



FREMONT COUNTY COLLOCATION OF ANTENNA ON AN EXISTING TOWER APPLICATION

- 1. Name and Number of Existing SRU Permit
2. Name: Nora Geci, Address: 1100 E. Woodfield Rd., #500, City: Schaumburg, State: IL, Zip Code: 60173, Telephone #: 217-636-4468, Facsimile #, Name of Contact: Nora Geci, Email Address: ngeci@fullerton-us.com
3. The Applicant Applying for Collocation is: Name: Nora Geci, Address: 1100 E. Woodfield Rd., #500, City: Schaumburg, State: IL, Zip Code: 60173, Telephone #: 217-636-4468, Facsimile #, Name of Contact: Nora Geci, Email Address: ngeci@fullerton-us.com
4. Property Owner: Lloyd Olomon, Address: 12868 CR 3, City: Canon City, State: CO, Zip Code: 81212-0000, Telephone #:, Facsimile #:, Name of Contact:, Email Address:
5. Consultant:, Address:, City:, State:, Zip Code:, Telephone #:, Facsimile #, Name of Contact:, Email Address:

Please read prior to completion of this application

An application for Special Review Use Permit, instead of a Collocation Application, will be required for the following:

- 1. An increase in the height of the existing tower;
2. The relocation of an existing tower;
3. The placement of an additional tower on the existing tower site;
4. An attachment of an antenna on an existing non-commercial tower, which is less than one-hundred (100) feet in height.

Any application which is not complete or does not include all minimum submittal requirements will not be accepted by the Fremont County Department of Planning and Zoning (Department).

The applicant shall provide one (1) original document of the application and all of its attachments (copies of deeds, contracts, leases etcetera are acceptable) at the time of application submittal. After submittal, the Department will review the application and all attachments and prepare a Department Submittal Deficiency and Comment Letter (D & C Letter), which will list the deficiencies, comments and questions

about the application, which must be addressed by the applicant. The applicant shall provide one (1) original document of all requirements of the D & C letter to the Department.

Attachments can be made to this application to provide expanded narrative for any application item including supportive documentation or evidence for provided application item answers. Please indicate at the application item that there is an attachment and label it as an exhibit with the application item number, a period and the number of the attachment for that item (*as an example, the first attached document providing evidence in support of the answer given at application item number 22 would be marked - Exhibit 22.1, the fifth attached document supporting the narrative provided for application item 22 would be marked - Exhibit 22.5*). **Please label all exhibits in the lower right-hand corner of the page.**

An additional review fee of two-hundred fifty dollars (\$250.00) will be charged to the applicant, if all deficiencies as per the initial D & C Letter are not adequately addressed or provided. Each subsequent D & C Letter, based on resubmitted items, will result in another two-hundred fifty dollar (\$250.00) review fee. All such fees shall be paid along with the deficiency submittal, prior to any further review of the application.

If the application is approved by the Department, with contingencies and the contingencies are not submitted or addressed within six (6) months after approval, an additional fee of one-hundred fifty dollars (\$150.00) will be charged to the applicant for a request for an extension of time to submit the contingencies. All such fees shall be paid along with a written request, explaining the need for extension.

The Department may require additional information at any time during the application process as may be deemed necessary in determining if the application is in compliance with all applicable regulations and to make an informed decision with regard to recommendations, approval or disapproval of the application.

6. The legal description and/or address of the existing site is: 12868 CR 3, Canon City, CO 81212-0000
Legal Description - R CO -5001) MARTIN SUB WAVIER MANUF #93000-03-641

7. The type of construction of the existing tower is: II B

8. The total height of the existing tower (*with antenna*) is 196' (Highest appurtenance 200.64, T-Mobile is at 155') feet.

9. What will be the total height of the tower (*with antenna(s)*) after collocation? 196' (Highest appurtenance 200.64, T-Mobile is at 155') feet.

10. The existing tower currently has 6 antennas.

11. After the proposed collocation the tower would house 6 antennas.

12. Please provide documentation from a Licensed Professional Engineer demonstrating that the tower is capable of accommodating the proposed number of antennas. (*Mark as EXHIBIT 13.1*)

13. The existing site contains 1 accessory structures.

14. Will the proposed collocation require additional accessory structures? Yes --- No If yes, please provide how many, the sizes, the heights, the location and the reason such additional structures are necessary (*a new site plan may be required*): _____

15. If a design plan addressing materials, colors, textures, screening and landscaping in the design of the tower or antenna was required with the issuance of the original permit, will it be adequate for the proposed collocation? Yes --- No If no, it may be required to comply with the original design plan.
16. The existing site contains _____ off-street parking spaces.
17. Will the proposed collocation require additional off-street parking spaces? Yes --- No If yes, please provide how many additional spaces will be necessary: _____ off-street parking spaces.
18. Was surfacing, lighting and or landscaping of driveways and parking areas required with issuance of the original permit? Yes --- No If no, was it waived by the Board? Yes --- No
19. Will the surfacing, lighting and or landscaping of driveways and parking areas required with issuance of the original permit be adequate for the proposed collocation? Yes --- No Please explain: N/A - As per plans of this project the scope of work is equipment upgrade not collocation.
20. Will the existing access to the site be adequate for the proposed collocation? Yes --- No If No, what is the proposed access for the proposed collocation? _____
21. Was a stormwater drainage plan required and approved with the issuance of the original permit? Yes --- No If yes, will the stormwater drainage plan required and approved with the issuance of the original permit be adequate with the addition of the accessory structures (if any)? Yes --- No Please explain: _____
22. Please explain how the existing tower and additional uses meet the minimum requirements of the Federal Aviation Administration. Scope of work includes only removing (1) coax cable and (1) RFU-C ODU and install fibear IP-20D ODU, (1) 3/8" fiber cable and (1) 5/8" power cable . The work has been designed and implemented to ensure compliance without interfering with any existing operations of FAA.
23. If the existing permit holder is not the site property owner, does the agreement, lease, or the like between the site property owner and the existing permit holder allow the collocation? Yes --- No Please show (highlight) in the agreement, lease or the like that grants the permission to collocate.
24. Please attach a copy of a lease or agreement between the permit holder and the collocation applicant as to right to use of the tower by the collocation applicant, marked as Exhibit 25.1.
25. A submittal fee of \$250.00 must accompany this application (Check # _____ cash)

Collocation Applicant's Endorsement:

By signing this Application, the Applicant, or the agent/representative acting with due authorization on behalf of the Applicant, hereby certifies that all information contained in the application and any attachments to the Application, is true and correct to the best of Applicant's knowledge and belief.

Fremont County hereby advises Applicant that if any material information contained herein is determined to be misleading, inaccurate or false, the Board of Commissioners may take any and all reasonable and appropriate steps to declare actions of the Board regarding the Application to be null and void.

Further the applicant understands that if collocation is approved the applicant must comply with the conditions of the original permit, as issued or as may be amended, and applicable regulations of the Fremont County Zoning Resolution.

Signing this Application is a declaration by the Applicant to conform to all plans, drawings, and commitments submitted with or contained within this Application, provided that the same is in conformance with the Fremont County Zoning Resolution.

Nora Geci
Applicant Printed Name

Project Lead / Fullerton Engineering
Applicant Title & Company Name

Nora Geci
Applicant Signature

04/04/2024
Date

Existing Permit Holder's Endorsement:

By signing this Application, the Permit Holder, or the agent/representative acting with due authorization on behalf of the Permit Holder, hereby certifies that all information contained in the application and any attachments to the Application, is true and correct to the best of Permit Holder's knowledge and belief.

Fremont County hereby advises Permit Holder that if any material information contained herein is determined to be misleading, inaccurate or false, the Board of Commissioners may take any and all reasonable and appropriate steps to declare actions of the Board regarding the Application to be null and void.

Further the existing permit holder understands that if collocation is approved the applicant and existing permit holder must comply with the conditions of the original permit, as issued or as may be amended, and applicable regulations of the Fremont County Zoning Resolution.

Signing this Application is a declaration by the Permit Holder to conform to all plans, drawings, and commitments submitted with or contained within this Application, provided that the same is in conformance with the Fremont County Zoning Resolution.

THIS SIGNATURE ALSO SERVES AS THE EXISTING PERMIT HOLDERS APPROVAL FOR COLLOCATION.

Nora Geci
Permit Holder Printed Name

Project Lead / Fullerton Engineering
Permit Holder Title & Company Name

Nora Geci
Permit Holder Signature

04/04/2023
Date



AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure : 196 ft Self Support Tower
ATC Asset Name : Canon City
ATC Asset Number : 370533
Engineering Number : 14752410_C3_02
Proposed Carrier : T-MOBILE
Carrier Site Name : DN04300B
Carrier Site Number : DN04300B
Site Location : 12868 Cr 3
CANON CITY, CO 81212-0000
38.4062° N, 105.2664° W
County : Fremont
Date : March 13, 2024
Max Usage : 53%
Analysis Result : Pass

Created By:

Zachary S. Blackford
Structural Engineer I

Bryan Lanier Digitally signed by Bryan Lanier
Date: 2024.03.13 09:12:00 -04'00'





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Standard Conditions Attached

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Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 196 ft Self Support tower to reflect the change in loading by T-MOBILE.

Supporting Documents

Tower:	Rohn Drawing #C011033, dated August 15, 2001
Foundation:	Rohn Drawing #A012286-1, dated September 25, 2001
Geotechnical:	AMEC Project #1529-000252, dated June 1, 2001

Analysis

The tower was analyzed using American Tower Corporation's tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

Basic Wind Speed:	105 mph (3-second gust)
Basic Wind Speed w/ Ice:	50 mph (3-second gust) w/ 0.25" radial ice concurrent
Code(s):	ANSI/TIA-222-H / 2018 IBC
Exposure Category:	C
Risk Category:	II
Topographic Factor Procedure:	Method 1
Topographic Category:	1
Feature:	Flat
Spectral Response:	$S_s = 0.26$, $S_1 = 0.07$
Site Class:	D - Stiff Soil - Default

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

If you have any questions or require additional information, please reach out to your American Tower contact. If you do not have an American Tower contact and have an Engineering question, please contact Engineering@americantower.com. Please include the American Tower asset name, asset number, and engineering number in the subject line for any questions.

Structure Usages

Structural Component	Usage	Control	Location	Result
Leg	53.0%	Member X	Section 4	Pass
Diagonal	48.0%	Block Shear	Section 9	Pass
Horizontal	4.0%	Member Z	Section 8	Pass
Bolt	44.4%	-	Section 5	Pass
Serviceability Usage	8.8%	Rotation	Elevation 192 ft	Pass
Foundation	47.9%	Down	Base	Pass
Foundation	49.5%	Moment	Base	Pass
Foundation	46.7%	Shear	Base	Pass
Foundation	45.9%	Uplift	Base	Pass

Maximum Reactions

Foundation	Moment (k-ft)	Axial (k)	Uplift (k)	Shear (k)
Self Support Base (Global)	2,958.2	41.0	-	26.0
Self Support Base (Local)	-	176.3	143.6	16.8

**Reactions shown are maximum overall and not limited by Load Case*

Foundation usages were calculated by comparing the maximum reactions from this analysis to the reactions from the original design drawings, factored by 1.35 per ANSI/TIA-222-H, Section 15.6.2

T-MOBILE Final Loading

Elev (ft)	Qty	Equipment	Lines
155.0	1	Andrew VHLP2-11 (31 lb)	(1) 3/8" (0.38"- 9.5mm) RET Control Cable (1) 5/8" Hybriflex
	1	Ceragon FibeAir IP-20D	
154.0	2	Commscope HELIAX FiberFeed 12 RRU Pendant Connect	(1) 0.28" (7mm) RG-6 (2) 1.46" (37.1mm) Hybrid
	3	Commscope FFVV-65C-R3-V1	
	3	Nokia AEHC	
	3	Nokia AHFIG	
	3	Nokia AirScale Dual RRH 4T4R B12/71 240W AHLOA	
150.0	2	Light Sector Frame	-

Install proposed lines alongside existing T-MOBILE lines.

Other Existing/Reserved Loading

Elev (ft)	Qty	Equipment	Lines	Carrier
197.7	1	Raycap DC6-48-60-18-8F	(1) 0.39" (10mm) Fiber Trunk (2) 0.78" (19.7mm) 8 AWG 6	AT&T MOBILITY
196.7	3	Alcatel-Lucent RRH2X40-07L-AT	-	AT&T MOBILITY
196.6	3	Alcatel-Lucent RRH2X40-AWS+RDEM	-	AT&T MOBILITY
196.4	3	Kaelus TMA2061F1V1-1	-	AT&T MOBILITY
192.0	2	Kathrein Scala 800 10766	(10) 1 5/8" Coax (1) 3/8" (0.38"- 9.5mm) RET Control Cable	AT&T MOBILITY
	2	Powerwave Allgon 7250.03 /XM-1900-65-18.5I-2-D		
	3	Light Sector Frame		
	4	Andrew E15Z01P06		
	4	KMW ET-X-UW-70-16-70-18-iR-AT		
181.7	1	Andrew VHLP2-11	-	SPRINT NEXTEL
181.6	1	DragonWave Horizon Compact Plus	(2) 0.24" (6.1mm) Cat 5e	SPRINT NEXTEL
181.4	2	KMW ET-X-TS-70-15-62-18-iR-RD	-	SPRINT NEXTEL
	2	Samsung RRH-B8 w/ Finger Guard		
181.3	2	Samsung RRH-C2A (w/o External Filter)	(2) 1.18" (30mm) Hybrid (Type 3)	SPRINT NEXTEL
181.2	2	Samsung RRH-P4	-	SPRINT NEXTEL
180.0	3	Sector Frame	-	SPRINT NEXTEL
178.6	2	KMW ET-X-WM-18-65-8P	-	SPRINT NEXTEL
165.4	3	Decibel DB878G105AXY	-	SPRINT NEXTEL
163.0	1	Sector Frame	-	SPRINT NEXTEL
143.0	1	Andrew VHLPX6-11/A	(2) 0.38" (9.7mm) Cat 5e	AT&T MOBILITY
	2	Alcatel-Lucent 9500 MPR (ODU)		
45.0	1	Andrew VHLPX6-11/A	(1) EWP90	AT&T MOBILITY

(If table breaks across pages, please see previous page for data in merged cells)



Standard Conditions

All engineering services performed by ATC Tower Services LLC are prepared on the basis that the information used is current and correct. This information may consist of, but is not limited to the following:

- Information supplied by the client regarding antenna, mounts, and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of ATC Tower Services LLC

It is the responsibility of the client to ensure that the information provided to ATC Tower Services LLC and used in the performance of our engineering services is correct and complete.

All assets of American Tower Corporation, its affiliates, and subsidiaries (collectively "American Tower") are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

Unless explicitly agreed by both the client and ATC Tower Services LLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. ATC Tower Services LLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.

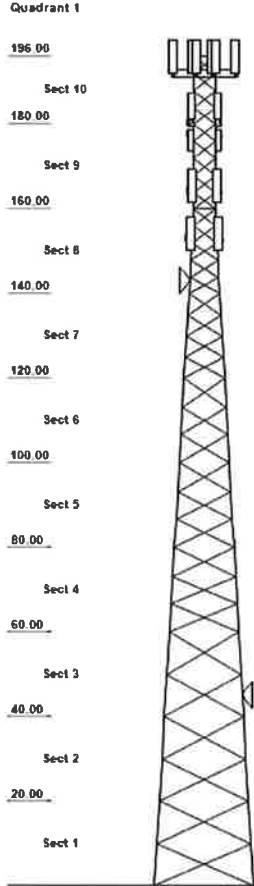
ANALYSIS PARAMETERS

Nominal Wind: 105 mph	Ice Wind: 50 mph w/ 0.25" ice	Service Wind: 60 mph
Risk Category: II	Exposure: C	S_s: 0.262 S_t: 0.072
Topo Category: 1	Topo Factor: Method 1	Topo Feature:
Structure Height: 196 ft	Base Elevation: 0 ft	Shape: Triangle
Base Width: 21 ft	Top Width: 4.65 ft	

TOWER SECTION PROPERTIES

Section	Leg Members	Diagonal Members	Horizontal Members
1	PSP 50 ksi ROHN 8 EHS	SAE 50 ksi 3.5x3.5x0.25	
2-3	PX 50 ksi 6" DIA PIPE	SAE 50 ksi 3.5x3.5x0.25	
4	PX 50 ksi 5" DIA PIPE	SAE 36 ksi 2.5X2.5X0.25	
5-6	PX 50 ksi 5" DIA PIPE	SAE 36 ksi 2.5X2.5X0.1875	
7	PX 50 ksi 4" DIA PIPE	SAE 36 ksi 2X2X0.1875	
8	PX 50 ksi 3" DIA PIPE	SAE 36 ksi 1.75X1.75X0.1875	SAE 36 ksi 1.75X1.75X0.125
9	PX 50 ksi 2-1/2" DIA	SAE 36 ksi 1.75X1.75X0.1875	
10	PST 50 ksi 2-1/2" DIA	SAE 36 ksi 1.75X1.75X0.1875	SAE 36 ksi 1.75X1.75X0.125

Tower Elevation View



SECONDARY BRACING MEMBERS

DISCRETE APPURTENANCE

LINEAR APPURTENANCE

Elev (ft)	Description	Elev To (ft)	Description
197.7	(1) Raycap DC6-48-60-18-8F	197.7	(2) 0.78" (19.7mm) 8 AWG 6
196.7	(3) Alcatel-Lucent RRH2X40-07L-AT	197.7	(1) 0.39" (10mm) Fiber Trunk
196.6	(3) Alcatel-Lucent RRH2X40-AWS+RDE	196.0	(2) Waveguide
196.4	(3) Kaelus TMA2061F1V1-1	192.0	(10) 1 5/8" Coax
192.0	(4) KMW ET-X-UW-70-16-70-18-iR-AT	192.0	(1) 3/8" (0.38"- 9.5mm) RET Contr
192.0	(4) Andrew E15Z01P06	181.6	(2) 0.24" (6.1mm) Cat 5e
192.0	(3) Flat Light Sector Frame	181.3	(2) 1.18" (30mm) Hybrid (Type 3)
192.0	(2) Powerwave Allgon 7250.03 /XM-1	180.0	(1) Waveguide
192.0	(2) Kathrein Scala 800 10766	155.0	(1) 5/8" Hybriflex
181.7	(1) Andrew VHLP2-11	155.0	(1) 3/8" (0.38"- 9.5mm) RET Contr
181.6	(1) DragonWave Horizon Compact Plu	154.0	(2) 1.46" (37.1mm) Hybrid
181.4	(2) Samsung RRH-B8 w/ Flinger Guard	154.0	(1) 0.28" (7mm) RG-6
181.4	(2) KMW ET-X-TS-70-15-62-18-iR-RD	150.0	(1) Waveguide
181.3	(2) Samsung RRH-C2A (w/o External	143.0	(2) 0.38" (9.7mm) Cat 5e
181.2	(2) Samsung RRH-P4	45.0	(1) EWP90
180.0	(3) Round Sector Frame		
178.6	(2) KMW ET-X-WM-18-65-8P		
165.4	(3) Decibel DB878G105AXY		
163.0	(1) Round Sector Frame		
155.0	(1) Andrew VHLP2-11 (31 lb)		
155.0	(1) Ceragon FibeAir IP-20D		
154.0	(3) Nokia AEHC		
154.0	(3) Nokia AHFIG		
154.0	(3) Nokia AirScale Dual RRH 4T4R B		
154.0	(3) Commscope FFV-65C-R3-V1		
154.0	(2) Commscope HELIAX FiberFeed 12		
150.0	(2) Generic Flat Light Sector Fram		
143.0	(2) Alcatel-Lucent 9500 MPR (ODU)		
143.0	(1) Andrew VHLPX6-11/A		
45.0	(1) Andrew VHLPX6-11/A		

GLOBAL BASE REACTIONS

	DL+WL	DL+WL+IL
Moment (k-ft):	2958.24	801.97
Axial (k):	41.03	49.48
Shear (k):	26.02	7.18

INDIVIDUAL BASE REACTIONS

Comp (k):	176.34
Uplift (k):	143.65
Shear (k):	16.84

ASSET: 370533, Canon City
CUSTOMER: T-MOBILE

CODE: ANSI/TIA-222-H
PROJECT: 14752410_C3_02

ANALYSIS PARAMETERS

Location:	Fremont County, CO	Height:	196 ft
Type and Shape:	Self Support, Triangle	Base Elevation:	0.00 ft
Manufacturer:	Rohn	Bottom Face Width:	21.00 ft
Kd	0.85	Top Face Width:	4.65 ft
Ke:	0.81	Anchor Bolt Detail Type:	c

ICE & WIND PARAMETERS

Exposure Category:	C	Design Wind Speed Without Ice:	105 mph
Risk Category:	II	Design Wind Speed with Ice:	50 mph
Topographic Factor Procedure:	Method 1	Operational Windspeed:	60 mph
Topographic Category:	Flat	Design Ice Thickness:	0.25 in
Crest Height:	0 ft	HMSL:	5768 ft

SEISMIC PARAMETERS

Analysis Method:	Equivalent Lateral Force Method		
Site Class:	D - Stiff Soil	Period Based on Rayleigh Method (sec):	1.07
T _L (sec):	6	P:	1.3
S _s :	0.262	S ₁ :	0.072
F _a :	1.590	F _v :	2.400
S _{ds} :	0.278	S _{d1} :	0.115
		C _s :	0.036
		C _s Max:	0.036
		C _s Min:	0.030

LOAD CASES

1.2D + 1.0W Normal	1.2D + 1.0W Normal - 105 mph Wind with No Ice
1.2D + 1.0W 60°	1.2D + 1.0W 60° - 105 mph Wind with No Ice
1.2D + 1.0W 90°	1.2D + 1.0W 90° - 105 mph Wind with No Ice
0.9D + 1.0W Normal	0.9D + 1.0W Normal - 105 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 60°	0.9D + 1.0W 60° - 105 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 90°	0.9D + 1.0W 90° - 105 mph Wind with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi Normal	1.2D + 1.0Di + 1.0Wi Normal - 50 mph Wind with 0.25" Radial Ice
1.2D + 1.0Di + 1.0Wi 60°	1.2D + 1.0Di + 1.0Wi 60° - 50 mph Wind with 0.25" Radial Ice
1.2D + 1.0Di + 1.0Wi 90°	1.2D + 1.0Di + 1.0Wi 90° - 50 mph Wind with 0.25" Radial Ice
1.2D + 1.0Ev + 1.0Eh Normal	1.2D + 1.0Ev + 1.0Eh Normal - Seismic
1.2D + 1.0Ev + 1.0Eh 60°	1.2D + 1.0Ev + 1.0Eh 60° - Seismic
1.2D + 1.0Ev + 1.0Eh 90°	1.2D + 1.0Ev + 1.0Eh 90° - Seismic
0.9D - 1.0Ev + 1.0Eh Normal	0.9D - 1.0Ev + 1.0Eh Normal - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 60°	0.9D - 1.0Ev + 1.0Eh 60° - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 90°	0.9D - 1.0Ev + 1.0Eh 90° - Seismic (Reduced DL)
1.0D + 1.0W Service Normal	1.0D + 1.0W Service Normal - 60 mph Wind with No Ice
1.0D + 1.0W Service 60°	1.0D + 1.0W Service 60° - 60 mph Wind with No Ice
1.0D + 1.0W Service 90°	1.0D + 1.0W Service 90° - 60 mph Wind with No Ice

ASSET: 370533, Canon City
 CUSTOMER: T-MOBILE

CODE: ANSI/TIA-222-H
 PROJECT: 14752410_C3_02

TOWER LOADING – DISCRETE APPURTENANCE

Discrete Appurtenance Properties for LC: 1.2D + 1.0W

Elev (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc. (ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
197.7	Raycap DC6-48-60-18-8F	1	20	1.3	2.0	9.7	9.7	0.80	1.00	0.0	0.00	28.44	24	24
196.7	Alcatel-Lucent RRH2X40-07L-AT	3	52	2.6	2.1	12.2	6.1	0.80	0.50	0.0	0.00	28.41	74	188
196.6	Alcatel-Lucent RRH2X40-AWS+RDE	3	48	3.2	2.1	15.4	9.1	0.80	0.50	0.0	0.00	28.41	94	171
196.4	Kaelus TMA2061F1V1-1	3	20	0.9	1.2	7.9	4.6	0.80	0.50	0.0	0.00	28.40	27	71
192.0	Andrew E15Z01P06	4	19	1.3	0.9	13.8	3.5	0.80	0.50	2.2	111.15	28.34	51	89
192.0	Powerwave Allgon 7250.03 /XM-1	2	15	4.0	5.1	6.3	2.2	0.80	0.73	2.3	258.78	28.34	113	37
192.0	KMW ET-X-UW-70-16-70-18-IR-AT	4	52	10.9	7.6	12.0	6.3	0.80	0.68	3.0	1,709.02	28.36	570	249
192.0	Kathrein Scala 800 10766	2	62	11.3	8.0	11.8	6.0	0.80	1.00	3.2	1,396.25	28.37	436	148
192.0	Flat Light Sector Frame	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.00	28.27	726	1440
181.7	Andrew VHLP2-11	1	27	4.7	2.2	26.1	13.2	0.80	1.00	1.4	124.69	27.99	89	32
181.6	DragonWave Horizon Compact Plu	1	8	0.7	0.8	8.7	4.0	0.80	0.50	1.6	10.60	27.99	7	9
181.4	Samsung RRH-B8 w/ Finger Guard	2	60	2.6	1.8	15.0	9.5	0.80	0.50	1.4	70.24	27.98	50	143
181.4	KMW ET-X-TS-70-15-62-18-IR-RD	2	42	8.3	6.2	11.8	5.9	0.80	0.75	1.2	283.00	27.97	236	101
181.3	Samsung RRH-C2A (w/o External	2	53	2.5	1.6	15.7	6.7	0.80	0.50	1.3	62.43	27.97	48	127
181.2	Samsung RRH-P4	2	60	2.2	1.5	15.0	7.0	0.80	0.50	1.2	51.34	27.96	43	144
180.0	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.00	27.89	576	1080
178.6	KMW ET-X-WM-18-65-8P	2	36	6.7	5.1	12.0	4.3	0.80	0.72	-1.7	309.15	27.79	182	87
165.4	Decibel DB878G105AXY	3	25	10.3	8.0	10.5	4.5	1.00	1.00	0.0	0.00	27.39	720	90
163.0	Round Sector Frame	1	300	14.4	0.0	0.0	0.0	1.00	1.00	0.0	0.00	27.31	334	360
155.0	Ceragon FibeAir IP-20D	1	14	0.7	0.8	9.2	3.9	0.90	1.00	0.0	0.00	27.02	14	17
155.0	Andrew VHLP2-11 (31 lb)	1	31	4.7	2.2	26.1	12.3	0.90	1.00	0.0	0.00	27.02	97	37
154.0	Commscope HELIAX FiberFeed 12	2	20	0.9	1.4	6.7	4.7	0.90	0.50	0.0	0.00	26.99	19	48
154.0	Nokia AirScale Dual RRH 4T4R B	3	84	2.2	1.8	12.1	7.4	0.90	0.67	0.0	0.00	26.99	92	302
154.0	Nokia AHFIG	3	79	3.1	2.3	13.4	6.8	0.90	0.66	0.0	0.00	26.99	126	286
154.0	Nokia AEHC	3	104	6.8	3.2	21.5	8.1	0.90	0.62	0.0	0.00	26.99	263	373
154.0	Commscope FFFV-65C-R3-V1	3	125	21.1	8.0	25.2	9.3	0.90	0.63	0.0	0.00	26.99	824	449
150.0	Generic Flat Light Sector Fram	2	800	17.9	0.0	0.0	0.0	0.90	0.90	0.0	0.00	26.84	661	1920
143.0	Alcatel-Lucent 9500 MPR (ODU)	2	13	1.1	0.9	11.3	4.7	1.00	0.50	0.0	0.00	26.57	24	32
143.0	Andrew VHLPX6-11/A	1	137	37.3	6.1	73.6	36.5	1.00	1.00	0.0	0.00	26.57	842	164
45.0	Andrew VHLPX6-11/A	1	137	37.3	6.1	73.6	36.5	1.00	1.00	1.4	929.73	20.96	664	164
Totals		66	6,985	512.6									8,025	8,382

Discrete Appurtenance Properties for LC: 0.9D + 1.0W

Elev (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc. (ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
197.7	Raycap DC6-48-60-18-8F	1	20	1.3	2.0	9.7	9.7	0.80	1.00	0.0	0.00	28.44	24	18
196.7	Alcatel-Lucent RRH2X40-07L-AT	3	52	2.6	2.1	12.2	6.1	0.80	0.50	0.0	0.00	28.41	74	141
196.6	Alcatel-Lucent RRH2X40-AWS+RDE	3	48	3.2	2.1	15.4	9.1	0.80	0.50	0.0	0.00	28.41	94	129
196.4	Kaelus TMA2061F1V1-1	3	20	0.9	1.2	7.9	4.6	0.80	0.50	0.0	0.00	28.40	27	53
192.0	Andrew E15Z01P06	4	19	1.3	0.9	13.8	3.5	0.80	0.50	2.2	111.15	28.34	51	67
192.0	Powerwave Allgon 7250.03 /XM-1	2	15	4.0	5.1	6.3	2.2	0.80	0.73	2.3	258.78	28.34	113	28
192.0	KMW ET-X-UW-70-16-70-18-IR-AT	4	52	10.9	7.6	12.0	6.3	0.80	0.68	3.0	1,709.02	28.36	570	186
192.0	Kathrein Scala 800 10766	2	62	11.3	8.0	11.8	6.0	0.80	1.00	3.2	1,396.25	28.37	436	111
192.0	Flat Light Sector Frame	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.00	28.27	726	1080
181.7	Andrew VHLP2-11	1	27	4.7	2.2	26.1	13.2	0.80	1.00	1.4	124.69	27.99	89	24
181.6	DragonWave Horizon Compact Plu	1	8	0.7	0.8	8.7	4.0	0.80	0.50	1.6	10.60	27.99	7	7
181.4	Samsung RRH-B8 w/ Finger Guard	2	60	2.6	1.8	15.0	9.5	0.80	0.50	1.4	70.24	27.98	50	107
181.4	KMW ET-X-TS-70-15-62-18-IR-RD	2	42	8.3	6.2	11.8	5.9	0.80	0.75	1.2	283.00	27.97	236	75
181.3	Samsung RRH-C2A (w/o External	2	53	2.5	1.6	15.7	6.7	0.80	0.50	1.3	62.43	27.97	48	95
181.2	Samsung RRH-P4	2	60	2.2	1.5	15.0	7.0	0.80	0.50	1.2	51.34	27.96	43	108
180.0	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.00	27.89	576	810
178.6	KMW ET-X-WM-18-65-8P	2	36	6.7	5.1	12.0	4.3	0.80	0.72	-1.7	309.15	27.79	182	66
165.4	Decibel DB878G105AXY	3	25	10.3	8.0	10.5	4.5	1.00	1.00	0.0	0.00	27.39	720	68
163.0	Round Sector Frame	1	300	14.4	0.0	0.0	0.0	1.00	1.00	0.0	0.00	27.31	334	270
155.0	Ceragon FibeAir IP-20D	1	14	0.7	0.8	9.2	3.9	0.90	1.00	0.0	0.00	27.02	14	13
155.0	Andrew VHLP2-11 (31 lb)	1	31	4.7	2.2	26.1	12.3	0.90	1.00	0.0	0.00	27.02	97	28
154.0	Commscope HELIAX FiberFeed 12	2	20	0.9	1.4	6.7	4.7	0.90	0.50	0.0	0.00	26.99	19	36
154.0	Nokia AirScale Dual RRH 4T4R B	3	84	2.2	1.8	12.1	7.4	0.90	0.67	0.0	0.00	26.99	92	226
154.0	Nokia AHFIG	3	79	3.1	2.3	13.4	6.8	0.90	0.66	0.0	0.00	26.99	126	214
154.0	Nokia AEHC	3	104	6.8	3.2	21.5	8.1	0.90	0.62	0.0	0.00	26.99	263	280
154.0	Commscope FFFV-65C-R3-V1	3	125	21.1	8.0	25.2	9.3	0.90	0.63	0.0	0.00	26.99	824	336
150.0	Generic Flat Light Sector Fram	2	800	17.9	0.0	0.0	0.0	0.90	0.90	0.0	0.00	26.84	661	1440
143.0	Alcatel-Lucent 9500 MPR (ODU)	2	13	1.1	0.9	11.3	4.7	1.00	0.50	0.0	0.00	26.57	24	24
143.0	Andrew VHLPX6-11/A	1	137	37.3	6.1	73.6	36.5	1.00	1.00	0.0	0.00	26.57	842	123
45.0	Andrew VHLPX6-11/A	1	137	37.3	6.1	73.6	36.5	1.00	1.00	1.4	929.73	20.96	664	123
Totals		66	6,985	512.6									8,025	6,286

Discrete Appurtenance Properties for LC: 1.2D + 1.0Di + 1.0Wi

Elev (ft)	Description	Qty	Ice Wt (lb)	Ice EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc. (ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
197.7	Raycap DC6-48-60-18-8F	1	29	1.4	2.0	9.7	9.7	0.80	1.00	0.0	0.00	6.45	6	33
196.7	Alcatel-Lucent RRH2X40-07L-AT	3	63	2.8	2.1	12.2	6.1	0.80	0.50	0.0	0.00	6.44	18	221
196.6	Alcatel-Lucent RRH2X40-AWS+RDE	3	63	3.4	2.1	15.4	9.1	0.80	0.50	0.0	0.00	6.44	23	218

ASSET: 370533, Canon City
 CUSTOMER: T-MOBILE

CODE: ANSI/TIA-222-H
 PROJECT: 14752410_C3_02

Elev (ft)	Description	Qty	Ice Wt (lb)	Ice EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _s	Orient. Factor	Vert. Ecc. (ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
196.4	Kaelus TMA2061F1V1-1	3	24	1.1	1.2	7.9	4.6	0.80	0.50	0.0	0.00	6.44	7	85
192.0	Andrew E15Z01P06	4	24	1.4	0.9	13.8	3.5	0.80	0.50	2.2	27.70	6.43	13	110
192.0	Powerwave Allgon 7250.03 /XM-1	2	27	4.2	5.1	6.3	2.2	0.80	0.73	2.3	61.18	6.43	27	59
192.0	KMW ET-X-UW-70-16-70-18-IR-AT	4	86	11.4	7.6	12.0	6.3	0.80	0.68	3.0	406.44	6.43	135	392
192.0	Kathrein Scala 800 10766	2	98	11.9	8.0	11.8	6.0	0.80	1.00	3.2	332.02	6.43	104	221
192.0	Flat Light Sector Frame	3	451	20.5	0.0	0.0	0.0	0.75	0.75	0.0	0.00	6.41	188	1594
181.7	Andrew VHLP2-11	1	44	4.9	2.2	26.1	13.2	0.80	1.00	1.4	29.57	6.35	21	49
181.6	DragonWave Horizon Compact Plu	1	11	0.8	0.8	8.7	4.0	0.80	0.50	1.6	2.73	6.35	2	12
181.4	Samsung RRH-B8 w/ Finger Guard	2	73	2.8	1.8	15.0	9.5	0.80	0.50	1.4	17.02	6.34	12	170
181.4	KMW ET-X-TS-70-15-62-18-IR-RD	2	70	8.8	6.2	11.8	5.9	0.80	0.75	1.2	67.93	6.34	57	157
181.3	Samsung RRH-C2A (w/o External	2	64	2.7	1.6	15.7	6.7	0.80	0.50	1.3	15.15	6.34	12	150
181.2	Samsung RRH-P4	2	70	2.4	1.5	15.0	7.0	0.80	0.50	1.2	12.51	6.34	10	165
180.0	Round Sector Frame	3	362	17.2	0.0	0.0	0.0	0.75	0.75	0.0	0.00	6.32	156	1267
178.6	KMW ET-X-WM-18-65-8P	2	58	7.1	5.1	12.0	4.3	0.80	0.72	-1.7	74.27	6.30	44	130
165.4	Decibel DB878G105AXY	3	55	10.6	8.0	10.5	4.5	1.00	1.00	0.0	0.00	6.21	167	179
163.0	Round Sector Frame	1	362	17.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	6.19	91	422
155.0	Ceragon FibeAir IP-20D	1	18	0.8	0.8	9.2	3.9	0.90	1.00	0.0	0.00	6.13	4	21
155.0	Andrew VHLP2-11 (31 lb)	1	47	4.9	2.2	26.1	12.3	0.90	1.00	0.0	0.00	6.13	23	54
154.0	Commscope HELIAX FiberFeed 12	2	25	1.1	1.4	6.7	4.7	0.90	0.50	0.0	0.00	6.12	5	58
154.0	Nokia AirScale Dual RRH 4T4R B	3	94	2.4	1.8	12.1	7.4	0.90	0.67	0.0	0.00	6.12	22	334
154.0	Nokia AHFIG	3	93	3.3	2.3	13.4	6.8	0.90	0.66	0.0	0.00	6.12	30	325
154.0	Nokia AEHC	3	129	7.1	3.2	21.5	8.1	0.90	0.62	0.0	0.00	6.12	62	450
154.0	Commscope FFFV-65C-R3-V1	3	194	21.7	8.0	25.2	9.3	0.90	0.63	0.0	0.00	6.12	192	656
150.0	Generic Flat Light Sector Fram	2	986	20.4	0.0	0.0	0.0	0.90	0.90	0.0	0.00	6.09	171	2292
143.0	Alcatel-Lucent 9500 MPR (ODU)	2	18	1.2	0.9	11.3	4.7	1.00	0.50	0.0	0.00	6.02	6	42
143.0	Andrew VHLPX6-11/A	1	261	37.9	6.1	73.6	36.5	1.00	1.00	0.0	0.00	6.02	194	288
45.0	Andrew VHLPX6-11/A	1	242	37.8	6.1	73.6	36.5	1.00	1.00	1.4	213.68	4.75	153	270
Totals		66	9,026	551.9									1954	10,423

Discrete Appurtenance Properties for LC: 1.0D + 1.0W Service

Elev (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _s	Orient. Factor	Vert. Ecc. (ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
197.7	Raycap DC6-48-60-18-8F	1	20	1.3	2.0	9.7	9.7	0.80	1.00	0.0	0.00	9.29	8	20
196.7	Alcatel-Lucent RRH2X40-07L-AT	3	52	2.6	2.1	12.2	6.1	0.80	0.50	0.0	0.00	9.28	24	156
196.6	Alcatel-Lucent RRH2X40-AWS+RDE	3	48	3.2	2.1	15.4	9.1	0.80	0.50	0.0	0.00	9.28	31	143
196.4	Kaelus TMA2061F1V1-1	3	20	0.9	1.2	7.9	4.6	0.80	0.50	0.0	0.00	9.27	9	59
192.0	Andrew E15Z01P06	4	19	1.3	0.9	13.8	3.5	0.80	0.50	2.2	36.29	9.25	16	74
192.0	Powerwave Allgon 7250.03 /XM-1	2	15	4.0	5.1	6.3	2.2	0.80	0.73	2.3	84.50	9.25	37	31
192.0	KMW ET-X-UW-70-16-70-18-IR-AT	4	52	10.9	7.6	12.0	6.3	0.80	0.68	3.0	558.05	9.26	186	207
192.0	Kathrein Scala 800 10766	2	62	11.3	8.0	11.8	6.0	0.80	1.00	3.2	455.92	9.26	142	123
192.0	Flat Light Sector Frame	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.00	9.23	237	1200
181.7	Andrew VHLP2-11	1	27	4.7	2.2	26.1	13.2	0.80	1.00	1.4	40.72	9.14	29	27
181.6	DragonWave Horizon Compact Plu	1	8	0.7	0.8	8.7	4.0	0.80	0.50	1.6	3.46	9.14	2	8
181.4	Samsung RRH-B8 w/ Finger Guard	2	60	2.6	1.8	15.0	9.5	0.80	0.50	1.4	22.93	9.14	16	119
181.4	KMW ET-X-TS-70-15-62-18-IR-RD	2	42	8.3	6.2	11.8	5.9	0.80	0.75	1.2	92.41	9.13	77	84
181.3	Samsung RRH-C2A (w/o External	2	53	2.5	1.6	15.7	6.7	0.80	0.50	1.3	20.39	9.13	16	106
181.2	Samsung RRH-P4	2	60	2.2	1.5	15.0	7.0	0.80	0.50	1.2	16.77	9.13	14	120
180.0	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.00	9.11	188	900
178.6	KMW ET-X-WM-18-65-8P	2	36	6.7	5.1	12.0	4.3	0.80	0.72	-1.7	100.95	9.07	59	73
165.4	Decibel DB878G105AXY	3	25	10.3	8.0	10.5	4.5	1.00	1.00	0.0	0.00	8.95	235	75
163.0	Round Sector Frame	1	300	14.4	0.0	0.0	0.0	1.00	1.00	0.0	0.00	8.92	109	300
155.0	Ceragon FibeAir IP-20D	1	14	0.7	0.8	9.2	3.9	0.90	1.00	0.0	0.00	8.82	5	14
155.0	Andrew VHLP2-11 (31 lb)	1	31	4.7	2.2	26.1	12.3	0.90	1.00	0.0	0.00	8.82	32	31
154.0	Commscope HELIAX FiberFeed 12	2	20	0.9	1.4	6.7	4.7	0.90	0.50	0.0	0.00	8.81	6	40
154.0	Nokia AirScale Dual RRH 4T4R B	3	84	2.2	1.8	12.1	7.4	0.90	0.67	0.0	0.00	8.81	30	251
154.0	Nokia AHFIG	3	79	3.1	2.3	13.4	6.8	0.90	0.66	0.0	0.00	8.81	41	238
154.0	Nokia AEHC	3	104	6.8	3.2	21.5	8.1	0.90	0.62	0.0	0.00	8.81	86	311
154.0	Commscope FFFV-65C-R3-V1	3	125	21.1	8.0	25.2	9.3	0.90	0.63	0.0	0.00	8.81	269	374
150.0	Generic Flat Light Sector Fram	2	800	17.9	0.0	0.0	0.0	0.90	0.90	0.0	0.00	8.76	216	1600
143.0	Alcatel-Lucent 9500 MPR (ODU)	2	13	1.1	0.9	11.3	4.7	1.00	0.50	0.0	0.00	8.68	8	26
143.0	Andrew VHLPX6-11/A	1	137	37.3	6.1	73.6	36.5	1.00	1.00	0.0	0.00	8.68	275	137
45.0	Andrew VHLPX6-11/A	1	137	37.3	6.1	73.6	36.5	1.00	1.00	1.4	303.59	6.84	217	137
Totals		66	6,985	512.6									2,620	6,985

ASSET: 370533, Canon City

CODE: ANSI/TIA-222-H

CUSTOMER: T-MOBILE

PROJECT: 14752410_C3_02

TOWER LOADING – LINEAR APPURTENANCE

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	% In WInd	Spread On Faces	Bundling	Cluster Dia (in)	Out of Zone	Spacing (in)	Orient. Factor	K _a Override
0.0	197.7	0.78" (19.7mm) 8 AWG 6	2	0.78	0.59	100	3	Individual	0.00	N	1.00	1.00	0.00
0.0	197.7	0.39" (10mm) Fiber Trunk	1	0.39	0.06	100	3	Individual	0.00	N	1.00	1.00	0.01
0.0	196.0	Waveguide	2	2.00	6.00	100	1,3	Individual	0.00	N	1.00	1.00	0.00
0.0	192.0	1 5/8" Coax	10	1.98	0.82	100	3	Individual	0.00	N	1.00	1.00	0.01
0.0	192.0	3/8" (0.38"- 9.5mm) RET Contro	1	0.38	0.23	100	3	Individual	0.00	N	1.00	1.00	0.00
0.0	181.6	0.24" (6.1mm) Cat 5e	2	0.24	0.03	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	181.3	1.18" (30mm) Hybrid (Type 3)	2	1.18	0.84	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	180.0	Waveguide	1	2.00	6.00	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	155.0	5/8" Hybriflex	1	0.84	0.70	100	2	Individual	0.00	N	1.00	1.00	0.00
0.0	155.0	3/8" (0.38"- 9.5mm) RET Contro	1	0.38	0.23	100	2	Individual	0.00	N	1.00	1.00	0.00
0.0	154.0	1.46" (37.1mm) Hybrid	2	1.46	1.70	100	2	Individual	0.00	N	1.00	1.00	0.00
0.0	154.0	0.28" (7mm) RG-6	1	0.28	0.03	100	2	Individual	0.00	N	1.00	1.00	0.00
0.0	150.0	Waveguide	1	2.00	6.00	100	2	Individual	0.00	N	1.00	1.00	0.00
0.0	143.0	0.38" (9.7mm) Cat 5e	2	0.38	0.09	100	2	Individual	0.00	N	1.00	1.00	0.00
0.0	45.0	EWP90	1	1.32	0.32	100	2	Individual	0.00	N	1.00	1.00	0.00

SECTION FORCES

1.2D + 1.0W Normal
 105 mph Wind with No Ice

Gust Response Factor (Gh): 0.85
 Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{lz} (in)	A _o (sf)	EPA _o (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)	
10	188	28.14	7.515	7.667	0.00	0.194	2.62	1.00	1.00	0.0	11.91	31.15	0.00	1110	0	745	207	952	
9	170	27.55	8.606	9.583	0.00	0.185	2.65	1.00	1.00	0.0	14.09	37.27	0.00	1726	0	873	425	1298	
8	150	26.84	10.400	11.688	0.00	0.184	2.65	1.00	1.00	0.0	17.08	45.30	0.00	2150	0	1033	549	1582	
7	130	26.04	11.843	15.027	0.00	0.164	2.72	1.00	1.00	0.0	20.08	54.60	0.00	2691	0	1209	628	1836	
6	110	25.14	14.277	18.574	0.00	0.160	2.74	1.00	1.00	0.0	23.79	65.11	0.00	3246	0	1391	606	1997	
5	90	24.10	16.403	18.574	0.00	0.142	2.80	1.00	1.00	0.0	25.94	72.63	0.00	3358	0	1488	581	2069	
4	70	22.86	18.612	18.575	0.00	0.130	2.85	1.00	1.00	0.0	28.23	80.36	0.00	3819	0	1561	551	2112	
3	50	21.30	21.229	22.120	0.00	0.132	2.84	1.00	1.00	0.0	32.11	91.15	0.00	4587	0	1650	520	2170	
2	30	19.12	23.261	22.126	0.00	0.123	2.87	1.00	1.00	0.0	34.46	99.04	0.00	4742	0	1610	487	2097	
1	10	16.55	25.252	28.798	0.00	0.130	2.84	1.00	1.00	0.0	37.03	105.35	0.00	5219	0	1482	421	1903	
														Totals	32,648	0			18,017

1.2D + 1.0W 60°
 105 mph Wind with No Ice

Gust Response Factor (Gh): 0.85
 Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{lz} (in)	A _o (sf)	EPA _o (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)	
10	188	28.14	7.515	7.667	0.00	0.194	2.62	0.80	1.00	0.0	10.41	27.22	0.00	1110	0	651	207	858	
9	170	27.55	8.606	9.583	0.00	0.185	2.65	0.80	1.00	0.0	12.37	32.72	0.00	1726	0	766	425	1191	
8	150	26.84	10.400	11.688	0.00	0.184	2.65	0.80	1.00	0.0	15.00	39.78	0.00	2150	0	908	549	1456	
7	130	26.04	11.843	15.027	0.00	0.164	2.72	0.80	1.00	0.0	17.71	48.16	0.00	2691	0	1066	628	1694	
6	110	25.14	14.277	18.574	0.00	0.160	2.74	0.80	1.00	0.0	20.94	57.30	0.00	3246	0	1224	606	1830	
5	90	24.10	16.403	18.574	0.00	0.142	2.80	0.80	1.00	0.0	22.66	63.44	0.00	3358	0	1300	581	1881	
4	70	22.86	18.612	18.575	0.00	0.130	2.85	0.80	1.00	0.0	24.51	69.77	0.00	3819	0	1356	551	1907	
3	50	21.30	21.229	22.120	0.00	0.132	2.84	0.80	1.00	0.0	27.87	79.10	0.00	4587	0	1432	520	1952	
2	30	19.12	23.261	22.126	0.00	0.123	2.87	0.80	1.00	0.0	29.81	85.67	0.00	4742	0	1393	487	1879	
1	10	16.55	25.252	28.798	0.00	0.130	2.84	0.80	1.00	0.0	31.98	90.98	0.00	5219	0	1280	421	1701	
														Totals	32,648	0			16,349

1.2D + 1.0W 90°
 105 mph Wind with No Ice

Gust Response Factor (Gh): 0.85
 Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{lz} (in)	A _o (sf)	EPA _o (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)	
10	188	28.14	7.515	7.667	0.00	0.194	2.62	0.85	1.00	0.0	10.78	28.21	0.00	1110	0	675	207	882	
9	170	27.55	8.606	9.583	0.00	0.185	2.65	0.85	1.00	0.0	12.80	33.86	0.00	1726	0	793	425	1218	
8	150	26.84	10.400	11.688	0.00	0.184	2.65	0.85	1.00	0.0	15.52	41.16	0.00	2150	0	939	549	1488	
7	130	26.04	11.843	15.027	0.00	0.164	2.72	0.85	1.00	0.0	18.30	49.77	0.00	2691	0	1102	628	1729	
6	110	25.14	14.277	18.574	0.00	0.160	2.74	0.85	1.00	0.0	21.65	59.25	0.00	3246	0	1266	606	1872	
5	90	24.10	16.403	18.574	0.00	0.142	2.80	0.85	1.00	0.0	23.48	65.74	0.00	3358	0	1347	581	1928	
4	70	22.86	18.612	18.575	0.00	0.130	2.85	0.85	1.00	0.0	25.44	72.42	0.00	3819	0	1407	551	1958	
3	50	21.30	21.229	22.120	0.00	0.132	2.84	0.85	1.00	0.0	28.93	82.11	0.00	4587	0	1486	520	2007	
2	30	19.12	23.261	22.126	0.00	0.123	2.87	0.85	1.00	0.0	30.97	89.01	0.00	4742	0	1447	487	1934	
1	10	16.55	25.252	28.798	0.00	0.130	2.84	0.85	1.00	0.0	33.24	94.57	0.00	5219	0	1330	421	1751	
														Totals	32,648	0			16,766

0.9D + 1.0W Normal
 105 mph Wind with No Ice (Reduced DL)

Gust Response Factor (Gh): 0.85
 Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{lz} (in)	A _o (sf)	EPA _o (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)	
10	188	28.14	7.515	7.667	0.00	0.194	2.62	1.00	1.00	0.0	11.91	31.15	0.00	833	0	745	207	952	
9	170	27.55	8.606	9.583	0.00	0.185	2.65	1.00	1.00	0.0	14.09	37.27	0.00	1295	0	873	425	1298	
8	150	26.84	10.400	11.688	0.00	0.184	2.65	1.00	1.00	0.0	17.08	45.30	0.00	1613	0	1033	549	1582	
7	130	26.04	11.843	15.027	0.00	0.164	2.72	1.00	1.00	0.0	20.08	54.60	0.00	2018	0	1209	628	1836	
6	110	25.14	14.277	18.574	0.00	0.160	2.74	1.00	1.00	0.0	23.79	65.11	0.00	2434	0	1391	606	1997	
5	90	24.10	16.403	18.574	0.00	0.142	2.80	1.00	1.00	0.0	25.94	72.63	0.00	2519	0	1488	581	2069	
4	70	22.86	18.612	18.575	0.00	0.130	2.85	1.00	1.00	0.0	28.23	80.36	0.00	2864	0	1561	551	2112	
3	50	21.30	21.229	22.120	0.00	0.132	2.84	1.00	1.00	0.0	32.11	91.15	0.00	3440	0	1650	520	2170	
2	30	19.12	23.261	22.126	0.00	0.123	2.87	1.00	1.00	0.0	34.46	99.04	0.00	3557	0	1610	487	2097	
1	10	16.55	25.252	28.798	0.00	0.130	2.84	1.00	1.00	0.0	37.03	105.35	0.00	3914	0	1482	421	1903	
														Totals	24,486	0			18,017

0.9D + 1.0W 60°
 105 mph Wind with No Ice (Reduced DL)

Gust Response Factor (Gh): 0.85
 Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{lz} (in)	A _o (sf)	EPA _o (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	188	28.14	7.515	7.667	0.00	0.194	2.62	0.80	1.00	0.0	10.41	27.22	0.00	833	0	651	207	858
9	170	27.55	8.606	9.583	0.00	0.185	2.65	0.80	1.00	0.0	12.37	32.72	0.00	1295	0	766	425	1191
8	150	26.84	10.400	11.688	0.00	0.184	2.65	0.80	1.00	0.0	15.00	39.78	0.00	1613	0	908	549	1456
7	130	26.04	11.843	15.027	0.00	0.164	2.72	0.80	1.00	0.0	17.71	48.16	0.00	2018	0	1066	628	1694
6	110	25.14	14.277	18.574	0.00	0.160	2.74	0.80	1.00	0.0	20.94	57.30	0.00	2434	0	1224	606	1830
5	90	24.10	16.403	18.574	0.00	0.142	2.80	0.80	1.00	0.0	22.66	63.44	0.00	2519	0	1300	581	1881
4	70	22.86	18.612	18.575	0.00	0.130	2.85	0.80	1.00	0.0	24.51	69.77	0.00	2864	0	1356	551	1907
3	50	21.30	21.229	22.120	0.00	0.132	2.84	0.80	1.00	0.0	27.87	79.10	0.00	3440	0	1432	520	1952
2	30	19.12	23.261	22.126	0.00	0.123	2.87	0.80	1.00	0.0	29.81	85.67	0.00	3557	0	1393	487	1879

SECTION FORCES

0.9D + 1.0W 60°
 105 mph Wind with No Ice (Reduced DL)

Gust Response Factor (Gh): 0.85
 Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{lz} (in)	A _o (sf)	EPA _o (sf)	EPA _{al} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)	
1	10	16.55	25.252	28.798	0.00	0.130	2.84	0.80	1.00	0.0	31.98	90.98	0.00	3914	0	1280	421	1701	
														Totals	24,486	0			16,349

0.9D + 1.0W 90°
 105 mph Wind with No Ice (Reduced DL)

Gust Response Factor (Gh): 0.85
 Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{lz} (in)	A _o (sf)	EPA _o (sf)	EPA _{al} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)	
10	188	28.14	7.515	7.667	0.00	0.194	2.62	0.85	1.00	0.0	10.78	28.21	0.00	833	0	675	207	882	
9	170	27.55	8.606	9.583	0.00	0.185	2.65	0.85	1.00	0.0	12.80	33.86	0.00	1295	0	793	425	1218	
8	150	26.84	10.400	11.688	0.00	0.184	2.65	0.85	1.00	0.0	15.52	41.16	0.00	1613	0	939	549	1488	
7	130	26.04	11.843	15.027	0.00	0.164	2.72	0.85	1.00	0.0	18.30	49.77	0.00	2018	0	1102	628	1729	
6	110	25.14	14.277	18.574	0.00	0.160	2.74	0.85	1.00	0.0	21.65	59.25	0.00	2434	0	1266	606	1872	
5	90	24.10	16.403	18.574	0.00	0.142	2.80	0.85	1.00	0.0	23.48	65.74	0.00	2519	0	1347	581	1928	
4	70	22.86	18.612	18.575	0.00	0.130	2.85	0.85	1.00	0.0	25.44	72.42	0.00	2864	0	1407	551	1958	
3	50	21.30	21.229	22.120	0.00	0.132	2.84	0.85	1.00	0.0	28.93	82.11	0.00	3440	0	1486	520	2007	
2	30	19.12	23.261	22.126	0.00	0.123	2.87	0.85	1.00	0.0	30.97	89.01	0.00	3557	0	1447	487	1934	
1	10	16.55	25.252	28.798	0.00	0.130	2.84	0.85	1.00	0.0	33.24	94.57	0.00	3914	0	1330	421	1751	
														Totals	24,486	0			16,766

1.2D + 1.0Di + 1.0Wi Normal
 50 mph Wind with 0.25" Radial Ice

Gust Response Factor (Gh): 0.85
 Wind Importance Factor (Iw): 1.00

Ice Importance Factor: 1.00
 Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{lz} (in)	A _o (sf)	EPA _o (sf)	EPA _{al} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)	
10	188	6.38	7.515	11.916	4.25	0.246	2.45	1.00	1.00	0.3	14.47	35.45	4.25	1455	344	192	67	260	
9	170	6.25	8.606	14.564	4.98	0.234	2.49	1.00	1.00	0.3	17.07	42.46	4.98	2223	496	225	152	377	
8	150	6.09	10.400	17.247	5.56	0.228	2.51	1.00	1.00	0.3	20.40	51.11	5.56	2726	576	264	205	470	
7	130	5.90	11.843	20.485	5.46	0.197	2.61	1.00	1.00	0.3	23.60	61.53	5.46	3330	639	309	245	554	
6	110	5.70	14.277	23.809	5.23	0.184	2.65	1.00	1.00	0.3	27.89	73.92	5.23	3934	688	358	238	596	
5	90	5.46	16.403	24.175	5.60	0.164	2.72	1.00	1.00	0.3	30.16	82.02	5.60	4066	708	381	230	611	
4	70	5.18	18.612	24.517	5.94	0.150	2.77	1.00	1.00	0.3	32.53	90.12	5.94	4542	724	397	218	615	
3	50	4.83	21.229	27.118	5.00	0.147	2.78	1.00	1.00	0.3	36.61	101.88	5.00	5343	756	418	205	623	
2	30	4.34	23.261	27.169	5.04	0.136	2.82	1.00	1.00	0.2	38.65	109.10	5.04	5495	753	402	191	593	
1	10	3.75	25.252	33.587	4.79	0.142	2.80	1.00	1.00	0.2	44.29	124.10	4.79	5948	729	396	159	555	
														Totals	39,061	6,413			5,253

1.2D + 1.0Di + 1.0Wi 60°
 50 mph Wind with 0.25" Radial Ice

Gust Response Factor (Gh): 0.85
 Wind Importance Factor (Iw): 1.00

Ice Importance Factor: 1.00
 Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{lz} (in)	A _o (sf)	EPA _o (sf)	EPA _{al} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)	
10	188	6.38	7.515	11.916	4.25	0.246	2.45	0.80	1.00	0.3	12.97	31.77	4.25	1455	344	172	67	240	
9	170	6.25	8.606	14.564	4.98	0.234	2.49	0.80	1.00	0.3	15.35	38.18	4.98	2223	496	203	152	354	
8	150	6.09	10.400	17.247	5.56	0.228	2.51	0.80	1.00	0.3	18.32	45.90	5.56	2726	576	237	205	443	
7	130	5.90	11.843	20.485	5.46	0.197	2.61	0.80	1.00	0.3	21.23	55.35	5.46	3330	639	278	245	523	
6	110	5.70	14.277	23.809	5.23	0.184	2.65	0.80	1.00	0.3	25.04	66.35	5.23	3934	688	322	238	559	
5	90	5.46	16.403	24.175	5.60	0.164	2.72	0.80	1.00	0.3	26.88	73.10	5.60	4066	708	340	230	569	
4	70	5.18	18.612	24.517	5.94	0.150	2.77	0.80	1.00	0.3	28.80	79.81	5.94	4542	724	352	218	570	
3	50	4.83	21.229	27.118	5.00	0.147	2.78	0.80	1.00	0.3	32.37	90.06	5.00	5343	756	370	205	574	
2	30	4.34	23.261	27.169	5.04	0.136	2.82	0.80	1.00	0.2	33.99	95.97	5.04	5495	753	354	191	545	
1	10	3.75	25.252	33.587	4.79	0.142	2.80	0.80	1.00	0.2	39.24	109.95	4.79	5948	729	351	159	510	
														Totals	39,061	6,413			4,887

1.2D + 1.0Di + 1.0Wi 90°
 50 mph Wind with 0.25" Radial Ice

Gust Response Factor (Gh): 0.85
 Wind Importance Factor (Iw): 1.00

Ice Importance Factor: 1.00
 Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{lz} (in)	A _o (sf)	EPA _o (sf)	EPA _{al} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)	
10	188	6.38	7.515	11.916	4.25	0.246	2.45	0.85	1.00	0.3	13.35	32.69	4.25	1455	344	177	67	245	
9	170	6.25	8.606	14.564	4.98	0.234	2.49	0.85	1.00	0.3	15.78	39.25	4.98	2223	496	208	152	360	
8	150	6.09	10.400	17.247	5.56	0.228	2.51	0.85	1.00	0.3	18.84	47.21	5.56	2726	576	244	205	449	
7	130	5.90	11.843	20.485	5.46	0.197	2.61	0.85	1.00	0.3	21.82	56.90	5.46	3330	639	286	245	531	
6	110	5.70	14.277	23.809	5.23	0.184	2.65	0.85	1.00	0.3	25.75	68.24	5.23	3934	688	331	238	568	
5	90	5.46	16.403	24.175	5.60	0.164	2.72	0.85	1.00	0.3	27.70	75.33	5.60	4066	708	350	230	579	
4	70	5.18	18.612	24.517	5.94	0.150	2.77	0.85	1.00	0.3	29.74	82.38	5.94	4542	724	363	218	581	
3	50	4.83	21.229	27.118	5.00	0.147	2.78	0.85	1.00	0.3	33.43	93.02	5.00	5343	756	382	205	587	
2	30	4.34	23.261	27.169	5.04	0.136	2.82	0.85	1.00	0.2	35.16	99.25	5.04	5495	753	366	191	557	
1	10	3.75	25.252	33.587	4.79	0.142	2.80	0.85	1.00	0.2	40.50	113.49	4.79	5948	729	362	159	521	
														Totals	39,061	6,413			4,978

1.0D + 1.0W Service Normal
 60 mph Wind with No Ice

Gust Response Factor (Gh): 0.85
 Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{lz} (in)	A _o (sf)	EPA _o (sf)	EPA _{al} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
10	188	9.19	7.515	7.667	0.00	0.194	2.62	1.00	1.00	0.0	11.91	31.15	0.00	925	0	243	68	311

SECTION FORCES

1.0D + 1.0W Service Normal
 60 mph Wind with No Ice

Gust Response Factor (Gh): 0.85
 Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Qz (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{1z} (in)	A _e (sf)	EPA _a (sf)	EPA _{gl} (sf)	Wt (lb)	Ice Wt (lb)	F _{sl} (lb)	F _a (lb)	Force (lb)	
9	170	9.00	8.606	9.583	0.00	0.185	2.65	1.00	1.00	0.0	14.09	37.27	0.00	1439	0	285	139	424	
8	150	8.76	10.400	11.688	0.00	0.184	2.65	1.00	1.00	0.0	17.08	45.30	0.00	1792	0	337	179	517	
7	130	8.50	11.843	15.027	0.00	0.164	2.72	1.00	1.00	0.0	20.40	55.46	0.00	2242	0	401	205	606	
6	110	8.21	14.277	18.574	0.00	0.160	2.74	1.00	1.00	0.0	24.84	67.98	0.00	2705	0	474	198	672	
5	90	7.87	16.403	18.574	0.00	0.142	2.80	1.00	1.00	0.0	26.93	75.41	0.00	2799	0	504	190	694	
4	70	7.46	18.612	18.575	0.00	0.130	2.85	1.00	1.00	0.0	29.12	82.90	0.00	3182	0	526	180	706	
3	50	6.95	21.229	22.120	0.00	0.132	2.84	1.00	1.00	0.0	33.75	95.79	0.00	3823	0	566	170	736	
2	30	6.24	23.261	22.126	0.00	0.123	2.87	1.00	1.00	0.0	35.77	102.80	0.00	3952	0	546	159	705	
1	10	5.40	25.252	28.798	0.00	0.130	2.84	1.00	1.00	0.0	40.88	116.30	0.00	4349	0	534	138	672	
Totals															27,207	0			6,042

1.0D + 1.0W Service 60°
 60 mph Wind with No Ice

Gust Response Factor (Gh): 0.85
 Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Qz (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{1z} (in)	A _e (sf)	EPA _a (sf)	EPA _{gl} (sf)	Wt (lb)	Ice Wt (lb)	F _{sl} (lb)	F _a (lb)	Force (lb)	
10	188	9.19	7.515	7.667	0.00	0.194	2.62	0.80	1.00	0.0	10.41	27.22	0.00	925	0	213	68	280	
9	170	9.00	8.606	9.583	0.00	0.185	2.65	0.80	1.00	0.0	12.37	32.72	0.00	1439	0	250	139	389	
8	150	8.76	10.400	11.688	0.00	0.184	2.65	0.80	1.00	0.0	15.00	39.78	0.00	1792	0	296	179	476	
7	130	8.50	11.843	15.027	0.00	0.164	2.72	0.80	1.00	0.0	18.03	49.02	0.00	2242	0	354	205	559	
6	110	8.21	14.277	18.574	0.00	0.160	2.74	0.80	1.00	0.0	21.98	60.16	0.00	2705	0	420	198	618	
5	90	7.87	16.403	18.574	0.00	0.142	2.80	0.80	1.00	0.0	23.65	66.23	0.00	2799	0	443	190	633	
4	70	7.46	18.612	18.575	0.00	0.130	2.85	0.80	1.00	0.0	25.40	72.30	0.00	3182	0	459	180	639	
3	50	6.95	21.229	22.120	0.00	0.132	2.84	0.80	1.00	0.0	29.50	83.74	0.00	3823	0	495	170	665	
2	30	6.24	23.261	22.126	0.00	0.123	2.87	0.80	1.00	0.0	31.12	89.43	0.00	3952	0	475	159	634	
1	10	5.40	25.252	28.798	0.00	0.130	2.84	0.80	1.00	0.0	35.83	101.93	0.00	4349	0	468	138	606	
Totals															27,207	0			5,497

1.0D + 1.0W Service 90°
 60 mph Wind with No Ice

Gust Response Factor (Gh): 0.85
 Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Qz (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{1z} (in)	A _e (sf)	EPA _a (sf)	EPA _{gl} (sf)	Wt (lb)	Ice Wt (lb)	F _{sl} (lb)	F _a (lb)	Force (lb)	
10	188	9.19	7.515	7.667	0.00	0.194	2.62	0.85	1.00	0.0	10.78	28.21	0.00	925	0	220	68	288	
9	170	9.00	8.606	9.583	0.00	0.185	2.65	0.85	1.00	0.0	12.80	33.86	0.00	1439	0	259	139	398	
8	150	8.76	10.400	11.688	0.00	0.184	2.65	0.85	1.00	0.0	15.52	41.16	0.00	1792	0	307	179	486	
7	130	8.50	11.843	15.027	0.00	0.164	2.72	0.85	1.00	0.0	18.62	50.63	0.00	2242	0	366	205	571	
6	110	8.21	14.277	18.574	0.00	0.160	2.74	0.85	1.00	0.0	22.70	62.12	0.00	2705	0	433	198	631	
5	90	7.87	16.403	18.574	0.00	0.142	2.80	0.85	1.00	0.0	24.47	68.52	0.00	2799	0	458	190	648	
4	70	7.46	18.612	18.575	0.00	0.130	2.85	0.85	1.00	0.0	26.33	74.95	0.00	3182	0	476	180	655	
3	50	6.95	21.229	22.120	0.00	0.132	2.84	0.85	1.00	0.0	30.56	86.75	0.00	3823	0	513	170	683	
2	30	6.24	23.261	22.126	0.00	0.123	2.87	0.85	1.00	0.0	32.28	92.78	0.00	3952	0	492	159	651	
1	10	5.40	25.252	28.798	0.00	0.130	2.84	0.85	1.00	0.0	37.09	105.52	0.00	4349	0	485	138	622	
Totals															27,207	0			5,633

ASSET: 370533, Canon City
 CUSTOMER: T-MOBILE

CODE: ANSI/TIA-222-H
 PROJECT: 14752410_C3_02

EQUIVALENT LATERAL FORCE METHOD

Spectral Response Acceleration for Short Period (S_s):	0.26
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.07
Long-Period Transition Period (T_L - Seconds):	6
Importance Factor (I_a):	1.00
Site Coefficient F_a :	1.59
Site Coefficient F_v :	2.40
Response Modification Coefficient (R):	3.00
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.28
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.12
Seismic Response Coefficient (C_e):	0.04
Upper Limit C_s :	0.04
Lower Limit C_s :	0.03
Period based on Rayleigh Method (sec):	1.07
Redundancy Factor (ρ):	1.30
Seismic Force Distribution Exponent (k):	1.28
Total Unfactored Dead Load:	34.19 k
Seismic Base Shear (E):	1.60 k

SEISMIC FORCES

0.9D - 1.0Ev + 1.0Eh

Section/Appurtenance	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
10	188.00	925	764,445	0.060	96	781
9	170.00	1,439	1,044,780	0.082	131	1,215
8	150.00	1,792	1,108,171	0.086	139	1,513
7	130.00	2,242	1,154,193	0.090	144	1,893
6	110.00	2,705	1,123,723	0.088	140	2,284
5	90.00	2,799	898,879	0.070	112	2,363
4	70.00	3,182	740,401	0.058	93	2,687
3	50.00	3,823	577,650	0.045	72	3,228
2	30.00	3,952	310,131	0.024	39	3,337
1	10.00	4,349	83,398	0.006	10	3,673
Raycap DC6-48-60-18-8F	196.00	20	17,433	0.001	2	17
Alcatel-Lucent RRH2X40-07L-AT	196.00	156	136,237	0.011	17	132
Alcatel-Lucent RRH2X40-AWS+RDEM	196.00	143	124,470	0.010	16	121
Kaelus TMA2061F1V1-1	196.00	59	51,775	0.004	6	50
Andrew E15Z01P06	192.00	74	62,817	0.005	8	62
Powerwave Allgon 7250.03 /XM-1900-65-18.5I-2-D	192.00	31	26,146	0.002	3	26
KMW ET-X-UW-70-16-70-18-iR-AT	192.00	207	175,889	0.014	22	175
Kathrein Scala 800 10766	192.00	123	104,752	0.008	13	104
Flat Light Sector Frame	192.00	1,200	1,018,661	0.080	127	1,013
Andrew VHLP2-11	181.70	27	21,355	0.002	3	23
DragonWave Horizon Compact Plus	181.60	8	5,928	0.000	1	6
Samsung RRH-B8 w/ Finger Guard	181.40	119	93,920	0.007	12	100
KMW ET-X-TS-70-15-62-18-iR-RD	181.40	84	66,139	0.005	8	71
Samsung RRH-C2A (w/o External Filter)	181.30	106	83,443	0.006	10	89
Samsung RRH-P4	181.20	120	94,575	0.007	12	101
Round Sector Frame	180.00	900	703,295	0.055	88	760
KMW ET-X-WM-18-65-8P	178.60	73	56,322	0.004	7	61
Decibel DB878G105AXY	165.40	75	52,582	0.004	7	63
Round Sector Frame	163.00	300	206,419	0.016	26	253
Ceragon FibeAir IP-20D	155.00	14	9,224	0.001	1	12
Andrew VHLP2-11 (31 lb)	155.00	31	19,997	0.002	2	26
Commscope HELIAX FiberFeed 12 RRU Pendant Connect	154.00	40	25,589	0.002	3	34
Nokia AirScale Dual RRH 4T4R B12/71 240W AHLOA	154.00	251	160,825	0.012	20	212
Nokia AHFIG	154.00	238	152,381	0.012	19	201
Nokia AEHC	154.00	311	198,824	0.016	25	262
Commscope FFV-65C-R3-V1	154.00	374	239,126	0.019	30	316
Generic Flat Light Sector Frame	150.00	1,600	989,572	0.077	124	1,351
Alcatel-Lucent 9500 MPR (ODU)	143.00	26	15,357	0.001	2	22
Andrew VHLPX6-11/A	143.00	137	79,694	0.006	10	116
Andrew VHLPX6-11/A	45.00	137	18,086	0.001	2	116
Totals		34,192	12,816,603	1.000	1,602	28,873

ASSET: 370533, Canon City
 CUSTOMER: T-MOBILE

CODE: ANSI/TIA-222-H
 PROJECT: 14752410_C3_02

1.2D + 1.0Ev + 1.0Eh

Section/Appurtenance	Height Above Base (ft)	Weight (lb)	Wz (lb-ft)	Cvx	Horizontal Force (lb)	Vertical Force (lb)
10	188.00	925	764,445	0.060	96	1,162
9	170.00	1,439	1,044,780	0.082	131	1,806
8	150.00	1,792	1,108,171	0.086	139	2,250
7	130.00	2,242	1,154,193	0.090	144	2,815
6	110.00	2,705	1,123,723	0.088	140	3,396
5	90.00	2,799	898,879	0.070	112	3,514
4	70.00	3,182	740,401	0.058	93	3,995
3	50.00	3,823	577,650	0.045	72	4,799
2	30.00	3,952	310,131	0.024	39	4,962
1	10.00	4,349	83,398	0.006	10	5,461
Raycap DC6-48-60-18-8F	196.00	20	17,433	0.001	2	25
Alcatel-Lucent RRH2X40-07L-AT	196.00	156	136,237	0.011	17	196
Alcatel-Lucent RRH2X40-AWS+RDEM	196.00	143	124,470	0.010	16	179
Kaelus TMA2061F1V1-1	196.00	59	51,775	0.004	6	75
Andrew E15Z01P06	192.00	74	62,817	0.005	8	93
Powerwave Allgon 7250.03 /XM-1900-65-18.5I-2-D	192.00	31	26,146	0.002	3	39
KMW ET-X-UW-70-16-70-18-IR-AT	192.00	207	175,889	0.014	22	260
Kathrein Scala 800 10766	192.00	123	104,752	0.008	13	155
Flat Light Sector Frame	192.00	1,200	1,018,661	0.080	127	1,507
Andrew VHLP2-11	181.70	27	21,355	0.002	3	34
DragonWave Horizon Compact Plus	181.60	8	5,928	0.000	1	9
Samsung RRH-B8 w/ Finger Guard	181.40	119	93,920	0.007	12	149
KMW ET-X-TS-70-15-62-18-IR-RD	181.40	84	66,139	0.005	8	105
Samsung RRH-C2A (w/o External Filter)	181.30	106	83,443	0.006	10	133
Samsung RRH-P4	181.20	120	94,575	0.007	12	151
Round Sector Frame	180.00	900	703,295	0.055	88	1,130
KMW ET-X-WM-18-65-8P	178.60	73	56,322	0.004	7	91
Decibel DB878G105AXY	165.40	75	52,582	0.004	7	94
Round Sector Frame	163.00	300	206,419	0.016	26	377
Ceragon FibeAir IP-20D	155.00	14	9,224	0.001	1	18
Andrew VHLP2-11 (31 lb)	155.00	31	19,997	0.002	2	39
Commscope HELIAX FiberFeed 12 RRU Pendant Connect	154.00	40	25,589	0.002	3	50
Nokia AirScale Dual RRH 4T4R B12/71 240W AHLOA	154.00	251	160,825	0.012	20	316
Nokia AHFIG	154.00	238	152,381	0.012	19	299
Nokia AEHC	154.00	311	198,824	0.016	25	390
Commscope FFVV-65C-R3-V1	154.00	374	239,126	0.019	30	469
Generic Flat Light Sector Frame	150.00	1,600	989,572	0.077	124	2,009
Alcatel-Lucent 9500 MPR (ODU)	143.00	26	15,357	0.001	2	33
Andrew VHLPX6-11/A	143.00	137	79,694	0.006	10	172
Andrew VHLPX6-11/A	45.00	137	18,086	0.001	2	172
Totals		34,192	12,816,603	1.000	1,602	42,930

ASSET: 370533, Canon City
CUSTOMER: T-MOBILE

CODE: ANSI/TIA-222-H
PROJECT: 14752410_C3_02

FORCE/STRESS SUMMARY

Section 1 – 0.0' to 20.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			F _y (ksi)	Φ _c P _n (kip)	Shear		Bear ΦR _n (kip)	# Bolt	# Hole	Use %	Controls
				X	Y	Z			ΦR _{nv} (kip)	ΦR _n (kip)					
L PSP - ROHN 8 EHS	-172.39	1.2D + 1.0W N	10.017	100	100	100	41.16	50.00	386.43	0.00	0.00	0	0	44	Member X
D SAE - 3.5x3.5x0.25	-4.17	1.2D + 1.0W N	22.811	50	50	50	198.93	50.00	12.22	19.88	23.40	1	1	34	Member Z

Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	Blk Shear		# Bolt	# Hole	Use %	Controls
								Φ _t P _n (kip)	Φ _t P _n (kip)				
L PSP - ROHN 8 EHS	141.11	0.9D + 1.0W 60°	50.0	65	437.40	0.00	0.00			0	0	32	Member
D SAE - 3.5x3.5x0.25	4.04	1.2D + 1.0W 90°	50.0	65	54.36	19.88	14.14	17.98		1	1	28	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	ΦR _{nt} (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	144.65	0.9D + 1.0W 60°	454.31	32	8	1" A354-BC

Section 2 – 20.0' to 40.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			F _y (ksi)	Φ _c P _n (kip)	Shear		Bear ΦR _n (kip)	# Bolt	# Hole	Use %	Controls
				X	Y	Z			ΦR _{nv} (kip)	ΦR _n (kip)					
L PX - 6" DIA PIPE	-158.29	1.2D + 1.0W N	10.019	100	100	100	54.77	50.00	303.54	0.00	0.00	0	0	52	Member X
D SAE - 3.5x3.5x0.25	-3.85	1.2D + 1.0W 90°	21	50	50	50	183.14	50.00	14.42	19.88	23.40	1	1	26	Member Z

Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	Blk Shear		# Bolt	# Hole	Use %	Controls
								Φ _t P _n (kip)	Φ _t P _n (kip)				
L PX - 6" DIA PIPE	129.92	0.9D + 1.0W 60°	50.0	65	378.00	0.00	0.00			0	0	34	Member
D SAE - 3.5x3.5x0.25	3.75	1.2D + 1.0W 90°	50.0	65	54.36	19.88	14.14	17.98		1	1	26	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	ΦR _{nt} (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	132.22	0.9D + 1.0W 60°	436.14	30	8	1 A325

Section 3 – 40.0' to 60.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			F _y (ksi)	Φ _c P _n (kip)	Shear		Bear ΦR _n (kip)	# Bolt	# Hole	Use %	Controls
				X	Y	Z			ΦR _{nv} (kip)	ΦR _n (kip)					
L PX - 6" DIA PIPE	-142.90	1.2D + 1.0W N	10.017	100	100	100	54.76	50.00	303.58	0.00	0.00	0	0	47	Member X
D SAE - 3.5x3.5x0.25	-3.73	1.2D + 1.0W 90°	19.171	50	50	50	167.19	50.00	17.30	19.88	23.40	1	1	21	Member Z

Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	Blk Shear		# Bolt	# Hole	Use %	Controls
								Φ _t P _n (kip)	Φ _t P _n (kip)				
L PX - 6" DIA PIPE	118.50	0.9D + 1.0W 60°	50.0	65	378.00	0.00	0.00			0	0	31	Member
D SAE - 3.5x3.5x0.25	3.62	1.2D + 1.0W 90°	50.0	65	54.36	19.88	14.14	17.98		1	1	25	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	ΦR _{nt} (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	120.92	0.9D + 1.0W 60°	327.10	37	6	1 A325

Section 4 – 60.0' to 80.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			F _y (ksi)	Φ _c P _n (kip)	Shear		Bear ΦR _n (kip)	# Bolt	# Hole	Use %	Controls
				X	Y	Z			ΦR _{nv} (kip)	ΦR _n (kip)					
L PX - 5" DIA PIPE	-128.48	1.2D + 1.0W N	6.678	100	100	100	43.55	50.00	238.95	0.00	0.00	0	0	53	Member X
D SAE - 2.5X2.5X0.25	-3.08	1.2D + 1.0W 90°	15.976	50	50	50	195.22	36.00	8.94	13.81	17.40	1	1	34	Member Z

Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	Blk Shear		# Bolt	# Hole	Use %	Controls
								Φ _t P _n (kip)	Φ _t P _n (kip)				
L PX - 5" DIA PIPE	107.60	0.9D + 1.0W 60°	50.0	65	274.50	0.00	0.00			0	0	39	Member
D SAE - 2.5X2.5X0.25	3.01	1.2D + 1.0W 90°	36.0	58	33.22	13.81	10.44	11.83		1	1	28	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	ΦR _{nt} (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	108.92	0.9D + 1.0W 60°	327.10	33	6	1 A325

ASSET: 370533, Canon City
 CUSTOMER: T-MOBILE

CODE: ANSI/TIA-222-H
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FORCE/STRESS SUMMARY

Section 5 – 80.0' to 100.00'

Member Compression		Pu (kip)	Load Case	Len (ft)	Bracing %			F _y (ksi)	Φ _c P _n (kip)	Shear Φ _{R_{nv}} (kip)	Bear Φ _{R_n} (kip)	# Bolt	# Hole	Use %	Controls	
					X	Y	Z	KL/R								
L PX - 5" DIA PIPE		-112.71	1.2D + 1.0W N	6.678	100	100	100	43.55	50.00	238.95	0.00	0.00	0	0	47	Member X
D SAE - 2.5X2.5X0.1875		-2.95	1.2D + 1.0W 90°	14.168	50	50	50	171.73	36.00	8.75	13.81	13.05	1	1	33	Member Z

Member Tension		Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear Φ _{R_{nv}} (kip)	Bear Φ _{R_n} (kip)	Blk Shear Φ _t P _n (kip)	# Bolt	# Hole	Use %	Controls
L PX - 5" DIA PIPE		93.36	1.2D + 1.0W 60°	50.0	65	274.50	0.00	0.00		0	0	34	Member
D SAE - 2.5X2.5X0.1875		2.88	1.2D + 1.0W 90°	36.0	58	25.22	13.81	7.83	8.87	1	1	36	Bolt Bear

Max Splice Forces		Pu (kip)	Load Case	Φ _{R_{nt}} (kip)	Use %	Num Bolts	Bolt Type
Bot Tension		96.78	0.9D + 1.0W 60°	218.07	44	4	1 A325

FORCE/STRESS SUMMARY

Section 6 – 100.0' to 120.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			F _y (ksi)	Φ _c P _n (kip)	Shear		# Bolt	# Hole	Use %	Controls	
				X	Y	Z			Φ _{R_{nv}} (kip)	Φ _{R_n} (kip)					
L PX - 5" DIA PIPE	-96.02	1.2D + 1.0W N	6.678	100	100	100	43.55	50.00	238.95	0.00	0.00	0	0	40	Member X
D SAE - 2.5X2.5X0.1875	-2.84	1.2D + 1.0W 90°	12.439	50	50	50	150.77	36.00	11.36	13.81	13.05	1	1	25	Member Z

Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Φ _{R_{nv}} (kip)	Φ _{R_n} (kip)	Blk Shear		# Bolt	# Hole	Use %	Controls
								Φ _t P _n (kip)	Φ _{R_{nv}} (kip)				
L PX - 5" DIA PIPE	79.69	1.2D + 1.0W 60°	50.0	65	274.50	0.00	0.00			0	0	29	Member
D SAE - 2.5X2.5X0.1875	2.78	1.2D + 1.0W 90°	36.0	58	25.22	13.81	7.83	8.87		1	1	35	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	Φ _{R_{nt}} (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	83.15	0.9D + 1.0W 60°	218.07	38	4	1 A325

Section 7 – 120.0' to 140.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			F _y (ksi)	Φ _c P _n (kip)	Shear		# Bolt	# Hole	Use %	Controls	
				X	Y	Z			Φ _{R_{nv}} (kip)	Φ _{R_n} (kip)					
L PX - 4" DIA PIPE	-78.57	1.2D + 1.0W N	5.009	100	100	100	40.61	50.00	175.90	0.00	0.00	0	0	44	Member X
D SAE - 2X2X0.1875	-2.46	1.2D + 1.0W 90°	9.926	50	50	50	151.16	36.00	8.96	13.81	13.05	1	1	27	Member Z

Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Φ _{R_{nv}} (kip)	Φ _{R_n} (kip)	Blk Shear		# Bolt	# Hole	Use %	Controls
								Φ _t P _n (kip)	Φ _{R_{nv}} (kip)				
L PX - 4" DIA PIPE	66.08	0.9D + 1.0W 60°	50.0	65	198.45	0.00	0.00			0	0	33	Member
D SAE - 2X2X0.1875	2.58	1.2D + 1.0W 90°	36.0	58	19.12	13.81	7.83	6.83		1	1	37	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	Φ _{R_{nt}} (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	67.72	0.9D + 1.0W 60°	218.07	31	4	1 A325

Section 8 – 140.0' to 160.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			F _y (ksi)	Φ _c P _n (kip)	Shear		# Bolt	# Hole	Use %	Controls	
				X	Y	Z			Φ _{R_{nv}} (kip)	Φ _{R_n} (kip)					
L PX - 3" DIA PIPE	-58.10	1.2D + 1.0W N	4.007	100	100	100	42.18	50.00	119.32	0.00	0.00	0	0	48	Member X
H SAE - 1.75X1.75X0.125	-0.20	1.2D + 1.0W N	4.688	100	100	100	162.10	36.00	4.57	13.81	8.70	1	1	4	Member Z
D SAE - 1.75X1.75X0.1875	-2.48	1.2D + 1.0W 90°	7.678	50	50	50	134.31	36.00	9.85	13.81	13.05	1	1	25	Member Z

Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Φ _{R_{nv}} (kip)	Φ _{R_n} (kip)	Blk Shear		# Bolt	# Hole	Use %	Controls
								Φ _t P _n (kip)	Φ _{R_{nv}} (kip)				
L PX - 3" DIA PIPE	47.67	0.9D + 1.0W 60°	50.0	65	135.90	0.00	0.00			0	0	35	Member
H SAE - 1.75X1.75X0.125	0.17	1.2D + 1.0W 60°	36.0	58	10.90	13.81	5.22	3.87		1	1	4	Blk Shear
D SAE - 1.75X1.75X0.1875	2.45	1.2D + 1.0W 90°	36.0	58	16.05	13.81	7.83	5.81		1	1	42	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	Φ _{R_{nt}} (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	49.59	0.9D + 1.0W 60°	166.22	30	4	0.875" A325

Section 9 – 160.0' to 180.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			F _y (ksi)	Φ _c P _n (kip)	Shear		# Bolt	# Hole	Use %	Controls	
				X	Y	Z			Φ _{R_{nv}} (kip)	Φ _{R_n} (kip)					
L PX - 2-1/2" DIA PIPE	-34.99	1.2D + 1.0W N	4	100	100	100	51.95	50.00	83.12	0.00	0.00	0	0	42	Member X
D SAE - 1.75X1.75X0.1875	-2.88	1.2D + 1.0W N	6.159	50	50	50	110.80	36.00	13.73	13.81	13.05	1	1	22	Bolt Bear

Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Φ _{R_{nv}} (kip)	Φ _{R_n} (kip)	Blk Shear		# Bolt	# Hole	Use %	Controls
								Φ _t P _n (kip)	Φ _{R_{nv}} (kip)				
L PX - 2-1/2" DIA PIPE	28.39	0.9D + 1.0W 60°	50.0	65	101.25	0.00	0.00			0	0	28	Member
D SAE - 1.75X1.75X0.1875	2.81	1.2D + 1.0W 90°	36.0	58	16.05	13.81	7.83	5.81		1	1	48	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	Φ _{R_{nt}} (kip)	Use %	Num Bolts	Bolt Type

ASSET: 370533, Canon City
 CUSTOMER: T-MOBILE

CODE: ANSI/TIA-222-H
 PROJECT: 14752410_C3_02

FORCE/STRESS SUMMARY

Bot Tension 31.73 0.9D + 1.0W 60° 120.41 26 4 0.75" A325

Section 10 – 180.0' to 196.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			F _y (ksi)	Φ _c P _n (kip)	Shear		Φ _t P _n (kip)	# Bolt	# Hole	Use %	Controls
				X	Y	Z			Φ _{R_{nv}} (kip)	Φ _{R_n} (kip)					
L PST - 2-1/2" DIA PIPE	-9.32	1.2D + 1.0W N	4	100	100	100	50.69	50.00	63.55	0.00	0.00	0	0	14	Member X
H SAE - 1.75X1.75X0.125	-0.14	1.2D + 1.0W N	4.646	100	100	100	160.65	36.00	4.66	13.81	8.70	1	1	2	Member Z
D SAE - 1.75X1.75X0.1875	-1.36	1.2D + 1.0W N	6.13	50	50	50	110.43	36.00	13.78	13.81	13.05	1	1	10	Bolt Bear

Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _e P _n (kip)	Shear		Φ _t P _n (kip)	# Bolt	# Hole	Use %	Controls
						Φ _{R_{nv}} (kip)	Φ _{R_n} (kip)					
L PST - 2-1/2" DIA PIPE	5.58	1.2D + 1.0W 60°	50.0	65	76.68	0.00	0.00		0	0	7	Member
H SAE - 1.75X1.75X0.125	0.12	1.2D + 1.0W 60°	36.0	58	10.90	13.81	5.22	3.87	1	1	2	Blk Shear
D SAE - 1.75X1.75X0.1875	1.28	1.2D + 1.0W 60°	36.0	58	16.05	13.81	7.83	5.81	1	1	22	Blk Shear

Max Splice Forces	Pu (kip)	Load Case	Φ _{R_{nt}} (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	6.93	0.9D + 1.0W 60°	81.36	9	4	5/8 A325

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	40.00	0.0149	-0.0038	0.0389	0.0391
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	144.00	0.2158	-0.0119	0.2008	0.201
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	148.00	0.2302	-0.0123	0.2115	0.2118
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	152.00	0.2453	-0.0126	0.2207	0.2208
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	156.00	0.2609	-0.0131	0.2306	0.231
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	164.00	0.295	-0.0133	0.2571	0.2572
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	180.00	0.3712	-0.0123	0.2809	0.2812
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	192.00	0.4311	-0.0118	0.2435	0.2435
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	196.00	0.451	-0.0117	0.3073	0.3073
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	40.00	0.0147	-0.0030	0.0389	0.0389
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	144.00	0.2138	0.0121	0.1996	0.1996
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	148.00	0.2281	0.0129	0.2097	0.2098
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	152.00	0.2432	0.0137	0.2194	0.2194
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	156.00	0.2587	-0.0072	0.2292	0.2293
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	164.00	0.2926	0.0164	0.2559	0.2559
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	180.00	0.3685	0.0198	0.2821	0.2828
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	192.00	0.4285	0.0235	0.2695	0.2703
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	196.00	0.4484	0.0237	0.2978	0.2982
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	40.00	0.0157	0.0007	0.0429	0.0429
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	144.00	0.2242	0.0086	0.2087	0.2087
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	148.00	0.2392	0.0091	0.2200	0.2202
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	152.00	0.2548	0.0094	0.2303	0.2303
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	156.00	0.2713	0.0000	0.2394	0.2394
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	164.00	0.3068	0.0103	0.2699	0.2699
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	180.00	0.3866	0.0095	0.3019	0.302
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	192.00	0.4502	0.0091	0.3515	0.3516
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	196.00	0.4715	0.0091	0.2842	0.2842
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	40.00	0.0035	-0.0005	0.0099	0.0099
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	144.00	0.0565	-0.0030	0.0551	0.0551
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	148.00	0.0605	-0.0031	0.0584	0.0584
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	152.00	0.0646	-0.0033	0.0615	0.0615
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	156.00	0.0689	-0.0035	0.0648	0.0649
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	164.00	0.0786	-0.0035	0.0728	0.0729
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	180.00	0.1002	-0.0030	0.0812	0.0812
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	192.00	0.1173	-0.0028	0.0824	0.0825
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	196.00	0.1231	-0.0028	0.0825	0.0825
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	40.00	0.0034	0.0005	0.0099	0.0099
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	144.00	0.0564	0.0026	0.0551	0.0551
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	148.00	0.0604	0.0027	0.0584	0.0584
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	152.00	0.0646	0.0028	0.0613	0.0613
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	156.00	0.069	-0.0030	0.0645	0.0646
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	164.00	0.0785	0.0030	0.0724	0.0725
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	180.00	0.1001	0.0026	0.0810	0.081
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	192.00	0.1173	0.0024	0.0824	0.0824
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	196.00	0.1231	0.0024	0.0826	0.0826
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	40.00	0.0035	0.0005	0.0099	0.0099
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	144.00	0.0565	0.0026	0.0551	0.0551
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	148.00	0.0605	0.0027	0.0584	0.0585
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	152.00	0.0646	0.0028	0.0616	0.0616
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	156.00	0.0691	0.0000	0.0639	0.0639
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	164.00	0.0787	0.0030	0.0730	0.073
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	180.00	0.1002	0.0026	0.0812	0.0812
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	192.00	0.1173	0.0024	0.0825	0.0825
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	196.00	0.123	0.0024	0.0823	0.0824
1.2D + 1.0Ev + 1.0Eh 90° Seismic	40.00	0.0035	-0.0005	0.0100	0.01
1.2D + 1.0Ev + 1.0Eh 90° Seismic	144.00	0.0567	-0.0030	0.0553	0.0554
1.2D + 1.0Ev + 1.0Eh 90° Seismic	148.00	0.0607	-0.0031	0.0588	0.0588
1.2D + 1.0Ev + 1.0Eh 90° Seismic	152.00	0.0648	-0.0033	0.0618	0.0618
1.2D + 1.0Ev + 1.0Eh 90° Seismic	156.00	0.0691	-0.0035	0.0651	0.0652

ASSET: 370533, Canon City
 CUSTOMER: T-MOBILE

CODE: ANSI/TIA-222-H
 PROJECT: 14752410_C3_02

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0Ev + 1.0Eh 90° Seismic	164.00	0.0789	-0.0035	0.0733	0.0733
1.2D + 1.0Ev + 1.0Eh 90° Seismic	180.00	0.1005	-0.0030	0.0817	0.0817
1.2D + 1.0Ev + 1.0Eh 90° Seismic	192.00	0.1177	-0.0028	0.0829	0.0829
1.2D + 1.0Ev + 1.0Eh 90° Seismic	196.00	0.1235	-0.0028	0.0830	0.083
1.2D + 1.0Ev + 1.0Eh 60° Seismic	40.00	0.0034	0.0005	0.0100	0.01
1.2D + 1.0Ev + 1.0Eh 60° Seismic	144.00	0.0566	0.0026	0.0554	0.0554
1.2D + 1.0Ev + 1.0Eh 60° Seismic	148.00	0.0606	0.0027	0.0588	0.0588
1.2D + 1.0Ev + 1.0Eh 60° Seismic	152.00	0.0648	0.0028	0.0615	0.0615
1.2D + 1.0Ev + 1.0Eh 60° Seismic	156.00	0.0692	-0.0030	0.0647	0.0647
1.2D + 1.0Ev + 1.0Eh 60° Seismic	164.00	0.0788	0.0030	0.0728	0.0729
1.2D + 1.0Ev + 1.0Eh 60° Seismic	180.00	0.1005	0.0026	0.0814	0.0815
1.2D + 1.0Ev + 1.0Eh 60° Seismic	192.00	0.1177	0.0024	0.0829	0.0829
1.2D + 1.0Ev + 1.0Eh 60° Seismic	196.00	0.1235	0.0024	0.0830	0.083
1.2D + 1.0Ev + 1.0Eh Normal Seismic	40.00	0.0036	0.0005	0.0099	0.01
1.2D + 1.0Ev + 1.0Eh Normal Seismic	144.00	0.0567	0.0026	0.0553	0.0554
1.2D + 1.0Ev + 1.0Eh Normal Seismic	148.00	0.0607	0.0027	0.0587	0.0588
1.2D + 1.0Ev + 1.0Eh Normal Seismic	152.00	0.0649	0.0028	0.0620	0.062
1.2D + 1.0Ev + 1.0Eh Normal Seismic	156.00	0.0694	0.0000	0.0639	0.0639
1.2D + 1.0Ev + 1.0Eh Normal Seismic	164.00	0.079	0.0030	0.0735	0.0735
1.2D + 1.0Ev + 1.0Eh Normal Seismic	180.00	0.1006	0.0026	0.0818	0.0818
1.2D + 1.0Ev + 1.0Eh Normal Seismic	192.00	0.1177	0.0024	0.0828	0.0829
1.2D + 1.0Ev + 1.0Eh Normal Seismic	196.00	0.1235	0.0024	0.0828	0.0828
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0.25" Radial Ice	40.00	0.0136	-0.0030	0.0350	0.035
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0.25" Radial Ice	144.00	0.1786	-0.0096	0.1641	0.1643
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0.25" Radial Ice	148.00	0.1903	-0.0099	0.1728	0.173
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0.25" Radial Ice	152.00	0.2026	-0.0102	0.1803	0.1803
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0.25" Radial Ice	156.00	0.2149	-0.0106	0.1882	0.1885
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0.25" Radial Ice	164.00	0.243	-0.0107	0.2096	0.2096
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0.25" Radial Ice	180.00	0.3048	-0.0099	0.2284	0.2285
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0.25" Radial Ice	192.00	0.3536	-0.0095	0.2016	0.2017
1.2D + 1.0Di + 1.0Wi 90° 50 mph Wind with 0.25" Radial Ice	196.00	0.3698	-0.0095	0.2479	0.2479
1.2D + 1.0Di + 1.0Wi 60° 50 mph Wind with 0.25" Radial Ice	40.00	0.0137	-0.0024	0.0342	0.0343
1.2D + 1.0Di + 1.0Wi 60° 50 mph Wind with 0.25" Radial Ice	144.00	0.1775	0.0093	0.1635	0.1635
1.2D + 1.0Di + 1.0Wi 60° 50 mph Wind with 0.25" Radial Ice	148.00	0.1891	0.0099	0.1719	0.172
1.2D + 1.0Di + 1.0Wi 60° 50 mph Wind with 0.25" Radial Ice	152.00	0.2014	0.0104	0.1793	0.1793
1.2D + 1.0Di + 1.0Wi 60° 50 mph Wind with 0.25" Radial Ice	156.00	0.2133	-0.0067	0.1872	0.1874
1.2D + 1.0Di + 1.0Wi 60° 50 mph Wind with 0.25" Radial Ice	164.00	0.2416	0.0121	0.2083	0.2083
1.2D + 1.0Di + 1.0Wi 60° 50 mph Wind with 0.25" Radial Ice	180.00	0.3033	0.0140	0.2295	0.2299
1.2D + 1.0Di + 1.0Wi 60° 50 mph Wind with 0.25" Radial Ice	192.00	0.3521	0.0160	0.2206	0.2208
1.2D + 1.0Di + 1.0Wi 60° 50 mph Wind with 0.25" Radial Ice	196.00	0.3684	0.0161	0.2412	0.2414
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0.25" Radial Ice	40.00	0.0134	0.0008	0.0379	0.0379
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0.25" Radial Ice	144.00	0.1839	0.0071	0.1696	0.1696
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0.25" Radial Ice	148.00	0.196	0.0075	0.1789	0.179
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0.25" Radial Ice	152.00	0.2089	0.0078	0.1871	0.1871
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0.25" Radial Ice	156.00	0.2216	0.0000	0.1939	0.1939
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0.25" Radial Ice	164.00	0.2507	0.0085	0.2187	0.2187
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0.25" Radial Ice	180.00	0.3154	0.0078	0.2433	0.2434
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0.25" Radial Ice	192.00	0.3668	0.0074	0.2799	0.28
1.2D + 1.0Di + 1.0Wi Normal 50 mph Wind with 0.25" Radial Ice	196.00	0.3839	0.0074	0.2305	0.2305
0.9D + 1.0W 90° 105 mph Wind with No Ice (Reduced DL)	40.00	0.0452	-0.0118	0.1185	0.1191
0.9D + 1.0W 90° 105 mph Wind with No Ice (Reduced DL)	144.00	0.6597	-0.0384	0.6154	0.616
0.9D + 1.0W 90° 105 mph Wind with No Ice (Reduced DL)	148.00	0.7039	-0.0400	0.6481	0.6494
0.9D + 1.0W 90° 105 mph Wind with No Ice (Reduced DL)	152.00	0.7502	-0.0411	0.6762	0.6765
0.9D + 1.0W 90° 105 mph Wind with No Ice (Reduced DL)	156.00	0.798	-0.0427	0.7071	0.7084
0.9D + 1.0W 90° 105 mph Wind with No Ice (Reduced DL)	164.00	0.9026	-0.0441	0.7878	0.7881
0.9D + 1.0W 90° 105 mph Wind with No Ice (Reduced DL)	180.00	1.1363	-0.0424	0.8620	0.863
0.9D + 1.0W 90° 105 mph Wind with No Ice (Reduced DL)	192.00	1.3204	-0.0414	0.7464	0.7467
0.9D + 1.0W 90° 105 mph Wind with No Ice (Reduced DL)	196.00	1.3814	-0.0413	0.9426	0.9428
0.9D + 1.0W 60° 105 mph Wind with No Ice (Reduced DL)	40.00	0.0449	0.0094	0.1186	0.1189

ASSET: 370533, Canon City
CUSTOMER: T-MOBILE

CODE: ANSI/TIA-222-H
PROJECT: 14752410_C3_02

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
0.9D + 1.0W 60° 105 mph Wind with No Ice (Reduced DL)	144.00	0.654	0.0622	0.6126	0.6128
0.9D + 1.0W 60° 105 mph Wind with No Ice (Reduced DL)	148.00	0.6979	0.0685	0.6448	0.6448
0.9D + 1.0W 60° 105 mph Wind with No Ice (Reduced DL)	152.00	0.7438	0.0744	0.6732	0.6748
0.9D + 1.0W 60° 105 mph Wind with No Ice (Reduced DL)	156.00	0.7912	0.0091	0.7051	0.7052
0.9D + 1.0W 60° 105 mph Wind with No Ice (Reduced DL)	164.00	0.8957	0.0982	0.7859	0.7887
0.9D + 1.0W 60° 105 mph Wind with No Ice (Reduced DL)	180.00	1.1281	0.1417	0.8655	0.877
0.9D + 1.0W 60° 105 mph Wind with No Ice (Reduced DL)	192.00	1.312	0.1813	0.8274	0.847
0.9D + 1.0W 60° 105 mph Wind with No Ice (Reduced DL)	196.00	1.3735	0.1836	0.9135	0.9264
0.9D + 1.0W Normal 105 mph Wind with No Ice (Reduced DL)	40.00	0.0476	0.0023	0.1304	0.1304
0.9D + 1.0W Normal 105 mph Wind with No Ice (Reduced DL)	144.00	0.685	0.0277	0.6396	0.6396
0.9D + 1.0W Normal 105 mph Wind with No Ice (Reduced DL)	148.00	0.7309	0.0294	0.6735	0.6741
0.9D + 1.0W Normal 105 mph Wind with No Ice (Reduced DL)	152.00	0.7788	0.0306	0.7053	0.7053
0.9D + 1.0W Normal 105 mph Wind with No Ice (Reduced DL)	156.00	0.8294	0.0000	0.7346	0.7346
0.9D + 1.0W Normal 105 mph Wind with No Ice (Reduced DL)	164.00	0.9381	0.0340	0.8263	0.8263
0.9D + 1.0W Normal 105 mph Wind with No Ice (Reduced DL)	180.00	1.1829	0.0327	0.9259	0.9264
0.9D + 1.0W Normal 105 mph Wind with No Ice (Reduced DL)	192.00	1.3784	0.0321	1.0772	1.0777
0.9D + 1.0W Normal 105 mph Wind with No Ice (Reduced DL)	196.00	1.4435	0.0318	0.8721	0.8721
1.2D + 1.0W 90° 105 mph Wind with No Ice	40.00	0.0453	-0.0118	0.1188	0.1193
1.2D + 1.0W 90° 105 mph Wind with No Ice	144.00	0.6613	-0.0386	0.6172	0.6178
1.2D + 1.0W 90° 105 mph Wind with No Ice	148.00	0.7055	-0.0401	0.6501	0.6513
1.2D + 1.0W 90° 105 mph Wind with No Ice	152.00	0.752	-0.0412	0.6783	0.6786
1.2D + 1.0W 90° 105 mph Wind with No Ice	156.00	0.7999	-0.0429	0.7092	0.7105
1.2D + 1.0W 90° 105 mph Wind with No Ice	164.00	0.9049	-0.0442	0.7905	0.7908
1.2D + 1.0W 90° 105 mph Wind with No Ice	180.00	1.1393	-0.0425	0.8650	0.866
1.2D + 1.0W 90° 105 mph Wind with No Ice	192.00	1.324	-0.0415	0.7496	0.7499
1.2D + 1.0W 90° 105 mph Wind with No Ice	196.00	1.3853	-0.0414	0.9457	0.9459
1.2D + 1.0W 60° 105 mph Wind with No Ice	40.00	0.0449	0.0094	0.1187	0.1191
1.2D + 1.0W 60° 105 mph Wind with No Ice	144.00	0.6555	0.0624	0.6144	0.6146
1.2D + 1.0W 60° 105 mph Wind with No Ice	148.00	0.6995	0.0687	0.6467	0.6467
1.2D + 1.0W 60° 105 mph Wind with No Ice	152.00	0.7456	0.0747	0.6752	0.6768
1.2D + 1.0W 60° 105 mph Wind with No Ice	156.00	0.7932	0.0091	0.7073	0.7073
1.2D + 1.0W 60° 105 mph Wind with No Ice	164.00	0.8979	0.0986	0.7883	0.7911
1.2D + 1.0W 60° 105 mph Wind with No Ice	180.00	1.1311	0.1422	0.8685	0.88
1.2D + 1.0W 60° 105 mph Wind with No Ice	192.00	1.3157	0.1819	0.8304	0.85
1.2D + 1.0W 60° 105 mph Wind with No Ice	196.00	1.3774	0.1842	0.9166	0.9295
1.2D + 1.0W Normal 105 mph Wind with No Ice	40.00	0.0477	0.0023	0.1306	0.1307
1.2D + 1.0W Normal 105 mph Wind with No Ice	144.00	0.6866	0.0278	0.6415	0.6415
1.2D + 1.0W Normal 105 mph Wind with No Ice	148.00	0.7326	0.0295	0.6756	0.6763
1.2D + 1.0W Normal 105 mph Wind with No Ice	152.00	0.7807	0.0307	0.7076	0.7076
1.2D + 1.0W Normal 105 mph Wind with No Ice	156.00	0.8315	0.0000	0.7368	0.7368
1.2D + 1.0W Normal 105 mph Wind with No Ice	164.00	0.9405	0.0342	0.8292	0.8292
1.2D + 1.0W Normal 105 mph Wind with No Ice	180.00	1.1862	0.0328	0.9290	0.9296
1.2D + 1.0W Normal 105 mph Wind with No Ice	192.00	1.3823	0.0322	1.0805	1.081
1.2D + 1.0W Normal 105 mph Wind with No Ice	196.00	1.4476	0.0319	0.8753	0.8753

DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	*(-) Uplift and (+) Down		
					FX* (kip)	FY* (kip)	FZ* (kip)
	12.12	0.00	0	1	0.00	176.34	-16.84
1.2D + 1.0W Normal	12.12	0.00	120	1a	5.51	-67.65	-4.59
	12.12	0.00	240	1b	-5.51	-67.65	-4.59
	12.12	0.00	0	1	-1.10	90.95	-8.39
1.2D + 1.0W 60°	12.12	0.00	120	1a	-7.81	90.55	3.26
	12.12	0.00	240	1b	-12.19	-140.47	-7.04
	12.12	0.00	0	1	-1.31	13.69	-0.91
1.2D + 1.0W 90°	12.12	0.00	120	1a	-12.50	148.80	6.49
	12.12	0.00	240	1b	-10.95	-121.46	-5.57
	12.12	0.00	0	1	0.00	172.66	-16.60
0.9D + 1.0W Normal	12.12	0.00	120	1a	5.71	-70.95	-4.71
	12.12	0.00	240	1b	-5.71	-70.95	-4.71
	12.12	0.00	0	1	-1.10	87.41	-8.16
0.9D + 1.0W 60°	12.12	0.00	120	1a	-7.60	87.01	3.14
	12.12	0.00	240	1b	-12.38	-143.65	-7.15
	12.12	0.00	0	1	-1.32	10.27	-0.68
0.9D + 1.0W 90°	12.12	0.00	120	1a	-12.30	145.18	6.37
	12.12	0.00	240	1b	-11.15	-124.67	-5.69
	12.12	0.00	0	1	0.00	60.59	-3.04
1.2D + 1.0DI + 1.0WI Normal	12.12	0.00	120	1a	2.90	-5.55	-2.07
	12.12	0.00	240	1b	-2.90	-5.55	-2.07
	12.12	0.00	0	1	-0.32	37.87	-0.73
1.2D + 1.0DI + 1.0WI 60°	12.12	0.00	120	1a	-0.79	37.56	0.09
	12.12	0.00	240	1b	-4.79	-25.74	-2.77
	12.12	0.00	0	1	-0.38	16.51	1.36
1.2D + 1.0DI + 1.0WI 90°	12.12	0.00	120	1a	-2.09	53.42	0.99
	12.12	0.00	240	1b	-4.44	-20.44	-2.35
	12.12	0.00	0	1	0.00	26.02	-1.99
1.2D + 1.0Ev + 1.0Eh Normal	12.12	0.00	120	1a	-0.41	7.55	0.21
	12.12	0.00	240	1b	0.41	7.55	0.21
	12.12	0.00	0	1	-0.03	19.86	-1.48
1.2D + 1.0Ev + 1.0Eh 60°	12.12	0.00	120	1a	-1.30	19.86	0.72
	12.12	0.00	240	1b	-0.04	1.39	-0.02
	12.12	0.00	0	1	-0.03	13.70	-0.97
1.2D + 1.0Ev + 1.0Eh 90°	12.12	0.00	120	1a	-1.61	24.37	0.91
	12.12	0.00	240	1b	0.07	3.04	0.06
	12.12	0.00	0	1	0.00	21.50	-1.67
0.9D - 1.0Ev + 1.0Eh Normal	12.12	0.00	120	1a	-0.14	3.07	0.05
	12.12	0.00	240	1b	0.14	3.07	0.05
	12.12	0.00	0	1	-0.03	15.36	-1.16
0.9D - 1.0Ev + 1.0Eh 60°	12.12	0.00	120	1a	-1.02	15.36	0.56
	12.12	0.00	240	1b	-0.31	-3.07	-0.18
	12.12	0.00	0	1	-0.03	9.22	-0.65
0.9D - 1.0Ev + 1.0Eh 90°	12.12	0.00	120	1a	-1.34	19.86	0.76
	12.12	0.00	240	1b	-0.20	-1.43	-0.10
	12.12	0.00	0	1	0.00	64.74	-6.05
1.0D + 1.0W Service Normal	12.12	0.00	120	1a	1.41	-15.27	-1.29
	12.12	0.00	240	1b	-1.41	-15.27	-1.29
	12.12	0.00	0	1	-0.38	36.75	-3.25
1.0D + 1.0W Service 60°	12.12	0.00	120	1a	-3.00	36.61	1.30
	12.12	0.00	240	1b	-3.62	-39.17	-2.09
	12.12	0.00	0	1	-0.45	11.40	-0.77
1.0D + 1.0W Service 90°	12.12	0.00	120	1a	-4.56	55.72	2.38
	12.12	0.00	240	1b	-3.22	-32.93	-1.60

ASSET: 370533, Canon City

CODE: ANSI/TIA-222-H

CUSTOMER: T-MOBILE

PROJECT: 14752410_C3_02

MAXIMUM REACTIONS SUMMARY

	<u>Individual</u>		<u>Global (DL+WL+IL)</u>		<u>Global (DL+WL)</u>
Max Uplift:	143.65 (kip)	Moment Ice:	801.97 (kip-ft)	Moment:	2958.24 (kip-ft)
Max Down:	176.34 (kip)	Total Down Ice:	49.48 (kip)	Total Down:	41.03 (kip)
Max Shear:	16.84 (kip)	Total Shear Ice:	7.18 (kip)	Total Shear:	26.02 (kip)

1.2D + 1.0W Normal



AMERICAN TOWER®
CORPORATION

LETTER OF AUTHORIZATION FOR PERMITTING

ATC SITE#/NAME/PROJECT: 370533 / Canon City /14752410
SITE ADDRESS: 12868 County Road 3, Canon City, CO 81212
APN: 000098904413
LICENSEE: T-MOBILE d/b/a T-MOBILE WEST LLC

I, Margaret Robinson, Vice President, UST Legal for American Tower*, owner of the tower facility located at the address identified above (the "Tower Facility"), do hereby authorize T-MOBILE d/b/a T-MOBILE WEST LLC, its successors and assigns, and/or its agent, (collectively, the "Licensee") to act as American Tower's non-exclusive agent for the sole purpose of filing and consummating any land-use or building permit application(s) as may be required by the applicable permitting authorities for Licensee's telecommunications' installation.

I understand that these applications may be approved with conditions. The above authorization is limited to the acceptance by Licensee only of conditions related to Licensee's installation and any such conditions of approval or modifications will be Licensee's sole responsibility.

Signature:

Print Name: Margaret Robinson
Vice President, UST Legal
American Tower*

NOTARY BLOCK

Commonwealth of MASSACHUSETTS
County of Middlesex

This instrument was acknowledged before me by Margaret Robinson, Vice President, UST Legal for American Tower*, personally known to me (or proved to me based on satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same.

WITNESS my hand and official seal, this 8th day of March 2024.

NOTARY SEAL



GERARD T. HEFFRON
Notary Public
Commonwealth of Massachusetts
My Commission Expires
August 9, 2024

Notary Public
My Commission Expires: August 9th, 2024

*American Tower includes all affiliates and subsidiaries of American Tower Corporation.

SITE GROUND LEASE AGREEMENT

This Lease Agreement ("Agreement") is entered into this 13th day of February 2001, between Texas Telecommunications, LP, a Texas limited partnership ("Lessee"), and Gayle & Lloyd Olomon, a Private ("Lessor"). For good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, the parties hereto agree as follows:

1. **Premises** Subject to the following terms and conditions, Lessor leases to Lessee a portion of the real property (the "Property") described in the attached Exhibit A. Lessee's use of the Property shall be limited to that portion of the Property, together with easements for access and utilities, described and depicted in attached Exhibit B (collectively referred to hereinafter as the "Premises"). The Premises are located at 12868 County Rd. 3 Canon City, in the county of Fremont, in the state of Co. and comprises approximately Ten Thousand (10,000) square feet.
2. **Term** The term of this Agreement shall be Five (5) years commencing not later than the 13th day of AUGUST, 2001 (which the parties agree shall be the date eighteen (18) months from full execution of this Agreement) or the start of construction, whichever first occurs ("Commencement Date") and terminating on the Fifth anniversary of the Commencement Date (the "Term") unless otherwise terminated as provided in Paragraph 17 Lessee shall have the right to extend the Term for five (5) successive five (5) year periods (the "Renewal Terms") on the same terms and conditions as set forth herein. This Agreement shall automatically be extended for each successive Renewal Term unless Lessee notifies Lessor of its intention not to exercise its option to renew at least ninety (90) days prior to the expiration of the then existing Term or Renewal Term.
3. **Contingencies** This Agreement is subject to the following contingencies:
 - (a) Lessee shall obtain all governmental licenses, permits and approvals required for its use of the Premises.
 - (b) Lessee may perform some or all of the following activities ("Permitted Activities"): surveys, geo-technical soil borings and analyses, Phase I environmental audits, boundary surveys, title searches, radio propagation studies and such other tests and inspections of the Property which Lessee may deem necessary or advisable, which studies SHALL NOT reveal obstructions, encroachments or defects which Lessee determines would interfere with Lessee's intended use of the Property Lessor consents to Lessee, its employees, agents and independent contractors entering upon the Property and performing the Permitted Activities. Lessee agrees to repair any damage to the Property that might have been caused in connection with any of the Permitted Activities.
4. **Rent** Within 15 days of the Commencement Date and within five (5) days of each month thereafter, Lessee shall pay to Lessor as rent [REDACTED] per month ("Rent") Rent for any fractional month at the beginning or at the end of the Term or Renewal Term shall be prorated. Rental payments for each Renewal Term shall be increased at the commencement of such Renewal Term by [REDACTED] over the annual rental payment for the immediately preceding Term or immediately preceding Renewal Term, as applicable.
5. **Use** The Premises may be used by Lessee for any activity in connection with the provision of communications services. Lessor agrees to cooperate with Lessee, at Lessee's expense, in making application for and obtaining all licenses, permits and any and all other necessary approvals that may be required for Lessee's intended use of the Premises.

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6. Facilities; Utilities; Access

(a) Lessee has the right to erect, maintain and operate on the Premises a telecommunications facility, including without limitation, an antenna tower or pole and foundation, utility lines, transmission lines, air conditioned equipment shelter(s), electronic equipment, radio transmitting and receiving antennas, supporting equipment and structures thereto ("Lessee Facilities"). Lessee has the right to do all work necessary to prepare, maintain and alter the Premises for Lessee's business operations. All of Lessee's construction and installation work shall be performed at Lessee's sole cost and expense and in a good and workmanlike manner. The final plans and precise location of the Premises and Lessee Facilities shall be subject to the prior written approval of Lessor, which shall be given by initialing and returning to Lessee a copy of the final plans within five (5) business days of submission of the plans to Lessor for its review. Upon Lessor's failure to respond in writing to Lessee's proposed plans within five (5) business days, the plans will be deemed approved. After approval, the plans shall be considered incorporated in this Agreement as Exhibit "B". Notwithstanding any other provision to the contrary, Lessee shall have the right to approve the plans and supervise the work of any future third party carrier ("Future Carrier") co-locating on the Premises.

(b) Title to the Lessee Facilities shall be held by Lessee. All of Lessee Facilities shall remain Lessee's personal property and are not fixtures. Lessee has the right to remove all Lessee Facilities at its sole expense on or before the expiration or earlier termination of the Agreement, provided Lessee repairs any damage to the Premises caused by such removal. Lessor waives any lien rights it may have concerning the Lessee Facilities. Lessor acknowledges that Lessee may now or in the future enter into financing arrangements with financing entities for the financing of the Lessee Facilities (the "Collateral") with a third party financing entity. In connection therewith, Lessor (i) consents to the installation of the Collateral; (ii) disclaims any interest in the Collateral as fixtures or otherwise; and (iii) agrees that the Collateral shall be exempt from execution, foreclosure, sale, levy, attachment, or distress for any Rent due or to become due and that such Collateral may be removed at any time without recourse to legal proceedings ("Lessor Consents"). Upon termination of this Agreement, Lessee shall not be required to remove any foundation more than three (3) feet below grade level.

(c) Lessee shall pay for the electricity it consumes in its operations. Lessee shall have the right to submeter electricity and other utilities from the existing utilities on the Property. Lessor agrees to sign such documents or easements as may be required by said utility companies to provide such service. Any easement necessary for such power or other utilities will be at a location acceptable to Lessor and the servicing utility company, and shall run with the Term and Renewal Terms of the Agreement.

(d) Lessee, Lessee's employees, agents, subcontractors, lenders and invitees shall have access to the Premises without notice to Lessor twenty-four (24) hours a day, seven (7) days a week, at no charge. Lessor grants to Lessee, and its agents, employees, contractors, guests and invitees, a non-exclusive right and easement for pedestrian and vehicular ingress and egress across that portion of the Property described in Exhibit B.

(e) Lessor acknowledges that Lessee has or will enter into certain financial arrangements with Export Development Corporation ("EDC"), with its address being c/o Mayer, Brown & Platt, 190 South LaSalle Street, Chicago, Illinois 60603 as administrative agent for itself and various other various other lenders ("the Lenders"), also collectively referred to as ("Mortgagee") and in connection therewith the Lenders will take a security interest in certain equipment and the products and proceeds thereof (collectively "the Collateral") to be installed upon the Premises. Lessor acknowledges and represents that the Lessor Consents shall inure to the benefit of Lessee, EDC, the Lenders and any replacement or refinancing lenders and their successors and assigns for so long as the Lease Agreement remains in effect.

7. **Interference** Lessee shall not use the Premises in any way which interferes with the use of the Property by Lessor, or tenants or licensees of Lessor, with rights to the Property prior in time to Lessee's (subject to Lessee's rights under this Agreement, including non-interference). Similarly, Lessor shall not use, nor shall Lessor permit its tenants, licensees, employees, invitees or agents to use any portion of Lessor's properties in any way which interferes with the operations of Lessee. Such interference shall be



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NORMA HATFIELD FREMONT CTY CLK&REG CO R 105.00 D 0.00

deemed a material breach by the interfering party, who shall, upon notice from the other, be responsible for terminating said interference. In the event any such interference does not cease within twenty-four (24) hours of receipt of notice, the parties acknowledge that continuing interference may cause irreparable injury and, therefore, the injured party shall have the right, in addition to any other rights that it may have at law or in equity, to bring action to enjoin such interference or to terminate this Agreement immediately upon notice.

8. **Taxes** Lessee shall pay any personal property taxes assessed on, or any portion of such taxes attributable to, the Lessee Facilities. Lessor shall pay when due all real property taxes and all other fees and assessments attributable to the Premises. Lessee shall pay, as additional Rent, any increase in real property taxes levied against the Premises which is directly attributable to Lessee's use of the Premises following proof of such increase to Lessee.

9. **Insurance** Lessee will provide Commercial General Liability Insurance in an aggregate amount of [REDACTED] and name Lessor as an additional insured on the policy or policies. Lessee may satisfy this requirement by obtaining appropriate endorsement to any master policy of liability insurance Lessee may maintain.

10. **Hold Harmless** Lessee agrees to hold Lessor harmless from claims arising from the installation, use, maintenance, repair or removal of the Lessee Facilities, except for claims arising from the negligence or intentional acts of Lessor, its employees, agents or independent contractors. Lessor agrees to defend, indemnify and hold harmless Lessee from any and all claims arising from the use of the Property excluding the Premises by Lessor, Lessor's agents, assigns and permittees or by third parties

11. Condemnation

(a) If the Premises shall be acquired by the right of condemnation or eminent domain for any public or quasi-public use or purpose, or sold to a condemning authority under a threat of condemnation, then the term of this Agreement shall cease and terminate as of the date of title vesting in such proceeding (or sale), and all rentals shall be paid up to that date.

(b) In the event of any condemnation, taking, or sale, whether whole or partial, Lessor and Lessee shall be entitled to receive and retain such separate award and portions of lump sum awards as may be allocated to their respective interests in any condemnation proceedings, or as may be otherwise agreed. Termination of this Agreement shall not affect the right of the parties to such awards.

12. Assignment and Subletting

(a) Lessee may assign, all or any part of its interest in this Agreement or in the Premises without the prior written consent of Lessor subject to the assignee assuming all of Lessee's obligations herein and subject to any financing entity's interest, if any, in this Agreement as set forth in Paragraph 6 above. Lessor may assign this Agreement upon written notice to Lessee, subject to the assignee assuming all of Lessor's obligations herein, including but not limited to, those set forth in Paragraph 6 above. Lessee may, without Lessor's consent, sublet or license all or any portion of the Premises to one or more entities.

(b) Notwithstanding anything to the contrary contained in this Agreement, Lessee may assign, mortgage, pledge, hypothecate or otherwise transfer without Lessor's consent Lessee's interest in this Agreement to any financing entity, or agent on behalf of any financing entity (hereafter, collectively referred to as "Mortgagees") to whom Lessee (i) has obligations for borrowed money or in respect of guaranties thereof, (ii) has obligations evidenced by bonds, debentures, notes or similar instruments, or (iii) has obligations under or with respect to letters of credit, bankers acceptances and similar facilities or in respect of guaranties thereof. Lessee shall give written notice to Lessor of any such assignment, mortgage, pledge or transfer of Lessee's interest in this Agreement.

(c) Lessor agrees to notify Lessee and Lessee's Mortgagees simultaneously of any default by Lessee and to give Mortgagees the same right to cure any default as Lessee, except that a cure period for any Site No .PU-31



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Mortgagee shall not be less than ten (10) days after the receipt of the default notice. If a termination, disaffirmance or rejection of the Agreement by Lessee pursuant to any laws (including any bankruptcy or insolvency laws) shall occur, or if Lessor shall terminate this Agreement for any reason, Lessor will give to the Mortgagees the right to enter upon the Premises during a thirty (30) day period commencing upon the Mortgagees' receipt of such notice for the purpose of removing Lessee's Facilities. Lessor acknowledges that any Mortgagees shall be third-party beneficiaries of this Agreement.

13. Warranty of Title and Quiet Enjoyment Lessor warrants that (i) Lessor owns the Property in fee simple and has rights of access thereto and the Property is free and clear of all liens, encumbrances and restrictions other than those of record; (ii) Lessor has full right to make and perform this Agreement; and (iii) Lessor covenants and agrees with Lessee that upon Lessee paying the Rent and observing and performing all the terms, covenants and conditions on Lessee's part to be observed and performed, Lessee may peacefully and quietly enjoy the Premises. Both parties agree that Lessor may subject its interest in the Premises to a mortgage loan, provided that any such lender shall agree to be bound by the terms of this Agreement, and such lender shall not disturb Lessee's use or possession of the Premises in the event of a foreclosure of such lien and shall not join Lessee as a party defendant in any such foreclosure proceedings, so long as Lessee is not in default under the terms of this Agreement.

14. Repairs Lessee shall not be required to make any repairs to the Premises or Property unless such repairs shall be necessitated by reason of the default or neglect of Lessee. Except as set forth in Paragraph 6 above, upon expiration or termination hereof, Lessee shall restore the Premises to the condition in which it existed upon execution hereof, reasonable wear and tear and loss by casualty or other causes beyond Lessee's control excepted.

15. Notices All notices, requests, demands, rent payments and other communications hereunder shall be in writing and shall be deemed given if personally delivered or mailed, certified mail, return receipt requested, or sent by overnight carrier to the following addressed.

If to Lessor:

Gayle & Lloyd Olomon
12868 County Rd. 3
Canon City, Co. 81212

If to Lessee, to:

Texas Telecommunications, LP
4403 Brownfield Highway
Lubbock, Texas 79407
Attn: Real Estate
Tel: (806) 722-1100

with a copy to:

Steven A. Portnoy, Attorney at Law
14800 Quorum Drive, Suite 200
Dallas, Texas 75240
Tel: (972) 308-8510



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NORMA HATFIELD FREMONT CTY CLK&REG CO R 105.00 D 0.00

16 Hazardous Materials Lessee represents, warrants and covenants to Lessor that Lessee shall at no time during the Term and any Renewal Term of this Agreement use or permit the Premises to be used in violation of any Environmental Regulations. Lessee shall not introduce any Hazardous Materials onto the Premises, except for those contained in its back-up power batteries, propane and such other properly stored, reasonable quantities of common materials used in its telecommunications operations. Lessor represents, warrants and covenants that the Premises and Property have not been used for the generation, storage, treatment or disposal of Hazardous Materials. In addition, Lessor represents, warrants and covenants that no Hazardous Materials or underground storage tanks are located on or near the Premises or Property. During the Term and any Renewal Term, Lessor shall handle, store and dispose of all Hazardous Materials it brings onto the Premises in accordance with all federal, state and local laws and regulations, and shall impose on any lessee, licensee or other party using any portion of the Property the same obligations. If Hazardous Materials are deposited as a result of any act or omission of Lessor, Lessee shall have the right to terminate this Agreement, and Lessor shall indemnify and hold Lessee harmless from any and all claims arising out of such Hazardous Materials or under any Environmental Regulations, which indemnity shall survive the termination of this Agreement. For the purposes of these provisions, "Hazardous Materials" means any chemical, pollutant or waste that is presently identified as hazardous, toxic or dangerous under any applicable federal, state or local law or regulations. As used herein, "Environmental Regulations" shall mean all laws, statutes, regulations and judicial interpretations of the United States and the State where the Premises are located or either of them which relate to the prevention or elimination of pollution or the protection of the environment.

17. Defaults and Remedies. This Agreement may be terminated on thirty (30) days prior written notice as follows: (i) by either party upon a default of any covenant or term thereof by the other party, which default is not cured within sixty (60) days of receipt of written notice of default, provided that the grace period for any monetary default is ten (10) business days from receipt of written notice, and, provided further that any non-monetary default which cannot be cured within such sixty (60) day period shall not be a default hereunder so long as such defaulting party diligently proceeds to cure such default upon receipt of notice thereof; or (ii) by Lessee for any reason or no reason, provided Lessee delivers written notice of early termination to Lessor no later than thirty (30) days prior to the Commencement Date; or (iii) after the Commencement Date by Lessee if Lessee determines that the Premises are not appropriate for its operations for economic or technological reasons, including, without limitation, signal interference. In the case of any default under this provision by either party, notice of such default shall be given to all subtenants (carriers) of the Lessee.

18. Miscellaneous

(a) This Agreement applies to and binds the heirs, successors, executors, personal representatives, administrators and assigns of the parties to this Agreement.

(b) This Agreement is governed by the laws of the State in which the Premises are located.

(c) Lessor agrees promptly to execute and deliver to Lessee a recordable Memorandum of this Agreement in the form of Exhibit C, Lessor acknowledges that any Mortgagees of Lessee, in order to protect such Mortgagees' interests with respect to Lessee's interests in this Agreement and Lessee's Facility, may file or record such documentation as is normal and customary in order to protect the interest of such Mortgagees.

(d) Lessor agrees to use its best efforts to obtain a Subordination, Non-disturbance and Attornment Agreement in the form attached as Exhibit D hereto.

(e) This Agreement (including the Exhibits) constitutes the entire agreement between the parties and supersedes all prior written and verbal agreements, representations, promises or understandings between the parties. Any amendments to this Agreement must be in writing and executed by both parties.



(f) If any provision of this Agreement is invalid or unenforceable with respect to any party, the remainder of this Agreement or the application of such provision to persons other than those as to whom it is held invalid or unenforceable, will not be affected and each provision of this Agreement will be valid and enforceable to the fullest extent permitted by law

(g) The prevailing party in any action or proceeding in court or mutually agreed upon arbitration proceeding to enforce the terms of this Agreement is entitled to receive its reasonable attorneys' fees and other reasonable enforcement costs and expenses from the non-prevailing party

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

LESSOR:
Gayle & Lloyd Olomon

LESSEE:
Texas Telecommunications, LP
a Texas limited partnership
By: Alamosa Delaware GP, LLC
Its General Partner

Lloyd Olomon

By: *Gayle Olomon*

Name: Gayle & Lloyd Olomon

Title: *Co-owners*

Date: *2-13-01*

Tax ID #: _____

By: *Charles B. Sherwood*

Name: Charles B. Sherwood

Title: Director of Site Development

Date: *4/04/01*

Tax ID #: _____



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NORMA HATFIELD FREMONT CTY CLK&REC CO R 105.00 D 0.00

EXHIBIT A

DESCRIPTION OF LAND

to the Agreement dated _____, 2000, by and between Gayle & Lloyd Olomon, as Lessor, and Texas Telecommunications, LP, a Texas limited partnership as Lessee.

The Land is described and/or depicted as follows (metes and bounds description):

Please see attached property card and deed.

Site No.: PU-31
Rev. Date:

Lessor: Gayle & Lloyd Olomon
Lessee: Texas Telecommunications



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NORMA HATFIELD FREMONT CTY CLK&REC CO R 105.00 D 0.00

EXHIBIT B

DESCRIPTION OF PREMISES

to the Agreement dated _____, 2000, by and between Gayle & Lloyd Olomon as Lessor, and Texas Telecommunications, LP, a Texas limited partnership as Lessee.

The Premises are described and/or depicted as follows:

Please see attached property card and deed.

Notes:

1. This Exhibit may be replaced by a land survey of the Premises once it is received by Lessee.
2. Setback of the Premises from the Land's boundaries shall be the distance required by the applicable governmental authorities.
3. Width of access road shall be the width required by the applicable governmental authorities, including police and fire departments.

Site No :PU-31
Rev Date:

Lessor: Gayle & Lloyd Olomon
Lessee: Texas Telecommunications

EXHIBIT C

MEMORANDUM OF AGREEMENT

CLERK: Please return this document to.

Texas Telecommunications, LP
4403 Brownfield Highway
Lubbock, TX 79407
Attn: Property Manager
Tel: (806) 722-1111

This Memorandum of Agreement is entered into on this 15th day of MAY, 1999, by and between Gayle & Lloyd Olomon, a Private corporation, (hereinafter referred to as "Lessor") and Texas Telecommunications, LP, with an office at 4403 Brownfield Hwy, Lubbock, TX 79407 (hereinafter referred to as "Lessee")

1. Lessor and Lessee entered into a Communications Site Agreement ("Agreement") on the 15th day of FEBRUARY 2000, for the purpose of installing, operating and maintaining a radio communications facility and other improvements. All of the foregoing are set forth in the Agreement. DMS

2. The term of the Agreement is for Five (5) years commencing not later than the 15th day of AUGUST, 2000 (which the parties agree shall be the date eighteen (18) months from full execution of this Agreement) or the start of construction, whichever first occurs ("Commencement Date"), and terminating on the fifth (5th) anniversary of the Commencement Date with five (5) successive Five (5) year options to renew.

3. The Land which is the subject of the Agreement is described in Exhibit A annexed hereto. The portion of the Land being leased to Lessee (the "Premises") is described in Exhibit B annexed hereto.

15th IN WITNESS WHEREOF, the parties have executed this Memorandum of Agreement as of the day of MAY, 1999. 2001 DMS

LESSOR:
Gayle & Lloyd Olomon

LESSEE:
Texas Telecommunications, LP
a Texas limited Partnership
By: Alamosa Delaware GP, LLC
Its General Partner

By: Lloyd Olomon
Gayle Olomon

By: [Signature]

Name: Gayle & Lloyd Olomon

Name: DOUG SCANLON

Title: Co-owners

Title: OWNER OF NETWORK DEVELOPMENT

Date: 2-13-01

Date: 5/1/2001

Tax ID #: _____

Tax ID #: _____

FORM ONLY
NOT FOR EXECUTION

ACKNOWLEDGEMENTS

STATE OF Colorado _____)
)
COUNTY OF Fremont _____)

On this 13 day of Feb, 2000, before me the undersigned Notary Public, personally appeared Gayle Olomon Lloyd Olomon to be known to be the identical person who executed in the name of the maker thereof to the within and foregoing instrument and acknowledged to me that he/she executed the same as his/her free and voluntary act and deed, in the capacity and for the uses and purposes set forth therein.

Given under my hand and seal the day and year first written above.

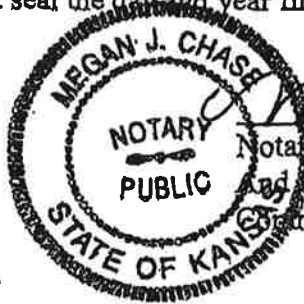
[Signature]
Notary Public in
And for the State of COLO.
Commission expires: 10/08/2003

STATE OF KANSAS)

COUNTY OF JOHNSON)

On this 1st day of MAY, 2001, before me the undersigned Notary Public, personally appeared DOUG SCANLON, to me known to be the identical person who executed in the name of the maker thereof to the within and foregoing instrument and acknowledged to me that he/she executed the same as his/her free and voluntary act and deed, in the capacity and for the uses and purposes set forth therein.

Given under my hand and seal the day and year first written above.



Megan Chase
Notary Public in
and for the State of KANSAS
Commission Expires: 02/27/05

EXHIBIT D

RECORDING REQUESTED BY AND WHEN RECORDED MAIL TO: Alamosa Wisconsin Limited Partnership 4403 Brownsfield Highway Lubbock, TX 79407

SUBORDINATION, NON-DISTURBANCE AND ATTORNMENT AGREEMENT

THIS SUBORDINATION, NON-DISTURBANCE AND ATTORNMENT AGREEMENT (the "Agreement") is made as of the ___ day of ___, 199___ by and between ___ ("Fee Mortgagee") and Texas Telecommunications, LP having an address at 4403 Brownsfield Highway, Lubbock, TX 79407 ("Lessee") and ___ of ___ ("Lessor").

WITNESSETH

WHEREAS Fee Mortgagee is the present owner and holder of a certain mortgage and security Agreement (the "Security Instrument") dated ___, ___, given by the Lessor to Fee Mortgagee which encumbers the fee simple estate of Lessor in certain premises described in Exhibit A attached hereto (the "Property") and which secures the payment of certain indebtedness owed by Lessor to Fee Mortgagee evidenced by a certain promissory note dated ___, 19___, given by Lessor to Fee Mortgagee (the "Note"). The security instrument was recorded in the real property records of ___ County, State of ___, on ___, ___, as instrument/file number ___, and

WHEREAS Lessee is the holder of a leasehold estate in a portion of the Property (the "Premises"), described in Exhibit B attached hereto, under and pursuant to the provisions of a certain lease dated ___ between ___ as Lessor (the "Lessor") and Lessee, as Lessee (the "Lease"); and

WHEREAS Lessee has agreed to subordinate the Lease to the Security Instrument and to the lien thereof, and Fee Mortgagee has agreed to grant non-disturbance to Lessee under the Lease on the terms and conditions hereinafter set forth;

NOW, THEREFORE, in consideration of the mutual promises and covenants of the parties hereto, and of other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto do mutually covenant and agree as follows:

1 SUBORDINATION. The Lease and all of the terms, covenants and provisions thereof and all rights, remedies and options of the Lessee thereunder are and shall at all times continue to be subject to and subordinate in all respects to the terms, covenants and provisions of the Security Instrument and to the lien thereof. Lessor and Fee Mortgagee agree that neither shall have any right, title, interest, claim or lien in, to or upon any of Lessee's personal property, fixtures and equipment.

2 NON-DISTURBANCE. If any action or proceeding is commenced by Fee Mortgagee for the foreclosure of the Security Instrument or the sale of the Property, Lessee shall not be named as a party therein unless such joinder shall be required by law, provided, however, that such joinder shall not result in the termination of the Lease or disturb the Lessee's possession or use of the Premises demised thereunder, and the sale of the Property in any such action or proceeding and the exercise by Fee Mortgagee of any of its other rights under the Note or the Security Instrument shall be made subject to all rights of Lessee under the Lease, provided that at the time of the commencement of any such action or proceeding or at the time of any such sale or exercise of any such other rights, (a) the term of the Lease shall have commenced pursuant to the provisions thereof, (b) Lessee shall be in possession of the Premises demised under the Lease, (c) the Lease shall be in full force and effect, and (d) Lessee shall not be in default under any of the terms, covenants, or conditions of the Lease or of this Agreement on Lessee's part to be observed or performed.

3 ATTORNMENT. If Fee Mortgagee or any other subsequent purchaser of the Property shall become the owner of the Property by reason of the foreclosure of the Security Instrument or the acceptance of a deed or assignment in lieu of foreclosure or by reason of any other enforcement of the Security Instrument (Fee Mortgagee or such other purchaser being hereinafter referred to as the "Purchaser"), and the conditions set forth in Section 2 above have been met at the time Purchaser becomes owner of the Property, the Lease shall not be terminated or affected Site No. PU-31 Rev. Date.

thereby but shall continue in full force and effect as a direct lease between Purchaser and Lessee upon all of the terms, covenants and conditions set forth in the Lease and in that event, Lessee agrees to attorn to Purchaser and Purchaser, by virtue of such acquisition of the Property, shall be deemed to have agreed to accept such attornment; provided, however, that Purchaser shall not be liable for the failure of any prior Lessor (any such prior Lessor, including Lessor and any successor Lessor, being hereinafter referred to as a "Prior Lessor") to perform any of its obligations under the Lease which have accrued prior to the date on which Purchaser shall become the owner of the Property, provided that the foregoing shall not limit Purchaser's obligations under the Lease to correct any conditions that (i) existed as of the date Purchaser shall become the owner of the Property and (ii) violate Purchaser's obligations as Lessor under the Lease, provided, further, however, that Purchaser shall have received written notice of such omissions, conditions or violations and has had a reasonable opportunity to cure the same, all pursuant to the terms and conditions of the Lease.

4. **NOTICE TO LESSEE.** After notice is given to Lessee by Fee Mortgagee that the Lessor is in default under the Note and the Security Instrument and that the rentals under the Lease should be paid to Fee Mortgagee pursuant to the terms of the assignment of leases and rents executed and delivered by Lessor to Fee Mortgagee in connection therewith, Lessee shall thereafter pay to Fee Mortgagee or as directed by the Fee Mortgagee, all rentals and all other monies due or to become due to Lessor under the Lease, and Lessor hereby expressly authorizes Lessee to make such payments to Fee Mortgagee and hereby releases and discharges Lessee from any liability to Lessor on account of any such payments.

5. **NOTICE TO FEE MORTGAGEE AND RIGHT TO CURE.** Lessee shall notify Fee Mortgagee of any default by Lessor under the Lease and agrees that, notwithstanding any provisions of the Lease to the contrary, no notice of cancellation thereof or of any abatement shall be effective unless Fee Mortgagee shall have received notice of default giving rise to such cancellation or abatement and shall have failed within sixty (60) days after receipt of such notice to cure such default, or if such default cannot be cured within sixty (60) days, shall have failed within sixty (60) days after receipt of such notice to commence and thereafter diligently pursue any action necessary to cure such default. Notwithstanding the foregoing, Fee Mortgagee shall have no obligation to cure any such default.

6. **NOTICES.** All notices or other written communications hereunder shall be deemed to have been properly given (i) upon delivery, if deposited in person or by facsimile transmission with receipt acknowledged by the recipient thereof and confirmed by telephone by sender, (ii) one (1) Business Day (hereinafter defined) after having been deposited for overnight delivery with any reputable overnight courier service, or (iii) three (3) Business Days after having been deposited in any post office or mail depository regularly maintained by the U.S. Postal Service and sent by registered or certified mail, postage prepaid, return receipt requested, addressed as follows:

If to Lessee: Texas Telecommunications, LP
4403 Brownsfield Highway
Lubbock, TX 79407

Attn: Property Manager
Telephone No. (806) 722-1100
Facsimile No: (806) 722-1120

If to Fee Mortgagee:

Attn: _____
Telephone No: _____
Facsimile No: _____

Or addressed as such party may from time to time designate by written notice to the other parties. For purposes of this Section 6, the term "Business Day" shall mean a day in which commercial banks are not authorized or required by law to close in the state where the Property is located. Each party by notice to the other may designate additional or different addresses for subsequent notices or communications.

7. **BINDING EFFECT.** This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns.

8. **GOVERNING LAW.** This Agreement shall be governed by, and construed in accordance with the laws of the State of Colorado.

9. **AMENDMENT** This Agreement may not be changed, amended or modified in any manner other than by agreement in writing specifically referring to this Agreement, and executed by the parties hereto.

Site No. PU-31

Lessor: Gayle & Lloyd Olomon
Lessee: Texas Telecommunications

Rev. Date.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

LESSEE:
Texas Telecommunications, LP
a Texas limited partnership
By: Alamosa Delaware GP, LLC
Its General Partner

FREE MORTGAGEE:
[insert fee mortgagee name]
[insert fee mortgagee's legal identifier]

By: _____ By: _____

Name: _____

Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

Tax ID #: _____

Tax ID #: _____

**FORM ONLY
NOT FOR EXECUTION**

LESSOR:
Gayle & Lloyd Olomon

By: _____

Name: Gayle & Lloyd Olomon

Title: _____

Date: _____

Tax ID #: _____

**FORM ONLY
NOT FOR EXECUTION**

[ACKNOWLEDGMENTS]



April 3, 2024

Fremont County
Planning and Zoning
615 Macon Ave. Room #210
Canon City, CO 81212

RE: T-Mobile Upgrade – 12868 Cr 3, Canon City, CO 81212-0000

To Whom it May Concern,

Fullerton on behalf of American Tower Corporation (ATC) and the carrier, T-Mobile are proposing to remove (1) coax cable and (1) RFU-C ODU and install fiber IP-20D ODU, (1) 3/8" fiber cable and (1) 5/8" power cable. There are (6) existing antennas and (2) pendant connects which will remain, and (6) existing RRH(s) W/Swivel mounts which will be relocated to antenna mounting pipes. The existing equipment on the ground will remain. This proposed upgrade will take place at an existing telecommunications tower located at **12868 Cr 3, Canon City, CO 81212-0000, parcel ID 98904413**.

The existing telecommunications tower is 196' tall, highest appirtenance is 200.64'. T-Mobile will upgrade their equipment on the 155' RAD.

There will be no increase to the height of the tower. There will be no expansion to the existing compound footprint.

Please reach out to me at 217-636-4468 or ngeci@fullerton-us.com.

Thank you,

Nora Geci
Project Lead



Office Number: 217-636-4468

ngeci@fullerton-us.com

