurtenance(s)	1.00	1.01	24.339	26.77	184.66	1.200 *	0.000	0.50	0.925	1.11	47.6	0.0	26.1
110.00		1.00	1.02	24.565	27.02	178.79	1.200 *	0.000	3.50	6.343	7.61	329.1	0.0	179.1
114.00	Appurtenance(s)	1.00	1.03	24.817	27.30	171.98	1.200 *	0.000	4.00	6.963	8.36	364.9	0.0	196.5
115.00		1.00	1.03	24.879	27.37	170.26	1.028 *	0.000	1.00	1.693	1.74	76.2	0.0	47.8
120.00		1.00	1.04	25.183	27.70	161.57	1.039 *	0.000	5.00	8.178	8.50	376.7	0.0	230.6
125.00		1.00	1.05	25.479	28.03	152.73	1.060 *	0.000	5.00	7.700	8.16	366.1	0.0	216.9
127.00	Appurtenance(s)	1.00	1.06	25.594	28.15	149.15	1.077 *	0.000	2.00	2.946	3.17	142.9	0.0	83.0
128.00	Appurtenance(s)	1.00	1.06	25.652	28.22	147.35	1.084 *	0.000	1.00	1.444	1.57	70.7	0.0	40.7
129.17	Appurtenance(s)	1.00	1.06	25.719	28.29	145.25	1.000	0.000	1.17	1.666	1.67	75.4	0.0	46.9
130.00		1.00	1.07	25.766	28.34	143.75	1.000	0.000	0.83	1.166	1.17	52.9	0.0	32.8
								Totals:	**130.00**			**13,815.4**		**13,242.7**

* Cf Adjusted by Linear Load Ra Effect

Discrete Appurtenance Forces

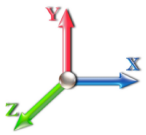
Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	III	Page: 25	

Tower Engineering Solutions

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	129.17	Pipe Mount	1	25.719	28.290	1.00	1.00	2.63	36.00	0.000	0.000	119.05	0.00	0.00
2	129.17	COL51-160	1	26.100	28.710	1.00	1.00	1.80	5.40	0.000	6.830	82.68	0.00	564.74
3	128.00	RT4401-48A (RRH only)	3	25.822	28.404	0.38	0.75	1.11	50.22	0.000	3.000	50.62	0.00	151.85
4	128.00	(3) 12.5' - 2.5" Horizontal	1	25.652	28.217	1.00	1.00	7.19	195.75	0.000	0.000	324.49	0.00	0.00
5	128.00	Support Bracing Kit	1	25.652	28.217	1.00	1.00	5.33	131.40	0.000	0.000	240.63	0.00	0.00
6	128.00	RRFDC-3315-PF-48	2	25.652	28.217	0.75	0.75	6.09	57.60	0.000	0.000	274.95	0.00	0.00
7	128.00	XXDWMM-12.5-65-8T	3	25.822	28.404	0.47	0.75	6.04	59.40	0.000	3.000	274.43	0.00	823.30
8	128.00	BXA-80080/4CF	3	25.822	28.404	0.57	0.75	8.21	38.61	0.000	3.000	373.03	0.00	1119.09
9	128.00	B2/B66A RRH-BR049	3	25.822	28.404	0.38	0.75	2.10	227.88	0.000	3.000	95.61	0.00	286.83
10	128.00	B5/B13 RRH-BR04C	3	25.822	28.404	0.38	0.75	2.10	189.81	0.000	3.000	95.61	0.00	286.83
11	128.00	CBC78T-DS-43-2X	3	25.822	28.404	0.38	0.75	0.42	28.08	0.000	3.000	18.92	0.00	56.75
12	128.00	Platform w/ Hand Rails	1	25.652	28.217	1.00	1.00	47.00	1980.00	0.000	0.000	2121.91	0.00	0.00
13	128.00	JAHH-65B-R3B	6	25.652	28.217	0.62	0.75	34.03	341.82	0.000	0.000	1536.17	0.00	0.00
14	128.00	MT6407-77A	3	25.652	28.217	0.52	0.75	7.39	214.38	0.000	0.000	333.49	0.00	0.00
15	127.00	11'6" Dipole	1	26.045	28.649	1.00	1.00	5.05	28.80	0.000	8.000	231.49	0.00	1851.90
16	114.00	Low Profile	1	24.817	27.298	1.00	1.00	22.00	1350.00	0.000	0.000	960.90	0.00	0.00
17	114.00	RRH 8X20-25-FEU	3	24.879	27.367	0.40	0.80	4.86	189.00	0.000	1.000	212.80	0.00	212.80
18	114.00	RRH 1900-4X45	3	24.879	27.367	0.40	0.80	3.25	162.00	0.000	1.000	142.39	0.00	142.39
19	114.00	RRH 2X50-800	3	24.692	27.161	0.40	0.80	2.88	172.80	0.000	-2.000	125.16	0.00	-250.31
20	114.00	APXVTM14-ALU-120	3	24.817	27.298	0.63	0.80	12.02	152.82	0.000	0.000	525.03	0.00	0.00
21	114.00	APXVSPP18-C-A20	3	24.817	27.298	0.66	0.80	15.98	153.90	0.000	0.000	697.78	0.00	0.00
22	106.50	Pipe Mount	1	24.339	26.773	1.00	1.00	2.63	36.00	0.000	0.000	112.66	0.00	0.00
23	106.50	VHLP3-11W-6WH/A	1	24.339	26.773	1.00	1.00	10.68	47.70	0.000	0.000	457.49	0.00	0.00
24	106.00	BA4040-41-DIN	1	24.676	27.143	1.00	1.00	5.05	28.80	0.000	5.750	219.32	0.00	1261.08
25	100.00	Platform w/ Hand Rails	1	23.905	26.295	1.00	1.00	40.00	1800.00	0.000	0.000	1682.90	0.00	0.00
26	100.00	Double TMA 17/21	2	23.836	26.220	0.38	0.75	0.26	19.80	0.000	-1.000	11.01	0.00	-11.01
27	100.00	E14F05P86 02	3	23.905	26.295	0.38	0.75	0.47	13.23	0.000	0.000	19.88	0.00	0.00
28	100.00	4449	3	23.836	26.220	0.38	0.75	1.86	189.00	0.000	-1.000	77.87	0.00	-77.87
29	100.00	4415	3	23.836	26.220	0.38	0.75	2.09	119.07	0.000	-1.000	87.78	0.00	-87.78
30	100.00	AIR 6449 B41	3	23.905	26.295	0.53	0.75	9.03	278.10	0.000	0.000	379.74	0.00	0.00
31	100.00	APXVAARR24_43	3	23.905	26.295	0.52	0.75	31.88	345.60	0.000	0.000	1341.19	0.00	0.00
32	100.00	AIR 32 B2A/B66Aa	3	23.905	26.295	0.65	0.75	12.74	356.94	0.000	0.000	536.14	0.00	0.00
33	87.00	VHLP3-11W-6WH/A	1	22.972	25.270	1.00	1.00	10.68	47.70	0.000	0.000	431.81	0.00	0.00
34	87.00	Pipe Mount	1	22.972	25.270	1.00	1.00	2.63	36.00	0.000	0.000	106.33	0.00	0.00
35	85.00	Sidearm	1	22.820	25.102	1.00	1.00	4.15	54.00	0.000	0.000	166.68	0.00	0.00
36	85.00	18" Dipole	1	22.763	25.039	1.00	1.00	0.28	5.40	0.000	-0.750	11.22	0.00	-8.41
37	85.00	10' Omni	1	23.196	25.516	1.00	1.00	3.00	22.50	0.000	5.000	122.47	0.00	612.37
38	82.83	VHLP2-11W-6WH/A	1	22.652	24.917	1.00	1.00	10.68	47.70	0.000	0.000	425.79	0.00	0.00
39	82.83	Pipe Mount	1	22.652	24.917	1.00	1.00	2.00	36.00	0.000	0.000	79.74	0.00	0.00
40	61.00	Sidearm	1	20.756	22.832	1.00	1.00	4.15	63.00	0.000	0.000	151.60	0.00	0.00
41	61.00	48'"x30" Grid Dish	1	20.756	22.832	1.00	1.00	3.53	4.95	0.000	0.000	128.96	0.00	0.00
42	60.00	Sidearm	1	20.659	22.724	1.00	1.00	4.15	63.00	0.000	0.000	150.89	0.00	0.00
43	60.00	2' Omni	1	20.756	22.832	1.00	1.00	0.30	4.50	0.000	1.000	10.96	0.00	10.96
44	50.50	Sidearm	1	19.666	21.632	1.00	1.00	2.50	47.99	0.000	0.000	86.53	0.00	0.00
45	50.50	GPS	1	19.666	21.632	1.00	1.00	1.00	9.00	0.000	0.000	34.61	0.00	0.00
							Totals:		**9,441.65**			**15,670.73**		

Total Applied Force Summary

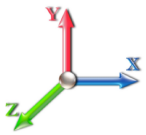
Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	III	Page: 26	

TES Tower Engineering Solutions

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
1.00		118.40	178.45	0.00	0.00
5.00		469.61	705.61	0.00	0.00
10.00		578.04	863.58	0.00	0.00
15.00		568.07	843.09	0.00	0.00
20.00		558.10	822.60	0.00	0.00
21.00		110.42	162.06	0.00	0.00
25.00		437.70	640.05	0.00	0.00
30.00		538.61	781.62	0.00	0.00
35.00		552.43	761.13	0.00	0.00
40.00		563.08	740.64	0.00	0.00
41.00		112.10	145.67	0.00	0.00
44.33		378.89	479.64	0.00	0.00
45.00		76.89	165.28	0.00	0.00
48.75		438.78	917.24	0.00	0.00
50.00		144.81	150.56	0.00	0.00
50.50	(2) attachments	179.03	116.91	0.00	0.00
55.00		528.49	530.99	0.00	0.00
60.00	(2) attachments	752.28	641.27	0.00	10.96
61.00	(2) attachments	397.74	180.66	0.00	0.00
65.00		472.32	440.25	0.00	0.00
69.00		472.34	429.32	0.00	0.00
70.00		117.30	105.62	0.00	0.00
75.00		590.40	517.87	0.00	0.00
80.00		588.18	500.79	0.00	0.00
82.83	(2) attachments	835.84	359.58	0.00	0.00
85.00	(3) attachments	552.62	288.74	0.00	603.96
87.00	(2) attachments	794.13	269.62	0.00	0.00
89.75		349.01	249.91	0.00	0.00
90.00		31.93	37.77	0.00	0.00
93.08		392.76	459.47	0.00	0.00
95.00		241.01	141.84	0.00	0.00
100.00	(21) attachments	4757.84	3482.32	0.00	-176.67
105.00		605.57	316.50	0.00	0.00
106.00	(1) attachments	337.82	90.46	0.00	1261.08
106.50	(2) attachments	629.11	114.09	0.00	0.00
110.00		409.61	207.31	0.00	0.00
114.00	(16) attachments	3121.96	2409.25	0.00	104.88
115.00		76.19	53.44	0.00	0.00
120.00		376.71	259.00	0.00	0.00
125.00		366.13	245.34	0.00	0.00
127.00	(1) attachments	374.38	123.11	0.00	1851.90
128.00	(32) attachments	5810.56	3561.21	0.00	2724.64
129.17	(2) attachments	277.12	88.82	0.00	564.74
130.00		52.86	32.80	0.00	0.00
	Totals:	**30,137.19**	**24,611.49**	**0.00**	**6,945.49**

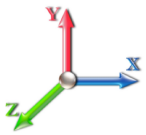
Linear Appurtenance Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 27	

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
1.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	16.933	0.00	1.46
1.00	7/8" Coax	Yes	1.00	0.000	2.22	0.19	0.00	0.117	1.052	16.933	0.00	2.81
1.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	16.933	0.00	0.86
1.00	1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	16.933	0.00	0.08
1.00	1 1/4" Coax	Yes	1.00	0.000	3.10	0.26	0.00	0.117	1.052	16.933	0.00	2.38
1.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	16.933	0.00	0.46
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	16.933	0.00	0.47
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	16.933	0.00	0.94
1.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	16.933	0.00	0.46
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	16.933	0.00	0.47
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	16.933	0.00	0.47
1.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	16.933	0.00	0.46
1.00	1" Reinforcing plate	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	16.933	0.00	0.00
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	16.933	0.00	0.47
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	16.933	0.00	0.47
5.00	6x12 Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	16.933	0.00	5.86
5.00	7/8" Coax	Yes	4.00	0.000	2.22	0.74	0.00	0.119	1.057	16.933	0.00	11.23
5.00	Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	16.933	0.00	3.43
5.00	1/4" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	16.933	0.00	0.32
5.00	1 1/4" Coax	Yes	4.00	0.000	3.10	1.03	0.00	0.119	1.057	16.933	0.00	9.50
5.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	16.933	0.00	1.84
5.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	16.933	0.00	1.87
5.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	16.933	0.00	3.74
5.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	16.933	0.00	1.84
5.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	16.933	0.00	1.87
5.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	16.933	0.00	1.87
5.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	16.933	0.00	1.84
5.00	1" Reinforcing plate	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	16.933	0.00	0.00
5.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	16.933	0.00	1.87
5.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	16.933	0.00	1.87
10.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	16.933	0.00	7.32
10.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.122	1.065	16.933	0.00	14.04
10.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	16.933	0.00	4.29
10.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	16.933	0.00	0.41
10.00	1 1/4" Coax	Yes	5.00	0.000	3.10	1.29	0.00	0.122	1.065	16.933	0.00	11.88
10.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	16.933	0.00	2.29
10.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	16.933	0.00	2.34
10.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	16.933	0.00	4.68
10.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	16.933	0.00	2.29
10.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	16.933	0.00	2.34
10.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	16.933	0.00	2.34
10.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	16.933	0.00	2.29
10.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	16.933	0.00	0.00
10.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	16.933	0.00	2.34
10.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	16.933	0.00	2.34
15.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	16.933	0.00	7.32
15.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.125	1.075	16.933	0.00	14.04

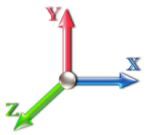
Linear Appurtenance Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 28	

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
15.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	16.933	0.00	4.29
15.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	16.933	0.00	0.41
15.00	1 1/4" Coax	Yes	5.00	0.000	3.10	1.29	0.00	0.125	1.075	16.933	0.00	11.88
15.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	16.933	0.00	2.29
15.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	16.933	0.00	2.34
15.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	16.933	0.00	4.68
15.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	16.933	0.00	2.29
15.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	16.933	0.00	2.34
15.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	16.933	0.00	2.34
15.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	16.933	0.00	2.29
15.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	16.933	0.00	0.00
15.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	16.933	0.00	2.34
15.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	16.933	0.00	2.34
20.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	16.933	0.00	7.32
20.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.128	1.085	16.933	0.00	14.04
20.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	16.933	0.00	4.29
20.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	16.933	0.00	0.41
20.00	1 1/4" Coax	Yes	5.00	0.000	3.10	1.29	0.00	0.128	1.085	16.933	0.00	11.88
20.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	16.933	0.00	2.29
20.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	16.933	0.00	2.34
20.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	16.933	0.00	4.68
20.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	16.933	0.00	2.29
20.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	16.933	0.00	2.34
20.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	16.933	0.00	2.34
20.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	16.933	0.00	2.29
20.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	16.933	0.00	0.00
20.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	16.933	0.00	2.34
20.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	16.933	0.00	2.34
21.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	16.933	0.00	1.46
21.00	7/8" Coax	Yes	1.00	0.000	2.22	0.19	0.00	0.131	1.092	16.933	0.00	2.81
21.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	16.933	0.00	0.86
21.00	1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	16.933	0.00	0.08
21.00	1 1/4" Coax	Yes	1.00	0.000	3.10	0.26	0.00	0.131	1.092	16.933	0.00	2.38
21.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	16.933	0.00	0.46
21.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	16.933	0.00	0.47
21.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	16.933	0.00	0.94
21.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	16.933	0.00	0.46
21.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	16.933	0.00	0.47
21.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	16.933	0.00	0.47
21.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	16.933	0.00	0.46
21.00	1" Reinforcing plate	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	16.933	0.00	0.00
21.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	16.933	0.00	0.47
21.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	16.933	0.00	0.47
25.00	6x12 Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	16.933	0.00	5.86
25.00	7/8" Coax	Yes	4.00	0.000	2.22	0.74	0.00	0.133	1.098	16.933	0.00	11.23
25.00	Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	16.933	0.00	3.43
25.00	1/4" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	16.933	0.00	0.32

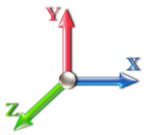
Linear Appurtenance Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 29	

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
25.00	1 1/4" Coax	Yes	4.00	0.000	3.10	1.03	0.00	0.133	1.098	16.933	0.00	9.50
25.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	16.933	0.00	1.84
25.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	16.933	0.00	1.87
25.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	16.933	0.00	3.74
25.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	16.933	0.00	1.84
25.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	16.933	0.00	1.87
25.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	16.933	0.00	1.87
25.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	16.933	0.00	1.84
25.00	1" Reinforcing plate	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	16.933	0.00	0.00
25.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	16.933	0.00	1.87
25.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	16.933	0.00	1.87
30.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	16.947	0.00	7.32
30.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.136	1.108	16.947	0.00	14.04
30.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	16.947	0.00	4.29
30.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	16.947	0.00	0.41
30.00	1 1/4" Coax	Yes	5.00	0.000	3.10	1.29	0.00	0.136	1.108	16.947	0.00	11.88
30.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	16.947	0.00	2.29
30.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	16.947	0.00	2.34
30.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	16.947	0.00	4.68
30.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	16.947	0.00	2.29
30.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	16.947	0.00	2.34
30.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	16.947	0.00	2.34
30.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	16.947	0.00	2.29
30.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	16.947	0.00	0.00
30.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	16.947	0.00	2.34
30.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	16.947	0.00	2.34
35.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	17.710	0.00	7.32
35.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.140	1.120	17.710	0.00	14.04
35.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	17.710	0.00	4.29
35.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	17.710	0.00	0.41
35.00	1 1/4" Coax	Yes	5.00	0.000	3.10	1.29	0.00	0.140	1.120	17.710	0.00	11.88
35.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	17.710	0.00	2.29
35.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	17.710	0.00	2.34
35.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	17.710	0.00	4.68
35.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	17.710	0.00	2.29
35.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	17.710	0.00	2.34
35.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	17.710	0.00	2.34
35.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	17.710	0.00	2.29
35.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	17.710	0.00	0.00
35.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	17.710	0.00	2.34
35.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	17.710	0.00	2.34
40.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	18.399	0.00	7.32
40.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.144	1.133	18.399	0.00	14.04
40.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	18.399	0.00	4.29
40.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	18.399	0.00	0.41
40.00	1 1/4" Coax	Yes	5.00	0.000	3.10	1.29	0.00	0.144	1.133	18.399	0.00	11.88
40.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	18.399	0.00	2.29

Linear Appurtenance Segment Forces (Factored)

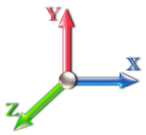
Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	III	Page: 30	

Tower Engineering Solutions

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
40.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	18.399	0.00	2.34
40.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	18.399	0.00	4.68
40.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	18.399	0.00	2.29
40.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	18.399	0.00	2.34
40.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	18.399	0.00	2.34
40.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	18.399	0.00	2.29
40.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	18.399	0.00	0.00
40.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	18.399	0.00	2.34
40.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	18.399	0.00	2.34
41.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	18.529	0.00	1.46
41.00	7/8" Coax	Yes	1.00	0.000	2.22	0.19	0.00	0.147	1.142	18.529	0.00	2.81
41.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	18.529	0.00	0.86
41.00	1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	18.529	0.00	0.08
41.00	1 1/4" Coax	Yes	1.00	0.000	3.10	0.26	0.00	0.147	1.142	18.529	0.00	2.38
41.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	18.529	0.00	0.46
41.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	18.529	0.00	0.47
41.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	18.529	0.00	0.94
41.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	18.529	0.00	0.46
41.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	18.529	0.00	0.47
41.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	18.529	0.00	0.47
41.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	18.529	0.00	0.46
41.00	1" Reinforcing plate	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	18.529	0.00	0.00
41.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	18.529	0.00	0.47
41.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	18.529	0.00	0.47
44.33	6x12 Hybrid	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	18.947	0.00	4.88
44.33	7/8" Coax	Yes	3.33	0.000	2.22	0.62	0.00	0.149	1.148	18.947	0.00	9.36
44.33	Hybrid	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	18.947	0.00	2.86
44.33	1/4" Coax	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	18.947	0.00	0.27
44.33	1 1/4" Coax	Yes	3.33	0.000	3.10	0.86	0.00	0.149	1.148	18.947	0.00	7.92
44.33	EW	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	18.947	0.00	1.53
44.33	7/8" Coax	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	18.947	0.00	1.56
44.33	7/8" Coax	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	18.947	0.00	3.12
44.33	EW	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	18.947	0.00	1.53
44.33	7/8" Coax	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	18.947	0.00	1.56
44.33	7/8" Coax	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	18.947	0.00	1.56
44.33	EW	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	18.947	0.00	1.53
44.33	1" Reinforcing plate	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	18.947	0.00	0.00
44.33	7/8" Coax	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	18.947	0.00	1.56
44.33	7/8" Coax	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	18.947	0.00	1.56
45.00	6x12 Hybrid	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	19.028	0.00	0.98
45.00	7/8" Coax	Yes	0.67	0.000	2.22	0.12	0.00	0.151	1.154	19.028	0.00	1.87
45.00	Hybrid	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	19.028	0.00	0.57
45.00	1/4" Coax	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	19.028	0.00	0.05
45.00	1 1/4" Coax	Yes	0.67	0.000	3.10	0.17	0.00	0.151	1.154	19.028	0.00	1.58
45.00	EW	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	19.028	0.00	0.31
45.00	7/8" Coax	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	19.028	0.00	0.31
45.00	7/8" Coax	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	19.028	0.00	0.62

Linear Appurtenance Segment Forces (Factored)

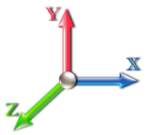
Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	III	Page: 31	

Tower Engineering Solutions

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
45.00	EW	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	19.028	0.00	0.31
45.00	7/8" Coax	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	19.028	0.00	0.31
45.00	7/8" Coax	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	19.028	0.00	0.31
45.00	EW	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	19.028	0.00	0.31
45.00	1" Reinforcing plate	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	19.028	0.00	0.00
45.00	7/8" Coax	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	19.028	0.00	0.31
45.00	7/8" Coax	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	19.028	0.00	0.31
48.75	6x12 Hybrid	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	19.469	0.00	5.49
48.75	7/8" Coax	Yes	3.75	0.000	2.22	0.69	0.00	0.153	1.160	19.469	0.00	10.53
48.75	Hybrid	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	19.469	0.00	3.22
48.75	1/4" Coax	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	19.469	0.00	0.30
48.75	1 1/4" Coax	Yes	3.75	0.000	3.10	0.97	0.00	0.153	1.160	19.469	0.00	8.91
48.75	EW	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	19.469	0.00	1.72
48.75	7/8" Coax	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	19.469	0.00	1.76
48.75	7/8" Coax	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	19.469	0.00	3.51
48.75	EW	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	19.469	0.00	1.72
48.75	7/8" Coax	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	19.469	0.00	1.76
48.75	7/8" Coax	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	19.469	0.00	1.76
48.75	EW	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	19.469	0.00	1.72
48.75	1" Reinforcing plate	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	19.469	0.00	0.00
48.75	7/8" Coax	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	19.469	0.00	1.76
48.75	7/8" Coax	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	19.469	0.00	1.76
50.00	6x12 Hybrid	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	19.610	0.00	1.83
50.00	7/8" Coax	Yes	1.25	0.000	2.22	0.23	0.00	0.153	1.159	19.610	0.00	3.51
50.00	Hybrid	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	19.610	0.00	1.07
50.00	1/4" Coax	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	19.610	0.00	0.10
50.00	1 1/4" Coax	Yes	1.25	0.000	3.10	0.32	0.00	0.153	1.159	19.610	0.00	2.97
50.00	EW	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	19.610	0.00	0.57
50.00	7/8" Coax	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	19.610	0.00	0.59
50.00	7/8" Coax	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	19.610	0.00	1.17
50.00	EW	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	19.610	0.00	0.57
50.00	7/8" Coax	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	19.610	0.00	0.59
50.00	7/8" Coax	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	19.610	0.00	0.59
50.00	EW	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	19.610	0.00	0.57
50.00	1" Reinforcing plate	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	19.610	0.00	0.00
50.00	7/8" Coax	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	19.610	0.00	0.59
50.00	7/8" Coax	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	19.610	0.00	0.59
50.50	6x12 Hybrid	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	19.666	0.00	0.73
50.50	7/8" Coax	Yes	0.50	0.000	2.22	0.09	0.00	0.154	1.162	19.666	0.00	1.40
50.50	Hybrid	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	19.666	0.00	0.43
50.50	1/4" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	19.666	0.00	0.04
50.50	1 1/4" Coax	Yes	0.50	0.000	3.10	0.13	0.00	0.154	1.162	19.666	0.00	1.19
50.50	EW	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	19.666	0.00	0.23
50.50	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	19.666	0.00	0.23
50.50	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	19.666	0.00	0.47
50.50	EW	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	19.666	0.00	0.23
50.50	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	19.666	0.00	0.23

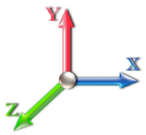
Linear Appurtenance Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 32	

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
50.50	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	19.666	0.00	0.23
50.50	EW	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	19.666	0.00	0.23
50.50	1" Reinforcing plate	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	19.666	0.00	0.00
50.50	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	19.666	0.00	0.23
50.50	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	19.666	0.00	0.23
55.00	6x12 Hybrid	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	20.151	0.00	6.59
55.00	7/8" Coax	Yes	4.50	0.000	2.22	0.83	0.00	0.157	1.170	20.151	0.00	12.64
55.00	Hybrid	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	20.151	0.00	3.86
55.00	1/4" Coax	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	20.151	0.00	0.36
55.00	1 1/4" Coax	Yes	4.50	0.000	3.10	1.16	0.00	0.157	1.170	20.151	0.00	10.69
55.00	EW	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	20.151	0.00	2.07
55.00	7/8" Coax	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	20.151	0.00	2.11
55.00	7/8" Coax	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	20.151	0.00	4.21
55.00	EW	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	20.151	0.00	2.07
55.00	7/8" Coax	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	20.151	0.00	2.11
55.00	7/8" Coax	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	20.151	0.00	2.11
55.00	EW	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	20.151	0.00	2.07
55.00	1" Reinforcing plate	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	20.151	0.00	0.00
55.00	7/8" Coax	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	20.151	0.00	2.11
55.00	7/8" Coax	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	20.151	0.00	2.11
60.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	20.659	0.00	7.32
60.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.162	1.185	20.659	0.00	14.04
60.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	20.659	0.00	4.29
60.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	20.659	0.00	0.41
60.00	1 1/4" Coax	Yes	5.00	0.000	3.10	1.29	0.00	0.162	1.185	20.659	0.00	11.88
60.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	20.659	0.00	2.29
60.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	20.659	0.00	2.34
60.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	20.659	0.00	4.68
60.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	20.659	0.00	2.29
60.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	20.659	0.00	2.34
60.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	20.659	0.00	2.34
60.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	20.659	0.00	2.29
60.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	20.659	0.00	0.00
60.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	20.659	0.00	2.34
60.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	20.659	0.00	2.34
61.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	20.756	0.00	1.46
61.00	7/8" Coax	Yes	1.00	0.000	2.22	0.19	0.00	0.165	1.196	20.756	0.00	2.81
61.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	20.756	0.00	0.86
61.00	1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	20.756	0.00	0.08
61.00	1 1/4" Coax	Yes	1.00	0.000	3.10	0.26	0.00	0.165	1.196	20.756	0.00	2.38
61.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	20.756	0.00	0.46
61.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	20.756	0.00	0.47
61.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	20.756	0.00	0.94
61.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	20.756	0.00	0.46
61.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	20.756	0.00	0.47
61.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	20.756	0.00	0.47
61.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	20.756	0.00	0.46

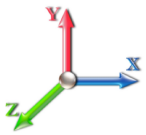
Linear Appurtenance Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 33	

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
61.00	1" Reinforcing plate	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	20.756	0.00	0.00
61.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	20.756	0.00	0.47
61.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	20.756	0.00	0.47
65.00	6x12 Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	21.136	0.00	5.86
65.00	7/8" Coax	Yes	4.00	0.000	2.22	0.74	0.00	0.168	1.205	21.136	0.00	11.23
65.00	Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	21.136	0.00	3.43
65.00	1/4" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	21.136	0.00	0.32
65.00	1 1/4" Coax	Yes	4.00	0.000	3.10	1.03	0.00	0.168	1.205	21.136	0.00	9.50
65.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	21.136	0.00	1.84
65.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	21.136	0.00	1.87
65.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	21.136	0.00	3.74
65.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	21.136	0.00	1.84
65.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	21.136	0.00	1.87
65.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	21.136	0.00	1.87
65.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	21.136	0.00	1.84
65.00	1" Reinforcing plate	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	21.136	0.00	0.00
69.00	6x12 Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	21.500	0.00	5.86
69.00	7/8" Coax	Yes	4.00	0.000	2.22	0.74	0.00	0.173	1.220	21.500	0.00	11.23
69.00	Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	21.500	0.00	3.43
69.00	1/4" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	21.500	0.00	0.32
69.00	1 1/4" Coax	Yes	4.00	0.000	3.10	1.03	0.00	0.173	1.220	21.500	0.00	9.50
69.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	21.500	0.00	1.84
69.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	21.500	0.00	1.87
69.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	21.500	0.00	3.74
69.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	21.500	0.00	1.84
69.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	21.500	0.00	1.87
69.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	21.500	0.00	1.87
69.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	21.500	0.00	1.84
69.00	1" Reinforcing plate	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	21.500	0.00	0.00
70.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	21.589	0.00	1.46
70.00	7/8" Coax	Yes	1.00	0.000	2.22	0.19	0.00	0.177	1.230	21.589	0.00	2.81
70.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	21.589	0.00	0.86
70.00	1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	21.589	0.00	0.08
70.00	1 1/4" Coax	Yes	1.00	0.000	3.10	0.26	0.00	0.177	1.230	21.589	0.00	2.38
70.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	21.589	0.00	0.46
70.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	21.589	0.00	0.47
70.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	21.589	0.00	0.94
70.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	21.589	0.00	0.46
70.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	21.589	0.00	0.47
70.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	21.589	0.00	0.47
70.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	21.589	0.00	0.46
70.00	1" Reinforcing plate	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	21.589	0.00	0.00
75.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	22.019	0.00	7.32
75.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.181	1.242	22.019	0.00	14.04
75.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	22.019	0.00	4.29
75.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	22.019	0.00	0.41
75.00	1 1/4" Coax	Yes	5.00	0.000	3.10	1.29	0.00	0.181	1.242	22.019	0.00	11.88

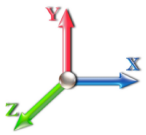
Linear Appurtenance Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 34	

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
75.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	22.019	0.00	2.29
75.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	22.019	0.00	2.34
75.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	22.019	0.00	4.68
75.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	22.019	0.00	2.29
75.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	22.019	0.00	2.34
75.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	22.019	0.00	2.34
75.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	22.019	0.00	2.29
80.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	22.428	0.00	7.32
80.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.188	1.264	22.428	0.00	14.04
80.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	22.428	0.00	4.29
80.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	22.428	0.00	0.41
80.00	1 1/4" Coax	Yes	5.00	0.000	3.10	1.29	0.00	0.188	1.264	22.428	0.00	11.88
80.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	22.428	0.00	2.29
80.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	22.428	0.00	2.34
80.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	22.428	0.00	4.68
80.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	22.428	0.00	2.29
80.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	22.428	0.00	2.34
80.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	22.428	0.00	2.34
80.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	22.428	0.00	2.29
82.83	6x12 Hybrid	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	22.652	0.00	4.14
82.83	7/8" Coax	Yes	2.83	0.000	2.22	0.52	0.00	0.194	1.283	22.652	0.00	7.95
82.83	Hybrid	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	22.652	0.00	2.43
82.83	1/4" Coax	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	22.652	0.00	0.23
82.83	1 1/4" Coax	Yes	2.83	0.000	3.10	0.73	0.00	0.194	1.283	22.652	0.00	6.72
82.83	EW	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	22.652	0.00	1.30
82.83	7/8" Coax	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	22.652	0.00	1.32
82.83	7/8" Coax	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	22.652	0.00	2.65
82.83	EW	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	22.652	0.00	1.30
82.83	7/8" Coax	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	22.652	0.00	1.32
82.83	7/8" Coax	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	22.652	0.00	1.32
82.83	EW	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	22.652	0.00	1.30
85.00	6x12 Hybrid	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	22.820	0.00	3.18
85.00	7/8" Coax	Yes	2.17	0.000	2.22	0.40	0.00	0.198	1.295	22.820	0.00	6.09
85.00	Hybrid	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	22.820	0.00	1.86
85.00	1/4" Coax	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	22.820	0.00	0.18
85.00	1 1/4" Coax	Yes	2.17	0.000	3.10	0.56	0.00	0.198	1.295	22.820	0.00	5.16
85.00	EW	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	22.820	0.00	1.00
85.00	7/8" Coax	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	22.820	0.00	1.02
85.00	7/8" Coax	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	22.820	0.00	2.03
85.00	EW	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	22.820	0.00	1.00
85.00	7/8" Coax	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	22.820	0.00	1.02
85.00	7/8" Coax	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	22.820	0.00	1.02
87.00	6x12 Hybrid	Yes	2.00	0.000	0.00	0.00	0.00	0.202	0.000	22.972	0.00	2.93
87.00	7/8" Coax	Yes	2.00	1.200	2.22	0.37	0.44	0.202	0.000	22.972	17.95	5.62
87.00	Hybrid	Yes	2.00	0.000	0.00	0.00	0.00	0.202	0.000	22.972	0.00	1.72
87.00	1/4" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.202	0.000	22.972	0.00	0.16
87.00	1 1/4" Coax	Yes	2.00	1.200	3.10	0.52	0.62	0.202	0.000	22.972	25.07	4.75

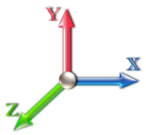
Linear Appurtenance Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 35	

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
87.00	EW	Yes	2.00	0.000	0.00	0.00	0.00	0.202	0.000	22.972	0.00	0.92
87.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.202	0.000	22.972	0.00	0.94
87.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.202	0.000	22.972	0.00	1.87
87.00	EW	Yes	2.00	0.000	0.00	0.00	0.00	0.202	0.000	22.972	0.00	0.92
89.75	6x12 Hybrid	Yes	2.75	0.000	0.00	0.00	0.00	0.206	0.000	23.178	0.00	4.03
89.75	7/8" Coax	Yes	2.75	1.200	2.22	0.51	0.61	0.206	0.000	23.178	24.90	7.72
89.75	Hybrid	Yes	2.75	0.000	0.00	0.00	0.00	0.206	0.000	23.178	0.00	2.36
89.75	1/4" Coax	Yes	2.75	0.000	0.00	0.00	0.00	0.206	0.000	23.178	0.00	0.22
89.75	1 1/4" Coax	Yes	2.75	1.200	3.10	0.71	0.85	0.206	0.000	23.178	34.78	6.53
89.75	EW	Yes	2.75	0.000	0.00	0.00	0.00	0.206	0.000	23.178	0.00	1.26
89.75	7/8" Coax	Yes	2.75	0.000	0.00	0.00	0.00	0.206	0.000	23.178	0.00	1.29
89.75	7/8" Coax	Yes	2.75	0.000	0.00	0.00	0.00	0.206	0.000	23.178	0.00	2.57
90.00	6x12 Hybrid	Yes	0.25	0.000	0.00	0.00	0.00	0.209	0.000	23.196	0.00	0.37
90.00	7/8" Coax	Yes	0.25	1.200	2.22	0.05	0.06	0.209	0.000	23.196	2.27	0.70
90.00	Hybrid	Yes	0.25	0.000	0.00	0.00	0.00	0.209	0.000	23.196	0.00	0.21
90.00	1/4" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.209	0.000	23.196	0.00	0.02
90.00	1 1/4" Coax	Yes	0.25	1.200	3.10	0.06	0.08	0.209	0.000	23.196	3.16	0.59
90.00	EW	Yes	0.25	0.000	0.00	0.00	0.00	0.209	0.000	23.196	0.00	0.11
90.00	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.209	0.000	23.196	0.00	0.12
90.00	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.209	0.000	23.196	0.00	0.23
93.08	6x12 Hybrid	Yes	3.08	0.000	0.00	0.00	0.00	0.212	0.000	23.420	0.00	4.51
93.08	7/8" Coax	Yes	3.08	1.200	2.22	0.57	0.68	0.212	0.000	23.420	28.21	8.66
93.08	Hybrid	Yes	3.08	0.000	0.00	0.00	0.00	0.212	0.000	23.420	0.00	2.65
93.08	1/4" Coax	Yes	3.08	0.000	0.00	0.00	0.00	0.212	0.000	23.420	0.00	0.25
93.08	1 1/4" Coax	Yes	3.08	1.200	3.10	0.80	0.96	0.212	0.000	23.420	39.40	7.33
93.08	EW	Yes	3.08	0.000	0.00	0.00	0.00	0.212	0.000	23.420	0.00	1.42
93.08	7/8" Coax	Yes	3.08	0.000	0.00	0.00	0.00	0.212	0.000	23.420	0.00	1.44
93.08	7/8" Coax	Yes	3.08	0.000	0.00	0.00	0.00	0.212	0.000	23.420	0.00	2.89
95.00	6x12 Hybrid	Yes	1.92	0.000	0.00	0.00	0.00	0.213	0.000	23.557	0.00	2.81
95.00	7/8" Coax	Yes	1.92	1.200	2.22	0.35	0.43	0.213	0.000	23.557	17.64	5.38
95.00	Hybrid	Yes	1.92	0.000	0.00	0.00	0.00	0.213	0.000	23.557	0.00	1.65
95.00	1/4" Coax	Yes	1.92	0.000	0.00	0.00	0.00	0.213	0.000	23.557	0.00	0.16
95.00	1 1/4" Coax	Yes	1.92	1.200	3.10	0.50	0.59	0.213	0.000	23.557	24.63	4.55
95.00	EW	Yes	1.92	0.000	0.00	0.00	0.00	0.213	0.000	23.557	0.00	0.88
95.00	7/8" Coax	Yes	1.92	0.000	0.00	0.00	0.00	0.213	0.000	23.557	0.00	0.90
95.00	7/8" Coax	Yes	1.92	0.000	0.00	0.00	0.00	0.213	0.000	23.557	0.00	1.79
100.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.220	0.000	23.905	0.00	7.32
100.00	7/8" Coax	Yes	5.00	1.200	2.22	0.93	1.11	0.220	0.000	23.905	46.70	14.04
100.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.220	0.000	23.905	0.00	4.29
100.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.220	0.000	23.905	0.00	0.41
100.00	1 1/4" Coax	Yes	5.00	1.200	3.10	1.29	1.55	0.220	0.000	23.905	65.21	11.88
100.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.220	0.000	23.905	0.00	2.29
100.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.220	0.000	23.905	0.00	2.34
100.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.220	0.000	23.905	0.00	4.68
105.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.231	0.000	24.240	0.00	7.32
105.00	7/8" Coax	Yes	5.00	1.200	2.22	0.93	1.11	0.231	0.000	24.240	47.36	14.04
105.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.231	0.000	24.240	0.00	4.29

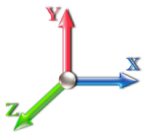
Linear Appurtenance Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 36	

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
105.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.231	0.000	24.240	0.00	0.41
105.00	1 1/4" Coax	Yes	5.00	1.200	3.10	1.29	1.55	0.231	0.000	24.240	66.13	11.88
105.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.231	0.000	24.240	0.00	2.29
105.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.231	0.000	24.240	0.00	2.34
106.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.238	0.000	24.306	0.00	1.46
106.00	7/8" Coax	Yes	1.00	1.200	2.22	0.19	0.22	0.238	0.000	24.306	9.50	2.81
106.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.238	0.000	24.306	0.00	0.86
106.00	1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.238	0.000	24.306	0.00	0.08
106.00	1 1/4" Coax	Yes	1.00	1.200	3.10	0.26	0.31	0.238	0.000	24.306	13.26	2.38
106.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.238	0.000	24.306	0.00	0.46
106.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.238	0.000	24.306	0.00	0.47
106.50	6x12 Hybrid	Yes	0.50	0.000	0.00	0.00	0.00	0.240	0.000	24.339	0.00	0.73
106.50	7/8" Coax	Yes	0.50	1.200	2.22	0.09	0.11	0.240	0.000	24.339	4.75	1.40
106.50	Hybrid	Yes	0.50	0.000	0.00	0.00	0.00	0.240	0.000	24.339	0.00	0.43
106.50	1/4" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.240	0.000	24.339	0.00	0.04
106.50	1 1/4" Coax	Yes	0.50	1.200	3.10	0.13	0.15	0.240	0.000	24.339	6.64	1.19
106.50	EW	Yes	0.50	0.000	0.00	0.00	0.00	0.240	0.000	24.339	0.00	0.23
110.00	6x12 Hybrid	Yes	3.50	0.000	0.00	0.00	0.00	0.245	0.000	24.565	0.00	5.13
110.00	7/8" Coax	Yes	3.50	1.200	2.22	0.65	0.78	0.245	0.000	24.565	33.59	9.83
110.00	Hybrid	Yes	3.50	0.000	0.00	0.00	0.00	0.245	0.000	24.565	0.00	3.01
110.00	1/4" Coax	Yes	3.50	0.000	0.00	0.00	0.00	0.245	0.000	24.565	0.00	0.28
110.00	1 1/4" Coax	Yes	3.50	1.200	3.10	0.90	1.08	0.245	0.000	24.565	46.91	8.32
114.00	6x12 Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.255	0.000	24.817	0.00	5.86
114.00	7/8" Coax	Yes	4.00	1.200	2.22	0.74	0.89	0.255	0.000	24.817	38.79	11.23
114.00	Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.255	0.000	24.817	0.00	3.43
114.00	1/4" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.255	0.000	24.817	0.00	0.32
114.00	1 1/4" Coax	Yes	4.00	1.200	3.10	1.03	1.24	0.255	0.000	24.817	54.16	9.50
115.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.109	1.028	24.879	0.00	1.46
115.00	7/8" Coax	Yes	1.00	0.000	2.22	0.19	0.00	0.109	1.028	24.879	0.00	2.81
115.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.109	1.028	24.879	0.00	0.86
115.00	1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.109	1.028	24.879	0.00	0.08
120.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.113	1.039	25.183	0.00	7.32
120.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.113	1.039	25.183	0.00	14.04
120.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.113	1.039	25.183	0.00	4.29
120.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.113	1.039	25.183	0.00	0.41
125.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.120	1.060	25.479	0.00	7.32
125.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.120	1.060	25.479	0.00	14.04
125.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.120	1.060	25.479	0.00	4.29
125.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.120	1.060	25.479	0.00	0.41
127.00	6x12 Hybrid	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.077	25.594	0.00	2.93
127.00	7/8" Coax	Yes	2.00	0.000	2.22	0.37	0.00	0.126	1.077	25.594	0.00	5.62
127.00	Hybrid	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.077	25.594	0.00	1.72
127.00	1/4" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.077	25.594	0.00	0.16
128.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.084	25.652	0.00	1.46
128.00	7/8" Coax	Yes	1.00	0.000	2.22	0.19	0.00	0.128	1.084	25.652	0.00	2.81
128.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.084	25.652	0.00	0.86

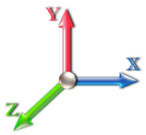
Linear Appurtenance Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 37	

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
										Totals:	**651.0**	**1,344.6**

Calculated Forces

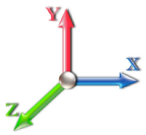
Structure:	468697-VZW	**Code:**	EIA/TIA-222-G		1/10/2022
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	III		Page: 38

Tower Engineering Solutions

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-24.60	-30.15	0.00	-2761.2	0.00	2761.29	2791.94	1395.97	5010.03	2474.26	0.00	0.000	0.000	0.806
1.00	-24.36	-30.08	0.00	-2731.1	0.00	2731.14	2783.20	1391.60	4968.67	2453.84	0.01	-0.044	0.000	0.825
5.00	-23.55	-29.69	0.00	-2610.8	0.00	2610.84	2747.66	1373.83	4803.88	2372.46	0.12	-0.223	0.000	0.810
10.00	-22.58	-29.19	0.00	-2462.4	0.00	2462.40	2701.97	1350.99	4599.43	2271.49	0.47	-0.447	0.000	0.792
15.00	-21.63	-28.70	0.00	-2316.4	0.00	2316.43	2654.88	1327.44	4396.87	2171.45	1.06	-0.674	0.000	0.773
20.00	-20.74	-28.18	0.00	-2172.9	0.00	2172.91	2606.39	1303.19	4196.39	2072.44	1.89	-0.904	0.000	0.753
21.00	-20.53	-28.11	0.00	-2144.7	0.00	2144.73	2596.52	1298.26	4156.56	2052.77	2.09	-0.952	0.000	0.749
25.00	-19.79	-27.74	0.00	-2032.2	0.00	2032.27	2556.49	1278.25	3998.19	1974.56	2.96	-1.139	0.000	0.733
30.00	-18.91	-27.26	0.00	-1893.5	0.00	1893.59	2505.19	1252.60	3802.46	1877.89	4.28	-1.373	0.000	0.711
35.00	-18.05	-26.76	0.00	-1757.2	0.00	1757.29	2447.14	1223.57	3601.53	1778.66	5.85	-1.608	0.000	0.690
40.00	-17.27	-26.22	0.00	-1623.4	0.00	1623.48	2371.27	1185.63	3380.54	1669.52	7.66	-1.845	0.000	0.672
41.00	-17.08	-26.13	0.00	-1597.2	0.00	1597.26	2356.09	1178.05	3337.19	1648.11	8.05	-1.894	0.000	0.668
44.33	-16.57	-25.77	0.00	-1510.1	0.00	1510.14	2305.51	1152.76	3194.68	1577.73	9.43	-2.054	0.000	0.655
45.00	-16.36	-25.71	0.00	-1492.9	0.00	1492.97	2295.40	1147.70	3166.55	1563.84	9.72	-2.087	0.000	0.645
48.75	-15.40	-25.27	0.00	-1396.5	0.00	1396.54	1840.18	920.09	2532.27	1250.59	11.43	-2.264	0.000	0.663
50.00	-15.24	-25.13	0.00	-1364.9	0.00	1364.95	1830.15	915.08	2497.37	1233.36	12.03	-2.325	0.000	0.708
50.50	-15.08	-24.98	0.00	-1352.3	0.00	1352.38	1826.12	913.06	2483.45	1226.48	12.27	-2.351	0.000	0.704
55.00	-14.47	-24.49	0.00	-1239.9	0.00	1239.95	1789.15	894.58	2358.94	1164.99	14.60	-2.579	0.000	0.671
60.00	-13.80	-23.75	0.00	-1117.4	0.00	1117.47	1746.75	873.37	2222.49	1097.61	17.43	-2.828	0.000	0.633
61.00	-13.59	-23.37	0.00	-1093.7	0.00	1093.72	1738.10	869.05	2195.46	1084.26	18.03	-2.879	0.000	0.625
65.00	-13.09	-22.92	0.00	-1000.2	0.00	1000.24	1699.15	849.58	2083.60	1029.01	20.53	-3.076	0.000	0.595
69.00	-12.64	-22.45	0.00	-908.55	0.00	908.55	1648.57	824.28	1960.77	968.35	23.19	-3.271	0.000	0.567
69.00	-12.64	-22.45	0.00	-908.55	0.00	908.55	1648.57	824.28	1960.77	968.35	23.19	-3.271	0.000	0.567
70.00	-12.46	-22.38	0.00	-886.10	0.00	886.10	1635.92	817.96	1930.64	953.47	23.88	-3.320	0.000	0.938
75.00	-11.83	-21.84	0.00	-774.21	0.00	774.21	1572.70	786.35	1783.52	880.81	27.56	-3.710	0.000	0.887
80.00	-11.26	-21.28	0.00	-665.02	0.00	665.02	1509.47	754.74	1642.23	811.04	31.65	-4.090	0.000	0.828
82.83	-10.90	-20.45	0.00	-604.81	0.00	604.81	1473.69	736.84	1564.84	772.82	34.14	-4.305	0.000	0.791
85.00	-10.60	-19.91	0.00	-559.83	0.00	559.83	1446.25	723.12	1506.77	744.14	36.14	-4.468	0.000	0.760
87.00	-10.34	-19.12	0.00	-520.01	0.00	520.01	1420.96	710.48	1454.22	718.18	38.04	-4.615	0.000	0.732
89.75	-10.08	-18.77	0.00	-467.42	0.00	467.42	1386.18	693.09	1383.48	683.25	40.75	-4.809	0.000	0.692
90.00	-10.01	-18.76	0.00	-462.73	0.00	462.73	1383.02	691.51	1377.14	680.12	41.00	-4.827	0.000	0.688
93.08	-9.53	-18.36	0.00	-404.88	0.00	404.88	1099.29	549.65	1091.88	539.24	44.19	-5.035	0.000	0.761
95.00	-9.34	-18.14	0.00	-369.70	0.00	369.70	1081.51	540.75	1055.11	521.08	46.23	-5.161	0.000	0.719
100.00	-6.24	-13.12	0.00	-278.99	0.00	278.99	1030.93	515.46	958.23	473.23	51.82	-5.499	0.000	0.596
105.00	-5.95	-12.50	0.00	-213.40	0.00	213.40	980.35	490.17	866.02	427.69	57.73	-5.795	0.000	0.506
106.00	-5.88	-12.16	0.00	-199.64	0.00	199.64	970.23	485.12	848.14	418.86	58.95	-5.852	0.000	0.483
106.50	-5.81	-11.53	0.00	-193.56	0.00	193.56	965.17	482.59	839.27	414.48	59.56	-5.881	0.000	0.474
110.00	-5.61	-11.12	0.00	-153.20	0.00	153.20	929.77	464.88	778.47	384.46	63.94	-6.058	0.000	0.405
114.00	-3.54	-7.77	0.00	-108.61	0.00	108.61	889.30	444.65	711.80	351.53	69.08	-6.230	0.000	0.313
115.00	-3.48	-7.69	0.00	-100.84	0.00	100.84	879.19	439.59	695.59	343.53	70.39	-6.269	0.000	0.298
120.00	-3.25	-7.29	0.00	-62.39	0.00	62.39	828.61	414.30	617.37	304.90	77.03	-6.427	0.000	0.209
125.00	-3.04	-6.91	0.00	-25.92	0.00	25.92	778.02	389.01	543.82	268.57	83.81	-6.530	0.000	0.101
127.00	-2.96	-6.52	0.00	-10.26	0.00	10.26	757.79	378.90	515.71	254.69	86.54	-6.551	0.000	0.044
128.00	-0.08	-0.34	0.00	-1.01	0.00	1.01	747.68	373.84	501.93	247.88	87.91	-6.555	0.000	0.004
129.17	-0.03	-0.06	0.00	-0.05	0.00	0.05	735.84	367.92	486.05	240.04	89.52	-6.556	0.000	0.000
130.00	0.00	-0.05	0.00	0.00	0.00	0.00	727.44	363.72	474.93	234.55	90.65	-6.556	0.000	0.000

Wind Loading - Shaft

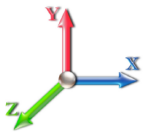
Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	III	Page: 39	

Tower Engineering Solutions

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 24

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00	RB1	1.00	0.70	4.256	4.68	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
1.00	RT1 RB2	1.00	0.70	4.256	4.68	0.00	1.263 *	1.322	1.00	3.996	5.05	23.6	77.0	290.9
5.00		1.00	0.70	4.256	4.68	0.00	1.268 *	1.553	4.00	15.946	20.22	94.7	356.4	1201.2
10.00		1.00	0.70	4.256	4.68	0.00	1.278 *	1.664	5.00	19.596	25.05	117.3	466.7	1498.1
15.00		1.00	0.70	4.256	4.68	0.00	1.290 *	1.733	5.00	19.175	24.74	115.8	474.3	1478.4
20.00		1.00	0.70	4.256	4.68	0.00	1.303 *	1.783	5.00	18.739	24.41	114.3	475.9	1452.7
21.00	RT2 RB3	1.00	0.70	4.256	4.68	0.00	1.310 *	1.792	1.00	3.692	4.84	22.6	95.1	287.2
25.00		1.00	0.70	4.256	4.68	0.00	1.317 *	1.824	4.00	14.598	19.23	90.0	379.2	1136.6
30.00		1.00	0.70	4.260	4.69	0.00	1.330 *	1.857	5.00	17.845	23.73	111.2	469.7	1391.9
35.00		1.00	0.73	4.451	4.90	0.00	1.344 *	1.886	5.00	17.391	23.38	114.5	463.8	1358.7
40.00		1.00	0.76	4.625	5.09	0.00	1.360 *	1.911	5.00	16.934	23.03	117.2	456.6	1324.1
41.00	RT3 RB4	1.00	0.77	4.657	5.12	0.00	1.370 *	1.916	1.00	3.330	4.56	23.4	91.0	261.2
44.33	Bot - Section 2	1.00	0.78	4.762	5.24	0.00	1.377 *	1.931	3.33	10.971	15.11	79.2	299.7	859.2
45.00		1.00	0.79	4.783	5.26	0.00	1.384 *	1.934	0.67	2.205	3.05	16.1	60.8	265.2
48.75	Top - Section 1	1.00	0.80	4.893	5.38	0.00	1.392 *	1.950	3.75	12.254	17.06	91.8	337.2	1470.2
50.00		1.00	0.81	4.929	5.42	0.00	1.391 *	1.955	1.25	4.026	5.60	30.4	111.8	282.6
50.50	Appurtenance(s)	1.00	0.81	4.943	5.44	0.00	1.394 *	1.956	0.50	1.602	2.23	12.1	44.6	112.5
55.00		1.00	0.83	5.065	5.57	0.00	1.404 *	1.973	4.50	14.217	19.96	111.2	393.9	994.7
60.00	Appurtenance(s)	1.00	0.85	5.193	5.71	0.00	1.423 *	1.991	5.00	15.357	21.85	124.8	427.4	1073.4
61.00	RT4 RB5	1.00	0.86	5.217	5.74	0.00	1.435 *	1.994	1.00	3.015	4.33	24.8	85.1	211.5
65.00		1.00	0.87	5.313	5.84	0.00	1.446 *	2.007	4.00	11.876	17.17	100.3	333.3	830.0
69.00	RT5	1.00	0.89	5.404	5.94	0.00	1.464 *	2.019	4.00	11.578	16.95	100.8	326.1	808.3
70.00		1.00	0.89	5.426	5.97	0.00	1.476 *	2.021	1.00	2.847	4.20	25.1	81.1	199.3
75.00		1.00	0.91	5.534	6.09	0.00	1.491 *	2.035	5.00	13.961	20.81	126.7	393.7	971.4
80.00		1.00	0.93	5.637	6.20	0.00	1.517 *	2.049	5.00	13.493	20.47	126.9	381.7	936.7
82.83	Appurtenance(s)	1.00	0.94	5.694	6.26	0.00	1.539 *	2.056	2.83	7.429	11.43	71.6	212.1	516.1
85.00	Appurtenance(s)	1.00	0.94	5.736	6.31	0.00	1.554 *	2.061	2.17	5.595	8.70	54.9	160.3	388.5
87.00	Appurtenance(s)	1.00	0.95	5.774	6.35	0.00	1.200 *	2.066	2.00	5.078	6.09	38.7	145.8	352.2
89.75	Bot - Section 3	1.00	0.96	5.826	6.41	0.00	1.200 *	2.072	2.75	6.860	8.23	52.8	196.6	474.6
90.00		1.00	0.96	5.830	6.41	0.00	1.200 *	2.073	0.25	0.627	0.75	4.8	18.2	63.5
93.08	Top - Section 2	1.00	0.97	5.887	6.48	0.00	1.200 *	2.080	3.08	7.642	9.17	59.4	219.3	770.0
95.00		1.00	0.97	5.921	6.51	0.00	1.200 *	2.084	1.92	4.660	5.59	36.4	134.4	285.0
100.00	Appurtenance(s)	1.00	0.99	6.008	6.61	0.00	1.200 *	2.095	5.00	11.836	14.20	93.9	337.6	717.9
105.00		1.00	1.00	6.093	6.70	0.00	1.200 *	2.105	5.00	11.366	13.64	91.4	324.2	686.3
106.00	Appurtenance(s)	1.00	1.00	6.109	6.72	0.00	1.200 *	2.107	1.00	2.216	2.66	17.9	64.3	134.5
106.50	Appurtenance(s)	1.00	1.01	6.118	6.73	0.00	1.200 *	2.108	0.50	1.101	1.32	8.9	32.0	66.9
110.00		1.00	1.02	6.174	6.79	0.00	1.200 *	2.115	3.50	7.577	9.09	61.8	217.5	456.3
114.00	Appurtenance(s)	1.00	1.03	6.238	6.86	0.00	1.200 *	2.122	4.00	8.378	10.05	69.0	239.8	501.8
115.00		1.00	1.03	6.253	6.88	0.00	1.233 *	2.124	1.00	2.047	2.52	17.4	59.4	123.1
120.00		1.00	1.04	6.330	6.96	0.00	1.247 *	2.133	5.00	9.956	12.42	86.5	283.0	590.5
125.00		1.00	1.05	6.404	7.04	0.00	1.272 *	2.142	5.00	9.485	12.07	85.0	268.9	558.1
127.00	Appurtenance(s)	1.00	1.06	6.433	7.08	0.00	1.292 *	2.146	2.00	3.661	4.73	33.5	105.3	215.9
128.00	Appurtenance(s)	1.00	1.06	6.448	7.09	0.00	1.301 *	2.147	1.00	1.802	2.34	16.6	52.1	106.3
129.17	Appurtenance(s)	1.00	1.06	6.464	7.11	0.00	1.200	2.149	1.17	2.085	2.50	17.8	60.1	122.6
130.00		1.00	1.07	6.476	7.12	0.00	1.200	2.151	0.83	1.463	1.76	12.5	42.3	86.0
								Totals:	**130.00**			**2,845.3**		**27,912.3**

* Cf Adjusted by Linear Load Ra Effect

Discrete Appurtenance Forces

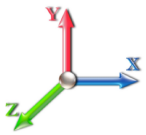
Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	III	Page: 40	

Tower Engineering Solutions

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 24

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	129.17	Pipe Mount	1	6.464	7.111	1.00	1.00	9.98	123.86	0.000	0.000	70.97	0.00	0.00
2	129.17	COL51-160	1	6.560	7.216	1.00	1.00	7.07	45.06	0.000	6.830	51.04	0.00	348.63
3	128.00	RT4401-48A (RRH only)	3	6.490	7.139	0.38	0.75	1.70	150.58	0.000	3.000	12.12	0.00	36.35
4	128.00	(3) 12.5' - 2.5" Horizontal	1	6.448	7.092	1.00	1.00	18.30	470.03	0.000	0.000	129.78	0.00	0.00
5	128.00	Support Bracing Kit	1	6.448	7.092	1.00	1.00	12.20	361.99	0.000	0.000	86.50	0.00	0.00
6	128.00	RRFDC-3315-PF-48	2	6.448	7.092	0.75	0.75	7.61	311.84	0.000	0.000	53.95	0.00	0.00
7	128.00	XXDWMM-12.5-65-8T	3	6.490	7.139	0.47	0.75	8.79	310.54	0.000	3.000	62.74	0.00	188.21
8	128.00	BXA-80080/4CF	3	6.490	7.139	0.57	0.75	12.15	357.85	0.000	3.000	86.73	0.00	260.20
9	128.00	B2/B66A RRH-BR049	3	6.490	7.139	0.38	0.75	2.91	602.45	0.000	3.000	20.81	0.00	62.43
10	128.00	B5/B13 RRH-BR04C	3	6.490	7.139	0.38	0.75	2.91	524.49	0.000	3.000	20.81	0.00	62.43
11	128.00	CBC78T-DS-43-2X	3	6.490	7.139	0.38	0.75	0.83	122.68	0.000	3.000	5.91	0.00	17.72
12	128.00	Platform w/ Hand Rails	1	6.448	7.092	1.00	1.00	77.28	5074.29	0.000	0.000	548.06	0.00	0.00
13	128.00	JAHH-65B-R3B	6	6.448	7.092	0.62	0.75	40.30	2225.39	0.000	0.000	285.81	0.00	0.00
14	128.00	MT6407-77A	3	6.448	7.092	0.52	0.75	9.24	748.71	0.000	0.000	65.54	0.00	0.00
15	127.00	11'6" Dipole	1	6.546	7.201	1.00	1.00	17.15	43.30	0.000	8.000	123.50	0.00	988.00
16	114.00	Low Profile	1	6.238	6.861	1.00	1.00	43.48	3091.85	0.000	0.000	298.33	0.00	0.00
17	114.00	RRH 8X20-25-FEU	3	6.253	6.879	0.40	0.80	6.07	673.43	0.000	1.000	41.73	0.00	41.73
18	114.00	RRH 1900-4X45	3	6.253	6.879	0.40	0.80	5.10	441.33	0.000	1.000	35.06	0.00	35.06
19	114.00	RRH 2X50-800	3	6.206	6.827	0.40	0.80	4.51	445.77	0.000	-2.000	30.81	0.00	-61.62
20	114.00	APXVTM14-ALU-120	3	6.238	6.861	0.63	0.80	14.62	814.84	0.000	0.000	100.34	0.00	0.00
21	114.00	APXVSPP18-C-A20	3	6.238	6.861	0.66	0.80	22.74	687.35	0.000	0.000	156.06	0.00	0.00
22	106.50	Pipe Mount	1	6.118	6.729	1.00	1.00	9.84	121.97	0.000	0.000	66.21	0.00	0.00
23	106.50	VHLP3-11W-6WH/A	1	6.118	6.729	1.00	1.00	12.99	264.04	0.000	0.000	87.44	0.00	0.00
24	106.00	BA4040-41-DIN	1	6.202	6.822	1.00	1.00	16.93	41.86	0.000	5.750	115.53	0.00	664.29
25	100.00	Platform w/ Hand Rails	1	6.008	6.609	1.00	1.00	65.14	4313.80	0.000	0.000	430.52	0.00	0.00
26	100.00	Double TMA 17/21	2	5.991	6.590	0.38	0.75	0.50	45.63	0.000	-1.000	3.28	0.00	-3.28
27	100.00	E14F05P86 02	3	6.008	6.609	0.38	0.75	0.85	50.56	0.000	0.000	5.65	0.00	0.00
28	100.00	4449	3	5.991	6.590	0.38	0.75	2.60	510.62	0.000	-1.000	17.12	0.00	-17.12
29	100.00	4415	3	5.991	6.590	0.38	0.75	2.87	298.99	0.000	-1.000	18.89	0.00	-18.89
30	100.00	AIR 6449 B41	3	6.008	6.609	0.53	0.75	10.85	769.46	0.000	0.000	71.70	0.00	0.00
31	100.00	APXVAARR24_43	3	6.008	6.609	0.52	0.75	35.50	2004.33	0.000	0.000	234.61	0.00	0.00
32	100.00	AIR 32 B2A/B66Aa	3	6.008	6.609	0.65	0.75	15.53	1164.42	0.000	0.000	102.64	0.00	0.00
33	87.00	VHLP3-11W-6WH/A	1	5.774	6.351	1.00	1.00	12.95	258.78	0.000	0.000	82.24	0.00	0.00
34	87.00	Pipe Mount	1	5.774	6.351	1.00	1.00	9.70	120.03	0.000	0.000	61.58	0.00	0.00
35	85.00	Sidearm	1	5.736	6.309	1.00	1.00	10.63	138.00	0.000	0.000	67.05	0.00	0.00
36	85.00	18" Dipole	1	5.721	6.293	1.00	1.00	1.13	18.28	0.000	-0.750	7.12	0.00	-5.34
37	85.00	10' Omni	1	5.830	6.413	1.00	1.00	7.26	98.12	0.000	5.000	46.55	0.00	232.77
38	82.83	VHLP2-11W-6WH/A	1	5.694	6.263	1.00	1.00	12.94	257.52	0.000	0.000	81.02	0.00	0.00
39	82.83	Pipe Mount	1	5.694	6.263	1.00	1.00	7.35	119.56	0.000	0.000	46.01	0.00	0.00
40	61.00	Sidearm	1	5.217	5.739	1.00	1.00	10.42	173.63	0.000	0.000	59.78	0.00	0.00
41	61.00	48'"x30" Grid Dish	1	5.217	5.739	1.00	1.00	31.33	103.36	0.000	0.000	179.80	0.00	0.00
42	60.00	Sidearm	1	5.193	5.712	1.00	1.00	10.41	173.43	0.000	0.000	59.43	0.00	0.00
43	60.00	2' Omni	1	5.217	5.739	1.00	1.00	0.80	15.87	0.000	1.000	4.62	0.00	4.62
44	50.50	Sidearm	1	4.943	5.437	1.00	1.00	8.90	153.35	0.000	0.000	48.39	0.00	0.00
45	50.50	GPS	1	4.943	5.437	1.00	1.00	1.80	36.87	0.000	0.000	9.78	0.00	0.00
							Totals:		**28,880.14**			**4,193.57**		

Total Applied Force Summary

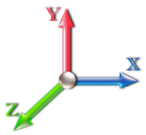
Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	III	Page: 41	

TES Tower Engineering Solutions

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 24

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
1.00		23.62	384.41	0.00	0.00
5.00		94.67	1647.37	0.00	0.00
10.00		117.27	2102.88	0.00	0.00
15.00		115.81	2113.40	0.00	0.00
20.00		114.27	2110.43	0.00	0.00
21.00		22.65	419.57	0.00	0.00
25.00		90.01	1677.53	0.00	0.00
30.00		111.18	2083.70	0.00	0.00
35.00		114.49	2064.05	0.00	0.00
40.00		117.17	2041.60	0.00	0.00
41.00		23.37	405.18	0.00	0.00
44.33		79.17	1343.86	0.00	0.00
45.00		16.06	362.31	0.00	0.00
48.75		91.85	2022.08	0.00	0.00
50.00		30.37	467.13	0.00	0.00
50.50	(2) attachments	70.32	376.68	0.00	0.00
55.00		111.20	1666.50	0.00	0.00
60.00	(2) attachments	188.83	2017.54	0.00	4.62
61.00	(2) attachments	264.40	639.81	0.00	0.00
65.00		100.34	1381.23	0.00	0.00
69.00		100.75	1363.72	0.00	0.00
70.00		25.08	338.45	0.00	0.00
75.00		126.69	1622.84	0.00	0.00
80.00		126.94	1593.43	0.00	0.00
82.83	(2) attachments	198.65	1266.60	0.00	0.00
85.00	(3) attachments	175.59	909.82	0.00	227.43
87.00	(2) attachments	199.78	946.91	0.00	0.00
89.75		76.74	746.53	0.00	0.00
90.00		7.01	88.24	0.00	0.00
93.08		86.61	1076.27	0.00	0.00
95.00		53.47	475.90	0.00	0.00
100.00	(21) attachments	1023.55	10376.67	0.00	-39.29
105.00		137.46	1103.42	0.00	0.00
106.00	(1) attachments	142.64	259.92	0.00	664.29
106.50	(2) attachments	167.17	490.67	0.00	0.00
110.00		94.51	687.92	0.00	0.00
114.00	(16) attachments	769.20	6922.22	0.00	15.16
115.00		17.37	169.88	0.00	0.00
120.00		86.45	825.82	0.00	0.00
125.00		85.02	794.74	0.00	0.00
127.00	(1) attachments	156.98	354.02	0.00	988.00
128.00	(32) attachments	1395.40	11408.00	0.00	627.34
129.17	(2) attachments	139.80	292.28	0.00	348.63
130.00		12.51	86.00	0.00	0.00
	Totals:	**7,302.41**	**71,527.51**	**0.00**	**2,836.17**

Linear Appurtenance Segment Forces (Factored)

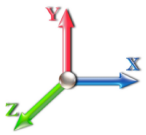
Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	III	Page: 42	

Tower Engineering Solutions

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 24

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
1.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	4.256	0.00	5.73
1.00	7/8" Coax	Yes	1.00	0.000	2.22	0.41	0.00	0.117	1.052	4.256	0.00	13.34
1.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	4.256	0.00	4.69
1.00	1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	4.256	0.00	2.77
1.00	1 1/4" Coax	Yes	1.00	0.000	3.10	0.48	0.00	0.117	1.052	4.256	0.00	12.48
1.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	4.256	0.00	5.15
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	4.256	0.00	4.00
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	4.256	0.00	5.87
1.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	4.256	0.00	5.15
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	4.256	0.00	4.00
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	4.256	0.00	4.00
1.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	4.256	0.00	5.15
1.00	1" Reinforcing plate	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	4.256	0.00	5.47
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	4.256	0.00	4.00
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	4.256	0.00	4.00
5.00	6x12 Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	4.256	0.00	27.18
5.00	7/8" Coax	Yes	4.00	0.000	2.22	1.78	0.00	0.119	1.057	4.256	0.00	61.39
5.00	Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	4.256	0.00	22.92
5.00	1/4" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	4.256	0.00	14.67
5.00	1 1/4" Coax	Yes	4.00	0.000	3.10	2.07	0.00	0.119	1.057	4.256	0.00	57.61
5.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	4.256	0.00	25.28
5.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	4.256	0.00	20.05
5.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	4.256	0.00	28.32
5.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	4.256	0.00	25.28
5.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	4.256	0.00	20.05
5.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	4.256	0.00	20.05
5.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	4.256	0.00	25.28
5.00	1" Reinforcing plate	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	4.256	0.00	27.27
5.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	4.256	0.00	20.05
5.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	4.256	0.00	20.05
10.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	4.256	0.00	36.78
10.00	7/8" Coax	Yes	5.00	0.000	2.22	2.31	0.00	0.122	1.065	4.256	0.00	81.82
10.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	4.256	0.00	31.38
10.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	4.256	0.00	20.74
10.00	1 1/4" Coax	Yes	5.00	0.000	3.10	2.68	0.00	0.122	1.065	4.256	0.00	76.88
10.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	4.256	0.00	34.67
10.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	4.256	0.00	27.73
10.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	4.256	0.00	38.55
10.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	4.256	0.00	34.67
10.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	4.256	0.00	27.73
10.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	4.256	0.00	27.73
10.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	4.256	0.00	34.67
10.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	4.256	0.00	37.58
10.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	4.256	0.00	27.73
10.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	4.256	0.00	27.73
15.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	4.256	0.00	38.59
15.00	7/8" Coax	Yes	5.00	0.000	2.22	2.37	0.00	0.125	1.075	4.256	0.00	85.03

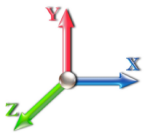
Linear Appurtenance Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 43	

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 24

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
15.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	4.256	0.00	33.14
15.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	4.256	0.00	22.30
15.00	1 1/4" Coax	Yes	5.00	0.000	3.10	2.74	0.00	0.125	1.075	4.256	0.00	79.97
15.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	4.256	0.00	36.63
15.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	4.256	0.00	29.46
15.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	4.256	0.00	40.57
15.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	4.256	0.00	36.63
15.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	4.256	0.00	29.46
15.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	4.256	0.00	29.46
15.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	4.256	0.00	36.63
15.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	4.256	0.00	39.81
15.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	4.256	0.00	29.46
15.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	4.256	0.00	29.46
20.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	4.256	0.00	39.96
20.00	7/8" Coax	Yes	5.00	0.000	2.22	2.41	0.00	0.128	1.085	4.256	0.00	87.42
20.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	4.256	0.00	34.47
20.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	4.256	0.00	23.49
20.00	1 1/4" Coax	Yes	5.00	0.000	3.10	2.78	0.00	0.128	1.085	4.256	0.00	82.28
20.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	4.256	0.00	38.12
20.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	4.256	0.00	30.76
20.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	4.256	0.00	42.09
20.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	4.256	0.00	38.12
20.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	4.256	0.00	30.76
20.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	4.256	0.00	30.76
20.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	4.256	0.00	38.12
20.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	4.256	0.00	41.49
20.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	4.256	0.00	30.76
20.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	4.256	0.00	30.76
21.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	4.256	0.00	8.04
21.00	7/8" Coax	Yes	1.00	0.000	2.22	0.48	0.00	0.131	1.092	4.256	0.00	17.57
21.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	4.256	0.00	6.94
21.00	1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	4.256	0.00	4.74
21.00	1 1/4" Coax	Yes	1.00	0.000	3.10	0.56	0.00	0.131	1.092	4.256	0.00	16.54
21.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	4.256	0.00	7.67
21.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	4.256	0.00	6.20
21.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	4.256	0.00	8.47
21.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	4.256	0.00	7.67
21.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	4.256	0.00	6.20
21.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	4.256	0.00	6.20
21.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	4.256	0.00	7.67
21.00	1" Reinforcing plate	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	4.256	0.00	8.36
21.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	4.256	0.00	6.20
21.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	4.256	0.00	6.20
25.00	6x12 Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	4.256	0.00	32.86
25.00	7/8" Coax	Yes	4.00	0.000	2.22	1.96	0.00	0.133	1.098	4.256	0.00	71.48
25.00	Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	4.256	0.00	28.45
25.00	1/4" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	4.256	0.00	19.56

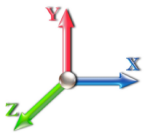
Linear Appurtenance Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 44	

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 24

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
25.00	1 1/4" Coax	Yes	4.00	0.000	3.10	2.25	0.00	0.133	1.098	4.256	0.00	67.31
25.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	4.256	0.00	31.45
25.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	4.256	0.00	25.46
25.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	4.256	0.00	34.66
25.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	4.256	0.00	31.45
25.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	4.256	0.00	25.46
25.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	4.256	0.00	25.46
25.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	4.256	0.00	31.45
25.00	1" Reinforcing plate	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	4.256	0.00	34.27
25.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	4.256	0.00	25.46
25.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	4.256	0.00	25.46
30.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	4.260	0.00	42.01
30.00	7/8" Coax	Yes	5.00	0.000	2.22	2.47	0.00	0.136	1.108	4.260	0.00	90.98
30.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	4.260	0.00	36.47
30.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	4.260	0.00	25.27
30.00	1 1/4" Coax	Yes	5.00	0.000	3.10	2.84	0.00	0.136	1.108	4.260	0.00	85.70
30.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	4.260	0.00	40.33
30.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	4.260	0.00	32.72
30.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	4.260	0.00	44.37
30.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	4.260	0.00	40.33
30.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	4.260	0.00	32.72
30.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	4.260	0.00	32.72
30.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	4.260	0.00	40.33
30.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	4.260	0.00	43.99
30.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	4.260	0.00	32.72
30.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	4.260	0.00	32.72
35.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	4.451	0.00	42.83
35.00	7/8" Coax	Yes	5.00	0.000	2.22	2.50	0.00	0.140	1.120	4.451	0.00	92.38
35.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	4.451	0.00	37.27
35.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	4.451	0.00	25.99
35.00	1 1/4" Coax	Yes	5.00	0.000	3.10	2.86	0.00	0.140	1.120	4.451	0.00	87.06
35.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	4.451	0.00	41.22
35.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	4.451	0.00	33.51
35.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	4.451	0.00	45.28
35.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	4.451	0.00	41.22
35.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	4.451	0.00	33.51
35.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	4.451	0.00	33.51
35.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	4.451	0.00	41.22
35.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	4.451	0.00	44.99
35.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	4.451	0.00	33.51
35.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	4.451	0.00	33.51
40.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	4.625	0.00	43.56
40.00	7/8" Coax	Yes	5.00	0.000	2.22	2.52	0.00	0.144	1.133	4.625	0.00	93.63
40.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	4.625	0.00	37.99
40.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	4.625	0.00	26.63
40.00	1 1/4" Coax	Yes	5.00	0.000	3.10	2.88	0.00	0.144	1.133	4.625	0.00	88.25
40.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	4.625	0.00	42.00

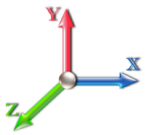
Linear Appurtenance Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 45	

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 24

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
40.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	4.625	0.00	34.20
40.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	4.625	0.00	46.09
40.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	4.625	0.00	42.00
40.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	4.625	0.00	34.20
40.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	4.625	0.00	34.20
40.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	4.625	0.00	42.00
40.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	4.625	0.00	45.87
40.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	4.625	0.00	34.20
40.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	4.625	0.00	34.20
41.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	4.657	0.00	8.74
41.00	7/8" Coax	Yes	1.00	0.000	2.22	0.50	0.00	0.147	1.142	4.657	0.00	18.77
41.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	4.657	0.00	7.62
41.00	1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	4.657	0.00	5.35
41.00	1 1/4" Coax	Yes	1.00	0.000	3.10	0.58	0.00	0.147	1.142	4.657	0.00	17.70
41.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	4.657	0.00	8.43
41.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	4.657	0.00	6.87
41.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	4.657	0.00	9.25
41.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	4.657	0.00	8.43
41.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	4.657	0.00	6.87
41.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	4.657	0.00	6.87
41.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	4.657	0.00	8.43
41.00	1" Reinforcing plate	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	4.657	0.00	9.21
41.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	4.657	0.00	6.87
41.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	4.657	0.00	6.87
44.33	6x12 Hybrid	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	4.762	0.00	29.42
44.33	7/8" Coax	Yes	3.33	0.000	2.22	1.69	0.00	0.149	1.148	4.762	0.00	63.07
44.33	Hybrid	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	4.762	0.00	25.70
44.33	1/4" Coax	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	4.762	0.00	18.09
44.33	1 1/4" Coax	Yes	3.33	0.000	3.10	1.93	0.00	0.149	1.148	4.762	0.00	59.46
44.33	EW	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	4.762	0.00	28.42
44.33	7/8" Coax	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	4.762	0.00	23.17
44.33	7/8" Coax	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	4.762	0.00	31.15
44.33	EW	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	4.762	0.00	28.42
44.33	7/8" Coax	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	4.762	0.00	23.17
44.33	7/8" Coax	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	4.762	0.00	23.17
44.33	EW	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	4.762	0.00	28.42
44.33	1" Reinforcing plate	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	4.762	0.00	31.04
44.33	7/8" Coax	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	4.762	0.00	23.17
44.33	7/8" Coax	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	4.762	0.00	23.17
45.00	6x12 Hybrid	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	4.783	0.00	5.90
45.00	7/8" Coax	Yes	0.67	0.000	2.22	0.34	0.00	0.151	1.154	4.783	0.00	12.63
45.00	Hybrid	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	4.783	0.00	5.15
45.00	1/4" Coax	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	4.783	0.00	3.63
45.00	1 1/4" Coax	Yes	0.67	0.000	3.10	0.39	0.00	0.151	1.154	4.783	0.00	11.91
45.00	EW	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	4.783	0.00	5.70
45.00	7/8" Coax	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	4.783	0.00	4.64
45.00	7/8" Coax	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	4.783	0.00	6.24

Linear Appurtenance Segment Forces (Factored)

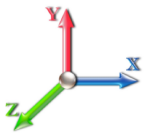
Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	III	Page: 46	

Tower Engineering Solutions

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 24

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
45.00	EW	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	4.783	0.00	5.70
45.00	7/8" Coax	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	4.783	0.00	4.64
45.00	7/8" Coax	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	4.783	0.00	4.64
45.00	EW	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	4.783	0.00	5.70
45.00	1" Reinforcing plate	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	4.783	0.00	6.22
45.00	7/8" Coax	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	4.783	0.00	4.64
45.00	7/8" Coax	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	4.783	0.00	4.64
48.75	6x12 Hybrid	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	4.893	0.00	33.51
48.75	7/8" Coax	Yes	3.75	0.000	2.22	1.91	0.00	0.153	1.160	4.893	0.00	71.64
48.75	Hybrid	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	4.893	0.00	29.30
48.75	1/4" Coax	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	4.893	0.00	20.70
48.75	1 1/4" Coax	Yes	3.75	0.000	3.10	2.19	0.00	0.153	1.160	4.893	0.00	67.56
48.75	EW	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	4.893	0.00	32.40
48.75	7/8" Coax	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	4.893	0.00	26.45
48.75	7/8" Coax	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	4.893	0.00	35.49
48.75	EW	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	4.893	0.00	32.40
48.75	7/8" Coax	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	4.893	0.00	26.45
48.75	7/8" Coax	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	4.893	0.00	26.45
48.75	EW	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	4.893	0.00	32.40
48.75	1" Reinforcing plate	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	4.893	0.00	35.41
48.75	7/8" Coax	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	4.893	0.00	26.45
48.75	7/8" Coax	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	4.893	0.00	26.45
50.00	6x12 Hybrid	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	4.929	0.00	11.21
50.00	7/8" Coax	Yes	1.25	0.000	2.22	0.64	0.00	0.153	1.159	4.929	0.00	23.94
50.00	Hybrid	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	4.929	0.00	9.80
50.00	1/4" Coax	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	4.929	0.00	6.93
50.00	1 1/4" Coax	Yes	1.25	0.000	3.10	0.73	0.00	0.153	1.159	4.929	0.00	22.58
50.00	EW	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	4.929	0.00	10.84
50.00	7/8" Coax	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	4.929	0.00	8.85
50.00	7/8" Coax	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	4.929	0.00	11.87
50.00	EW	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	4.929	0.00	10.84
50.00	7/8" Coax	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	4.929	0.00	8.85
50.00	7/8" Coax	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	4.929	0.00	8.85
50.00	EW	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	4.929	0.00	10.84
50.00	1" Reinforcing plate	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	4.929	0.00	11.85
50.00	7/8" Coax	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	4.929	0.00	8.85
50.00	7/8" Coax	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	4.929	0.00	8.85
50.50	6x12 Hybrid	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	4.943	0.00	4.49
50.50	7/8" Coax	Yes	0.50	0.000	2.22	0.26	0.00	0.154	1.162	4.943	0.00	9.59
50.50	Hybrid	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	4.943	0.00	3.93
50.50	1/4" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	4.943	0.00	2.78
50.50	1 1/4" Coax	Yes	0.50	0.000	3.10	0.29	0.00	0.154	1.162	4.943	0.00	9.04
50.50	EW	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	4.943	0.00	4.34
50.50	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	4.943	0.00	3.55
50.50	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	4.943	0.00	4.75
50.50	EW	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	4.943	0.00	4.34
50.50	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	4.943	0.00	3.55

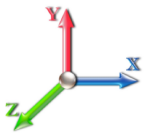
Linear Appurtenance Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 47	

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 24

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
50.50	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	4.943	0.00	3.55
50.50	EW	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	4.943	0.00	4.34
50.50	1" Reinforcing plate	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	4.943	0.00	4.75
50.50	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	4.943	0.00	3.55
50.50	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	4.943	0.00	3.55
55.00	6x12 Hybrid	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	5.065	0.00	40.84
55.00	7/8" Coax	Yes	4.50	0.000	2.22	2.31	0.00	0.157	1.170	5.065	0.00	87.03
55.00	Hybrid	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	5.065	0.00	35.78
55.00	1/4" Coax	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	5.065	0.00	25.39
55.00	1 1/4" Coax	Yes	4.50	0.000	3.10	2.64	0.00	0.157	1.170	5.065	0.00	82.09
55.00	EW	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	5.065	0.00	39.56
55.00	7/8" Coax	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	5.065	0.00	32.34
55.00	7/8" Coax	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	5.065	0.00	43.28
55.00	EW	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	5.065	0.00	39.56
55.00	7/8" Coax	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	5.065	0.00	32.34
55.00	7/8" Coax	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	5.065	0.00	32.34
55.00	EW	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	5.065	0.00	39.56
55.00	1" Reinforcing plate	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	5.065	0.00	43.25
55.00	7/8" Coax	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	5.065	0.00	32.34
55.00	7/8" Coax	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	5.065	0.00	32.34
60.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	5.193	0.00	45.89
60.00	7/8" Coax	Yes	5.00	0.000	2.22	2.58	0.00	0.162	1.185	5.193	0.00	97.56
60.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	5.193	0.00	40.26
60.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	5.193	0.00	28.67
60.00	1 1/4" Coax	Yes	5.00	0.000	3.10	2.95	0.00	0.162	1.185	5.193	0.00	92.05
60.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	5.193	0.00	44.51
60.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	5.193	0.00	36.43
60.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	5.193	0.00	48.66
60.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	5.193	0.00	44.51
60.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	5.193	0.00	36.43
60.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	5.193	0.00	36.43
60.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	5.193	0.00	44.51
60.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	5.193	0.00	48.68
60.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	5.193	0.00	36.43
60.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	5.193	0.00	36.43
61.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	5.217	0.00	9.20
61.00	7/8" Coax	Yes	1.00	0.000	2.22	0.52	0.00	0.165	1.196	5.217	0.00	19.55
61.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	5.217	0.00	8.07
61.00	1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	5.217	0.00	5.75
61.00	1 1/4" Coax	Yes	1.00	0.000	3.10	0.59	0.00	0.165	1.196	5.217	0.00	18.44
61.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	5.217	0.00	8.92
61.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	5.217	0.00	7.30
61.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	5.217	0.00	9.75
61.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	5.217	0.00	8.92
61.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	5.217	0.00	7.30
61.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	5.217	0.00	7.30
61.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	5.217	0.00	8.92

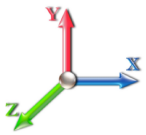
Linear Appurtenance Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 48	

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 24

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
61.00	1" Reinforcing plate	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	5.217	0.00	9.76
61.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	5.217	0.00	7.30
61.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	5.217	0.00	7.30
65.00	6x12 Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	5.313	0.00	37.09
65.00	7/8" Coax	Yes	4.00	0.000	2.22	2.08	0.00	0.168	1.205	5.313	0.00	78.69
65.00	Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	5.313	0.00	32.58
65.00	1/4" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	5.313	0.00	23.27
65.00	1 1/4" Coax	Yes	4.00	0.000	3.10	2.37	0.00	0.168	1.205	5.313	0.00	74.26
65.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	5.313	0.00	36.02
65.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	5.313	0.00	29.51
65.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	5.313	0.00	39.35
65.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	5.313	0.00	36.02
65.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	5.313	0.00	29.51
65.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	5.313	0.00	29.51
65.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	5.313	0.00	36.02
65.00	1" Reinforcing plate	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	5.313	0.00	39.40
69.00	6x12 Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	5.404	0.00	37.38
69.00	7/8" Coax	Yes	4.00	0.000	2.22	2.09	0.00	0.173	1.220	5.404	0.00	79.18
69.00	Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	5.404	0.00	32.86
69.00	1/4" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	5.404	0.00	23.53
69.00	1 1/4" Coax	Yes	4.00	0.000	3.10	2.38	0.00	0.173	1.220	5.404	0.00	74.73
69.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	5.404	0.00	36.33
69.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	5.404	0.00	29.79
69.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	5.404	0.00	39.67
69.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	5.404	0.00	36.33
69.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	5.404	0.00	29.79
69.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	5.404	0.00	29.79
69.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	5.404	0.00	36.33
69.00	1" Reinforcing plate	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	5.404	0.00	39.75
70.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	5.426	0.00	9.36
70.00	7/8" Coax	Yes	1.00	0.000	2.22	0.52	0.00	0.177	1.230	5.426	0.00	19.82
70.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	5.426	0.00	8.23
70.00	1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	5.426	0.00	5.90
70.00	1 1/4" Coax	Yes	1.00	0.000	3.10	0.60	0.00	0.177	1.230	5.426	0.00	18.71
70.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	5.426	0.00	9.10
70.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	5.426	0.00	7.46
70.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	5.426	0.00	9.94
70.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	5.426	0.00	9.10
70.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	5.426	0.00	7.46
70.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	5.426	0.00	7.46
70.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	5.426	0.00	9.10
70.00	1" Reinforcing plate	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	5.426	0.00	9.96
75.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	5.534	0.00	47.24
75.00	7/8" Coax	Yes	5.00	0.000	2.22	2.62	0.00	0.181	1.242	5.534	0.00	99.83
75.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	5.534	0.00	41.58
75.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	5.534	0.00	29.86
75.00	1 1/4" Coax	Yes	5.00	0.000	3.10	2.99	0.00	0.181	1.242	5.534	0.00	94.23

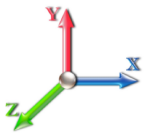
Linear Appurtenance Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 49	

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 24

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
75.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	5.534	0.00	45.96
75.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	5.534	0.00	37.73
75.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	5.534	0.00	50.15
75.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	5.534	0.00	45.96
75.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	5.534	0.00	37.73
75.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	5.534	0.00	37.73
75.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	5.534	0.00	45.96
80.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	5.637	0.00	47.64
80.00	7/8" Coax	Yes	5.00	0.000	2.22	2.63	0.00	0.188	1.264	5.637	0.00	100.50
80.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	5.637	0.00	41.97
80.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	5.637	0.00	30.21
80.00	1 1/4" Coax	Yes	5.00	0.000	3.10	3.00	0.00	0.188	1.264	5.637	0.00	94.88
80.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	5.637	0.00	46.40
80.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	5.637	0.00	38.11
80.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	5.637	0.00	50.59
80.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	5.637	0.00	46.40
80.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	5.637	0.00	38.11
80.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	5.637	0.00	38.11
80.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	5.637	0.00	46.40
82.83	6x12 Hybrid	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	5.694	0.00	27.09
82.83	7/8" Coax	Yes	2.83	0.000	2.22	1.49	0.00	0.194	1.283	5.694	0.00	57.09
82.83	Hybrid	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	5.694	0.00	23.88
82.83	1/4" Coax	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	5.694	0.00	17.21
82.83	1 1/4" Coax	Yes	2.83	0.000	3.10	1.70	0.00	0.194	1.283	5.694	0.00	53.90
82.83	EW	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	5.694	0.00	26.39
82.83	7/8" Coax	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	5.694	0.00	21.69
82.83	7/8" Coax	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	5.694	0.00	28.77
82.83	EW	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	5.694	0.00	26.39
82.83	7/8" Coax	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	5.694	0.00	21.69
82.83	7/8" Coax	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	5.694	0.00	21.69
82.83	EW	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	5.694	0.00	26.39
85.00	6x12 Hybrid	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	5.736	0.00	20.84
85.00	7/8" Coax	Yes	2.17	0.000	2.22	1.15	0.00	0.198	1.295	5.736	0.00	43.89
85.00	Hybrid	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	5.736	0.00	18.38
85.00	1/4" Coax	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	5.736	0.00	13.26
85.00	1 1/4" Coax	Yes	2.17	0.000	3.10	1.31	0.00	0.198	1.295	5.736	0.00	41.44
85.00	EW	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	5.736	0.00	20.31
85.00	7/8" Coax	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	5.736	0.00	16.70
85.00	7/8" Coax	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	5.736	0.00	22.14
85.00	EW	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	5.736	0.00	20.31
85.00	7/8" Coax	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	5.736	0.00	16.70
85.00	7/8" Coax	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	5.736	0.00	16.70
87.00	6x12 Hybrid	Yes	2.00	0.000	0.00	0.00	0.00	0.202	0.000	5.774	0.00	19.27
87.00	7/8" Coax	Yes	2.00	1.200	2.22	1.06	1.27	0.202	0.000	5.774	8.07	40.55
87.00	Hybrid	Yes	2.00	0.000	0.00	0.00	0.00	0.202	0.000	5.774	0.00	17.00
87.00	1/4" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.202	0.000	5.774	0.00	12.27
87.00	1 1/4" Coax	Yes	2.00	1.200	3.10	1.21	1.45	0.202	0.000	5.774	9.19	38.29

Linear Appurtenance Segment Forces (Factored)

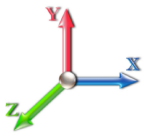
Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	III	Page: 50	

Tower Engineering Solutions

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 24

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
87.00	EW	Yes	2.00	0.000	0.00	0.00	0.00	0.202	0.000	5.774	0.00	18.79
87.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.202	0.000	5.774	0.00	15.45
87.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.202	0.000	5.774	0.00	20.47
87.00	EW	Yes	2.00	0.000	0.00	0.00	0.00	0.202	0.000	5.774	0.00	18.79
89.75	6x12 Hybrid	Yes	2.75	0.000	0.00	0.00	0.00	0.206	0.000	5.826	0.00	26.61
89.75	7/8" Coax	Yes	2.75	1.200	2.22	1.46	1.75	0.206	0.000	5.826	11.22	55.94
89.75	Hybrid	Yes	2.75	0.000	0.00	0.00	0.00	0.206	0.000	5.826	0.00	23.48
89.75	1/4" Coax	Yes	2.75	0.000	0.00	0.00	0.00	0.206	0.000	5.826	0.00	16.97
89.75	1 1/4" Coax	Yes	2.75	1.200	3.10	1.66	1.99	0.206	0.000	5.826	12.77	52.83
89.75	EW	Yes	2.75	0.000	0.00	0.00	0.00	0.206	0.000	5.826	0.00	25.95
89.75	7/8" Coax	Yes	2.75	0.000	0.00	0.00	0.00	0.206	0.000	5.826	0.00	21.35
89.75	7/8" Coax	Yes	2.75	0.000	0.00	0.00	0.00	0.206	0.000	5.826	0.00	28.27
90.00	6x12 Hybrid	Yes	0.25	0.000	0.00	0.00	0.00	0.209	0.000	5.830	0.00	2.42
90.00	7/8" Coax	Yes	0.25	1.200	2.22	0.13	0.16	0.209	0.000	5.830	1.02	5.09
90.00	Hybrid	Yes	0.25	0.000	0.00	0.00	0.00	0.209	0.000	5.830	0.00	2.14
90.00	1/4" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.209	0.000	5.830	0.00	1.54
90.00	1 1/4" Coax	Yes	0.25	1.200	3.10	0.15	0.18	0.209	0.000	5.830	1.16	4.80
90.00	EW	Yes	0.25	0.000	0.00	0.00	0.00	0.209	0.000	5.830	0.00	2.36
90.00	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.209	0.000	5.830	0.00	1.94
90.00	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.209	0.000	5.830	0.00	2.57
93.08	6x12 Hybrid	Yes	3.08	0.000	0.00	0.00	0.00	0.212	0.000	5.887	0.00	29.97
93.08	7/8" Coax	Yes	3.08	1.200	2.22	1.64	1.97	0.212	0.000	5.887	12.74	62.96
93.08	Hybrid	Yes	3.08	0.000	0.00	0.00	0.00	0.212	0.000	5.887	0.00	26.46
93.08	1/4" Coax	Yes	3.08	0.000	0.00	0.00	0.00	0.212	0.000	5.887	0.00	19.15
93.08	1 1/4" Coax	Yes	3.08	1.200	3.10	1.87	2.24	0.212	0.000	5.887	14.49	59.46
93.08	EW	Yes	3.08	0.000	0.00	0.00	0.00	0.212	0.000	5.887	0.00	29.25
93.08	7/8" Coax	Yes	3.08	0.000	0.00	0.00	0.00	0.212	0.000	5.887	0.00	24.07
93.08	7/8" Coax	Yes	3.08	0.000	0.00	0.00	0.00	0.212	0.000	5.887	0.00	31.85
95.00	6x12 Hybrid	Yes	1.92	0.000	0.00	0.00	0.00	0.213	0.000	5.921	0.00	18.68
95.00	7/8" Coax	Yes	1.92	1.200	2.22	1.02	1.22	0.213	0.000	5.921	7.97	39.22
95.00	Hybrid	Yes	1.92	0.000	0.00	0.00	0.00	0.213	0.000	5.921	0.00	16.50
95.00	1/4" Coax	Yes	1.92	0.000	0.00	0.00	0.00	0.213	0.000	5.921	0.00	11.95
95.00	1 1/4" Coax	Yes	1.92	1.200	3.10	1.16	1.39	0.213	0.000	5.921	9.07	37.04
95.00	EW	Yes	1.92	0.000	0.00	0.00	0.00	0.213	0.000	5.921	0.00	18.24
95.00	7/8" Coax	Yes	1.92	0.000	0.00	0.00	0.00	0.213	0.000	5.921	0.00	15.01
95.00	7/8" Coax	Yes	1.92	0.000	0.00	0.00	0.00	0.213	0.000	5.921	0.00	19.85
100.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.220	0.000	6.008	0.00	49.07
100.00	7/8" Coax	Yes	5.00	1.200	2.22	2.67	3.20	0.220	0.000	6.008	21.18	102.87
100.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.220	0.000	6.008	0.00	43.37
100.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.220	0.000	6.008	0.00	31.47
100.00	1 1/4" Coax	Yes	5.00	1.200	3.10	3.04	3.64	0.220	0.000	6.008	24.09	97.17
100.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.220	0.000	6.008	0.00	47.93
100.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.220	0.000	6.008	0.00	39.48
100.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.220	0.000	6.008	0.00	52.16
105.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.231	0.000	6.093	0.00	49.39
105.00	7/8" Coax	Yes	5.00	1.200	2.22	2.68	3.22	0.231	0.000	6.093	21.55	103.40
105.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.231	0.000	6.093	0.00	43.68

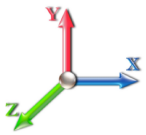
Linear Appurtenance Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 51	

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 24

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
105.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.231	0.000	6.093	0.00	31.76
105.00	1 1/4" Coax	Yes	5.00	1.200	3.10	3.05	3.66	0.231	0.000	6.093	24.50	97.68
105.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.231	0.000	6.093	0.00	48.27
105.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.231	0.000	6.093	0.00	39.79
106.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.238	0.000	6.109	0.00	9.89
106.00	7/8" Coax	Yes	1.00	1.200	2.22	0.54	0.64	0.238	0.000	6.109	4.32	20.70
106.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.238	0.000	6.109	0.00	8.75
106.00	1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.238	0.000	6.109	0.00	6.36
106.00	1 1/4" Coax	Yes	1.00	1.200	3.10	0.61	0.73	0.238	0.000	6.109	4.92	19.56
106.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.238	0.000	6.109	0.00	9.67
106.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.238	0.000	6.109	0.00	7.97
106.50	6x12 Hybrid	Yes	0.50	0.000	0.00	0.00	0.00	0.240	0.000	6.118	0.00	4.95
106.50	7/8" Coax	Yes	0.50	1.200	2.22	0.27	0.32	0.240	0.000	6.118	2.17	10.36
106.50	Hybrid	Yes	0.50	0.000	0.00	0.00	0.00	0.240	0.000	6.118	0.00	4.38
106.50	1/4" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.240	0.000	6.118	0.00	3.18
106.50	1 1/4" Coax	Yes	0.50	1.200	3.10	0.30	0.37	0.240	0.000	6.118	2.46	9.78
106.50	EW	Yes	0.50	0.000	0.00	0.00	0.00	0.240	0.000	6.118	0.00	4.84
110.00	6x12 Hybrid	Yes	3.50	0.000	0.00	0.00	0.00	0.245	0.000	6.174	0.00	34.79
110.00	7/8" Coax	Yes	3.50	1.200	2.22	1.88	2.26	0.245	0.000	6.174	15.33	72.73
110.00	Hybrid	Yes	3.50	0.000	0.00	0.00	0.00	0.245	0.000	6.174	0.00	30.79
110.00	1/4" Coax	Yes	3.50	0.000	0.00	0.00	0.00	0.245	0.000	6.174	0.00	22.42
110.00	1 1/4" Coax	Yes	3.50	1.200	3.10	2.14	2.57	0.245	0.000	6.174	17.42	68.72
114.00	6x12 Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.255	0.000	6.238	0.00	39.95
114.00	7/8" Coax	Yes	4.00	1.200	2.22	2.15	2.59	0.255	0.000	6.238	17.74	83.44
114.00	Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.255	0.000	6.238	0.00	35.37
114.00	1/4" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.255	0.000	6.238	0.00	25.79
114.00	1 1/4" Coax	Yes	4.00	1.200	3.10	2.45	2.94	0.255	0.000	6.238	20.16	78.83
115.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.109	1.028	6.253	0.00	10.00
115.00	7/8" Coax	Yes	1.00	0.000	2.22	0.54	0.00	0.109	1.028	6.253	0.00	20.88
115.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.109	1.028	6.253	0.00	8.85
115.00	1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.109	1.028	6.253	0.00	6.46
120.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.113	1.039	6.330	0.00	50.28
120.00	7/8" Coax	Yes	5.00	0.000	2.22	2.70	0.00	0.113	1.039	6.330	0.00	104.86
120.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.113	1.039	6.330	0.00	44.55
120.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.113	1.039	6.330	0.00	32.54
125.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.120	1.060	6.404	0.00	50.56
125.00	7/8" Coax	Yes	5.00	0.000	2.22	2.71	0.00	0.120	1.060	6.404	0.00	105.32
125.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.120	1.060	6.404	0.00	44.82
125.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.120	1.060	6.404	0.00	32.79
127.00	6x12 Hybrid	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.077	6.433	0.00	20.27
127.00	7/8" Coax	Yes	2.00	0.000	2.22	1.09	0.00	0.126	1.077	6.433	0.00	42.20
127.00	Hybrid	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.077	6.433	0.00	17.97
127.00	1/4" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.077	6.433	0.00	13.15
128.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.084	6.448	0.00	10.14
128.00	7/8" Coax	Yes	1.00	0.000	2.22	0.54	0.00	0.128	1.084	6.448	0.00	21.12
128.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.084	6.448	0.00	9.00

Linear Appurtenance Segment Forces (Factored)

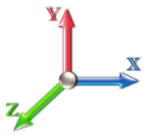
Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	III	Page: 52	

Tower Engineering Solutions

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 24

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
										Totals:	**263.5**	**13,958.4**

Calculated Forces

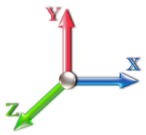
Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	III	Page: 53	

Tower Engineering Solutions

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 24

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-71.53	-7.31	0.00	-732.05	0.00	732.05	2791.94	1395.97	5010.03	2474.26	0.00	0.000	0.000	0.233
1.00	-71.14	-7.32	0.00	-724.74	0.00	724.74	2783.20	1391.60	4968.67	2453.84	0.00	-0.012	0.000	0.236
5.00	-69.48	-7.29	0.00	-695.45	0.00	695.45	2747.66	1373.83	4803.88	2372.46	0.03	-0.059	0.000	0.233
10.00	-67.37	-7.24	0.00	-658.99	0.00	658.99	2701.97	1350.99	4599.43	2271.49	0.13	-0.119	0.000	0.229
15.00	-65.25	-7.19	0.00	-622.78	0.00	622.78	2654.88	1327.44	4396.87	2171.45	0.28	-0.180	0.000	0.224
20.00	-63.14	-7.11	0.00	-586.82	0.00	586.82	2606.39	1303.19	4196.39	2072.44	0.50	-0.242	0.000	0.219
21.00	-62.72	-7.12	0.00	-579.71	0.00	579.71	2596.52	1298.26	4156.56	2052.77	0.56	-0.255	0.000	0.218
25.00	-61.03	-7.08	0.00	-551.23	0.00	551.23	2556.49	1278.25	3998.19	1974.56	0.79	-0.305	0.000	0.214
30.00	-58.94	-7.03	0.00	-515.81	0.00	515.81	2505.19	1252.60	3802.46	1877.89	1.15	-0.369	0.000	0.209
35.00	-56.87	-6.96	0.00	-480.68	0.00	480.68	2447.14	1223.57	3601.53	1778.66	1.57	-0.433	0.000	0.204
40.00	-54.82	-6.86	0.00	-445.88	0.00	445.88	2371.27	1185.63	3380.54	1669.52	2.06	-0.498	0.000	0.199
41.00	-54.42	-6.86	0.00	-439.02	0.00	439.02	2356.09	1178.05	3337.19	1648.11	2.16	-0.512	0.000	0.198
44.33	-53.07	-6.80	0.00	-416.13	0.00	416.13	2305.51	1152.76	3194.68	1577.73	2.53	-0.556	0.000	0.195
45.00	-52.70	-6.81	0.00	-411.60	0.00	411.60	2295.40	1147.70	3166.55	1563.84	2.61	-0.565	0.000	0.192
48.75	-50.68	-6.72	0.00	-386.08	0.00	386.08	1840.18	920.09	2532.27	1250.59	3.08	-0.614	0.000	0.198
50.00	-50.21	-6.70	0.00	-377.68	0.00	377.68	1830.15	915.08	2497.37	1233.36	3.24	-0.630	0.000	0.212
50.50	-49.83	-6.65	0.00	-374.34	0.00	374.34	1826.12	913.06	2483.45	1226.48	3.31	-0.638	0.000	0.211
55.00	-48.16	-6.58	0.00	-344.40	0.00	344.40	1789.15	894.58	2358.94	1164.99	3.94	-0.701	0.000	0.202
60.00	-46.14	-6.40	0.00	-311.51	0.00	311.51	1746.75	873.37	2222.49	1097.61	4.71	-0.770	0.000	0.192
61.00	-45.50	-6.15	0.00	-305.11	0.00	305.11	1738.10	869.05	2195.46	1084.26	4.87	-0.784	0.000	0.189
65.00	-44.11	-6.07	0.00	-280.51	0.00	280.51	1699.15	849.58	2083.60	1029.01	5.55	-0.840	0.000	0.182
69.00	-42.75	-5.98	0.00	-256.21	0.00	256.21	1648.57	824.28	1960.77	968.35	6.28	-0.894	0.000	0.174
69.00	-42.75	-5.98	0.00	-256.21	0.00	256.21	1648.57	824.28	1960.77	968.35	6.28	-0.894	0.000	0.174
70.00	-42.40	-5.99	0.00	-250.24	0.00	250.24	1635.92	817.96	1930.64	953.47	6.47	-0.908	0.000	0.288
75.00	-40.77	-5.92	0.00	-220.27	0.00	220.27	1572.70	786.35	1783.52	880.81	7.48	-1.019	0.000	0.276
80.00	-39.17	-5.82	0.00	-190.68	0.00	190.68	1509.47	754.74	1642.23	811.04	8.60	-1.127	0.000	0.261
82.83	-37.90	-5.63	0.00	-174.21	0.00	174.21	1473.69	736.84	1564.84	772.82	9.29	-1.189	0.000	0.251
85.00	-36.99	-5.46	0.00	-161.76	0.00	161.76	1446.25	723.12	1506.77	744.14	9.84	-1.236	0.000	0.243
87.00	-36.05	-5.28	0.00	-150.83	0.00	150.83	1420.96	710.48	1454.22	718.18	10.37	-1.279	0.000	0.235
89.75	-35.30	-5.20	0.00	-136.33	0.00	136.33	1386.18	693.09	1383.48	683.25	11.12	-1.335	0.000	0.225
90.00	-35.21	-5.21	0.00	-135.03	0.00	135.03	1383.02	691.51	1377.14	680.12	11.19	-1.340	0.000	0.224
93.08	-34.13	-5.13	0.00	-118.96	0.00	118.96	1099.29	549.65	1091.88	539.24	12.08	-1.401	0.000	0.252
95.00	-33.65	-5.11	0.00	-109.13	0.00	109.13	1081.51	540.75	1055.11	521.08	12.65	-1.438	0.000	0.241
100.00	-23.30	-3.85	0.00	-83.60	0.00	83.60	1030.93	515.46	958.23	473.23	14.21	-1.539	0.000	0.199
105.00	-22.19	-3.70	0.00	-64.35	0.00	64.35	980.35	490.17	866.02	427.69	15.87	-1.627	0.000	0.173
106.00	-21.94	-3.56	0.00	-59.98	0.00	59.98	970.23	485.12	848.14	418.86	16.22	-1.645	0.000	0.166
106.50	-21.45	-3.39	0.00	-58.21	0.00	58.21	965.17	482.59	839.27	414.48	16.39	-1.653	0.000	0.163
110.00	-20.76	-3.29	0.00	-46.35	0.00	46.35	929.77	464.88	778.47	384.46	17.62	-1.707	0.000	0.143
114.00	-13.87	-2.32	0.00	-33.16	0.00	33.16	889.30	444.65	711.80	351.53	19.07	-1.759	0.000	0.110
115.00	-13.70	-2.31	0.00	-30.84	0.00	30.84	879.19	439.59	695.59	343.53	19.44	-1.771	0.000	0.105
120.00	-12.87	-2.20	0.00	-19.31	0.00	19.31	828.61	414.30	617.37	304.90	21.33	-1.820	0.000	0.079
125.00	-12.08	-2.10	0.00	-8.29	0.00	8.29	778.02	389.01	543.82	268.57	23.25	-1.852	0.000	0.046
127.00	-11.73	-1.93	0.00	-3.11	0.00	3.11	757.79	378.90	515.71	254.69	24.03	-1.859	0.000	0.028
128.00	-0.37	-0.16	0.00	-0.55	0.00	0.55	747.68	373.84	501.93	247.88	24.42	-1.860	0.000	0.003
129.17	-0.09	-0.02	0.00	-0.01	0.00	0.01	735.84	367.92	486.05	240.04	24.87	-1.860	0.000	0.000
130.00	0.00	-0.01	0.00	0.00	0.00	0.00	727.44	363.72	474.93	234.55	25.20	-1.860	0.000	0.000

Seismic Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 54	

Tower Engineering Solutions

Load Case:	1.2D + 1.0E					**Iterations**	23
Gust Response Factor	1.10			**Sds**	0.25	**Ss**	0.23
Dead Load Factor	1.20	**Seismic Load Factor**	1.00	**Sd1**	0.11	**S1**	0.07
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.33	**SA**	0.04	**Seismic Importance Factor**	1.50

Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00	RB1	0.00	0.00	0.00	0.00	0.00	
1.00	RT1 RB2	178.28	0.00	0.01	0.00	2.43	
5.00		704.01	0.00	0.04	0.02	30.95	
10.00		859.53	0.01	0.06	0.03	51.55	
15.00		836.76	0.03	0.07	0.04	55.95	
20.00		813.99	0.04	0.07	0.04	57.10	
21.00	RT2 RB3	160.07	0.05	0.07	0.04	11.30	
25.00		631.16	0.07	0.07	0.04	45.63	
30.00		768.46	0.10	0.07	0.04	57.14	
35.00		745.69	0.14	0.07	0.03	57.02	
40.00		722.93	0.18	0.07	0.03	56.39	
41.00	RT3 RB4	141.85	0.19	0.06	0.02	11.08	
44.33	Bot - Section 2	466.27	0.22	0.06	0.02	36.27	
45.00		170.31	0.23	0.06	0.02	13.20	
48.75	Top - Section 1	944.16	0.27	0.05	0.02	70.35	
50.00		142.29	0.28	0.05	0.01	10.35	
50.50	Appurtenance(s)	119.90	0.29	0.05	0.01	8.62	
55.00		500.71	0.34	0.04	0.01	30.33	
60.00	Appurtenance(s)	613.32	0.40	0.02	0.01	23.36	
61.00	RT4 RB5	180.89	0.42	0.01	0.01	5.84	
65.00		413.96	0.47	-0.01	0.01	2.27	
69.00	RT5	401.82	0.53	-0.03	0.01	-9.64	
70.00		98.56	0.55	-0.03	0.01	-3.07	
75.00		481.40	0.63	-0.06	0.02	-29.92	
80.00		462.43	0.72	-0.09	0.03	-37.34	
82.83	Appurtenance(s)	346.33	0.77	-0.11	0.04	-29.42	
85.00	Appurtenance(s)	281.13	0.81	-0.11	0.06	-23.93	
87.00	Appurtenance(s)	265.07	0.85	-0.12	0.07	-21.99	
89.75	Bot - Section 3	231.64	0.90	-0.12	0.09	-17.72	
90.00		37.78	0.91	-0.12	0.09	-2.86	
93.08	Top - Section 2	458.91	0.97	-0.12	0.12	-29.12	
95.00		125.52	1.01	-0.11	0.14	-6.70	
100.00	Appurtenance(s)	3785.5	1.12	-0.06	0.20	-70.40	
105.00		301.76	1.23	0.04	0.28	8.63	
106.00	Appurtenance(s)	90.53	1.26	0.06	0.30	3.58	
106.50	Appurtenance(s)	122.04	1.27	0.08	0.31	5.52	
110.00		199.01	1.35	0.20	0.39	17.58	
114.00	Appurtenance(s)	2641.1	1.45	0.39	0.49	384.03	
115.00		53.07	1.48	0.45	0.52	8.54	
120.00		256.23	1.61	0.81	0.68	63.24	
125.00		241.05	1.75	1.31	0.89	83.48	
127.00	Appurtenance(s)	124.17	1.80	1.56	0.98	48.43	
128.00	Appurtenance(s)	3950.6	1.83	1.69	1.03	1630.59	
129.17	Appurtenance(s)	98.08	1.87	1.86	1.09	43.16	
130.00		36.44	1.89	1.98	1.14	16.76	
	Totals:	**25,204.8**				**2,668.6**	**Total Wind:** **30,137.2**

Seismic Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 55	

Tower Engineering Solutions

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

Calculated Forces

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 56	

Tower Engineering Solutions

Load Case:	1.2D + 1.0E							**Iterations**	23
Gust Response Factor	1.10			**Sds**	0.25			**Ss**	0.23
Dead Load Factor	1.20	**Seismic Load Factor**	1.00	**Sd1**	0.11			**S1**	0.07
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.33	**SA**	0.04	**Seismic Importance Factor**			1.50

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	-32.82	-2.95	0.00	-324.24	0.00	324.24	2791.94	1395.97	5010.03	2474.26		0.00	0.00	0.103
1.00	-32.58	-2.96	0.00	-321.29	0.00	321.29	2783.20	1391.60	4968.67	2453.84		0.00	-0.01	0.105
5.00	-31.63	-2.94	0.00	-309.46	0.00	309.46	2747.66	1373.83	4803.88	2372.46		0.01	-0.03	0.104
10.00	-30.48	-2.90	0.00	-294.77	0.00	294.77	2701.97	1350.99	4599.43	2271.49		0.06	-0.05	0.102
15.00	-29.36	-2.86	0.00	-280.27	0.00	280.27	2654.88	1327.44	4396.87	2171.45		0.13	-0.08	0.101
20.00	-28.26	-2.81	0.00	-265.98	0.00	265.98	2606.39	1303.19	4196.39	2072.44		0.22	-0.11	0.099
21.00	-28.04	-2.80	0.00	-263.17	0.00	263.17	2596.52	1298.26	4156.56	2052.77		0.25	-0.11	0.099
25.00	-27.19	-2.77	0.00	-251.96	0.00	251.96	2556.49	1278.25	3998.19	1974.56		0.35	-0.14	0.098
30.00	-26.14	-2.72	0.00	-238.13	0.00	238.13	2505.19	1252.60	3802.46	1877.89		0.51	-0.17	0.096
35.00	-25.13	-2.67	0.00	-224.53	0.00	224.53	2447.14	1223.57	3601.53	1778.66		0.70	-0.20	0.095
40.00	-24.14	-2.62	0.00	-211.16	0.00	211.16	2371.27	1185.63	3380.54	1669.52		0.92	-0.23	0.094
41.00	-23.95	-2.62	0.00	-208.54	0.00	208.54	2356.09	1178.05	3337.19	1648.11		0.97	-0.23	0.094
44.33	-23.31	-2.58	0.00	-199.82	0.00	199.82	2305.51	1152.76	3194.68	1577.73		1.14	-0.25	0.093
45.00	-23.08	-2.57	0.00	-198.10	0.00	198.10	2295.40	1147.70	3166.55	1563.84		1.18	-0.26	0.092
48.75	-21.86	-2.50	0.00	-188.45	0.00	188.45	1840.18	920.09	2532.27	1250.59		1.39	-0.28	0.096
50.00	-21.66	-2.49	0.00	-185.32	0.00	185.32	1830.15	915.08	2497.37	1233.36		1.47	-0.29	0.103
50.50	-21.50	-2.49	0.00	-184.07	0.00	184.07	1826.12	913.06	2483.45	1226.48		1.50	-0.29	0.103
55.00	-20.79	-2.47	0.00	-172.86	0.00	172.86	1789.15	894.58	2358.94	1164.99		1.79	-0.33	0.100
60.00	-19.94	-2.45	0.00	-160.52	0.00	160.52	1746.75	873.37	2222.49	1097.61		2.15	-0.36	0.097
61.00	-19.70	-2.45	0.00	-158.07	0.00	158.07	1738.10	869.05	2195.46	1084.26		2.23	-0.37	0.097
65.00	-19.11	-2.45	0.00	-148.29	0.00	148.29	1699.15	849.58	2083.60	1029.01		2.55	-0.40	0.094
69.00	-18.54	-2.45	0.00	-138.48	0.00	138.48	1648.57	824.28	1960.77	968.35		2.89	-0.43	0.093
69.00	-18.54	-2.45	0.00	-138.48	0.00	138.48	1648.57	824.28	1960.77	968.35		2.89	-0.43	0.093
70.00	-18.39	-2.46	0.00	-136.03	0.00	136.03	1635.92	817.96	1930.64	953.47		2.98	-0.43	0.154
75.00	-17.70	-2.48	0.00	-123.72	0.00	123.72	1572.70	786.35	1783.52	880.81		3.47	-0.49	0.152
80.00	-17.03	-2.48	0.00	-111.34	0.00	111.34	1509.47	754.74	1642.23	811.04		4.02	-0.56	0.149
82.83	-16.55	-2.49	0.00	-104.31	0.00	104.31	1473.69	736.84	1564.84	772.82		4.36	-0.59	0.146
85.00	-16.16	-2.49	0.00	-98.91	0.00	98.91	1446.25	723.12	1506.77	744.14		4.64	-0.62	0.144
87.00	-15.80	-2.50	0.00	-93.93	0.00	93.93	1420.96	710.48	1454.22	718.18		4.90	-0.65	0.142
89.75	-15.47	-2.50	0.00	-87.06	0.00	87.06	1386.18	693.09	1383.48	683.25		5.29	-0.68	0.139
90.00	-15.42	-2.50	0.00	-86.44	0.00	86.44	1383.02	691.51	1377.14	680.12		5.32	-0.69	0.138
93.08	-14.80	-2.50	0.00	-78.72	0.00	78.72	1099.29	549.65	1091.88	539.24		5.78	-0.73	0.159
95.00	-14.61	-2.51	0.00	-73.92	0.00	73.92	1081.51	540.75	1055.11	521.08		6.08	-0.75	0.155
100.00	-9.97	-2.46	0.00	-61.35	0.00	61.35	1030.93	515.46	958.23	473.23		6.90	-0.82	0.139
105.00	-9.54	-2.45	0.00	-49.04	0.00	49.04	980.35	490.17	866.02	427.69		7.80	-0.89	0.124
106.00	-9.42	-2.45	0.00	-46.59	0.00	46.59	970.23	485.12	848.14	418.86		7.99	-0.90	0.121
106.50	-9.27	-2.45	0.00	-45.36	0.00	45.36	965.17	482.59	839.27	414.48		8.08	-0.91	0.119
110.00	-8.99	-2.43	0.00	-36.80	0.00	36.80	929.77	464.88	778.47	384.46		8.76	-0.95	0.105
114.00	-5.78	-1.99	0.00	-27.08	0.00	27.08	889.30	444.65	711.80	351.53		9.58	-0.99	0.084
115.00	-5.71	-1.99	0.00	-25.08	0.00	25.08	879.19	439.59	695.59	343.53		9.79	-1.00	0.080
120.00	-5.37	-1.92	0.00	-15.14	0.00	15.14	828.61	414.30	617.37	304.90		10.86	-1.04	0.056
125.00	-5.04	-1.83	0.00	-5.54	0.00	5.54	778.02	389.01	543.82	268.57		11.96	-1.06	0.027
127.00	-4.88	-1.78	0.00	-1.87	0.00	1.87	757.79	378.90	515.71	254.69		12.41	-1.07	0.014
128.00	-0.16	-0.06	0.00	-0.09	0.00	0.09	747.68	373.84	501.93	247.88		12.63	-1.07	0.001
129.17	-0.04	-0.02	0.00	-0.01	0.00	0.01	735.84	367.92	486.05	240.04		12.90	-1.07	0.000
130.00	0.00	-0.02	0.00	0.00	0.00	0.00	727.44	363.72	474.93	234.55		13.08	-1.07	0.000

Calculated Forces

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 57	

Seismic Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 58	

Tower Engineering Solutions

Load Case:	0.9D + 1.0E					**Iterations**	23
Gust Response Factor	1.10			**Sds**	0.25	**Ss**	0.23
Dead Load Factor	0.90	**Seismic Load Factor**	1.00	**Sd1**	0.11	**S1**	0.07
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.33	**SA**	0.04	**Seismic Importance Factor**	1.50

Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00	RB1	0.00	0.00	0.00	0.00	0.00	
1.00	RT1 RB2	178.28	0.00	0.01	0.00	2.43	
5.00		704.01	0.00	0.04	0.02	30.95	
10.00		859.53	0.01	0.06	0.03	51.55	
15.00		836.76	0.03	0.07	0.04	55.95	
20.00		813.99	0.04	0.07	0.04	57.10	
21.00	RT2 RB3	160.07	0.05	0.07	0.04	11.30	
25.00		631.16	0.07	0.07	0.04	45.63	
30.00		768.46	0.10	0.07	0.04	57.14	
35.00		745.69	0.14	0.07	0.03	57.02	
40.00		722.93	0.18	0.07	0.03	56.39	
41.00	RT3 RB4	141.85	0.19	0.06	0.02	11.08	
44.33	Bot - Section 2	466.27	0.22	0.06	0.02	36.27	
45.00		170.31	0.23	0.06	0.02	13.20	
48.75	Top - Section 1	944.16	0.27	0.05	0.02	70.35	
50.00		142.29	0.28	0.05	0.01	10.35	
50.50	Appurtenance(s)	119.90	0.29	0.05	0.01	8.62	
55.00		500.71	0.34	0.04	0.01	30.33	
60.00	Appurtenance(s)	613.32	0.40	0.02	0.01	23.36	
61.00	RT4 RB5	180.89	0.42	0.01	0.01	5.84	
65.00		413.96	0.47	-0.01	0.01	2.27	
69.00	RT5	401.82	0.53	-0.03	0.01	-9.64	
70.00		98.56	0.55	-0.03	0.01	-3.07	
75.00		481.40	0.63	-0.06	0.02	-29.92	
80.00		462.43	0.72	-0.09	0.03	-37.34	
82.83	Appurtenance(s)	346.33	0.77	-0.11	0.04	-29.42	
85.00	Appurtenance(s)	281.13	0.81	-0.11	0.06	-23.93	
87.00	Appurtenance(s)	265.07	0.85	-0.12	0.07	-21.99	
89.75	Bot - Section 3	231.64	0.90	-0.12	0.09	-17.72	
90.00		37.78	0.91	-0.12	0.09	-2.86	
93.08	Top - Section 2	458.91	0.97	-0.12	0.12	-29.12	
95.00		125.52	1.01	-0.11	0.14	-6.70	
100.00	Appurtenance(s)	3785.5	1.12	-0.06	0.20	-70.40	
105.00		301.76	1.23	0.04	0.28	8.63	
106.00	Appurtenance(s)	90.53	1.26	0.06	0.30	3.58	
106.50	Appurtenance(s)	122.04	1.27	0.08	0.31	5.52	
110.00		199.01	1.35	0.20	0.39	17.58	
114.00	Appurtenance(s)	2641.1	1.45	0.39	0.49	384.03	
115.00		53.07	1.48	0.45	0.52	8.54	
120.00		256.23	1.61	0.81	0.68	63.24	
125.00		241.05	1.75	1.31	0.89	83.48	
127.00	Appurtenance(s)	124.17	1.80	1.56	0.98	48.43	
128.00	Appurtenance(s)	3950.6	1.83	1.69	1.03	1630.59	
129.17	Appurtenance(s)	98.08	1.87	1.86	1.09	43.16	
130.00		36.44	1.89	1.98	1.14	16.76	
	Totals:	**25,204.8**				**2,668.6**	**Total Wind:** **30,137.2**

Seismic Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 59	

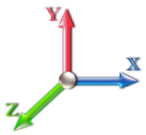
Tower Engineering Solutions

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

Calculated Forces

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 60	

Tower Engineering Solutions

Load Case:	0.9D + 1.0E							**Iterations**	23
Gust Response Factor	1.10			**Sds**	0.25			**Ss**	0.23
Dead Load Factor	0.90	**Seismic Load Factor**	1.00	**Sd1**	0.11			**S1**	0.07
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.33	**SA**	0.04			**Seismic Importance Factor**	1.50

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	-24.61	-2.95	0.00	-320.46	0.00	320.46	2791.94	1395.97	5010.03	2474.26		0.00	0.00	0.100
1.00	-24.43	-2.95	0.00	-317.51	0.00	317.51	2783.20	1391.60	4968.67	2453.84		0.00	-0.01	0.102
5.00	-23.73	-2.93	0.00	-305.69	0.00	305.69	2747.66	1373.83	4803.88	2372.46		0.01	-0.03	0.100
10.00	-22.86	-2.89	0.00	-291.02	0.00	291.02	2701.97	1350.99	4599.43	2271.49		0.06	-0.05	0.099
15.00	-22.02	-2.84	0.00	-276.57	0.00	276.57	2654.88	1327.44	4396.87	2171.45		0.12	-0.08	0.098
20.00	-21.19	-2.79	0.00	-262.34	0.00	262.34	2606.39	1303.19	4196.39	2072.44		0.22	-0.11	0.096
21.00	-21.03	-2.79	0.00	-259.55	0.00	259.55	2596.52	1298.26	4156.56	2052.77		0.25	-0.11	0.096
25.00	-20.39	-2.75	0.00	-248.41	0.00	248.41	2556.49	1278.25	3998.19	1974.56		0.35	-0.14	0.095
30.00	-19.61	-2.70	0.00	-234.66	0.00	234.66	2505.19	1252.60	3802.46	1877.89		0.51	-0.16	0.093
35.00	-18.84	-2.65	0.00	-221.17	0.00	221.17	2447.14	1223.57	3601.53	1778.66		0.69	-0.19	0.092
40.00	-18.10	-2.60	0.00	-207.92	0.00	207.92	2371.27	1185.63	3380.54	1669.52		0.91	-0.22	0.091
41.00	-17.96	-2.59	0.00	-205.32	0.00	205.32	2356.09	1178.05	3337.19	1648.11		0.96	-0.23	0.090
44.33	-17.48	-2.55	0.00	-196.69	0.00	196.69	2305.51	1152.76	3194.68	1577.73		1.13	-0.25	0.090
45.00	-17.31	-2.54	0.00	-194.99	0.00	194.99	2295.40	1147.70	3166.55	1563.84		1.16	-0.25	0.089
48.75	-16.39	-2.47	0.00	-185.45	0.00	185.45	1840.18	920.09	2532.27	1250.59		1.37	-0.28	0.092
50.00	-16.24	-2.47	0.00	-182.36	0.00	182.36	1830.15	915.08	2497.37	1233.36		1.45	-0.29	0.099
50.50	-16.12	-2.46	0.00	-181.12	0.00	181.12	1826.12	913.06	2483.45	1226.48		1.48	-0.29	0.099
55.00	-15.59	-2.44	0.00	-170.05	0.00	170.05	1789.15	894.58	2358.94	1164.99		1.77	-0.32	0.097
60.00	-14.95	-2.41	0.00	-157.87	0.00	157.87	1746.75	873.37	2222.49	1097.61		2.12	-0.36	0.094
61.00	-14.77	-2.41	0.00	-155.45	0.00	155.45	1738.10	869.05	2195.46	1084.26		2.20	-0.36	0.093
65.00	-14.33	-2.41	0.00	-145.80	0.00	145.80	1699.15	849.58	2083.60	1029.01		2.51	-0.39	0.091
69.00	-13.90	-2.42	0.00	-136.15	0.00	136.15	1648.57	824.28	1960.77	968.35		2.85	-0.42	0.089
69.00	-13.90	-2.42	0.00	-136.15	0.00	136.15	1648.57	824.28	1960.77	968.35		2.85	-0.42	0.089
70.00	-13.79	-2.42	0.00	-133.73	0.00	133.73	1635.92	817.96	1930.64	953.47		2.94	-0.43	0.149
75.00	-13.27	-2.43	0.00	-121.62	0.00	121.62	1572.70	786.35	1783.52	880.81		3.42	-0.49	0.147
80.00	-12.77	-2.44	0.00	-109.45	0.00	109.45	1509.47	754.74	1642.23	811.04		3.96	-0.55	0.143
82.83	-12.41	-2.44	0.00	-102.55	0.00	102.55	1473.69	736.84	1564.84	772.82		4.30	-0.58	0.141
85.00	-12.12	-2.45	0.00	-97.25	0.00	97.25	1446.25	723.12	1506.77	744.14		4.57	-0.61	0.139
87.00	-11.85	-2.45	0.00	-92.36	0.00	92.36	1420.96	710.48	1454.22	718.18		4.83	-0.64	0.137
89.75	-11.59	-2.45	0.00	-85.62	0.00	85.62	1386.18	693.09	1383.48	683.25		5.21	-0.67	0.134
90.00	-11.56	-2.45	0.00	-85.01	0.00	85.01	1383.02	691.51	1377.14	680.12		5.25	-0.68	0.133
93.08	-11.10	-2.45	0.00	-77.44	0.00	77.44	1099.29	549.65	1091.88	539.24		5.69	-0.72	0.154
95.00	-10.95	-2.46	0.00	-72.74	0.00	72.74	1081.51	540.75	1055.11	521.08		5.99	-0.74	0.150
100.00	-7.47	-2.42	0.00	-60.43	0.00	60.43	1030.93	515.46	958.23	473.23		6.80	-0.81	0.135
105.00	-7.15	-2.41	0.00	-48.32	0.00	48.32	980.35	490.17	866.02	427.69		7.68	-0.87	0.120
106.00	-7.06	-2.41	0.00	-45.90	0.00	45.90	970.23	485.12	848.14	418.86		7.87	-0.89	0.117
106.50	-6.94	-2.41	0.00	-44.70	0.00	44.70	965.17	482.59	839.27	414.48		7.96	-0.89	0.115
110.00	-6.73	-2.39	0.00	-36.27	0.00	36.27	929.77	464.88	778.47	384.46		8.63	-0.94	0.102
114.00	-4.33	-1.97	0.00	-26.71	0.00	26.71	889.30	444.65	711.80	351.53		9.43	-0.98	0.081
115.00	-4.28	-1.96	0.00	-24.74	0.00	24.74	879.19	439.59	695.59	343.53		9.64	-0.99	0.077
120.00	-4.02	-1.90	0.00	-14.94	0.00	14.94	828.61	414.30	617.37	304.90		10.69	-1.02	0.054
125.00	-3.77	-1.81	0.00	-5.46	0.00	5.46	778.02	389.01	543.82	268.57		11.78	-1.05	0.025
127.00	-3.65	-1.76	0.00	-1.84	0.00	1.84	757.79	378.90	515.71	254.69		12.22	-1.05	0.012
128.00	-0.12	-0.06	0.00	-0.09	0.00	0.09	747.68	373.84	501.93	247.88		12.44	-1.05	0.001
129.17	-0.03	-0.02	0.00	-0.01	0.00	0.01	735.84	367.92	486.05	240.04		12.70	-1.05	0.000
130.00	0.00	-0.02	0.00	0.00	0.00	0.00	727.44	363.72	474.93	234.55		12.88	-1.05	0.000

Calculated Forces

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 61	

Wind Loading - Shaft

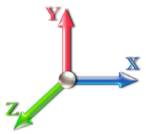
Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	III	Page: 62	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 23

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00	RB1	1.00	0.70	7.048	7.75	203.77	1.000	0.000	0.00	0.000	0.00	0.0	0.0	0.0
1.00	RT1 RB2	1.00	0.70	7.048	7.75	202.74	1.052 *	0.000	1.00	3.776	3.97	30.8	0.0	178.3
5.00		1.00	0.70	7.048	7.75	198.62	1.057 *	0.000	4.00	14.911	15.76	122.2	0.0	704.0
10.00		1.00	0.70	7.048	7.75	193.48	1.065 *	0.000	5.00	18.209	19.40	150.4	0.0	859.5
15.00		1.00	0.70	7.048	7.75	188.33	1.075 *	0.000	5.00	17.731	19.06	147.8	0.0	836.8
20.00		1.00	0.70	7.048	7.75	183.18	1.085 *	0.000	5.00	17.253	18.73	145.2	0.0	814.0
21.00	RT2 RB3	1.00	0.70	7.048	7.75	182.15	1.092 *	0.000	1.00	3.393	3.71	28.7	0.0	160.1
25.00		1.00	0.70	7.048	7.75	178.04	1.098 *	0.000	4.00	13.382	14.69	113.9	0.0	631.2
30.00		1.00	0.70	7.054	7.76	172.96	1.108 *	0.000	5.00	16.297	18.06	140.1	0.0	768.5
35.00		1.00	0.73	7.372	8.11	171.55	1.120 *	0.000	5.00	15.819	17.72	143.7	0.0	745.7
40.00		1.00	0.76	7.658	8.42	169.49	1.133 *	0.000	5.00	15.341	17.39	146.5	0.0	722.9
41.00	RT3 RB4	1.00	0.77	7.712	8.48	169.01	1.142 *	0.000	1.00	3.011	3.44	29.2	0.0	141.9
44.33	Bot - Section 2	1.00	0.78	7.887	8.68	167.28	1.148 *	0.000	3.33	9.898	11.36	98.6	0.0	466.3
45.00		1.00	0.79	7.920	8.71	166.91	1.154 *	0.000	0.67	1.990	2.30	20.0	0.0	170.3
48.75	Top - Section 1	1.00	0.80	8.103	8.91	164.69	1.160 *	0.000	3.75	11.036	12.81	114.1	0.0	944.2
50.00		1.00	0.81	8.162	8.98	167.03	1.159 *	0.000	1.25	3.619	4.20	37.7	0.0	142.3
50.50	Appurtenance(s)	1.00	0.81	8.186	9.00	166.71	1.162 *	0.000	0.50	1.439	1.67	15.1	0.0	56.6
55.00		1.00	0.83	8.388	9.23	163.70	1.170 *	0.000	4.50	12.737	14.90	137.5	0.0	500.7
60.00	Appurtenance(s)	1.00	0.85	8.599	9.46	160.06	1.185 *	0.000	5.00	13.698	16.24	153.6	0.0	538.3
61.00	RT4 RB5	1.00	0.86	8.639	9.50	159.30	1.196 *	0.000	1.00	2.682	3.21	30.5	0.0	105.4
65.00		1.00	0.87	8.798	9.68	156.15	1.205 *	0.000	4.00	10.538	12.70	122.9	0.0	414.0
69.00	RT5	1.00	0.89	8.949	9.84	152.85	1.220 *	0.000	4.00	10.232	12.48	122.9	0.0	401.8
70.00		1.00	0.89	8.986	9.88	152.00	1.230 *	0.000	1.00	2.510	3.09	30.5	0.0	98.6
75.00		1.00	0.91	9.165	10.08	147.64	1.242 *	0.000	5.00	12.264	15.24	153.6	0.0	481.4
80.00		1.00	0.93	9.335	10.27	143.09	1.264 *	0.000	5.00	11.786	14.90	153.0	0.0	462.4
82.83	Appurtenance(s)	1.00	0.94	9.429	10.37	140.43	1.283 *	0.000	2.83	6.459	8.29	85.9	0.0	253.3
85.00	Appurtenance(s)	1.00	0.94	9.499	10.45	138.36	1.295 *	0.000	2.17	4.849	6.28	65.6	0.0	190.1
87.00	Appurtenance(s)	1.00	0.95	9.562	10.52	136.42	1.200 *	0.000	2.00	4.389	5.27	55.4	0.0	172.1
89.75	Bot - Section 3	1.00	0.96	9.647	10.61	133.71	1.200 *	0.000	2.75	5.911	7.09	75.3	0.0	231.6
90.00		1.00	0.96	9.655	10.62	133.47	1.200 *	0.000	0.25	0.541	0.65	6.9	0.0	37.8
93.08	Top - Section 2	1.00	0.97	9.748	10.72	130.38	1.200 *	0.000	3.08	6.573	7.89	84.6	0.0	458.9
95.00		1.00	0.97	9.805	10.79	131.17	1.200 *	0.000	1.92	3.995	4.79	51.7	0.0	125.5
100.00	Appurtenance(s)	1.00	0.99	9.950	10.94	126.02	1.200 *	0.000	5.00	10.090	12.11	132.5	0.0	316.9
105.00		1.00	1.00	10.090	11.10	120.74	1.200 *	0.000	5.00	9.612	11.53	128.0	0.0	301.8
106.00	Appurtenance(s)	1.00	1.00	10.117	11.13	119.67	1.200 *	0.000	1.00	1.865	2.24	24.9	0.0	58.5
106.50	Appurtenance(s)	1.00	1.01	10.131	11.14	119.14	1.200 *	0.000	0.50	0.925	1.11	12.4	0.0	29.0
110.00		1.00	1.02	10.225	11.25	115.35	1.200 *	0.000	3.50	6.343	7.61	85.6	0.0	199.0
114.00	Appurtenance(s)	1.00	1.03	10.330	11.36	110.95	1.200 *	0.000	4.00	6.963	8.36	94.9	0.0	218.3
115.00		1.00	1.03	10.355	11.39	109.84	1.028 *	0.000	1.00	1.693	1.74	19.8	0.0	53.1
120.00		1.00	1.04	10.482	11.53	104.24	1.039 *	0.000	5.00	8.178	8.50	98.0	0.0	256.2
125.00		1.00	1.05	10.605	11.67	98.53	1.060 *	0.000	5.00	7.700	8.16	95.2	0.0	241.0
127.00	Appurtenance(s)	1.00	1.06	10.653	11.72	96.23	1.077 *	0.000	2.00	2.946	3.17	37.2	0.0	92.2
128.00	Appurtenance(s)	1.00	1.06	10.677	11.74	95.07	1.084 *	0.000	1.00	1.444	1.57	18.4	0.0	45.2
129.17	Appurtenance(s)	1.00	1.06	10.705	11.78	93.71	1.000	0.000	1.17	1.666	1.67	19.6	0.0	52.1
130.00		1.00	1.07	10.725	11.80	92.74	1.000	0.000	0.83	1.166	1.17	13.8	0.0	36.4
								Totals:	**130.00**			**3,594.0**		**14,714.1**

* Cf Adjusted by Linear Load Ra Effect

Discrete Appurtenance Forces

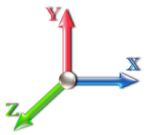
Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	III	Page: 63	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 23

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	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	129.17	Pipe Mount	1	10.705	11.775	1.00	1.00	2.63	40.00	0.000	0.000	30.97	0.00	0.00
2	129.17	COL51-160	1	10.864	11.950	1.00	1.00	1.80	6.00	0.000	6.830	21.51	0.00	146.91
3	128.00	RT4401-48A (RRH only)	3	10.748	11.823	0.38	0.75	1.11	55.80	0.000	3.000	13.17	0.00	39.50
4	128.00	(3) 12.5' - 2.5" Horizontal	1	10.677	11.745	1.00	1.00	7.19	217.50	0.000	0.000	84.42	0.00	0.00
5	128.00	Support Bracing Kit	1	10.677	11.745	1.00	1.00	5.33	146.00	0.000	0.000	62.60	0.00	0.00
6	128.00	RRFDC-3315-PF-48	2	10.677	11.745	0.75	0.75	6.09	64.00	0.000	0.000	71.53	0.00	0.00
7	128.00	XXDWMM-12.5-65-8T	3	10.748	11.823	0.47	0.75	6.04	66.00	0.000	3.000	71.39	0.00	214.18
8	128.00	BXA-80080/4CF	3	10.748	11.823	0.57	0.75	8.21	42.90	0.000	3.000	97.04	0.00	291.13
9	128.00	B2/B66A RRH-BR049	3	10.748	11.823	0.38	0.75	2.10	253.20	0.000	3.000	24.87	0.00	74.62
10	128.00	B5/B13 RRH-BR04C	3	10.748	11.823	0.38	0.75	2.10	210.90	0.000	3.000	24.87	0.00	74.62
11	128.00	CBC78T-DS-43-2X	3	10.748	11.823	0.38	0.75	0.42	31.20	0.000	3.000	4.92	0.00	14.76
12	128.00	Platform w/ Hand Rails	1	10.677	11.745	1.00	1.00	47.00	2200.00	0.000	0.000	552.01	0.00	0.00
13	128.00	JAHH-65B-R3B	6	10.677	11.745	0.62	0.75	34.03	379.80	0.000	0.000	399.63	0.00	0.00
14	128.00	MT6407-77A	3	10.677	11.745	0.52	0.75	7.39	238.20	0.000	0.000	86.76	0.00	0.00
15	127.00	11'6" Dipole	1	10.841	11.925	1.00	1.00	5.05	32.00	0.000	8.000	60.22	0.00	481.76
16	114.00	Low Profile	1	10.330	11.362	1.00	1.00	22.00	1500.00	0.000	0.000	249.97	0.00	0.00
17	114.00	RRH 8X20-25-FEU	3	10.355	11.391	0.40	0.80	4.86	210.00	0.000	1.000	55.36	0.00	55.36
18	114.00	RRH 1900-4X45	3	10.355	11.391	0.40	0.80	3.25	180.00	0.000	1.000	37.04	0.00	37.04
19	114.00	RRH 2X50-800	3	10.277	11.305	0.40	0.80	2.88	192.00	0.000	-2.000	32.56	0.00	-65.12
20	114.00	APXVTM14-ALU-120	3	10.330	11.362	0.63	0.80	12.02	169.80	0.000	0.000	136.58	0.00	0.00
21	114.00	APXVSPP18-C-A20	3	10.330	11.362	0.66	0.80	15.98	171.00	0.000	0.000	181.53	0.00	0.00
22	106.50	Pipe Mount	1	10.131	11.144	1.00	1.00	2.63	40.00	0.000	0.000	29.31	0.00	0.00
23	106.50	VHLP3-11W-6WH/A	1	10.131	11.144	1.00	1.00	10.68	53.00	0.000	0.000	119.01	0.00	0.00
24	106.00	BA4040-41-DIN	1	10.271	11.298	1.00	1.00	5.05	32.00	0.000	5.750	57.05	0.00	328.06
25	100.00	Platform w/ Hand Rails	1	9.950	10.945	1.00	1.00	40.00	2000.00	0.000	0.000	437.80	0.00	0.00
26	100.00	Double TMA 17/21	2	9.921	10.914	0.38	0.75	0.26	22.00	0.000	-1.000	2.86	0.00	-2.86
27	100.00	E14F05P86 02	3	9.950	10.945	0.38	0.75	0.47	14.70	0.000	0.000	5.17	0.00	0.00
28	100.00	4449	3	9.921	10.914	0.38	0.75	1.86	210.00	0.000	-1.000	20.26	0.00	-20.26
29	100.00	4415	3	9.921	10.914	0.38	0.75	2.09	132.30	0.000	-1.000	22.84	0.00	-22.84
30	100.00	AIR 6449 B41	3	9.950	10.945	0.53	0.75	9.03	309.00	0.000	0.000	98.79	0.00	0.00
31	100.00	APXVAARR24_43	3	9.950	10.945	0.52	0.75	31.88	384.00	0.000	0.000	348.90	0.00	0.00
32	100.00	AIR 32 B2A/B66Aa	3	9.950	10.945	0.65	0.75	12.74	396.60	0.000	0.000	139.48	0.00	0.00
33	87.00	VHLP3-11W-6WH/A	1	9.562	10.518	1.00	1.00	10.68	53.00	0.000	0.000	112.33	0.00	0.00
34	87.00	Pipe Mount	1	9.562	10.518	1.00	1.00	2.63	40.00	0.000	0.000	27.66	0.00	0.00
35	85.00	Sidearm	1	9.499	10.448	1.00	1.00	4.15	60.00	0.000	0.000	43.36	0.00	0.00
36	85.00	18" Dipole	1	9.475	10.422	1.00	1.00	0.28	6.00	0.000	-0.750	2.92	0.00	-2.19
37	85.00	10' Omni	1	9.655	10.620	1.00	1.00	3.00	25.00	0.000	5.000	31.86	0.00	159.31
38	82.83	VHLP2-11W-6WH/A	1	9.429	10.371	1.00	1.00	10.68	53.00	0.000	0.000	110.77	0.00	0.00
39	82.83	Pipe Mount	1	9.429	10.371	1.00	1.00	2.00	40.00	0.000	0.000	20.74	0.00	0.00
40	61.00	Sidearm	1	8.639	9.503	1.00	1.00	4.15	70.00	0.000	0.000	39.44	0.00	0.00
41	61.00	48'"x30" Grid Dish	1	8.639	9.503	1.00	1.00	3.53	5.50	0.000	0.000	33.55	0.00	0.00
42	60.00	Sidearm	1	8.599	9.459	1.00	1.00	4.15	70.00	0.000	0.000	39.25	0.00	0.00
43	60.00	2' Omni	1	8.639	9.503	1.00	1.00	0.30	5.00	0.000	1.000	2.85	0.00	2.85
44	50.50	Sidearm	1	8.186	9.004	1.00	1.00	2.50	53.32	0.000	0.000	22.51	0.00	0.00
45	50.50	GPS	1	8.186	9.004	1.00	1.00	1.00	10.00	0.000	0.000	9.00	0.00	0.00
							Totals:		**10,490.72**			**4,076.67**		

Total Applied Force Summary

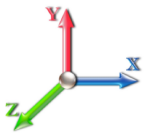
Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	III	Page: 64	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 23

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
1.00		30.80	198.28	0.00	0.00
5.00		122.17	784.02	0.00	0.00
10.00		150.37	959.53	0.00	0.00
15.00		147.78	936.76	0.00	0.00
20.00		145.19	914.00	0.00	0.00
21.00		28.73	180.07	0.00	0.00
25.00		113.87	711.16	0.00	0.00
30.00		140.12	868.46	0.00	0.00
35.00		143.71	845.70	0.00	0.00
40.00		146.48	822.93	0.00	0.00
41.00		29.16	161.85	0.00	0.00
44.33		98.57	532.94	0.00	0.00
45.00		20.00	183.64	0.00	0.00
48.75		114.15	1019.16	0.00	0.00
50.00		37.67	167.29	0.00	0.00
50.50	(2) attachments	46.57	129.90	0.00	0.00
55.00		137.48	589.99	0.00	0.00
60.00	(2) attachments	195.70	712.52	0.00	2.85
61.00	(2) attachments	103.47	200.73	0.00	0.00
65.00		122.87	489.16	0.00	0.00
69.00		122.88	477.02	0.00	0.00
70.00		30.52	117.36	0.00	0.00
75.00		153.59	575.41	0.00	0.00
80.00		153.01	556.44	0.00	0.00
82.83	(2) attachments	217.44	399.53	0.00	0.00
85.00	(3) attachments	143.76	320.82	0.00	157.12
87.00	(2) attachments	206.59	299.57	0.00	0.00
89.75		90.79	277.68	0.00	0.00
90.00		8.31	41.96	0.00	0.00
93.08		102.17	510.53	0.00	0.00
95.00		62.70	157.60	0.00	0.00
100.00	(21) attachments	1237.73	3869.24	0.00	-45.96
105.00		157.54	351.67	0.00	0.00
106.00	(1) attachments	87.88	100.51	0.00	328.06
106.50	(2) attachments	163.66	126.77	0.00	0.00
110.00		106.56	230.34	0.00	0.00
114.00	(16) attachments	812.16	2676.94	0.00	27.29
115.00		19.82	59.38	0.00	0.00
120.00		98.00	287.78	0.00	0.00
125.00		95.25	272.60	0.00	0.00
127.00	(1) attachments	97.39	136.79	0.00	481.76
128.00	(32) attachments	1511.59	3956.90	0.00	708.80
129.17	(2) attachments	72.09	98.69	0.00	146.91
130.00		13.75	36.44	0.00	0.00
	Totals:	**7,840.06**	**27,346.10**	**0.00**	**1,806.84**

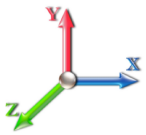
Linear Appurtenance Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 65	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 23

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
1.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	7.048	0.00	1.63
1.00	7/8" Coax	Yes	1.00	0.000	2.22	0.19	0.00	0.117	1.052	7.048	0.00	3.12
1.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	7.048	0.00	0.95
1.00	1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	7.048	0.00	0.09
1.00	1 1/4" Coax	Yes	1.00	0.000	3.10	0.26	0.00	0.117	1.052	7.048	0.00	2.64
1.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	7.048	0.00	0.51
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	7.048	0.00	0.52
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	7.048	0.00	1.04
1.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	7.048	0.00	0.51
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	7.048	0.00	0.52
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	7.048	0.00	0.52
1.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	7.048	0.00	0.51
1.00	1" Reinforcing plate	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	7.048	0.00	0.00
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	7.048	0.00	0.52
1.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.117	1.052	7.048	0.00	0.52
5.00	6x12 Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	7.048	0.00	6.51
5.00	7/8" Coax	Yes	4.00	0.000	2.22	0.74	0.00	0.119	1.057	7.048	0.00	12.48
5.00	Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	7.048	0.00	3.82
5.00	1/4" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	7.048	0.00	0.36
5.00	1 1/4" Coax	Yes	4.00	0.000	3.10	1.03	0.00	0.119	1.057	7.048	0.00	10.56
5.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	7.048	0.00	2.04
5.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	7.048	0.00	2.08
5.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	7.048	0.00	4.16
5.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	7.048	0.00	2.04
5.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	7.048	0.00	2.08
5.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	7.048	0.00	2.08
5.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	7.048	0.00	2.04
5.00	1" Reinforcing plate	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	7.048	0.00	0.00
5.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	7.048	0.00	2.08
5.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.119	1.057	7.048	0.00	2.08
10.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	7.048	0.00	8.13
10.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.122	1.065	7.048	0.00	15.60
10.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	7.048	0.00	4.77
10.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	7.048	0.00	0.45
10.00	1 1/4" Coax	Yes	5.00	0.000	3.10	1.29	0.00	0.122	1.065	7.048	0.00	13.20
10.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	7.048	0.00	2.55
10.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	7.048	0.00	2.60
10.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	7.048	0.00	5.20
10.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	7.048	0.00	2.55
10.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	7.048	0.00	2.60
10.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	7.048	0.00	2.60
10.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	7.048	0.00	2.55
10.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	7.048	0.00	0.00
10.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	7.048	0.00	2.60
10.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.122	1.065	7.048	0.00	2.60
15.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	7.048	0.00	8.13
15.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.125	1.075	7.048	0.00	15.60

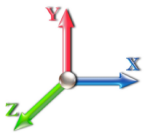
Linear Appurtenance Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 66	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 23

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
15.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	7.048	0.00	4.77
15.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	7.048	0.00	0.45
15.00	1 1/4" Coax	Yes	5.00	0.000	3.10	1.29	0.00	0.125	1.075	7.048	0.00	13.20
15.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	7.048	0.00	2.55
15.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	7.048	0.00	2.60
15.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	7.048	0.00	5.20
15.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	7.048	0.00	2.55
15.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	7.048	0.00	2.60
15.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	7.048	0.00	2.60
15.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	7.048	0.00	2.55
15.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	7.048	0.00	0.00
15.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	7.048	0.00	2.60
15.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.125	1.075	7.048	0.00	2.60
20.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	7.048	0.00	8.13
20.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.128	1.085	7.048	0.00	15.60
20.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	7.048	0.00	4.77
20.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	7.048	0.00	0.45
20.00	1 1/4" Coax	Yes	5.00	0.000	3.10	1.29	0.00	0.128	1.085	7.048	0.00	13.20
20.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	7.048	0.00	2.55
20.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	7.048	0.00	2.60
20.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	7.048	0.00	5.20
20.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	7.048	0.00	2.55
20.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	7.048	0.00	2.60
20.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	7.048	0.00	2.60
20.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	7.048	0.00	2.55
20.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	7.048	0.00	0.00
20.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	7.048	0.00	2.60
20.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.128	1.085	7.048	0.00	2.60
21.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	7.048	0.00	1.63
21.00	7/8" Coax	Yes	1.00	0.000	2.22	0.19	0.00	0.131	1.092	7.048	0.00	3.12
21.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	7.048	0.00	0.95
21.00	1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	7.048	0.00	0.09
21.00	1 1/4" Coax	Yes	1.00	0.000	3.10	0.26	0.00	0.131	1.092	7.048	0.00	2.64
21.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	7.048	0.00	0.51
21.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	7.048	0.00	0.52
21.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	7.048	0.00	1.04
21.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	7.048	0.00	0.51
21.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	7.048	0.00	0.52
21.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	7.048	0.00	0.52
21.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	7.048	0.00	0.51
21.00	1" Reinforcing plate	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	7.048	0.00	0.00
21.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	7.048	0.00	0.52
21.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.131	1.092	7.048	0.00	0.52
25.00	6x12 Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	7.048	0.00	6.51
25.00	7/8" Coax	Yes	4.00	0.000	2.22	0.74	0.00	0.133	1.098	7.048	0.00	12.48
25.00	Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	7.048	0.00	3.82
25.00	1/4" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	7.048	0.00	0.36

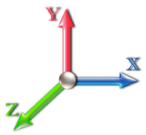
Linear Appurtenance Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 67	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 23

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
25.00	1 1/4" Coax	Yes	4.00	0.000	3.10	1.03	0.00	0.133	1.098	7.048	0.00	10.56
25.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	7.048	0.00	2.04
25.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	7.048	0.00	2.08
25.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	7.048	0.00	4.16
25.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	7.048	0.00	2.04
25.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	7.048	0.00	2.08
25.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	7.048	0.00	2.08
25.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	7.048	0.00	2.04
25.00	1" Reinforcing plate	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	7.048	0.00	0.00
25.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	7.048	0.00	2.08
25.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.133	1.098	7.048	0.00	2.08
30.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	7.054	0.00	8.13
30.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.136	1.108	7.054	0.00	15.60
30.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	7.054	0.00	4.77
30.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	7.054	0.00	0.45
30.00	1 1/4" Coax	Yes	5.00	0.000	3.10	1.29	0.00	0.136	1.108	7.054	0.00	13.20
30.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	7.054	0.00	2.55
30.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	7.054	0.00	2.60
30.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	7.054	0.00	5.20
30.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	7.054	0.00	2.55
30.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	7.054	0.00	2.60
30.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	7.054	0.00	2.60
30.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	7.054	0.00	2.55
30.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	7.054	0.00	0.00
30.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	7.054	0.00	2.60
30.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.136	1.108	7.054	0.00	2.60
35.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	7.372	0.00	8.13
35.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.140	1.120	7.372	0.00	15.60
35.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	7.372	0.00	4.77
35.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	7.372	0.00	0.45
35.00	1 1/4" Coax	Yes	5.00	0.000	3.10	1.29	0.00	0.140	1.120	7.372	0.00	13.20
35.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	7.372	0.00	2.55
35.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	7.372	0.00	2.60
35.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	7.372	0.00	5.20
35.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	7.372	0.00	2.55
35.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	7.372	0.00	2.60
35.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	7.372	0.00	2.60
35.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	7.372	0.00	2.55
35.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	7.372	0.00	0.00
35.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	7.372	0.00	2.60
35.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.140	1.120	7.372	0.00	2.60
40.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	7.658	0.00	8.13
40.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.144	1.133	7.658	0.00	15.60
40.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	7.658	0.00	4.77
40.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	7.658	0.00	0.45
40.00	1 1/4" Coax	Yes	5.00	0.000	3.10	1.29	0.00	0.144	1.133	7.658	0.00	13.20
40.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	7.658	0.00	2.55

Linear Appurtenance Segment Forces (Factored)

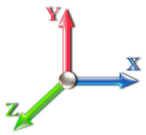
Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	III	Page: 68	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 23

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
40.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	7.658	0.00	2.60
40.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	7.658	0.00	5.20
40.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	7.658	0.00	2.55
40.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	7.658	0.00	2.60
40.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	7.658	0.00	2.60
40.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	7.658	0.00	2.55
40.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	7.658	0.00	0.00
40.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	7.658	0.00	2.60
40.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.144	1.133	7.658	0.00	2.60
41.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	7.712	0.00	1.63
41.00	7/8" Coax	Yes	1.00	0.000	2.22	0.19	0.00	0.147	1.142	7.712	0.00	3.12
41.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	7.712	0.00	0.95
41.00	1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	7.712	0.00	0.09
41.00	1 1/4" Coax	Yes	1.00	0.000	3.10	0.26	0.00	0.147	1.142	7.712	0.00	2.64
41.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	7.712	0.00	0.51
41.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	7.712	0.00	0.52
41.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	7.712	0.00	1.04
41.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	7.712	0.00	0.51
41.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	7.712	0.00	0.52
41.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	7.712	0.00	0.52
41.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	7.712	0.00	0.51
41.00	1" Reinforcing plate	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	7.712	0.00	0.00
41.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	7.712	0.00	0.52
41.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.147	1.142	7.712	0.00	0.52
44.33	6x12 Hybrid	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	7.887	0.00	5.42
44.33	7/8" Coax	Yes	3.33	0.000	2.22	0.62	0.00	0.149	1.148	7.887	0.00	10.40
44.33	Hybrid	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	7.887	0.00	3.18
44.33	1/4" Coax	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	7.887	0.00	0.30
44.33	1 1/4" Coax	Yes	3.33	0.000	3.10	0.86	0.00	0.149	1.148	7.887	0.00	8.80
44.33	EW	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	7.887	0.00	1.70
44.33	7/8" Coax	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	7.887	0.00	1.73
44.33	7/8" Coax	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	7.887	0.00	3.47
44.33	EW	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	7.887	0.00	1.70
44.33	7/8" Coax	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	7.887	0.00	1.73
44.33	7/8" Coax	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	7.887	0.00	1.73
44.33	EW	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	7.887	0.00	1.70
44.33	1" Reinforcing plate	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	7.887	0.00	0.00
44.33	7/8" Coax	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	7.887	0.00	1.73
44.33	7/8" Coax	Yes	3.33	0.000	0.00	0.00	0.00	0.149	1.148	7.887	0.00	1.73
45.00	6x12 Hybrid	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	7.920	0.00	1.08
45.00	7/8" Coax	Yes	0.67	0.000	2.22	0.12	0.00	0.151	1.154	7.920	0.00	2.08
45.00	Hybrid	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	7.920	0.00	0.64
45.00	1/4" Coax	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	7.920	0.00	0.06
45.00	1 1/4" Coax	Yes	0.67	0.000	3.10	0.17	0.00	0.151	1.154	7.920	0.00	1.76
45.00	EW	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	7.920	0.00	0.34
45.00	7/8" Coax	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	7.920	0.00	0.35
45.00	7/8" Coax	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	7.920	0.00	0.69

Linear Appurtenance Segment Forces (Factored)

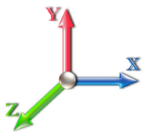
Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	III	Page: 69	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 23

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
45.00	EW	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	7.920	0.00	0.34
45.00	7/8" Coax	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	7.920	0.00	0.35
45.00	7/8" Coax	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	7.920	0.00	0.35
45.00	EW	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	7.920	0.00	0.34
45.00	1" Reinforcing plate	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	7.920	0.00	0.00
45.00	7/8" Coax	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	7.920	0.00	0.35
45.00	7/8" Coax	Yes	0.67	0.000	0.00	0.00	0.00	0.151	1.154	7.920	0.00	0.35
48.75	6x12 Hybrid	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	8.103	0.00	6.10
48.75	7/8" Coax	Yes	3.75	0.000	2.22	0.69	0.00	0.153	1.160	8.103	0.00	11.70
48.75	Hybrid	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	8.103	0.00	3.58
48.75	1/4" Coax	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	8.103	0.00	0.34
48.75	1 1/4" Coax	Yes	3.75	0.000	3.10	0.97	0.00	0.153	1.160	8.103	0.00	9.90
48.75	EW	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	8.103	0.00	1.91
48.75	7/8" Coax	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	8.103	0.00	1.95
48.75	7/8" Coax	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	8.103	0.00	3.90
48.75	EW	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	8.103	0.00	1.91
48.75	7/8" Coax	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	8.103	0.00	1.95
48.75	7/8" Coax	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	8.103	0.00	1.95
48.75	EW	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	8.103	0.00	1.91
48.75	1" Reinforcing plate	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	8.103	0.00	0.00
48.75	7/8" Coax	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	8.103	0.00	1.95
48.75	7/8" Coax	Yes	3.75	0.000	0.00	0.00	0.00	0.153	1.160	8.103	0.00	1.95
50.00	6x12 Hybrid	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	8.162	0.00	2.03
50.00	7/8" Coax	Yes	1.25	0.000	2.22	0.23	0.00	0.153	1.159	8.162	0.00	3.90
50.00	Hybrid	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	8.162	0.00	1.19
50.00	1/4" Coax	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	8.162	0.00	0.11
50.00	1 1/4" Coax	Yes	1.25	0.000	3.10	0.32	0.00	0.153	1.159	8.162	0.00	3.30
50.00	EW	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	8.162	0.00	0.64
50.00	7/8" Coax	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	8.162	0.00	0.65
50.00	7/8" Coax	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	8.162	0.00	1.30
50.00	EW	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	8.162	0.00	0.64
50.00	7/8" Coax	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	8.162	0.00	0.65
50.00	7/8" Coax	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	8.162	0.00	0.65
50.00	EW	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	8.162	0.00	0.64
50.00	1" Reinforcing plate	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	8.162	0.00	0.00
50.00	7/8" Coax	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	8.162	0.00	0.65
50.00	7/8" Coax	Yes	1.25	0.000	0.00	0.00	0.00	0.153	1.159	8.162	0.00	0.65
50.50	6x12 Hybrid	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	8.186	0.00	0.81
50.50	7/8" Coax	Yes	0.50	0.000	2.22	0.09	0.00	0.154	1.162	8.186	0.00	1.56
50.50	Hybrid	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	8.186	0.00	0.48
50.50	1/4" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	8.186	0.00	0.04
50.50	1 1/4" Coax	Yes	0.50	0.000	3.10	0.13	0.00	0.154	1.162	8.186	0.00	1.32
50.50	EW	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	8.186	0.00	0.26
50.50	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	8.186	0.00	0.26
50.50	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	8.186	0.00	0.52
50.50	EW	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	8.186	0.00	0.26
50.50	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	8.186	0.00	0.26

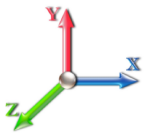
Linear Appurtenance Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 70	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 23

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
50.50	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	8.186	0.00	0.26
50.50	EW	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	8.186	0.00	0.26
50.50	1" Reinforcing plate	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	8.186	0.00	0.00
50.50	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	8.186	0.00	0.26
50.50	7/8" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.154	1.162	8.186	0.00	0.26
55.00	6x12 Hybrid	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	8.388	0.00	7.32
55.00	7/8" Coax	Yes	4.50	0.000	2.22	0.83	0.00	0.157	1.170	8.388	0.00	14.04
55.00	Hybrid	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	8.388	0.00	4.29
55.00	1/4" Coax	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	8.388	0.00	0.40
55.00	1 1/4" Coax	Yes	4.50	0.000	3.10	1.16	0.00	0.157	1.170	8.388	0.00	11.88
55.00	EW	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	8.388	0.00	2.29
55.00	7/8" Coax	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	8.388	0.00	2.34
55.00	7/8" Coax	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	8.388	0.00	4.68
55.00	EW	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	8.388	0.00	2.29
55.00	7/8" Coax	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	8.388	0.00	2.34
55.00	7/8" Coax	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	8.388	0.00	2.34
55.00	EW	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	8.388	0.00	2.29
55.00	1" Reinforcing plate	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	8.388	0.00	0.00
55.00	7/8" Coax	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	8.388	0.00	2.34
55.00	7/8" Coax	Yes	4.50	0.000	0.00	0.00	0.00	0.157	1.170	8.388	0.00	2.34
60.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	8.599	0.00	8.13
60.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.162	1.185	8.599	0.00	15.60
60.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	8.599	0.00	4.77
60.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	8.599	0.00	0.45
60.00	1 1/4" Coax	Yes	5.00	0.000	3.10	1.29	0.00	0.162	1.185	8.599	0.00	13.20
60.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	8.599	0.00	2.55
60.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	8.599	0.00	2.60
60.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	8.599	0.00	5.20
60.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	8.599	0.00	2.55
60.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	8.599	0.00	2.60
60.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	8.599	0.00	2.60
60.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	8.599	0.00	2.55
60.00	1" Reinforcing plate	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	8.599	0.00	0.00
60.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	8.599	0.00	2.60
60.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.162	1.185	8.599	0.00	2.60
61.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	8.639	0.00	1.63
61.00	7/8" Coax	Yes	1.00	0.000	2.22	0.19	0.00	0.165	1.196	8.639	0.00	3.12
61.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	8.639	0.00	0.95
61.00	1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	8.639	0.00	0.09
61.00	1 1/4" Coax	Yes	1.00	0.000	3.10	0.26	0.00	0.165	1.196	8.639	0.00	2.64
61.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	8.639	0.00	0.51
61.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	8.639	0.00	0.52
61.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	8.639	0.00	1.04
61.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	8.639	0.00	0.51
61.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	8.639	0.00	0.52
61.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	8.639	0.00	0.52
61.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	8.639	0.00	0.51

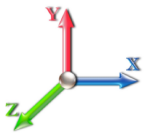
Linear Appurtenance Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 71	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 23

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
61.00	1" Reinforcing plate	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	8.639	0.00	0.00
61.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	8.639	0.00	0.52
61.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.165	1.196	8.639	0.00	0.52
65.00	6x12 Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	8.798	0.00	6.51
65.00	7/8" Coax	Yes	4.00	0.000	2.22	0.74	0.00	0.168	1.205	8.798	0.00	12.48
65.00	Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	8.798	0.00	3.82
65.00	1/4" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	8.798	0.00	0.36
65.00	1 1/4" Coax	Yes	4.00	0.000	3.10	1.03	0.00	0.168	1.205	8.798	0.00	10.56
65.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	8.798	0.00	2.04
65.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	8.798	0.00	2.08
65.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	8.798	0.00	4.16
65.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	8.798	0.00	2.04
65.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	8.798	0.00	2.08
65.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	8.798	0.00	2.08
65.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	8.798	0.00	2.04
65.00	1" Reinforcing plate	Yes	4.00	0.000	0.00	0.00	0.00	0.168	1.205	8.798	0.00	0.00
69.00	6x12 Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	8.949	0.00	6.51
69.00	7/8" Coax	Yes	4.00	0.000	2.22	0.74	0.00	0.173	1.220	8.949	0.00	12.48
69.00	Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	8.949	0.00	3.82
69.00	1/4" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	8.949	0.00	0.36
69.00	1 1/4" Coax	Yes	4.00	0.000	3.10	1.03	0.00	0.173	1.220	8.949	0.00	10.56
69.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	8.949	0.00	2.04
69.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	8.949	0.00	2.08
69.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	8.949	0.00	4.16
69.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	8.949	0.00	2.04
69.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	8.949	0.00	2.08
69.00	7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	8.949	0.00	2.08
69.00	EW	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	8.949	0.00	2.04
69.00	1" Reinforcing plate	Yes	4.00	0.000	0.00	0.00	0.00	0.173	1.220	8.949	0.00	0.00
70.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	8.986	0.00	1.63
70.00	7/8" Coax	Yes	1.00	0.000	2.22	0.19	0.00	0.177	1.230	8.986	0.00	3.12
70.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	8.986	0.00	0.95
70.00	1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	8.986	0.00	0.09
70.00	1 1/4" Coax	Yes	1.00	0.000	3.10	0.26	0.00	0.177	1.230	8.986	0.00	2.64
70.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	8.986	0.00	0.51
70.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	8.986	0.00	0.52
70.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	8.986	0.00	1.04
70.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	8.986	0.00	0.51
70.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	8.986	0.00	0.52
70.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	8.986	0.00	0.52
70.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	8.986	0.00	0.51
70.00	1" Reinforcing plate	Yes	1.00	0.000	0.00	0.00	0.00	0.177	1.230	8.986	0.00	0.00
75.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	9.165	0.00	8.13
75.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.181	1.242	9.165	0.00	15.60
75.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	9.165	0.00	4.77
75.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	9.165	0.00	0.45
75.00	1 1/4" Coax	Yes	5.00	0.000	3.10	1.29	0.00	0.181	1.242	9.165	0.00	13.20

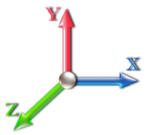
Linear Appurtenance Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 72	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 23

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
75.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	9.165	0.00	2.55
75.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	9.165	0.00	2.60
75.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	9.165	0.00	5.20
75.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	9.165	0.00	2.55
75.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	9.165	0.00	2.60
75.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	9.165	0.00	2.60
75.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.181	1.242	9.165	0.00	2.55
80.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	9.335	0.00	8.13
80.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.188	1.264	9.335	0.00	15.60
80.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	9.335	0.00	4.77
80.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	9.335	0.00	0.45
80.00	1 1/4" Coax	Yes	5.00	0.000	3.10	1.29	0.00	0.188	1.264	9.335	0.00	13.20
80.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	9.335	0.00	2.55
80.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	9.335	0.00	2.60
80.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	9.335	0.00	5.20
80.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	9.335	0.00	2.55
80.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	9.335	0.00	2.60
80.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	9.335	0.00	2.60
80.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.188	1.264	9.335	0.00	2.55
82.83	6x12 Hybrid	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	9.429	0.00	4.60
82.83	7/8" Coax	Yes	2.83	0.000	2.22	0.52	0.00	0.194	1.283	9.429	0.00	8.83
82.83	Hybrid	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	9.429	0.00	2.70
82.83	1/4" Coax	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	9.429	0.00	0.25
82.83	1 1/4" Coax	Yes	2.83	0.000	3.10	0.73	0.00	0.194	1.283	9.429	0.00	7.47
82.83	EW	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	9.429	0.00	1.44
82.83	7/8" Coax	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	9.429	0.00	1.47
82.83	7/8" Coax	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	9.429	0.00	2.94
82.83	EW	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	9.429	0.00	1.44
82.83	7/8" Coax	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	9.429	0.00	1.47
82.83	7/8" Coax	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	9.429	0.00	1.47
82.83	EW	Yes	2.83	0.000	0.00	0.00	0.00	0.194	1.283	9.429	0.00	1.44
85.00	6x12 Hybrid	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	9.499	0.00	3.53
85.00	7/8" Coax	Yes	2.17	0.000	2.22	0.40	0.00	0.198	1.295	9.499	0.00	6.77
85.00	Hybrid	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	9.499	0.00	2.07
85.00	1/4" Coax	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	9.499	0.00	0.20
85.00	1 1/4" Coax	Yes	2.17	0.000	3.10	0.56	0.00	0.198	1.295	9.499	0.00	5.73
85.00	EW	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	9.499	0.00	1.11
85.00	7/8" Coax	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	9.499	0.00	1.13
85.00	7/8" Coax	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	9.499	0.00	2.26
85.00	EW	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	9.499	0.00	1.11
85.00	7/8" Coax	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	9.499	0.00	1.13
85.00	7/8" Coax	Yes	2.17	0.000	0.00	0.00	0.00	0.198	1.295	9.499	0.00	1.13
87.00	6x12 Hybrid	Yes	2.00	0.000	0.00	0.00	0.00	0.202	0.000	9.562	0.00	3.25
87.00	7/8" Coax	Yes	2.00	1.200	2.22	0.37	0.44	0.202	0.000	9.562	4.67	6.24
87.00	Hybrid	Yes	2.00	0.000	0.00	0.00	0.00	0.202	0.000	9.562	0.00	1.91
87.00	1/4" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.202	0.000	9.562	0.00	0.18
87.00	1 1/4" Coax	Yes	2.00	1.200	3.10	0.52	0.62	0.202	0.000	9.562	6.52	5.28

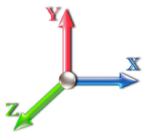
Linear Appurtenance Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 73	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 23

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
87.00	EW	Yes	2.00	0.000	0.00	0.00	0.00	0.202	0.000	9.562	0.00	1.02
87.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.202	0.000	9.562	0.00	1.04
87.00	7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.202	0.000	9.562	0.00	2.08
87.00	EW	Yes	2.00	0.000	0.00	0.00	0.00	0.202	0.000	9.562	0.00	1.02
89.75	6x12 Hybrid	Yes	2.75	0.000	0.00	0.00	0.00	0.206	0.000	9.647	0.00	4.47
89.75	7/8" Coax	Yes	2.75	1.200	2.22	0.51	0.61	0.206	0.000	9.647	6.48	8.58
89.75	Hybrid	Yes	2.75	0.000	0.00	0.00	0.00	0.206	0.000	9.647	0.00	2.62
89.75	1/4" Coax	Yes	2.75	0.000	0.00	0.00	0.00	0.206	0.000	9.647	0.00	0.25
89.75	1 1/4" Coax	Yes	2.75	1.200	3.10	0.71	0.85	0.206	0.000	9.647	9.05	7.26
89.75	EW	Yes	2.75	0.000	0.00	0.00	0.00	0.206	0.000	9.647	0.00	1.40
89.75	7/8" Coax	Yes	2.75	0.000	0.00	0.00	0.00	0.206	0.000	9.647	0.00	1.43
89.75	7/8" Coax	Yes	2.75	0.000	0.00	0.00	0.00	0.206	0.000	9.647	0.00	2.86
90.00	6x12 Hybrid	Yes	0.25	0.000	0.00	0.00	0.00	0.209	0.000	9.655	0.00	0.41
90.00	7/8" Coax	Yes	0.25	1.200	2.22	0.05	0.06	0.209	0.000	9.655	0.59	0.78
90.00	Hybrid	Yes	0.25	0.000	0.00	0.00	0.00	0.209	0.000	9.655	0.00	0.24
90.00	1/4" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.209	0.000	9.655	0.00	0.02
90.00	1 1/4" Coax	Yes	0.25	1.200	3.10	0.06	0.08	0.209	0.000	9.655	0.82	0.66
90.00	EW	Yes	0.25	0.000	0.00	0.00	0.00	0.209	0.000	9.655	0.00	0.13
90.00	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.209	0.000	9.655	0.00	0.13
90.00	7/8" Coax	Yes	0.25	0.000	0.00	0.00	0.00	0.209	0.000	9.655	0.00	0.26
93.08	6x12 Hybrid	Yes	3.08	0.000	0.00	0.00	0.00	0.212	0.000	9.748	0.00	5.02
93.08	7/8" Coax	Yes	3.08	1.200	2.22	0.57	0.68	0.212	0.000	9.748	7.34	9.62
93.08	Hybrid	Yes	3.08	0.000	0.00	0.00	0.00	0.212	0.000	9.748	0.00	2.94
93.08	1/4" Coax	Yes	3.08	0.000	0.00	0.00	0.00	0.212	0.000	9.748	0.00	0.28
93.08	1 1/4" Coax	Yes	3.08	1.200	3.10	0.80	0.96	0.212	0.000	9.748	10.25	8.14
93.08	EW	Yes	3.08	0.000	0.00	0.00	0.00	0.212	0.000	9.748	0.00	1.57
93.08	7/8" Coax	Yes	3.08	0.000	0.00	0.00	0.00	0.212	0.000	9.748	0.00	1.60
93.08	7/8" Coax	Yes	3.08	0.000	0.00	0.00	0.00	0.212	0.000	9.748	0.00	3.21
95.00	6x12 Hybrid	Yes	1.92	0.000	0.00	0.00	0.00	0.213	0.000	9.805	0.00	3.12
95.00	7/8" Coax	Yes	1.92	1.200	2.22	0.35	0.43	0.213	0.000	9.805	4.59	5.98
95.00	Hybrid	Yes	1.92	0.000	0.00	0.00	0.00	0.213	0.000	9.805	0.00	1.83
95.00	1/4" Coax	Yes	1.92	0.000	0.00	0.00	0.00	0.213	0.000	9.805	0.00	0.17
95.00	1 1/4" Coax	Yes	1.92	1.200	3.10	0.50	0.59	0.213	0.000	9.805	6.41	5.06
95.00	EW	Yes	1.92	0.000	0.00	0.00	0.00	0.213	0.000	9.805	0.00	0.98
95.00	7/8" Coax	Yes	1.92	0.000	0.00	0.00	0.00	0.213	0.000	9.805	0.00	1.00
95.00	7/8" Coax	Yes	1.92	0.000	0.00	0.00	0.00	0.213	0.000	9.805	0.00	1.99
100.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.220	0.000	9.950	0.00	8.13
100.00	7/8" Coax	Yes	5.00	1.200	2.22	0.93	1.11	0.220	0.000	9.950	12.15	15.60
100.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.220	0.000	9.950	0.00	4.77
100.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.220	0.000	9.950	0.00	0.45
100.00	1 1/4" Coax	Yes	5.00	1.200	3.10	1.29	1.55	0.220	0.000	9.950	16.96	13.20
100.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.220	0.000	9.950	0.00	2.55
100.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.220	0.000	9.950	0.00	2.60
100.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.220	0.000	9.950	0.00	5.20
105.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.231	0.000	10.090	0.00	8.13
105.00	7/8" Coax	Yes	5.00	1.200	2.22	0.93	1.11	0.231	0.000	10.090	12.32	15.60
105.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.231	0.000	10.090	0.00	4.77

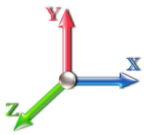
Linear Appurtenance Segment Forces (Factored)

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 74	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 23

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
105.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.231	0.000	10.090	0.00	0.45
105.00	1 1/4" Coax	Yes	5.00	1.200	3.10	1.29	1.55	0.231	0.000	10.090	17.20	13.20
105.00	EW	Yes	5.00	0.000	0.00	0.00	0.00	0.231	0.000	10.090	0.00	2.55
105.00	7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.231	0.000	10.090	0.00	2.60
106.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.238	0.000	10.117	0.00	1.63
106.00	7/8" Coax	Yes	1.00	1.200	2.22	0.19	0.22	0.238	0.000	10.117	2.47	3.12
106.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.238	0.000	10.117	0.00	0.95
106.00	1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.238	0.000	10.117	0.00	0.09
106.00	1 1/4" Coax	Yes	1.00	1.200	3.10	0.26	0.31	0.238	0.000	10.117	3.45	2.64
106.00	EW	Yes	1.00	0.000	0.00	0.00	0.00	0.238	0.000	10.117	0.00	0.51
106.00	7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.238	0.000	10.117	0.00	0.52
106.50	6x12 Hybrid	Yes	0.50	0.000	0.00	0.00	0.00	0.240	0.000	10.131	0.00	0.81
106.50	7/8" Coax	Yes	0.50	1.200	2.22	0.09	0.11	0.240	0.000	10.131	1.24	1.56
106.50	Hybrid	Yes	0.50	0.000	0.00	0.00	0.00	0.240	0.000	10.131	0.00	0.48
106.50	1/4" Coax	Yes	0.50	0.000	0.00	0.00	0.00	0.240	0.000	10.131	0.00	0.04
106.50	1 1/4" Coax	Yes	0.50	1.200	3.10	0.13	0.15	0.240	0.000	10.131	1.73	1.32
106.50	EW	Yes	0.50	0.000	0.00	0.00	0.00	0.240	0.000	10.131	0.00	0.26
110.00	6x12 Hybrid	Yes	3.50	0.000	0.00	0.00	0.00	0.245	0.000	10.225	0.00	5.69
110.00	7/8" Coax	Yes	3.50	1.200	2.22	0.65	0.78	0.245	0.000	10.225	8.74	10.92
110.00	Hybrid	Yes	3.50	0.000	0.00	0.00	0.00	0.245	0.000	10.225	0.00	3.34
110.00	1/4" Coax	Yes	3.50	0.000	0.00	0.00	0.00	0.245	0.000	10.225	0.00	0.32
110.00	1 1/4" Coax	Yes	3.50	1.200	3.10	0.90	1.08	0.245	0.000	10.225	12.20	9.24
114.00	6x12 Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.255	0.000	10.330	0.00	6.51
114.00	7/8" Coax	Yes	4.00	1.200	2.22	0.74	0.89	0.255	0.000	10.330	10.09	12.48
114.00	Hybrid	Yes	4.00	0.000	0.00	0.00	0.00	0.255	0.000	10.330	0.00	3.82
114.00	1/4" Coax	Yes	4.00	0.000	0.00	0.00	0.00	0.255	0.000	10.330	0.00	0.36
114.00	1 1/4" Coax	Yes	4.00	1.200	3.10	1.03	1.24	0.255	0.000	10.330	14.09	10.56
115.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.109	1.028	10.355	0.00	1.63
115.00	7/8" Coax	Yes	1.00	0.000	2.22	0.19	0.00	0.109	1.028	10.355	0.00	3.12
115.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.109	1.028	10.355	0.00	0.95
115.00	1/4" Coax	Yes	1.00	0.000	0.00	0.00	0.00	0.109	1.028	10.355	0.00	0.09
120.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.113	1.039	10.482	0.00	8.13
120.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.113	1.039	10.482	0.00	15.60
120.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.113	1.039	10.482	0.00	4.77
120.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.113	1.039	10.482	0.00	0.45
125.00	6x12 Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.120	1.060	10.605	0.00	8.13
125.00	7/8" Coax	Yes	5.00	0.000	2.22	0.93	0.00	0.120	1.060	10.605	0.00	15.60
125.00	Hybrid	Yes	5.00	0.000	0.00	0.00	0.00	0.120	1.060	10.605	0.00	4.77
125.00	1/4" Coax	Yes	5.00	0.000	0.00	0.00	0.00	0.120	1.060	10.605	0.00	0.45
127.00	6x12 Hybrid	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.077	10.653	0.00	3.25
127.00	7/8" Coax	Yes	2.00	0.000	2.22	0.37	0.00	0.126	1.077	10.653	0.00	6.24
127.00	Hybrid	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.077	10.653	0.00	1.91
127.00	1/4" Coax	Yes	2.00	0.000	0.00	0.00	0.00	0.126	1.077	10.653	0.00	0.18
128.00	6x12 Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.084	10.677	0.00	1.63
128.00	7/8" Coax	Yes	1.00	0.000	2.22	0.19	0.00	0.128	1.084	10.677	0.00	3.12
128.00	Hybrid	Yes	1.00	0.000	0.00	0.00	0.00	0.128	1.084	10.677	0.00	0.95

Linear Appurtenance Segment Forces (Factored)

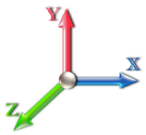
Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	III	Page: 75	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 23

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
										Totals:	**169.4**	**1,494.0**

Calculated Forces

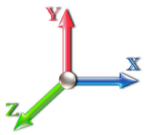
Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
Height:	130.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	III	Page: 76	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 23

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-27.35	-7.84	0.00	-721.67	0.00	721.67	2791.94	1395.97	5010.03	2474.26	0.00	0.000	0.000	0.217
1.00	-27.14	-7.82	0.00	-713.83	0.00	713.83	2783.20	1391.60	4968.67	2453.84	0.00	-0.012	0.000	0.221
5.00	-26.35	-7.73	0.00	-682.54	0.00	682.54	2747.66	1373.83	4803.88	2372.46	0.03	-0.058	0.000	0.217
10.00	-25.38	-7.60	0.00	-643.90	0.00	643.90	2701.97	1350.99	4599.43	2271.49	0.12	-0.117	0.000	0.212
15.00	-24.44	-7.48	0.00	-605.90	0.00	605.90	2654.88	1327.44	4396.87	2171.45	0.28	-0.176	0.000	0.207
20.00	-23.52	-7.34	0.00	-568.52	0.00	568.52	2606.39	1303.19	4196.39	2072.44	0.49	-0.236	0.000	0.202
21.00	-23.34	-7.33	0.00	-561.18	0.00	561.18	2596.52	1298.26	4156.56	2052.77	0.55	-0.249	0.000	0.201
25.00	-22.62	-7.23	0.00	-531.88	0.00	531.88	2556.49	1278.25	3998.19	1974.56	0.78	-0.298	0.000	0.197
30.00	-21.75	-7.11	0.00	-495.73	0.00	495.73	2505.19	1252.60	3802.46	1877.89	1.12	-0.359	0.000	0.191
35.00	-20.89	-6.98	0.00	-460.19	0.00	460.19	2447.14	1223.57	3601.53	1778.66	1.53	-0.421	0.000	0.185
40.00	-20.07	-6.84	0.00	-425.29	0.00	425.29	2371.27	1185.63	3380.54	1669.52	2.00	-0.483	0.000	0.180
41.00	-19.90	-6.82	0.00	-418.45	0.00	418.45	2356.09	1178.05	3337.19	1648.11	2.11	-0.495	0.000	0.179
44.33	-19.37	-6.73	0.00	-395.71	0.00	395.71	2305.51	1152.76	3194.68	1577.73	2.47	-0.537	0.000	0.176
45.00	-19.18	-6.71	0.00	-391.23	0.00	391.23	2295.40	1147.70	3166.55	1563.84	2.54	-0.546	0.000	0.173
48.75	-18.16	-6.60	0.00	-366.06	0.00	366.06	1840.18	920.09	2532.27	1250.59	2.99	-0.593	0.000	0.178
50.00	-17.99	-6.56	0.00	-357.81	0.00	357.81	1830.15	915.08	2497.37	1233.36	3.15	-0.608	0.000	0.190
50.50	-17.86	-6.53	0.00	-354.53	0.00	354.53	1826.12	913.06	2483.45	1226.48	3.21	-0.615	0.000	0.189
55.00	-17.26	-6.40	0.00	-325.17	0.00	325.17	1789.15	894.58	2358.94	1164.99	3.82	-0.675	0.000	0.181
60.00	-16.55	-6.21	0.00	-293.16	0.00	293.16	1746.75	873.37	2222.49	1097.61	4.56	-0.740	0.000	0.171
61.00	-16.35	-6.11	0.00	-286.96	0.00	286.96	1738.10	869.05	2195.46	1084.26	4.72	-0.754	0.000	0.168
65.00	-15.85	-5.99	0.00	-262.52	0.00	262.52	1699.15	849.58	2083.60	1029.01	5.37	-0.806	0.000	0.161
69.00	-15.37	-5.87	0.00	-238.54	0.00	238.54	1648.57	824.28	1960.77	968.35	6.07	-0.857	0.000	0.153
69.00	-15.37	-5.87	0.00	-238.54	0.00	238.54	1648.57	824.28	1960.77	968.35	6.07	-0.857	0.000	0.153
70.00	-15.25	-5.86	0.00	-232.67	0.00	232.67	1635.92	817.96	1930.64	953.47	6.25	-0.870	0.000	0.253
75.00	-14.67	-5.72	0.00	-203.38	0.00	203.38	1572.70	786.35	1783.52	880.81	7.22	-0.972	0.000	0.240
80.00	-14.11	-5.58	0.00	-174.78	0.00	174.78	1509.47	754.74	1642.23	811.04	8.29	-1.072	0.000	0.225
82.83	-13.71	-5.36	0.00	-159.00	0.00	159.00	1473.69	736.84	1564.84	772.82	8.94	-1.128	0.000	0.215
85.00	-13.39	-5.22	0.00	-147.21	0.00	147.21	1446.25	723.12	1506.77	744.14	9.47	-1.171	0.000	0.207
87.00	-13.09	-5.02	0.00	-136.76	0.00	136.76	1420.96	710.48	1454.22	718.18	9.96	-1.210	0.000	0.200
89.75	-12.81	-4.93	0.00	-122.96	0.00	122.96	1386.18	693.09	1383.48	683.25	10.68	-1.261	0.000	0.189
90.00	-12.76	-4.93	0.00	-121.73	0.00	121.73	1383.02	691.51	1377.14	680.12	10.74	-1.266	0.000	0.188
93.08	-12.25	-4.82	0.00	-106.54	0.00	106.54	1099.29	549.65	1091.88	539.24	11.58	-1.320	0.000	0.209
95.00	-12.09	-4.77	0.00	-97.29	0.00	97.29	1081.51	540.75	1055.11	521.08	12.12	-1.354	0.000	0.198
100.00	-8.25	-3.45	0.00	-73.45	0.00	73.45	1030.93	515.46	958.23	473.23	13.58	-1.442	0.000	0.163
105.00	-7.90	-3.29	0.00	-56.20	0.00	56.20	980.35	490.17	866.02	427.69	15.14	-1.520	0.000	0.140
106.00	-7.80	-3.20	0.00	-52.58	0.00	52.58	970.23	485.12	848.14	418.86	15.46	-1.536	0.000	0.134
106.50	-7.68	-3.04	0.00	-50.98	0.00	50.98	965.17	482.59	839.27	414.48	15.62	-1.543	0.000	0.131
110.00	-7.45	-2.93	0.00	-40.35	0.00	40.35	929.77	464.88	778.47	384.46	16.77	-1.590	0.000	0.113
114.00	-4.79	-2.05	0.00	-28.60	0.00	28.60	889.30	444.65	711.80	351.53	18.12	-1.635	0.000	0.087
115.00	-4.73	-2.03	0.00	-26.56	0.00	26.56	879.19	439.59	695.59	343.53	18.46	-1.645	0.000	0.083
120.00	-4.45	-1.92	0.00	-16.43	0.00	16.43	828.61	414.30	617.37	304.90	20.21	-1.687	0.000	0.059
125.00	-4.18	-1.82	0.00	-6.81	0.00	6.81	778.02	389.01	543.82	268.57	21.99	-1.714	0.000	0.031
127.00	-4.04	-1.72	0.00	-2.69	0.00	2.69	757.79	378.90	515.71	254.69	22.71	-1.719	0.000	0.016
128.00	-0.13	-0.09	0.00	-0.26	0.00	0.26	747.68	373.84	501.93	247.88	23.07	-1.721	0.000	0.001
129.17	-0.04	-0.01	0.00	-0.01	0.00	0.01	735.84	367.92	486.05	240.04	23.49	-1.721	0.000	0.000
130.00	0.00	-0.01	0.00	0.00	0.00	0.00	727.44	363.72	474.93	234.55	23.79	-1.721	0.000	0.000

Final Analysis Summary

Structure:	468697-VZW	**Code:**	EIA/TIA-222-G	1/10/2022	
Site Name:	RIDGEFIELD CT	**Exposure:**	B		
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:**	III	Page: 77	

Tower Engineering Solutions

Reactions

Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)
1.2D + 1.6W 93 mph Wind	30.2	0.00	32.80	0.00	0.00	2789.18
0.9D + 1.6W 93 mph Wind	30.1	0.00	24.60	0.00	0.00	2761.29
1.2D + 1.0Di + 1.0Wi 50 mph Wind	7.3	0.00	71.53	0.00	0.00	732.05
1.2D + 1.0E	3.0	0.00	32.82	0.00	0.00	324.24
0.9D + 1.0E	3.0	0.00	24.61	0.00	0.00	320.46
1.0D + 1.0W 60 mph Wind	7.8	0.00	27.35	0.00	0.00	721.67

Max Stresses

Load Case	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Elev (ft)	Stress Ratio
1.2D + 1.6W 93 mph Wind	-17.03	-22.68	0.00	-901.98	0.00	-901.98	1635.92	817.96	1930.64	953.47	70.00	0.957
0.9D + 1.6W 93 mph Wind	-12.46	-22.38	0.00	-886.10	0.00	-886.10	1635.92	817.96	1930.64	953.47	70.00	0.938
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-42.40	-5.99	0.00	-250.24	0.00	-250.24	1635.92	817.96	1930.64	953.47	70.00	0.288
1.2D + 1.0E	-14.80	-2.50	0.00	-78.72	0.00	-78.72	1099.29	549.65	1091.88	539.24	93.08	0.159
0.9D + 1.0E	-11.10	-2.45	0.00	-77.44	0.00	-77.44	1099.29	549.65	1091.88	539.24	93.08	0.154
1.0D + 1.0W 60 mph Wind	-15.25	-5.86	0.00	-232.67	0.00	-232.67	1635.92	817.96	1930.64	953.47	70.00	0.253

Additional Steel Summary

			Intermediate Connectors			Lower Termination				Upper Termination				Max Member			
Elev From (ft)	Elev To (ft)	Member	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)	Ratio
0.0	1.0	(3) SOL-2 1/4" William R71	237.1	2.84	25.3	221.0	25.3	9	0	260.8	25.3			221.01	459.1	468.91	0.481
1.0	21.0	(3) LNP-LP6X100-B-20C	268.3	6.44	25.3	260.8	25.3			247.5	25.3			260.78	297.8	288.75	0.903
21.0	41.0	(3) LNP-LP6X100-G-20CC	307.8	7.39	25.3	247.5	25.3			227.1	25.3			247.51	297.8	288.75	0.857
41.0	61.0	(3) LNP-LP6X100-G-20CC	377.4	9.06	25.3	227.1	25.3			212.2	25.3			233.55	297.8	288.75	0.809
61.0	69.0	(3) LNP-LP6X100-G-10CT	397.8	9.55	25.3	212.2	25.3			194.2	25.3	8	8	212.20	297.8	288.75	0.735

Base Plate Summary

Structure:	468697-VZW		**Code:**	EIA/TIA-222-G	1/10/2022
Site Name:	RIDGEFIELD CT		**Exposure:**	B	
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:**	III	Page: 78

Tower Engineering Solutions

Reactions	
Original Design	
Moment (kip-ft):	0.00
Axial (kip):	0.00
Shear (kip):	0.00
Analysis (1.2D + 1.6W)	
Moment (kip-ft):	2789.18
Axial (kip):	32.80
Shear (kip):	30.15

Base Plate	
Yield (ksi):	36.00
Width (in):	56.00
Style:	Clipped
Polygon Sides:	0.00
Clip Length (in):	6.36
Effective Len (in):	23.85
Moment (kip-in):	541.12
Allow Stress (ksi):	48.60
Applied Stress (ksi):	21.87
Stress Ratio:	0.45

Anchor Bolts	
Bolt Circle:	50.50
Number Bolts:	12.00
Bolt Type:	2.25" 18J
Bolt Diameter (in):	2.25
Yield (ksi):	75.00
Ultimate (ksi):	100.00
Arrangement:	Radial
Cluster Dist (in):	0.00
Start Angle (deg):	45.00
Compression	
Force (kip):	163.19
Allowable (kip):	260.00
Ratio:	0.65
Tension	
Force (kip):	151.27
Allowable (kip):	260.00
Ratio:	0.60

Pier Foundation Design For Monopole

			Date: 1/10/2022
Customer Name:	**Verizon**	**EIA/TIA Standard:**	EIA-222-G
Site Name:	RIDGEFIELD CT	**Structure Height (Ft.):**	130
Site Number:	468697-VZW	**Engineer Name:**	S. Hesselbein
Engr. Number:	121715	**Engineer Login ID:**	

Foundation Info Obtained from: Mapping Operation

Structure Type: Monopole

Analysis or Design? Analysis

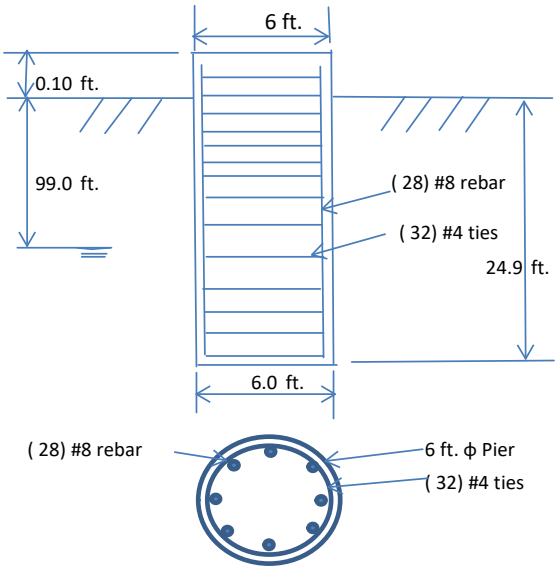
Acceptable overstress (5.0%

Base Reactions (Factored):

Axial Load (Kips):	32.8	Shear Force (Kips):	30.2
Uplift Force (Kips):	0.0	Moment (Kips-ft):	2789.2

Foundation Geometries:

Diameter of Pier (ft.):	6.0	Depth of Base B. G. S. :	24.9	ft.
Pier Height A. G. (ft.):	0.10			



Monopole Pier Foundation

Material Properties and Reabr Info:

Concrete Strength (psi):	3000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield strength:	60	ksi
Vertical Rebar Size #:	8	Tie / Stirrup Size #:	4	
Qty. of Vertical Rebars:	28	Tie Spacing:	12.0	in.
Concrete Cover (in.):	3	Concrete unit weight:	150.0	pcf

Soil Design Parameters:

Water Table B.G.S. (ft):	99.0	Unit weight of water:	62.4	psf
Ratio of Uplift/Axial Skin Friction:	1.0	Pullout failure Angle:	30	(°)

Skin Frictions are to be obtained from: Soil Report

Clay

5000

Depth of Layers (ft) Top	Bottom	γ_{soil} (pcf)	ϕ (°)	Cohesion (psf)	Ultimate Skin Friction (psf)	Ultimate Bearing (psf)	Soil Types					
0.0	3.3	115	32	0			Sand					
3.3	4.0	105	29	0	130		Sand					
4.0	6.0	120	33	0	130		Sand					
6.0	8.0	120	35	0	230		Sand					
8.0	13.0	120	33	0	320		Sand					
13.0	18.0	130	40	0	780		Sand					
18.0	23.0	130	40		1060		Sand					
23.0	25.0	130	40		1240	19410	Sand					
25.0	30.0											

Soil weight Increase Factor for bouyant soils (1.0 to 1.15): 1.1

Foundation Analysis and Design:

Uplift Strength Reduction Factor:	0.75	Soil Bearing Strength Reduction Factor:	0.75	
Total Dry Soil Volume from Conical Failure (cu. Ft.):	8760	Dry Soil Weight from Conical Failure:	903	Kips
Total Buoyant Soil Volume from Conical Failure (cu. Ft.):	0	Buoyant Soil Weight from Conical Failure (Ki	0	Kips
Total Dry Concrete Volume (cu. Ft.):	707	Total Dry Concrete Weight:	106.0	Kips
Total Buoyant Concrete Volume (cu. Ft.):	0.0	Total Buoyant Concrete Weight:	0.00	Kips
Total Effective Concrete Weight (Kips):	106.0	Total Effective Soil Weight:	903.1	Kips
Total Effective Vertical Load on Base (Kips):	66.2			

Check Soil Capacities:

					Usage	
Allowable Foundation Overturning Resistance (kips-ft.):	8178.1	>	Design Factored Moment (kips-ft):	3322	0.41	OK!
Factor of Safety of Passive Soil Resistance against Moment:	2.46	OK!				

Check the capacities of Reinforceing Concrete:

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

Reinforcing Concrete Pier:

					Usage	
Vertical Steel Rebar Area (sq. in./each):	0.79		Tie / Stirrup Area (sq. in./each):	0.20		
Calculated Moment Capacity (Mn,Kips-Ft):	3174.9	>	Design Factored Moment (Mu, K-Ft):	2884.7	0.91	OK!
Calculated Shear Capacity (Kips):	709.1	>	Design Factored Shear (Kips):	327.1	0.46	OK!
Calculated Tension Capacity (Tn, Kips):	1194.5	>	Design Factored Tension (Tu Kips):	0.0	0.00	OK!
Calculated Compression Capacity (Pn, Kips):	5369	>	Design Factored Axial Load (Pu Kips):	32.8	0.01	OK!
Moment & Axial Strength Combination:	0.91	OK!	Max. Allowable Tie/Stirrup Spacing:	12.00	in.	
Pier Reinforcement Ratio:	0.005	Reinforcement Ratio is satisfied per ACI				

PER THE INTERNATIONAL BUILDING CODE THIS STRUCTURE IS CLASSIFIED AS:

1. CONSTRUCTION TYPE II-B (TABLE 601)
2. GROUP U OCCUPANCY (SECTION 312.1 UNOCCUPIED TOWER SITE)

MODIFICATION AND DESIGN DRAWINGS FOR AN EXISTING 130' MONOPOLE TOWER

PROPOSED CARRIER: VERIZON

SITE: 468697-VZW / RIDGEFIELD CT

COORDINATES (LATITUDE: 41.280920°, LONGITUDE: -73.492890°)

CONSTRUCTION CLASS

THE RIGGING PLAN FOR THIS SITE WOULD BE A MINIMUM OF A CLASS **III** AND THE CONTRACTOR SHALL MAKE FINAL DETERMINATION

PLEASE NOTE THIS SET OF DRAWINGS IS FOR INSTALLATION AND ASSEMBLY ONLY. FABRICATION DETAIL DRAWINGS ARE NOT PROVIDED AND MUST BE COMPLETED BY THE STEEL FABRICATOR SELECTED. TES CAN PROVIDE THE FABRICATION DETAIL DRAWINGS FOR AN ADDITIONAL FEE.

SHEET	SHEET TITLE	REV
T-1	TITLE SHEET	0
BOM	BILL OF MATERIALS	0
GN-1	GENERAL NOTES	0
A-1	TOWER PROFILE	0
A-2	INSTALLATION OF NEW ANCHOR ROD DETAILS	0
A-3	REINFORCEMENT ASSEMBLY	0
A-4	REINFORCEMENT ASSEMBLY	0
A-5	REINFORCEMENT ASSEMBLY	0
A-6	REINFORCEMENT ASSEMBLY	0
A-LP-CC	SPLICE CONNECTION PLATE INSTALLATION DETAILS (TYPE CC)	0
LP-AT-PH	INSTALLATION AT HANDHOLE LOCATION DETAILS	0

NOTE:

1. THE MODIFICATION DRAWINGS ARE BASED ON THE **TES** PROJECT NO. **116942 R1**, DATED **01/07/2022**.

TES
Tower Engineering Solutions
1320 GREENWAY DRIVE, SUITE 600
IRVING, TX 75038
PHONE: (972) 483-0607

verizon

TES JOB NO:
121715

CUSTOMER SITE NO:
468697-VZW
CUSTOMER SITE NAME:
RIDGEFIELD CT
76 EAST RIDGE AVE
RIDGEFIELD, CT 06877

STATE OF CONNECTICUT
JARRYD TIBBETTS
No. 34178
LICENSED
PROFESSIONAL ENGINEER
1/14/22

DRAWN BY: DCR | CHECKED BY: SH/AD

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	DCR	01/14/22

SHEET TITLE:
TITLE SHEET

SHEET NUMBER: T-1 | REV #: 0

BILL OF MATERIALS

QUANTITY COUNTED	QUANTITY PROVIDED	PART NUMBER	DESCRIPTIONS	LENGTH	SHEET LIST (INSTALLATION)	SHEET LIST (FABRICATE)	PIECE WEIGHT (LBS)	WEIGHT (LB)	NOTES
			MATERIAL & HARDWARE						
3	3	LP6X100-B2-20C	6" x 1.00" Flat Bar, Base Section with 5.5" Offset, 20 ft. Long, Connection Type C	20'-0"	A-3	LP6X100-B2-20C	508.7	1526.1	Galvanized
4	4	LP6X100-G-20CC	6" x 1.00" Flat Bar, 20 ft. Long, Standard, Connection Type CC	20'-0"	A-4, A-5	LP6X100-G-20CC	513.0	2052.0	Galvanized
2	2	LP6X100-S-20CC	6" x 1.00" Flat Bar, 20 ft. Long with Step Bolt Brackets, Connection Type CC	20'-0"	A-5	LP6X100-S-20CC	522.6	1045.2	Galvanized
1	1	LP6X100-G-10CT	6" x 1.00" Flat Bar, 10 ft. Long, Standard, Connection Type C with Termination at top	10'-0"	A-6	LP6X100-G-10CT	299.1	299.1	Galvanized
2	2	LP6X100-S-10CT	6" x 1.00" Flat Bar, 10 ft. Long with Step Bolt Brackets, Connection Type C with Termination at top	10'-0"	A-6	LP6X100-S-10CT	304.5	609.0	Galvanized
9	9	CPL-C	Link Plate Cover, PL 3/8" x 3 1/4 "x 1'- 6 13/16", A572, Grade 50	---	A-4, A-5, A-6	F-C	6.6	59.4	Galvanized
3	3	R71-14	Williams 1 3/4" Dia. All-thread Rod (150 ksi) X 12 Ft. Long	12.00	A-2	---	108.7	326.2	Galvanized
6	6	R73-14	Williams 1 3/4" Dia. R73 Hex Nuts	---	A-2	---	---		Galvanized
6	6	PLW-2	PL 1 1/4" X 3 1/2" FLAT WASHER, A572 Grade 65	---	A-2	F-A	2.3	13.5	Galvanized
50	53	STEP BOLT	Step Bolt 5/8" Dia x 8 1/4" Long	---	A-5, A-6	F-A	0.75	39.8	Galvanized
144	152	HB16-2	Lindapter 5/8" Type HB Hollo-Bolt (HCF, M16x100)	---	A-3 TO A-6	---	---	---	Galvanized
18	20	HB20-3	Lindapter 3/4" Type HB Hollo-Bolt (HCF, M20x150)	---	A-4 TO A-6	---	---	---	Galvanized
6	8	SHIM-M20-3	1/8" Thick Shim For HB20-3 Hollo-Bolt	---	A-1	F-C	0.3	1.9	Galvanized
3	5	SHIM-M16-1	1/4" Thick Shim For HB16-2 Hollo-Bolt	---	A-1	F-C	0.3	1.4	Galvanized
3	5	SHIM-M16-2	3/16" Thick Shim For HB16-2 Hollo-Bolt	---	A-1	F-C	0.2	1.1	Galvanized
			Following Items are Non-standard Parts						
1	1	CHGPS	2' CHAIN MOUNT FOR GPS ANTENNA (SITE PRO 1 OR EQUIV.)	---	A-1	---	---	---	Galvanized
2	2	---	LANCO /HENRY 287 WHITE ACRYLIC ELASTOMERIC COATING AND SEALER OR EQUIV (GALLON)	---	A-1	---			PROVIDED BY CONTRACTOR

ALL APLXXXX, LPXXXX AND RLPXXXX ARE PATENTED PRODUCTS AND CANNOT BE FABRICATED BY THIRD PARTIES. THESE PARTS ARE AVAILABLE FROM:

METROSITE, LLC.
180 IND PARK BLVD COMMERCE, GA 30529
OFFICE: (706) 335-7045
FAX: (706) 335-7056

NOTE: ALL MATERIALS, WHICH WEREN'T LISTED IN THIS SHEET, ARE ASSUMED TO BE PROVIDED BY THE CONTRACTOR.

TOTAL WEIGHT (LBS) = 5974.6

TES
Tower Engineering Solutions
1320 GREENWAY DRIVE, SUITE 600
IRVING, TX 75038
PHONE: (972) 483-0607

verizon

TES JOB NO:
121715

CUSTOMER SITE NO:
468697-VZW
CUSTOMER SITE NAME:
RIDGEFIELD CT
76 EAST RIDGE AVE
RIDGEFIELD, CT 06877

DRAWN BY: DCR | CHECKED BY: SH/AD

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	DCR	01/14/22

SHEET TITLE:
BILL OF MATERIALS

SHEET NUMBER: BOM
REV #: 0

GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH THE ANSI/TIA-222-G, ANSI/ASSP A10.48, 2018 CONNECTICUT STATE BUILDING CODE AND ANY OTHER GOVERNING BUILDING CODES AND OSHA SAFETY REGULATIONS.
2. ALL WORK INDICATED ON THE DRAWINGS SHALL BE PERFORMED BY QUALIFIED CONTRACTORS EXPERIENCED IN TELECOMMUNICATIONS TOWER, POLE AND FOUNDATION CONSTRUCTION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND FABRICATION OF ALL MISCELLANEOUS PARTS (SUCH AS SHIMS), TEMPORARY SUPPORTS, AND GUYINGS, ETC., PER ANSI/ASSP A10.48, TO COMPLETE THE ASSEMBLY AS SHOWN IN THE DRAWINGS.
4. CONTRACTOR SHALL PROCEED WITH THE INSTALLATION WORK CAREFULLY SO THE WORK WILL NOT DAMAGE ANY EXISTING CABLE, EQUIPMENT OR THE STRUCTURE.
5. THE USE OF GAS TORCH OR WELDER, ARE NOT ALLOWED ON ANY TOWER STRUCTURE WITHOUT THE CONSENT OF THE TOWER OWNER.
6. GENERALLY THE CONTRACTOR IS RESPONSIBLE TO CONDUCT AN ONSITE VISIT SURVEY OF THE JOB SITE AFTER AWARD, AND REPORT ANY ISSUES WITH THE SITE TO **TES** BEFORE PROCEEDING CONSTRUCTION.

FABRICATION

1. ALL STEEL SHALL MEET OR EXCEED THE MINIMUM STRENGTH AS SPECIFIED IN THE DRAWINGS. IF YIELD STRENGTH WAS NOT NOTED IN THE DRAWINGS, CONTRACTORS SHALL CONTACT TES FOR DIRECTION.
2. ALL FIELD CUT EDGES SHALL BE GROUND SMOOTH. ALL FIELD CUT AND DRILLED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINGA COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

WELDING

1. ALL WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS AND IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNO. (E70XX UNLESS NOTED OTHERWISE).
2. PRIOR TO FIELD WELDING GALVANIZED MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING APPROX. 0.5" BEYOND THE PROPOSED FIELD WELD SURFACES.
3. ALL WELDS SHALL BE INSPECTED VISUALLY. A MINIMUM OF 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. 100% OF WELDS SHALL BE INSPECTED IF DEFECTS ARE FOUND.
4. WELD INSPECTIONS SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
5. AFTER INSPECTION, ALL FIELD WELDED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINGA COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

BOLTED ASSEMBLIES AND TIGHTENING OF CONNECTIONS

1. ALL HIGH STRENGTH BOLTS SHALL CONFORM TO THE PROVISIONS OF THE SPECIFICATIONS FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS AS APPROVED BY THE RCSC.
2. FLANGE BOLTS SHALL BE TIGHTENED BY THE AISC "TURN-OF-THE-NUT" METHOD. THE FOLLOWING TABLE SHOULD BE USED FOR THE "TURN-OF-THE-NUT" TIGHTENING.
3. SPLICE BOLTS AND ALL OTHER BOLTS IN BEARING TYPE CONNECTIONS SHALL BE TIGHTENED TO A SNUG-TIGHT CONDITION.
4. THE SNUG-TIGHT CONDITION IS DEFINED AS THE TIGHTNESS ATTAINED BY EITHER A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF AN IRONWORKER WITH AN ORDINARY SPUD WRENCH TO BRING THE CONNECTED PLIES INTO FIRM CONTACT.
5. HB HOLLO-BOLT SHALL BE INSTALLED PER ICC ESR-3330 INSTRUCTIONS.

VERIFICATION AND INSPECTION

1. IF APPLICABLE, VERIFICATION INSPECTION TO BE PERFORMED SHALL BE IN ACCORDANCE TO IBC-2015 SECTION 1705 - FOR STEEL CONSTRUCTION & TABLE 1705.3 FOR CONCRETE CONSTRUCTION.

POST INSTALLED EPOXY INJECTED ANCHOR BOLTS:

1. CONCRETE MUST BE A MINIMUM OF 28 DAYS OLD.
2. FOLLOW MANUFACTURER'S REQUIREMENTS FOR CURE TIME VS. AMBIENT TEMPERATURE.
3. DRILL HOLE TO REQUIRED DIAMETER AND DEPTH. ALL WATER, DIRT, OIL, DEBRIS, GREASE OR DUST MUST BE REMOVED FROM EACH CORE HOLE. FOLLOW MANUFACTURER'S RECOMMENDATION FOR CORRECT TYPE OF CORE BIT. AVOID DAMAGING EXISTING REINFORCING STEEL OR OTHER EMBEDDED ITEMS. NOTIFY TES ENGINEERING IF VOIDS IN THE CONCRETE, REINFORCING STEEL OR OTHER EMBEDDED ITEMS ARE ENCOUNTERED. STOP CORING IMMEDIATELY IF THIS OCCURS.
4. A HOLE ROUGHENING DEVICE FROM EITHER HILTI OR ALLFASTENERS SHALL BE USED WITH ALL HOLES. FOLLOW ALL MANUFACTURER'S RECOMMENDED CORING AND INSTALLATION INSTRUCTIONS.
5. AFTER CORING AND ROUGHENING, FLUSH EACH HOLE WITH RUNNING WATER TO REMOVE ANY SLURRY OR DEBRIS. REMOVE ALL WATER FROM THE HOLE BY MECHANICAL PUMPING.
6. BRUSH EACH HOLE WITH AN APPROPRIATE SIZED NYLON BRUSH AND FLUSH WITH RUNNING WATER A SECOND TIME. REMOVE ALL WATER FROM THE HOLE.
7. AFTER THE SECOND WATER FLUSH BRUSH THE HOLE AGAIN WITH THE APPROPRIATE SIZED NYLON BRUSH.
8. BLOW EACH HOLE WITH COMPRESSED AIR TWO TIMES MINIMUM.
9. CONFIRM THAT EACH HOLE IS PROPERLY ROUGHED AND DRY.
10. NO EPOXY INJECTION SHALL TAKE PLACE IN RAINY CONDITIONS.
11. EPOXY SHOULD BE VISIBLE AT THE TOP OF THE CORE HOLE AFTER INSTALLATION.
12. CONTRACTOR TO SUPPLY ONE PHOTO OF EACH ROUGHED AND CLEANED HOLE IN CLOSEOUT PHOTO PACKAGE.

TABLE 8.2 NUT ROTATION FROM SNUG-TIGHT CONDITION FOR TURN-OF-NUT PRETENSIONING [a,b]

BOLT LENGTH [c]	DISPOSITION OF OUTER FACE OF BOLTED PARTS		
	BOTH FACES NORMAL TO BOLT AXIS	ONE FACE NORMAL TO BOLT AXIS, OTHER SLOPED NOT MORE THAN 1:20 [d]	BOTH FACES SLOPED NOT MORE THAN 1:20 FROM NORMAL TO BOLT AXIS [d]
NOT MORE THAN $4d_b$	1/3 TURN	1/2 TURN	2/3 TURN
MORE THAN $4d_b$ BUT NOT MORE THAN $8d_b$	1/2 TURN	2/3 TURN	5/6 TURN
MORE THAN $8d_b$ BUT NOT MORE THAN $12d_b$	2/3 TURN	5/6 TURN	1 TURN

[a] NUT ROTATION IS RELATIVE TO BOLT REGARDLESS OF THE ELEMENT (NUT OR BOLT) BEING TURNED. FOR REQUIRED NUT ROTATIONS OF 1/2 TURN AND LESS, THE TOLERANCE IS PLUS OR MINUS 30 DEGREES; FOR REQUIRED NUT ROTATIONS OF 2/3 TURN AND MORE, THE TOLERANCE IS PLUS OR MINUS 45 DEGREES.

[b] APPLICABLE ONLY TO JOINTS IN WHICH ALL MATERIAL WITHIN THE GRIP IS STEEL.

[c] WHEN THE BOLT LENGTH EXCEEDS $12d_b$, THE REQUIRED NUT ROTATION SHALL BE DETERMINED BY ACTUAL TESTING IN A SUITABLE TENSION CALIBRATOR THAT SIMULATES THE CONDITIONS OF SOLIDLY FITTING STEEL.

[d] BEVELED WASHER NOT USED.

SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS, JUNE 30, 2004
RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS

INSTALLATION TORQUE REQUIRED FOR HOLLO BOLTS AND AJAX BOLTS:

1. HB12 HOLLO BOLT: 59 FT-LBS
2. HB16 HOLLO BOLT: 140 FT-LBS
3. HB20 HOLLO BOLT: 221 FT-LBS
4. M20 AJAX BOLT: 280 FT-LBS.

FIELD HOT WORK PLAN NOTES:

FOLLOWING GUIDELINES SHALL BE COMPLIED WITH:

1. CONTRACTOR'S RESPONSIBILITY TO COMPLETE A HOT WORK PLAN IF AWARDED PER CUSTOMER SPECIFICATIONS GUIDELINES FOR WELDING, CUTTING & SPARK PRODUCING WORK.
2. HAVE A FIRE PLAN APPROVED BY THE CUSTOMER AND THEIR SAFETY MANAGEMENT DEPT.
3. CONTRACTOR MUST OBTAIN THE CONTACT INFO OF THE LOCAL FIRE DEPARTMENT AND THE 911 ADDRESS OF THE TOWER SITE BEFORE CONSTRUCTION.
4. CONTRACTOR SHALL MAKE SURE THAT CELL PHONE COVERAGE IS AVAILABLE IN THE TOWER SITE. IF CELL COVERAGE IS NOT AVAILABLE, AN IMMEDIATE AVAILABLE MEANS OF DIRECT COMMUNICATION WITH THE FIRE DEPARTMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION START.
5. ALL CONSTRUCTION SHALL BE PERFORMED UNDER WIND SPEED LESS THAN 10 MPH ON THE GROUND LEVEL. IF WIND SPEED INCREASE, CONTRACTOR MUST DETERMINE IF CONSTRUCTION SHALL BE DISCONTINUED.
6. FIRE SUPPRESSION EQUIPMENT MUST BE MADE AVAILABLE ON SITE AND READY TO USE.
7. CONTRACTOR SHALL ASSIGN A FIRE WATCHER TO PERFORM FIRE-FIGHTING DUTIES.
8. ALL WELDERS SHALL BE AWS OR STATE CERTIFIED. THEY MUST ALSO BE EXPERIENCED IN WELDING ON GALVANIZED MATERIALS.
9. IF IT IS POSSIBLE, ALL EXISTING COAX NEAR WELDING AREA SHALL BE TEMPORARILY MOVED AWAY FROM THE WELDING AREA BEFORE WELDING THE PLATES.
10. PLEASE REPORT ANY FIELD ISSUE TO TES @ 972-483-0607.

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verizon

TES JOB NO: 121715

CUSTOMER SITE NO: 468697-VZW
CUSTOMER SITE NAME: RIDGEFIELD CT
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RIDGEFIELD, CT 06877

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REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	DCR	01/14/22

SHEET TITLE: GENERAL NOTES

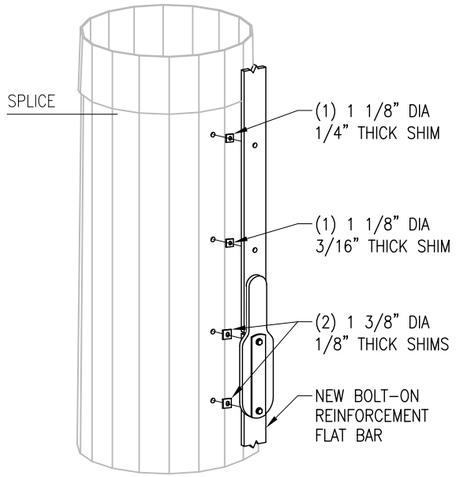
SHEET NUMBER: GN-1
REV #: 0

NOTES:

1. TEMPORARILY RELOCATE ANY EXISTING COAX ATTACHED TO THE MONOPOLE AND ANY OTHER MEMBERS WHERE OBSTRUCTION WITH THE PROPOSED MODIFICATION MAY OCCUR.
2. TEMPORARY RELOCATION OF EXISTING EQUIPMENT AROUND THE FOUNDATION MAY BE REQUIRED DURING CONSTRUCTION.

SCOPE OF WORK

1. INSTALL (3) NEW ANCHOR RODS. SEE SHEET A-2 FOR DETAILS.
2. INSTALL (3) LP6X100-B2-20C FLAT BAR REINFORCEMENTS FROM ±1'-0" TO ±21'-0" ELEV. SEE SHEET A-3 FOR DETAILS.
3. INSTALL (3) LP6X100-G-20CC FLAT BAR REINFORCEMENTS FROM ±21'-0" TO ±41'-0" ELEV. SEE SHEET A-4 FOR DETAILS.
4. INSTALL (1) LP6X100-G-20CC AND (2) LP6X100-S-20CC FLAT BAR REINFORCEMENTS FROM ±41'-0" TO ±61'-0" ELEV. SEE SHEET A-5 FOR DETAILS.
   NOTES:
   REPLACE EXISTING GPS MOUNT WITH PROVIDED CHGPS CHAIN MOUNT AT ±50'-6" ELEV. WILL BE REQUIRED TO ACCOMMODATE INSTALLATION OF NEW LINK PLATES.
5. INSTALL (1) LP6X100-G-10CT AND (2) LP6X100-S-10CT FLAT BAR REINFORCEMENTS FROM ±61'-0" TO ±71'-0" ELEV. SEE SHEET A-6 FOR DETAILS.
6. APPLY FOUNDATION COATING.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEAN-UP, REMOVAL AND DISPOSAL OF EXCESS MATERIALS USED AND REMOVED FROM THE STRUCTURE AT THE COMPLETION OF THE PROJECT.



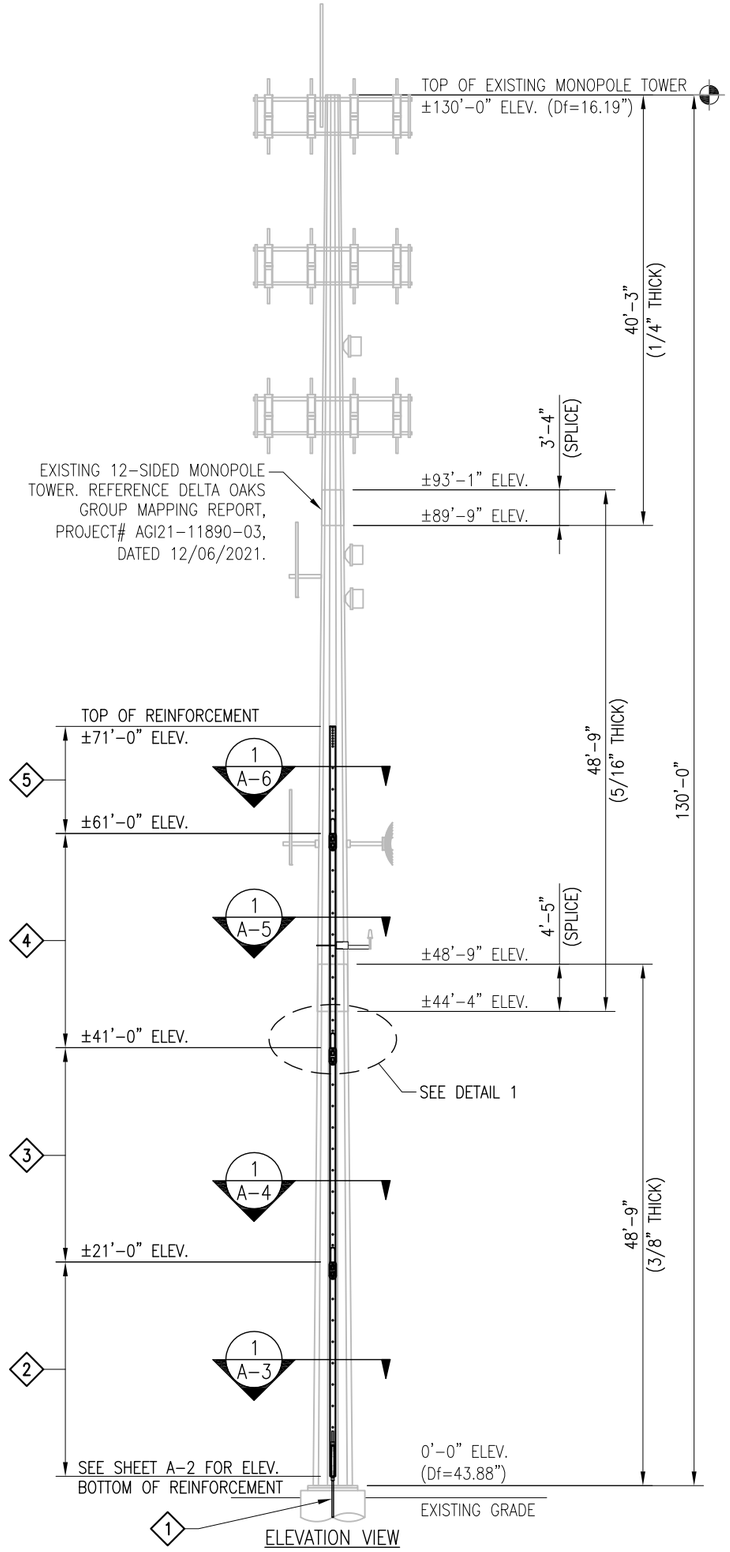
DETAIL 1
SHIMS INSTALLATION DETAIL

PHOTO 2

PHOTO 1

FOUNDATION COATING NOTES:

1. THE COATING MATERIALS SHALL BE LANCO WHITE ACRYLIC ELASTOMERIC COATING AND SEALER, OR HYDRO ARMOR COATING.
2. THE COATING CAN BE PLACED AT LEAST (2) DAYS AFTER THE PLACEMENT OF THE CONCRETE FOR FOUNDATION REINFORCEMENT, AND MINIMUM (4) DAYS FOR NEW FOUNDATION CONSTRUCTION.
3. THE CONCRETE SURFACE SHALL BE CLEAN AND DRY PRIOR TO THE APPLICATION OF THE COATING.
4. THE COATING SHALL BE APPLIED TO ALL THE SURFACES OF THE CONCRETE ABOVE THE GROUND AND 6"BELOW THE GRADE SURFACE IF APPLICABLE.
5. MINIMUM 30 MILS COATING IS REQUIRED.
6. APPLY COLD GALVANIZE AT LEAST 2'-3' ABOVE FOUNDATION.



ELEVATION VIEW

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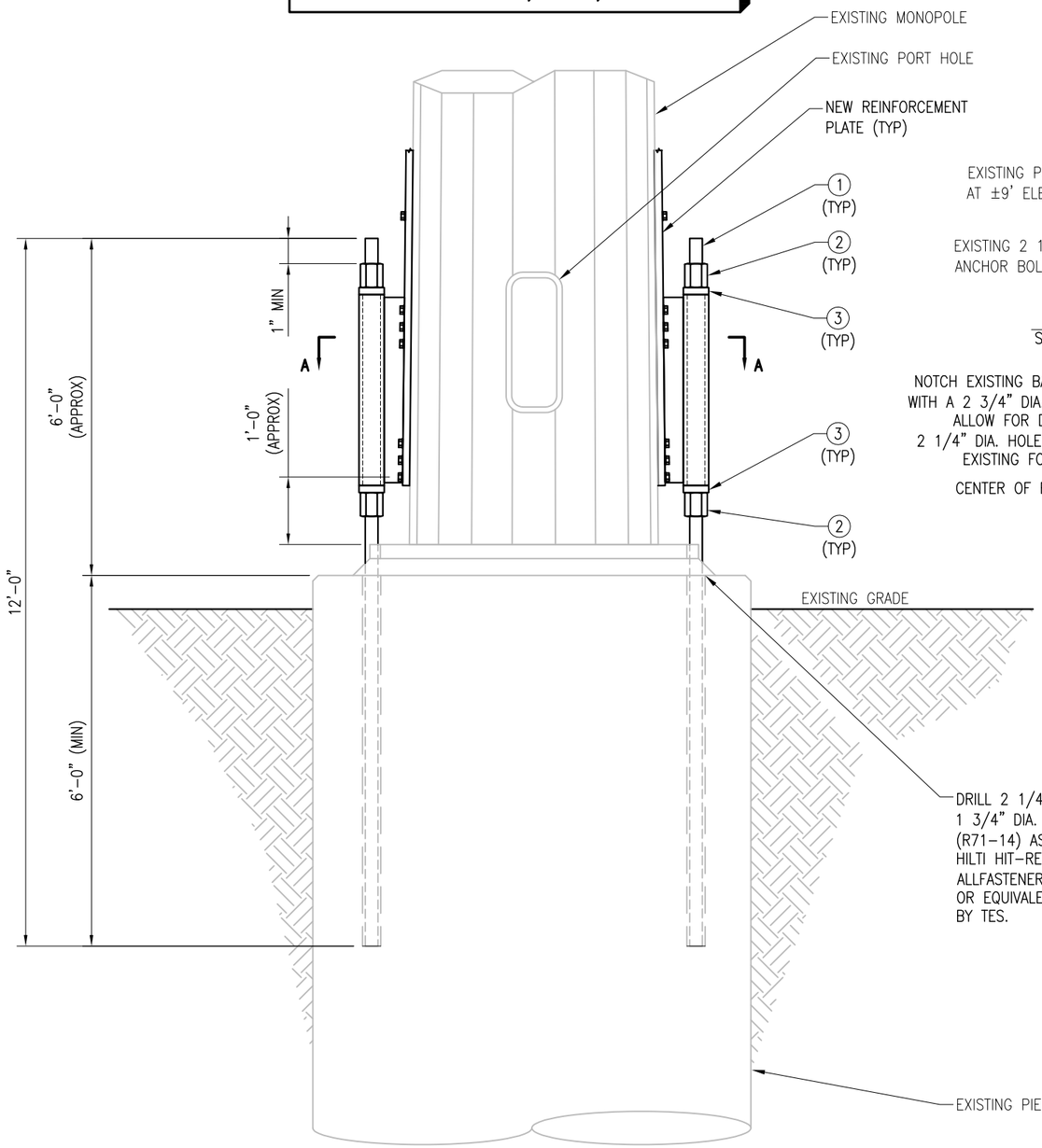
REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	DCR	01/14/22

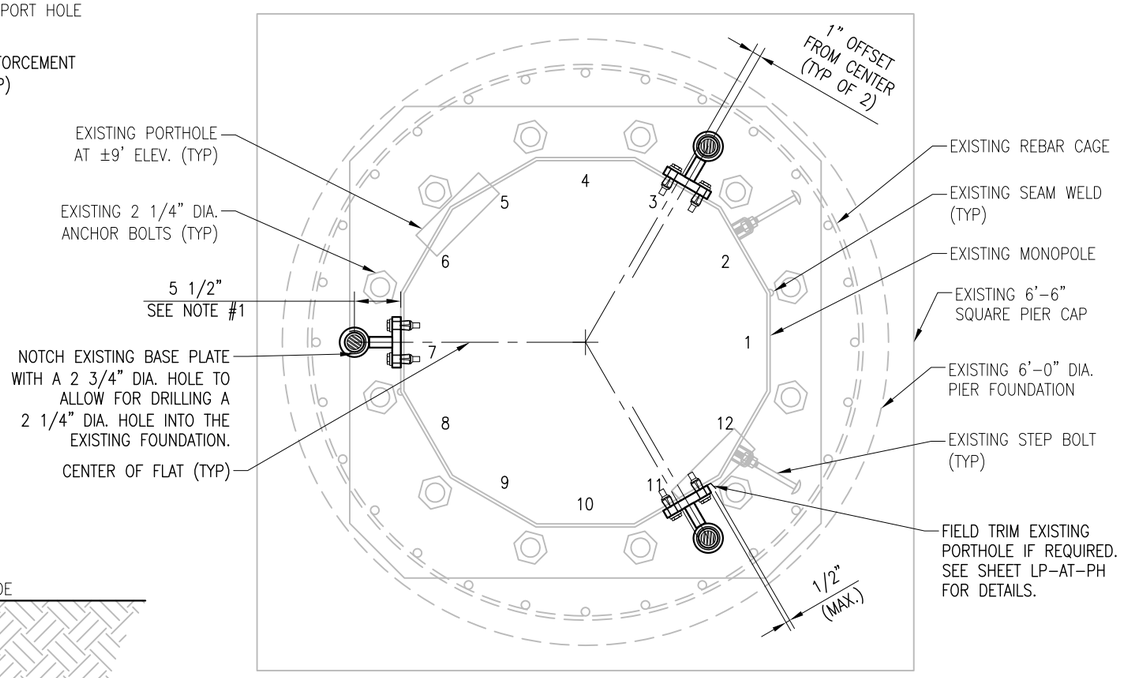
SHEET TITLE:
TOWER PROFILE

SHEET NUMBER: A-1
REV #: 0

US PATENT 9,714,520 B1



ELEVATION VIEW



SECTION "A-A"

INSTALLATION NOTES:

1. USE WELDED REINFORCEMENT BRACKET ASSEMBLY TO SET THE POSITION OF THE ALL-THREAD ROD.
2. DRILL NEW 2 1/4" DIA. HOLES INTO EXISTING FOUNDATION FOR ALL-THREAD ROD.
3. INSTALL REINFORCEMENT BRACKET AND CONFIRM FIT WITH MONOPOLE REINFORCEMENT PLATES.
4. TIGHTEN NUTS ON THE ALL-THREAD ROD LOCKING IT INTO POSITION.
5. APPLY (2) COATS OF ZINGA COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS TO ALL FIELD CUT AND EXPOSED AREAS.
6. DRILLING CONTRACTOR TO EXERCISE EXTREME CARE TO AVOID DAMAGING THE EXISTING REINFORCING TIES IN THE CONCRETE PIER. IF REBAR IS ENCOUNTERED IN THE CONCRETE WHILE DRILLING, CONTRACTOR TO STOP DRILLING AND INFORM **TES** FOR SOLUTION.
7. CONTRACTOR PLEASE NOTE-WHILE DRILLING PREPARE TO DRILL THROUGH ANCHOR BOLT TEMPLATE.
8. INSTALLATION TORQUE FOR HOLLO BOLTS-SEE SHEET GN-1. IT IS REQUIRED THAT THE CONTRACTOR TAKE PHOTOS OF THE INSTALLED TORQUE FOR VERIFICATION OF PROPER INSTALLATION.

NOTE:
SEE NOTES ON SHEET GN-1 FOR POST-INSTALLED EPOXY INJECTED ANCHOR BOLTS

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	3	R71-14	12'-0" WILLIAMS 1 3/4" DIA. ALL-THREAD ROD (150 KSI)
2	6	R73-14	1 3/4" NUT (WILLIAMS R73-14) (TYP)
3	6	PLW-2	PL 1 1/4" X 3 1/2" FLAT WASHER, A572-65

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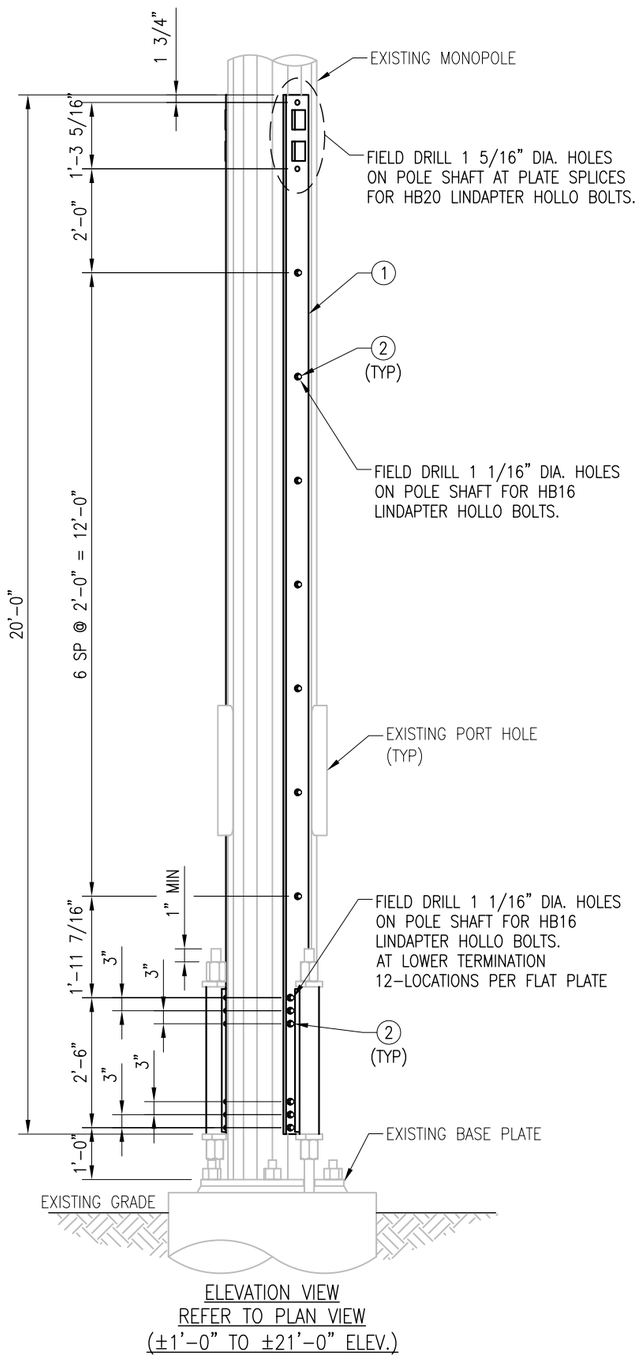
REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	DCR	01/14/22

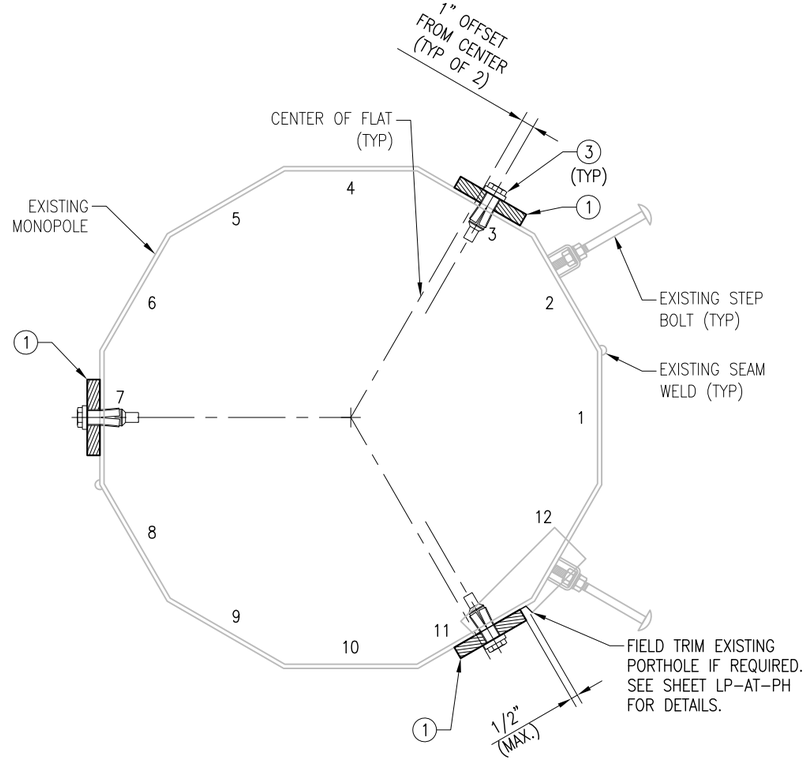
SHEET TITLE:
INSTALLATION OF NEW ANCHOR ROD DETAILS

SHEET NUMBER: A-2
REV #: 0

US PATENT 9,546,497 B2



ELEVATION VIEW
REFER TO PLAN VIEW
(±1'-0" TO ±21'-0" ELEV.)



1 / A-3 PLAN VIEW

NOTES:
1. REFER TO SHEET A-2 FOR FLAT BAR ORIENTATION.
2. INSTALLATION TORQUE FOR HOLLO/AJAX-BOLTS: SEE SHEET GN-1
3. APPLY (2) COATS OF ZINGA COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS TO ALL FIELD DRILLED AND EXPOSED AREAS.

ITEM NO.	QTY.	PART NO.	DESCRIPTION (BASE SECTION)
1	3	LP6X100-B2-20C	PL 1" X 6" X 20'-0" A572-65 WELDMENT
2	57	HB16-2	LINDAPTER 5/8" TYPE HB HOLLO-BOLT (HCF)

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REV.	DESCRIPTION	BY	DATE
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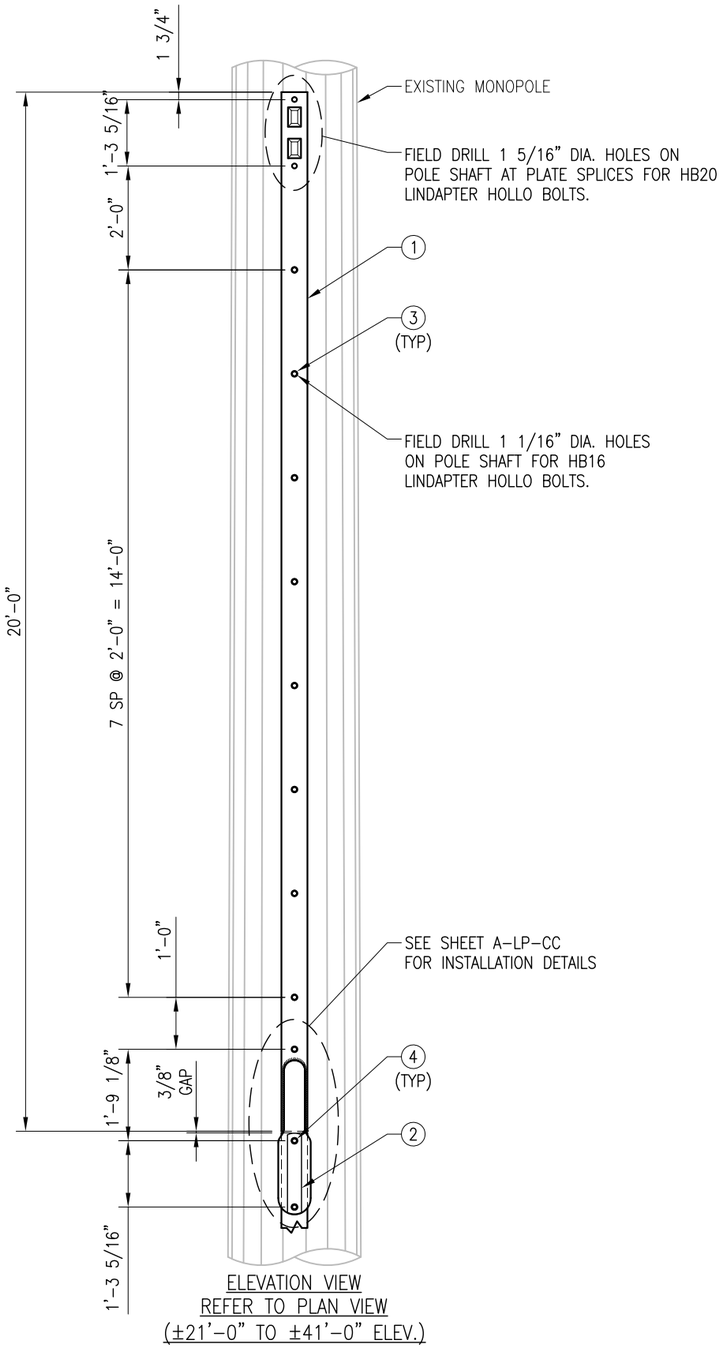
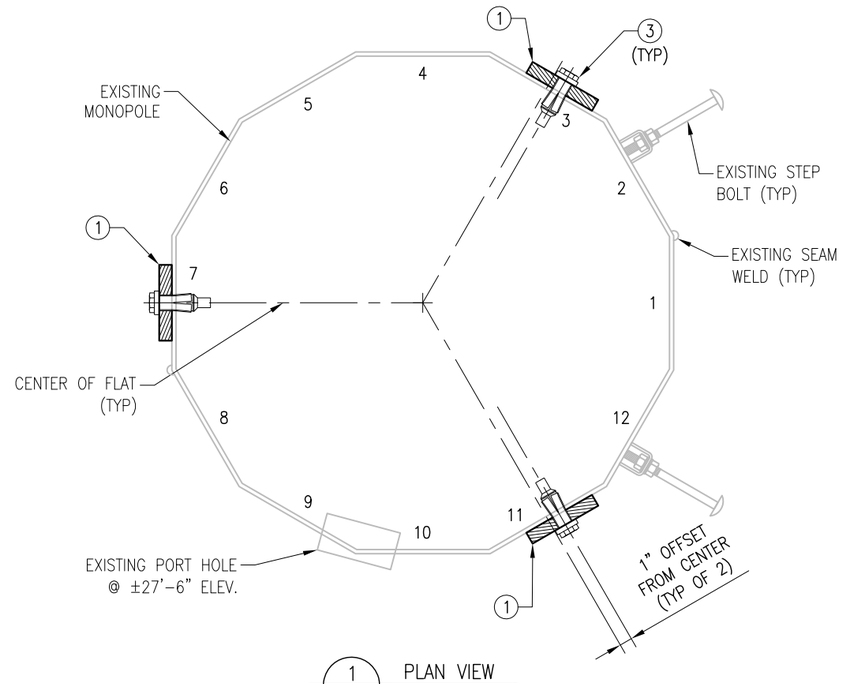
SHEET TITLE:
REINFORCEMENT ASSEMBLY

SHEET NUMBER: A-3
REV #: 0

US PATENT 9,546,497 B2



ELEVATION VIEW
REFER TO PLAN VIEW
(±21'-0" TO ±41'-0" ELEV.)



1 / A-4 PLAN VIEW

NOTES:
1. REFER TO SHEET A-2 FOR FLAT BAR ORIENTATION.
2. REFER TO SHEET A-1 FOR SHIM IF REQUIRED.
3. INSTALLATION TORQUE FOR HOLLO/AJAX-BOLTS: SEE SHEET GN-1.
4. APPLY (2) COATS OF ZINGA COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS TO ALL FIELD DRILLED AND EXPOSED AREAS.

ITEM NO.	QTY.	PART NO.	DESCRIPTION (PER SECTION)
1	3	LP6X100-G-20CC	PL 1" X 6" X 20'-0" A572-65 WELDMENT
2	3	CPL-C	SPLICE CONNECTION COVER PLATE
3	27	HB16-2	LINDAPTER 5/8" TYPE HB HOLLO-BOLT (HCF)
4	6	HB20-3	LINDAPTER 3/4" TYPE HB HOLLO-BOLT (HCF)

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REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	DCR	01/14/22

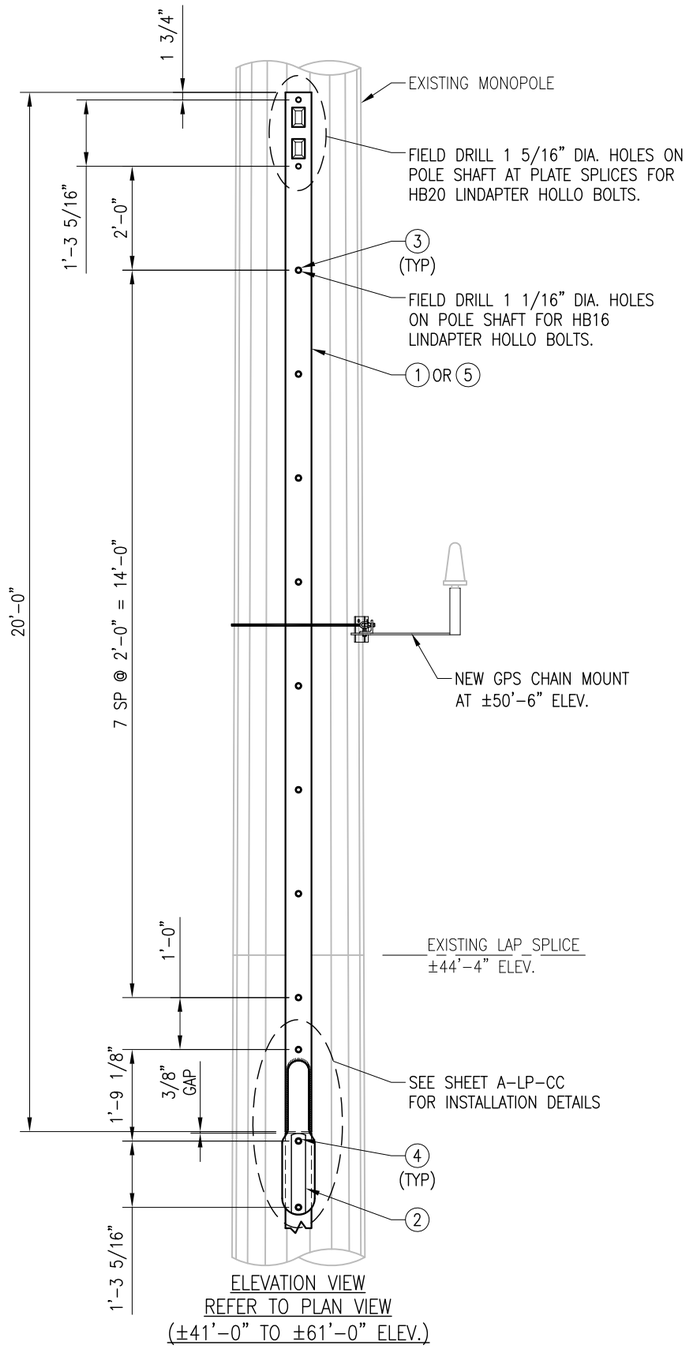
SHEET TITLE:

REINFORCEMENT ASSEMBLY

SHEET NUMBER: A-4

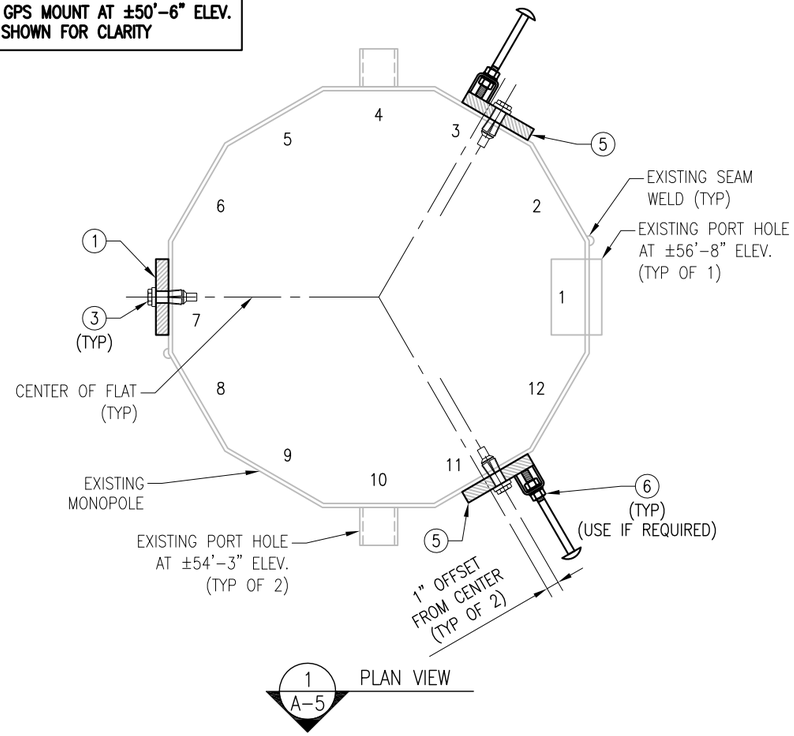
REV #: 0

US PATENT 9,546,497 B2



ELEVATION VIEW
REFER TO PLAN VIEW
(±41'-0" TO ±61'-0" ELEV.)

NOTE:
NEW GPS MOUNT AT ±50'-6" ELEV.
NOT SHOWN FOR CLARITY



1 A-5 PLAN VIEW

NOTES:
1. REFER TO SHEET A-2 FOR FLAT BAR ORIENTATION.
2. REFER TO SHEET A-1 FOR SHIM IF REQUIRED.
3. INSTALLATION TORQUE FOR HOLLO/AJAX-BOLTS: SEE SHEET GN-1.
4. REMOVE EXISTING STEP BOLTS THAT INTERFERE WITH NEW REINFORCEMENT PLATES PRIOR TO INSTALLATION.
5. APPLY (2) COATS OF ZINGA COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS TO ALL FIELD DRILLED AND EXPOSED AREAS.

ITEM NO.	QTY.	PART NO.	DESCRIPTION (PER SECTION)
1	1	LP6X100-G-20CC	PL 1" X 6" X 20'-0" A572-65 WELDMENT
2	3	CPL-C	SPLICE CONNECTION COVER PLATE
3	27	HB16-2	LINDAPTER 5/8" TYPE HB HOLLO-BOLT (HCF)
4	6	HB20-3	LINDAPTER 3/4" TYPE HB HOLLO-BOLT (HCF)
5	2	LP6X100-S-20CC	PL 1" X 6" X 20'-0" A572-65 WELDMENT WITH STEP BOLT
6	32	STEP BOLTS	STEP BOLT 5/8" X 8 1/4" W/ (2) HHN-LKW EA.

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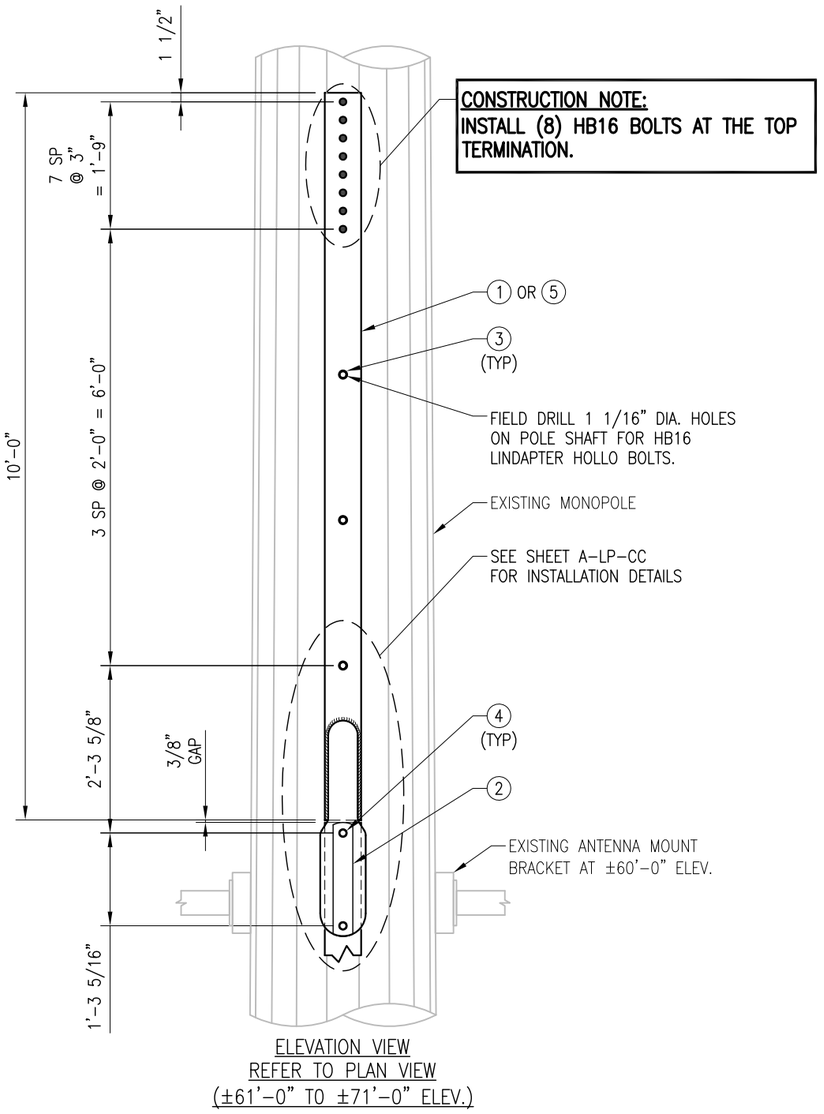
SHEET TITLE:

REINFORCEMENT ASSEMBLY

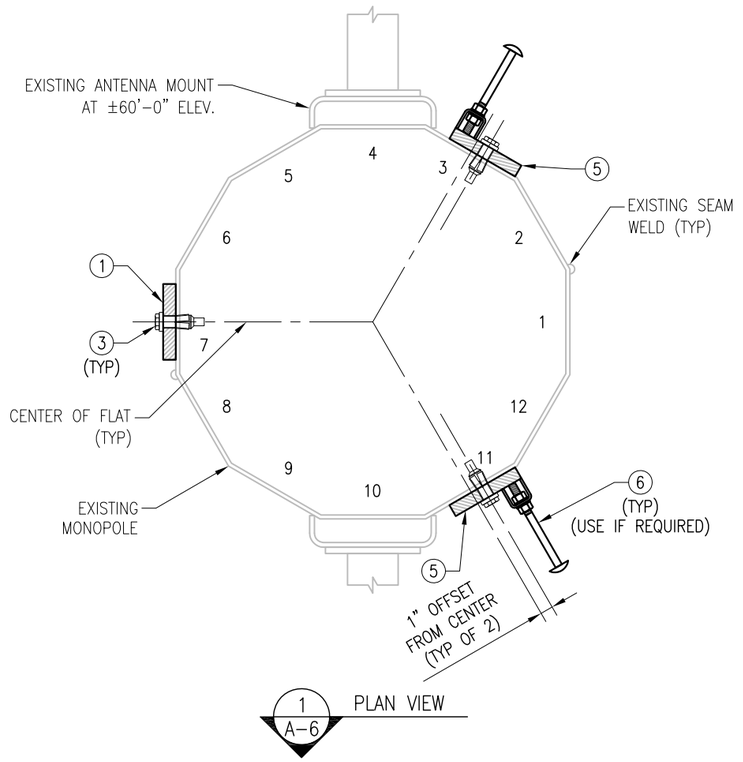
SHEET NUMBER: A-5

REV #: 0

US PATENT 9,546,497 B2



ELEVATION VIEW
REFER TO PLAN VIEW
(±61'-0" TO ±71'-0" ELEV.)



1 A-6 PLAN VIEW

NOTES:
1. REFER TO SHEET A-2 FOR FLAT BAR ORIENTATION.
2. INSTALLATION TORQUE FOR HOLLO/AJAX-BOLTS: SEE SHEET GN-1.
3. REMOVE EXISTING STEP BOLTS THAT INTERFERE WITH NEW REINFORCEMENT PLATES PRIOR TO INSTALLATION.
4. APPLY (2) COATS OF ZINGA COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS TO ALL FIELD DRILLED AND EXPOSED AREAS.

ITEM NO.	QTY.	PART NO.	DESCRIPTION (PER SECTION)
1	1	LP6X100-G-10CT	PL 1" X 6" X 10'-0" A572-65 WELDMENT
2	3	CPL-C	SPLICE CONNECTION COVER PLATE
3	33	HB16-2	LINDAPTER 5/8" TYPE HB HOLLO-BOLT (HCF)
4	6	HB20-3	LINDAPTER 3/4" TYPE HB HOLLO-BOLT (HCF)
5	2	LP6X100-S-10CT	PL 1" X 6" X 10'-0" A572-65 WELDMENT WITH STEP BOLT
6	18	STEP BOLTS	STEP BOLT 5/8" X 8 1/4" W/ (2) NUT-LKW EA.

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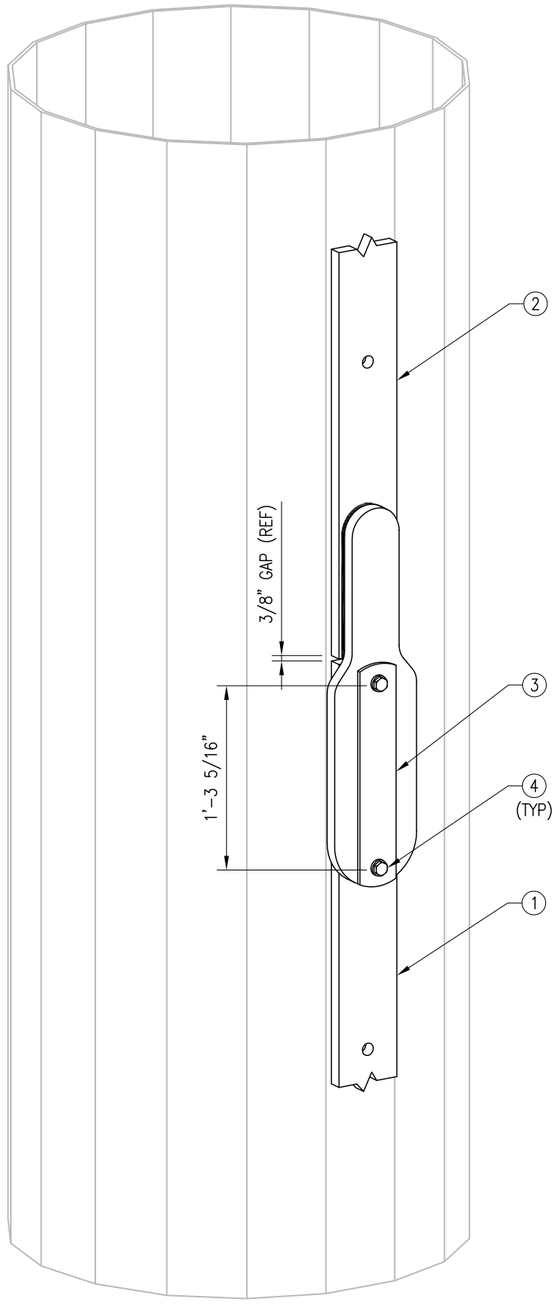
REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	DCR	01/14/22

SHEET TITLE:
REINFORCEMENT ASSEMBLY

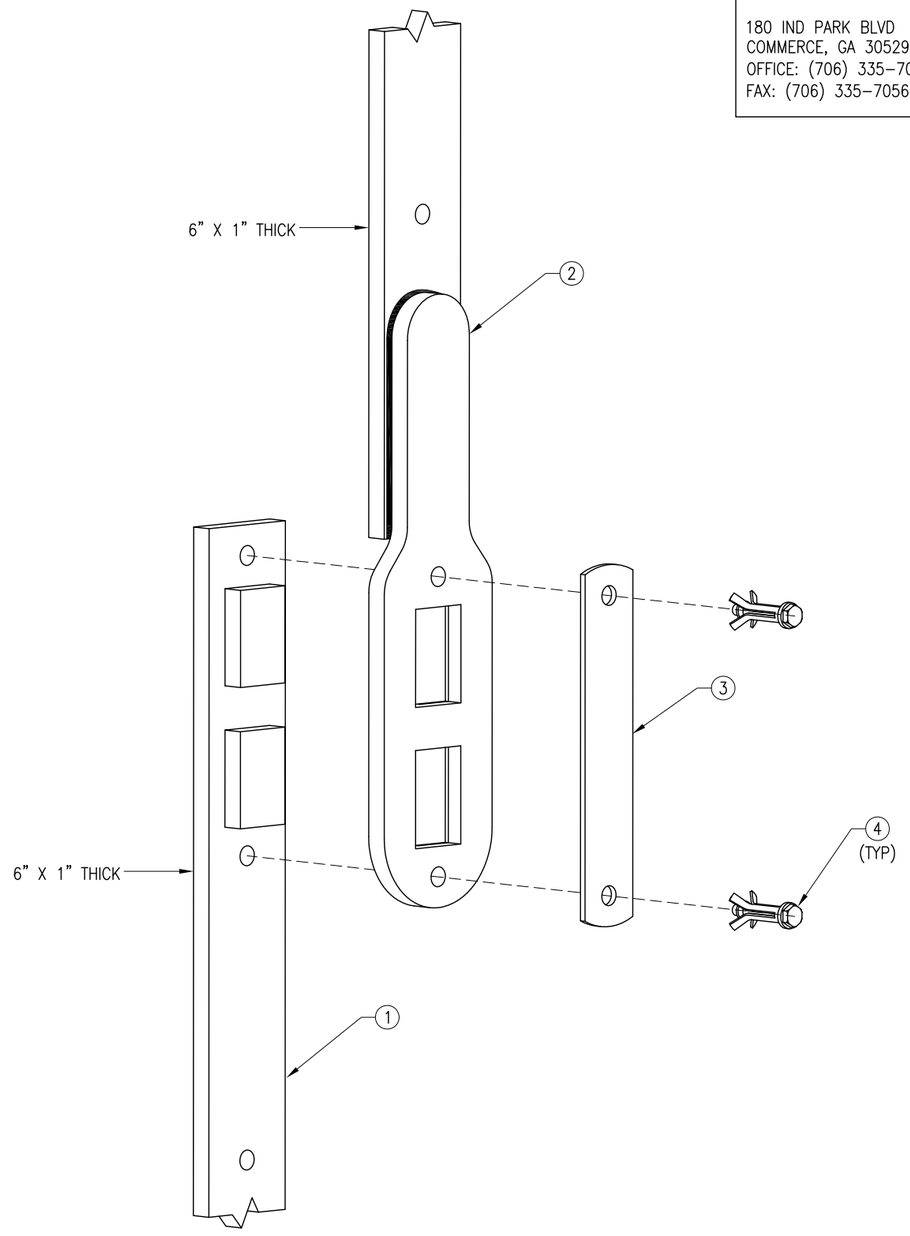
SHEET NUMBER: A-6
REV #: 0

US PATENT 9,546,497 B2



ALL LPXXXX PARTS ARE PATENTED AND ARE AVAILABLE FROM METROSITE, LLC

180 IND PARK BLVD
COMMERCE, GA 30529
OFFICE: (706) 335-7045
FAX: (706) 335-7056



FIELD NOTE:
INSTALLATION TORQUE FOR THE (2) HB20-3 BOLTS AT SPLICE: 221 FT-LBS.

ITEM NO.	QTY.	MATERIAL PART NO.	DESCRIPTION
1	–	LP6X100-X-XXX	PL 1" X 6" PLATE WELDMENT
2	–	LP6X100-X-XXX	PL 1" X 6" PLATE WELDMENT
3	1	CPL-C	KEY PLATE COVER PLATE
4	2	HB20-3	LINDAPTER 3/4" TYPE HB HOLLO-BOLT (HCF)

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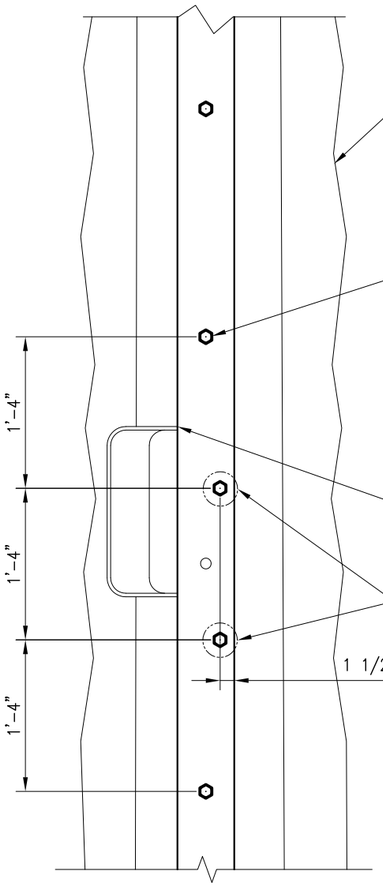
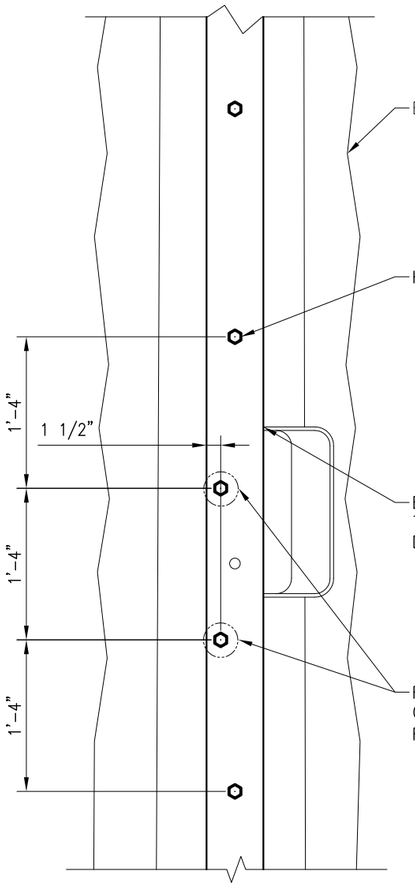
REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	DCR	01/14/22

SHEET TITLE:
SPLICE CONNECTION PLATE INSTALLATION DETAILS (TYPE CC)

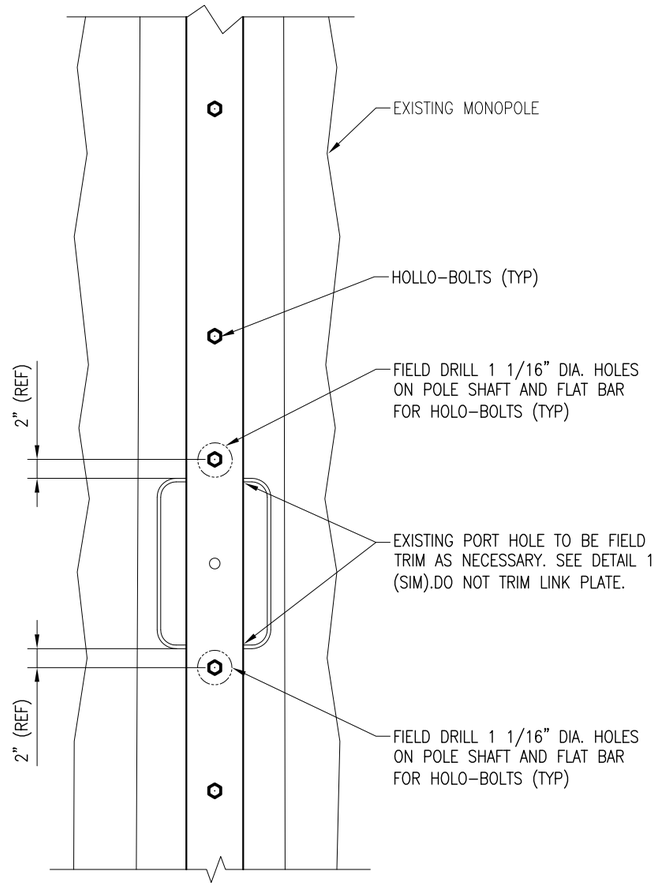
SHEET NUMBER: A-LP-CC
REV #: 0



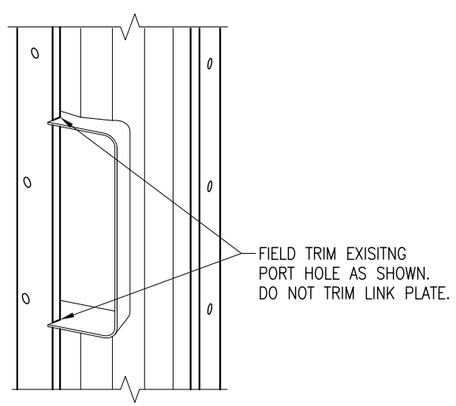
CONDITION A



CONDITION B



CONDITION C



DETAIL 1

NOTES:
1. REFER TO SHEET A-* FOR FLAT BAR LOCATION.
2. DO NOT TRIM LINK PLATE.

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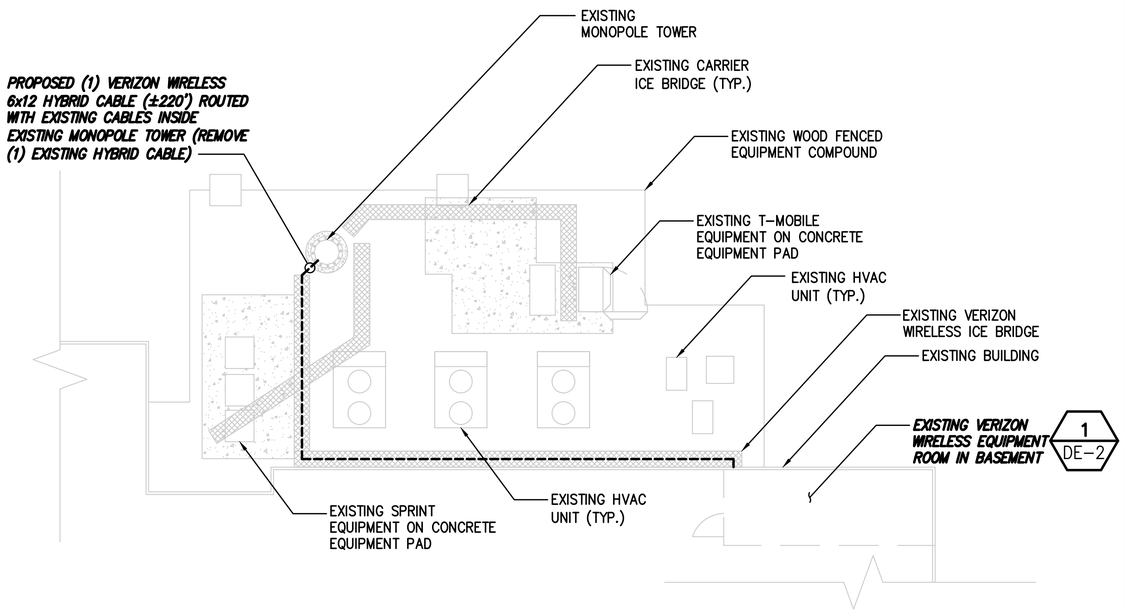
RIDGEFIELD CT
76 EAST RIDGE AVE
RIDGEFIELD, CT 06877

DRAWN BY: DCR | CHECKED BY: SH/AD

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	DCR	01/14/22

SHEET TITLE:
INSTALLATION AT HANDHOLE LOCATION DETAILS

SHEET NUMBER: LP-AT-PH
REV #: 0



NOTE:
THIS PLAN IS DIAGRAMMATIC IN NATURE AND IS INTENDED FOR VISUAL REPRESENTATION OF THE PROPOSED ANTENNA UPGRADE.

BASEMAPPING PREPARED FROM A SITE WALK PERFORMED BY INFINIGY ENGINEERING AND PROVIDED INFORMATION, AND DOES NOT REPRESENT AN ACTUAL BOUNDARY SURVEY.

N

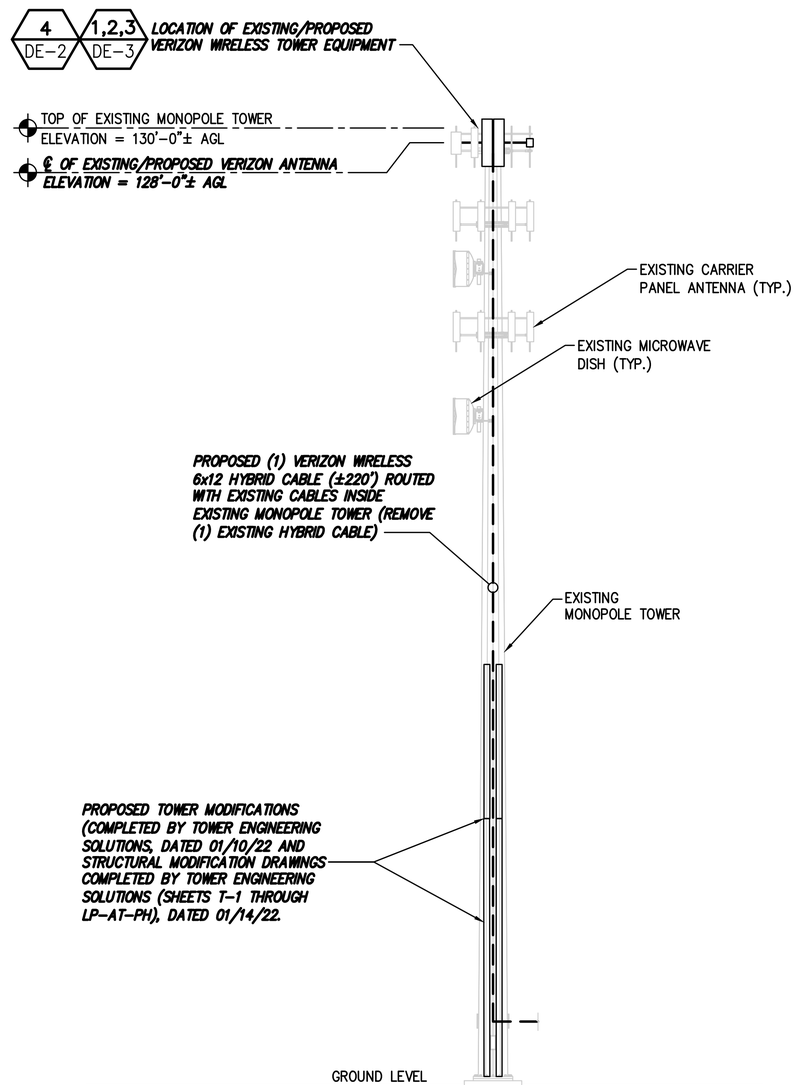
GRAPHIC SCALE:

15' 7.5' 0 7.5' 15'

SCALE (11x17): 1" = 15'-0"
SCALE (22x34): 1" = 7'-6"

SITE PLAN (PROPOSED) | SCALE: AS NOTED | 1

NOTE:
- FOR ADDITIONAL STRUCTURAL INFORMATION PERTAINING TO THE TOWER STRUCTURE, SEE 'STRUCTURAL MODIFICATION' COMPLETED BY TOWER ENGINEERING SOLUTIONS, DATED 01/10/22 AND STRUCTURAL MODIFICATION DRAWINGS COMPLETED BY TOWER ENGINEERING SOLUTIONS (SHEETS T-1 THROUGH LP-AT-PH), DATED 01/14/22.
- FOR ADDITIONAL STRUCTURAL INFORMATION PERTAINING TO THE ANTENNA MOUNT, SEE 'POST-MOD ANTENNA MOUNT ANALYSIS REPORT AND PMI REQUIREMENTS' AND MODIFICATION DESIGN DRAWINGS, COMPLETED BY MASER CONSULTING, DATED 6/25/21.



ELEVATION VIEW | NOT TO SCALE | 2

PLANS PREPARED FOR:

verizon

PLANS PREPARED BY:

INFINIGY
FROM ZERO TO INFINIGY
the solutions are endless
INFINIGY ENGINEERING, PLLC
1033 Watervliet Shaker Rd | Albany, NY 12205
Phone: 518-690-0790 | Fax: 518-690-0793
www.infinigy.com
JOB NUMBER 1126-D0001-C

ENGINEERING LICENSE:

STATE OF CONNECTICUT
SHEI SAKAMOTO
34916
LICENSED PROFESSIONAL ENGINEER
12/17/22

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
REVISED FOR FINALS	02/17/22	HL	3
REVISED FOR FINALS	02/09/22	AM	2
REVISED FOR FINALS	09/22/21	SKB	1
ISSUED FOR FINALS	08/03/21	SKB	0
REVISED FOR MOUNT MODS	07/07/21	SKB	B
ISSUED FOR REVIEW	03/16/21	SKB	A

SITE NAME:

RIDGEFIELD CT

SITE ADDRESS:

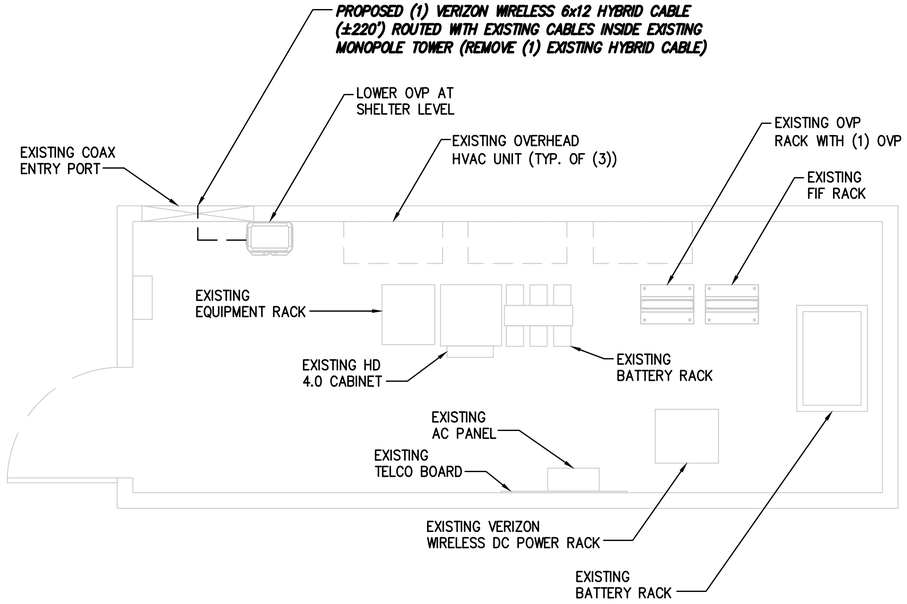
76 EAST RIDGE AVE
RIDGEFIELD, CT 06877

SHEET DESCRIPTION:

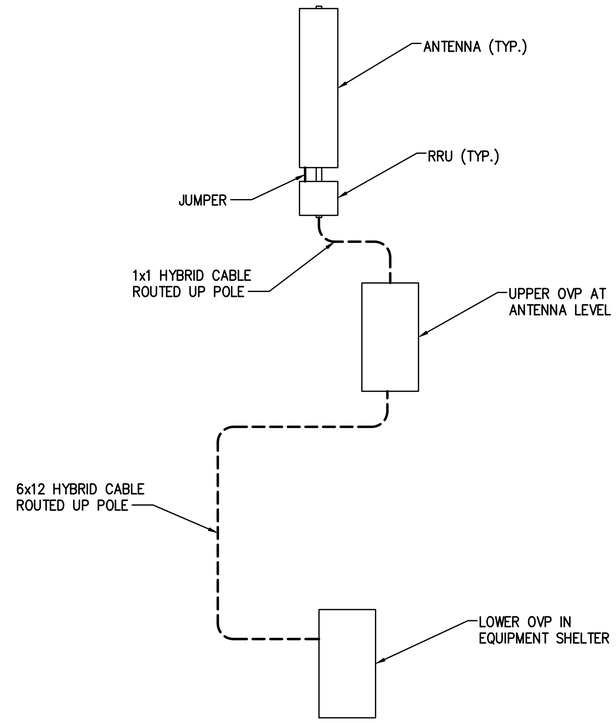
COMPOUND PLAN & ELEVATION VIEW

SHEET NUMBER:

DE-1



SHELTER PLAN – GRADE | NOT TO SCALE | 1



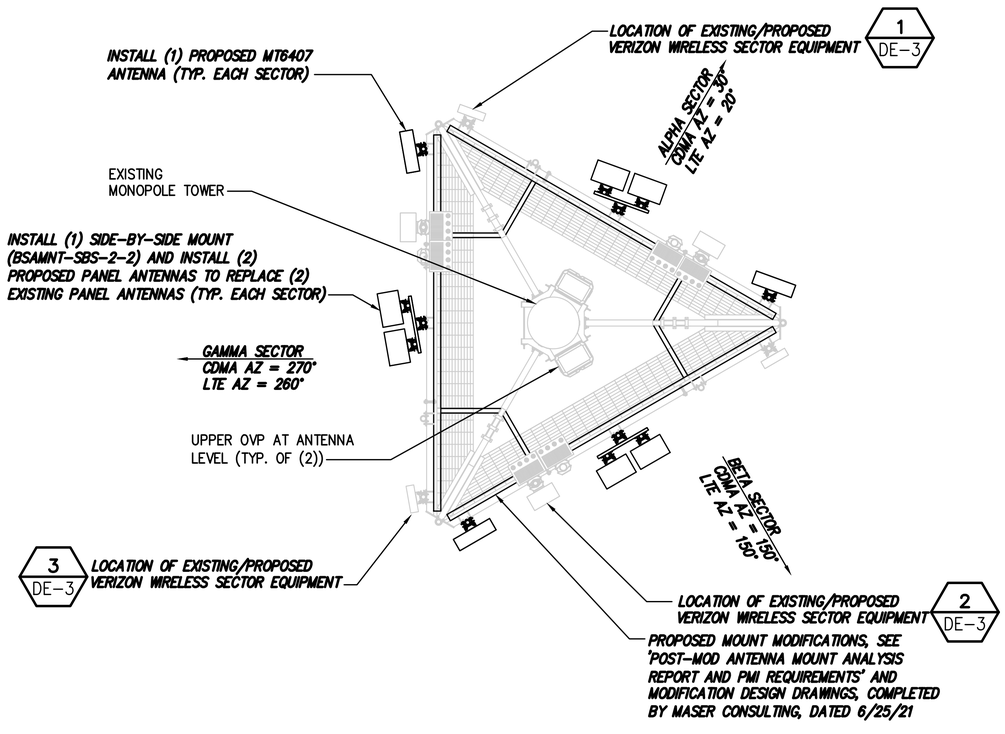
RF PLUMBING DIAGRAM | NOT TO SCALE | 2

BILL OF MATERIALS

SITE NAME: SIMSBURY CT

DESCRIPTION	QTY.	EXISTING/PROPOSED	LENGTH	COMMENT
LOWER OVP	2	EXISTING	–	–
UPPER OVP	2	EXISTING	–	–
6x12 HIBRID CABLE	**1**	**PROPOSED**	±220'	REPLACE (1) EXISTING
1X1 HYBRID CABLE	**9**	**PROPOSED**	±14'	(3) PER SECTOR
1900/AWS LTE RRU	3	EXISTING	–	(1) PER SECTOR
700/850 LTE RRU	3	EXISTING	–	(1) PER SECTOR
RRU WALL MOUNT BRACKET	0	–	–	–
VZS01 ANTENNA/RRU	**3**	**PROPOSED**	–	(1) PER SECTOR
1900/AWS ANTENNA	**3**	**PROPOSED**	–	(1) PER SECTOR
700/850 ANTENNA	**3**	**PROPOSED**	–	(1) PER SECTOR
850 ANTENNA	3	EXISTING	–	–
CBRS ANTENNA/RRU	3	EXISTING	–	(1) PER SECTOR
SIDE–BY–SIDE ANTENNA MOUNT	**3**	**PROPOSED**	–	(1) PER SECTOR
DIPLEXERS	3	EXISTING	–	(1) PER SECTOR

BILL OF MATERIALS | NOT TO SCALE | 3



ANTENNA ORIENTATION PLAN | NOT TO SCALE | 4

PLANS PREPARED FOR:

verizon

PLANS PREPARED BY:

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1033 Watervliet Shaker Rd | Albany, NY 12205
Phone: 518-690-0790 | Fax: 518-690-0793
www.infinigy.com

JOB NUMBER 1126-D0001-C

ENGINEERING LICENSE:

STATE OF CONNECTICUT · THET SAKAN · 34916 · LICENSED PROFESSIONAL ENGINEER

12/17/22

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
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REVISED FOR FINALS	02/09/22	AM	2
REVISED FOR FINALS	09/22/21	SKB	1
ISSUED FOR FINALS	08/03/21	SKB	0
REVISED FOR MOUNT MODS	07/07/21	SKB	B
ISSUED FOR REVIEW	03/16/21	SKB	A

SITE NAME:

RIDGEFIELD CT

SITE ADDRESS:

76 EAST RIDGE AVE
RIDGEFIELD, CT 06877

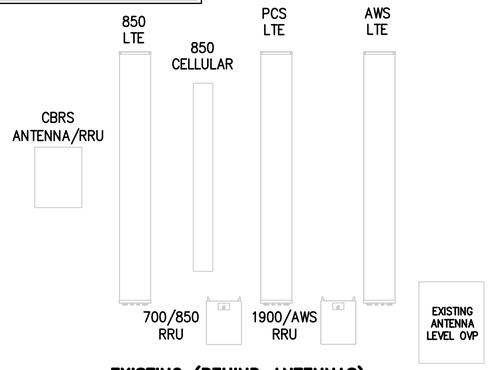
SHEET DESCRIPTION:

SHELTER LAYOUT, B.O.M. & ORIENTATION

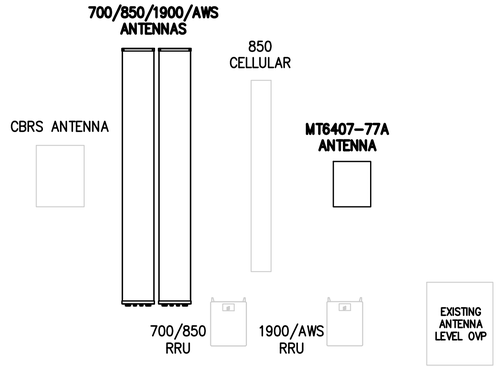
SHEET NUMBER:

DE-2

NOTE:
THIS PLAN IS DIAGRAMMATIC IN NATURE AND IS INTENDED FOR VISUAL REPRESENTATION OF THE PROPOSED ANTENNA UPGRADE.



EXISTING (BEHIND ANTENNAS)

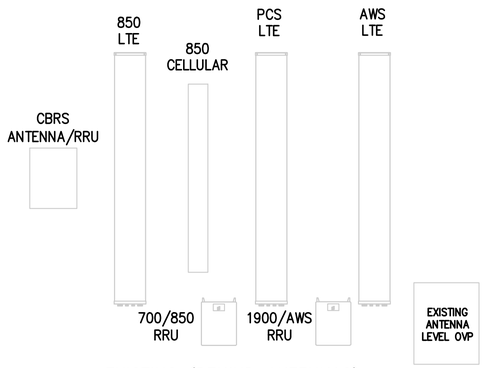


PROPOSED (BEHIND ANTENNAS)

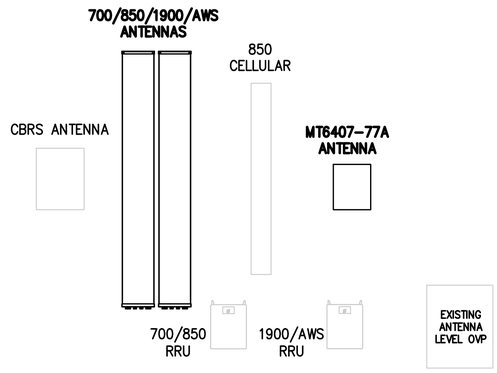
SECTOR: ALPHA

POSITION	EXISTING ANTENNA	PROPOSED		
		ANTENNA	RRU	OVP
1	CBRS	XXDWMM-12.5-65-8T-CBRS	–	(2) RRFDC-3315-PF-48 (SHARED)
2	–	–	–	
3	**700/850 MHZ 1900/AWS MHZ**	**JAHH-65B-R3B JAHH-65B-R3B**	–	
4	850 MHZ	BXA-80080/4CF FP	B2/B66 RRH-BR049 B5/B13 RRH-BR04C	
5	**5G**	**MT6407-77A**	–	

ANTENNA MOUNTING CONFIGURATION (ALPHA) | NO SCALE | 1



EXISTING (BEHIND ANTENNAS)

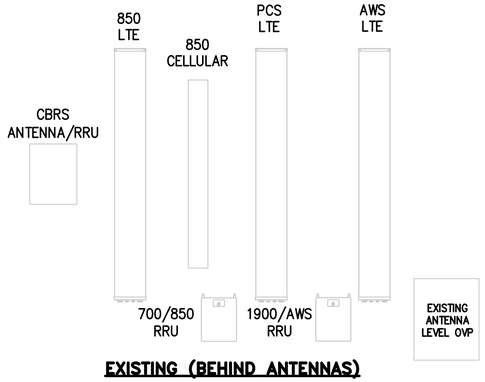


PROPOSED (BEHIND ANTENNAS)

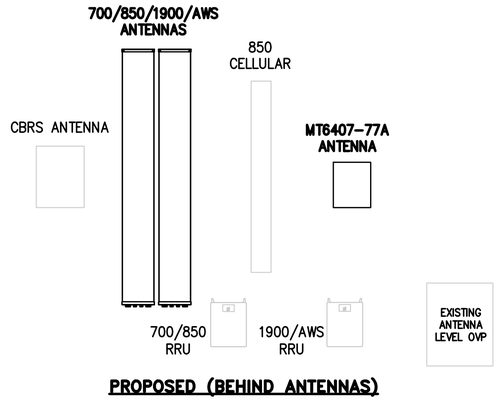
SECTOR: BETA

POSITION	EXISTING ANTENNA	PROPOSED		
		ANTENNA	RRU	OVP
1	CBRS	XXDWMM-12.5-65-8T-CBRS	–	(2) RRFDC-3315-PF-48 (SHARED)
2	–	–	–	
3	**700/850 MHZ 1900/AWS MHZ**	**JAHH-65B-R3B JAHH-65B-R3B**	–	
4	850 MHZ	BXA-80080/4CF FP	B2/B66 RRH-BR049 B5/B13 RRH-BR04C	
5	**5G**	**MT6407-77A**	–	

ANTENNA MOUNTING CONFIGURATION (BETA) | NO SCALE | 2



EXISTING (BEHIND ANTENNAS)



PROPOSED (BEHIND ANTENNAS)

SECTOR: GAMMA

POSITION	EXISTING ANTENNA	PROPOSED		
		ANTENNA	RRU	OVP
1	CBRS	XXDWMM-12.5-65-8T-CBRS	–	(2) RRFDC-3315-PF-48 (SHARED)
2	–	–	–	
3	**700/850 MHZ 1900/AWS MHZ**	**JAHH-65B-R3B JAHH-65B-R3B**	–	
4	850 MHZ	BXA-80080/4CF FP	B2/B66 RRH-BR049 B5/B13 RRH-BR04C	
5	**5G**	**MT6407-77A**	–	

ANTENNA MOUNTING CONFIGURATION (GAMMA) | NO SCALE | 3

PLANS PREPARED FOR:

verizon

PLANS PREPARED BY:

INFINIGY
FROM ZERO TO INFINIGY
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INFINIGY ENGINEERING, PLLC
1033 Watervliet Shaker Rd | Albany, NY 12205
Phone: 518-690-0790 | Fax: 518-690-0793
www.infinigy.com
JOB NUMBER 1126-D0001-C

ENGINEERING LICENSE:

STATE OF CONNECTICUT SHEI SAKANO 34916 LICENSED PROFESSIONAL ENGINEER
12/17/22

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV.
REVISED FOR FINALS	02/17/22	HL	3
REVISED FOR FINALS	02/09/22	AM	2
REVISED FOR FINALS	09/22/21	SKB	1
ISSUED FOR FINALS	08/03/21	SKB	0
REVISED FOR MOUNT MODS	07/07/21	SKB	B
ISSUED FOR REVIEW	03/16/21	SKB	A

SITE NAME:

RIDGEFIELD CT

SITE ADDRESS:

76 EAST RIDGE AVE
RIDGEFIELD, CT 06877

SHEET DESCRIPTION:

ANTENNA CONFIGURATION

SHEET NUMBER:

DE-3

PER THE INTERNATIONAL BUILDING CODE THIS STRUCTURE IS CLASSIFIED AS:

1. CONSTRUCTION TYPE II-B (TABLE 601)
2. GROUP U OCCUPANCY (SECTION 312.1 UNOCCUPIED TOWER SITE)

MODIFICATION AND DESIGN DRAWINGS FOR AN EXISTING 130' MONOPOLE TOWER

PROPOSED CARRIER: VERIZON

SITE: 468697-VZW / RIDGEFIELD CT

COORDINATES (LATITUDE: 41.280920°, LONGITUDE: -73.492890°)

CONSTRUCTION CLASS

THE RIGGING PLAN FOR THIS SITE WOULD BE A MINIMUM OF A CLASS **III** AND THE CONTRACTOR SHALL MAKE FINAL DETERMINATION

PLEASE NOTE THIS SET OF DRAWINGS IS FOR INSTALLATION AND ASSEMBLY ONLY. FABRICATION DETAIL DRAWINGS ARE NOT PROVIDED AND MUST BE COMPLETED BY THE STEEL FABRICATOR SELECTED. TES CAN PROVIDE THE FABRICATION DETAIL DRAWINGS FOR AN ADDITIONAL FEE.

SHEET	SHEET TITLE	REV
T-1	TITLE SHEET	0
BOM	BILL OF MATERIALS	0
GN-1	GENERAL NOTES	0
A-1	TOWER PROFILE	0
A-2	INSTALLATION OF NEW ANCHOR ROD DETAILS	0
A-3	REINFORCEMENT ASSEMBLY	0
A-4	REINFORCEMENT ASSEMBLY	0
A-5	REINFORCEMENT ASSEMBLY	0
A-6	REINFORCEMENT ASSEMBLY	0
A-LP-CC	SPLICE CONNECTION PLATE INSTALLATION DETAILS (TYPE CC)	0
LP-AT-PH	INSTALLATION AT HANDHOLE LOCATION DETAILS	0

NOTE:

1. THE MODIFICATION DRAWINGS ARE BASED ON THE **TES** PROJECT NO. **116942 R1**, DATED **01/07/2022**.

TES
Tower Engineering Solutions
1320 GREENWAY DRIVE, SUITE 600
IRVING, TX 75038
PHONE: (972) 483-0607

verizon

TES JOB NO:
121715

CUSTOMER SITE NO:
468697-VZW
CUSTOMER SITE NAME:
RIDGEFIELD CT
76 EAST RIDGE AVE
RIDGEFIELD, CT 06877

STATE OF CONNECTICUT
JARRYD TIBBETTS
No. 34178
LICENSED
PROFESSIONAL ENGINEER
1/14/22

DRAWN BY: DCR | CHECKED BY: SH/AD

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	DCR	01/14/22

SHEET TITLE:
TITLE SHEET

SHEET NUMBER: T-1 | REV #: 0

BILL OF MATERIALS

QUANTITY COUNTED	QUANTITY PROVIDED	PART NUMBER	DESCRIPTIONS	LENGTH	SHEET LIST (INSTALLATION)	SHEET LIST (FABRICATE)	PIECE WEIGHT (LBS)	WEIGHT (LB)	NOTES
			MATERIAL & HARDWARE						
3	3	LP6X100-B2-20C	6" x 1.00" Flat Bar, Base Section with 5.5" Offset, 20 ft. Long, Connection Type C	20'-0"	A-3	LP6X100-B2-20C	508.7	1526.1	Galvanized
4	4	LP6X100-G-20CC	6" x 1.00" Flat Bar, 20 ft. Long, Standard, Connection Type CC	20'-0"	A-4, A-5	LP6X100-G-20CC	513.0	2052.0	Galvanized
2	2	LP6X100-S-20CC	6" x 1.00" Flat Bar, 20 ft. Long with Step Bolt Brackets, Connection Type CC	20'-0"	A-5	LP6X100-S-20CC	522.6	1045.2	Galvanized
1	1	LP6X100-G-10CT	6" x 1.00" Flat Bar, 10 ft. Long, Standard, Connection Type C with Termination at top	10'-0"	A-6	LP6X100-G-10CT	299.1	299.1	Galvanized
2	2	LP6X100-S-10CT	6" x 1.00" Flat Bar, 10 ft. Long with Step Bolt Brackets, Connection Type C with Termination at top	10'-0"	A-6	LP6X100-S-10CT	304.5	609.0	Galvanized
9	9	CPL-C	Link Plate Cover, PL 3/8" x 3 1/4 "x 1'- 6 13/16", A572, Grade 50	---	A-4, A-5, A-6	F-C	6.6	59.4	Galvanized
3	3	R71-14	Williams 1 3/4" Dia. All-thread Rod (150 ksi) X 12 Ft. Long	12.00	A-2	---	108.7	326.2	Galvanized
6	6	R73-14	Williams 1 3/4" Dia. R73 Hex Nuts	---	A-2	---	---		Galvanized
6	6	PLW-2	PL 1 1/4" X 3 1/2" FLAT WASHER, A572 Grade 65	---	A-2	F-A	2.3	13.5	Galvanized
50	53	STEP BOLT	Step Bolt 5/8" Dia x 8 1/4" Long	---	A-5, A-6	F-A	0.75	39.8	Galvanized
144	152	HB16-2	Lindapter 5/8" Type HB Hollo-Bolt (HCF, M16x100)	---	A-3 TO A-6	---	---	---	Galvanized
18	20	HB20-3	Lindapter 3/4" Type HB Hollo-Bolt (HCF, M20x150)	---	A-4 TO A-6	---	---	---	Galvanized
6	8	SHIM-M20-3	1/8" Thick Shim For HB20-3 Hollo-Bolt	---	A-1	F-C	0.3	1.9	Galvanized
3	5	SHIM-M16-1	1/4" Thick Shim For HB16-2 Hollo-Bolt	---	A-1	F-C	0.3	1.4	Galvanized
3	5	SHIM-M16-2	3/16" Thick Shim For HB16-2 Hollo-Bolt	---	A-1	F-C	0.2	1.1	Galvanized
			Following Items are Non-standard Parts						
1	1	CHGPS	2' CHAIN MOUNT FOR GPS ANTENNA (SITE PRO 1 OR EQUIV.)	---	A-1	---	---	---	Galvanized
2	2	---	LANCO /HENRY 287 WHITE ACRYLIC ELASTOMERIC COATING AND SEALER OR EQUIV (GALLON)	---	A-1	---			PROVIDED BY CONTRACTOR

ALL APLXXXX, LPXXXX AND RLPXXXX ARE PATENTED PRODUCTS AND CANNOT BE FABRICATED BY THIRD PARTIES. THESE PARTS ARE AVAILABLE FROM:

METROSITE, LLC.
180 IND PARK BLVD COMMERCE, GA 30529
OFFICE: (706) 335-7045
FAX: (706) 335-7056

NOTE: ALL MATERIALS, WHICH WEREN'T LISTED IN THIS SHEET, ARE ASSUMED TO BE PROVIDED BY THE CONTRACTOR.

TOTAL WEIGHT (LBS) = 5974.6

TES
Tower Engineering Solutions
1320 GREENWAY DRIVE, SUITE 600
IRVING, TX 75038
PHONE: (972) 483-0607

verizon

TES JOB NO:
121715

CUSTOMER SITE NO:
468697-VZW
CUSTOMER SITE NAME:
RIDGEFIELD CT
76 EAST RIDGE AVE
RIDGEFIELD, CT 06877

DRAWN BY: DCR | CHECKED BY: SH/AD

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	DCR	01/14/22

SHEET TITLE:
BILL OF MATERIALS

SHEET NUMBER: BOM
REV #: 0

GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH THE ANSI/TIA-222-G, ANSI/ASSP A10.48, 2018 CONNECTICUT STATE BUILDING CODE AND ANY OTHER GOVERNING BUILDING CODES AND OSHA SAFETY REGULATIONS.
2. ALL WORK INDICATED ON THE DRAWINGS SHALL BE PERFORMED BY QUALIFIED CONTRACTORS EXPERIENCED IN TELECOMMUNICATIONS TOWER, POLE AND FOUNDATION CONSTRUCTION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND FABRICATION OF ALL MISCELLANEOUS PARTS (SUCH AS SHIMS), TEMPORARY SUPPORTS, AND GUYINGS, ETC., PER ANSI/ASSP A10.48, TO COMPLETE THE ASSEMBLY AS SHOWN IN THE DRAWINGS.
4. CONTRACTOR SHALL PROCEED WITH THE INSTALLATION WORK CAREFULLY SO THE WORK WILL NOT DAMAGE ANY EXISTING CABLE, EQUIPMENT OR THE STRUCTURE.
5. THE USE OF GAS TORCH OR WELDER, ARE NOT ALLOWED ON ANY TOWER STRUCTURE WITHOUT THE CONSENT OF THE TOWER OWNER.
6. GENERALLY THE CONTRACTOR IS RESPONSIBLE TO CONDUCT AN ONSITE VISIT SURVEY OF THE JOB SITE AFTER AWARD, AND REPORT ANY ISSUES WITH THE SITE TO **TES** BEFORE PROCEEDING CONSTRUCTION.

FABRICATION

1. ALL STEEL SHALL MEET OR EXCEED THE MINIMUM STRENGTH AS SPECIFIED IN THE DRAWINGS. IF YIELD STRENGTH WAS NOT NOTED IN THE DRAWINGS, CONTRACTORS SHALL CONTACT TES FOR DIRECTION.
2. ALL FIELD CUT EDGES SHALL BE GROUND SMOOTH. ALL FIELD CUT AND DRILLED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINGA COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

WELDING

1. ALL WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS AND IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNO. (E70XX UNLESS NOTED OTHERWISE).
2. PRIOR TO FIELD WELDING GALVANIZED MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING APPROX. 0.5" BEYOND THE PROPOSED FIELD WELD SURFACES.
3. ALL WELDS SHALL BE INSPECTED VISUALLY. A MINIMUM OF 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. 100% OF WELDS SHALL BE INSPECTED IF DEFECTS ARE FOUND.
4. WELD INSPECTIONS SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
5. AFTER INSPECTION, ALL FIELD WELDED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINGA COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

BOLTED ASSEMBLIES AND TIGHTENING OF CONNECTIONS

1. ALL HIGH STRENGTH BOLTS SHALL CONFORM TO THE PROVISIONS OF THE SPECIFICATIONS FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS AS APPROVED BY THE RCSC.
2. FLANGE BOLTS SHALL BE TIGHTENED BY THE AISC "TURN-OF-THE-NUT" METHOD. THE FOLLOWING TABLE SHOULD BE USED FOR THE "TURN-OF-THE-NUT" TIGHTENING.
3. SPLICE BOLTS AND ALL OTHER BOLTS IN BEARING TYPE CONNECTIONS SHALL BE TIGHTENED TO A SNUG-TIGHT CONDITION.
4. THE SNUG-TIGHT CONDITION IS DEFINED AS THE TIGHTNESS ATTAINED BY EITHER A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF AN IRONWORKER WITH AN ORDINARY SPUD WRENCH TO BRING THE CONNECTED PLIES INTO FIRM CONTACT.
5. HB HOLLO-BOLT SHALL BE INSTALLED PER ICC ESR-3330 INSTRUCTIONS.

VERIFICATION AND INSPECTION

1. IF APPLICABLE, VERIFICATION INSPECTION TO BE PERFORMED SHALL BE IN ACCORDANCE TO IBC-2015 SECTION 1705 - FOR STEEL CONSTRUCTION & TABLE 1705.3 FOR CONCRETE CONSTRUCTION.

POST INSTALLED EPOXY INJECTED ANCHOR BOLTS:

1. CONCRETE MUST BE A MINIMUM OF 28 DAYS OLD.
2. FOLLOW MANUFACTURER'S REQUIREMENTS FOR CURE TIME VS. AMBIENT TEMPERATURE.
3. DRILL HOLE TO REQUIRED DIAMETER AND DEPTH. ALL WATER, DIRT, OIL, DEBRIS, GREASE OR DUST MUST BE REMOVED FROM EACH CORE HOLE. FOLLOW MANUFACTURER'S RECOMMENDATION FOR CORRECT TYPE OF CORE BIT. AVOID DAMAGING EXISTING REINFORCING STEEL OR OTHER EMBEDDED ITEMS. NOTIFY TES ENGINEERING IF VOIDS IN THE CONCRETE, REINFORCING STEEL OR OTHER EMBEDDED ITEMS ARE ENCOUNTERED. STOP CORING IMMEDIATELY IF THIS OCCURS.
4. A HOLE ROUGHENING DEVICE FROM EITHER HILTI OR ALLFASTENERS SHALL BE USED WITH ALL HOLES. FOLLOW ALL MANUFACTURER'S RECOMMENDED CORING AND INSTALLATION INSTRUCTIONS.
5. AFTER CORING AND ROUGHENING, FLUSH EACH HOLE WITH RUNNING WATER TO REMOVE ANY SLURRY OR DEBRIS. REMOVE ALL WATER FROM THE HOLE BY MECHANICAL PUMPING.
6. BRUSH EACH HOLE WITH AN APPROPRIATE SIZED NYLON BRUSH AND FLUSH WITH RUNNING WATER A SECOND TIME. REMOVE ALL WATER FROM THE HOLE.
7. AFTER THE SECOND WATER FLUSH BRUSH THE HOLE AGAIN WITH THE APPROPRIATE SIZED NYLON BRUSH.
8. BLOW EACH HOLE WITH COMPRESSED AIR TWO TIMES MINIMUM.
9. CONFIRM THAT EACH HOLE IS PROPERLY ROUGHED AND DRY.
10. NO EPOXY INJECTION SHALL TAKE PLACE IN RAINY CONDITIONS.
11. EPOXY SHOULD BE VISIBLE AT THE TOP OF THE CORE HOLE AFTER INSTALLATION.
12. CONTRACTOR TO SUPPLY ONE PHOTO OF EACH ROUGHED AND CLEANED HOLE IN CLOSEOUT PHOTO PACKAGE.

TABLE 8.2 NUT ROTATION FROM SNUG-TIGHT CONDITION FOR TURN-OF-NUT PRETENSIONING [a,b]

BOLT LENGTH [c]	DISPOSITION OF OUTER FACE OF BOLTED PARTS		
	BOTH FACES NORMAL TO BOLT AXIS	ONE FACE NORMAL TO BOLT AXIS, OTHER SLOPED NOT MORE THAN 1:20 [d]	BOTH FACES SLOPED NOT MORE THAN 1:20 FROM NORMAL TO BOLT AXIS [d]
NOT MORE THAN $4d_b$	1/3 TURN	1/2 TURN	2/3 TURN
MORE THAN $4d_b$ BUT NOT MORE THAN $8d_b$	1/2 TURN	2/3 TURN	5/6 TURN
MORE THAN $8d_b$ BUT NOT MORE THAN $12d_b$	2/3 TURN	5/6 TURN	1 TURN

[a] NUT ROTATION IS RELATIVE TO BOLT REGARDLESS OF THE ELEMENT (NUT OR BOLT) BEING TURNED. FOR REQUIRED NUT ROTATIONS OF 1/2 TURN AND LESS, THE TOLERANCE IS PLUS OR MINUS 30 DEGREES; FOR REQUIRED NUT ROTATIONS OF 2/3 TURN AND MORE, THE TOLERANCE IS PLUS OR MINUS 45 DEGREES.

[b] APPLICABLE ONLY TO JOINTS IN WHICH ALL MATERIAL WITHIN THE GRIP IS STEEL.

[c] WHEN THE BOLT LENGTH EXCEEDS $12d_b$, THE REQUIRED NUT ROTATION SHALL BE DETERMINED BY ACTUAL TESTING IN A SUITABLE TENSION CALIBRATOR THAT SIMULATES THE CONDITIONS OF SOLIDLY FITTING STEEL.

[d] BEVELED WASHER NOT USED.

SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS, JUNE 30, 2004
RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS

INSTALLATION TORQUE REQUIRED FOR HOLLO BOLTS AND AJAX BOLTS:

1. HB12 HOLLO BOLT: 59 FT-LBS
2. HB16 HOLLO BOLT: 140 FT-LBS
3. HB20 HOLLO BOLT: 221 FT-LBS
4. M20 AJAX BOLT: 280 FT-LBS.

FIELD HOT WORK PLAN NOTES:

FOLLOWING GUIDELINES SHALL BE COMPLIED WITH:

1. CONTRACTOR'S RESPONSIBILITY TO COMPLETE A HOT WORK PLAN IF AWARDED PER CUSTOMER SPECIFICATIONS GUIDELINES FOR WELDING, CUTTING & SPARK PRODUCING WORK.
2. HAVE A FIRE PLAN APPROVED BY THE CUSTOMER AND THEIR SAFETY MANAGEMENT DEPT.
3. CONTRACTOR MUST OBTAIN THE CONTACT INFO OF THE LOCAL FIRE DEPARTMENT AND THE 911 ADDRESS OF THE TOWER SITE BEFORE CONSTRUCTION.
4. CONTRACTOR SHALL MAKE SURE THAT CELL PHONE COVERAGE IS AVAILABLE IN THE TOWER SITE. IF CELL COVERAGE IS NOT AVAILABLE, AN IMMEDIATE AVAILABLE MEANS OF DIRECT COMMUNICATION WITH THE FIRE DEPARTMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION START.
5. ALL CONSTRUCTION SHALL BE PERFORMED UNDER WIND SPEED LESS THAN 10 MPH ON THE GROUND LEVEL. IF WIND SPEED INCREASE, CONTRACTOR MUST DETERMINE IF CONSTRUCTION SHALL BE DISCONTINUED.
6. FIRE SUPPRESSION EQUIPMENT MUST BE MADE AVAILABLE ON SITE AND READY TO USE.
7. CONTRACTOR SHALL ASSIGN A FIRE WATCHER TO PERFORM FIRE-FIGHTING DUTIES.
8. ALL WELDERS SHALL BE AWS OR STATE CERTIFIED. THEY MUST ALSO BE EXPERIENCED IN WELDING ON GALVANIZED MATERIALS.
9. IF IT IS POSSIBLE, ALL EXISTING COAX NEAR WELDING AREA SHALL BE TEMPORARILY MOVED AWAY FROM THE WELDING AREA BEFORE WELDING THE PLATES.
10. PLEASE REPORT ANY FIELD ISSUE TO TES @ 972-483-0607.

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verizon

TES JOB NO: 121715

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CUSTOMER SITE NAME: RIDGEFIELD CT
76 EAST RIDGE AVE
RIDGEFIELD, CT 06877

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REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	DCR	01/14/22

SHEET TITLE: GENERAL NOTES

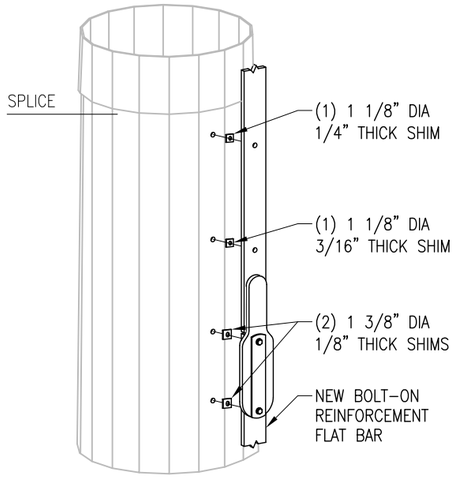
SHEET NUMBER: GN-1
REV #: 0

NOTES:

1. TEMPORARILY RELOCATE ANY EXISTING COAX ATTACHED TO THE MONOPOLE AND ANY OTHER MEMBERS WHERE OBSTRUCTION WITH THE PROPOSED MODIFICATION MAY OCCUR.
2. TEMPORARY RELOCATION OF EXISTING EQUIPMENT AROUND THE FOUNDATION MAY BE REQUIRED DURING CONSTRUCTION.

SCOPE OF WORK

1. INSTALL (3) NEW ANCHOR RODS. SEE SHEET A-2 FOR DETAILS.
2. INSTALL (3) LP6X100-B2-20C FLAT BAR REINFORCEMENTS FROM ±1'-0" TO ±21'-0" ELEV. SEE SHEET A-3 FOR DETAILS.
3. INSTALL (3) LP6X100-G-20CC FLAT BAR REINFORCEMENTS FROM ±21'-0" TO ±41'-0" ELEV. SEE SHEET A-4 FOR DETAILS.
4. INSTALL (1) LP6X100-G-20CC AND (2) LP6X100-S-20CC FLAT BAR REINFORCEMENTS FROM ±41'-0" TO ±61'-0" ELEV. SEE SHEET A-5 FOR DETAILS.
   NOTES:
   REPLACE EXISTING GPS MOUNT WITH PROVIDED CHGPS CHAIN MOUNT AT ±50'-6" ELEV. WILL BE REQUIRED TO ACCOMMODATE INSTALLATION OF NEW LINK PLATES.
5. INSTALL (1) LP6X100-G-10CT AND (2) LP6X100-S-10CT FLAT BAR REINFORCEMENTS FROM ±61'-0" TO ±71'-0" ELEV. SEE SHEET A-6 FOR DETAILS.
6. APPLY FOUNDATION COATING.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEAN-UP, REMOVAL AND DISPOSAL OF EXCESS MATERIALS USED AND REMOVED FROM THE STRUCTURE AT THE COMPLETION OF THE PROJECT.



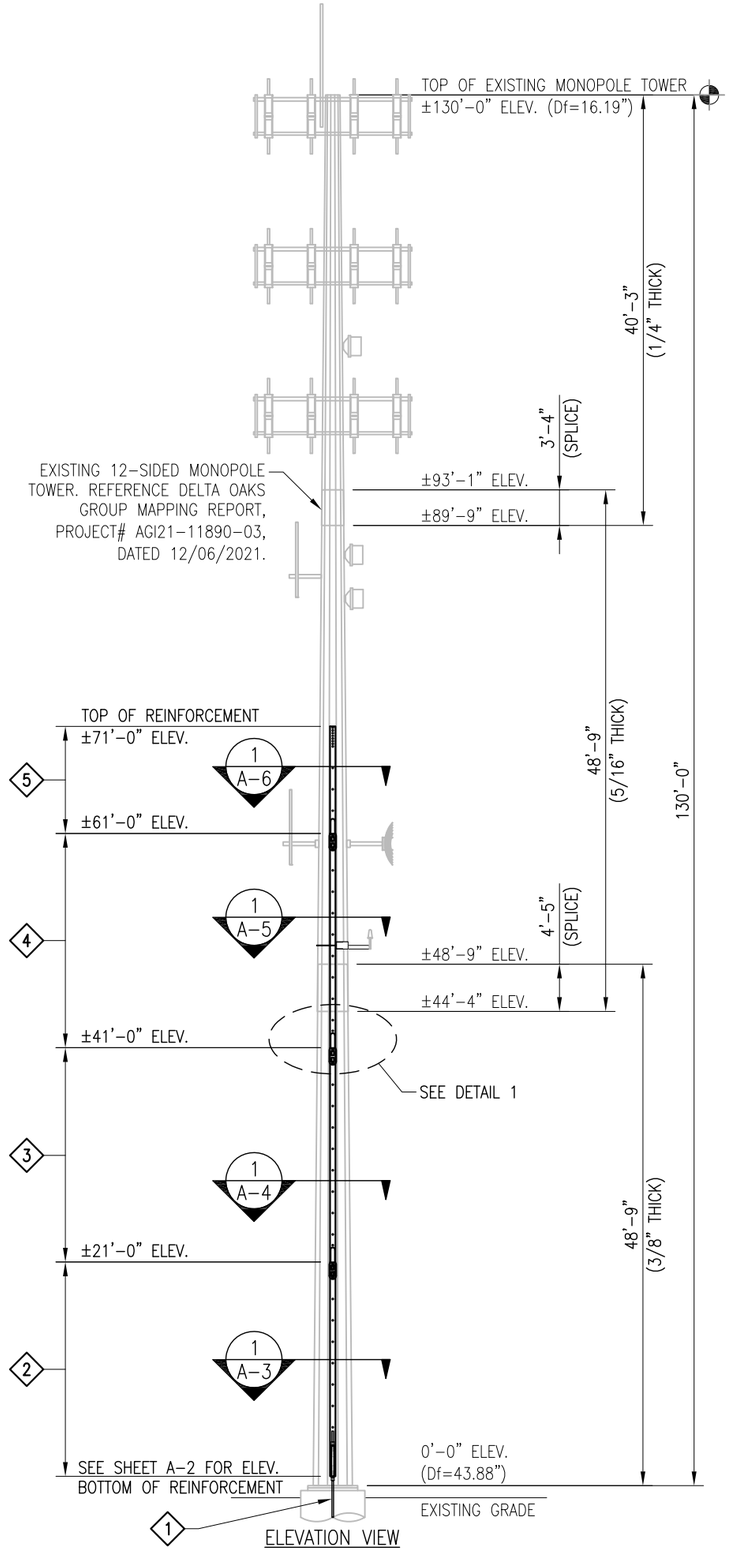
DETAIL 1
SHIMS INSTALLATION DETAIL

PHOTO 2

PHOTO 1

FOUNDATION COATING NOTES:

1. THE COATING MATERIALS SHALL BE LANCO WHITE ACRYLIC ELASTOMERIC COATING AND SEALER, OR HYDRO ARMOR COATING.
2. THE COATING CAN BE PLACED AT LEAST (2) DAYS AFTER THE PLACEMENT OF THE CONCRETE FOR FOUNDATION REINFORCEMENT, AND MINIMUM (4) DAYS FOR NEW FOUNDATION CONSTRUCTION.
3. THE CONCRETE SURFACE SHALL BE CLEAN AND DRY PRIOR TO THE APPLICATION OF THE COATING.
4. THE COATING SHALL BE APPLIED TO ALL THE SURFACES OF THE CONCRETE ABOVE THE GROUND AND 6"BELOW THE GRADE SURFACE IF APPLICABLE.
5. MINIMUM 30 MILS COATING IS REQUIRED.
6. APPLY COLD GALVANIZE AT LEAST 2'-3' ABOVE FOUNDATION.



ELEVATION VIEW

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REV.	DESCRIPTION	BY	DATE
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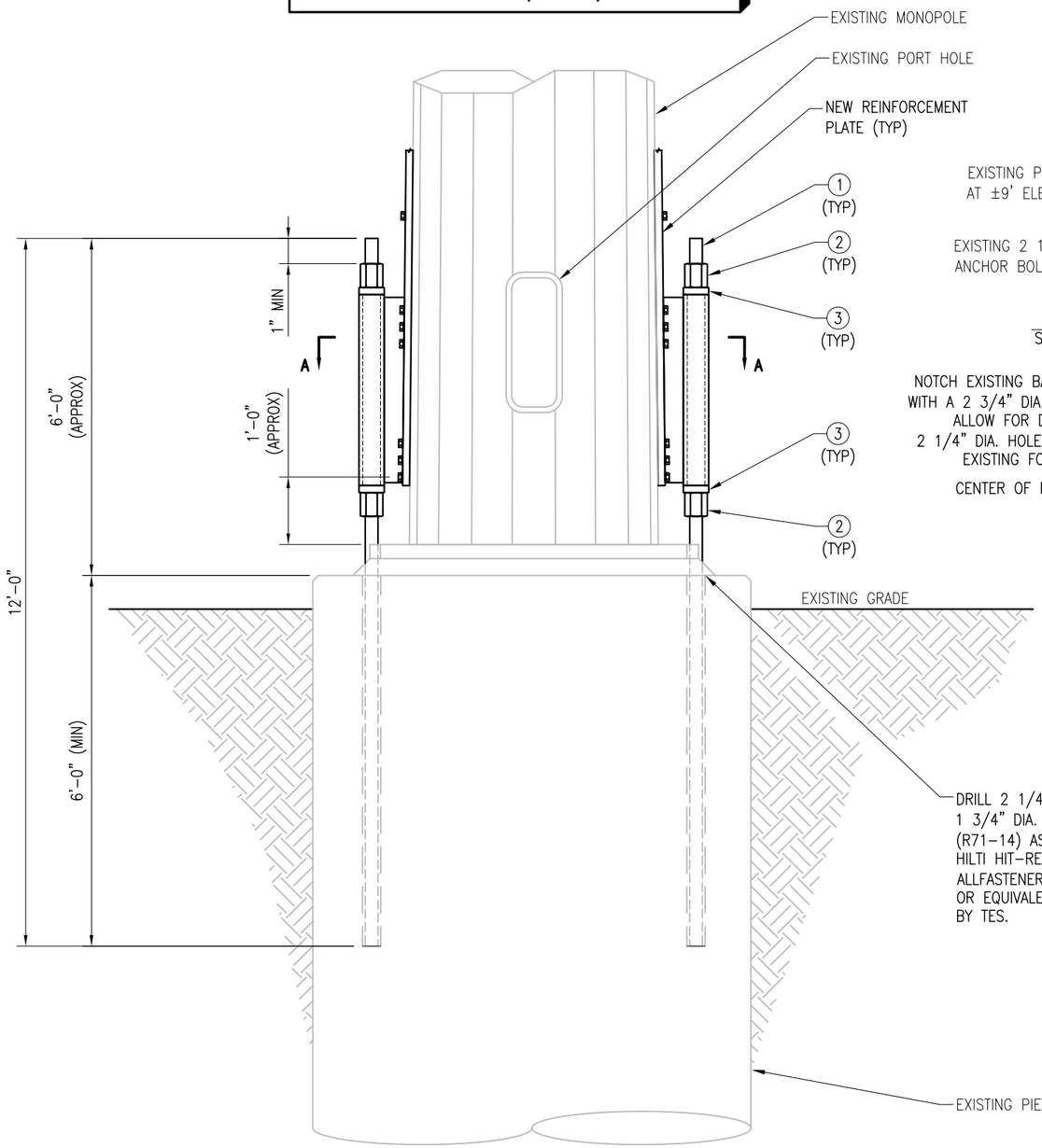
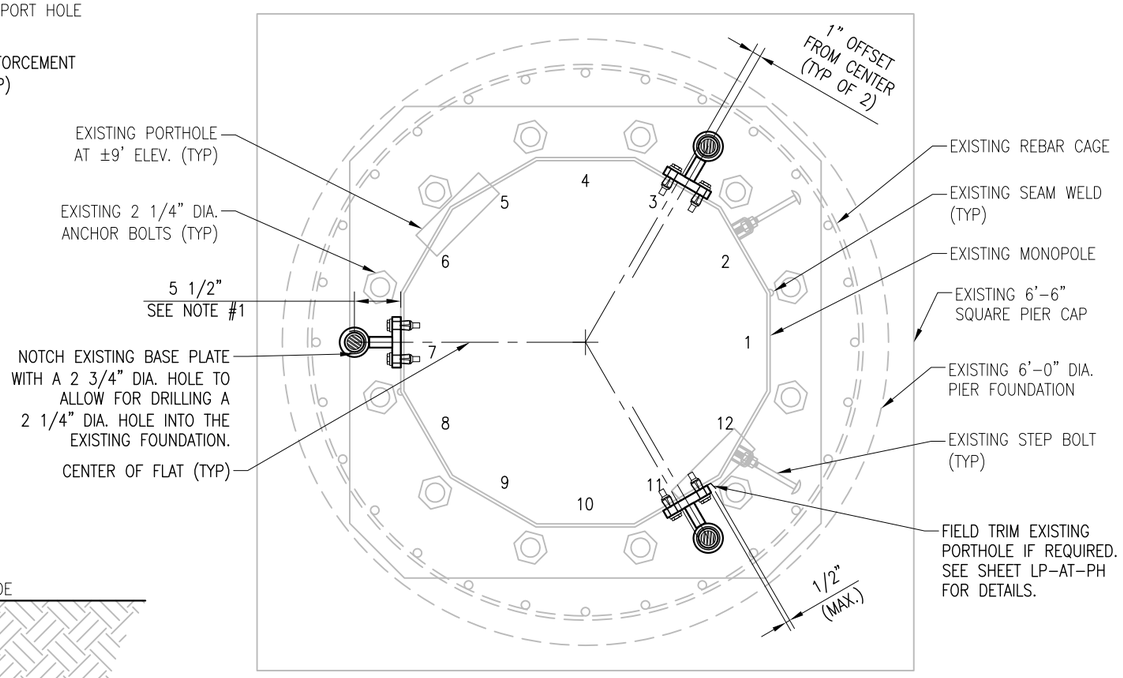
SHEET TITLE:
TOWER PROFILE

SHEET NUMBER: A-1
REV #: 0

US PATENT 9,714,520 B1



ELEVATION VIEW



SECTION "A-A"

INSTALLATION NOTES:

1. USE WELDED REINFORCEMENT BRACKET ASSEMBLY TO SET THE POSITION OF THE ALL-THREAD ROD.
2. DRILL NEW 2 1/4" DIA. HOLES INTO EXISTING FOUNDATION FOR ALL-THREAD ROD.
3. INSTALL REINFORCEMENT BRACKET AND CONFIRM FIT WITH MONOPOLE REINFORCEMENT PLATES.
4. TIGHTEN NUTS ON THE ALL-THREAD ROD LOCKING IT INTO POSITION.
5. APPLY (2) COATS OF ZINGA COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS TO ALL FIELD CUT AND EXPOSED AREAS.
6. DRILLING CONTRACTOR TO EXERCISE EXTREME CARE TO AVOID DAMAGING THE EXISTING REINFORCING TIES IN THE CONCRETE PIER. IF REBAR IS ENCOUNTERED IN THE CONCRETE WHILE DRILLING, CONTRACTOR TO STOP DRILLING AND INFORM **TES** FOR SOLUTION.
7. CONTRACTOR PLEASE NOTE-WHILE DRILLING PREPARE TO DRILL THROUGH ANCHOR BOLT TEMPLATE.
8. INSTALLATION TORQUE FOR HOLLO BOLTS-SEE SHEET GN-1. IT IS REQUIRED THAT THE CONTRACTOR TAKE PHOTOS OF THE INSTALLED TORQUE FOR VERIFICATION OF PROPER INSTALLATION.

NOTE:
SEE NOTES ON SHEET GN-1 FOR POST-INSTALLED EPOXY INJECTED ANCHOR BOLTS

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	3	R71-14	12'-0" WILLIAMS 1 3/4" DIA. ALL-THREAD ROD (150 KSI)
2	6	R73-14	1 3/4" NUT (WILLIAMS R73-14) (TYP)
3	6	PLW-2	PL 1 1/4" X 3 1/2" FLAT WASHER, A572-65

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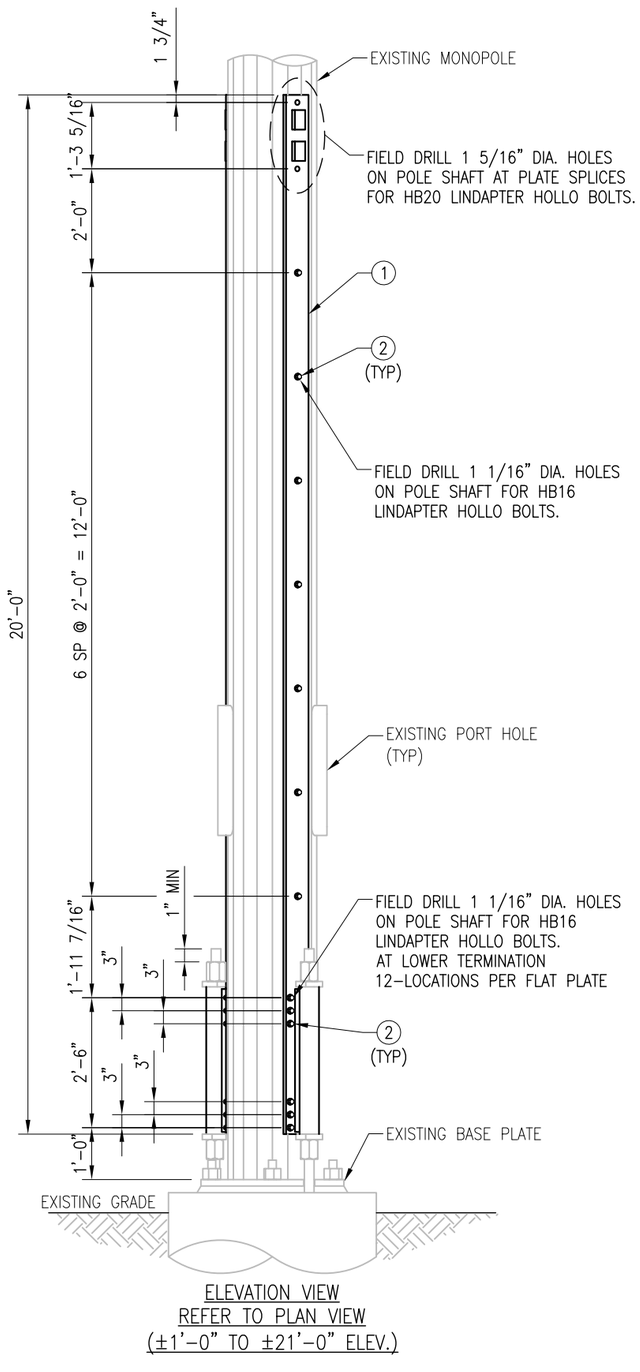
REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	DCR	01/14/22

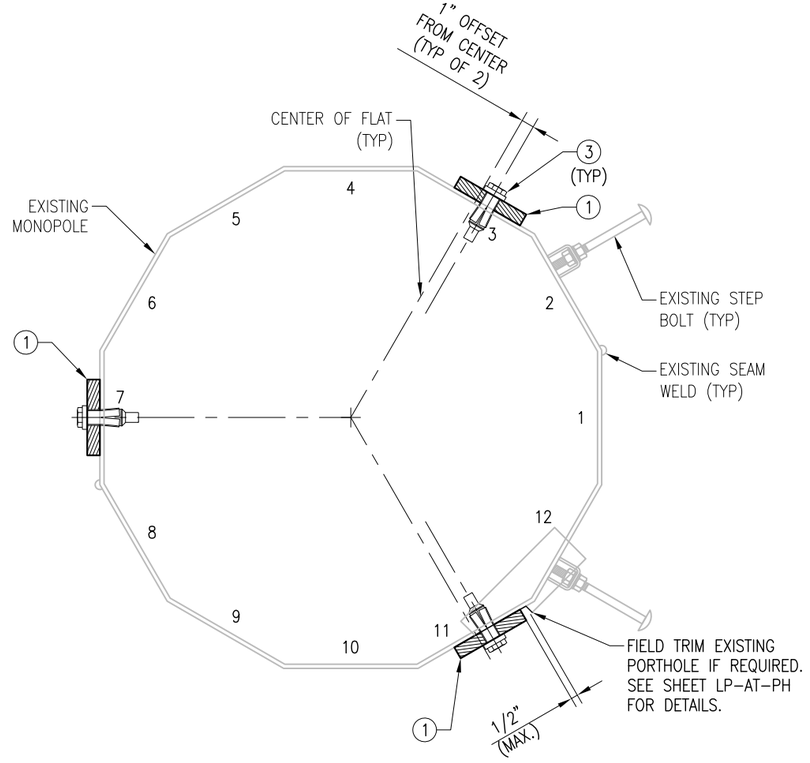
SHEET TITLE:
INSTALLATION OF NEW ANCHOR ROD DETAILS

SHEET NUMBER: A-2
REV #: 0

US PATENT 9,546,497 B2



ELEVATION VIEW
REFER TO PLAN VIEW
(±1'-0" TO ±21'-0" ELEV.)



1 / A-3 PLAN VIEW

NOTES:
1. REFER TO SHEET A-2 FOR FLAT BAR ORIENTATION.
2. INSTALLATION TORQUE FOR HOLLO/AJAX-BOLTS: SEE SHEET GN-1
3. APPLY (2) COATS OF ZINGA COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS TO ALL FIELD DRILLED AND EXPOSED AREAS.

ITEM NO.	QTY.	PART NO.	DESCRIPTION (BASE SECTION)
1	3	LP6X100-B2-20C	PL 1" X 6" X 20'-0" A572-65 WELDMENT
2	57	HB16-2	LINDAPTER 5/8" TYPE HB HOLLO-BOLT (HCF)

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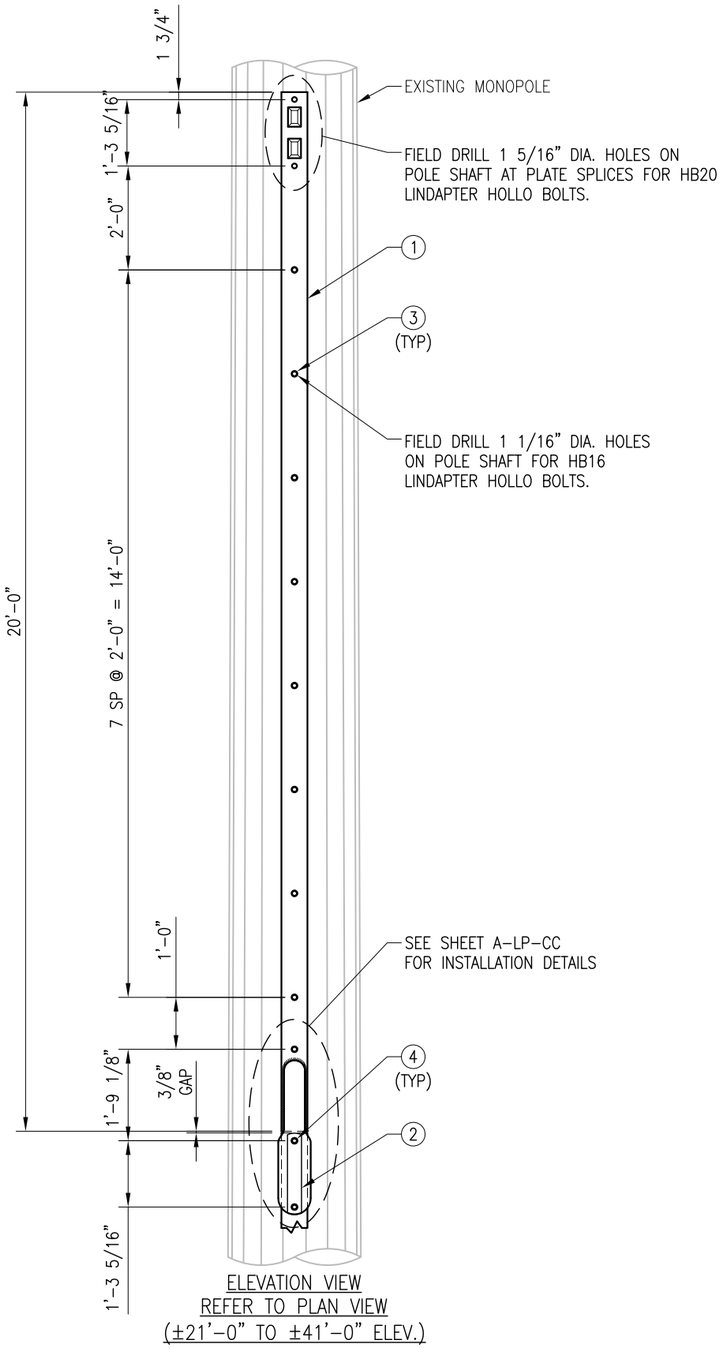
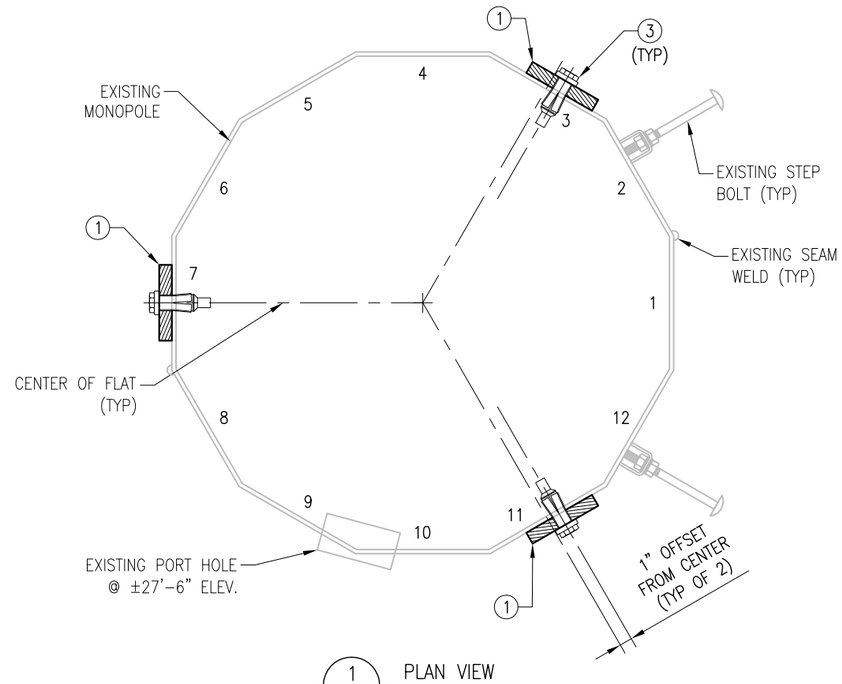
SHEET TITLE:
REINFORCEMENT ASSEMBLY

SHEET NUMBER: A-3
REV #: 0

US PATENT 9,546,497 B2



ELEVATION VIEW
REFER TO PLAN VIEW
(±21'-0" TO ±41'-0" ELEV.)



1 / A-4 PLAN VIEW

NOTES:
1. REFER TO SHEET A-2 FOR FLAT BAR ORIENTATION.
2. REFER TO SHEET A-1 FOR SHIM IF REQUIRED.
3. INSTALLATION TORQUE FOR HOLLO/AJAX-BOLTS: SEE SHEET GN-1.
4. APPLY (2) COATS OF ZINGA COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS TO ALL FIELD DRILLED AND EXPOSED AREAS.

ITEM NO.	QTY.	PART NO.	DESCRIPTION (PER SECTION)
1	3	LP6X100-G-20CC	PL 1" X 6" X 20'-0" A572-65 WELDMENT
2	3	CPL-C	SPLICE CONNECTION COVER PLATE
3	27	HB16-2	LINDAPTER 5/8" TYPE HB HOLLO-BOLT (HCF)
4	6	HB20-3	LINDAPTER 3/4" TYPE HB HOLLO-BOLT (HCF)

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0	FIRST ISSUE	DCR	01/14/22

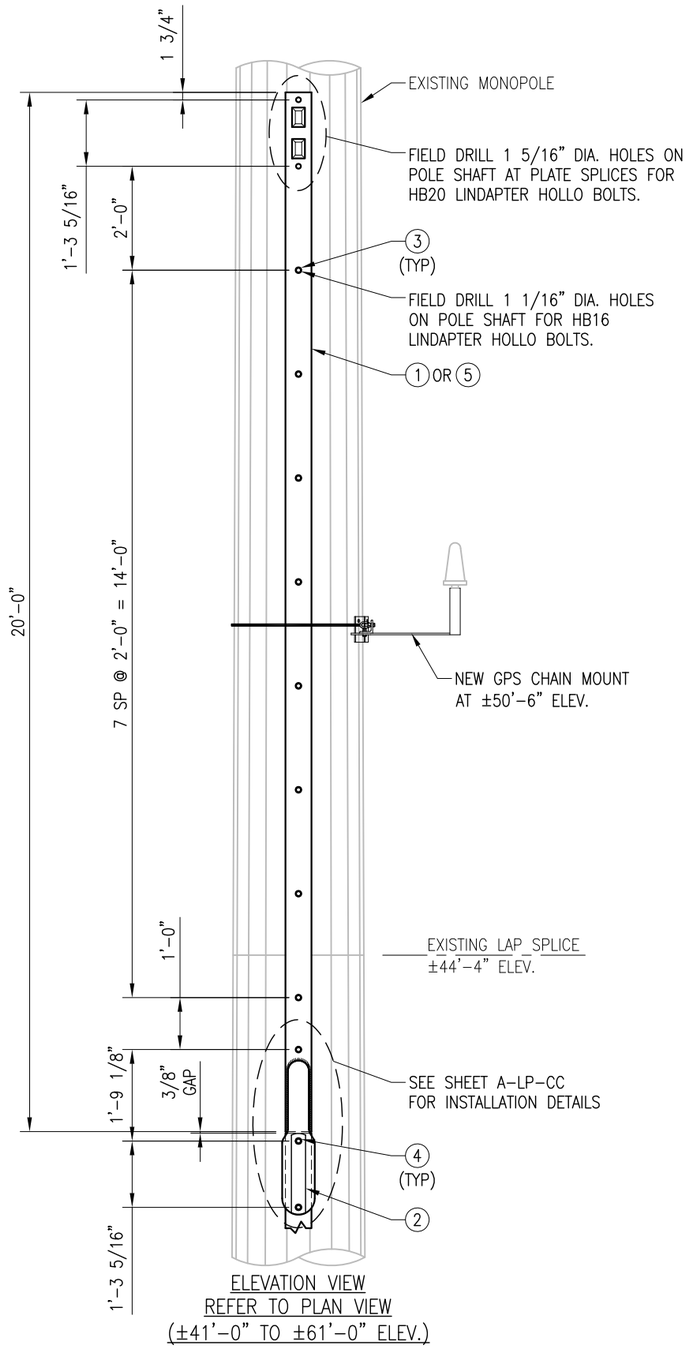
SHEET TITLE:

REINFORCEMENT ASSEMBLY

SHEET NUMBER: A-4

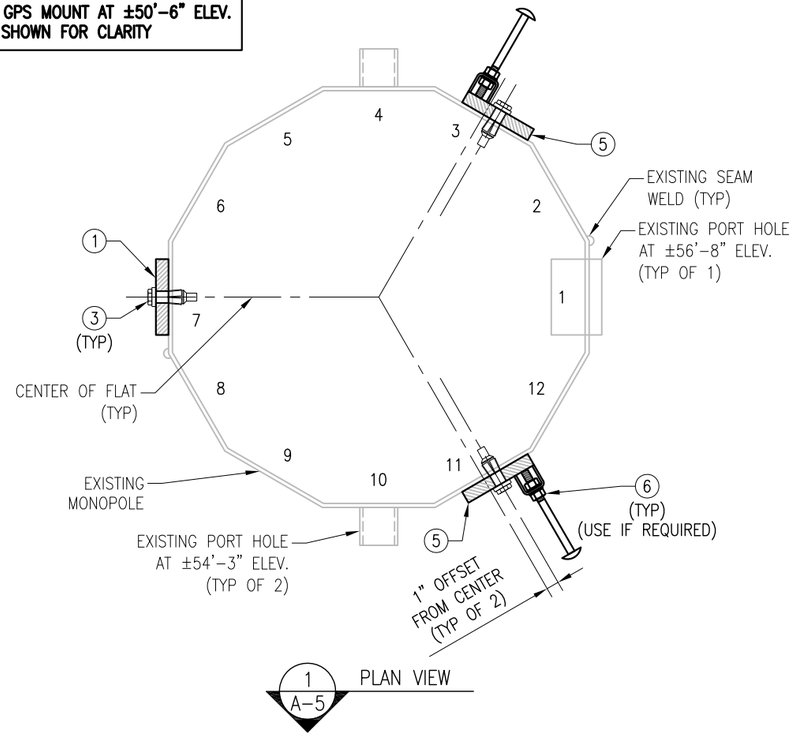
REV #: 0

US PATENT 9,546,497 B2



ELEVATION VIEW
REFER TO PLAN VIEW
(±41'-0" TO ±61'-0" ELEV.)

NOTE:
NEW GPS MOUNT AT ±50'-6" ELEV.
NOT SHOWN FOR CLARITY



1 A-5 PLAN VIEW

NOTES:
1. REFER TO SHEET A-2 FOR FLAT BAR ORIENTATION.
2. REFER TO SHEET A-1 FOR SHIM IF REQUIRED.
3. INSTALLATION TORQUE FOR HOLLO/AJAX-BOLTS: SEE SHEET GN-1.
4. REMOVE EXISTING STEP BOLTS THAT INTERFERE WITH NEW REINFORCEMENT PLATES PRIOR TO INSTALLATION.
5. APPLY (2) COATS OF ZINGA COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS TO ALL FIELD DRILLED AND EXPOSED AREAS.

ITEM NO.	QTY.	PART NO.	DESCRIPTION (PER SECTION)
1	1	LP6X100-G-20CC	PL 1" X 6" X 20'-0" A572-65 WELDMENT
2	3	CPL-C	SPLICE CONNECTION COVER PLATE
3	27	HB16-2	LINDAPTER 5/8" TYPE HB HOLLO-BOLT (HCF)
4	6	HB20-3	LINDAPTER 3/4" TYPE HB HOLLO-BOLT (HCF)
5	2	LP6X100-S-20CC	PL 1" X 6" X 20'-0" A572-65 WELDMENT WITH STEP BOLT
6	32	STEP BOLTS	STEP BOLT 5/8" X 8 1/4" W/ (2) HHN-LKW EA.

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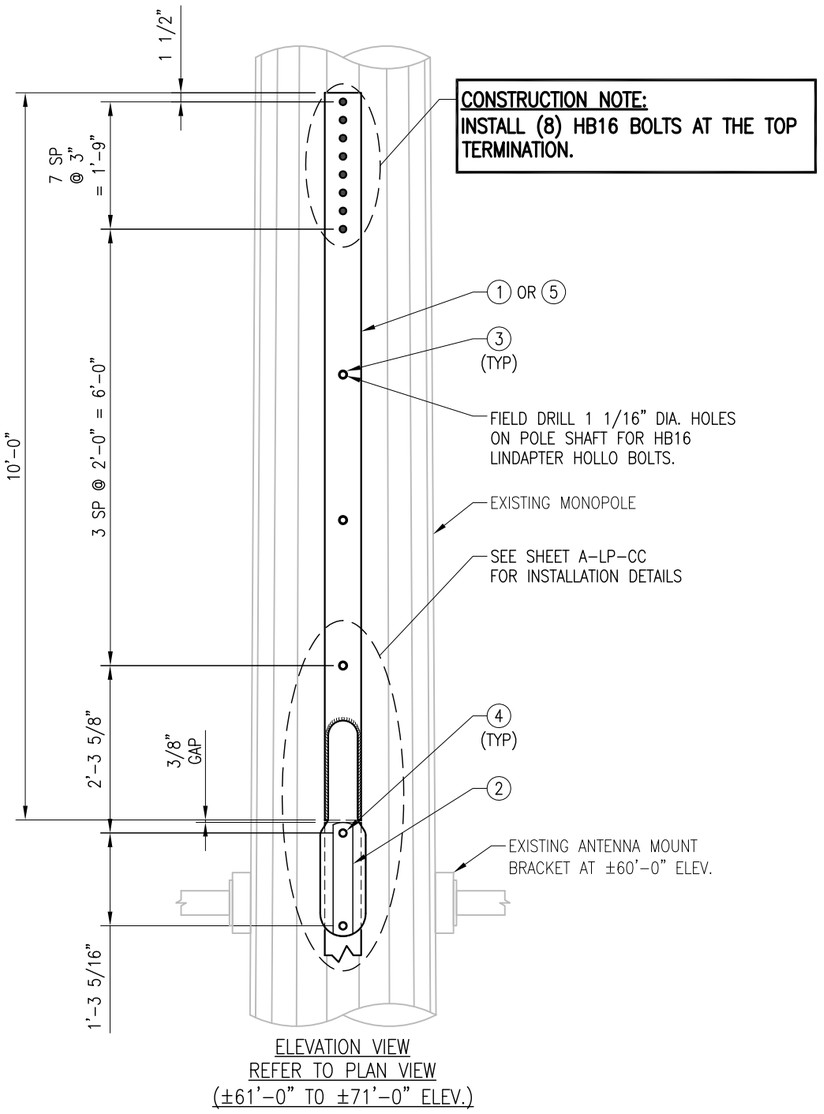
SHEET TITLE:

REINFORCEMENT ASSEMBLY

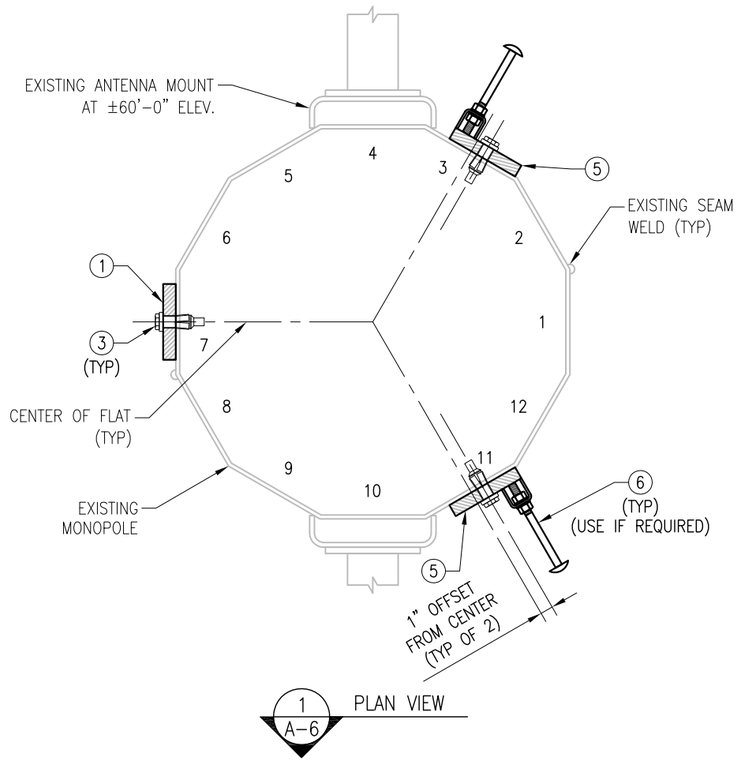
SHEET NUMBER: A-5

REV #: 0

US PATENT 9,546,497 B2



ELEVATION VIEW
REFER TO PLAN VIEW
(±61'-0" TO ±71'-0" ELEV.)



1 A-6 PLAN VIEW

NOTES:
1. REFER TO SHEET A-2 FOR FLAT BAR ORIENTATION.
2. INSTALLATION TORQUE FOR HOLLO/AJAX-BOLTS: SEE SHEET GN-1.
3. REMOVE EXISTING STEP BOLTS THAT INTERFERE WITH NEW REINFORCEMENT PLATES PRIOR TO INSTALLATION.
4. APPLY (2) COATS OF ZINGA COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS TO ALL FIELD DRILLED AND EXPOSED AREAS.

ITEM NO.	QTY.	PART NO.	DESCRIPTION (PER SECTION)
1	1	LP6X100-G-10CT	PL 1" X 6" X 10'-0" A572-65 WELDMENT
2	3	CPL-C	SPLICE CONNECTION COVER PLATE
3	33	HB16-2	LINDAPTER 5/8" TYPE HB HOLLO-BOLT (HCF)
4	6	HB20-3	LINDAPTER 3/4" TYPE HB HOLLO-BOLT (HCF)
5	2	LP6X100-S-10CT	PL 1" X 6" X 10'-0" A572-65 WELDMENT WITH STEP BOLT
6	18	STEP BOLTS	STEP BOLT 5/8" X 8 1/4" W/ (2) NUT-LKW EA.

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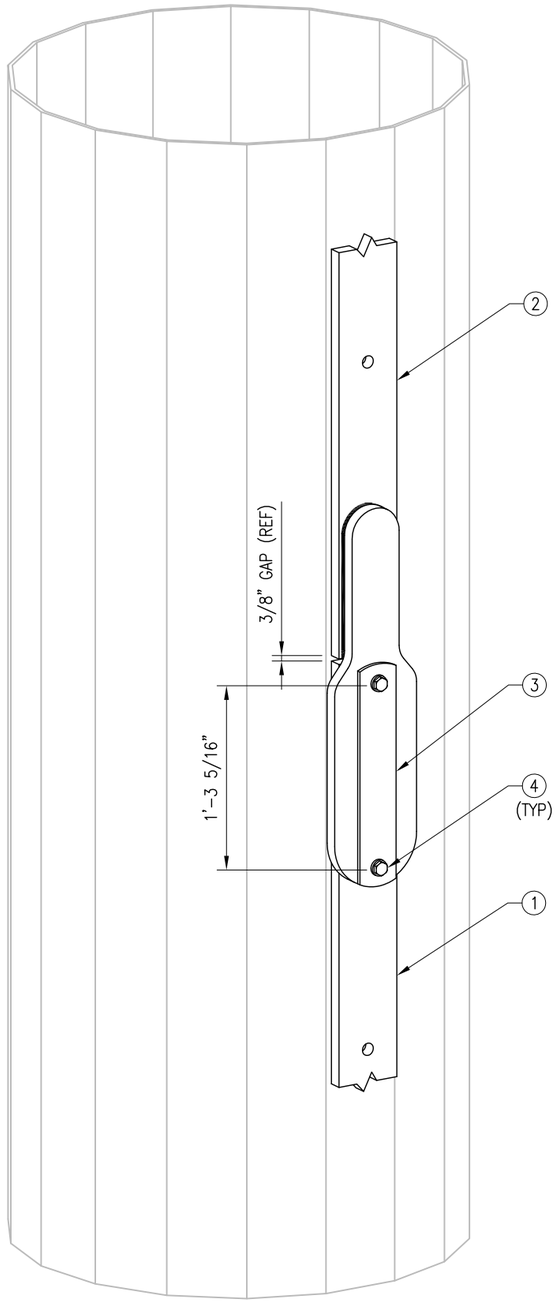
0	FIRST ISSUE	DCR	01/14/22

SHEET TITLE:
REINFORCEMENT ASSEMBLY

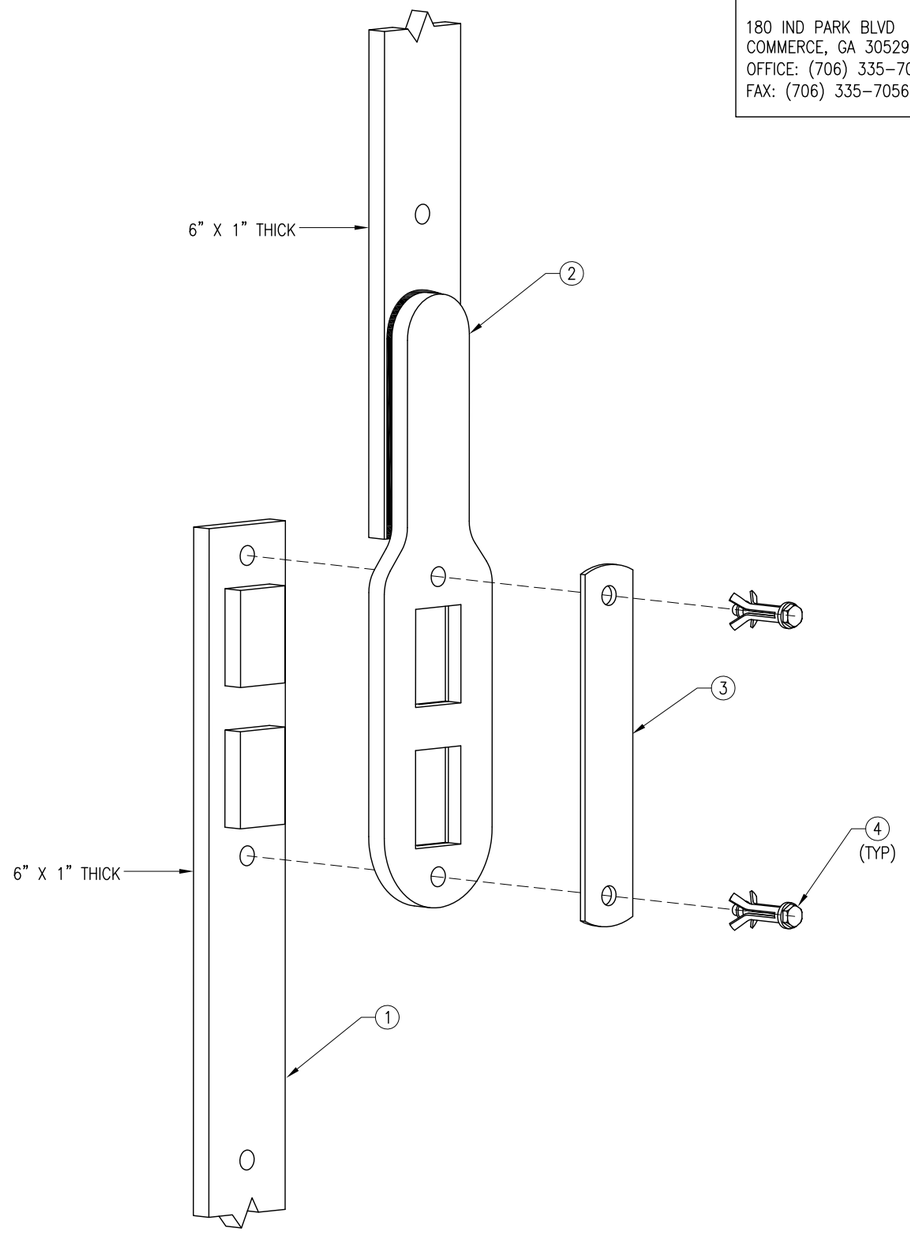
SHEET NUMBER: A-6
REV #: 0

US PATENT 9,546,497 B2



ALL LPXXXX PARTS ARE PATENTED AND ARE AVAILABLE FROM METROSITE, LLC

180 IND PARK BLVD
COMMERCE, GA 30529
OFFICE: (706) 335-7045
FAX: (706) 335-7056



FIELD NOTE:
INSTALLATION TORQUE FOR THE (2) HB20-3 BOLTS AT SPLICE: 221 FT-LBS.

ITEM NO.	QTY.	MATERIAL PART NO.	DESCRIPTION
1	–	LP6X100-X-XXX	PL 1" X 6" PLATE WELDMENT
2	–	LP6X100-X-XXX	PL 1" X 6" PLATE WELDMENT
3	1	CPL-C	KEY PLATE COVER PLATE
4	2	HB20-3	LINDAPTER 3/4" TYPE HB HOLLO-BOLT (HCF)

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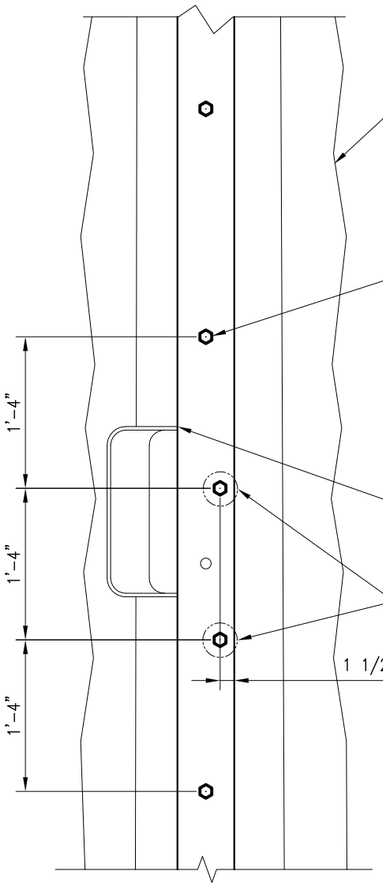
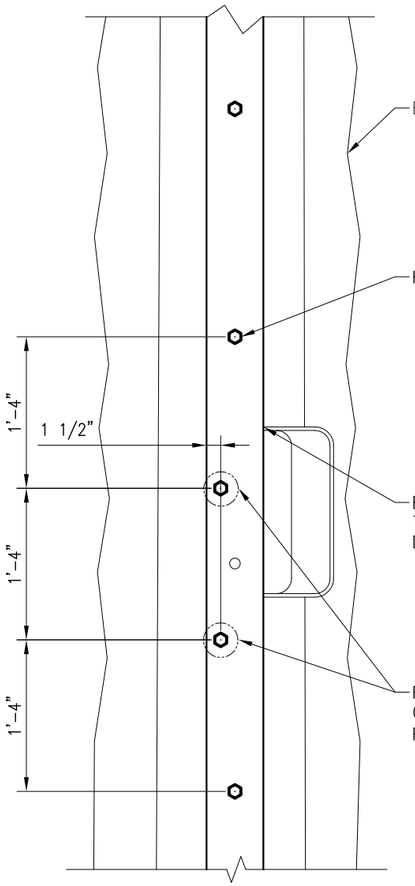
REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	DCR	01/14/22

SHEET TITLE:
SPLICE CONNECTION PLATE INSTALLATION DETAILS (TYPE CC)

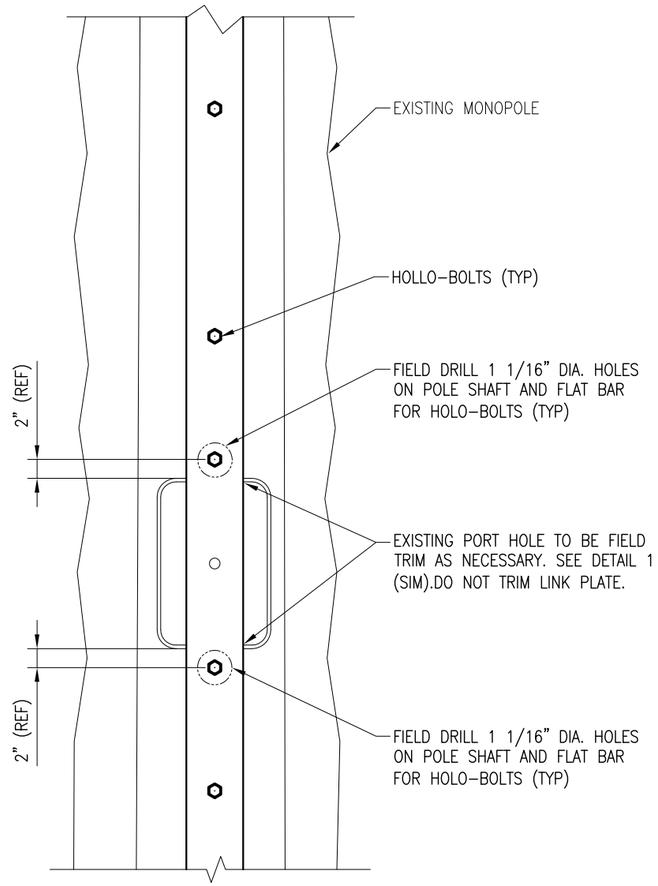
SHEET NUMBER: A-LP-CC
REV #: 0



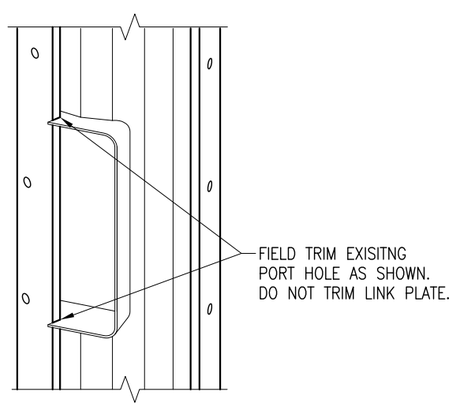
CONDITION A



CONDITION B



CONDITION C



DETAIL 1

NOTES:
1. REFER TO SHEET A-* FOR FLAT BAR LOCATION.
2. DO NOT TRIM LINK PLATE.

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1320 GREENWAY DRIVE, SUITE 600
IRVING, TX 75038
PHONE: (972) 483-0607

verizon

TES JOB NO:
121715

CUSTOMER SITE NO:
468697-VZW
CUSTOMER SITE NAME:
RIDGEFIELD CT
76 EAST RIDGE AVE
RIDGEFIELD, CT 06877

DRAWN BY: DCR | CHECKED BY: SH/AD

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	DCR	01/14/22

SHEET TITLE:
INSTALLATION AT HANDHOLE LOCATION DETAILS

SHEET NUMBER: LP-AT-PH
REV #: 0