Robinson+Cole

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August 9, 2023

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

Re: **Notice of Exempt Modification – Facility Modification**
246 East Franklin Street, Danielson, Connecticut

Dear Attorney Bachman:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") currently maintains a wireless telecommunications facility at the above-referenced address (the "Property"). Cellco's facility consists of antennas and remote radio heads attached to a tower. Equipment associated with the facility is located on the ground adjacent to the tower. Cellco's facility was approved by the Siting Council ("Council") in July of 1999 (TS-BAM-069-990701). A copy of the Council's tower share approval is included in Attachment 1.

Cellco's proposed modification involves the installation of two (2) interference mitigation filters ("Filters") on Cellco's existing antenna platform and mounting assembly. The Filter specification sheet is included in Attachment 2.

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

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

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

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

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

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

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

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

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

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

Sincerely,

Kenneth C. Baldwin

Enclosures
Copy to:
Mary Calorio, Town Manager
Ann-Maire Aubrey, Director of Planning and Development
Charles P. Hutchins & Amanda Martel, Property Owners
Kamoya Bautista De Leon, Verizon Wireless

ATTACHMENT 1

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square
New Britain, Connecticut 06051
Phone: (860) 827-2935
Fax: (860) 827-2950

July 16, 1999

Sandy M. Carter
Manager-Regulatory
Bell Atlantic Mobile
20 Alexander Drive
P.O. Box 5029
Wallingford, CT 06492

RE: TS-BAM-069-990701 - Bell Atlantic Mobile request for an order to approve tower sharing at an existing telecommunications facility located at 246 East Franklin Street in Danielson, Connecticut.

Dear Ms. Carter:

At a public meeting held July 15, 1999, the Connecticut Siting Council (Council) ruled that the shared use of this existing tower site is technically, legally, environmentally, and economically feasible and meets public safety concerns, and therefore, in compliance with General Statutes § 16-50aa, the Council has ordered the shared use of this facility to avoid the unnecessary proliferation of tower structures.

This facility has been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequency now used on this tower. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

This decision applies only to this request for tower sharing and is not applicable to any other request or construction.

The proposed shared use is to be implemented as specified in your letter dated June 30, 1999. Please notify the Council when all work is complete.

Very truly yours,

Mortimer A. Gelston
Chairman

MAG/RKE/tsg

c: Honorable Marc Skocypec, Town Manager, Town of Danielson

ATTACHMENT 2

BSF0020F3V1-1

TWIN BANDSTOP 900MHZ INTERFERENCE MITIGATION FILTER

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

FEATURES

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

TECHNICAL SPECIFICATIONS

BAND NAME	700 PATH / 850 UPLINK PATH	850 DOWNLINK PATH
Passband	698 - 849MHz	869 - 891.5MHz
Insertion loss	0.1dB typical / 0.3dB maximum	0.5dB typical, 1.45dB maximum
Return loss	24dB typical, 18dB minimum	
Maximum input power (Per Port)	100W average	200W average and 66W per 5MHz
Rejection	53dB minimum @ 894.1 - 896.5MHz	

ELECTRICAL	
Impedance	50Ohms
Intermodulation products	-160dBc maximum in UL Band (assuming 20MHz Signal), with 2 x 43dBm carriers -153dBc maximum with 2 x 43dBm

DC / AISG	
Passband	0 - 13MHz
Insertion loss	0.3dB maximum
Return loss	15dB minimum
Input voltage range	± 33V
DC current rating	2A continuous. 4A peak
Compliance	3GPP TS 25.461

ENVIRONMENTAL	
For further details of environmental compliance, please contact Kaelus.	
Temperature range	-20°C to +60°C | -4°F to +140°F
Ingress protection	IP67
Altitude	2600m | 8530ft
Lightning protection	RF port: ±5kA maximum (8/20us), IEC 61000-4-5 – Unit must be terminated with some lightning protection circuits.
MTBF	>1,000,000 hours
Compliance	ETSI EN 300 019 class 4.1H, RoHS, NEBS GR-487-CORE

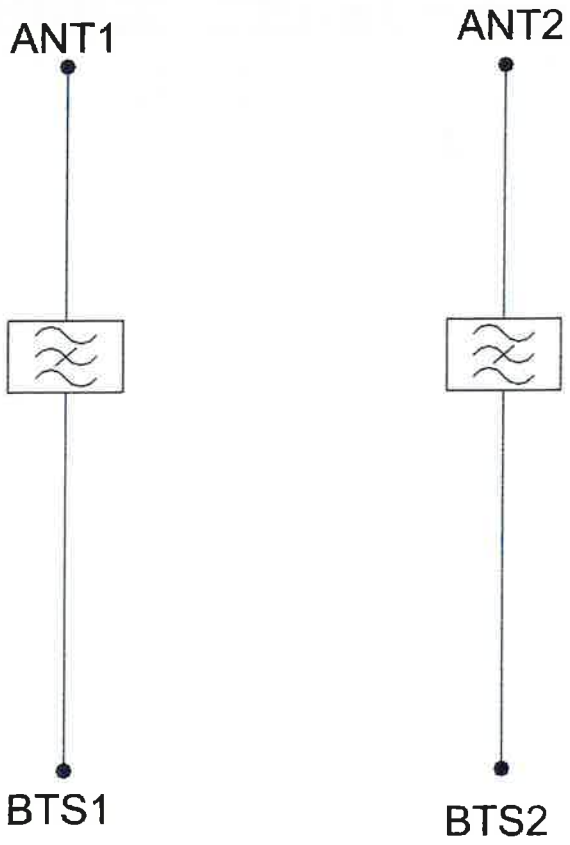
MECHANICAL	
Dimensions H x D x W	269 x 277 x 80mm | 10.60 x 10.90 x 3.15in (Excluding brackets and connectors)
Weight	8.0 kg | 17.6 lbs (no bracket)
Finish	Powder coated, light grey (RAL7035)
Connectors	RF: 4.3-10 (F) x 4
Mounting	Optional pole/wall bracket supplied with two metal clamps 45-178mm diameter poles or custom bracket. See ordering information.

ORDERING INFORMATION

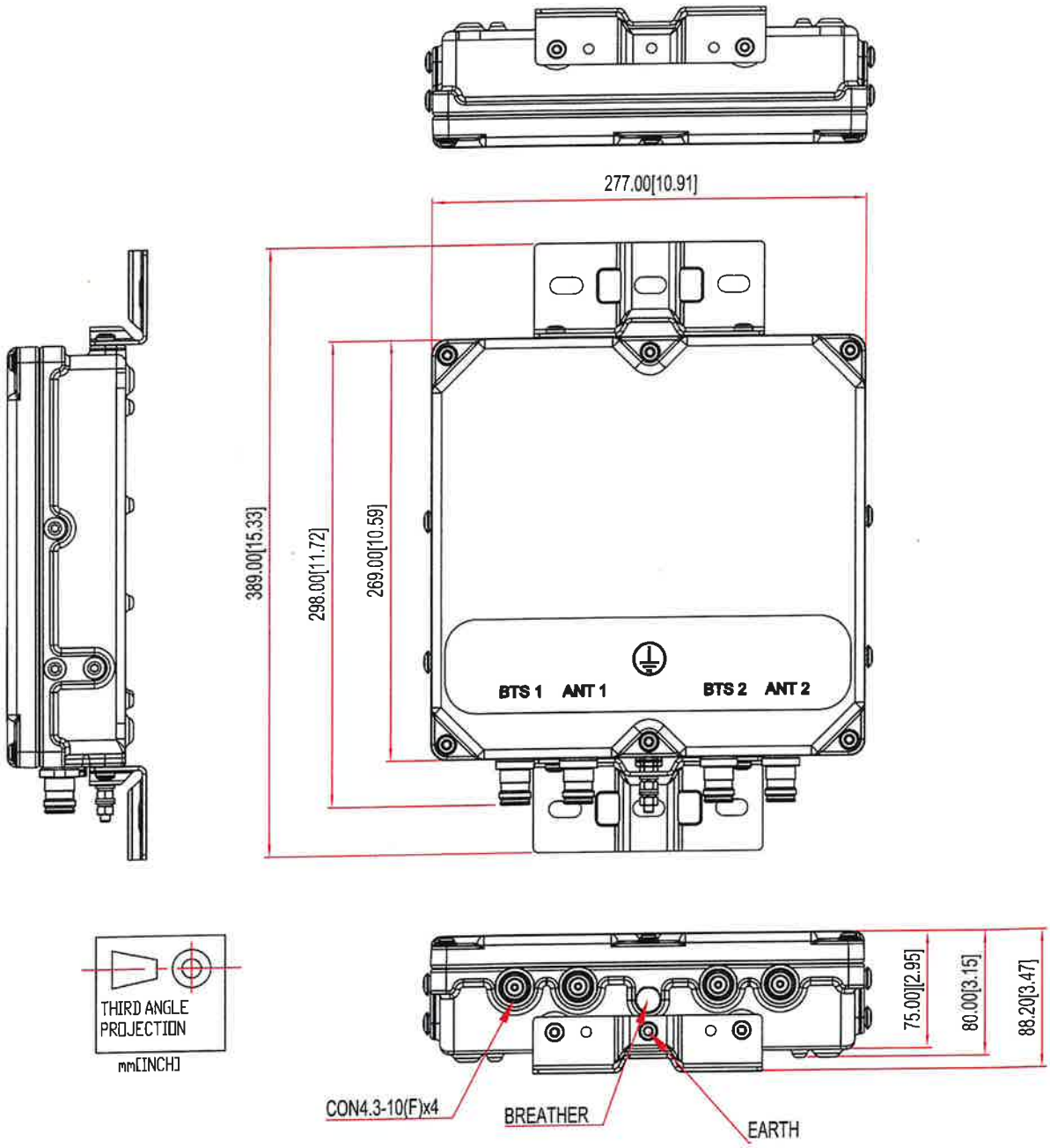
PART NUMBER	CONFIGURATION	OPTIONAL FEATURES	CONNECTORS
BSF0020F3V1	TWIN, 2 in / 2 out	DC/AISG PASS NO BRACKET	4.3-10 (F)
BSF0020F3V1-1	TWIN, 2 in / 2 out	DC/AISG PASS	4.3-10 (F)
BSF0020F3V1-2	QUAD, 4 in / 4 out	DC/AISG PASS	4.3-10 (F)

Contact Us: +1 303 768 8080 | +61 (0) 7 3907 1200 | www.kaelus.com

ELECTRICAL BLOCK DIAGRAM



MECHANICAL BLOCK DIAGRAM



Contact Us: +1 303 768 8080 | +61 (0) 7 3907 1200 | www.kaelus.com

ATTACHMENT 3

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

Structural Analysis Report

Existing 155 ft Nudd Corporation Monopole

Customer Name: SBA Communications Corp

Customer Site Number: CT00302-S

Customer Site Name: Danielson

Carrier Name: Verizon (App#: 232215, V2)

Carrier Site ID / Name: 5000247214 / DANIELSON CT

Site Location: 246 East Franklin Street

Danielson, Connecticut

Windham County

Latitude: 41.795822

Longitude: -71.870333

7/14/23

Analysis Result:

Max Structural Usage: 96.6% [Pass]

Max Foundation Usage: 54.0% [Pass]

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

Report Prepared By: Praveen Shrestha

Introduction

The purpose of this report is to summarize the analysis results on the 155 ft Nudd Corporation Monopole to support the proposed antennas and transmission lines in addition to those currently installed. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

Sources of Information

Tower Drawings	Nudd Corporation, Project #6410 dated October 27, 1998
Foundation Drawing	Nudd Corporation, Project #98-6410-4 dated November 2, 1998
Geotechnical Report	Jaworski Geotech, Inc., Project #C98423G dated October 14, 1998
Modification Drawings	Vertical Solutions, Inc., Job #TA2002007001-T1 dated October 7, 2002 Vertical Solutions, Inc., Job #TA2008007031-T3 dated November 10, 2008 Vertical Solutions, Inc., Job #TA2009007021-T2 dated July 16, 2009 FDH Engineering, Project #12-01571E S4 dated March 13, 2013 FDH Engineering, Project #1466VA1400 dated July 8, 2014
Mount Analysis	N/A

Analysis Criteria

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

Wind Speed Used in the Analysis:	122.0 mph (3-Sec. Gust) (Ultimate wind speed)
Wind Speed with Ice:	50 mph (3-Sec. Gust) with 3/4" radial ice concurrent
Service Load Wind Speed:	60 mph + 0" Radial ice
Standard/Codes:	TIA-222-H / 2021 IBC / 2022 Connecticut State Building Code
Exposure Category:	B
Risk Category:	II
Topographic Category:	3
Crest Height:	281 ft
Seismic Parameters:	$S_S = 0.185$, $S_1 = 0.054$

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

Existing Antennas, Mounts and Transmission Lines

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

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
-	156.5	3	Samsung MT6407-77A – Panel	(3) T-Frame w/ Walkaways (3) Commscope BSAMNT-SBS-2-2	(11) 1 5/8" Coax (2) 1 5/8" Hybrid	Verizon
-	155.0	3	Antel BXA-70080-4BF-EDIN - Panel			
-		6	Andrew JAHH-65B-R3B - Panel			
-		3	Commscope CBC78T-DS-43-2X - Diplexer			
-		3	Samsung B2/B66A - RRU			
-		3	Samsung B5/B13 - RRU			
-		1	Raycap RVZDC-6627-PF-48 - OVP			
-	153.0	3	Samsung XXDWMM-12.5-65-8T-CBRS - Panel			
-		3	Samsung CBRS RRH - RT 4401-48A - RRU			
12	147.0	3	RFS APXVSPP18-C-A20 - Panel	(3) T-Frame w/ Platforms (1) SitePro1 PRK-SFS-L (1) SitePro1 PRK-1245L	(4) 1-1/4" Hybrid	Sprint Nextel
13		3	RFS APXVTM14-C-120 - Panel			
14		3	ALU TD-RRH8x20-25			
15		3	ALU 1900MHz RRH			
16		3	ALU 800 MHz RRH			
17		3	ALU 800 MHz Filters			
18		4	RFS ACU-A20-N RET			
19	137.0	2	Ericsson Air 32 KRD901146-1_B66A_B2A	(3) T-Frame w/ walking platform w/ mount modifications	(2) 1 1/4" (3) 1 5/8" Fiber	T-Mobile
20		2	RFS APXVAALL24-43-U-NA20			
21		2	Ericsson AIR6449 B41			
22		3	Ericsson KRY 112 144/2			
23		2	Ericsson 4449 B71 + B85			
24		2	Ericsson 4415 B25			
25	127.0	3	Powerwave 7770	Low Profile Platform (12) Pipe Mast (1) Handrail kitSitePro1 HRK12-3HD	(8) 1 5/8" (1)3"conduit {housing(2) 3/4" DC and (1) 7/16" fiber line} (2) 2 3/8" conduit {Housing (1) 7/16" fiber & (3) 1" DC}	AT&T
26		3	Cci DMP65R-BU8DA			
27		3	Kathrein 840370799			
28		3	Powerwave DTMABP7819VG12A			
29		6	Powerwave LGP13519 Diplexer			
30		3	Ericsson 4449 B5/B12			
31		3	Ericsson RRUS 4478 B14			
32		3	Ericsson RRUS 8843 B2 B66A			
33		3	Ericsson 4415 B30			
34		1	Raycap DC6-48-60-18-8F			
35		1	Raycap DC9-48-60-24-8C-EV			
36	117.0	3	Commscope MC-PK8-DSH - Panel	Platform Commscope MC-PK8-DSH	(1) 1.6" Hybrid (outside)	Dish Wireless
37		3	Fujitsu TA08025-B605			
38		3	Fujitsu TA08025-B604			
39		1	Raycap RDIDC-9181-PF-48			

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

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

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1	157.0	1	GPS Receiver	(3) T-Frame w/ Walkaways (3) Commscope BSAMNT-SBS-2-2	(11) 1 5/8" Coax (2) 1 5/8" Hybrid	Verizon
2	156.5	3	Samsung MT6407-77A – Panel			
3	155.0	3	Antel BXA-70080-4BF-EDIN - Panel			
4		6	Andrew JAHH-65B-R3B - Panel			
5		3	Commscope CBC78T-DS-43-2X - Diplexer			
6		3	Samsung B2/B66A - RRU			
7		3	Samsung B5/B13 - RRU			
8		1	Raycap RVZDC-6627-PF-48 - OVP			
9		2	Kaelus BSF0020F3V1-1 - Filter			
10	153.0	3	Samsung XXDWMM-12.5-65-8T-CBRS - Panel			
11		3	Samsung CBRS RRH - RT 4401-48A - RRU			

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:	**96.6%**	**91.5%**	**70.2%**
Pass/Fail	**Pass**	**Pass**	**Pass**

Foundations

	Moment (Kip-Ft)	Shear (Kips)	Axial (Kips)
Analysis Reactions	4657.0	42.4	55.8

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

Service Load Condition (Rigidity):

Operational characteristics of the tower are found to be within the limits prescribed by TIA-222 for the installed antennas. The maximum twist/sway at the elevation of the proposed equipment is 1.0030 degrees under the operational wind speed as specified in the Analysis Criteria.

Conclusions

Based on the analysis results, the existing structure and its foundation were found to be adequate to safely support the existing and proposed equipment and meet the minimum requirements per the TIA-222 Standard under the design basic wind speed as specified in the Analysis Criteria.

Standard Conditions

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

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

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

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

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

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

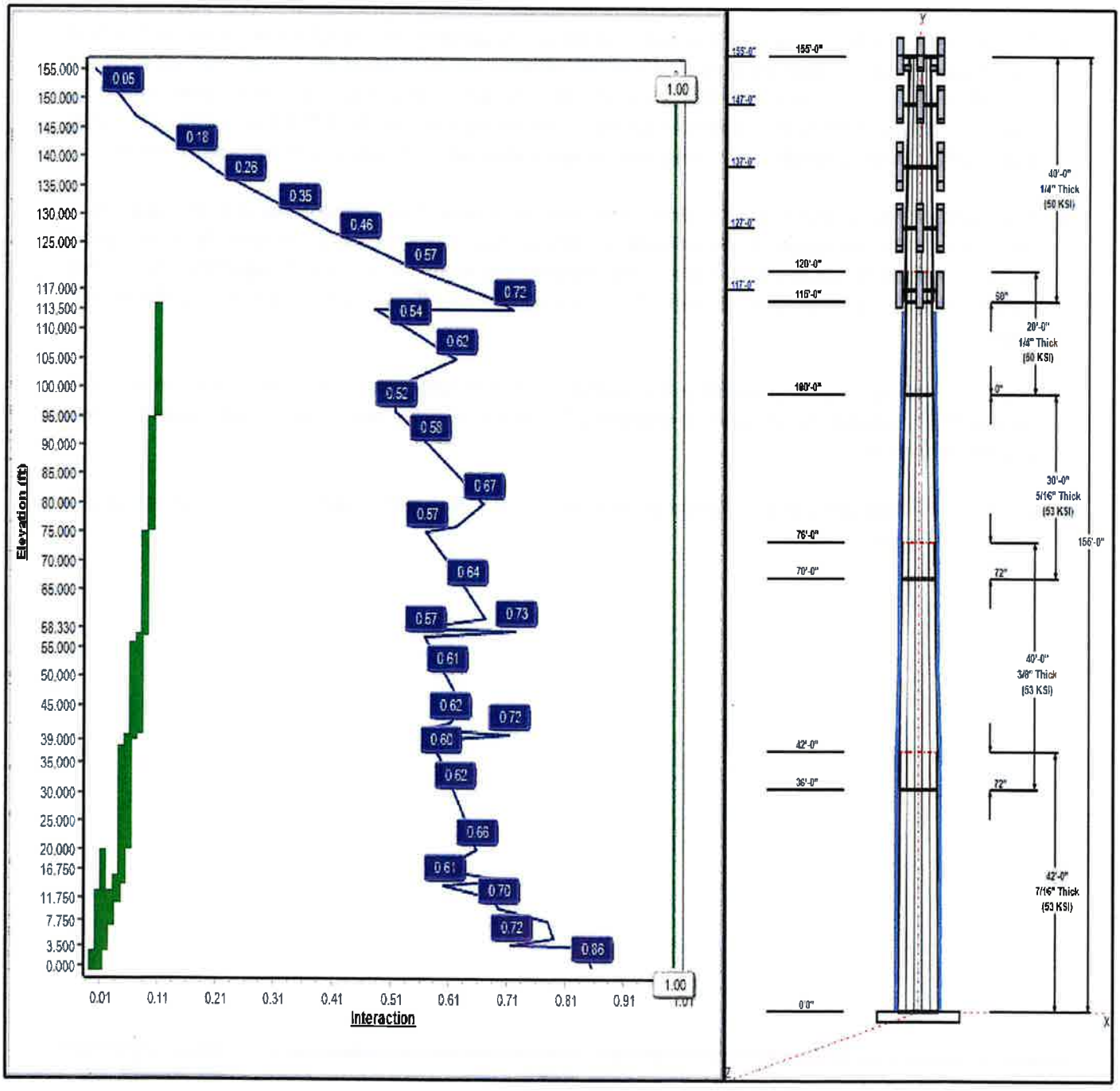
Usage Diagram - Max Ratio 85.96% at 0.0ft

Structure:	CT00302-S-SBA	**Code:**	EIA/TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Gh:**	1.1		
Base Elev:	0.000 (ft)			Page: 1	

Tower Engineering Solutions

Dead Load Factor:	1.20		
Wind Load Factor:	1.00	**Iterations:**	22

Load Case : 1.2D + 1.0W 122 mph Wind



Structure: CT00302-S-SBA

Type: Tapered
Site Name: Danielson
Height: 155.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: 12 Sided
Taper: 0.19129

7/14/2023

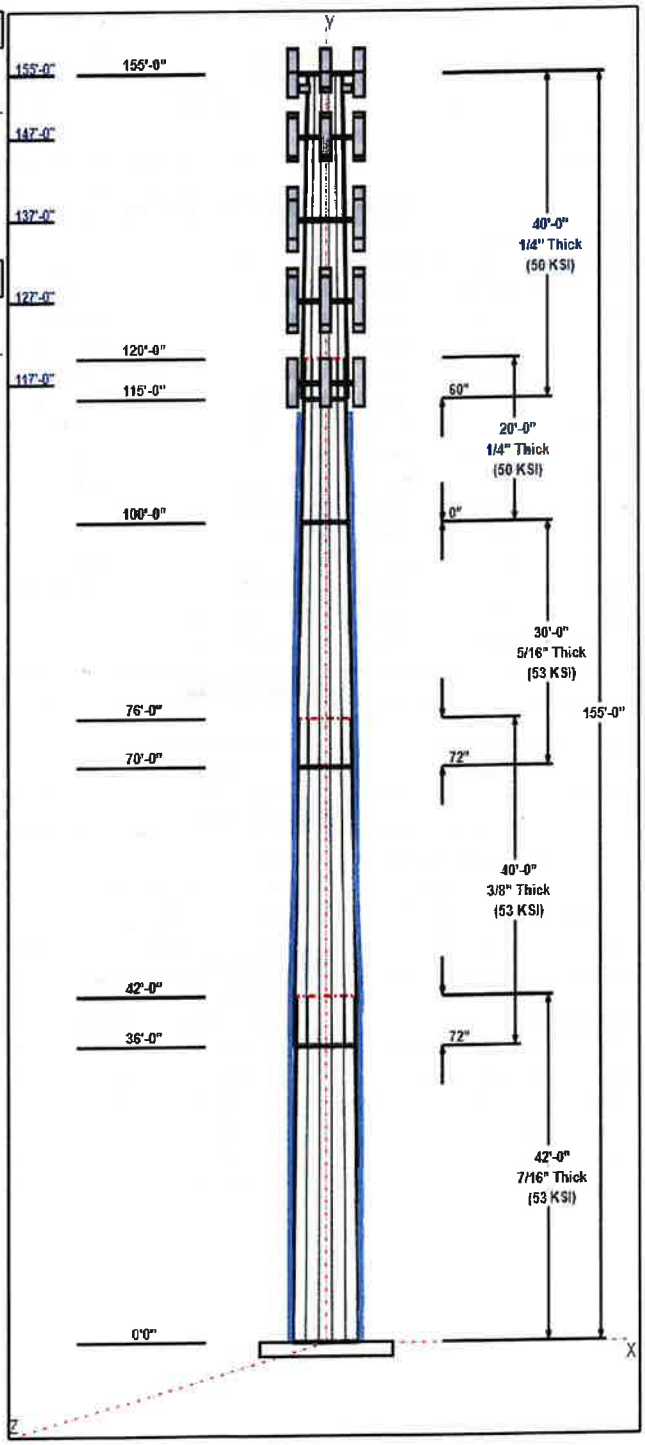
Tower Engineering Solutions

Shaft Properties

Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	42.00	45.87	53.90	0.433		0.19129	53
2	40.00	40.11	47.76	0.375	Slip	0.19129	53
3	30.00	36.15	41.88	0.313	Slip	0.19129	53
4	20.00	32.32	36.15	0.250	Butt	0.19129	50
5	40.00	26.13	33.78	0.250	Slip	0.19129	50

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
155.00	155.00	3	Antel	Verizon
155.00	155.00	1	(3) T-Frame w/ Walkaways	Verizon
155.00	155.00	3	BSAMNT-SBS-2-2	Verizon
155.00	155.00	3	Commscope	Verizon
155.00	155.00	3	Samsung B2/B66A	Verizon
155.00	155.00	3	B5/B13	Verizon
155.00	155.00	1	RVZDC-6627-PF-48	Verizon
155.00	155.00	2	BSF0020F3V1-1	Verizon
155.00	157.00	1	GPS Receiver	Verizon
155.00	155.00	6	JAHH-65B-R3B	Verizon
155.00	156.50	3	MT6407-77A	Verizon
153.00	153.00	3	XXDWMM-12.5-65-8T-CB	Verizon
153.00	153.00	3	CBRS RRH - RT 4401-48A	Verizon
147.00	147.00	1	(3) T-Frame w/ Platforms	Sprint Nextel
147.00	147.00	3	APXVSPP18-C-A20	Sprint Nextel
147.00	147.00	3	APXVTM14-C-I20	Sprint Nextel
147.00	147.00	3	Alcatel Lucent	Sprint Nextel
147.00	147.00	3	Alcatel Lucent 1900 MHz	Sprint Nextel
147.00	147.00	3	Alcatel Lucent 800 MHz	Sprint Nextel
147.00	147.00	3	Alcatel Lucent 800 MHz	Sprint Nextel
147.00	147.00	4	RFS ACU-A20-N RET	Sprint Nextel
147.00	147.00	1	PRK-1245 (kicker kit)	Sprint Nextel
147.00	147.00	1	(3) SFS-H (V-Braces)	Sprint Nextel
137.00	137.00	2	KRD 9011461-B66A-B2A	T-Mobile
137.00	137.00	2	APXVAALL24_43-U-NA20	T-Mobile
137.00	137.00	1	PRK-1245 (kicker kit)	T-Mobile
137.00	137.00	1	(3) HR w/ V-Brace Kits	T-Mobile
137.00	137.00	2	AIR6449 B41	T-Mobile
137.00	137.00	3	KRY 112 144/2	T-Mobile
137.00	137.00	2	4449 B71 + B85	T-Mobile
137.00	137.00	2	RRUS 4415 B25	T-Mobile
137.00	137.00	1	(3) T-Framew/ walking	T-Mobile
127.00	127.00	1	Low Profile	AT&T
127.00	127.00	3	7770.00	AT&T
127.00	127.00	3	DTMABP7819VG12A	AT&T
127.00	127.00	3	4449 B5/B12	AT&T
127.00	127.00	3	RRUS 4478 B14	AT&T
127.00	127.00	1	DC6-48-60-18-8F	AT&T
127.00	127.00	6	LGP13519	AT&T
127.00	127.00	3	DMP65R-BU6DA	AT&T
127.00	127.00	3	840370799	AT&T
127.00	127.00	3	8843 B2 B66A	AT&T
127.00	127.00	3	4415 B30	AT&T
127.00	127.00	1	DC9-48-60-24-8C-EV	AT&T



127.00	127.00	1	HRK12 (Handrail Kit)	AT&T
117.00	117.00	3	Commscope	Dish Wireless
117.00	117.00	3	Fujitsu TA08025-B605	Dish Wireless
117.00	117.00	3	Fujitsu TA08025-B604	Dish Wireless
117.00	117.00	1	Raycap	Dish Wireless
117.00	117.00	1	Commscope MC-PK8-DSH	Dish Wireless

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	155.00	Inside	1 5/8" 6x12 Hybrid	Verizon
0.00	155.00	Inside	1 5/8" Coax	Verizon
0.00	147.00	Inside	1 1/4" Coax	Sprint Nextel
58.00	137.00	Inside	1 1/4" Coax	T-Mobile
58.00	137.00	Inside	1 5/8" Fiber	T-Mobile
0.00	127.00	Inside	1 5/8" Coax	AT&T
0.00	127.00	Inside	1"DC	AT&T
0.00	127.00	Inside	2 3/8" Coax	AT&T
0.00	127.00	Inside	3" Conduit	AT&T
0.00	127.00	Inside	3/4" DC	AT&T
0.00	127.00	Inside	7/16" Fiber	AT&T
0.00	117.00	Outside	1.6" Hybrid	Dish Wireless
58.00	115.00	Outside	1.25" Reinforcing plate	
0.00	58.00	Outside	10"x1/2" Bent plate	

Anchor Bolts

Qty	Specifications	Grade (ksi)	Arrangement
18	2.00" A687	105.0	Radial

Base Plate

Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
1.5000	67.0	36.0	Round

Reactions

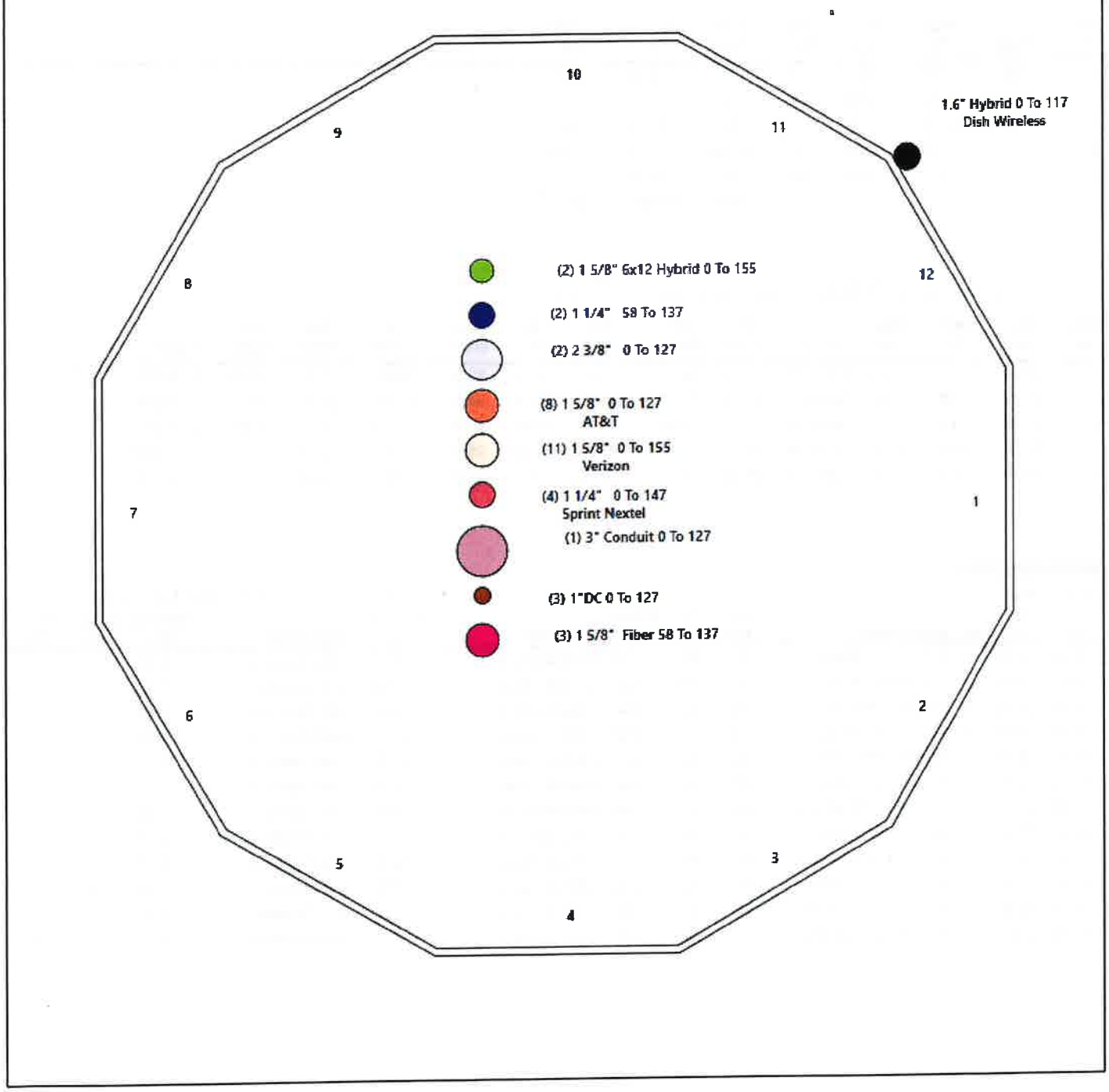
Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.0W 122 mph Wind	4657.0	42.4	55.8
0.9D + 1.0W 122 mph Wind	4614.3	42.3	41.9
1.2D + 1.0Di + 1.0Wi 50 mph Wind	1021.9	9.2	72.1
1.2D + 1.0Ev + 1.0Eh	100.4	0.7	57.7
0.9D + 1.0Ev + 1.0Eh	99.7	0.7	43.7
1.0D + 1.0W 60 mph Wind	1002.4	9.2	46.6

Structure: CT00302-S-SBA - Coax Line Placement

Type: Monopole
Site Name: Danielson
Height: 155.00 (ft)

7/14/2023

TES Tower Engineering Solutions



Shaft Properties

Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 5	

Tower Engineering Solutions

Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	12	42.000	0.4331	53		0.00	9,856
2	12	40.000	0.3750	53	Slip	72.00	7,160
3	12	30.000	0.3125	53	Slip	72.00	3,976
4	12	20.000	0.2500	50	Flange	0.00	1,862
5	12	40.000	0.2500	50	Slip	60.00	3,254
					Total Shaft Weight:		**26,107**

	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	53.90	0.00	74.56	27207.27	31.20	124.45	45.87	42.00	63.36	16693.0	26.23	105.9	0.191290
2	47.76	36.00	57.22	16401.87	31.98	127.37	40.11	76.00	47.98	9670.66	26.52	106.9	0.191290
3	41.88	70.00	41.83	9227.84	33.77	134.03	36.15	100.00	36.06	5909.60	28.85	115.6	0.191290
4	36.15	100.0	28.90	4752.46	36.60	144.58	32.32	120.00	25.82	3389.11	32.50	129.2	0.191290
5	33.78	115.0	26.99	3872.14	34.06	135.11	26.13	155.00	20.83	1780.01	25.86	104.5	0.191290

Additional Steel

Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Fu (ksi)	Offset (in)	Intermediate Connectors: Description	Intermediate Connectors: Spacing (in)	Termination Connectors: Description	Termination Connectors: Spacing (in)	Termination Connectors: Lower Qty	Termination Connectors: Upper Qty
0.00	3.75	1	PLT 10"x1/2" (90deg)	65	80	0.00	AJM20&sleeve	18.00	AJM20&sleeve	0.00		
0.00	14.00	2	PLT 10"x1/2" (90deg)	65	80	0.00	AJM20&sleeve	18.00	AJM20&sleeve	0.00		
3.50	21.00	3	PLT 6"X1-1/4"(1.25" Hole	65	80	0.00	AJM20&sleeve	18.00	AJM20&sleeve	3.00		
7.75	14.00	1	PLT 10"x1/2" (90deg)	65	80	0.00	AJM20&sleeve	18.00	AJM20&sleeve	0.00		
11.75	16.75	1	PLT 6"X1-1/4"(1.25" Hole	65	80	0.00	AJM20&sleeve	18.00	AJM20&sleeve	3.00	10	10
15.00	39.00	3	PLT 10"x1/2" (90deg)	65	80	0.00	AJM20&sleeve	18.00	AJM20&sleeve	0.00		
21.00	41.00	3	PLT 6"X1-1/4"(1.25" Hole	65	80	0.00	AJM20&sleeve	18.00	AJM20&sleeve	3.00		
40.00	57.00	3	PLT 10"x1/2" (90deg)	65	80	0.00	AJM20&sleeve	18.00	AJM20&sleeve	0.00		
41.00	58.33	3	PLT 6"X1-1/4"(1.25" Hole	65	80	0.00	AJM20&sleeve	18.00	AJM20&sleeve	3.00		11
58.00	76.00	3	PLT 5"x1-1/4"(1.25"Hole)	65	80	0.00	AJM20&sleeve	18.00	AJM20&sleeve	3.00	8	
76.00	96.00	3	PLT 4.5"x 1-1/4"(1.25"ho	65	80	0.00	AJM20&sleeve	18.00	AJM20&sleeve	3.00		
96.00	113.5	3	PLT 3.5x1.25(1.25 Hole)	65	80	0.00	AJM20&sleeve	18.00	AJM20&sleeve	3.00		6

Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	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	155.00	Antel BXA-70080-4BF-EDIN	3	9.80	3.29	0.93	60.89	3.752	0.93	0.00	0.00
2	155.00	(3) T-Frame w/ Walkaways	1	1620.00	25.00	1.00	2367.50	35.613	1.00	0.00	0.00
3	155.00	BSAMNT-SBS-2-2	3	67.40	0.00	1.00	92.28	0.000	1.00	0.00	0.00
4	155.00	Commscope CBC78T-DS-43-2X	3	21.82	0.37	0.50	34.88	0.504	0.50	0.00	0.00
5	155.00	Samsung B2/B66A	3	84.40	1.87	0.50	120.42	2.161	0.50	0.00	0.00
6	155.00	B5/B13	3	70.30	1.87	0.50	102.70	2.161	0.50	0.00	0.00
7	155.00	RVZDC-6627-PF-48	1	32.00	4.06	1.00	92.24	4.495	1.00	0.00	0.00
8	155.00	BSF0020F3V1-1	2	17.60	0.96	0.67	31.22	1.194	0.67	0.00	0.00
9	155.00	GPS Receiver	1	10.00	1.00	1.00	25.50	1.377	1.00	0.00	2.00
10	155.00	JAHH-65B-R3B	6	68.56	9.11	0.83	180.65	9.803	0.83	0.00	0.00
11	155.00	MT6407-77A	3	87.10	4.69	0.70	144.21	5.185	0.70	0.00	1.50
12	153.00	XXDWMM-12.5-65-8T-CBRS	3	2.90	0.89	0.86	15.70	1.118	0.86	0.00	0.00
13	153.00	CBRS RRH - RT 4401-48A	3	18.60	0.86	0.50	33.23	1.054	0.50	0.00	0.00
14	147.00	(3) T-Frame w/ Platforms	1	1620.00	25.00	1.00	2364.70	35.573	1.00	0.00	0.00
15	147.00	APXVSPP18-C-A20	3	57.00	8.02	0.83	148.06	9.492	0.83	0.00	0.00
16	147.00	APXVTM14-C-I20	3	56.00	6.34	0.79	132.58	6.909	0.79	0.00	0.00
17	147.00	Alcatel Lucent TD-RRH8x20-25	3	70.00	4.05	0.50	122.61	4.462	0.50	0.00	0.00
18	147.00	Alcatel Lucent 1900 MHz RRH	3	60.00	2.31	0.50	216.15	2.654	0.50	0.00	0.00
19	147.00	Alcatel Lucent 800 MHz RRH	3	53.00	2.49	0.50	91.96	3.092	0.50	0.00	0.00
20	147.00	Alcatel Lucent 800 MHz Filter	3	8.80	0.78	0.50	18.09	1.121	0.50	0.00	0.00
21	147.00	RFS ACU-A20-N RET	4	1.00	0.14	0.50	3.26	0.296	0.50	0.00	0.00
22	147.00	PRK-1245 (kicker kit)	1	464.91	9.50	1.00	635.88	14.741	1.00	0.00	0.00
23	147.00	(3) SFS-H (V-Braces)	1	197.00	9.60	1.00	378.12	13.130	1.00	0.00	0.00
24	137.00	KRD 9011461-B66A-B2A	2	132.20	6.51	0.87	220.02	7.079	0.87	0.00	0.00
25	137.00	APXVAALL24_43-U-NA20	2	128.00	20.24	0.70	333.96	21.219	0.70	0.00	0.00
26	137.00	PRK-1245 (kicker kit)	1	445.91	8.50	1.00	609.07	13.165	1.00	0.00	0.00
27	137.00	(3) HR w/ V-Brace Kits	1	450.00	8.50	1.00	746.38	13.165	1.00	0.00	0.00
28	137.00	AIR6449 B41	2	103.00	5.65	0.71	174.87	6.148	0.71	0.00	0.00
29	137.00	KRY 112 144/2	3	11.00	0.41	0.50	16.65	0.659	0.50	0.00	0.00
30	137.00	4449 B71 + B85	2	73.20	1.97	0.50	103.47	2.268	0.50	0.00	0.00
31	137.00	RRUS 4415 B25	2	46.00	1.64	0.50	67.54	1.910	0.50	0.00	0.00
32	137.00	(3) T-Framew/ walking platform	1	1620.00	25.00	1.00	2360.94	35.520	1.00	0.00	0.00
33	127.00	Low Profile Platform-Round	1	1500.00	25.00	1.00	2182.28	35.462	1.00	0.00	0.00
34	127.00	7770.00	3	35.00	5.50	0.73	97.94	6.039	0.73	0.00	0.00
35	127.00	DTMABP7819VG12A	3	19.20	1.14	0.50	32.50	1.541	0.50	0.00	0.00
36	127.00	4449 B5/B12	3	71.00	1.97	0.50	98.83	2.255	0.50	0.00	0.00
37	127.00	RRUS 4478 B14	3	59.40	1.65	0.50	81.01	1.920	0.50	0.00	0.00
38	127.00	DC6-48-60-18-8F	1	31.80	0.92	0.50	64.03	1.148	0.50	0.00	0.00
39	127.00	LGP13519	6	5.30	0.34	0.50	10.25	0.577	0.50	0.00	0.00
40	127.00	DMP65R-BU6DA	3	79.40	12.71	0.72	232.93	13.473	0.72	0.00	0.00
41	127.00	840370799	3	18.70	15.93	0.69	175.79	17.849	0.69	0.00	0.00
42	127.00	8843 B2 B66A	3	70.00	1.64	0.50	93.97	1.909	0.50	0.00	0.00
43	127.00	4415 B30	3	44.10	1.86	0.50	68.83	2.159	0.50	0.00	0.00
44	127.00	DC9-48-60-24-8C-EV	1	26.20	1.14	0.50	81.45	1.967	0.50	0.00	0.00
45	127.00	HRK12 (Handrail Kit)	1	261.72	6.75	1.00	423.62	10.189	1.00	0.00	0.00
46	117.00	Commscope FFVV-65B-R2	3	70.80	12.27	0.74	218.55	13.024	0.74	0.00	0.00
47	117.00	Fujitsu TA08025-B605	3	75.00	1.96	0.67	102.10	2.251	0.67	0.00	0.00
48	117.00	Fujitsu TA08025-B604	3	63.90	1.96	0.67	90.13	2.251	0.67	0.00	0.00
49	117.00	Raycap RDIDC-9181-PF-48	1	21.90	2.01	1.00	49.49	2.304	1.00	0.00	0.00
50	117.00	Commscope MC-PK8-DSH	1	1727.00	37.59	1.00	2601.47	62.062	1.00	0.00	0.00

Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice Weight (lb)	No Ice CaAa (sf)	No Ice CaAa Factor	Ice Weight (lb)	Ice CaAa (sf)	Ice CaAa Factor	Hor. Ecc. (ft)	Vert Ecc (ft)
		Totals:	121	15,329.46			25,932.32				

Linear Appurtenances

Bottom Elev. (ft)	Top Elev. (ft)	Description	Exposed Width	Exposed
0.00	155.00	(2) 1 5/8" 6x12 Hybrid	0.00	Inside
0.00	155.00	(11) 1 5/8" Coax	0.00	Inside
0.00	147.00	(4) 1 1/4" Coax	0.00	Inside
58.00	137.00	(2) 1 1/4" Coax	0.00	Inside
58.00	137.00	(3) 1 5/8" Fiber	0.00	Inside
0.00	127.00	(8) 1 5/8" Coax	0.00	Inside
0.00	127.00	(3) 1"DC	0.00	Inside
0.00	127.00	(2) 2 3/8" Coax	0.00	Inside
0.00	127.00	(1) 3" Conduit	0.00	Inside
0.00	127.00	(2) 3/4" DC	0.00	Inside
0.00	127.00	(2) 7/16" Fiber	0.00	Inside
0.00	117.00	(1) 1.6" Hybrid	1.60	Outside
58.00	115.00	(3) 1.25" Reinforcing plate	1.25	Outside
0.00	58.00	(3) 10"x1/2" Bent plate	3.56	Outside

Shaft Section Properties

Structure: CT00302-S-SBA
Site Name: Danielson
Height: 155.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1
Topography: 3

Code: TIA-222-H
Exposure: B
Crest Height: 281.00
Site Class: D - Stiff Soil
Struct Class: II

7/14/2023

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)	Additional Reinforcing Ixp (in^4)	Additional Reinforcing Iyp (in^4)	Additional Reinforcing Weight (lb)
0.00	RB1 RB2	0.4331	53.900	74.564	27207.3	31.20	124.45	53	60	0.0	15.00	6715.9	6715.9	
3.50	RB3	0.4331	53.230	73.630	26197.9	30.79	122.91	53	61	882.5	37.50	17647.1	12084.9	446.6
3.75	RT1	0.4331	53.183	73.564	26126.8	30.76	122.80	53	61	62.6	37.50	17617.1	12064.6	31.9
5.00		0.4331	52.944	73.230	25773.1	30.61	122.24	53	61	312.2	32.50	16620.7	8245.4	138.2
7.75	RB4	0.4331	52.418	72.497	25006.3	30.29	121.03	53	61	681.8	37.50	17140.1	11742.8	350.9
10.00		0.4331	51.987	71.896	24390.3	30.02	120.03	53	61	552.8	37.50	16874.7	11563.6	287.1
11.75	RB5	0.4331	51.652	71.429	23918.2	29.81	119.26	53	61	426.7	45.00	16763.2	15672.4	268.0
14.00	RT2 RT4	0.4331	51.222	70.829	23320.3	29.55	118.27	53	62	544.6	45.00	16500.5	15423.2	344.5
15.00	RB6	0.4331	51.031	70.562	23057.8	29.43	117.83	53	62	240.6	45.00	16384.5	15313.1	153.1
16.75	RT5	0.4331	50.696	70.096	22603.2	29.22	117.05	53	62	418.8	45.00	16182.3	15121.4	268.0
20.00		0.4331	50.074	69.229	21774.8	28.84	115.62	53	62	770.4	37.50	15720.4	10784.4	414.7
21.00	RT3 RB7	0.4331	49.883	68.962	21524.0	28.72	115.18	53	62	235.1	60.00	25290.4	15485.7	204.2
25.00		0.4331	49.118	67.895	20540.3	28.24	113.41	53	63	931.4	37.50	15158.7	10405.1	510.4
30.00		0.4331	48.161	66.561	19353.3	27.65	111.20	53	63	1143.8	37.50	14607.2	10032.6	638.0
35.00		0.4331	47.205	65.227	18213.0	27.06	108.99	53	64	1121.1	37.50	14066.0	9666.9	638.0
36.00	Bot - Section 2	0.4331	47.014	64.960	17990.4	26.94	108.55	53	64	221.5	37.50	13959.0	9594.6	127.6
39.00	RT6	0.4331	46.440	64.160	17333.6	26.59	107.23	53	64	1239.7	37.50	14057.0	9660.6	382.8
40.00	RB8	0.4331	46.248	63.893	17118.3	26.47	106.78	53	64	409.8	37.50	13950.0	9588.3	127.6
41.00	RT7 RB9	0.4331	46.057	63.626	16904.8	26.35	106.34	53	64	408.1	60.00	22397.4	13737.4	204.2
42.00	Top - Section 1	0.3750	46.616	55.836	15238.7	31.16	124.31	53	60	406.4	37.50	13737.3	9444.6	127.6
45.00		0.3750	46.042	55.143	14678.4	30.75	122.78	53	61	566.5	37.50	13417.4	9226.7	382.8
50.00		0.3750	45.085	53.988	13775.3	30.07	120.23	53	61	928.4	37.50	12899.1	8876.5	638.0
55.00		0.3750	44.129	52.833	12910.0	29.39	117.68	53	62	908.7	37.50	12391.2	8533.1	638.0
57.00	RT8	0.3750	43.746	52.371	12574.3	29.11	116.66	53	62	358.0	37.50	12190.9	8397.6	255.2
58.00	RB10	0.3750	43.555	52.140	12408.7	28.98	116.15	53	62	177.8	41.25	12224.5	8463.6	140.3
58.33	RT9	0.3750	43.492	52.064	12354.3	28.93	115.98	53	62	58.5	41.25	12190.2	8439.9	46.3
60.00		0.3750	43.173	51.678	12081.8	28.70	115.13	53	62	294.8	18.75	4645.8	4645.8	106.5
65.00		0.3750	42.216	50.523	11289.7	28.02	112.58	53	63	869.4	18.75	4448.8	4448.8	318.9
70.00	Bot - Section 3	0.3750	41.260	49.368	10533.1	27.34	110.03	53	63	849.8	18.75	4256.1	4256.1	318.9
75.00		0.3750	40.303	48.213	9811.0	26.65	107.48	53	64	1533.7	18.75	4190.3	4190.3	318.9
76.00	Top - Section 2 RT10	0.3125	40.737	40.677	8484.5	32.79	130.36	53	59	302.4	35.63	7886.5	7886.5	121.2
80.00		0.3125	39.972	39.907	8011.7	32.13	127.91	53	60	548.4	16.88	3599.7	3599.7	229.7
85.00		0.3125	39.015	38.945	7445.9	31.31	124.85	53	60	670.8	16.88	3435.3	3435.3	287.1
90.00		0.3125	38.059	37.982	6907.4	30.49	121.79	53	61	654.4	16.88	3274.7	3274.7	287.1
95.00		0.3125	37.102	37.020	6395.6	29.67	118.73	53	62	638.0	16.88	3118.0	3118.0	287.1
96.00	RT11 RB12	0.3125	36.911	36.827	6296.3	29.51	118.12	53	62	125.6	30.00	5483.9	5483.9	102.1
100.00	Top - Section 3	0.3125	36.146	36.057	5909.6	28.85	115.67	53	62	496.0	13.13	2301.9	2301.9	178.6
100.00	Bot - Section 4	0.2500	36.146	28.896	4752.5	36.06	144.58	50	54					
105.00		0.2500	35.190	28.126	4382.6	35.57	140.76	50	54	485.1	13.13	2186.0	2186.0	223.3
110.00		0.2500	34.233	27.356	4032.5	34.55	136.93	50	55	472.0	13.13	2073.2	2073.2	223.3
113.50	RT12	0.2500	33.564	26.817	3798.8	33.83	134.25	50	56	322.6	13.13	1996.0	1996.0	156.3
115.00	Bot - Section 5	0.2500	33.277	26.586	3701.5	33.52	133.11	50	56	136.3				
117.00		0.2500	32.894	26.278	3574.3	33.11	131.58	50	56	362.5				
120.00	Top - Section 4	0.2500	32.820	26.219	3550.1	33.03	131.28	50	56	535.9				
125.00		0.2500	31.864	25.449	3246.4	32.01	127.45	50	57	439.5				
127.00		0.2500	31.481	25.141	3130.0	31.60	125.92	50	57	172.1				
130.00		0.2500	30.907	24.679	2960.6	30.98	123.63	50	58	254.3				
135.00		0.2500	29.951	23.909	2692.1	29.96	119.80	50	59	413.3				
137.00		0.2500	29.568	23.601	2589.4	29.55	118.27	50	59	161.7				
140.00		0.2500	28.994	23.139	2440.3	28.93	115.98	50	59	238.6				

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)
145.00		0.2500	28.038	22.369	2204.7	27.91	112.15	50	60	387.1				
147.00		0.2500	27.655	22.061	2114.9	27.50	110.62	50	60	151.2				
150.00		0.2500	27.081	21.599	1984.8	26.88	108.33	50	61	222.9				
153.00		0.2500	26.508	21.137	1860.1	26.27	106.03	50	61	218.1				
155.00		0.2500	26.125	20.829	1780.0	25.86	104.50	50	62	142.8				
									Total Weight	**26107.2**				**10923.1**

Wind Loading - Shaft

Structure: CT00302-S-SBA
Site Name: Danielson
Height: 155.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 3

Code: TIA-222-H
Exposure: B
Crest Height: 281.00
Site Class: D - Stiff Soil
Struct Class: II

7/14/2023

Tower Engineering Solutions

Load Case: 1.2D + 1.0W 122 mph Wind
Dead Load Factor 1.20
Wind Load Factor 1.00

Iterations 22

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00	RB1 RB2	1.30	0.70	32.349	35.58	536.31	0.950	0.000	0.00	0.000	0.00	0.0	0.0	0.0
3.50	RB3	1.29	0.70	32.246	35.47	528.80	0.950	0.000	3.50	16.174	15.37	545.0	0.0	1059.0
3.75	RT1	1.29	0.70	32.239	35.46	528.27	0.950	0.000	0.25	1.148	1.09	38.7	0.0	75.1
5.00		1.29	0.70	32.202	35.42	525.59	0.950	0.000	1.25	5.722	5.44	192.6	0.0	374.6
7.75	RB4	1.29	0.70	32.123	35.34	519.73	0.950	0.000	2.75	12.498	11.87	419.6	0.0	818.2
10.00		1.29	0.70	32.059	35.26	514.94	0.950	0.000	2.25	10.133	9.63	339.5	0.0	663.3
11.75	RB5	1.29	0.70	32.009	35.21	511.23	0.950	0.000	1.75	7.824	7.43	261.7	0.0	512.1
14.00	RT2 RT4	1.28	0.70	31.946	35.14	506.47	0.950	0.000	2.25	9.985	9.49	333.3	0.0	653.5
15.00	RB6	1.28	0.70	31.918	35.11	504.36	0.950	0.000	1.00	4.411	4.19	147.1	0.0	288.7
16.75	RT5	1.28	0.70	31.869	35.06	500.67	0.950	0.000	1.75	7.679	7.30	255.7	0.0	502.6
20.00		1.28	0.70	31.780	34.96	493.83	0.950	0.000	3.25	14.127	13.42	469.2	0.0	924.5
21.00	RT3 RB7	1.27	0.70	31.752	34.93	491.74	0.950	0.000	1.00	4.312	4.10	143.1	0.0	282.1
25.00		1.27	0.70	31.644	34.81	483.37	0.952 *	0.000	4.00	17.082	16.26	566.1	0.0	1117.7
30.00		1.27	0.70	31.539	34.69	473.17	0.957 *	0.000	5.00	20.981	20.08	696.6	0.0	1372.6
35.00		1.26	0.73	32.823	36.11	473.12	0.963 *	0.000	5.00	20.569	19.81	715.1	0.0	1345.3
36.00	Bot - Section 2	1.26	0.74	33.062	36.37	472.91	0.967 *	0.000	1.00	4.064	3.93	142.9	0.0	265.8
39.00	RT6	1.26	0.76	33.744	37.12	471.93	0.969 *	0.000	3.00	12.288	11.91	442.0	0.0	1487.6
40.00	RB8	1.25	0.76	33.962	37.36	471.50	0.972 *	0.000	1.00	4.063	3.95	147.5	0.0	491.8
41.00	RT7 RB9	1.25	0.77	34.175	37.59	471.02	0.973 *	0.000	1.00	4.046	3.94	148.0	0.0	489.8
42.00	Top - Section 1	1.25	0.77	34.383	37.82	470.50	0.974 *	0.000	1.00	4.030	3.93	148.5	0.0	487.7
45.00		1.25	0.79	34.984	38.48	476.41	0.972 *	0.000	3.00	11.991	11.65	448.3	0.0	679.7
50.00		1.25	0.81	35.912	39.50	472.66	0.977 *	0.000	5.00	19.655	19.20	758.4	0.0	1114.0
55.00		1.24	0.83	36.762	40.44	468.08	0.983 *	0.000	5.00	19.242	18.92	765.2	0.0	1090.5
57.00	RT8	1.24	0.84	37.082	40.79	466.04	0.988 *	0.000	2.00	7.581	7.49	305.6	0.0	429.6
58.00	RB10	1.24	0.85	37.239	40.96	464.98	0.990 *	0.000	1.00	3.766	3.73	152.8	0.0	213.4
58.33	RT9	1.24	0.85	37.290	41.02	464.62	0.950	0.000	0.33	1.239	1.18	48.3	0.0	70.2
60.00		1.24	0.85	37.545	41.30	462.78	0.950	0.000	1.67	6.243	5.93	244.9	0.0	353.7
65.00		1.23	0.87	38.270	42.10	456.88	0.950	0.000	5.00	18.417	17.50	736.5	0.0	1043.3
70.00	Bot - Section 3	1.23	0.89	38.946	42.84	450.45	0.950	0.000	5.00	18.004	17.10	732.8	0.0	1019.7
75.00		1.22	0.91	39.579	43.54	443.57	0.950	0.000	5.00	17.861	16.97	738.7	0.0	1840.4
76.00	Top - Section 2 RT10	1.22	0.91	39.700	43.67	442.14	0.950	0.000	1.00	3.523	3.35	146.1	0.0	362.9
80.00		1.22	0.93	40.173	44.19	443.21	0.950	0.000	4.00	13.926	13.23	584.6	0.0	658.1
85.00		1.21	0.94	40.732	44.81	435.61	0.950	0.000	5.00	17.036	16.18	725.1	0.0	804.9
90.00		1.21	0.96	41.261	45.39	427.68	0.950	0.000	5.00	16.624	15.79	716.8	0.0	785.3
95.00		1.21	0.97	41.763	45.94	419.46	0.950	0.000	5.00	16.211	15.40	707.5	0.0	765.6
96.00	RT11 RB12	1.20	0.98	41.860	46.05	417.78	0.950	0.000	1.00	3.193	3.03	139.7	0.0	150.8
100.00	Top - Section 3	1.20	0.99	42.239	46.46	410.97	0.950	0.000	4.00	12.606	11.98	556.4	0.0	595.2
105.00		1.20	1.00	42.693	46.96	402.24	0.950	0.000	5.00	15.386	14.62	686.4	0.0	582.1
110.00		1.19	1.02	43.126	47.44	393.29	0.950	0.000	5.00	14.973	14.22	674.8	0.0	566.4
113.50	RT12	1.19	1.02	43.418	47.76	386.90	0.950	0.000	3.50	10.236	9.72	464.4	0.0	387.1
115.00	Bot - Section 5	1.19	1.03	43.540	47.89	384.13	0.950	0.000	1.50	4.325	4.11	196.8	0.0	163.5
117.00	Appurtenance(s)	1.19	1.03	43.701	48.07	380.41	0.950	0.000	2.00	5.795	5.51	264.6	0.0	435.0
120.00	Top - Section 4	1.19	1.04	43.937	48.33	374.78	0.950	0.000	3.00	8.569	8.14	393.4	0.0	643.1
125.00		1.18	1.05	44.318	48.75	371.09	0.950	0.000	5.00	13.951	13.25	646.1	0.0	527.4
127.00	Appurtenance(s)	1.18	1.06	44.466	48.91	367.24	0.950	0.000	2.00	5.465	5.19	253.9	0.0	206.6
130.00		1.18	1.07	44.683	49.15	361.43	0.950	0.000	3.00	8.074	7.67	377.0	0.0	305.1
135.00		1.18	1.08	45.035	49.54	351.62	0.950	0.000	5.00	13.126	12.47	617.7	0.0	496.0

Wind Loading - Shaft

Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1	**Topography:** 3	**Struct Class:**	II	Page: 11

IES Tower Engineering Solutions

137.00 Appurtenance(s)	1.17	1.08	45.173	49.69	347.66	0.950	0.000	2.00	5.135	4.88	242.4	0.0	194.0
140.00	1.17	1.09	45.375	49.91	341.68	0.950	0.000	3.00	7.579	7.20	359.3	0.0	286.3
145.00	1.17	1.10	45.702	50.27	331.59	0.950	0.000	5.00	12.301	11.69	587.5	0.0	464.6
147.00 Appurtenance(s)	1.17	1.10	45.830	50.41	327.53	0.950	0.000	2.00	4.805	4.56	230.1	0.0	181.4
150.00	1.17	1.11	46.018	50.62	321.39	0.950	0.000	3.00	7.083	6.73	340.6	0.0	267.4
153.00 Appurtenance(s)	1.16	1.12	46.203	50.82	315.21	0.950	0.000	3.00	6.935	6.59	334.8	0.0	261.8
155.00 Appurtenance(s)	1.16	1.12	46.325	50.96	311.07	0.950	0.000	2.00	4.541	4.31	219.8	0.0	171.4
* Cf Adjusted by Linear Load Ra Effect							**Totals:**	**155.00**			**21,549.6**		**31,328.6**

Discrete Appurtenance Forces

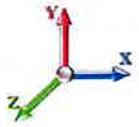
Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 12	

Tower Engineering Solutions

Load Case: 1.2D + 1.0W 122 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 22

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	155.00	Samsung B2/B66A	3	46.325	50.957	0.40	0.80	2.24	303.84	0.000	0.000	114.35	0.00	0.00
2	155.00	Antel	3	46.325	50.957	0.84	0.90	8.26	35.28	0.000	0.000	420.97	0.00	0.00
3	155.00	(3) T-Frame w/	1	46.325	50.957	1.00	1.00	25.00	1944.00	0.000	0.000	1273.93	0.00	0.00
4	155.00	BSAMNT-SBS-2-2	3	46.325	50.957	1.00	1.00	0.00	242.64	0.000	0.000	0.00	0.00	0.00
5	155.00	Commscope	3	46.325	50.957	0.40	0.80	0.44	78.55	0.000	0.000	22.62	0.00	0.00
6	155.00	MT6407-77A	3	46.414	51.056	0.56	0.80	7.88	313.56	0.000	1.500	402.28	0.00	603.42
7	155.00	B5/B13	3	46.325	50.957	0.40	0.80	2.24	253.08	0.000	0.000	114.35	0.00	0.00
8	155.00	RVZDC-6627-PF-48	1	46.325	50.957	0.80	0.80	3.25	38.40	0.000	0.000	165.51	0.00	0.00
9	155.00	BSF0020F3V1-1	2	46.325	50.957	0.54	0.80	1.03	42.24	0.000	0.000	52.44	0.00	0.00
10	155.00	GPS Receiver	1	46.444	51.089	0.80	0.80	0.80	12.00	0.000	2.000	40.87	0.00	81.74
11	155.00	JAHH-65B-R3B	6	46.325	50.957	0.66	0.80	36.29	493.63	0.000	0.000	1849.45	0.00	0.00
12	153.00	XXDWMM-12.5-65-8T-CB	3	46.203	50.824	0.69	0.80	1.84	10.44	0.000	0.000	93.36	0.00	0.00
13	153.00	CBRS RRH - RT	3	46.203	50.824	0.40	0.80	1.03	66.96	0.000	0.000	52.45	0.00	0.00
14	147.00	(3) T-Frame w/ Platforms	1	45.830	50.413	1.00	1.00	25.00	1944.00	0.000	0.000	1260.32	0.00	0.00
15	147.00	APXVSPP18-C-A20	3	45.830	50.413	0.66	0.80	15.98	205.20	0.000	0.000	805.39	0.00	0.00
16	147.00	APXVTM14-C-I20	3	45.830	50.413	0.63	0.80	12.02	201.60	0.000	0.000	606.00	0.00	0.00
17	147.00	Alcatel Lucent	3	45.830	50.413	0.40	0.80	4.86	252.00	0.000	0.000	245.01	0.00	0.00
18	147.00	Alcatel Lucent 1900 MHz	3	45.830	50.413	0.40	0.80	2.77	216.00	0.000	0.000	139.74	0.00	0.00
19	147.00	Alcatel Lucent 800 MHz	3	45.830	50.413	0.40	0.80	2.99	190.80	0.000	0.000	150.63	0.00	0.00
20	147.00	Alcatel Lucent 800 MHz	3	45.830	50.413	0.40	0.80	0.94	31.68	0.000	0.000	47.19	0.00	0.00
21	147.00	RFS ACU-A20-N RET	4	45.830	50.413	0.40	0.80	0.22	4.80	0.000	0.000	11.29	0.00	0.00
22	147.00	PRK-1245 (kicker kit)	1	45.830	50.413	1.00	1.00	9.50	557.89	0.000	0.000	478.92	0.00	0.00
23	147.00	(3) SFS-H (V-Braces)	1	45.830	50.413	0.75	0.75	7.20	236.40	0.000	0.000	362.97	0.00	0.00
24	137.00	(3) T-Framew/ walking	1	45.173	49.690	1.00	1.00	25.00	1944.00	0.000	0.000	1242.25	0.00	0.00
25	137.00	RRUS 4415 B25	2	45.173	49.690	0.40	0.80	1.31	110.40	0.000	0.000	65.19	0.00	0.00
26	137.00	4449 B71 + B85	2	45.173	49.690	0.40	0.80	1.58	175.68	0.000	0.000	78.31	0.00	0.00
27	137.00	PRK-1245 (kicker kit)	1	45.173	49.690	1.00	1.00	8.50	535.09	0.000	0.000	422.36	0.00	0.00
28	137.00	KRD 9011461-B66A-B2A	2	45.173	49.690	0.70	0.80	9.06	317.28	0.000	0.000	450.29	0.00	0.00
29	137.00	APXVAALL24_43-U-NA20	2	45.173	49.690	0.56	0.80	22.67	307.20	0.000	0.000	1126.41	0.00	0.00
30	137.00	KRY 112 144/2	3	45.173	49.690	0.40	0.80	0.49	39.60	0.000	0.000	24.45	0.00	0.00
31	137.00	(3) HR w/ V-Brace Kits	1	45.173	49.690	1.00	1.00	8.50	540.00	0.000	0.000	422.36	0.00	0.00
32	137.00	AIR6449 B41	2	45.173	49.690	0.57	0.80	6.42	247.20	0.000	0.000	318.93	0.00	0.00
33	127.00	Low Profile	1	44.466	48.912	1.00	1.00	25.00	1800.00	0.000	0.000	1222.80	0.00	0.00
34	127.00	7770.00	3	44.466	48.912	0.55	0.75	9.03	126.00	0.000	0.000	441.86	0.00	0.00
35	127.00	DTMABP7819VG12A	3	44.466	48.912	0.38	0.75	1.28	69.12	0.000	0.000	62.73	0.00	0.00
36	127.00	4449 B5/B12	3	44.466	48.912	0.38	0.75	2.22	255.60	0.000	0.000	108.40	0.00	0.00
37	127.00	RRUS 4478 B14	3	44.466	48.912	0.38	0.75	1.86	213.84	0.000	0.000	90.79	0.00	0.00
38	127.00	DC6-48-60-18-8F	1	44.466	48.912	0.38	0.75	0.35	38.16	0.000	0.000	16.87	0.00	0.00
39	127.00	DMP65R-BU6DA	3	44.466	48.912	0.54	0.75	20.59	285.84	0.000	0.000	1007.11	0.00	0.00
40	127.00	4415 B30	3	44.466	48.912	0.38	0.75	2.09	158.76	0.000	0.000	102.35	0.00	0.00
41	127.00	HRK12 (Handrail Kit)	1	44.466	48.912	1.00	1.00	6.75	314.06	0.000	0.000	330.16	0.00	0.00
42	127.00	DC9-48-60-24-8C-EV	1	44.466	48.912	0.38	0.75	0.43	31.44	0.000	0.000	20.91	0.00	0.00
43	127.00	LGP13519	6	44.466	48.912	0.38	0.75	0.77	38.16	0.000	0.000	37.42	0.00	0.00
44	127.00	8843 B2 B66A	3	44.466	48.912	0.38	0.75	1.84	252.00	0.000	0.000	90.24	0.00	0.00
45	127.00	840370799	3	44.466	48.912	0.52	0.75	24.73	67.32	0.000	0.000	1209.66	0.00	0.00
46	117.00	Commscope	1	43.701	48.071	1.00	1.00	37.59	2072.40	0.000	0.000	1806.99	0.00	0.00
47	117.00	Raycap	1	43.701	48.071	0.75	0.75	1.51	26.28	0.000	0.000	72.47	0.00	0.00

Discrete Appurtenance Forces

Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1	**Topography:** 3	**Struct Class:**	II	Page: 13

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48	117.00	Fujitsu TA08025-B604	3	43.701	48.071	0.50	0.75	2.95	230.04	0.000	0.000	142.04	0.00	0.00
49	117.00	Fujitsu TA08025-B605	3	43.701	48.071	0.50	0.75	2.95	270.00	0.000	0.000	142.04	0.00	0.00
50	117.00	Commscope	3	43.701	48.071	0.55	0.75	20.43	254.88	0.000	0.000	982.07	0.00	0.00
							Totals:		**18,395.35**			**20,747.50**	

Total Applied Force Summary

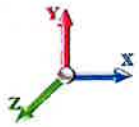
Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 14	

Tower Engineering Solutions

Load Case: 1.2D + 1.0W 122 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 22

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
3.50		545.03	1202.01	0.00	0.00
3.75		38.66	85.35	0.00	0.00
5.00		192.57	425.71	0.00	0.00
7.75		419.56	930.58	0.00	0.00
10.00		339.47	755.26	0.00	0.00
11.75		261.69	583.61	0.00	0.00
14.00		333.32	745.45	0.00	0.00
15.00		147.12	329.54	0.00	0.00
16.75		255.74	574.08	0.00	0.00
20.00		469.16	1057.29	0.00	0.00
21.00		143.07	323.01	0.00	0.00
25.00		566.05	1281.13	0.00	0.00
30.00		696.63	1576.90	0.00	0.00
35.00		715.10	1549.67	0.00	0.00
36.00		142.86	306.67	0.00	0.00
39.00		441.97	1610.18	0.00	0.00
40.00		147.46	532.66	0.00	0.00
41.00		147.97	530.63	0.00	0.00
42.00		148.47	528.60	0.00	0.00
45.00		448.34	802.35	0.00	0.00
50.00		758.38	1318.38	0.00	0.00
55.00		765.23	1294.80	0.00	0.00
57.00		305.63	511.32	0.00	0.00
58.00		152.78	254.24	0.00	0.00
58.33		48.29	85.45	0.00	0.00
60.00		244.94	430.86	0.00	0.00
65.00		736.53	1274.28	0.00	0.00
70.00		732.75	1250.70	0.00	0.00
75.00		738.74	2071.37	0.00	0.00
76.00		146.15	409.09	0.00	0.00
80.00		584.62	842.89	0.00	0.00
85.00		725.15	1035.92	0.00	0.00
90.00		716.78	1016.27	0.00	0.00
95.00		707.48	996.62	0.00	0.00
96.00		139.66	196.97	0.00	0.00
100.00		556.42	780.01	0.00	0.00
105.00		686.43	813.08	0.00	0.00
110.00		674.80	797.36	0.00	0.00
113.50		464.42	548.80	0.00	0.00
115.00		196.78	232.84	0.00	0.00
117.00	(11) attachments	3410.25	3381.01	0.00	0.00
120.00		393.43	775.13	0.00	0.00
125.00		646.11	747.50	0.00	0.00
127.00	(34) attachments	4995.25	3944.90	0.00	0.00
130.00		376.99	383.53	0.00	0.00
135.00		617.74	626.65	0.00	0.00

Total Applied Force Summary

Structure:	CT00302-S-SBA		**Code:**	TIA-222-H	7/14/2023
Site Name:	Danielson		**Exposure:**	B	
Height:	155.00 (ft)		**Crest Height:**	281.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 3	**Struct Class:**	II	Page: 15

Tower Engineering Solutions

137.00	(16) attachments	4392.94	4462.71	0.00	0.00
140.00		359.35	348.69	0.00	0.00
145.00		587.47	568.57	0.00	0.00
147.00	(25) attachments	4337.58	4063.40	0.00	0.00
150.00		340.64	320.32	0.00	0.00
153.00	(6) attachments	480.65	392.06	0.00	0.00
155.00	(29) attachments	4676.57	3963.85	0.00	685.16
	Totals:	**42,297.15**	**55,870.24**	**0.00**	**685.16**

Linear Appurtenance Segment Forces (Factored)

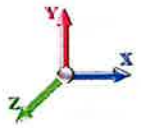
Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 16	

TES Tower Engineering Solutions

Load Case: 1.2D + 1.0W 122 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 22

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
3.50	1.6" Hybrid	Yes	3.50	0.000	1.60	0.47	0.00	0.093	0.000	32.246	0.00	7.64
3.50	10"x1/2" Bent plate	Yes	3.50	0.000	3.56	1.04	0.00	0.093	0.000	32.246	0.00	0.00
3.75	1.6" Hybrid	Yes	0.25	0.000	1.60	0.03	0.00	0.094	0.000	32.239	0.00	0.55
3.75	10"x1/2" Bent plate	Yes	0.25	0.000	3.56	0.07	0.00	0.094	0.000	32.239	0.00	0.00
5.00	1.6" Hybrid	Yes	1.25	0.000	1.60	0.17	0.00	0.094	0.000	32.202	0.00	2.73
5.00	10"x1/2" Bent plate	Yes	1.25	0.000	3.56	0.37	0.00	0.094	0.000	32.202	0.00	0.00
7.75	1.6" Hybrid	Yes	2.75	0.000	1.60	0.37	0.00	0.095	0.000	32.123	0.00	6.01
7.75	10"x1/2" Bent plate	Yes	2.75	0.000	3.56	0.82	0.00	0.095	0.000	32.123	0.00	0.00
10.00	1.6" Hybrid	Yes	2.25	0.000	1.60	0.30	0.00	0.095	0.000	32.059	0.00	4.91
10.00	10"x1/2" Bent plate	Yes	2.25	0.000	3.56	0.67	0.00	0.095	0.000	32.059	0.00	0.00
11.75	1.6" Hybrid	Yes	1.75	0.000	1.60	0.23	0.00	0.096	0.000	32.009	0.00	3.82
11.75	10"x1/2" Bent plate	Yes	1.75	0.000	3.56	0.52	0.00	0.096	0.000	32.009	0.00	0.00
14.00	1.6" Hybrid	Yes	2.25	0.000	1.60	0.30	0.00	0.097	0.000	31.946	0.00	4.91
14.00	10"x1/2" Bent plate	Yes	2.25	0.000	3.56	0.67	0.00	0.097	0.000	31.946	0.00	0.00
15.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.13	0.00	0.097	0.000	31.918	0.00	2.18
15.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.097	0.000	31.918	0.00	0.00
16.75	1.6" Hybrid	Yes	1.75	0.000	1.60	0.23	0.00	0.098	0.000	31.869	0.00	3.82
16.75	10"x1/2" Bent plate	Yes	1.75	0.000	3.56	0.52	0.00	0.098	0.000	31.869	0.00	0.00
20.00	1.6" Hybrid	Yes	3.25	0.000	1.60	0.43	0.00	0.099	0.000	31.780	0.00	7.10
20.00	10"x1/2" Bent plate	Yes	3.25	0.000	3.56	0.96	0.00	0.099	0.000	31.780	0.00	0.00
21.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.13	0.00	0.100	0.000	31.752	0.00	2.18
21.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.100	0.000	31.752	0.00	0.00
25.00	1.6" Hybrid	Yes	4.00	0.000	1.60	0.53	0.00	0.101	1.002	31.644	0.00	8.74
25.00	10"x1/2" Bent plate	Yes	4.00	0.000	3.56	1.19	0.00	0.101	1.002	31.644	0.00	0.00
30.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.102	1.007	31.539	0.00	10.92
30.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	1.48	0.00	0.102	1.007	31.539	0.00	0.00
35.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.105	1.014	32.823	0.00	10.92
35.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	1.48	0.00	0.105	1.014	32.823	0.00	0.00
36.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.13	0.00	0.106	1.017	33.062	0.00	2.18
36.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.106	1.017	33.062	0.00	0.00
39.00	1.6" Hybrid	Yes	3.00	0.000	1.60	0.40	0.00	0.107	1.020	33.744	0.00	6.55
39.00	10"x1/2" Bent plate	Yes	3.00	0.000	3.56	0.89	0.00	0.107	1.020	33.744	0.00	0.00
40.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.13	0.00	0.108	1.023	33.962	0.00	2.18
40.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.108	1.023	33.962	0.00	0.00
41.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.13	0.00	0.108	1.024	34.175	0.00	2.18
41.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.108	1.024	34.175	0.00	0.00
42.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.13	0.00	0.108	1.025	34.383	0.00	2.18
42.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.108	1.025	34.383	0.00	0.00
45.00	1.6" Hybrid	Yes	3.00	0.000	1.60	0.40	0.00	0.108	1.023	34.984	0.00	6.55
45.00	10"x1/2" Bent plate	Yes	3.00	0.000	3.56	0.89	0.00	0.108	1.023	34.984	0.00	0.00
50.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.109	1.028	35.912	0.00	10.92
50.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	1.48	0.00	0.109	1.028	35.912	0.00	0.00
55.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.112	1.035	36.762	0.00	10.92
55.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	1.48	0.00	0.112	1.035	36.762	0.00	0.00
57.00	1.6" Hybrid	Yes	2.00	0.000	1.60	0.27	0.00	0.113	1.040	37.082	0.00	4.37
57.00	10"x1/2" Bent plate	Yes	2.00	0.000	3.56	0.59	0.00	0.113	1.040	37.082	0.00	0.00
58.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.13	0.00	0.114	1.043	37.239	0.00	2.18

Linear Appurtenance Segment Forces (Factored)

Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 17	

Tower Engineering Solutions

Load Case: 1.2D + 1.0W 122 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00

Iterations 22

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
58.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.114	1.043	37.239	0.00	0.00
58.33	1.6" Hybrid	Yes	0.33	0.000	1.60	0.04	0.00	0.063	0.000	37.290	0.00	0.72
58.33	1.25" Reinforcing	Yes	0.33	0.000	1.25	0.03	0.00	0.063	0.000	37.290	0.00	0.00
60.00	1.6" Hybrid	Yes	1.67	0.000	1.60	0.22	0.00	0.064	0.000	37.545	0.00	3.65
60.00	1.25" Reinforcing	Yes	1.67	0.000	1.25	0.17	0.00	0.064	0.000	37.545	0.00	0.00
65.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.064	0.000	38.270	0.00	10.92
65.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	0.52	0.00	0.064	0.000	38.270	0.00	0.00
70.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.066	0.000	38.946	0.00	10.92
70.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	0.52	0.00	0.066	0.000	38.946	0.00	0.00
75.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.068	0.000	39.579	0.00	10.92
75.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	0.52	0.00	0.068	0.000	39.579	0.00	0.00
76.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.13	0.00	0.068	0.000	39.700	0.00	2.18
76.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.068	0.000	39.700	0.00	0.00
80.00	1.6" Hybrid	Yes	4.00	0.000	1.60	0.53	0.00	0.068	0.000	40.173	0.00	8.74
80.00	1.25" Reinforcing	Yes	4.00	0.000	1.25	0.42	0.00	0.068	0.000	40.173	0.00	0.00
85.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.070	0.000	40.732	0.00	10.92
85.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	0.52	0.00	0.070	0.000	40.732	0.00	0.00
90.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.071	0.000	41.261	0.00	10.92
90.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	0.52	0.00	0.071	0.000	41.261	0.00	0.00
95.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.073	0.000	41.763	0.00	10.92
95.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	0.52	0.00	0.073	0.000	41.763	0.00	0.00
96.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.13	0.00	0.074	0.000	41.860	0.00	2.18
96.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.074	0.000	41.860	0.00	0.00
100.00	1.6" Hybrid	Yes	4.00	0.000	1.60	0.53	0.00	0.075	0.000	42.239	0.00	8.74
100.00	1.25" Reinforcing	Yes	4.00	0.000	1.25	0.42	0.00	0.075	0.000	42.239	0.00	0.00
105.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.077	0.000	42.693	0.00	10.92
105.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	0.52	0.00	0.077	0.000	42.693	0.00	0.00
110.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.079	0.000	43.126	0.00	10.92
110.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	0.52	0.00	0.079	0.000	43.126	0.00	0.00
113.50	1.6" Hybrid	Yes	3.50	0.000	1.60	0.47	0.00	0.081	0.000	43.418	0.00	7.64
113.50	1.25" Reinforcing	Yes	3.50	0.000	1.25	0.36	0.00	0.081	0.000	43.418	0.00	0.00
115.00	1.6" Hybrid	Yes	1.50	0.000	1.60	0.20	0.00	0.082	0.000	43.540	0.00	3.28
115.00	1.25" Reinforcing	Yes	1.50	0.000	1.25	0.16	0.00	0.082	0.000	43.540	0.00	0.00
117.00	1.6" Hybrid	Yes	2.00	0.000	1.60	0.27	0.00	0.047	0.000	43.701	0.00	4.37
										Totals:	**0.0**	**255.5**

Calculated Forces

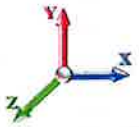
Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 18	

Tower Engineering Solutions

Load Case: 1.2D + 1.0W 122 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 22

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-55.82	-42.36	0.00	-4656.9	0.00	4656.95	4048.32	1067.01	4754.15	4411.99	0.00	0.000	0.000	0.860
3.50	-54.57	-41.88	0.00	-4508.6	0.00	4508.68	4019.67	1053.65	4635.83	4325.47	0.05	-0.135	0.000	0.846
3.75	-54.46	-41.87	0.00	-4498.2	0.00	4498.21	4017.61	1052.69	4627.43	4319.30	0.06	-0.143	0.000	0.722
5.00	-53.99	-41.74	0.00	-4445.8	0.00	4445.88	4007.22	1047.92	4585.58	4288.45	0.10	-0.184	0.000	0.795
7.75	-52.99	-41.40	0.00	-4331.0	0.00	4331.09	3984.13	1037.43	4494.16	4220.67	0.24	-0.285	0.000	0.785
10.00	-52.19	-41.12	0.00	-4237.9	0.00	4237.94	3964.98	1028.84	4420.05	4165.32	0.39	-0.360	0.000	0.700
11.75	-51.57	-40.91	0.00	-4165.9	0.00	4165.98	3949.93	1022.16	4362.83	4122.34	0.53	-0.418	0.000	0.693
14.00	-50.79	-40.61	0.00	-4073.9	0.00	4073.94	3930.37	1013.57	4289.82	4067.17	0.75	-0.484	0.000	0.606
15.00	-50.43	-40.50	0.00	-4033.3	0.00	4033.33	3921.60	1009.75	4257.57	4042.68	0.85	-0.513	0.000	0.717
16.75	-49.81	-40.30	0.00	-3962.4	0.00	3962.47	3906.14	1003.07	4201.41	3999.88	1.05	-0.565	0.000	0.597
20.00	-48.71	-39.87	0.00	-3831.5	0.00	3831.50	3877.07	990.66	4098.12	3920.59	1.47	-0.659	0.000	0.663
21.00	-48.34	-39.79	0.00	-3791.6	0.00	3791.63	3868.03	986.84	4066.60	3896.24	1.61	-0.692	0.000	0.659
25.00	-46.97	-39.32	0.00	-3632.4	0.00	3632.48	3831.41	971.57	3941.73	3799.12	2.24	-0.806	0.000	0.644
30.00	-45.30	-38.73	0.00	-3435.8	0.00	3435.89	3784.60	952.49	3788.37	3678.33	3.17	-0.969	0.000	0.624
35.00	-43.70	-38.06	0.00	-3242.2	0.00	3242.27	3736.66	933.40	3638.06	3558.30	4.27	-1.130	0.000	0.604
36.00	-43.35	-37.96	0.00	-3204.2	0.00	3204.21	3726.93	929.58	3608.36	3534.39	4.51	-1.163	0.000	0.600
39.00	-41.71	-37.53	0.00	-3090.3	0.00	3090.34	3697.48	918.13	3520.00	3462.86	5.27	-1.260	0.000	0.581
40.00	-41.16	-37.39	0.00	-3052.8	0.00	3052.82	3687.57	914.31	3490.79	3439.09	5.54	-1.293	0.000	0.718
41.00	-40.61	-37.25	0.00	-3015.4	0.00	3015.43	3677.62	910.49	3461.70	3415.35	5.82	-1.325	0.000	0.573
42.00	-40.05	-37.13	0.00	-2978.1	0.00	2978.18	3033.05	799.01	3078.91	2858.75	6.10	-1.353	0.000	0.616
45.00	-39.17	-36.76	0.00	-2866.7	0.00	2866.77	3011.75	789.09	3002.96	2803.16	6.98	-1.448	0.000	0.637
50.00	-37.77	-36.07	0.00	-2682.9	0.00	2682.99	2975.34	772.57	2878.49	2710.80	8.58	-1.613	0.000	0.611
55.00	-36.43	-35.34	0.00	-2502.6	0.00	2502.64	2937.79	756.04	2756.65	2618.85	10.36	-1.776	0.000	0.584
57.00	-35.90	-35.05	0.00	-2431.9	0.00	2431.96	2922.45	749.43	2708.65	2582.20	11.12	-1.841	0.000	0.573
58.00	-35.63	-34.90	0.00	-2396.9	0.00	2396.91	2914.71	746.12	2684.81	2563.91	11.51	-1.874	0.000	0.729
58.33	-35.53	-34.87	0.00	-2385.3	0.00	2385.39	2912.14	745.03	2676.97	2557.87	11.64	-1.884	0.000	0.562
60.00	-35.03	-34.69	0.00	-2327.1	0.00	2327.16	2899.09	739.51	2637.45	2527.38	12.31	-1.938	0.000	0.676
65.00	-33.67	-34.02	0.00	-2153.7	0.00	2153.73	2859.26	722.99	2520.88	2436.46	14.44	-2.129	0.000	0.645
70.00	-32.35	-33.34	0.00	-1983.6	0.00	1983.64	2818.28	706.46	2406.95	2346.16	16.77	-2.316	0.000	0.613
75.00	-30.25	-32.57	0.00	-1816.9	0.00	1816.94	2776.16	689.93	2295.65	2256.54	19.29	-2.498	0.000	0.574
76.00	-29.80	-32.45	0.00	-1784.3	0.00	1784.37	2161.97	582.09	1960.89	1782.08	19.82	-2.535	0.000	0.626
80.00	-28.90	-31.90	0.00	-1654.5	0.00	1654.58	2139.97	571.07	1887.36	1730.30	21.99	-2.647	0.000	0.672
85.00	-27.80	-31.22	0.00	-1495.0	0.00	1495.07	2111.44	557.30	1797.42	1665.74	24.86	-2.839	0.000	0.627
90.00	-26.72	-30.54	0.00	-1338.9	0.00	1338.96	2081.77	543.53	1709.68	1601.42	27.94	-3.025	0.000	0.579
95.00	-25.71	-29.82	0.00	-1186.2	0.00	1186.27	2050.97	529.75	1624.13	1537.42	31.20	-3.201	0.000	0.530
96.00	-25.49	-29.71	0.00	-1156.4	0.00	1156.45	2044.67	527.00	1607.29	1524.66	31.87	-3.236	0.000	0.521
100.00	-24.67	-29.16	0.00	-1037.6	0.00	1037.63	2019.02	515.98	1540.78	1473.79	34.63	-3.342	0.000	0.519
100.00	-24.67	-29.16	0.00	-1037.6	0.00	1037.63	1394.49	390.10	1166.92	1021.47	34.63	-3.342	0.000	0.604
105.00	-23.81	-28.50	0.00	-891.81	0.00	891.81	1376.43	379.71	1105.56	981.19	38.22	-3.509	0.000	0.624
110.00	-22.99	-27.84	0.00	-749.30	0.00	749.30	1357.32	369.31	1045.86	940.89	41.99	-3.687	0.000	0.543
113.50	-22.43	-27.37	0.00	-651.87	0.00	651.87	1343.33	362.03	1005.06	912.71	44.74	-3.801	0.000	0.485
113.50	-22.43	-27.37	0.00	-651.87	0.00	651.87	1343.33	362.03	1005.06	912.71	44.74	-3.801	0.000	0.724
115.00	-22.18	-27.18	0.00	-610.82	0.00	610.82	1337.17	358.92	987.82	900.65	45.94	-3.848	0.000	0.701
117.00	-19.00	-23.59	0.00	-556.45	0.00	556.45	1328.82	354.76	965.06	884.57	47.57	-3.937	0.000	0.648
120.00	-18.19	-23.19	0.00	-485.69	0.00	485.69	1327.18	353.96	960.70	881.47	50.08	-4.062	0.000	0.569
125.00	-17.44	-22.53	0.00	-369.74	0.00	369.74	1305.49	343.56	905.11	841.41	54.44	-4.241	0.000	0.457
127.00	-13.86	-17.27	0.00	-324.68	0.00	324.68	1296.51	339.40	883.33	825.43	56.22	-4.302	0.000	0.407
130.00	-13.48	-16.89	0.00	-272.87	0.00	272.87	1282.74	333.17	851.17	801.54	58.95	-4.384	0.000	0.354

Calculated Forces

Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 19	

Tower Engineering Solutions

135.00	-12.88	-16.24	0.00	-188.44	0.00	188.44	1258.96	322.77	798.89	761.93	63.60	-4.494	0.000	0.260
137.00	-8.77	-11.51	0.00	-155.96	0.00	155.96	1249.15	318.62	778.44	746.18	65.49	-4.531	0.000	0.217
140.00	-8.44	-11.14	0.00	-121.41	0.00	121.41	1234.12	312.38	748.26	722.65	68.35	-4.577	0.000	0.176
145.00	-7.92	-10.51	0.00	-65.73	0.00	65.73	1208.24	301.99	699.29	683.75	73.17	-4.631	0.000	0.104
147.00	-4.21	-5.86	0.00	-44.71	0.00	44.71	1197.60	297.83	680.17	668.32	75.12	-4.645	0.000	0.071
150.00	-3.92	-5.49	0.00	-27.14	0.00	27.14	1181.32	291.59	651.98	645.30	78.04	-4.660	0.000	0.046
153.00	-3.57	-4.98	0.00	-10.65	0.00	10.65	1164.66	285.35	624.39	622.47	80.96	-4.668	0.000	0.020
155.00	0.00	-4.68	0.00	-0.69	0.00	0.69	1153.35	281.20	606.33	607.36	82.92	-4.670	0.000	0.001

Wind Loading - Shaft

Structure: CT00302-S-SBA
Site Name: Danielson
Height: 155.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 3

Code: TIA-222-H 7/14/2023
Exposure: B
Crest Height: 281.00
Site Class: D - Stiff Soil
Struct Class: II

Tower Engineering Solutions

Load Case: 0.9D + 1.0W 122 mph Wind
Dead Load Factor 0.90
Wind Load Factor 1.00

Iterations 22

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00	RB1 RB2	1.30	0.70	32.349	35.58	536.31	0.950	0.000	0.00	0.000	0.00	0.0	0.0	0.0
3.50	RB3	1.29	0.70	32.246	35.47	528.80	0.950	0.000	3.50	16.174	15.37	545.0	0.0	794.2
3.75	RT1	1.29	0.70	32.239	35.46	528.27	0.950	0.000	0.25	1.148	1.09	38.7	0.0	56.3
5.00		1.29	0.70	32.202	35.42	525.59	0.950	0.000	1.25	5.722	5.44	192.6	0.0	281.0
7.75	RB4	1.29	0.70	32.123	35.34	519.73	0.950	0.000	2.75	12.498	11.87	419.6	0.0	613.6
10.00		1.29	0.70	32.059	35.26	514.94	0.950	0.000	2.25	10.133	9.63	339.5	0.0	497.5
11.75	RB5	1.29	0.70	32.009	35.21	511.23	0.950	0.000	1.75	7.824	7.43	261.7	0.0	384.1
14.00	RT2 RT4	1.28	0.70	31.946	35.14	506.47	0.950	0.000	2.25	9.985	9.49	333.3	0.0	490.1
15.00	RB6	1.28	0.70	31.918	35.11	504.36	0.950	0.000	1.00	4.411	4.19	147.1	0.0	216.5
16.75	RT5	1.28	0.70	31.869	35.06	500.67	0.950	0.000	1.75	7.679	7.30	255.7	0.0	376.9
20.00		1.28	0.70	31.780	34.96	493.83	0.950	0.000	3.25	14.127	13.42	469.2	0.0	693.4
21.00	RT3 RB7	1.27	0.70	31.752	34.93	491.74	0.950	0.000	1.00	4.312	4.10	143.1	0.0	211.6
25.00		1.27	0.70	31.644	34.81	483.37	0.952 *	0.000	4.00	17.082	16.26	566.1	0.0	838.2
30.00		1.27	0.70	31.539	34.69	473.17	0.957 *	0.000	5.00	20.981	20.08	696.6	0.0	1029.4
35.00		1.26	0.73	32.823	36.11	473.12	0.963 *	0.000	5.00	20.569	19.81	715.1	0.0	1009.0
36.00	Bot - Section 2	1.26	0.74	33.062	36.37	472.91	0.967 *	0.000	1.00	4.064	3.93	142.9	0.0	199.3
39.00	RT6	1.26	0.76	33.744	37.12	471.93	0.969 *	0.000	3.00	12.288	11.91	442.0	0.0	1115.7
40.00	RB8	1.25	0.76	33.962	37.36	471.50	0.972 *	0.000	1.00	4.063	3.95	147.5	0.0	368.8
41.00	RT7 RB9	1.25	0.77	34.175	37.59	471.02	0.973 *	0.000	1.00	4.046	3.94	148.0	0.0	367.3
42.00	Top - Section 1	1.25	0.77	34.383	37.82	470.50	0.974 *	0.000	1.00	4.030	3.93	148.5	0.0	365.8
45.00		1.25	0.79	34.984	38.48	476.41	0.972 *	0.000	3.00	11.991	11.65	448.3	0.0	509.8
50.00		1.25	0.81	35.912	39.50	472.66	0.977 *	0.000	5.00	19.655	19.20	758.4	0.0	835.5
55.00		1.24	0.83	36.762	40.44	468.08	0.983 *	0.000	5.00	19.242	18.92	765.2	0.0	817.8
57.00	RT8	1.24	0.84	37.082	40.79	466.04	0.988 *	0.000	2.00	7.581	7.49	305.6	0.0	322.2
58.00	RB10	1.24	0.85	37.239	40.96	464.98	0.990 *	0.000	1.00	3.766	3.73	152.8	0.0	160.0
58.33	RT9	1.24	0.85	37.290	41.02	464.62	0.950	0.000	0.33	1.239	1.18	48.3	0.0	52.7
60.00		1.24	0.85	37.545	41.30	462.78	0.950	0.000	1.67	6.243	5.93	244.9	0.0	265.3
65.00		1.23	0.87	38.270	42.10	456.88	0.950	0.000	5.00	18.417	17.50	736.5	0.0	782.5
70.00	Bot - Section 3	1.23	0.89	38.946	42.84	450.45	0.950	0.000	5.00	18.004	17.10	732.8	0.0	764.8
75.00		1.22	0.91	39.579	43.54	443.57	0.950	0.000	5.00	17.861	16.97	738.7	0.0	1380.3
76.00	Top - Section 2 RT10	1.22	0.91	39.700	43.67	442.14	0.950	0.000	1.00	3.523	3.35	146.1	0.0	272.2
80.00		1.22	0.93	40.173	44.19	443.21	0.950	0.000	4.00	13.926	13.23	584.6	0.0	493.6
85.00		1.21	0.94	40.732	44.81	435.61	0.950	0.000	5.00	17.036	16.18	725.1	0.0	603.7
90.00		1.21	0.96	41.261	45.39	427.68	0.950	0.000	5.00	16.624	15.79	716.8	0.0	589.0
95.00		1.21	0.97	41.763	45.94	419.46	0.950	0.000	5.00	16.211	15.40	707.5	0.0	574.2
96.00	RT11 RB12	1.20	0.98	41.860	46.05	417.78	0.950	0.000	1.00	3.193	3.03	139.7	0.0	113.1
100.00	Top - Section 3	1.20	0.99	42.239	46.46	410.97	0.950	0.000	4.00	12.606	11.98	556.4	0.0	446.4
105.00		1.20	1.00	42.693	46.96	402.24	0.950	0.000	5.00	15.386	14.62	686.4	0.0	436.6
110.00		1.19	1.02	43.126	47.44	393.29	0.950	0.000	5.00	14.973	14.22	674.8	0.0	424.8
113.50	RT12	1.19	1.02	43.418	47.76	386.90	0.950	0.000	3.50	10.236	9.72	464.4	0.0	290.3
115.00	Bot - Section 5	1.19	1.03	43.540	47.89	384.13	0.950	0.000	1.50	4.325	4.11	196.8	0.0	122.7
117.00	Appurtenance(s)	1.19	1.03	43.701	48.07	380.41	0.950	0.000	2.00	5.795	5.51	264.6	0.0	326.3
120.00	Top - Section 4	1.19	1.04	43.937	48.33	374.78	0.950	0.000	3.00	8.569	8.14	393.4	0.0	482.3
125.00		1.18	1.05	44.318	48.75	371.09	0.950	0.000	5.00	13.951	13.25	646.1	0.0	395.6
127.00	Appurtenance(s)	1.18	1.06	44.466	48.91	367.24	0.950	0.000	2.00	5.465	5.19	253.9	0.0	154.9
130.00		1.18	1.07	44.683	49.15	361.43	0.950	0.000	3.00	8.074	7.67	377.0	0.0	228.9
135.00		1.18	1.08	45.035	49.54	351.62	0.950	0.000	5.00	13.126	12.47	617.7	0.0	372.0

Wind Loading - Shaft

Structure: CT00302-S-SBA
Site Name: Danielson
Height: 155.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1
Topography: 3
Code: TIA-222-H
Exposure: B
Crest Height: 281.00
Site Class: D - Stiff Soil
Struct Class: II

7/14/2023

Tower Engineering Solutions

137.00 Appurtenance(s)	1.17	1.08	45.173	49.69	347.66	0.950	0.000	2.00	5.135	4.88	242.4	0.0	145.5
140.00	1.17	1.09	45.375	49.91	341.68	0.950	0.000	3.00	7.579	7.20	359.3	0.0	214.7
145.00	1.17	1.10	45.702	50.27	331.59	0.950	0.000	5.00	12.301	11.69	587.5	0.0	348.4
147.00 Appurtenance(s)	1.17	1.10	45.830	50.41	327.53	0.950	0.000	2.00	4.805	4.56	230.1	0.0	136.1
150.00	1.17	1.11	46.018	50.62	321.39	0.950	0.000	3.00	7.083	6.73	340.6	0.0	200.6
153.00 Appurtenance(s)	1.16	1.12	46.203	50.82	315.21	0.950	0.000	3.00	6.935	6.59	334.8	0.0	196.3
155.00 Appurtenance(s)	1.16	1.12	46.325	50.96	311.07	0.950	0.000	2.00	4.541	4.31	219.8	0.0	128.5
							Totals:	**155.00**			**21,549.6**		**23,496.5**

* Cf Adjusted by Linear Load Ra Effect

Discrete Appurtenance Forces

Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 22	

TES Tower Engineering Solutions

Load Case: 0.9D + 1.0W 122 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00

Iterations 22

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	155.00	Samsung B2/B66A	3	46.325	50.957	0.40	0.80	2.24	227.88	0.000	0.000	114.35	0.00	0.00
2	155.00	Antel	3	46.325	50.957	0.84	0.90	8.26	26.46	0.000	0.000	420.97	0.00	0.00
3	155.00	(3) T-Frame w/	1	46.325	50.957	1.00	1.00	25.00	1458.00	0.000	0.000	1273.93	0.00	0.00
4	155.00	BSAMNT-SBS-2-2	3	46.325	50.957	1.00	1.00	0.00	181.98	0.000	0.000	0.00	0.00	0.00
5	155.00	Commscope	3	46.325	50.957	0.40	0.80	0.44	58.91	0.000	0.000	22.62	0.00	0.00
6	155.00	MT6407-77A	3	46.414	51.056	0.56	0.80	7.88	235.17	0.000	1.500	402.28	0.00	603.42
7	155.00	B5/B13	3	46.325	50.957	0.40	0.80	2.24	189.81	0.000	0.000	114.35	0.00	0.00
8	155.00	RVZDC-6627-PF-48	1	46.325	50.957	0.80	0.80	3.25	28.80	0.000	0.000	165.51	0.00	0.00
9	155.00	BSF0020F3V1-1	2	46.325	50.957	0.54	0.80	1.03	31.68	0.000	0.000	52.44	0.00	0.00
10	155.00	GPS Receiver	1	46.444	51.089	0.80	0.80	0.80	9.00	0.000	2.000	40.87	0.00	81.74
11	155.00	JAHH-65B-R3B	6	46.325	50.957	0.66	0.80	36.29	370.22	0.000	0.000	1849.45	0.00	0.00
12	153.00	XXDWMM-12.5-65-8T-CB	3	46.203	50.824	0.69	0.80	1.84	7.83	0.000	0.000	93.36	0.00	0.00
13	153.00	CBRS RRH - RT	3	46.203	50.824	0.40	0.80	1.03	50.22	0.000	0.000	52.45	0.00	0.00
14	147.00	(3) T-Frame w/ Platforms	1	45.830	50.413	1.00	1.00	25.00	1458.00	0.000	0.000	1260.32	0.00	0.00
15	147.00	APXVSPP18-C-A20	3	45.830	50.413	0.66	0.80	15.98	153.90	0.000	0.000	805.39	0.00	0.00
16	147.00	APXVTM14-C-I20	3	45.830	50.413	0.63	0.80	12.02	151.20	0.000	0.000	606.00	0.00	0.00
17	147.00	Alcatel Lucent	3	45.830	50.413	0.40	0.80	4.86	189.00	0.000	0.000	245.01	0.00	0.00
18	147.00	Alcatel Lucent 1900 MHz	3	45.830	50.413	0.40	0.80	2.77	162.00	0.000	0.000	139.74	0.00	0.00
19	147.00	Alcatel Lucent 800 MHz	3	45.830	50.413	0.40	0.80	2.99	143.10	0.000	0.000	150.63	0.00	0.00
20	147.00	Alcatel Lucent 800 MHz	3	45.830	50.413	0.40	0.80	0.94	23.76	0.000	0.000	47.19	0.00	0.00
21	147.00	RFS ACU-A20-N RET	4	45.830	50.413	0.40	0.80	0.22	3.60	0.000	0.000	11.29	0.00	0.00
22	147.00	PRK-1245 (kicker kit)	1	45.830	50.413	1.00	1.00	9.50	418.42	0.000	0.000	478.92	0.00	0.00
23	147.00	(3) SFS-H (V-Braces)	1	45.830	50.413	0.75	0.75	7.20	177.30	0.000	0.000	362.97	0.00	0.00
24	137.00	(3) T-Framew/ walking	1	45.173	49.690	1.00	1.00	25.00	1458.00	0.000	0.000	1242.25	0.00	0.00
25	137.00	RRUS 4415 B25	2	45.173	49.690	0.40	0.80	1.31	82.80	0.000	0.000	65.19	0.00	0.00
26	137.00	4449 B71 + B85	2	45.173	49.690	0.40	0.80	1.58	131.76	0.000	0.000	78.31	0.00	0.00
27	137.00	PRK-1245 (kicker kit)	1	45.173	49.690	1.00	1.00	8.50	401.32	0.000	0.000	422.36	0.00	0.00
28	137.00	KRD 9011461-B66A-B2A	2	45.173	49.690	0.70	0.80	9.06	237.96	0.000	0.000	450.29	0.00	0.00
29	137.00	APXVAALL24_43-U-NA20	2	45.173	49.690	0.56	0.80	22.67	230.40	0.000	0.000	1126.41	0.00	0.00
30	137.00	KRY 112 144/2	3	45.173	49.690	0.40	0.80	0.49	29.70	0.000	0.000	24.45	0.00	0.00
31	137.00	(3) HR w/ V-Brace Kits	1	45.173	49.690	1.00	1.00	8.50	405.00	0.000	0.000	422.36	0.00	0.00
32	137.00	AIR6449 B41	2	45.173	49.690	0.57	0.80	6.42	185.40	0.000	0.000	318.93	0.00	0.00
33	127.00	Low Profile	1	44.466	48.912	1.00	1.00	25.00	1350.00	0.000	0.000	1222.80	0.00	0.00
34	127.00	7770.00	3	44.466	48.912	0.55	0.75	9.03	94.50	0.000	0.000	441.86	0.00	0.00
35	127.00	DTMABP7819VG12A	3	44.466	48.912	0.38	0.75	1.28	51.84	0.000	0.000	62.73	0.00	0.00
36	127.00	4449 B5/B12	3	44.466	48.912	0.38	0.75	2.22	191.70	0.000	0.000	108.40	0.00	0.00
37	127.00	RRUS 4478 B14	3	44.466	48.912	0.38	0.75	1.86	160.38	0.000	0.000	90.79	0.00	0.00
38	127.00	DC6-48-60-18-8F	1	44.466	48.912	0.38	0.75	0.35	28.62	0.000	0.000	16.87	0.00	0.00
39	127.00	DMP65R-BU6DA	3	44.466	48.912	0.54	0.75	20.59	214.38	0.000	0.000	1007.11	0.00	0.00
40	127.00	4415 B30	3	44.466	48.912	0.38	0.75	2.09	119.07	0.000	0.000	102.35	0.00	0.00
41	127.00	HRK12 (Handrail Kit)	1	44.466	48.912	1.00	1.00	6.75	235.55	0.000	0.000	330.16	0.00	0.00
42	127.00	DC9-48-60-24-8C-EV	1	44.466	48.912	0.38	0.75	0.43	23.58	0.000	0.000	20.91	0.00	0.00
43	127.00	LGP13519	6	44.466	48.912	0.38	0.75	0.77	28.62	0.000	0.000	37.42	0.00	0.00
44	127.00	8843 B2 B66A	3	44.466	48.912	0.38	0.75	1.84	189.00	0.000	0.000	90.24	0.00	0.00
45	127.00	840370799	3	44.466	48.912	0.52	0.75	24.73	50.49	0.000	0.000	1209.66	0.00	0.00
46	117.00	Commscope	1	43.701	48.071	1.00	1.00	37.59	1554.30	0.000	0.000	1806.99	0.00	0.00
47	117.00	Raycap	1	43.701	48.071	0.75	0.75	1.51	19.71	0.000	0.000	72.47	0.00	0.00

Discrete Appurtenance Forces

Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1	**Topography:** 3	**Struct Class:**	II	Page: 23

Tower Engineering Solutions

48	117.00	Fujitsu TA08025-B604	3	43.701	48.071	0.50	0.75	2.95	172.53	0.000	0.000	142.04	0.00	0.00
49	117.00	Fujitsu TA08025-B605	3	43.701	48.071	0.50	0.75	2.95	202.50	0.000	0.000	142.04	0.00	0.00
50	117.00	Commscope	3	43.701	48.071	0.55	0.75	20.43	191.16	0.000	0.000	982.07	0.00	0.00
							Totals:		**13,796.51**			**20,747.50**		

Total Applied Force Summary

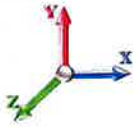
Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 24	

Tower Engineering Solutions

Load Case: 0.9D + 1.0W 122 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00



Iterations 22

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
3.50		545.03	901.50	0.00	0.00
3.75		38.66	64.01	0.00	0.00
5.00		192.57	319.29	0.00	0.00
7.75		419.56	697.93	0.00	0.00
10.00		339.47	566.44	0.00	0.00
11.75		261.69	437.71	0.00	0.00
14.00		333.32	559.09	0.00	0.00
15.00		147.12	247.16	0.00	0.00
16.75		255.74	430.56	0.00	0.00
20.00		469.16	792.97	0.00	0.00
21.00		143.07	242.25	0.00	0.00
25.00		566.05	960.85	0.00	0.00
30.00		696.63	1182.68	0.00	0.00
35.00		715.10	1162.25	0.00	0.00
36.00		142.86	230.00	0.00	0.00
39.00		441.97	1207.64	0.00	0.00
40.00		147.46	399.50	0.00	0.00
41.00		147.97	397.97	0.00	0.00
42.00		148.47	396.45	0.00	0.00
45.00		448.34	601.76	0.00	0.00
50.00		758.38	988.78	0.00	0.00
55.00		765.23	971.10	0.00	0.00
57.00		305.63	383.49	0.00	0.00
58.00		152.78	190.68	0.00	0.00
58.33		48.29	64.09	0.00	0.00
60.00		244.94	323.15	0.00	0.00
65.00		736.53	955.71	0.00	0.00
70.00		732.75	938.03	0.00	0.00
75.00		738.74	1553.52	0.00	0.00
76.00		146.15	306.81	0.00	0.00
80.00		584.62	632.16	0.00	0.00
85.00		725.15	776.94	0.00	0.00
90.00		716.78	762.20	0.00	0.00
95.00		707.48	747.47	0.00	0.00
96.00		139.66	147.72	0.00	0.00
100.00		556.42	585.00	0.00	0.00
105.00		686.43	609.81	0.00	0.00
110.00		674.80	598.02	0.00	0.00
113.50		464.42	411.60	0.00	0.00
115.00		196.78	174.63	0.00	0.00
117.00	(11) attachments	3410.25	2535.76	0.00	0.00
120.00		393.43	581.35	0.00	0.00
125.00		646.11	560.63	0.00	0.00
127.00	(34) attachments	4995.25	2958.68	0.00	0.00
130.00		376.99	287.65	0.00	0.00
135.00		617.74	469.99	0.00	0.00

Total Applied Force Summary

Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 25	

Tower Engineering Solutions

137.00	(16) attachments	4392.94	3347.03	0.00	0.00
140.00		359.35	261.52	0.00	0.00
145.00		587.47	426.43	0.00	0.00
147.00	(25) attachments	4337.58	3047.55	0.00	0.00
150.00		340.64	240.24	0.00	0.00
153.00	(6) attachments	480.65	294.05	0.00	0.00
155.00	(29) attachments	4676.57	2972.89	0.00	685.16
	Totals:	**42,297.15**	**41,902.68**	**0.00**	**685.16**

Linear Appurtenance Segment Forces (Factored)

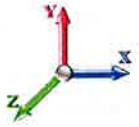
Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 26	

Tower Engineering Solutions

Load Case: 0.9D + 1.0W 122 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00



Iterations 22

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
3.50	1.6" Hybrid	Yes	3.50	0.000	1.60	0.47	0.00	0.093	0.000	32.246	0.00	5.73
3.50	10"x1/2" Bent plate	Yes	3.50	0.000	3.56	1.04	0.00	0.093	0.000	32.246	0.00	0.00
3.75	1.6" Hybrid	Yes	0.25	0.000	1.60	0.03	0.00	0.094	0.000	32.239	0.00	0.41
3.75	10"x1/2" Bent plate	Yes	0.25	0.000	3.56	0.07	0.00	0.094	0.000	32.239	0.00	0.00
5.00	1.6" Hybrid	Yes	1.25	0.000	1.60	0.17	0.00	0.094	0.000	32.202	0.00	2.05
5.00	10"x1/2" Bent plate	Yes	1.25	0.000	3.56	0.37	0.00	0.094	0.000	32.202	0.00	0.00
7.75	1.6" Hybrid	Yes	2.75	0.000	1.60	0.37	0.00	0.095	0.000	32.123	0.00	4.50
7.75	10"x1/2" Bent plate	Yes	2.75	0.000	3.56	0.82	0.00	0.095	0.000	32.123	0.00	0.00
10.00	1.6" Hybrid	Yes	2.25	0.000	1.60	0.30	0.00	0.095	0.000	32.059	0.00	3.69
10.00	10"x1/2" Bent plate	Yes	2.25	0.000	3.56	0.67	0.00	0.095	0.000	32.059	0.00	0.00
11.75	1.6" Hybrid	Yes	1.75	0.000	1.60	0.23	0.00	0.096	0.000	32.009	0.00	2.87
11.75	10"x1/2" Bent plate	Yes	1.75	0.000	3.56	0.52	0.00	0.096	0.000	32.009	0.00	0.00
14.00	1.6" Hybrid	Yes	2.25	0.000	1.60	0.30	0.00	0.097	0.000	31.946	0.00	3.69
14.00	10"x1/2" Bent plate	Yes	2.25	0.000	3.56	0.67	0.00	0.097	0.000	31.946	0.00	0.00
15.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.13	0.00	0.097	0.000	31.918	0.00	1.64
15.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.097	0.000	31.918	0.00	0.00
16.75	1.6" Hybrid	Yes	1.75	0.000	1.60	0.23	0.00	0.098	0.000	31.869	0.00	2.87
16.75	10"x1/2" Bent plate	Yes	1.75	0.000	3.56	0.52	0.00	0.098	0.000	31.869	0.00	0.00
20.00	1.6" Hybrid	Yes	3.25	0.000	1.60	0.43	0.00	0.099	0.000	31.780	0.00	5.32
20.00	10"x1/2" Bent plate	Yes	3.25	0.000	3.56	0.96	0.00	0.099	0.000	31.780	0.00	0.00
21.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.13	0.00	0.100	0.000	31.752	0.00	1.64
21.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.100	0.000	31.752	0.00	0.00
25.00	1.6" Hybrid	Yes	4.00	0.000	1.60	0.53	0.00	0.101	1.002	31.644	0.00	6.55
25.00	10"x1/2" Bent plate	Yes	4.00	0.000	3.56	1.19	0.00	0.101	1.002	31.644	0.00	0.00
30.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.102	1.007	31.539	0.00	8.19
30.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	1.48	0.00	0.102	1.007	31.539	0.00	0.00
35.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.105	1.014	32.823	0.00	8.19
35.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	1.48	0.00	0.105	1.014	32.823	0.00	0.00
36.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.13	0.00	0.106	1.017	33.062	0.00	1.64
36.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.106	1.017	33.062	0.00	0.00
39.00	1.6" Hybrid	Yes	3.00	0.000	1.60	0.40	0.00	0.107	1.020	33.744	0.00	4.91
39.00	10"x1/2" Bent plate	Yes	3.00	0.000	3.56	0.89	0.00	0.107	1.020	33.744	0.00	0.00
40.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.13	0.00	0.108	1.023	33.962	0.00	1.64
40.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.108	1.023	33.962	0.00	0.00
41.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.13	0.00	0.108	1.024	34.175	0.00	1.64
41.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.108	1.024	34.175	0.00	0.00
42.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.13	0.00	0.108	1.025	34.383	0.00	1.64
42.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.108	1.025	34.383	0.00	0.00
45.00	1.6" Hybrid	Yes	3.00	0.000	1.60	0.40	0.00	0.108	1.023	34.984	0.00	4.91
45.00	10"x1/2" Bent plate	Yes	3.00	0.000	3.56	0.89	0.00	0.108	1.023	34.984	0.00	0.00
50.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.109	1.028	35.912	0.00	8.19
50.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	1.48	0.00	0.109	1.028	35.912	0.00	0.00
55.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.112	1.035	36.762	0.00	8.19
55.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	1.48	0.00	0.112	1.035	36.762	0.00	0.00
57.00	1.6" Hybrid	Yes	2.00	0.000	1.60	0.27	0.00	0.113	1.040	37.082	0.00	3.28
57.00	10"x1/2" Bent plate	Yes	2.00	0.000	3.56	0.59	0.00	0.113	1.040	37.082	0.00	0.00
58.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.13	0.00	0.114	1.043	37.239	0.00	1.64

Linear Appurtenance Segment Forces (Factored)

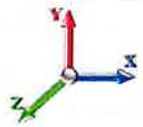
Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 27	

Tower Engineering Solutions

Load Case: 0.9D + 1.0W 122 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00



Iterations 22

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
58.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.114	1.043	37.239	0.00	0.00
58.33	1.6" Hybrid	Yes	0.33	0.000	1.60	0.04	0.00	0.063	0.000	37.290	0.00	0.54
58.33	1.25" Reinforcing	Yes	0.33	0.000	1.25	0.03	0.00	0.063	0.000	37.290	0.00	0.00
60.00	1.6" Hybrid	Yes	1.67	0.000	1.60	0.22	0.00	0.064	0.000	37.545	0.00	2.74
60.00	1.25" Reinforcing	Yes	1.67	0.000	1.25	0.17	0.00	0.064	0.000	37.545	0.00	0.00
65.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.064	0.000	38.270	0.00	8.19
65.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	0.52	0.00	0.064	0.000	38.270	0.00	0.00
70.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.066	0.000	38.946	0.00	8.19
70.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	0.52	0.00	0.066	0.000	38.946	0.00	0.00
75.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.068	0.000	39.579	0.00	8.19
75.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	0.52	0.00	0.068	0.000	39.579	0.00	0.00
76.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.13	0.00	0.068	0.000	39.700	0.00	1.64
76.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.068	0.000	39.700	0.00	0.00
80.00	1.6" Hybrid	Yes	4.00	0.000	1.60	0.53	0.00	0.068	0.000	40.173	0.00	6.55
80.00	1.25" Reinforcing	Yes	4.00	0.000	1.25	0.42	0.00	0.068	0.000	40.173	0.00	0.00
85.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.070	0.000	40.732	0.00	8.19
85.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	0.52	0.00	0.070	0.000	40.732	0.00	0.00
90.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.071	0.000	41.261	0.00	8.19
90.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	0.52	0.00	0.071	0.000	41.261	0.00	0.00
95.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.073	0.000	41.763	0.00	8.19
95.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	0.52	0.00	0.073	0.000	41.763	0.00	0.00
96.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.13	0.00	0.074	0.000	41.860	0.00	1.64
96.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.074	0.000	41.860	0.00	0.00
100.00	1.6" Hybrid	Yes	4.00	0.000	1.60	0.53	0.00	0.075	0.000	42.239	0.00	6.55
100.00	1.25" Reinforcing	Yes	4.00	0.000	1.25	0.42	0.00	0.075	0.000	42.239	0.00	0.00
105.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.077	0.000	42.693	0.00	8.19
105.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	0.52	0.00	0.077	0.000	42.693	0.00	0.00
110.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.079	0.000	43.126	0.00	8.19
110.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	0.52	0.00	0.079	0.000	43.126	0.00	0.00
113.50	1.6" Hybrid	Yes	3.50	0.000	1.60	0.47	0.00	0.081	0.000	43.418	0.00	5.73
113.50	1.25" Reinforcing	Yes	3.50	0.000	1.25	0.36	0.00	0.081	0.000	43.418	0.00	0.00
115.00	1.6" Hybrid	Yes	1.50	0.000	1.60	0.20	0.00	0.082	0.000	43.540	0.00	2.46
115.00	1.25" Reinforcing	Yes	1.50	0.000	1.25	0.16	0.00	0.082	0.000	43.540	0.00	0.00
117.00	1.6" Hybrid	Yes	2.00	0.000	1.60	0.27	0.00	0.047	0.000	43.701	0.00	3.28
										Totals:	**0.0**	**191.6**

Calculated Forces

Structure: CT00302-S-SBA
Site Name: Danielson
Height: 155.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 3

Code: TIA-222-H
Exposure: B
Crest Height: 281.00
Site Class: D - Stiff Soil
Struct Class: II

7/14/2023

Tower Engineering Solutions

Load Case: 0.9D + 1.0W 122 mph Wind
Dead Load Factor 0.90
Wind Load Factor 1.00

Iterations 22

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-41.85	-42.35	0.00	-4614.3	0.00	4614.33	4048.32	1067.01	4754.15	4411.99	0.00	0.000	0.000	0.849
3.50	-40.90	-41.85	0.00	-4466.1	0.00	4466.12	4019.67	1053.65	4635.83	4325.47	0.05	-0.133	0.000	0.836
3.75	-40.82	-41.83	0.00	-4455.6	0.00	4455.65	4017.61	1052.69	4627.43	4319.30	0.06	-0.142	0.000	0.713
5.00	-40.45	-41.69	0.00	-4403.3	0.00	4403.37	4007.22	1047.92	4585.58	4288.45	0.10	-0.183	0.000	0.785
7.75	-39.69	-41.32	0.00	-4288.7	0.00	4288.74	3984.13	1037.43	4494.16	4220.67	0.24	-0.283	0.000	0.775
10.00	-39.08	-41.03	0.00	-4195.7	0.00	4195.76	3964.98	1028.84	4420.05	4165.32	0.39	-0.356	0.000	0.691
11.75	-38.60	-40.80	0.00	-4123.9	0.00	4123.97	3949.93	1022.16	4362.83	4122.34	0.53	-0.414	0.000	0.684
14.00	-38.01	-40.50	0.00	-4032.1	0.00	4032.16	3930.37	1013.57	4289.82	4067.17	0.74	-0.479	0.000	0.598
15.00	-37.73	-40.37	0.00	-3991.6	0.00	3991.67	3921.60	1009.75	4257.57	4042.68	0.84	-0.508	0.000	0.707
16.75	-37.26	-40.16	0.00	-3921.0	0.00	3921.02	3906.14	1003.07	4201.41	3999.88	1.04	-0.559	0.000	0.589
20.00	-36.42	-39.72	0.00	-3790.5	0.00	3790.50	3877.07	990.66	4098.12	3920.59	1.45	-0.653	0.000	0.654
21.00	-36.13	-39.62	0.00	-3750.7	0.00	3750.78	3868.03	986.84	4066.60	3896.24	1.59	-0.686	0.000	0.650
25.00	-35.09	-39.13	0.00	-3592.2	0.00	3592.29	3831.41	971.57	3941.73	3799.12	2.22	-0.798	0.000	0.635
30.00	-33.81	-38.51	0.00	-3396.6	0.00	3396.65	3784.60	952.49	3788.37	3678.33	3.14	-0.959	0.000	0.615
35.00	-32.59	-37.83	0.00	-3204.1	0.00	3204.11	3736.66	933.40	3638.06	3558.30	4.23	-1.118	0.000	0.595
36.00	-32.32	-37.72	0.00	-3166.2	0.00	3166.28	3726.93	929.58	3608.36	3534.39	4.47	-1.151	0.000	0.591
39.00	-31.09	-37.28	0.00	-3053.1	0.00	3053.14	3697.48	918.13	3520.00	3462.86	5.22	-1.247	0.000	0.573
40.00	-30.67	-37.14	0.00	-3015.8	0.00	3015.86	3687.57	914.31	3490.79	3439.09	5.49	-1.279	0.000	0.707
41.00	-30.25	-37.00	0.00	-2978.7	0.00	2978.71	3677.62	910.49	3461.70	3415.35	5.76	-1.311	0.000	0.564
42.00	-29.82	-36.88	0.00	-2941.7	0.00	2941.71	3033.05	799.01	3078.91	2858.75	6.03	-1.338	0.000	0.607
45.00	-29.15	-36.48	0.00	-2831.0	0.00	2831.08	3011.75	789.09	3002.96	2803.16	6.91	-1.432	0.000	0.627
50.00	-28.08	-35.77	0.00	-2648.6	0.00	2648.68	2975.34	772.57	2878.49	2710.80	8.49	-1.595	0.000	0.601
55.00	-27.06	-35.03	0.00	-2469.8	0.00	2469.81	2937.79	756.04	2756.65	2618.85	10.25	-1.756	0.000	0.575
57.00	-26.66	-34.74	0.00	-2399.7	0.00	2399.74	2922.45	749.43	2708.65	2582.20	11.00	-1.820	0.000	0.564
58.00	-26.46	-34.59	0.00	-2365.0	0.00	2365.00	2914.71	746.12	2684.81	2563.91	11.38	-1.853	0.000	0.717
58.33	-26.38	-34.55	0.00	-2353.5	0.00	2353.59	2912.14	745.03	2676.97	2557.87	11.51	-1.863	0.000	0.553
60.00	-25.99	-34.35	0.00	-2295.8	0.00	2295.88	2899.09	739.51	2637.45	2527.38	12.17	-1.916	0.000	0.665
65.00	-24.95	-33.67	0.00	-2124.1	0.00	2124.11	2859.26	722.99	2520.88	2436.46	14.28	-2.104	0.000	0.634
70.00	-23.94	-32.97	0.00	-1955.7	0.00	1955.78	2818.28	706.46	2406.95	2346.16	16.59	-2.288	0.000	0.602
75.00	-22.36	-32.21	0.00	-1790.9	0.00	1790.91	2776.16	689.93	2295.65	2256.54	19.08	-2.469	0.000	0.564
76.00	-22.02	-32.08	0.00	-1758.7	0.00	1758.70	2161.97	582.09	1960.89	1782.08	19.60	-2.505	0.000	0.615
80.00	-21.33	-31.53	0.00	-1630.3	0.00	1630.37	2139.97	571.07	1887.36	1730.30	21.75	-2.615	0.000	0.660
85.00	-20.49	-30.83	0.00	-1472.7	0.00	1472.74	2111.44	557.30	1797.42	1665.74	24.59	-2.805	0.000	0.615
90.00	-19.67	-30.14	0.00	-1318.5	0.00	1318.58	2081.77	543.53	1709.68	1601.42	27.62	-2.987	0.000	0.568
95.00	-18.91	-29.43	0.00	-1167.8	0.00	1167.88	2050.97	529.75	1624.13	1537.42	30.84	-3.161	0.000	0.520
96.00	-18.73	-29.30	0.00	-1138.4	0.00	1138.45	2044.67	527.00	1607.29	1524.66	31.51	-3.195	0.000	0.510
100.00	-18.11	-28.76	0.00	-1021.2	0.00	1021.25	2019.02	515.98	1540.78	1473.79	34.23	-3.300	0.000	0.508
100.00	-18.11	-28.76	0.00	-1021.2	0.00	1021.25	1394.49	390.10	1166.92	1021.47	34.23	-3.300	0.000	0.592
105.00	-17.46	-28.09	0.00	-877.47	0.00	877.47	1376.43	379.71	1105.56	981.19	37.77	-3.464	0.000	0.611
110.00	-16.84	-27.42	0.00	-737.03	0.00	737.03	1357.32	369.31	1045.86	940.89	41.50	-3.639	0.000	0.531
113.50	-16.42	-26.95	0.00	-641.07	0.00	641.07	1343.33	362.03	1005.06	912.71	44.21	-3.751	0.000	0.474
113.50	-16.42	-26.95	0.00	-641.07	0.00	641.07	1343.33	362.03	1005.06	912.71	44.21	-3.751	0.000	0.709
115.00	-16.23	-26.76	0.00	-600.64	0.00	600.64	1337.17	358.92	987.82	900.65	45.39	-3.797	0.000	0.685
117.00	-13.88	-23.22	0.00	-547.12	0.00	547.12	1328.82	354.76	965.06	884.57	47.00	-3.885	0.000	0.633
120.00	-13.27	-22.82	0.00	-477.47	0.00	477.47	1327.18	353.96	960.70	881.47	49.48	-4.008	0.000	0.556
125.00	-12.71	-22.16	0.00	-363.38	0.00	363.38	1305.49	343.56	905.11	841.41	53.77	-4.184	0.000	0.446
127.00	-10.11	-16.97	0.00	-319.07	0.00	319.07	1296.51	339.40	883.33	825.43	55.54	-4.244	0.000	0.397
130.00	-9.82	-16.59	0.00	-268.15	0.00	268.15	1282.74	333.17	851.17	801.54	58.23	-4.324	0.000	0.345

Calculated Forces

Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 29	

Tower Engineering Solutions

135.00	-9.38	-15.95	0.00	-185.19	0.00	185.19	1258.96	322.77	798.89	761.93	62.82	-4.433	0.000	0.253
137.00	-6.38	-11.32	0.00	-153.29	0.00	153.29	1249.15	318.62	778.44	746.18	64.68	-4.469	0.000	0.212
140.00	-6.13	-10.94	0.00	-119.34	0.00	119.34	1234.12	312.38	748.26	722.65	67.50	-4.513	0.000	0.171
145.00	-5.75	-10.33	0.00	-64.63	0.00	64.63	1208.24	301.99	699.29	683.75	72.26	-4.567	0.000	0.100
147.00	-3.06	-5.76	0.00	-43.97	0.00	43.97	1197.60	297.83	680.17	668.32	74.17	-4.581	0.000	0.069
150.00	-2.84	-5.40	0.00	-26.69	0.00	26.69	1181.32	291.59	651.98	645.30	77.05	-4.595	0.000	0.044
153.00	-2.59	-4.90	0.00	-10.49	0.00	10.49	1164.66	285.35	624.39	622.47	79.94	-4.603	0.000	0.019
155.00	0.00	-4.68	0.00	-0.69	0.00	0.69	1153.35	281.20	606.33	607.36	81.87	-4.605	0.000	0.001

Wind Loading - Shaft

Structure: CT00302-S-SBA
Site Name: Danielson
Height: 155.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 3

Code: TIA-222-H
Exposure: B
Crest Height: 281.00
Site Class: D - Stiff Soil
Struct Class: II

7/14/2023

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 21

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00	RB1 RB2	1.30	0.70	5.434	5.98	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
3.50	RB3	1.29	0.70	5.416	5.96	0.00	1.200	0.656	3.50	16.557	19.87	118.4	160.3	1219.3
3.75	RT1	1.29	0.70	5.415	5.96	0.00	1.200	0.660	0.25	1.175	1.41	8.4	11.5	86.7
5.00		1.29	0.70	5.409	5.95	0.00	1.200	0.679	1.25	5.864	7.04	41.9	59.0	433.6
7.75	RB4	1.29	0.70	5.396	5.94	0.00	1.200	0.709	2.75	12.824	15.39	91.3	134.3	952.5
10.00		1.29	0.70	5.385	5.92	0.00	1.200	0.727	2.25	10.406	12.49	74.0	111.7	775.1
11.75	RB5	1.29	0.70	5.376	5.91	0.00	1.200	0.739	1.75	8.039	9.65	57.1	87.7	599.8
14.00	RT2 RT4	1.28	0.70	5.366	5.90	0.00	1.200	0.751	2.25	10.266	12.32	72.7	113.8	767.3
15.00	RB6	1.28	0.70	5.361	5.90	0.00	1.200	0.756	1.00	4.537	5.44	32.1	50.7	339.4
16.75	RT5	1.28	0.70	5.353	5.89	0.00	1.200	0.764	1.75	7.902	9.48	55.8	89.1	591.7
20.00		1.28	0.70	5.338	5.87	0.00	1.200	0.777	3.25	14.548	17.46	102.5	166.4	1090.8
21.00	RT3 RB7	1.27	0.70	5.333	5.87	0.00	1.200	0.780	1.00	4.442	5.33	31.3	51.2	333.4
25.00		1.27	0.70	5.315	5.85	0.00	1.202 *	0.793	4.00	17.611	21.18	123.8	205.2	1322.9
30.00		1.27	0.70	5.297	5.83	0.00	1.209 *	0.807	5.00	21.654	26.18	152.5	255.9	1628.5
35.00		1.26	0.73	5.513	6.06	0.00	1.216 *	0.818	5.00	21.250	25.85	156.7	254.5	1599.8
36.00	Bot - Section 2	1.26	0.74	5.553	6.11	0.00	1.221 *	0.820	1.00	4.201	5.13	31.3	50.8	316.6
39.00	RT6	1.26	0.76	5.668	6.23	0.00	1.224 *	0.826	3.00	12.701	15.55	96.9	154.2	1641.7
40.00	RB8	1.25	0.76	5.704	6.27	0.00	1.227 *	0.828	1.00	4.201	5.16	32.3	51.3	543.1
41.00	RT7 RB9	1.25	0.77	5.740	6.31	0.00	1.229 *	0.830	1.00	4.185	5.14	32.5	51.2	541.0
42.00	Top - Section 1	1.25	0.77	5.775	6.35	0.00	1.230 *	0.831	1.00	4.169	5.13	32.6	51.1	538.8
45.00		1.25	0.79	5.876	6.46	0.00	1.227 *	0.836	3.00	12.409	15.23	98.4	152.4	832.2
50.00		1.25	0.81	6.032	6.64	0.00	1.234 *	0.844	5.00	20.358	25.12	166.7	251.2	1365.2
55.00		1.24	0.83	6.175	6.79	0.00	1.242 *	0.851	5.00	19.951	24.78	168.3	248.0	1338.5
57.00	RT8	1.24	0.84	6.229	6.85	0.00	1.248 *	0.854	2.00	7.866	9.82	67.3	98.7	528.2
58.00	RB10	1.24	0.85	6.255	6.88	0.00	1.251 *	0.855	1.00	3.908	4.89	33.6	49.2	262.6
58.33	RT9	1.24	0.85	6.263	6.89	0.00	1.200	0.855	0.33	1.286	1.54	10.6	16.2	86.4
60.00		1.24	0.85	6.306	6.94	0.00	1.200	0.857	1.67	6.482	7.78	54.0	81.7	435.4
65.00		1.23	0.87	6.428	7.07	0.00	1.200	0.863	5.00	19.136	22.96	162.4	240.9	1284.2
70.00	Bot - Section 3	1.23	0.89	6.542	7.20	0.00	1.200	0.868	5.00	18.728	22.47	161.7	237.0	1256.7
75.00		1.22	0.91	6.648	7.31	0.00	1.200	0.873	5.00	18.589	22.31	163.1	236.5	2076.9
76.00	Top - Section 2 RT10	1.22	0.91	6.668	7.34	0.00	1.200	0.874	1.00	3.668	4.40	32.3	47.1	410.0
80.00		1.22	0.93	6.748	7.42	0.00	1.200	0.878	4.00	14.511	17.41	129.2	185.8	843.9
85.00		1.21	0.94	6.842	7.53	0.00	1.200	0.882	5.00	17.771	21.33	160.5	228.0	1032.9
90.00		1.21	0.96	6.930	7.62	0.00	1.200	0.886	5.00	17.362	20.83	158.8	223.5	1008.8
95.00		1.21	0.97	7.015	7.72	0.00	1.200	0.890	5.00	16.953	20.34	157.0	219.0	984.6
96.00	RT11 RB12	1.20	0.98	7.031	7.73	0.00	1.200	0.891	1.00	3.341	4.01	31.0	43.6	194.4
100.00	Top - Section 3	1.20	0.99	7.095	7.80	0.00	1.200	0.893	4.00	13.201	15.84	123.6	171.5	766.7
105.00		1.20	1.00	7.171	7.89	0.00	1.200	0.897	5.00	16.133	19.36	152.7	209.6	791.7
110.00		1.19	1.02	7.244	7.97	0.00	1.200	0.900	5.00	15.723	18.87	150.3	204.8	771.2
113.50	RT12	1.19	1.02	7.293	8.02	0.00	1.200	0.902	3.50	10.762	12.91	103.6	141.0	528.1
115.00	Bot - Section 5	1.19	1.03	7.313	8.04	0.00	1.200	0.903	1.50	4.551	5.46	43.9	60.0	223.5
117.00	Appurtenance(s)	1.19	1.03	7.340	8.07	0.00	1.200	0.904	2.00	6.096	7.32	59.1	80.3	515.4
120.00	Top - Section 4	1.19	1.04	7.380	8.12	0.00	1.200	0.906	3.00	9.022	10.83	87.9	118.7	761.8
125.00		1.18	1.05	7.444	8.19	0.00	1.200	0.909	5.00	14.708	17.65	144.5	192.8	720.3
127.00	Appurtenance(s)	1.18	1.06	7.469	8.22	0.00	1.200	0.910	2.00	5.768	6.92	56.9	76.3	282.9
130.00		1.18	1.07	7.505	8.26	0.00	1.200	0.911	3.00	8.529	10.24	84.5	112.7	417.8
135.00		1.18	1.08	7.564	8.32	0.00	1.200	0.914	5.00	13.887	16.66	138.7	182.6	678.6

Wind Loading - Shaft

Structure: CT00302-S-SBA
Site Name: Danielson
Height: 155.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1
Topography: 3

Code: TIA-222-H
Exposure: B
Crest Height: 281.00
Site Class: D - Stiff Soil
Struct Class: II

7/14/2023

Tower Engineering Solutions

137.00 Appurtenance(s)	1.17	1.08	7.587	8.35	0.00	1.200	0.915	2.00	5.440	6.53	54.5	72.2	266.2
140.00	1.17	1.09	7.621	8.38	0.00	1.200	0.916	3.00	8.037	9.64	80.9	106.5	392.7
145.00	1.17	1.10	7.676	8.44	0.00	1.200	0.918	5.00	13.066	15.68	132.4	172.2	636.8
147.00 Appurtenance(s)	1.17	1.10	7.698	8.47	0.00	1.200	0.919	2.00	5.111	6.13	51.9	68.0	249.5
150.00	1.17	1.11	7.730	8.50	0.00	1.200	0.921	3.00	7.544	9.05	77.0	100.2	367.6
153.00 Appurtenance(s)	1.16	1.12	7.761	8.54	0.00	1.200	0.922	3.00	7.396	8.88	75.8	98.2	360.0
155.00 Appurtenance(s)	1.16	1.12	7.781	8.56	0.00	1.200	0.923	2.00	4.848	5.82	49.8	64.6	236.0
							Totals:	**155.00**			**4,767.1**		**38,229.7**

* Cf Adjusted by Linear Load Ra Effect

Discrete Appurtenance Forces

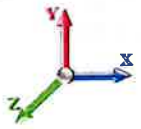
Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 32	

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 21

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	155.00	Samsung B2/B66A	3	7.781	8.559	0.40	0.80	2.59	411.91	0.000	0.000	22.19	0.00	0.00
2	155.00	Antel	3	7.781	8.559	0.84	0.90	9.42	86.85	0.000	0.000	80.63	0.00	0.00
3	155.00	(3) T-Frame w/	1	7.781	8.559	1.00	1.00	35.61	2511.50	0.000	0.000	304.81	0.00	0.00
4	155.00	BSAMNT-SBS-2-2	3	7.781	8.559	1.00	1.00	0.00	439.98	0.000	0.000	0.00	0.00	0.00
5	155.00	Commscope	3	7.781	8.559	0.40	0.80	0.60	117.72	0.000	0.000	5.18	0.00	0.00
6	155.00	MT6407-77A	3	7.796	8.576	0.56	0.80	8.71	484.88	0.000	1.500	74.70	0.00	112.05
7	155.00	B5/B13	3	7.781	8.559	0.40	0.80	2.59	350.29	0.000	0.000	22.19	0.00	0.00
8	155.00	RVZDC-6627-PF-48	1	7.781	8.559	0.80	0.80	3.60	73.44	0.000	0.000	30.78	0.00	0.00
9	155.00	BSF0020F3V1-1	2	7.781	8.559	0.54	0.80	1.28	70.29	0.000	0.000	10.96	0.00	0.00
10	155.00	GPS Receiver	1	7.801	8.581	0.80	0.80	1.10	19.50	0.000	2.000	9.45	0.00	18.90
11	155.00	JAHH-65B-R3B	6	7.781	8.559	0.66	0.80	39.05	1166.20	0.000	0.000	334.26	0.00	0.00
12	153.00	XXDWMM-12.5-65-8T-CB	3	7.761	8.537	0.69	0.80	2.31	-66.65	0.000	0.000	19.71	0.00	0.00
13	153.00	CBRS RRH - RT	3	7.761	8.537	0.40	0.80	1.26	92.25	0.000	0.000	10.79	0.00	0.00
14	147.00	(3) T-Frame w/ Platforms	1	7.698	8.468	1.00	1.00	35.57	2508.70	0.000	0.000	301.22	0.00	0.00
15	147.00	APXVSPP18-C-A20	3	7.698	8.468	0.66	0.80	18.91	329.87	0.000	0.000	160.10	0.00	0.00
16	147.00	APXVTM14-C-I20	3	7.698	8.468	0.63	0.80	13.10	431.34	0.000	0.000	110.92	0.00	0.00
17	147.00	Alcatel Lucent	3	7.698	8.468	0.40	0.80	5.35	409.82	0.000	0.000	45.33	0.00	0.00
18	147.00	Alcatel Lucent 1900 MHz	3	7.698	8.468	0.40	0.80	3.18	638.86	0.000	0.000	26.97	0.00	0.00
19	147.00	Alcatel Lucent 800 MHz	3	7.698	8.468	0.40	0.80	3.71	244.39	0.000	0.000	31.42	0.00	0.00
20	147.00	Alcatel Lucent 800 MHz	3	7.698	8.468	0.40	0.80	1.34	44.56	0.000	0.000	11.39	0.00	0.00
21	147.00	RFS ACU-A20-N RET	4	7.698	8.468	0.40	0.80	0.47	8.65	0.000	0.000	4.01	0.00	0.00
22	147.00	PRK-1245 (kicker kit)	1	7.698	8.468	1.00	1.00	14.74	633.77	0.000	0.000	124.82	0.00	0.00
23	147.00	(3) SFS-H (V-Braces)	1	7.698	8.468	0.75	0.75	9.85	-67.27	0.000	0.000	83.39	0.00	0.00
24	137.00	(3) T-Framew/ walking	1	7.587	8.346	1.00	1.00	35.52	2504.94	0.000	0.000	296.45	0.00	0.00
25	137.00	RRUS 4415 B25	2	7.587	8.346	0.40	0.80	1.53	134.69	0.000	0.000	12.75	0.00	0.00
26	137.00	4449 B71 + B85	2	7.587	8.346	0.40	0.80	1.81	119.41	0.000	0.000	15.15	0.00	0.00
27	137.00	PRK-1245 (kicker kit)	1	7.587	8.346	1.00	1.00	13.17	584.16	0.000	0.000	109.88	0.00	0.00
28	137.00	KRD 9011461-B66A-B2A	2	7.587	8.346	0.70	0.80	9.85	492.92	0.000	0.000	82.24	0.00	0.00
29	137.00	APXVAALL24_43-U-NA20	2	7.587	8.346	0.56	0.80	23.76	719.11	0.000	0.000	198.35	0.00	0.00
30	137.00	KRY 112 144/2	3	7.587	8.346	0.40	0.80	0.79	47.25	0.000	0.000	6.60	0.00	0.00
31	137.00	(3) HR w/ V-Brace Kits	1	7.587	8.346	1.00	1.00	13.17	486.38	0.000	0.000	109.88	0.00	0.00
32	137.00	AIR6449 B41	2	7.587	8.346	0.57	0.80	6.98	327.54	0.000	0.000	58.29	0.00	0.00
33	127.00	Low Profile	1	7.469	8.216	1.00	1.00	35.46	2182.28	0.000	0.000	291.34	0.00	0.00
34	127.00	7770.00	3	7.469	8.216	0.55	0.75	9.92	314.83	0.000	0.000	81.49	0.00	0.00
35	127.00	DTMABP7819VG12A	3	7.469	8.216	0.38	0.75	1.73	87.13	0.000	0.000	14.24	0.00	0.00
36	127.00	4449 B5/B12	3	7.469	8.216	0.38	0.75	2.54	298.27	0.000	0.000	20.84	0.00	0.00
37	127.00	RRUS 4478 B14	3	7.469	8.216	0.38	0.75	2.16	250.48	0.000	0.000	17.75	0.00	0.00
38	127.00	DC6-48-60-18-8F	1	7.469	8.216	0.38	0.75	0.43	52.69	0.000	0.000	3.54	0.00	0.00
39	127.00	DMP65R-BU6DA	3	7.469	8.216	0.54	0.75	21.83	544.54	0.000	0.000	179.32	0.00	0.00
40	127.00	4415 B30	3	7.469	8.216	0.38	0.75	2.43	202.35	0.000	0.000	19.95	0.00	0.00
41	127.00	HRK12 (Handrail Kit)	1	7.469	8.216	1.00	1.00	10.19	737.68	0.000	0.000	83.71	0.00	0.00
42	127.00	DC9-48-60-24-8C-EV	1	7.469	8.216	0.38	0.75	0.74	69.59	0.000	0.000	6.06	0.00	0.00
43	127.00	LGP13519	6	7.469	8.216	0.38	0.75	1.30	51.66	0.000	0.000	10.66	0.00	0.00
44	127.00	8843 B2 B66A	3	7.469	8.216	0.38	0.75	2.15	290.01	0.000	0.000	17.65	0.00	0.00
45	127.00	840370799	3	7.469	8.216	0.52	0.75	27.71	278.79	0.000	0.000	227.65	0.00	0.00
46	117.00	Commscope	1	7.340	8.074	1.00	1.00	62.06	2573.87	0.000	0.000	501.11	0.00	0.00
47	117.00	Raycap	1	7.340	8.074	0.75	0.75	1.73	41.17	0.000	0.000	13.95	0.00	0.00

Discrete Appurtenance Forces

Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1	**Topography:** 3	**Struct Class:**	II	Page: 33

48	117.00	Fujitsu TA08025-B604	3	7.340	8.074	0.50	0.75	3.39	272.43	0.000	0.000	27.39	0.00	0.00
49	117.00	Fujitsu TA08025-B605	3	7.340	8.074	0.50	0.75	3.39	313.50	0.000	0.000	27.39	0.00	0.00
50	117.00	Commscope	3	7.340	8.074	0.55	0.75	21.69	500.74	0.000	0.000	175.10	0.00	0.00
							Totals:		**25,419.26**			**4,433.94**	

Total Applied Force Summary

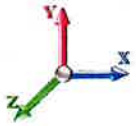
Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 34	

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 21

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
3.50		118.37	1466.05	0.00	0.00
3.75		8.40	104.30	0.00	0.00
5.00		41.87	522.45	0.00	0.00
7.75		91.33	1149.72	0.00	0.00
10.00		73.96	937.36	0.00	0.00
11.75		57.05	726.53	0.00	0.00
14.00		72.71	930.86	0.00	0.00
15.00		32.11	412.21	0.00	0.00
16.75		55.83	719.45	0.00	0.00
20.00		102.51	1329.05	0.00	0.00
21.00		31.27	406.75	0.00	0.00
25.00		123.82	1617.57	0.00	0.00
30.00		152.54	1998.44	0.00	0.00
35.00		156.75	1971.13	0.00	0.00
36.00		31.33	390.93	0.00	0.00
39.00		96.92	1865.09	0.00	0.00
40.00		32.35	617.59	0.00	0.00
41.00		32.47	615.51	0.00	0.00
42.00		32.58	613.42	0.00	0.00
45.00		98.44	1056.25	0.00	0.00
50.00		166.66	1739.61	0.00	0.00
55.00		168.34	1713.68	0.00	0.00
57.00		67.28	678.45	0.00	0.00
58.00		33.64	337.70	0.00	0.00
58.33		10.63	103.63	0.00	0.00
60.00		53.96	522.51	0.00	0.00
65.00		162.37	1545.23	0.00	0.00
70.00		161.71	1518.00	0.00	0.00
75.00		163.12	2338.36	0.00	0.00
76.00		32.29	462.33	0.00	0.00
80.00		129.25	1053.29	0.00	0.00
85.00		160.49	1294.79	0.00	0.00
90.00		158.83	1270.87	0.00	0.00
95.00		156.97	1246.83	0.00	0.00
96.00		31.01	246.83	0.00	0.00
100.00		123.63	976.57	0.00	0.00
105.00		152.71	1054.20	0.00	0.00
110.00		150.34	1033.79	0.00	0.00
113.50		103.60	711.97	0.00	0.00
115.00		43.93	302.34	0.00	0.00
117.00	(11) attachments	804.02	4314.12	0.00	0.00
120.00		87.88	893.84	0.00	0.00
125.00		144.52	940.34	0.00	0.00
127.00	(34) attachments	1031.06	5731.22	0.00	0.00
130.00		84.50	496.19	0.00	0.00
135.00		138.67	809.28	0.00	0.00

Total Applied Force Summary

Structure:	CT00302-S-SBA		**Code:**	TIA-222-H	7/14/2023
Site Name:	Danielson		**Exposure:**	B	
Height:	155.00 (ft)		**Crest Height:**	281.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 3	**Struct Class:**	II	Page: 35

Tower Engineering Solutions

137.00	(16) attachments	944.07	5734.88	0.00	0.00
140.00		80.85	455.15	0.00	0.00
145.00		132.40	740.78	0.00	0.00
147.00	(25) attachments	951.51	5473.76	0.00	0.00
150.00		76.97	420.48	0.00	0.00
153.00	(6) attachments	106.26	438.51	0.00	0.00
155.00	(29) attachments	944.94	6003.83	0.00	130.95
	Totals:	**9,201.04**	**72,054.03**	**0.00**	**130.95**

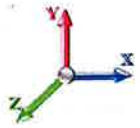
Linear Appurtenance Segment Forces (Factored)

Structure: CT00302-S-SBA
Site Name: Danielson
Height: 155.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 3

Code: TIA-222-H 7/14/2023
Exposure: B
Crest Height: 281.00
Site Class: D - Stiff Soil
Struct Class: II

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 21

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
3.50	1.6" Hybrid	Yes	3.50	0.000	1.60	0.85	0.00	0.093	0.000	5.416	0.00	13.09
3.50	10"x1/2" Bent plate	Yes	3.50	0.000	3.56	1.42	0.00	0.093	0.000	5.416	0.00	98.27
3.75	1.6" Hybrid	Yes	0.25	0.000	1.60	0.06	0.00	0.094	0.000	5.415	0.00	0.94
3.75	10"x1/2" Bent plate	Yes	0.25	0.000	3.56	0.10	0.00	0.094	0.000	5.415	0.00	7.04
5.00	1.6" Hybrid	Yes	1.25	0.000	1.60	0.31	0.00	0.094	0.000	5.409	0.00	4.76
5.00	10"x1/2" Bent plate	Yes	1.25	0.000	3.56	0.51	0.00	0.094	0.000	5.409	0.00	35.69
7.75	1.6" Hybrid	Yes	2.75	0.000	1.60	0.69	0.00	0.095	0.000	5.396	0.00	10.71
7.75	10"x1/2" Bent plate	Yes	2.75	0.000	3.56	1.14	0.00	0.095	0.000	5.396	0.00	80.15
10.00	1.6" Hybrid	Yes	2.25	0.000	1.60	0.57	0.00	0.095	0.000	5.385	0.00	8.88
10.00	10"x1/2" Bent plate	Yes	2.25	0.000	3.56	0.94	0.00	0.095	0.000	5.385	0.00	66.39
11.75	1.6" Hybrid	Yes	1.75	0.000	1.60	0.45	0.00	0.096	0.000	5.376	0.00	6.97
11.75	10"x1/2" Bent plate	Yes	1.75	0.000	3.56	0.73	0.00	0.096	0.000	5.376	0.00	52.04
14.00	1.6" Hybrid	Yes	2.25	0.000	1.60	0.58	0.00	0.097	0.000	5.366	0.00	9.05
14.00	10"x1/2" Bent plate	Yes	2.25	0.000	3.56	0.95	0.00	0.097	0.000	5.366	0.00	67.47
15.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.26	0.00	0.097	0.000	5.361	0.00	4.04
15.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.42	0.00	0.097	0.000	5.361	0.00	30.09
16.75	1.6" Hybrid	Yes	1.75	0.000	1.60	0.46	0.00	0.098	0.000	5.353	0.00	7.11
16.75	10"x1/2" Bent plate	Yes	1.75	0.000	3.56	0.74	0.00	0.098	0.000	5.353	0.00	52.94
20.00	1.6" Hybrid	Yes	3.25	0.000	1.60	0.85	0.00	0.099	0.000	5.338	0.00	13.33
20.00	10"x1/2" Bent plate	Yes	3.25	0.000	3.56	1.38	0.00	0.099	0.000	5.338	0.00	99.16
21.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.26	0.00	0.100	0.000	5.333	0.00	4.11
21.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.43	0.00	0.100	0.000	5.333	0.00	30.58
25.00	1.6" Hybrid	Yes	4.00	0.000	1.60	1.06	0.00	0.101	1.002	5.315	0.00	16.61
25.00	10"x1/2" Bent plate	Yes	4.00	0.000	3.56	1.72	0.00	0.101	1.002	5.315	0.00	123.37
30.00	1.6" Hybrid	Yes	5.00	0.000	1.60	1.34	0.00	0.102	1.007	5.297	0.00	20.98
30.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	2.16	0.00	0.102	1.007	5.297	0.00	155.57
35.00	1.6" Hybrid	Yes	5.00	0.000	1.60	1.35	0.00	0.105	1.014	5.513	0.00	21.17
35.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	2.17	0.00	0.105	1.014	5.513	0.00	156.73
36.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.27	0.00	0.106	1.017	5.553	0.00	4.24
36.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.43	0.00	0.106	1.017	5.553	0.00	31.39
39.00	1.6" Hybrid	Yes	3.00	0.000	1.60	0.81	0.00	0.107	1.020	5.668	0.00	12.78
39.00	10"x1/2" Bent plate	Yes	3.00	0.000	3.56	1.30	0.00	0.107	1.020	5.668	0.00	94.52
40.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.27	0.00	0.108	1.023	5.704	0.00	4.27
40.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.43	0.00	0.108	1.023	5.704	0.00	31.55
41.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.27	0.00	0.108	1.024	5.740	0.00	4.27
41.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.43	0.00	0.108	1.024	5.740	0.00	31.58
42.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.27	0.00	0.108	1.025	5.775	0.00	4.28
42.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.44	0.00	0.108	1.025	5.775	0.00	31.62
45.00	1.6" Hybrid	Yes	3.00	0.000	1.60	0.82	0.00	0.108	1.023	5.876	0.00	12.88
45.00	10"x1/2" Bent plate	Yes	3.00	0.000	3.56	1.31	0.00	0.108	1.023	5.876	0.00	95.17
50.00	1.6" Hybrid	Yes	5.00	0.000	1.60	1.37	0.00	0.109	1.028	6.032	0.00	21.59
50.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	2.19	0.00	0.109	1.028	6.032	0.00	159.40
55.00	1.6" Hybrid	Yes	5.00	0.000	1.60	1.38	0.00	0.112	1.035	6.175	0.00	21.71
55.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	2.19	0.00	0.112	1.035	6.175	0.00	160.11
57.00	1.6" Hybrid	Yes	2.00	0.000	1.60	0.55	0.00	0.113	1.040	6.229	0.00	8.70
57.00	10"x1/2" Bent plate	Yes	2.00	0.000	3.56	0.88	0.00	0.113	1.040	6.229	0.00	64.15
58.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.28	0.00	0.114	1.043	6.255	0.00	4.35

Linear Appurtenance Segment Forces (Factored)

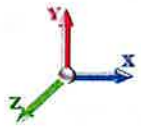
Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 37	

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 21

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
58.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.44	0.00	0.114	1.043	6.255	0.00	32.10
58.33	1.6" Hybrid	Yes	0.33	0.000	1.60	0.09	0.00	0.063	0.000	6.263	0.00	1.44
58.33	1.25" Reinforcing	Yes	0.33	0.000	1.25	0.08	0.00	0.063	0.000	6.263	0.00	1.25
60.00	1.6" Hybrid	Yes	1.67	0.000	1.60	0.46	0.00	0.064	0.000	6.306	0.00	7.29
60.00	1.25" Reinforcing	Yes	1.67	0.000	1.25	0.41	0.00	0.064	0.000	6.306	0.00	6.33
65.00	1.6" Hybrid	Yes	5.00	0.000	1.60	1.39	0.00	0.064	0.000	6.428	0.00	21.91
65.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	1.24	0.00	0.064	0.000	6.428	0.00	19.10
70.00	1.6" Hybrid	Yes	5.00	0.000	1.60	1.39	0.00	0.066	0.000	6.542	0.00	22.00
70.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	1.24	0.00	0.066	0.000	6.542	0.00	19.23
75.00	1.6" Hybrid	Yes	5.00	0.000	1.60	1.39	0.00	0.068	0.000	6.648	0.00	22.08
75.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	1.25	0.00	0.068	0.000	6.648	0.00	19.35
76.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.28	0.00	0.068	0.000	6.668	0.00	4.42
76.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.25	0.00	0.068	0.000	6.668	0.00	3.88
80.00	1.6" Hybrid	Yes	4.00	0.000	1.60	1.12	0.00	0.068	0.000	6.748	0.00	17.73
80.00	1.25" Reinforcing	Yes	4.00	0.000	1.25	1.00	0.00	0.068	0.000	6.748	0.00	15.57
85.00	1.6" Hybrid	Yes	5.00	0.000	1.60	1.40	0.00	0.070	0.000	6.842	0.00	22.23
85.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	1.26	0.00	0.070	0.000	6.842	0.00	19.58
90.00	1.6" Hybrid	Yes	5.00	0.000	1.60	1.41	0.00	0.071	0.000	6.930	0.00	22.30
90.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	1.26	0.00	0.071	0.000	6.930	0.00	19.68
95.00	1.6" Hybrid	Yes	5.00	0.000	1.60	1.41	0.00	0.073	0.000	7.015	0.00	22.36
95.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	1.26	0.00	0.073	0.000	7.015	0.00	19.77
96.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.28	0.00	0.074	0.000	7.031	0.00	4.48
96.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.25	0.00	0.074	0.000	7.031	0.00	3.96
100.00	1.6" Hybrid	Yes	4.00	0.000	1.60	1.13	0.00	0.075	0.000	7.095	0.00	17.94
100.00	1.25" Reinforcing	Yes	4.00	0.000	1.25	1.01	0.00	0.075	0.000	7.095	0.00	15.89
105.00	1.6" Hybrid	Yes	5.00	0.000	1.60	1.41	0.00	0.077	0.000	7.171	0.00	22.48
105.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	1.27	0.00	0.077	0.000	7.171	0.00	19.95
110.00	1.6" Hybrid	Yes	5.00	0.000	1.60	1.42	0.00	0.079	0.000	7.244	0.00	22.54
110.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	1.27	0.00	0.079	0.000	7.244	0.00	20.03
113.50	1.6" Hybrid	Yes	3.50	0.000	1.60	0.99	0.00	0.081	0.000	7.293	0.00	15.80
113.50	1.25" Reinforcing	Yes	3.50	0.000	1.25	0.89	0.00	0.081	0.000	7.293	0.00	14.06
115.00	1.6" Hybrid	Yes	1.50	0.000	1.60	0.43	0.00	0.082	0.000	7.313	0.00	6.78
115.00	1.25" Reinforcing	Yes	1.50	0.000	1.25	0.38	0.00	0.082	0.000	7.313	0.00	6.03
117.00	1.6" Hybrid	Yes	2.00	0.000	1.60	0.57	0.00	0.047	0.000	7.340	0.00	9.04
									Totals:		**0.0**	**2,514.3**

Calculated Forces

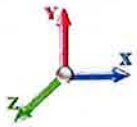
Structure: CT00302-S-SBA
Site Name: Danielson
Height: 155.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 3

Code: TIA-222-H
Exposure: B
Crest Height: 281.00
Site Class: D - Stiff Soil
Struct Class: II

7/14/2023

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 21

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-72.05	-9.22	0.00	-1021.9	0.00	1021.93	4048.32	1067.01	4754.15	4411.99	0.00	0.000	0.000	0.201
3.50	-70.58	-9.12	0.00	-989.66	0.00	989.66	4019.67	1053.65	4635.83	4325.47	0.01	-0.030	0.000	0.198
3.75	-70.48	-9.12	0.00	-987.38	0.00	987.38	4017.61	1052.69	4627.43	4319.30	0.01	-0.031	0.000	0.168
5.00	-69.95	-9.09	0.00	-975.99	0.00	975.99	4007.22	1047.92	4585.58	4288.45	0.02	-0.040	0.000	0.184
7.75	-68.80	-9.03	0.00	-950.98	0.00	950.98	3984.13	1037.43	4494.16	4220.67	0.05	-0.063	0.000	0.182
10.00	-67.86	-8.97	0.00	-930.67	0.00	930.67	3964.98	1028.84	4420.05	4165.32	0.09	-0.079	0.000	0.163
11.75	-67.13	-8.93	0.00	-914.98	0.00	914.98	3949.93	1022.16	4362.83	4122.34	0.12	-0.092	0.000	0.161
14.00	-66.20	-8.86	0.00	-894.90	0.00	894.90	3930.37	1013.57	4289.82	4067.17	0.16	-0.106	0.000	0.141
15.00	-65.79	-8.84	0.00	-886.03	0.00	886.03	3921.60	1009.75	4257.57	4042.68	0.19	-0.113	0.000	0.167
16.75	-65.06	-8.80	0.00	-870.56	0.00	870.56	3906.14	1003.07	4201.41	3999.88	0.23	-0.124	0.000	0.139
20.00	-63.73	-8.71	0.00	-841.96	0.00	841.96	3877.07	990.66	4098.12	3920.59	0.32	-0.145	0.000	0.154
21.00	-63.32	-8.70	0.00	-833.25	0.00	833.25	3868.03	986.84	4066.60	3896.24	0.35	-0.152	0.000	0.153
25.00	-61.70	-8.60	0.00	-798.46	0.00	798.46	3831.41	971.57	3941.73	3799.12	0.49	-0.177	0.000	0.150
30.00	-59.70	-8.48	0.00	-755.46	0.00	755.46	3784.60	952.49	3788.37	3678.33	0.70	-0.213	0.000	0.145
35.00	-57.73	-8.34	0.00	-713.07	0.00	713.07	3736.66	933.40	3638.06	3558.30	0.94	-0.248	0.000	0.141
36.00	-57.33	-8.32	0.00	-704.73	0.00	704.73	3726.93	929.58	3608.36	3534.39	0.99	-0.256	0.000	0.140
39.00	-55.47	-8.22	0.00	-679.78	0.00	679.78	3697.48	918.13	3520.00	3462.86	1.16	-0.277	0.000	0.135
40.00	-54.85	-8.20	0.00	-671.56	0.00	671.56	3687.57	914.31	3490.79	3439.09	1.22	-0.284	0.000	0.167
41.00	-54.23	-8.17	0.00	-663.36	0.00	663.36	3677.62	910.49	3461.70	3415.35	1.28	-0.291	0.000	0.134
42.00	-53.62	-8.14	0.00	-655.19	0.00	655.19	3033.05	799.01	3078.91	2858.75	1.34	-0.297	0.000	0.143
45.00	-52.56	-8.07	0.00	-630.76	0.00	630.76	3011.75	789.09	3002.96	2803.16	1.53	-0.318	0.000	0.148
50.00	-50.81	-7.92	0.00	-590.43	0.00	590.43	2975.34	772.57	2878.49	2710.80	1.89	-0.354	0.000	0.142
55.00	-49.10	-7.76	0.00	-550.82	0.00	550.82	2937.79	756.04	2756.65	2618.85	2.28	-0.390	0.000	0.136
57.00	-48.42	-7.70	0.00	-535.30	0.00	535.30	2922.45	749.43	2708.65	2582.20	2.44	-0.405	0.000	0.134
58.00	-48.08	-7.67	0.00	-527.60	0.00	527.60	2914.71	746.12	2684.81	2563.91	2.53	-0.412	0.000	0.170
58.33	-47.98	-7.66	0.00	-525.07	0.00	525.07	2912.14	745.03	2676.97	2557.87	2.56	-0.414	0.000	0.131
60.00	-47.45	-7.63	0.00	-512.27	0.00	512.27	2899.09	739.51	2637.45	2527.38	2.70	-0.426	0.000	0.159
65.00	-45.90	-7.49	0.00	-474.13	0.00	474.13	2859.26	722.99	2520.88	2436.46	3.17	-0.468	0.000	0.151
70.00	-44.38	-7.34	0.00	-436.70	0.00	436.70	2818.28	706.46	2406.95	2346.16	3.69	-0.509	0.000	0.144
75.00	-42.04	-7.18	0.00	-399.98	0.00	399.98	2776.16	689.93	2295.65	2256.54	4.24	-0.549	0.000	0.135
76.00	-41.57	-7.15	0.00	-392.81	0.00	392.81	2161.97	582.09	1960.89	1782.08	4.36	-0.557	0.000	0.147
80.00	-40.52	-7.04	0.00	-364.20	0.00	364.20	2139.97	571.07	1887.36	1730.30	4.83	-0.582	0.000	0.159
85.00	-39.22	-6.89	0.00	-329.02	0.00	329.02	2111.44	557.30	1797.42	1665.74	5.47	-0.624	0.000	0.148
90.00	-37.95	-6.74	0.00	-294.57	0.00	294.57	2081.77	543.53	1709.68	1601.42	6.14	-0.665	0.000	0.138
95.00	-36.70	-6.59	0.00	-260.86	0.00	260.86	2050.97	529.75	1624.13	1537.42	6.86	-0.704	0.000	0.127
96.00	-36.45	-6.56	0.00	-254.27	0.00	254.27	2044.67	527.00	1607.29	1524.66	7.01	-0.712	0.000	0.124
100.00	-35.47	-6.44	0.00	-228.03	0.00	228.03	2019.02	515.98	1540.78	1473.79	7.62	-0.735	0.000	0.124
100.00	-35.47	-6.44	0.00	-228.03	0.00	228.03	1394.49	390.10	1166.92	1021.47	7.62	-0.735	0.000	0.144
105.00	-34.42	-6.30	0.00	-195.80	0.00	195.80	1376.43	379.71	1105.56	981.19	8.41	-0.772	0.000	0.150
110.00	-33.38	-6.16	0.00	-164.30	0.00	164.30	1357.32	369.31	1045.86	940.89	9.24	-0.811	0.000	0.132
113.50	-32.67	-6.05	0.00	-142.75	0.00	142.75	1343.33	362.03	1005.06	912.71	9.84	-0.836	0.000	0.119
113.50	-32.67	-6.05	0.00	-142.75	0.00	142.75	1343.33	362.03	1005.06	912.71	9.84	-0.836	0.000	0.171
115.00	-32.37	-6.01	0.00	-133.68	0.00	133.68	1337.17	358.92	987.82	900.65	10.10	-0.846	0.000	0.173
117.00	-28.06	-5.15	0.00	-121.66	0.00	121.66	1328.82	354.76	965.06	884.57	10.46	-0.866	0.000	0.159
120.00	-27.17	-5.07	0.00	-106.19	0.00	106.19	1327.18	353.96	960.70	881.47	11.02	-0.893	0.000	0.141
125.00	-26.23	-4.92	0.00	-80.85	0.00	80.85	1305.49	343.56	905.11	841.41	11.97	-0.932	0.000	0.116
127.00	-20.51	-3.80	0.00	-71.01	0.00	71.01	1296.51	339.40	883.33	825.43	12.37	-0.945	0.000	0.102
130.00	-20.02	-3.72	0.00	-59.60	0.00	59.60	1282.74	333.17	851.17	801.54	12.97	-0.963	0.000	0.090

Calculated Forces

Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1	**Topography:** 3	**Struct Class:**	II	Page: 39

Tower Engineering Solutions

135.00	-19.21	-3.57	0.00	-41.02	0.00	41.02	1258.96	322.77	798.89	761.93	13.99	-0.987	0.000	0.069
137.00	-13.49	-2.53	0.00	-33.88	0.00	33.88	1249.15	318.62	778.44	746.18	14.40	-0.995	0.000	0.056
140.00	-13.04	-2.44	0.00	-26.29	0.00	26.29	1234.12	312.38	748.26	722.65	15.03	-1.005	0.000	0.047
145.00	-12.30	-2.30	0.00	-14.08	0.00	14.08	1208.24	301.99	699.29	683.75	16.09	-1.017	0.000	0.031
147.00	-6.84	-1.25	0.00	-9.48	0.00	9.48	1197.60	297.83	680.17	668.32	16.52	-1.020	0.000	0.020
150.00	-6.42	-1.17	0.00	-5.73	0.00	5.73	1181.32	291.59	651.98	645.30	17.16	-1.023	0.000	0.014
153.00	-5.99	-1.05	0.00	-2.24	0.00	2.24	1164.66	285.35	624.39	622.47	17.81	-1.025	0.000	0.009
155.00	0.00	-0.94	0.00	-0.13	0.00	0.13	1153.35	281.20	606.33	607.36	18.23	-1.025	0.000	0.000

Seismic Segment Forces (Factored)

Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 40	

Tower Engineering Solutions

Load Case: 1.2D + 1.0Ev + 1.0Eh

Gust Response Factor	1.10			**Sds**	0.20	**Iterations**	19
Dead Load Factor	1.20	**Seismic Load Factor**	1.00	**Sd1**	0.09	**Ss**	0.18
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.30	**SA**	0.03	**S1**	0.05
						Seismic Importance Factor	1.00

R: 1.50

Top Elev (ft)	Description	Wz (lb)	Hz (lb)	Vertical Ev (lb)	Lateral Fs (lb)
0.00	RB1 RB2	0.00	0.00	0.00	0.00
3.50	RB3	1025.5	1.75	40.47	0.00
3.75	RT1	72.83	3.63	2.87	0.00
5.00		363.28	4.38	14.34	0.00
7.75	RB4	794.21	6.38	31.34	0.02
10.00		644.70	8.88	25.44	0.02
11.75	RB5	498.26	10.88	19.66	0.02
14.00	RT2 RT4	636.53	12.88	25.12	0.04
15.00	RB6	281.43	14.50	11.11	0.01
16.75	RT5	490.32	15.88	19.35	0.04
20.00		903.21	18.38	35.65	0.17
21.00	RT3 RB7	275.98	20.50	10.89	0.02
25.00		1094.8	23.00	43.21	0.39
30.00		1348.1	27.50	53.21	0.85
35.00		1325.4	32.50	52.31	1.14
36.00	Bot - Section 2	262.37	35.50	10.35	0.05
39.00	RT6	1362.2	37.50	53.76	1.61
40.00	RB8	450.70	39.50	17.79	0.20
41.00	RT7 RB9	449.00	40.50	17.72	0.20
42.00	Top - Section 1	447.31	41.50	17.65	0.21
45.00		689.05	43.50	27.19	0.55
50.00		1132.7	47.50	44.70	1.78
55.00		1113.0	52.50	43.93	2.10
57.00	RT8	439.72	56.00	17.35	0.37
58.00	RB10	218.68	57.50	8.63	0.10
58.33	RT9	73.75	58.16	2.91	0.01
60.00		371.91	59.16	14.68	0.30
65.00		1100.4	62.50	43.43	2.91
70.00	Bot - Section 3	1080.7	67.50	42.65	3.27
75.00		1764.6	72.50	69.64	10.07
76.00	Top - Section 2 RT10 RB11	348.60	75.50	13.76	0.43
80.00		733.20	78.00	28.94	2.01
85.00		901.76	82.50	35.59	3.41
90.00		885.39	87.50	34.94	3.69
95.00		869.02	92.50	34.30	3.98
96.00	RT11 RB12	171.84	95.50	6.78	0.17
100.00	Top - Section 3	680.80	98.00	26.87	2.74
105.00		716.06	102.50	28.26	3.32
110.00		702.96	107.50	27.74	3.51
113.50	RT12	484.28	111.75	19.11	1.80
115.00	Bot - Section 5	205.58	114.25	8.11	0.34
117.00	Appurtenance(s)	2832.9	116.00	111.81	66.46
120.00	Top - Section 4	667.94	118.50	26.36	3.86
125.00		659.59	122.50	26.03	4.02
127.00	Appurtenance(s)	3302.0	126.00	130.32	106.53
130.00		332.68	128.50	13.13	1.12

Seismic Segment Forces (Factored)

Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 41	

135.00			543.98	132.50	21.47	3.20		
137.00	Appurtenance(s)		3727.6	136.00	147.12	158.16		
140.00			300.97	138.50	11.88	1.07		
145.00			491.14	142.50	19.38	3.01		
147.00	Appurtenance(s)		3393.1	146.00	133.91	151.02		
150.00			275.75	148.50	10.88	1.03		
153.00	Appurtenance(s)		335.53	151.50	13.24	1.59		
155.00	Appurtenance(s)		3309.0	154.00	130.60	159.81		
		Totals:	**47,582.9**		**1,877.9**	**712.7**	**Total Wind:**	**42,297.1**

Calculated Forces

Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 42	

Tower Engineering Solutions

Load Case: 1.2D + 1.0Ev + 1.0Eh

Gust Response Factor	1.10			**Sds**	0.20			**Iterations**	19
Dead Load Factor	1.20	**Seismic Load Factor**	1.00	**Sd1**	0.09			**Ss**	0.18
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.30	**SA**	0.03	**Seismic Importance Factor**	1.00	**S1**	0.05

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	-57.75	-0.71	0.00	-100.42	0.00	100.42	4048.32	1067.01	4754.15	4411.99		0.00	0.00	0.030
3.50	-56.51	-0.71	0.00	-97.93	0.00	97.93	4019.67	1053.65	4635.83	4325.47		0.00	0.00	0.030
3.75	-56.42	-0.71	0.00	-97.75	0.00	97.75	4017.61	1052.69	4627.43	4319.30		0.00	0.00	0.025
5.00	-55.98	-0.72	0.00	-96.86	0.00	96.86	4007.22	1047.92	4585.58	4288.45		0.00	0.00	0.027
7.75	-55.02	-0.72	0.00	-94.89	0.00	94.89	3984.13	1037.43	4494.16	4220.67		0.01	-0.01	0.026
10.00	-54.23	-0.72	0.00	-93.27	0.00	93.27	3964.98	1028.84	4420.05	4165.32		0.01	-0.01	0.024
11.75	-53.63	-0.72	0.00	-92.01	0.00	92.01	3949.93	1022.16	4362.83	4122.34		0.01	-0.01	0.024
14.00	-52.86	-0.72	0.00	-90.39	0.00	90.39	3930.37	1013.57	4289.82	4067.17		0.02	-0.01	0.021
15.00	-52.52	-0.72	0.00	-89.67	0.00	89.67	3921.60	1009.75	4257.57	4042.68		0.02	-0.01	0.025
16.75	-51.93	-0.72	0.00	-88.41	0.00	88.41	3906.14	1003.07	4201.41	3999.88		0.02	-0.01	0.021
20.00	-50.83	-0.72	0.00	-86.06	0.00	86.06	3877.07	990.66	4098.12	3920.59		0.03	-0.01	0.023
21.00	-50.50	-0.73	0.00	-85.33	0.00	85.33	3868.03	986.84	4066.60	3896.24		0.04	-0.02	0.023
25.00	-49.18	-0.73	0.00	-82.43	0.00	82.43	3831.41	971.57	3941.73	3799.12		0.05	-0.02	0.023
30.00	-47.55	-0.73	0.00	-78.79	0.00	78.79	3784.60	952.49	3788.37	3678.33		0.07	-0.02	0.022
35.00	-45.94	-0.73	0.00	-75.15	0.00	75.15	3736.66	933.40	3638.06	3558.30		0.09	-0.03	0.022
36.00	-45.63	-0.73	0.00	-74.42	0.00	74.42	3726.93	929.58	3608.36	3534.39		0.10	-0.03	0.021
39.00	-43.96	-0.73	0.00	-72.23	0.00	72.23	3697.48	918.13	3520.00	3462.86		0.12	-0.03	0.021
40.00	-43.41	-0.73	0.00	-71.50	0.00	71.50	3687.57	914.31	3490.79	3439.09		0.12	-0.03	0.025
41.00	-42.86	-0.73	0.00	-70.77	0.00	70.77	3677.62	910.49	3461.70	3415.35		0.13	-0.03	0.021
42.00	-42.32	-0.73	0.00	-70.04	0.00	70.04	3033.05	799.01	3078.91	2858.75		0.14	-0.03	0.022
45.00	-41.49	-0.73	0.00	-67.85	0.00	67.85	3011.75	789.09	3002.96	2803.16		0.15	-0.03	0.023
50.00	-40.12	-0.73	0.00	-64.20	0.00	64.20	2975.34	772.57	2878.49	2710.80		0.19	-0.04	0.022
55.00	-38.79	-0.73	0.00	-60.54	0.00	60.54	2937.79	756.04	2756.65	2618.85		0.23	-0.04	0.022
57.00	-38.26	-0.73	0.00	-59.08	0.00	59.08	2922.45	749.43	2708.65	2582.20		0.25	-0.04	0.021
58.00	-37.99	-0.73	0.00	-58.35	0.00	58.35	2914.71	746.12	2684.81	2563.91		0.26	-0.04	0.027
58.33	-37.91	-0.73	0.00	-58.11	0.00	58.11	2912.14	745.03	2676.97	2557.87		0.26	-0.04	0.021
60.00	-37.46	-0.73	0.00	-56.89	0.00	56.89	2899.09	739.51	2637.45	2527.38		0.28	-0.04	0.026
65.00	-36.14	-0.73	0.00	-53.23	0.00	53.23	2859.26	722.99	2520.88	2436.46		0.33	-0.05	0.025
70.00	-34.85	-0.73	0.00	-49.58	0.00	49.58	2818.28	706.46	2406.95	2346.16		0.38	-0.05	0.024
75.00	-32.71	-0.72	0.00	-45.93	0.00	45.93	2776.16	689.93	2295.65	2256.54		0.44	-0.06	0.023
76.00	-32.29	-0.72	0.00	-45.21	0.00	45.21	2161.97	582.09	1960.89	1782.08		0.45	-0.06	0.025
80.00	-31.41	-0.72	0.00	-42.34	0.00	42.34	2139.97	571.07	1887.36	1730.30		0.50	-0.06	0.027
85.00	-30.34	-0.72	0.00	-38.75	0.00	38.75	2111.44	557.30	1797.42	1665.74		0.57	-0.07	0.026
90.00	-29.29	-0.71	0.00	-35.17	0.00	35.17	2081.77	543.53	1709.68	1601.42		0.64	-0.07	0.025
95.00	-28.26	-0.71	0.00	-31.60	0.00	31.60	2050.97	529.75	1624.13	1537.42		0.72	-0.08	0.023
96.00	-28.06	-0.71	0.00	-30.89	0.00	30.89	2044.67	527.00	1607.29	1524.66		0.74	-0.08	0.023
100.00	-27.25	-0.71	0.00	-28.05	0.00	28.05	2019.02	515.98	1540.78	1473.79		0.80	-0.08	0.024
100.00	-27.25	-0.71	0.00	-28.05	0.00	28.05	1394.49	390.10	1166.92	1021.47		0.80	-0.08	0.027
105.00	-26.41	-0.71	0.00	-24.51	0.00	24.51	1376.43	379.71	1105.56	981.19		0.89	-0.08	0.030
110.00	-25.58	-0.70	0.00	-20.98	0.00	20.98	1357.32	369.31	1045.86	940.89		0.98	-0.09	0.027
113.50	-25.01	-0.70	0.00	-18.52	0.00	18.52	1343.33	362.03	1005.06	912.71		1.05	-0.09	0.026
113.50	-25.01	-0.70	0.00	-18.52	0.00	18.52	1343.33	362.03	1005.06	912.71		1.05	-0.09	0.033
115.00	-24.77	-0.70	0.00	-17.47	0.00	17.47	1337.17	358.92	987.82	900.65		1.08	-0.09	0.038
117.00	-21.28	-0.63	0.00	-16.06	0.00	16.06	1328.82	354.76	965.06	884.57		1.12	-0.10	0.034
120.00	-20.48	-0.63	0.00	-14.17	0.00	14.17	1327.18	353.96	960.70	881.47		1.18	-0.10	0.032
125.00	-19.71	-0.62	0.00	-11.04	0.00	11.04	1305.49	343.56	905.11	841.41		1.29	-0.11	0.028
127.00	-15.63	-0.51	0.00	-9.79	0.00	9.79	1296.51	339.40	883.33	825.43		1.33	-0.11	0.024

Calculated Forces

Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1	**Topography:** 3	**Struct Class:**	II	Page: 43

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130.00	-15.23	-0.51	0.00	-8.27	0.00	8.27	1282.74	333.17	851.17	801.54	1.40	-0.11	0.022
135.00	-14.59	-0.50	0.00	-5.73	0.00	5.73	1258.96	322.77	798.89	761.93	1.52	-0.11	0.019
137.00	-9.98	-0.34	0.00	-4.72	0.00	4.72	1249.15	318.62	778.44	746.18	1.57	-0.11	0.014
140.00	-9.62	-0.34	0.00	-3.71	0.00	3.71	1234.12	312.38	748.26	722.65	1.64	-0.12	0.013
145.00	-9.03	-0.33	0.00	-2.03	0.00	2.03	1208.24	301.99	699.29	683.75	1.76	-0.12	0.010
147.00	-4.83	-0.17	0.00	-1.36	0.00	1.36	1197.60	297.83	680.17	668.32	1.81	-0.12	0.006
150.00	-4.50	-0.17	0.00	-0.85	0.00	0.85	1181.32	291.59	651.98	645.30	1.89	-0.12	0.005
153.00	-4.09	-0.17	0.00	-0.34	0.00	0.34	1164.66	285.35	624.39	622.47	1.96	-0.12	0.004
155.00	0.00	-0.16	0.00	0.00	0.00	0.00	1153.35	281.20	606.33	607.36	2.01	-0.12	0.000

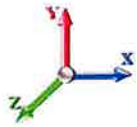
Seismic Segment Forces (Factored)

Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 44	

Tower Engineering Solutions

Load Case: 0.9D + 1.0Ev + 1.0Eh

Gust Response Factor	1.10			**Sds**	0.20	**Iterations**	19
Dead Load Factor	0.90	**Seismic Load Factor**	1.00	**Sd1**	0.09	**Ss**	0.18
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.30	**SA**	0.03	**S1**	0.05
						Seismic Importance Factor	1.00



R: 1.50

Top Elev (ft)	Description	Wz (lb)	Hz (lb)	Vertical Ev (lb)	Lateral Fs (lb)
0.00	RB1 RB2	0.00	0.00	0.00	0.00
3.50	RB3	989.75	1.75	39.06	0.00
3.75	RT1	70.27	3.63	2.77	0.00
5.00		350.50	4.38	13.83	0.00
7.75	RB4	766.12	6.38	30.24	0.01
10.00		621.72	8.88	24.54	0.02
11.75	RB5	480.38	10.88	18.96	0.02
14.00	RT2 RT4	613.55	12.88	24.21	0.04
15.00	RB6	271.21	14.50	10.70	0.01
16.75	RT5	472.44	15.88	18.65	0.04
20.00		870.01	18.38	34.34	0.16
21.00	RT3 RB7	265.77	20.50	10.49	0.02
25.00		1053.9	23.00	41.60	0.37
30.00		1297.0	27.50	51.19	0.80
35.00		1274.3	32.50	50.29	1.08
36.00	Bot - Section 2	252.15	35.50	9.95	0.05
39.00	RT6	1331.6	37.50	52.55	1.56
40.00	RB8	440.48	39.50	17.38	0.19
41.00	RT7 RB9	438.79	40.50	17.32	0.20
42.00	Top - Section 1	437.09	41.50	17.25	0.21
45.00		658.40	43.50	25.99	0.51
50.00		1081.6	47.50	42.69	1.65
55.00		1061.9	52.50	41.91	1.95
57.00	RT8	419.29	56.00	16.55	0.35
58.00	RB10	208.46	57.50	8.23	0.09
58.33	RT9	69.94	58.16	2.76	0.01
60.00		352.62	59.16	13.92	0.27
65.00		1042.6	62.50	41.15	2.66
70.00	Bot - Section 3	1023.0	67.50	40.37	2.99
75.00		1706.8	72.50	67.37	9.60
76.00	Top - Section 2 RT10 RB11	337.06	75.50	13.30	0.41
80.00		687.01	78.00	27.11	1.80
85.00		844.02	82.50	33.31	3.04
90.00		827.65	87.50	32.66	3.29
95.00		811.27	92.50	32.02	3.53
96.00	RT11 RB12	160.29	95.50	6.33	0.15
100.00	Top - Section 3	634.61	98.00	25.05	2.42
105.00		658.32	102.50	25.98	2.85
110.00		645.22	107.50	25.46	3.02
113.50	RT12	443.86	111.75	17.52	1.54
115.00	Bot - Section 5	188.26	114.25	7.43	0.29
117.00	Appurtenance(s)	2809.8	116.00	110.89	66.60
120.00	Top - Section 4	634.94	118.50	25.06	3.55
125.00		604.58	122.50	23.86	3.44
127.00	Appurtenance(s)	3280.0	126.00	129.45	107.07
130.00		313.08	128.50	12.36	1.01

Seismic Segment Forces (Factored)

Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 45	

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135.00			511.32	132.50	20.18	2.88		
137.00	Appurtenance(s)		3714.5	136.00	146.60	159.98		
140.00			285.37	138.50	11.26	0.98		
145.00			465.14	142.50	18.36	2.75		
147.00	Appurtenance(s)		3382.7	146.00	133.50	152.90		
150.00			262.52	148.50	10.36	0.95		
153.00	Appurtenance(s)		322.31	151.50	12.72	1.49		
155.00	Appurtenance(s)		3300.2	154.00	130.25	161.93		
		Totals:	**46,046.3**		**1,817.3**	**712.7**	**Total Wind:**	**42,297.1**

Calculated Forces

Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1	**Topography:** 3	**Struct Class:**	II	Page: 46

Tower Engineering Solutions

Load Case: 0.9D + 1.0Ev + 1.0Eh

Gust Response Factor	1.10			**Sds**	0.20			**Iterations**	19
Dead Load Factor	0.90	**Seismic Load Factor**	1.00	**Sd1**	0.09			**Ss**	0.18
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.30	**SA**	0.03	**Seismic Importance Factor**	1.00	**S1**	0.05

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-43.72	-0.71	0.00	-99.72	0.00	99.72	4048.32	1067.01	4754.15	4411.99		0.00	0.00	0.027
3.50	-42.78	-0.71	0.00	-97.23	0.00	97.23	4019.67	1053.65	4635.83	4325.47		0.00	0.00	0.027
3.75	-42.71	-0.71	0.00	-97.05	0.00	97.05	4017.61	1052.69	4627.43	4319.30		0.00	0.00	0.022
5.00	-42.38	-0.72	0.00	-96.16	0.00	96.16	4007.22	1047.92	4585.58	4288.45		0.00	0.00	0.024
7.75	-41.65	-0.72	0.00	-94.19	0.00	94.19	3984.13	1037.43	4494.16	4220.67		0.01	-0.01	0.024
10.00	-41.06	-0.72	0.00	-92.58	0.00	92.58	3964.98	1028.84	4420.05	4165.32		0.01	-0.01	0.022
11.75	-40.60	-0.72	0.00	-91.32	0.00	91.32	3949.93	1022.16	4362.83	4122.34		0.01	-0.01	0.022
14.00	-40.02	-0.72	0.00	-89.71	0.00	89.71	3930.37	1013.57	4289.82	4067.17		0.02	-0.01	0.019
15.00	-39.76	-0.72	0.00	-88.99	0.00	88.99	3921.60	1009.75	4257.57	4042.68		0.02	-0.01	0.023
16.75	-39.31	-0.72	0.00	-87.73	0.00	87.73	3906.14	1003.07	4201.41	3999.88		0.02	-0.01	0.019
20.00	-38.49	-0.72	0.00	-85.39	0.00	85.39	3877.07	990.66	4098.12	3920.59		0.03	-0.01	0.021
21.00	-38.23	-0.72	0.00	-84.67	0.00	84.67	3868.03	986.84	4066.60	3896.24		0.03	-0.02	0.021
25.00	-37.23	-0.72	0.00	-81.78	0.00	81.78	3831.41	971.57	3941.73	3799.12		0.05	-0.02	0.021
30.00	-36.00	-0.72	0.00	-78.16	0.00	78.16	3784.60	952.49	3788.37	3678.33		0.07	-0.02	0.020
35.00	-34.78	-0.72	0.00	-74.54	0.00	74.54	3736.66	933.40	3638.06	3558.30		0.09	-0.03	0.020
36.00	-34.54	-0.73	0.00	-73.82	0.00	73.82	3726.93	929.58	3608.36	3534.39		0.10	-0.03	0.019
39.00	-33.28	-0.72	0.00	-71.64	0.00	71.64	3697.48	918.13	3520.00	3462.86		0.12	-0.03	0.019
40.00	-32.87	-0.72	0.00	-70.92	0.00	70.92	3687.57	914.31	3490.79	3439.09		0.12	-0.03	0.023
41.00	-32.45	-0.72	0.00	-70.19	0.00	70.19	3677.62	910.49	3461.70	3415.35		0.13	-0.03	0.019
42.00	-32.04	-0.72	0.00	-69.47	0.00	69.47	3033.05	799.01	3078.91	2858.75		0.13	-0.03	0.020
45.00	-31.41	-0.73	0.00	-67.30	0.00	67.30	3011.75	789.09	3002.96	2803.16		0.15	-0.03	0.021
50.00	-30.38	-0.72	0.00	-63.67	0.00	63.67	2975.34	772.57	2878.49	2710.80		0.19	-0.04	0.020
55.00	-29.37	-0.72	0.00	-60.05	0.00	60.05	2937.79	756.04	2756.65	2618.85		0.23	-0.04	0.020
57.00	-28.97	-0.72	0.00	-58.60	0.00	58.60	2922.45	749.43	2708.65	2582.20		0.25	-0.04	0.019
58.00	-28.77	-0.72	0.00	-57.88	0.00	57.88	2914.71	746.12	2684.81	2563.91		0.26	-0.04	0.024
58.33	-28.70	-0.72	0.00	-57.64	0.00	57.64	2912.14	745.03	2676.97	2557.87		0.26	-0.04	0.019
60.00	-28.36	-0.72	0.00	-56.43	0.00	56.43	2899.09	739.51	2637.45	2527.38		0.27	-0.04	0.023
65.00	-27.37	-0.72	0.00	-52.81	0.00	52.81	2859.26	722.99	2520.88	2436.46		0.32	-0.05	0.023
70.00	-26.39	-0.72	0.00	-49.19	0.00	49.19	2818.28	706.46	2406.95	2346.16		0.38	-0.05	0.022
75.00	-24.77	-0.71	0.00	-45.58	0.00	45.58	2776.16	689.93	2295.65	2256.54		0.43	-0.06	0.021
76.00	-24.45	-0.71	0.00	-44.87	0.00	44.87	2161.97	582.09	1960.89	1782.08		0.45	-0.06	0.022
80.00	-23.79	-0.71	0.00	-42.02	0.00	42.02	2139.97	571.07	1887.36	1730.30		0.50	-0.06	0.025
85.00	-22.98	-0.71	0.00	-38.46	0.00	38.46	2111.44	557.30	1797.42	1665.74		0.56	-0.07	0.023
90.00	-22.18	-0.71	0.00	-34.92	0.00	34.92	2081.77	543.53	1709.68	1601.42		0.64	-0.07	0.022
95.00	-21.40	-0.70	0.00	-31.38	0.00	31.38	2050.97	529.75	1624.13	1537.42		0.71	-0.08	0.021
96.00	-21.25	-0.70	0.00	-30.68	0.00	30.68	2044.67	527.00	1607.29	1524.66		0.73	-0.08	0.021
100.00	-20.64	-0.70	0.00	-27.87	0.00	27.87	2019.02	515.98	1540.78	1473.79		0.80	-0.08	0.021
100.00	-20.64	-0.70	0.00	-27.87	0.00	27.87	1394.49	390.10	1166.92	1021.47		0.80	-0.08	0.024
105.00	-20.00	-0.70	0.00	-24.36	0.00	24.36	1376.43	379.71	1105.56	981.19		0.88	-0.08	0.026
110.00	-19.38	-0.70	0.00	-20.86	0.00	20.86	1357.32	369.31	1045.86	940.89		0.97	-0.09	0.024
113.50	-18.95	-0.70	0.00	-18.42	0.00	18.42	1343.33	362.03	1005.06	912.71		1.04	-0.09	0.023
113.50	-18.95	-0.70	0.00	-18.42	0.00	18.42	1343.33	362.03	1005.06	912.71		1.04	-0.09	0.029
115.00	-18.77	-0.70	0.00	-17.37	0.00	17.37	1337.17	358.92	987.82	900.65		1.07	-0.09	0.033
117.00	-16.12	-0.63	0.00	-15.98	0.00	15.98	1328.82	354.76	965.06	884.57		1.11	-0.10	0.030
120.00	-15.51	-0.62	0.00	-14.11	0.00	14.11	1327.18	353.96	960.70	881.47		1.17	-0.10	0.028
125.00	-14.93	-0.62	0.00	-10.99	0.00	10.99	1305.49	343.56	905.11	841.41		1.28	-0.11	0.025
127.00	-11.84	-0.51	0.00	-9.76	0.00	9.76	1296.51	339.40	883.33	825.43		1.32	-0.11	0.021

Calculated Forces

Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 47	

Tower Engineering Solutions

130.00	-11.54	-0.51	0.00	-8.24	0.00	8.24	1282.74	333.17	851.17	801.54	1.39	-0.11	0.019
135.00	-11.05	-0.50	0.00	-5.71	0.00	5.71	1258.96	322.77	798.89	761.93	1.51	-0.11	0.016
137.00	-7.56	-0.34	0.00	-4.70	0.00	4.70	1249.15	318.62	778.44	746.18	1.55	-0.11	0.012
140.00	-7.29	-0.33	0.00	-3.70	0.00	3.70	1234.12	312.38	748.26	722.65	1.63	-0.12	0.011
145.00	-6.84	-0.33	0.00	-2.02	0.00	2.02	1208.24	301.99	699.29	683.75	1.75	-0.12	0.009
147.00	-3.66	-0.17	0.00	-1.36	0.00	1.36	1197.60	297.83	680.17	668.32	1.80	-0.12	0.005
150.00	-3.41	-0.17	0.00	-0.85	0.00	0.85	1181.32	291.59	651.98	645.30	1.87	-0.12	0.004
153.00	-3.10	-0.17	0.00	-0.34	0.00	0.34	1164.66	285.35	624.39	622.47	1.95	-0.12	0.003
155.00	0.00	-0.16	0.00	0.00	0.00	0.00	1153.35	281.20	606.33	607.36	2.00	-0.12	0.000

Wind Loading - Shaft

Structure: CT00302-S-SBA
Site Name: Danielson
Height: 155.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 3

Code: TIA-222-H
Exposure: B
Crest Height: 281.00
Site Class: D - Stiff Soil
Struct Class: II

7/14/2023

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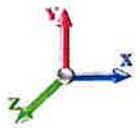
Load Case: 1.0D + 1.0W 60 mph Wind
Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 21

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00	RB1 RB2	1.30	0.70	7.001	7.70	263.76	0.950	0.000	0.00	0.000	0.00	0.0	0.0	0.0
3.50	RB3	1.29	0.70	6.978	7.68	260.07	0.950	0.000	3.50	16.174	15.37	118.0	0.0	882.5
3.75	RT1	1.29	0.70	6.977	7.67	259.80	0.950	0.000	0.25	1.148	1.09	8.4	0.0	62.6
5.00		1.29	0.70	6.969	7.67	258.49	0.950	0.000	1.25	5.722	5.44	41.7	0.0	312.2
7.75	RB4	1.29	0.70	6.952	7.65	255.60	0.950	0.000	2.75	12.498	11.87	90.8	0.0	681.8
10.00		1.29	0.70	6.938	7.63	253.25	0.950	0.000	2.25	10.133	9.63	73.5	0.0	552.8
11.75	RB5	1.29	0.70	6.927	7.62	251.43	0.950	0.000	1.75	7.824	7.43	56.6	0.0	426.7
14.00	RT2 RT4	1.28	0.70	6.913	7.60	249.08	0.950	0.000	2.25	9.985	9.49	72.1	0.0	544.6
15.00	RB6	1.28	0.70	6.907	7.60	248.05	0.950	0.000	1.00	4.411	4.19	31.8	0.0	240.6
16.75	RT5	1.28	0.70	6.897	7.59	246.23	0.950	0.000	1.75	7.679	7.30	55.3	0.0	418.8
20.00		1.28	0.70	6.877	7.57	242.87	0.950	0.000	3.25	14.127	13.42	101.5	0.0	770.4
21.00	RT3 RB7	1.27	0.70	6.872	7.56	241.84	0.950	0.000	1.00	4.312	4.10	31.0	0.0	235.1
25.00		1.27	0.70	6.848	7.53	237.72	0.952 *	0.000	4.00	17.082	16.26	122.5	0.0	931.4
30.00		1.27	0.70	6.825	7.51	232.70	0.957 *	0.000	5.00	20.981	20.08	150.8	0.0	1143.8
35.00		1.26	0.73	7.103	7.81	232.68	0.963 *	0.000	5.00	20.569	19.81	154.8	0.0	1121.1
36.00	Bot - Section 2	1.26	0.74	7.155	7.87	232.58	0.967 *	0.000	1.00	4.064	3.93	30.9	0.0	221.5
39.00	RT6	1.26	0.76	7.303	8.03	232.10	0.969 *	0.000	3.00	12.288	11.91	95.6	0.0	1239.7
40.00	RB8	1.25	0.76	7.350	8.08	231.89	0.972 *	0.000	1.00	4.063	3.95	31.9	0.0	409.8
41.00	RT7 RB9	1.25	0.77	7.396	8.14	231.65	0.973 *	0.000	1.00	4.046	3.94	32.0	0.0	408.1
42.00	Top - Section 1	1.25	0.77	7.441	8.19	231.39	0.974 *	0.000	1.00	4.030	3.93	32.1	0.0	406.4
45.00		1.25	0.79	7.571	8.33	234.30	0.972 *	0.000	3.00	11.991	11.65	97.0	0.0	566.5
50.00		1.25	0.81	7.772	8.55	232.46	0.977 *	0.000	5.00	19.655	19.20	164.1	0.0	928.4
55.00		1.24	0.83	7.956	8.75	230.20	0.983 *	0.000	5.00	19.242	18.92	165.6	0.0	908.7
57.00	RT8	1.24	0.84	8.025	8.83	229.20	0.988 *	0.000	2.00	7.581	7.49	66.1	0.0	358.0
58.00	RB10	1.24	0.85	8.059	8.86	228.68	0.990 *	0.000	1.00	3.766	3.73	33.1	0.0	177.8
58.33	RT9	1.24	0.85	8.070	8.88	228.50	0.950	0.000	0.33	1.239	1.18	10.4	0.0	58.5
60.00		1.24	0.85	8.125	8.94	227.60	0.950	0.000	1.67	6.243	5.93	53.0	0.0	294.8
65.00		1.23	0.87	8.282	9.11	224.69	0.950	0.000	5.00	18.417	17.50	159.4	0.0	869.4
70.00	Bot - Section 3	1.23	0.89	8.428	9.27	221.54	0.950	0.000	5.00	18.004	17.10	158.6	0.0	849.8
75.00		1.22	0.91	8.565	9.42	218.15	0.950	0.000	5.00	17.861	16.97	159.9	0.0	1533.7
76.00	Top - Section 2 RT10	1.22	0.91	8.592	9.45	217.45	0.950	0.000	1.00	3.523	3.35	31.6	0.0	302.4
80.00		1.22	0.93	8.694	9.56	217.97	0.950	0.000	4.00	13.926	13.23	126.5	0.0	548.4
85.00		1.21	0.94	8.815	9.70	214.23	0.950	0.000	5.00	17.036	16.18	156.9	0.0	670.8
90.00		1.21	0.96	8.929	9.82	210.34	0.950	0.000	5.00	16.624	15.79	155.1	0.0	654.4
95.00		1.21	0.97	9.038	9.94	206.29	0.950	0.000	5.00	16.211	15.40	153.1	0.0	638.0
96.00	RT11 RB12	1.20	0.98	9.059	9.96	205.47	0.950	0.000	1.00	3.193	3.03	30.2	0.0	125.6
100.00	Top - Section 3	1.20	0.99	9.141	10.06	202.12	0.950	0.000	4.00	12.606	11.98	120.4	0.0	496.0
105.00		1.20	1.00	9.239	10.16	197.82	0.950	0.000	5.00	15.386	14.62	148.6	0.0	485.1
110.00		1.19	1.02	9.333	10.27	193.42	0.950	0.000	5.00	14.973	14.22	146.0	0.0	472.0
113.50	RT12	1.19	1.02	9.396	10.34	190.28	0.950	0.000	3.50	10.236	9.72	100.5	0.0	322.6
115.00	Bot - Section 5	1.19	1.03	9.423	10.36	188.92	0.950	0.000	1.50	4.325	4.11	42.6	0.0	136.3
117.00	Appurtenance(s)	1.19	1.03	9.457	10.40	187.09	0.950	0.000	2.00	5.795	5.51	57.3	0.0	362.5
120.00	Top - Section 4	1.19	1.04	9.508	10.46	184.32	0.950	0.000	3.00	8.569	8.14	85.1	0.0	535.9
125.00		1.18	1.05	9.591	10.55	182.50	0.950	0.000	5.00	13.951	13.25	139.8	0.0	439.5
127.00	Appurtenance(s)	1.18	1.06	9.623	10.59	180.61	0.950	0.000	2.00	5.465	5.19	55.0	0.0	172.1
130.00		1.18	1.07	9.670	10.64	177.75	0.950	0.000	3.00	8.074	7.67	81.6	0.0	254.3
135.00		1.18	1.08	9.746	10.72	172.93	0.950	0.000	5.00	13.126	12.47	133.7	0.0	413.3

Wind Loading - Shaft

Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1	**Topography:** 3	**Struct Class:**	II	Page: 49

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137.00 Appurtenance(s)	1.17	1.08	9.776	10.75	170.98	0.950	0.000	2.00	5.135	4.88	52.5	0.0	161.7
140.00	1.17	1.09	9.820	10.80	168.04	0.950	0.000	3.00	7.579	7.20	77.8	0.0	238.6
145.00	1.17	1.10	9.890	10.88	163.08	0.950	0.000	5.00	12.301	11.69	127.1	0.0	387.1
147.00 Appurtenance(s)	1.17	1.10	9.918	10.91	161.08	0.950	0.000	2.00	4.805	4.56	49.8	0.0	151.2
150.00	1.17	1.11	9.959	10.95	158.06	0.950	0.000	3.00	7.083	6.73	73.7	0.0	222.9
153.00 Appurtenance(s)	1.16	1.12	9.999	11.00	155.02	0.950	0.000	3.00	6.935	6.59	72.5	0.0	218.1
155.00 Appurtenance(s)	1.16	1.12	10.025	11.03	152.98	0.950	0.000	2.00	4.541	4.31	47.6	0.0	142.8
							Totals:	**155.00**			**4,663.6**		**26,107.2**

* Cf Adjusted by Linear Load Ra Effect

Discrete Appurtenance Forces

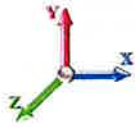
Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 50	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 21

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	155.00	Samsung B2/B66A	3	10.025	11.028	0.40	0.80	2.24	253.20	0.000	0.000	24.75	0.00	0.00
2	155.00	Antel	3	10.025	11.028	0.84	0.90	8.26	29.40	0.000	0.000	91.10	0.00	0.00
3	155.00	(3) T-Frame w/	1	10.025	11.028	1.00	1.00	25.00	1620.00	0.000	0.000	275.69	0.00	0.00
4	155.00	BSAMNT-SBS-2-2	3	10.025	11.028	1.00	1.00	0.00	202.20	0.000	0.000	0.00	0.00	0.00
5	155.00	Commscope	3	10.025	11.028	0.40	0.80	0.44	65.46	0.000	0.000	4.90	0.00	0.00
6	155.00	MT6407-77A	3	10.045	11.049	0.56	0.80	7.88	261.30	0.000	1.500	87.06	0.00	130.59
7	155.00	B5/B13	3	10.025	11.028	0.40	0.80	2.24	210.90	0.000	0.000	24.75	0.00	0.00
8	155.00	RVZDC-6627-PF-48	1	10.025	11.028	0.80	0.80	3.25	32.00	0.000	0.000	35.82	0.00	0.00
9	155.00	BSF0020F3V1-1	2	10.025	11.028	0.54	0.80	1.03	35.20	0.000	0.000	11.35	0.00	0.00
10	155.00	GPS Receiver	1	10.051	11.056	0.80	0.80	0.80	10.00	0.000	2.000	8.84	0.00	17.69
11	155.00	JAHH-65B-R3B	6	10.025	11.028	0.66	0.80	36.29	411.36	0.000	0.000	400.24	0.00	0.00
12	153.00	XXDWMM-12.5-65-8T-CB	3	9.999	10.999	0.69	0.80	1.84	8.70	0.000	0.000	20.20	0.00	0.00
13	153.00	CBRS RRH - RT	3	9.999	10.999	0.40	0.80	1.03	55.80	0.000	0.000	11.35	0.00	0.00
14	147.00	(3) T-Frame w/ Platforms	1	9.918	10.910	1.00	1.00	25.00	1620.00	0.000	0.000	272.75	0.00	0.00
15	147.00	APXVSPP18-C-A20	3	9.918	10.910	0.66	0.80	15.98	171.00	0.000	0.000	174.29	0.00	0.00
16	147.00	APXVTM14-C-I20	3	9.918	10.910	0.63	0.80	12.02	168.00	0.000	0.000	131.14	0.00	0.00
17	147.00	Alcatel Lucent	3	9.918	10.910	0.40	0.80	4.86	210.00	0.000	0.000	53.02	0.00	0.00
18	147.00	Alcatel Lucent 1900 MHz	3	9.918	10.910	0.40	0.80	2.77	180.00	0.000	0.000	30.24	0.00	0.00
19	147.00	Alcatel Lucent 800 MHz	3	9.918	10.910	0.40	0.80	2.99	159.00	0.000	0.000	32.60	0.00	0.00
20	147.00	Alcatel Lucent 800 MHz	3	9.918	10.910	0.40	0.80	0.94	26.40	0.000	0.000	10.21	0.00	0.00
21	147.00	RFS ACU-A20-N RET	4	9.918	10.910	0.40	0.80	0.22	4.00	0.000	0.000	2.44	0.00	0.00
22	147.00	PRK-1245 (kicker kit)	1	9.918	10.910	1.00	1.00	9.50	464.91	0.000	0.000	103.64	0.00	0.00
23	147.00	(3) SFS-H (V-Braces)	1	9.918	10.910	0.75	0.75	7.20	197.00	0.000	0.000	78.55	0.00	0.00
24	137.00	(3) T-Framew/ walking	1	9.776	10.753	1.00	1.00	25.00	1620.00	0.000	0.000	268.83	0.00	0.00
25	137.00	RRUS 4415 B25	2	9.776	10.753	0.40	0.80	1.31	92.00	0.000	0.000	14.11	0.00	0.00
26	137.00	4449 B71 + B85	2	9.776	10.753	0.40	0.80	1.58	146.40	0.000	0.000	16.95	0.00	0.00
27	137.00	PRK-1245 (kicker kit)	1	9.776	10.753	1.00	1.00	8.50	445.91	0.000	0.000	91.40	0.00	0.00
28	137.00	KRD 9011461-B66A-B2A	2	9.776	10.753	0.70	0.80	9.06	264.40	0.000	0.000	97.45	0.00	0.00
29	137.00	APXVAALL24_43-U-NA20	2	9.776	10.753	0.56	0.80	22.67	256.00	0.000	0.000	243.77	0.00	0.00
30	137.00	KRY 112 144/2	3	9.776	10.753	0.40	0.80	0.49	33.00	0.000	0.000	5.29	0.00	0.00
31	137.00	(3) HR w/ V-Brace Kits	1	9.776	10.753	1.00	1.00	8.50	450.00	0.000	0.000	91.40	0.00	0.00
32	137.00	AIR6449 B41	2	9.776	10.753	0.57	0.80	6.42	206.00	0.000	0.000	69.02	0.00	0.00
33	127.00	Low Profile	1	9.623	10.585	1.00	1.00	25.00	1500.00	0.000	0.000	264.63	0.00	0.00
34	127.00	7770.00	3	9.623	10.585	0.55	0.75	9.03	105.00	0.000	0.000	95.62	0.00	0.00
35	127.00	DTMABP7819VG12A	3	9.623	10.585	0.38	0.75	1.28	57.60	0.000	0.000	13.58	0.00	0.00
36	127.00	4449 B5/B12	3	9.623	10.585	0.38	0.75	2.22	213.00	0.000	0.000	23.46	0.00	0.00
37	127.00	RRUS 4478 B14	3	9.623	10.585	0.38	0.75	1.86	178.20	0.000	0.000	19.65	0.00	0.00
38	127.00	DC6-48-60-18-8F	1	9.623	10.585	0.38	0.75	0.35	31.80	0.000	0.000	3.65	0.00	0.00
39	127.00	DMP65R-BU6DA	3	9.623	10.585	0.54	0.75	20.59	238.20	0.000	0.000	217.95	0.00	0.00
40	127.00	4415 B30	3	9.623	10.585	0.38	0.75	2.09	132.30	0.000	0.000	22.15	0.00	0.00
41	127.00	HRK12 (Handrail Kit)	1	9.623	10.585	1.00	1.00	6.75	261.72	0.000	0.000	71.45	0.00	0.00
42	127.00	DC9-48-60-24-8C-EV	1	9.623	10.585	0.38	0.75	0.43	26.20	0.000	0.000	4.53	0.00	0.00
43	127.00	LGP13519	6	9.623	10.585	0.38	0.75	0.77	31.80	0.000	0.000	8.10	0.00	0.00
44	127.00	8843 B2 B66A	3	9.623	10.585	0.38	0.75	1.84	210.00	0.000	0.000	19.53	0.00	0.00
45	127.00	840370799	3	9.623	10.585	0.52	0.75	24.73	56.10	0.000	0.000	261.78	0.00	0.00
46	117.00	Commscope	1	9.457	10.403	1.00	1.00	37.59	1727.00	0.000	0.000	391.05	0.00	0.00
47	117.00	Raycap	1	9.457	10.403	0.75	0.75	1.51	21.90	0.000	0.000	15.68	0.00	0.00

Discrete Appurtenance Forces

Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1	**Topography:** 3	**Struct Class:**	II	Page: 51

IES Tower Engineering Solutions

48	117.00	Fujitsu TA08025-B604	3	9.457	10.403	0.50	0.75	2.95	191.70	0.000	0.000	30.74	0.00	0.00
49	117.00	Fujitsu TA08025-B605	3	9.457	10.403	0.50	0.75	2.95	225.00	0.000	0.000	30.74	0.00	0.00
50	117.00	Commscope	3	9.457	10.403	0.55	0.75	20.43	212.40	0.000	0.000	212.53	0.00	0.00
							Totals:		**15,329.46**			**4,489.97**	

Total Applied Force Summary

Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 52	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations 21

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
3.50		117.95	1001.67	0.00	0.00
3.75		8.37	71.12	0.00	0.00
5.00		41.67	354.76	0.00	0.00
7.75		90.80	775.48	0.00	0.00
10.00		73.47	629.38	0.00	0.00
11.75		56.63	486.34	0.00	0.00
14.00		72.13	621.21	0.00	0.00
15.00		31.84	274.62	0.00	0.00
16.75		55.35	478.40	0.00	0.00
20.00		101.53	881.08	0.00	0.00
21.00		30.96	269.17	0.00	0.00
25.00		122.50	1067.61	0.00	0.00
30.00		150.76	1314.09	0.00	0.00
35.00		154.75	1291.39	0.00	0.00
36.00		30.92	255.56	0.00	0.00
39.00		95.65	1341.82	0.00	0.00
40.00		31.91	443.89	0.00	0.00
41.00		32.02	442.19	0.00	0.00
42.00		32.13	440.50	0.00	0.00
45.00		97.03	668.62	0.00	0.00
50.00		164.12	1098.65	0.00	0.00
55.00		165.60	1079.00	0.00	0.00
57.00		66.14	426.10	0.00	0.00
58.00		33.06	211.87	0.00	0.00
58.33		10.45	71.21	0.00	0.00
60.00		53.01	359.05	0.00	0.00
65.00		159.39	1061.90	0.00	0.00
70.00		158.57	1042.25	0.00	0.00
75.00		159.87	1726.14	0.00	0.00
76.00		31.63	340.90	0.00	0.00
80.00		126.52	702.40	0.00	0.00
85.00		156.93	863.27	0.00	0.00
90.00		155.12	846.89	0.00	0.00
95.00		153.11	830.52	0.00	0.00
96.00		30.22	164.14	0.00	0.00
100.00		120.41	650.01	0.00	0.00
105.00		148.55	677.57	0.00	0.00
110.00		146.03	664.47	0.00	0.00
113.50		100.50	457.33	0.00	0.00
115.00		42.59	194.04	0.00	0.00
117.00	(11) attachments	738.01	2817.51	0.00	0.00
120.00		85.14	645.94	0.00	0.00
125.00		139.82	622.92	0.00	0.00
127.00	(34) attachments	1081.02	3287.42	0.00	0.00
130.00		81.58	319.61	0.00	0.00
135.00		133.68	522.21	0.00	0.00

Total Applied Force Summary

Structure:	CT00302-S-SBA		**Code:**	TIA-222-H	7/14/2023
Site Name:	Danielson		**Exposure:**	B	
Height:	155.00 (ft)		**Crest Height:**	281.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 3	**Struct Class:**	II	Page: 53

Tower Engineering Solutions

137.00	(16) attachments	950.68	3718.93	0.00	0.00
140.00		77.77	290.57	0.00	0.00
145.00		127.14	473.81	0.00	0.00
147.00	(25) attachments	938.70	3386.17	0.00	0.00
150.00		73.72	266.93	0.00	0.00
153.00	(6) attachments	104.02	326.72	0.00	0.00
155.00	(29) attachments	1012.06	3303.21	0.00	148.28
	Totals:	**9,153.54**	**46,558.53**	**0.00**	**148.28**

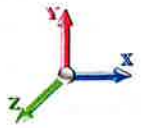
Linear Appurtenance Segment Forces (Factored)

Structure: CT00302-S-SBA
Site Name: Danielson
Height: 155.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 3

Code: TIA-222-H 7/14/2023
Exposure: B
Crest Height: 281.00
Site Class: D - Stiff Soil
Struct Class: II

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind
Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 21

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
3.50	1.6" Hybrid	Yes	3.50	0.000	1.60	0.47	0.00	0.093	0.000	6.978	0.00	6.37
3.50	10"x1/2" Bent plate	Yes	3.50	0.000	3.56	1.04	0.00	0.093	0.000	6.978	0.00	0.00
3.75	1.6" Hybrid	Yes	0.25	0.000	1.60	0.03	0.00	0.094	0.000	6.977	0.00	0.46
3.75	10"x1/2" Bent plate	Yes	0.25	0.000	3.56	0.07	0.00	0.094	0.000	6.977	0.00	0.00
5.00	1.6" Hybrid	Yes	1.25	0.000	1.60	0.17	0.00	0.094	0.000	6.969	0.00	2.27
5.00	10"x1/2" Bent plate	Yes	1.25	0.000	3.56	0.37	0.00	0.094	0.000	6.969	0.00	0.00
7.75	1.6" Hybrid	Yes	2.75	0.000	1.60	0.37	0.00	0.095	0.000	6.952	0.00	5.00
7.75	10"x1/2" Bent plate	Yes	2.75	0.000	3.56	0.82	0.00	0.095	0.000	6.952	0.00	0.00
10.00	1.6" Hybrid	Yes	2.25	0.000	1.60	0.30	0.00	0.095	0.000	6.938	0.00	4.09
10.00	10"x1/2" Bent plate	Yes	2.25	0.000	3.56	0.67	0.00	0.095	0.000	6.938	0.00	0.00
11.75	1.6" Hybrid	Yes	1.75	0.000	1.60	0.23	0.00	0.096	0.000	6.927	0.00	3.19
11.75	10"x1/2" Bent plate	Yes	1.75	0.000	3.56	0.52	0.00	0.096	0.000	6.927	0.00	0.00
14.00	1.6" Hybrid	Yes	2.25	0.000	1.60	0.30	0.00	0.097	0.000	6.913	0.00	4.09
14.00	10"x1/2" Bent plate	Yes	2.25	0.000	3.56	0.67	0.00	0.097	0.000	6.913	0.00	0.00
15.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.13	0.00	0.097	0.000	6.907	0.00	1.82
15.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.097	0.000	6.907	0.00	0.00
16.75	1.6" Hybrid	Yes	1.75	0.000	1.60	0.23	0.00	0.098	0.000	6.897	0.00	3.19
16.75	10"x1/2" Bent plate	Yes	1.75	0.000	3.56	0.52	0.00	0.098	0.000	6.897	0.00	0.00
20.00	1.6" Hybrid	Yes	3.25	0.000	1.60	0.43	0.00	0.099	0.000	6.877	0.00	5.92
20.00	10"x1/2" Bent plate	Yes	3.25	0.000	3.56	0.96	0.00	0.099	0.000	6.877	0.00	0.00
21.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.13	0.00	0.100	0.000	6.872	0.00	1.82
21.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.100	0.000	6.872	0.00	0.00
25.00	1.6" Hybrid	Yes	4.00	0.000	1.60	0.53	0.00	0.101	1.002	6.848	0.00	7.28
25.00	10"x1/2" Bent plate	Yes	4.00	0.000	3.56	1.19	0.00	0.101	1.002	6.848	0.00	0.00
30.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.102	1.007	6.825	0.00	9.10
30.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	1.48	0.00	0.102	1.007	6.825	0.00	0.00
35.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.105	1.014	7.103	0.00	9.10
35.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	1.48	0.00	0.105	1.014	7.103	0.00	0.00
36.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.13	0.00	0.106	1.017	7.155	0.00	1.82
36.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.106	1.017	7.155	0.00	0.00
39.00	1.6" Hybrid	Yes	3.00	0.000	1.60	0.40	0.00	0.107	1.020	7.303	0.00	5.46
39.00	10"x1/2" Bent plate	Yes	3.00	0.000	3.56	0.89	0.00	0.107	1.020	7.303	0.00	0.00
40.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.13	0.00	0.108	1.023	7.350	0.00	1.82
40.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.108	1.023	7.350	0.00	0.00
41.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.13	0.00	0.108	1.024	7.396	0.00	1.82
41.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.108	1.024	7.396	0.00	0.00
42.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.13	0.00	0.108	1.025	7.441	0.00	1.82
42.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.108	1.025	7.441	0.00	0.00
45.00	1.6" Hybrid	Yes	3.00	0.000	1.60	0.40	0.00	0.108	1.023	7.571	0.00	5.46
45.00	10"x1/2" Bent plate	Yes	3.00	0.000	3.56	0.89	0.00	0.108	1.023	7.571	0.00	0.00
50.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.109	1.028	7.772	0.00	9.10
50.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	1.48	0.00	0.109	1.028	7.772	0.00	0.00
55.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.112	1.035	7.956	0.00	9.10
55.00	10"x1/2" Bent plate	Yes	5.00	0.000	3.56	1.48	0.00	0.112	1.035	7.956	0.00	0.00
57.00	1.6" Hybrid	Yes	2.00	0.000	1.60	0.27	0.00	0.113	1.040	8.025	0.00	3.64
57.00	10"x1/2" Bent plate	Yes	2.00	0.000	3.56	0.59	0.00	0.113	1.040	8.025	0.00	0.00
58.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.13	0.00	0.114	1.043	8.059	0.00	1.82

Linear Appurtenance Segment Forces (Factored)

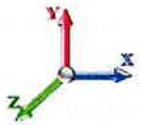
Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 55	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 21

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
58.00	10"x1/2" Bent plate	Yes	1.00	0.000	3.56	0.30	0.00	0.114	1.043	8.059	0.00	0.00
58.33	1.6" Hybrid	Yes	0.33	0.000	1.60	0.04	0.00	0.063	0.000	8.070	0.00	0.60
58.33	1.25" Reinforcing	Yes	0.33	0.000	1.25	0.03	0.00	0.063	0.000	8.070	0.00	0.00
60.00	1.6" Hybrid	Yes	1.67	0.000	1.60	0.22	0.00	0.064	0.000	8.125	0.00	3.04
60.00	1.25" Reinforcing	Yes	1.67	0.000	1.25	0.17	0.00	0.064	0.000	8.125	0.00	0.00
65.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.064	0.000	8.282	0.00	9.10
65.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	0.52	0.00	0.064	0.000	8.282	0.00	0.00
70.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.066	0.000	8.428	0.00	9.10
70.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	0.52	0.00	0.066	0.000	8.428	0.00	0.00
75.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.068	0.000	8.565	0.00	9.10
75.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	0.52	0.00	0.068	0.000	8.565	0.00	0.00
76.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.13	0.00	0.068	0.000	8.592	0.00	1.82
76.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.068	0.000	8.592	0.00	0.00
80.00	1.6" Hybrid	Yes	4.00	0.000	1.60	0.53	0.00	0.068	0.000	8.694	0.00	7.28
80.00	1.25" Reinforcing	Yes	4.00	0.000	1.25	0.42	0.00	0.068	0.000	8.694	0.00	0.00
85.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.070	0.000	8.815	0.00	9.10
85.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	0.52	0.00	0.070	0.000	8.815	0.00	0.00
90.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.071	0.000	8.929	0.00	9.10
90.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	0.52	0.00	0.071	0.000	8.929	0.00	0.00
95.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.073	0.000	9.038	0.00	9.10
95.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	0.52	0.00	0.073	0.000	9.038	0.00	0.00
96.00	1.6" Hybrid	Yes	1.00	0.000	1.60	0.13	0.00	0.074	0.000	9.059	0.00	1.82
96.00	1.25" Reinforcing	Yes	1.00	0.000	1.25	0.10	0.00	0.074	0.000	9.059	0.00	0.00
100.00	1.6" Hybrid	Yes	4.00	0.000	1.60	0.53	0.00	0.075	0.000	9.141	0.00	7.28
100.00	1.25" Reinforcing	Yes	4.00	0.000	1.25	0.42	0.00	0.075	0.000	9.141	0.00	0.00
105.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.077	0.000	9.239	0.00	9.10
105.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	0.52	0.00	0.077	0.000	9.239	0.00	0.00
110.00	1.6" Hybrid	Yes	5.00	0.000	1.60	0.67	0.00	0.079	0.000	9.333	0.00	9.10
110.00	1.25" Reinforcing	Yes	5.00	0.000	1.25	0.52	0.00	0.079	0.000	9.333	0.00	0.00
113.50	1.6" Hybrid	Yes	3.50	0.000	1.60	0.47	0.00	0.081	0.000	9.396	0.00	6.37
113.50	1.25" Reinforcing	Yes	3.50	0.000	1.25	0.36	0.00	0.081	0.000	9.396	0.00	0.00
115.00	1.6" Hybrid	Yes	1.50	0.000	1.60	0.20	0.00	0.082	0.000	9.423	0.00	2.73
115.00	1.25" Reinforcing	Yes	1.50	0.000	1.25	0.16	0.00	0.082	0.000	9.423	0.00	0.00
117.00	1.6" Hybrid	Yes	2.00	0.000	1.60	0.27	0.00	0.047	0.000	9.457	0.00	3.64
									Totals:		**0.0**	**212.9**

Calculated Forces

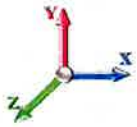
Structure: CT00302-S-SBA
Site Name: Danielson
Height: 155.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1 **Topography:** 3

Code: TIA-222-H
Exposure: B
Crest Height: 281.00
Site Class: D - Stiff Soil
Struct Class: II

7/14/2023

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind
Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 21

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-46.56	-9.16	0.00	-1002.4	0.00	1002.44	4048.32	1067.01	4754.15	4411.99	0.00	0.000	0.000	0.192
3.50	-45.55	-9.06	0.00	-970.36	0.00	970.36	4019.67	1053.65	4635.83	4325.47	0.01	-0.029	0.000	0.189
3.75	-45.48	-9.05	0.00	-968.10	0.00	968.10	4017.61	1052.69	4627.43	4319.30	0.01	-0.031	0.000	0.161
5.00	-45.12	-9.02	0.00	-956.78	0.00	956.78	4007.22	1047.92	4585.58	4288.45	0.02	-0.040	0.000	0.177
7.75	-44.34	-8.95	0.00	-931.97	0.00	931.97	3984.13	1037.43	4494.16	4220.67	0.05	-0.061	0.000	0.174
10.00	-43.71	-8.88	0.00	-911.83	0.00	911.83	3964.98	1028.84	4420.05	4165.32	0.08	-0.077	0.000	0.156
11.75	-43.22	-8.84	0.00	-896.29	0.00	896.29	3949.93	1022.16	4362.83	4122.34	0.11	-0.090	0.000	0.154
14.00	-42.60	-8.77	0.00	-876.40	0.00	876.40	3930.37	1013.57	4289.82	4067.17	0.16	-0.104	0.000	0.135
15.00	-42.33	-8.75	0.00	-867.63	0.00	867.63	3921.60	1009.75	4257.57	4042.68	0.18	-0.110	0.000	0.159
16.75	-41.85	-8.70	0.00	-852.33	0.00	852.33	3906.14	1003.07	4201.41	3999.88	0.23	-0.122	0.000	0.133
20.00	-40.96	-8.61	0.00	-824.05	0.00	824.05	3877.07	990.66	4098.12	3920.59	0.32	-0.142	0.000	0.147
21.00	-40.69	-8.59	0.00	-815.44	0.00	815.44	3868.03	986.84	4066.60	3896.24	0.35	-0.149	0.000	0.147
25.00	-39.62	-8.48	0.00	-781.10	0.00	781.10	3831.41	971.57	3941.73	3799.12	0.48	-0.173	0.000	0.143
30.00	-38.30	-8.35	0.00	-738.69	0.00	738.69	3784.60	952.49	3788.37	3678.33	0.68	-0.208	0.000	0.139
35.00	-37.01	-8.20	0.00	-696.94	0.00	696.94	3736.66	933.40	3638.06	3558.30	0.92	-0.243	0.000	0.134
36.00	-36.75	-8.18	0.00	-688.74	0.00	688.74	3726.93	929.58	3608.36	3534.39	0.97	-0.250	0.000	0.133
39.00	-35.41	-8.09	0.00	-664.20	0.00	664.20	3697.48	918.13	3520.00	3462.86	1.13	-0.271	0.000	0.129
40.00	-34.96	-8.06	0.00	-656.11	0.00	656.11	3687.57	914.31	3490.79	3439.09	1.19	-0.278	0.000	0.159
41.00	-34.52	-8.03	0.00	-648.05	0.00	648.05	3677.62	910.49	3461.70	3415.35	1.25	-0.285	0.000	0.127
42.00	-34.08	-8.00	0.00	-640.03	0.00	640.03	3033.05	799.01	3078.91	2858.75	1.31	-0.291	0.000	0.137
45.00	-33.40	-7.92	0.00	-616.03	0.00	616.03	3011.75	789.09	3002.96	2803.16	1.50	-0.311	0.000	0.141
50.00	-32.30	-7.77	0.00	-576.44	0.00	576.44	2975.34	772.57	2878.49	2710.80	1.85	-0.347	0.000	0.136
55.00	-31.22	-7.61	0.00	-537.62	0.00	537.62	2937.79	756.04	2756.65	2618.85	2.23	-0.382	0.000	0.130
57.00	-30.79	-7.54	0.00	-522.40	0.00	522.40	2922.45	749.43	2708.65	2582.20	2.39	-0.396	0.000	0.127
58.00	-30.58	-7.51	0.00	-514.86	0.00	514.86	2914.71	746.12	2684.81	2563.91	2.48	-0.403	0.000	0.162
58.33	-30.51	-7.50	0.00	-512.38	0.00	512.38	2912.14	745.03	2676.97	2557.87	2.50	-0.405	0.000	0.125
60.00	-30.15	-7.46	0.00	-499.85	0.00	499.85	2899.09	739.51	2637.45	2527.38	2.65	-0.417	0.000	0.151
65.00	-29.08	-7.32	0.00	-462.54	0.00	462.54	2859.26	722.99	2520.88	2436.46	3.11	-0.458	0.000	0.144
70.00	-28.04	-7.17	0.00	-425.96	0.00	425.96	2818.28	706.46	2406.95	2346.16	3.61	-0.498	0.000	0.137
75.00	-26.31	-7.00	0.00	-390.12	0.00	390.12	2776.16	689.93	2295.65	2256.54	4.15	-0.537	0.000	0.128
76.00	-25.97	-6.98	0.00	-383.12	0.00	383.12	2161.97	582.09	1960.89	1782.08	4.26	-0.545	0.000	0.139
80.00	-25.26	-6.86	0.00	-355.22	0.00	355.22	2139.97	571.07	1887.36	1730.30	4.73	-0.569	0.000	0.150
85.00	-24.39	-6.71	0.00	-320.94	0.00	320.94	2111.44	557.30	1797.42	1665.74	5.35	-0.610	0.000	0.140
90.00	-23.54	-6.56	0.00	-287.40	0.00	287.40	2081.77	543.53	1709.68	1601.42	6.01	-0.650	0.000	0.130
95.00	-22.71	-6.41	0.00	-254.60	0.00	254.60	2050.97	529.75	1624.13	1537.42	6.71	-0.688	0.000	0.119
96.00	-22.55	-6.38	0.00	-248.20	0.00	248.20	2044.67	527.00	1607.29	1524.66	6.85	-0.695	0.000	0.117
100.00	-21.90	-6.26	0.00	-222.68	0.00	222.68	2019.02	515.98	1540.78	1473.79	7.45	-0.718	0.000	0.117
100.00	-21.90	-6.26	0.00	-222.68	0.00	222.68	1394.49	390.10	1166.92	1021.47	7.45	-0.718	0.000	0.136
105.00	-21.22	-6.12	0.00	-191.37	0.00	191.37	1376.43	379.71	1105.56	981.19	8.22	-0.754	0.000	0.141
110.00	-20.55	-5.98	0.00	-160.77	0.00	160.77	1357.32	369.31	1045.86	940.89	9.03	-0.792	0.000	0.123
113.50	-20.09	-5.87	0.00	-139.86	0.00	139.86	1343.33	362.03	1005.06	912.71	9.62	-0.817	0.000	0.111
113.50	-20.09	-5.87	0.00	-139.86	0.00	139.86	1343.33	362.03	1005.06	912.71	9.62	-0.817	0.000	0.162
115.00	-19.90	-5.83	0.00	-131.05	0.00	131.05	1337.17	358.92	987.82	900.65	9.88	-0.827	0.000	0.161
117.00	-17.09	-5.06	0.00	-119.38	0.00	119.38	1328.82	354.76	965.06	884.57	10.23	-0.846	0.000	0.148
120.00	-16.44	-4.98	0.00	-104.20	0.00	104.20	1327.18	353.96	960.70	881.47	10.77	-0.873	0.000	0.131
125.00	-15.82	-4.83	0.00	-79.31	0.00	79.31	1305.49	343.56	905.11	841.41	11.70	-0.911	0.000	0.107
127.00	-12.55	-3.70	0.00	-69.65	0.00	69.65	1296.51	339.40	883.33	825.43	12.09	-0.924	0.000	0.094
130.00	-12.23	-3.62	0.00	-58.53	0.00	58.53	1282.74	333.17	851.17	801.54	12.68	-0.942	0.000	0.083

Calculated Forces

Structure:	CT00302-S-SBA		**Code:**	TIA-222-H	7/14/2023
Site Name:	Danielson		**Exposure:**	B	
Height:	155.00 (ft)		**Crest Height:**	281.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 3	**Struct Class:**	II	Page: 57

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135.00	-11.71	-3.48	0.00	-40.43	0.00	40.43	1258.96	322.77	798.89	761.93	13.68	-0.965	0.000	0.062
137.00	-8.01	-2.47	0.00	-33.46	0.00	33.46	1249.15	318.62	778.44	746.18	14.08	-0.973	0.000	0.051
140.00	-7.72	-2.39	0.00	-26.05	0.00	26.05	1234.12	312.38	748.26	722.65	14.70	-0.983	0.000	0.042
145.00	-7.24	-2.25	0.00	-14.11	0.00	14.11	1208.24	301.99	699.29	683.75	15.73	-0.995	0.000	0.027
147.00	-3.88	-1.26	0.00	-9.60	0.00	9.60	1197.60	297.83	680.17	668.32	16.15	-0.998	0.000	0.018
150.00	-3.61	-1.18	0.00	-5.83	0.00	5.83	1181.32	291.59	651.98	645.30	16.78	-1.001	0.000	0.012
153.00	-3.28	-1.07	0.00	-2.29	0.00	2.29	1164.66	285.35	624.39	622.47	17.41	-1.003	0.000	0.007
155.00	0.00	-1.01	0.00	-0.15	0.00	0.15	1153.35	281.20	606.33	607.36	17.83	-1.003	0.000	0.000

Final Analysis Summary

Structure:	CT00302-S-SBA	**Code:**	TIA-222-H	7/14/2023	
Site Name:	Danielson	**Exposure:**	B		
Height:	155.00 (ft)	**Crest Height:**	281.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 3	**Struct Class:**	II	Page: 58	

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 + 1.0W 122 mph Wind	42.4	0.00	55.82	0.00	0.00	4656.95
0.9D + 1.0W 122 mph Wind	42.3	0.00	41.85	0.00	0.00	4614.33
1.2D + 1.0Di + 1.0Wi 50 mph Wind	9.2	0.00	72.05	0.00	0.00	1021.93
1.2D + 1.0Ev + 1.0Eh	0.7	0.00	57.75	0.00	0.00	100.42
0.9D + 1.0Ev + 1.0Eh	0.7	0.00	43.72	0.00	0.00	99.72
1.0D + 1.0W 60 mph Wind	9.2	0.00	46.56	0.00	0.00	1002.44

Max Stresses

Load Case	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Elev (ft)	Stress Ratio
1.2D + 1.0W 122 mph Wind	-55.82	-42.36	0.00	-4656.9	0.00	-4656.9	4048.32	1067.0	4754.15	4411.99	0.00	0.860
0.9D + 1.0W 122 mph Wind	-41.85	-42.35	0.00	-4614.3	0.00	-4614.3	4048.32	1067.0	4754.15	4411.99	0.00	0.849
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-72.05	-9.22	0.00	-1021.9	0.00	-1021.9	4048.32	1067.0	4754.15	4411.99	0.00	0.201
1.2D + 1.0Ev + 1.0Eh	-24.77	-0.70	0.00	-17.47	0.00	-17.47	1337.17	358.92	987.82	900.65	115.00	0.038
0.9D + 1.0Ev + 1.0Eh	-18.77	-0.70	0.00	-17.37	0.00	-17.37	1337.17	358.92	987.82	900.65	115.00	0.033
1.0D + 1.0W 60 mph Wind	-46.56	-9.16	0.00	-1002.4	0.00	-1002.4	4048.32	1067.0	4754.15	4411.99	0.00	0.192

Additional Steel Summary

Elev From (ft)	Elev To (ft)	Member	Intermediate Connectors VQ/I (lb/in)	Vu (kips)	phi Vn (kips)	Lower Termination MQ/I (kips)	phi Vn (kips)	Num Reqd	Num Actual	Upper Termination MQ/I (kips)	phi Vn (kips)	Num Reqd	Num Actual	Max Member Pu (kips)	phi Pn (kips)	phi Tn (kips)	Ratio
0.0	3.8	(1) PLT-10"x1/2" (90deg)	189.0	3.40	37.1	246.3	37.1	7	0	199.8	37.1	6	0	246.33	290.0	255.00	0.966
0.0	14.0	(2) PLT-10"x1/2" (90deg)	-189.0	-3.40	37.1	246.3	37.1	7	0	192.7	37.1	6	0	246.33	290.0	255.00	0.966
3.5	21.0	(3) PLT-6"X1-1/4"(1.25" Hole	246.5	4.44	37.1	270.9	37.1	8	0	253.3	37.1			294.55	413.6	351.56	0.838
7.8	14.0	(1) PLT-10"x1/2" (90deg)	159.3	2.87	37.1	197.3	37.1	6	0	166.5	37.1	5	0	197.27	290.0	255.00	0.774
11.8	16.8	(1) PLT-6"X1-1/4"(1.25" Hole	218.5	3.93	37.1	225.9	33.4	7	10	221.1	33.4	7	10	261.12	413.6	351.56	0.743
15.0	39.0	(3) PLT-10"x1/2" (90deg)	-189.0	-3.40	37.1	192.0	37.1	6	0	186.7	37.1	6	0	202.17	290.0	255.00	0.793
21.0	41.0	(3) PLT-6"X1-1/4"(1.25" Hole	290.6	5.23	37.1	253.3	37.1			230.1	37.1			284.71	413.6	351.56	0.810
40.0	57.0	(3) PLT-10"x1/2" (90deg)	-207.4	-3.73	37.1	181.2	37.1	5	0	172.7	37.1	5	0	186.85	290.0	255.00	0.733
41.0	58.3	(3) PLT-6"X1-1/4"(1.25" Hole	331.1	5.96	37.1	230.1	37.1			214.1	33.4	7	11	272.90	413.6	351.56	0.776
58.0	76.0	(3) PLT-5"x1-1/4"(1.25"Hole)	308.0	5.54	37.1	198.5	33.4	6	8	203.2	37.1			231.75	344.6	276.56	0.838
76.0	96.0	(3) PLT-4.5"x 1-1/4"(1.25"ho	339.8	6.12	37.1	160.0	37.1			158.7	37.1			198.25	310.2	239.06	0.829
96.0	113.5	(3) PLT-3.5x1.25(1.25 Hole)	359.7	6.47	37.1	126.4	37.1			102.8	37.1	3	6	129.87	241.2	164.06	0.792

Monopole Mat Foundation Design

				Date
				7/7/2023
Customer Name:	Verizon	TIA Standard:	TIA-222-G
Site Name:		Structure Height (Ft.):	155
Site Number:	CT00302-S-SBA	Engineer Name:	J. Tibbetts
Engr. Number:	141577	Engineer Login ID:	

Foundation Info Obtained from: Drawings/Calculations

Structure Type: Monopole

Analysis or Design? Analysis

Base Reactions (Factored):

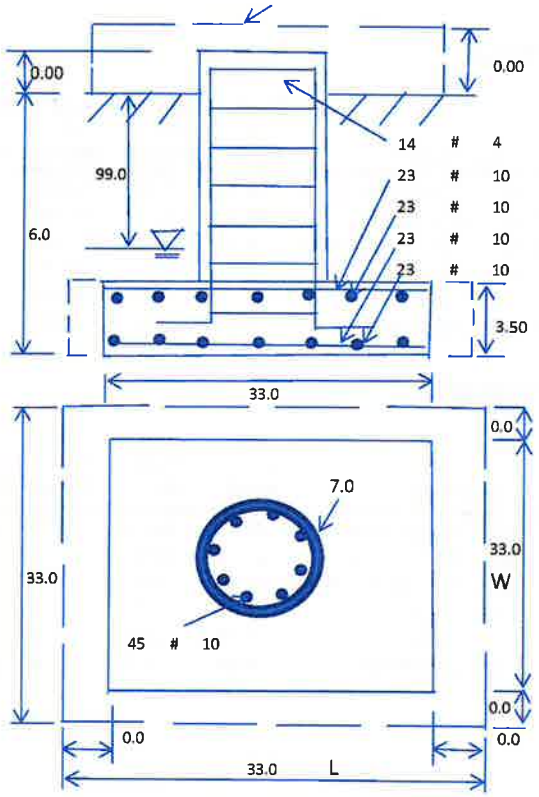
Axial Load (Kips):	55.8	Shear Force (Kips):	42.4
Uplift Force (Kips):	0.0	Moment (Kips-ft):	4657.0

Foundation Geometries:

		Mods required -Yes/No ?:	No
Diameter of Pier (ft.):	7.0	Depth of Base BG (ft.):	6.0
Pier Height A. G. (ft.):	0.00	Thickness of Pad (ft):	3.50
Length of Pad (ft.):	33	Width of Pad (ft.):	33
Final Length of pad (ft)	33.0	Final width of pad (ft):	33.0

Material Properties and Reabr Info:

Concrete Strength (psi):	3000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield (ksi):	60	
Vertical Rebar Size #:	10	Tie / Stirrup Size #:	4	
Qty. of Vertical Rebars:	45	Tie Spacing (in):	5.0	
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	10	
Concrete Cover (in.):	3	Unit Weight of Concrete:	150.0	pcf
Rebar at the bottom of the concrete pad:				
Qty. of Rebar in Pad (L):	23	Qty. of Rebar in Pad (W):	23	
Rebar at the top of the concrete pad:				
Qty. of Rebar in Pad (L):	23	Qty. of Rebar in Pad (W):	23	



Soil Design Parameters:

Soil Unit Weight (pcf):	130.0	Soil Buoyant Weight:	50.0	Pcf		
Water Table B.G.S. (ft):	99.0	Unit Weight of Water:	62.4	pcf	Angle from Top of Pad:	30
Ultimate Bearing Pressure (psf):	32000	Ultimate Skin Friction:	0	Psf	Angle from Bottm of Pad:	25
Consider Friction for O.T.M. (Y/N):	No	Consider Friction for bearing (Y/N):	Yes		Angle from Bottm of Pad:	25
Consider soil hor. resist. for OTM.:	No	Reduction factor on the maximum soil bearing pressure:	1.00			

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

Total Dry Soil Volume (cu. Ft.):	2626.29	Total Dry Soil Weight (Kips):	341.42
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	341.42	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	3907.90	Total Dry Concrete Weight (Kips):	586.19
Total Buoyant Concrete Volume (cu. Ft.):	0.00	Total Buoyant Concrete Weight (Kips):	0.00
Total Effective Concrete Weight (Kips):	586.19	Total Vertical Load on Base (Kips):	983.40

Check Soil Capacities:

					Load/ Capacity Ratio	
Calculated Maxium Net Soil Pressure under the base (psf):	1536	<	Allowable Factored Soil Bearing (psf):	24000	0.06	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	14695.6	>	Design Factored Momont (kips-ft):	4912	0.33	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	2.99	OK!				

Check the capacities of Reinforceing Concrete:

Strength reduction factor (Flexure and axial tension):	0.90		Strength reduction factor (Shear):	0.75		
Strength reduction factor (Axial compresion):	0.65		Wind Load Factor on Concrete Design:	1.00		
					Load/ Capacity Ratio	
(1) Concrete Pier:						
Vertical Steel Rebar Area (sq. in./each):	1.27		Tie / Stirrup Area (sq. in./each):	0.20		
Calculated Moment Capacity (Mn,Kips-Ft):	8795.9	>	Design Factored Moment (Mu, Kips-F	4763.0	0.54	OK!
Calculated Shear Capacity (Kips):	777.9	>	Design Factored Shear (Kips):	42.4	0.05	OK!
Calculated Tension Capacity (Tn, Kips):	3086.1	>	Design Factored Tension (Tu Kips):	0.0	0.00	OK!
Calculated Compression Capacity (Pn, Kips):	7272.6	>	Design Factored Axial Load (Pu Kips):	55.8	0.01	OK!
Moment & Axial Strength Combination:	0.54	OK!	Check Tie Spacing (Design/Required):		0.4167	OK!
Pier Reinforcement Ratio:	0.010		Reinforcement Ratio is satisfied per ACI			
(2).Concrete Pad:						
One-Way Design Shear Capacity (L-Direction, Kips):	1248.5	>	One-Way Factored Shear (L-D. Kips):	293.4	0.23	OK!
One-Way Design Shear Capacity (W-Direction, Kips):	1248.5	>	One-Way Factored Shear (W-D., Kips)	293.4	0.23	OK!
One-Way Design Shear Capacity (Corner-Corner. Kips):	1258.9	>	One-Way Factored Shear (C-C, Kips):	272.8	0.22	OK!
Lower Steel Pad Reinforcement Ratio (L-Direct.):	0.0019	OK!	Lower Steel Pad Reinf. Ratio (W-Direc	0.0019		
Lower Steel Pad Moment Capacity (L-Direction. Kips-ft):	4930.1	>	Moment at Bottom (L-Dir. K-Ft):	2222.6	0.45	OK!
Lower Steel Pad Moment Capacity (W-Direction. Kips-ft):	4930.1	>	Moment at Bottom (W-Dir. K-Ft):	2222.6	0.45	OK!
Lower Steel Pad Moment Capacity (Corner-Corner,K-ft):	6943.8	>	Moment at Bottom (C-C Dir. K-Ft):	3143.2	0.45	OK!
Upper Steel Pad Reinforcement Ratio (L-Direct.):	0.0019	OK!	Upper Steel Reinf. Ratio (W-Dir.):	0.0019		
Upper Steel Pad Moment Capacity (L-Direc. Kips-ft):	4930.1	>	Moment at the top (L-Dir K-Ft):	950.6	0.19	OK!
Upper Steel Pad Moment Capacity (W-Direc. Kips-ft):	4930.1	>	Moment at the top (W-Dir K-Ft):	950.6	0.19	OK!
Upper Steel Pad Moment Capacity (Corner-Corner. K-ft):	6943.8	>	Moment at the top (C-C Dir. K-Ft):	886.7	0.13	OK!
(3).Check Punching Shear Capacity due to Moment in the Pier:						
Moment transferred by punching shear:	1862.8	k-ft.	Max. factored shear stress v_{u_CD}:		4.8	Psi
Max. factored shear stress v_{u_AB}:	10.6	Psi	Factored shear Strength ϕv_n:		164.3	Psi
Max. factored shear stress v_u:	10.6	Psi	Check Usage of Punching Shear Capacity:		0.06	OK!

Colliers Engineering & Design CT, PC
1055 Washington Boulevard
Stamford, CT 06901
203.324.0800
peter.albano@collierseng.com

Antenna Mount Analysis Report and PMI Requirements

Mount ReAnalysis

SMART Tool Project #: 10206265
Colliers Engineering & Design CT, PC Project #: 23777030

July 10, 2023

Site Information	*Site ID:*	*5000247214-VZW / DANIELSON CT*
	Site Name:	*DANIELSON CT*
	Carrier Name:	*Verizon Wireless*
	Address:	*246 East Franklin Street* *Danielson, Connecticut 06239* *Windham County*
	Latitude:	*41.795814°*
	Longitude:	*-71.870331°*
Structure Information	*Tower Type:*	*152-Ft Monopole*
	Mount Type:	*14.58-Ft T-Arm*

FUZE ID # 17123692

Analysis Results

T-Arm: **98.7% Pass***

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

******Contractor PMI Requirements:***
Included at the end of this MA report
Available & Submitted via portal at https://pmi.vzwsmart.com

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

Report Prepared By: Frank Centene

Executive Summary:

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

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

Sources of Information:

Document Type	Remarks
Radio Frequency Data Sheet (RFDS)	*Verizon RFDS, Site ID: 323718, dated April 6, 2021*
Mount Mapping Report	*Roaming Networks Inc., Site ID: 468168, dated March 29, 2021*
Previous Mount Analysis Report	*Maser Consulting Connecticut, Project # 21777301A, Dated June 17, 2021*
Post Modification Inspection	*Colliers Engineering & Design CT, PC, Project #: 21777301, Dated March 8, 2023*
Final Loading Configuration	*Filter Add Scope Provided by Verizon Wireless*

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H 2022 Connecticut State Building Code (CSBC), Effective October 1, 2022	
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT}:	125 mph
	Ice Wind Speed (3-sec. Gust):	50 mph
	Design Ice Thickness:	1.00 in
	Risk Category:	II
	Exposure Category:	B
	Topographic Category:	1
	Topographic Feature Considered:	N/A
	Topographic Method:	N/A
	Ground Elevation Factor, K_e:	0.983
Seismic Parameters:	S_S:	0.185 g
	S_1:	0.054 g
Maintenance Parameters:	Wind Speed (3-sec. Gust):	30 mph
	Maintenance Load, Lv:	250 lbs.
	Maintenance Load, Lm:	250 lbs.*
	*Reduced as allowed per ANSI/TIA-222-H 16.9	
Analysis Software:	RISA-3D (V17)	

Final Loading Configuration:

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

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
156.25	159.00	3	Samsung	MT6407-77A	Retained
	157.50	2	KAelus	BSF0020F3V1-1	Added
		6	Commscope	JAHH-65B-R3B	Retained
		3	Commscope	CBC78T-DS-43-2X	
		1	Raycap	RVZDC-6627-PF-48	
		3	Samsung	B2/B66A RRH-BR049	
		3	Samsung	B5/B13 RRH-BR04C	
		2	Amphenol Antel	BXA-70080-4CF	
		1	Amphenol Antel	BXA-70080-4BF	
		1	-	GPS	
	155.50	3	Samsung	XXDWMM-12.5-65-8T-CBRS	

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

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

Standard Conditions:

1. All engineering services are performed on the basis that the information provided to Colliers Engineering & Design and used in this analysis is current and correct. The existing equipment loading has been applied at locations determined from the supplied documentation. Any deviation from the loading locations specified in this report shall be communicated to Colliers Engineering & Design to verify deviation will not adversely impact the analysis.

2. Mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

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

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

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

4. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.

5. The mount was checked up to, and including, the bolts that fasten it to the mount collar/attachment and threaded rod connections in collar members if applicable. Local deformation and interaction between the mount collar/attachment and the supporting tower structure are outside the scope of this analysis.

6. All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. Colliers Engineering & Design is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.

7. Structural Steel Grades have been assumed as follows, if applicable, unless otherwise noted in this analysis:
   - Channel, Solid Round, Angle, Plate — ASTM A36 (Gr. 36)
   - HSS (Rectangular) — ASTM 500 (Gr. B-46)
   - Pipe — ASTM A53 (Gr. B-35)
   - Threaded Rod — F1554 (Gr. 36)
   - Bolts — ASTM A325

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

Analysis Results:

Component	Utilization %	Pass/Fail
Face Horizontal	*98.7 %*	*Pass*
Standoff	*88.9 %*	*Pass*
Grating Angle	*4.4 %*	*Pass*
Mount Pipe	*67.4 %*	*Pass*
Mount Connection	*83.9 %*	*Pass*

Structure Rating – *(Controlling Utilization of all Components)*	**98.7%**

BASELINE mount weight per SBA agreement: 1,041.00 lbs,

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

The weights listed above include 3 sectors.

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

Ice Thickness (In)	Mount Pipes Excluded		Mount Pipes Included	
	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)
0	6.9	4.9	14.2	12.2
0.5	9.3	6.2	19.7	16.6
1	11.1	7.3	24.6	20.7

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

Requirements:

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

Contractor shall verify the weld length and thickness between standoff and center ring plate underneath.

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

Attachments:

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

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – Passing Mount Analysis

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

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

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

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MDG #: 5000247214 SMART Project #: 10206265 Fuze Project ID: 17123692

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

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

Base Requirements:

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

Photo Requirements:

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

- Photos showing each individual sector after installation. Each entire sector shall be in one photo to show the interconnection of members.
  - These photos shall also certify that the placement and geometry of the equipment on the mount is as depicted in the antenna placement diagram in this form.
- Photos that show the model number of each antenna and piece of equipment installed per sector.

Antenna & equipment placement and Geometry Confirmation:

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

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

OR

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

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

Issue:

Contractor shall verify the weld length and thickness between standoff and center ring plate underneath.

Response:

Special Instruction Confirmation:

☐ The contractor has read and acknowledges the above special instructions.

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

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

OR

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

Comments:

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

☐ Yes ☐ No

Contractor certifies no new damage created during the current installation:

☐ Yes ☐ No

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

☐ Safety Climb in Good Condition ☐ Safety Climb Damaged

Certifying Individual:

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

Structure: 5000247214-VZW - DANIELSON CT

Sector: **A**

Structure Type: Monopole

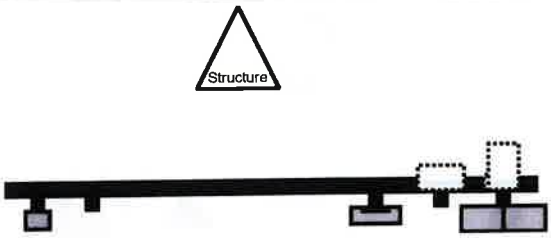
Mount Elev: 156.25

10206265

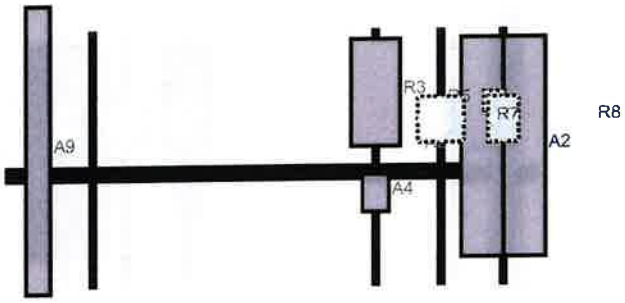
7/10/2023

Colliers Engineering & Design

Plan View



Front View - Looking at Structure



5 4 3 2 1

Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A2	JAHH-65B-R3B	72	13.8	163.5	1	a	Front	39	7	Retained	02/22/2023
A2	JAHH-65B-R3B	72	13.8	163.5	1	b	Front	39	-7	Retained	02/22/2023
R5	CBC78T-DS-43-2X	6.4	6.9	163.5	1	a	Behind	24	-3	Retained	02/22/2023
R8	B2/B66A RRH-BR049	15	10	163.5	1	a	Behind	30	0	Retained	02/22/2023
R7	B5/B13 RRH-BR04C	15	15	143	2	a	Behind	30	0	Retained	02/22/2023
A4	XXDWMM-12.5-65-8T-CBRS	12.3	8.7	121.5	3	a	Front	54	0	Retained	02/22/2023
R3	MT6407-77A	35.1	16.1	121.5	3	a	Front	21	0	Retained	02/22/2023
A9	BXA-70080-4BF	94.6	8	11	5	a	Front	39	0	Retained	02/22/2023
M20	RVZDC-6627-PF-48	28.9	15.7		Member					Retained	02/22/2023

Structure: 5000247214-VZW - DANIELSON CT

Sector: **B**

Structure Type: Monopole

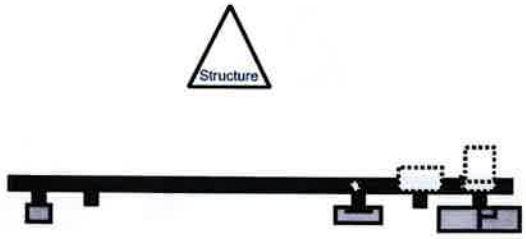
Mount Elev: 156.25

10206265

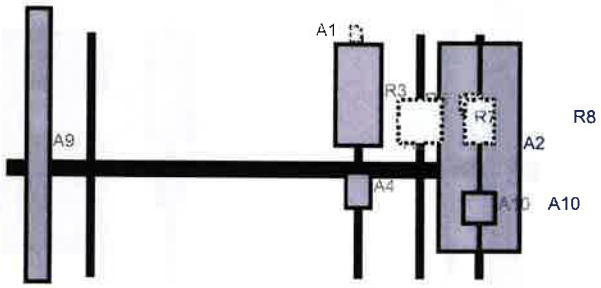
7/10/2023

Colliers Engineering & Design

Plan View



Front View - Looking at Structure



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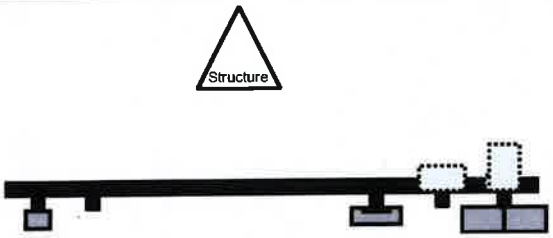
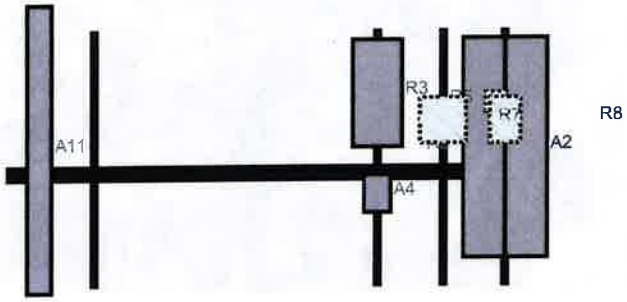
R8	B2/B66A RRH-BR049	15	10	163.5	1	a	Behind	30	0	Retained	02/22/2023
A10	BSF0020F3V1-1	10.6	10.9	163.5	1	a	Behind	60	0	Added	
A10	BSF0020F3V1-1	10.6	10.9	163.5	1	b	Front	60	0	Added	
R7	B5/B13 RRH-BR04C	15	15	143	2	a	Behind	30	0	Retained	02/22/2023
A4	XXDWMM-12.5-65-8T-CBRS	12.3	8.7	121.5	3	a	Front	54	0	Retained	02/22/2023
A1	GPS	5	3.2	121.5	3	b	Behind			Retained	02/22/2023
R3	MT6407-77A	35.1	16.1	121.5	3	a	Front	21	0	Retained	02/22/2023
A9	BXA-70080-4BF	94.6	8	11	5	a	Front	39	0	Retained	02/22/2023

Plan View



Front View - Looking at Structure



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A11	BXA-70080-4CF	94.6	8	11	5	a	Front	39	0	Retained	02/22/2023


Feb 22, 2023 at 1:41:51 PM
Danielson CT 06239
United States


Feb 22, 2023 at 1:20:16 PM
Danielson CT 06239
United States

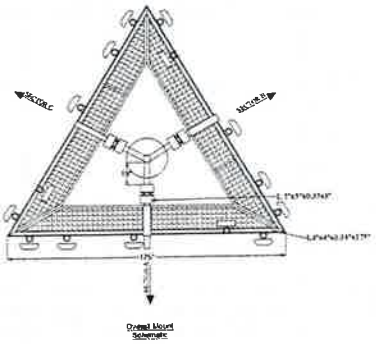
V3.0 Updated on 8-31-2020

PAUL J. FORD & COMPANY

Antenna Mount Mapping Form (PATENT PENDING)

FCC #: N/A

Tower Owner:	Other	Mapping Date:	03.29.2021.
Site Name:	DANIELSON CT	Tower Type:	Monopole
Site Number or ID:	468168	Tower Height (Ft.):	N/A
Mapping Contractor:	Roaming Networks inc.	Mount Elevation (Ft.):	157.62

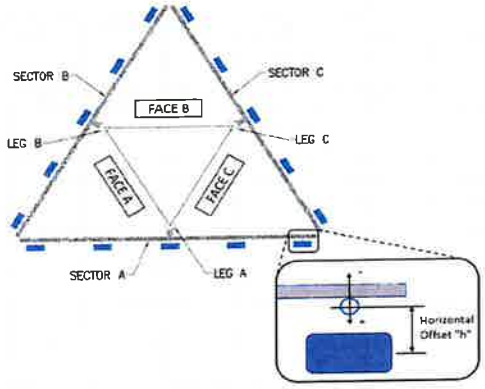


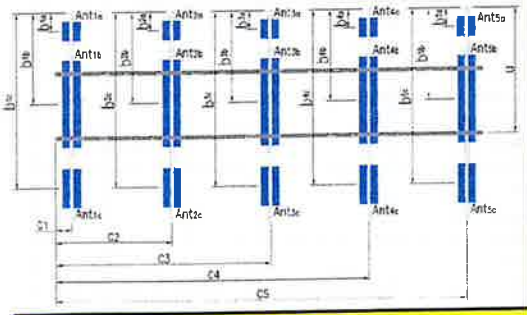
Overall Mount Schematic

Mount Pipe Configuration and Geometries [Unit = Inches]

Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."	Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."
A1	PIPE Ø 2.37" x0.23"x84.5"	48.50	11.50	C1	PIPE Ø 2.37" x0.23"x84.5"	48.50	11.50
A2	PIPE Ø 2.40" x0.15"x85"	38.00	32.00	C2	PIPE Ø 2.40" x0.15"x85"	38.00	32.00
A3	PIPE Ø 2.36" x0.15"x85"	38.00	53.50	C3	PIPE Ø 2.36" x0.15"x85"	38.00	53.50
A4	PIPE Ø 2.37" x0.21"x84.5"	47.00	143.50	C4	PIPE Ø 2.37" x0.21"x84.5"	47.00	143.50
A5	PIPE Ø 2.36" x0.15"x72"	41.00	162.50	C5	PIPE Ø 2.36" x0.15"x72"	41.00	162.50
A6				C6			
B1	PIPE Ø 2.37" x0.23"x84.5"	48.50	11.50	D1			
B2	PIPE Ø 2.40" x0.15"x85"	38.00	32.00	D2			
B3	PIPE Ø 2.36" x0.15"x85"	38.00	53.50	D3			
B4	PIPE Ø 2.37" x0.21"x84.5"	47.00	143.50	D4			
B5	PIPE Ø 2.36" x0.15"x72"	41.00	162.50	D5			
B6				D6			

Distance between bottom rail and mount CL elevation (dim d). Unit is inches. See 'Mount Elev Ref' tab for details. :	24.00
Distance from top of bottom support rail to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.) :	
Distance from top of bottom support rail to highest tip of ant./eqpt. of Carrier below. (N/A if > 10 ft.) :	4.52
Please enter additional infomation or comments below.	
Tower Face Width at Mount Elev. (ft.):	
Tower Leg Size or Pole Shaft Diameter at Mount Elev. (in.):	27.7



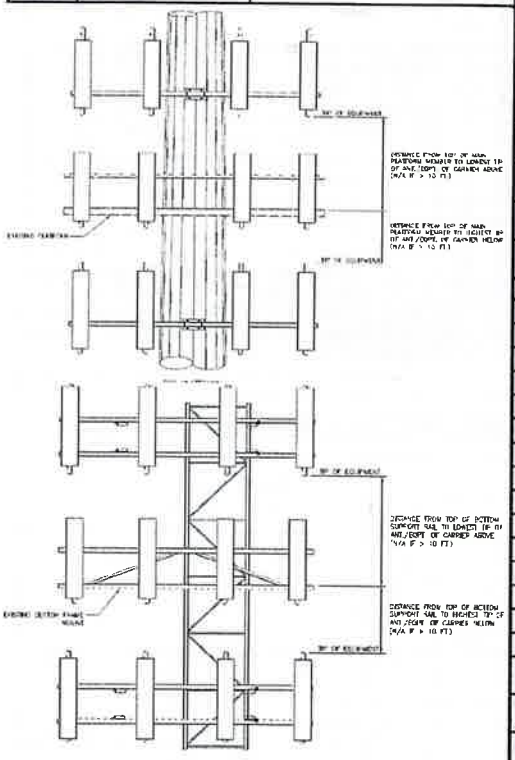


Antenna Layout (Looking Out From Tower)

Ants. Items	Enter antenna model. If not labeled, enter "Unknown". Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Antenna Center-line (Ft.)	Mounting Locations [Units are inches and degrees] Vertical Distances "b_{1a}, b_{2a}, b_{3a}, b_{1b}...." (Inches)	Horiz. Offset "h" (Use "-" if Ant. Is behind)	Antenna Azimuth (Degrees)	Photos of antennas Photo Numbers
	Sector A									
Ant_{1a}	HBXX-6517DS-A2M	12.00	6.53	75.04		156.912	33.00	8.50	60.00	159
Ant_{1b}										
Ant_{1c}										
Ant_{2a}	B4RRH2x60-4R	11.2	6.4	71.50		156.287	30.00	15.50	60.00	159
Ant_{2b}										
Ant_{2c}										
Ant_{3a}	B4RRH2x60-4R	11.2	6.4	71.50		155.312	41.70	9.00	60.00	
Ant_{3b}										
Ant_{3c}										
Ant_{4a}	HBXX-6517DS-A2M	12	6.4	75.04		157.262	27.30	10.50	60.00	162
Ant_{4b}										
Ant_{4c}										
Ant_{5a}	BXA-70080-4BF- EDIN	8	5.9	94.60		157.828	14.50		60.00	162
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

Mount Azimuth (Degree) for Each Sector				Tower Leg Azimuth (Degree) for Each Sector	
Sector A:	60.00	Deg	Leg A:		Deg
Sector B:	160.00	Deg	Leg B:		Deg
Sector C:	280.00	Deg	Leg C:		Deg
Sector D:		Deg	Leg D:		Deg

Climbing Facility Information		
Location:	85.00 Deg	On Leg C
Climbing Facility	Corrosion Type:	Good condition.
	Access:	Climbing path was unobstructed.
	Condition:	Good condition.



	Sector B									
Ant_{1a}	HBXX-6517DS-A2M	12.00	6.53	75.04		156.912	33.00		160.00	173
Ant_{1b}										
Ant_{1c}										
Ant_{2a}	B4RRH2x60-4R	11.2	6.4	71.50		156.287	30.00		160.00	173
Ant_{2b}										
Ant_{2c}										
Ant_{3a}	B4RRH2x60-4R	11.2	6.4	71.50		155.312	41.70		160.00	174
Ant_{3b}										
Ant_{3c}										
Ant_{4a}	HBXX-6517DS-A2M	12	6.4	75.04		157.262	27.30		160.00	174
Ant_{4b}										
Ant_{4c}										
Ant_{5a}	BXA-70080-4BF- EDIN	8	5.9	94.60		157.828	14.50			174
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

	Sector C									
Ant_{1a}	HBXX-6517DS-A2M	12.00	6.53	75.04		156.912	33.00	11.50	280.00	181
Ant_{1b}										
Ant_{1c}										
Ant_{2a}	B4RRH2x60-4R	11.2	6.4	71.50		156.287	30.00	53.50	280.00	181
Ant_{2b}										
Ant_{2c}										
Ant_{3a}	HBXX-6517DS-A2M	12.00	6.53	75.04		155.312	41.70	143.50	280.00	182
Ant_{3b}										
Ant_{3c}										
Ant_{4a}	BXA-70080-4BF- EDIN	8	5.9	94.60		157.262	27.30	162.50	280.00	182
Ant_{4b}										
Ant_{4c}										
Ant_{5a}	B4RRH2x60-4R	11.2	6.4	71.50		157.828	14.50			
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

	Sector D									
Ant_{1a}										
Ant_{1b}										
Ant_{1c}										
Ant_{2a}										
Ant_{2b}										
Ant_{2c}										
Ant_{3a}										
Ant_{3b}										
Ant_{3c}										
Ant_{4a}										
Ant_{4b}										
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

Observed Safety and Structural Issues During the Mount Mapping		
Issue #	Description of Issue	Photo #

1		
2		
3		
4		
5		
6		
7		
8		

Mapping Notes
1. Please report any visible structural or safety issues observed on the antenna mounts (Damaged members, loose connections, tilting mounts, safety climb issues, etc.)
2. If the thickness of the existing pipes or tubing can't be obtained from a general tool (such as Caliper), please use an ultrasonic measurement tool (thickness gauge) to measure the thickness.
3. Please create all required detail sketches of the mounts and insert them into the "Sketches" tab.
4. Please measure and enter the bolt sizes and types under the Members Box in the spreadsheet of the mount type.
5. Take and label the photos of the tower, mounts, connections, antennas and all measurements. Minimum 50 photos are required.
6. Please measure and report the size and length of all existing antenna mounting pipes.
7. Please measure and report the antenna information for all sectors.
8. Don't delete or rearrange any sheet or contents of any sheet from this mapping form.

Standard Conditions
1. Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping are to be reported in this mapping. However, this mount mapping is not a condition assessment of the mount.

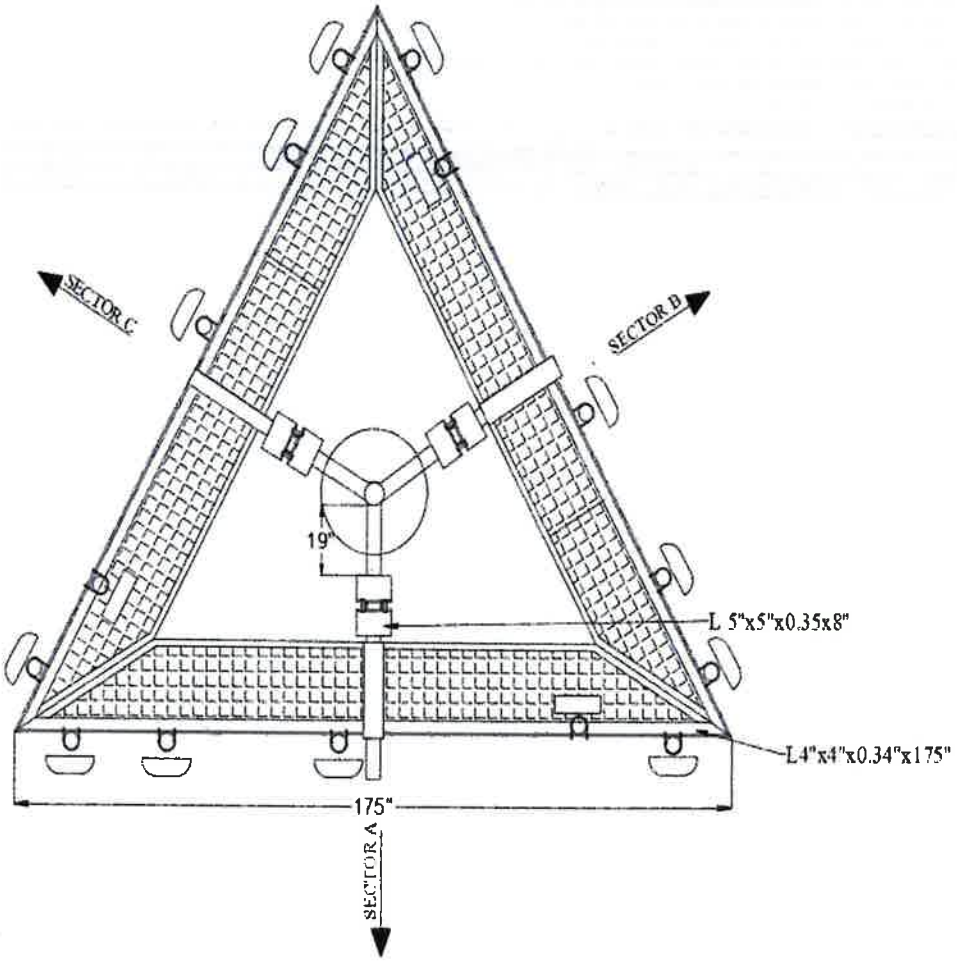
V3.0 Updated on 8-31-2020

Antenna Mount Mapping Form (PATENT PENDING)

FCC #: N/A

Tower Owner:	Other	Mapping Date:	03.29.2021.
Site Name:	DANIELSON CT	Tower Type:	Monopole
Site Number or ID:	468168	Tower Height (FL):	N/A
Mapping Contractor:	Roaming Networks inc.	Mount Elevation (FL):	157.62

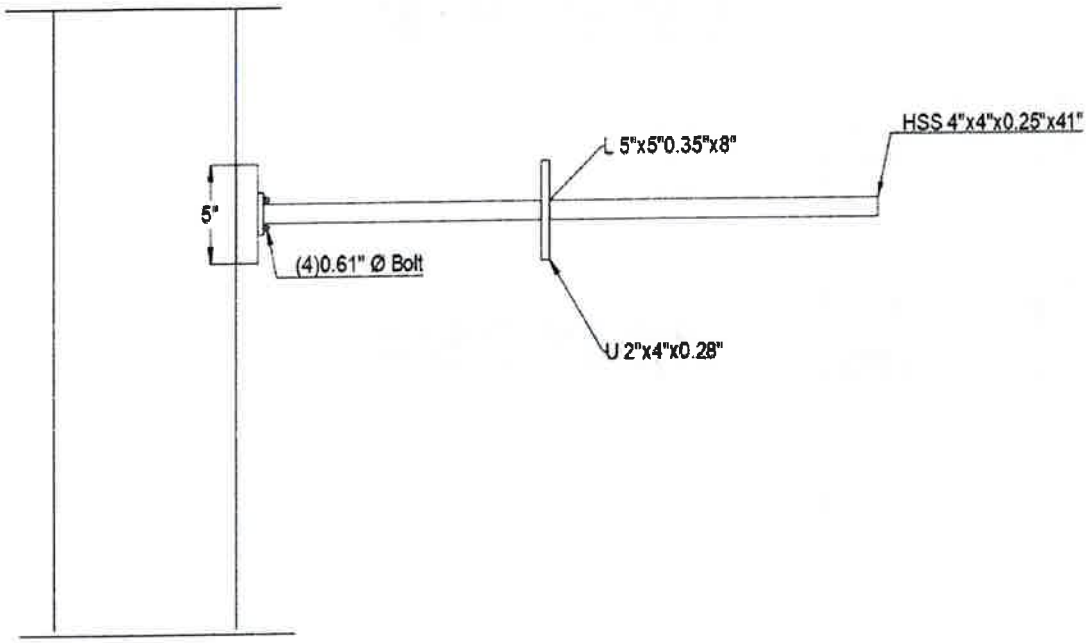
Please Insert Sketches of the Antenna Mount



Y

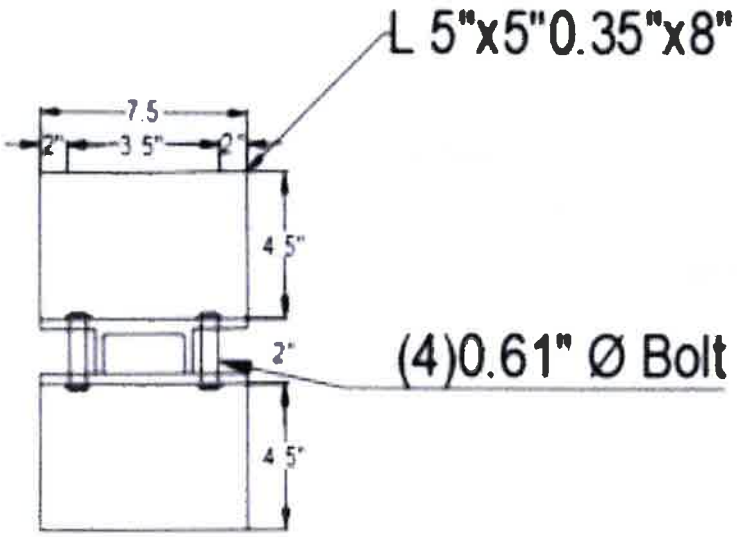
Overall Mount Schematic

Please Insert Sketches of the Antenna Mount, cont'd



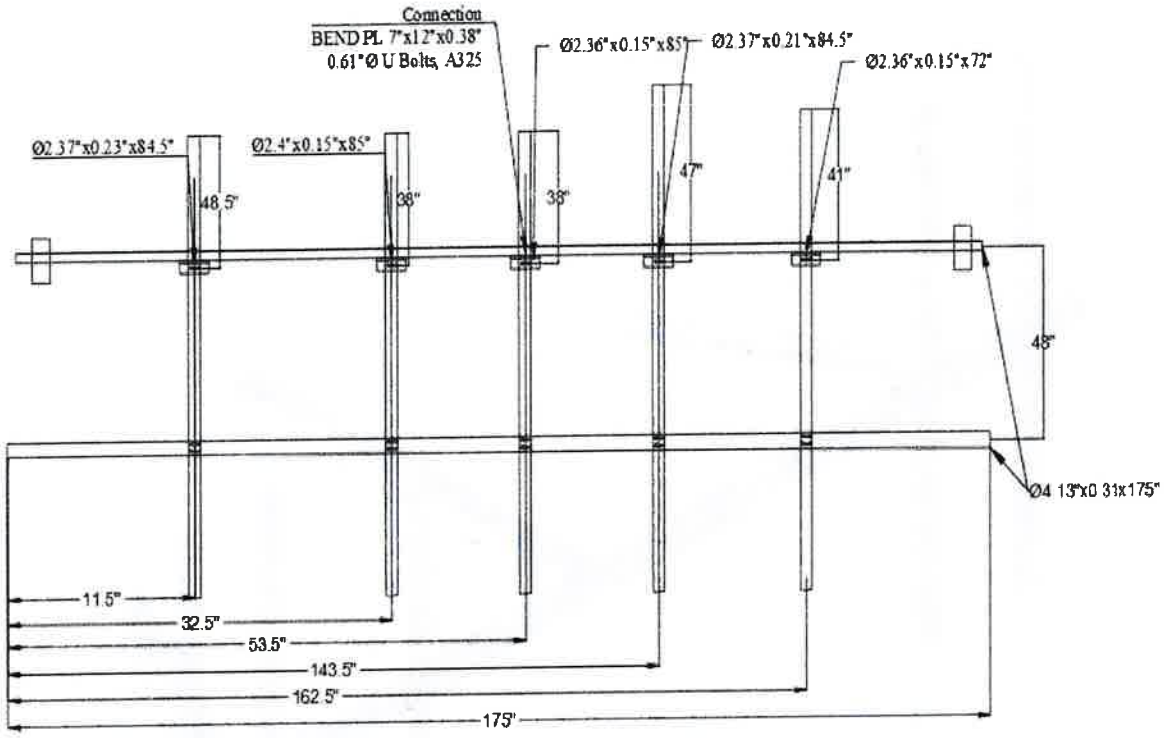
View A

Please Insert Sketches of the Antenna Mount, cont'd

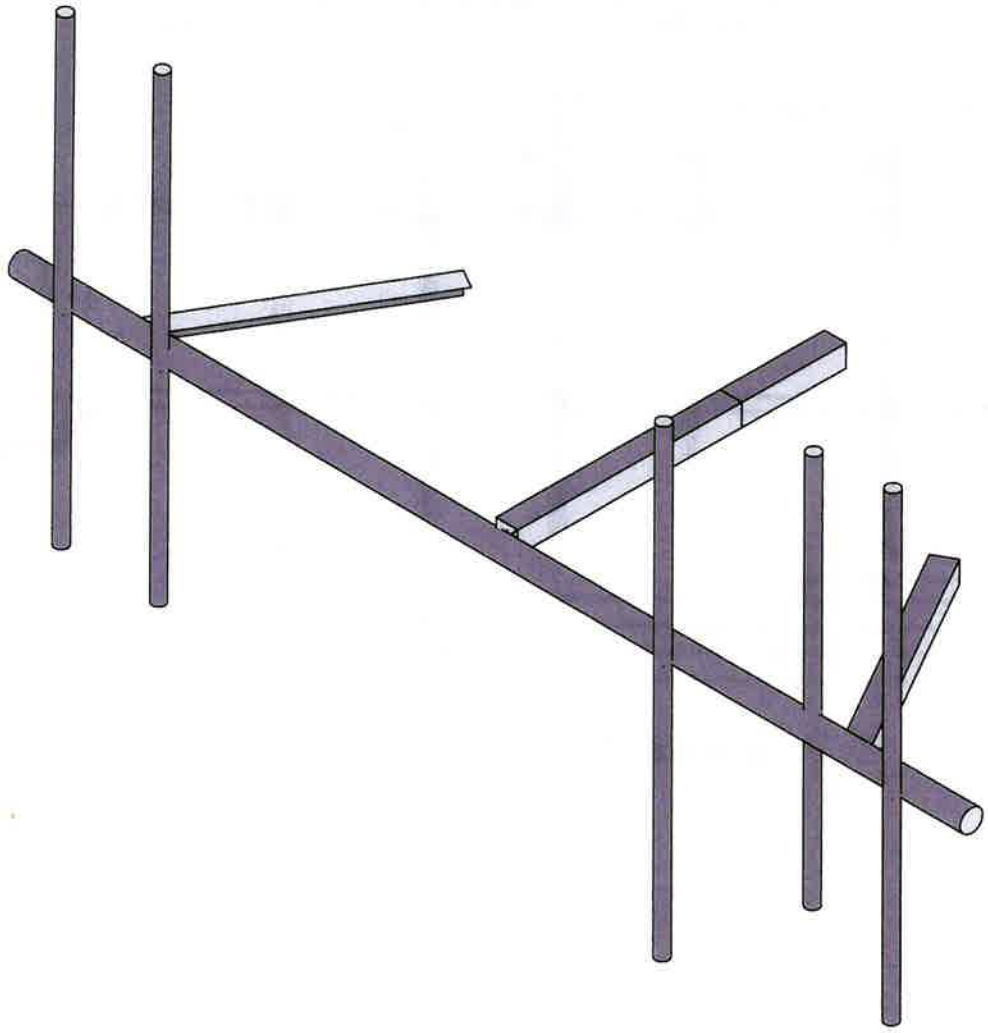


DETAIL "A"

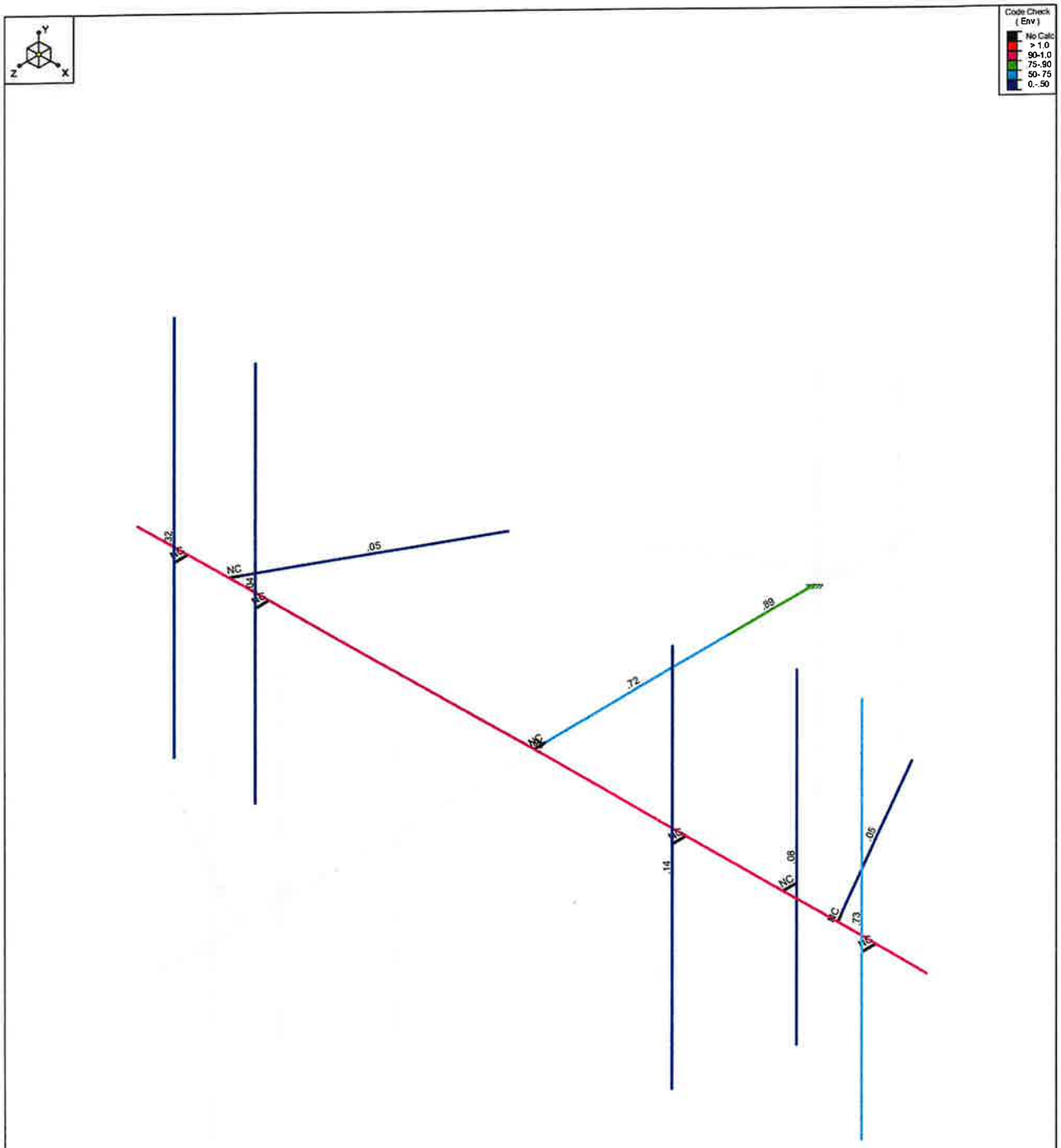
Please Insert Sketches of the Antenna Mount, cont'd



SECTOR A,B,C

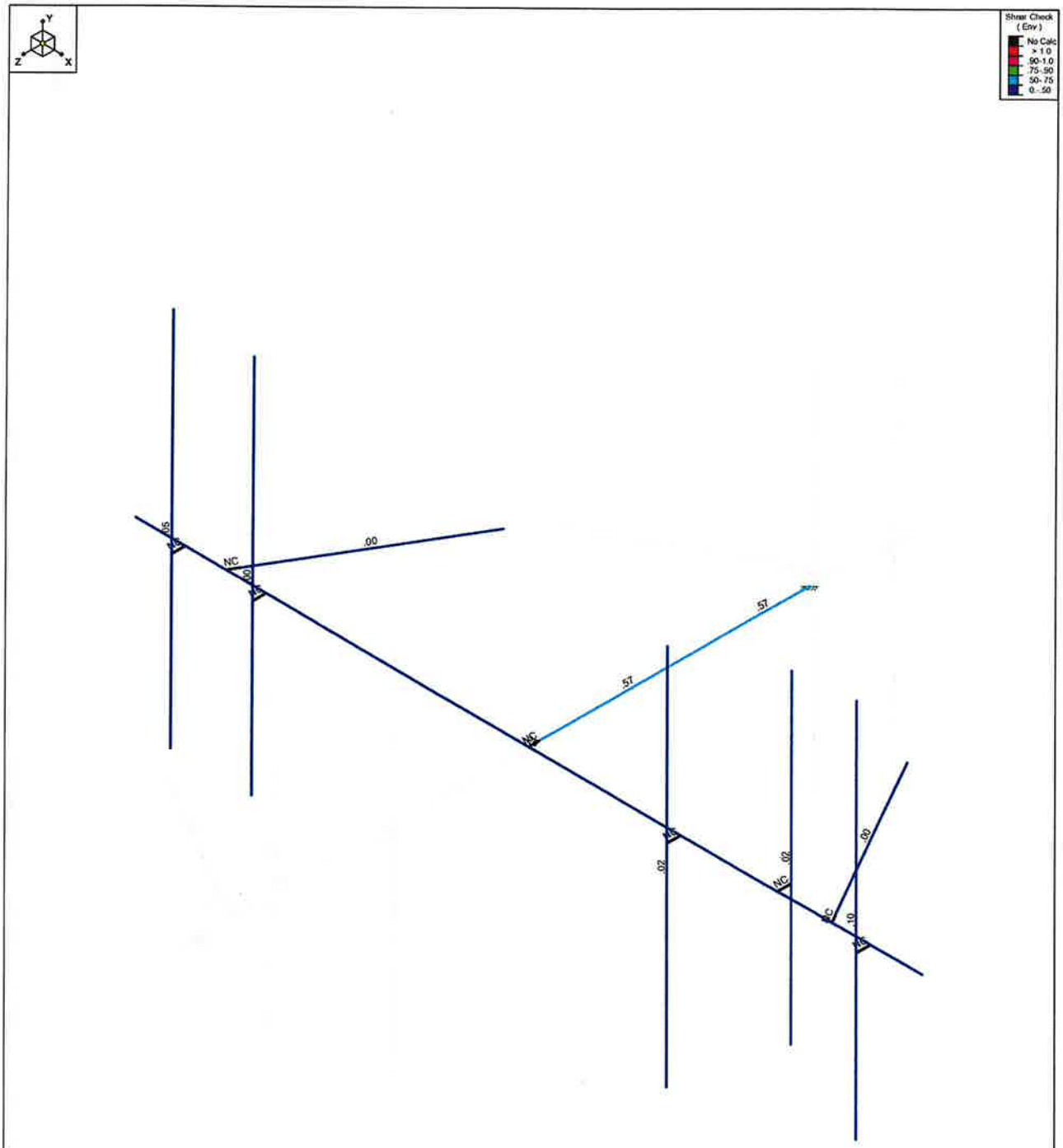


Colliers Engineering & De...	5000247214-VZW_MT_LOT_SectorB_H	SK - 1
		July 6, 2023 at 1:27 PM
		5000247214-VZW_MT_LOT_B_...



Member Code Checks Displayed (Enveloped)
Results for LC 1, 1.2D+1.0Wo (0 Deg)

Colliers Engineering & De...	5000247214-VZW_MT_LOT_SectorB_H	SK - 2
		July 6, 2023 at 1:27 PM
		5000247214-VZW_MT_LOT_B_...



Member Shear Checks Displayed (Enveloped)
Results for LC 1, 1.2D+1.0Wo (0 Deg)

Colliers Engineering & De...	5000247214-VZW_MT_LOT_SectorB_H	SK - 3
		July 6, 2023 at 1:27 PM
		5000247214-VZW_MT_LOT_B_...

Basic Load Cases

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

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
59	Structure Wi (180 De..	None						20		
60	Structure Wi (210 De..	None						20		
61	Structure Wi (240 De..	None						20		
62	Structure Wi (270 De..	None						20		
63	Structure Wi (300 De..	None						20		
64	Structure Wi (330 De..	None						20		
65	Structure Wm (0 Deg)	None						20		
66	Structure Wm (30 De..	None						20		
67	Structure Wm (60 De..	None						20		
68	Structure Wm (90 De..	None						20		
69	Structure Wm (120 D..	None						20		
70	Structure Wm (150 D..	None						20		
71	Structure Wm (180 D..	None						20		
72	Structure Wm (210 D..	None						20		
73	Structure Wm (240 D..	None						20		
74	Structure Wm (270 D..	None						20		
75	Structure Wm (300 D..	None						20		
76	Structure Wm (330 D..	None						20		
77	Lm1	None					1			
78	Lm2	None					1			
79	Lv1	None					1			
80	Lv2	None					1			
81	Antenna Ev	None					42			
82	Antenna Eh (0 Deg)	None					28			
83	Antenna Eh (90 Deg)	None					28			
84	Structure Ev	ELY							1	
85	Structure Eh (0 Deg)	ELZ			-.03				1	
86	Structure Eh (90 Deg)	ELX	.03						1	
87	BLC 39 Transient Are..	None						7		
88	BLC 40 Transient Are..	None						7		
89	BLC 84 Transient Are..	None								
90	BLC 85 Transient Are..	None						7		
91	BLC 86 Transient Are..	None						7		

Load Combinations

	Description	Sol..	PD..	SR..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..
1	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	3	1	41	1												
2	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	4	1	42	1												
3	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	5	1	43	1												
4	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	6	1	44	1												
5	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	7	1	45	1												
6	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	8	1	46	1												
7	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	9	1	47	1												
8	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	10	1	48	1												
9	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	11	1	49	1												
10	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	12	1	50	1												
11	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	13	1	51	1												
12	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	14	1	52	1												
13	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	2	1	40	1	15	1	53	1								
14	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	2	1	40	1	16	1	54	1								
15	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	2	1	40	1	17	1	55	1								
16	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	2	1	40	1	18	1	56	1								
17	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	2	1	40	1	19	1	57	1								
18	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	2	1	40	1	20	1	58	1								
19	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	2	1	40	1	21	1	59	1								
20	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	2	1	40	1	22	1	60	1								
21	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	2	1	40	1	23	1	61	1								

Load Combinations (Continued)

	Description	Sol..	PD..	SR..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..
22	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	2	1	40	1	24	1	62	1								
23	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	2	1	40	1	25	1	63	1								
24	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	2	1	40	1	26	1	64	1								
25	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	77	1.5	27	1	65	1										
26	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	77	1.5	28	1	66	1										
27	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	77	1.5	29	1	67	1										
28	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	77	1.5	30	1	68	1										
29	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	77	1.5	31	1	69	1										
30	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	77	1.5	32	1	70	1										
31	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	77	1.5	33	1	71	1										
32	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	77	1.5	34	1	72	1										
33	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	77	1.5	35	1	73	1										
34	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	77	1.5	36	1	74	1										
35	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	77	1.5	37	1	75	1										
36	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	77	1.5	38	1	76	1										
37	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	78	1.5	27	1	65	1										
38	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	78	1.5	28	1	66	1										
39	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	78	1.5	29	1	67	1										
40	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	78	1.5	30	1	68	1										
41	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	78	1.5	31	1	69	1										
42	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	78	1.5	32	1	70	1										
43	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	78	1.5	33	1	71	1										
44	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	78	1.5	34	1	72	1										
45	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	78	1.5	35	1	73	1										
46	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	78	1.5	36	1	74	1										
47	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	78	1.5	37	1	75	1										
48	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	78	1.5	38	1	76	1										
49	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	79	1.5														
50	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	80	1.5														
51	1.4D	Yes	Y		1	1.4	39	1.4																
52	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	1	83		ELZ	1	ELX					
53	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.866	83	.5	ELZ	.866	ELX	.5				
54	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.5	83	.866	ELZ	.5	ELX	.866				
55	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82		83	1	ELZ		ELX	1				
56	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.5	83	.866	ELZ	-.5	ELX	.866				
57	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.866	83	.5	ELZ	-.866	ELX	.5				
58	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-1	83		ELZ	-1	ELX					
59	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.866	83	-.5	ELZ	-.866	ELX	-.5				
60	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.5	83	-.866	ELZ	-.5	ELX	-.866				
61	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82		83	-1	ELZ		ELX	-1				
62	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.5	83	-.866	ELZ	.5	ELX	-.866				
63	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.866	83	-.5	ELZ	.866	ELX	-.5				
64	0.9D - 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	1	83		ELZ	1	ELX					
65	0.9D - 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.866	83	.5	ELZ	.866	ELX	.5				
66	0.9D - 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.5	83	.866	ELZ	.5	ELX	.866				
67	0.9D - 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82		83	1	ELZ		ELX	1				
68	0.9D - 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.5	83	.866	ELZ	-.5	ELX	.866				
69	0.9D - 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.866	83	.5	ELZ	-.866	ELX	.5				
70	0.9D - 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-1	83		ELZ	-1	ELX					
71	0.9D - 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.866	83	-.5	ELZ	-.866	ELX	-.5				
72	0.9D - 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.5	83	-.866	ELZ	-.5	ELX	-.866				
73	0.9D - 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82		83	-1	ELZ		ELX	-1				
74	0.9D - 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.5	83	-.866	ELZ	.5	ELX	-.866				
75	0.9D - 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.866	83	-.5	ELZ	.866	ELX	-.5				

Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	N1	-1.045833	0	0	0	
2	N2	13.5375	0	0	0	
3	N3	6.25	0	0	0	
4	N4	6.25	0	-0.1875	0	
5	N5	6.25	0	-3.60417	0	
6	N9	.625	0	0	0	
7	N10	0.71875	0	-0.16238	0	
8	N11	2.51025	0	-3.265349	0	
9	N12	11.875	0	0	0	
10	N13	11.78125	0	-0.16238	0	
11	N14	9.98975	0	-3.265349	0	
12	N25	6.25	0	-2.81217	0	
13	N26	6.25	0	-0.97917	0	
14	N31	1.190324	0	-0.97917	0	
15	N32	2.248607	0	-2.81217	0	
16	N33	11.309676	0	-0.97917	0	
17	N34	10.251393	0	-2.81217	0	
18	N18	12.579167	0	0	0	
19	N19	12.579167	0	.25	0	
20	N20	12.579167	4.041667	.25	0	
21	N21	12.579167	-3	.25	0	
22	N22	10.870833	0	0	0	
23	N23	10.870833	0.	-.25	0	
24	N24	9.079167	0	0	0	
25	N25A	9.079167	0	.25	0	
26	N26A	1.370833	0	0	0	
27	N27	1.370833	0	.25	0	
28	N28	-0.129167	0	0	0	
29	N29	-0.129167	0	.25	0	
30	N32A	9.079167	3.166667	.25	0	
31	N33A	9.079167	-3.916667	.25	0	
32	N34A	1.370833	3.916667	.25	0	
33	N35	1.370833	-3.125	.25	0	
34	N38	10.870833	3.416667	-.25	0	
35	N39	10.870833	-2.583333	-.25	0	
36	N36	-0.129167	3.916667	.25	0	
37	N37	-0.129167	-3.125	.25	0	
38	N38A	6.25	0	-5.187503	0	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Mount Pipe	PIPE 2.0	Column	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
2	Standoff	HSS4X4X4	Beam	SquareTube	A500 Gr. B 46	Typical	3.37	7.8	7.8	12.8
3	Grating Angle	L4X4X4	Beam	Single Angle	A36 Gr.36	Typical	1.93	3	3	.044
4	Face Horizo...	PIPE 3.5	Beam	Pipe	A53 Gr. B	Typical	2.5	4.52	4.52	9.04

Hot Rolled Steel Properties

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

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N1	N2			Face Horizontal	Beam	Pipe	A53 Gr. B	Typical
2	M2	N3	N4			RIGID	None	None	RIGID	Typical
3	M3	N4	N5			Standoff	Beam	SquareTube	A500 Gr. ...	Typical
4	M6	N9	N10			RIGID	None	None	RIGID	Typical
5	M7	N10	N11		90	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
6	M8	N12	N13			RIGID	None	None	RIGID	Typical
7	M9	N13	N14		180	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
8	M8A	N18	N19			RIGID	None	None	RIGID	Typical
9	MP1A	N20	N21			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
10	M10	N22	N23			RIGID	None	None	RIGID	Typical
11	M11	N24	N25A			RIGID	None	None	RIGID	Typical
12	M12	N26A	N27			RIGID	None	None	RIGID	Typical
13	M13	N28	N29			RIGID	None	None	RIGID	Typical
14	MP3A	N32A	N33A			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
15	MP4A	N34A	N35			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
16	MP2A	N38	N39			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
17	MP5A	N36	N37			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
18	M18	N5	N38A			Standoff	Beam	SquareTube	A500 Gr. ...	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
1	M1						Yes	Default			None
2	M2						Yes	** NA **			None
3	M3						Yes				None
4	M6						Yes	** NA **			None
5	M7						Yes	Default			None
6	M8						Yes	** NA **			None
7	M9						Yes	Default			None
8	M8A						Yes	** NA **			None
9	MP1A						Yes	** NA **			None
10	M10						Yes	** NA **			None
11	M11						Yes	** NA **			None
12	M12						Yes	** NA **			None
13	M13						Yes	** NA **			None
14	MP3A						Yes	** NA **			None
15	MP4A						Yes	** NA **			None
16	MP2A						Yes	** NA **			None
17	MP5A						Yes	** NA **			None
18	M18						Yes				None

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Y	-31.65	.75
2	MP1A	My	-.016	.75
3	MP1A	Mz	-.018	.75
4	MP1A	Y	-31.65	5.75
5	MP1A	My	-.016	5.75
6	MP1A	Mz	-.018	5.75
7	MP1A	Y	-31.65	.75
8	MP1A	My	-.016	.75
9	MP1A	Mz	.018	.75
10	MP1A	Y	-31.65	5.75
11	MP1A	My	-.016	5.75
12	MP1A	Mz	.018	5.75
13	MP3A	Y	-43.55	.75

Member Point Loads (BLC 1 : Antenna D) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
14	MP3A	My	0	.75
15	MP3A	Mz	0	.75
16	MP3A	Y	-43.55	2.75
17	MP3A	My	0	2.75
18	MP3A	Mz	0	2.75
19	MP3A	Y	-4.4	4.5
20	MP3A	My	-.002	4.5
21	MP3A	Mz	0	4.5
22	MP1A	Y	-10.4	2
23	MP1A	My	.005	2
24	MP1A	Mz	-.003	2
25	MP2A	Y	-70.3	2.5
26	MP2A	My	.035	2.5
27	MP2A	Mz	0	2.5
28	MP1A	Y	-84.4	2.5
29	MP1A	My	.007	2.5
30	MP1A	Mz	0	2.5
31	MP5A	Y	-11.5	.5
32	MP5A	My	-.006	.5
33	MP5A	Mz	0	.5
34	MP5A	Y	-11.5	6
35	MP5A	My	-.006	6
36	MP5A	Mz	0	6
37	MP1A	Y	-17.6	4.5
38	MP1A	My	.009	4.5
39	MP1A	Mz	0	4.5
40	MP3A	Y	-.6	0
41	MP3A	My	-.000235	0
42	MP3A	Mz	.000193	0

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Y	-70.892	.75
2	MP1A	My	-.035	.75
3	MP1A	Mz	-.041	.75
4	MP1A	Y	-70.892	5.75
5	MP1A	My	-.035	5.75
6	MP1A	Mz	-.041	5.75
7	MP1A	Y	-70.892	.75
8	MP1A	My	-.035	.75
9	MP1A	Mz	.041	.75
10	MP1A	Y	-70.892	5.75
11	MP1A	My	-.035	5.75
12	MP1A	Mz	.041	5.75
13	MP3A	Y	-36.103	.75
14	MP3A	My	0	.75
15	MP3A	Mz	0	.75
16	MP3A	Y	-36.103	2.75
17	MP3A	My	0	2.75
18	MP3A	Mz	0	2.75
19	MP3A	Y	-13.658	4.5
20	MP3A	My	-.007	4.5
21	MP3A	Mz	0	4.5
22	MP1A	Y	-10.909	2
23	MP1A	My	.005	2
24	MP1A	Mz	-.003	2
25	MP2A	Y	-40.947	2.5
26	MP2A	My	.02	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
27	MP2A	Mz	0	2.5
28	MP1A	Y	-45.527	2.5
29	MP1A	My	.004	2.5
30	MP1A	Mz	0	2.5
31	MP5A	Y	-59.216	.5
32	MP5A	My	-.03	.5
33	MP5A	Mz	0	.5
34	MP5A	Y	-59.216	6
35	MP5A	My	-.03	6
36	MP5A	Mz	0	6
37	MP1A	Y	-17.607	4.5
38	MP1A	My	.009	4.5
39	MP1A	Mz	0	4.5
40	MP3A	Y	-1.949	0
41	MP3A	My	-.000763	0
42	MP3A	Mz	.000628	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	.75
2	MP1A	Z	-171.914	.75
3	MP1A	Mx	.1	.75
4	MP1A	X	0	5.75
5	MP1A	Z	-171.914	5.75
6	MP1A	Mx	.1	5.75
7	MP1A	X	0	.75
8	MP1A	Z	-171.914	.75
9	MP1A	Mx	-.1	.75
10	MP1A	X	0	5.75
11	MP1A	Z	-171.914	5.75
12	MP1A	Mx	-.1	5.75
13	MP3A	X	0	.75
14	MP3A	Z	-73.974	.75
15	MP3A	Mx	0	.75
16	MP3A	X	0	2.75
17	MP3A	Z	-73.974	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	0	4.5
20	MP3A	Z	-33.59	4.5
21	MP3A	Mx	0	4.5
22	MP1A	X	0	2
23	MP1A	Z	-13.964	2
24	MP1A	Mx	.003	2
25	MP2A	X	0	2.5
26	MP2A	Z	-58.5	2.5
27	MP2A	Mx	0	2.5
28	MP1A	X	0	2.5
29	MP1A	Z	-58.5	2.5
30	MP1A	Mx	0	2.5
31	MP5A	X	0	.5
32	MP5A	Z	-154.742	.5
33	MP5A	Mx	0	.5
34	MP5A	X	0	6
35	MP5A	Z	-154.742	6
36	MP5A	Mx	0	6
37	MP1A	X	0	4.5
38	MP1A	Z	-36.232	4.5
39	MP1A	Mx	0	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
40	MP3A	X	0	0
41	MP3A	Z	-3.806	0
42	MP3A	Mx	-.001	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	78.582	.75
2	MP1A	Z	-136.107	.75
3	MP1A	Mx	.04	.75
4	MP1A	X	78.582	5.75
5	MP1A	Z	-136.107	5.75
6	MP1A	Mx	.04	5.75
7	MP1A	X	78.582	.75
8	MP1A	Z	-136.107	.75
9	MP1A	Mx	-.119	.75
10	MP1A	X	78.582	5.75
11	MP1A	Z	-136.107	5.75
12	MP1A	Mx	-.119	5.75
13	MP3A	X	30.925	.75
14	MP3A	Z	-53.563	.75
15	MP3A	Mx	0	.75
16	MP3A	X	30.925	2.75
17	MP3A	Z	-53.563	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	13.42	4.5
20	MP3A	Z	-23.244	4.5
21	MP3A	Mx	-.007	4.5
22	MP1A	X	6.444	2
23	MP1A	Z	-11.162	2
24	MP1A	Mx	.006	2
25	MP2A	X	26.844	2.5
26	MP2A	Z	-46.495	2.5
27	MP2A	Mx	.013	2.5
28	MP1A	X	25.948	2.5
29	MP1A	Z	-44.942	2.5
30	MP1A	Mx	.002	2.5
31	MP5A	X	73.581	.5
32	MP5A	Z	-127.447	.5
33	MP5A	Mx	-.037	.5
34	MP5A	X	73.581	6
35	MP5A	Z	-127.447	6
36	MP5A	Mx	-.037	6
37	MP1A	X	14.961	4.5
38	MP1A	Z	-25.913	4.5
39	MP1A	Mx	.007	4.5
40	MP3A	X	2.312	0
41	MP3A	Z	-4.004	0
42	MP3A	Mx	-.002	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	110.558	.75
2	MP1A	Z	-63.831	.75
3	MP1A	Mx	-.018	.75
4	MP1A	X	110.558	5.75
5	MP1A	Z	-63.831	5.75
6	MP1A	Mx	-.018	5.75
7	MP1A	X	110.558	.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
8	MP1A	Z	-63.831	.75
9	MP1A	Mx	-.093	.75
10	MP1A	X	110.558	5.75
11	MP1A	Z	-63.831	5.75
12	MP1A	Mx	-.093	5.75
13	MP3A	X	32.563	.75
14	MP3A	Z	-18.8	.75
15	MP3A	Mx	0	.75
16	MP3A	X	32.563	2.75
17	MP3A	Z	-18.8	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	11.551	4.5
20	MP3A	Z	-6.669	4.5
21	MP3A	Mx	-.006	4.5
22	MP1A	X	9.299	2
23	MP1A	Z	-5.369	2
24	MP1A	Mx	.006	2
25	MP2A	X	38.16	2.5
26	MP2A	Z	-22.032	2.5
27	MP2A	Mx	.019	2.5
28	MP1A	X	33.503	2.5
29	MP1A	Z	-19.343	2.5
30	MP1A	Mx	.003	2.5
31	MP5A	X	114.32	.5
32	MP5A	Z	-66.002	.5
33	MP5A	Mx	-.057	.5
34	MP5A	X	114.32	6
35	MP5A	Z	-66.002	6
36	MP5A	Mx	-.057	6
37	MP1A	X	14.982	4.5
38	MP1A	Z	-8.65	4.5
39	MP1A	Mx	.007	4.5
40	MP3A	X	4.358	0
41	MP3A	Z	-2.516	0
42	MP3A	Mx	-.003	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	112.911	.75
2	MP1A	Z	0	.75
3	MP1A	Mx	-.056	.75
4	MP1A	X	112.911	5.75
5	MP1A	Z	0	5.75
6	MP1A	Mx	-.056	5.75
7	MP1A	X	112.911	.75
8	MP1A	Z	0	.75
9	MP1A	Mx	-.056	.75
10	MP1A	X	112.911	5.75
11	MP1A	Z	0	5.75
12	MP1A	Mx	-.056	5.75
13	MP3A	X	25.476	.75
14	MP3A	Z	0	.75
15	MP3A	Mx	0	.75
16	MP3A	X	25.476	2.75
17	MP3A	Z	0	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	6.587	4.5
20	MP3A	Z	0	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
21	MP3A	Mx	-.003	4.5
22	MP1A	X	9.662	2
23	MP1A	Z	0	2
24	MP1A	Mx	.005	2
25	MP2A	X	39.252	2.5
26	MP2A	Z	0	2.5
27	MP2A	Mx	.02	2.5
28	MP1A	X	32.081	2.5
29	MP1A	Z	0	2.5
30	MP1A	Mx	.003	2.5
31	MP5A	X	124.426	.5
32	MP5A	Z	0	.5
33	MP5A	Mx	-.062	.5
34	MP5A	X	124.426	6
35	MP5A	Z	0	6
36	MP5A	Mx	-.062	6
37	MP1A	X	10.989	4.5
38	MP1A	Z	0	4.5
39	MP1A	Mx	.005	4.5
40	MP3A	X	4.623	0
41	MP3A	Z	0	0
42	MP3A	Mx	-.002	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	110.558	.75
2	MP1A	Z	63.831	.75
3	MP1A	Mx	-.093	.75
4	MP1A	X	110.558	5.75
5	MP1A	Z	63.831	5.75
6	MP1A	Mx	-.093	5.75
7	MP1A	X	110.558	.75
8	MP1A	Z	63.831	.75
9	MP1A	Mx	-.018	.75
10	MP1A	X	110.558	5.75
11	MP1A	Z	63.831	5.75
12	MP1A	Mx	-.018	5.75
13	MP3A	X	32.563	.75
14	MP3A	Z	18.8	.75
15	MP3A	Mx	0	.75
16	MP3A	X	32.563	2.75
17	MP3A	Z	18.8	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	11.551	4.5
20	MP3A	Z	6.669	4.5
21	MP3A	Mx	-.006	4.5
22	MP1A	X	9.299	2
23	MP1A	Z	5.369	2
24	MP1A	Mx	.003	2
25	MP2A	X	38.16	2.5
26	MP2A	Z	22.032	2.5
27	MP2A	Mx	.019	2.5
28	MP1A	X	33.503	2.5
29	MP1A	Z	19.343	2.5
30	MP1A	Mx	.003	2.5
31	MP5A	X	114.32	.5
32	MP5A	Z	66.002	.5
33	MP5A	Mx	-.057	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
34	MP5A	X	114.32	6
35	MP5A	Z	66.002	6
36	MP5A	Mx	-.057	6
37	MP1A	X	14.982	4.5
38	MP1A	Z	8.65	4.5
39	MP1A	Mx	.007	4.5
40	MP3A	X	3.296	0
41	MP3A	Z	1.903	0
42	MP3A	Mx	-.000677	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	78.582	.75
2	MP1A	Z	136.107	.75
3	MP1A	Mx	-.119	.75
4	MP1A	X	78.582	5.75
5	MP1A	Z	136.107	5.75
6	MP1A	Mx	-.119	5.75
7	MP1A	X	78.582	.75
8	MP1A	Z	136.107	.75
9	MP1A	Mx	.04	.75
10	MP1A	X	78.582	5.75
11	MP1A	Z	136.107	5.75
12	MP1A	Mx	.04	5.75
13	MP3A	X	30.925	.75
14	MP3A	Z	53.563	.75
15	MP3A	Mx	0	.75
16	MP3A	X	30.925	2.75
17	MP3A	Z	53.563	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	13.42	4.5
20	MP3A	Z	23.244	4.5
21	MP3A	Mx	-.007	4.5
22	MP1A	X	6.444	2
23	MP1A	Z	11.162	2
24	MP1A	Mx	.000431	2
25	MP2A	X	26.844	2.5
26	MP2A	Z	46.495	2.5
27	MP2A	Mx	.013	2.5
28	MP1A	X	25.948	2.5
29	MP1A	Z	44.942	2.5
30	MP1A	Mx	.002	2.5
31	MP5A	X	73.581	.5
32	MP5A	Z	127.447	.5
33	MP5A	Mx	-.037	.5
34	MP5A	X	73.581	6
35	MP5A	Z	127.447	6
36	MP5A	Mx	-.037	6
37	MP1A	X	14.961	4.5
38	MP1A	Z	25.913	4.5
39	MP1A	Mx	.007	4.5
40	MP3A	X	1.698	0
41	MP3A	Z	2.942	0
42	MP3A	Mx	.000283	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
2	MP1A	Z	171.914	.75
3	MP1A	Mx	-.1	.75
4	MP1A	X	0	5.75
5	MP1A	Z	171.914	5.75
6	MP1A	Mx	-.1	5.75
7	MP1A	X	0	.75
8	MP1A	Z	171.914	.75
9	MP1A	Mx	.1	.75
10	MP1A	X	0	5.75
11	MP1A	Z	171.914	5.75
12	MP1A	Mx	.1	5.75
13	MP3A	X	0	.75
14	MP3A	Z	73.974	.75
15	MP3A	Mx	0	.75
16	MP3A	X	0	2.75
17	MP3A	Z	73.974	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	0	4.5
20	MP3A	Z	33.59	4.5
21	MP3A	Mx	0	4.5
22	MP1A	X	0	2
23	MP1A	Z	13.964	2
24	MP1A	Mx	-.003	2
25	MP2A	X	0	2.5
26	MP2A	Z	58.5	2.5
27	MP2A	Mx	0	2.5
28	MP1A	X	0	2.5
29	MP1A	Z	58.5	2.5
30	MP1A	Mx	0	2.5
31	MP5A	X	0	.5
32	MP5A	Z	154.742	.5
33	MP5A	Mx	0	.5
34	MP5A	X	0	6
35	MP5A	Z	154.742	6
36	MP5A	Mx	0	6
37	MP1A	X	0	4.5
38	MP1A	Z	36.232	4.5
39	MP1A	Mx	0	4.5
40	MP3A	X	0	0
41	MP3A	Z	3.806	0
42	MP3A	Mx	.001	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-78.582	.75
2	MP1A	Z	136.107	.75
3	MP1A	Mx	-.04	.75
4	MP1A	X	-78.582	5.75
5	MP1A	Z	136.107	5.75
6	MP1A	Mx	-.04	5.75
7	MP1A	X	-78.582	.75
8	MP1A	Z	136.107	.75
9	MP1A	Mx	.119	.75
10	MP1A	X	-78.582	5.75
11	MP1A	Z	136.107	5.75
12	MP1A	Mx	.119	5.75
13	MP3A	X	-30.925	.75
14	MP3A	Z	53.563	.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
15	MP3A	Mx	0	.75
16	MP3A	X	-30.925	2.75
17	MP3A	Z	53.563	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	-13.42	4.5
20	MP3A	Z	23.244	4.5
21	MP3A	Mx	.007	4.5
22	MP1A	X	-6.444	2
23	MP1A	Z	11.162	2
24	MP1A	Mx	-.006	2
25	MP2A	X	-26.844	2.5
26	MP2A	Z	46.495	2.5
27	MP2A	Mx	-.013	2.5
28	MP1A	X	-25.948	2.5
29	MP1A	Z	44.942	2.5
30	MP1A	Mx	-.002	2.5
31	MP5A	X	-73.581	.5
32	MP5A	Z	127.447	.5
33	MP5A	Mx	.037	.5
34	MP5A	X	-73.581	6
35	MP5A	Z	127.447	6
36	MP5A	Mx	.037	6
37	MP1A	X	-14.961	4.5
38	MP1A	Z	25.913	4.5
39	MP1A	Mx	-.007	4.5
40	MP3A	X	-2.312	0
41	MP3A	Z	4.004	0
42	MP3A	Mx	.002	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-110.558	.75
2	MP1A	Z	63.831	.75
3	MP1A	Mx	.018	.75
4	MP1A	X	-110.558	5.75
5	MP1A	Z	63.831	5.75
6	MP1A	Mx	.018	5.75
7	MP1A	X	-110.558	.75
8	MP1A	Z	63.831	.75
9	MP1A	Mx	.093	.75
10	MP1A	X	-110.558	5.75
11	MP1A	Z	63.831	5.75
12	MP1A	Mx	.093	5.75
13	MP3A	X	-32.563	.75
14	MP3A	Z	18.8	.75
15	MP3A	Mx	0	.75
16	MP3A	X	-32.563	2.75
17	MP3A	Z	18.8	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	-11.551	4.5
20	MP3A	Z	6.669	4.5
21	MP3A	Mx	.006	4.5
22	MP1A	X	-9.299	2
23	MP1A	Z	5.369	2
24	MP1A	Mx	-.006	2
25	MP2A	X	-38.16	2.5
26	MP2A	Z	22.032	2.5
27	MP2A	Mx	-.019	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
28	MP1A	X	-33.503	2.5
29	MP1A	Z	19.343	2.5
30	MP1A	Mx	-.003	2.5
31	MP5A	X	-114.32	.5
32	MP5A	Z	66.002	.5
33	MP5A	Mx	.057	.5
34	MP5A	X	-114.32	6
35	MP5A	Z	66.002	6
36	MP5A	Mx	.057	6
37	MP1A	X	-14.982	4.5
38	MP1A	Z	8.65	4.5
39	MP1A	Mx	-.007	4.5
40	MP3A	X	-4.358	0
41	MP3A	Z	2.516	0
42	MP3A	Mx	.003	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-112.911	.75
2	MP1A	Z	0	.75
3	MP1A	Mx	.056	.75
4	MP1A	X	-112.911	5.75
5	MP1A	Z	0	5.75
6	MP1A	Mx	.056	5.75
7	MP1A	X	-112.911	.75
8	MP1A	Z	0	.75
9	MP1A	Mx	.056	.75
10	MP1A	X	-112.911	5.75
11	MP1A	Z	0	5.75
12	MP1A	Mx	.056	5.75
13	MP3A	X	-25.476	.75
14	MP3A	Z	0	.75
15	MP3A	Mx	0	.75
16	MP3A	X	-25.476	2.75
17	MP3A	Z	0	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	-6.587	4.5
20	MP3A	Z	0	4.5
21	MP3A	Mx	.003	4.5
22	MP1A	X	-9.662	2
23	MP1A	Z	0	2
24	MP1A	Mx	-.005	2
25	MP2A	X	-39.252	2.5
26	MP2A	Z	0	2.5
27	MP2A	Mx	-.02	2.5
28	MP1A	X	-32.081	2.5
29	MP1A	Z	0	2.5
30	MP1A	Mx	-.003	2.5
31	MP5A	X	-124.426	.5
32	MP5A	Z	0	.5
33	MP5A	Mx	.062	.5
34	MP5A	X	-124.426	6
35	MP5A	Z	0	6
36	MP5A	Mx	.062	6
37	MP1A	X	-10.989	4.5
38	MP1A	Z	0	4.5
39	MP1A	Mx	-.005	4.5
40	MP3A	X	-4.623	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
41	MP3A	Z	0	0
42	MP3A	Mx	.002	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-110.558	.75
2	MP1A	Z	-63.831	.75
3	MP1A	Mx	.093	.75
4	MP1A	X	-110.558	5.75
5	MP1A	Z	-63.831	5.75
6	MP1A	Mx	.093	5.75
7	MP1A	X	-110.558	.75
8	MP1A	Z	-63.831	.75
9	MP1A	Mx	.018	.75
10	MP1A	X	-110.558	5.75
11	MP1A	Z	-63.831	5.75
12	MP1A	Mx	.018	5.75
13	MP3A	X	-32.563	.75
14	MP3A	Z	-18.8	.75
15	MP3A	Mx	0	.75
16	MP3A	X	-32.563	2.75
17	MP3A	Z	-18.8	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	-11.551	4.5
20	MP3A	Z	-6.669	4.5
21	MP3A	Mx	.006	4.5
22	MP1A	X	-9.299	2
23	MP1A	Z	-5.369	2
24	MP1A	Mx	-.003	2
25	MP2A	X	-38.16	2.5
26	MP2A	Z	-22.032	2.5
27	MP2A	Mx	-.019	2.5
28	MP1A	X	-33.503	2.5
29	MP1A	Z	-19.343	2.5
30	MP1A	Mx	-.003	2.5
31	MP5A	X	-114.32	.5
32	MP5A	Z	-66.002	.5
33	MP5A	Mx	.057	.5
34	MP5A	X	-114.32	6
35	MP5A	Z	-66.002	6
36	MP5A	Mx	.057	6
37	MP1A	X	-14.982	4.5
38	MP1A	Z	-8.65	4.5
39	MP1A	Mx	-.007	4.5
40	MP3A	X	-3.296	0
41	MP3A	Z	-1.903	0
42	MP3A	Mx	.000677	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-78.582	.75
2	MP1A	Z	-136.107	.75
3	MP1A	Mx	.119	.75
4	MP1A	X	-78.582	5.75
5	MP1A	Z	-136.107	5.75
6	MP1A	Mx	.119	5.75
7	MP1A	X	-78.582	.75
8	MP1A	Z	-136.107	.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
9	MP1A	Mx	-.04	.75
10	MP1A	X	-78.582	5.75
11	MP1A	Z	-136.107	5.75
12	MP1A	Mx	-.04	5.75
13	MP3A	X	-30.925	.75
14	MP3A	Z	-53.563	.75
15	MP3A	Mx	0	.75
16	MP3A	X	-30.925	2.75
17	MP3A	Z	-53.563	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	-13.42	4.5
20	MP3A	Z	-23.244	4.5
21	MP3A	Mx	.007	4.5
22	MP1A	X	-6.444	2
23	MP1A	Z	-11.162	2
24	MP1A	Mx	-.000431	2
25	MP2A	X	-26.844	2.5
26	MP2A	Z	-46.495	2.5
27	MP2A	Mx	-.013	2.5
28	MP1A	X	-25.948	2.5
29	MP1A	Z	-44.942	2.5
30	MP1A	Mx	-.002	2.5
31	MP5A	X	-73.581	.5
32	MP5A	Z	-127.447	.5
33	MP5A	Mx	.037	.5
34	MP5A	X	-73.581	6
35	MP5A	Z	-127.447	6
36	MP5A	Mx	.037	6
37	MP1A	X	-14.961	4.5
38	MP1A	Z	-25.913	4.5
39	MP1A	Mx	-.007	4.5
40	MP3A	X	-1.698	0
41	MP3A	Z	-2.942	0
42	MP3A	Mx	-.000283	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	.75
2	MP1A	Z	-30.176	.75
3	MP1A	Mx	.018	.75
4	MP1A	X	0	5.75
5	MP1A	Z	-30.176	5.75
6	MP1A	Mx	.018	5.75
7	MP1A	X	0	.75
8	MP1A	Z	-30.176	.75
9	MP1A	Mx	-.018	.75
10	MP1A	X	0	5.75
11	MP1A	Z	-30.176	5.75
12	MP1A	Mx	-.018	5.75
13	MP3A	X	0	.75
14	MP3A	Z	-16.055	.75
15	MP3A	Mx	0	.75
16	MP3A	X	0	2.75
17	MP3A	Z	-16.055	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	0	4.5
20	MP3A	Z	-6.986	4.5
21	MP3A	Mx	0	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
22	MP1A	X	0	2
23	MP1A	Z	-3.295	2
24	MP1A	Mx	.000824	2
25	MP2A	X	0	2.5
26	MP2A	Z	-13.54	2.5
27	MP2A	Mx	0	2.5
28	MP1A	X	0	2.5
29	MP1A	Z	-9.423	2.5
30	MP1A	Mx	0	2.5
31	MP5A	X	0	.5
32	MP5A	Z	-27.858	.5
33	MP5A	Mx	0	.5
34	MP5A	X	0	6
35	MP5A	Z	-27.858	6
36	MP5A	Mx	0	6
37	MP1A	X	0	4.5
38	MP1A	Z	-7.449	4.5
39	MP1A	Mx	0	4.5
40	MP3A	X	0	0
41	MP3A	Z	-1.528	0
42	MP3A	Mx	-.000492	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	13.89	.75
2	MP1A	Z	-24.058	.75
3	MP1A	Mx	.007	.75
4	MP1A	X	13.89	5.75
5	MP1A	Z	-24.058	5.75
6	MP1A	Mx	.007	5.75
7	MP1A	X	13.89	.75
8	MP1A	Z	-24.058	.75
9	MP1A	Mx	-.021	.75
10	MP1A	X	13.89	5.75
11	MP1A	Z	-24.058	5.75
12	MP1A	Mx	-.021	5.75
13	MP3A	X	6.876	.75
14	MP3A	Z	-11.91	.75
15	MP3A	Mx	0	.75
16	MP3A	X	6.876	2.75
17	MP3A	Z	-11.91	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	2.877	4.5
20	MP3A	Z	-4.984	4.5
21	MP3A	Mx	-.001	4.5
22	MP1A	X	1.545	2
23	MP1A	Z	-2.676	2
24	MP1A	Mx	.001	2
25	MP2A	X	6.06	2.5
26	MP2A	Z	-10.496	2.5
27	MP2A	Mx	.003	2.5
28	MP1A	X	5.226	2.5
29	MP1A	Z	-9.052	2.5
30	MP1A	Mx	.000436	2.5
31	MP5A	X	13.298	.5
32	MP5A	Z	-23.033	.5
33	MP5A	Mx	-.007	.5
34	MP5A	X	13.298	6

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
35	MP5A	Z	-23.033	6
36	MP5A	Mx	-.007	6
37	MP1A	X	3.145	4.5
38	MP1A	Z	-5.448	4.5
39	MP1A	Mx	.002	4.5
40	MP3A	X	.764	0
41	MP3A	Z	-1.323	0
42	MP3A	Mx	-.000725	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	19.909	.75
2	MP1A	Z	-11.495	.75
3	MP1A	Mx	-.003	.75
4	MP1A	X	19.909	5.75
5	MP1A	Z	-11.495	5.75
6	MP1A	Mx	-.003	5.75
7	MP1A	X	19.909	.75
8	MP1A	Z	-11.495	.75
9	MP1A	Mx	-.017	.75
10	MP1A	X	19.909	5.75
11	MP1A	Z	-11.495	5.75
12	MP1A	Mx	-.017	5.75
13	MP3A	X	7.923	.75
14	MP3A	Z	-4.574	.75
15	MP3A	Mx	0	.75
16	MP3A	X	7.923	2.75
17	MP3A	Z	-4.574	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	2.851	4.5
20	MP3A	Z	-1.646	4.5
21	MP3A	Mx	-.001	4.5
22	MP1A	X	2.32	2
23	MP1A	Z	-1.34	2
24	MP1A	Mx	.001	2
25	MP2A	X	8.036	2.5
26	MP2A	Z	-4.64	2.5
27	MP2A	Mx	.004	2.5
28	MP1A	X	10.835	2.5
29	MP1A	Z	-6.256	2.5
30	MP1A	Mx	.000903	2.5
31	MP5A	X	20.846	.5
32	MP5A	Z	-12.036	.5
33	MP5A	Mx	-.01	.5
34	MP5A	X	20.846	6
35	MP5A	Z	-12.036	6
36	MP5A	Mx	-.01	6
37	MP1A	X	3.44	4.5
38	MP1A	Z	-1.986	4.5
39	MP1A	Mx	.002	4.5
40	MP3A	X	1.323	0
41	MP3A	Z	-.764	0
42	MP3A	Mx	-.000764	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	20.594	.75
2	MP1A	Z	0	.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
3	MP1A	Mx	-.01	.75
4	MP1A	X	20.594	5.75
5	MP1A	Z	0	5.75
6	MP1A	Mx	-.01	5.75
7	MP1A	X	20.594	.75
8	MP1A	Z	0	.75
9	MP1A	Mx	-.01	.75
10	MP1A	X	20.594	5.75
11	MP1A	Z	0	5.75
12	MP1A	Mx	-.01	5.75
13	MP3A	X	6.846	.75
14	MP3A	Z	0	.75
15	MP3A	Mx	0	.75
16	MP3A	X	6.846	2.75
17	MP3A	Z	0	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	2.061	4.5
20	MP3A	Z	0	4.5
21	MP3A	Mx	-.001	4.5
22	MP1A	X	2.474	2
23	MP1A	Z	0	2
24	MP1A	Mx	.001	2
25	MP2A	X	7.859	2.5
26	MP2A	Z	0	2.5
27	MP2A	Mx	.004	2.5
28	MP1A	X	13.54	2.5
29	MP1A	Z	0	2.5
30	MP1A	Mx	.001	2.5
31	MP5A	X	22.809	.5
32	MP5A	Z	0	.5
33	MP5A	Mx	-.011	.5
34	MP5A	X	22.809	6
35	MP5A	Z	0	6
36	MP5A	Mx	-.011	6
37	MP1A	X	2.814	4.5
38	MP1A	Z	0	4.5
39	MP1A	Mx	.001	4.5
40	MP3A	X	1.528	0
41	MP3A	Z	0	0
42	MP3A	Mx	-.000598	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	19.909	.75
2	MP1A	Z	11.495	.75
3	MP1A	Mx	-.017	.75
4	MP1A	X	19.909	5.75
5	MP1A	Z	11.495	5.75
6	MP1A	Mx	-.017	5.75
7	MP1A	X	19.909	.75
8	MP1A	Z	11.495	.75
9	MP1A	Mx	-.003	.75
10	MP1A	X	19.909	5.75
11	MP1A	Z	11.495	5.75
12	MP1A	Mx	-.003	5.75
13	MP3A	X	7.923	.75
14	MP3A	Z	4.574	.75
15	MP3A	Mx	0	.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
16	MP3A	X	7.923	2.75
17	MP3A	Z	4.574	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	2.851	4.5
20	MP3A	Z	1.646	4.5
21	MP3A	Mx	-.001	4.5
22	MP1A	X	2.32	2
23	MP1A	Z	1.34	2
24	MP1A	Mx	.000825	2
25	MP2A	X	8.036	2.5
26	MP2A	Z	4.64	2.5
27	MP2A	Mx	.004	2.5
28	MP1A	X	10.835	2.5
29	MP1A	Z	6.256	2.5
30	MP1A	Mx	.000903	2.5
31	MP5A	X	20.846	.5
32	MP5A	Z	12.036	.5
33	MP5A	Mx	-.01	.5
34	MP5A	X	20.846	6
35	MP5A	Z	12.036	6
36	MP5A	Mx	-.01	6
37	MP1A	X	3.44	4.5
38	MP1A	Z	1.986	4.5
39	MP1A	Mx	.002	4.5
40	MP3A	X	1.323	0
41	MP3A	Z	.764	0
42	MP3A	Mx	-.000272	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	13.89	.75
2	MP1A	Z	24.058	.75
3	MP1A	Mx	-.021	.75
4	MP1A	X	13.89	5.75
5	MP1A	Z	24.058	5.75
6	MP1A	Mx	-.021	5.75
7	MP1A	X	13.89	.75
8	MP1A	Z	24.058	.75
9	MP1A	Mx	.007	.75
10	MP1A	X	13.89	5.75
11	MP1A	Z	24.058	5.75
12	MP1A	Mx	.007	5.75
13	MP3A	X	6.876	.75
14	MP3A	Z	11.91	.75
15	MP3A	Mx	0	.75
16	MP3A	X	6.876	2.75
17	MP3A	Z	11.91	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	2.877	4.5
20	MP3A	Z	4.984	4.5
21	MP3A	Mx	-.001	4.5
22	MP1A	X	1.545	2
23	MP1A	Z	2.676	2
24	MP1A	Mx	.000103	2
25	MP2A	X	6.06	2.5
26	MP2A	Z	10.496	2.5
27	MP2A	Mx	.003	2.5
28	MP1A	X	5.226	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
29	MP1A	Z	9.052	2.5
30	MP1A	Mx	.000436	2.5
31	MP5A	X	13.298	.5
32	MP5A	Z	23.033	.5
33	MP5A	Mx	-.007	.5
34	MP5A	X	13.298	6
35	MP5A	Z	23.033	6
36	MP5A	Mx	-.007	6
37	MP1A	X	3.145	4.5
38	MP1A	Z	5.448	4.5
39	MP1A	Mx	.002	4.5
40	MP3A	X	.764	0
41	MP3A	Z	1.323	0
42	MP3A	Mx	.000127	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	.75
2	MP1A	Z	30.176	.75
3	MP1A	Mx	-.018	.75
4	MP1A	X	0	5.75
5	MP1A	Z	30.176	5.75
6	MP1A	Mx	-.018	5.75
7	MP1A	X	0	.75
8	MP1A	Z	30.176	.75
9	MP1A	Mx	.018	.75
10	MP1A	X	0	5.75
11	MP1A	Z	30.176	5.75
12	MP1A	Mx	.018	5.75
13	MP3A	X	0	.75
14	MP3A	Z	16.055	.75
15	MP3A	Mx	0	.75
16	MP3A	X	0	2.75
17	MP3A	Z	16.055	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	0	4.5
20	MP3A	Z	6.986	4.5
21	MP3A	Mx	0	4.5
22	MP1A	X	0	2
23	MP1A	Z	3.295	2
24	MP1A	Mx	-.000824	2
25	MP2A	X	0	2.5
26	MP2A	Z	13.54	2.5
27	MP2A	Mx	0	2.5
28	MP1A	X	0	2.5
29	MP1A	Z	9.423	2.5
30	MP1A	Mx	0	2.5
31	MP5A	X	0	.5
32	MP5A	Z	27.858	.5
33	MP5A	Mx	0	.5
34	MP5A	X	0	6
35	MP5A	Z	27.858	6
36	MP5A	Mx	0	6
37	MP1A	X	0	4.5
38	MP1A	Z	7.449	4.5
39	MP1A	Mx	0	4.5
40	MP3A	X	0	0
41	MP3A	Z	1.528	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
42	MP3A	Mx	.000492	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-13.89	.75
2	MP1A	Z	24.058	.75
3	MP1A	Mx	-.007	.75
4	MP1A	X	-13.89	5.75
5	MP1A	Z	24.058	5.75
6	MP1A	Mx	-.007	5.75
7	MP1A	X	-13.89	.75
8	MP1A	Z	24.058	.75
9	MP1A	Mx	.021	.75
10	MP1A	X	-13.89	5.75
11	MP1A	Z	24.058	5.75
12	MP1A	Mx	.021	5.75
13	MP3A	X	-6.876	.75
14	MP3A	Z	11.91	.75
15	MP3A	Mx	0	.75
16	MP3A	X	-6.876	2.75
17	MP3A	Z	11.91	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	-2.877	4.5
20	MP3A	Z	4.984	4.5
21	MP3A	Mx	.001	4.5
22	MP1A	X	-1.545	2
23	MP1A	Z	2.676	2
24	MP1A	Mx	-.001	2
25	MP2A	X	-6.06	2.5
26	MP2A	Z	10.496	2.5
27	MP2A	Mx	-.003	2.5
28	MP1A	X	-5.226	2.5
29	MP1A	Z	9.052	2.5
30	MP1A	Mx	-.000436	2.5
31	MP5A	X	-13.298	.5
32	MP5A	Z	23.033	.5
33	MP5A	Mx	.007	.5
34	MP5A	X	-13.298	6
35	MP5A	Z	23.033	6
36	MP5A	Mx	.007	6
37	MP1A	X	-3.145	4.5
38	MP1A	Z	5.448	4.5
39	MP1A	Mx	-.002	4.5
40	MP3A	X	-.764	0
41	MP3A	Z	1.323	0
42	MP3A	Mx	.000725	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-19.909	.75
2	MP1A	Z	11.495	.75
3	MP1A	Mx	.003	.75
4	MP1A	X	-19.909	5.75
5	MP1A	Z	11.495	5.75
6	MP1A	Mx	.003	5.75
7	MP1A	X	-19.909	.75
8	MP1A	Z	11.495	.75
9	MP1A	Mx	.017	.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
10	MP1A	X	-19.909	5.75
11	MP1A	Z	11.495	5.75
12	MP1A	Mx	.017	5.75
13	MP3A	X	-7.923	.75
14	MP3A	Z	4.574	.75
15	MP3A	Mx	0	.75
16	MP3A	X	-7.923	2.75
17	MP3A	Z	4.574	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	-2.851	4.5
20	MP3A	Z	1.646	4.5
21	MP3A	Mx	.001	4.5
22	MP1A	X	-2.32	2
23	MP1A	Z	1.34	2
24	MP1A	Mx	-.001	2
25	MP2A	X	-8.036	2.5
26	MP2A	Z	4.64	2.5
27	MP2A	Mx	-.004	2.5
28	MP1A	X	-10.835	2.5
29	MP1A	Z	6.256	2.5
30	MP1A	Mx	-.000903	2.5
31	MP5A	X	-20.846	.5
32	MP5A	Z	12.036	.5
33	MP5A	Mx	.01	.5
34	MP5A	X	-20.846	6
35	MP5A	Z	12.036	6
36	MP5A	Mx	.01	6
37	MP1A	X	-3.44	4.5
38	MP1A	Z	1.986	4.5
39	MP1A	Mx	-.002	4.5
40	MP3A	X	-1.323	0
41	MP3A	Z	.764	0
42	MP3A	Mx	.000764	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-20.594	.75
2	MP1A	Z	0	.75
3	MP1A	Mx	.01	.75
4	MP1A	X	-20.594	5.75
5	MP1A	Z	0	5.75
6	MP1A	Mx	.01	5.75
7	MP1A	X	-20.594	.75
8	MP1A	Z	0	.75
9	MP1A	Mx	.01	.75
10	MP1A	X	-20.594	5.75
11	MP1A	Z	0	5.75
12	MP1A	Mx	.01	5.75
13	MP3A	X	-6.846	.75
14	MP3A	Z	0	.75
15	MP3A	Mx	0	.75
16	MP3A	X	-6.846	2.75
17	MP3A	Z	0	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	-2.061	4.5
20	MP3A	Z	0	4.5
21	MP3A	Mx	.001	4.5
22	MP1A	X	-2.474	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
23	MP1A	Z	0	2
24	MP1A	Mx	-.001	2
25	MP2A	X	-7.859	2.5
26	MP2A	Z	0	2.5
27	MP2A	Mx	-.004	2.5
28	MP1A	X	-13.54	2.5
29	MP1A	Z	0	2.5
30	MP1A	Mx	-.001	2.5
31	MP5A	X	-22.809	.5
32	MP5A	Z	0	.5
33	MP5A	Mx	.011	.5
34	MP5A	X	-22.809	6
35	MP5A	Z	0	6
36	MP5A	Mx	.011	6
37	MP1A	X	-2.814	4.5
38	MP1A	Z	0	4.5
39	MP1A	Mx	-.001	4.5
40	MP3A	X	-1.528	0
41	MP3A	Z	0	0
42	MP3A	Mx	.000598	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-19.909	.75
2	MP1A	Z	-11.495	.75
3	MP1A	Mx	.017	.75
4	MP1A	X	-19.909	5.75
5	MP1A	Z	-11.495	5.75
6	MP1A	Mx	.017	5.75
7	MP1A	X	-19.909	.75
8	MP1A	Z	-11.495	.75
9	MP1A	Mx	.003	.75
10	MP1A	X	-19.909	5.75
11	MP1A	Z	-11.495	5.75
12	MP1A	Mx	.003	5.75
13	MP3A	X	-7.923	.75
14	MP3A	Z	-4.574	.75
15	MP3A	Mx	0	.75
16	MP3A	X	-7.923	2.75
17	MP3A	Z	-4.574	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	-2.851	4.5
20	MP3A	Z	-1.646	4.5
21	MP3A	Mx	.001	4.5
22	MP1A	X	-2.32	2
23	MP1A	Z	-1.34	2
24	MP1A	Mx	-.000825	2
25	MP2A	X	-8.036	2.5
26	MP2A	Z	-4.64	2.5
27	MP2A	Mx	-.004	2.5
28	MP1A	X	-10.835	2.5
29	MP1A	Z	-6.256	2.5
30	MP1A	Mx	-.000903	2.5
31	MP5A	X	-20.846	.5
32	MP5A	Z	-12.036	.5
33	MP5A	Mx	.01	.5
34	MP5A	X	-20.846	6
35	MP5A	Z	-12.036	6

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
36	MP5A	Mx	.01	6
37	MP1A	X	-3.44	4.5
38	MP1A	Z	-1.986	4.5
39	MP1A	Mx	-.002	4.5
40	MP3A	X	-1.323	0
41	MP3A	Z	-.764	0
42	MP3A	Mx	.000272	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-13.89	.75
2	MP1A	Z	-24.058	.75
3	MP1A	Mx	.021	.75
4	MP1A	X	-13.89	5.75
5	MP1A	Z	-24.058	5.75
6	MP1A	Mx	.021	5.75
7	MP1A	X	-13.89	.75
8	MP1A	Z	-24.058	.75
9	MP1A	Mx	-.007	.75
10	MP1A	X	-13.89	5.75
11	MP1A	Z	-24.058	5.75
12	MP1A	Mx	-.007	5.75
13	MP3A	X	-6.876	.75
14	MP3A	Z	-11.91	.75
15	MP3A	Mx	0	.75
16	MP3A	X	-6.876	2.75
17	MP3A	Z	-11.91	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	-2.877	4.5
20	MP3A	Z	-4.984	4.5
21	MP3A	Mx	.001	4.5
22	MP1A	X	-1.545	2
23	MP1A	Z	-2.676	2
24	MP1A	Mx	-.000103	2
25	MP2A	X	-6.06	2.5
26	MP2A	Z	-10.496	2.5
27	MP2A	Mx	-.003	2.5
28	MP1A	X	-5.226	2.5
29	MP1A	Z	-9.052	2.5
30	MP1A	Mx	-.000436	2.5
31	MP5A	X	-13.298	.5
32	MP5A	Z	-23.033	.5
33	MP5A	Mx	.007	.5
34	MP5A	X	-13.298	6
35	MP5A	Z	-23.033	6
36	MP5A	Mx	.007	6
37	MP1A	X	-3.145	4.5
38	MP1A	Z	-5.448	4.5
39	MP1A	Mx	-.002	4.5
40	MP3A	X	-.764	0
41	MP3A	Z	-1.323	0
42	MP3A	Mx	-.000127	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	.75
2	MP1A	Z	-9.902	.75
3	MP1A	Mx	.006	.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
4	MP1A	X	0	5.75
5	MP1A	Z	-9.902	5.75
6	MP1A	Mx	.006	5.75
7	MP1A	X	0	.75
8	MP1A	Z	-9.902	.75
9	MP1A	Mx	-.006	.75
10	MP1A	X	0	5.75
11	MP1A	Z	-9.902	5.75
12	MP1A	Mx	-.006	5.75
13	MP3A	X	0	.75
14	MP3A	Z	-4.261	.75
15	MP3A	Mx	0	.75
16	MP3A	X	0	2.75
17	MP3A	Z	-4.261	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	0	4.5
20	MP3A	Z	-1.935	4.5
21	MP3A	Mx	0	4.5
22	MP1A	X	0	2
23	MP1A	Z	-.804	2
24	MP1A	Mx	.000201	2
25	MP2A	X	0	2.5
26	MP2A	Z	-3.37	2.5
27	MP2A	Mx	0	2.5
28	MP1A	X	0	2.5
29	MP1A	Z	-3.37	2.5
30	MP1A	Mx	0	2.5
31	MP5A	X	0	.5
32	MP5A	Z	-8.913	.5
33	MP5A	Mx	0	.5
34	MP5A	X	0	6
35	MP5A	Z	-8.913	6
36	MP5A	Mx	0	6
37	MP1A	X	0	4.5
38	MP1A	Z	-2.087	4.5
39	MP1A	Mx	0	4.5
40	MP3A	X	0	0
41	MP3A	Z	-.219	0
42	MP3A	Mx	-7.1e-5	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	4.526	.75
2	MP1A	Z	-7.84	.75
3	MP1A	Mx	.002	.75
4	MP1A	X	4.526	5.75
5	MP1A	Z	-7.84	5.75
6	MP1A	Mx	.002	5.75
7	MP1A	X	4.526	.75
8	MP1A	Z	-7.84	.75
9	MP1A	Mx	-.007	.75
10	MP1A	X	4.526	5.75
11	MP1A	Z	-7.84	5.75
12	MP1A	Mx	-.007	5.75
13	MP3A	X	1.781	.75
14	MP3A	Z	-3.085	.75
15	MP3A	Mx	0	.75
16	MP3A	X	1.781	2.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
17	MP3A	Z	-3.085	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	.773	4.5
20	MP3A	Z	-1.339	4.5
21	MP3A	Mx	-.000386	4.5
22	MP1A	X	.371	2
23	MP1A	Z	-.643	2
24	MP1A	Mx	.000346	2
25	MP2A	X	1.546	2.5
26	MP2A	Z	-2.678	2.5
27	MP2A	Mx	.000773	2.5
28	MP1A	X	1.495	2.5
29	MP1A	Z	-2.589	2.5
30	MP1A	Mx	.000125	2.5
31	MP5A	X	4.238	.5
32	MP5A	Z	-7.341	.5
33	MP5A	Mx	-.002	.5
34	MP5A	X	4.238	6
35	MP5A	Z	-7.341	6
36	MP5A	Mx	-.002	6
37	MP1A	X	.862	4.5
38	MP1A	Z	-1.493	4.5
39	MP1A	Mx	.000431	4.5
40	MP3A	X	.133	0
41	MP3A	Z	-.231	0
42	MP3A	Mx	-.000126	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	6.368	.75
2	MP1A	Z	-3.677	.75
3	MP1A	Mx	-.001	.75
4	MP1A	X	6.368	5.75
5	MP1A	Z	-3.677	5.75
6	MP1A	Mx	-.001	5.75
7	MP1A	X	6.368	.75
8	MP1A	Z	-3.677	.75
9	MP1A	Mx	-.005	.75
10	MP1A	X	6.368	5.75
11	MP1A	Z	-3.677	5.75
12	MP1A	Mx	-.005	5.75
13	MP3A	X	1.876	.75
14	MP3A	Z	-1.083	.75
15	MP3A	Mx	0	.75
16	MP3A	X	1.876	2.75
17	MP3A	Z	-1.083	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	.665	4.5
20	MP3A	Z	-.384	4.5
21	MP3A	Mx	-.000332	4.5
22	MP1A	X	.536	2
23	MP1A	Z	-.309	2
24	MP1A	Mx	.000345	2
25	MP2A	X	2.198	2.5
26	MP2A	Z	-1.269	2.5
27	MP2A	Mx	.001	2.5
28	MP1A	X	1.93	2.5
29	MP1A	Z	-1.114	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
30	MP1A	Mx	.000161	2.5
31	MP5A	X	6.585	.5
32	MP5A	Z	-3.802	.5
33	MP5A	Mx	-.003	.5
34	MP5A	X	6.585	6
35	MP5A	Z	-3.802	6
36	MP5A	Mx	-.003	6
37	MP1A	X	.863	4.5
38	MP1A	Z	-.498	4.5
39	MP1A	Mx	.000432	4.5
40	MP3A	X	.251	0
41	MP3A	Z	-.145	0
42	MP3A	Mx	-.000145	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	6.504	.75
2	MP1A	Z	0	.75
3	MP1A	Mx	-.003	.75
4	MP1A	X	6.504	5.75
5	MP1A	Z	0	5.75
6	MP1A	Mx	-.003	5.75
7	MP1A	X	6.504	.75
8	MP1A	Z	0	.75
9	MP1A	Mx	-.003	.75
10	MP1A	X	6.504	5.75
11	MP1A	Z	0	5.75
12	MP1A	Mx	-.003	5.75
13	MP3A	X	1.467	.75
14	MP3A	Z	0	.75
15	MP3A	Mx	0	.75
16	MP3A	X	1.467	2.75
17	MP3A	Z	0	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	.379	4.5
20	MP3A	Z	0	4.5
21	MP3A	Mx	-.00019	4.5
22	MP1A	X	.557	2
23	MP1A	Z	0	2
24	MP1A	Mx	.000279	2
25	MP2A	X	2.261	2.5
26	MP2A	Z	0	2.5
27	MP2A	Mx	.001	2.5
28	MP1A	X	1.848	2.5
29	MP1A	Z	0	2.5
30	MP1A	Mx	.000154	2.5
31	MP5A	X	7.167	.5
32	MP5A	Z	0	.5
33	MP5A	Mx	-.004	.5
34	MP5A	X	7.167	6
35	MP5A	Z	0	6
36	MP5A	Mx	-.004	6
37	MP1A	X	.633	4.5
38	MP1A	Z	0	4.5
39	MP1A	Mx	.000316	4.5
40	MP3A	X	.266	0
41	MP3A	Z	0	0
42	MP3A	Mx	-.000104	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	6.368	.75
2	MP1A	Z	3.677	.75
3	MP1A	Mx	-.005	.75
4	MP1A	X	6.368	5.75
5	MP1A	Z	3.677	5.75
6	MP1A	Mx	-.005	5.75
7	MP1A	X	6.368	.75
8	MP1A	Z	3.677	.75
9	MP1A	Mx	-.001	.75
10	MP1A	X	6.368	5.75
11	MP1A	Z	3.677	5.75
12	MP1A	Mx	-.001	5.75
13	MP3A	X	1.876	.75
14	MP3A	Z	1.083	.75
15	MP3A	Mx	0	.75
16	MP3A	X	1.876	2.75
17	MP3A	Z	1.083	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	.665	4.5
20	MP3A	Z	.384	4.5
21	MP3A	Mx	-.000332	4.5
22	MP1A	X	.536	2
23	MP1A	Z	.309	2
24	MP1A	Mx	.000191	2
25	MP2A	X	2.198	2.5
26	MP2A	Z	1.269	2.5
27	MP2A	Mx	.001	2.5
28	MP1A	X	1.93	2.5
29	MP1A	Z	1.114	2.5
30	MP1A	Mx	.000161	2.5
31	MP5A	X	6.585	.5
32	MP5A	Z	3.802	.5
33	MP5A	Mx	-.003	.5
34	MP5A	X	6.585	6
35	MP5A	Z	3.802	6
36	MP5A	Mx	-.003	6
37	MP1A	X	.863	4.5
38	MP1A	Z	.498	4.5
39	MP1A	Mx	.000432	4.5
40	MP3A	X	.19	0
41	MP3A	Z	.11	0
42	MP3A	Mx	-3.9e-5	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	4.526	.75
2	MP1A	Z	7.84	.75
3	MP1A	Mx	-.007	.75
4	MP1A	X	4.526	5.75
5	MP1A	Z	7.84	5.75
6	MP1A	Mx	-.007	5.75
7	MP1A	X	4.526	.75
8	MP1A	Z	7.84	.75
9	MP1A	Mx	.002	.75
10	MP1A	X	4.526	5.75
11	MP1A	Z	7.84	5.75
12	MP1A	Mx	.002	5.75
13	MP3A	X	1.781	.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
14	MP3A	Z	3.085	.75
15	MP3A	Mx	0	.75
16	MP3A	X	1.781	2.75
17	MP3A	Z	3.085	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	.773	4.5
20	MP3A	Z	1.339	4.5
21	MP3A	Mx	-.000386	4.5
22	MP1A	X	.371	2
23	MP1A	Z	.643	2
24	MP1A	Mx	2.5e-5	2
25	MP2A	X	1.546	2.5
26	MP2A	Z	2.678	2.5
27	MP2A	Mx	.000773	2.5
28	MP1A	X	1.495	2.5
29	MP1A	Z	2.589	2.5
30	MP1A	Mx	.000125	2.5
31	MP5A	X	4.238	.5
32	MP5A	Z	7.341	.5
33	MP5A	Mx	-.002	.5
34	MP5A	X	4.238	6
35	MP5A	Z	7.341	6
36	MP5A	Mx	-.002	6
37	MP1A	X	.862	4.5
38	MP1A	Z	1.493	4.5
39	MP1A	Mx	.000431	4.5
40	MP3A	X	.098	0
41	MP3A	Z	.169	0
42	MP3A	Mx	1.6e-5	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	.75
2	MP1A	Z	9.902	.75
3	MP1A	Mx	-.006	.75
4	MP1A	X	0	5.75
5	MP1A	Z	9.902	5.75
6	MP1A	Mx	-.006	5.75
7	MP1A	X	0	.75
8	MP1A	Z	9.902	.75
9	MP1A	Mx	.006	.75
10	MP1A	X	0	5.75
11	MP1A	Z	9.902	5.75
12	MP1A	Mx	.006	5.75
13	MP3A	X	0	.75
14	MP3A	Z	4.261	.75
15	MP3A	Mx	0	.75
16	MP3A	X	0	2.75
17	MP3A	Z	4.261	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	0	4.5
20	MP3A	Z	1.935	4.5
21	MP3A	Mx	0	4.5
22	MP1A	X	0	2
23	MP1A	Z	.804	2
24	MP1A	Mx	-.000201	2
25	MP2A	X	0	2.5
26	MP2A	Z	3.37	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
27	MP2A	Mx	0	2.5
28	MP1A	X	0	2.5
29	MP1A	Z	3.37	2.5
30	MP1A	Mx	0	2.5
31	MP5A	X	0	.5
32	MP5A	Z	8.913	.5
33	MP5A	Mx	0	.5
34	MP5A	X	0	6
35	MP5A	Z	8.913	6
36	MP5A	Mx	0	6
37	MP1A	X	0	4.5
38	MP1A	Z	2.087	4.5
39	MP1A	Mx	0	4.5
40	MP3A	X	0	0
41	MP3A	Z	.219	0
42	MP3A	Mx	7.1e-5	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-4.526	.75
2	MP1A	Z	7.84	.75
3	MP1A	Mx	-.002	.75
4	MP1A	X	-4.526	5.75
5	MP1A	Z	7.84	5.75
6	MP1A	Mx	-.002	5.75
7	MP1A	X	-4.526	.75
8	MP1A	Z	7.84	.75
9	MP1A	Mx	.007	.75
10	MP1A	X	-4.526	5.75
11	MP1A	Z	7.84	5.75
12	MP1A	Mx	.007	5.75
13	MP3A	X	-1.781	.75
14	MP3A	Z	3.085	.75
15	MP3A	Mx	0	.75
16	MP3A	X	-1.781	2.75
17	MP3A	Z	3.085	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	-.773	4.5
20	MP3A	Z	1.339	4.5
21	MP3A	Mx	.000386	4.5
22	MP1A	X	-.371	2
23	MP1A	Z	.643	2
24	MP1A	Mx	-.000346	2
25	MP2A	X	-1.546	2.5
26	MP2A	Z	2.678	2.5
27	MP2A	Mx	-.000773	2.5
28	MP1A	X	-1.495	2.5
29	MP1A	Z	2.589	2.5
30	MP1A	Mx	-.000125	2.5
31	MP5A	X	-4.238	.5
32	MP5A	Z	7.341	.5
33	MP5A	Mx	.002	.5
34	MP5A	X	-4.238	6
35	MP5A	Z	7.341	6
36	MP5A	Mx	.002	6
37	MP1A	X	-.862	4.5
38	MP1A	Z	1.493	4.5
39	MP1A	Mx	-.000431	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
40	MP3A	X	-.133	0
41	MP3A	Z	.231	0
42	MP3A	Mx	.000126	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-6.368	.75
2	MP1A	Z	3.677	.75
3	MP1A	Mx	.001	.75
4	MP1A	X	-6.368	5.75
5	MP1A	Z	3.677	5.75
6	MP1A	Mx	.001	5.75
7	MP1A	X	-6.368	.75
8	MP1A	Z	3.677	.75
9	MP1A	Mx	.005	.75
10	MP1A	X	-6.368	5.75
11	MP1A	Z	3.677	5.75
12	MP1A	Mx	.005	5.75
13	MP3A	X	-1.876	.75
14	MP3A	Z	1.083	.75
15	MP3A	Mx	0	.75
16	MP3A	X	-1.876	2.75
17	MP3A	Z	1.083	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	-.665	4.5
20	MP3A	Z	.384	4.5
21	MP3A	Mx	.000332	4.5
22	MP1A	X	-.536	2
23	MP1A	Z	.309	2
24	MP1A	Mx	-.000345	2
25	MP2A	X	-2.198	2.5
26	MP2A	Z	1.269	2.5
27	MP2A	Mx	-.001	2.5
28	MP1A	X	-1.93	2.5
29	MP1A	Z	1.114	2.5
30	MP1A	Mx	-.000161	2.5
31	MP5A	X	-6.585	.5
32	MP5A	Z	3.802	.5
33	MP5A	Mx	.003	.5
34	MP5A	X	-6.585	6
35	MP5A	Z	3.802	6
36	MP5A	Mx	.003	6
37	MP1A	X	-.863	4.5
38	MP1A	Z	.498	4.5
39	MP1A	Mx	-.000432	4.5
40	MP3A	X	-.251	0
41	MP3A	Z	.145	0
42	MP3A	Mx	.000145	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-6.504	.75
2	MP1A	Z	0	.75
3	MP1A	Mx	.003	.75
4	MP1A	X	-6.504	5.75
5	MP1A	Z	0	5.75
6	MP1A	Mx	.003	5.75
7	MP1A	X	-6.504	.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
8	MP1A	Z	0	.75
9	MP1A	Mx	.003	.75
10	MP1A	X	-6.504	5.75
11	MP1A	Z	0	5.75
12	MP1A	Mx	.003	5.75
13	MP3A	X	-1.467	.75
14	MP3A	Z	0	.75
15	MP3A	Mx	0	.75
16	MP3A	X	-1.467	2.75
17	MP3A	Z	0	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	-.379	4.5
20	MP3A	Z	0	4.5
21	MP3A	Mx	.00019	4.5
22	MP1A	X	-.557	2
23	MP1A	Z	0	2
24	MP1A	Mx	-.000279	2
25	MP2A	X	-2.261	2.5
26	MP2A	Z	0	2.5
27	MP2A	Mx	-.001	2.5
28	MP1A	X	-1.848	2.5
29	MP1A	Z	0	2.5
30	MP1A	Mx	-.000154	2.5
31	MP5A	X	-7.167	.5
32	MP5A	Z	0	.5
33	MP5A	Mx	.004	.5
34	MP5A	X	-7.167	6
35	MP5A	Z	0	6
36	MP5A	Mx	.004	6
37	MP1A	X	-.633	4.5
38	MP1A	Z	0	4.5
39	MP1A	Mx	-.000316	4.5
40	MP3A	X	-.266	0
41	MP3A	Z	0	0
42	MP3A	Mx	.000104	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-6.368	.75
2	MP1A	Z	-3.677	.75
3	MP1A	Mx	.005	.75
4	MP1A	X	-6.368	5.75
5	MP1A	Z	-3.677	5.75
6	MP1A	Mx	.005	5.75
7	MP1A	X	-6.368	.75
8	MP1A	Z	-3.677	.75
9	MP1A	Mx	.001	.75
10	MP1A	X	-6.368	5.75
11	MP1A	Z	-3.677	5.75
12	MP1A	Mx	.001	5.75
13	MP3A	X	-1.876	.75
14	MP3A	Z	-1.083	.75
15	MP3A	Mx	0	.75
16	MP3A	X	-1.876	2.75
17	MP3A	Z	-1.083	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	-.665	4.5
20	MP3A	Z	-.384	4.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
21	MP3A	Mx	.000332	4.5
22	MP1A	X	-.536	2
23	MP1A	Z	-.309	2
24	MP1A	Mx	-.000191	2
25	MP2A	X	-2.198	2.5
26	MP2A	Z	-1.269	2.5
27	MP2A	Mx	-.001	2.5
28	MP1A	X	-1.93	2.5
29	MP1A	Z	-1.114	2.5
30	MP1A	Mx	-.000161	2.5
31	MP5A	X	-6.585	.5
32	MP5A	Z	-3.802	.5
33	MP5A	Mx	.003	.5
34	MP5A	X	-6.585	6
35	MP5A	Z	-3.802	6
36	MP5A	Mx	.003	6
37	MP1A	X	-.863	4.5
38	MP1A	Z	-.498	4.5
39	MP1A	Mx	-.000432	4.5
40	MP3A	X	-.19	0
41	MP3A	Z	-.11	0
42	MP3A	Mx	3.9e-5	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-4.526	.75
2	MP1A	Z	-7.84	.75
3	MP1A	Mx	.007	.75
4	MP1A	X	-4.526	5.75
5	MP1A	Z	-7.84	5.75
6	MP1A	Mx	.007	5.75
7	MP1A	X	-4.526	.75
8	MP1A	Z	-7.84	.75
9	MP1A	Mx	-.002	.75
10	MP1A	X	-4.526	5.75
11	MP1A	Z	-7.84	5.75
12	MP1A	Mx	-.002	5.75
13	MP3A	X	-1.781	.75
14	MP3A	Z	-3.085	.75
15	MP3A	Mx	0	.75
16	MP3A	X	-1.781	2.75
17	MP3A	Z	-3.085	2.75
18	MP3A	Mx	0	2.75
19	MP3A	X	-.773	4.5
20	MP3A	Z	-1.339	4.5
21	MP3A	Mx	.000386	4.5
22	MP1A	X	-.371	2
23	MP1A	Z	-.643	2
24	MP1A	Mx	-2.5e-5	2
25	MP2A	X	-1.546	2.5
26	MP2A	Z	-2.678	2.5
27	MP2A	Mx	-.000773	2.5
28	MP1A	X	-1.495	2.5
29	MP1A	Z	-2.589	2.5
30	MP1A	Mx	-.000125	2.5
31	MP5A	X	-4.238	.5
32	MP5A	Z	-7.341	.5
33	MP5A	Mx	.002	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
34	MP5A	X	-4.238	6
35	MP5A	Z	-7.341	6
36	MP5A	Mx	.002	6
37	MP1A	X	-.862	4.5
38	MP1A	Z	-1.493	4.5
39	MP1A	Mx	-.000431	4.5
40	MP3A	X	-.098	0
41	MP3A	Z	-.169	0
42	MP3A	Mx	-1.6e-5	0

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M1	Y	-500	%93

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M1	Y	-500	%69

Member Point Loads (BLC 79 : Lv1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M1	Y	-250	0

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M1	Y	-250	%50

Member Point Loads (BLC 81 : Antenna Ev)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Y	0	.75
2	MP1A	My	0	.75
3	MP1A	Mz	0	.75
4	MP1A	Y	0	5.75
5	MP1A	My	0	5.75
6	MP1A	Mz	0	5.75
7	MP1A	Y	0	.75
8	MP1A	My	0	.75
9	MP1A	Mz	0	.75
10	MP1A	Y	0	5.75
11	MP1A	My	0	5.75
12	MP1A	Mz	0	5.75
13	MP3A	Y	0	.75
14	MP3A	My	0	.75
15	MP3A	Mz	0	.75
16	MP3A	Y	0	2.75
17	MP3A	My	0	2.75
18	MP3A	Mz	0	2.75
19	MP3A	Y	0	4.5
20	MP3A	My	0	4.5
21	MP3A	Mz	0	4.5
22	MP1A	Y	0	2
23	MP1A	My	0	2
24	MP1A	Mz	0	2
25	MP2A	Y	0	2.5
26	MP2A	My	0	2.5
27	MP2A	Mz	0	2.5
28	MP1A	Y	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
29	MP1A	My	0	2.5
30	MP1A	Mz	0	2.5
31	MP5A	Y	0	.5
32	MP5A	My	0	.5
33	MP5A	Mz	0	.5
34	MP5A	Y	0	6
35	MP5A	My	0	6
36	MP5A	Mz	0	6
37	MP1A	Y	0	4.5
38	MP1A	My	0	4.5
39	MP1A	Mz	0	4.5
40	MP3A	Y	0	0
41	MP3A	My	0	0
42	MP3A	Mz	0	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Z	-.95	.75
2	MP1A	Mx	.000554	.75
3	MP1A	Z	-.95	5.75
4	MP1A	Mx	.000554	5.75
5	MP1A	Z	-.95	.75
6	MP1A	Mx	-.000554	.75
7	MP1A	Z	-.95	5.75
8	MP1A	Mx	-.000554	5.75
9	MP3A	Z	-1.306	.75
10	MP3A	Mx	0	.75
11	MP3A	Z	-1.306	2.75
12	MP3A	Mx	0	2.75
13	MP3A	Z	-.132	4.5
14	MP3A	Mx	0	4.5
15	MP1A	Z	-.312	2
16	MP1A	Mx	7.8e-5	2
17	MP2A	Z	-2.109	2.5
18	MP2A	Mx	0	2.5
19	MP1A	Z	-2.532	2.5
20	MP1A	Mx	0	2.5
21	MP5A	Z	-.345	.5
22	MP5A	Mx	0	.5
23	MP5A	Z	-.345	6
24	MP5A	Mx	0	6
25	MP1A	Z	-.528	4.5
26	MP1A	Mx	0	4.5
27	MP3A	Z	-.018	0
28	MP3A	Mx	-6e-6	0

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	.95	.75
2	MP1A	Mx	-.000475	.75
3	MP1A	X	.95	5.75
4	MP1A	Mx	-.000475	5.75
5	MP1A	X	.95	.75
6	MP1A	Mx	-.000475	.75
7	MP1A	X	.95	5.75
8	MP1A	Mx	-.000475	5.75
9	MP3A	X	1.306	.75
10	MP3A	Mx	0	.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
11	MP3A	X	1.306	2.75
12	MP3A	Mx	0	2.75
13	MP3A	X	.132	4.5
14	MP3A	Mx	-6.6e-5	4.5
15	MP1A	X	.312	2
16	MP1A	Mx	.000156	2
17	MP2A	X	2.109	2.5
18	MP2A	Mx	.001	2.5
19	MP1A	X	2.532	2.5
20	MP1A	Mx	.000211	2.5
21	MP5A	X	.345	.5
22	MP5A	Mx	-.000173	.5
23	MP5A	X	.345	6
24	MP5A	Mx	-.000173	6
25	MP1A	X	.528	4.5
26	MP1A	Mx	.000264	4.5
27	MP3A	X	.018	0
28	MP3A	Mx	-7e-6	0

Member Distributed Loads (BLC 40 : Structure Di)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	Y	-7.376	-7.376	0	%100
2	M3	Y	-9.741	-9.741	0	%100
3	M7	Y	-9.741	-9.741	0	%100
4	M9	Y	-9.741	-9.741	0	%100
5	MP1A	Y	-5.057	-5.057	0	%100
6	MP3A	Y	-5.057	-5.057	0	%100
7	MP4A	Y	-5.057	-5.057	0	%100
8	MP2A	Y	-5.057	-5.057	0	%100
9	MP5A	Y	-5.057	-5.057	0	%100
10	M18	Y	-9.741	-9.741	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	-13.451	-13.451	0	%100
3	M3	X	0	0	0	%100
4	M3	Z	0	0	0	%100
5	M7	X	0	0	0	%100
6	M7	Z	-4.796	-4.796	0	%100
7	M9	X	0	0	0	%100
8	M9	Z	-4.796	-4.796	0	%100
9	MP1A	X	0	0	0	%100
10	MP1A	Z	-8.964	-8.964	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	-8.964	-8.964	0	%100
13	MP4A	X	0	0	0	%100
14	MP4A	Z	-8.964	-8.964	0	%100
15	MP2A	X	0	0	0	%100
16	MP2A	Z	-8.964	-8.964	0	%100
17	MP5A	X	0	0	0	%100
18	MP5A	Z	-8.964	-8.964	0	%100
19	M18	X	0	0	0	%100
20	M18	Z	0	0	0	%100

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

Member Label	Direction	Start Magnitude[lb/ft	End Magnitude[lb/ft	Start Location[ft,%]	End Location[ft,%]

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	5.044	5.044	0	%100
2	M1	Z	-8.737	-8.737	0	%100
3	M3	X	1.515	1.515	0	%100
4	M3	Z	-2.624	-2.624	0	%100
5	M7	X	0	0	0	%100
6	M7	Z	0	0	0	%100
7	M9	X	7.194	7.194	0	%100
8	M9	Z	-12.461	-12.461	0	%100
9	MP1A	X	4.482	4.482	0	%100
10	MP1A	Z	-7.763	-7.763	0	%100
11	MP3A	X	4.482	4.482	0	%100
12	MP3A	Z	-7.763	-7.763	0	%100
13	MP4A	X	4.482	4.482	0	%100
14	MP4A	Z	-7.763	-7.763	0	%100
15	MP2A	X	4.482	4.482	0	%100
16	MP2A	Z	-7.763	-7.763	0	%100
17	MP5A	X	4.482	4.482	0	%100
18	MP5A	Z	-7.763	-7.763	0	%100
19	M18	X	1.376	1.376	0	%100
20	M18	Z	-2.383	-2.383	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	2.912	2.912	0	%100
2	M1	Z	-1.681	-1.681	0	%100
3	M3	X	7.871	7.871	0	%100
4	M3	Z	-4.544	-4.544	0	%100
5	M7	X	4.154	4.154	0	%100
6	M7	Z	-2.398	-2.398	0	%100
7	M9	X	16.615	16.615	0	%100
8	M9	Z	-9.593	-9.593	0	%100
9	MP1A	X	7.763	7.763	0	%100
10	MP1A	Z	-4.482	-4.482	0	%100
11	MP3A	X	7.763	7.763	0	%100
12	MP3A	Z	-4.482	-4.482	0	%100
13	MP4A	X	7.763	7.763	0	%100
14	MP4A	Z	-4.482	-4.482	0	%100
15	MP2A	X	7.763	7.763	0	%100
16	MP2A	Z	-4.482	-4.482	0	%100
17	MP5A	X	7.763	7.763	0	%100
18	MP5A	Z	-4.482	-4.482	0	%100
19	M18	X	7.15	7.15	0	%100
20	M18	Z	-4.128	-4.128	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M3	X	12.118	12.118	0	%100
4	M3	Z	0	0	0	%100
5	M7	X	14.389	14.389	0	%100
6	M7	Z	0	0	0	%100
7	M9	X	14.389	14.389	0	%100
8	M9	Z	0	0	0	%100
9	MP1A	X	8.964	8.964	0	%100
10	MP1A	Z	0	0	0	%100
11	MP3A	X	8.964	8.964	0	%100
12	MP3A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
13	MP4A	X	8.964	8.964	0	%100
14	MP4A	Z	0	0	0	%100
15	MP2A	X	8.964	8.964	0	%100
16	MP2A	Z	0	0	0	%100
17	MP5A	X	8.964	8.964	0	%100
18	MP5A	Z	0	0	0	%100
19	M18	X	11.008	11.008	0	%100
20	M18	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	2.912	2.912	0	%100
2	M1	Z	1.681	1.681	0	%100
3	M3	X	7.871	7.871	0	%100
4	M3	Z	4.544	4.544	0	%100
5	M7	X	16.615	16.615	0	%100
6	M7	Z	9.593	9.593	0	%100
7	M9	X	4.154	4.154	0	%100
8	M9	Z	2.398	2.398	0	%100
9	MP1A	X	7.763	7.763	0	%100
10	MP1A	Z	4.482	4.482	0	%100
11	MP3A	X	7.763	7.763	0	%100
12	MP3A	Z	4.482	4.482	0	%100
13	MP4A	X	7.763	7.763	0	%100
14	MP4A	Z	4.482	4.482	0	%100
15	MP2A	X	7.763	7.763	0	%100
16	MP2A	Z	4.482	4.482	0	%100
17	MP5A	X	7.763	7.763	0	%100
18	MP5A	Z	4.482	4.482	0	%100
19	M18	X	7.15	7.15	0	%100
20	M18	Z	4.128	4.128	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	5.044	5.044	0	%100
2	M1	Z	8.737	8.737	0	%100
3	M3	X	1.515	1.515	0	%100
4	M3	Z	2.624	2.624	0	%100
5	M7	X	7.194	7.194	0	%100
6	M7	Z	12.461	12.461	0	%100
7	M9	X	0	0	0	%100
8	M9	Z	0	0	0	%100
9	MP1A	X	4.482	4.482	0	%100
10	MP1A	Z	7.763	7.763	0	%100
11	MP3A	X	4.482	4.482	0	%100
12	MP3A	Z	7.763	7.763	0	%100
13	MP4A	X	4.482	4.482	0	%100
14	MP4A	Z	7.763	7.763	0	%100
15	MP2A	X	4.482	4.482	0	%100
16	MP2A	Z	7.763	7.763	0	%100
17	MP5A	X	4.482	4.482	0	%100
18	MP5A	Z	7.763	7.763	0	%100
19	M18	X	1.376	1.376	0	%100
20	M18	Z	2.383	2.383	0	%100

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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	13.451	13.451	0	%100
3	M3	X	0	0	0	%100
4	M3	Z	0	0	0	%100
5	M7	X	0	0	0	%100
6	M7	Z	4.796	4.796	0	%100
7	M9	X	0	0	0	%100
8	M9	Z	4.796	4.796	0	%100
9	MP1A	X	0	0	0	%100
10	MP1A	Z	8.964	8.964	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	8.964	8.964	0	%100
13	MP4A	X	0	0	0	%100
14	MP4A	Z	8.964	8.964	0	%100
15	MP2A	X	0	0	0	%100
16	MP2A	Z	8.964	8.964	0	%100
17	MP5A	X	0	0	0	%100
18	MP5A	Z	8.964	8.964	0	%100
19	M18	X	0	0	0	%100
20	M18	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-5.044	-5.044	0	%100
2	M1	Z	8.737	8.737	0	%100
3	M3	X	-1.515	-1.515	0	%100
4	M3	Z	2.624	2.624	0	%100
5	M7	X	0	0	0	%100
6	M7	Z	0	0	0	%100
7	M9	X	-7.194	-7.194	0	%100
8	M9	Z	12.461	12.461	0	%100
9	MP1A	X	-4.482	-4.482	0	%100
10	MP1A	Z	7.763	7.763	0	%100
11	MP3A	X	-4.482	-4.482	0	%100
12	MP3A	Z	7.763	7.763	0	%100
13	MP4A	X	-4.482	-4.482	0	%100
14	MP4A	Z	7.763	7.763	0	%100
15	MP2A	X	-4.482	-4.482	0	%100
16	MP2A	Z	7.763	7.763	0	%100
17	MP5A	X	-4.482	-4.482	0	%100
18	MP5A	Z	7.763	7.763	0	%100
19	M18	X	-1.376	-1.376	0	%100
20	M18	Z	2.383	2.383	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-2.912	-2.912	0	%100
2	M1	Z	1.681	1.681	0	%100
3	M3	X	-7.871	-7.871	0	%100
4	M3	Z	4.544	4.544	0	%100
5	M7	X	-4.154	-4.154	0	%100
6	M7	Z	2.398	2.398	0	%100
7	M9	X	-16.615	-16.615	0	%100
8	M9	Z	9.593	9.593	0	%100
9	MP1A	X	-7.763	-7.763	0	%100
10	MP1A	Z	4.482	4.482	0	%100
11	MP3A	X	-7.763	-7.763	0	%100
12	MP3A	Z	4.482	4.482	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
13	MP4A	X	-7.763	-7.763	0	%100
14	MP4A	Z	4.482	4.482	0	%100
15	MP2A	X	-7.763	-7.763	0	%100
16	MP2A	Z	4.482	4.482	0	%100
17	MP5A	X	-7.763	-7.763	0	%100
18	MP5A	Z	4.482	4.482	0	%100
19	M18	X	-7.15	-7.15	0	%100
20	M18	Z	4.128	4.128	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M3	X	-12.118	-12.118	0	%100
4	M3	Z	0	0	0	%100
5	M7	X	-14.389	-14.389	0	%100
6	M7	Z	0	0	0	%100
7	M9	X	-14.389	-14.389	0	%100
8	M9	Z	0	0	0	%100
9	MP1A	X	-8.964	-8.964	0	%100
10	MP1A	Z	0	0	0	%100
11	MP3A	X	-8.964	-8.964	0	%100
12	MP3A	Z	0	0	0	%100
13	MP4A	X	-8.964	-8.964	0	%100
14	MP4A	Z	0	0	0	%100
15	MP2A	X	-8.964	-8.964	0	%100
16	MP2A	Z	0	0	0	%100
17	MP5A	X	-8.964	-8.964	0	%100
18	MP5A	Z	0	0	0	%100
19	M18	X	-11.008	-11.008	0	%100
20	M18	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-2.912	-2.912	0	%100
2	M1	Z	-1.681	-1.681	0	%100
3	M3	X	-7.871	-7.871	0	%100
4	M3	Z	-4.544	-4.544	0	%100
5	M7	X	-16.615	-16.615	0	%100
6	M7	Z	-9.593	-9.593	0	%100
7	M9	X	-4.154	-4.154	0	%100
8	M9	Z	-2.398	-2.398	0	%100
9	MP1A	X	-7.763	-7.763	0	%100
10	MP1A	Z	-4.482	-4.482	0	%100
11	MP3A	X	-7.763	-7.763	0	%100
12	MP3A	Z	-4.482	-4.482	0	%100
13	MP4A	X	-7.763	-7.763	0	%100
14	MP4A	Z	-4.482	-4.482	0	%100
15	MP2A	X	-7.763	-7.763	0	%100
16	MP2A	Z	-4.482	-4.482	0	%100
17	MP5A	X	-7.763	-7.763	0	%100
18	MP5A	Z	-4.482	-4.482	0	%100
19	M18	X	-7.15	-7.15	0	%100
20	M18	Z	-4.128	-4.128	0	%100

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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-5.044	-5.044	0	%100
2	M1	Z	-8.737	-8.737	0	%100
3	M3	X	-1.515	-1.515	0	%100
4	M3	Z	-2.624	-2.624	0	%100
5	M7	X	-7.194	-7.194	0	%100
6	M7	Z	-12.461	-12.461	0	%100
7	M9	X	0	0	0	%100
8	M9	Z	0	0	0	%100
9	MP1A	X	-4.482	-4.482	0	%100
10	MP1A	Z	-7.763	-7.763	0	%100
11	MP3A	X	-4.482	-4.482	0	%100
12	MP3A	Z	-7.763	-7.763	0	%100
13	MP4A	X	-4.482	-4.482	0	%100
14	MP4A	Z	-7.763	-7.763	0	%100
15	MP2A	X	-4.482	-4.482	0	%100
16	MP2A	Z	-7.763	-7.763	0	%100
17	MP5A	X	-4.482	-4.482	0	%100
18	MP5A	Z	-7.763	-7.763	0	%100
19	M18	X	-1.376	-1.376	0	%100
20	M18	Z	-2.383	-2.383	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	-3.826	-3.826	0	%100
3	M3	X	0	0	0	%100
4	M3	Z	0	0	0	%100
5	M7	X	0	0	0	%100
6	M7	Z	-1.077	-1.077	0	%100
7	M9	X	0	0	0	%100
8	M9	Z	-1.077	-1.077	0	%100
9	MP1A	X	0	0	0	%100
10	MP1A	Z	-2.845	-2.845	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	-2.845	-2.845	0	%100
13	MP4A	X	0	0	0	%100
14	MP4A	Z	-2.845	-2.845	0	%100
15	MP2A	X	0	0	0	%100
16	MP2A	Z	-2.845	-2.845	0	%100
17	MP5A	X	0	0	0	%100
18	MP5A	Z	-2.845	-2.845	0	%100
19	M18	X	0	0	0	%100
20	M18	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	1.435	1.435	0	%100
2	M1	Z	-2.485	-2.485	0	%100
3	M3	X	.394	.394	0	%100
4	M3	Z	-.683	-.683	0	%100
5	M7	X	0	0	0	%100
6	M7	Z	0	0	0	%100
7	M9	X	1.616	1.616	0	%100
8	M9	Z	-2.798	-2.798	0	%100
9	MP1A	X	1.423	1.423	0	%100
10	MP1A	Z	-2.464	-2.464	0	%100
11	MP3A	X	1.423	1.423	0	%100
12	MP3A	Z	-2.464	-2.464	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
13	MP4A	X	1.423	1.423	0	%100
14	MP4A	Z	-2.464	-2.464	0	%100
15	MP2A	X	1.423	1.423	0	%100
16	MP2A	Z	-2.464	-2.464	0	%100
17	MP5A	X	1.423	1.423	0	%100
18	MP5A	Z	-2.464	-2.464	0	%100
19	M18	X	.341	.341	0	%100
20	M18	Z	-.591	-.591	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.828	.828	0	%100
2	M1	Z	-.478	-.478	0	%100
3	M3	X	2.049	2.049	0	%100
4	M3	Z	-1.183	-1.183	0	%100
5	M7	X	.933	.933	0	%100
6	M7	Z	-.539	-.539	0	%100
7	M9	X	3.731	3.731	0	%100
8	M9	Z	-2.154	-2.154	0	%100
9	MP1A	X	2.464	2.464	0	%100
10	MP1A	Z	-1.423	-1.423	0	%100
11	MP3A	X	2.464	2.464	0	%100
12	MP3A	Z	-1.423	-1.423	0	%100
13	MP4A	X	2.464	2.464	0	%100
14	MP4A	Z	-1.423	-1.423	0	%100
15	MP2A	X	2.464	2.464	0	%100
16	MP2A	Z	-1.423	-1.423	0	%100
17	MP5A	X	2.464	2.464	0	%100
18	MP5A	Z	-1.423	-1.423	0	%100
19	M18	X	1.774	1.774	0	%100
20	M18	Z	-1.024	-1.024	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M3	X	3.155	3.155	0	%100
4	M3	Z	0	0	0	%100
5	M7	X	3.231	3.231	0	%100
6	M7	Z	0	0	0	%100
7	M9	X	3.231	3.231	0	%100
8	M9	Z	0	0	0	%100
9	MP1A	X	2.845	2.845	0	%100
10	MP1A	Z	0	0	0	%100
11	MP3A	X	2.845	2.845	0	%100
12	MP3A	Z	0	0	0	%100
13	MP4A	X	2.845	2.845	0	%100
14	MP4A	Z	0	0	0	%100
15	MP2A	X	2.845	2.845	0	%100
16	MP2A	Z	0	0	0	%100
17	MP5A	X	2.845	2.845	0	%100
18	MP5A	Z	0	0	0	%100
19	M18	X	2.731	2.731	0	%100
20	M18	Z	0	0	0	%100

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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.828	.828	0	%100
2	M1	Z	.478	.478	0	%100
3	M3	X	2.049	2.049	0	%100
4	M3	Z	1.183	1.183	0	%100
5	M7	X	3.731	3.731	0	%100
6	M7	Z	2.154	2.154	0	%100
7	M9	X	.933	.933	0	%100
8	M9	Z	.539	.539	0	%100
9	MP1A	X	2.464	2.464	0	%100
10	MP1A	Z	1.423	1.423	0	%100
11	MP3A	X	2.464	2.464	0	%100
12	MP3A	Z	1.423	1.423	0	%100
13	MP4A	X	2.464	2.464	0	%100
14	MP4A	Z	1.423	1.423	0	%100
15	MP2A	X	2.464	2.464	0	%100
16	MP2A	Z	1.423	1.423	0	%100
17	MP5A	X	2.464	2.464	0	%100
18	MP5A	Z	1.423	1.423	0	%100
19	M18	X	1.774	1.774	0	%100
20	M18	Z	1.024	1.024	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	1.435	1.435	0	%100
2	M1	Z	2.485	2.485	0	%100
3	M3	X	.394	.394	0	%100
4	M3	Z	.683	.683	0	%100
5	M7	X	1.616	1.616	0	%100
6	M7	Z	2.798	2.798	0	%100
7	M9	X	0	0	0	%100
8	M9	Z	0	0	0	%100
9	MP1A	X	1.423	1.423	0	%100
10	MP1A	Z	2.464	2.464	0	%100
11	MP3A	X	1.423	1.423	0	%100
12	MP3A	Z	2.464	2.464	0	%100
13	MP4A	X	1.423	1.423	0	%100
14	MP4A	Z	2.464	2.464	0	%100
15	MP2A	X	1.423	1.423	0	%100
16	MP2A	Z	2.464	2.464	0	%100
17	MP5A	X	1.423	1.423	0	%100
18	MP5A	Z	2.464	2.464	0	%100
19	M18	X	.341	.341	0	%100
20	M18	Z	.591	.591	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	3.826	3.826	0	%100
3	M3	X	0	0	0	%100
4	M3	Z	0	0	0	%100
5	M7	X	0	0	0	%100
6	M7	Z	1.077	1.077	0	%100
7	M9	X	0	0	0	%100
8	M9	Z	1.077	1.077	0	%100
9	MP1A	X	0	0	0	%100
10	MP1A	Z	2.845	2.845	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	2.845	2.845	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
13	MP4A	X	0	0	0	%100
14	MP4A	Z	2.845	2.845	0	%100
15	MP2A	X	0	0	0	%100
16	MP2A	Z	2.845	2.845	0	%100
17	MP5A	X	0	0	0	%100
18	MP5A	Z	2.845	2.845	0	%100
19	M18	X	0	0	0	%100
20	M18	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-1.435	-1.435	0	%100
2	M1	Z	2.485	2.485	0	%100
3	M3	X	-.394	-.394	0	%100
4	M3	Z	.683	.683	0	%100
5	M7	X	0	0	0	%100
6	M7	Z	0	0	0	%100
7	M9	X	-1.616	-1.616	0	%100
8	M9	Z	2.798	2.798	0	%100
9	MP1A	X	-1.423	-1.423	0	%100
10	MP1A	Z	2.464	2.464	0	%100
11	MP3A	X	-1.423	-1.423	0	%100
12	MP3A	Z	2.464	2.464	0	%100
13	MP4A	X	-1.423	-1.423	0	%100
14	MP4A	Z	2.464	2.464	0	%100
15	MP2A	X	-1.423	-1.423	0	%100
16	MP2A	Z	2.464	2.464	0	%100
17	MP5A	X	-1.423	-1.423	0	%100
18	MP5A	Z	2.464	2.464	0	%100
19	M18	X	-.341	-.341	0	%100
20	M18	Z	.591	.591	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.828	-.828	0	%100
2	M1	Z	.478	.478	0	%100
3	M3	X	-2.049	-2.049	0	%100
4	M3	Z	1.183	1.183	0	%100
5	M7	X	-.933	-.933	0	%100
6	M7	Z	.539	.539	0	%100
7	M9	X	-3.731	-3.731	0	%100
8	M9	Z	2.154	2.154	0	%100
9	MP1A	X	-2.464	-2.464	0	%100
10	MP1A	Z	1.423	1.423	0	%100
11	MP3A	X	-2.464	-2.464	0	%100
12	MP3A	Z	1.423	1.423	0	%100
13	MP4A	X	-2.464	-2.464	0	%100
14	MP4A	Z	1.423	1.423	0	%100
15	MP2A	X	-2.464	-2.464	0	%100
16	MP2A	Z	1.423	1.423	0	%100
17	MP5A	X	-2.464	-2.464	0	%100
18	MP5A	Z	1.423	1.423	0	%100
19	M18	X	-1.774	-1.774	0	%100
20	M18	Z	1.024	1.024	0	%100

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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M3	X	-3.155	-3.155	0	%100
4	M3	Z	0	0	0	%100
5	M7	X	-3.231	-3.231	0	%100
6	M7	Z	0	0	0	%100
7	M9	X	-3.231	-3.231	0	%100
8	M9	Z	0	0	0	%100
9	MP1A	X	-2.845	-2.845	0	%100
10	MP1A	Z	0	0	0	%100
11	MP3A	X	-2.845	-2.845	0	%100
12	MP3A	Z	0	0	0	%100
13	MP4A	X	-2.845	-2.845	0	%100
14	MP4A	Z	0	0	0	%100
15	MP2A	X	-2.845	-2.845	0	%100
16	MP2A	Z	0	0	0	%100
17	MP5A	X	-2.845	-2.845	0	%100
18	MP5A	Z	0	0	0	%100
19	M18	X	-2.731	-2.731	0	%100
20	M18	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.828	-.828	0	%100
2	M1	Z	-.478	-.478	0	%100
3	M3	X	-2.049	-2.049	0	%100
4	M3	Z	-1.183	-1.183	0	%100
5	M7	X	-3.731	-3.731	0	%100
6	M7	Z	-2.154	-2.154	0	%100
7	M9	X	-.933	-.933	0	%100
8	M9	Z	-.539	-.539	0	%100
9	MP1A	X	-2.464	-2.464	0	%100
10	MP1A	Z	-1.423	-1.423	0	%100
11	MP3A	X	-2.464	-2.464	0	%100
12	MP3A	Z	-1.423	-1.423	0	%100
13	MP4A	X	-2.464	-2.464	0	%100
14	MP4A	Z	-1.423	-1.423	0	%100
15	MP2A	X	-2.464	-2.464	0	%100
16	MP2A	Z	-1.423	-1.423	0	%100
17	MP5A	X	-2.464	-2.464	0	%100
18	MP5A	Z	-1.423	-1.423	0	%100
19	M18	X	-1.774	-1.774	0	%100
20	M18	Z	-1.024	-1.024	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-1.435	-1.435	0	%100
2	M1	Z	-2.485	-2.485	0	%100
3	M3	X	-.394	-.394	0	%100
4	M3	Z	-.683	-.683	0	%100
5	M7	X	-1.616	-1.616	0	%100
6	M7	Z	-2.798	-2.798	0	%100
7	M9	X	0	0	0	%100
8	M9	Z	0	0	0	%100
9	MP1A	X	-1.423	-1.423	0	%100
10	MP1A	Z	-2.464	-2.464	0	%100
11	MP3A	X	-1.423	-1.423	0	%100
12	MP3A	Z	-2.464	-2.464	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
13	MP4A	X	-1.423	-1.423	0	%100
14	MP4A	Z	-2.464	-2.464	0	%100
15	MP2A	X	-1.423	-1.423	0	%100
16	MP2A	Z	-2.464	-2.464	0	%100
17	MP5A	X	-1.423	-1.423	0	%100
18	MP5A	Z	-2.464	-2.464	0	%100
19	M18	X	-.341	-.341	0	%100
20	M18	Z	-.591	-.591	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	-.775	-.775	0	%100
3	M3	X	0	0	0	%100
4	M3	Z	0	0	0	%100
5	M7	X	0	0	0	%100
6	M7	Z	-.276	-.276	0	%100
7	M9	X	0	0	0	%100
8	M9	Z	-.276	-.276	0	%100
9	MP1A	X	0	0	0	%100
10	MP1A	Z	-.516	-.516	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	-.516	-.516	0	%100
13	MP4A	X	0	0	0	%100
14	MP4A	Z	-.516	-.516	0	%100
15	MP2A	X	0	0	0	%100
16	MP2A	Z	-.516	-.516	0	%100
17	MP5A	X	0	0	0	%100
18	MP5A	Z	-.516	-.516	0	%100
19	M18	X	0	0	0	%100
20	M18	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.291	.291	0	%100
2	M1	Z	-.503	-.503	0	%100
3	M3	X	.087	.087	0	%100
4	M3	Z	-.151	-.151	0	%100
5	M7	X	0	0	0	%100
6	M7	Z	0	0	0	%100
7	M9	X	.414	.414	0	%100
8	M9	Z	-.718	-.718	0	%100
9	MP1A	X	.258	.258	0	%100
10	MP1A	Z	-.447	-.447	0	%100
11	MP3A	X	.258	.258	0	%100
12	MP3A	Z	-.447	-.447	0	%100
13	MP4A	X	.258	.258	0	%100
14	MP4A	Z	-.447	-.447	0	%100
15	MP2A	X	.258	.258	0	%100
16	MP2A	Z	-.447	-.447	0	%100
17	MP5A	X	.258	.258	0	%100
18	MP5A	Z	-.447	-.447	0	%100
19	M18	X	.079	.079	0	%100
20	M18	Z	-.137	-.137	0	%100

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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.168	.168	0	%100
2	M1	Z	-.097	-.097	0	%100
3	M3	X	.453	.453	0	%100
4	M3	Z	-.262	-.262	0	%100
5	M7	X	.239	.239	0	%100
6	M7	Z	-.138	-.138	0	%100
7	M9	X	.957	.957	0	%100
8	M9	Z	-.553	-.553	0	%100
9	MP1A	X	.447	.447	0	%100
10	MP1A	Z	-.258	-.258	0	%100
11	MP3A	X	.447	.447	0	%100
12	MP3A	Z	-.258	-.258	0	%100
13	MP4A	X	.447	.447	0	%100
14	MP4A	Z	-.258	-.258	0	%100
15	MP2A	X	.447	.447	0	%100
16	MP2A	Z	-.258	-.258	0	%100
17	MP5A	X	.447	.447	0	%100
18	MP5A	Z	-.258	-.258	0	%100
19	M18	X	.412	.412	0	%100
20	M18	Z	-.238	-.238	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M3	X	.698	.698	0	%100
4	M3	Z	0	0	0	%100
5	M7	X	.829	.829	0	%100
6	M7	Z	0	0	0	%100
7	M9	X	.829	.829	0	%100
8	M9	Z	0	0	0	%100
9	MP1A	X	.516	.516	0	%100
10	MP1A	Z	0	0	0	%100
11	MP3A	X	.516	.516	0	%100
12	MP3A	Z	0	0	0	%100
13	MP4A	X	.516	.516	0	%100
14	MP4A	Z	0	0	0	%100
15	MP2A	X	.516	.516	0	%100
16	MP2A	Z	0	0	0	%100
17	MP5A	X	.516	.516	0	%100
18	MP5A	Z	0	0	0	%100
19	M18	X	.634	.634	0	%100
20	M18	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.168	.168	0	%100
2	M1	Z	.097	.097	0	%100
3	M3	X	.453	.453	0	%100
4	M3	Z	.262	.262	0	%100
5	M7	X	.957	.957	0	%100
6	M7	Z	.553	.553	0	%100
7	M9	X	.239	.239	0	%100
8	M9	Z	.138	.138	0	%100
9	MP1A	X	.447	.447	0	%100
10	MP1A	Z	.258	.258	0	%100
11	MP3A	X	.447	.447	0	%100
12	MP3A	Z	.258	.258	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
13	MP4A	X	.447	.447	0	%100
14	MP4A	Z	.258	.258	0	%100
15	MP2A	X	.447	.447	0	%100
16	MP2A	Z	.258	.258	0	%100
17	MP5A	X	.447	.447	0	%100
18	MP5A	Z	.258	.258	0	%100
19	M18	X	.412	.412	0	%100
20	M18	Z	.238	.238	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.291	.291	0	%100
2	M1	Z	.503	.503	0	%100
3	M3	X	.087	.087	0	%100
4	M3	Z	.151	.151	0	%100
5	M7	X	.414	.414	0	%100
6	M7	Z	.718	.718	0	%100
7	M9	X	0	0	0	%100
8	M9	Z	0	0	0	%100
9	MP1A	X	.258	.258	0	%100
10	MP1A	Z	.447	.447	0	%100
11	MP3A	X	.258	.258	0	%100
12	MP3A	Z	.447	.447	0	%100
13	MP4A	X	.258	.258	0	%100
14	MP4A	Z	.447	.447	0	%100
15	MP2A	X	.258	.258	0	%100
16	MP2A	Z	.447	.447	0	%100
17	MP5A	X	.258	.258	0	%100
18	MP5A	Z	.447	.447	0	%100
19	M18	X	.079	.079	0	%100
20	M18	Z	.137	.137	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	.775	.775	0	%100
3	M3	X	0	0	0	%100
4	M3	Z	0	0	0	%100
5	M7	X	0	0	0	%100
6	M7	Z	.276	.276	0	%100
7	M9	X	0	0	0	%100
8	M9	Z	.276	.276	0	%100
9	MP1A	X	0	0	0	%100
10	MP1A	Z	.516	.516	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	.516	.516	0	%100
13	MP4A	X	0	0	0	%100
14	MP4A	Z	.516	.516	0	%100
15	MP2A	X	0	0	0	%100
16	MP2A	Z	.516	.516	0	%100
17	MP5A	X	0	0	0	%100
18	MP5A	Z	.516	.516	0	%100
19	M18	X	0	0	0	%100
20	M18	Z	0	0	0	%100

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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.291	-.291	0	%100
2	M1	Z	.503	.503	0	%100
3	M3	X	-.087	-.087	0	%100
4	M3	Z	.151	.151	0	%100
5	M7	X	0	0	0	%100
6	M7	Z	0	0	0	%100
7	M9	X	-.414	-.414	0	%100
8	M9	Z	.718	.718	0	%100
9	MP1A	X	-.258	-.258	0	%100
10	MP1A	Z	.447	.447	0	%100
11	MP3A	X	-.258	-.258	0	%100
12	MP3A	Z	.447	.447	0	%100
13	MP4A	X	-.258	-.258	0	%100
14	MP4A	Z	.447	.447	0	%100
15	MP2A	X	-.258	-.258	0	%100
16	MP2A	Z	.447	.447	0	%100
17	MP5A	X	-.258	-.258	0	%100
18	MP5A	Z	.447	.447	0	%100
19	M18	X	-.079	-.079	0	%100
20	M18	Z	.137	.137	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.168	-.168	0	%100
2	M1	Z	.097	.097	0	%100
3	M3	X	-.453	-.453	0	%100
4	M3	Z	.262	.262	0	%100
5	M7	X	-.239	-.239	0	%100
6	M7	Z	.138	.138	0	%100
7	M9	X	-.957	-.957	0	%100
8	M9	Z	.553	.553	0	%100
9	MP1A	X	-.447	-.447	0	%100
10	MP1A	Z	.258	.258	0	%100
11	MP3A	X	-.447	-.447	0	%100
12	MP3A	Z	.258	.258	0	%100
13	MP4A	X	-.447	-.447	0	%100
14	MP4A	Z	.258	.258	0	%100
15	MP2A	X	-.447	-.447	0	%100
16	MP2A	Z	.258	.258	0	%100
17	MP5A	X	-.447	-.447	0	%100
18	MP5A	Z	.258	.258	0	%100
19	M18	X	-.412	-.412	0	%100
20	M18	Z	.238	.238	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M3	X	-.698	-.698	0	%100
4	M3	Z	0	0	0	%100
5	M7	X	-.829	-.829	0	%100
6	M7	Z	0	0	0	%100
7	M9	X	-.829	-.829	0	%100
8	M9	Z	0	0	0	%100
9	MP1A	X	-.516	-.516	0	%100
10	MP1A	Z	0	0	0	%100
11	MP3A	X	-.516	-.516	0	%100
12	MP3A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
13	MP4A	X	-.516	-.516	0	%100
14	MP4A	Z	0	0	0	%100
15	MP2A	X	-.516	-.516	0	%100
16	MP2A	Z	0	0	0	%100
17	MP5A	X	-.516	-.516	0	%100
18	MP5A	Z	0	0	0	%100
19	M18	X	-.634	-.634	0	%100
20	M18	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.168	-.168	0	%100
2	M1	Z	-.097	-.097	0	%100
3	M3	X	-.453	-.453	0	%100
4	M3	Z	-.262	-.262	0	%100
5	M7	X	-.957	-.957	0	%100
6	M7	Z	-.553	-.553	0	%100
7	M9	X	-.239	-.239	0	%100
8	M9	Z	-.138	-.138	0	%100
9	MP1A	X	-.447	-.447	0	%100
10	MP1A	Z	-.258	-.258	0	%100
11	MP3A	X	-.447	-.447	0	%100
12	MP3A	Z	-.258	-.258	0	%100
13	MP4A	X	-.447	-.447	0	%100
14	MP4A	Z	-.258	-.258	0	%100
15	MP2A	X	-.447	-.447	0	%100
16	MP2A	Z	-.258	-.258	0	%100
17	MP5A	X	-.447	-.447	0	%100
18	MP5A	Z	-.258	-.258	0	%100
19	M18	X	-.412	-.412	0	%100
20	M18	Z	-.238	-.238	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.291	-.291	0	%100
2	M1	Z	-.503	-.503	0	%100
3	M3	X	-.087	-.087	0	%100
4	M3	Z	-.151	-.151	0	%100
5	M7	X	-.414	-.414	0	%100
6	M7	Z	-.718	-.718	0	%100
7	M9	X	0	0	0	%100
8	M9	Z	0	0	0	%100
9	MP1A	X	-.258	-.258	0	%100
10	MP1A	Z	-.447	-.447	0	%100
11	MP3A	X	-.258	-.258	0	%100
12	MP3A	Z	-.447	-.447	0	%100
13	MP4A	X	-.258	-.258	0	%100
14	MP4A	Z	-.447	-.447	0	%100
15	MP2A	X	-.258	-.258	0	%100
16	MP2A	Z	-.447	-.447	0	%100
17	MP5A	X	-.258	-.258	0	%100
18	MP5A	Z	-.447	-.447	0	%100
19	M18	X	-.079	-.079	0	%100
20	M18	Z	-.137	-.137	0	%100

Member Distributed Loads (BLC 87 : BLC 39 Transient Area Loads)

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]

Member Distributed Loads (BLC 87 : BLC 39 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	Y	-.002	-.002	2.917	7.292
2	M1	Y	-.002	-.002	7.292	11.667
3	M3	Y	-.019	-.019	.791	2.624
4	M7	Y	-.001	-.006	.717	2.15
5	M7	Y	-.006	-.011	2.15	3.583
6	M9	Y	-.001	-.006	.717	2.15
7	M9	Y	-.006	-.011	2.15	3.583

Member Distributed Loads (BLC 88 : BLC 40 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	Y	-.003	-.003	2.917	7.292
2	M1	Y	-.003	-.003	7.292	11.667
3	M3	Y	-.037	-.037	.791	2.624
4	M7	Y	-.002	-.012	.717	2.15
5	M7	Y	-.012	-.022	2.15	3.583
6	M9	Y	-.002	-.012	.717	2.15
7	M9	Y	-.012	-.022	2.15	3.583

Member Distributed Loads (BLC 90 : BLC 85 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	Z	-5.301e-5	-5.3e-5	2.917	7.292
2	M1	Z	-5.3e-5	-5.3e-5	7.292	11.667
3	M3	Z	-.0005726	-.0005726	.791	2.624
4	M7	Z	-3.127e-5	-.000188	.717	2.15
5	M7	Z	-.000188	-.0003447	2.15	3.583
6	M9	Z	-3.125e-5	-.000188	.717	2.15
7	M9	Z	-.000188	-.0003447	2.15	3.583

Member Distributed Loads (BLC 91 : BLC 86 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	5.301e-5	5.3e-5	2.917	7.292
2	M1	X	5.3e-5	5.3e-5	7.292	11.667
3	M3	X	.0005726	.0005726	.791	2.624
4	M7	X	3.127e-5	.000188	.717	2.15
5	M7	X	.000188	.0003447	2.15	3.583
6	M9	X	3.125e-5	.000188	.717	2.15
7	M9	X	.000188	.0003447	2.15	3.583

Member Area Loads (BLC 39 : Structure D)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]
1	N32	N34	N33	N31	Y	Two Way	-.005

Member Area Loads (BLC 40 : Structure Di)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]
1	N32	N34	N33	N31	Y	Two Way	-.01

Member Area Loads (BLC 84 : Structure Ev)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]
1	N32	N34	N33	N31	Y	Two Way	0

Member Area Loads (BLC 85 : Structure Eh (0 Deg))

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]
1	N32	N34	N33	N31	Z	Two Way	-.000156

Member Area Loads (BLC 86 : Structure Eh (90 Deg))

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]
1	N32	N34	N33	N31	X	Two Way	.000156

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N38A	max	1323.085	10	1930.059	21	1887.023	1	-3.481	64	8.339	9	7.165	28
2		min	-1323.087	4	694.504	66	-1887.022	7	-10.168	19	-8.252	3	-.339	49
3	Totals:	max	1323.085	10	1930.059	21	1887.023	1						
4		min	-1323.087	4	694.504	66	-1887.022	7						

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

	Member	Shape	Code C...	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-...	phi*Mn z-...	Cb	Eqn
1	M1	PIPE 3.5	.987	7.444	27	.200	7.444		7	33093.107	78750	7.954	7.954	2...	H1-1b
2	M3	HSS4X4X4	.716	3.417	32	.567	3.417	y	28	132865.6...	139518	16.181	16.181	1...	H3-6
3	M7	L4X4X4	.047	0	5	.004	0	y	11	46815.38	62532	3.138	6.715	2...	H2-1
4	M9	L4X4X4	.047	0	9	.004	0	z	9	46815.38	62532	3.138	6.715	2...	H2-1
5	MP1A	PIPE 2.0	.732	4.034	7	.099	4.034		5	17730.272	32130	1.872	1.872	1...	H1-1b
6	MP3A	PIPE 2.0	.141	3.099	7	.019	3.099		7	17605.599	32130	1.872	1.872	2...	H1-1b
7	MP4A	PIPE 2.0	.037	3.888	6	.004	3.888		6	17730.272	32130	1.872	1.872	1...	H1-1b
8	MP2A	PIPE 2.0	.080	3.375	1	.019	3.375		5	20866.733	32130	1.872	1.872	1...	H1-1b
9	MP5A	PIPE 2.0	.322	3.888	7	.054	3.888		4	17730.272	32130	1.872	1.872	1...	H1-1b
10	M18	HSS4X4X4	.886	1.583	27	.567	1.583	y	28	138061.8...	139518	16.181	16.181	1...	H3-6

VzW SMART Tool© Vendor

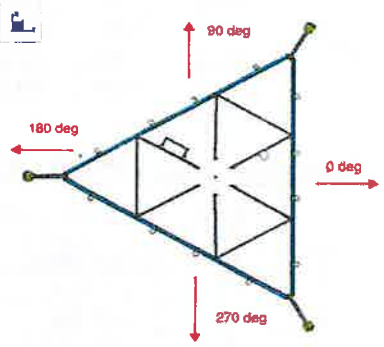
Client:	Verizon Wireless	Date:	7/6/2023
Site Name:	DANIELSON CT		
MDG #:	5000247214		
Fuze ID #:	17123692	Page:	1

Version 1.01

I. Mount-to-Tower Connection Check

Custom Orientation Required — Yes

Nodes (labeled per Risa)	Orientation (per graphic of typical platform)
N38A	0



Tower Connection Bolt Checks — No

Tower Connection Baseplate Checks — No

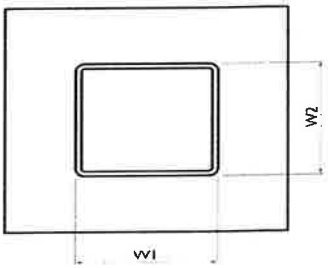
VzW SMART Tool© Vendor

Client:	Verizon Wireless	Date:	7/6/2023
Site Name:	DANIELSON CT		
MDG #:	5000247214		
Fuze ID #:	17123692	Page:	2

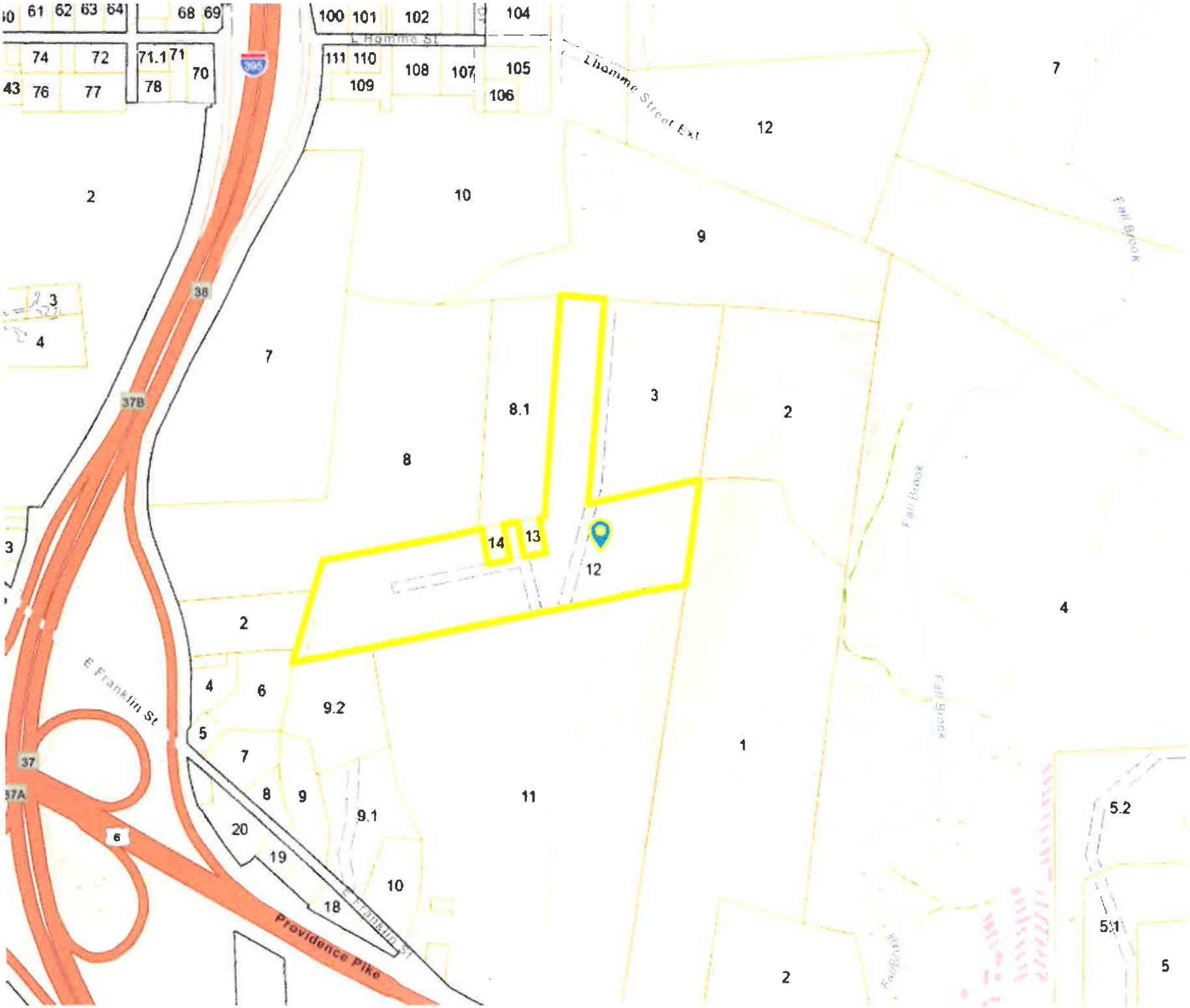
Version 1.01

Tower Connection Weld Checks

	Yes
Weld Shape:	**Rectangle**
Weld Stiffener Configuration:	**None**
Stiffener Notch Length, n (in):	**0**
Weld Size (1/16 in):	**4**
W1 (in):	**4**
W2 (in):	**5**
Weld Total Length (in):	18.00
Z_x (in^3/in):	28.33
Z_y (in^3/in):	25.33
J_p (in^4/in):	121.50
c_x (in)	2
c_y (in)	2.5
Required combined strength (kip/in):	4.67
Weld Capacity (kip/in):	5.57
Weld Utilization:	**83.9%**



ATTACHMENT 4


E Franklin St
Providence Pike
E Hamme St
E Hamme Street Ext
Fall Brook
Fall Brook
Fall Brook
Fall Brook
395
38
37B
37
37A
6
14
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12
8.1
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9.2
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5.1
5.2

The Assessor's office is responsible for the maintenance of records on the ownership of properties. Assessments are computed at 70% of the estimated market value of real property at the time of the last revaluation which was 2018.

Information on the Property Records for the Municipality of Killingly was last updated on 8/7/2023.

Parcel Information

Location:	246 E FRANKLIN ST	Property Use:	Residential	Primary Use:	Residential
Unique ID:	2601	Map Block Lot:	216-12	Acres:	17.0000
490 Acres:	0.00	Zone:	RD	Volume / Page:	1355/0728
Developers Map / Lot:		Census:	9041-4017		

Value Information

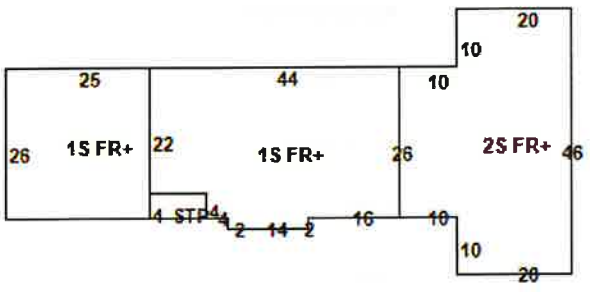
	Appraised Value	Assessed Value
Land	109,290	78,470
Buildings	277,170	172,520
Detached Outbuildings	1,640	1,150
Total	388,100	252,140

Owner's Information

Owner's Data

HUTCHINS CHARLES R LU &
MARTEL AMANDA TRUSTEE
CHARLES R HUTCHINS IRREVOCABLE TRUST
246 E FRANKLIN ST
KILLINGLY, CT 06239

Building 1



Building Use:	Single Family	Style:	Ranch	Living Area:	4,142
Stories:	1.00	Construction:	Wood Frame	Year Built:	1960
Total Rooms:	9	Bedrooms:	4	Full Baths:	2

ATTACHMENT 5

Verizon/Danielson

UNITED STATES POSTAL SERVICE®

Certificate of Mailing — Firm

Name and Address of Sender	TOTAL NO. of Pieces Listed by Sender	TOTAL NO. of Pieces Received at Post Office™	Affix Stamp Here *Postmark with Date of Receipt.*
Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103	3	3	neopost 08/09/2023 US POSTAGE $003.19⁰ ZIP 06103 041L12203937
	Postmaster, per *(name of receiving employee)*		

USPS® Tracking Number / Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1.	Mary Calorio, Town Manager Town of Killingly 172 Main Street Killingly, CT 06239				
2.	Ann-Marie Aubrey, Director of Planning and Zoning Town of Killingly 172 Main Street Killingly, CT 06239				
3.	Charles P. Hutchins & Amanda Martel, Trustees Charles P. Hutchins Irrevocable Trust 246 East Franklin Killingly, CT 06239				
4.					
5.					
6.					

OLD STATE HOUSE POST OFFICE AUG 09 2023 HARTFORD CT 06103

See Reverse for Instructions