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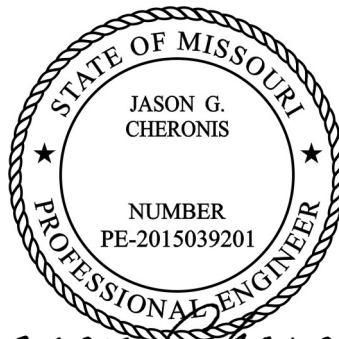


Structural Analysis Report

Structure : 150 ft Monopole
ATC Asset Name : Woods Chapel
ATC Asset Number : 306042
Engineering Number : 14863347_C3_03
Proposed Carrier : AT&T MOBILITY
Carrier Site Name : WOODS CHAPEL
Carrier Site Number : WSKSL0040816
Site Location : 1204 N.e. Woods Chapel Road
Lees Summit, MO 64064-1989
38.9834° N, 94.3498° W
County : Jackson
Date : July 30, 2024
Max Usage : 93%
Analysis Result : Pass

Created By:

Uma Toluganti
POD



Jason Cheronis

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Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 150 ft Monopole tower to reflect the change in loading by AT&T MOBILITY.

Supporting Documents

Tower:	Valmont Drawing #DC2215Z, dated March 3, 1995
Foundation:	Valmont Drawing #2721, dated March 8, 1995
Geotechnical:	Terracon Project #02955036, dated February 24, 1995

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:	90 mph (3-second gust, Vasd) / 115 mph (3-second gust, Vult)
Basic Wind Speed w/ Ice:	40 mph (3-second gust) w/ 1.00" radial ice concurrent
Code(s):	ANSI/TIA-222-G / 2018 IBC
Structure Class:	II
Exposure Category:	C
Topographic Category:	1
Crest Height:	0 ft
Spectral Response:	$S_s = 0.11$, $S_i = 0.11$
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	Result
Pole Shaft	64.1%	1.2D + 1.6W	Pass
Serviceability Usage	34.8%	1.0D + 1.0W	Pass
Base Plate @ 0.0 ft	92.5%	Rods	Pass
Pier	76.0%	Flexure [Steel]	Pass

Maximum Reactions

Foundation	Moment (k-ft)	Axial (k)	Shear (k)
Monopole Base	4,680.0	70.8	43.5

**Reactions shown reflect the results from the Load Case with maximum Moment*

Structure base reactions were analyzed using available geotechnical and foundation information.

AT&T MOBILITY Final Loading

Elev (ft)	Qty	Equipment	Lines
152.0	2	CCI TPA65R-BU8Dv2	(9) 1 5/8" Coax (1) 3/8" (0.38" - 9.5mm) RET Control Cable
	3	Ericsson AIR 6472 B77G B77M (92.6lbs)	
	3	Ericsson RRUS 4490	
	3	Ericsson RRUS 4890	
	3	Ericsson Radio 4471 B30	
	3	Ericsson Radio 4494 44B14 20B29 M01	
	4	CCI TPA65R-BU8D	
151.0	1	Raycap DC6-48-60-0-8C	-
	1	Raycap DC6-48-60-18-8F(32.8 lbs)	
150.0	1	Mount Reinforcement	(2) 0.39" (10mm) Fiber Trunk (6) 0.78" (19.7mm) 8 AWG 6 (2) 2" conduit
	1	Platform with Handrails	
	1	Raycap DC6-48-60-18-8C	

Install proposed lines inside the pole shaft.

Other Existing/Reserved Loading

Elev (ft)	Qty	Equipment	Lines	Carrier
140.0	1	Platform with Handrails	-	VERIZON WIRELESS
	1	Mount Reinforcement	(2) 1 1/4" Hybriflex Cable (24) 1 5/8" Coax	
	2	Raycap RRFDC-3315-PF-48		
	3	Antel BXA-80063/8CF		
	3	Ericsson 8843 Rev 2		
	3	Ericsson AIR 6449 B77D/ C-Band		
	3	Ericsson Radio 4449 - B13&B5		
	6	Commscope NHH-65C-R2B		
	6	Powerwave Allgon LGP 13901		
132.0	1	Commscope HELIAX FiberFeed 12 RRU Pendant Connect	(2) 1.46" (37.1mm) Hybrid	T-MOBILE
	1	Raycap ASU9338TYP01		
	3	Commscope FFHH-65C-R3		
	3	Nokia AEHC		
	3	Nokia AHFIG 70.55 lbs		
	3	Nokia AirScale Dual RRH 4T4R B12/71 240W AHLOA		
130.5	3	Commscope FFHH-65C-R3	-	
130.2	3	Nokia AEHC	-	
126.0	1	Platform with Handrails	(5) 1 5/8" Coax	
	1	Mount Reinforcement	-	
123.0	-	-	(9) 7/8" Coax	SPRINT NEXTEL
	-	-	(1) 2" conduit	CLEARWIRE CORPORATION

Elev (ft)	Qty	Equipment	Lines	Carrier
122.0	1	Platform with Handrails	-	SPRINT NEXTEL
121.1	9	48" x 12" Panel	-	
118.7	3	Samsung 2.5GHz nRRHv2	-	
116.3	2	DragonWave Horizon DUO (Radio)	-	CLEARWIRE CORPORATION
116.0	-	-	(2) 1/2" Coax	
115.0	1	Side Arms	-	
114.6	3	Argus LLPX310R	-	
114.5	2	Andrew Microwaves VHLP2.5	-	
111.8	3	Fujitsu TA08025-B604	-	
	3	Fujitsu TA08025-B605		
111.4	1	Commscope RDIDC-9181-PF-48	-	DISH WIRELESS L.L.C.
111.0	-	-	(1) 1.60" (40.6mm) Hybrid	
110.4	3	JMA Wireless MX08FRO665-21	-	
105.0	1	Platform with Handrails	-	

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



Standard Conditions

All engineering services performed by POD Group 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 POD Group

It is the responsibility of the client to ensure that the information provided to POD Group and used in the performance of our engineering services is correct and complete.

POD Group assumes that all structures were constructed in accordance with the drawings and specifications.

All connections are to be verified for condition and tightness by the installation contractor preceding any changes to the appurtenance mounting system and/or equipment attached to it.

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

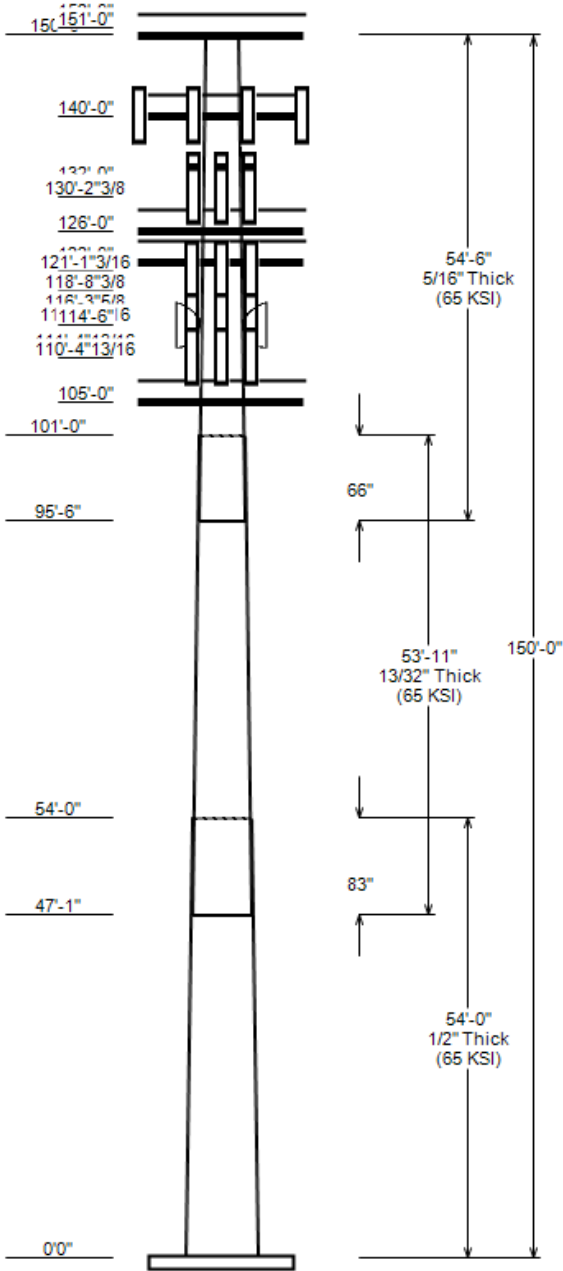
All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. POD Group is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.

ANALYSIS PARAMETERS			
Design Wind:	90 mph	Ice Wind:	40 mph w/ 1.0" ice
Structure Class:	II	Exposure:	C
Service Wind:	60 mph	S _g :	0.113
		S _i :	0.110
Structure Height:	150.0 ft	Base Elevation:	0.00 ft
Base Diameter:	60.50 in	Base Rotation:	0.00°
		Topo Category:	1
		Structure Type:	Taper
		Taper:	0.2480 (in/ft)

POLE SECTION PROPERTIES							
Section	Length (ft)	Flat Diameter (in)		Thick (in)	Joint Type	Joint Length (in)	Yield Strength (ksi)
		Top	Bottom				
1	54.000	47.11	60.50	0.500		0.00	65
2	53.917	36.27	49.64	0.406	Slip Joint	83.00	65
3	54.500	24.74	38.26	0.312	Slip Joint	66.00	65

DISCRETE APPURTENANCE		LINEAR APPURTENANCE	
Elev (ft)	Description	Elev To (ft)	Description
152.0	(3) Ericsson AIR 6472 B77G B77M (92.6l	152.0	(1) 3/8" (0.38"- 9.5mm) RET Control Cabl
152.0	(3) Ericsson Radio 4494 44B14 20B29 M	152.0	(9) 1 5/8" Coax
152.0	(3) Ericsson RRUS 4490	150.0	(2) 0.39" (10mm) Fiber Trunk
152.0	(3) Ericsson RRUS 4890	150.0	(2) 2" conduit
152.0	(3) Ericsson Radio 4471 B30	150.0	(6) 0.78" (19.7mm) 8 AWG 6
152.0	(2) CCI TPA65R-BU8Dv2	140.0	(9) 1 5/8" Coax
152.0	(4) CCI TPA65R-BU8D	140.0	(12) 1 5/8" Coax
151.0	(1) Raycap DC6-48-60-18-8F(32.8 lbs)	140.0	(3) 1 5/8" Coax
151.0	(1) Raycap DC6-48-60-0-8C	140.0	(2) 1 1/4" Hybriflex Cable
150.0	(1) Generic Round Platform with Handrail	132.0	(2) 1.46" (37.1mm) Hybrid
150.0	(1) Raycap DC6-48-60-18-8C	126.0	(2) 1 5/8" Coax
150.0	(1) Generic Mount Reinforcement	126.0	(2) 1 5/8" Coax
140.0	(6) Powerwave Allgon LGP 13901	126.0	(1) 1 5/8" Coax
140.0	(3) Ericsson 8843 Rev 2	123.0	(1) 2" conduit
140.0	(2) Raycap RRFDC-3315-PF-48	123.0	(9) 7/8" Coax
140.0	(3) Ericsson Radio 4449 - B13&B5	116.0	(2) 1/2" Coax
140.0	(1) Generic Mount Reinforcement	111.0	(1) 1.60" (40.6mm) Hybrid
140.0	(3) Ericsson AIR 6449 B77D/ C-Band		
140.0	(3) Antel BXA-80063/8CF		
140.0	(6) Commscope NHH-65C-R2B		
140.0	(1) Generic Round Platform with Handrail		
132.0	(1) Raycap ASU9338TYP01		
132.0	(1) Commscope HELIAX FiberFeed 12 R		
132.0	(3) Nokia AEHC		
132.0	(3) Nokia AHFIG 70.55 lbs		
132.0	(3) Nokia AirScale Dual RRH 4T4R B12/		
132.0	(3) Commscope FFHH-65C-R3		
130.5	(3) Commscope FFHH-65C-R3		
130.2	(3) Nokia AEHC		
126.0	(1) Generic Round Platform with Handrail		
126.0	(1) Generic Mount Reinforcement		
122.0	(1) Generic Flat Platform with Handrails		
121.1	(9) Generic 48" x 12" Panel		
118.7	(3) Samsung 2.5GHz nRRHv2		
116.3	(2) DragonWave Horizon DUO (Radio)		
115.0	(1) Side Arms		
114.6	(3) Argus LLPX310R		
114.5	(2) Andrew Microwaves VHLP2.5		
111.8	(3) Fujitsu TA08025-B604		
111.8	(3) Fujitsu TA08025-B605		
111.4	(1) Commscope RDIDC-9181-PF-48		
110.4	(3) JMA Wireless MX08FRO665-21		
105.0	(1) Generic Round Platform with Handrail		

DISH SERVICEABILITY			
Load Case	Elevation (ft)	Deflection (in)	Rotation (°)
1.0D + 1.0W	114.5	11.0701	0.9504



GLOBAL BASE REACTIONS

Load Case	Moment (kip-ft)	Axial (kip)	Shear (kip)
1.2D + 1.6W	4680.00	70.83	43.54
0.9D + 1.6W	4631.05	53.11	43.52
1.2D + 1.0Di + 1.0Wi	1594.66	123.35	17.26
(1.2 + 0.2Sds) * DL + E EMAM	360.23	70.09	2.83
(1.2 + 0.2Sds) * DL + E ELFM	374.94	70.09	3.01
(0.9 - 0.2Sds) * DL + E EMAM	355.52	50.15	2.83
(0.9 - 0.2Sds) * DL + E ELFM	370.20	50.15	3.01
1.0D + 1.0W	1155.76	59.07	10.82

ANALYSIS PARAMETERS			
Location:	Jackson County,MO	Height:	150 ft
Type and Shape:	Taper, 12 Sides	Base Diameter:	60.50 in
Manufacturer:	Valmont	Top Diameter:	24.74 in
		Taper:	0.2480 in/ft
		Rotation:	0.000°

ICE & WIND PARAMETERS			
Structure Class:	II	Design Wind Speed:	90 mph
Exposure Category:	C	Design Wind Speed w/ Ice:	40 mph
Topographic Category:	1	Design Ice Thickness:	1.00 in
Crest Height:	0 ft	Service Wind Speed:	60 mph

SEISMIC PARAMETERS					
Analysis Method:	Equivalent Modal Analysis & Equivalent Lateral Force Methods				
Site Class:	D - Stiff Soil	Period Based on Rayleigh Method (sec):		2.27	
T _L (sec):	12	P:	1	C _s :	0.051
S _{ds} :	0.121	S _{d1} :	0.173	C _s Max:	0.051
S _s :	0.113	S ₁ :	0.110	C _s Min:	0.030
F _a :	1.600	F _v :	2.360		

LOAD CASES	
1.2D + 1.6W	90 mph Wind with No Ice
0.9D + 1.6W	90 mph Wind with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	40 mph Wind with 1" Radial Ice
(1.2 + 0.2Sds) * DL + E EMAM	Seismic
(1.2 + 0.2Sds) * DL + E ELFM	Seismic
(0.9 - 0.2Sds) * DL + E EMAM	Seismic (Reduced DL)
(0.9 - 0.2Sds) * DL + E ELFM	Seismic (Reduced DL)
1.0D + 1.0W	60 mph Wind with No Ice

SHAFT SECTION PROPERTIES																			
Section	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Joint Len (in)	Weight (lb)	Bottom						Top						Taper (in/ft)
							Dia (in)	Elev (ft)	Area (in²)	Ix (in⁴)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (in²)	Ix (in⁴)	W/t Ratio	D/t Ratio	
1-12	54.00	0.5000	65		0.00	15,769	60.50	0.000	96.60	44,388.0	29.74	121.00	47.11	54.00	75.04	20,807.	22.57	94.22	0.2480
2-12	53.92	0.4060	65	Slip	83.00	10,204	49.64	47.083	64.36	19,909.7	30.08	122.26	36.27	101.00	46.88	7,694.8	21.26	89.33	0.2480
3-12	54.50	0.3125	65	Slip	66.00	5,819	38.26	95.500	38.18	7,015.6	30.12	122.42	24.74	150.00	24.58	1,872.1	18.53	79.17	0.2480
Total Shaft Weight						31,792													

DISCRETE APPURTENANCE PROPERTIES										
Attach Elev (ft)	Description	Qty	Ka	Vert Ecc (ft)	No Ice			Ice		
					Weight (lb)	EPAA (sf)	Orientation Factor	Weight (lb)	EPAA (sf)	Orientation Factor
152.00	Ericsson Radio 4494 44B14 20B2	3	0.75	0.000	57.30	2.202	0.50	130.62	3.503	0.50
152.00	Ericsson RRUS 4890	3	0.75	0.000	69.50	2.695	0.50	164.24	4.140	0.50
152.00	Ericsson AIR 6472 B77G B77M (9	3	0.75	0.000	92.60	4.884	0.65	249.55	6.953	0.65
152.00	CCI TPA65R-BU8Dv2	2	0.75	0.000	88.00	17.871	0.72	541.42	22.786	0.72
152.00	Ericsson RRUS 4490	3	0.75	0.000	68.40	2.695	0.50	162.02	4.140	0.50
152.00	Ericsson Radio 4471 B30	3	0.75	0.000	28.70	1.219	0.50	74.01	2.208	0.50
152.00	CCI TPA65R-BU8D	4	0.75	0.000	82.50	18.089	0.63	542.39	23.014	0.63
151.00	Raycap DC6-48-60-18-8F(32.8 lb	1	0.75	0.000	32.80	1.470	1.00	115.09	2.402	1.00
151.00	Raycap DC6-48-60-0-8C	1	0.75	0.000	16.00	3.048	1.00	114.87	4.569	1.00
150.00	Generic Mount Reinforcement	1	1.00	0.000	200.00	7.500	1.00	458.14	17.487	1.00
150.00	Generic Round Platform with Ha	1	1.00	0.000	2500.00	27.200	1.00	4660.43	59.804	1.00
150.00	Raycap DC6-48-60-18-8C	1	0.75	0.000	16.00	2.030	1.00	93.65	3.043	1.00
140.00	Commscope NHH-65C-R2B	6	0.75	0.000	51.60	11.389	0.70	354.27	15.666	0.70
140.00	Antel BXA-80063/8CF	3	0.75	0.000	24.00	10.660	0.65	270.50	14.860	0.65
140.00	Generic Mount Reinforcement	1	1.00	0.000	200.00	7.500	1.00	456.33	17.417	1.00
140.00	Ericsson AIR 6449 B77D/ C-Band	3	0.75	0.000	81.60	4.028	0.70	235.88	5.845	0.70
140.00	Generic Round Platform with Ha	1	1.00	0.000	2500.00	27.200	1.00	4645.32	59.576	1.00
140.00	Ericsson Radio 4449 - B13&B5	3	0.75	0.000	70.00	1.650	0.50	144.60	2.772	0.50
140.00	Ericsson 8843 Rev 2	3	0.75	0.000	75.00	1.650	0.50	157.21	2.775	0.50
140.00	Raycap RRFDC-3315-PF-48	2	0.75	0.000	26.90	2.512	0.67	132.41	3.891	0.67
140.00	Powerwave Allgon LGP 13901	6	0.75	0.000	9.90	0.503	0.50	29.40	1.146	0.50
132.00	Nokia AEHC	3	0.75	0.000	103.60	6.844	0.62	307.41	9.170	0.62
132.00	Raycap ASU9338TYP01	1	0.75	0.000	14.90	3.213	1.00	113.33	4.756	1.00
132.00	Nokia AHFIG 70.55 lbs	3	0.75	0.000	70.60	2.763	0.50	157.10	4.311	0.50
132.00	Nokia AirScale Dual RRH 4T4R B	3	0.75	0.000	83.80	2.218	0.50	167.77	3.558	0.50
132.00	Commscope HELIAX FiberFeed 12	1	0.75	0.000	20.00	0.944	1.00	57.71	1.886	1.00
132.00	Commscope FFHH-65C-R3	3	0.75	0.000	125.70	21.138	0.63	673.04	26.050	0.63
130.50	Commscope FFHH-65C-R3	3	0.75	0.000	125.70	21.138	0.63	672.66	26.046	0.63
130.20	Nokia AEHC	3	0.75	0.000	103.60	6.844	0.62	307.23	9.168	0.62
126.00	Generic Round Platform with Ha	1	1.00	0.000	2500.00	27.200	1.00	4625.82	59.282	1.00
126.00	Generic Mount Reinforcement	1	1.00	0.000	200.00	7.500	1.00	454.00	17.327	1.00
122.00	Generic Flat Platform with Han	1	1.00	0.000	2500.00	42.400	1.00	4824.10	69.837	1.00
121.10	Generic 48" x 12" Panel	9	0.75	0.000	30.00	5.067	0.66	177.99	7.513	0.66
118.70	Samsung 2.5GHz nRRHv2	3	1.00	0.000	50.70	2.496	0.50	143.77	3.881	0.50
116.30	DragonWave Horizon DUO (Radio)	2	0.90	0.000	7.00	0.200	1.00	24.02	0.540	1.00
115.00	Side Arms	1	1.00	0.000	560.00	8.500	1.00	1067.48	16.203	1.00
114.60	Argus LLPX310R	3	0.90	0.000	28.60	4.292	0.63	145.80	6.442	0.63
114.50	Andrew Microwaves VHLP2.5	2	0.90	0.000	47.60	8.430	1.00	271.45	10.642	1.00
111.80	Fujitsu TA08025-B605	3	0.75	0.000	75.00	1.962	0.50	156.26	3.155	0.50
111.80	Fujitsu TA08025-B604	3	0.75	0.000	63.90	1.962	0.50	139.54	3.155	0.50
111.40	Commscope RDIDC-9181-PF-48	1	0.75	0.000	21.90	1.867	1.00	95.67	3.034	1.00
110.40	JMA Wireless MX08FRO665-21	3	0.75	0.000	64.50	12.489	0.64	397.48	16.130	0.64
105.00	Generic Round Platform with Ha	1	1.00	0.000	2500.00	27.200	1.00	4584.23	58.654	1.00
Totals	Row Count: 43	108			19,478.00			48,948.33		

LINEAR APPURTENANCE PROPERTIES												
Load Case Azimuth (deg): 0.00												
Elev From (ft)	Elev To (ft)	Qty	Description	Diameter (in)	Weight (lb/ft)	Flat	Max/ Row	Distance Between Rows(in)	Distance Between Cols(in)	Azimuth (deg)	Distance From Face (in)	Exposed To Wind Carrier

ASSET: 306042, Woods Chapel
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-G
PROJECT: 14863347_C3_03

LINEAR APPURTENANCE PROPERTIES

Load Case Azimuth (deg): 0.00

Elev From (ft)	Elev To (ft)	Qty	Description	Diameter (in)	Weight (lb/ft)	Flat	Max/ Row	Distance Between Rows(in)	Distance Between Cols(in)	Azimuth (deg)	Distance From Face (in)	Exposed To Wind	Carrier
5.00	152.00	9	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	152.00	1	3/8" (0.38"- 9.5mm) R	0.38	0.23	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	150.00	6	0.78" (19.7mm) 8 AWG	0.78	0.59	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	150.00	2	2" conduit	2.38	3.65	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	150.00	2	0.39" (10mm) Fiber Tr	0.39	0.06	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	140.00	12	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	VERIZON WIRELESS
5.00	140.00	9	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	VERIZON WIRELESS
5.00	140.00	3	1 5/8" Coax	1.98	0.82	N	3	0.5	0.5	120	0.5	Y	VERIZON WIRELESS
5.00	140.00	2	1 1/4" Hybriflex Cabl	1.54	1	N	2	0.5	0.5	140	0.5	Y	VERIZON WIRELESS
0.00	132.00	2	1.46" (37.1mm) Hybrid	1.46	1.7	N	1	0.5	0.5	25	2.6	Y	T-MOBILE
0.00	126.00	2	1 5/8" Coax	1.98	0.82	N	2	0.88	0.5	17	0.5	Y	T-MOBILE
0.00	126.00	2	1 5/8" Coax	1.98	0.82	N	2	0.88	0.5	29	0.5	Y	T-MOBILE
0.00	126.00	1	1 5/8" Coax	1.98	0.82	N	1	0.88	0.5	5	0.5	Y	T-MOBILE
0.00	123.00	9	7/8" Coax	1.09	0.33	N	0	0	0	0	0	N	SPRINT NEXTEL
0.00	123.00	1	2" conduit	2.38	3.65	N	0	0	0	0	0	N	CLEARWIRE CORPORATI
0.00	116.00	2	1/2" Coax	0.63	0.15	N	0	0	0	0	0	N	CLEARWIRE CORPORATI
0.00	111.00	1	1.60" (40.6mm) Hybrid	1.6	2.34	N	1	1.3	1.3	90	0.5	Y	DISH WIRELESS L.L.C.

SEGMENT PROPERTIES												
Seg Top Elev (ft)	Description	(Max Length: 5 ft)	Thick (in)	Flat Dia (in)	Area (in²)	Ix (in⁴)	W/t Ratio	D/t Ratio	F'y (ksi)	S (in³)	Z (in³)	Weight (lb)
0.00			0.5000	60.500	96.600	44,388.00	29.74	121.00	72.3	1417.4	0.0	0.0
5.00			0.5000	59.260	94.604	41,692.60	29.08	118.52	73	1359.2	0.0	1,626.6
10.00			0.5000	58.020	92.608	39,108.70	28.41	116.04	73.7	1302.2	0.0	1,592.6
15.00			0.5000	56.780	90.611	36,633.70	27.75	113.56	74.5	1246.4	0.0	1,558.6
20.00			0.5000	55.540	88.615	34,265.50	27.08	111.08	75.2	1191.8	0.0	1,524.7
25.00			0.5000	54.301	86.619	32,001.50	26.42	108.60	75.9	1138.5	0.0	1,490.7
30.00			0.5000	53.061	84.623	29,839.60	25.76	106.12	76.6	1086.4	0.0	1,456.7
35.00			0.5000	51.821	82.626	27,777.30	25.09	103.64	77.3	1035.5	0.0	1,422.8
40.00			0.5000	50.581	80.630	25,812.20	24.43	101.16	78.1	985.9	0.0	1,388.8
45.00			0.5000	49.341	78.634	23,942.10	23.76	98.68	78.8	937.4	0.0	1,354.8
47.08	Bot - Section 2		0.5000	48.824	77.802	23,190.40	23.49	97.65	79.1	917.6	0.0	554.5
50.00			0.5000	48.101	76.638	22,164.60	23.10	96.20	79.5	890.2	0.0	1,400.5
54.00	Top - Section 1		0.4060	47.921	62.117	17,900.40	28.95	118.03	73.1	721.6	0.0	1,886.6
55.00			0.4060	47.673	61.793	17,621.60	28.78	117.42	73.3	714.1	0.0	210.8
60.00			0.4060	46.433	60.172	16,270.90	27.97	114.37	74.2	677.0	0.0	1,037.6
65.00			0.4060	45.193	58.551	14,991.10	27.15	111.31	75.1	640.8	0.0	1,010.0
70.00			0.4060	43.953	56.930	13,780.20	26.33	108.26	76	605.7	0.0	982.4
75.00			0.4060	42.714	55.309	12,636.30	25.51	105.21	76.9	571.5	0.0	954.8
80.00			0.4060	41.474	53.688	11,557.60	24.69	102.15	77.8	538.4	0.0	927.2
85.00			0.4060	40.234	52.068	10,542.00	23.87	99.10	78.7	506.2	0.0	899.7
90.00			0.4060	38.994	50.447	9,587.80	23.06	96.04	79.6	475.0	0.0	872.1
95.00			0.4060	37.754	48.826	8,692.90	22.24	92.99	80.5	444.8	0.0	844.5
95.50	Bot - Section 3		0.4060	37.630	48.664	8,606.60	22.16	92.68	80.6	441.8	0.0	82.9
100.00			0.4060	36.514	47.205	7,855.60	21.42	89.94	81.4	415.6	0.0	1,310.0
101.00	Top - Section 2		0.3125	36.891	36.807	6,285.90	28.95	118.05	73.1	329.2	0.0	285.8
105.00			0.3125	35.899	35.809	5,788.30	28.10	114.88	74.1	311.5	0.0	494.2
110.00			0.3125	34.659	34.561	5,204.10	27.04	110.91	75.2	290.1	0.0	598.6
110.40			0.3125	34.560	34.462	5,159.20	26.95	110.59	75.3	288.4	0.0	47.0
111.40			0.3125	34.312	34.212	5,047.90	26.74	109.80	75.5	284.2	0.0	116.8
111.80			0.3125	34.213	34.112	5,003.80	26.66	109.48	75.6	282.5	0.0	46.5
114.50			0.3125	33.543	33.438	4,713.20	26.08	107.34	76.3	271.4	0.0	310.3
114.60			0.3125	33.518	33.414	4,702.60	26.06	107.26	76.3	271.0	0.0	11.4
115.00			0.3125	33.419	33.314	4,660.60	25.98	106.94	76.4	269.4	0.0	45.4
116.30			0.3125	33.097	32.989	4,525.80	25.70	105.91	76.7	264.2	0.0	146.6
118.70			0.3125	32.502	32.390	4,283.80	25.19	104.01	77.2	254.6	0.0	267.0
120.00			0.3125	32.179	32.066	4,156.30	24.91	102.97	77.5	249.5	0.0	142.6
121.10			0.3125	31.907	31.792	4,050.50	24.68	102.10	77.8	245.2	0.0	119.5
122.00			0.3125	31.683	31.567	3,965.30	24.49	101.39	78	241.8	0.0	97.0
125.00			0.3125	30.940	30.818	3,689.80	23.85	99.01	78.7	230.4	0.0	318.4
126.00			0.3125	30.692	30.569	3,600.90	23.64	98.21	78.9	226.7	0.0	104.4
130.00			0.3125	29.700	29.571	3,259.60	22.79	95.04	79.9	212.0	0.0	409.3
130.20			0.3125	29.650	29.521	3,243.10	22.74	94.88	79.9	211.3	0.0	20.1
130.50			0.3125	29.576	29.446	3,218.50	22.68	94.64	80	210.2	0.0	30.1
132.00			0.3125	29.204	29.072	3,097.30	22.36	93.45	80.3	204.9	0.0	149.3
135.00			0.3125	28.460	28.323	2,864.20	21.72	91.07	81	194.4	0.0	293.0
140.00			0.3125	27.220	27.075	2,502.10	20.66	87.10	81.9	177.6	0.0	471.3
145.00			0.3125	25.980	25.828	2,171.90	19.60	83.14	81.9	161.5	0.0	450.0
150.00			0.3125	24.740	24.580	1,872.10	18.53	79.17	81.9	146.2	0.0	428.8
Total:											31,793.3	

CALCULATED FORCES														
Load Case: 1.2D + 1.6W			90 mph Wind with No Ice									23 Iterations		
Gust Response Factor:		1.10										Wind Importance Factor		1.00
Dead load Factor:		1.20												
Wind Load Factor:		1.60												
Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio	
0.00	-70.83	-43.54	0	-4,680.00	0.00	4,680.00	6,283.69	3,141.85	15,557.3	7,683.17	0	0	0.621	
5.00	-68.54	-42.96	0	-4,462.29	0.00	4,462.29	6,215.54	3,107.77	15,067.9	7,441.50	0.08	-0.15	0.611	

ASSET: 306042, Woods Chapel
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-G
PROJECT: 14863347_C3_03

10.00	-66.18	-42.39	0	-4,247.47	0.00	4,247.47	6,144.79	3,072.40	14,579.4	7,200.24	0.31	-0.3	0.601
15.00	-63.86	-41.81	0	-4,035.51	0.00	4,035.51	6,071.43	3,035.72	14,092.2	6,959.61	0.7	-0.45	0.591
20.00	-61.58	-41.21	0	-3,826.45	0.00	3,826.45	5,995.47	2,997.74	13,606.6	6,719.80	1.25	-0.6	0.580
25.00	-59.35	-40.58	0	-3,620.40	0.00	3,620.40	5,916.91	2,958.45	13,123.0	6,481.00	1.96	-0.75	0.569
30.00	-57.17	-39.93	0	-3,417.51	0.00	3,417.51	5,835.74	2,917.87	12,642.0	6,243.42	2.84	-0.91	0.557
35.00	-55.02	-39.26	0	-3,217.87	0.00	3,217.87	5,751.97	2,875.98	12,163.8	6,007.26	3.87	-1.07	0.545
40.00	-52.92	-38.58	0	-3,021.58	0.00	3,021.58	5,665.59	2,832.79	11,688.9	5,772.72	5.08	-1.23	0.533
45.00	-50.89	-38.08	0	-2,828.69	0.00	2,828.69	5,576.61	2,788.30	11,217.6	5,539.99	6.45	-1.39	0.520
47.08	-50.04	-37.73	0	-2,749.36	0.00	2,749.36	5,538.76	2,769.38	11,022.5	5,443.60	7.07	-1.46	0.514
50.00	-48.10	-37.22	0	-2,639.32	0.00	2,639.32	5,485.02	2,742.51	10,750.5	5,309.27	7.99	-1.55	0.506
54.00	-45.52	-36.82	0	-2,490.42	0.00	2,490.42	4,089.14	2,044.57	8,015.68	3,958.64	9.35	-1.69	0.641
55.00	-45.14	-36.42	0	-2,453.60	0.00	2,453.60	4,077.72	2,038.86	7,951.24	3,926.82	9.71	-1.72	0.636
60.00	-43.46	-35.73	0	-2,271.49	0.00	2,271.49	4,019.09	2,009.55	7,629.58	3,767.96	11.61	-1.91	0.614
65.00	-41.82	-35.03	0	-2,092.85	0.00	2,092.85	3,957.85	1,978.93	7,309.17	3,609.72	13.72	-2.1	0.591
70.00	-40.22	-34.34	0	-1,917.68	0.00	1,917.68	3,894.01	1,947.01	6,990.40	3,452.29	16.02	-2.29	0.566
75.00	-38.65	-33.64	0	-1,746.00	0.00	1,746.00	3,827.57	1,913.78	6,673.67	3,295.88	18.52	-2.48	0.540
80.00	-37.12	-32.95	0	-1,577.79	0.00	1,577.79	3,758.52	1,879.26	6,359.40	3,140.67	21.22	-2.67	0.513
85.00	-35.64	-32.26	0	-1,413.04	0.00	1,413.04	3,686.86	1,843.43	6,047.98	2,986.87	24.11	-2.85	0.483
90.00	-34.19	-31.57	0	-1,251.75	0.00	1,251.75	3,612.61	1,806.30	5,739.81	2,834.68	27.2	-3.03	0.451
95.00	-32.81	-31.16	0	-1,093.88	0.00	1,093.88	3,535.75	1,767.87	5,435.31	2,684.29	30.46	-3.21	0.417
95.50	-32.65	-30.85	0	-1,078.30	0.00	1,078.30	3,527.92	1,763.96	5,405.07	2,669.36	30.8	-3.22	0.414
100.00	-30.75	-30.40	0	-939.49	0.00	939.49	3,456.28	1,728.14	5,134.86	2,535.92	33.91	-3.37	0.380
101.00	-30.31	-30.07	0	-909.09	0.00	909.09	2,422.80	1,211.40	3,656.13	1,805.62	34.62	-3.41	0.517
105.00	-26.49	-28.09	0	-788.81	0.00	788.81	2,386.99	1,193.50	3,503.59	1,730.29	37.53	-3.53	0.468
110.00	-25.41	-27.70	0	-648.36	0.00	648.36	2,339.89	1,169.95	3,313.75	1,636.54	41.32	-3.71	0.408
110.40	-25.14	-26.79	0	-637.29	0.00	637.29	2,336.01	1,168.01	3,298.62	1,629.06	41.64	-3.72	0.402
111.40	-24.91	-26.63	0	-610.50	0.00	610.50	2,326.24	1,163.12	3,260.82	1,610.39	42.42	-3.76	0.390
111.80	-24.33	-26.21	0	-599.84	0.00	599.84	2,322.30	1,161.15	3,245.71	1,602.93	42.73	-3.77	0.385
114.50	-23.71	-25.32	0	-529.07	0.00	529.07	2,295.28	1,147.64	3,144.01	1,552.71	44.89	-3.86	0.352
114.60	-23.60	-24.95	0	-526.54	0.00	526.54	2,294.26	1,147.13	3,140.25	1,550.85	44.97	-3.86	0.350
115.00	-22.87	-24.42	0	-516.56	0.00	516.56	2,290.19	1,145.09	3,125.22	1,543.43	45.3	-3.87	0.345
116.30	-22.59	-24.17	0	-484.82	0.00	484.82	2,276.84	1,138.42	3,076.47	1,519.35	46.36	-3.91	0.329
118.70	-21.94	-23.74	0	-426.82	0.00	426.82	2,251.73	1,125.87	2,986.79	1,475.06	48.34	-3.98	0.300
120.00	-21.68	-23.58	0	-395.96	0.00	395.96	2,237.88	1,118.94	2,938.40	1,451.17	49.43	-4.02	0.283
121.10	-21.22	-22.40	0	-370.03	0.00	370.03	2,226.02	1,113.01	2,897.57	1,431.00	50.36	-4.05	0.269
122.00	-18.19	-20.01	0	-349.87	0.00	349.87	2,216.23	1,108.11	2,864.24	1,414.54	51.12	-4.07	0.256
125.00	-17.63	-19.74	0	-289.85	0.00	289.85	2,182.97	1,091.48	2,753.70	1,359.95	53.7	-4.14	0.222
126.00	-14.34	-17.60	0	-270.11	0.00	270.11	2,171.67	1,085.84	2,717.04	1,341.85	54.57	-4.16	0.208
130.00	-13.65	-17.31	0	-199.69	0.00	199.69	2,125.45	1,062.73	2,571.50	1,269.97	58.09	-4.23	0.164
130.20	-13.27	-16.81	0	-196.23	0.00	196.23	2,123.10	1,061.55	2,564.27	1,266.40	58.26	-4.24	0.161
130.50	-12.88	-15.28	0	-191.19	0.00	191.19	2,119.56	1,059.78	2,553.44	1,261.05	58.53	-4.24	0.158
132.00	-11.38	-12.67	0	-168.27	0.00	168.27	2,101.72	1,050.86	2,499.42	1,234.37	59.87	-4.27	0.142
135.00	-10.91	-12.18	0	-130.27	0.00	130.27	2,065.33	1,032.67	2,392.23	1,181.43	62.56	-4.31	0.116
140.00	-5.86	-6.53	0	-69.36	0.00	69.36	1,995.73	997.87	2,208.67	1,090.78	67.09	-4.36	0.067
145.00	-5.25	-5.95	0	-36.69	0.00	36.69	1,903.77	951.88	2,008.69	992.02	71.67	-4.39	0.040
150.00	0.00	-5.53	0	-6.92	0.00	6.92	1,811.80	905.90	1,818.20	897.94	76.27	-4.4	0.008

ASSET: 306042, Woods Chapel
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-G
PROJECT: 14863347_C3_03

CALCULATED FORCES

Load Case: 0.9D + 1.6W		90 mph Wind with No Ice (Reduced DL)										22 Iterations			
Gust Response Factor:		1.10											Wind Importance Factor		1.00
Dead load Factor:		0.90													
Wind Load Factor:		1.60													
Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio		
0.00	-53.11	-43.52	0	-4,631.05	0.00	4,631.05	6,283.69	3,141.85	15,557.3	7,683.17	0	0	0.611		
5.00	-51.36	-42.89	0	-4,413.46	0.00	4,413.46	6,215.54	3,107.77	15,067.9	7,441.50	0.08	-0.14	0.602		
10.00	-49.57	-42.28	0	-4,198.99	0.00	4,198.99	6,144.79	3,072.40	14,579.4	7,200.24	0.31	-0.29	0.591		
15.00	-47.80	-41.66	0	-3,987.60	0.00	3,987.60	6,071.43	3,035.72	14,092.2	6,959.61	0.7	-0.44	0.581		
20.00	-46.07	-41.02	0	-3,779.31	0.00	3,779.31	5,995.47	2,997.74	13,606.6	6,719.80	1.24	-0.59	0.570		
25.00	-44.38	-40.35	0	-3,574.21	0.00	3,574.21	5,916.91	2,958.45	13,123.0	6,481.00	1.94	-0.74	0.559		
30.00	-42.71	-39.67	0	-3,372.45	0.00	3,372.45	5,835.74	2,917.87	12,642.0	6,243.42	2.8	-0.9	0.548		
35.00	-41.08	-38.97	0	-3,174.12	0.00	3,174.12	5,751.97	2,875.98	12,163.8	6,007.26	3.83	-1.05	0.536		
40.00	-39.49	-38.26	0	-2,979.28	0.00	2,979.28	5,665.59	2,832.79	11,688.9	5,772.72	5.02	-1.21	0.523		
45.00	-37.95	-37.74	0	-2,787.99	0.00	2,787.99	5,576.61	2,788.30	11,217.6	5,539.99	6.37	-1.37	0.510		
47.08	-37.30	-37.38	0	-2,709.36	0.00	2,709.36	5,538.76	2,769.38	11,022.5	5,443.60	6.99	-1.44	0.505		
50.00	-35.83	-36.86	0	-2,600.34	0.00	2,600.34	5,485.02	2,742.51	10,750.5	5,309.27	7.9	-1.53	0.496		
54.00	-33.89	-36.46	0	-2,452.89	0.00	2,452.89	4,089.14	2,044.57	8,015.68	3,958.64	9.24	-1.66	0.628		
55.00	-33.59	-36.04	0	-2,416.43	0.00	2,416.43	4,077.72	2,038.86	7,951.24	3,926.82	9.59	-1.7	0.624		
60.00	-32.31	-35.32	0	-2,236.23	0.00	2,236.23	4,019.09	2,009.55	7,629.58	3,767.96	11.47	-1.88	0.602		
65.00	-31.06	-34.60	0	-2,059.62	0.00	2,059.62	3,957.85	1,978.93	7,309.17	3,609.72	13.55	-2.07	0.579		
70.00	-29.84	-33.89	0	-1,886.62	0.00	1,886.62	3,894.01	1,947.01	6,990.40	3,452.29	15.82	-2.26	0.554		
75.00	-28.65	-33.17	0	-1,717.19	0.00	1,717.19	3,827.57	1,913.78	6,673.67	3,295.88	18.28	-2.45	0.529		
80.00	-27.49	-32.46	0	-1,551.33	0.00	1,551.33	3,758.52	1,879.26	6,359.40	3,140.67	20.95	-2.63	0.502		
85.00	-26.36	-31.76	0	-1,389.02	0.00	1,389.02	3,686.86	1,843.43	6,047.98	2,986.87	23.8	-2.81	0.472		
90.00	-25.26	-31.06	0	-1,230.22	0.00	1,230.22	3,612.61	1,806.30	5,739.81	2,834.68	26.84	-2.99	0.441		
95.00	-24.22	-30.66	0	-1,074.90	0.00	1,074.90	3,535.75	1,767.87	5,435.31	2,684.29	30.06	-3.16	0.408		
95.50	-24.10	-30.33	0	-1,059.57	0.00	1,059.57	3,527.92	1,763.96	5,405.07	2,669.36	30.39	-3.18	0.404		
100.00	-22.66	-29.90	0	-923.08	0.00	923.08	3,456.28	1,728.14	5,134.86	2,535.92	33.45	-3.32	0.371		
101.00	-22.33	-29.56	0	-893.18	0.00	893.18	2,422.80	1,211.40	3,656.13	1,805.62	34.15	-3.36	0.504		
105.00	-19.48	-27.62	0	-774.93	0.00	774.93	2,386.99	1,193.50	3,503.59	1,730.29	37.02	-3.48	0.457		
110.00	-18.66	-27.24	0	-636.81	0.00	636.81	2,339.89	1,169.95	3,313.75	1,636.54	40.76	-3.65	0.398		
110.40	-18.47	-26.33	0	-625.92	0.00	625.92	2,336.01	1,168.01	3,298.62	1,629.06	41.06	-3.67	0.393		
111.40	-18.30	-26.17	0	-599.59	0.00	599.59	2,326.24	1,163.12	3,260.82	1,610.39	41.84	-3.7	0.381		
111.80	-17.86	-25.76	0	-589.12	0.00	589.12	2,322.30	1,161.15	3,245.71	1,602.93	42.15	-3.71	0.376		
114.50	-17.41	-24.87	0	-519.57	0.00	519.57	2,295.28	1,147.64	3,144.01	1,552.71	44.27	-3.8	0.343		
114.60	-17.33	-24.51	0	-517.08	0.00	517.08	2,294.26	1,147.13	3,140.25	1,550.85	44.35	-3.8	0.341		
115.00	-16.79	-23.98	0	-507.28	0.00	507.28	2,290.19	1,145.09	3,125.22	1,543.43	44.67	-3.81	0.336		
116.30	-16.58	-23.73	0	-476.10	0.00	476.10	2,276.84	1,138.42	3,076.47	1,519.35	45.71	-3.85	0.321		
118.70	-16.09	-23.31	0	-419.14	0.00	419.14	2,251.73	1,125.87	2,986.79	1,475.06	47.67	-3.92	0.292		
120.00	-15.90	-23.15	0	-388.84	0.00	388.84	2,237.88	1,118.94	2,938.40	1,451.17	48.74	-3.96	0.275		
121.10	-15.57	-21.98	0	-363.38	0.00	363.38	2,226.02	1,113.01	2,897.57	1,431.00	49.66	-3.98	0.261		
122.00	-13.33	-19.64	0	-343.60	0.00	343.60	2,216.23	1,108.11	2,864.24	1,414.54	50.41	-4.01	0.249		
125.00	-12.91	-19.38	0	-284.67	0.00	284.67	2,182.97	1,091.48	2,753.70	1,359.95	52.95	-4.07	0.216		
126.00	-10.47	-17.31	0	-265.29	0.00	265.29	2,171.67	1,085.84	2,717.04	1,341.85	53.8	-4.1	0.203		
130.00	-9.95	-17.02	0	-196.07	0.00	196.07	2,125.45	1,062.73	2,571.50	1,269.97	57.27	-4.17	0.159		
130.20	-9.68	-16.53	0	-192.66	0.00	192.66	2,123.10	1,061.55	2,564.27	1,266.40	57.44	-4.17	0.157		
130.50	-9.41	-15.01	0	-187.70	0.00	187.70	2,119.56	1,059.78	2,553.44	1,261.05	57.7	-4.18	0.153		
132.00	-8.33	-12.43	0	-165.19	0.00	165.19	2,101.72	1,050.86	2,499.42	1,234.37	59.02	-4.2	0.138		
135.00	-7.98	-11.95	0	-127.91	0.00	127.91	2,065.33	1,032.67	2,392.23	1,181.43	61.67	-4.24	0.112		
140.00	-4.29	-6.41	0	-68.16	0.00	68.16	1,995.73	997.87	2,208.67	1,090.78	66.14	-4.29	0.065		
145.00	-3.84	-5.84	0	-36.13	0.00	36.13	1,903.77	951.88	2,008.69	992.02	70.64	-4.32	0.038		
150.00	0.00	-5.53	0	-6.92	0.00	6.92	1,811.80	905.90	1,818.20	897.94	75.17	-4.33	0.008		

ASSET: 306042, Woods Chapel
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-G
PROJECT: 14863347_C3_03

CALCULATED FORCES

Load Case: 1.2D + 1.0Di + 1.0Wi			40 mph Wind with 1" Radial Ice								23 Iterations		
Gust Response Factor:		1.10	Ice Dead Load Factor		1.00		Wind Importance Factor		1.00		1.00		
Dead load Factor:		1.20					Ice Importance Factor		1.00				
Wind Load Factor:		1.00											
Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-123.35	-17.26	0	-1,594.66	0.00	1,594.66	6,283.69	3,141.85	15,557.3	7,683.17	0	0	0.227
5.00	-120.40	-16.98	0	-1,508.37	0.00	1,508.37	6,215.54	3,107.77	15,067.9	7,441.50	0.03	-0.05	0.222
10.00	-117.22	-16.63	0	-1,423.47	0.00	1,423.47	6,144.79	3,072.40	14,579.4	7,200.24	0.11	-0.1	0.217
15.00	-114.03	-16.28	0	-1,340.33	0.00	1,340.33	6,071.43	3,035.72	14,092.2	6,959.61	0.24	-0.15	0.211
20.00	-110.87	-15.91	0	-1,258.93	0.00	1,258.93	5,995.47	2,997.74	13,606.6	6,719.80	0.42	-0.2	0.206
25.00	-107.73	-15.53	0	-1,179.36	0.00	1,179.36	5,916.91	2,958.45	13,123.0	6,481.00	0.66	-0.25	0.200
30.00	-104.64	-15.13	0	-1,101.72	0.00	1,101.72	5,835.74	2,917.87	12,642.0	6,243.42	0.95	-0.3	0.194
35.00	-101.58	-14.71	0	-1,026.09	0.00	1,026.09	5,751.97	2,875.98	12,163.8	6,007.26	1.29	-0.35	0.188
40.00	-98.56	-14.28	0	-952.54	0.00	952.54	5,665.59	2,832.79	11,688.9	5,772.72	1.69	-0.4	0.182
45.00	-95.59	-13.86	0	-881.13	0.00	881.13	5,576.61	2,788.30	11,217.6	5,539.99	2.14	-0.45	0.176
47.08	-94.37	-13.67	0	-852.25	0.00	852.25	5,538.76	2,769.38	11,022.5	5,443.60	2.34	-0.48	0.174
50.00	-91.89	-13.40	0	-812.37	0.00	812.37	5,485.02	2,742.51	10,750.5	5,309.27	2.64	-0.5	0.170
54.00	-88.55	-13.05	0	-758.77	0.00	758.77	4,089.14	2,044.57	8,015.68	3,958.64	3.08	-0.55	0.213
55.00	-88.03	-12.94	0	-745.72	0.00	745.72	4,077.72	2,038.86	7,951.24	3,926.82	3.2	-0.56	0.212
60.00	-85.44	-12.49	0	-681.01	0.00	681.01	4,019.09	2,009.55	7,629.58	3,767.96	3.81	-0.61	0.202
65.00	-82.90	-12.04	0	-618.54	0.00	618.54	3,957.85	1,978.93	7,309.17	3,609.72	4.49	-0.67	0.192
70.00	-80.40	-11.59	0	-558.34	0.00	558.34	3,894.01	1,947.01	6,990.40	3,452.29	5.22	-0.73	0.182
75.00	-77.95	-11.13	0	-500.41	0.00	500.41	3,827.57	1,913.78	6,673.67	3,295.88	6.01	-0.78	0.172
80.00	-75.54	-10.67	0	-444.78	0.00	444.78	3,758.52	1,879.26	6,359.40	3,140.67	6.85	-0.83	0.162
85.00	-73.18	-10.20	0	-391.45	0.00	391.45	3,686.86	1,843.43	6,047.98	2,986.87	7.76	-0.89	0.151
90.00	-70.86	-9.74	0	-340.43	0.00	340.43	3,612.61	1,806.30	5,739.81	2,834.68	8.71	-0.93	0.140
95.00	-68.59	-9.30	0	-291.74	0.00	291.74	3,535.75	1,767.87	5,435.31	2,684.29	9.71	-0.98	0.128
95.50	-68.36	-9.23	0	-287.09	0.00	287.09	3,527.92	1,763.96	5,405.07	2,669.36	9.82	-0.99	0.127
100.00	-65.66	-8.82	0	-245.55	0.00	245.55	3,456.28	1,728.14	5,134.86	2,535.92	10.77	-1.03	0.116
101.00	-65.06	-8.71	0	-236.73	0.00	236.73	2,422.80	1,211.40	3,656.13	1,805.62	10.98	-1.03	0.158
105.00	-58.63	-7.92	0	-201.91	0.00	201.91	2,386.99	1,193.50	3,503.59	1,730.29	11.86	-1.07	0.141
110.00	-56.69	-7.48	0	-162.33	0.00	162.33	2,339.89	1,169.95	3,313.75	1,636.54	13.01	-1.11	0.123
110.40	-55.42	-7.29	0	-159.34	0.00	159.34	2,336.01	1,168.01	3,298.62	1,629.06	13.1	-1.12	0.122
111.40	-54.94	-7.19	0	-152.05	0.00	152.05	2,326.24	1,163.12	3,260.82	1,610.39	13.33	-1.12	0.118
111.80	-53.87	-7.08	0	-149.17	0.00	149.17	2,322.30	1,161.15	3,245.71	1,602.93	13.43	-1.13	0.116
114.50	-52.35	-6.74	0	-130.05	0.00	130.05	2,295.28	1,147.64	3,144.01	1,552.71	14.07	-1.15	0.107
114.60	-51.90	-6.66	0	-129.37	0.00	129.37	2,294.26	1,147.13	3,140.25	1,550.85	14.1	-1.15	0.106
115.00	-50.63	-6.51	0	-126.71	0.00	126.71	2,290.19	1,145.09	3,125.22	1,543.43	14.19	-1.15	0.104
116.30	-50.10	-6.37	0	-118.25	0.00	118.25	2,276.84	1,138.42	3,076.47	1,519.35	14.51	-1.16	0.100
118.70	-48.79	-6.12	0	-102.96	0.00	102.96	2,251.73	1,125.87	2,986.79	1,475.06	15.1	-1.18	0.091
120.00	-48.32	-6.01	0	-95.00	0.00	95.00	2,237.88	1,118.94	2,938.40	1,451.17	15.42	-1.19	0.087
121.10	-46.41	-5.69	0	-88.39	0.00	88.39	2,226.02	1,113.01	2,897.57	1,431.00	15.69	-1.19	0.083
122.00	-41.03	-5.09	0	-83.26	0.00	83.26	2,216.23	1,108.11	2,864.24	1,414.54	15.92	-1.2	0.077
125.00	-39.97	-4.84	0	-67.99	0.00	67.99	2,182.97	1,091.48	2,753.70	1,359.95	16.68	-1.22	0.068
126.00	-34.28	-4.17	0	-63.15	0.00	63.15	2,171.67	1,085.84	2,717.04	1,341.85	16.93	-1.22	0.063
130.00	-33.05	-3.98	0	-46.46	0.00	46.46	2,125.45	1,062.73	2,571.50	1,269.97	17.96	-1.24	0.052
130.20	-32.07	-3.88	0	-45.67	0.00	45.67	2,123.10	1,061.55	2,564.27	1,266.40	18.02	-1.24	0.051
130.50	-30.07	-3.60	0	-44.50	0.00	44.50	2,119.56	1,059.78	2,553.44	1,261.05	18.09	-1.24	0.049
132.00	-25.62	-3.05	0	-39.11	0.00	39.11	2,101.72	1,050.86	2,499.42	1,234.37	18.48	-1.25	0.044
135.00	-24.77	-2.91	0	-29.97	0.00	29.97	2,065.33	1,032.67	2,392.23	1,181.43	19.27	-1.26	0.037
140.00	-13.22	-1.49	0	-15.45	0.00	15.45	1,995.73	997.87	2,208.67	1,090.78	20.59	-1.27	0.021
145.00	-12.15	-1.37	0	-8.01	0.00	8.01	1,903.77	951.88	2,008.69	992.02	21.92	-1.27	0.014
150.00	0.00	-1.10	0	-1.14	0.00	1.14	1,811.80	905.90	1,818.20	897.94	23.26	-1.28	0.001

ASSET: 306042, Woods Chapel
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-G
PROJECT: 14863347_C3_03

CALCULATED FORCES

Load Case: 1.0D + 1.0W		60 mph Wind with No Ice										21 Iterations			
Gust Response Factor:		1.10											Wind Importance Factor		1.00
Dead Load Factor:		1.00													
Wind Load Factor:		1.00													
Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio		
0.00	-59.07	-10.82	0	-1,155.76	0.00	1,155.76	6,283.69	3,141.85	15,557.3	7,683.17	0	0	0.160		
5.00	-57.24	-10.67	0	-1,101.68	0.00	1,101.68	6,215.54	3,107.77	15,067.9	7,441.50	0.02	-0.04	0.157		
10.00	-55.36	-10.52	0	-1,048.36	0.00	1,048.36	6,144.79	3,072.40	14,579.4	7,200.24	0.08	-0.07	0.155		
15.00	-53.51	-10.37	0	-995.78	0.00	995.78	6,071.43	3,035.72	14,092.2	6,959.61	0.17	-0.11	0.152		
20.00	-51.69	-10.21	0	-943.95	0.00	943.95	5,995.47	2,997.74	13,606.6	6,719.80	0.31	-0.15	0.149		
25.00	-49.91	-10.05	0	-892.90	0.00	892.90	5,916.91	2,958.45	13,123.0	6,481.00	0.48	-0.19	0.146		
30.00	-48.16	-9.88	0	-842.67	0.00	842.67	5,835.74	2,917.87	12,642.0	6,243.42	0.7	-0.22	0.143		
35.00	-46.45	-9.71	0	-793.27	0.00	793.27	5,751.97	2,875.98	12,163.8	6,007.26	0.96	-0.26	0.140		
40.00	-44.77	-9.54	0	-744.72	0.00	744.72	5,665.59	2,832.79	11,688.9	5,772.72	1.25	-0.3	0.137		
45.00	-43.13	-9.41	0	-697.04	0.00	697.04	5,576.61	2,788.30	11,217.6	5,539.99	1.59	-0.34	0.134		
47.08	-42.45	-9.32	0	-677.44	0.00	677.44	5,538.76	2,769.38	11,022.5	5,443.60	1.75	-0.36	0.132		
50.00	-40.88	-9.19	0	-650.25	0.00	650.25	5,485.02	2,742.51	10,750.5	5,309.27	1.97	-0.38	0.130		
54.00	-38.76	-9.09	0	-613.48	0.00	613.48	4,089.14	2,044.57	8,015.68	3,958.64	2.31	-0.42	0.164		
55.00	-38.49	-8.99	0	-604.39	0.00	604.39	4,077.72	2,038.86	7,951.24	3,926.82	2.4	-0.42	0.163		
60.00	-37.16	-8.82	0	-559.43	0.00	559.43	4,019.09	2,009.55	7,629.58	3,767.96	2.87	-0.47	0.158		
65.00	-35.86	-8.64	0	-515.35	0.00	515.35	3,957.85	1,978.93	7,309.17	3,609.72	3.38	-0.52	0.152		
70.00	-34.59	-8.46	0	-472.15	0.00	472.15	3,894.01	1,947.01	6,990.40	3,452.29	3.95	-0.56	0.146		
75.00	-33.35	-8.29	0	-429.83	0.00	429.83	3,827.57	1,913.78	6,673.67	3,295.88	4.57	-0.61	0.139		
80.00	-32.13	-8.12	0	-388.38	0.00	388.38	3,758.52	1,879.26	6,359.40	3,140.67	5.23	-0.66	0.132		
85.00	-30.94	-7.94	0	-347.80	0.00	347.80	3,686.86	1,843.43	6,047.98	2,986.87	5.95	-0.7	0.125		
90.00	-29.78	-7.77	0	-308.09	0.00	308.09	3,612.61	1,806.30	5,739.81	2,834.68	6.71	-0.75	0.117		
95.00	-28.65	-7.67	0	-269.23	0.00	269.23	3,535.75	1,767.87	5,435.31	2,684.29	7.51	-0.79	0.108		
95.50	-28.54	-7.59	0	-265.39	0.00	265.39	3,527.92	1,763.96	5,405.07	2,669.36	7.6	-0.79	0.108		
100.00	-26.97	-7.48	0	-231.23	0.00	231.23	3,456.28	1,728.14	5,134.86	2,535.92	8.36	-0.83	0.099		
101.00	-26.63	-7.40	0	-223.75	0.00	223.75	2,422.80	1,211.40	3,656.13	1,805.62	8.54	-0.84	0.135		
105.00	-23.41	-6.92	0	-194.15	0.00	194.15	2,386.99	1,193.50	3,503.59	1,730.29	9.25	-0.87	0.122		
110.00	-22.52	-6.82	0	-159.57	0.00	159.57	2,339.89	1,169.95	3,313.75	1,636.54	10.19	-0.91	0.107		
110.40	-22.26	-6.59	0	-156.84	0.00	156.84	2,336.01	1,168.01	3,298.62	1,629.06	10.27	-0.92	0.106		
111.40	-22.07	-6.55	0	-150.25	0.00	150.25	2,326.24	1,163.12	3,260.82	1,610.39	10.46	-0.93	0.103		
111.80	-21.58	-6.45	0	-147.63	0.00	147.63	2,322.30	1,161.15	3,245.71	1,602.93	10.54	-0.93	0.101		
114.50	-21.03	-6.23	0	-130.21	0.00	130.21	2,295.28	1,147.64	3,144.01	1,552.71	11.07	-0.95	0.093		
114.60	-20.93	-6.14	0	-129.58	0.00	129.58	2,294.26	1,147.13	3,140.25	1,550.85	11.09	-0.95	0.093		
115.00	-20.30	-6.01	0	-127.13	0.00	127.13	2,290.19	1,145.09	3,125.22	1,543.43	11.17	-0.95	0.091		
116.30	-20.07	-5.95	0	-119.32	0.00	119.32	2,276.84	1,138.42	3,076.47	1,519.35	11.43	-0.96	0.087		
118.70	-19.52	-5.84	0	-105.05	0.00	105.05	2,251.73	1,125.87	2,986.79	1,475.06	11.92	-0.98	0.080		
120.00	-19.31	-5.80	0	-97.45	0.00	97.45	2,237.88	1,118.94	2,938.40	1,451.17	12.19	-0.99	0.076		
121.10	-18.86	-5.51	0	-91.07	0.00	91.07	2,226.02	1,113.01	2,897.57	1,431.00	12.42	-1	0.072		
122.00	-16.23	-4.92	0	-86.12	0.00	86.12	2,216.23	1,108.11	2,864.24	1,414.54	12.61	-1	0.068		
125.00	-15.76	-4.86	0	-71.35	0.00	71.35	2,182.97	1,091.48	2,753.70	1,359.95	13.24	-1.02	0.060		
126.00	-12.91	-4.34	0	-66.49	0.00	66.49	2,171.67	1,085.84	2,717.04	1,341.85	13.46	-1.02	0.056		
130.00	-12.33	-4.26	0	-49.15	0.00	49.15	2,125.45	1,062.73	2,571.50	1,269.97	14.32	-1.04	0.045		
130.20	-11.99	-4.14	0	-48.29	0.00	48.29	2,123.10	1,061.55	2,564.27	1,266.40	14.37	-1.04	0.044		
130.50	-11.58	-3.76	0	-47.05	0.00	47.05	2,119.56	1,059.78	2,553.44	1,261.05	14.43	-1.05	0.043		
132.00	-10.19	-3.12	0	-41.41	0.00	41.41	2,101.72	1,050.86	2,499.42	1,234.37	14.76	-1.05	0.038		
135.00	-9.78	-3.00	0	-32.06	0.00	32.06	2,065.33	1,032.67	2,392.23	1,181.43	15.43	-1.06	0.032		
140.00	-5.26	-1.61	0	-17.08	0.00	17.08	1,995.73	997.87	2,208.67	1,090.78	16.54	-1.07	0.018		
145.00	-4.72	-1.46	0	-9.04	0.00	9.04	1,903.77	951.88	2,008.69	992.02	17.67	-1.08	0.012		
150.00	0.00	-1.38	0	-1.72	0.00	1.72	1,811.80	905.90	1,818.20	897.94	18.81	-1.08	0.002		

EQUIVALENT LATERAL FORCES METHOD ANALYSIS

(Based on ASCE7-10 Chapters 11, 12 and 15)

Spectral Response Acceleration for Short Period (S_S):	0.113
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.110
Long-Period Transition Period (T_L - Seconds):	12
Importance Factor (I_e):	1.000
Site Coefficient F_a :	1.600
Site Coefficient F_v :	2.360
Response Modification Coefficient (R):	1.500
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.121
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.173
Seismic Response Coefficient (C_s):	0.051
Upper Limit C_s :	0.051
Lower Limit C_s :	0.030
Period based on Rayleigh Method (sec):	2.270
Redundancy Factor (p):	1.000
Seismic Force Distribution Exponent (k):	1.880
Total Unfactored Dead Load:	59.070 k
Seismic Base Shear (E):	3.010 k

SEISMIC FORCES

(1.2 + 0.2S_{ds}) * DL + E ELFM

Seismic

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
47	147.5	522	6,354	0.020	61	639
46	142.5	543	6,197	0.020	60	665
45	137.5	673	7,177	0.023	69	823
44	133.5	414	4,176	0.013	40	506
43	131.25	215	2,100	0.007	20	263
42	130.35	43	417	0.001	4	53
41	130.1	29	277	0.001	3	35
40	128	584	5,445	0.017	52	715
39	125.5	152	1,368	0.004	13	186
38	123.5	468	4,082	0.013	39	573
37	121.55	146	1,235	0.004	12	179
36	120.55	179	1,494	0.005	14	220
35	119.35	213	1,743	0.006	17	261
34	117.5	397	3,155	0.010	30	487
33	115.65	218	1,676	0.005	16	266
32	114.8	67	511	0.002	5	82
31	114.55	17	127	0.000	1	21
30	113.15	458	3,385	0.011	33	561
29	111.6	68	492	0.002	5	84
28	110.9	173	1,231	0.004	12	212
27	110.2	70	491	0.002	5	85
26	107.5	884	5,932	0.019	57	1,082
25	103	722	4,473	0.014	43	884
24	100.5	343	2,027	0.006	19	420
23	97.75	1,567	8,791	0.028	85	1,918
22	95.25	111	596	0.002	6	136
21	92.5	1,130	5,712	0.018	55	1,383
20	87.5	1,157	5,270	0.017	51	1,416
19	82.5	1,185	4,830	0.016	46	1,450
18	77.5	1,212	4,393	0.014	42	1,484
17	72.5	1,240	3,963	0.013	38	1,518
16	67.5	1,267	3,541	0.011	34	1,551
15	62.5	1,295	3,129	0.010	30	1,585
14	57.5	1,323	2,731	0.009	26	1,619
13	54.5	268	500	0.002	5	328
12	52	2,115	3,613	0.012	35	2,589
11	48.5417	1,567	2,352	0.008	23	1,918
10	46.0417	673	915	0.003	9	824
9	42.5	1,640	1,916	0.006	18	2,007

ASSET:	306042, Woods Chapel			CODE:	ANSI/TIA-222-G	
CUSTOMER:	AT&T MOBILITY			PROJECT:	14863347_C3_03	
8	37.5	1,674	1,545	0.005	15	2,049
7	32.5	1,708	1,204	0.004	12	2,091
6	27.5	1,742	896	0.003	9	2,132
5	22.5	1,776	626	0.002	6	2,174
4	17.5	1,810	397	0.001	4	2,215
3	12.5	1,844	215	0.001	2	2,257
2	7.5	1,878	84	0.000	1	2,298
1	2.5	1,816	10	0.000	0	2,222
Ericsson Radio 4471 B30	150	86	1,083	0.004	10	105
Ericsson Radio 4494 44B14 20B29 M01	150	172	2,161	0.007	21	210
Ericsson RRUS 4490	150	205	2,580	0.008	25	251
Ericsson RRUS 4890	150	208	2,621	0.008	25	255
Ericsson AIR 6472 B77G B77M (92.6lbs)	150	278	3,493	0.011	34	340
CCI TPA65R-BU8Dv2	150	176	2,213	0.007	21	215
CCI TPA65R-BU8D	150	330	4,149	0.013	40	404
Raycap DC6-48-60-18-8F(32.8 lbs)	150	33	412	0.001	4	40
Raycap DC6-48-60-0-8C	150	16	201	0.001	2	20
Raycap DC6-48-60-18-8C	150	16	201	0.001	2	20
Generic Mount Reinforcement	150	200	2,515	0.008	24	245
Generic Mount Reinforcement	140	200	2,208	0.007	21	245
Generic Mount Reinforcement	126	200	1,811	0.006	17	245
Generic Round Platform with Handrails	150	2,500	31,432	0.101	302	3,060
Generic Round Platform with Handrails	140	2,500	27,601	0.088	265	3,060
Generic Round Platform with Handrails	126	2,500	22,632	0.072	218	3,060
Generic Round Platform with Handrails	105	2,500	16,053	0.051	154	3,060
Powerwave Allgon LGP 13901	140	59	656	0.002	6	73
Ericsson Radio 4449 - B13&B5	140	210	2,318	0.007	22	257
Ericsson 8843 Rev 2	140	225	2,484	0.008	24	275
Raycap RRFDC-3315-PF-48	140	54	594	0.002	6	66
Ericsson AIR 6449 B77D/ C-Band	140	245	2,703	0.009	26	300
Antel BXA-80063/8CF	140	72	795	0.002	8	88
Commscope NHH-65C-R2B	140	310	3,418	0.011	33	379
Commscope HELIAX FiberFeed 12 RRU Pendant Connect	132	20	198	0.001	2	24
Nokia AirScale Dual RRH 4T4R B12/71 240W AHLOA	132	251	2,484	0.008	24	308
Nokia AHFIG 70.55 lbs	132	212	2,093	0.007	20	259
Raycap ASU9338TYP01	132	15	147	0.000	1	18
Nokia AEHC	132	311	3,071	0.010	30	380
Nokia AEHC	130.2	311	2,993	0.010	29	380
Commscope FFHH-65C-R3	132	377	3,727	0.012	36	462
Commscope FFHH-65C-R3	130.5	377	3,647	0.012	35	462
Generic Flat Platform with Handrails	122	2,500	21,298	0.068	205	3,060
Generic 48" x 12" Panel	121.1	270	2,268	0.007	22	331
Samsung 2.5GHz nRRHv2	118.7	152	1,231	0.004	12	186
DragonWave Horizon DUO (Radio)	116.3	14	109	0.000	1	17
Side Arms	115	560	4,268	0.014	41	685
Argus LLPX310R	114.6	86	650	0.002	6	105
Andrew Microwaves VHLP2.5	114.5	95	720	0.002	7	117
Fujitsu TA08025-B604	111.8	192	1,385	0.004	13	235
Fujitsu TA08025-B605	111.8	225	1,626	0.005	16	275
Commscope RDIDC-9181-PF-48	111.4	22	157	0.000	2	27
JMA Wireless MX08FRO665-21	110.4	194	1,366	0.004	13	237
Totals:		59,070	312,565	1.000	3,005	72,308

SEISMIC FORCES						
(0.9 - 0.2Sds) * DL + E ELFM		Seismic (Reduced DL)				
Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
47	147.5	522	6,354	0.020	61	457
46	142.5	543	6,197	0.020	60	476
45	137.5	673	7,177	0.023	69	589
44	133.5	414	4,176	0.013	40	362
43	131.25	215	2,100	0.007	20	188
42	130.35	43	417	0.001	4	38
41	130.1	29	277	0.001	3	25
40	128	584	5,445	0.017	52	511

ASSET: 306042, Woods Chapel
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-G
PROJECT: 14863347_C3_03

39	125.5	152	1,368	0.004	13	133
38	123.5	468	4,082	0.013	39	410
37	121.55	146	1,235	0.004	12	128
36	120.55	179	1,494	0.005	14	157
35	119.35	213	1,743	0.006	17	187
34	117.5	397	3,155	0.010	30	348
33	115.65	218	1,676	0.005	16	191
32	114.8	67	511	0.002	5	59
31	114.55	17	127	0.000	1	15
30	113.15	458	3,385	0.011	33	401
29	111.6	68	492	0.002	5	60
28	110.9	173	1,231	0.004	12	151
27	110.2	70	491	0.002	5	61
26	107.5	884	5,932	0.019	57	774
25	103	722	4,473	0.014	43	633
24	100.5	343	2,027	0.006	19	300
23	97.75	1,567	8,791	0.028	85	1,372
22	95.25	111	596	0.002	6	98
21	92.5	1,130	5,712	0.018	55	989
20	87.5	1,157	5,270	0.017	51	1,014
19	82.5	1,185	4,830	0.016	46	1,038
18	77.5	1,212	4,393	0.014	42	1,062
17	72.5	1,240	3,963	0.013	38	1,086
16	67.5	1,267	3,541	0.011	34	1,110
15	62.5	1,295	3,129	0.010	30	1,134
14	57.5	1,323	2,731	0.009	26	1,158
13	54.5	268	500	0.002	5	235
12	52	2,115	3,613	0.012	35	1,852
11	48.5417	1,567	2,352	0.008	23	1,372
10	46.0417	673	915	0.003	9	590
9	42.5	1,640	1,916	0.006	18	1,436
8	37.5	1,674	1,545	0.005	15	1,466
7	32.5	1,708	1,204	0.004	12	1,496
6	27.5	1,742	896	0.003	9	1,526
5	22.5	1,776	626	0.002	6	1,555
4	17.5	1,810	397	0.001	4	1,585
3	12.5	1,844	215	0.001	2	1,615
2	7.5	1,878	84	0.000	1	1,645
1	2.5	1,816	10	0.000	0	1,590
Ericsson Radio 4471 B30	150	86	1,083	0.004	10	75
Ericsson Radio 4494 44B14 20B29 M01	150	172	2,161	0.007	21	151
Ericsson RRUS 4490	150	205	2,580	0.008	25	180
Ericsson RRUS 4890	150	208	2,621	0.008	25	183
Ericsson AIR 6472 B77G B77M (92.6lbs)	150	278	3,493	0.011	34	243
CCI TPA65R-BU8Dv2	150	176	2,213	0.007	21	154
CCI TPA65R-BU8D	150	330	4,149	0.013	40	289
Raycap DC6-48-60-18-8F(32.8 lbs)	150	33	412	0.001	4	29
Raycap DC6-48-60-0-8C	150	16	201	0.001	2	14
Raycap DC6-48-60-18-8C	150	16	201	0.001	2	14
Generic Mount Reinforcement	150	200	2,515	0.008	24	175
Generic Mount Reinforcement	140	200	2,208	0.007	21	175
Generic Mount Reinforcement	126	200	1,811	0.006	17	175
Generic Round Platform with Handrails	150	2,500	31,432	0.101	302	2,190
Generic Round Platform with Handrails	140	2,500	27,601	0.088	265	2,190
Generic Round Platform with Handrails	126	2,500	22,632	0.072	218	2,190
Generic Round Platform with Handrails	105	2,500	16,053	0.051	154	2,190
Powerwave Allgon LGP 13901	140	59	656	0.002	6	52
Ericsson Radio 4449 - B13&B5	140	210	2,318	0.007	22	184
Ericsson 8843 Rev 2	140	225	2,484	0.008	24	197
Raycap RRFDC-3315-PF-48	140	54	594	0.002	6	47
Ericsson AIR 6449 B77D/ C-Band	140	245	2,703	0.009	26	214
Antel BXA-80063/8CF	140	72	795	0.002	8	63
Commscope NHH-65C-R2B	140	310	3,418	0.011	33	271
Commscope HELIAX FiberFeed 12 RRU Pendant Connect	132	20	198	0.001	2	18

ASSET:	306042, Woods Chapel			CODE:	ANSI/TIA-222-G	
CUSTOMER:	AT&T MOBILITY			PROJECT:	14863347_C3_03	
Nokia AirScale Dual RRH 4T4R B12/71 240W AHLOA	132	251	2,484	0.008	24	220
Nokia AHFIG 70.55 lbs	132	212	2,093	0.007	20	186
Raycap ASU9338TYP01	132	15	147	0.000	1	13
Nokia AEHC	132	311	3,071	0.010	30	272
Nokia AEHC	130.2	311	2,993	0.010	29	272
Commscope FFHH-65C-R3	132	377	3,727	0.012	36	330
Commscope FFHH-65C-R3	130.5	377	3,647	0.012	35	330
Generic Flat Platform with Handrails	122	2,500	21,298	0.068	205	2,190
Generic 48" x 12" Panel	121.1	270	2,268	0.007	22	236
Samsung 2.5GHz nRRHv2	118.7	152	1,231	0.004	12	133
DragonWave Horizon DUO (Radio)	116.3	14	109	0.000	1	12
Side Arms	115	560	4,268	0.014	41	491
Argus LLPX310R	114.6	86	650	0.002	6	75
Andrew Microwaves VHLP2.5	114.5	95	720	0.002	7	83
Fujitsu TA08025-B604	111.8	192	1,385	0.004	13	168
Fujitsu TA08025-B605	111.8	225	1,626	0.005	16	197
Commscope RDIDC-9181-PF-48	111.4	22	157	0.000	2	19
JMA Wireless MX08FRO665-21	110.4	194	1,366	0.004	13	169
Totals:	59,070	312,565	1.000	3,005	51,739	

(1.2 + 0.2Sds) * DL + E EMAM

Seismic

CALCULATED FORCES													
Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-70.09	-2.83	0.00	-360.23	0.00	360.23	6,283.69	3,141.85	15,557	7,683.17	0.00	0.00	0.06
5.00	-67.79	-2.84	0.00	-346.07	0.00	346.07	6,215.54	3,107.77	15,068	7,441.50	0.01	-0.01	0.06
10.00	-65.53	-2.83	0.00	-331.90	0.00	331.90	6,144.79	3,072.40	14,579	7,200.24	0.02	-0.02	0.06
15.00	-63.31	-2.83	0.00	-317.73	0.00	317.73	6,071.43	3,035.72	14,092	6,959.61	0.05	-0.03	0.06
20.00	-61.14	-2.82	0.00	-303.58	0.00	303.58	5,995.47	2,997.74	13,607	6,719.80	0.10	-0.05	0.06
25.00	-59.01	-2.81	0.00	-289.48	0.00	289.48	5,916.91	2,958.45	13,123	6,481.00	0.15	-0.06	0.06
30.00	-56.91	-2.80	0.00	-275.42	0.00	275.42	5,835.74	2,917.87	12,642	6,243.42	0.22	-0.07	0.05
35.00	-54.87	-2.79	0.00	-261.42	0.00	261.42	5,751.97	2,875.98	12,164	6,007.26	0.30	-0.08	0.05
40.00	-52.86	-2.77	0.00	-247.49	0.00	247.49	5,665.59	2,832.79	11,689	5,772.72	0.40	-0.10	0.05
45.00	-52.03	-2.76	0.00	-233.65	0.00	233.65	5,576.61	2,788.30	11,218	5,539.99	0.51	-0.11	0.05
47.08	-50.11	-2.74	0.00	-227.89	0.00	227.89	5,538.76	2,769.38	11,022	5,443.60	0.56	-0.12	0.05
50.00	-47.53	-2.70	0.00	-219.90	0.00	219.90	5,485.02	2,742.51	10,751	5,309.27	0.63	-0.12	0.05
54.00	-47.20	-2.70	0.00	-209.09	0.00	209.09	4,089.14	2,044.57	8,016	3,958.64	0.74	-0.14	0.06
55.00	-45.58	-2.68	0.00	-206.39	0.00	206.39	4,077.72	2,038.86	7,951	3,926.82	0.77	-0.14	0.06
60.00	-43.99	-2.66	0.00	-192.99	0.00	192.99	4,019.09	2,009.55	7,630	3,767.96	0.92	-0.15	0.06
65.00	-42.44	-2.64	0.00	-179.69	0.00	179.69	3,957.85	1,978.93	7,309	3,609.72	1.09	-0.17	0.06
70.00	-40.92	-2.62	0.00	-166.49	0.00	166.49	3,894.01	1,947.01	6,990	3,452.29	1.28	-0.19	0.06
75.00	-39.44	-2.60	0.00	-153.40	0.00	153.40	3,827.57	1,913.78	6,674	3,295.88	1.49	-0.20	0.06
80.00	-37.99	-2.57	0.00	-140.42	0.00	140.42	3,758.52	1,879.26	6,359	3,140.67	1.71	-0.22	0.06
85.00	-36.57	-2.55	0.00	-127.55	0.00	127.55	3,686.86	1,843.43	6,048	2,986.87	1.95	-0.24	0.05
90.00	-35.19	-2.53	0.00	-114.79	0.00	114.79	3,612.61	1,806.30	5,740	2,834.68	2.20	-0.25	0.05
95.00	-35.05	-2.53	0.00	-102.14	0.00	102.14	3,535.75	1,767.87	5,435	2,684.29	2.48	-0.27	0.05
95.50	-33.13	-2.49	0.00	-100.88	0.00	100.88	3,527.92	1,763.96	5,405	2,669.36	2.51	-0.27	0.05
100.00	-32.71	-2.48	0.00	-89.68	0.00	89.68	3,456.28	1,728.14	5,135	2,535.92	2.77	-0.28	0.05
101.00	-31.83	-2.46	0.00	-87.20	0.00	87.20	2,422.80	1,211.40	3,656	1,805.62	2.83	-0.29	0.06
105.00	-27.69	-2.35	0.00	-77.35	0.00	77.35	2,386.99	1,193.50	3,504	1,730.29	3.08	-0.30	0.06
110.00	-27.60	-2.35	0.00	-65.60	0.00	65.60	2,339.89	1,169.95	3,314	1,636.54	3.40	-0.32	0.05
110.40	-27.15	-2.34	0.00	-64.66	0.00	64.66	2,336.01	1,168.01	3,299	1,629.06	3.43	-0.32	0.05
111.40	-27.04	-2.34	0.00	-62.32	0.00	62.32	2,326.24	1,163.12	3,261	1,610.39	3.49	-0.32	0.05
111.80	-25.97	-2.30	0.00	-61.39	0.00	61.39	2,322.30	1,161.15	3,246	1,602.93	3.52	-0.32	0.05
114.50	-25.83	-2.30	0.00	-55.18	0.00	55.18	2,295.28	1,147.64	3,144	1,552.71	3.71	-0.33	0.05
114.60	-25.64	-2.29	0.00	-54.95	0.00	54.95	2,294.26	1,147.13	3,140	1,550.85	3.71	-0.33	0.05
115.00	-24.69	-2.25	0.00	-54.03	0.00	54.03	2,290.19	1,145.09	3,125	1,543.43	3.74	-0.33	0.05
116.30	-24.19	-2.24	0.00	-51.10	0.00	51.10	2,276.84	1,138.42	3,076	1,519.35	3.83	-0.34	0.04
118.70	-23.74	-2.22	0.00	-45.74	0.00	45.74	2,251.73	1,125.87	2,987	1,475.06	4.01	-0.35	0.04
120.00	-23.52	-2.21	0.00	-42.85	0.00	42.85	2,237.88	1,118.94	2,938	1,451.17	4.10	-0.35	0.04
121.10	-23.01	-2.19	0.00	-40.42	0.00	40.42	2,226.02	1,113.01	2,898	1,431.00	4.18	-0.35	0.04
122.00	-19.38	-2.00	0.00	-38.46	0.00	38.46	2,216.23	1,108.11	2,864	1,414.54	4.25	-0.36	0.04
125.00	-19.19	-1.99	0.00	-32.44	0.00	32.44	2,182.97	1,091.48	2,754	1,359.95	4.47	-0.36	0.03

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
126.00	-15.18	-1.75	0.00	-30.45	0.00	30.45	2,171.67	1,085.84	2,717	1,341.85	4.55	-0.37	0.03
130.00	-15.14	-1.75	0.00	-23.43	0.00	23.43	2,125.45	1,062.73	2,572	1,269.97	4.86	-0.37	0.03
130.20	-14.71	-1.72	0.00	-23.08	0.00	23.08	2,123.10	1,061.55	2,564	1,266.40	4.88	-0.37	0.03
130.50	-13.98	-1.67	0.00	-22.56	0.00	22.56	2,119.56	1,059.78	2,553	1,261.05	4.90	-0.38	0.02
132.00	-12.03	-1.52	0.00	-20.06	0.00	20.06	2,101.72	1,050.86	2,499	1,234.37	5.02	-0.38	0.02
135.00	-11.20	-1.44	0.00	-15.50	0.00	15.50	2,065.33	1,032.67	2,392	1,181.43	5.26	-0.38	0.02
140.00	-5.80	-0.87	0.00	-8.28	0.00	8.28	1,995.73	997.87	2,209	1,090.78	5.66	-0.39	0.01
145.00	-5.16	-0.78	0.00	-3.92	0.00	3.92	1,903.77	951.88	2,009	992.02	6.07	-0.39	0.01
150.00	0.00	-0.75	0.00	0.00	0.00	0.00	1,811.80	905.90	1,818	897.94	6.48	-0.39	0.00

(1.2 + 0.2Sds) * DL + E ELMF Seismic

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-70.09	-3.01	0.00	-374.94	0.00	374.94	6,283.69	3,141.85	15,557	7,683.17	0.00	0.00	0.06
5.00	-67.79	-3.03	0.00	-359.88	0.00	359.88	6,215.54	3,107.77	15,068	7,441.50	0.01	-0.01	0.06
10.00	-65.53	-3.04	0.00	-344.75	0.00	344.75	6,144.79	3,072.40	14,579	7,200.24	0.03	-0.02	0.06
15.00	-63.31	-3.04	0.00	-329.57	0.00	329.57	6,071.43	3,035.72	14,092	6,959.61	0.06	-0.04	0.06
20.00	-61.14	-3.05	0.00	-314.35	0.00	314.35	5,995.47	2,997.74	13,607	6,719.80	0.10	-0.05	0.06
25.00	-59.01	-3.05	0.00	-299.09	0.00	299.09	5,916.91	2,958.45	13,123	6,481.00	0.16	-0.06	0.06
30.00	-56.91	-3.05	0.00	-283.83	0.00	283.83	5,835.74	2,917.87	12,642	6,243.42	0.23	-0.07	0.06
35.00	-54.86	-3.05	0.00	-268.56	0.00	268.56	5,751.97	2,875.98	12,164	6,007.26	0.31	-0.09	0.05
40.00	-52.86	-3.04	0.00	-253.33	0.00	253.33	5,665.59	2,832.79	11,689	5,772.72	0.41	-0.10	0.05
45.00	-52.03	-3.04	0.00	-238.14	0.00	238.14	5,576.61	2,788.30	11,218	5,539.99	0.53	-0.11	0.05
47.08	-50.11	-3.02	0.00	-231.81	0.00	231.81	5,538.76	2,769.38	11,022	5,443.60	0.58	-0.12	0.05
50.00	-47.53	-2.98	0.00	-223.02	0.00	223.02	5,485.02	2,742.51	10,751	5,309.27	0.65	-0.13	0.05
54.00	-47.20	-2.98	0.00	-211.08	0.00	211.08	4,089.14	2,044.57	8,016	3,958.64	0.77	-0.14	0.07
55.00	-45.58	-2.96	0.00	-208.10	0.00	208.10	4,077.72	2,038.86	7,951	3,926.82	0.80	-0.14	0.06
60.00	-43.99	-2.94	0.00	-193.29	0.00	193.29	4,019.09	2,009.55	7,630	3,767.96	0.95	-0.16	0.06
65.00	-42.44	-2.91	0.00	-178.60	0.00	178.60	3,957.85	1,978.93	7,309	3,609.72	1.13	-0.17	0.06
70.00	-40.92	-2.88	0.00	-164.03	0.00	164.03	3,894.01	1,947.01	6,990	3,452.29	1.32	-0.19	0.06
75.00	-39.44	-2.85	0.00	-149.63	0.00	149.63	3,827.57	1,913.78	6,674	3,295.88	1.53	-0.21	0.06
80.00	-37.99	-2.80	0.00	-135.40	0.00	135.40	3,758.52	1,879.26	6,359	3,140.67	1.75	-0.22	0.05
85.00	-36.57	-2.76	0.00	-121.38	0.00	121.38	3,686.86	1,843.43	6,048	2,986.87	2.00	-0.24	0.05
90.00	-35.19	-2.71	0.00	-107.59	0.00	107.59	3,612.61	1,806.30	5,740	2,834.68	2.26	-0.25	0.05
95.00	-35.05	-2.70	0.00	-94.06	0.00	94.06	3,535.75	1,767.87	5,435	2,684.29	2.53	-0.27	0.05
95.50	-33.13	-2.62	0.00	-92.71	0.00	92.71	3,527.92	1,763.96	5,405	2,669.36	2.56	-0.27	0.04
100.00	-32.71	-2.60	0.00	-80.94	0.00	80.94	3,456.28	1,728.14	5,135	2,535.92	2.82	-0.28	0.04
101.00	-31.83	-2.55	0.00	-78.35	0.00	78.35	2,422.80	1,211.40	3,656	1,805.62	2.88	-0.29	0.06
105.00	-27.69	-2.33	0.00	-68.13	0.00	68.13	2,386.99	1,193.50	3,504	1,730.29	3.13	-0.30	0.05
110.00	-27.60	-2.33	0.00	-56.49	0.00	56.49	2,339.89	1,169.95	3,314	1,636.54	3.45	-0.31	0.05
110.40	-27.15	-2.30	0.00	-55.55	0.00	55.55	2,336.01	1,168.01	3,299	1,629.06	3.47	-0.31	0.05
111.40	-27.04	-2.30	0.00	-53.25	0.00	53.25	2,326.24	1,163.12	3,261	1,610.39	3.54	-0.32	0.05
111.80	-25.97	-2.23	0.00	-52.34	0.00	52.34	2,322.30	1,161.15	3,246	1,602.93	3.56	-0.32	0.04
114.50	-25.83	-2.22	0.00	-46.32	0.00	46.32	2,295.28	1,147.64	3,144	1,552.71	3.75	-0.33	0.04
114.60	-25.65	-2.21	0.00	-46.09	0.00	46.09	2,294.26	1,147.13	3,140	1,550.85	3.75	-0.33	0.04
115.00	-24.69	-2.15	0.00	-45.21	0.00	45.21	2,290.19	1,145.09	3,125	1,543.43	3.78	-0.33	0.04
116.30	-24.19	-2.12	0.00	-42.42	0.00	42.42	2,276.84	1,138.42	3,076	1,519.35	3.87	-0.33	0.04
118.70	-23.74	-2.09	0.00	-37.34	0.00	37.34	2,251.73	1,125.87	2,987	1,475.06	4.04	-0.34	0.04
120.00	-23.52	-2.07	0.00	-34.62	0.00	34.62	2,237.88	1,118.94	2,938	1,451.17	4.13	-0.34	0.03
121.10	-23.01	-2.04	0.00	-32.34	0.00	32.34	2,226.02	1,113.01	2,898	1,431.00	4.21	-0.34	0.03
122.00	-19.38	-1.77	0.00	-30.51	0.00	30.51	2,216.23	1,108.11	2,864	1,414.54	4.27	-0.34	0.03
125.00	-19.20	-1.76	0.00	-25.19	0.00	25.19	2,182.97	1,091.48	2,754	1,359.95	4.49	-0.35	0.03
126.00	-15.18	-1.45	0.00	-23.43	0.00	23.43	2,171.67	1,085.84	2,717	1,341.85	4.57	-0.35	0.02
130.00	-15.14	-1.45	0.00	-17.64	0.00	17.64	2,125.45	1,062.73	2,572	1,269.97	4.86	-0.36	0.02
130.20	-14.71	-1.41	0.00	-17.35	0.00	17.35	2,123.10	1,061.55	2,564	1,266.40	4.88	-0.36	0.02
130.50	-13.99	-1.35	0.00	-16.92	0.00	16.92	2,119.56	1,059.78	2,553	1,261.05	4.90	-0.36	0.02
132.00	-12.03	-1.19	0.00	-14.90	0.00	14.90	2,101.72	1,050.86	2,499	1,234.37	5.02	-0.36	0.02
135.00	-11.21	-1.11	0.00	-11.33	0.00	11.33	2,065.33	1,032.67	2,392	1,181.43	5.24	-0.37	0.02

ASSET: 306042, Woods Chapel
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-G
PROJECT: 14863347_C3_03

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
140.00	-5.80	-0.61	0.00	-5.76	0.00	5.76	1,995.73	997.87	2,209	1,090.78	5.63	-0.37	0.01
145.00	-5.16	-0.54	0.00	-2.72	0.00	2.72	1,903.77	951.88	2,009	992.02	6.02	-0.37	0.01
150.00	0.00	-0.51	0.00	0.00	0.00	0.00	1,811.80	905.90	1,818	897.94	6.41	-0.37	0.00

(0.9 - 0.2Sds) * DL + E ELFM Seismic (Reduced DL)

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-50.15	-3.01	0.00	-370.20	0.00	370.20	6,283.69	3,141.85	15,557	7,683.17	0.00	0.00	0.06
5.00	-48.50	-3.02	0.00	-355.16	0.00	355.16	6,215.54	3,107.77	15,068	7,441.50	0.01	-0.01	0.06
10.00	-46.89	-3.02	0.00	-340.08	0.00	340.08	6,144.79	3,072.40	14,579	7,200.24	0.02	-0.02	0.06
15.00	-45.30	-3.03	0.00	-324.95	0.00	324.95	6,071.43	3,035.72	14,092	6,959.61	0.06	-0.04	0.05
20.00	-43.75	-3.03	0.00	-309.80	0.00	309.80	5,995.47	2,997.74	13,607	6,719.80	0.10	-0.05	0.05
25.00	-42.22	-3.03	0.00	-294.64	0.00	294.64	5,916.91	2,958.45	13,123	6,481.00	0.16	-0.06	0.05
30.00	-40.72	-3.03	0.00	-279.49	0.00	279.49	5,835.74	2,917.87	12,642	6,243.42	0.23	-0.07	0.05
35.00	-39.26	-3.02	0.00	-264.35	0.00	264.35	5,751.97	2,875.98	12,164	6,007.26	0.31	-0.09	0.05
40.00	-37.82	-3.01	0.00	-249.26	0.00	249.26	5,665.59	2,832.79	11,689	5,772.72	0.41	-0.10	0.05
45.00	-37.23	-3.00	0.00	-234.22	0.00	234.22	5,576.61	2,788.30	11,218	5,539.99	0.52	-0.11	0.05
47.08	-35.86	-2.98	0.00	-227.96	0.00	227.96	5,538.76	2,769.38	11,022	5,443.60	0.57	-0.12	0.05
50.00	-34.00	-2.95	0.00	-219.27	0.00	219.27	5,485.02	2,742.51	10,751	5,309.27	0.64	-0.13	0.05
54.00	-33.77	-2.95	0.00	-207.47	0.00	207.47	4,089.14	2,044.57	8,016	3,958.64	0.76	-0.14	0.06
55.00	-32.61	-2.92	0.00	-204.52	0.00	204.52	4,077.72	2,038.86	7,951	3,926.82	0.78	-0.14	0.06
60.00	-31.48	-2.90	0.00	-189.90	0.00	189.90	4,019.09	2,009.55	7,630	3,767.96	0.94	-0.16	0.06
65.00	-30.36	-2.87	0.00	-175.40	0.00	175.40	3,957.85	1,978.93	7,309	3,609.72	1.11	-0.17	0.06
70.00	-29.28	-2.84	0.00	-161.04	0.00	161.04	3,894.01	1,947.01	6,990	3,452.29	1.30	-0.19	0.05
75.00	-28.22	-2.80	0.00	-146.85	0.00	146.85	3,827.57	1,913.78	6,674	3,295.88	1.51	-0.20	0.05
80.00	-27.18	-2.76	0.00	-132.85	0.00	132.85	3,758.52	1,879.26	6,359	3,140.67	1.73	-0.22	0.05
85.00	-26.16	-2.71	0.00	-119.07	0.00	119.07	3,686.86	1,843.43	6,048	2,986.87	1.97	-0.24	0.05
90.00	-25.17	-2.66	0.00	-105.52	0.00	105.52	3,612.61	1,806.30	5,740	2,834.68	2.22	-0.25	0.04
95.00	-25.08	-2.65	0.00	-92.23	0.00	92.23	3,535.75	1,767.87	5,435	2,684.29	2.49	-0.26	0.04
95.50	-23.70	-2.57	0.00	-90.91	0.00	90.91	3,527.92	1,763.96	5,405	2,669.36	2.52	-0.27	0.04
100.00	-23.40	-2.55	0.00	-79.36	0.00	79.36	3,456.28	1,728.14	5,135	2,535.92	2.78	-0.28	0.04
101.00	-22.77	-2.51	0.00	-76.81	0.00	76.81	2,422.80	1,211.40	3,656	1,805.62	2.84	-0.28	0.05
105.00	-19.81	-2.28	0.00	-66.79	0.00	66.79	2,386.99	1,193.50	3,504	1,730.29	3.08	-0.29	0.05
110.00	-19.75	-2.28	0.00	-55.37	0.00	55.37	2,339.89	1,169.95	3,314	1,636.54	3.39	-0.31	0.04
110.40	-19.42	-2.26	0.00	-54.46	0.00	54.46	2,336.01	1,168.01	3,299	1,629.06	3.42	-0.31	0.04
111.40	-19.35	-2.25	0.00	-52.20	0.00	52.20	2,326.24	1,163.12	3,261	1,610.39	3.48	-0.31	0.04
111.80	-18.58	-2.19	0.00	-51.30	0.00	51.30	2,322.30	1,161.15	3,246	1,602.93	3.51	-0.31	0.04
114.50	-18.48	-2.18	0.00	-45.40	0.00	45.40	2,295.28	1,147.64	3,144	1,552.71	3.69	-0.32	0.04
114.60	-18.35	-2.17	0.00	-45.19	0.00	45.19	2,294.26	1,147.13	3,140	1,550.85	3.69	-0.32	0.04
115.00	-17.67	-2.11	0.00	-44.32	0.00	44.32	2,290.19	1,145.09	3,125	1,543.43	3.72	-0.32	0.04
116.30	-17.31	-2.07	0.00	-41.58	0.00	41.58	2,276.84	1,138.42	3,076	1,519.35	3.81	-0.33	0.04
118.70	-16.99	-2.05	0.00	-36.60	0.00	36.60	2,251.73	1,125.87	2,987	1,475.06	3.97	-0.33	0.03
120.00	-16.83	-2.03	0.00	-33.95	0.00	33.95	2,237.88	1,118.94	2,938	1,451.17	4.06	-0.33	0.03
121.10	-16.46	-2.00	0.00	-31.71	0.00	31.71	2,226.02	1,113.01	2,898	1,431.00	4.14	-0.34	0.03
122.00	-13.87	-1.74	0.00	-29.92	0.00	29.92	2,216.23	1,108.11	2,864	1,414.54	4.21	-0.34	0.03
125.00	-13.73	-1.72	0.00	-24.70	0.00	24.70	2,182.97	1,091.48	2,754	1,359.95	4.42	-0.34	0.02
126.00	-10.86	-1.42	0.00	-22.98	0.00	22.98	2,171.67	1,085.84	2,717	1,341.85	4.49	-0.35	0.02
130.00	-10.83	-1.42	0.00	-17.30	0.00	17.30	2,125.45	1,062.73	2,572	1,269.97	4.79	-0.35	0.02
130.20	-10.52	-1.38	0.00	-17.02	0.00	17.02	2,123.10	1,061.55	2,564	1,266.40	4.80	-0.35	0.02
130.50	-10.00	-1.33	0.00	-16.60	0.00	16.60	2,119.56	1,059.78	2,553	1,261.05	4.82	-0.35	0.02
132.00	-8.60	-1.16	0.00	-14.61	0.00	14.61	2,101.72	1,050.86	2,499	1,234.37	4.93	-0.36	0.02
135.00	-8.02	-1.09	0.00	-11.12	0.00	11.12	2,065.33	1,032.67	2,392	1,181.43	5.16	-0.36	0.01
140.00	-4.15	-0.60	0.00	-5.66	0.00	5.66	1,995.73	997.87	2,209	1,090.78	5.54	-0.36	0.01
145.00	-3.69	-0.53	0.00	-2.67	0.00	2.67	1,903.77	951.88	2,009	992.02	5.92	-0.37	0.01
150.00	0.00	-0.51	0.00	0.00	0.00	0.00	1,811.80	905.90	1,818	897.94	6.30	-0.37	0.00

(0.9 - 0.2Sds) * DL + E EMAM Seismic (Reduced DL)

ASSET: 306042, Woods Chapel
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-G
PROJECT: 14863347_C3_03

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-50.15	-2.83	0.00	-355.52	0.00	355.52	6,283.69	3,141.85	15,557	7,683.17	0.00	0.00	0.05
5.00	-48.50	-2.83	0.00	-341.38	0.00	341.38	6,215.54	3,107.77	15,068	7,441.50	0.01	-0.01	0.05
10.00	-46.89	-2.82	0.00	-327.24	0.00	327.24	6,144.79	3,072.40	14,579	7,200.24	0.02	-0.02	0.05
15.00	-45.30	-2.81	0.00	-313.13	0.00	313.13	6,071.43	3,035.72	14,092	6,959.61	0.05	-0.03	0.05
20.00	-43.75	-2.80	0.00	-299.06	0.00	299.06	5,995.47	2,997.74	13,607	6,719.80	0.10	-0.05	0.05
25.00	-42.22	-2.79	0.00	-285.04	0.00	285.04	5,916.91	2,958.45	13,123	6,481.00	0.15	-0.06	0.05
30.00	-40.72	-2.78	0.00	-271.09	0.00	271.09	5,835.74	2,917.87	12,642	6,243.42	0.22	-0.07	0.05
35.00	-39.26	-2.76	0.00	-257.21	0.00	257.21	5,751.97	2,875.98	12,164	6,007.26	0.30	-0.08	0.05
40.00	-37.82	-2.74	0.00	-243.42	0.00	243.42	5,665.59	2,832.79	11,689	5,772.72	0.39	-0.10	0.05
45.00	-37.23	-2.73	0.00	-229.72	0.00	229.72	5,576.61	2,788.30	11,218	5,539.99	0.50	-0.11	0.05
47.08	-35.86	-2.71	0.00	-224.03	0.00	224.03	5,538.76	2,769.38	11,022	5,443.60	0.55	-0.11	0.05
50.00	-34.00	-2.67	0.00	-216.13	0.00	216.13	5,485.02	2,742.51	10,751	5,309.27	0.62	-0.12	0.05
54.00	-33.77	-2.67	0.00	-205.46	0.00	205.46	4,089.14	2,044.57	8,016	3,958.64	0.73	-0.13	0.06
55.00	-32.61	-2.64	0.00	-202.79	0.00	202.79	4,077.72	2,038.86	7,951	3,926.82	0.76	-0.14	0.06
60.00	-31.48	-2.62	0.00	-189.57	0.00	189.57	4,019.09	2,009.55	7,630	3,767.96	0.91	-0.15	0.06
65.00	-30.37	-2.60	0.00	-176.47	0.00	176.47	3,957.85	1,978.93	7,309	3,609.72	1.08	-0.17	0.06
70.00	-29.28	-2.58	0.00	-163.47	0.00	163.47	3,894.01	1,947.01	6,990	3,452.29	1.26	-0.18	0.06
75.00	-28.22	-2.55	0.00	-150.59	0.00	150.59	3,827.57	1,913.78	6,674	3,295.88	1.46	-0.20	0.05
80.00	-27.18	-2.53	0.00	-137.83	0.00	137.83	3,758.52	1,879.26	6,359	3,140.67	1.68	-0.22	0.05
85.00	-26.16	-2.50	0.00	-125.19	0.00	125.19	3,686.86	1,843.43	6,048	2,986.87	1.92	-0.23	0.05
90.00	-25.17	-2.48	0.00	-112.67	0.00	112.67	3,612.61	1,806.30	5,740	2,834.68	2.17	-0.25	0.05
95.00	-25.08	-2.48	0.00	-100.27	0.00	100.27	3,535.75	1,767.87	5,435	2,684.29	2.44	-0.26	0.04
95.50	-23.70	-2.44	0.00	-99.03	0.00	99.03	3,527.92	1,763.96	5,405	2,669.36	2.47	-0.27	0.04
100.00	-23.40	-2.43	0.00	-88.05	0.00	88.05	3,456.28	1,728.14	5,135	2,535.92	2.72	-0.28	0.04
101.00	-22.77	-2.41	0.00	-85.62	0.00	85.62	2,422.80	1,211.40	3,656	1,805.62	2.78	-0.28	0.06
105.00	-19.81	-2.30	0.00	-75.97	0.00	75.97	2,386.99	1,193.50	3,504	1,730.29	3.03	-0.30	0.05
110.00	-19.75	-2.31	0.00	-64.45	0.00	64.45	2,339.89	1,169.95	3,314	1,636.54	3.34	-0.31	0.05
110.40	-19.42	-2.29	0.00	-63.53	0.00	63.53	2,336.01	1,168.01	3,299	1,629.06	3.37	-0.31	0.05
111.40	-19.35	-2.29	0.00	-61.24	0.00	61.24	2,326.24	1,163.12	3,261	1,610.39	3.44	-0.32	0.05
111.80	-18.58	-2.25	0.00	-60.32	0.00	60.32	2,322.30	1,161.15	3,246	1,602.93	3.46	-0.32	0.05
114.50	-18.48	-2.25	0.00	-54.23	0.00	54.23	2,295.28	1,147.64	3,144	1,552.71	3.65	-0.33	0.04
114.60	-18.35	-2.25	0.00	-54.01	0.00	54.01	2,294.26	1,147.13	3,140	1,550.85	3.65	-0.33	0.04
115.00	-17.67	-2.21	0.00	-53.11	0.00	53.11	2,290.19	1,145.09	3,125	1,543.43	3.68	-0.33	0.04
116.30	-17.31	-2.19	0.00	-50.24	0.00	50.24	2,276.84	1,138.42	3,076	1,519.35	3.77	-0.33	0.04
118.70	-16.98	-2.17	0.00	-44.98	0.00	44.98	2,251.73	1,125.87	2,987	1,475.06	3.94	-0.34	0.04
120.00	-16.83	-2.17	0.00	-42.15	0.00	42.15	2,237.88	1,118.94	2,938	1,451.17	4.03	-0.34	0.04
121.10	-16.46	-2.14	0.00	-39.77	0.00	39.77	2,226.02	1,113.01	2,898	1,431.00	4.11	-0.35	0.04
122.00	-13.86	-1.97	0.00	-37.84	0.00	37.84	2,216.23	1,108.11	2,864	1,414.54	4.18	-0.35	0.03
125.00	-13.73	-1.96	0.00	-31.94	0.00	31.94	2,182.97	1,091.48	2,754	1,359.95	4.40	-0.36	0.03
126.00	-10.86	-1.73	0.00	-29.98	0.00	29.98	2,171.67	1,085.84	2,717	1,341.85	4.48	-0.36	0.03
130.00	-10.83	-1.72	0.00	-23.08	0.00	23.08	2,125.45	1,062.73	2,572	1,269.97	4.78	-0.37	0.02
130.20	-10.52	-1.69	0.00	-22.73	0.00	22.73	2,123.10	1,061.55	2,564	1,266.40	4.80	-0.37	0.02
130.50	-10.00	-1.64	0.00	-22.23	0.00	22.23	2,119.56	1,059.78	2,553	1,261.05	4.82	-0.37	0.02
132.00	-8.60	-1.50	0.00	-19.76	0.00	19.76	2,101.72	1,050.86	2,499	1,234.37	4.94	-0.37	0.02
135.00	-8.01	-1.42	0.00	-15.27	0.00	15.27	2,065.33	1,032.67	2,392	1,181.43	5.17	-0.38	0.02
140.00	-4.15	-0.86	0.00	-8.16	0.00	8.16	1,995.73	997.87	2,209	1,090.78	5.57	-0.38	0.01
145.00	-3.69	-0.77	0.00	-3.86	0.00	3.86	1,903.77	951.88	2,009	992.02	5.97	-0.39	0.01
150.00	0.00	-0.75	0.00	0.00	0.00	0.00	1,811.80	905.90	1,818	897.94	6.38	-0.39	0.00

ANALYSIS SUMMARY

Load Case	Base Reactions						Max Usage	
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.6W	43.54	0.00	70.83	0.00	0.00	4680.00	54.00	0.64
0.9D + 1.6W	43.52	0.00	53.11	0.00	0.00	4631.05	54.00	0.63
1.2D + 1.0Di + 1.0Wi	17.26	0.00	123.35	0.00	0.00	1594.66	0.00	0.23
(1.2 + 0.2Sds) * DL + E ELFM	3.01	0.00	70.09	0.00	0.00	374.94	54.00	0.06
(1.2 + 0.2Sds) * DL + E EMAM	2.83	0.00	70.09	0.00	0.00	360.23	54.00	0.06
(0.9 - 0.2Sds) * DL + E ELFM	3.01	0.00	50.15	0.00	0.00	370.20	54.00	0.06
(0.9 - 0.2Sds) * DL + E EMAM	2.83	0.00	50.15	0.00	0.00	355.52	54.00	0.06
1.0D + 1.0W	10.82	0.00	59.07	0.00	0.00	1155.76	54.00	0.16

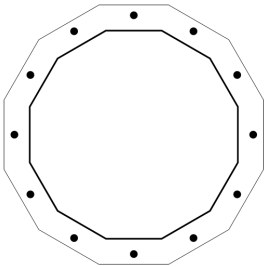
BASE PLATE ANALYSIS @ 0 FT

APPLIED REACTIONS

Moment (k-ft)	Axial (k)	Shear (k)
4680	70.83	43.54

PLATE PARAMETERS (ID# 30134)

Width:	75.14	in
Shape:	12	
Thickness:	2.625	in
Grade:	A871-60	
Yield Strength:	60	ksi
Tensile Strength:	75	ksi
Rod Detail Type:	c	
Clear Distance	-	in
Base Weld Size:	0.125	in
Orientation Offset:	15	°
Analysis Type:	Plastic	
Neutral Axis:	345	°



ANCHOR ROD PARAMETERS

Class	Arrangement	Quantity	Diameter (in)	Circle (in)	Grade	F _y (ksi)	F _u (ksi)	Spacing (in)	Offset (°)
Original [ID#30921]	Radial	12	2.25	69.14	A615-75	75	100	-	-

COMPONENT PROPERTIES

Component	ID	Gross Area (in ²)	Net Area (in ²)	Individual Inertia (in ⁴)	Moment of Inertia (in ⁴)	Threads/in
Pole	60.5"Ø x 0.5" (12 Sides)	93.1749	-	-	41936.48	-
Bolt Group	Original (12) 2.25"Ø	3.9761	3.2477	0.8393	21562.93	4.5

REACTION DISTRIBUTION

Component	ID	Moment M _u (k-ft)	Axial Load P _u (k)	Shear V _u (k)	Moment Factor
Pole	60.5"Ø x 0.5" (12 Sides)	4680.0	70.83	43.54	1.000
Bolt Group	Original (12) 2.25"Ø	4680.0	-	43.54	1.000

BASE PLATE BEND LINE ANALYSIS @ 0 FT

POLE PROPERTIES					PLATE PROPERTIES		
Flat-to-Flat Diameter:	60.75	in	Flat Width:	16.278	in	Neutral Axis:	345 °
Point-to-Point Diameter:	62.89	in	Flat Radians:	0.524	rad	Bend Line Limits:	0.667 to 1.951 rad
Orientation Offset:	15	°					
Bend Line	Chord Length (in)	Additional Length (in)	Section Modulus (in ³)	Applied Moment M _u (k-in)	Moment Capacity ΦM _n (k-in)	Flexure Result M _u /ΦM _n	
Flats	39.624	0.00	68.258	971.3	3685.9	26.4%	✓
Corners	36.126	0.00	62.232	376.3	3360.5	11.2%	✓
Circumferential	56.907	0.00	98.030	1005.6	5293.6	19.0%	✓

PLASTIC ANCHOR ROD ANALYSIS

Class	Group Quantity	Rod Diameter (in)	Applied Axial Load P _u (k)	Applied Shear Load V _u (k)	Compressive Capacity ΦP _n (k)	Interaction Result
Original	12	2.25	230.4	5.4	259.8	92.5% ✓

PIER FOUNDATION ANALYSIS

GLOBAL REACTIONS

Moment (k-ft)	Axial (k)	Shear (k)
4,680.00	70.83	43.54

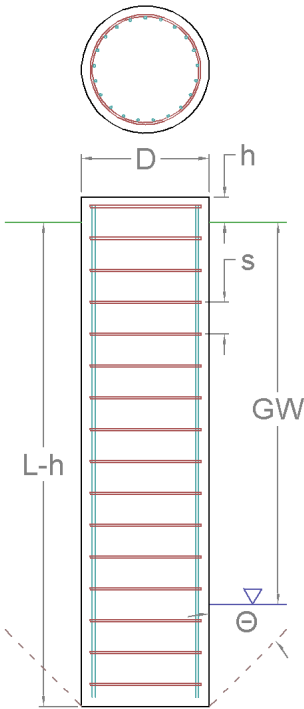
FOUNDATION PARAMETERS

Pier Diameter:	D	8.00	ft
Pier Embedment Depth:	L-h	33.0	ft
Pier Height above Grade:	h	0.50	ft
Concrete Compressive Strength:		3,000	psi
Vertical Rebar:		(32) #9 bars [60 ksi]	
Tie Rebar:	s	#4 bars @ 12.0" c/c [60 ksi]	
Rebar Clear Cover:		3.00	in

SOIL PARAMETERS

Water Table Depth [BGL]:	GW	18	ft
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Layer Depth (ft)		Unit Weight pcf	Cohesion psf	Friction Angle °	Ultimate Skin Friction psf	Ultimate Net Bearing psf
Top	Bottom					
0	1	105	0	0	0	0
1	4	100	250	0	0	0
4	10.5	100	250	0	100	0
10.5	18	135	4,850	0	2,200	0
18	27	135	5,200	0	2,300	0
27	30	135	5,200	0	2,300	0
30	35	135	5,250	0	2,350	15,250



SOIL STRENGTH ANALYSIS

Volume of Concrete (ft³)	Buoyant Weight of Concrete (k)	Skin Friction Resistance (k)	Inflection Point [BGL] (ft)
1,683.89	205.54	1,301.88	22.14

SOIL MOMENT ANALYSIS

Total Lateral Resistance (k)	Moment at Inflection Point, M _u (k-ft)	Additional Resistance (k-ft)	Nominal Moment Capacity, ΦM _n (k-ft)	Soil Moment Usage, M _u / ΦM _n
7,406.56	5,665.65	0.00	32,235.71	17.6%

SOIL COMPRESSION ANALYSIS

Compressive Bearing Resistance (k)	Compressive Force, P _u (k)	Additional Resistance (k)	Nominal Compressive Capacity, ΦP _n (k)	Soil Compressive Usage, P _u / ΦP _n
766.55	122.55	0.00	1,551.32	7.9%

REINFORCING STEEL STRENGTH ANALYSIS

Rebar Cage Diameter (in)	Steel Elastic Modulus, E (ksi)	Strength Bending/Tension Reduction Factor, Φ_b	Strength Shear Reduction Factor, Φ_v	Strength Compression Reduction Factor, Φ_c
87.872	29,000	0.9	0.75	0.65

PIER REINFORCING MOMENT ANALYSIS

Design Moment, M_u (k-ft)	Nominal Moment Capacity, $\Phi_b M_n$ (k-ft)	Bending Reinforcement Ratio	Pier Rebar Flexure Usage, $M_u / \Phi_b M_n$
4,704.09	6,190.86	0.00	76.0%



PIER REINFORCING COMPRESSION ANALYSIS

Buoyant Weight of Concrete (k)	Design Compression, P_u (k)	Nominal Compressive Capacity, $\Phi_p P_n$ (k)	Pier Rebar Compressive Usage, $P_u / \Phi_p P_n$
205.54	122.55	10,553.86	1.2%



PIER REINFORCING SHEAR ANALYSIS

Design Shear, V_u (k)	Nominal Shear Capacity, $\Phi_v V_n$ (k)	Pier Rebar Shear Usage, $V_u / \Phi_v V_n$
399.05	712.79	56.0%

