Robinson+Cole

KENNETH C. BALDWIN

280 Trumbull Street Hartford, CT 06103-3597 Main (860) 275-8200 Fax (860) 275-8299 kbaldwin@rc.com Direct (860) 275-8345

Also admitted in Massachusetts and New York

August 11, 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 11 (a/k/a 1) Filbert Road, Norwalk, 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 water tank. 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 May of 1993 (Petition No. 305). A copy of the Council's Petition No. 305 staff report is included in <u>Attachment 1</u>.

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 <u>Attachment 2</u>.

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 Norwalk'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 antenna mounting assembly.

Robinson+Cole

Melanie A. Bachman, Esq. August 11, 2023 Page 2

- 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 water tank structure and antenna mounting assembly can support Cellco's proposed modifications. A copy of the SA and MA are included in <u>Attachment 3</u>.

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

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

Kunie mu

Enclosures Copy to:

Harry Rilling, Mayor Steven Kleppin, Director of Planning and Zoning The First Taxing District, Property Owner Kamoya Bautista De Leon, Verizon Wireless

ATTACHMENT 1

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

136 Main Street, Suite 401 New Britain, Connecticut 06051-4225 Phone: 827-7682

Petition No. 305

Metro Mobile of Fairfield County, Inc.
Installation of cellular telecommunications
antennas and equipment building at a water tank
located in the Town of Norwalk, Connecticut.
Staff Report
May 6, 1993

Metro Mobile of Fairfield County, Inc. (Metro Mobile), is petitioning the Council under the regulations of State Agencies 16-50j-38 through 40 for a declaratory ruling that the installation of certain cellular telecommunications antennas on the sides of an existing water tank and construction of an equipment building adjacent to the base of the water tank will not have a substantial adverse environmental effect and, therefore, does not require a Certificate of environmental compatibility and public need from the Council. On April 30, 1993, Chairman Mortimer A. Gelston of the Connecticut Siting Council (Council), and Fred Cunliffe of the Council's staff reviewed this petition.

Metro Mobile proposes to install six panel antennas with reflectors, approximately three and one-half by one and one-half feet, around the sides of a water tank located at the end of Filbert Road in Norwalk, Connecticut. This existing water tank site is fenced, surrounded by vegetation, and is in a residential area. The existing water tank stands approximately 130 feet to which the antennas would be attached directly to the tank's support legs reaching an approximate total height of 119 feet above ground level Metro Mobile also proposes to construct a 500 square foot equipment building directly beneath the water tank. Exact dimensions would be governed by the confined space under the tower and final approval by the property owner. No clearing or landscaping would be necessary. Metro Mobile states that a building permit would be pursued following a Council ruling.

Metro Mobile contends that this project will have no effect on the ecology of the site, non-ionizing radio frequency will be below the DEP State standard, the proposed installation will not increase noise levels at the site boundary by six decibels or more, and the site boundaries will not be expanded by the project.

In conclusion, Metro Mobile requests that the Council issue a determination that the proposed project will not have a substantial adverse environmental effect and, therefore, does not require a Certificate from the Council. Staff is in agreement with the contentions of Metro Mobile and recommends approval of this petition.

Fred Cunliffe Siting Analyst

ATTACHMENT 2



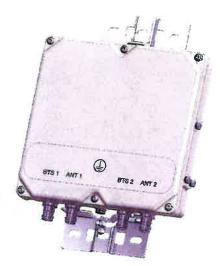
BSF0020F3V1-1

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



BAND NAME	708 PATH / 850 UPLINK PATH	850 BOWNLINK 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, 1	8dB minimum				
Maximum input power (Per Port)	100W average	200W average and 66W per 5MHz				
Rejection	53dB minimum @ 8	894.1 - 896.5MHz				
ELECTRICAL						
Impedance	50OI	hms				
Intermodulation products	-160dBc maximum in UL Band (assuming -153dBc maximun	20MHz Signal), with 2 x 43dBm carriers n with 2 x 43dBm				
DC / AISG						
Passband	0 - 13	MHz				
Insertion loss	0.3dB m	aximum				
Return loss	15dB m	inimum				
Input voltage range	15dB minimum ± 33V	3V				
DC current rating	2A continuou	us. 4A peak				
Compliance	3GPP TS	3 25.461				
ENVIRONMENTAL						
For further details of environmental co	mpliance, please contact Kaelus					
Temperature range	-20°C to +60°C i	-20°C to +60°C j -4°F to +140°F				
Ingress protection	n IP67 2600m 8530ft ion RF port: ±5kA maximum (8/20us), IEC 61000-4-5 – Unit must be terminated with some lightr >1,000,000 hours	57				
Altitude						
Lightning protection		oust be terminated with some lightning protection circuits				
MTBF		00 hours				
Compliance	ETS! 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 3.15	5in (Excluding brackets and connectors)				
Weight	8.0 kg 17.6 lbs	s (no bracket)				

Powder coated, light grey (RAL7035)

RF: 4.3-10 (F) x 4

Optional pole/wall bracket supplied with two metal clamps 45-178mm diameter poles or custom bracket. See ordering

information.

Finish

Connectors

Mounting

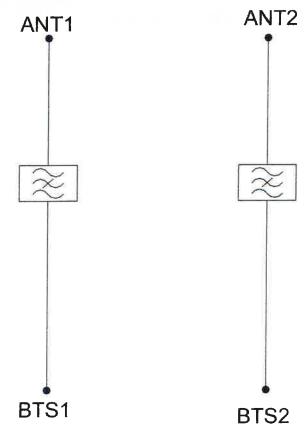


ORDERING INFORMATION

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

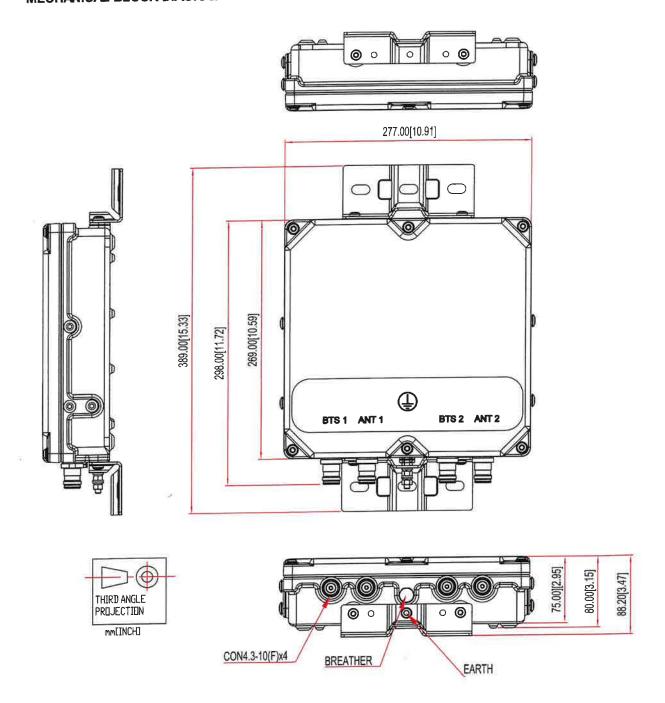


ELECTRICAL BLOCK DIAGRAM





MECHANICAL BLOCK DIAGRAM



ATTACHMENT 3





Structural Analysis Report

Location Code: 467460
Site Name: E NORWALK CT
Fuze Project ID: 17015884
Project Name: RF FILTER ADD
Address: 1 Filbert Street

Norwalk, CT 06851

Client:



Date: 08/08/2023





Scope of Work:

Centerline Communications was authorized by Verizon Wireless to perform an analysis of the existing structure to determine its capacity to support the proposed and existing Verizon Wireless appurtenances listed in this report.

Proposed Appurtenances:

(2) RF Kaelus KA-6030 Filters (Gamma Sector)

Existing Appurtenances:

- (3) Samsung XXDWMM-12.5-65-8T-CBRS
- (3) Samsung MT6407-77A Antennas
- (6) CommScope JAHH-65B-R3B Antennas
- (1) Amphenol BXA-80063-6BF-EDIN-0 Antenna
- (2) Amphenol BXA-80063-6BF-EDIN-4 Antennas
- (3) CommScope CBC78T-DS-43-2X Diplexers
- (3) Samsung B2/B66A RRH-BR049 RRHs
- (3) Samsung B5/B13 RRH-BR04C RRHs
- (6) Raycap RHSDC-1064-PF-48



Design Criteria:

Design Codes:

2022 CT State Building Code 2021 International Building Code ASCE 7-16 TIA-222-H Standards AWWA D100-11

Nominal Design Wind Speed (Vasd)	101 mph
Wind Speed with Ice	50 mph
Ice Thickness	1.0 in.
Exposure Category	С
Topographic Category	1
Risk Category	III
Site Soil Class (Assumed)	D – Stiff Soil
Seismic Design Category	В
Spectral Response Acceleration Parameter at a Short Periods, Ss	0.240 g
Spectral Response Acceleration Parameter at a Period of 1 Second, S ₁	0.056 g
Short Period Site Coefficient, Fa	1.60
Long Period Site Coefficient, F _v	2.40

^{*}Refer to calculations for additional design criteria.

Conclusion:

Based on the results of the analysis, we have determined that the existing structure is adequate to support the proposed Verizon Wireless Appurtenances. The maximum increase in the vertical loading on the existing water tank is 0.09%, which is less than the allowable 5% increase per 2021 IEBC Section 502.4. The maximum increase in the lateral loading on the existing water tank is 3.34%, which is less than the allowable 10% increase per 2021 IEBC Section 502.5.



Reference Documents:

- Structural Analysis by PBA Engineering, P.C., dated 05/27/2021
- Construction Drawings by On Air Engineering, LLC., dated 05/12/2021
- Mount Analysis by Colliers Engineering & Design, dated 07/17/2023

Assumptions and Limitations:

- The calculations performed by Centerline Communications are limited to the structural members in these calculations only.
- The analysis is only for the Verizon Wireless equipment loading listed in the report.
- The calculation assumes all structural members to be in good condition i.e., no damage, rust, or other defects.



Design Calculations



750 West Center Street, Suite 301 West Bridgewater, MA 02379

S 781,713.4725

Water Tank Analysis

1000	Site Details
Site Name	E NORWALK CT
Site ID	
Carrier	Verizon
Date	8/7/2023
Project	RF Filter Add

	Code
Building Code	2021 IBC
State Building Code	2022 CT Building Code
ANSI/AWWA Code	D100-11

	Design Parameters	
Basic Wind Speed, V =	101 m	mph
Exposure Category =	C C	
Importance Factor, I =	1.15	
Height of structure, h =	126.5 ft	į.
Gust Effect Factor G =	1	

(Section 3.1.4.1 or specified)
(Section 26.7.3)
(Section 3.1.4)

(Section 3.1)

	psf	psf	psf
Velocity Pressure	0.00256 K, I V ²	0.00256 I V ²	30.03
Company Tales	d _z =	q ₂ '=	d ^z ,=

(Eq. 3-2) (Kz is evaluated at height z)



750 West Center Street, Suite 301 West Bridgewater, MA 02379

Z 781.713.4725

Existing and Proposed Equipment/Mounts Wind Loads:

≜				i		Ī			h				ā				8	8
Total OTM, R)	OND STORY	6545	5097	51784	92202	21762	21762	5687	9559	9559	11386	54619	9521	53821	34520	116	624	414779.0
Total Fx (Az. Adjusted) (Ib)		62	44	458	809	205	205	54	06	06	107	479	84	472	303		5	
Fx (lb)		31	29	153	270	205	205	18	09	09	36	160	28	157	101	0	2	
Pw (psf)	J. J. S. S.	88	68	68	68	38	38	38	38	38	38	23	23	39	39	39	39	
Ar (m²)		08'0	0.74	3.92	6.90	5.34	5.34	0.46	1.56	1.56	0.93	6.81	1.19	4.03	2.58	0.01	0.05	
R	Verizon	1.28	1.31	1.30	1.30	1.28	1.28	1.28	1.28	1.28	1.28	1.30	1.30	1.30	1.30	1.30	1.30	
ct.		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	9.0	9.0	1.0	1.0	1.0	1.0	
Weight (Ibs/Qty)		17.6	23.1	87.1	67.4	19.2	19.2	20.7	97.5	82.0	14.0	196.2	22.0	79.8	51.2	0.7	1.1	3617
W (in)		10.9	8.7	16.06	13.8	11.2	11.2	6.9	15	15	10	4.5	2.375	4	4	2.5	12	
(m) H		10.6	12.3	35.12	72	9.89	9'89	9.7	15	15	13.4	218	72	145	93	0.5	0.56	
t (ft)		106	116.5	113	114	106	106	106	106	106	106	114	114	114	114	114	114	
ATO OTA		2	3	ж	9	,,	7	3	3	3	9	9	9	9	9	9	9	Total
Equipment/Mount	1800 W/186	KA-6030	XXDWMM-12.5-65-8T-CBR	MT6407-77A	JAHH-65B-R3B	BXA-80063-6BF-EDIN-0	BXA-80063-6BF-EDIN-4	CBC78T-DS-43-2X	B2/B66A RRH-BR049	B5/B13 RRH-BR04C	RHSDC-1064-PF-48	Pipe_4.0x 218"	Pipe_2.0x72"	L4x4x4 x145"	L4x4x4 x93"	PL10x1/2 x 2.5"	PL12x9/16 x12"	1000 1000

^{*}Equipment with no provided dimension were assumed.



750 West Center Street, Suite 301 West Bridgewater, MA 02379

781.713.4725

Existing and Proposed Feedlines:

6 53 1272 1.825 457.3 0.6 1.11 16.12 2 53 1272 1 87.8 0.6 1.11 8.83 3 53 1272 0.55 31.4 0.6 1.11 4.86 3 53 1272 1.42 145.3 0.6 1.11 4.86 6 4.5 108 1.825 38.8 0.6 1.09 1.37	Feedlines	Vilo	(u) z	H (Ih)	W (in)	Weight (Ibs)	O	234	Arthi	Pw* (pst)	Fx (Ib)	Total Fx (Ib)	Total OTM, (lb- R)
H 6 53 1272 1.825 457.3 0.6 1.11 16.12 16.12 A 53 1272 1 87.8 0.6 1.11 8.83 1 IM 3 53 1272 0.55 31.4 0.6 1.11 4.86 1 IM 3 53 1272 1.42 145.3 0.6 1.11 12.54 1 IH 6 4.5 108 1.825 38.8 0.6 1.09 1.37 1		8						Verizon					CO. W.
3 53 1272 1 87.8 0.6 1.11 8.83 8.83 2 53 1272 0.55 31.4 0.6 1.11 4.86 7 3 53 1272 1.42 145.3 0.6 1.11 12.54 6 4.5 108 1.825 38.8 0.6 1.09 1.37	5/8" FH	9	53	1272	1.825	457.3	9.0	1.11	16.12	20	322	643	34094
2 53 1272 0.55 31.4 0.6 1.11 4.86 8 3 53 1272 1.42 145.3 0.6 1.11 12.54 1.54 6 4.5 108 1.825 38.8 0.6 1.09 1.37	/8" FH	3	53	1272	1	87.8	9.0	1.11	8.83	70	176	176	9341
3 53 1272 1.42 145.3 0.6 1.11 12.54 6 4.5 108 1.825 38.8 0.6 1.09 1.37	/2" FH	2	53	1272	0.55	31.4	9.0	1.11	4.86	20	- 6	97	5137
6 4.5 108 1.825 38.8 0.6 1.09 1.37	1/4" SM	3	53	1272	1.42	145.3	9.0	1.11	12.54	20	250	250	13264
	5/8" FH	9	4.5	108	1.825	38.8	9.0	1.09	1.37	20	72	54	242
Total 761	2 Table 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Total				192							31039.3

^{*}Shielding of Members by Existing Equipment/Mount/Shroud is considered.

^{*}Weights and sizes are assumed.

Z 781.713,4725



Tank Dead Loads:

Tank Members	any	2 (11)	H (in)	W (in)	D or Thickness (in)	Volume (ft ³)	Weight (lbs)
	10.00		Round	Member			
Tank	1	84.3333					445800
1/2 Water	1	53					4170000
		Tot	TE .				0085199

^{*}Weight based on SA by PBA Engineering, dated 5/27/2021

Tank Wind Loads:

Equipment/Mount	Qty	c (ft)	H (in)	W.(in)	ø	Af (fit)	1/3	Pw (psf)	Fx (lb)	Total Fx (Ib)	Total OTM, (lb- ft)
			A 19		Round Mer	mbers					
Tank	1	84.3333			9.0	7197.00	1.22	22.00 158346	158346	158346	13353846
The same of the same		1 1 1 1 THE			Total						13353846

^{*}EPA based on SA by PBA Engineering, dated 5/27/2021



750 West Center Street, Suite 301 West Bridgewater, MA 02379

781.713.4725

Tank Dead Loads:		
Total Weight of the Water Tank (1/2 Tank Full)	11	
Tank Wind Loads:		
Approx. Total OTM at the Base of the Tank	n	
Equipment/Mount & Equilipes Dood Londer		
Equipment, Mount & recumies Dead Loads.		
Total Equipment/Mounts & Feedlines Dead Load	u	
Equipment/Mount & Feedlines Wind Loads:		
Approx. Total OTM at the Base of the Tank	11	
Dead Load Check:		
% Increase in Dead Load (1/2 Tank Full)	= 0.0	%60.0
Wind Load Check:		

4378 lbs.

13353846 lb-ft

4615800 lbs.

히

2%

VI

445818.3 lb-ft

ŏ

10%

VI

3.34%

H

% Increase in Wind Load





Colliers Engineering & Design CT, P.C. 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 #: 10207184 Colliers Engineering & Design CT, P.C. Project #. 23777168

July 17, 2023

Site Information

Site ID:

5000105081-VZW / East Norwalk CT

Site Name:

East Norwalk CT Verizon Wireless

Carrier Name: Address:

1 Filbert St.

Norwalk, Connecticut 06851

Fairfield County

Latitude:

41.118430°

Longitude:

-73.396508°

Structure Information

Tower Type:

127-Ft Water Tank

Mount Type:

18.2-Ft Pipe Mount (Gamma Sector)

FUZE ID # 17015884

Analysis Results

Pipe Mount: 21.8% 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: Prasanna Dhakal



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: 323813, dated October 9, 2020
Mount Mapping Report	Tower Engineering Professionals, Site ID: 467460, dated December 10, 2020
Antenna Mount Post-Modification Inspection Report	Maser Consulting Connecticut, Project #: 20777278A, dated June 20, 2022
Final Loading Configuration	Filter Add Scope Provided by Verizon Wireless

Analysis Criteria:

Codes	and	Standards:	Δ

ANSI/TIA-222-H

2022 Connecticut State Building Code (CSBC), Effective October 1, 2022

Wind Parameters:

Basic Wind Speed (Ultimate 3-sec. Gust), VULT: 130 mph Ice Wind Speed (3-sec. Gust): 50 mph Design Ice Thickness: 1.00 in Risk Category: Ш **Exposure Category:** В Topographic Category: 1 Topographic Feature Considered: N/A Topographic Method: N/A Ground Elevation Factor, Ke: 0.996 Ss: 0.240 q S₁: 0.056 gWind Speed (3-sec. Gust): N/A

Maintenance Parameters:

Seismic Parameters:

Wind Speed (3-sec. Gust):

Maintenance Load, Lv:

Maintenance Load, Lm:

N/A

Analysis Software:

RISA-3D (V17)

Final Loading Configuration:

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

Gamma Sector										
Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status					
	116.50	1	Samsung	XXDWMM-12.5-65-8T-CBRS*						
	114.00	2	Commscope	JAHH-65B-R3B						
	113.00	1	Samsung	MT6407-77A*						
	106.00	1 Amphenol	Amphenol	BXA-80063-6BF-EDIN-4*						
		1	Commscope	CBC78T-DS-43-2X	Retained					
106.00		1	Samsung	B2/B66A RRH-BR049						
		1	Samsung	B5/B13 RRH-BR04C						
		1	Raycap	RHSDC-1064-PF-48						
		1	Raycap	RHSDC-1064-PF-48*						
		2	KAelus	KA-6030	Added					

Alpha and Beta Sectors										
Mount Elevation (ft)	Equipment Quantity Manufacture (ft)		Manufacturer	Model	Status					
***	116.50	2	Samsung	XXDWMM-12.5-65-8T-CBRS**						
	114.00 4		Commscope	JAHH-65B-R3B**						
	113.00	2	Samsung	MT6407-77A**						
	106.00 1 1 1 2 2 2 2 2 2	1	Amphenol	BXA-80063-6BF-EDIN-4**						
106.00		1	Amphenol	BXA-80063-6BF-EDIN-0**	Retained					
100.00		2	Commscope	CBC78T-DS-43-2X**						
		2	Samsung	B2/B66A RRH-BR049**						
		2	Samsung	B5/B13 RRH-BR04C**						
		4	Raycap	RHSDC-1064-PF-48**						

^{*} Equipment not considered in this mount analysis.

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

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

Standard Conditions:

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

^{**} Equipment not considered in this mount analysis. Gamma Sector mount was analyzed, as it is the worst-case loading.

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

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

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

- 3. For mount analyses completed from other data sources (including new replacement mounts) and not specifically mapped in accordance with the NSTD-446 Standard, the mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.
- 4. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
- 5. The mount was checked up to, and including, the bolts that fasten it to the mount collar/attachment and threaded rod connections in collar members if applicable. Local deformation and interaction between the mount collar/attachment and the supporting tower structure are outside the scope of this analysis.
- 6. All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. Colliers Engineering & Design CT, P.C. is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.
- 7. Structural Steel Grades have been assumed as follows, if applicable, unless otherwise noted in this analysis:

o Channel, Solid Round, Angle, Plate ASTM A36 (Gr. 36)

ASTM 500 (Gr. B-46)

HSS (Rectangular)

ASTM A53 (Gr. B-35)

PipeThreaded 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 CT, P.C..

Analysis Results:

Pipe Mount (Gamma Sector)							
Component	Utilization %	Pass/Fail					
Mount Pipe	21.8%	Pass					
Equipment Pipe	9.2%	Pass					
Threaded Rod	10.3%	Pass					
Top Plate	16.5%	Pass					
Bottom Plate	4.7%	Pass					
Kicker	18.1%	Pass					

Structure Rating – (Controlling Utilization of all Components)
--

Mount Structural Analysis Report (1) 18.2-Ft Pipe Mount (Gamma Sector)

July 17, 2023 Site ID: 5000105081-VZW / East Norwalk CT Page | 5

Requirements:

The existing mount is SUFFICIENT for the final loading configu	juration shown in attachment 2 and do not require
modifications. Additional requirements are noted below.	

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

MDG #: 5000105081

SMART Project #: 10207184

Fuze Project ID: 17015884

<u>Purpose</u> – 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
 - o 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
 - o 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.
- O 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.
	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.
Specia	I Instructions / Validation as required from the MA or any other information the contractor
deems	necessary to share that was identified:
<mark>lssue:</mark>	
Brundson.	
Respo	nse:
Specia	Il Instruction Confirmation:
	\square The contractor has read and acknowledges the above special instructions.
	\square 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 th	nat the climbing facility / s	afety climb was not damaged prior to starting work:
	□ No	
Contractor certifies no	new damage created du	ring the current installation:
☐ Yes	□ No	
Contractor to certify t	he condition of the safety	climb and verify no damage when leaving the site:
☐ Safety Climb	in Good Condition	☐ Safety Climb Damaged
Certifying Individual:		
Compan Employee Nam Contact Phon Ema	e:e:	
Dat	e:	

Structure: 5000105081-VZW - East Norwalk CT

Sector:

С Structure Type: Water Tank

10207184

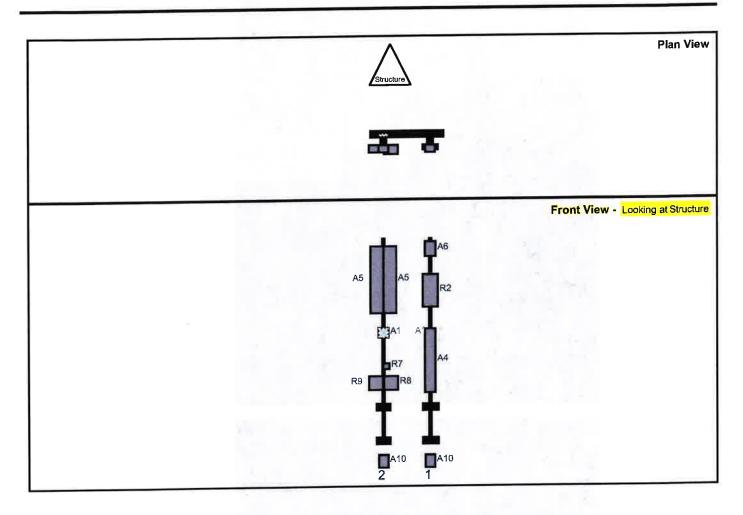
7/14/2023

Colliers Engineering & Design

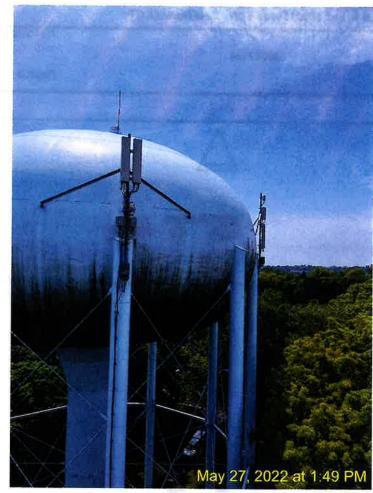
Mount Elev:

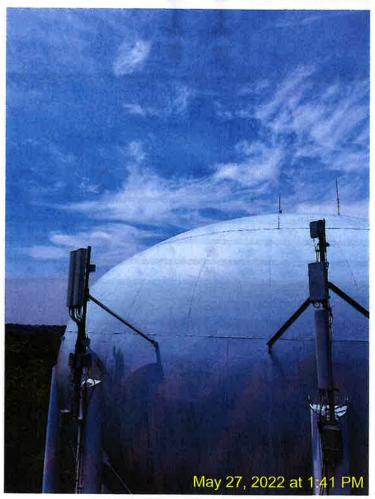
106.00

Page: 3



Ref#	Model		Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A4	BXA-80063-6BF-EDIN-4		68.6	11.2	65	1	а	Front	132	0	Retained	05/27/2022
A6	XXDWMM-12.5-65-8T-CBRS		16.2	11.4	65	1	а	Front	12	0	Retained	05/27/2022
R2	MT6407-77A		35.1	16.1	65	1	а	Front	57	0	Retained	05/27/2022
A10	RHSDC-1064-PF-48		13.6	10.2	65	1	а	Front	240	0	Retained	05/27/2022
A5	JAHH-65B-R3B	24 4	72	13.8	15	2	а	Front	45	7	Retained	05/27/2022
A5	JAHH-65B-R3B	district to the state of	72	13.8	15	2	b	Front	45	-7	Retained	05/27/2022
A1	KA-6030	Miscrett.	10.6	10.9	15	2	а	Front	102	0	Added	
A1	KA-6030	19 Sept. 18	10.6	10.9	15	2	b	Behind	102	0	Added	
R7	CBC78T-DS-43-2X	FIGURE STATE	6.4	6.9	15	2	а	Front	138	3	Retained	05/27/2022
R8	B2/B66A RRH-BR049		15	15	15	2	а	Front	156	8	Retained	05/27/2022
R9	B5/B13 RRH-BR04C	The second	15	15	15	2	а	Front	156	-8	Retained	05/27/2022
A10	RHSDC-1064-PF-48		13.6	10.2	15	2	а	Front	240	0	Retained	05/27/2022



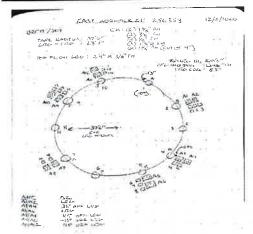


32.15



				FCC #		
Antenna Mount Mapping Form (PATENT PENDING)						
Tower Owner:	First Taxing District of the City of Norwalk	Mapping Date:		0/2020		
Site Name:	East Norwalk CT	Tower Type:	0	ther		
Site Number or ID:	467460	Tower Height (Ft.):				
Mapping Contractor:	TEP	Mount Elevation (Ft.):		nublication.		

This antenna mapping form is the property of TES and under PATENT PENDING. The formation contained herein is considered confidential in nature and is to be used only for the specific customer it was intended for. Reproduction, transmission, publication modification or disclosure by any method is prohibited except by express written permission of TES, All means and methods are the responsibility of the contractor and the work shall be compliant with ANSI/ASSE A 10.48, OSHA, FCC, FAA and other safety requirements that may apply. TES is not warrantying the usability of the safety climb as it must be assessed prior to each use in compliance with OSHA requirements.



Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension	Horizontal Offset "C1, C2, C3, etc."	Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension	Horizontal Offset "C1, C2, C3, etc.
A1	4.5"Øx0.237"x218"	180.00		C1	4.5"Øx0.237"x218"	180.00	
A2	4 5"Øx0.237"x218"	180.00		CZ	4.5"Øx0.237"x218"	180.00	
A3			- 0	C3		200	
A4	A			C4			
A5				C5			
A6	The state of the s			C6			
81	4.5"Øx0.237"x218"	180.00		01			
B2	4.5"Øx0.237"x218"	180.00		D2			
B3				03			
B4				D4			_
B5				05			
B6				D6			
	Distance between bottom ra	il and moun	it CL elevati	on (dim d). Unit is inches. See 'Mount Elev Ref' tab	for details.	18.00
1	Distance from 1	op of botto	m support r	ail to low	est tip of ant./eqpt. of Carrier above. (N/A est tip of ant./eqpt. of Carrier below. (N/A	If > 10 IL)	

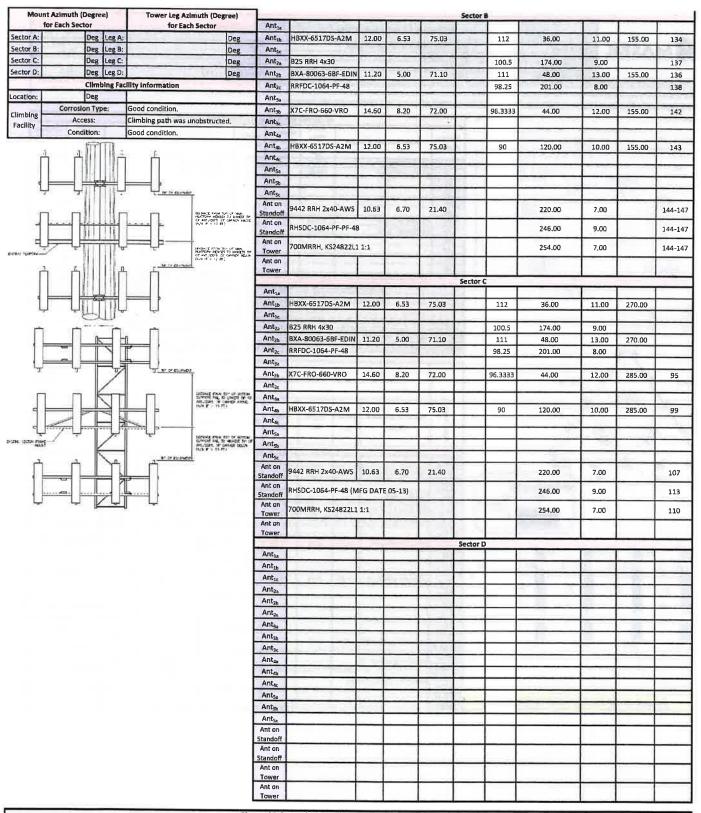
Please enter additional infomation or comments below. ant 1b is the top antenna on the first leg of the sector. Ant 2b is the bottom antenna on the first leg of the sector. Ant3b is the top antenna on the second leg of the sector. Ant4b is the bottom antenna on the first leg of the sector Bottom antenna center line 104.5°. Top antenna center line 110°

37.5 Tower Leg Size or Pole Shaft Diameter at Mount Elev. (in.): Tower Face Width at Mount Elev. (ft.):

SECTOR C SECTOR B FACE B LEG C LEG B LEG A

	Enter antenna model. If not labeled, enter "Unknown".			Mounting Locations [Units are inches and degrees]			Photos of antennas			
Ants. Items	Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty		Vertical Distances"b _{1a} , b _{2a} , b _{3a} , b ₁₆ " (Inches)	Horiza Offset "h" (Use "-" if Ant. is behind)	Antenna Azimuth (Degrees)	Photo Numbers
					Sector A					
Ant ₁₄										
Ant _{1b}	HBXX-6517DS-A2M	12.00	6.53	75.03		112	36.00	11.00	20.00	76
Antic										
Ant _{2a}	B2S RRH 4x30					100.5	174.00	9.00		81
Ant _{2h}	BXA-80063-6BF-EDIN	11.20	5.00	71.10		111	48.00	13.00	20.00	79
Ant _{2c}	RRFDC-1064-PF-48 (M	FG DATE	03-14)			98.25	201.00	8.00		84
Anta										
Ant _{3b}	X7C-FRO-660-VRO	14.60	8.20	72.00		96.3333	44.00	12.00	45.00	126
Anta										
Ant										
Ant _{4b}	HBXX-6517DS-A2M	12.00	6.53	75.03		90	120.00	10.00	45.00	127
Ant _{4c}										
Antsa										
Ant _{5b}										
Ant _{3c}										
Ant on Standoff	9442 RRH 2x40-AWS	10.63	6.70	21.40			220.00	7.00		128-130
Ant on Standoff	RHSDC-1064-PF-PF-48					Y T	246.00	9.00		128-130
Ant on Tower	700MRRH, KS24822L3	1:1					254.00	7.00		128-130
Ant on Tower										

84	Antu A	Antie A	Anta £	Antio	Ants
L	ž I	<u> </u>	ــ قــ		
		-		11	-22-
Q1	Antie	Antas	Antx	Antie	Antx
	, cs	CS C4	_		
			C5		



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

1	
2	
3	EMASER FEBRUARY TO THE SALES
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.



10 000 W

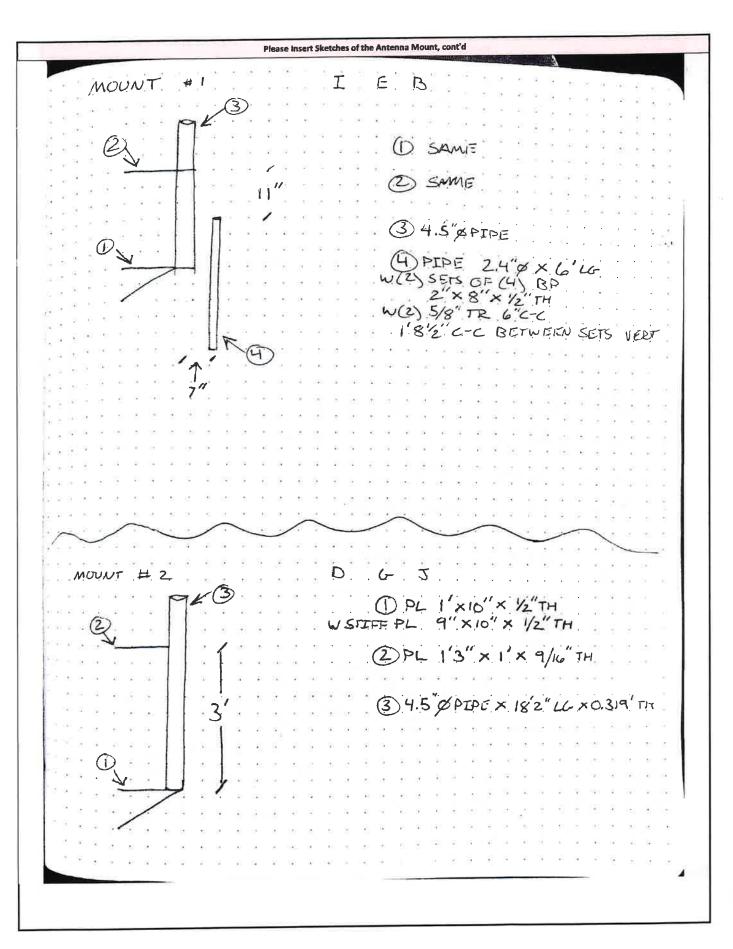
S 51 2 14

Antenna Mount Manning Form (PATENT PENDING)					
Antenna mount mapping rorm	(FAIENI PENDING)		N/A		
First Taxing District of the City of Norwalk	Mapping Date:	12/10	/2020		
East Norwalk CT	Tower Type:	Ott	her		
467460	Tower Height (Ft.):				
TEP	Mount Elevation (Ft.):	101	1.5		
	First Taxing District of the City of Norwalk East Norwalk CT 467460	East Norwalk CT Tower Type: 467460 Tower Height (Ft.):	First Taxing District of the City of Norwalk Mapping Date: 12/10		

This antenna mapping form is the property of TES and under PATENT PENDING. The formation contained herein is considered confidential in nature and is to be used only for the specific customer it was intended for. Reproduction, transmission, publication, modification or disclosure by any method is prohibited except by express written permission of TES. All means and methods are the responsibility of the contractor and the work shall be compliant with ANSI/ASSE A 10.48, OSHA, FCC, FAA and other safety requirements that may apply. TES is not warrantying the usability of the safety climb as it must be assessed prior to each use in compliance with OSHA requirements.

Please insert Sketches of the Antenna Mount

	калай. В блачей каканова Дебация каканова	9 9 9 B
BRETT		110/2020
	(3) 7/8" FH	e e e e e
LE	L RADIUS: 37'6" (3) 7/8" FH 6-LEG: 23'7" (3) 1'4" & SM (6) 15%" FH (CUT@ 9')	(#1 161 #1 X 96 (#1 164 166 gt 90
TOP	PLON LEG: 29" × 3/8"TH	
	TOP LEG EL : 100 LEG THE BASE : O	461"TH
	AIR TO DIS LIEU CIRC: 8	8'5" ====================================
	13 n J 10	8 (8 (8 (8) 15) 8 (8 (8 (8) 15)
	(10°) A1 A2	
Alc	A9 F 9	
	E123	
20	0 8 = 37'6" >	6 8 8 9 16 6 8 8 9 30
	TH C-C LISC - RISER	
06 E X 8 9 8 200 6 8 8 8 8	-GPS	
, i	7 A3 A4	
	DAT 6 SE 45	2 11 11 12 14 1
	A8 OF OVERAS	2 2 2 4 0
	670VA XC	2 S X 10 10 1
ANT		
A3/A4 A3/A4	15° OFF LEG	X X 30 0 0 0 X 0 E 8 9
A7/A8 A9/A10	LEG 45° OFF LEG	= 240 K 00 9
AII/AIZ	-15° OFF LEC	
		F 7 7 5



e: 8 **	TOP ANT BOTTOM ANT	
U	- 15' < TOP PIPE.	V. LE
016	3' 4' (LEG-TO CENTER ANT)	8 a
h. 1	11"	6: 14 6: 14
4	111" 104'C"	* * V &
a 9 9	EQUIPMENT EIS EIY BOT EQUED	
Alb		EPE 1
1_	9" 8"	

BOT ANT BXA-80063-GBF-EDIN TOP AUT ANDREW HBXX-651705-AZM EIS ALCATEL LUCENT B25 RRH 4x30

EIH RAYCAP RRFDC - 1064-PF-48

TFR		
1, 1, 13	TOPANT	BOTTOM AUT
U	15'	3 90 2 4 1 7 1 F F
DIB	3′.8″	* ×10 '* * * * *
h	12"	10"

	x + 6 8 5 3	ELA FOUTA STI	riesces
	E13 V	EIZ K	EILK
Alb	18'4"	20'6"	21'2"
<u></u>	7.17	9."	7".

BOTANT ANDRIEW HBXX-651705-AZM

TOP AUT CSS X7C-FRO-660-VRO

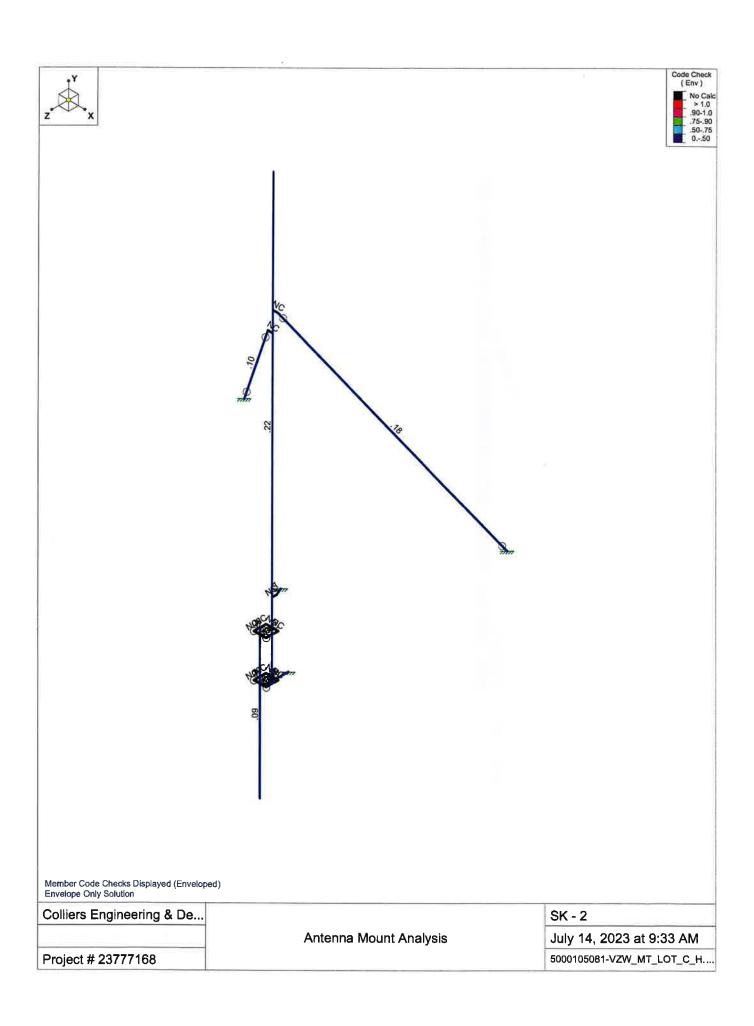
BOT EQUEP.

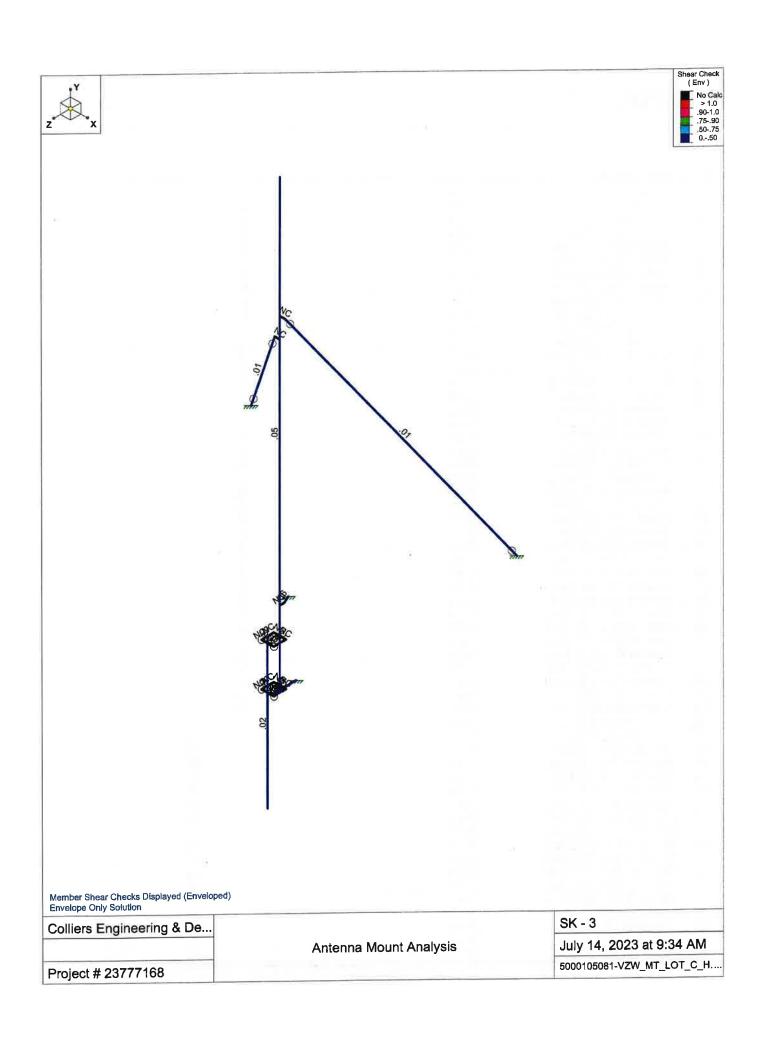
TOP PIPE & CENTER

E13: ALCATE LUCIENT 9442 RPH 2×40 - AWS | FIZ: RHSIX 1024-PF-48

EII: 700MRRH, K52482211









: Colliers Engineering & Design

Project # 23777168
Antenna Mount Analysis

July 14, 2023 9:34 AM Checked By:_____

Basic Load Cases

	BLC Description	Category	X Gr	Y Gr	Z Gr	Joint		Distributed	Area(Member)	Surfa
1_1_	Antenna D	None					30			
2	Antenna Di	None					30			
3	Antenna Wo (0 Deg)	None					30			
4	Antenna Wo (30 Deg)	None					30			
5	Antenna Wo (60 Deg)	None					30			
6	Antenna Wo (90 Deg)	None					30			
7	Antenna Wo (120 Deg)	None					30			
8	Antenna Wo (150 Deg)	None					30			
9	Antenna Wo (180 Deg)	None			1		30			
10	Antenna Wo (210 Deg)	None					30			
11	Antenna Wo (240 Deg)	None				in a visit	30			
12	Antenna Wo (270 Deg)	None					30			
13	Antenna Wo (300 Deg)	None					30			
14	Antenna Wo (330 Deg)	None		1			30			
15	Antenna Wi (0 Deg)	None					30			
16	Antenna Wi (30 Deg)	None					30			
17	Antenna Wi (60 Deg)	None					30			
18	Antenna Wi (90 Deg)	None					30			
19	Antenna Wi (120 Deg)	None					30			
20	Antenna Wi (150 Deg)	None					30			
21	Antenna Wi (180 Deg)	None					30			
22	Antenna Wi (210 Deg)	None					30			
23	Antenna Wi (240 Deg)	None					30			
24	Antenna Wi (270 Deg)	None					30			
25	Antenna Wi (300 Deg)	None					30			
26	Antenna Wi (330 Deg)	None					30			
27	Antenna Wm (0 Deg)	None					30			
28	Antenna Wm (30 Deg)	None					30			
29	Antenna Wm (60 Deg)	None					30			
30	Antenna Wm (90 Deg)	None					30			
31	Antenna Wm (120 Deg)	None					30			
32	Antenna Wm (150 Deg)	None					30			
33	Antenna Wm (180 Deg)	None					30			
34	Antenna Wm (210 Deg)	None					30			
35	Antenna Wm (240 Deg)	None					30			
36	Antenna Wm (270 Deg)	None					30			
37	Antenna Wm (300 Deg)	None					30			
38	Antenna Wm (330 Deg)	None					30			
39	Structure D	None		-1						
40	Structure Di	None						10		
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 Deg)	None						20		
46	Structure Wo (150 Deg)	None						20		
47	Structure Wo (180 Deg)	None						20		
48	Structure Wo (210 Deg)	None						20	-12-7	
49	Structure Wo (240 Deg)	None		-	-			20		
50	Structure Wo (270 Deg)	None						20		
51	Structure Wo (300 Deg)	None						20		
52	Structure Wo (330 Deg)	None						20		
53	Structure Wi (0 Deg)	None						20		
54	Structure Wi (30 Deg)	None					-	20		COLUMN TO SERVICE STREET
55	Structure Wi (60 Deg)	None				-		20		
56	Structure Wi (90 Deg)	None						20		



: Colliers Engineering & Design

Project # 23777168
Antenna Mount Analysis

July 14, 2023 9:34 AM Checked By:_

Basic Load Cases (Continued)

	BLC Description	Category	X Gr	. Y Gr	Z Gr	Joint	Point	Distributed	Area(Member)	Surfa
57	Structure Wi (120 Deg)	None						20		
58	Structure Wi (150 Deg)	None		The same	U 1			20		
59	Structure Wi (180 Deg)	None						20		
60	Structure Wi (210 Deg)	None			et yn			20	ma la Paul	
61	Structure Wi (240 Deg)	None						20		
62	Structure Wi (270 Deg)	None						20		
63	Structure Wi (300 Deg)	None						20		===
64	Structure Wi (330 Deg)	None			R FI			20		
65	Structure Wm (0 Deg)	None				U.,		20		
66	Structure Wm (30 Deg)	None						20		
67	Structure Wm (60 Deg)	None						20		
68	Structure Wm (90 Deg)	None						20		AN .
69	Structure Wm (120 Deg)	None						20		
70	Structure Wm (150 Deg)	None						20		
71	Structure Wm (180 Deg)	None						20		ļ <u>.</u>
72	Structure Wm (210 Deg)	None						20		
73	Structure Wm (240 Deg)	None						20		
74	Structure Wm (270 Deg)	None				تنسرا		20		
75	Structure Wm (300 Deg)	None						20		
76	Structure Wm (330 Deg)	None						20		
77	Lm1	None					1			
78	Lm2	None					1			
79	Lv1	None					1			
80	Lv2	None					1		2114	
81	Antenna Ev	None					30			
82	Antenna Eh (0 Deg)	None					20			
83	Antenna Eh (90 Deg)	None					20			
84	Structure Ev	ELY		0512						1000
85	Structure Eh (0 Deg)	ELZ			16					
86	Structure Eh (90 Deg)	ELX	.16					ALC: 32		

Load Combinations

	Description	S P	Del	SR	BLC	Fa	. BLC	Fa	BLC	Fa	В	Fa	В	Fa	. В	Fa	BLC	Fa	В.,	.Fa	В.,	Fa	В	.Fa
1	1.2D+1.0Wo (0 Deg)		Y		1	1.2	39	1.2	3	1	41	_								-				1
2	1.2D+1.0Wo (30 Deg)Yes	Y		1	1.2	39	1.2	4	1	42				1		-	-	-		1	-	-	-
3	1.2D+1.0Wo (60 Deg				1_	1.2	39	1.2	5_	1	43	1	-	-		_		-	-	-		-	-	- X
4	1.2D+1.0Wo (90 Deg) Yes	Y	-	1	1.2	39	1.2	6	1	44	1					-	-	-	-	H	-	-	+
5	1.2D+1.0Wo (120 De	Yes	Υ		1	1.2	39	1.2	7	1	45		-	-				-	-	-	-	-	-	-
6	1.2D+1.0Wo (150 De	Yes	Y		1	1.2	39	1.2	8	1	46	1		-		_	-	-	-	-	-		+-	
7	1.2D+1.0Wo (180 De				1_	1.2		1.2	9	1	47	_1	-	-	-	22112	-		-	-	-	-	-	+
8	1.2D+1.0Wo (210 De				1	1.2	-	1.2	10	1	48				-	_			-	-	-	-	-	-
9	1.2D+1.0Wo (240 De				1	1.2	39	1.2	11	1	49		_	_	1				-	-	-	-	-	
10	1.2D+1.0Wo (270 De	Yes	Y	100	1	1.2	39	1.2	12	1	50	1	-	-				-	-		-		H	-
11	1.2D+1.0Wo (300 De	Yes	Υ		1	1.2	39	1.2	13	1	51	_1			_		-		-	-	-		-	-
12	1.2D+1.0Wo (330 De	Yes	Y		1	1.2	39	1.2	14	1	52	_					-		-		-	-		-
13	1.2D + 1.0Di + 1.0Wi.	.Yes	Y		1	1.2	39	1.2	2	1	40	_	15		53					-	-			
14	1.2D + 1.0Di + 1.0Wi.	Yes	Y		1	1.2	39	1.2	2	1	40	-	16	1	54			-	-		-			-
15	1.2D + 1.0Di + 1.0Wi.		Y		1_	1.2	39	1.2	2	1	40		17	1	55			_	-	-	-	-	-	+
16	1.2D + 1.0Di + 1.0Wi.	. Yes	Y		1	1.2	39	1.2	2	1	40	1	18	_	56	_	-	-	1		1			+-
17	1.2D + 1.0Di + 1.0Wi.	Yes	Y		1	1.2	39	1.2	2	1	40	1	19	_	57		_	_	_	-	-	-	-	-
18	1.2D + 1.0Di + 1.0Wi.	Yes	Y		1	1.2	39	1.2	2	1	40	1	20	1	58	_			-	-	-		-	-
19	1.2D + 1.0Di + 1.0Wi.		Υ		1	1.2	39	1.2	2	1	40		21	1	59	-			-		-	-	-	-
20	1.2D + 1.0Di + 1.0Wi.		Y		1	1.2	39	1.2	2	1	40		22	-	60	1	-	-	-	-	+-		-	
	1.2D + 1.0Di + 1.0Wi.		Υ		1	1.2	39	1.2	2	1	40		23	_	61	1		-	1	-	-	-		-
22	1.2D + 1.0Di + 1.0Wi.		Y		1	1.2	39	1.2	2	1	40	1	24	1	62	1				1_	1	_		



Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:___

Load Combinations (Continued)

	Description	S PI	DelSR	BLC	Fa	BLC	Fa	BLC	Fa	В	Fa	В	Fa	В	Fa	BLC	Fa	. B	Fa	В	Fa	В	Fa.
23	1.2D + 1.0Di + 1.0Wi	Yes	Y	1	1.2	39	1.2	2	1	40	1	25	1	63				I					
24	1.2D + 1.0Di + 1.0Wi	Yes	Υ	1	1.2	39	1.2	2	1	40	1	26	1	64	1		202016		de -				
25	1.2D + 1.5Lm1 + 1.0		Υ	1	1.2		1.2			27	1	65											
26	1.2D + 1.5Lm1 + 1.0		Υ	1	1.2	39			1.5			66				IE.							
27	1.2D + 1.5Lm1 + 1.0		Υ	1	1.2		1.2		1.5			67											
28	1.2D + 1.5Lm1 + 1.0		Υ	1	1.2		1.2					68	_			11 11							
29	1.2D + 1.5Lm1 + 1.0		Y	1	1.2		1.2		1.5			69											
30	1.2D + 1.5Lm1 + 1.0		Y	1	1.2		1.2	77				70			-		-						
31	1.2D + 1.5Lm1 + 1.0		Ý	1	1.2	39	1.2	77		33		71									-		
	1.2D + 1.5Lm1 + 1.0		Ý	1	1.2		1.2	77				72						-					
	1.2D + 1.5Lm1 + 1.0		Y	1	1.2			77				73											
-	1.2D + 1.5Lm1 + 1.0	-	Y	1	1.2	39		77				74				-		-		-			-
	1.2D + 1.5Lm1 + 1.0		Y	1	1.2							_	1		-	-	_			-			
	1.2D + 1.5Lm1 + 1.0	-	Y		_			77				75	1				-			-			
	1.2D + 1.5Lm2 + 1.0			1	1.2		1.2	77				76								-			
-	1.2D + 1.5Lm2 + 1.0		Y	1	1.2		1.2					65		-	2235		12-52	-	-		-	-	-
	1.2D + 1.5Lm2 + 1.0	-	Y	1	1.2	39	1.2	78	1.5	28	1	66	1					-					
_	1.2D + 1.5Lm2 + 1.0		Y	1	1.2		1.2					67				-							
			Y	1	1.2			78				68											
-	1.2D + 1.5Lm2 + 1.0		Y	1	1.2		1.2				_	69		_						-			
	1.2D + 1.5Lm2 + 1.0		Y	1	1.2		1.2	78			1	70									7. 8		
	1.2D + 1.5Lm2 + 1.0		Y	_1_	1.2		1.2					71	1										
	1.2D + 1.5Lm2 + 1.0		Y	1	1.2		1.2	78	1.5	34	1	72	1										
	1.2D + 1.5Lm2 + 1.0		Y	1	1.2		1.2	78				73	1										
46	1.2D + 1.5Lm2 + 1.0		Y	1	1.2	39	1.2	78	1.5	36	1	74	1										
47	1.2D + 1.5Lm2 + 1.0		Y	1	1.2		1.2					75	1										
48	1.2D + 1.5Lm2 + 1.0	•	Y	1	1.2		1.2					76	1										
49	1.2D + 1.5Lv1		Y	1	1.2		1.2					-											
50	1.2D + 1.5Lv2	1	Y	1	1.2		1.2								5		18						
51	1.4D	Yes Y		1	1.4		1.4	-	1.0		-												
52	1.2D + 1.0Ev + 1.0E			1	1.2		1.2	81	1	E	1	82	1	83		ELZ	1	E					(1)
	1.2D + 1.0Ev + 1.0E				1.2			81			1					ELZ		_	.5				7
	1.2D + 1.0Ev + 1.0E			1	1.2			81			1	82				ELZ							
	1.2D + 1.0Ev + 1.0E			1	1.2		1.2	81		1	1	82	.5	83		ELZ		E	1	-		-	
	1.2D + 1.0Ev + 1.0E			1	1.2		1.2						-					_					
	1.2D + 1.0Ev + 1.0E				1.2					-						ELZ				-			
	1.2D + 1.0Ev + 1.0E						1.2	81			1				.5	ELZ			.5				
	1.2D + 1.0Ev + 1.0E				1.2					_		82			_	ELZ	-	_	111				
	1.2D + 1.0Ev + 1.0E			1	1.2		1.2	81								ELZ							
				1_	1.2		1.2	81		_		-	5			ELZ		_					
	1.2D + 1.0Ev + 1.0E			_1_	1.2		1.2	81		E	1	82	_			ELZ		E					2.2
	1.2D + 1.0Ev + 1.0E				1.2		1.2			_						ELZ							
	1.2D + 1.0Ev + 1.0E				1.2		_	81		_						ELZ		E	5				
	0.9D - 1.0Ev + 1.0Eh			1	.9	39	.9	81			-1	82	1	83		ELZ		E					
	0.9D - 1.0Ev + 1.0Eh			1	.9	39	.9	81	+1	E	-1	82	.866	83	.5	ELZ	.866	E	.5				
66	0.9D - 1.0Ev + 1.0Eh	Yes \		1	.9	39	.9	81	-1	E	-1	82	.5	83	.866	ELZ	.5	E	.866				
	0.9D - 1.0Ev + 1.0Eh	-		1	.9	39		81				82				ELZ		E					
	0.9D - 1.0Ev + 1.0Eh			1	.9	39	.9									ELZ							17
69	0.9D - 1.0Ev + 1.0Eh	Yes \	/	1	.9	39	.9									ELZ							
	0.9D - 1.0Ev + 1.0Eh			1	.9	39	.9					82				ELZ					153		7
	0.9D - 1.0Ev + 1.0Eh			1	.9	39	.9									ELZ			- 5				
	0.9D - 1.0Ev + 1.0Eh			1	.9	39	.9									ELZ							
	0.9D - 1.0Ev + 1.0Eh			1	.9	39	.9					82	0			ELZ			-1				
	0.9D - 1.0Ev + 1.0Eh			1			-						_			ELZ				-			
	0.9D - 1.0Ev + 1.0Eh				.9	39	.9															-	1
10	0.00 - 1.0EV + 1.0EII	100		1	.9	39	.9	ØΊ	-1	C	-7	182	.000	03	5	ELZ	.000	E	5				



Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:____

Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap
1	N36A	9.166667	Ö	0	0	
2	N37	9.166667	18.166667	0	0	
3	N38	9.166667	1.916667	0	0	
4	N39	8.916667	1.916667	0.	0	
5	N40	9.416667	1.916667	-0.	0	
6	N41	9.166667	1.916667	.5	0	
7	N42	8.916667	1.916667	.5	0	
8	N43	9.416667	1.916667	.5	0	10
9	N44	9.166667	2.083333	.5	0	
10	N45	9.166667	-3.916667	.5	0	
11	N46	8.916667	1.916667	.4	0	
12	N47	9.416667	1.916667	.4	0	
13	N48	8.916667	1.916667	0.191667	0	
14	N49	9.416667	1.916667	0.191667	0	
15	N50	9.166667	0.166667	0	0	
16	N51	8.916667	0.166667	0.	0	
17	N52	9.416667	0.166667	-0.	0	
18	N53	9.166667	0.166667	.5	0	
19	N54	8.916667	0.166667	.5	0	
20	N55	9.416667	0.166667	.5	0	178
21	N56	8.916667	0.166667	.4	0	
22	N57	9.416667	0.166667	.4	0	
23	N58	8.916667	0.166667	0.191667	0	
24	N59	9.416667	0.166667	0.191667	0	
25	N60	9,166667	3	0	0	
26	N61	9.166667	3	1875	0	THE STATE OF THE S
27	N62	9.166667	3.125	-0.354167	0	
28	N63	9.166667	0	0.333333	0	5
29	N64	9.166667	0	-0.666667	0	
30	N65	9.166667	12.416667	0	0	
31	N66	9.166667	13.25	0	0	
32	N67	9.375	13.25	0	0	
33	N68	8.958333	12.416667	0	0	
34	N69	17	7.666667	-1.833333	0	
35	N70	6.166667	7.666667	-1.833333	0	

Hot Rolled Steel Section Sets

	Label	Shape	Туре	Design List	Material	Desig	A [in2]	lyy [i	Izz [i	J [in4]
1	Mount Pipe	PIPE 4.0	Column	Pipe	A53 Gr. B	Typical	2.96			
2	Equipment Pipe	PIPE 2.0	Column	Pipe	A53 Gr. B	Typical				1.25
3	Threaded Rod	SR 0.625	Beam	BAR	A36 Gr.36	Typical	.3068	.0075	.0075	
4	Bottom Plate	PL1/2x10	Beam	RECT	A36 Gr.36	Typical	5	.1042	41.6	.4035
4	Top Plate	PL9/16x12	Beam	RECT	A36 Gr.36	Typical	6.75	.178	81	.6909
5	TES Top Plate	PL1/2x10	Beam	RECT	A36 Gr.36	Typical	5	.1042	41.6	.4035
7	Kicker	L4X4X4	Column	Single Angle		Typical	1.93	3	3	.0438

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/	Density[k/ft^3]	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
2	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
3	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr. B 42	29000	11154	3	.65	.49	42	1.4	58	1.3
5	A300 GL B 42	23000	1110-1		.00					



Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:

Hot Rolled Steel Properties (Continued)

	Label	E [ksi]	G [ksi]	Nu	Therm (/	Density[k/ft^3]	Yield[ksi]	Rv	Fuſksil	Rt
6	A500 Gr. B 46	29000	11154	.3	65	49	46	14	58	1.3

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(d.	. Section/Shape	Type	Design List	Material	Design Ru.
1	MP2A	N37	N36A			Mount Pipe	Column		A53 Gr. B	Typical
2	M31	N40	N38		174.	RIGID	None	None	RIGID	Typical
3	M32	N39	N38			RIGID	None	None	RIGID	Typical
4	M33	N42	N41		No.	RIGID	None	None	RIGID	Typical
5	M34	N43	N41			RIGID	None	None	RIGID	Typical
6	RRH2	N44	N45			Equipment Pipe		Pipe	A53 Gr. B	Typical
7	M36	N48	N46			Threaded Rod		BAR	A36 Gr.36	Typical
8	M37	N49	N47	أباطانها		Threaded Rod	Beam	BAR	A36 Gr.36	Typical
9	M38	N39	N48			RIGID	None	None	RIGID	Typical
10	M39	N42	N46			RIGID	None	None	RIGID	Typical
11	M40	N40	N49			RIGID	None	None	RIGID	Typical
12	M41	N43	N47		323	RIGID	None	None	RIGID	Typical
13	M42	N52	N50			RIGID	None	None	RIGID	Typical
14	M43	N51	N50			RIGID	None	None	RIGID	Typical
15	M44	N54	N53			RIGID	None	None	RIGID	Typical
16	M45	N55	N53			RIGID	None	None	RIGID	Typical
17	M46	N58	N56			Threaded Rod	Beam	BAR	A36 Gr.36	Typical
18	M47	N59	N57		3.	Threaded Rod	Beam	BAR	A36 Gr.36	Typical
19	M48	N51	N58			RIGID	None	None	RIGID	Typical
20	M49	N54	N56		200 110 110	RIGID	None	None	RIGID	Typical
21	M50	N52	N59			RIGID	None	None	RIGID	Typical
22	M51	N55	N57			RIGID	None	None	RIGID	Typical
23	M52	N61	N62		90	Top Plate	Beam	RECT	A36 Gr.36	Typical
24	M53	N60	N61			RIGID	None	None	RIGID	Typical
25	M54	N63	N64		90	Bottom Plate	Beam	RECT	A36 Gr.36	Typical
26	M55	N68	N65			RIGID	None	None	RIGID	Typical
27	M56	N67	N66			RIGID	None	None	RIGID	Typical
28	M57	N67	N69		90	Kicker		Single Angle		Typical
29	M58	N68	N70		180	Kicker		Single Angle		Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Ratio Opti	. Analysis	Inactive	Seismi
1	MP2A						Yes	** NA **	T		None
2	M31						Yes	** NA **			None
3	M32						Yes	** NA **			None
4	M33		00000				Yes	** NA **			None
5	M34		00000				Yes	** NA **			None
6	RRH2					No.	Yes	** NA **	- 1910	1772	None
7	M36						Yes	190704			None
8	M37						Yes				None
9	M38						Yes	** NA **			None
10	M39						Yes	** NA **			None
11	M40						Yes	** NA **			None
12	M41						Yes	** NA **	A Service .	COLUMN TO SERVICE	None
13	M42						Yes	** NA **			None
14	M43						Yes	** NA **		PIL	None
15	M44		000000				Yes	** NA **			None
16	M45		00000				Yes	** NA **		The same	None
17	M46						Yes				None
18	M47		3.1				Yes			VA.537	None



: Colliers Engineering & Design

Project # 23777168
Antenna Mount Analysis

July 14, 2023 9:34 AM Checked By:__

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offsetfinl	J Offsetfinl	T/C Only	Physica	Defl Ratio Opti Analysis	Inactive	Seismi
10	M48	I Nelease	O Meicase	TOHOUGHIN			Yes	** NA **		None
19		- N.			DEPT.		Yes	** NA **	keuri i	None
20	M49	-					Yes	** NA **		None
21	M50				- receive		Yes	** NA **		None
22	M51_							IVA		None
23	M52						Yes	44 514 44		
24	M53				71.90		Yes	** NA **		None
25	M54						Yes			None
26	M55						Yes	** NA **		None
27	M56						Yes	** NA **		None
20	M57	BenPIN	BenPIN				Yes	** NA **		None
28	M58	BenPIN	BenPIN				Yes	** NA **		None

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	Y	-31.65	1.75
2	MP2A	My	0158	1.75
3	MP2A	Mz	.0185	1.75
4	MP2A	Y	-31.65	5.75
5	MP2A	Mv	0158	5.75
6	MP2A	Mz	.0185	5.75
7	MP2A	Y	-31.65	1.75
8	MP2A	Mv	0158	1.75
9	MP2A	Mz	0185	1.75
10	MP2A	Y	-31.65	5.75
11	MP2A	Mv	0158	5.75
12	MP2A	Mz	0185	5.75
13	MP2A	Y	-10.4	11.5
14	MP2A	My	.0026	11.5
15	MP2A	Mz	.0026	11.5
16	MP2A	Y	-84.4	13
17	MP2A	My	0281	13
18	MP2A	Mz	.0563	13
19	MP2A	Y	-70.3	13
20	MP2A	My	0234	13
21	MP2A	Mz	0469	13
22	MP2A	Y	-17.6	8.5
23	MP2A	My	0059	8.5
24	MP2A	Mz	0	8.5
	MP2A	Y	-17.6	8.5
25	MP2A	My	.0059	8.5
26	MP2A	Mz	0	8.5
27	RRH2	Y	-14	4
28		My	007	4
29 30	RRH2 RRH2	Mz	0	4

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	Y	-80.4583	1.75
2	MP2A	Mv	0402	1.75
3	MP2A	Mz	.0469	1.75
	MP2A	Y	-80.4583	5.75
5	MP2A	My	0402	5.75
	MP2A	Mz	.0469	5.75
6		V	-80.4583	1.75
8	MP2A MP2A	My	0402	1.75



Colliers Engineering & Design

: Project # 23777168 : Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:____

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
9	MP2A	Mz	0469	1.75
10	MP2A	Y	-80.4583	5.75
11	MP2A	My	0402	5.75
12	MP2A	Mz	0469	5.75
13	MP2A	Y	-12.5347	11.5
14	MP2A	My	.0031	11.5
15	MP2A	Mz	.0031	11.5
16	MP2A	Y	-51.8992	13
17	MP2A	Mv	0173	13
18	MP2A	Mz	.0346	13
19	MP2A	Y	-46.7248	13
20	MP2A	Mv	0156	13
21	MP2A	Mz	0312	13
22	MP2A	Y	-20.0153	8.5
23	MP2A	My	0067	8.5
24	MP2A	Mz	0	8.5
25	MP2A	Υ	-20.0153	8.5
26	MP2A	My	.0067	8.5
27	MP2A	Mz	0	8.5
28	RRH2	Y	-33.9914	4
29	RRH2	Mv	017	4
30	RRH2	Mz	0	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	1.75
2	MP2A	Z	-175.489	1.75
3	MP2A	Mx	1024	1.75
4	MP2A	X	0	5.75
5	MP2A	Z	-175.489	5.75
6	MP2A	Mx	1024	5.75
7	MP2A	X	0	1.75
8	MP2A	Z	-175.489	1.75
9	MP2A	Mx	.1024	1.75
10	MP2A	X	0	5.75
11	MP2A	Z	-175.489	5.75
12	MP2A	Mx	.1024	5.75
13	MP2A	X	0	11.5
14	MP2A	Z	-13.981	11.5
15	MP2A	Mx	0035	11.5
16	MP2A	X	0	13
17	MP2A	Z	-59.716	13
18	MP2A	Mx	0398	13
19	MP2A	X	0	13
20	MP2A	Z	-59.716	13
21	MP2A	Mx	.0398	13
22	MP2A	X	0	8.5
23	MP2A	Z	-34.764	8.5
24	MP2A	Mx	0	8.5
25	MP2A	X	Õ	8.5
26	MP2A	Z	-34.764	8.5
27	MP2A	Mx	0	8.5
28	RRH2	X	0	4
29	RRH2	Z	-43.455	4
30	RRH2	Mx	0	4



Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:_

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

Member L	abel Direction	Magnitude[lb,k-ft]	Location[ft,%]
1 MP2	A X	80.216	1.75
2 MP2		-138.938	1.75
3 MP2		1212	1.75
4 MP2		80.216	5.75
5 MP2		-138.938	5.75
6 MP2	\	1212	5.75
7 MP2		80.216	1.75
8 MP2		-138.938	1.75
9 MP2	.,	.0409	1.75
10 MP2		80.216	5.75
		-138.938	5.75
11111111111	3	.0409	5.75
		6,452	11.5
111111111111111111111111111111111111111		-11.176	11.5
		0012	11.5
		27.402	13
		-47.462	13
		0408	13
		26.487	13
19 MP2		-45.877	13
20 MP2		.0218	13
21 MP2		14.393	8.5
22 MP2		-24.929	8.5
23 MP2		0048	8.5
24 MP2		14.393	8.5
25 MP2		-24.929	8.5
26 MP2		.0048	8.5
27 MP2			4
28 RRH		20.685	4
29 RRH:		-35.828	4
30 RRH	2 Mx	0103	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	112.857	1.75
2	MP2A	Z	-65.158	1.75
3	MP2A	Mx	0944	1.75
4	MP2A	X	112.857	5.75
5	MP2A	Z	-65.158	5.75
6	MP2A	Mx	0944	5.75
7	MP2A	X	112.857	1.75
8	MP2A	Z	-65.158	1.75
9	MP2A	Mx	0184	1.75
10	MP2A	X	112.857	5.75
11	MP2A	Z	-65.158	5.75
12	MP2A	Mx	0184	5.75
13	MP2A	X	9.31	11.5
14	MP2A	Z	-5.375	11.5
15	MP2A	Mx	.000984	11.5
	MP2A	X	38.954	13
16 17	MP2A	Z	-22.49	13
		Mx	028	13
18	MP2A	X	34.199	13
19	MP2A	Z	-19.745	13
20	MP2A	Mx	.0018	13
21	MP2A	X	14.575	8.5
22	MP2A	Z	-8.415	8.5
23	MP2A		-0.710	2.12

Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:____

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
24	MP2A	Mx	0049	8.5
24 25 26	MP2A	X	14.575	8.5
26	MP2A	Z	-8.415	8.5
27 28 29	MP2A	Mx	.0049	8.5
28	RRH2	X	32.218	4
29	RRH2	Z	-18.601	4
30	RRH2	Mx	0161	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	115.259	1.75
2	MP2A	Z	0	1.75
3	MP2A	Mx	0576	1.75
4	MP2A	X	115.259	5.75
5	MP2A	Z	0	5.75
6	MP2A	Mx	0576	5.75
7	MP2A	X	115.259	1.75
8	MP2A	Z	0	1.75
9	MP2A	Mx	0576	1.75
10	MP2A	X	115.259	5.75
11	MP2A	Z	0	5.75
12	MP2A	Mx	0576	5.75
13	MP2A	X	9.674	11.5
14	MP2A	Z	0	11.5
15	MP2A	Mx	.0024	11.5
16	MP2A	X	40.068	13
17	MP2A	Z	0	13
18	MP2A	Mx	0134	13
19	MP2A	X	32.748	13
20	MP2A	Z	0	13
21	MP2A	Mx	0109	13
22	MP2A	X	10.851	8.5
23	MP2A	Z	0	8.5
24	MP2A	Mx	0036	8.5
25	MP2A	X	10.851	8.5
26	MP2A	Z	0	8.5
27	MP2A	Mx	.0036	8.5
28	RRH2	X	35.117	rayou4
29	RRH2	Z	0	4
30	RRH2	Mx	0176	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	112.857	1.75
2	MP2A	Z	65.158	1.75
3	MP2A	Mx	0184	1.75
4	MP2A	X	112.857	5.75
5	MP2A	Z	65.158	5.75
6	MP2A	Mx	0184	5.75
7	MP2A	X	112.857	1.75
8	MP2A	Z	65.158	1.75
9	MP2A	Mx	0944	1.75
10	MP2A	X	112.857	5.75
11	MP2A	Z	65.158	5.75
12	MP2A	Mx	0944	5.75
13	MP2A	X	9.31	11.5



: Colliers Engineering & Design

Project # 23777168
Antenna Mount Analysis

July 14, 2023 9:34 AM Checked By:___

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
14	MP2A	Z	5.375	11.5
15	MP2A	Mx	.0037	11.5
16	MP2A	X	38,954	13
17	MP2A	Z	22.49	13
18	MP2A	Mx	.002	13
19	MP2A	X	34.199	13
20	MP2A	7	19.745	13
21	MP2A	Mx	0246	13
22	MP2A	X	14.575	8.5
23	MP2A	Z	8.415	8.5
24	MP2A	Mx	0049	8.5
25	MP2A	X	14.575	8.5
26	MP2A	Z	8.415	8.5
27	MP2A	Mx	.0049	8.5
28	RRH2	X	32.218	4
29	RRH2	Z	18.601	4
30	RRH2	Mx	0161	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	80.216	1.75
2	MP2A	Z	138.938	1.75
3	MP2A	Mx	.0409	1.75
4	MP2A	X	80.216	5.75
5	MP2A	Z	138.938	5.75
6	MP2A	Mx	.0409	5,75
7	MP2A	X	80.216	1.75
8	MP2A	Z	138.938	1.75
9	MP2A	Mx	1212	1.75
10	MP2A	X	80.216	5.75
11	MP2A	Z	138.938	5.75
12	MP2A	Mx	1212	5.75
13	MP2A	X	6.452	11.5
14	MP2A	Z	11.176	11.5
15	MP2A	Mx	.0044	11.5
16	MP2A	X	27.402	13
17	MP2A	Z	47.462	13
18	MP2A	Mx	.0225	13
19	MP2A	X	26.487	13
20	MP2A	Z	45.877	13
21	MP2A	Mx	0394	13
22	MP2A	X	14.393	8.5
23	MP2A	Z	24.929	8.5
24	MP2A	Mx	0048	8.5
25	MP2A	X	14.393	8.5
26	MP2A	Z	24.929	8.5
27	MP2A	Mx	.0048	8.5
28	RRH2	X	20.685	4
29	RRH2	Z	35.828	4
30	RRH2	Mx	0103	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	1.75
2	MP2A	7	175.489	1.75
2		Mx	.1024	1.75
3	MP2A	IVIX	.1024	1.10



Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
4	MP2A	X	0	5.75
5	MP2A	Z	175.489	5.75
6	MP2A	Mx	.1024	5.75
7	MP2A	X	0	1.75
8	MP2A	Z	175.489	1.75
9	MP2A	Mx	1024	1.75
10	MP2A	X	0	5.75
11	MP2A	Z	175.489	5.75
12	MP2A	Mx	1024	5.75
13	MP2A	X	0	11.5
14	MP2A	Z	13.981	11.5
15	MP2A	Mx	.0035	11.5
16	MP2A	X	0	13
17	MP2A	Z	59.716	13
18	MP2A	Mx	.0398	13
19	MP2A	X	0	13
20	MP2A	Z	59.716	13
21	MP2A	Mx	0398	13
22	MP2A	X	the second teach of the second	8.5
23	MP2A	Z	34.764	8.5
24	MP2A	Mx	0	8.5
25	MP2A	X	0	8.5
26	MP2A	Z	34.764	8.5
27	MP2A	Mx	0	8.5
28	RRH2	X	ŏ	4
29	RRH2	Z	43.455	4
30	RRH2	Mx	0	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft.%]
1	MP2A	X	-80.216	1.75
2	MP2A	Z	138.938	1.75
3	MP2A	Mx	.1212	1.75
4	MP2A	X	-80.216	5.75
5	MP2A	Z	138.938	5.75
6	MP2A	Mx	.1212	5.75
7	MP2A	X	-80.216	1.75
8	MP2A	Z	138.938	1.75
9	MP2A	Mx	0409	1.75
10	MP2A	X	-80.216	5.75
11	MP2A	Z	138.938	5.75
12	MP2A	Mx	0409	5.75
13	MP2A	X	-6.452	11.5
14	MP2A	Z	11.176	11.5
15	MP2A	Mx	.0012	11.5
16	MP2A	X	-27.402	13
17	MP2A	Z	47.462	13
18	MP2A	Mx	.0408	13
19	MP2A	X	-26.487	13
20	MP2A	Z	45.877	13
21	MP2A	Mx	0218	13
22	MP2A	X	-14.393	8.5
23	MP2A	Z	24.929	8.5
24	MP2A	Mx	.0048	8.5
25	MP2A	X	-14.393	8.5
26	MP2A	Ž	24.929	8.5



Company Designer Job Number

: Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
27	MP2A	Mx	0048	8.5
28	RRH2	X	-20.685	4
29	RRH2	Z	35.828	4
30	RRH2	Mx	.0103	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-112.857	1.75
2	MP2A	Z	65.158	1.75
3	MP2A	Mx	.0944	1.75
4	MP2A	X	-112.857	5.75
5	MP2A	Z	65.158	5.75
6	MP2A	Mx	.0944	5.75
7	MP2A	X	-112.857	1.75
8	MP2A	Z	65.158	1.75
9	MP2A	Mx	.0184	1.75
10	MP2A	X	-112.857	5.75
11	MP2A	Z	65.158	5.75
12	MP2A	Mx	.0184	5.75
13	MP2A	X	-9.31	11.5
14	MP2A	Z	5.375	11.5
15	MP2A	Mx	000984	11.5
16	MP2A	X	-38.954	13
17	MP2A	Z	22.49	13
18	MP2A	Mx	.028	13
19	MP2A	X	-34.199	13
20	MP2A	Z	19.745	13
21	MP2A	Mx	0018	13
22	MP2A	X	-14.575	8.5
23	MP2A	Z	8.415	8.5
24	MP2A	Mx	.0049	8.5
25	MP2A	X	-14.575	8.5
26	MP2A	Z	8.415	8,5
27	MP2A	Mx	0049	8.5
28	RRH2	X	-32.218	4
29	RRH2	Z	18.601	4
30	RRH2	Mx	.0161	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-115.259	1.75
2	MP2A	Z	0	1.75
3	MP2A	Mx	.0576	1.75
4	MP2A	X	-115.259	5.75
5	MP2A	Z	0	5.75
6	MP2A	Mx	.0576	5.75
7	MP2A	X	-115.259	1.75
8	MP2A	Z	0	1.75
9	MP2A	Mx	.0576	1.75
10	MP2A	X	-115.259	5.75
11	MP2A	7	0	5.75
12	MP2A	Mx	.0576	5.75
13	MP2A	X	-9.674	11.5
14	MP2A	Z	0	11.5
15	MP2A	Mx	0024	11.5
16	MP2A	X	-40.068	13



: Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:____

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
17	MP2A	Z	0	13
18	MP2A	Mx	.0134	13
19	MP2A	X	-32.748	13
20	MP2A	Z	0	13
21	MP2A	Mx	.0109	13
22	MP2A	X	-10.851	8.5
23	MP2A	Z	0	8.5
24	MP2A	Mx	.0036	8.5
25	MP2A	X	-10.851	8.5
26	MP2A	Z	0	8.5
27	MP2A	Mx	0036	8.5
28	RRH2	X	-35.117	4
29	RRH2	Z	0	4
30	RRH2	Mx	.0176	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-112.857	1.75
2	MP2A	Z	-65.158	1.75
3	MP2A	Mx	.0184	1.75
4	MP2A	X	-112.857	5.75
5	MP2A	Z	-65.158	5.75
6	MP2A	Mx	.0184	5.75
7	MP2A	X	-112.857	1.75
8	MP2A	Z	-65.158	1.75
9	MP2A	Mx	.0944	1.75
10	MP2A	X	-112.857	5.75
11	MP2A	Z	-65,158	5.75
12	MP2A	Mx	.0944	5.75
13	MP2A	X	-9.31	11.5
14	MP2A	Z	-5.375	11.5
15	MP2A	Mx	0037	11.5
16	MP2A	X	-38.954	13
17	MP2A	Z	-22.49	13
18	MP2A	Mx	002	13
19	MP2A	X	-34.199	13
20	MP2A	Z	-19.745	13
21	MP2A	Mx	.0246	13
22	MP2A	X	-14.575	8.5
23	MP2A	Z	-8.415	8.5
24	MP2A	Mx	.0049	8.5
25	MP2A	X	-14.575	8.5
26	MP2A	Z	-8.415	8.5
27	MP2A	Mx	0049	8.5
28	RRH2	X	-32.218	4
29	RRH2	Z	-18.601	4
30	RRH2	Mx	.0161	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-80.216	1.75
2	MP2A	Z	-138.938	1.75
3	MP2A	Mx	0409	1.75
4	MP2A	X	-80.216	5.75
5	MP2A	Z	-138.938	5.75
6	MP2A	Mx	0409	5.75

Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:__

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
7	MP2A	X	-80.216	1.75
8	MP2A	Z	-138.938	1.75
9	MP2A	Mx	.1212	1.75
10	MP2A	X	-80.216	5.75
11	MP2A	Z	-138.938	5.75
12	MP2A	Mx	.1212	5.75
13	MP2A	X	-6.452	11.5
14	MP2A	Z	-11.176	11.5
15	MP2A	Mx	0044	11.5
16	MP2A	X	-27.402	13
17	MP2A	Z	-47.462	13
18	MP2A	Mx	0225	13
19	MP2A	X	-26.487	13
20	MP2A	Z	-45.877	13
21	MP2A	Mx	.0394	13
22	MP2A	X	-14.393	8.5
23	MP2A	Z	-24.929	8.5
24	MP2A	Mx	.0048	8.5
25	MP2A	X	-14.393	8.5
26	MP2A	Z	-24.929	8.5
27	MP2A	Mx	0048	8.5
28	RRH2	X	-20.685	4
29	RRH2	Ž	-35.828	4
30	RRH2	Mx	.0103	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	1.75
2	MP2A	Z	-28.8	1.75
3	MP2A	Mx	0168	1.75
4	MP2A	X	0	5.75
5	MP2A	Z	-28.8	5.75
6	MP2A	Mx	0168	5.75
7	MP2A	X	0	1.75
8	MP2A	Z	-28.8	1.75
9	MP2A	Mx	.0168	1.75
10	MP2A	X	0	5.75
11	MP2A	Z	-28.8	5.75
12	MP2A	Mx	.0168	5.75
13	MP2A	X	0	11.5
14	MP2A	Z	-3.182	11.5
15	MP2A	Mx	000796	11.5
16	MP2A	X	0	13
17	MP2A	Z	-13.055	13
18	MP2A	Mx	0087	13
19	MP2A	X	0	13
20	MP2A	Z	-13.055	13
21	MP2A	Mx	.0087	13
22	MP2A	X	0	8.5
23	MP2A	$\frac{1}{Z}$	-7.087	8.5
24	MP2A	Mx	0	8.5
25	MP2A	X	0	8.5
26	MP2A	Z	-7.087	8.5
27	MP2A	Mx	0	8.5
28	RRH2	X	0	4
29	RRH2	Z	-8.33	4



Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
30	RRH2	Mx	0	4

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

Mer	mber Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
	MP2A	X	13.266	1.75
2	MP2A	Z	-22.978	1.75
3	MP2A	Mx	02	1.75
4	MP2A	X	13.266	5.75
5	MP2A	Z	-22.978	5.75
6	MP2A	Mx	02	5.75
7	MP2A	X	13.266	1.75
8	MP2A	Z	-22.978	1.75
9	MP2A	Mx	.0068	1.75
10	MP2A	X	13.266	5.75
	MP2A	Z	-22.978	5.75
12	MP2A	Mx	.0068	5.75
13	MP2A	X	1,494	11.5
14	MP2A	Z	-2.588	11.5
15	MP2A	Mx	000274	11.5
16	MP2A	X	6.037	13
	MP2A	Z	-10.456	13
18	MP2A	Mx	009	13
	MP2A	X	5.85	13
	MP2A	Z	-10.133	13
	MP2A	Mx	.0048	13
	MP2A	X	2.997	8.5
	MP2A	Z	-5.191	8.5
	MP2A	Mx	000999	8.5
	MP2A	X	2.997	8.5
	MP2A	Z	-5.191	8.5
	MP2A	Mx	.000999	8.5
	RRH2	X	3.989	4
	RRH2	Z	-6.909	4
30 F	RRH2	Mx	002	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	19.05	1.75
2	MP2A	Z	-10.999	1.75
3	MP2A	Mx	0159	1.75
4	MP2A	X	19.05	5.75
5	MP2A	Z	-10.999	5.75
6	MP2A	Mx	0159	5.75
7	MP2A	X	19.05	1.75
8	MP2A	Z	-10.999	1.75
9	MP2A	Mx	0031	1.75
10	MP2A	X	19.05	5.75
11	MP2A	Z	-10.999	5.75
12	MP2A	Mx	0031	5.75
13	MP2A	X	2.253	11.5
14	MP2A	Z	-1.301	11.5
15	MP2A	Mx	.000238	11.5
16	MP2A	X	8.757	13
17	MP2A	Z	-5.056	13
18	MP2A	Mx	0063	13
19	MP2A	X	7.788	13

Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:___

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
20	MP2A	Z	-4.496	13
21	MP2A	Mix	.000401	13
22	MP2A	X	3.296	8.5
23	MP2A	Z	-1.903	8.5
24	MP2A	Mx	0011	8.5
25	MP2A	X	3.296	8.5
26	MP2A	Z	-1.903	8.5
27	MP2A	Mx	.0011	8.5
28	RRH2	X	6.299	4
29	RRH2	Z	-3.637	4
30	RRH2	Mx	0032	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	19.73	1.75
2	MP2A	Z	0	1.75
3	MP2A	Mx	0099	1.75
4	MP2A	X	19.73	5.75
5	MP2A	Z	0	5.75
6	MP2A	Mx	0099	5.75
7	MP2A	X	19.73	1.75
8	MP2A	Z	0	1.75
9	MP2A	Mx	0099	1.75
10	MP2A	X	19.73	5.75
11	MP2A	Z	0	5.75
12	MP2A	Mx	0099	5.75
13	MP2A	X	2.408	11.5
14	MP2A	Ž	0	11.5
15	MP2A	Mx	.000602	11.5
16	MP2A	X	9.13	13
17	MP2A	Z	0	13
18	MP2A	Mx	003	13
19	MP2A	X	7.638	13
20	MP2A	Z	0	13
21	MP2A	Mx	0025	13
22	MP2A	X	2.712	8.5
23	MP2A	Z	0	8.5
24	MP2A	Mx	000904	8.5
25	MP2A	X	2.712	8.5
26	MP2A	Z	0	8.5
27	MP2A	Mx	.000904	8.5
28	RRH2	X	6.921	4
29	RRH2	Z	0	4
30	RRH2	Mx	0035	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	19.05	1.75
2	MP2A	Z	10.999	1.75
3	MP2A	Mx	0031	1.75
4	MP2A	X	19.05	5.75
5	MP2A	Z	10.999	5.75
6	MP2A	Mx	0031	5.75
7	MP2A	X	19.05	1.75
8	MP2A	7	10.999	1.75
9	MP2A	Mx	0159	1.75



Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
10	MP2A	X	19.05	5.75
11	MP2A	Z	10.999	5.75
12	MP2A	Mx	0159	5.75
13	MP2A	X	2.253	v 11.5
14	MP2A	Z	1.301	11.5
15	MP2A	Mx	.000888	11.5
16	MP2A	X	8.757	13
17	MP2A	Z	5.056	13
18	MP2A	Mx	.000452	13
19	MP2A	X	7.788	13
20	MP2A	Z	4.496	13
21	MP2A	Mx	0056	13
22	MP2A	X	3.296	8.5
23	MP2A	Z	1.903	8.5
24	MP2A	Mx	0011	8.5
25	MP2A	X	3.296	8.5
26	MP2A	Z	1.903	8.5
27	MP2A	Mx	.0011	8.5
28	RRH2	X	6.299	4
29	RRH2	Z	3.637	4
30	RRH2	Mx	0032	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	13.266	1.75
2	MP2A	Z	22,978	1.75
3	MP2A	Mx	.0068	1.75
4	MP2A	X	13.266	5.75
5	MP2A	Z	22.978	5.75
6	MP2A	Mx	.0068	5.75
7	MP2A	X	13.266	1.75
8	MP2A	Z	22.978	1.75
9	MP2A	Mx	02	1.75
10	MP2A	X	13.266	5.75
11	MP2A	Z	22.978	5.75
12	MP2A	Mx	02	5.75
13	MP2A	X	1.494	11.5
14	MP2A	Z	2.588	11.5
15	MP2A	Mx	.001	11.5
16	MP2A	X	6.037	13
17	MP2A	Z	10.456	13
18	MP2A	Mx	.005	13
19	MP2A	X	5.85	13
20	MP2A	Z	10.133	13
21	MP2A	Mx	0087	13
22	MP2A	X	2.997	8.5
23	MP2A	Z	5.191	8.5
24	MP2A	Mx	000999	8.5
25	MP2A	X	2.997	8.5
26	MP2A	Z	5.191	8.5
27	MP2A	Mx	.000999	8.5
28	RRH2	X	3.989	4
29	RRH2	Z	6.909	4
30	RRH2	Mx	002	4



Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:____

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	1.75
2	MP2A	Z	28.8	1.75
3	MP2A	Mx	.0168	1.75
4	MP2A	X	0 44	5.75
5	MP2A	Z	28.8	5.75
6	MP2A	Mx	.0168	5.75
7	MP2A	X	0	1.75
8	MP2A	Z	28.8	1.75
9	MP2A	Mx	0168	1.75
10	MP2A	X	0	5.75
11	MP2A	Z	28.8	5.75
12	MP2A	Mx	0168	5.75
13	MP2A	X	0	11.5
14	MP2A	Z	3.182	11.5
15	MP2A	Mx	.000796	11,5
16	MP2A		0	13
17	MP2A	X	13.055	13
18	MP2A	Mx	.0087	13
19	MP2A	X	0	13
20	MP2A	Z	13.055	13
21	MP2A	Mx	0087	13
22	MP2A	X	0	8.5
23	MP2A	Z	7.087	8.5
24	MP2A	Mx	0	8.5
25	MP2A	X	0	8.5
26	MP2A	Z	7.087	8.5
27	MP2A	Mx	0	8.5
28	RRH2	X	0	4
29	RRH2	Z	8.33	4
30	RRH2	Mx	0	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft.%]
1	MP2A	X	-13.266	1.75
2	MP2A	Z	22.978	1.75
3	MP2A	Mx	.02	1.75
4	MP2A	X	-13.266	5.75
5	MP2A	Z	22.978	5.75
6	MP2A	Mx	.02	5.75
7	MP2A	X	-13.266	1.75
8	MP2A	Ž	22.978	1.75
9	MP2A	Mx	0068	1.75
10	MP2A	X	-13.266	5.75
11	MP2A	Z	22.978	5.75
12	MP2A	Mx	0068	5.75
13	MP2A	X	-1.494	11.5
14	MP2A	Z	2.588	11.5
15	MP2A	Mx	.000274	11.5
16	MP2A	X	-6.037	13
17	MP2A	Z	10.456	13
18	MP2A	Mx	.009	13
19	MP2A	X	-5.85	13
20	MP2A	Z	10.133	13
	MP2A	Mx	0048	13
21	MP2A	X	-2.997	8.5
22	MP2A MP2A	Z	5.191	8.5



Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:_____

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
24	MP2A	Mx	.000999	8.5
24 25	MP2A	X	-2.997	8.5
26	MP2A	Z	5.191	8.5
27	MP2A	Mx	000999	8.5
28	RRH2	X	-3.989	4
29	RRH2	Z	6.909	4
30	RRH2	Mx	.002	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-19.05	1.75
2	MP2A	Z	10.999	1.75
3	MP2A	Mx	.0159	1.75
4	MP2A	X	-19.05	5.75
5	MP2A	Z	10.999	5.75
6	MP2A	Mx	.0159	5.75
7	MP2A	X	-19.05	1.75
8	MP2A	Z	10.999	1.75
9	MP2A	Mx	.0031	1.75
10	MP2A	X	-19.05	5.75
11	MP2A	Z	10.999	5.75
12	MP2A	Mx	.0031	5.75
13	MP2A	X	-2.253	11.5
14	MP2A	Z	1.301	11.5
15	MP2A	Mx	000238	11.5
16	MP2A	X	-8.757	13
17	MP2A	Z	5.056	13
18	MP2A	Mx	.0063	13
19	MP2A	X	-7.788	13
20	MP2A	Z	4.496	13
21	MP2A	Mx	000401	13
22	MP2A	X	-3.296	8.5
23	MP2A	Z	1.903	8.5
24	MP2A	Mx	.0011	8.5
25	MP2A	X	-3.296	8.5
26	MP2A	Z	1.903	8.5
27	MP2A	Mx	0011	8.5
28	RRH2	X	-6.299	4
29	RRH2	Z	3.637	4
30	RRH2	Mx	.0032	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-19.73	1.75
2	MP2A	Z	0	1.75
3	MP2A	Mx	.0099	1.75
4	MP2A	X	-19.73	5.75
5	MP2A	Z	0	5.75
6	MP2A	Mx	.0099	5.75
7	MP2A	X	-19.73	1.75
8	MP2A	Z	0	1.75
9	MP2A	Mx	.0099	1.75
10	MP2A	X	-19.73	5.75
11	MP2A	Z	0	5.75
12	MP2A	Mx	.0099	5.75
13	MP2A	X	-2.408	11.5

Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:____

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
14	MP2A	Z	0	11.5
15	MP2A	Mx	000602	11.5
16	MP2A	X	-9.13	13
17	MP2A	Z	0	13
18	MP2A	Mx	.003	13
19	MP2A	X	-7.638	13
20	MP2A	Z	0	13
21	MP2A	Mx	.0025	13
22	MP2A	X	-2.712	8.5
23	MP2A	Z	0	8.5
24	MP2A	Mx	.000904	8.5
25	MP2A	X	-2.712	8.5
26	MP2A	Z	0	8.5
27	MP2A	Mx	000904	8,5
28	RRH2	X	-6.921	4
29	RRH2	Z	0	4
30	RRH2	Mx	.0035	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-19.05	1.75
2	MP2A	Z	-10.999	1.75
3	MP2A	Mx	.0031	1.75
4	MP2A	X	-19.05	5.75
5	MP2A	Z	-10.999	5.75
6	MP2A	Mx	.0031	5.75
7	MP2A	X	-19.05	1.75
8	MP2A	Z	-10.999	1.75
9	MP2A	Mx	.0159	1.75
10	MP2A	X	-19.05	5.75
11	MP2A	Z	-10.999	5.75
12	MP2A	Mx	.0159	5.75
13	MP2A	X	-2.253	11.5
14	MP2A	Z	-1.301	11.5
15	MP2A	Mx	000888	11.5
16	MP2A	X	-8.757	13
17	MP2A	Z	-5.056	13
18	MP2A	Mx	000452	13
19	MP2A	X	-7.788	13
20	MP2A	Z	-4.496	13
21	MP2A	Mx	.0056	13
22	MP2A	X	-3.296	8.5
23	MP2A	Z	-1.903	8,5
24	MP2A	Mx	.0011	8.5
25	MP2A	X	-3.296	8.5
26	MP2A	Z	-1.903	8.5
27	MP2A	Mx	0011	8.5
28	RRH2	X	-6.299	4
29	RRH2	Z	-3.637	4
30	RRH2	Mx	.0032	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-13.266	1.75
2	MP2A	7	-22.978	1.75
2	MP2A	Mx	0068	1.75
3	IVIPZA	IVIA	.0000	



: Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
4	MP2A	X	-13.266	5.75
5	MP2A	Z	-22.978	5.75
6	MP2A	Mx	0068	5.75
7	MP2A	X	-13,266	1.75
8	MP2A	Z	-22.978	1.75
9	MP2A	Mx	.02	1.75
10	MP2A	X	-13.266	5.75
11	MP2A	Z	-22.978	5.75
12	MP2A	Mx	.02	5.75
13	MP2A	X	-1.494	11.5
14	MP2A	Z	-2.588	11.5
15	MP2A	Mx	001	11.5
16	MP2A	X	-6.037	13
17	MP2A	Z	-10.456	13
18	MP2A	Mx	005	13
19	MP2A	X	-5.85	13
20	MP2A	Z	-10.133	13
21	MP2A	Mx	.0087	13
22	MP2A	X	-2.997	8.5
23	MP2A	Z	-5.191	8.5
24	MP2A	Mx	.000999	8.5
25	MP2A	X	-2.997	8.5
26	MP2A	Z	-5.191	8.5
27	MP2A	Mx	000999	8.5
28	RRH2	X	-3.989	4
29	RRH2	Z	-6.909	4
30	RRH2	Mx	.002	4

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	0	1.75
2	MP2A	Z	-9.346	1.75
3	MP2A	Mx	0055	1.75
4	MP2A	X	0	5.75
5	MP2A	Z	-9.346	5.75
6	MP2A	Mx	0055	5.75
7	MP2A	X	0	1.75
8	MP2A	Z	-9.346	1.75
9	MP2A	Mx	.0055	1.75
10	MP2A	X	0	5.75
11	MP2A	Z	-9.346	5.75
12	MP2A	Mx	.0055	5.75
13	MP2A	X	0	11.5
14	MP2A	Z	745	11.5
15	MP2A	Mx	000186	11.5
16	MP2A	X	0	13
17	MP2A	Z	-3.18	13
18	MP2A	Mx	0021	13
19	MP2A	X	0	13
20	MP2A	Z	-3.18	13
21	MP2A	Mx	.0021	13
22	MP2A	X		8.5
23	MP2A	Z	-1.851	8.5
24	MP2A	Mx	0	8.5
25	MP2A	X	0	8.5
26	MP2A	Z	-1.851	8.5



: Colliers Engineering & Design

Project # 23777168
Antenna Mount Analysis

July 14, 2023 9:34 AM Checked By:__

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
27	MP2A	Mx	0	8.5
28	RRH2	X	0	4
29	RRH2	Z	-2.314	4
30	RRH2	Mx	0	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	4.272	1.75
2	MP2A	Z	-7.399	1.75
3	MP2A	Mx	0065	1.75
4	MP2A	X	4.272	5.75
5	MP2A	Z	-7.399	5.75
6	MP2A	Mx	0065	5.75
7	MP2A	X	4.272	1.75
8	MP2A	Z	-7.399	1.75
9	MP2A	Mx	.0022	1.75
10	MP2A	X	4.272	5.75
11	MP2A	Z	-7.399	5.75
12	MP2A	Mx	.0022	5.75
13	MP2A	X	.344	11.5
14	MP2A	Z	595	11.5
15	MP2A	Mx	-6.3e-5	11.5
16	MP2A		1.459	13
17	MP2A	X	-2.528	13
18	MP2A	Mx	0022	13
19	MP2A		1.411	13
20	MP2A	X	-2.443	13
21	MP2A	Mx	.0012	13
22	MP2A	X	.766	8.5
23	MP2A	Z	-1.328	8.5
24	MP2A	Mx	000255	8.5
25	MP2A	X	.766	8.5
26	MP2A	Z	-1.328	8.5
27	MP2A	Mx	.000255	8.5
28	RRH2	X	1.102	4
29	RRH2	Z	-1.908	4
30	RRH2	Mx	000551	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	6.01	1.75
2	MP2A	Z	-3.47	1.75
3	MP2A	Mx	005	1.75
4	MP2A	X	6.01	5.75
5	MP2A	Z	-3.47	5.75
6	MP2A	Mx	005	5.75
7	MP2A	X	6.01	1.75
8	MP2A	Z	-3.47	1.75
9	MP2A	Mx	000981	1.75
10	MP2A	X	6.01	5.75
11	MP2A	Z	-3.47	5.75
12	MP2A	Mx	000981	5.75
13	MP2A	X	.496	11.5
14	MP2A	Z	286	11.5
15	MP2A	Mx	5.3e-5	11.5
16	MP2A	X	2.074	13



Colliers Engineering & Design

: Project # 23777168 : Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:___

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
17	MP2A	Z	-1.198	13
18	MP2A	Mx	0015	13
19	MP2A	X	1.821	13
20	MP2A	Z	-1.052	13
21	MP2A	Mx	9.4e-5	13
22	MP2A	X	.776	8.5
23	MP2A	Z	448	8.5
24	MP2A	Mx	000259	8.5
25	MP2A	X	.776	8.5
26	MP2A	Z	448	8.5
27	MP2A	Mx	.000259	8.5
28	RRH2	X	1.716	4
29	RRH2	Z	991	4
30	RRH2	Mx	000858	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	6.138	1.75
2	MP2A	Z	0	1.75
3	MP2A	Mx	0031	1.75
4	MP2A	X	6.138	5.75
5	MP2A	Z	0	5.75
6	MP2A	Mx	0031	5.75
7	MP2A	X	6.138	1.75
8	MP2A	Z	0	1.75
9	MP2A	Mx	0031	1.75
10	MP2A	X	6.138	5.75
11	MP2A	Z	0	5.75
12	MP2A	Mx	0031	5.75
13	MP2A	X	.515	11.5
14	MP2A	Z	0	11.5
15	MP2A	Mx	.000129	11.5
16	MP2A	X	2.134	13
17	MP2A	Z	0	13
18	MP2A	Mx	000711	13
19	MP2A	X	1.744	13
20	MP2A	Z	0	13
21	MP2A	Mx	000581	13
22	MP2A	X	.578	8.5
23	MP2A	Z	0	8.5
24	MP2A	Mx	000193	8.5
25	MP2A	X	.578	8.5
26	MP2A	Z	0	8.5
27	MP2A	Mx	.000193	8.5
28	RRH2	X	1.87	4
29	RRH2	Z	0	4
30	RRH2	Mx	000935	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	6.01	1.75
2	MP2A	Z	3.47	1.75
3	MP2A	Mx	000981	1.75
4	MP2A	X	6.01	5.75
5	MP2A	Z	3.47	5.75
6	MP2A	Mx	000981	5.75



: Colliers Engineering & Design

Project # 23777168
Antenna Mount Analysis

July 14, 2023 9:34 AM Checked By:_

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft.%]
7	MP2A	X	6.01	1.75
8	MP2A	Z	3.47	1.75
9	MP2A	Mx	005	1.75
10	MP2A	X	6.01	5.75
11	MP2A	Z	3.47	5.75
12	MP2A	Mx	005	5.75
13	MP2A	X	.496	11.5
14	MP2A	Z	.286	11.5
15	MP2A	Mx	.000196	11.5
16	MP2A	X	2.074	13
17	MP2A	Z	1.198	13
18	MP2A	Mx	.000107	13
19	MP2A	X	1.821	13
20	MP2A	Z	1.052	13
21	MP2A	Mx	0013	13
22	MP2A	X	.776	8.5
23	MP2A	Z	.448	8.5
24	MP2A	Mx	000259	8.5
25	MP2A	X	.776	8.5
26	MP2A	Z	.448	8.5
27	MP2A	Mx	.000259	8.5
28	RRH2	X	1.716	4
29	RRH2	Z	.991	4
30	RRH2	Mx	000858	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	4.272	1.75
2	MP2A	Z	7.399	1.75
3	MP2A	Mx	.0022	1.75
4	MP2A	X	4.272	5.75
5	MP2A	Z	7.399	5.75
6	MP2A	Mx	.0022	5.75
7	MP2A	X	4.272	1.75
8	MP2A	Z	7.399	1.75
9	MP2A	Mx	0065	1.75
10	MP2A	X	4.272	5.75
11	MP2A	Z	7.399	5.75
12	MP2A	Mx	0065	5.75
13	MP2A	X	.344	11.5
14	MP2A	Z	.595	11.5
15	MP2A	Mx	.000235	11.5
16	MP2A	X	1.459	13
17	MP2A	Z	2.528	13
18	MP2A	Mx	.0012	13
19	MP2A	X	1.411	13
20	MP2A	Z	2.443	13
21	MP2A	Mx	0021	13
22	MP2A	X	.766	8.5
23	MP2A	Z	1.328	8.5
24	MP2A	Mx	000255	8.5
25	MP2A	X	.766	8.5
26	MP2A	Z	1.328	8.5
27	MP2A	Mx	.000255	8.5
28	RRH2	X	1.102	4
29	RRH2	Z	1.908	4



Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:___

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

	Member Label	Direction	Magnitude(lb,k-ft)	Location[ft,%]
30	RRH2	Mx	000551	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	1.75
2	MP2A	Z	9.346	1.75
3	MP2A	Mx	.0055	1.75
4	MP2A	X	0	5.75
5	MP2A	Z	9.346	5.75
6	MP2A	Mx	.0055	5.75
7	MP2A	X	0	1.75
8	MP2A	Z	9.346	1.75
9	MP2A	Mx	0055	1.75
10	MP2A	X	0	5.75
11	MP2A	Z	9.346	5.75
12	MP2A	Mx	0055	5.75
13	MP2A	X	0	11.5
14	MP2A	Z	.745	11.5
15	MP2A	Mx	.000186	11.5
16	MP2A	X	0	13
17	MP2A	Z	3.18	13
18	MP2A	Mx	.0021	13
19	MP2A	X	0	13
20	MP2A	Z	3.18	13
21	MP2A	Mx	0021	13
22	MP2A	X	0	8.5
23	MP2A	Z	1.851	8.5
24	MP2A	Mx	0	8.5
25	MP2A	X	Ō	8.5
26	MP2A	Z	1.851	8.5
27	MP2A	Mx	0	8.5
28	RRH2	X	Ō	4
29	RRH2	Z	2.314	4
30	RRH2	Mx	0	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-4.272	1.75
2	MP2A	Z	7.399	1,75
3	MP2A	Mx	.0065	1.75
4	MP2A	X	-4.272	5.75
5	MP2A	Z	7.399	5.75
6	MP2A	Mx	.0065	5.75
7	MP2A	X	-4.272	1.75
8	MP2A	Z	7.399	1.75
9	MP2A	Mx	0022	1.75
10	MP2A	X	-4.272	5.75
11	MP2A	Z	7.399	5.75
12	MP2A	Mx	0022	5.75
13	MP2A	X	344	11.5
14	MP2A	Z	.595	11.5
15	MP2A	Mx	6.3e-5	11.5
16	MP2A	X	-1.459	13
17	MP2A	Z	2.528	13
18	MP2A	Mx	.0022	13
19	MP2A	X	-1.411	13



: Colliers Engineering & Design

Project # 23777168
Antenna Mount Analysis

July 14, 2023 9:34 AM Checked By:_

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
20	MP2A	Z	2.443	13
21	MP2A	Mx	0012	13
22	MP2A	X	766	8.5
23	MP2A	Z	1.328	8.5
24	MP2A	Mx	.000255	8.5
25	MP2A	X	766	8.5
26	MP2A	Z	1.328	8.5
27	MP2A	Mx	000255	8.5
28	RRH2	X	-1.102	4
29	RRH2	Z	1.908	4
30	RRH2	Mx	.000551	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-6.01	1.75
2	MP2A	Z	3.47	1.75
3	MP2A	Mx	.005	1.75
4	MP2A	X	-6.01	5.75
5	MP2A	Z	3.47	5.75
6	MP2A	Mx	.005	5.75
7	MP2A	X	-6.01	1.75
8	MP2A	Z	3.47	1.75
9	MP2A	Mx	.000981	1.75
10	MP2A	X	-6.01	5.75
11	MP2A	Z	3.47	5.75
12	MP2A	Mx	.000981	5.75
13	MP2A	X	496	11.5
14	MP2A	Z	.286	11.5
15	MP2A	Mx	-5.3e-5	11.5
16	MP2A		-2.074	13
17	MP2A	X	1.198	13
18	MP2A	Mx	.0015	13
19	MP2A	X	-1.821	13
20	MP2A	Z	1.052	13
21	MP2A	Mx	-9.4e-5	13
22	MP2A	X	776	8.5
23	MP2A	Z	.448	8.5
24	MP2A	Mx	.000259	8.5
25	MP2A	X	776	8.5
26	MP2A	Z	.448	8.5
27	MP2A	Mx	000259	8.5
28	RRH2	X	-1.716	4
29	RRH2	Z	.991	4
30	RRH2	Mx	.000858	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-6.138	1.75
2	MP2A	Z	0	1.75
3	MP2A	Mx	.0031	1.75
4	MP2A	X	-6.138	5.75
5	MP2A	Z	0	5.75
6	MP2A	Mx	.0031	5.75
7	MP2A	X	-6.138	1.75
8	MP2A	Z	0	1.75
9	MP2A	Mx	.0031	1.75

: Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:___

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft.%]
10	MP2A	X	-6,138	5.75
11	MP2A	Z	0	5.75
12	MP2A	Mx	.0031	5.75
13	MP2A	X	515	11.5
14	MP2A	Z	0	11.5
15	MP2A	Mx	000129	11.5
16	MP2A	X	-2.134	13
17	MP2A	Z	0	13
18	MP2A	Mx	.000711	13
19	MP2A	X	-1.744	13
20	MP2A	Z	0	13
21	MP2A	Mx	.000581	13
22	MP2A	X	578	8.5
23	MP2A	Z	0	8.5
24	MP2A	Mx	.000193	8.5
25	MP2A	X	578	8.5
26	MP2A	Z	0	8.5
27	MP2A	Mx	000193	8.5
28	RRH2	X	-1.87	4
29	RRH2	Z	0	4
30	RRH2	Mx	.000935	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-6.01	1.75
2	MP2A	Z	-3.47	1.75
3	MP2A	Mx	.000981	1.75
4	MP2A	X	-6.01	5.75
5	MP2A	Z	-3.47	5.75
6	MP2A	Mx	.000981	5.75
7	MP2A	X	-6.01	1.75
8	MP2A	Z	-3.47	1.75
9	MP2A	Mx	.005	1.75
10	MP2A	X	-6.01	5.75
11	MP2A	Z	-3.47	5.75
12	MP2A	Mx	.005	5.75
13	MP2A	X	496	11.5
14	MP2A	Z	286	11.5
15	MP2A	Mx	000196	11.5
16	MP2A		-2.074	13
17	MP2A	X	-1.198	13
18	MP2A	Mx	000107	13
19	MP2A	X	-1.821	13
20	MP2A	Z	-1.052	13
21	MP2A	Mx	.0013	13
22	MP2A	X	776	8.5
23	MP2A	Z	448	8.5
24	MP2A	Mx	.000259	8.5
25	MP2A	X	776	8.5
26	MP2A	Z	-,448	8.5
27	MP2A	Mx	000259	8.5
28	RRH2	X	-1.716	4
29	RRH2	Z	991	4
30	RRH2	Mx	.000858	4



: Colliers Engineering & Design

Project # 23777168
Antenna Mount Analysis

July 14, 2023 9:34 AM Checked By:__

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-4.272	1.75
2	MP2A	Z	-7.399	1.75
3	MP2A	Mx	0022	1.75
4	MP2A	X	-4.272	5.75
5	MP2A	Ž	-7.399	5.75
6	MP2A	Mx	0022	5.75
7	MP2A	X	-4.272	1.75
8	MP2A	Z	-7.399	1.75
9	MP2A	Mx	.0065	1.75
10	MP2A	X	-4.272	5.75
11	MP2A	Z	-7.399	5.75
12	MP2A	Mx	.0065	5.75
13	MP2A	X	344	11.5
14	MP2A	Z	595	11.5
15	MP2A	Mx	000235	11.5
16	MP2A	X	-1.459	13
17	MP2A	Z -	-2.528	13
18	MP2A	Mx	0012	13
19	MP2A	X	-1.411	13
20	MP2A	Z	-2.443	13
21	MP2A	Mx	.0021	13
22	MP2A	X	766	8.5
23	MP2A	7	-1.328	8.5
24	MP2A	Mx	.000255	8.5
25	MP2A	X	766	8.5
26	MP2A	Z	-1.328	8.5
27	MP2A	Mx	000255	8.5
28	RRH2	X	-1.102	4
29	RRH2	$\frac{1}{Z}$	-1.908	4
30	RRH2	Mx	.000551	4

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft.%]
1	M31	Y	-500	0

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M31	Y	-500	%50

Member Point Loads (BLC 79 : Lv1)

Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
M31	Y	-250	0

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M31	Y	-250	%50

Member Point Loads (BLC 81 : Antenna Ev)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	Y	-1.6205	1.75
2	MP2A	Mv	00081	1.75
2	MP2A	Mz	.000945	1.75
1	MP2A	Y	-1.6205	5.75
5	MP2A	My	00081	5.75



Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:____

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
6	MP2A	Mz	.000945	5.75
7	MP2A	Y	-1.6205	1.75
8	MP2A	My	00081	1.75
9	MP2A	Mz	000945	1.75
10	MP2A	Y	-1.6205	5.75
11	MP2A	Mv	00081	5.75
12	MP2A	Mz	000945	5.75
13	MP2A	Y	5325	11.5
14	MP2A	Mv	.000133	11.5
15	MP2A	Mz	.000133	11.5
16	MP2A	Y	-4.3213	13
17	MP2A	My	0014	13
18	MP2A	Mz	.0029	13
19	MP2A	Y	-3.5994	13
20	MP2A	Mv	0012	13
21	MP2A	Mz	0024	13
22	MP2A	Υ	9011	8.5
23	MP2A	My	0003	8.5
24	MP2A	Mz	0	8.5
25	MP2A	Υ	9011	8.5
26	MP2A	My	.0003	8.5
27	MP2A	Mz	0	8.5
28	RRH2	Y	7168	4
29	RRH2	My	000358	4
30	RRH2	Mz	0	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	Z	-5.064	1.75
2	MP2A	Mx	003	1.75
3	MP2A	Z	-5.064	5.75
4	MP2A	Mx	003	5.75
5	MP2A	Z	-5.064	1.75
6	MP2A	Mx	.003	1.75
7	MP2A	Z	-5.064	5.75
8	MP2A	Mx	.003	5.75
9	MP2A	Z	-1.664	11.5
10	MP2A	Mx	000416	11.5
11	MP2A	Z	-13.504	13
12	MP2A	Mx	009	13
13	MP2A	Z	-11.248	13
14	MP2A	Mx	.0075	13
15	MP2A	Z	-2.816	8.5
16	MP2A	Mx	0	8.5
17	MP2A	Z	-2.816	8.5
18	MP2A	Mx	0	8.5
19	RRH2	Z	-2.24	4
20	RRH2	Mx	0	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	5.064	1.75
2	MP2A	Mx	0025	1.75
3	MP2A	X	5.064	5.75
4	MP2A	Mx	0025	5.75
5	MP2A	X	5.064	1.75

Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:_

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
0	MP2A	Mx	0025	1.75
6		X	5.064	5.75
-	MP2A	Mx	0025	5,75
8	MP2A	X	1.664	11.5
9	MP2A	Mx	.000416	11.5
10	MP2A	X	13.504	13
11	MP2A	Mx	0045	13
12	MP2A	X	11.248	13
13	MP2A	Mx	0037	13
14	MP2A		2.816	8.5
15	MP2A	X	000939	8.5
16	MP2A	Mx	2.816	8.5
17	MP2A	X		8.5
18	MP2A	Mx	.000939	4
19	RRH2	X	2.24	4
20	RRH2	Mx	0011	

Member Distributed Loads (BLC 40 : Structure Di)

	Member Label	Direction	Start Magnitude.	.End Magnitude[I.	.Start Location[ft.	End Location[ft
4	MP2A	Y	-9.2273	-9.2273	0	%100
	RRH2	Y	-5.8476	-5.8476	0	%100
2	M36	Ý	-3.0644	-3.0644	0	%100
3	M37	Ý	-3.0644	-3.0644	0	%100
4	M46		-3.0644	-3.0644	0	%100
5	M47	V	-3.0644	-3.0644	0	%100
6		V	-17.9945	-17.9945	0	%100
/	M52	V	-17.9945	-17.9945	0	%100
8	M54		-11.0672	-11.0672	0	%100
9	M57	V	-11.0672	-11.0672	Ů Ô	%100
10	M58		1			

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

¢.	Member Label		Start Magnitude	End Magnitude(I.		%100
1	MP2A	X	0	0	0	
2	MP2A	Z	-13.4593	-13.4593	0	%100
3	RRH2	X	0	0	0	%100
4	RRH2	Z	-8.9745	-8.9745	0	%100
5	M36	X	0	0	0	%100
	M36	Z	0	0	0	%100
6	M37	X	0	0	0	%100
1	M37	Z	0	0	0	%100
8		X	Ō	0	0	%100
9	M46	7	Ö	Ö	0	%100
10	M46	X	0	0	0	%100
11	M47	7	0	O O	0	%100
12	M47		0	0	0	%100
13	M52	X			0	%100
14	M52	Z	-14.863	-14.863	0	%100
15	M54	X	0	0		%100
16	M54	Z	0	0	0	
17	M57	X	0	0	0	%100
18	M57	Z	-24.2779	-24.2779	0	%100
19	M58	X	0	0	0	%100
20	M58	Z	-19.815	-19.815	0	%100

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

Member Label Direction Start Magnitude

Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:

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

	Member Label	Direction	Start Magnitude	.End Magnitude[].	.Start Location[ft	End Location[ft,
1	MP2A	X	6.7296	6.7296	0	%100
2	MP2A	Z	-11.6561	-11.6561	0	%100
3	RRH2	X	4.4872	4.4872	0	%100
4	RRH2	Z	-7.7721	-7.7721	0	%100
5	M36	X	.1804	.1804	0	%100
6	M36	Z	3125	3125	0	%100
7	M37	X	.1804	.1804	0	%100
8	M37	Z	3125	3125	Ö	%100
9	M46	X	.1804	.1804	0	%100
10	M46	Z	3125	3125	0	%100
11	M47	X	.1804	.1804	0	%100
12	M47	Z	3125	3125	0	%100
13	M52	X	5.8229	5.8229	Ö	%100
14	M52	Z	-10.0856	-10.0856	Ö	%100
15	M54	X	.2362	.2362	0	%100
16	M54	Z	4091	4091	Ö	%100
17	M57	X	8.6322	8.6322	0	%100
18	M57	Z	-14.9515	-14.9515	0	%100
19	M58	X	10.9925	10.9925	0	%100
20	M58	Z	-19.0395	-19.0395	Ö	%100 %100

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

	Member Label	Direction	Start Magnitude.	End Magnitudell	Start Location(ff	End Location[ft
1	MP2A	X	11.6561	11.6561	0	%100
2	MP2A	Z	-6.7296	-6.7296	0	%100
3	RRH2	X	7.7721	7,7721	0	%100
4	RRH2	Z	-4.4872	-4.4872	0	%100
5	M36	X	.9374	.9374	0	%100
6	M36	Z	5412	5412	0	%100
7	M37	X	.9374	.9374	0	%100
8	M37	Z	5412	5412	0	%100
9	M46	X	.9374	.9374	0	%100
10	M46	Z	5412	5412	0	%100
11	M47	X	.9374	.9374	0	%100
12	M47	Z	5412	5412	0	%100
13	M52	X	4.5133	4.5133	0	%100
14	M52	Z	-2.6058	-2.6058	0	%100
15	M54	X	1.2272	1.2272	0	%100
16	M54	Z	7085	7085	0	%100
17	M57	X	8.5037	8.5037	0	%100
18	M57	Z	-4.9096	-4.9096	0	%100
19	M58	X	17.7867	17.7867	Ō	%100
20	M58	Z	-10.2692	-10.2692	0	%100

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

	Member Label	Direction	Start Magnitude.	.End Magnitudell.	.Start LocationIft	End Location[ft,
1	MP2A	X	13,4593	13.4593	0	%100
2	MP2A	Z	0	0	0	%100
3	RRH2	X	8.9745	8.9745	0	%100
4	RRH2	Z	0	0	0	%100
5	M36	X	1.4433	1.4433	0	%100
6	M36	Z	0	0	0	%100
7	M37	X	1.4433	1.4433	0	%100
8	M37	Z	0	0	0	%100
9	M46	X	1,4433	1.4433	0	%100
10	M46	Z	0	0	0	%100

Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:_

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

	Member Label	Direction	Start Magnitude.	End Magnitude[I.	Start Location[ft.	End Location[ft,
11	M47	X	1.4433	1.4433	0	%100
12	M47	Z	0	0	0	%100
13	M52	X	1.9943	1.9943	0	%100
14	M52	7	0	0	0	%100
	M54	X	1.8894	1.8894	0	%100
15 16	M54	7	0	0	0	%100
17	M57	X	9.3874	9.3874	0	%100
	M57	7	0	0	0	%100
18	M58	X	16.9218	16.9218	0	%100
19	M58	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude.	End Magnitude[I.	.Start Location[ft,	.End Location[ft.
1	MP2A	X	11.6561	11.6561	0	%100
2	MP2A	Z	6.7296	6.7296	0	%100
3	RRH2	X	7.7721	7.7721	0	%100
4	RRH2	Z	4.4872	4.4872	0	%100
5	M36	X	.9374	.9374	0	%100
6	M36	Z	.5412	.5412	0	%100
7	M37	X	.9374	.9374	0	%100
8	M37	Z	.5412	.5412	0	%100
9	M46	X	.9374	.9374	0	%100
10	M46	Z	.5412	.5412	0	%100
11	M47	X	.9374	.9374	00	%100
12	M47	Z	.5412	.5412	0	%100
13	M52	X	4.5133	4.5133	0	%100
14	M52	Z	2.6058	2.6058	0	%100
15	M54	X	1.2272	1.2272	0	%100
16	M54	Z	.7085	.7085	0	%100
17	M57	X	14.2036	14.2036	0	%100
18	M57	Z	8.2004	8.2004	0	%100
19	M58	X	12.7755	12.7755	0	%100
20	M58	Z	7.3759	7.3759	0	%100

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

	Member Label	Direction	Start Magnitude	.End Magnitude[I.	.Start Location[ft.	End Location[ft,
1	MP2A	X	6.7296	6.7296	0	%100
2	MP2A	Z	11.6561	11.6561	0	%100
3	RRH2	X	4.4872	4.4872	0	%100
4	RRH2	Z	7.7721	7.7721	0	%100
5	M36	X	.1804	.1804	0	%100
6	M36	Z	.3125	.3125	0	%100
7	M37	X	.1804	.1804	0	%100
8	M37	7	.3125	.3125	0	%100
9	M46	X	.1804	.1804	0	%100
10	M46	7	.3125	.3125	0	%100
11	M47	X	.1804	.1804	0	%100
12	M47	7	.3125	.3125	0	%100
13	M52	X	5.8229	5.8229	0	%100
14	M52	7	10.0856	10.0856	0	%100
	M54	X	.2362	.2362	0	%100
15	M54	7	4091	.4091	0	%100
16	M57	X	11.9231	11.9231	0	%100
	M57	7	20.6513	20.6513	0	%100
18	M58	X	8.0992	8.0992	0	%100
19	M58	Z	14.0283	14.0283	0	%100

Colliers Engineering & Design

: Project # 23777168 : Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:_

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

	Member Label	Direction	Start Magnitude.	.End Magnitude[].	.Start Location[ft.	.End Location[ft
_1	MP2A	X	0	0	0	%100
2	MP2A	Z	13.4593	13.4593	0	%100
3	RRH2	X	0	0	0	%100
4	RRH2	Z	8.9745	8.9745	0	%100
5	M36	X	0	0	0	%100
6	M36	Z	0	0	0	%100
7	M37	X	0	0	0	%100
8	M37	Z	0	0	0	%100
9	M46	X	0	0	0	%100
10	M46	Z	0	0	0	%100
11	M47	X	0	0	0	%100
12	M47	Z	0	0	0	%100
13	M52	X	0	0	0	%100
14	M52	Z	14.863	14.863	0	%100
15	M54	X	0	0	0	%100
16	M54	Z	0	0	0	%100
17	M57	X	0	0	0	%100
18	M57	Z	24.2779	24.2779	0	%100
19	M58	X	0	0	0	%100
20	M58	Z	19.815	19.815	0	%100

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

	Member Label	Direction	Start Magnitude.	End MagnitudeII	Start Location[ft	End Locationift
1	MP2A	X	-6.7296	-6.7296	0	%100
2	MP2A	2	11.6561	11.6561	0	%100
3	RRH2	X	-4.4872	-4.4872	0	%100
4	RRH2	Z	7.7721	7.7721	0	%100
5	M36	X	1804	1804	0	%100
6	M36	Z	.3125	.3125	0	%100
7	M37	X	1804	1804	0	%100
8	M37	Z	.3125	.3125	0	%100
9	M46	X	1804	1804	0	%100
10	M46	Z	.3125	.3125	0	%100
11	M47	X	1804	1804	0	%100
12	M47	Z	.3125	.3125	0	%100
13	M52	X	-5.8229	-5.8229	0	%100
14	M52	Z	10.0856	10.0856	0	%100
15	M54	X	2362	2362	0	%100
16	M54	Z	.4091	.4091	0	%100
17	M57	X	-8.6322	-8.6322	0	%100
18	M57	Z	14.9515	14.9515	0	%100
19	M58	X	-10.9925	-10.9925	0	%100
20	M58	Z	19.0395	19.0395	0	%100

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

	Member Label	Direction	Start Magnitude.	End Magnitude[].	.Start Location(ft.	End Location[ft,
1	MP2A	X	-11.6561	-11.6561	0	%100
2	MP2A	Z	6.7296	6.7296	0	%100
3	RRH2	X	-7.7721	-7.7721	0	%100
4	RRH2	Z	4.4872	4.4872	0	%100
5	M36	X	9374	9374	0	%100
6	M36	Z	.5412	.5412	0	%100
7	M37	X	9374	9374	0	%100
8	M37	Z	.5412	.5412	0	%100
9	M46	X	9374	9374	0	%100
10	M46	Z	.5412	.5412	0	%100



Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:_____

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

	Member Label	Direction	Start Magnitude.	End Magnitude[I.	.Start Location[ft.	End Location[ft,
11	M47	X	9374	9374	0	%100
12	M47	7	.5412	.5412	0	%100
13	M52	X	-4.5133	-4.5133	0	%100
14	M52	7	2.6058	2.6058	0	%100
	M54	X	-1.2272	-1.2272	0	%100
15	M54	7	.7085	.7085	0	%100
16	M57	X	-8.5037	-8.5037	0	%100
17	M57	7	4.9096	4.9096	0	%100
18	M58	X	-17.7867	-17.7867	0	%100
19	M58	Z	10.2692	10.2692	0	%100

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

	Member Label	Direction	Start Magnitude.	.End Magnitude[I.	.Start Location[ft.	.End Location[ft,
1	MP2A	l X	-13.4593	-13.4593	0	%100
2	MP2A	Z	0	0	0	%100
3	RRH2	X	-8.9745	-8.9745	0	%100
4	RRH2	Z	0	0	0	%100
5	M36	X	-1.4433	-1.4433	0	%100
6	M36	Z	0	0	0	%100
7	M37	X	-1.4433	-1.4433	0	%100
8	M37	Z	0	0	0	%100
9	M46	X	-1.4433	-1.4433	0	%100
10	M46	Z	0	0	0	%100
11	M47	X	-1.4433	-1.4433	0	%100
12	M47	Z	0	0	0	%100
13	M52	X	-1.9943	-1.9943	0	%100
14	M52	Z	0	0	0	%100
15	M54	X	-1.8894	-1.8894	0	%100
16	M54	Z	0	0	0	%100
17	M57	X	-9.3874	-9.3874	0	%100
18	M57	Z	0	0	0	%100
19	M58	X	-16.9218	-16.9218	0	%100
20	M58	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude	.End Magnitude[I.	.Start Location[ft,	End Location[f
1	MP2A	X	-11.6561	-11.6561	0	%100
2	MP2A	Z	-6.7296	-6.7296	0	%100
3	RRH2	X	-7.7721	-7.7721	0	%100
4	RRH2	Z	-4.4872	-4.4872	0	%100
5	M36	X	9374	9374	0	%100
6	M36	Z	5412	5412	0	%100
7	M37	X	9374	9374	0	%100
8	M37	Z	5412	5412	0	%100
9	M46	X	9374	9374	0	%100
10	M46	Z	5412	5412	0	%100
11	M47	X	9374	9374	0	%100
12	M47	7	5412	5412	0	%100
13	M52	X	-4.5133	-4.5133	0	%100
	M52	7	-2.6058	-2.6058	0	%100
14	M54	X	-1.2272	-1.2272	0	%100
15	M54	7	7085	7085	0	%100
	M57	X	-14.2036	-14.2036	0	%100
17	M57	7	-8.2004	-8.2004	0	%100
18	M58	X	-12.7755	-12.7755	0	%100
19 20	M58	Ž	-7.3759	-7.3759	0	%100



Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:____

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

	Member Label	Direction	Start Magnitude	.End Magnitudefl.	.Start Location[ft.	.End Location[ft,
1	MP2A	X	-6.7296	-6.7296	0	%100
2	MP2A	Z	-11.6561	-11.6561	0	%100
3	RRH2	X	-4.4872	-4.4872	0	%100
4	RRH2	Z	-7.7721	-7.7721	0	%100
5	M36	X	1804	1804	0	%100
6	M36	Z	3125	3125	0	%100
7	M37	X	1804	1804	0	%100
8	M37	Z	3125	3125	0	%100
9	M46	X	1804	1804	0	%100
10	M46	Z	3125	3125	0	%100
11	M47	X	1804	1804	0	%100
12	M47	Z	3125	3125	0	%100
13	M52	X	-5.8229	-5.8229	0	%100
14	M52	Z	-10.0856	-10.0856	0	%100
15	M54	X	2362	2362	0	%100
16	M54	Z	4091	4091	0	%100
17	M57	X	-11.9231	-11.9231	0	%100
18	M57	Z	-20.6513	-20.6513	0	%100
19	M58	X	-8.0992	-8.0992	0	%100
20	M58	Z	-14.0283	-14.0283	0	%100

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

	Member Label	Direction	Start Magnitude	End MagnitudeII.	.Start Location[ft.	End Location[ft
_1	MP2A	X	0	0	0	%100
2	MP2A	Z	-3.9708	-3.9708	0	%100
3	RRH2	X	0	0	0	%100
4	RRH2	Z	-2.7829	-2.7829	0	%100
5	M36	X	0	0	0	%100
6	M36	Z	0	0	0	%100
7	M37	X	0	0	0	%100
8	M37	Z	0	0	0	%100
9	M46	X	0	0	0	%100
10	M46	Z	0	0	0	%100
11	M47	X	0	0	0	%100
12	M47	Z	0	0	0	%100
13	M52	X	0	0	0	%100
14	M52	Z	-2.5043	-2.5043	0	%100
15	M54	X	0	0	0	%100
16	M54	Z	0	0	0	%100
17	M57	X	0	0	0	%100
18	M57	Z	-4.994	-4.994	0	%100
19	M58	X	0	0	0	%100
20	M58	Z	-4.2415	-4.2415	0	%100

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

	Member Label	Direction	Start Magnitude.	End Magnitude[I.	.Start Location(ft.	End Location[ft
1	MP2A	X	1.9854	1.9854	0	%100
2	MP2A	Z	-3.4388	-3.4388	0	%100
3	RRH2	X	1.3915	1.3915	0	%100
4	RRH2	Z	-2.4101	-2.4101	0	%100
5	M36	X	.1328	.1328	0	%100
6	M36	Z	23	23	0	%100
7	M37	X	.1328	.1328	0	%100
8	M37	Z	23	23	0	%100
9	M46	X	.1328	.1328	0	%100
10	M46	Z	23	23	0	%100

Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:__

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

	Member Label	Direction	Start Magnitude.	End Magnitude[I.	.Start Location[ft,	End Location[ft,
11	M47	X	.1328	.1328	0	%100
11	M47	7	23	23	0	%100
12	M52	X	1.0821	1.0821	0	%100
13	M52	7	-1.8743	-1.8743	0	%100
14	M54	X	.1482	.1482	0	%100
15	M54	7	2566	2566	0	%100
16	M57	X	1.7757	1.7757	0	%100
17		7	-3.0755	-3.0755	0	%100
18	M57	Y	2.353	2.353	0	%100
19	M58 M58	Z	-4.0755	-4.0755	0	%100

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

	Member Label	Direction	Start Magnitude.	End Magnitude[I.	.Start Location[ft,	.End Location[ft.
1	MP2A	X	3.4388	3.4388	0	%100
2	MP2A	Z	-1.9854	-1.9854	0	%100
3	RRH2	X	2.4101	2.4101	0	%100
4	RRH2	Z	-1.3915	-1.3915	0	%100
5	M36	X	.6901	.6901	0	%100
6	M36	Z	3984	3984	0	%100
7	M37	X	.6901	.6901	0	%100
	M37	7	3984	3984	0	%100
8	M46	X	.6901	.6901	0	%100
9	M46	Z	3984	3984	0	%100
10	M47	X	.6901	.6901	0	%100
11	M47	7	3984	3984	0	%100
12	M52	X	1.2852	1.2852	0	%100
13	M52	Z	742	742	0	%100
14	M54	X	7699	7699	0	%100
15		7	4445	- 4445	0	%100
16	M54	X	1.7492	1.7492	0	%100
17	M57	7	-1.0099	-1.0099	0	%100
18	M57	X	3.8073	3.8073	0	%100
19 20	M58 M58	Z	-2.1982	-2.1982	ŏ	%100

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

	Member Label	Direction	Start Magnitude.	.End Magnitude[I.	Start Location[ft,	End Location[ft,
1	MP2A	X	3.9708	3.9708	0	%100
2	MP2A	Z	0	0	0	%100
3	RRH2	X	2.7829	2.7829	0	%100
4	RRH2	Z	0	0	0	%100
5	M36	X	1.0625	1.0625	0	%100
6	M36	Z	0	0	0	%100
7	M37	X	1.0625	1.0625	0	%100
	M37	Z	0	0	0	%100
8	M46	X	1.0625	1.0625	0	%100
9	M46	Z	0	0	0	%100
10	M47	X	1.0625	1.0625	0	%100
11		7	0	0	0	%100
12	M47	X	1,144	1.144	0	%100
13	M52	Z	1.144	0	0	%100
14	M52	X	1.1853	1.1853	0	%100
15	M54	7	0	0	0	%100
16	M54	X	1.931	1.931	0	%100
17	M57	7	0	0	0	%100
18	M57	X	3.6222	3.6222	Ů Ô	%100
19	M58	7	3.0222	0.0222	0	%100
20	M58		U	<u> </u>		70100



Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:

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

	Member Label	Direction	Start Magnitude	.End Magnitude[I.	.Start Location[ft.	.End Location[ft,
1	MP2A	X	3.4388	3.4388	0	%100
2	MP2A	Z	1.9854	1.9854	0	%100
3	RRH2	X	2.4101	2.4101	0	%100
4	RRH2	Z	1.3915	1.3915	0	%100
5	M36	X	.6901	.6901	0	%100
6	M36	Z	.3984	.3984	0	%100
7	M37	X	.6901	.6901	0	%100
8	M37	Z	.3984	.3984	0	%100
9	M46	X	.6901	.6901	0	%100
10	M46	Z	.3984	.3984	0	%100
11	M47	X	.6901	.6901	0	%100
12	M47	Z	.3984	.3984	0	%100
13	M52	X	1.2852	1.2852	0	%100
14	M52	Z	.742	.742	0	%100
15	M54	X	.7699	.7699	0	%100
16	M54	Z	.4445	.4445	0	%100
17	M57	X	2.9217	2.9217	0	%100
18	M57	Z	1.6868	1.6868	0	%100
19	M58	X	2.7346	2.7346	0	%100
20	M58	Z	1.5788	1.5788	0	%100

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

	Member Label	Direction	Start Magnitude.	End Magnitude[I.	.Start LocationIft	.End LocationIft
1	MP2A	X	1.9854	1.9854	0	%100
2	MP2A	Z	3.4388	3.4388	0	%100
3	RRH2	X	1.3915	1.3915	0	%100
4	RRH2	Z	2.4101	2.4101	0	%100
_5	M36	X	.1328	.1328	0	%100
6	M36	Z	.23	.23	0	%100
7	M37	X	.1328	.1328	0	%100
8	M37	Z	.23	.23	0	%100
9	M46	X	.1328	.1328	0	%100
10	M46	Z	.23	.23	0	%100
11	M47	X	.1328	.1328	0	%100
12	M47	Z	.23	.23	0	%100
13	M52	X	1.0821	1.0821	0	%100
14	M52	Z	1.8743	1.8743	0	%100
15	M54	X	.1482	.1482	0	%100
16	M54	Z	.2566	.2566	0	%100
17	M57	X	2.4526	2.4526	0	%100
18	M57	Z	4,248	4.248	0	%100
19	M58	X	1.7337	1.7337	0	%100
20	M58	Z	3.0028	3.0028	0	%100

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

	Member Label	Direction	Start Magnitude.	.End Magnitudell.	.Start Location[ft.	End Location[ft,
1	MP2A	X	0	0	0	%100
2	MP2A	Z	3.9708	3.9708	0	%100
3	RRH2	X	0	0	0	%100
4	RRH2	Z	2.7829	2.7829	0	%100
5	M36	X	0	0	0	%100
6	M36	Z	0	0	0	%100
7	M37	X	0	0	0	%100
8	M37	Z	0	0	0	%100
9	M46	X	0	0	0	%100
10	M46	Z	0	0	0	%100

Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:

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

	Member Label	Direction	Start Magnitude	End Magnitude[I.	Start Location[ft,	End Location[ft,
11	M47	X	0	0	0	%100
12	M47	Z	0	0	0	%100
13	M52	X	0	0	0	%100
14	M52	Z	2.5043	2.5043	0	%100
15	M54	X	0	0	0	%100
16	M54	7	0	0	0	%100
17	M57	X	0	0	0	%100
	M57	7	4.994	4.994	0	%100
18	M58	X	0	0	0	%100
19	M58	Ž	4.2415	4.2415	0	%100

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

	Member Label	Direction	Start Magnitude.	End Magnitude[l.	.Start Location[ft.	End Location[ft
1	MP2A	X	-1.9854	-1.9854	0	%100
2	MP2A	Z	3.4388	3.4388	0	%100
3	RRH2	X	-1.3915	-1.3915	0	%100
4	RRH2	Z	2.4101	2.4101	0	%100
5	M36	X	1328	1328	0	%100
6	M36	Z	.23	.23	0	%100
7	M37	X	1328	1328	0	%100
8	M37	Z	.23	.23	0	%100
9	M46	X	-,1328	1328	0	%100
10	M46	Z	.23	.23	0	%100
11	M47	X	1328	1328	0	%100
12	M47	Z	.23	.23	0	%100
13	M52	X	-1.0821	-1.0821	0	%100
14	M52	Z	1.8743	1.8743	0	%100
15	M54	X	1482	1482	0	%100
16	M54	Z	.2566	.2566	0	%100
17	M57	X	-1.7757	-1.7757	0	%100
18	M57	Z	3.0755	3.0755	0	%100
19	M58	X	-2.353	-2.353	0	%100
20	M58	Z	4.0755	4.0755	0	%100

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

	Member Label	Direction	Start Magnitude.	End Magnitude[I.	.Start Location[ft.	End Location[ft
1	MP2A	X	-3.4388	-3.4388	0	%100
2	MP2A	Z	1.9854	1.9854	0	%100
3	RRH2	X	-2.4101	-2.4101	0	%100
4	RRH2	Z	1.3915	1.3915	0	%100
5	M36	X	6901	6901	0	%100
6	M36	Z	.3984	.3984	0	%100
7	M37	X	6901	6901	0	%100
8	M37	7	.3984	.3984	0	%100
9	M46	X	6901	6901	0	%100
10	M46	Z	.3984	.3984	0	%100
11	M47	X	6901	6901	0	%100
12	M47	Z	.3984	.3984	0	%100
13	M52	X	-1.2852	-1.2852	0	%100
14	M52	Z	742	.742	0	%100
15	M54	X	7699	7699	0	%100
16	M54	Z	4445	.4445	0	%100
17	M57	X	-1.7492	-1.7492	0	%100
18	M57	7	1.0099	1.0099	0	%100
19	M58	X	-3.8073	-3.8073	0	%100
20	M58	Z	2.1982	2.1982	0	%100



Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:___

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

	Member Label	Direction	Start Magnitude.	.End Magnitudell.	.Start Location[ft.	End Location[ft
1	MP2A	X	-3.9708	-3.9708	0	%100
2	MP2A	Z	0	0	0	%100
3	RRH2	X	-2.7829	-2.7829	0	%100
4	RRH2	Z	0	0	0	%100
5	M36	X	-1.0625	-1.0625	0	%100
6	M36	Z	0	0	0	%100
7	M37	X	-1.0625	-1.0625	0	%100
8	M37	Z	0	0	0	%100
9	M46	X	-1.0625	-1.0625	0	%100
10	M46	Z	0	0	0	%100
11	M47	X	-1.0625	-1.0625	0	%100
12	M47	Z	0	0	0	%100
13	M52	X	-1.144	-1.144	0	%100
14	M52	Z	0	0	0	%100
15	M54	X	-1.1853	-1.1853	0	%100
16	M54	Z	0	0	0	%100
17	M57	X	-1.931	-1.931	0	%100
18	M57	Z	0	0	0	%100
19	M58	X	-3.6222	-3.6222	0	%100
20	M58	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude.	End Magnitude[].	.Start Location[ft.	.End Location[ft
1	MP2A	X	-3.4388	-3.4388	0	%100
2	MP2A	Z	-1.9854	-1.9854	0	%100
3	RRH2	X	-2.4101	-2.4101	0	%100
4	RRH2	Z	-1.3915	-1.3915	0	%100
5	M36	X	6901	6901	0	%100
6	M36	Z	3984	3984	0	%100
7	M37	X	6901	6901	0	%100
8	M37	Z	3984	3984	0	%100
9	M46	X	6901	6901	0	%100
10	M46	Z	3984	3984	0	%100
11	M47	X	6901	6901	0	%100
12	M47	Z	3984	3984	0	%100
13	M52	X	-1.2852	-1.2852	0	%100
14	M52	Z	742	742	0	%100
15	M54	X	7699	7699	0	%100
16	M54	Z	4445	4445	0	%100
17	M57	X	-2.9217	-2.9217	0	%100
18	M57	Z	-1.6868	-1.6868	0	%100
19	M58	X	-2.7346	-2.7346	Ō	%100
20	M58	Z	-1.5788	-1.5788	0	%100

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

	Member Label	Direction	Start Magnitude.	End Magnitude[I.	Start Location[ft.	End Location[ft,
1	MP2A	X	-1.9854	-1.9854	0	%100
2	MP2A	Z	-3.4388	-3.4388	0	%100
3	RRH2	X	-1.3915	-1.3915	0	%100
4	RRH2	Z	-2.4101	-2.4101	0	%100
5	M36	X	1328	1328	0	%100
6	M36	Z	23	23	0	%100
7	M37	X	1328	1328	0	%100
8	M37	Z	23	23	0	%100
9	M46	X	1328	1328	0	%100
10	M46	Z	23	23	0	%100

: Colliers Engineering & Design

Project # 23777168
Antenna Mount Analysis

July 14, 2023 9:34 AM Checked By:___

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

	Member Label	Direction	Start Magnitude.	.End Magnitude[I.	.Start Location[ft.	End Location[ft,
11	M47	X	1328	1328	0	%100
12	M47	Z	23	23	0	%100
13	M52	X	-1.0821	-1.0821	0	%100
14	M52	Z	-1.8743	-1.8743	0	%100
15	M54	X	1482	1482	0	%100
16	M54	7	2566	2566	0	%100
17	M57	X	-2,4526	-2,4526	0	%100
18	M57	7	-4.248	-4.248	0	%100
19	M58	X	-1.7337	-1.7337	0	%100
20	M58	7	-3.0028	-3.0028	0	%100

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

	Member Label	Direction	Start Magnitude.	End Magnitude[I.	Start Location[ft,.	.End Location[ft.
1	MP2A	X	0	0	0	%100
2	MP2A	Z	7168	7168	0	%100
3	RRH2	X	0	0	0	%100
4	RRH2	Z	4779	4779	0	%100
5	M36	X	0	0	0	%100
6	M36	Z	0	0	0	%100
7	M37	X	0	0	0	%100
8	M37	Z	0	0	0	%100
9	M46	X	0	0	0	%100
10	M46	Z	0	0	0	%100
11	M47	X	0	0	0	%100
12	M47	Z	0	0	0	%100
13	M52	X	0	0	0	%100
14	M52	Z	7915	7915	0	%100
15	M54	X	0	0	0	%100
16	M54	Z	0	0	0	%100
17	M57	X	0	0	0	%100
18	M57	Z	-1.2929	-1.2929	0	%100
19	M58	X	0	0	0	%100
20	M58	Z	-1.0552	-1.0552	0	%100

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

	Member Label	Direction	Start Magnitude.	.End Magnitude[I	Start Location[ft,	.End Location[ft,.
1	MP2A	X	.3584	.3584	0	%100
2	MP2A	Z	6207	6207	0	%100
3	RRH2	X	.239	.239	0	%100
4	RRH2	Z	4139	4139	0	%100
5	M36	X	.0096	.0096	0	%100
6	M36	Z	0166	0166	0	%100
7	M37	X	.0096	.0096	0	%100
8	M37	Z	0166	0166	0	%100
9	M46	X	.0096	.0096	0	%100
10	M46	Z	0166	0166	0	%100
11	M47	X	.0096	.0096	0	%100
12	M47	Z	0166	0166	0	%100
13	M52	X	.3101	.3101	0	%100
14	M52	Z	5371	5371	0	%100
15	M54	X	.0126	.0126	0	%100
16	M54	Z	0218	0218	0	%100
17	M57	X	.4597	.4597	0	%100
18	M57	Z	7962	7962	0	%100
19	M58	X	.5854	.5854	0	%100
20	M58	Z	-1.0139	-1.0139	0	%100



Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:__

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

	Member Label	Direction	Start Magnitude.	.End Magnitude[].	.Start Location[ft.	End Location[ft
1	MP2A	X	.6207	.6207	0	%100
2	MP2A	Z	3584	3584	0	%100
3	RRH2	X	.4139	.4139	0	%100
4	RRH2	Z	239	239	0	%100
5	M36	X	.0499	.0499	0	%100
6	M36	Z	0288	0288	0	%100
7	M37	X	.0499	.0499	0	%100
8	M37	Z	0288	0288	0	%100
9	M46	X	.0499	.0499	0	%100
10	M46	Z	0288	0288	0	%100
11	M47	X	.0499	.0499	0	%100
12	M47	Z	0288	0288	0	%100
13	M52	X	.2404	.2404	0	%100
14	M52	Z	1388	1388	0	%100
15	M54	X	.0654	.0654	0	%100
16	M54	Z	0377	0377	0	%100
17	M57	X	.4529	.4529	0	%100
18	M57	Z	2615	2615	0	%100
19	M58	X	.9472	.9472	0	%100
20	M58	Z	5469	5469	0	%100

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

	Member Label	Direction	Start Magnitude.	.End Magnitude(I	Start Location[ft,	.End Location(ft
1	MP2A	X	.7168	.7168	0	%100
2	MP2A	Z	0	0	0	%100
3	RRH2	X	.4779	.4779	0	%100
4	RRH2	Z	0	0	0	%100
5	M36	X	.0769	.0769	0	%100
6	M36	Z	0	0	0	%100
7	M37	X	.0769	.0769	0	%100
8	M37	Z	0	0	0	%100
9	M46	X	.0769	.0769	0	%100
10	M46	Z	0	0	0	%100
11	M47	X	.0769	.0769	0	%100
12	M47	Z	0	0	0	%100
13	M52	X	.1062	.1062	0	%100
14	M52	Z	0	0	0	%100
15	M54	X	.1006	.1006	0	%100
16	M54	Z	0	0	0	%100
17	M57	X	.4999	.4999	0	%100
18	M57	Z	0	0	0	%100
19	M58	X	.9012	.9012	0	%100
20	M58	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude.	.End Magnitude[I.	Start Location[ft.	End Location(ft,
1	MP2A	X	.6207	.6207	0	%100
2	MP2A	Z	.3584	.3584	0	%100
3	RRH2	X	.4139	.4139	0	%100
4	RRH2	Z	.239	.239	0	%100
5	M36	X	.0499	.0499	0	%100
6	M36	Z	.0288	.0288	0	%100
7	M37	X	.0499	.0499	0	%100
8	M37	Z	.0288	.0288	0	%100
9	M46	X	.0499	.0499	0	%100
10	M46	Z	.0288	.0288	0	%100



: Colliers Engineering & Design

Project # 23777168
Antenna Mount Analysis

July 14, 2023 9:34 AM Checked By:__

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

	Member Label	Direction	Start Magnitude.	End Magnitude[I.	.Start Location[ft.	End Location[ft,
11	M47	X	.0499	.0499	0	%100
12	M47	Z	.0288	.0288	0	%100
13	M52	X	.2404	.2404	0	%100
14	M52	Z	.1388	.1388	0	%100
15	M54	X	.0654	.0654	0	%100
16	M54	Z	.0377	.0377	0	%100
17	M57	X	.7564	.7564	0	%100
18	M57	7	.4367	.4367	0	%100
19	M58	X	.6804	.6804	0	%100
20	M58	Z	.3928	.3928	0	%100

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

	Member Label	Direction	Start Magnitude.	.End Magnitude[I	Start Location[ft,	End Location[ft.
1	MP2A	X	.3584	.3584	0	%100
2	MP2A	Z	.6207	.6207	0	%100
3	RRH2	X	.239	.239	0	%100
4	RRH2	Z	.4139	.4139	0	%100
5	M36	X	.0096	.0096	0	%100
6	M36	Z	.0166	.0166	0	%100
7	M37	X	.0096	.0096	0	%100
8	M37	Z	.0166	.0166	0	%100
9	M46	X	.0096	.0096	0	%100
10	M46	Z	.0166	.0166	0	%100
11	M47	X	.0096	.0096	0	%100
12	M47	Z	.0166	.0166	0	%100
13	M52	X	.3101	.3101	0	%100
14	M52	Z	.5371	.5371	0	%100
15	M54	X	.0126	.0126	0	%100
16	M54	Z	.0218	.0218	0	%100
17	M57	X	.635	.635	0	%100
18	M57	Z	1.0998	1.0998	0	%100
19	M58	X	.4313	.4313	0	%100
20	M58	Ž	.7471	.7471	0	%100

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

	Member Label	Direction	Start Magnitude.	End Magnitude[I	Start Location[ft.	End Location[ft,
1	MP2A	X	Ŏ	0	0	%100
2	MP2A	Z	.7168	.7168	0	%100
3	RRH2	X	0	0	0	%100
4	RRH2	Z	.4779	.4779	0	%100
5	M36	X	0	0	0	%100
6	M36	Z	0	0	0	%100
7	M37	X	0	0	0	%100
8	M37	Z	0	0	0	%100
9	M46	X	0	0	0	%100
10	M46	Z	0	0	0	%100
11	M47	X	0	0	0	%100
12	M47	Z	0	0	0	%100
13	M52	X	0	0	0	%100
14	M52	Z	.7915	.7915	0	%100
15	M54	X	0	0	0	%100
16	M54	Z	0	0	0	%100
17	M57	X	0	0	0	%100
18	M57	Z	1.2929	1.2929	0	%100
19	M58	X	0	0	0	%100
20	M58	Z	1.0552	1.0552	0	%100

Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:____

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

	Member Label	Direction	Start Magnitude.	.End Magnitude[I.	.Start Location[ft,	End Location[ft,
1	MP2A	X	3584	3584	0	%100
2	MP2A	Z	.6207	.6207	0	%100
3	RRH2	X	239	239	0	%100
4	RRH2	Z	.4139	.4139	0	%100
5	M36	X	0096	0096	0	%100
6	M36	Z	.0166	.0166	0	%100
7	M37	X	0096	0096	0	%100
8	M37	Z	.0166	.0166	0	%100
9	M46	X	0096	0096	0	%100
10	M46	Z	.0166	.0166	0	%100
11	M47	X	0096	0096	0	%100
12	M47	Z	.0166	.0166	0	%100
13	M52	X	3101	3101	0	%100
14	M52	Z	.5371	.5371	0	%100
15	M54	X	0126	0126	0	%100
16	M54	Z	.0218	.0218	0	%100
17	M57	X	4597	4597	0	%100
18	M57	Z	.7962	.7962	0	%100
19	M58	X	5854	5854	0	%100
20	M58	Z	1.0139	1.0139	0	%100

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

	Member Label	Direction	Start Magnitude	.End Magnitudell.	.Start Location[ft.	End Location[ft,
1	MP2A	X	6207	6207	0	%100
2	MP2A	Z	.3584	.3584	0	%100
3	RRH2	X	4139	4139	0	%100
4	RRH2	Z	.239	.239	0	%100
5	M36	X	0499	0499	0	%100
6	M36	Z	.0288	.0288	0	%100
7	M37	X	0499	0499	0	%100
8	M37	Z	.0288	.0288	0	%100
9	M46	X	0499	0499	0	%100
10	M46	Z	.0288	.0288	0	%100
11	M47	X	0499	0499	0	%100
12	M47	Z	.0288	.0288	0	%100
13	M52	X	2404	2404	0	%100
14	M52	Z	.1388	.1388	0	%100
15	M54	X	0654	0654	0	%100
16	M54	Z	.0377	.0377	0	%100
17	M57	X	4529	4529	0	%100
18	M57	Z	.2615	.2615	0	%100
19	M58	X	9472	9472	0	%100
20	M58	Z	.5469	.5469	0	%100

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

	Member Label	Direction	Start Magnitude.	.End Magnitudell.	.Start Location[ft,	End Location[ft,
1	MP2A	X	7168	7168	0	%100
2	MP2A	Z	0	0	0	%100
3	RRH2	X	4779	4779	0	%100
4	RRH2	Z	0	0	0	%100
5	M36	X	0769	0769	0	%100
6	M36	Z	0	0	0	%100
7	M37	X	0769	0769	0	%100
8	M37	Z	0	0	0	%100
9	M46	X	0769	0769	0	%100
10	M46	Z	0	0	0	%100



Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:___

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

	Member Label	Direction	Start Magnitude.	End Magnitude[I.	Start Location[ft,	End Location[ft
11	M47	X	0769	0769	0	%100
12	M47	7	0	0	0	%100
	M52	X	1062	1062	0	%100
13	M52	7	0	0	0	%100
14	M54	X	-,1006	1006	0	%100
15	M54	7	0	0	0	%100
16	M57	X	4999	4999	0	%100
17	M57	7	0	0	0	%100
18	M58	Y	9012	9012	0	%100
19	M58	Z	0	0	O	%100

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

	Member Label	Direction	Start Magnitude.	End Magnitude[I	Start Location[ft.	End Location[ft,
1	MP2A	X	6207	6207	0	%100
2	MP2A	Z	3584	3584	0	%100
3	RRH2	X	4139	4139	0	%100
4	RRH2	Z	239	239	0	%100
5	M36	X	0499	0499	0	%100
6	M36	Z	0288	0288	0	%100
7	M37	X	0499	0499	0	%100
8	M37	Z	0288	0288	0	%100
9	M46	X	0499	0499	0	%100
10	M46	Z	0288	0288	0	%100
11	M47	X	0499	0499	0	%100
	M47	Z	0288	0288	0	%100
12	M52	X	2404	2404	0	%100
13	M52	Z	1388	1388	0	%100
14	M54	X	0654	0654	0	%100
15	M54	Z	0377	0377	0	%100
16	M57	X	7564	7564	0	%100
17	M57	Ž	4367	4367	0	%100
18	M58	X	6804	- 6804	0	%100
19 20	M58	Z	3928	3928	0	%100

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

	Member Label	Direction	Start Magnitude.	.End Magnitude[I	Start Location[ft,	.End Location[ft,
1	MP2A	X	3584	3584	0	%100
2	MP2A	Z	6207	6207	0	%100
3	RRH2	X	239	239	0	%100
4	RRH2	Z	4139	4139	0	%100
5	M36	X	0096	0096	0	%100
6	M36	Z	0166	0166	0	%100
7	M37	X	0096	0096	0	%100
8	M37	Z	0166	0166	0	%100
9	M46	X	0096	0096	0	%100
10	M46	Z	0166	0166	0	%100
11	M47	X	0096	0096	0	%100
12	M47	Z	0166	0166	0	%100
13	M52	X	3101	3101	0	%100
14	M52	Z	5371	5371	0	%100
15	M54	X	0126	0126	0	%100
16	M54	7	0218	0218	0	%100
17	M57	X	635	635	0	%100
18	M57	Z	-1.0998	-1.0998	0	%100
19	M58	X	4313	4313	0	%100
20	M58	Z	7471	7471	0	%100



Colliers Engineering & Design

Project # 23777168 Antenna Mount Analysis July 14, 2023 9:34 AM Checked By:

Member Area Loads

Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude(ksf)
			No Data t			ag.maaajiionj

Envelope Joint Reactions

	Joint	X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	L	MZ [k-ft]	LC
1	N62	235.541	8	4048.349	7	134.969	1	.254	1	.243	8	.107	11
2		-228.384	2	-2570.146	1	-217.851	7	403	7	24	2	105	5
3	N64	147.526	11	212.167	7	132.624	23	.037	1	.182	10	.005	7
4		-149.085	5	-117.848	1	24.692	1	063	7	182	4	005	1
_5	N69	1499.503	8	1080.779	2	434.482	1	.001	1	0	7	0	7
6		-1465.633	2	-1029.52	8	-444.974	7	001	7	0	1	0	1
7	N70	1445.411	1	2481.254	1	1004,441	1	0	9	0	9	0	9
8		-1482.963	7	-2501.29	7	-1034.126	7	0	3	0	3	0	3
9	Totals:	1090.839	10	1707.305	13	1598.584	1						
10	1	-1090.839	4	567.617	70	-1598.584	7				11		

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

	Member	Shape	Code Check	Lo	LC	Shear Check	Lo	LC	phi*Pncp	hi*Pnt [phi*Mn v	.phí*Mn	Cb	Egn
1	M46	SR_0.625	.095	0	10	.103	0	20	9807.13 9			.104	1.374	
2	M47	SR_0.625	.095	0	10	.103	0	20	9807.13 9	940.196	.104	.104	1.375	H1
3	M37	SR_0.625	.082	0	13	.093	0	13	9807.13 9	940.196		.104	1.377	H1
4	M36	SR_0.625	.082	0	13	.093	0	13	9807.13 9	940.196		.104	1.377	H1
5	M52	PL9/16x12	.165	.208	7	.056	.208 z	7	215987 2	218700		54.675	1.2	H1
6	MP2A	PIPE_4.0	.218	5	7	.054	5	7		93240	10.631	10.631		H1
7	RRH2	PIPE_2.0	.092	1	1	.018	1	10		32130	1.872	1.872	1	H1
8	M57	L4X4X4	.181	4	1	.011	0 v	7		62532	3.138	5.003	1.136	H2-1
9	M54	PL1/2x10	.047	.333	7	.006	.333 v	7		62000	1.688	33.75	1.775	H1
10	M58	L4X4X4	.100	2	1	.005	0 z	2		62532	3.138	5.857	1.136	H2-1

ATTACHMENT 4



11 FILBERT RD

11 FILBERT RD Location

Mblu 5/4/199/0/

Acct# 16358

FIRST TAXING DISTRICT Owner

Assessment \$1,141,240 **Appraisal** \$1,630,340

PID 16358 **Building Count** 1

Current Value

	Appraisal			
Valuation Year	Improvements	nprovements Land		
2018	\$527,280	\$1,103,060	\$1,630,340	
	Assessment			
Valuation Year	Improvements	Land	Total \$1,141,240	
2018	\$369,100	\$772,140		

Owner of Record

Owner

FIRST TAXING DISTRICT

Co-Owner (WATER DEPT - WATER TANK)

Address

3 BELDEN AVE

NORWALK, CT 06850-3303

Sale Price \$0

Certificate

Book & Page 532/361

Sale Date

04/01/1960

Ownership History

	Ownership	History			
Owner	Sale Price Certificate		Book & Page	Sale Date	
FIRST TAXING DISTRICT	\$0		532/361	04/01/1960	

Building Information

Building 1: Section 1

Year Built:

1993

Living Area:

450

85

Replacement Cost:

Building Percent Good:

\$22,100

Replacement Cost

Less Depreciation:

\$18,790

Building Attributes

ATTACHMENT 5



Certificate of Mailing — Firm

ame and Address of Sender	TOTAL NO. of Pieces Listed by Sender			Affix Stamp Here				
	of Fields Listed by Serider	Of Fields Redelved at Foot Office	Postmark with Date of Receipt.					
Kenneth C. Baldwin, Esq.								
Robinson & Cole LLP					2.0			
280 Trumbull Street	1 2			neopost				
Hartford, CT 06103		1 3 3			08/11/2023			
	Destructor per (nome of specific	Postmaster, per (name of receiving employee)		US POSTAGE DUUS. 192				
	Postmaster, per (name of receiv	ang employee)			SESSIONES TO THE SESSION OF THE SESS	00400		
	1/2	J. Juny S.			ZIP 06103 041L12203937			
USPS [®] Tracking Number Firm-specific Identifier	(Name, Street, C	Address City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift		
	Harry Rilling, Mayo			20018	1000			
	City of Norwalk			1 State	-000			
•••••	125 East Avenue			15%	130			
	Norwalk, CT 06856	6		19'	157			
	Steven Kelppin, Dir	ector of Planning and Zoni	ng	AUG 1	1 2023			
2.	City of Norwalk		T		1 =			
	125 East Avenue			11.	11			
	Norwalk, CT 06850	6		1				
	The First Taxing Di			WE US	213			
3.	3 Belden Avenue	5-14-15-15-15-15-15-15-15-15-15-15-15-15-15-						
	Norwalk, CT 0685	0						
5.								
ò. 			_					
			-					