

May 3, 2018

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

Regarding: Notice of Exempt Modification – Equipment Upgrades

Property Address: 20 Post Office Lane Westport, CT 06880 (aka Maple Ln., per

Town of Westport, CT)

AT&T Site: CT2103 // FA# 100035073

Dear Ms. Bachman:

AT&T currently maintains a wireless telecommunications facility on an existing 142-foot monopole tower at the above-referenced address, latitude 41.12346944, longitude -73.31306111. Said monopole is owned by American Tower Corporation. The existing equipment shelter is 24.5' x 12' totaling 294 square feet.

AT&T desires to modify its existing telecommunications facility by swapping (3) panel antennas, installing three (3) remote radio units, adding (3) low band couplers (diplexers) and adding (1) DC/Fiber Squid with associated cabling as detailed in the enclosed plans by Centek. The centerline height of the existing antenna installation is and will remain at 131 feet. The Structural Analysis completed by Tower Engineering Professionals on January 3, 2018, reflects the addition of (6) Diplexers due to AT&T's leased rights, however, only (3) will be installed on the tower.

Please accept this application as notification pursuant to R.C.S.A. §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. §16-50j-72 (b)(2). In accordance with R.C.S.A. §16-50j-73, a copy of this letter is being sent to The First Selectman of the Town of Westport, the Planning and Zoning Director, tower owner, American Tower Corp., and ground owner, Jay Sherwood.

The planned modifications to AT&T's facility fall squarely within those activities explicitly provided for in R.C.S.A. §16-50j-72 (b)(2). Specifically:

1. The planned modification will not result in an increase in the height of the existing structure. The equipment to be added will be installed at the existing height of 131 feet on the 142-foot tower.

- 2. The proposed modifications will not involve any changes to ground-mounted equipment, and therefore will not require an extension of the site boundary.
- 3. The proposed modification will not increase the noise level at the facility by six decibels or more, or to levels that exceed state and local criteria.
- 4. The operation of the modified facility will not increase radio frequency (RF) emissions at the facility to a level at or above Federal Communications Commission (FCC) safety standard. An RF emissions calculation (enclosed) for AT&T's modified facility is herein provided.
- 5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
- 6. The existing structure and its foundation can support AT&T's proposed modifications (please see enclosed structural analysis completed by Tower Engineering Professionals dated January 3, 2018).

For the foregoing reasons, AT&T respectfully requests that the proposed installation be allowed within the exempt modifications under R.C.S.A. §16-50j-72 (b)(2).

Sincerely,

Kristen White

Kristen White Site Acquisition Specialist

Enclosures: Exhibit 1 – Property Card and GIS Map

Exhibit 2 – Construction Drawings Exhibit 3 – Structural Analysis

Exhibit 4 – RF Emissions Analysis Report Evaluation

cc: Mr. James Marpe, First Selectman, Town of Westport (Municipality)

Ms. Mary Young, Planning and Zoning Director (Municipality)

Mr. Steve Smith, Building Official (Municipality)

Mr. Jay Sherwood (Landowner)

American Tower Corporation (Tower Owner)

Exhibit 1

MAPLE LN

Location MAPLE LN **Mblu** H06/ / 017/000 /

5452217-C SHERWOOD JAY Acct# Owner

Assessment \$919,330 **Appraisal** \$1,313,300

> **PID** 7785 **Building Count** 1

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2015	\$1,253,900 \$59,400 \$1,3		\$1,313,300
	Assessment		
Valuation Year	Improvements	Land	Total
2015	\$877,73	0 \$41,60	919,330

Owner of Record

Owner SHERWOOD JAY Sale Price \$0 Co-Owner Certificate

Address P O BOX 48 **Book & Page** 469/ 137

WESTPORT, CT 06881 Sale Date 12/08/1977

Instrument 29

Ownership History

Ownership History					
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
SHERWOOD JAY	\$0	1	469/ 137	29	12/08/1977

Building Information

Building 1: Section 1

Year Built:

Living Area: 0 Replacement Cost: \$0

Building Percent

Good:

Replacement Cost

Less Depreciation

Less Depreciation.	Φ U	
	Building Attr	ributes
Field Description		
Field Description		

Building Layout

Building Layout

(http://images.vgsi.com/photos2/WestportCTPhotos//Sketches/7

Building Sub-Areas (sq ft)	<u>Legend</u>
No Data for Building Sub-Areas	

Style	Outbuildings
Model	
Grade:	
Stories:	
Occupancy	
Exterior Wall 1	
Exterior Wall 2	
Roof Structure:	
Roof Cover	
Interior Wall 1	
Interior Wall 2	
Interior Flr 1	
Interior Flr 2	
Heat Fuel	
Heat Type:	
AC Type:	
Total Bedrooms:	
Total Bthrms:	
Total Half Baths:	
Total Xtra Fixtrs:	
Total Rooms:	
Bath Style:	
Kitchen Style:	
Kitchens	
Whirlpool Tubs	
Hot Tubs	
Sauna (SF Area)	
Fin Basement	
Fin Bsmt Qual	
Bsmt. Garages	
Interior Cond	
Fireplaces	
Ceiling Height	
Sprinklers	
Acc Apts	

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use		Land Line Valua	tion
Use Code	100	Size (Acres)	2.07
Description	Res Vacant Lnd	Frontage	0
Zone	AAA	Depth	0
Neighborhood	140	Assessed Value	\$41,600
Alt Land Appr	No	Appraised Value	\$59,400
Category			

Outbuildings

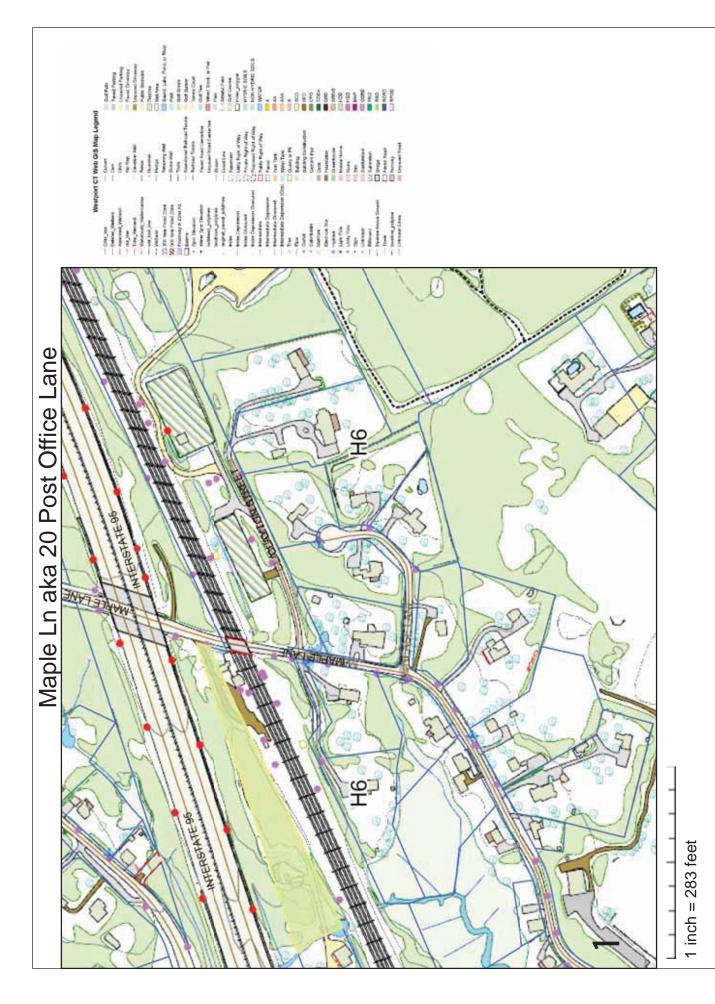
			Outbuildings			<u>Legend</u>
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
CELL	Cell on TWR	TW		5 Sites	\$1,253,900	1

Valuation History

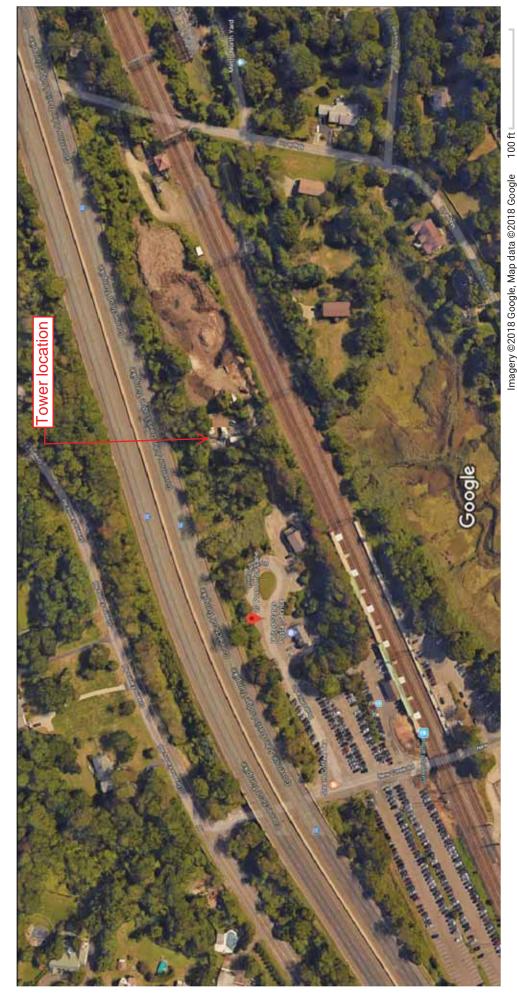
Appraisal			
Valuation Year	Improvements	Land	Total
2017	\$1,253,900	\$59,400	\$1,313,300
2016	\$1,253,900	\$59,400	\$1,313,300
2014	\$818,000	\$54,625	\$872,625

Assessment			
Valuation Year	Improvements	Land	Total
2017	\$877,730	\$41,600	\$919,330
2016	\$877,730	\$41,600	\$919,330
2014	\$572,600	\$38,200	\$610,800

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Westport and its mapping contractors assume no legal responsibility for the information contained herein.



Imagery ©2018 Google, Map data ©2018 Google



Exhibit 2

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WIRELESS COMMUNICATIONS FACILITY 19-20 POST OFFICE LANE WESTPORT, CT 06880 **WESTPORT SOUTH** CT2103 - LTE 3C

GENERAL NOTES

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- CONTRACTOR SHALL PROVIDE A COMPLETE BUILD—OUT WITH ALL FINISHES, STRÜCTIVEN, MECHANICAL, AND ELECTRICAL, COMPONENTS AND PROVIDE ALL TIEMS AS SHOWN OR INDICATED ON THE DRAWNINGS OR IN THE WRITTEN SPECIFICATIONS.
 - CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR AND EQUIPMENT TO COMPIETE THE WORK AND FURNISH A COMPLETED JOB ALL IN ACCORDANCE WITH LOCAL AND STATE GOVERNIC AUTHORITIES AND OTHER AUTHORITIES HANNG LAWFUL JURISDICTION OVER THE WORK.
- CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND ALL MISPECTIONS REQUIRED FOR THE GENERAL CONSTRUCTION, PLUMBING, ELECTRICAL, AND HVAC. PERMITS SHALL BE PAID FOR BY THE RESPECTIVE SUBCONTRACTORS.
- LOCATION OF EQUIPMENT, AND WORK SUPPLED BY OTHERS THAT IS DIAGRAMATICALLY INDICATE OF THE DEPARTMENT SHALL BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR SHALL BETERMINE LOCATIONS AND DIMENSIONS SUBJECT TO STRUCTURAL CONDITIONS AND DIMENSIONS SUBJECT TO STRUCTURAL CONDITIONS AND WORK OF THE SUBCONTRACTORS. COOPREGORE SALL MARKHAN A CHERTHY SET OF DRAWNINGS NO SPECIFICATIONS ON SITE AT ALL THES AND INSURE DISTRIBUTION OF INSUR DRAWNESS OF SURCEMENDES AND OTHER BELEVANT PARTIES. WHICH SHAPE SHAPE
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 - 11. ALL UTILITY WORK SHALL BE IN ACCORDANCE WITH LOCAL UTILITY COMPANY REQUIREMENTS AND SPECIFICATIONS.
- 12. ALL GOUNDART AND PROSPORTS DEVENSED BY CONFIDENCE OF SECULOR SEC
 - CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON—SITE SAFETY FROM THE TIME THE UBB IS AWARDED UNTIL ALL WORK IS COMPLETE AND ACCEPTED BY THE OWNER.
 - - 15. CONTRACTOR TO REVIEW ALL SHOP DRAWINGS AND SUBMIT COPY TO ENRINER FOR APPROVAL, DRAWINGS MUST BEAR THE CHECKEYS INITIALS BEFORE SUBMITTING TO THE CONSTRUCTION MANAGER FOR REVIEW.
- THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, ANGLES, AND EXISTING CONDITIONS AT THE SITE, PRIOR TO FABRICATION AND/OR INSTALLATION OF ANY WORK IN THE CONTRACT AREA.
 - COORDINATION, LAYOUT, FURNISHING AND INSTALLATION OF CONDU AND ALL APPLITEDANCES REQUIRED FOR PROPER INSTALLATION C ELECTRICAL AND TELECOMMUNICATION SERVICE SHALL BE THE SOL RESPONSIBILITY OF THE CONTRACTOR.
- ALL DAMAGE CAUSED TO ANY EXISTING STRUCTURE SHALL BE THE SOLE REPOSSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE HELD LUABE FOR ALL REPARS REQUIRED FOR EXISTING STRUCTURES IF DAMAGED DURING CONSTRUCTION ACTIVITIES. ALL EQUIPMENT AND PRODUCTS PURCHASED ARE TO BE ENVENDED TO CONTRACTOR AND ALL APPLICABLE SUB-CONTRACTORS FOR ANY CONDITION PER THE MANUFACTURER'S SCHOMENDATIONS, CONTRACTOR SUPPLY THESE ITEMS AT NO COST TO OWNER, OR CONSTRUCTION MANUFACE.
 - THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" AT LEAST 48 HOURS PRONT D'ANY EXCHANIONS AT 1-800-2022-4453. ALL UNILIES SHALL BE DESTRIFED AND CLEARLY MARKED PRIOR TO ANY EXCHANION WORK. CONTRACTOR STALL MANION WORD PROTECT TO AN MARKED UTLIES THROUGHOUT PROJECT COMPLETION.
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• NETALL LOW BOND COMBINES (TOTAL OF 3)

• NETALL LOW BOND COMBINES (TOTAL OF 3)

at&t

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EMPIRE telecom

PROJECT INFORMATION MAY STE NAME: C2103 ACR STE NAME. WESTHORT SITE ADDRESS. 19–20 POST GPICE LANE WESTHORT, GT 06850

CT2103 - LTE 3C

HTUOS TROGTS SW

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SHT. NO.	DESCRIPTION	REV.
T-1	TITLE SHEET	0
N-1	NOTES, SPECIFICATIONS AND ANTENNA SCHEDULE	0
C-1	PLANS AND ELEVATION	0
C-2	ANTENNA CONFIGURATION DETAILS	0
C-3	DETAILS	0
E-1	SCHEMATIC DIAGRAM AND NOTES	0
E-2	WIRING DIAGRAM	0
E-3	TYPICAL ELECTRICAL DETAILS	0

DATE: SCALE: JOB NO

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NOTES, SPECIFICATIONS AND ANTENNA SCHEDULE	0	
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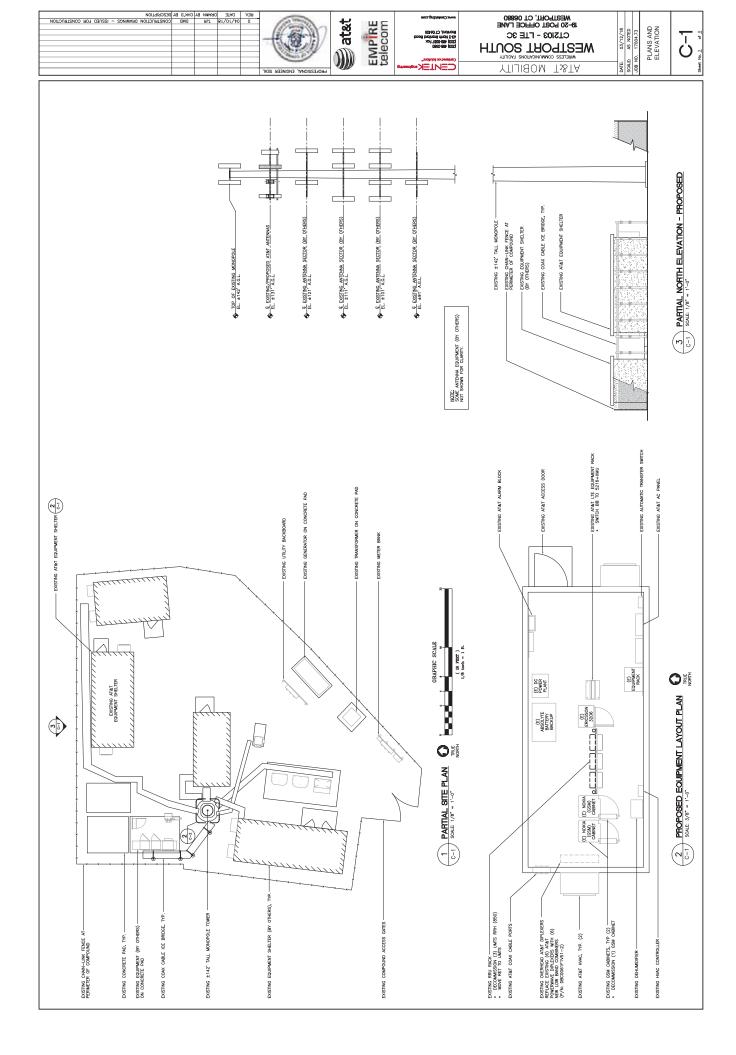
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11 All DAMAGE CALISED	TO ANY EVIETING	CTD I CTD I CTD	JIVS JAL JO LIVE	æ.	18. COMMENCEMENT OF STRUCTURAL STEEL WORK WITHOUT NOTIFYING THE ENGINEER			Su		
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CONSTRUCTION ACTIVITY	TES.	a canociones	DAMAGED DOMING	\$	 INSPECTION AND TESTING OF ALL WELDING AND HIGH STRENGTH BOLTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING LABORATORY. 	4. APPLY EACH COAT OF PAINT SLIGHTLY DARKER THAN PRECEDING COAT UNLESS OTHERWISE APPROVED.	COAT UNLESS	Bue)		
12. SHOP DRAWINGS, CON	CRETE MIX DESIGN	VS, TEST REPOR	DRTS, AND OTHER SUBMITTALS		OF CT OF CORPS OF ALL INSECTION TEST BEDONE SHALL BE SHEWLIND TO			=K	ىد.	шо
REVIEW REFORE FABRI	TURAL WORK SHA	LL BE FORWARI	ODED TO THE OWNER FOR		ENGINEER WITHIN TEN (10) WORKING DAYS OF THE DATE OF INSPECTION.		ć	Т	aliuloi	rður
SHALL INCLUDE EREC	TION DRAWINGS AN	ID COMPLETE C	MENTER BED OF FEBRUARION PROMICES AND COMPLETE DETAILS OF CONNECTIONS AS SHALL INCLUDE ERECTION DRAWINGS AND COMPLETE DETAILS OF CONNECTIONS AS UNANITORED PROPERTY OF THE WASHINGTON TO BE ADMINISTRATION OF THE WILLIAM STATES AND CONNECTIONS AS THE CONDUCTION OF THE WILLIAM STATES AND CONNECTIONS AS THE CONDUCTION OF THE WILLIAM STATES AND CONNECTIONS AS THE CONTROL OF THE WILLIAM STATES AND CONNECTIONS AS THE CONTROL OF THE WASHINGTON OF THE WILLIAM STATES AND CONNECTIONS AS THE WASHINGTON OF THE WASHINGTON OF THE WILLIAM STATES AND CONNECTIONS AS THE WASHINGTON OF THE WASHINGTON O			VACUUM CLEAN SURFACES FREE OF LOOSE PARTICLES. USE TACK CLOTH JUST PRIOR TO APPLYING NEXT COAT.	CLOTH JUST	N	4 on \$	detre
DRAWINGS SHALL BE	CHECKED BY THE	CONTRACTOR A	AND BEAR THE CHECKER'S			7. ALLOW APPLIED COAT TO DRY BEFORE NEXT COAT IS APPLIED.				O.ww-
	OB TABING ON F	NEVIEW.	THE COLIDARY			COMPLETED WORK:)	9 20 10 10 10 10 10 10 10 10 10 10 10 10 10	
13. NO DRILLING WELDING OR JAPTING ON EVERSOURCE OWNED EQUIPME	OR IMPING ON E	MOTES AND BE	WINED EQUIPMENT.			1. SAMPLES: PREPARE 24" X 24" SAMPLE AREA FOR REVIEW.				
	TON ADDITIONAL	MOLES AND A	regoingment 3.			2. MATCH APPROVED SAMPLES FOR COLOR, TEXTURE AND COVERAGE.	REMOVE REFINISH			
						OR REPAINT WORK NOT IN COMPLIANCE WITH SPECIFIED REQUIREMENTS.	ENTS.		Н.	
									ΤŮ	
								<u> </u>	JC JC	Ue
		PROPOSE	Ω	AAN	ANTENNA AND APPURTENANCE SCHEDULE			<u> </u>	7 =C 96 = 98 93 = St	900
								9(ми Т П П	10
Ah	ANTENNAS					APPURTENANCES		MC	90 - 80	,TRO°
		Orași Orași	200 000	9	Charles terminals tradent fectors		LOVE CARLES	T.%	TPSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS	1824
(M)	MAKE & MODEL	(AGL)	IECHNOLOGY	SUMICS	IMA (411) DIFLEXER/IMPLEAER (41	(411)	FEEDER ITE	ТА	3-61 SE	Α.
	Æ (7770)	131,	850	z	PWAV: LGP 21401 (DUAL BAND - 850 BYPASS) (2) PWAV: LGP 21901 (2)		18s COAX (2)	_	4	
O' QUINTEL (C	(0566512-2)	131,	LTE WCS	NEW	KAELUS: DBC0061F1V51-2	2 (2) RRUS-32 (1)	FIBER AND DC POWER	=	٨	_
				1	(ONLY (1) KAELUS DIRLEXER ON TOWER	TOWER		=		_

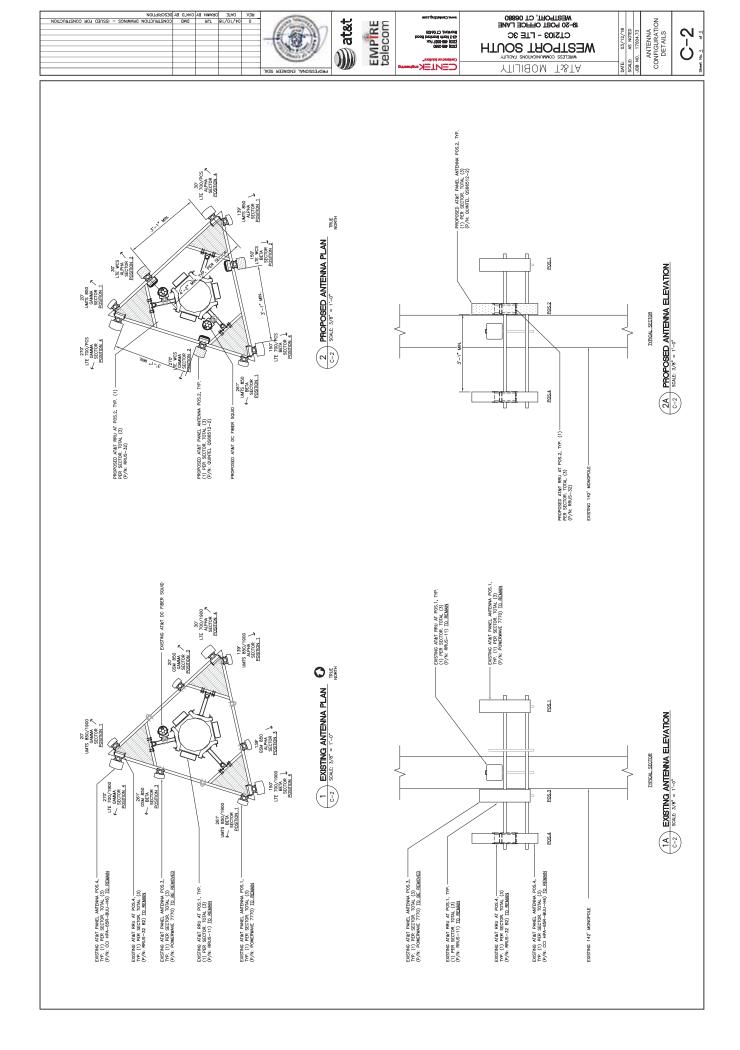
PROPOSED ANTENNA AND APPURTENANCE SCHEDULE

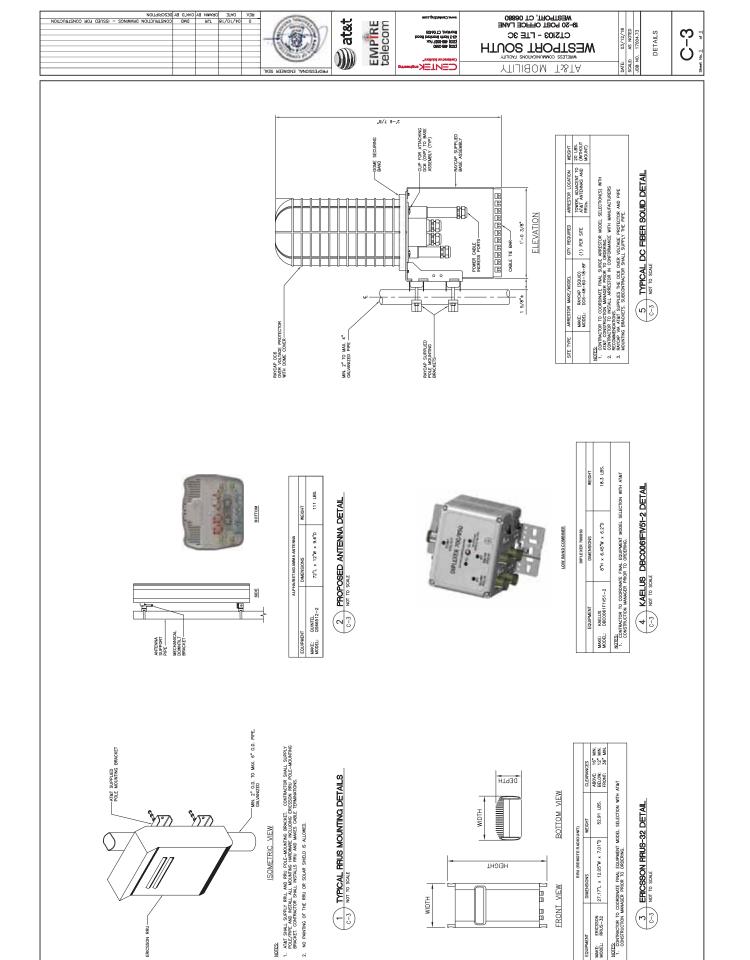
				ANTENNAS					APPURTENANCES	S	
SECTOR	POSITION	AZIMUTH	DOWNTILT (M)	MAKE & MODEL	RAD CENTER (AGL)	TECHNOLOGY	STATUS	(סדי) אור	DIPLEXER/TRIPLEXER (QTY)	RRU (QTY)	FEEDER TYPE
ALPHA	P0S. 1	139*	ь	POWERWAVE (7770)	131,	UMTS 850	REMAIN	PWAV: LGP 21401 (DUAL BAND - 850 BYPASS) (2)	PWAV: LGP 21901 (2)		1\$p COAX (2)
ALPHA	P0S. 2	30.	.0	QUINTEL (QS66512-2)	131,	LTE WCS	NEW		KAELUS: DBC0061F1V51-2 (2)	RRUS-32 (1)	FIBER AND DC POWER
									(ONLY (1) KAELUS DIPLEXER ON TOWER:		
ALPHA	P0S. 4	30.	ь	CCI (HPA-65R-BUU-H6)	131,	LTE 700/PCS	REMAIN		REMAINDER ON GROUND)	RRUS-11 (1), RRUS-32 B2 (1)	FIBER AND DC POWER
BETA	POS. 1	.192	ь	POWERWAVE (7770)	131.	UMTS 850	REMAIN	PWAV: LGP 21401 (DUAL BAND - 850 BYPASS) (2)	PWAV: LGP 21901 (2)		18s COAX (2)
BETA	P0S. 2	150	ь	QUINTEL (QS66512-2)	131,	LTE WCS	NEW		KAELUS: DBC0061F1V51-2 (2)	RRUS-32 (1)	FIBER AND DC POWER
									(ONLY (1) KAELUS DIPLEXER ON TOWER:		
BETA	P0S. 4	150*	٥	CCI (HPA-65R-BUU-H6)	131,	LTE 700/PCS	REMAIN		REMAINDER ON GROUND)	RRUS-11 (1), RRUS-32 B2 (1)	FIBER AND DC POWER
GAMMA	POS. 1	20.	ь	POWERWAVE (7770)	131,	UMTS 850	REMAIN	PWAV: LGP 21401 (DUAL BAND - 850 BYPASS) (2)	PWAV: LGP 21901 (2)		18p COAX (2)
GAMMA	P0S. 2	270	٥	QUINTEL (QS66512-2)	131,	LTE WCS	NEW		KAELUS: DBC0061F1V51-2 (2)	RRUS-32 (1)	FIBER AND DC POWER
									(ONLY (1) KAELUS DIPLEXER ON TOWER:		
GAMMA	POS. 4	270	.6	CCI (HPA-65R-BUU-H6)	131,	LTE 700/PCS	REMAIN		REMAINDER ON GROUND)	RRUS-11 (1), RRUS-32 B2 (1)	FIBER AND DC POWER

DATE: 03/12/16
SCALE: AS NOTED
JOB NO. 17004.73
NOTES,
SPECIFICATIONS
AND ANTENNA
SCHEDULE

Sheet No. 2 of 8







\$727

ISOMETRIC VIEW

\$777

ERICSSON RRU-

BOTTOM VIEW

1,88 88,1 FRONT VIEW

WIDTH

WIDTH

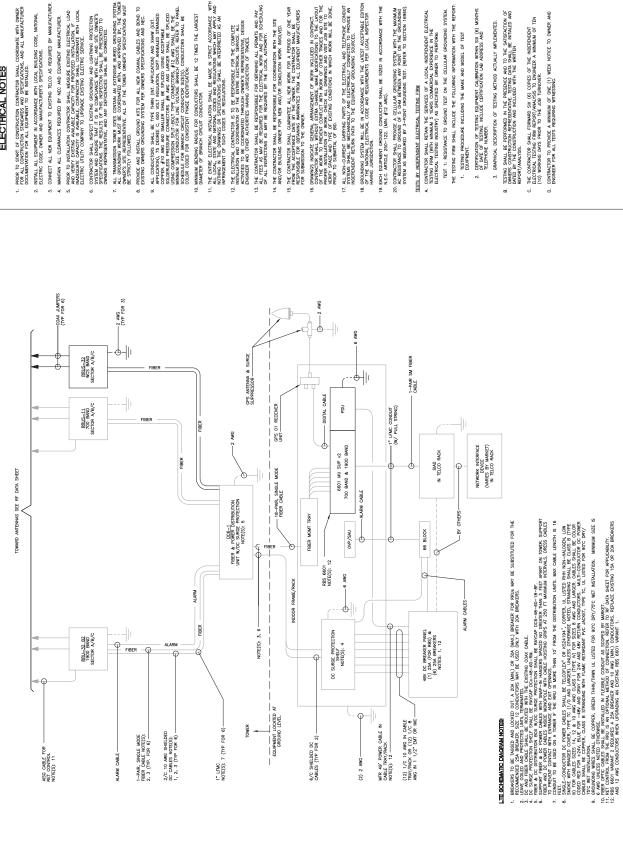
HEICHT

52.91 LBS.

27.17"L × 12.05"W × 7.01"D

MAKE: ERICSSON MODEL: RRUS-32

S ERICSSON RRUS-32 DETAIL



ELECTRICAL NOTES

DESCRIBLION

CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION

ALT NWA90

at&t

EMPIRE telecom

- 17. AL NON-CURRENT CARRING PARTS OF THE ELECTRICAL AND TELEPHONE CONDUIT SYSTEMS SHALL BE INCROMOLALY AND ELECTROCALY CONNECTED TO PROVIDE AN INDEPENBAT RETURN PART TO THE EQUIPALENT GROUNDING SOURCES.

CENTEK

- B. TESTING SHALL BE PERFORMED IN THE PRESENCE AND TO THE SATISFACTION OF OWNERS CONSTRUCTION REPRESENTATIVE. TESTING DIATA SHALL BE INITIALED AND DATED BY THE CONSTRUCTION AND INCLUDED WITH THE WRITTEN REPORT/AMALYSIS.

CT2103 - LTE 3C 19-20 POST OFFICE LANE WESTPORT, CT 06880

HTUOS TRO9TS 3W

T&TA

MOBILITY

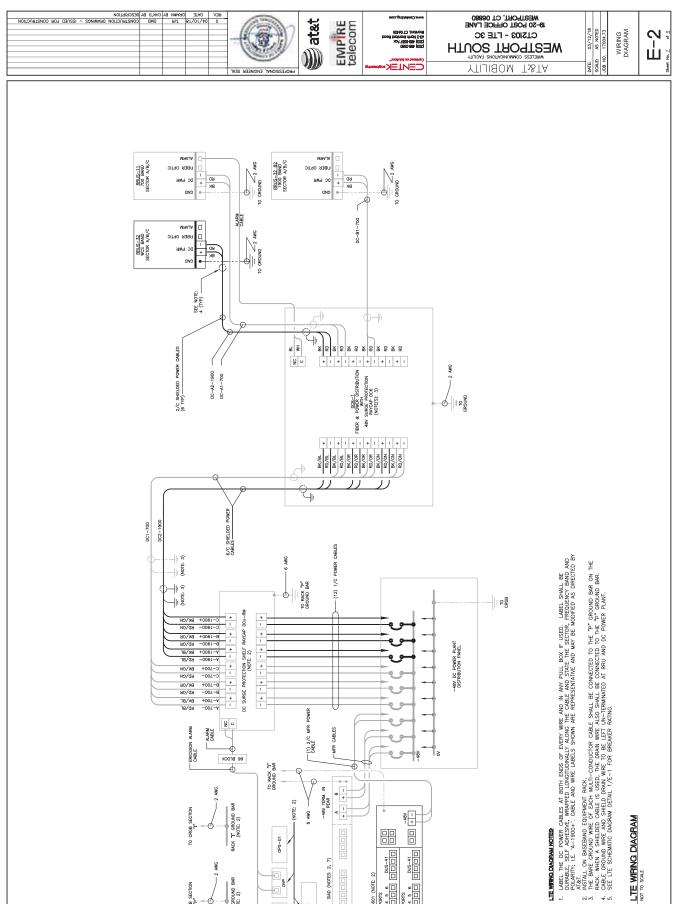
- THE CONTRACTOR SHALL FORWARD SIX (6) COPIES OF THE INDEPENDENT ELECTRICAL TESTING FIRM REPORT/ANALYSIS TO ENGINEER A MINIMUM OF TEN (10) WORKING DAYS PROOF TO THE JOB TURKNOVER.
- CONTRACTOR TO PROVIDE A MINIMUM OF ONE (1) WEEK NOTICE TO OWNER AND ENGINEER FOR ALL TESTS REQUIRING WITNESSING.

山

SCHEMATIC DIAGRAM AND NOTES

SCALE:

LTE SCHEMATIC DIAGRAM



(1) 2/C MFR POWER CABLE

-MFR CABLES

-48V TERM. IN REAR

SIAD (NOTES: 2, 7)

-48v

N O

99 Brock

RACK T GROUND BAR (NOTE: 2)

RACK "P" GROUND BAR (NOTE: 2) 6

TO RACK "T" GROUND BAR

(NOTE: 2)

GPS-01

6 AWG

- ERICSSON ALARM CABLE

CABLE

— 2 AWG

6



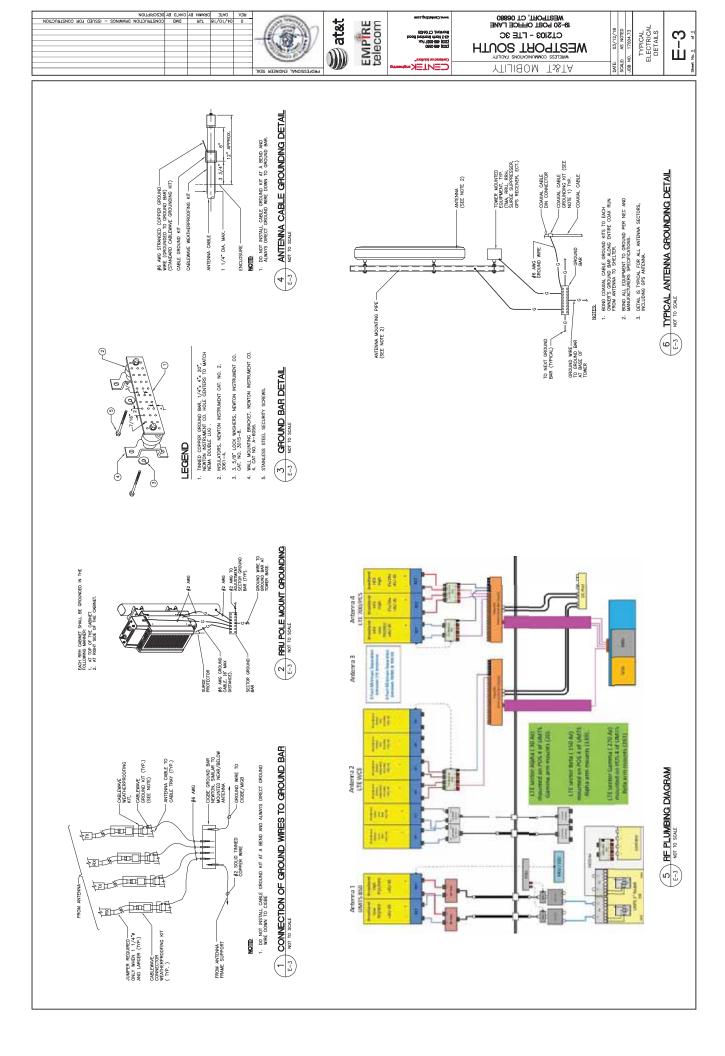


Exhibit 3



AMERICAN TOWER

CORPORATION

This report was prepared for American Tower Corporation by



TOWER
ENGINEERING
PROFESSIONALS

Structural Analysis Report

Structure

: 142 ft Monopole

ATC Site Name

: WSPT - South, CT

ATC Site Number

: 302511

Engineering Number

: OAA720395_C3 01

Proposed Carrier

: AT&T Mobility

Carrier Site Name

: SNET 5641-0109

Carrier Site Number

: CT2103

Site Location

: 20 Post Office Lane

Westport, CT 06880-6226

41.123400,-73.313100

County

: Fairfield

Date

: January 3, 2018

Max Usage

: 92%

Result

: Pass

Prepared By: Charles Cages, E.I.

Reviewed By:

TEP

Charles Coges

COA: PEC.0001553

01/03/2018



Table of Contents

Introduction	1
Supporting Documents	. 1
Analysis	1
Conclusion	1
Existing and Reserved Equipment	2
Equipment to be Removed	. 2
Proposed Equipment	. 3
Structure Usages	
Foundations	
Deflection, Twist, and Sway	
Standard Conditions	
Calculations	Attached



Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 142 ft monopole to reflect the change in loading by AT&T Mobility.

Supporting Documents

Tower Drawings	SpectraSite Site #CT-0047, dated August 12, 2005
Foundation Drawing	Mapping by TEP Project #65218-72422, dated December 28, 2015
Geotechnical Report	MB&A Project #011105, dated July 17, 2001
Modifications	ATC Job #42046633, dated October 16, 2008
	ATC Job #46844332/46993332, dated April 15, 2011

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:	93 mph (3-Second Gust, V _{ASD}) / 120 mph (3-Second Gust, V _{IIIT})
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 3/4" radial ice concurrent
Code:	ANSI/TIA-222-G / 2012 IBC / 2016 Connecticut State Building Code
Structure Class:	II
Exposure Category:	C
Topographic Category:	1
Spectral Response:	Ss = 0.22, S ₁ = 0.07
Site Class:	D - Stiff Soil

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 contact American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.



Existing and Reserved Equipment

Elevation		Qty	Antenna		(2)	
Mount	RAD	Qty	Antenna	Mount Type	Lines	Carrier
136.0	140.0	3	Kathrein 742-218 / AP20- 1940/045D/ADT/XP	Flush	(6) 1 5/8" Coax	Metro PCS
	136.0	3	RCU (Remote Control Unit)		(1) 3/8" Coax	Medores
		12	Powerwave 7020.00 Dual Band RET			
		12	Powerwave LGP21401			722222340
1000		1 Raycap DC6-48-60-18-8F ("Squid")		WASSE ATT - 1 SAN VOTE - 1		
131.0	131.0			Platform w/ Handrails	(12) 1 1/4" Coax (2) 0.65" 8 AWG 2C	AT&T Mobility
			(2) 0.65" 8 AWG 2C	AT&T Mobility		
		3	Powerwave 7770.00			
		3	CCI HPA-65R-BUU-H6			
		2	DragonWave Horizon Compact			
		3	NextNet BTS-2500			
		3	Argus LLPX310R			Clearwire
		2	DragonWave A-ANT-18G-2-C			
		3	Alcatel-Lucent RRH2x50-08		(4) 1 1/4" Hybriflex	
120.0	120.0	3	Alcatel-Lucent 800MHz 2X50W RRh w/ Filter	Platform w/ Handrails	(6) 5/16" Coax (2) 1/2" Coax	
120.0 120.0		3	Alcatel-Lucent 1900MHz 4x45 RRH	-	(1) 2" Conduit	Sprint Nextel
		3	Alcatel-Lucent TD-RRH8x20-25 w/ Solar Shield		(1) 2 Conduit	
			3	RFS APXVSPP18-C-A20		
	3	Commscope DT465B-2XR				
111.0	111.0	9	48" x 8" Panel	Platform w/ Handrails	(12) 7/8" Coax (1) 1/2" Coax	
		6	RFS FD9R6004/1C-3L		(1) 1/2 COax	
		3	Alcatel-Lucent RRH2x40-AWS			
		3	Rymsa MGD3-800TX			
100.0	100.0	3	Antel BXA-171063/12CF 2 FP	Platform w/ Handrails	(12) 1 5/8" Coax	Voringe
		1	RFS DB-T1-6Z-8AB-0Z	r asserti wy rianarans	(1) 1 5/8" Hybriflex	Verizon
		3	Antel BXA-70080/6CF			
		3	Powerwave P65-16-XL-2			
		4	RFS ATMAA1412D-1A20			
90.0	90.0	3	Ericsson RRUS 11 B12	Platform w/ Handrails	(14) 1 5/8" Coax	T-Mobile
		4	Ericsson AIR 21, 1.3 M, B2A B4P			
		3	Ericsson AIR 21, 1.3M, B4A B2P		(1) 1 1/4" Fiber	i-ivlobile
		3	Andrew LNX-6515DS-VTM			
80.0	80.0	2	Diamond X50A	Stand-Offs	(2) 1/2" Coax	Const
63.0	63.0	1	PCTEL GPS-TMG-HR-26N	Stand-Off	(1) 1/2" Coax	Senet Sprint Nextel

Equipment to be Removed

Elevation	on¹ (ft)					
Mount	RAD	Qty	Antenna	Mount Type	Lines	Carrier
131.0	131.0	3	Powerwave 7770.00			
		-	1 OWEI WAVE 7770.00	-7-	(1) 0.28" RG-6	AT&T Mobility



Proposed Equipment

Elevation	on¹ (ft)		140 6704 247	15 February 15 Sept.		
Mount	RAD	Qty	Antenna	Mount Type	Lines	Carrier
		6	Kaelus DBC0061F1V51-2		(2) 0.78" 8 AWG 6	
131.0	ALC: SHOOL	TERMS.	1 Raycap DC6-48-60-18-8F ("Squid")	(1) 0.39" Fiber Trunk		
	131.0	3	Ericsson RRUS 32 w/ Solar Shield (52.9 lbs)	Platform w/ Handrails		AT&T Mobility
		3	Quintel QS66512-2		(1) 2" Conduit	

¹Mount elevation is defined as height above bottom of steel structure to the bottom of mount, RAD elevation is defined as center of antenna above ground level (AGL).

Install proposed coax inside the pole shaft.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail	
Anchor Bolts	83%	Pass	
Shaft	92%	Pass	
Base Plate	64%	Pass	
Flanges	38%	Pass	
Reinforcement	79%	Pass	

Foundations

Reaction Component	Analysis Reactions	% of Usage
Moment (Kips-Ft)	3,805.7	41%
Axial (Kips)	92.5	13%
Shear (Kips)	41.0	18%

The structure base reactions resulting from this analysis were found to be acceptable through analysis based on geotechnical and foundation information, therefore no modification or reinforcement of the foundation will be required.

Deflection and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation)
	Kaelus DBC0061F1V51-2		1.7	1
	Raycap DC6-48-60-18-8F ("Squid")			
131.0	Ericsson RRUS 32 w/ Solar Shield (52.9 lbs)	AT&T Mobility	2.068	1.798
	Quintel QS66512-2			
120.0 DragonWave A-ANT-18G-2-C		Clearwire	1.727	1.753

^{*}Deflection and Sway was evaluated considering a design wind speed of 60 mph (3-Second Gust) per ANSI/TIA-222-G



Standard Conditions

All engineering services performed by A.T. Engineering Service, PLLC 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 A.T. Engineering Service, PLLC

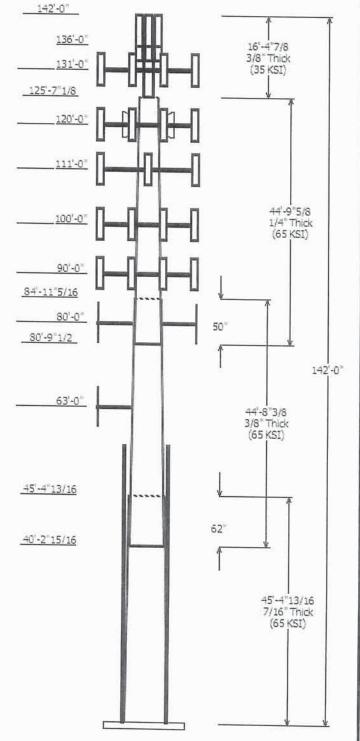
It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete.

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 A.T. Engineering Service, PLLC, 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. A.T. Engineering Service, PLLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.

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Job Information

Code: ANSI/TIA-222-G

Pole: 302511

Location : WSPT - South, CT Description : 142 ft EEI Monopole

Client: AT&T MOBILITY Struct Class: II
Shape: 12 Sides Exposure: C
Height: 142.00 (ft) Topo: 1

Base Elev (ft): 0.00

Taper: 0.21263@in/ft)

Sections Properties											
Shaft Section	Length (ft)		eter (in) ss Flats Bottom	Thick (in)	Joint Type	Overlap Length (in)		Steel Grade (ksi)			
1	45.400	35.34	45.00	0.438		0.000	12 Sides	65			
2	44.700	27.68	37.19	0.375	Slip Joint		12 Sides				
3	44.800	19.54	29.07		Slip Joint		12 Sides				
4	16.407	10.75	10.75		Butt Joint	0.000	Round	10.74			

-		Disc	rete Appurtenance
Attach Elev (ft)	Force Elev (ft)	Qty	Description
136.000	136.000	3	RCU (Remote Control Unit)
136.000	140.000	3	Kathrein Scala 742-218 / AP20-
131.000	131.000	3	Quintel QS66512-2
131.000	131.000	3	Ericsson RRUS 32 w/ Solar Shie
131.000	131.000	1	Raycap DC6-48-60-18-8F
131.000	131.000	6	Kaelus DBC0061F1V51-2
131.000	131.000	3	Ericsson RRUS 32 B2
131.000	131.000	3	CCI HPA-65R-BUU-H6
131.000	131.000	12	Powerwave Allgon LGP21401
131.000	131.000	1	Raycap DC6-48-60-18-8F
131.000	131.000	3	Ericsson RRUS-11 (50 lbs.)
131.000	131.000	12	Powerwave Allgon 7020.00
131.000	131.000	3	Powerwave Aligon 7770.00
131.000	131.000	1	Flat Platform w/ Handrails
120.000	120.000	3	Commscope DT465B-2XR
120.000	120.000	3	Alcatel-Lucent RRH2x50-08
120.0 00	120.000	3	Alcatel-Lucent TD-RRH8x20-25
120.000	120.000	3	Alcatel-Lucent 800 MHz 2X50W
120.000	120.000	3	Alcatel-Lucent 1900 MHz 4x45
120.000	120.000	3	RFS APXVSPP18-C-A20
120.000	120.000	3	Argus LLPX310R
120.000	120.000	2	DragonWave Horizon Compact
120.000	120.000	2	DragonWave A-ANT-18G-2-C
120.000	120.000	3	NextNet BTS-2500
120.000	120.000	1	Flat Platform w/ Handrails
111.000	111.000	1	Flat Platform w/ Handrails
111.000	111.000	9	48" x 8" Panel
100.000	100.000	3	Antel BXA-171063/12CF2 FP
100.000	100.000	3	Antel BXA-70080/6CF
100.000	100.000	1	RFS DB-T1-6Z-8AB-0Z
100.000	100.000	3	Alcatel-Lucent RRH2x40-AWS
100.000	100.000	6	RFS FD9R6004/1C-3L
100.000	100.000	3	Powerwave Allgon P65-16-XL-
100.000	100.000	3	Rymsa MGD3-800TX
100.000	100.000	1	Flat Platform w/ Handrails
90.000	90.000	3	Andrew LNX-6515DS-VTM
90.000	90.000	3	Ericsson RRUS 11 B12
90.000	90.000	3	Ericsson AIR 21, 1.3M, B4A B2P
90.000	90.000	4	Ericsson AIR 21, 1.3 M, B2A B4
90.000	90.000	4	RFS ATMAA1412D-1A20
000.00	90.000	1	Flat Platform w/ Handrails
80.000	80.000	2	Stand-Offs
80.000	80.000	2	Diamond X50A
63.000	63.000	1	Stand-Off

	0 0 0 0
4°7/8 Thick KSI)	000000000000000000000000000000000000000
44'-9"5/8 1/4" Thick (65 KSI)	0. 0. 0. 0. 0. 0.
₩ 142'	1. 0. 1. (1 (1) (0) (0)
3"3/8 Thick KSI)	Lc 1. 0. 1. (1 (1) (0) (0)
	F

16'-4"7/8 3/8" Thick (35 KSI)

50"

62"

44'-8"3/8 3/8" Thick (65 KSI)

45'-4"13/16 7/16" Thick (65 KSI)

142'-0"

125'-7"1/8

136'-0°

131'-0"

120'-0"

111'-0"

100'-0"

90'-0"

80'-0"

63'-0"

84'-11"5/16

80'-9"1/2

45'-4"13/16

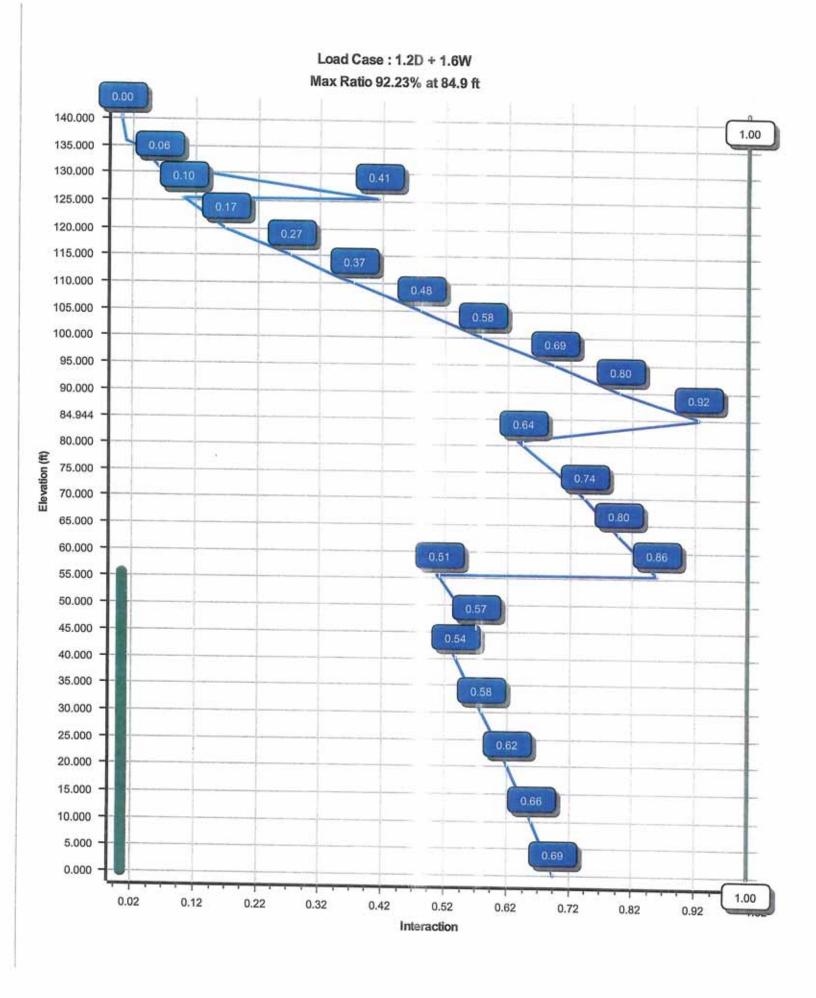
40'-2"15/16

Linear Appurtenance										
Elev From	(ft) To	Description	Exposed To Wind							
0.000	63.000	1/2" Coax	No							
0.000	63.000	DYWIDAG	Yes							
0.000	80.000	1/2" Coax	Yes							
0.000	90.000	1 1/4" Fiber	No							
0.000	90.000	1 5/8" Coax	Yes							
0.000	100.0	1 5/8" Coax	No							
0.000	100.0	1 5/8" Hybriflex	No							
0.000	111.0	1/2" Coax	No							
0.000	111.0	7/8" Coax	No							
0.000	120.0	1 1/4" Hybriflex	No							
0.000	120.0	1/2" Coax	Yes							
0.000	120.0	2" Conduit	Yes	_						
0.000	120.0	5/16" Coax	Yes							
0.000	131.0	0.39" Fiber Trunk	No							
0.000	131.0	0.65" 8 AWG 2C	No							
0.000	131.0	0.78" 8 AWG 6	No							
0.000	131.0	1 1/4" Coax	No							
0.000	131.0	2" Conduit	No							
0.000	131.0	3/8" RET Control	No							
0.000	136.0	1 5/8" Coax	Yes							
0.000	136.0	3/8" Coax	Yes							

Load Cases					
1.2D + 1.6W	93 mph with No Ice				
0.9D + 1.6W	93 mph with No Ice (Reduced DL)				
1.2D + 1.0Di + 1.0Wi	50 mph with 0.75 in Radial Ice				
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Lateral Forces Method				
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Modal Analysis Method				
(0.9 - 0.2Sds) * DL + E	Seismic (Reduced DL) Equivalent Lateral				
(0.9 - 0.2Sds) * DL + E	Seismic (Reduced DL) Equivalent Modal				
1.0D + 1.0W	Serviceability 60 mph				

Reactions								
Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)					
1.2D + 1.6W	3805.66	41.02	56.10					
0.9D + 1.6W	3676.42	39.38	42.06					
1.2D + 1.0Di + 1.0Wi	984.72	9.92	92.47					
(1.2 + 0.2Sds) * DL + E ELFM	207.50	1.93	55.91					
(1.2 + 0.2Sds) * DL + E EMAM	171.41	2.00	55.91					
(0.9 - 0.2Sds) * DL + E ELFM	204.37	1.92	38.23					
(0.9 - 0.2Sds) * DL + E EMAM	168.63	2.00	38.23					
1.0D + 1.0W	961.69	10.25	46.82					

	Dish Deflection	ons	
Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
1.0D + 1.0W	120.00	20.720	1.753



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Site Name: Customer:

WSPT - South, CT

Engineering Number: OAA720395_C3_01

1/3/2018 11:03:38 AM

AT&T MOBILITY

Analysis Parameters

Location:

FAIRFIELD County, CT

Height (ft):

142

Code:

ANSI/TIA-222-G

Shape:

12 Sides. Sect 4: Round

45.00

Pole Type:

Top Diameter (in):

Base Diameter (in):

Custom

Taper (in/ft):

10.75 0.213

Pole Manfacturer:

EEI

Rotation (deg):

0.00

Ice & Wind Parameters

Structure Class:

II

Design Wind Speed Without Ice:

93 mph

Exposure Category:

C

Design Wind Speed With Ice:

50 mph

Topographic Category:

1

Operational Wind Speed: Design Ice Thickness:

60 mph 0.75 in

Crest Height:

0 ft

Seismic Parameters

Analysis Method:

Equivalent Modal Analysis & Equivalent Lateral Force Methods

Site Class:

D - Stiff Soil

Period Based on Rayleigh Method (sec): T_L (sec):

6

2.23

1.3

Cs:

0.032

Ss:

0.221

p:

0.066

C s Max:

Fa:

1.600

S1:

0.032

Fv:

2.400

C s Min:

0.030

Sds:

0.236

Sd1:

0.106

Load Cases

1.2D + 1.6W

0.9D + 1.6W

1.2D + 1.0Di + 1.0Wi

(1.2 + 0.2Sds) * DL + E ELFM (1.2 + 0.2Sds) * DL + E EMAM

(0.9 - 0.2Sds) * DL + E ELFM

(0.9 - 0.2Sds) * DL + E EMAM 1.0D + 1.0W

93 mph with No Ice

93 mph with No Ice (Reduced DL)

50 mph with 0.75 in Radial Ice

Seismic Equivalent Lateral Forces Method Seismic Equivalent Modal Analysis Method

Seismic (Reduced DL) Equivalent Lateral Forces Method

Seismic (Reduced DL) Equivalent Modal Analysis Method Serviceability 60 mph

Page: 1

Code: ANSI/TIA-222-G

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Customer:

Site Name: WSPT - South, CT

AT&T MOBILITY

Engineering Number: OAA720395_C3_01

1/3/2018 11:03:38 AM

Shaft Section	Properties
----------------------	-------------------

					Slip				— во	ttom –			_		— To	op -			
Sect Info	Length (ft)				Joint Len (in)	Weight (lb)	Dia (in)	Elev (ft)	Area (in ²)	lx (in ⁴)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (in²)	ix (in ⁴)	W/t Ratio	D/t Ratio	Taper (in/ft)
1-12	45.400	0.4375	65		0.00	8,648	45.00	0.00	62.78	15912.1	25.42	102.86	35.34	45.40	49.18	7649 3	10.50		0.21263
	44.700				61.88	5,889	37.19	40.24	44.46										0.21263
3-12	44.800		10000	Slip	49.81	2,952	29.07	80.79	23.20	2459.7									0.21263
4-R	16.407	0.3750	35	Butt	0.00	682	10.75	125.59	12.22	164.6				142.00	12.22		0.00		0.00000
			SI	naft We	eight	18,172									0.773.000	10.000	5.00	20.07	0.00000

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	Weight (lb)	P No Ice EPAa (sf)	Orientation Factor	Weight (lb)	EPAa (sf)	Orientation Factor	Distance From Face (ft)	Vert Ecc (ft)
136.00	Kathrein Scala 742-218 /	3	22.50	3.850	0.63	110.51	4.762	0.63	0.000	4.000
136.00	RCU (Remote Control Unit)	3	1.00	0.160	0.50	11.01	0.359		0.000	0.000
31.00	CCI HPA-65R-BUU-H6	3	51.00	9.660	0.69	295.12			0.000	0.000
31.00	Ericsson RRUS 32 B2	3	53.00	2.740	0.67	139.60	3,463		0.000	0.000
31.00	Ericsson RRUS 32 w/ Solar	3	52.90	2.740	0.67	0.00	0.000		0.000	0.000
31.00	Ericsson RRUS-11 (50 lbs.)	3	50.00	2.570	0.67	129.98	3.205		0.000	0.000
31.00	Flat Platform w/ Handrails	1	2000.00	42,400	1.00	3,404,39			0.000	0.000
31.00	Kaelus DBC0061F1V51-2	6	25.50	0.510	0.50	0.00			0.000	0.000
31.00	Powerwave Allgon 7020.00	12	2.20	0.400	0.50	17.61	0.619	0.00	0.000	0.000
31.00	Powerwave Allgon 7770.00	3	35.00	5.510	0.65	167.80	6.544		0.000	0.000
31.00	Powerwave Allgon LGP21401	12	14.10	1.100	0.50	47.10	1.556		0.000	0.000
31.00	Quintel QS66512-2	3	111.00	8.130	0.74	0.00	0.000		0.000	
31.00	Raycap DC6-48-60-18-8F	1	31.80	1.280	1.00	123.18	2.843	30.00	0.000	0.000
31.00	Raycap DC6-48-60-18-8F	1	31.80	1.280	1.00	0.00	0.000		0.000	
20.00	Alcatel-Lucent 1900 MHz	3	60.00	2.320	0.67	152.37	2.975		0.000	0.000
20.00	Alcatel-Lucent 800 MHz	3	64.00	2.060	0.67	152.13	2.640		0.000	0.000
20.00	Alcatel-Lucent RRH2x50-08	3	52.90	1.700	0.50	122.29	2.235		0.000	0.000
20.00	Alcatel-Lucent TD-RRH8x20-	3	70.00	4.050	0.67	159.37	5.675		0.000	0.000
20.00	Argus LLPX310R	3	28.60	4.290	0.63	133.23	5.166		0.000	0.000
20.00	Commscope DT465B-2XR	3	58.00	9.100	0.69	281.63	10.403			0.000
20.00	DragonWave A-ANT-18G-2-C	2	27.10	4.690	1.00	122.53	5.936		0.000	0.000
20.00	DragonWave Horizon	2	10.60	0.430	0.50	39.85	0.653		0.000	0.000
20.00	Flat Platform w/ Handrails	1	2000.00		1.00	3,389.73			0.000	0.000
20.00	NextNet BTS-2500	3	35.00	1.820	0.50	91.05	2.383		0.000	0.000
20.00	RFS APXVSPP18-C-A20	3	57.00	8.020	0.69	250.96	9.281	0.69		0.000
11.00	48" x 8" Panel	9	20.00	3.610	0.73	148.46	6.020		0.000	0.000
11.00	Flat Platform w/ Handrails	1	2000.00		1.00	3,381.22			0.000	0.000
00.00	Alcatel-Lucent RRH2x40-AWS	3	44.00	2.160	0.67	113.66	2.774	2222	0.000	0.000
00.00	Antel BXA-171063/12CF 2	3	15.00	4.790	0.72	128.79	5.957	0.67 0.72	0.000	0.000
00.00	Antel BXA-70080/6CF	3	18.00	5.840	0.72	161.39	7.030		0.000	0.000
00.00	Flat Platform w/ Handrails	1	2000.00		1.00	3,364.04	62.529		0.000	0.000
00.00	Powerwave Allgon P65-16-	3	33.00	8.130	0.65	205.57	9.371		0.000	0.000
00.00	RFS DB-T1-6Z-8AB-0Z	1	44.00	4.800	0.67	175.07	5.634	0.65	0.000	0.000
00.00	RFS FD9R6004/1C-3L	6	3.10	0.370	0.50	15.39			0.000	0.000
00.00	Rymsa MGD3-800TX	3	15.40	3.340	0.69	97.74	0.568 4.235	0.50	0.000	0.000
0.00	Andrew LNX-6515DS-VTM	3		11.430	0.70	298.51	13.005	0.69	0.000	0.000
0.00	Ericsson AIR 21, 1.3 M, B2A	4	83.00	6.050	0.71	241.54	7.087	0.70	0.000	0.000
0.00	Ericsson AIR 21, 1.3M, B4A	3	81.50	6.090	0.70			0.71	0.000	0.000
0.00	Ericsson RRUS 11 B12	3	50.70	2.790		240.00	7.132		0.000	0.000
0.00	Flat Platform w/ Handrails	1	2000.00		0.67	131.59	3.431	0.67	0.000	0.000
0.00	RFS ATMAA1412D-1A20	4	13.00	1.000	1.00	3,349.36	62.312	1.00	0.000	0.000
0.00	Diamond X50A	2		V 0.000000000	0.50	45.68	1.407	0.50	0.000	0.000
0.00	Stand-Offs	2	2.30	1.120	1.00	56.95	2.427	1.00	0.000	0.000
3.00	PCTEL GPS-TMG-HR-26N	1	50.00	3.000	1.00	72.87	4.470	1.00	0.000	0.000
3.00	Stand-Off	1	0.60	0.090	1.00	9.79	0.255	1.00	0.000	0.000
0.000		-	30.00	1.000	1.00	43.41	1.479	1.00	0.000	0.000

WSPT - South, CT

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Site Name: Customer:

AT&T MOBILITY

Engineering Number: OAA720395_C3_01

143 14581.80 Totals

31,901.48

Number of Loadings: 45

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Diameter (in)	Coax Weight (lb/ft)		Projected Width (in)	Exposed To Wind	Carrier
0.00	136.00		1 5/8" Coax	1.98	0.82	N	1.98	Υ	Metro PCS
0.00	136.00	1	3/8" Coax	0.44	0.08	N	0.44	Y	Metro PCS
0.00	131.00	1	0.39" Fiber Trunk	0.39	0.06	N	0.00	N	AT&T Mobility
0.00	131.00	2	0.65" 8 AWG 2C	0.65	0.31	N	0.00	N	AT&T Mobility
0.00	131.00	2	0.78" 8 AWG 6	0.78	0.59	N	0.00	N	AT&T Mobility
0.00	131.00		1 1/4" Coax	1.55	0.63	N	0.00	N	AT&T Mobility
0.00	131.00	1	2" Conduit	2.38	3.65	N	0.00	N	AT&T Mobility
0.00	131.00	1	3/8" RET Control Cable	e 0.38	0.23	N	0.00	N	AT&T Mobility
0.00	120.00	4	1 1/4" Hybriflex	1.54	1.00	N	0.00	N	Sprint Nextel
0.00	120.00		1/2" Coax	0.63	0.15	N	0.00	Y	Clearwire
0.00	120.00	1	2" Conduit	2.38	3.65	N	2.38	Y	Clearwire
0.00	120.00	6	5/16" Coax	0.31	0.05	N	0.00	Y	Clearwire
0.00	111.00	1	1/2" Coax	0.63	0.15	N	0.00	N	Sprint Nextel
0.00	111.00	12	7/8" Coax	1.09	0.33	N	0.00	N	Sprint Nextel
0.00	100.00	12	1 5/8" Coax	1.98	0.82	N	0.00	N	Verizon
0.00	100.00	1	1 5/8" Hybriflex	1.98	1.30	N	0.00	N	Verizon
0.00	90.00	1	1 1/4" Fiber	1.25	1.05	N	1.25	N	T-Mobile
0.00	90.00	14	1 5/8" Coax	1.98	0.82	N	1.54	Y	T-Mobile
0.00	80.00	2	1/2" Coax	0.63	0.15	N	0.00	Ý	Senet, Inc.
0.00	63.00	1	1/2" Coax	0.63	0.15	N	0.00	N	Sprint Nextel
0.00	63.00	4	DYWIDAG	4.00	16.70	N	1.62	Y	

Additional Steel

Elev	Elev					- Intermediate				
From (ft)	To (ft)	Qty	Description	Fy (ksi)	Offset (in)	Description	Spacing (in)	Len (in)	Connectors	Continuation?
0.00	55.68	4	SOL #20 All Thread	80	2.19	6" Angle Bracket	30.0	3.31	5/8" A36 U-Bolt	Yes

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Site Name: Customer: WSPT - South, CT AT&T MOBILITY Engineering Number: OAA720395_C3_01

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Segment Properties Seg Top			(Max Len: 5.ft)											
Seg T	op	Thirt	Flat									Addit	ional R	einforcing
(ft)	Description	Thick (in)	Dia (in)	Area (in²)	lx (in ⁴)	W/t Ratio	D/t Ratio	F'y	S (in ³)	Z (in³)	Weight (lb)	Area	lx	Weight
0.00		0.4375	45.000	62.777	15,912.1	25.42	102.86	_		_		(in²)	(in ⁴)	(lb)
5.00		0.4375	43.937	61.280	14,800.2	24.77	100.43	77.7	650.7	0.0		19.64	6,615	0.0
10.00		0.4375	42.874	59.782	13,741.3	24.11	98.00	78.4	619.2	0.0	1,055.3 1,029.9	19.64	6,347	334.0
15.00		0.4375	41.810	58.284	12,734.1	23.46	95.57	79.1	588.4	0.0	1,004.4	19.64 19.64	6,084	334.0
20.00		0.4375		56.786	11,777.4	22.81	93.14	79.8	558.4	0.0		19.64	5,827 5,576	334.0
25.00		0.4375		55.289	10,869.9	22.16	90.71	80.5	529.2	0.0	953.4	19.64		334.0
30.00		0.4375	38.621	53.791	10,010.2	21.51	88.28	81.3	500.7	0.0	927.9	19.64	5,330 5,090	334.0
35.00		0.4375		52.293	9,197.1	20.86	85.85	81.9	473.1	0.0	902.4	19.64	4,855	334.0 334.0
40.00		0.4375		50.795	8,429.2	20.21	83.42	81.9	446.2	0.0	877.0	19.64	4,626	334.0
40.24	Bot - Section 2	0.4375	36.443	50.722	8,392.9	20.18	83.30	81.9	444.9	0.0	42.1	19.64	4,615	
45.00 45.40	Ton Costion 4	0.4375	35.431	49.297	7,705.4	19.56	80.99	81.9	420.1	0.0	1,519.0	19.64	4,559	16.3 317.7
50.00	Top - Section 1	0.3750	36.096	43.133	7,025.1	23.65	96.26	78.9	376.0	0.0	125.8	19.64	4,541	26.7
55.00		0.3750	35.118	41.952	6,463.7	22.95	93.65	79.7	355.6	0.0	665.9	19.64	4,337	307.3
55.68	Reinf. Top	0.3750	34.055	40.668	5,888.2	22.19	90.81	80.5	334.0	0.0	702.9	19.64	4,121	334.0
60.00	Keini. rop	0.3750		40.495	5,813.1	22.09	90.43	80.6	331.2	0.0	93.5	19.64	4,092	45.2
63.00		0.3750	32.992	39.385	5,348.0	21.43	87.98	81.3	313.2	0.0	587.5			70.2
65.00		0.3750 0.3750	32.354	38.614	5,040.3	20.97	86.28	81.8	301.0	0.0	398.1			
70.00		0.3750		38.101	4,841.9	20.67	85.14	81.9	293.0	0.0	261.0			
75.00		0.3750		36.817	4,368.8	19.91	82.31	81.9	273.4	0.0	637.3			
30.00		0.3750		35.533	3,927.5	19.15	79.47	81.9	254.6	0.0	615.5			
30.79	Bot - Section 3	0.3750	28 570	34.249 34.046	3,517.0	18.39	76.64	81.9	236.4	0.0	593.6			
34.94	Top - Section 2	0.2500	28 188	22.490	3,454.7	18.27	76.19	81.9	233.6	0.0	92.1			
35.00	. op Goodleil Z	0.2500	28 176	22.480	2,240.5 2,237.7	28.07 28.06	112.75	74.1	153.6	0.0	796.1			
90.00		0.2500	27.113	21.624	1,991.7	26.92	112.70	74.1	153.4	0.0	4.3			
95.00		0.2500		20.768	1,764.4	25.78	108.45 104.20	70.4	141.9	0.0	375.2			
100.0		0.2500	24.986	19.913	1,555.2	24.64	99.94	77.8	130.9	0.0	360.6			
105.0		0.2500	23.923	19.057	1,363.1	23.50	95.69	70.4	140.2	0.0	346.1			
110.0		0.2500	22.860	18.201	1,187.6	22.36	91.44	90.1	100.1		331.5			
111.0		0.2500	22.647	18.030	1,154.4	22.13	90.59	90.5	98.5	0.0	316.9			
115.0		0.2500	21.797	17.345	1,027.8	21.22	87.19		91.1	0.0	61.6 240.7			
120.0		0.2500	20.733	16.489	883.1	20.08	82.93	81.9	82.3	0.0	287.8			
125.0	21.1 220 dec 000	0.2500	19.670	15.633	752.6	18.94	78.68		73.9	0.0	273.3			
25.5	Top - Section 3	0.2500	19.544	15.532	738.0	18.80	78.18		72.9	0.0	31.4			
25.5	Bot - Section 4	0.3750		12.223	164.6	0.00	28.67		30.6	40.4	31.4			
30.0		0.3750		12.223	164.6	0.00	28.67	35.0	30.6	40.4	183.3			
31.0		0.3750		12.223	164.6	0.00	28.67	35.0	30.6	40.4	41.6			
35.0 36.0		0.3750		12.223	164.6	0.00	28.67	35.0	30.6	40.4	166.4			
40.0		0.3750	10.750	12.223	164.6	0.00	28.67	35.0	30.6	40.4	41.6			
42.0		0.3750		12.223	164.6	0.00	28.67		30.6	40.4	166.4			
72.0		0.3750	10.750	12.223	164.6	0.00	28.67	35.0	30.6	40.4	83.2			

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Site Name:

WSPT - South, CT

Engineering Number: OAA720395_C3_01

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Customer:

AT&T MOBILITY

Load Case: 1.2D + 1.6W

93 mph with No ice

25 Iterations

Gust Response Factor :1.10

Dead Load Factor: 1.20

Wind Load Factor: 1.60

Wind Importance Factor 1.00

Applied Segment Forces Summary

Seg Elev (ft) 0.00 5.00 10.00 15.00 20.00 25.00 30.00	Description	Wind FX (lb)	Dead Load		Torsion	Moment	Dood		Dead		- Julii O	f Forces	
5.00 10.00 15.00 20.00 25.00 30.00			(lb)	Wind FX (lb)		MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)		MY (lb-ft)	Moment MZ (lb)
10.00 15.00 20.00 25.00 30.00		367.8	0.0					0.0	0.0	367.8	0.0	0.0	0.0
15.00 20.00 25.00 30.00		730.6	1,266.4					0.0	1,130.3	730.6	 Internal (1777) 	0.0	
20.00 25.00 30.00		720.5	1,235.8					0.0	1,130.3	720.5	2,366.1	0.0	0.0
25.00 30.00		721.5	1,205.3					0.0	1,130.3	721.5	2,335.5	0.0	0.0
30.00		741.9	1,174.7					0.0	1,130.3	741.9	2,304.9	0.0	
		766.8	1,144.1					0.0	1,130.3	766.8	2,274.3		0.0
		753.2	1,113.5					0.0	1,130.3	753.2	2,243.8	0.0	0.0
35.00		729.8	1,082.9					147.2	1,130.3	877.0	2,243.8	0.0	0.0
40.00		383.0	1,052.4					151.7	1,130.3	534.7		0.0	0.0
40.24	Bot - Section 2	371.4	50.5					7.5	55.1	378.9	2,182.6 105.6	0.0	0.0
45.00	925 0	383.3	1,822.8					148.2	1,075.2	7.7.7.7.7		0.0	0.0
45.40	Top - Section 1	369.6	151.0					12.6	90.4	531.5	2,898.0	0.0	0.0
50.00		706.1	799.1					146.8	1,039.8	382.2 852.9	241.4	0.0	0.0
55.00		415.5	843.4					162.8			1,838.9	0.0	0.0
55.68	Reinf. Top	361.8	112.2					22.3	1,130.3	578.3	1,973.7	0.0	0.0
60.00		527.1	705.0					143.7	153.0	384.1	265.2	0.0	0.0
63.00	Appurtenance(s)	365.0	477.7	46.3	0.0	0.0	36.7		630.7	670.8	1,335.7	0.0	0.0
65.00	0.00	525.8	313.3	10.0	0.0	0.0	30.7	101.0	437.7	512.3	952.1	0.0	0.0
70.00		719.1	764.8					0.0	131.1	525.8	444.4	0.0	0.0
75.00		680.2	738.6					0.0	327.8	719.1	1,092.5	0.0	0.0
80.00	Appurtenance(s)	389.0	712.4	368,4	0.0		405.5	138.8	327.8	819.0	1,066.3	0.0	0.0
80.79	Bot - Section 3	329.7	110.5	300,4	0.0	0.0	125.5	140.8	327.8	898.1	1,165.6	0.0	0.0
84.94	Top - Section 2	280.8	955.3					22.5	51.7	352.2	162.2	0.0	0.0
85.00	United States and Control of the Con	329.7	5.2					118.5	270.6	399.3	1,225.9	0.0	0.0
90.00	Appurtenance(s)	649.2	450.2	4,059.6				1.6	3.7	331.3	8.8	0.0	0.0
95.00		642.6	432.8	4,055.0	0.0	0.0	3,521.4	144.4	326.0	4,853.1	4,297.6	0.0	0.0
00.00	Appurtenance(s)	634.5	415.3	3,898.1	0.0		0.000.0	0.0	250.8	642.6	683.5	0.0	0.0
105.00		625.9	397.8	3,030.1	0.0	0.0	2,926.6	0.0	250.8	4,532.6	3,592.6	0.0	0.0
110.00		367.1	380.3					0.0	183.9	625.9	581.8	0.0	0.0
111.00	Appurtenance(s)	277.6	74.0	2 002 7				0.0	183.9	367.1	564.3	0.0	0.0
15.00		488.0	288.9	2,882.7	0.0	0.0	2,616.0	23.0	36.8	3,183.2	2,726.8	0.0	0.0
20.00	Appurtenance(s)	489.9	345.4	4,824.2				92.3	127.4	580.3	416.3	0.0	0.0
25.00		249.2		4,024.2	0.0	0.0	4,022.3	116.3	159.3	5,430.4	4,527.0	0.0	0.0
25.59	Top - Section 3		327.9					0.0	109.8	249.2	437.7	0.0	0.0
30.00	TOP GOODING	142.9	37.7					0.0	13.0	142.9	50.7	0.0	0.0
31.00	Appurtenance(s)	143.5	220.0		1200			52.6	96.8	196.1	316.7	0.0	0.0
35.00	- ppur torium co(s)	133.6	49.9	5,006.3	0.0	0.0	4,165.1	12.0	22.0	5,151.9	4,236.9	0.0	0.0
36.00	Appurtenance(s)	133.8	199.6	<u>1856</u> 1.5	6.6			48.2	24.0	182.0	223.6	0.0	0.0
40.00	Appartenance(s)	80.7	49.9	378.0	0.0	1,463.8	84.6	12.1	6.0	470.8	140.5	0.0	0.0
42.00		81.0	199.6					0.0	0.0	81.0	199.6	0.0	0.0
42.00		27.1	99.8					0.0	0.0	27.1	99.8	0.0	0.0
									tals:	41,266.1		0.00	0.00

Code: ANSI/TIA-222-G

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Site Name:

WSPT - South, CT

Engineering Number: OAA720395_C3_01

1/3/2018 11:03:46 AM

Customer:

AT&T MOBILITY

Load Case: 1.2D + 1.6W

93 mph with No ice

25 Iterations

Gust Response Factor :1.10 Dead Load Factor :1.20

Wind Load Factor :1.60

Wind Importance Factor 1.00

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 (ft-kips)	phi Mn) (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-56.10	-41.02	0.00	-3,805.66	0.00	3,805.66	4,350,13	2.175.06	7,987.32	3 944 64	0.00	0.00	
5.00	-53.54	-40.50	0.00	-3,600.59	0.00	3,600.59	4.285.51	2 142 75	7,679.11	3 702 42	0.00	0.00	0.692
10.00	-51.02	-39.98	0.00	-3,398.09	0.00	3,398.09	4.218.97	2,109.49	7,373.27	3 644 20	0.13	-0.23	0.674
15.00	-48.53	-39.43	0.00	-3,198.22	0.00	3,198.22	4,150.52	2.075.26	7,070.06	3 491 64	1.12	-0.47 -0.71	0.656
20.00	-46.07	-38.85	0.00	-3,001.07	0.00	3,001.07	4.080.16	2.040.08	6,769.73	3 343 32	1.99	-0.71	0.637
25.00	-43.65	-38.22	0.00	-2,806.84	0.00	2,806.84	4.007.88	2.003.94	6,472.54	3 196 54	3.10		0.618
30.00	-41.27	-37.59	0.00	-2,615.74	0.00	2,615.74	3,933,69	1.966.85	6,178.73	3 054 44	4.47	-1.18	0.598
35.00	-38.93	-36.81	0.00	-2,427.81	0.00	2,427.81	3,854.52	1,927.26	5,883.88	2 905 83	6.08	-1.42	0.576
40.00	-36.69	-36.29	0.00	-2,243.74	0.00	2,243.74	3,744,12	1.872.06	5,549.75	2 740 81	7.95	-1.66 -1.89	0.555
40.24	-36.52	-35.98	0.00	-2,234.90	0.00	2,234.90	3,738,74	1.869.37	5,533.71	2 732 89	8.04		0.536
45.00	-33.57	-35.42	0.00	-2,063.76	0.00	2,063.76	3,633.72	1,816.86	5,225.39	2.580.62	10.06	-1.91	0.535
45.40 50.00	-33.27	-35.10	0.00	-2,049.59	0.00	2,049.59	3,063,79	1.531.89	4,506.32	2 225 50	10.24	-2.13 -2.15	0.509
55.00	-31.33	-34.30	0.00	-1,888.15	0.00	1,888.15	3,008.67	1,504.34	4,302.82	2,125.00	12.41	-2.15	0.567 0.539
55.68	-29.31	-33.70	0.00	-1,716.67	0.00	1,716.67	2,946.93	1,473.46	4,084.17	2.017.02	15.01	-2.60	0.508
55.68	-28.99	-33.36	0.00	-1,693.86	0.00	1,693.86	2,938.42	1,469.21	4,054.78	2.002.51	15.38	-2.63	0.504
60.00	-28.99 -27.56	-33.36	0.00	-1,693.86	0.00	1,693.86	2,938.42	1,469,21	4,054.78	2.002.51	15.38	-2.63	0.856
63.00	-26.53	-32.74	0.00	-1,549.62	0.00	1,549.62	2,883.27	1,441.64	3.868.42	1.910.47	17.86	-2.83	0.821
65.00	-25.96	-32.27 -31.84	0.00	-1,451.41	0.00	1,451.41	2,844.16	1,422.08	3,740.46	1.847.27	19.71	-3.07	0.796
70.00	-24.70	-31.23	0.00	-1,386.88	0.00	1,386.88	2,808.42	1,404.21	3,643.77	1.799.52	21.03	-3.23	0.780
75.00	-23.50	-30.49	0.00	-1,227.66	0.00	1,227.66	2,713.79	1,356.89	3,400.96	1.679.61	24.62	-3.61	0.741
80.00	-23.30	-29.59	0.00	-1,071.53	0.00	1,071.53	2,619.16	1,309.58	3.166.52	1.563.83	28.61	-3.99	0.695
80.79	-22.07	-29.29	0.00	-919.09	0.00	919.09	2,524.53	1,262.26	2,940.46	1,452,18	32.98	-4.35	0.642
84.94	-20.81	-28.85	0.00	-895.63	0.00	895.63	2,509.53	1,254.76	2,905.39	1,434.86	33.71	-4.41	0.634
85.00	-20.71	-28.60	0.00	-774.04	0.00	774.04	1,499.90	749.95	1,728.05	853.42	37.66	-4.69	0.922
90.00	-16.67	-23.52	0.00	-772.42	0.00	772.42	1,499.54	749.77	1,726.89	852.85	37.72	-4.70	0.921
95.00	-15.90	-22.93	0.00	-629.41	0.00	629.41	1,466.64	733.32	1,624.12	802.09	42.88	-5.14	0.797
100.00	-12.67	-18.13	0.00	-511.80	0.00	511.80	1,431.82	715.91	1,522.23	751.77	48.48	-5.55	0.693
105.00	-12.07	-17.51	0.00	-397.17	0.00	397.17	1,395.09	697.54	1,421.47	702.01	54.49	-5.92	0.576
110.00	-11.50	-17.12	0.00	-306.51	0.00	306.51	1,356.44	678.22	1,322.10	652.93	60.85	-6.24	0.479
111.00	-9.13	-13.66	0.00	-218.95 -201.83	0.00	218.95	1,315.88	657.94	1,224.36	604.67	67.52	-6.51	0.372
115.00	-8.74	-13.06	0.00	-147.19	0.00	201.83	1,307.54	653.77	1,205.03	595.12	68.89	-6.56	0.347
120.00	-4.88	-7.14	0.00	-81.88	0.00	147.19	1,273.40	636.70	1,128.51	557.33	74.46	-6.74	0.271
125.00	-4.47	-6.85	0.00	-46.16	0.00	81.88	1,215.41		1,023.37	505.40	81.59	-6.89	0.166
125.59	-4.43	-6.70	0.00	-42.10	0.00	46.16	1,152.33	576.16	919.28	454.00	88.85	-7.00	0.106
125.59	-4.43	-6.70	0.00	-42.10	0.00	42.10	1,144.85	572.43	907.31	448.09	89.71	-7.01	0.098
130.00	-4.14	-6.47	0.00	-12.56	0.00	42.10	385.02	192.51	160.54	106.00	89.71	-7.01	0.410
131.00	-0.56	-0.84	0.00	-6.09	0.00	12.56	385.02	192.51	160.54	106.00	96.19	-7.05	0.130
135.00	-0.37	-0.63	0.00	-2.75	0.00	6.09	385.02	192.51	160.54	106.00	97.67	-7.07	0.059
136.00	-0.28	-0.14	0.00	-0.65	0.00	2.75 0.65	385.02	192.51	160.54	106.00	103.59	-7.10	0.027
140.00	-0.10	-0.04	0.00	-0.08	0.00	0.08	385.02	192.51	160.54	106.00	105.07	-7.10	0.007
142.00	0.00	-0.03	0.00	0.00	0.00	0.00	385.02	192.51	160.54		111.01	-7.11	0.001
		(100 m)		0.00	0.00	0.00	385.02	192.51	160.54	106.00	113.98	-7.11	0.000

Code: ANSI/TIA-222-G

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Site Name: Customer:

WSPT - South, CT AT&T MOBILITY

Engineering Number: OAA720395_C3_01

1/3/2018 11:03:47 AM

Load Case: 0.9D + 1.6W

93 mph with No Ice (Reduced DL)

25 Iterations

Gust Response Factor :1.10 Dead Load Factor: 0.90

Wind Importance Factor 1.00

Wind Load Factor: 1.60

Applied Segment Forces Summary

653		Shaft	Forces		Discret	e Forces		Linear F	orces		Sum of Forces			
Seg Elev (ft)	Description	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)		Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)		Torsion MY (lb-ft)	Moment MZ (lb)	
0.00		301.8	0.0					0.0	0.0	301.8	0.0	0.0		
5.00		596.4	949.8					0.0	847.7	596.4	1,797.5	0.0		
10.00		582.0	926.9					0.0	847.7	582.0	1,774.6	0.0	3.77	
15.00		576.4	903.9					0.0	847.7	576.4	1,751.6	0.0		
20.00		585.9	881.0					0.0	847.7	585.9	1,728.7	0.0	=350	
25.00		598.4	858.1					0.0	847.7	598.4	1,705.8	0.0		
30.00		666.1	835.1					0.0	847.7	666.1	1,682.8			
35.00		729.8	812.2					147.2	847.7	877.0		0.0	0.75570	
40.00		383.0	789.3					151.7	847.7		1,659.9	0.0		
40.24	Bot - Section 2	371.4	37.9					7.5	41.3	534.7	1,637.0	0.0		
45.00		383.3	1,367.1					148.2		378.9	79.2	0.0	0.0	
45.40	Top - Section 1	369.6	113.2						806.4	531.5	2,173.5	0.0	0.0	
50.00		706.1	599.3					12.6	67.8	382.2	181.0	0.0	0.0	
55.00		415.5	632.6					146.8	779.9	852.9	1,379.2	0.0	0.0	
55.68	Reinf. Top	361.8	84.1					162.8	847.7	578.3	1,480.3	0.0	0.0	
60.00	Control Control Control	527.1	528.8					22.3	114.8	384.1	198.9	0.0	0.0	
63.00	Appurtenance(s)	332.9	358.3	46.3	0.6			143.7	473.0	670.8	1,001.8	0.0	0.0	
65.00	3.5	410.4	234.9	40.3	0.0	0.0	27.5	101.0	328.3	480.2	714.1	0.0	0.0	
70.00		635.9	573.6					0.0	98.3	410.4	333.3	0.0	0.0	
75.00		680.2						0.0	245.8	635.9	819.4	0.0	0.0	
80.00	Appurtenance(s)		553.9	1000	1			138.8	245.8	819.0	799.7	0.0	0.0	
80.79	Bot - Section 3	389.0	534.3	368.4	0.0	0.0	94.1	140.8	245.8	898.1	874.2	0.0	0.0	
84.94	Top - Section 2	329.7	82.9					22.5	38.8	352.2	121.7	0.0	0.0	
85.00	rop - dection 2	280.8	716.5					118.5	203.0	399.3	919.4	0.0	0.0	
	Annurtonames(s)	329.7	3.9					1.6	2.7	331.3	6.6	0.0	0.0	
90.00	Appurtenance(s)	590.2	337.7	4,059.6	0.0	0.0	2,641.0	144.4	244.5	4,794.1	3,223.2	0.0		
95.00	A nonvertour (-)	520.7	324.6					0.0	188.1	520.7	512.7	0.0	0.0	
100.00	Appurtenance(s)	504.9	311.5	3,898.1	0.0	0.0	2,194.9	0.0	188.1	4,403.0	2,694.5	0.0	0.0	
105.00		488.4	298.4					0.0	138.0	488.4	436.3		0.0	
110.00	Wiles Service Control Control Control	296.4	285.3					0.0	138.0	296.4	423.2	0.0	0.0	
111.00	Appurtenance(s)	277.6	55.5	2,882.7	0.0	0.0	1,962.0	23.0	27.6	3,183.2		0.0	0.0	
115.00		488.0	216.7				1,00210	92.3	95.6	580.3	2,045.1	0.0	0.0	
120.00	Appurtenance(s)	479.8	259.0	4,824.2	0.0	0.0	3,016.7	116.3	119.5		312.2	0.0	0.0	
125.00		237.7	245.9			(9.19)	0,010.1	0.0		5,420.4	3,395.2	0.0	0.0	
125.59	Top - Section 3	141.5	28.3						82.3	237.7	328.3	0.0	0.0	
130.00		143.5	165.0					0.0	9.8	141.5	38.0	0.0	0.0	
131.00	Appurtenance(s)	133.6	37.4	5,006.3	0.0	0.0	2 422 0	52.6	72.6	196.1	237.6	0.0	0.0	
135.00		133.8	149.7	3,000.0	0.0	0.0	3,123.8	12.0	16.5	5,151.9	3,177.7	0.0	0.0	
136.00	Appurtenance(s)	80.7	37.4	378.0	0.0	4 400 0	00.4	48.2	18.0	182.0	167.7	0.0	0.0	
140.00	1.5	81.0	149.7	0.0.0	0.0	1,463.8	63.4	12.1	4.5	470.8	105.4	0.0	0.0	
142.00		27.1						0.0	0.0	81.0	149.7	0.0	0.0	
reministration of the		21.1	74.9					0.0	0.0	27.1	74.9	0.0	0.0	
								To	tals:	39,598.3				
								10	tuis.	00,000.0	42,141.8	0.00	0.00	

Code: ANSI/TIA-222-G

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Site Name: Customer: WSPT - South, CT AT&T MOBILITY

Engineering Number: OAA720395_C3_01

1/3/2018 11:03:54 AM

Load Case: 0.9D + 1.6W

93 mph with No Ice (Reduced DL)

25 Iterations

Gust Response Factor :1.10 Dead Load Factor :0.90

Wind Load Factor :0.90

Wind Importance Factor 1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	(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	-42.06	-39.38	0.00	-3,676.42	0.00	3,676.42	4,350,13	2,175.06	7,987.32	3.944 64	0.00	0.00	0.666
5.00	-40.11	-38.94	0.00	-3,479.52	0.00	3,479.52	4,285,51	2.142.75	7,679.11	3 792 42	0.12	-0.23	
10.00	-38.19	-38.50	0.00	-3,284.82	0.00	3,284.82	4,218.97	2,109,49	7,373.27	3 641 38	0.48	-0.25	0.650
15.00	-36.29	-38.05	0.00	-3,092.32	0.00	3,092.32	4,150.52	2,075.26	7,070.06	3,491.64	1.08	-0.45	0.632
20.00	-34.42	-37.58	0.00	-2,902.06	0.00	2,902.06	4,080,16	2,040.08	6,769.73	3 343 32	1.92	-0.91	0.596
25.00	-32.58	-37.08	0.00	-2,714.16	0.00	2,714.16	4,007.88	2.003.94	6,472.54	3 196 54	3.00	-1.14	0.596
30.00	-30.76	-36.50	0.00	-2,528.75	0.00	2,528.75	3,933,69	1.966.85	6,178.73	3 051 44	4.32	-1.14	0.576
35.00	-28.98	-35.70	0.00	-2,346.23	0.00	2,346.23	3,854.52	1,927.26	5,883.88	2.905.83	5.88	-1.60	0.555
40.00	-27.29	-35.17	0.00	-2,167.74	0.00	2,167.74	3.744.12	1,872.06	5,549.75	2 740 81	7.68	-1.83	0.534
40.24	-27.15	-34.85	0.00	-2,159.16	0.00	2,159.16	3,738,74	1.869.37	5,533.71	2 732 89	7.78	-1.84	0.516
45.00	-24.93	-34.29	0.00	-1,993.43	0.00	1,993.43	3,633,72	1.816.86	5,225.39	2.580.62	9.72	-2.06	0.515
45.40	-24.70	-33.95	0.00	-1,979.71	0.00	1,979.71	3,063.79	1,531.89	4,506.32	2 225 50	9.89	-2.08	0.546
50.00	-23.22	-33.14	0.00	-1,823.53	0.00	1,823.53	3,008.67	1,504.34	4,302.82	2,125.00	12.00	-2.28	0.519
55.00	-21.70	-32.54	0.00	-1,657.86	0.00	1,657.86	2,946.93	1,473,46	4,084.17	2.017.02	14.51	-2.51	0.489
55.68	-21.45	-32.19	0.00	-1,635.83	0.00	1,635.83	2,938,42	1,469,21	4,054.78	2.002.51	14.87	-2.54	0.485
55.68	-21.45	-32.19	0.00	-1,635.83	0.00	1,635.83	2,938,42	1,469,21	4,054.78	2.002.51	14.87	-2.54	0.825
60.00	-20.36	-31.55	0.00	-1,496.65	0.00	1,496.65	2,883.27	1,441.64	3.868.42	1.910.47	17.26	-2.74	0.791
63.00	-19.57	-31.10	0.00	-1,401.99	0.00	1,401.99	2,844.16	1,422.08	3,740.46	1.847.27	19.05	-2.97	0.766
65.00	-19.12	-30.77	0.00	-1,339.78	0.00	1,339.78	2,808.42	1,404.21	3,643.77	1.799.52	20.33	-3.12	0.752
70.00	-18.14	-30.20	0.00	-1,185.96	0.00	1,185.96	2,713.79	1,356.89	3,400.96	1,679,61	23.80	-3.49	0.732
75.00	-17.21	-29.44	0.00	-1,034.95	0.00	1,034.95	2,619.16	1,309.58	3,166.52	1.563.83	27.65	-3.85	0.669
80.00	-16.31	-28.54	0.00	-887.76	0.00	887.76	2,524.53	1,262.26	2,940.46	1,452.18	31.87	-4.20	0.618
80.79 84.94	-16.13	-28.23	0.00	-865.14	0.00	865.14	2,509.53	1,254.76	2,905.39	1,434.86	32.58	-4.26	0.610
	-15.18	-27.79	0.00	-747.97	0.00	747.97	1,499.90	749.95	1,728.05	853.42	36.40	-4.53	0.888
85.00	-15.09	-27.52	0.00	-746.40	0.00	746.40	1,499.54	749.77	1,726.89	852.85	36.45	-4.54	0.887
90.00 95.00	-12.11	-22.57	0.00	-608.79	0.00	608.79	1,466.64	733.32	1,624.12	802.09	41.44	-4.97	0.768
	-11.50	-22.08	0.00	-495.97	0.00	495.97	1,431.82	715.91	1,522.23	751.77	46.85	-5.36	0.669
100.00	-9.15	-17.49	0.00	-385.59	0.00	385.59	1,395.09	697.54	1,421.47	702.01	52.66	-5.72	0.556
105.00	-8.68	-17.00	0.00	-298.16	0.00	298.16	1,356.44	678.22	1,322.10	652.93	58.81	-6.03	0.464
110.00 111.00	-8.24 -6.54	-16.68	0.00	-213.16	0.00	213.16	1,315.88	657.94	1.224.36	604.67	65.27	-6.30	0.359
115.00	-6.25	-13.31	0.00	-196.48	0.00	196.48	1,307.54	653.77	1,205.03	595.12	66.59	-6.35	0.336
120.00	-3.49	-12.71 -6.94	0.00	-143.26	0.00	143.26	1,273.40	636.70	1,128.51	557.33	71.97	-6.52	0.262
125.00			0.00	-79.71	0.00	79.71	1,215.41	607.71	1,023.37	505.40	78.87	-6.67	0.161
125.59	-3.19 -3.16	-6.67	0.00	-44.98	0.00	44.98	1,152.33	576.16	919.28	454.00	85.90	-6.77	0.102
		-6.53	0.00	-41.03	0.00	41.03	1,144.85	572.43	907.31	448.09	86.74	-6.78	0.094
125.59 130.00	-3.16	-6.53	0.00	-41.03	0.00	41.03	385.02	192.51	160.54	106.00	86.74	-6.78	0.396
131.00	-2.95	-6.31	0.00	-12.25	0.00	12.25	385.02	192.51	160.54	106.00	93.01	-6.82	0.124
135.00	-0.40	-0.81	0.00	-5.94	0.00	5.94	385.02	192.51	160.54	106.00	94.43	-6.84	0.057
136.00	-0.26 -0.21	-0.61	0.00	-2.69	0.00	2.69	385.02	192.51	160.54	106.00	100.16	-6.87	0.026
140.00		-0.13	0.00	-0.61	0.00	0.61	385.02	192.51	160.54	106.00	101.60	-6.87	0.006
142.00	-0.07	-0.04	0.00	-0.07	0.00	0.07	385.02	192.51	160.54	106.00	107.35	-6.88	0.001
142.00	0.00	-0.03	0.00	0.00	0.00	0.00	385.02	192.51	160.54	106.00	110.22	-6.88	0.000
								9,703,00		100.00	. 10.22	-0.00	0.000

Code: ANSI/TIA-222-G

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Site Name:

WSPT - South, CT

Engineering Number: OAA720395_C3_01

1/3/2018 11:03:54 AM

Customer:

AT&T MOBILITY

Load Case: 1.2D + 1.0Di + 1.0Wi

50 mph with 0.75 in Radial Ice

24 Iterations

Gust Response Factor :1.10 Dead Load Factor: 1.20

Ice Dead Load Factor 1.00

Wind Importance Factor 1.00

Wind Load Factor: 1.00

Ice Importance Factor :1.00

Applied Segment Forces Summary

_		Shaft	Forces		Discret	e Forces		Linear	Forces	Sum of Forces			
Seg Elev (ft)	Description	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)		Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)		Torsion MY (lb-ft)	Moment MZ (lb)
0.00		68.7	0.0				-	0.0	0.0	68.7	0.0		
5.00		136.3	1,604.9					0.0	1,541.8	136.3	3,146.7	0.0	
10.00		133.7	1,605.8					0.0	1,590.8	133.7		0.0	72020
15.00		133.0	1,585.8					0.0	1,616.2	133.0	3,202.0	0.0	
20.00		135.6	1,558.9					0.0	1,633.9	135.6		0.0	100070
25.00		138.9	1,528.5					0.0	1,647.6	138.9		0.0	
30.00		141.0	1,495.8					0.0	1,658.9		3,176.1	0.0	
35.00		142.1	1,461.6					76.6	1,668.6	141.0	3,154.8	0.0	7.77
40.00	250 323 32 30	74.7	1,426.2					79.7	1,677.1	218.7	3,130.2	0.0	
40.24	Bot - Section 2	72.5	68.9					4.0	82.0	154.4	3,103.3	0.0	10.00
45.00		74.9	2,180.2					78.6		76.5	150.8	0.0	
45.40	Top - Section 1	72.4	181.1						1,602.6	153.4	3,782.9	0.0	
50.00		138.6	1,139.0					6.7	135.1	79.1	316.2	0.0	
55.00		81.7	1,205.7					78.4	1,556.3	216.9	2,695.3	0.0	07.77.0
55.68	Reinf. Top	71.3	161.3					87.5	1,697.6	169.1	2,903.3	0.0	0.0
60.00	-11	104.1	1,012.0					12.0	230.3	83.4	391.6	0.0	0.0
63.00	Appurtenance(s)	70.5	688.2	13.3	0.0			77.7	1,126.5	181.8	2,138.5	0.0	0.0
65.00	AT 200	97.7	452.4	10.0	0.0	0.0	39.3	54.8	784.1	138.7	1,511.6	0.0	0.0
70.00		138.1	1,103.4					0.0	306.2	97.7	758.6	0.0	0.0
75.00		135.8	1,068.6					0.0	768.3	138.1	1,871.7	0.0	0.0
80.00	Appurtenance(s)	77.9						76.4	772.0	212.3	1,840.5	0.0	0.0
80.79	Bot - Section 3	66.2	1,033.4	111.4	0.0	0.0	380.6	77.9	775.5	267.2	2,189.4	0.0	0.0
84.94	Top - Section 2	56.4	161.3 1,218.8					12.5	119.0	78.6	280.4	0.0	0.0
85.00		66.4						65.8	624.6	122.2	1,843.4	0.0	0.0
90.00	Appurtenance(s)	129.9	8.7		10000			0.9	8.5	67.3	17.2	0.0	0.0
95.00	· · · · · · · · · · · · · · · · · · ·		758.0	963.7	0.0	0.0	6,645.5	80.5	755.0	1,174.1	8,158.4	0.0	0.0
100.00	Appurtenance(s)	126.9	730.8		1475	N 12021		0.0	463.5	126.9	1,194.4	0.0	0.0
105.00	· · ppur condition(a)	123.6	703.5	949.2	0.0	0.0	5,790.6	0.0	465.0	1,072.9	6,959.1	0.0	0.0
110.00		120.3	676.0					0.0	399.6	120.3	1,075.6	0.0	0.0
111.00	Appurtenance(s)	70.9	648.3					0.0	401.0	70.9	1,049.3	0.0	0.0
115.00	Appartenance(s)	57.5	127.3	799.9	0.0	0.0	4,703.4	12.9	80.4	870.3	4,911.0	0.0	0.0
120.00	Appurtenance(s)	101.5	495.1					52.0	302.2	153.5	797.3	0.0	0.0
125.00	Appartenance(s)	109.4	592.4	1,164.5	0.0	0.0	7,829.4	65.8	378.9	1,339.7	8,800.8	0.0	0.0
	Ton Continue	60.0	564.3					0.0	237.4	60.0	801.6	0.0	
125.59	Top - Section 3	34.1	65.6					0.0	28.2	34.1	93.8	0.0	0.0
130.00	A American Company	34.2	335.2					36.5	209.8	70.7	545.0	(2.25.00)	0.0
131.00	Appurtenance(s)	31.9	76.1	1,222.4	0.0	0.0	8,595.4	8.3	47.7	1,262.6	8,719.2	0.0	0.0
135.00	Washington Discovery	31.9	304.7				10	33.5	127.1	65.4	431.8	0.0	0.0
136.00	Appurtenance(s)	32.2	76.2	86.6	0.0	327.1	378.7	8.4	31.8	127.2		0.0	0.0
140.00		38.7	305.1					0.0	0.0		486.7	0.0	0.0
142.00		12.9	152.7					0.0	0.0	38.7	305.1	0.0	0.0
								0.0	0.0	12.9	152.7	0.0	0.0
								To	tals:	9,942.85	92,475.6	0.00	0.00

Code: ANSI/TIA-222-G

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Site Name: Customer:

WSPT - South, CT AT&T MOBILITY

Engineering Number: OAA720395_C3_01

1/3/2018 11:04:01 AM

Load Case: 1.2D + 1.0Di + 1.0Wi

50 mph with 0.75 in Radial Ice

24 Iterations

Gust Response Factor :1.10 Dead Load Factor: 1.20

Ice Dead Load Factor 1.00

Wind Importance Factor 1.00

Wind Load Factor: 1.00

Ice Importance Factor :1.00

Calculated Forces

N-													
Seg	Pu	Vu	Tu	Mu	Mu	Resultant	phi	phi	nhi	mbt	Total		
Elev	FY (-)		MY	MZ	MX	Moment	Pn	Vn	phi Tn	phi Mn		D - 1 - 11 -	
(ft)	(kips)	(kips)	(ft-kips)	(ft-kips)	(ft-kips)	(ft-kips)	(kips)	(kips)		(ft-kips)	(in)	Rotation	Datie
0.00	-92.47	-9.92	0.00	-984.72	0.00	984.72						(deg)	Ratio
5.00	-89.31	-9.88	0.00	-935.10	0.00	935.10	4,350.13	2,175.06	7,987.32	3,944.64	0.00	0.00	0.193
10.00	-86.11	-9.83	0.00	-885.70	0.00	885.70	4,285.51	2,142.75	7,679.11	3,792.42	0.03	-0.06	0.188
15.00	-82.89	-9.78	0.00	-836.53	0.00	836.53	4,210.97	2,109.49	7,373.27	3,641.38	0.13	-0.12	0.184
20.00	-79.69	-9.72	0.00	-787.62	0.00	787.62	4,100.02	2,075.26	7,070.06	3,491.64	0.29	-0.18	0.179
25.00	-76.51	-9.65	0.00	-739.01	0.00	739.01	4,000.10	2,040.08	6,769.73	3,343.32	0.52	-0.25	0.174
30.00	-73.34	-9.57	0.00	-690.76	0.00	690.76	2,022,00	2,003.94	6,472.54	3,196.54	0.81	-0.31	0.169
35.00	-70.20	-9.41	0.00	-642.90	0.00	642.90	3,933.69	1,966.85	6,178.73	3,051.44	1.16	-0.37	0.164
40.00	-67.10	-9.27	0.00	-595.86	0.00	595.86	3,004.02	1,927.26	5,883.88	2,905.83	1.59	-0.43	0.158
40.24	-66.94	-9.23	0.00	-593.60	0.00	593.60	3,744.12	1,072.06	5,549.75	2,740.81	2.08	-0.50	0.153
45.00	-63.15	-9.07	0.00	-549.72	0.00	549.72	3,730.74	1,869.37	5,533.71	2,732.89	2.10	-0.50	0.153
45.40	-62.83	-9.02	0.00	-546.10	0.00	546.10	3,033.72	1,010.00	5,225.39	2,580.62	2.63	-0.56	0.146
50.00	-60.13	-8.84	0.00	-504.58	0.00	504.58	3,003.78	1,531.69	4,506.32 4,302.82	2,225.50	2.68	-0.56	0.163
55.00	-57.22	-8.68	0.00	-460.37	0.00	460.37	2 946 93	1,304.34	4,084.17	2,125.00	3.25	-0.62	0.156
55.68	-56.83	-8.62	0.00	-454.50	0.00	454.50	2 938 42	1,473.40	4,054.78	2,017.02	3.93	-0.68	0.147
55.68	-56.83	-8.62	0.00	-454.50	0.00	454.50	2 938 42	1,400.21	4,054.78	2,002.51	4.03	-0.69	0.146
60.00	-54.68	-8.47	0.00	-417.24	0.00	417.24	2,883.27	1 441 64	3,868.42	2,002.51	4.03	-0.69	0.246
63.00	-53.17	-8.36	0.00	-391.84	0.00	391.84	2.844.16	1 422 08	3,740.46	1,910.47	4.68	-0.75	0.237
65.00	-52.40	-8.32	0.00	-375.12	0.00	375.12	2.808.42	1 404 21	3,643.77	1,047.27	5.17	-0.81	0.231
70.00	-50.52	-8.24	0.00	-333.53	0.00	333.53	2,713.79	1 356 80	3,400.96	1,799.52	5.52	-0.86	0.227
75.00	-48.66	-8.08	0.00	-292.33	0.00	292.33	2,619.16	1 309 58	3,166.52	1,079.01	6.48	-0.96	0.217
80.00	-46.47	-7.82	0.00	-251.93	0.00	251.93	2.524.53	1,363.36	2,940.46	1,000.00	7.54	-1.06	0.206
80.79	-46.19	-7.77	0.00	-245.73	0.00	245.73	2.509.53	1 254 76	2,905.39	1,432.10	8.70	-1.16	0.192
84.94	-44.34	-7.64	0.00	-213.47	0.00	213.47	1,499.90	749.95	1,728.05	853.42	8.90 9.95	-1.18	0.190
85.00	-44.32	-7.62	0.00	-213.04	0.00	213.04	1,499.54	749.77	1,726.89	852.85	9.97	-1.25	0.280
90.00	-36.18	-6.34	0.00	-174.93	0.00	174.93	1,466,64	733 32	1,624.12	802.09	11.35	-1.26	0.279
95.00	-34.97	-6.25	0.00	-143.25	0.00	143.25	1,431.82	715.91	1,522.23	751.77	12.86	-1.38	0.243
100.00	-28.04	-5.03	0.00	-112.03	0.00	112.03	1,395.09	697.54	1,421.47	702.01	14.48	-1.49	0.215
105.00	-26.96	-4.92	0.00	-86.87	0.00	86.87	1,356.44	678.22	1,322.10	652.93	16.20	-1.60	0.180
110.00 111.00	-25.91	-4.84	0.00	-62.27	0.00	62.27	1,315.88	657.94	1,224.36	604.67	18.01	-1.69 -1.76	0.153
115.00	-21.02	-3.83	0.00	-57.43	0.00	57.43	1,307.54	653.77	1,205.03	595.12	18.38	-1.78	0.123 0.113
120.00	-20.23	-3.67	0.00	-42.11	0.00	42.11	1,273.40	636.70	1,128.51	557.33	19.89	-1.83	0.091
125.00	-11.47	-2.05	0.00	-23.78	0.00	23.78	1,215.41	607.71	1,023.37	505.40	21.83	-1.87	0.057
125.00	-10.67	-1.97	0.00	-13.53	0.00	13.53	1,152.33	576.16	919.28	454.00	23.81	-1.90	0.037
125.59	-10.58	-1.93	0.00	-12.36	0.00	12.36	1,144.85	572.43	907.31	448.09	24.04	-1.91	0.039
	-10.58	-1.93	0.00	-12.36	0.00	12.36	385.02	192.51	160.54	106.00	24.04	-1.91	0.144
130.00 131.00	-10.04	-1.84	0.00	-3.85	0.00	3.85	385.02	192.51	160.54	106.00	25.81	-1.92	0.062
135.00	-1.37	-0.29	0.00	-2.00	0.00	2.00	385.02	192.51	160.54	106.00	26.21	-1.92	0.062
136.00	-0.94 -0.46	-0.21	0.00	-0.84	0.00	0.84	385.02	192.51	160.54	106.00	27.83	-1.93	0.022
140.00	11 70 7 10 7 10 7	-0.07	0.00	-0.30	0.00	0.30	385.02	192.51	160.54	106.00	28.23	-1.94	0.004
142.00	-0.15	-0.02	0.00	-0.04	0.00	0.04	385.02	192.51	160.54	106.00	29.86	-1.94	0.004
142.00	0.00	-0.01	0.00	0.00	0.00	0.00	385.02	192.51	160.54	106.00	30.67	-1.94	0.000
								1000000		.00.00	30.07	-1.34	0.000

Code: ANSI/TIA-222-G

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Site Name: Customer: WSPT - South, CT AT&T MOBILITY

Engineering Number: OAA720395_C3_01

1/3/2018 11:04:01 AM

Load Case: 1.0D + 1.0W

Serviceability 60 mph

24 Iterations

Gust Response Factor :1.10 Dead Load Factor :1.00

Dead Load Factor :1.00 Wind Load Factor :1.00 Wind Importance Factor 1.00

Applied Segment Forces Summary

		Shaft	Forces		Discret	e Forces		Linear F	orces		Sum o	f Forces	
Seg Elev (ft)	Description	Wind FX (lb)	Dead Load (lb)			Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)		Torsion MY (lb-ft)	Moment MZ (lb)
0.00		78.5	0.0					0.0	0.0	78.5	0.0	0.0	
5.00		155.1	1,055.3					0.0	941.9	155.1	1,997.2		1000
10.00		151.4	1,029.9					0.0	941.9	151.4	1,971.7	0.0	
15.00		149.9	1,004.4					0.0	941.9	149.9	1,946.3	0.0	
20.00		152.4	978.9					0.0	941.9	152.4	1,920.8		- 515
25.00		155.7	953.4					0.0	941.9	155.7	1,895.3	0.0	17.75
30.00		173.3	927.9					0.0	941.9	173.3		0.0	7.77
35.00		189.9	902.4					38.3	941.9	228.1	1,869.8 1,844.3	0.0	0.0
40.00		99.6	877.0					39.5	941.9	139.1		0.0	0.0
40.24	Bot - Section 2	96.6	42.1					2.0	45.9	98.6	1,818.8	0.0	0.0
45.00		99.7	1,519.0					38.6	896.0	138.3	88.0	0.0	0.0
45.40	Top - Section 1	96.1	125.8					3.3	40000000000000000000000000000000000000		2,415.0	0.0	0.0
50.00		183.7	665.9					38.2	75.4 866.5	99.4	201.1	0.0	0.0
55.00		108.1	702.9							221.9	1,532.4	0.0	0.0
55.68	Reinf. Top	94.1	93.5					42.4	941.9	150.4	1,644.7	0.0	0.0
60.00		137.1	587.5					5.8	127.5	99.9	221.0	0.0	0.0
63.00	Appurtenance(s)	86.6	398.1	12.1	0.0	0.0	20.0	37.4	525.6	174.5	1,113.1	0.0	0.0
65.00	1 411 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	106.8	261.0		0.0	0.0	30.6	26.3	364.7	124.9	793.4	0.0	0.0
70.00		165.4	637.3					0.0	109.3	106.8	370.3	0.0	0.0
75.00		176.9	615.5					0.0	273.1	165.4	910.5	0.0	0.0
80.00	Appurtenance(s)	101.2	593.6	05.0				36.1	273.1	213.1	888.6	0.0	0.0
80.79	Bot - Section 3	85.8	92.1	95.8	0.0	0.0	104.6	36.6	273.1	233.6	971.4	0.0	0.0
84.94	Top - Section 2	73.0	796.1					5.9	43.1	91.6	135.2	0.0	0.0
85.00		85.8	4.3					30.8	225.5	103.9	1,021.6	0.0	0.0
90.00	Appurtenance(s)	153.5	375.2	4 050 4				0.4	3.1	86.2	7.4	0.0	0.0
95.00		135.5		1,056.1	0.0	0.0	2,934.5	37.6	271.6	1,247.2	3,581.3	0.0	0.0
100.00	Appurtenance(s)	131.4	360.6	4.044.4			SENSES I	0.0	209.0	135.5	569.6	0.0	0.0
105.00			346.1	1,014.1	0.0	0.0	2,438.8	0.0	209.0	1,145.4	2,993.9	0.0	0.0
110.00		127.1	331.5					0.0	153.3	127.1	484.8	0.0	0.0
111.00	Appurtenance(s)	77.1	316.9					0.0	153.3	77.1	470.2	0.0	0.0
115.00	· · ppartonanou(a)	72.2	61.6	749.9	0.0	0.0	2,180.0	6.0	30.7	828.1	2,272.3	0.0	0.0
120.00	Appurtenance(s)	126.9	240.7					24.0	106.2	151.0	346.9	0.0	0.0
125.00	Appartenance(s)	124.8	287.8	1,255.0	0.0	0.0	3,351.9	30.3	132.7	1,410.1	3,772.5	0.0	0.0
	Ton Castles 2	61.8	273.3					0.0	91.5	61.8	364.8	0.0	
125.59 130.00	Top - Section 3	36.8	31.4					0.0	10.8	36.8	42.3	0.0	0.0
	Annustana(-)	37.3	183.3					13.7	80.6	51.0	264.0	0.0	
131.00	Appurtenance(s)	34.8	41.6	1,302.4	0.0	0.0	3,470.9	3.1	18.3	1,340.2	3,530.8	25577.1	0.0
135.00	A	34.8	166.4					12.5	20.0	47.3	186.4	0.0	0.0
136.00	Appurtenance(s)	21.3	41.6	98.3	0.0	380.8	70.5	3.1	5.0	122.8	117.1	0.0	0.0
140.00		21.5	166.4			3 4 (2,5)		0.0	0.0	21.5		0.0	0.0
142.00		7.2	83.2					0.0	0.0	7.2	166.4	0.0	0.0
									0.0		83.2	0.0	0.0
								To	tals:	10,302.2	46,824.2	0.00	0.00

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Site Name: Customer:

WSPT - South, CT AT&T MOBILITY

Engineering Number: OAA720395_C3_01

1/3/2018 11:04:08 AM

Load Case: 1.0D + 1.0W

Serviceability 60 mph

24 Iterations

Gust Response Factor :1.10

Dead Load Factor: 1.00

Wind Importance Factor 1.00

Wind Load Factor: 1.00

Cal	cul	ated	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 (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-46.82	-10.25	0.00	-961.69	0.00	961.69	4.350.13	2 175 06	7,987.32	2 044 64	0.00		
5.00	-44.81	-10.14	0.00	-910.45	0.00	910.45	4.285.51	2 142 75	7,679.11	3,344.04	0.00	0.00	0.180
10.00	-42.83	-10.03	0.00	-859.76	0.00	859.76	4,218.97	2.109.49	7,373.27	3 641 20	0.03	-0.06	0.176
15.00	-40.87	-9.92	0.00	-809.61	0.00	809.61	4,150.52	2,075.26	7,070.06	3 491 64	0.13 0.28	-0.12	0.171
20.00	-38.94	-9.80	0.00	-760.03	0.00	760.03	4,080,16	2.040.08	6,769.73	3 343 32	0.50	-0.18	0.166
25.00	-37.04	-9.67	0.00	-711.04	0.00	711.04	4.007.88	2.003.94	6,472.54	3 106 54	200	-0.24	0.161
30.00	-35.16	-9.53	0.00	-662.68	0.00	662.68	3,933,69	1.966.85	6,178.73	3,150.54	0.78	-0.30	0.156
35.00	-33.31	-9.32	0.00	-615.06	0.00	615.06	3,854.52	1.927.26	5,883.88	2 905 83	1.13 1.54	-0.36 -0.42	0.151
40.00	-31.48	-9.18	0.00	-568.46	0.00	568.46	3.744.12	1,872.06	5,549.75	2 740 81	2.01		0.145
40.24	-31.39	-9.10	0.00	-566.22	0.00	566.22	3,738.74	1.869.37	5,533.71	2,740.01	2.01	-0.48	0.140
45.00	-28.97	-8.96	0.00	-522.94	0.00	522.94	3,633.72	1.816.86	5,225.39	2,732.09	2.55	-0.48	0.140
45.40	-28.77	-8.87	0.00	-519.36	0.00	519.36	3.063.79	1.531.89	4,506.32	2,300.02	2.59	-0.54	0.133
50.00	-27.23	-8.66	0.00	-478.56	0.00	478.56	3,008,67	1,504.34	4,302.82	2 125 00	3.14	-0.54 -0.60	0.148
55.00	-25.58	-8.51	0.00	-435.26	0.00	435.26	2,946,93	1,473,46	4,084.17	2 017 02	3.80	-0.66	0.141
55.68	-25.36	-8.42	0.00	-429.50	0.00	429.50	2,938,42	1,469,21	4,054.78	2 002 51	3.89		0.133
55.68	-25.36	-8.42	0.00	-429.50	0.00	429.50	2,938,42	1.469.21	4,054.78	2,002.51	3.89	-0.67 -0.67	0.132
60.00 63.00	-24.24	-8.25	0.00	-393.12	0.00	393.12	2,883.27	1,441.64	3,868.42	1.910.47	4.52	-0.72	0.223 0.214
65.00	-23.44 -23.06	-8.14	0.00	-368.36	0.00	368.36	2,844.16	1,422.08	3,740.46	1,847,27	4.99	-0.78	0.208
70.00	-23.06	-8.05	0.00	-352.09	0.00	352.09	2,808.42	1,404.21	3,643.77	1.799.52	5.33	-0.82	0.204
75.00	-22.14	-7.91	0.00	-311.82	0.00	311.82	2,713.79	1,356.89	3,400.96	1,679,61	6.24	-0.92	0.194
80.00	-21.24	-7.72 -7.49	0.00	-272.25	0.00	272.25	2,619.16	1,309.58	3.166.52	1.563.83	7.25	-1.01	0.182
80.79	-20.13	-7.45	0.00	-233.66	0.00	233.66	2,524.53	1,262.26	2,940.46	1,452,18	8.36	-1.10	0.169
84.94	-19.11	-7.41	0.00	-227.73	0.00	227.73	2,509.53	1,254.76	2,905.39	1,434.86	8.54	-1.12	0.167
85.00	-19.09	-7.23	0.00	-196.98	0.00	196.98	1,499.90	749.95	1,728.05	853.42	9.54	-1.19	0.244
90.00	-15.53	-5.93	0.00	-196.57	0.00	196.57	1,499.54	749.77	1,726.89	852.85	9.56	-1.19	0.243
95.00	-14.95	-5.81	0.00	-160.43	0.00	160.43	1,466.64	733.32	1,624,12	802.09	10.87	-1.30	0.211
100.00	-11.98	-4.61	0.00	-130.77	0.00	130.77	1,431.82	715.91	1,522.23	751.77	12.29	-1.41	0.184
105.00	-11.49	-4.48	0.00	-101.72	0.00	101.72	1,395.09	697.54	1,421.47	702.01	13.82	-1.50	0.154
110.00	-11.02	-4.40	. (3335)	-78.69	0.00	78.69	1,356.44	678.22	1,322.10	652.93	15.44	-1.58	0.129
111.00	-8.77	-3.51	0.00	-56.28 -51.88	0.00	56.28	1,315.88	657.94	1,224.36	604.67	17.14	-1.66	0.101
115.00	-8.43	-3.36	0.00	-37.84	0.00	51.88	1,307.54	653.77	1,205.03	595.12	17.49	-1.67	0.094
120.00	-4.70	-1.83	0.00	-21.06		37.84	1,273.40	636.70	1,128.51	557.33	18.90	-1.71	0.075
125.00	-4.34	-1.76	0.00	-11.89	0.00	21.06	1,215.41		1,023.37	505.40	20.72	-1.75	0.046
125.59	-4.30	-1.72	0.00	-10.84	0.00	11.89	1,152.33	576.16	919.28	454.00	22.57	-1.78	0.030
125.59	-4.30	-1.72	0.00	-10.84	0.00	10.84	1,144.85	572.43	907.31	448.09	22.79	-1.78	0.028
130.00	-4.03	-1.67	0.00	-3.24		10.84	385.02	192.51	160.54	106.00	22.79	-1.78	0.114
131.00	-0.55	-0.22	0.00	-1.57	0.00	3.24	385.02	192.51	160.54	106.00	24.44	-1.79	0.041
135.00	-0.36	-0.16	0.00	-0.71	0.00	1.57	385.02	192.51	160.54	106.00	24.82	-1.80	0.016
136.00	-0.25	-0.04	0.00	-0.17	0.00	0.71	385.02	192.51	160.54	106.00	26.33	-1.81	0.008
140.00	-0.08	-0.01	0.00	-0.02	0.00	0.17	385.02	192.51	160.54	106.00	26.71	-1.81	0.002
142.00	0.00	-0.01	0.00	0.00	0.00	0.02	385.02	192.51	160.54	106.00	28.22	-1.81	0.000
(1-1-00) (1-1-00)		0.01	0.00	0.00	0.00	0.00	385.02	192.51	160.54	106.00	28.98	-1.81	0.000

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Site Name: Customer: WSPT - South, CT AT&T MOBILITY

Engineering Number: OAA720395_C3_01

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Equivalent Lateral Forces Method Analysis

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

Spectral Response Acceleration for Short Period (S s):	0.22
Spectral Response Acceleration at 1.0 Second Period (S 1):	0.07
Long-Period Transition Period (T L):	6
Importance Factor (I E):	1.00
Site Coefficient F a:	1.60
Site Coefficient F _v :	2.40
Response Modification Coefficient (R):	1.50
Design Spectral Response Acceleration at Short Period (S ds):	0.24
Design Spectral Response Acceleration at 1.0 Second Period (S d1):	0.11
Seismic Response Coefficient (C s):	0.03
Upper Limit C s	0.03
Lower Limit C s	0.03
Period based on Rayleigh Method (sec):	2.23
Redundancy Factor (p):	1.30
Seismic Force Distribution Exponent (k):	1.87
Total Unfactored Dead Load:	46.82 k
Seismic Base Shear (E):	
Southfigure of the state of the figure of th	1.92 k

Load Case (1.2 + 0.2Sds) * DL + E ELFM Seismic Equivalent Lateral Forces Method

Segment	Height Above Base	Weight	Wz		Horizontal Force	Vertical Force
10000 000000000000000000000000000000000	(ft)	(lb)	(lb-ft)	C vx	(lb)	(lb)
39	141.00	83	850	0.005	10	104
38 37	138.00	166	1,634	0.010	20	
	135.50	47	442	0.003	. 5	207 58
36	133.00	186	1,708	0.011	21	
35	130.50	60	530	0.003	6	232 75
34	127.80	264	2,246	0.014	27	329
33	125.30	42	347	0.002	4	53
32	122.50	365	2,868	0.018	35	
31 30	117.50	421	3,059	0.019	37	455
	113.00	347	2,346	0.015	28	525 433
29	110.50	92	599	0.004	7	
28	107.50	470	2,898	0.018	35	115
27	102.50	485	2,733	0.017		586
26	97.50	555	2,851	0.018	33 35	605
25	92.50	570	2,652	0.017	32	692
24	87.50	647	2,715	0.017		710
23	84.97	7	29	0.000	33	807
22	82.87	1,022	3,874	0.024	. 0	9
21	80.40	135	484	0.003	47	1,274
20	77.50	867		0.018	6	169
19	72.50	889	2,901		35	1,081
18	67.50	910	2,626	0.017	32	1,108
17	64.00	370	2,355 867	0.015 0.005	29 11	1,135 462

Cid- Name -	2		Jode: ANSI/11A-22		© 2007 - 2018 by ATC IP LLC. All rights reserved			
Site Name: WSPT - South, C		Engineering Nu	mber:OAA720395	_C3_01	1/3/2018	11:04:08 AM		
Customer: AT&T MOBILITY								
16	61.50	763	1,658	0.010	20	054		
15	57.84	1,113	2,158	0.014	26	951 1,388		
14 13	55.34	221	395	0.002	5	276		
12	52.50	1,645	2,662	0.017	32	2,051		
11	47.70	1,532	2,074	0.013	25	1,911		
10	45.20	201	246	0.002	3	251		
	42.62	2,415	2,649	0.017	32	3,012		
9	40.12	88	86	0.001	1	110		
8 7	37.50	1,819	1,571	0.010	19	2,268		
6	32.50	1,844	1,220	0.008	15	2,300		
5	27.50	1,870	906	0.006	11	2,332		
4	22.50	1,895	631	0.004	8	2,364		
3	17.50	1,921	400	0.003	5	2,395		
2	12.50	1,946	217	0.001	3	2,427		
1	7.50	1,972	85	0.001	1	2,459		
RCU (Remote Control	2.50 136.00	1,997	11	0.000	0	2,491		
Kathrein Scala 742-2		3	29	0.000	0	4		
Powerwave Allgon 702	136.00	68	645	0.004	8	84		
Kaelus DBC0061F1V51-	131.00	26	235	0.001	3	33		
Powerwave Allgon LGP	131.00 131.00	153	1,363	0.009	17	191		
Raycap DC6-48-60-18-	131.00	169	1,508	0.010	18	211		
Raycap DC6-48-60-18-	131.00	32	283	0.002	3	40		
Ericsson RRUS-11 (50	131.00	32 150	283	0.002	3	40		
Ericsson RRUS 32 w/	131.00	159	1,337	0.008	16	187		
Ericsson RRUS 32 B2	131.00	159	1,414	0.009	17	198		
Powerwave Allgon 777	131.00	105	1,417	0.009	17	198		
Quintel QS66512-2	131.00	333	936	0.006	11	131		
CCI HPA-65R-BUU-H6	131.00	153	2,967	0.019	36	415		
Flat Platform w/ Han	131.00	2,000	1,363 17,821	0.009	17	191		
DragonWave Horizon C	120.00	21	160	0.113 0.001	216	2,494		
Alcatel-Lucent RRH2x	120.00	159	1,201	0.008	2	26		
NextNet BTS-2500	120.00	105	794	0.005	15	198		
Alcatel-Lucent 800 M	120.00	192	1,453	0.009	10	131		
Alcatel-Lucent 1900	120.00	180	1,362	0.009	18 17	239		
Alcatel-Lucent TD-RR	120.00	210	1,589	0.010	19	224		
Argus LLPX310R	120.00	86	649	0.004	8	262		
DragonWave A-ANT-18G	120.00	54	410	0.003	5	107		
RFS APXVSPP18-C-A20	120.00	171	1,294	0.008	16	68		
Commscope DT465B-2XR	120.00	174	1,316	0.008	16	213 217		
Flat Platform w/ Han	120.00	2,000	15,131	0.096	184	2,494		
48" x 8" Panel	111.00	180	1,177	0.007	14	224		
Flat Platform w/ Han	111.00	2,000	13,083	0.083	159	2,494		
RFS FD9R6004/1C-3L	100.00	19	100	0.001		2,494		
Alcatel-Lucent RRH2x	100.00	132	711	0.004	9	165		
Rymsa MGD3-800TX	100.00	46	249	0.002	3	58		
Antel BXA-171063/12C	100.00	45	242	0.002	3	56		
RFS DB-T1-6Z-8AB-0Z	100.00	44	237	0.001	3	55		
Antel BXA-70080/6CF_	100.00	54	291	0.002	4	67		
Powerwave Allgon P65	100.00	99	533	0.003	6	123		
Flat Platform w/ Han	100.00	2,000	10,768	0.068	131	2,494		
RFS ATMAA1412D-1A20	90.00	52	230	0.001	3	65		
Ericsson RRUS 11 B12	90.00	152	673	0.004	8	190		
Ericsson AIR 21, 1.3	90.00	332	1,469	0.009	18	414		
Ericsson AIR 21, 1.3	90.00	244	1,082	0.007	13	305		
Andrew LNX-6515DS-VT	90.00	154	681	0.004	8	192		
Flat Platform w/ Han Diamond X50A	90.00	2,000	8,847	0.056	107	2,494		
	80.00	5	16	0.000	Ó	2,434		
Stand-Offs	80.00	100	355	0.002	4	125		
PCTEL GPS-TMG-HR-26N	63.00	1	1	0.000	. 0	1 1		
Stand-Off	63.00	30	68	0.000	1	37		
		46 824	450.050			31		
		46,824	158,352	1.000	1,921	58,397		
						577		

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Site Name:

WSPT - South, CT

Engineering Number: OAA720395_C3_01

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Customer:

AT&T MOBILITY

ad Case (0.9 - 0.2Sds) *	12-5	Seisinic (Redu	ced DL) Equiva	lent Lateral F	orces Method	
	Height Above Base	Weight	W		Horizontal	Vertical
Segment	(ft)	(lb)	Wz		Force	Force
39			(lb-ft)	C vx	(lb)	(lb)
38	141.00 138.00	83 166	850	0.005	10	71
37	135.50	47	1,634 442	0.010 0.003	20	142
86	133.00	186	1,708	0.011	5	40
85	130.50	60	530	0.003	21 6	159
4	127.80	264	2,246	0.014	27	5
3	125.30	42	347	0.002	4	30
32	122.50	365	2,868	0.018	35	31
1 0	117.50	421	3,059	0.019	37	359
9	113.00	347	2,346	0.015	28	296
18	110.50	92	599	0.004	7	79
7	107.50	470	2,898	0.018	35	401
	102.50 97.50	485	2,733	0.017	33	413
15	92.50	555 570	2,851	0.018	35	473
4	87.50	647	2,652	0.017	32	486
3	84.97	7	2,715	0.017	33	552
2	82.87	1,022	29 3,874	0.000 0.024	0	(
1	80.40	135	484	0.003	47	87
0	77.50	867	2,901	0.018	6 35	115
9	72.50	889	2,626	0.017	32	739
8	67.50	910	2,355	0.015	29	758
7	64.00	370	867	0.005	11	776 316
6 5	61.50	763	1,658	0.010	20	651
4	57.84	1,113	2,158	0.014	26	949
3	55.34	221	395	0.002	5	188
2	52.50	1,645	2,662	0.017	32	1,403
1	47.70 45.20	1,532	2,074	0.013	25	1,307
Ö	42.62	201 2,415	246	0.002	3	172
	40.12	88	2,649	0.017	32	2,060
	37.50	1,819	86	0.001	1	75
	32.50	1,844	1,571	0.010	19	1,551
	27.50	1,870	1,220 906	0.008	15	1,573
	22.50	1,895	631	0.004	11	1,595
	17.50	1,921	400	0.003	8	1,616
	12.50	1,946	217	0.001	5 3	1,638
	7.50	1,972	85	0.001	1	1,660 1,682
ICII (Damarta Carata I	2.50	1,997	11	0.000	0	1,703
CU (Remote Control	136.00	3	29	0.000	0	1,70
athrein Scala 742-2 owerwave Allgon 702	136.00	68	645	0.004	8	58
aelus DBC0061F1V51-	131.00	26	235	0.001	3	23
owerwave Allgon LGP	131.00	153	1,363	0.009	17	130
aycap DC6-48-60-18-	131.00	169	1,508	0.010	18	144
aycap DC6-48-60-18-	131.00	32	283	0.002	3	27
ricsson RRUS-11 (50	131.00 131.00	32	283	0.002	3	27
ricsson RRUS 32 w/	131.00	150	1,337	0.008	16	128
ricsson RRUS 32 B2	131.00	159	1,414	0.009	17	135
owerwave Allgon 777	131.00	159 105	1,417	0.009	17	136
uintel QS66512-2	131.00	333	936	0.006	11	90
CI HPA-65R-BUU-H6	131.00	153	2,967	0.019	36	284
lat Platform w/ Han	131.00	2,000	1,363	0.009	17	130
ragonWave Horizon C	120.00	2,000	17,821	0.113	216	1,706
Icatel-Lucent RRH2x	120.00	159	160	0.001	2	18
extNet BTS-2500	120.00	105	1,201	0.008	15	135
Icatel-Lucent 800 M		100	794	0.005	10	90

Site Number: 302511 Site Name: WSPT - South, CT Customer: AT&T MOBILITY			ode: ANSI/TIA-22 mber:OAA720395	ACCUMANT SECTION	© 2007 - 2018 by ATC IP LLC. All rights reserved. 1/3/2018 11:04:08 AM			
Alcatel-Lucent 1900 Alcatel-Lucent TD-RR	120.00	180	1,362	0.009	17	154		
Argus LLPX310R	120.00	210	1,589	0.010	19	179		
DragonWave A-ANT-18G	120.00	86	649	0.004	8	73		
RFS APXVSPP18-C-A20	120.00	54	410	0.003	5	46		
Commscope DT465B-2XR	120.00	171	1,294	0.008	16	146		
Flat Platform w/ Han	120.00	174	1,316	0.008	16	148		
48" x 8" Panel	120.00	2,000	15,131	0.096	184	1,706		
	111.00	180	1,177	0.007	14	154		
Flat Platform w/ Han	111.00	2,000	13,083	0.083	159	1,706		
RFS FD9R6004/1C-3L	100.00	19	100	0.001	1	1,706		
Alcatel-Lucent RRH2x	100.00	132	711	0.004	9	113		
Rymsa MGD3-800TX	100.00	46	249	0.002	3	39		
Antel BXA-171063/12C	100.00	45	242	0.002	3	38		
RFS DB-T1-6Z-8AB-0Z	100.00	44	237	0.001	3	38		
Antel BXA-70080/6CF_	100.00	54	291	0.002	4			
Powerwave Allgon P65 Flat Platform w/ Han	100.00	99	533	0.003	6	46 84		
	100.00	2,000	10,768	0.068	131	1,706		
RFS ATMAA1412D-1A20	90.00	52	230	0.001	3	44		
Ericsson RRUS 11 B12	90.00	152	673	0.004	8	130		
Ericsson AIR 21, 1.3	90.00	332	1,469	0.009	18			
Ericsson AIR 21, 1.3	90.00	244	1,082	0.007	13	283 209		
Andrew LNX-6515DS-VT	90.00	154	681	0.004	8	131		
Flat Platform w/ Han	90.00	2,000	8,847	0.056	107			
Diamond X50A	80.00	5	16	0.000	107	1,706		
Stand-Offs	80.00	100	355	0.002	, A	4		
PCTEL GPS-TMG-HR-26N	63.00	1	1	0.000	0	85		
Stand-Off	63.00	30	68	0.000	1	1 26		
		46,824	158,352	1.000	1,921	39,934		

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Site Name: WSPT - South, CT

Engineering Number: OAA720395_C3_01

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Customer: AT&T MOBILITY

Load Case (1.2 + 0.2Sds) * DL + E ELFM Seismic Equivalent Lateral Forces Method

Calculated Forces

Seg	Pu	Vu	Tu	Mu	Mu	B	20100						
Elev	FY (-)		MY	MZ		Resultant	phi	phi	phi	phi	Total		
(ft)	(kips)	(kips)	(ft-kips)		MX	Moment	Pn	Vn	Tn	Mn	Deflect	Rotation	
(10)	(who)	(Kibs)	(II-Kips)	(ft-kips)	nt-kips)	(ft-kips)	(kips)	(kips)	(ft-kips	(ft-kips)	(in)	(deg)	Ratio
0.00	-55.91	-1.93	0.00	-207.50	0.00	207.50	4 250 42	2 475 00				(===3)	
5.00	-53.45	-1.94	0.00	-197.87	0.00	197.87	4,300.13	2,175.06	7,987.32	3,944.64	0.00	0.00	0.047
10.00	-51.02	-1.94	0.00	-188.19	0.00	188.19	4,200.01	2,142.75	7,679.11	3,792.42	0.01	-0.01	0.046
15.00	-48.62	-1.95	0.00	-178.46	0.00	178.46	4,210.97	2,109.49	7,373.27	3,641.38	0.03	-0.03	0.045
20.00	-46.26	-1.95	0.00	-168.72	0.00	168.72	4,130.32	2,075.26	7,070.06	3,491.64	0.06	-0.04	0.044
25.00	-43.93	-1.95	0.00	-158.96	0.00	158.96	4,000.10	2,040.08	6,769.73	3,343.32	0.11	-0.05	0.043
30.00	-41.63	-1.94	0.00	-149.22	0.00	149.22	3 032 60	1,000.94	6,472.54	3,196.54	0.17	-0.07	0.041
35.00	-39.36	-1.93	0.00	-139.52	0.00	139.52	3,555.05	1,900.00	6,178.73	3,051.44	0.25	-0.08	0.040
40.00	-39.25	-1.93	0.00	-129.89	0.00	129.89	2 744 42	1,927.20	5,883.88	2,905.83	0.34	-0.09	0.039
40.24	-36.23	-1.90	0.00	-129.41	0.00	129.41	2 720 74	1,072.06	5,549.75	2,740.81	0.44	-0.11	0.038
45.00	-35.98	-1.90	0.00	-120.39	0.00	120.39	3,730.74	1,009.37	5,533.71	2,732.89	0.45	-0.11	0.038
45.40	-34.07	-1.87	0.00	-119.63	0.00	119.63	3,033.72	1,010.00	5,225.39	2,580.62	0.56	-0.12	0.036
50.00	-32.02	-1.84	0.00	-111.02	0.00	111.02	3 000 67	1,551.09	4,506.32	2,225.50	0.57	-0.12	0.040
55.00	-31.74	-1.84	0.00	-101.80	0.00	101.80	2,000.07	1,504.34	4,302.82	2,125.00	0.69	-0.13	0.039
55.68	-30.36	-1.82	0.00	-100.55	0.00	100.55	2,940.93	1,473.46	4,084.17	2,017.02	0.84	-0.15	0.037
55.68	-30.36	-1.82	0.00	-100.55	0.00	100.55	2,930.42	1,469.21	4,054.78	2,002.51	0.86	-0.15	0.036
60.00	-29.40	-1.80	0.00	-92.70	0.00	92.70	2,330.42	1,409.21	4,054.78	2,002.51	0.86	-0.15	0.061
63.00	-28.90	-1.79	0.00	-87.30	0.00	87.30	2,003.27	1,441.04	3,868.42	1,910.47	1.00	-0.16	0.059
65.00	-27.77	-1.77	0.00	-83.71	0.00	83.71	2,044.10	1,422.00	3,740.46	1,847.27	1.11	-0.18	0.057
70.00	-26.66	-1.74	0.00	-74.86	0.00	74.86	2,000.42	1,404.21	3,643.77	1,799.52	1.19	-0.19	0.056
75.00	-25.58	-1.72	0.00	-66.14	0.00	66.14	2,713.79	1,350.89	3,400.96	1,679.61	1.39	-0.21	0.054
80.00	-25.28	-1.71	0.00	-57.56	0.00	57.56	2,513.10	1,309.30	3,166.52	1,563.83	1.62	-0.23	0.052
80.79	-24.00	-1.66	0.00	-56.20	0.00	56.20	2,524.55	1,202.20	2,940.46	1,452.18	1.88	-0.25	0.050
84.94	-24.00	-1.67	0.00	-49.31	0.00	49.31	1,499.90	7/0 05	2,905.39 1,728.05		1.92	-0.26	0.049
85.00	-23.19	-1.63	0.00	-49.21	0.00	49.21	1,499.54	740.77	1,726.89	853.42	2.15	-0.28	0.074
90.00	-18.82	-1.43	0.00	-41.04	0.00	41.04	1,466.64	733 32	1,624.12	852.85 802.09	2.16	-0.28	0.073
95.00	-18.13	-1.40	0.00	-33.88	0.00	33.88	1,431.82	715.01	1,522.23	THE STATE OF THE S	2.46	-0.30	0.064
100.00	-14.48	-1.19	0.00	-26.88	0.00	26.88	1,395.09	607.54	1,421.47	751.77	2.80	-0.33	0.058
105.00	-13.89	-1.16	0.00	-20.91	0.00	20.91	1,356.44	679 22	1,322.10	702.01	3.16	-0.36	0.049
110.00	-13.78	-1.15	0.00	-15.12	0.00	15.12	1,315.88	657 94	1,224.36	652.93	3.54	-0.38	0.042
111.00	-10.63	-0.93	0.00	-13.97	0.00	13.97	1,307.54	653.77	1,205.03	604.67 595.12	3.95	-0.40	0.035
115.00	-10.10	-0.89	0.00	-10.24	0.00	10.24	1,273,40	636.70	1,128.51	557.33	4.03	-0.40	0.032
120.00	-5.47	-0.52	0.00	-5.77	0.00	5.77	1,215.41		1,023.37	505.40	4.37	-0.41	0.026
125.00	-5.42	-0.51	0.00	-3.19	0.00	3.19	1,152.33	576.16	919.28	454.00	4.81	-0.42	0.016
125.59	-5.09	-0.48	0.00	-2.88	0.00	2.88	1,144.85	572.43	907.31	448.09	5.26	-0.43	0.012
125.59	-5.09	-0.48	0.00	-2.88	0.00	2.88	385.02	192.51	160.54	106.00	5.31	-0.43	0.011
130.00	-5.01	-0.48	0.00	-0.75	0.00	0.75	385.02	192.51	160.54		5.31	-0.43	0.040
131.00	-0.46	-0.05	0.00	-0.27	0.00	0.27	385.02	192.51	160.54	106.00 106.00	5.71	-0.43	0.020
135.00	-0.40	-0.04	0.00	-0.08	0.00	0.08	385.02	192.51	160.54	106.00	5.80 6.17	-0.44	0.004
136.00	-0.10	-0.01	0.00	-0.04	0.00	0.04	385.02	192.51	160.54	106.00		-0.44	0.002
140.00	0.00	0.00	0.00	0.00	0.00	0.00	385.02	192.51	160.54	106.00	6.26	-0.44	0.001
142.00	0.00	0.00	0.00	0.00	0.00	0.00	385.02	192.51	160.54	106.00	6.62	-0.44	0.000
					AAMS-(F)	보고(17 전·조·	000.02	102.01	100.34	100.00	6.81	-0.44	0.000

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Customer:

Site Name: WSPT - South, CT AT&T MOBILITY

Engineering Number: OAA720395_C3_01

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Load Case (0.9 - 0.2Sds) * DL + E ELFM

Seismic (Reduced DL) Equivalent Lateral Forces Method

Calculated Forces

Seg Elev (ft)	(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 5.00	-38.23 -36.55	-1.92	0.00	-204.37	0.00	204.37	4,350,13	2.175.06	7,987.32	3 944 64	0.00	0.00	0.040
10.00	-34.89	-1.93	0.00	-194.75	0.00	194.75	4,285.51	2,142.75	7,679.11	3.792.42	0.01	0.00 -0.01	0.043
15.00	-33.25	-1.94	0.00	-185.10	0.00	185.10	4,218.97	2,109.49	7.373.27	3.641 38	0.03	-0.01	0.042
20.00	-31.63	-1.94 -1.94	0.00	-175.42	0.00	175.42	4,150.52	2,075.26	7,070.06	3,491,64	0.06	-0.03	0.041
25.00	-30.04	-1.93	0.00	-165.73	0.00	165.73	4,080.16	2,040.08	6.769.73	3.343.32	0.11	-0.05	0.039
30.00	-28.46	-1.93	0.00	-156.05	0.00	156.05	4,007.88	2,003.94	6.472.54	3 196 54	0.17	-0.06	0.038
35.00	-26.91	-1.90	0.00	-146.41	0.00	146.41	3,933.69	1,966.85	6,178.73	3.051.44	0.24	-0.08	0.037
40.00	-26.84	-1.91	0.00	-136.81 -127.28	0.00	136.81	3,854.52	1,927.26	5,883,88	2.905.83	0.33	-0.09	0.036
40.24	-24.78	-1.87	0.00		0.00	127.28	3,744.12	1,872.06	5,549,75	2.740.81	0.43	-0.10	0.035
45.00	-24.61	-1.87	0.00	-126.82 -117.91	0.00	126.82	3,738.74	1,869.37	5.533.71	2 732 89	0.44	-0.11	0.035
45.40	-23.30	-1.85	0.00	-117.16	0.00	117.91	3,633.72	1,816.86	5.225.39	2.580.62	0.55	-0.12	0.034
50.00	-21.90	-1.82	0.00	-108.66	0.00	117.16 108.66	3,063.79	1,531.89	4,506.32	2,225.50	0.56	-0.12	0.037
55.00	-21.71	-1.82	0.00	-99.57	0.00	99.57	3,008.67	1,504.34	4,302.82	2,125.00	0.68	-0.13	0.036
55.68	-20.76	-1.79	0.00	-98.34	0.00	98.34	2,946.93	1,473.46	4,084.17	2,017.02	0.83	-0.14	0.034
55.68	-20.76	-1.79	0.00	-98.34	0.00	98.34	2,938.42	1,469.21	4,054.78	2,002.51	0.85	-0.15	0.034
60.00	-20.11	-1.77	0.00	-90.60	0.00	90.60	2,930.42	1,469.21	4,054.78	2,002.51	0.85	-0.15	0.056
63.00	-19.76	-1.76	0.00	-85.29	0.00	85.29	2,003.27	1,441.64	3,868.42	1,910.47	0.99	-0.16	0.054
65.00	-18.99	-1.74	0.00	-81.76	0.00	81.76	2,044.10	1,422.00	3,740.46	1,847.27	1.09	-0.17	0.053
70.00	-18.23	-1.71	0.00	-73.07	0.00	73.07	2,712.70	1,404.21	3,643.77	1,799.52	1.16	-0.18	0.052
75.00	-17.49	-1.68	0.00	-64.51	0.00	64.51	2 619 16	1,350.09	3,400.96 3,166.52	1,679.61	1.37	-0.20	0.050
80.00	-17.28	-1.67	0.00	-56.11	0.00	56.11	2 524 53	1 262 26	2,940.46	1,563.83	1.59	-0.23	0.048
80.79	-16.41	-1.62	0.00	-54.79	0.00	54.79	2 509 53	1,202.20	2,940.46	1,452.18	1.84	-0.25	0.045
84.94	-16.41	-1.63	0.00	-48.04	0.00	48.04	1,499.90	749 95	1,728.05	853.42	1.89	-0.25	0.045
85.00	-15.85	-1.60	0.00	-47.95	0.00	47.95	1,499.54	749 77	1,726.89	852.85	2.11	-0.27	0.067
90.00 95.00	-12.87 -12.39	-1.40	0.00	-39.97	0.00	39.97	1,466.64	733.32	1,624.12	802.09	2.12	-0.27	0.067
100.00		-1.37	0.00	-32.99	0.00	32.99	1,431.82	715.91	1,522.23	751.77	2.74	-0.30	0.059
105.00	-9.90 -9.50	-1.16	0.00	-26.16	0.00	26.16	1,395.09	697.54	1,421.47	702.01	3.09	-0.32 -0.35	0.053
110.00	-9.50 -9.42	-1.13	0.00	-20.35	0.00	20.35	1,356.44	678.22	1,322.10	652.93	3.47	-0.35	0.044
111.00	-7.27	-1.12 -0.91	0.00	-14.71	0.00	14.71	1,315.88	657.94	1,224.36	604.67	3.87	-0.39	0.038
115.00	-6.91	-0.87	0.00	-13.59	0.00	13.59	1,307.54	653.77	1,205.03	595.12	3.95	-0.39	0.031
120.00	-3.74	-0.50	0.00	-9.97	0.00	9.97	1,273.40	636.70	1,128.51	557.33	4.28	-0.40	0.023
125.00	-3.70	-0.50	0.00	-5.62	0.00	5.62	1,215.41	607.71	1,023.37	505.40	4.71	-0.41	0.014
125.59	-3.48	-0.47	0.00	-3.10 -2.81	0.00	3.10	1,152.33	576.16	919.28	454.00	5.15	-0.42	0.010
125.59	-3.48	-0.47	0.00	-2.81	0.00	2.81	1,144.85	572.43	907.31	448.09	5.20	-0.42	0.009
130.00	-3.43	-0.46	0.00	-0.73	0.00	2.81	385.02	192.51	160.54	106.00	5.20	-0.42	0.036
131.00	-0.31	-0.05	0.00	-0.73	0.00	0.73	385.02	192.51	160.54	106.00	5.59	-0.42	0.016
135.00	-0.27	-0.04	0.00	-0.08	0.00	0.27	385.02	192.51	160.54	106.00	5.68	-0.43	0.003
136.00	-0.07	-0.01	0.00	-0.04	0.00	0.08 0.04	385.02	192.51	160.54	106.00	6.04	-0.43	0.001
140.00	0.00	0.00	0.00	0.00	0.00	0.04	385.02	192.51	160.54	106.00	6.13	-0.43	0.001
142.00	0.00	0.00	0.00	0.00	0.00	0.00	385.02	192.51	160.54	106.00	6.48	-0.43	0.000
		1000		0.00	0.00	0.00	385.02	192.51	160.54	106.00	6.66	-0.43	0.000

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Site Name:

WSPT - South, CT

Engineering Number: OAA720395_C3_01

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Customer:

AT&T MOBILITY

Equivalent Modal Forces Analysis

(Based on ASCE7-10 Chapters 11, 12 & 15 and ANSI/TIA-G, section 2.7)

Importance Factor (I E): Site Coefficient F a: Site Coefficient F v Response Modification Coefficient (R): Design Spectral Response Acceleration at Short Period (S ds): Design Spectral Response Acceleration at 1.0 Second Period (S d1): Period Based on Rayleigh Method (sec): 2.23	Spectral Response Acceleration for Short Period (S s):	0.22
Site Coefficient F a: 1.60 Site Coefficient F v 2.40 Response Modification Coefficient (R): 1.50 Design Spectral Response Acceleration at Short Period (S ds): 0.24 Desing Spectral Response Acceleration at 1.0 Second Period (S d1): 0.11 Period Based on Rayleigh Method (sec): 2.23	Spectral Response Acceleration at 1.0 Second Period (S 1):	0.07
Site Coefficient F v 2.40 Response Modification Coefficient (R): 1.50 Design Spectral Response Acceleration at Short Period (S ds): 0.24 Desing Spectral Response Acceleration at 1.0 Second Period (S d1): 0.11 Period Based on Rayleigh Method (sec): 2.23	Importance Factor (I E):	1.00
Response Modification Coefficient (R): Design Spectral Response Acceleration at Short Period (S ds): Desing Spectral Response Acceleration at 1.0 Second Period (S d1): Period Based on Rayleigh Method (sec): 2.23	Site Coefficient F a:	1.60
Design Spectral Response Acceleration at Short Period (S ds): 0.24 Desing Spectral Response Acceleration at 1.0 Second Period (S d1): 0.11 Period Based on Rayleigh Method (sec): 2.23	Site Coefficient F v	2.40
Design Spectral Response Acceleration at Short Period (S ds): 0.24 Desing Spectral Response Acceleration at 1.0 Second Period (S d1): 0.11 Period Based on Rayleigh Method (sec): 2.23	Response Modification Coefficient (R):	1.50
Desing Spectral Response Acceleration at 1.0 Second Period (S d1): 0.11 Period Based on Rayleigh Method (sec): 2.23	Design Spectral Response Acceleration at Short Period (S	0.24
Period Based on Rayleigh Method (sec): 2.23	Docing Spectral Beauty A. J. C.	
Redundancy Factor (p): 1.30	Redundancy Factor (p):	

<u>Load Case</u> (1.2 + 0.2Sds) * DL + E EMAM Seismic Equivalent Modal Analysis Method

	Height Above Base	Weight					Horizontal Force	Vertical
Segment	(ft)	(lb)	а	b	С	Saz	(lb)	Force (lb) 104 207 58 232 75 329 53 455 525 433 115 586 605 692 710 807 9 1,274 169 1,081 1,108 1,135 462 951
39	141.00	83	1.863	1.843	1.090	0.405	200	WO ME
38	138.00	166	1.785	1.471	0.952	0.425	31	
37	135.50	47	1.721	1.203	0.847	0.365 0.318	53	
36	133.00	186	1.658	0.969	0.752	0.274	13	
35	130.50	60	1.596	0.767	0.665	0.274	44	
34	127.80	264	1.531	0.580	0.580		12	
33	125.30	42	1.472	0.433	0.510	0.192 0.157	44	
32	122.50	365	1.407	0.296	0.439	0.120	6	
31	117.50	421	1.294	0.112	0.331		38	
30	113.00	347	1.197	0.002	0.252	0.064 0.022	23	
29	110.50	92	1.144	-0.041	0.215		7	
28	107.50	470	1.083	-0.079	0.177	0.002 -0.018	0	
27	102.50	485	0.985	-0.113	0.124		-7	
26	97.50	555	0.891	-0.113	0.084	-0.043	-18	
25	92.50	570	0.802	-0.122	0.054	-0.057	-28	
24	87.50	647	0.718	-0.092	0.034	-0.061	-30	
23	84.97	7	0.677	-0.092	0.026	-0.055	-31	807
22	82.87	1,022	0.644	-0.068	0.020	-0.048	0	
21	80.40	135	0.606	-0.055	0.020	-0.041	-36	1,274
20	77.50	867	0.563	-0.039		-0.031	-4	169
19	72.50	889			0.011	-0.017	-13	1,081
18	67.50	910	0.493	-0.013	0.007	0.007	5	1,108
17	64.00	370	0.427	0.009	0.006	0.029	23	
16	61.50	763	0.384	0.023	0.007	0.042	13	
15	57.84		0.355	0.032	800.0	0.049	32	951
14	55.34	1,113	0.314	0.042	0.011	0.057	55	1,388
13		221	0.287	0.048	0.013	0.061	12	276
12	52.50	1,645	0.258	0.054	0.016	0.064	91	2,051
11	47.70	1,532	0.213	0.061	0.021	0.066	88	1,911
10	45.20	201	0.191	0.064	0.024	0.066	12	251
9	42.62	2,415	0.170	0.066	0.027	0.066	138	3,012
8	40.12	88	0.151	0.068	0.030	0.066	5	110
	37.50	1,819	0.132	0.069	0.033	0.065	102	
7 6	32.50	1,844	0.099	0.071	0.037	0.063	101	2,268
0	27.50	1,870	0.071	0.072	0.041	0.062	100	2,300
						01002	100	2,332

Site Number: 302511 Code: ANSI/TIA-222-G © 2007 - 2018 by ATC IP LLC. All rights reserved.

Site Name: WSPT - South, CT Engineering Number: OAA720395_C3_01

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Customer: AT&T MOBILITY

5	22.50	1,895	0.047	0.071	0.042	0.060	98	0.004
4	17.50	1,921	0.029	0.068	0.040	0.057	95	2,364
2	12.50	1,946	0.015	0.060	0.035	0.052	88	2,395 2,427
	7.50	1,972	0.005	0.045	0.026	0.042	71	2,459
Name and the second second	2.50	1,997	0.001	0.019	0.010	0.020	35	205 Cimes
RCU (Remote Control	136.00	3	1.734	1.254	0.867	0.328	1	2,491
Cathrein Scala 742-2	136.00	68	1.734	1.254	0.867	0.328	19	4 84
owerwave Allgon 702	131.00	26	1.609	0.805	0.682	0.241	6	33
aelus DBC0061F1V51-	131.00	153	1.609	0.805	0.682	0.241	32	191
owerwave Aligon LGP	131.00	169	1.609	0.805	0.682	0.241	35	211
Raycap DC6-48-60-18-	131.00	32	1.609	0.805	0.682	0.241	7	40
Raycap DC6-48-60-18-	131.00	32	1.609	0.805	0.682	0.241	7	40
ricsson RRUS-11 (50	131.00	150	1.609	0.805	0.682	0.241	31	187
ricsson RRUS 32 w/	131.00	159	1.609	0.805	0.682	0.241	33	
ricsson RRUS 32 B2	131.00	159	1.609	0.805	0.682	0.241	33	198
owerwave Allgon 777	131.00	105	1.609	0.805	0.682	0.241	22	198
Quintel QS66512-2	131.00	333	1.609	0.805	0.682	0.241	70	131 415
CI HPA-65R-BUU-H6	131.00	153	1.609	0.805	0.682	0.241	32	191
lat Platform w/ Han	131.00	2,000	1.609	0.805	0.682	0.241	418	2.494
PragonWave Horizon C	120.00	21	1.350	0.195	0.382	0.091	2	
Alcatel-Lucent RRH2x	120.00	159	1.350	0.195	0.382	0.091	12	26 198
lextNet BTS-2500	120.00	105	1.350	0.195	0.382	0.091	8	110555
Alcatel-Lucent 800 M	120.00	192	1.350	0.195	0.382	0.091	15	. 131
Alcatel-Lucent 1900	120.00	180	1.350	0.195	0.382	0.091	14	239 224
Alcatel-Lucent TD-RR	120.00	210	1.350	0.195	0.382	0.091	16	262
Argus LLPX310R	120.00	86	1.350	0.195	0.382	0.091	7	107
DragonWave A-ANT-18G	120.00	54	1.350	0.195	0.382	0.091	4	68
RFS APXVSPP18-C-A20	120.00	171	1.350	0.195	0.382	0.091	13	213
Commscope DT465B-	120.00	174	1.350	0.195	0.382	0.091	14	217
Flat Platform w/ Han I8" x 8" Panel	120.00	2,000	1.350	0.195	0.382	0.091	157	2,494
	111.00	180	1.155	-0.034	0.223	0.006	1	224
Flat Platform w/ Han	111.00	2,000	1.155	-0.034	0.223	0.006	10	2,494
RFS FD9R6004/1C-3L	100.00	19	0.937	-0.120	0.102	-0.051	-1	23
Alcatel-Lucent RRH2x	100.00	132	0.937	-0.120	0.102	-0.051	-6	165
Rymsa MGD3-800TX	100.00	46	0.937	-0.120	0.102	-0.051	-2	58
Antel BXA-171063/12C RFS DB-T1-6Z-8AB-0Z	100.00	45	0.937	-0.120	0.102	-0.051	-2	56
	100.00	44	0.937	-0.120	0.102	-0.051	-2	55
Antel BXA-70080/6CF_	100.00	54	0.937	-0.120	0.102	-0.051	-2	67
Powerwave Allgon P65 Tat Platform w/ Han	100.00	99	0.937	-0.120	0.102	-0.051	-4	123
RFS ATMAA1412D-1A20	100.00	2,000	0.937	-0.120	0.102	-0.051	-89	2,494
	90.00	52	0.759	-0.103	0.043	-0.059	-3	65
ricsson RRUS 11 B12	90.00	152	0.759	-0.103	0.043	-0.059	-8	190
ricsson AIR 21, 1.3 ricsson AIR 21, 1.3	90.00	332	0.759	-0.103	0.043	-0.059	-17	414
ndrew LNX-6515DS-VT	90.00	244	0.759	-0.103	0.043	-0.059	-13	305
lat Platform w/ Han	90.00	154	0.759	-0.103	0.043	-0.059	-8	192
iat Platform W/ Han	90.00	2,000	0.759	-0.103	0.043	-0.059	-103	2,494
tand-Offs	80.00	5	0.600	-0.053	0.015	-0.029	0	2,434
	80.00	100	0.600	-0.053	0.015	-0.029	-3	125
CTEL GPS-TMG-HR- tand-Off	63.00	_1	0.372	0.027	0.008	0.045	0	125
talia-Oli	63.00	30	0.372	0.027	0.008	0.045	1	37
		46,824	81.201	20.422	23.294	6.621	2,029	58,397

<u>Load Case</u> (0.9 - 0.2Sds) * DL + E EMAM Seismic (Reduced DL) Equivalent Modal Analysis Method

Segment	Height Above Base (ft)	Weight (lb)	a	b	c	Saz	Horizontal Force (lb)	Vertical Force (lb)
39 38 37	141.00 138.00 135.50	83 166 47	1.863 1.785 1.721	1.843 1.471 1.203	1.090 0.952 0.847	0.425 0.365 0.318	31 53 13	71 142

Site Number: 302511				Code: /	ANSI/TIA-2	222-G © 200	7 - 2018 by ATC ID	LLC. All rights reserved
Site Name: WSPT - So	outh, CT		Engineering					
Customer: AT&T MOE	BILITY				JAN 2000	3_03_01	1/	/3/2018 11:04:08 AM
36	133.00	186	1.658	0.969	0.752	0.074		
35	130.50	60	1.596	0.767	0.665	0.274 0.233	44 12	159
34 33	127.80	264	1.531	0.580	0.580	0.192	44	51
32	125.30	42	1.472	0.433	0.510	0.157	6	225 36
31	122.50	365	1.407	0.296	0.439	0.120	38	311
30	117.50 113.00	421	1.294	0.112	0.331	0.064	23	359
29	110.50	347	1.197	0.002	0.252	0.022	7	296
28	107.50	92 470	1.144	-0.041	0.215	0.002	0	79
27	102.50	485	1.083 0.985	-0.079 -0.113	0.177 0.124	-0.018	-7	401
26	97.50	555	0.891	-0.113	0.084	-0.043	-18	413
25	92.50	570	0.802	-0.112	0.054	-0.057 -0.061	-28	473
24	87.50	647	0.718	-0.092	0.033	-0.055	-30	486
23	84.97	7	0.677	-0.080	0.026	-0.048	-31 0	552
22	82.87	1,022	0.644	-0.068	0.020	-0.041	-36	6
21 20	80.40	135	0.606	-0.055	0.015	-0.031	-4	871 115
19	77.50	867	0.563	-0.039	0.011	-0.017	-13	739
18	72.50	889	0.493	-0.013	0.007	0.007	5	758
17	67.50	910	0.427	0.009	0.006	0.029	23	776
16	64.00 61.50	370 763	0.384	0.023	0.007	0.042	13	316
15	57.84	1,113	0.355	0.032	0.008	0.049	32	651
14	55.34	221	0.314 0.287	0.042	0.011	0.057	55	949
13	52.50	1,645	0.258	0.048	0.013	0.061	12	188
12	47.70	1,532	0.213	0.061	0.021	0.064 0.066	91	1,403
11	45.20	201	0.191	0.064	0.024	0.066	88 12	1,307
10	42.62	2,415	0.170	0.066	0.027	0.066	138	172
9	40.12	88	0.151	0.068	0.030	0.066	5	2,060 75
8 7	37.50	1,819	0.132	0.069	0.033	0.065	102	1,551
6	32.50 27.50	1,844	0.099	0.071	0.037	0.063	101	1,573
5	22.50	1,870 1,895	0.071	0.072	0.041	0.062	100	1,595
4	17.50	1,921	0.047	0.071	0.042	0.060	98	1,616
3	12.50	1,946	0.029 0.015	0.068	0.040	0.057	95	1,638
2	7.50	1,972	0.005	0.060 0.045	0.035 0.026	0.052	88	1,660
1	2.50	1,997	0.001	0.019	0.010	0.042 0.020	71	1,682
RCU (Remote Control	136.00	3	1.734	1.254	0.867	0.328	35 1	1,703
Kathrein Scala 742-2	136.00	68	1.734	1.254	0.867	0.328	19	3
Powerwave Allgon 702	131.00	26	1.609	0.805	0.682	0.241	6	58
Kaelus DBC0061F1V51-	131.00	153	1.609	0.805	0.682	0.241	32	23 130
Powerwave Allgon LGP Raycap DC6-48-60-18-	131.00	169	1.609	0.805	0.682	0.241	35	144
Raycap DC6-48-60-18-	131.00 131.00	32	1.609	0.805	0.682	0.241	7	27
Ericsson RRUS-11 (50	131.00	32 150	1.609 1.609	0.805	0.682	0.241	7	27
Ericsson RRUS 32 w/	131.00	159	1.609	0.805 0.805	0.682 0.682	0.241	31	128
Ericsson RRUS 32 B2	131.00	159	1.609	0.805	0.682	0.241	33	135
Powerwave Allgon 777	131.00	105	1.609	0.805	0.682	0.241	33	136
Quintel QS66512-2	131.00	333	1.609	0.805	0.682	0.241 0.241	22	90
CCI HPA-65R-BUU-H6	131.00	153	1.609	0.805	0.682	0.241	70 32	284
Flat Platform w/ Han	131.00	2,000	1.609	0.805	0.682	0.241	418	130
DragonWave Horizon C	120.00	21	1.350	0.195	0.382	0.091	2	1,706 18
Alcatel-Lucent RRH2x NextNet BTS-2500	120.00	159	1.350	0.195	0.382	0.091	12	135
Alcatel-Lucent 800 M	120.00	105	1.350	0.195	0.382	0.091	8	90
Alcatel-Lucent 1900	120.00 120.00	192	1.350	0.195	0.382	0.091	15	164
Alcatel-Lucent TD-RR	120.00	180	1.350	0.195	0.382	0.091	14	154
Argus LLPX310R	120.00	210 86	1.350	0.195	0.382	0.091	16	179
DragonWave A-ANT-18G	120.00	54	1.350	0.195	0.382	0.091	7	73
RFS APXVSPP18-C-A20	120.00	171	1.350 1.350	0.195	0.382	0.091	4	46
Commscope DT465B-	120.00	174	1.350	0.195	0.382	0.091	13	146
Flat Platform w/ Han	120.00	2,000	1.350	0.195	0.382	0.091	14	148
48" x 8" Panel	111.00	180	1.155	0.195 -0.034	0.382	0.091	157	1,706
Flat Platform w/ Han	111.00	2,000	1.155	-0.034 -0.034	0.223 0.223	0.006	1	154
RFS FD9R6004/1C-3L	100.00	19	0.937	-0.034 -0.120	0.102	0.006	10	1,706
		R.S.	2.001	0.120	002	-0.051	-1	16

Site Number: 302511 Site Name: WSPT - Sou Customer: AT&T MOB			Engineering		NSI/TIA-222 0AA720395_		2007 - 2018 by ATC	IP LLC. All rights reserved.
Alcatel-Lucent RRH2x Rymsa MGD3-800TX Antel BXA-171063/12C RFS DB-T1-6Z-8AB-0Z Antel BXA-70080/6CF_ Powerwave Allgon P65 Flat Platform w/ Han RFS ATMAA1412D-1A20 Ericsson RRUS 11 B12 Ericsson AIR 21, 1.3 Ericsson AIR 21, 1.3 Andrew LNX-6515DS-VT Flat Platform w/ Han Diamond X50A Stand-Offs PCTEL GPS-TMG-HR- Stand-Off	100.00 100.00 100.00 100.00 100.00 100.00 90.00 90.00 90.00 90.00 90.00 80.00 80.00 63.00 63.00	132 46 45 44 54 99 2,000 52 152 332 244 154 2,000 5 100	0.937 0.937 0.937 0.937 0.937 0.937 0.759 0.759 0.759 0.759 0.759 0.759 0.759 0.600 0.600 0.372	-0.120 -0.120 -0.120 -0.120 -0.120 -0.120 -0.120 -0.103 -0.103 -0.103 -0.103 -0.103 -0.053 -0.053 -0.053	0.102 0.102 0.102 0.102 0.102 0.102 0.102 0.043 0.043 0.043 0.043 0.043 0.043 0.015 0.015	-0.051 -0.051 -0.051 -0.051 -0.051 -0.051 -0.059 -0.059 -0.059 -0.059 -0.059 -0.059 -0.059 -0.059 -0.059	-6 -2 -2 -2 -2 -4 -89 -3 -8 -17 -13 -8 -103 0	113 39 38 38 46 84 1,706 44 130 283 209 131 1,706 4 85 1
		46,824	81.201	20.422	23.294	6.621	2,029	39,934

Code: ANSI/TIA-222-G

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Site Name:

WSPT - South, CT

Engineering Number: OAA720395_C3_01

1/3/2018 11:04:08 AM

Customer:

AT&T MOBILITY

<u>Load Case</u> (1.2 + 0.2Sds) * DL + E EMAM Seismic Equivalent Modal Analysis Method 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 (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00 5.00	-55.91	-2.00	0.00	-171.41	0.00	171.41	4,350.13 2	2,175.06	7.987.32	3.944.64	0.00	0.00	0.040
10.00	-53.45	-1.94	0.00	-161.42	0.00	161.42	4,285.51 2	2,142.75	7,679.11	3.792.42	0.01	-0.01	0.039
15.00	-51.02 -48.62	-1.86 -1.77	0.00	-151.73	0.00	151.73	4,218.97 2	2,109.49	7.373.27	3.641.38	0.02	-0.02	0.038
20.00	-46.26	-1.68	0.00	-142.44	0.00	142.44	4,150.52 2	2,075.26	7,070.06	3,491,64	0.05	-0.03	0.037
25.00	-43.93	-1.58	0.00	-133.59	0.00	133.59	4,080.16 2	2,040.08	6,769.73	3.343.32	0.09	-0.04	0.036
30.00	-41.63	-1.49	0.00	-125.20 -117.28	0.00	125.20	4,007.88 2	2,003.94	6,472.54	3,196.54	0.14	-0.05	0.034
35.00	-39.36	-1.39	0.00	-109.83	0.00	117.28	3,933.69 1	1,966.85	6,178.73	3,051.44	0.20	-0.06	0.033
40.00	-39.25	-1.39	0.00	-103.88	50,000,000	109.83	3,854.52 1	1,927.26	5,883.88	2,905.83	0.27	-0.07	0.032
40.24	-36.24	-1.25	0.00	-102.54	0.00	102.88	3,744.12 1	1,872.06	5,549.75	2,740.81	0.36	-0.08	0.032
45.00	-35.99	-1.24	0.00	-96.60	0.00	102.54 96.60	3,738.74 1	1,869.37	5,533.71	2,732.89	0.36	-0.09	0.031
45.40	-34.07	-1.15	0.00	-96.10	0.00	96.10	3,633.72 1	1,876.86	5,225.39	2,580.62	0.45	-0.10	0.031
50.00	-32.02	-1.07	0.00	-90.79	0.00	90.79	3,063.79 1	1,001.09	4,506.32	2,225.50	0.46	-0.10	0.034
55.00	-31.75	-1.06	0.00	-85.46	0.00	85.46	3,008.67 1	1,004.34	4,302.82	2,125.00	0.56	-0.11	0.033
55.68	-30.36	-1.00	0.00	-84.75	0.00	84.75	2,946.93 1	1,473.40	4,084.17	2,017.02	0.67	-0.12	0.032
55.68	-30.36	-1.00	0.00	-84.75	0.00	84.75	2,938.42 1 2,938.42 1	1,469.21	4,054.78	2,002.51	0.69	-0.12	0.032
60.00	-29.41	-0.97	0.00	-80.41	0.00	80.41	2,883.27 1	1,405.21	2 969 42	2,002.51	0.69	-0.12	0.053
63.00	-28.91	-0.96	0.00	-77.49	0.00	77.49	2,844.16 1	422 08	3,000.42	1,910.47	0.80	-0.13	0.052
65.00	-27.77	-0.94	0.00	-75.57	0.00	75.57	2,808.42 1	404 21	3 642 77	1,041.21	0.89	-0.14	0.052
70.00	-26.66	-0.95	0.00	-70.84	0.00	70.84	2,713.79 1	356 80	3 400 06	1,799.52	0.95 1.12	-0.15	0.052
75.00	-25.58	-0.97	0.00	-66.11	0.00	66.11	2,619.16 1	.309.58	3.166.52	1,679.01	1.12	-0.17	0.052
80.00	-25.28	-0.98	0.00	-61.28	0.00	61.28	2,524.53 1	.262.26	2.940.46	1 452 18	1.53	-0.20 -0.22	0.052
80.79	-24.01	-1.01	0.00	-60.50	0.00	60.50	2,509.53 1	.254.76	2,905.39	1 434 86	1.57	-0.22	0.052
84.94	-24.00	-1.02	0.00	-56.29	0.00	56.29	1,499.90	749.95	1,728.05	853.42	1.77	-0.22	0.052 0.082
85.00 90.00	-23.19	-1.05	0.00	-56.24	0.00	56.24	1,499.54	749.77	1,726.89	852.85	1.77	-0.24	0.082
95.00	-18.82 -18.13	-1.23	0.00	-50.97	0.00	50.97	1,466.64	733.32	1,624.12	802.09	2.05	-0.28	0.076
100.00	-16.13	-1.26	0.00	-44.85	0.00	44.85	1,431.82	715.91	1,522.23	751.77	2.35	-0.31	0.072
105.00	-14.46	-1.37	0.00	-38.55	0.00	38.55	1,395.09	697.54	1,421.47	702.01	2.70	-0.34	0.065
110.00	-13.78	-1.39 -1.39	0.00	-31.68	0.00	31.68	1,356.44	678.22	1,322.10	652.93	3.08	-0.38	0.059
111.00	-10.63	-1.35	0.00	-24.75	0.00	24.75	1,315.88	657.94	1,224.36	604.67	3.49	-0.41	0.051
115.00	-10.10	-1.33	0.00	-23.36 -17.96	0.00	23.36	1,307.54	653.77	1,205.03	595.12	3.57	-0.41	0.047
120.00	-5.47	-0.99	0.00	-11.33	0.00	17.96	1,273.40		1,128.51	557.33	3.93	-0.43	0.040
125.00	-5.41	-0.99	0.00		0.00	11.33	1,215.41		1,023.37	505.40	4.39	-0.45	0.027
125.59	-5.09	-0.94	0.00	-6.37 -5.78	0.00	6.37	1,152.33	576.16	919.28	454.00	4.87	-0.47	0.019
125.59	-5.09	-0.94	0.00	-5.78	0.00	5.78	1,144.85	572.43	907.31	448.09	4.93	-0.47	0.017
130.00	-5.01	-0.93	0.00	-1.64	0.00	5.78	385.02	192.51	160.54	106.00	4.93	-0.47	0.068
131.00	-0.46	-0.12	0.00	-0.71	0.00	1.64 0.71	385.02	192.51	160.54	106.00	5.37	-0.47	0.028
135.00	-0.40	-0.11	0.00	-0.23	0.00	0.23	385.02 385.02	192.51 192.51	160.54	106.00	5.47	-0.48	0.008
136.00	-0.10	-0.03	0.00	-0.13	0.00	0.13	385.02	192.51	160.54	106.00	5.87	-0.48	0.003
140.00	0.00	0.00	0.00	0.00	0.00	0.00	385.02		160.54	106.00	5.97	-0.48	0.001
142.00	0.00	0.00	0.00	0.00	0.00	0.00		192.51	160.54	106.00	6.37	-0.48	0.000
	0-20110000	V.T. 6.T		0.00	0.00	0.00	385.02	192.51	160.54	106.00	6.57	-0.48	0.000

Code: ANSI/TIA-222-G

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Site Name: Customer:

WSPT - South, CT AT&T MOBILITY Engineering Number: OAA720395_C3_01

1/3/2018 11:04:08 AM

<u>Load Case</u> (0.9 - 0.2Sds) * DL + E EMAM Seismic (Reduced DL) Equivalent Modal Analysis Method 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 (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
	0.00	-38.23	-2.00	0.00	-168.63	0.00	168.63	4 350 13	2 175 06	7,987.32	2 044 64	0.00		
	5.00	-36.55	-1.93	0.00	-158.65	0.00	158.65	4.285.51	2 142 75	7,679.11	3,344.04	0.00	0.00	0.037
	10.00	-34.89	-1.85	0.00	-148.99	0.00	148.99	4.218.97	2 109 49	7,373.27	2 644 20	0.01	-0.01	0.036
	15.00	-33.25	-1.76	0.00	-139.74	0.00	139.74	4.150.52	2.075.26	7,070.06	3 /04 1.30	0.02	-0.02	0.035
	20.00	-31.63	-1.67	0.00	-130.94	0.00	130.94	4.080.16	2 040 08	6,769.73	2 242 22	0.05	-0.03	0.033
	25.00	-30.04	-1.57	0.00	-122.61	0.00	122.61	4 007 88	2,040.00	6,472.54	2 400 54	0.09	-0.04	0.032
	30.00	-28.47	-1.47	0.00	-114.76	0.00	114.76	3,933,69	1.966.85	6,178.73	3,190.04	0.14	-0.05	0.031
	35.00	-26.91	-1.37	0.00	-107.40	0.00	107.40	3.854.52	1 927 26	5,883.88	2 005 92	0.20	-0.06	0.030
	40.00	-26.84	-1.37	0.00	-100.53	0.00	100.53	3.744.12	1 872 06	5,549.75	2,303.03	0.27	-0.07	0.029
	40.24	-24.78	-1.23	0.00	-100.20	0.00	100.20	3 738 74	1 869 37	5,533.71	2,740.01	0.35	-0.08	0.029
	45.00	-24.61	-1.22	0.00	-94.34	0.00	94.34	3,633.72	1 816 86	5,225.39	2,732.09	0.35	-0.08	0.028
	45.40	-23.30	-1.13	0.00	-93.85	0.00	93.85	3,063,79	1.531.89	4,506.32	2,300.02	0.44 0.45	-0.09	0.028
	50.00	-21.90	-1.04	0.00	-88.64	0.00	88.64	3,008.67	1.504.34	4,302.82	2 125 00	0.55	-0.09	0.031
	55.00	-21.71	-1.04	0.00	-83.41	0.00	83.41	2,946.93	1,473,46	4,084.17	2,123.00	0.66	-0.10	0.030
	55.68	-20.76	-0.98	0.00	-82.71	0.00	82.71	2.938.42	1 469 21	4,054.78	2,017.02		-0.12	0.029
	55.68	-20.76	-0.98	0.00	-82.71	0.00	82.71	2.938.42	1,469.21	4,054.78	2,002.51	0.68	-0.12	0.029
	60.00	-20.11	-0.95	0.00	-78.47	0.00	78.47	2.883.27	1.441.64	3,868.42	1 010 47	0.79	-0.12	0.048
	63.00	-19.77	-0.94	0.00	-75.62	0.00	75.62	2,844.16	1,422.08	3,740.46	1.847.27	0.79	-0.13 -0.14	0.048
	65.00	-18.99	-0.92	0.00	-73.74	0.00	73.74	2,808,42	1,404,21	3,643.77	1 799 52	0.93	-0.14	0.048
	70.00	-18.23	-0.92	0.00	-69.15	0.00	69.15	2,713,79	1.356.89	3,400.96	1 670 61	1.10		0.048
	75.00	-17.49	-0.94	0.00	-64.55	0.00	64.55	2,619.16	1,309.58	3,166.52	1.563.83	1.29	-0.17 -0.19	0.048
	80.00	-17.29	-0.95	0.00	-59.87	0.00	59.87	2,524.53	1,262.26	2,940.46	1 452 18	1.50	-0.19	0.048
	80.79	-16.42	-0.98	0.00	-59.13	0.00	59.13	2,509.53	1.254.76	2,905.39	1 434 86	1.54	-0.21	0.048
	84.94	-16.41	-0.98	0.00	-55.05	0.00	55.05	1,499.90	749.95	1,728.05	853.42	1.73	-0.22	0.048
	85.00	-15.86	-1.02	0.00	-55.00	0.00	55.00	1,499.54	749.77	1,726.89	852.85	1.74	-0.24	0.075
	90.00	-12.87	-1.19	0.00	-49.91	0.00	49.91	1,466.64	733.32	1,624.12	802.09	2.00	-0.27	0.075
	95.00	-12.39	-1.23	0.00	-43.94	0.00	43.94	1,431.82	715.91	1,522.23	751.77	2.30	-0.30	83955555
	100.00	-9.90	-1.34	0.00	-37.81	0.00	37.81	1,395.09		1,421.47	702.01	2.64	-0.34	0.067
	105.00	-9.50	-1.35	0.00	-31.09	0.00	31.09	1,356.44	678.22	1,322.10	652.93	3.01	-0.34	0.061
	110.00 111.00	-9.42	-1.36	0.00	-24.32	0.00	24.32	1,315.88	657.94	1,224.36	604.67	3.41	-0.37	0.055
	115.00	-7.26 -6.90	-1.32	0.00	-22.97	0.00	22.97	1,307.54	653.77	1,205.03	595.12	3.50	-0.40	0.047 0.044
	120.00		-1.30	0.00	-17.67	0.00	17.67	1,273.40	636.70	1,128.51	557.33	3.84	-0.42	0.037
		-3.74	-0.98	0.00	-11.16	0.00	11.16	1,215.41	607.71	1,023.37	505.40	4.30	-0.44	0.025
	125.00 125.59	-3.70 -3.48	-0.97	0.00	-6.28	0.00	6.28	1,152.33	576.16	919.28	454.00	4.77	-0.46	0.025
	125.59	-3.48	-0.93	0.00	-5.70	0.00	5.70	1,144.85	572.43	907.31	448.09	4.83	-0.46	0.016
	130.00		-0.93	0.00	-5.70	0.00	5.70	385.02	192.51	160.54	106.00	4.83	-0.46	0.063
	131.00	-3.42 -0.31	-0.91	0.00	-1.62	0.00	1.62	385.02	192.51	160.54	106.00	5.25	-0.46	0.003
	135.00	-0.31	-0.12 -0.11	0.00	-0.70	0.00	0.70	385.02	192.51	160.54	106.00	5.35	-0.47	0.024
	136.00	-0.27	-0.11	0.00	-0.23	0.00	0.23	385.02	192.51	160.54	106.00	5.74	-0.47	0.007
	140.00	0.00	0.00	0.00	-0.12	0.00	0.12	385.02	192.51	160.54	106.00	5.84	-0.47	0.001
	142.00	0.00	40 PM DEED TO	0.00	0.00	0.00	0.00	385.02	192.51	160.54	106.00	6.24	-0.47	0.000
	172.00	0.00	0.00	0.00	0.00	0.00	0.00	385.02	192.51	160.54	106.00	6.43	-0.47	0.000
													3111	0.000

Code: ANSI/TIA-222-G

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Site Name: Customer: WSPT - South, CT AT&T MOBILITY

Engineering Number: OAA720395_C3_01

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Analysis Summary

			- Re	actions =			West	244
Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	GASES.	Interaction Ratio
1.2D + 1.6W	41.02	0.00	56.10	0.00	0.00	3805.66	84.94	- Committee Committee
0.9D + 1.6W	39.38	0.00	42.06		0.00	3676.42	84.94	0.92
1.2D + 1.0Di + 1.0Wi	9.92	0.00	92.47	0.00	0.00	984.72	84.94	0.89
(1.2 + 0.2Sds) * DL + E ELFM	1.93	0.00	55.91	0.00	0.00	207.50	84.94	0.28
(1.2 + 0.2Sds) * DL + E EMAM	2.00	0.00	55.91	0.00	0.00	171.41	84.94	0.07
(0.9 - 0.2Sds) * DL + E ELFM	1.92	0.00	38.23	0.00	0.00	204.37	84.94	0.08
(0.9 - 0.2Sds) * DL + E EMAM	2.00	0.00	38.23	0.00	0.00	168.63		0.07
1.0D + 1.0W	10.25	0.00	46.82	0.00	0.00	961.69	84.94 84.94	0.08 0.24

Additional Steel Summary

		Intermediate C	onnectors	Up	per Ter	minatio	on	Lov	ver Ter	minati	on			
Elev From (ft)	Elev To (ft) Member	VQ/I Applie (lb/in) (kips)		MQ/I (kips)	phiVn		Num	MQ/I (kips)	phiVn	nnecto Num Read	Num	Pu	Mem	1
0.00	55.6 (4) SOL-#20 All Thre	338.3 10.2	16.8	205.5		18	22	0.0		0		261.5		

	Plate Type	Baseplate	
ø	Pole Diameter	45	in
Jat	Pole Thickness	0.4375	in
Je l	Plate Diameter	60	in
ang	Plate Thickness	2	in
)FI	Plate Fy	60	ksi
Base/Flange Plate	Weld Length φ _s Kesistance	0.3125 942.65	
	Applied	604.07	k-in
	#	16	Show
m	Thickness	0.5	in
Stiffeners	Length	4	in
fer	Height	10	in
Stil	Chamfer	0	in
	Offset Angle	0	0
	Fy	36	ksi

_	1 4		1
	# Bolt Circle	16	
		54	in
	(R)adial / (S)quare	R	
0	Diameter	2.25	in
Bolts	Hole Diameter	2.75	in
B	Туре	18J	
	Fy	75	ks
	Fu	100	ks
	φ _s Resistance	259.82	k
	Applied	214.78	41.9
	#	0	ľ
Reinforcement			
	#	0	
Extra Bolts 0			

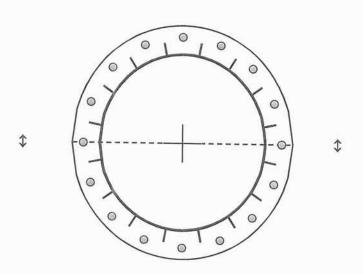


Plate Stress Ratio: 0.64 (Pass)

Bolt Stress Ratio:

0.83 (Pass)

	Plate Type	Flange	@ 125.6 ft
o	Pole Diameter	10.75	
lat	Pole Thickness	0.375	in
le P	Plate Diameter	28.5	in
ang	Plate Thickness	1	in
F	Plate Fy	36	ksi
Base/Flange Plate	Weld Length	0.3125	in
	φ _s Resistance	85.53	k-in
	Applied	32.53	k-in
	#	9	Show
S	Thickness	0.25	in
Stiffeners	Length	4	in
	Height	6	in
	Chamfer	0	in
8	Offset Angle	0	0
	Fy	36	ksi

	#	15
	Bolt Circle	25.75 in
	(R)adial / (S)quare	R
0	Diameter	1 in
Bolts	Hole Diameter	1.1875 in
ĕ	Туре	A325
	Fy	92 ks
	Fu	120 ks
	φ _s Resistance	54.52 k
	Applied	4.93 k
	#	0
Reinforcement		
	#	0
Extra Bolts 0		
Extra Bolt		

Code Rev.	G		

Moment 42.1 k-ft Axial 4.4 k

Date Engineer Site # Carrier 1/3/2018 Charles.Cages 302511 AT&T MOBILITY



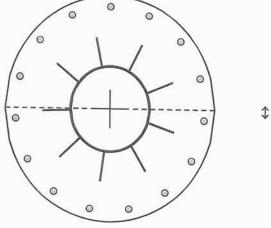


Plate Stress Ratio:

0.38 (Pass)

Bolt Stress Ratio:

0.09 (Pass)

Site Name:

Site Number: **Engineering Number:**

Engineer: Date: Tower Type: WSPT - South, CT

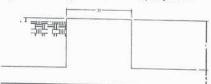
302511 OAA720395

Charles.Cages 01/03/18

MP

Program Last Updated:

5/13/2014



Design Loads (Factored) - Analysis per TIA-222-G Standards

Design / Analysis / Mapping:	Mapping	
Compression/Leg:	56.1	k
Uplift/Leg:	0.0	
Total Shear:	41.0	
Moment:	3805.7	
Tower + Appurtenance Weight:	56.1	k
Depth to Base of Foundation (I + t - h):	7.00	
Diameter of Pier (d):	6.50	1074
Height of Pier above Ground (h):	0.50	10.43
Width of Pad (W):	26.50	ft
Length of Pad (L):	26.50	ft
Thickness of Pad (t):	3.00	ft
Tower Leg Center to Center:	0.00	ft
Number of Tower Legs:	1.0	(1 if MP or GT)
Tower Center from Mat Center:	0.00	
Depth Below Ground Surface to Water Table:	9.50	ft
Unit Weight of Concrete:	150.0	pcf
Unit Weight of Soil Above Water Table:	150.0	pcf
Unit Weight of Water:	62.4	A 100 - 100
Unit Weight of Soil Below Water Table:	60.0	Water State of the Control of the Co
Friction Angle of Uplift:	15.0	Degrees
Ultimate Coefficient of Shear Friction:	0.35	
Ultimate Compressive Bearing Pressure:	20000.0	psf
Ultimate Passive Pressure on Pad Face:	500.0	psf
ΦSoil and Concrete Weight:	0.9	
φ _{Soil} :	0.75	

Overturning Moment Usage

Design OTM: OTM Resistance:

Design OTM / OTM Resistance:

Soil Bearing Pressure Usage

Net Bearing Pressure: Factored Nominal Bearing Pressure:

Net Bearing Pressure/Factored Nominal Bearing Pressure:

Load Direction Controling Design Bearing Pressure:

0.41 Result: OK

4113.3 k-ft

10065.6 k-ft

1949 psf 15000 psf

0.13 Result: OK

Diagonal to Pad Edge

Sliding Factor of Safety

Total Factored Sliding Resistance: Sliding Design / Sliding Resistance:

233.3 k

0.18 Result: OK

Exhibit 4



Radio Frequency Emissions Analysis Report

AT&T Existing Facility

Site ID: CT2103

FA#: 100035073

Westport South 19 - 20 Post Office Lane Westport, CT 06880

April 27, 2018

Centerline Communications Project Number: 950006-116

Site Compliance Summary					
Compliance Status:	COMPLIANT				
Site total MPE% of FCC general population allowable limit:	19.58 %				



April 27, 2018

AT&T Mobility – New England Attn: John Benedetto, RF Manager 550 Cochituate Road Suite 550 – 13&14 Framingham, MA 06040

Emissions Analysis for Site: CT2103 – Westport South

Centerline Communications, LLC ("Centerline") was directed to analyze the proposed AT&T facility located at **19 - 20 Post Office Lane, Westport, CT**, for the purpose of determining whether the emissions from the Proposed AT&T Antenna Installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01 and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter (μ W/cm2). The number of μ W/cm² calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) - (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general population may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general population would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Population exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter (μ W/cm²). The general population exposure limits for the 700 and 850 MHz Bands are approximately 467 μ W/cm² and 567 μ W/cm² respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 2300 MHz (WCS) bands is 1000 μ W/cm². Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.



Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Additional details can be found in FCC OET 65.



CALCULATIONS

Calculations were performed for the proposed AT&T Wireless antenna facility located at 19 - 20 Post Office Lane, Westport, CT, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since AT&T is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was focused at the base of the tower. For this report the sample point is the top of a 6-foot person standing at the base of the tower.

Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. All power values expressed and analyzed are maximum power levels expected to be used on all radios.

All emissions values for additional carriers were taken from the Connecticut Siting Council (CSC) active MPE database. Values in this database are provided by the individual carriers themselves

For each sector the following channel counts, frequency bands and power levels were utilized as shown in *Table 1*:

Technology	Frequency Band	Channel Count	Transmit Power per Channel (W)
UMTS	850 MHz	2	30
LTE	2300 MHz (WCS)	4	30
LTE	700 MHz	2	40
LTE	1900 MHz (PCS)	4	40

Table 1: Channel Data Table



The following antennas listed in *Table 2* were used in the modeling for transmission in the 700 MHz, 850 MHz, 1900 MHz (PCS) and 2300 MHz (WCS) frequency bands. This is based on feedback from the carrier with regards to anticipated antenna selection. Maximum gain values for all antennas are listed in the Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

			Antenna
	Antenna		Centerline
Sector	Number	Antenna Make / Model	(ft)
A	1	Powerwave 7770	131
A	2	Quintel QS66512-2	131
A	3	CCI HPA-65R-BUU-H6	131
В	1	Powerwave 7770	131
В	2	Quintel QS66512-2	131
В	3	CCI HPA-65R-BUU-H6	131
С	1	Powerwave 7770	131
C	2	Quintel QS66512-2	131
C	3	CCI HPA-65R-BUU-H6	131

Table 2: Antenna Data

All calculations were done with respect to uncontrolled / general population threshold limits.



RESULTS

Per the calculations completed for the proposed AT&T configurations *Table 3* shows resulting emissions power levels and percentages of the FCC's allowable general population limit.

Antenna ID	Antenna Make / Model	Frequency Bands	Antenna Gain (dBd)	Channel Count	Total TX Power (W)	ERP (W)	MPE %
Antenna A1	Powerwave 7770	850 MHz	11.4	2	60	828.23	0.34
Antenna A2	Quintel QS66512-2	2300 MHz (WCS)	14.85	4	120	3,665.91	0.84
Antenna A3	CCI HPA-65R- BUU-H6	700 MHz / 1900 MHz (PCS)	11.95 / 14.75	6	240	6,030.01	1.72
				5	Sector A Compo	osite MPE%	2.90
Antenna B1	Powerwave 7770	850 MHz	11.4	2	60	828.23	0.34
Antenna B2	Quintel QS66512-2	2300 MHz (WCS)	14.85	4	120	3,665.91	0.84
Antenna B3	CCI HPA-65R- BUU-H6	700 MHz / 1900 MHz (PCS)	11.95 / 14.75	6	240	6,030.01	1.72
				,	Sector B Comp	osite MPE%	2.90
Antenna C1	Powerwave 7770	850 MHz	11.4	2	60	828.23	0.34
Antenna C2	Quintel QS66512-2	2300 MHz (WCS)	14.85	4	120	3,665.91	0.84
Antenna C3	CCI HPA-65R- BUU-H6	700 MHz / 1900 MHz (PCS)	11.95 / 14.75	6	240	6,030.01	1.72
Sector C Composite MPE%							2.90

Table 3: AT&T Emissions Levels



The Following table (*table 4*) shows all additional carriers on site and their MPE% as recorded in the CSC active MPE database for this facility along with the newly calculated maximum AT&T MPE contributions per this report. FCC OET 65 specifies that for carriers utilizing directional antennas that the highest recorded sector value be used for composite site MPE values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. For this site, all three sectors have the same configuration yielding the same results on all three sectors. *Table 5* below shows a summary for each AT&T Sector as well as the composite MPE value for the site.

Site Composite MPE%					
Carrier	MPE%				
AT&T – Max Sector Value	2.90 %				
Verizon Wireless	5.88 %				
MetroPCS	1.24 %				
T-Mobile	5.70 %				
Clearwire	0.08 %				
Sprint	3.78 %				
Enertrac (Receive Only)	0.00 %				
Site Total MPE %:	19.58 %				

Table 4: All Carrier MPE Contributions

AT&T Sector A Total:	2.90 %
AT&T Sector B Total:	2.90 %
AT&T Sector C Total:	2.90 %
Site Total:	19.58 %

Table 5: Site MPE Summary



FCC OET 65 specifies that for carriers utilizing directional antennas that the highest recorded sector value be used for composite site MPE values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. *Table 6* below details a breakdown by frequency band and technology for the MPE power values for the maximum calculated AT&T sector(s). For this site, all three sectors have the same configuration yielding the same results on all three sectors.

AT&T _ Frequency Band / Technology Max Power Values (Per Sector)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density (µW/cm²)	Frequency (MHz)	Allowable MPE (µW/cm²)	Calculated % MPE
AT&T 850 MHz UMTS	2	414.12	131	1.91	850 MHz	567	0.34%
AT&T 2300 MHz (WCS) LTE	4	916.48	131	8.43	2300 MHz (WCS)	1000	0.84%
AT&T 700 MHz LTE	2	626.70	131	2.88	700 MHz	467	0.62%
AT&T 1900 MHz (PCS) LTE	4	1,194.15	131	10.99	1900 MHz (PCS)	1000	1.10%
						Total:	2.90%

Table 6: AT&T Maximum Sector MPE Power Values



Summary

All calculations performed for this analysis yielded results that were **within** the allowable limits for general population exposure to RF Emissions.

The anticipated maximum composite contributions from the AT&T facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

AT&T Sector	Power Density Value (%)
Sector A:	2.90 %
Sector B:	2.90 %
Sector C:	2.90 %
AT&T Maximum Total	2.90 %
(per sector):	2.90 %
Site Total:	19.58 %
Site Compliance Status:	COMPLIANT

The anticipated composite MPE value for this site assuming all carriers present is **19.58** % of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite values calculated were well within the allowable 100% threshold standard per the federal government.

Scott Heffernan

RF Engineering Director

Centerline Communications, LLC

95 Ryan Drive, Suite 1 Raynham, MA 02767



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