



Alex Murshteyn, Site Acquisition Consultant c/o T-Mobile Northeast LLC ("T-Mobile") Centerline Communications, LLC 95 Ryan Drive, Suite 1 Raynham, MA 02767 Mobile: (508) 821-0159 AMurshteyn@centerlinecommunications.com

March 23, 2018

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

#### RE: Notice of Exempt Modification // Site Number: CT11106A (ATC: 88014) 16 Titicus Mountain Road, New Fairfield, CT 06812 N 41.45066 // W 73.51598

Dear Ms. Bachman:

T-Mobile Northeast LLC ("T-Mobile") currently maintains 9 antennas at the 193-foot level of the existing 187.5-foot self-supporting lattice tower at 16 Titicus Mountain Road, New Fairfield, CT. The Council has allowed T-Mobile's shared use of the existing tower since 2002, although the original approval for its co-location was granted by the Board of Selectmen of the Town of New Fairfield on February 17, 2000, without any conditions. The tower and property are both owned by American Tower Corporation. T-Mobile now intends to install 1 new microwave backhaul channel (10.0 GHz) with its existing antenna array. T-Mobile will also install 1 new coax cable in order to connect the microwave dish.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §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 Pat Del Monaco, First Selectman for the Town of New Fairfield, the Town's Zoning Enforcement Officer Evan White, including for Zoning and Planning Commission, and the tower and property owner, American Tower Corporation.

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



Enclosed to accommodate this filing are construction drawings dated March 15, 2018 by A.T. Engineering Service, PLLC a structural analysis dated February 28, 2018 by A.T. Engineering Service, PLLC and an RF Emissions Analysis Report dated March 2, 2018 by EBI Consulting.

·····Mobile·

1. The proposed modifications will not result in an increase in the height of the existing structure.

2. The proposed modifications will not require the extension of the site boundary.

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

4. The operation of the new antenna will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.

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 the proposed loading, as shown in the attached structural analysis by A.T. Engineering Service, PLLC, dated February 28, 2018.

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

Sincerely,

Alex Murshteyn, Site Acquisition Consultant c/o T-Mobile Northeast LLC Centerline Communications, LLC 95 Ryan Drive, Suite 1 Raynham, MA 02767 Mobile: (508) 821-0159 <u>AMurshteyn@centerlinecommunications.com</u>

Attachments

cc: Pat Del Monaco, First Selectman, Town of New Fairfield - as elected official - 1Z9Y45030327067259 Evan White, Zoning Enforcement Officer - as P&Z official - 1Z9Y45030334511862 American Tower Corporation - as tower & property owner - 1Z9Y45030339949471



**AMERICAN TOWER\*** 

CORPORATION

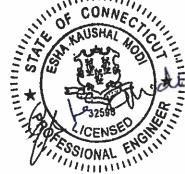
# **Structural Analysis Report**

Structure	:	187.5 ft Self Supported Tower	
ATC Site Name	:	New Fairfield, CT	
ATC Site Number	:	88014	
Engineering Number	:	OAA723223_C3_02	
Proposed Carrier	:	T-Mobile	
Carrier Site Name	:	CT11106A	
Carrier Site Number	:	CT11106A	
Site Location	:	22 Titicus Mtn Road New Fairfield, CT 06812-2565 41.450700,-73.516000	
County	:	Fairfield	
Date	:	February 28, 2018	
Max Usage	:	87%	annun.
Result	:	Pass	IN OF CONNECT

Prepared By: Aaron Black Structural Engineer I

an Ship

Reviewed By:



Feb 28 2018 5:26 PM COSign

COA: PEC.0001553



## **Table of Contents**

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#### **Introduction**

The purpose of this report is to summarize results of a structural analysis performed on the 187.5 ft self supported tower to reflect the change in loading by T-Mobile.

#### **Supporting Documents**

Tower Drawings	Analysis by CSEI, ATC Eng. #26464321, dated August 21, 2006.
Foundation Drawing	Mapping By Geotel Report #E08-291-F, dated May 19, 2008
Geotechnical Report	Geotel Report #E08-291-G, dated May 19, 2008

#### **Analysis**

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

Basic Wind Speed:	90 mph (3-Second Gust, V <sub>ASD</sub> ) / 115 mph (3-Second Gust, V <sub>ULT</sub> )
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:	
Exposure Category:	В
Topographic Category:	1
Crest Height:	Oft
Spectral Response:	Ss = 0.22, S <sub>1</sub> = 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**

Elevatio	on¹(ft)	0	Antonno	Maurat	Lines	Carrier
Mount	RAD	Qty	Antenna	Mount Type	Lines	Carrier
		3	Ericsson RRUS 11 B12			
		3	Commscope LNX-6515DS-VTM			
193.0	193.0	3	Ericsson AIR 21, 1.3 M, B2A B4P	Platform	(12) 1 5/8" Coax	T-Mobile
		3	Ericsson AIR 21, 1.3M, B4A B2P		(1) 1 5/8" Fiber	
		3	Ericsson KRY 112 144/1			
170.3	170.3	-	-	Catwalk		<u>8</u>
		3	RFS APXVSPP18-C-A20			
		3	RFS RFS APXV9TM14-ALU-I20			
168.0	170.0	3	Alcatel-Lucent TD-RRH8x20-25 w/ Solar	Sector Frames	(3) 1 1/4" Hybriflex	Content Mandal
100.0	1/0.0	3	Shield	Sector Frames	(1) 1 1/4" (1.25") Fiber	Sprint Nextel
		3	Alcatel-Lucent 4x40W RRH			
		3	Alcatel-Lucent 2X50W RRH w/o Filter			
		3	CCI HPA-65R-BUU-H6			
		3	Allgon 7770.00		(2) 0.74" 8 AWG 7	
160.0	160.0	3	Ericsson RRUS 32 B2	Sector Frames	(6) 1 5/8" Coax	
100.0		3	Ericsson RRUS 11 (Band 12) (55 lb)	Sector Frames	(1) 3" conduit	AT&T Mobility
		1	Raycap DC6-48-60-18-8F		(1) 0.28" Fiber	
	159.0	6	Powerwave LGP21401			
		3	Antel BXA-171085-8BF-EDIN-X			
		3	Antel BXA-70063/6CF_			
145.0	147.0	4	Antel LPA-80063/4CF	Sector Frames	(12) 1 5/8" Coax	Verizon
		2	Antel LPA-80080/4CF			
		6	RFS FD9R6004/2C-3L			
137.5	137.5	-	-	Rest Platform	20	-
112.5	122.5	1	Dielectric TLP-16A-1E	Side Arm		Other
100.0	100.0	-	-	Platform		
87.5	87.5	-	-	Rest Platform	0.40	•
70.0	80.0	1	Andrew DB616E-BC	Side Arm	(1) 7/8" Coax	US Dept Of Homeland Security
50.0	50.0	-	-	Rest Platform	-	
33.3		-	-		(4) Coax Cage	-

#### Equipment to be Removed

Elevation <sup>1</sup> (ft) Mount RAD	Qty	Antenna	Mount Type	Lines	Carrier
		No loading is con	sidered as to be removed		

#### Proposed Equipment

Elevation <sup>1</sup> (ft) Mount RAD	-l Otv	Antenna	Mount Type	Lines	Carrier
193.0 193.0	) 1	RFS SC2-W100AB	Platform	(1) 1/4" Coax	T-Mobile

<sup>1</sup>Mount 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 alongside existing T-Mobile coax.

A.T. Engineering Service, PLLC - 3500 Regency Parkway, Suite 100 - Cary, NC 27518 - 919-468-0112 Office - 919-466-5414 Fax - www.americantower.com



#### Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Legs	52%	Pass
Diagonals	87%	Pass
Horizontals	42%	Pass
Anchor Bolts	32%	Pass

#### **Foundations**

Reaction Component	Analysis Reactions	% of Usage
Uplift (Kips)	152.9	57%
Axial (Kips)	209.0	24%

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, Twist and Sway\***

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Twist (°)	Sway (Rotation) (°)
193.0	RFS SC2-W100AB	T-Mobile	0.101	0.328	0.179

\*Deflection, Twist 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.

e 2007 - 2018 by ATC IP LLC. All rights reserved by ATC IP LLC. All rights reserved in the advect of	Job Information	Location : New Fairfield, CT E	Client : T-Mobile Top Width : 9.00 ft	Code : ANSI/TIA-222-G Code : ANSI/TIA-222-G	Shape : Square	Sections Properties	7 Section Leg Members Diagonal Members Horizontal Members	1 SAE 36 kai 8X8X0.875 DAS 36 kal 3.5X3X0.25 2 SAF 16 kai 8X8X0.75 DAS 36 kal 3.5X3X0.25	SAE 36 ksi 8X8X0.75 DAS 36 ksi 3X2.5X0.25 SAE 36 ksi 2X2.5X0.25 SAE 36 ksi 2X2.5X0.25	5 SAE 36 ksi 6X6X0.75 DAE 36 ksi 2.5X2.25	SAE 36 K81 6 X6X V. 56 Z6 UAL 36 K81 Z. 5X Z V. 25 SAE 36 K81 6 X6X 0.4375 DAL 36 K81 2. 5X 2X 0. 25	9 SAE 36 kel 5X5X0.4375 SAE 36 kel 3.5X3.5X0.25 SAU 36 kel 3X2.5X0.25 10 SAE 36 kel 5X5X0.4375 SAE 36 kel 3.5X3.5X0.25 DAL 36 kel 3X2.5X0.25 11 SAE 36 kel 5X5X0.3725 SAE 36 kel 3X3X0.25 SAU 36 kel 3X2.5X0.25 12 SAE 36 kel 5X5X0.3725 SAE 36 kel 3X3X0.25 CHN 36 kel 3X2.5X0.25	Discrete Appurtenance	Elev (ft) Type Qty Description		187.60 Panel 3 Commerce LIX-6515DS-VTM 187.50 Panel 3 Ericsson RRUS 11 B12	187.50 Panel 3 Ericsson Alk 21, 1.3 M, B2A B4 187.50 Panel 3 Ericsson Alk 21, 1.3 M, B2A B4	Panel 3 Straight Arm 6	Platform	Mounting Frame 3	Panel 3 Panel 3	Panel 3 Panel 3	168.00 Panel 3 Alcatel-Lucent 2X50W RRH w/o F 160.00 Meunting Frame 3 Flat I Joht Sector Frames	Panel 3	Panel	Panel 1	Panel 6 Panel 3	Mounting Frame 3 Panel 3	145.00 Panel 4 Antel LPA-800534CF 145.00 Panel 2 Antel LPA-8008014CF	Panel 6 Straicht Arm 1	ue ue	Straight Arm 1	Mounting Frame 1	70.00 Straight Anni 1 Flat Side Arm
			© 2007 - 2018 hv ATC IP11 C All rights reserve				Site Class: D Ss: 0.22 S1: 0.07 60 mnh Serviceahility																											
				Ţ X	D	Internation Constant					K		Y		$\geq$				K	Y A				$\geq$					$\geq$			$\geq$		

			Ì				
Tower: 88014			Č	Location : New F	New Fairfield, CT	Base Width :	/idth: 32.45 ft
<b>Client : T-Mobile</b>	0					Top W	Top Width : 9.00 ft
Code : ANSI/TIA-222-G	A-222-G					Towe	Tower Ht : 187.50 ft
						ß	Shape : Square
				Linear /	Appurtenance	ce	
	15						
	From 1	<u>1</u>	ð	Description			
		187.50	+	Wave Guide			
		187.50	<b>-</b>	Climbing Ladder	der		
	86	187.50 187.50	• •	1/4" Coax 1 5/8" Eiher			
		187 50	- 4				
	00	187.50	9 69	1 5/8" Coax			
		182.00	**	Wave Guide			
	000	168.00	<b>6</b> 3 4	1 1/4" Hybriflex Cab 1 1/4" /1 25" 31 8m	X Cab		
		00.001		Wave Cuide			
	200.9	160.00		3" condult			
		160.00	Ģ	1 5/8" Coax			
	• •	160.00	N 1	0.74" (18.7mm) 8 AWG	1) B AWG		
	200.0	10U.UU 145.00		Wave Guide	Jaci		
		146.00	12	1 5/8" Coax			
		70.00	-	7/8" Coax			
_	8.33	19.33	◄	Coax Cage			
		<sup>o</sup>	dol:	al Base For	<b>Global Base Foundation Design Loads</b>	esign I	oads
	Load Case		Моп	Moment (k-ft)	Vertical (kip)	(d	Horizontal (kip)
	DL + WL			8,122.47	127.99		72.09
	+ 7M + 70	+ IĽ		2,942.28	293.90		26.74
_							
		10	Individual		Base Foundation I	Design	n Loads
	Vertical (kip)	(ġ		Uplift (kip)	kip)		Horizontal (kip)
	209.01			152.91			29.06

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Job Information

Site Number Site Name:	New Fairl	field, CT	Code: Engineering Number:	ANSI/TIA-222-G OAA723223_C3_02	© 2007 - 2018 by ATC	C IP LLC, All rights reserved. 2/28/2018 1:59:50 PM
Customer:	T-Mobile			-		
			Analysis Parar	neters		
Location:		FAIRFIELD County, CT	Height (ft):		187.5	i
Code:		ANSI/TIA-222-G	Base Elevation	on (ft):	0.00	
Shape:		Square	Bottom Face	Width (ft):	32.45	
Tower Manu	facturer:	AT&T TAG	Top Face Wid	th (ft):	9.00	
Tower Type:		Self Support	Anchor Bolt [	Detail Type	c	
Kd:						
Ke:						
			Ice & Wind Para	meters		
Structure Cl	ass:	11	Design Winds	peed Without Ice:	90 mph	
Exposure Ca	ategory:	В	Design Winds	peed With Ice:	50 mph	
Topographic	: Category:	1	Operational V	/indspeed:	60 mph	
Crest Heigh	t:	0 ft	Design Ice Th	ickness:	0.75 in	
		1	Seismic Paran	neters		
Analysis Me	thod:	Equivalent Modal Analysis	& Equivalent Lateral Force M	Aethods		
Site Class:		D - Stiff S	ioil			
Period Base	d on Rayleig	h Method (sec): 0	.65			
T <sub>L</sub> (sec):	6		p: 1.3		C <sub>s</sub> :	0.055
Ss:	0.215		S,: 0.067	,	Cs, Max:	0.055
Fa :	1.600		Fv: 2.400	i	Cs, Min:	0.030
S <sub>ds</sub> :	0.229		S <sub>d1</sub> : 0.107	,		

## Load Cases

1.2D + 1.6W Normal	90 mph Normal to Face with No Ice
1.2D + 1.6W 45 deg	90 mph 45 degree with No Ice
1.2D + 1.6W 90 deg	90 mph 90 degree with No Ice
1.2D + 1.6W 135 deg	90 mph 135 degree with No Ice
1.2D + 1.6W 180 deg	90 mph 180 degree with No Ice
1.2D + 1.6W 225 deg	90 mph 225 degree with No Ice
1.2D + 1.6W 270 deg	90 mph 270 degree with No Ice
1.2D + 1.6W 315 deg	90 mph 315 degree with No Ice
0.9D + 1.6W Normal	90 mph Normal to Face with No Ice (Reduced DL)
0.9D + 1.6W 45 deg	90 mph 45 deg with No Ice (Reduced DL)
0.9D + 1.6W 90 deg	90 mph 90 deg with No Ice (Reduced DL)
0.9D + 1.6W 135 deg	90 mph 135 deg with No ice (Reduced DL)
0.9D + 1.6W 180 deg	90 mph 180 deg with No Ice (Reduced DL)
0.9D + 1.6W 225 deg	90 mph 225 deg with No Ice (Reduced DL)
0.9D + 1.6W 270 deg	90 mph 270 deg with No Ice (Reduced DL)
0.9D + 1.6W 315 deg	90 mph 315 deg with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi Normal	50 mph Normal with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 45 deg	50 mph 45 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 90 deg	50 mph 90 deg with 0.75 in Radial Ice

Site Number: Site Name: Customer:	88014 New Fairfield, CT T-Mobile	Code: Engineering Number:	ANSI/TIA-222-G OAA723223_C3_02	© 2007 - 2018 by ATC IP LLC, All rights reserved. 2/28/2018 1:59:50 PM
<u> </u>		Analysis Paran	neters	

1.2D + 1.0Di + 1.0Wi 135 deg	50 mph 135 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 180 deg	50 mph 180 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 225 deg	50 mph 225 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 270 deg	50 mph 270 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 315 deg	50 mph 315 deg with 0.75 in Radial Ice
(1.2 + 0.2Sds) * DL + E Normal	Selsmic Normal
(1.2 + 0.2Sds) * DL + E 45 deg	Selsmic 45 deg
(1.2 + 0.2Sds) * DL + E 90 deg	Selsmic 90 deg
(1.2 + 0.2Sds) * DL + E 135 deg	Selsmic 135 deg
(1.2 + 0.2Sds) * DL + E 180 deg	Seismic 180 deg
(1.2 + 0.2Sds) * DL + E 225 deg	Seismic 225 deg
(1.2 + 0.2Sds) * DL + E 270 deg	Seismic 270 deg
(1.2 + 0.2Sds) * DL + E 315 deg	Seismic 315 deg
(0.9 - 0.2Sds) * DL + E Normal	Seismic (Reduced DL) Normal
(0.9 - 0.2Sds) * DL + E 45 deg	Seismic (Reduced DL) 45 deg
(0.9 - 0.2Sds) * DL + E 90 deg	Seismic (Reduced DL) 90 deg
(0.9 - 0.2Sds) * DL + E 135 deg	Seismic (Reduced DL) 135 deg
(0.9 - 0.2Sds) * DL + E 180 deg	Seismic (Reduced DL) 180 deg
(0.9 - 0.2Sds) * DL + E 225 deg	Seismic (Reduced DL) 225 deg
(0.9 - 0.2Sds) * DL + E 270 deg	Seismic (Reduced DL) 270 deg
(0.9 - 0.2Sds) * DL + E 315 deg	Seismic (Reduced DL) 315 deg
1.0D + 1.0W Service Normal	Serviceability - 60 mph Wind Normai
1.0D + 1.0W Service 45 deg	Serviceability - 60 mph Wind 45 deg
1.0D + 1.0W Service 90 deg	Serviceability - 60 mph Wind 90 deg
1.0D + 1.0W Service 135 deg	Serviceability - 60 mph Wind 135 deg
1.0D + 1.0W Service 180 deg	Serviceability - 60 mph Wind 180 deg
1.0D + 1.0W Service 225 deg	Serviceability - 60 mph Wind 225 deg
1.0D + 1.0W Service 270 deg	Serviceability - 60 mph Wind 270 deg
1.0D + 1.0W Service 315 deg	Serviceability - 60 mph Wind 315 deg

Site Number:	88014	Code:	ANSI/TIA-222-G	© 2007 - 2018 by ATC IP LLC. All rights reserved.
Site Name:	New Fairfield, CT	Engineering Number:	OAA723223_C3_02	2/28/2018 1:59:50 PM
Customer:	T-Mobile			
		Tower Load	ing	

## Discrete Appurtenance Properties 1.2D + 1.6W

Elevation Description (ft)	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	К.	Orient. Factor	Vert. Ecc.(ft)	M (lb-ft)	Q, i (psf)	F, (WL) (lb)	P_(DL) (Ib)
187.5 Ericsson KRY 112	3	11	0.4	0.6	6.1	2.7	1.00	0.50	4.5	79.0	20.99	18	40
187.5 Ericsson RRUS 11	3	51	2.8	1.6	17.0	7.2	1.00	0.67	5.5	881.6	21.02	160	183
187.5 Pipe Mount	6	150	3.3	6.0	6.0	6.0	1.00	1.00	3.0	1691,6	20.94	564	1080
187.5 RFS SC2-W100AB	1	22	4.8	2.2	26.4	11.5	1.00	1.00	5.5	754.6	21.02	137	26
187.5 Ericsson AIR 21, 1.3	3	83	6.1	4.7	12.0	8.0	1.00	0.71	4.5	1655,1	20.99	368	299
187.5 Ericsson AIR 21,	3	82	6.1	4.7	12.1	7.9	1.00	0.70	4.5	1642,6	20.99	365	293
187.5 Commscope LNX-	3	50	11.4	8.0	11.9	7.1	1.00	0.70	4.5	3088.3	20.99	686	181
187.5 Platform	1	8000	70.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	20.85	1984	9600
170.3 Catwalk	1	6500	55.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	20.28	1517	7800
168.0 Alcatel-Lucent	3	53	2.1	2.6	13.0	12.2	0.80	0.67	2.0	182.6	20.27	91	191
168.0 Alcatel-Lucent	3	91	3.3	1.9	13.0	17.3	0.80	0.67	2.0	291.7	20.27	146	328
168.0 Alcatel-Lucent TD-	3	70	4.1	2.2	18.6	6.7	0.80	0.67	2.0	359.1	20.27	180	252
168.0 RFS RFS	3	55	6.3	4.7	12.6	6.3	0.80	0.66	2.0	553.7	20.27	277	198
168.0 RFS APXVSPP18-C-	3	57	8.0	6.0	11.8	7.0	0.80	0.69	2.0	732.2	20.27	366	205
168.0 Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	20.20	830	1440
160.0 Powerwave	6	14	1.1	1.2	9.2	2.6	0.80	0.50	-1.0	71.4	19.89	71	102
160.0 Raycap DC6-48-60-	1	20	1.1	2.0	9.7	9.7	0.80	1.00	0.0	0.0	19.92	24	24
160.0 Ericsson RRUS 11	3	55	2.5	1.5	17.0	7.2	0.80	0.67	0.0	0.0	19.92	110	198
160.0 Ericsson RRUS 32 B2		53	2.7	2.3	12.1	7.0	0.80	0.67	0.0	0.0	19.92	119	191
160.0 Allgon 7770.00	3	35	5.5	4.6	11.0	5.0	0.80	0.65	0.0	0.0	19.92	233	126
160.0 CCI HPA-65R-BUU-H6		51	9.7	6.0	14.8	9.0	0.80	0.69	0.0	0.0	19.92	433	184
160.0 Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	19.92	818	1440
145.0 RFS FD9R6004/2C-3L	-	3	0.4	0.5	6.5	1.5	0.80	0.50	2.0	47.0	19.44	23	19
145.0 Amphenol Antel BXA		11	2.9	4.0	6.1	4.1	0.80	0.71	2.0	265.0	19.44	132	38
145.0 Antel LPA-80080/4CF	2	12	5.4	3.9	5.5	13.2	0.80	0.64	2.0	292.5	19.44	146	29
145.0 Antel LPA-80063/4CF	4	20	6.1	4.0	15.2	13.2	0.80	0.76	2.0	789.8	19.44	395	96
145.0 Antel BXA-	3	17	7.6	5.9	11.2	4.5	0.80	0.65	2.0	624.6	19.44	312	61
145.0 Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	19.37	796	1440
137.5 Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	19.08	163	180
137.5 Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	19.08	389	600
112.5 Dielectric TLP-16A-	1	290	23.7	4.9	10.0	10.0	1.00	1.00	10.0	5949.4	18.46	595	348
112.5 Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	18.01	154	180
100.0 Platform	1	5500	45.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	17.42	1066	6600
87.50 Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	16.77	342	600
70.00 Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	15.73	135	180
70.00 Andrew DB616E-BC	1	51	6.7	19.3	3.5	3.5	1.00	1.00	10.0	1495.8	16.34	150	61
50.00 Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	14.29	291	600
Totals	94	29509	739.8									14589	35411

## Discrete Appurtenance Properties 0.9D + 1.6W

Elevation Description (ft)	Qty	Wt. (Ib)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	К,	Orient. Factor	Vert. Ecc.(ft)	M (lb-ft)	Q, (psf)	F, (WL) I (lb)	P <sub>a</sub> (DL) (lb)
187.5 Ericsson KRY 112	3	11	0.4	0.6	6.1	2.7	1.00	0.50	4.5	79.0	20.99	18	30
187.5 Ericsson RRUS 11	3	51	2.8	1.6	17.0	7.2	1.00	0.67	5.5	881.6	21.02	160	137
187.5 Pipe Mount	6	150	3.3	6.0	6.0	6.0	1.00	1.00	3.0	1691.6	20.94	564	810
187.5 RFS SC2-W100AB	1	22	4.8	2.2	26.4	11.5	1.00	1.00	5.5	754.6	21.02	137	20
187.5 Ericsson AIR 21, 1.3	3	83	6.1	4.7	12.0	8.0	1.00	0.71	4.5	1655.1	20.99	368	224
187.5 Ericsson AIR 21,	3	82	6.1	4.7	12.1	7.9	1.00	0.70	4.5	1642.6	20.99	365	220
187.5 Commscope LNX-	3	50	11.4	8.0	11.9	7.1	1.00	0.70	4.5	3088.3	20.99	686	136
187.5 Platform	1	8000	70.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	20.85	1984	7200
170.3 Catwalk	1	6500	55.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	20.28	1517	5850

Site Number: 88014				Code;			ANSI/TIA	-222-G		© 2007 - 20	18 by AT	CIPLLC. A	ll rights reserve	ed.
Site Name: New Fairfield, CT	•			Engineer	ing Num	iber:	OAA723	223_C3_	02			2/28/201	8 1:59:50 PM	1
Customer: T-Mobile				_	•			≂ -						
				<u>To</u>	wer L	oadir	<u>ıg</u>							
168.0 Alcatel-Lucent	3	53	2.1	2.6	13.0	12.2	0.80	0.67	2.0	182.6	20.27	91	143	
168.0 Alcatel-Lucent	3	91	3.3	1.9	13.0	17.3	0.80	0.67	2.0	291.7	20.27	146	246	
168.0 Alcatel-Lucent TD-	3	70	4.1	2.2	18.6	6.7	0.80	0.67	2.0	359.1	20.27	180	189	
168.0 RFS RFS	3	55	6.3	4.7	12.6	6.3	0.80	0.66	2.0	553.7	20.27	277	149	
168.0 RFS APXVSPP18-C-	3	57	8.0	6.0	11.8	7.0	0.80	0.69	2.0	732.2	20.27	366	154	
168.0 Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	20.20	830	1080	
160.0 Powerwave	6	14	1.1	1.2	9.2	2.6	0.80	0.50	-1.0	71.4	19.89	71	76	
160.0 Raycap DC6-48-60-	1	20	1.1	2.0	9.7	9.7	0.80	1.00	0.0	0.0	19.92	24	18	
160.0 Ericsson RRUS 11	3	55	2.5	1.5	17.0	7.2	0.80	0.67	0.0	0.0	19.92	110	149	
160.0 Ericsson RRUS 32 B2	3	53	2.7	2.3	12.1	7.0	0.80	0.67	0.0	0.0	19.92	119	143	
160.0 Allgon 7770.00	3	35	5.5	4.6	11.0	5.0	0.80	0.65	0.0	0.0	19.92	233	95	
160.0 CCI HPA-65R-BUU-H6	3	51	9.7	6.0	14.8	9.0	0.80	0.69	0.0	0.0	19.92	433	138	
160.0 Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	19. <del>9</del> 2	818	1080	
145.0 RFS FD9R6004/2C-3L	6	3	0.4	0.5	6.5	1.5	0.80	0.50	2.0	47.0	19.44	23	14	
145.0 Amphenol Antel BXA-	3	11	2.9	4.0	6.1	4.1	0.80	0.71	2.0	265.0	19.44	132	28	
145.0 Antel LPA-80080/4CF	2	12	5.4	3.9	5.5	13.2	0.80	0.64	2.0	292.5	19.44	146	22	
145.0 Antel LPA-80063/4CF	- 4	20	6.1	4.0	15.2	13.2	0.80	0.76	2.0	789.8	19.44	395	72	
145.0 Antel BXA-	3	17	7.6	5.9	11.2	4.5	0.80	0.65	2.0	624.6	19.44	312	46	
145.0 Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	19.37	796	1080	
137.5 Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	19.08	163	135	
137.5 Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	19.08	389	450	
112.5 Dielectric TLP-16A-	1	290	23.7	4.9	10.0	10.0	1.00	1.00	10.0	5949.4	18.46	595	261	
112.5 Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	18.01	154	135	
100.0 Platform	1	5500	45.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	17.42	1066	4950	
87.50 Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	16.77	342	450	
70.00 Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	15.73	135	135	
70.00 Andrew DB616E-BC	1	51	6.7	19.3	3.5	3.5	1.00	1.00	10.0	1495.8	16.34	150	46	
50.00 Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	14.29	291	450	
Totals	94	29509	739.8									14589	26559	

## Discrete Appurtenance Properties 1.2D + 1.0Di + 1.0Wi

+

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Elevation Description (ft)	Qty	lce Wt (lb)	lce EPA (sf)	Length (ft)	Width (in)	Depth (in)	К.	Orient. Factor	Vert. Ecc.(ft)	M (lb-ft)	Q, i (psf)	F_ (WL)   (Ib)	P <b>,(DL</b> ) (Ib)
187.5 Ericsson KRY 112	3	28	0.6	0.6	6.1	2.7	1.00	0.50	4.5	23.8	6.48	5	90
187.5 Ericsson RRUS 11	3	139	3.5	1.6	17.0	7.2	1.00	0.67	5.5	212.4	6.49	39	448
187.5 Pipe Mount	6	417	5.7	6,0	6.0	6.0	1.00	1.00	3.0	558.7	6.46	186	2682
187.5 RFS SC2-W100AB	1	38	8.2	2.2	26.4	11.5	1.00	1.00	5.5	249.2	6.49	45	42
187.5 Ericsson AIR 21, 1.3	3	256	7.2	4.7	12.0	8.0	1.00	0.71	4.5	378.5	6.48	84	818
187.5 Ericsson AIR 21,	3	255	7.2	4.7	12.1	7.9	1.00	0.70	4.5	375.5	6.48	83	813
187.5 Commscope LNX-	3	320	13.1	8.0	11.9	7.1	1.00	0.70	4.5	683.5	6.48	152	991
187.5 Platform	1	13868	101.4	0.0	0.0	0.0	1.00	1.00	0.0	0.0	6.43	555	15468
170.3 Catwalk	1	11173	82.5	0.0	0.0	0.0	1.00	1.00	0.0	0.0	6.26	439	12473
168.0 Alcatel-Lucent	3	184	4.2	2.6	13.0	12.2	0.80	0.67	2.0	71.3	6.26	36	585
168.0 Alcatel-Lucent	3	218	3.1	1.9	13.0	17.3	0.80	0.67	2.0	53.8	6.26	27	710
168.0 Alcatel-Lucent TD-	3	166	5.4	2.2	18.6	6.7	0.80	0.67	2.0	92.3	6.26	46	539
168.0 RFS RFS	3	194	8.5	4.7	12.6	6.3	0.80	0.66	2.0	143.9	6.26	72	616
168.0 RFS APXVSPP18-C-	3	259	9.3	6.0	11.8	7.0	0.80	0.69	2.0	164.3	6.26	82	811
168.0 Flat Light Sector	3	705	33.2	0.0	0.0	0.0	0.75	0.75	0.0	0.0	6.23	297	2354
160.0 Powerwave	6	48	1.6	1.2	9.2	2.6	0.80	0.50	-1.0	19.6	6.14	20	304
160.0 Raycap DC6-48-60-	1	101	2.5	2.0	9.7	9.7	0.80	1.00	0.0	0.0	6.15	11	105
160.0 Ericsson RRUS 11	3	136	3.2	1.5	17.0	7.2	0.80	0.67	0.0	0.0	6.15	27	440
160.0 Ericsson RRUS 32 B2	3	141	3.5	2.3	12.1	7.0	0.80	0.67	0.0	0.0	6.15	29	456
160.0 Allgon 7770.00	3	171	6.6	4.6	11.0	5.0	0.80	0.65	0.0	0.0	6.15	54	533
160.0 CCĪ HPA-65R-BUU-H6	i 3	300	11.0	6.0	14.8	9.0	0.80	0.69	0.0	0.0	6.15	95	931
160.0 Flat Light Sector	3	703	33.1	0.0	0.0	0.0	0.75	0.75	0.0	0.0	6.15	292	2348

Site Number: 88014			c	Code:			ANSI/TIA	-222-G		© 2007 - 201	18 by ATC II	PLLC. All	rights reserve	ed,
Site Name: New Fairfield, CT		Engineering Number:				OAA723223_C3_02			2/28/2018 1:59:50 PM					
Customer: T-Mobile														
				<u>To</u>	wer Lo	oadin	g							
145.0 RFS FD9R6004/2C-3L	6	16	0.6	0.5	6.5	1.5	0.80	0.50	2.0	14.2	6.00	7	97	
145.0 Amphenol Antel BXA-	3	93	3.8	4.0	6.1	4.1	0.80	0.71	2.0	66.1	6.00	33	286	
145.0 Antel LPA-80080/4CF	2	147	3.5	3.9	5.5	13.2	0.80	0.64	2.0	36.1	6.00	18	298	
145.0 Antel LPA-80063/4CF	4	225	7.2	4.0	15.2	13.2	0.80	0.76	2.0	178.3	6.00	89	917	

	Totals	94	57948	1062.2									4029	63850	
1	50.00 Rest Platform	1	828	26.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	4.41	98	928	
	70.00 Andrew DB616E-BC	1	300	13.1	19.3	3.5	3.5	1.00	1.00	10.0	560.4	5.04	56	310	
	70.00 Flat Side Arm	1	217	8.6	0.0	0.0	0.0	1.00	1.00	0.0	0.0	4.86	35	247	
	87.50 Rest Platform	1	855	26.9	0.0	0.0	0.0	1.00	1.00	0.0	0.0	5.17	118	955	
1	100.0 Platform	1	9261	66.4	0.0	0.0	0.0	1.00	1.00	0.0	0.0	5.38	304	10361	
1	112.5 Flat Side Arm	1	220	8.7	0.0	0.0	0.0	1.00	1.00	0.0	0.0	5.56	41	250	
1	112.5 Dielectric TLP-16A-	1	459	4.3	4.9	10.0	10.0	1.00	1.00	10.0	208.7	5.70	21	517	
1	137.5 Rest Platform	1	872	27.5	0.0	0.0	0.0	1.00	1.00	0.0	0.0	5.89	138	972	
1	137.5 Flat Side Arm	1	222	8.7	0.0	0.0	0.0	1.00	1.00	0.0	0.0	5.89	44	252	
1	145.0 Flat Light Sector	3	700	33.0	0.0	0.0	0.0	0.75	0.75	0.0	0.0	5.98	283	2341	
1	145.0 Antel BXA-	3	184	8.8	5.9	11.2	4.5	0.80	0.65	2.0	140.5	6.00	70	561	
	140.0 MILLELEW-00000140E	-	223	1.2	4.0	19.2	13.2	<b>U.QU</b>	U./O	2.0	1/0.3	6.00	89	917	

## Discrete Appurtenance Properties 1.0D + 1.0W Service

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Elevation Description (ft)	Qty	Wt. (Ib)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K.	Orient. Factor	Vert. Ecc.(ft)	M <sub>u</sub> (Ib-ft)	Q <u>,</u> (psf)	F. (WL)   (lb)	P_(DL) (lb)
187.5 Ericsson KRY 112	3	11	0.4	0.6	6.1	2.7	1.00	0.50	4.5	21.9	9.33	5	33
187.5 Ericsson RRUS 11	3	51	2.8	1.6	17.0	7.2	1.00	0.67	5.5	244.9	9.34	45	152
187.5 Pipe Mount	6	150	3.3	6.0	6.0	6.0	1.00	1.00	3.0	469.9	9.31	157	900
187.5 RFS SC2-W100AB	1	22	4.8	2.2	26.4	11.5	1.00	1.00	5.5	209.6	9.34	38	22
187.5 Ericsson AIR 21, 1.3	3	83	6.1	4.7	12.0	8.0	1.00	0.71	4.5	459.8	9.33	102	249
187.5 Ericsson AIR 21,	3	82	6.1	4.7	12.1	7.9	1.00	0.70	4.5	456.3	9.33	101	245
187.5 Commscope LNX-	3	50	11.4	8.0	11.9	7.1	1.00	0.70	4.5	857. <del>9</del>	9.33	191	151
187.5 Platform	1	8000	70.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	9.26	551	8000
170.3 Catwalk	1	6500	55.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	9.01	421	6500
168.0 Alcatel-Lucent	3	53	2.1	2.6	13.0	12.2	0.80	0.67	2.0	50.7	9.01	25	159
168.0 Alcatel-Lucent	3	91	3.3	1.9	13.0	17.3	0.80	0.67	2.0	81.0	9.01	41	273
168.0 Alcatel-Lucent TD-	3	70	4.1	2.2	18.6	6.7	0.80	0.67	2.0	99.7	9.01	50	210
168.0 RFS RFS	3	55	6.3	4.7	12.6	6.3	0.80	0.66	2.0	153.8	9.01	77	165
168.0 RFS APXVSPP18-C-	3	57	8.0	6.0	11.8	7.0	0.80	0.69	2.0	203.4	9.01	102	171
168.0 Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	8.98	231	1200
160.0 Powerwave	6	14	1.1	1.2	9.2	2.6	0.80	0.50	-1.0	19.8	8.84	20	85
160.0 Raycap DC6-48-60-	1	20	1.1	2.0	9.7	9.7	0.80	1.00	0.0	0.0	8.85	7	20
160.0 Ericsson RRUS 11	3	55	2.5	1.5	17.0	7.2	0.80	0.67	0.0	0.0	8.85	30	165
160.0 Ericsson RRUS 32 B2	3	53	2.7	2.3	12.1	7.0	0.80	0.67	0.0	0.0	8.85	33	159
160.0 Allgon 7770.00	3	35	5.5	4.6	11.0	5.0	0.80	0.65	0.0	0.0	8.85	65	105
160.0 CCI HPA-65R-BUU-H6	3	51	9.7	6.0	14.8	9.0	0.80	0.69	0.0	0.0	8.85	120	153
160.0 Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	8.85	227	1200
145.0 RFS FD9R6004/2C-3L	6	3	0.4	0.5	6.5	1.5	0.80	0.50	2.0	13.0	8.64	7	16
145.0 Amphenol Antel BXA-	3	11	2.9	4.0	6.1	4.1	0.80	0.71	2.0	73.6	8.64	37	32
145.0 Antel LPA-80080/4CF	2	12	5.4	3.9	5.5	13.2	0.80	0.64	2.0	81.2	8.64	41	24
145.0 Antel LPA-80063/4CF	4	20	6.1	4.0	15.2	13.2	0.80	0.76	2.0	219.4	8.64	110	80
145.0 Antel BXA-	3	17	7.6	5.9	11.2	4.5	0.80	0.65	2.0	173.5	8.64	87	51
145.0 Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	8.61	221	1200
137.5 Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	8.48	45	150
137.5 Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	8.48	108	500
112.5 Dielectric TLP-16A-	1	290	23.7	4.9	10.0	10.0	1.00	1.00	10.0	1652.6	8.20	165	290
112.5 Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	8.01	43	150
100.0 Platform	1	5500	45.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	7.74	296	5500
87.50 Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	7.45	95	500
70.00 Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	6.99	37	150

Site Number: 88014				Code:			ANSI/TIA	-222-G		© 2007 - 20	18 by ATC	IP LLC. AI	ll rights res	erved.
Site Name: New Fairfield, C	r			Engineeri	ng Numb	er:	OAA723:	223_C3_(	2			2/28/201	8 1:59:50	РМ
Customer: T-Mobile														
				Tov	ver Lo	adir	<u>ıg</u>							
70.00 Andrew DB616E-BC	1	51	6.7	19.3	3.5	3.5	1.00	1.00	10.0	415.5	7.26	42	51	
50.00 Rest Platform	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	6.35	81	500	
Totals	94	29509	739.8									4053	29509	

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Site Number:	88014	Code:	ANSI/TIA-222-G	© 2007 - 2018 by ATC IP LLC. All rights reserved.
Site Name:	New Fairfield, CT	Engineering Number:	OAA723223_C3_02	2/28/2018 1:59:50 PM
Customer:	T-Mobile			

## Tower Loading

## Linear Appurtenance Properties

Elev	Elev									Out			
From	То			Width	<b>Weight</b>	Pct	Spread On	Bundling	Cluster	Of	Spacing (	Orientatio	n Ka
(ft)	(ft)	Description	Qty	(in)	(lb/ft)	In Block	Faces	Arrangement	Dia (in)	Zone	(in)	Factor	Override
5.00	187.5	1 5/8" Coax	6	1.98	0.82	50	3	Block	0.00	Ν	1.00	1.00	0.00
5.00	187.5	1 5/8" Coax	6	1.98	0.82	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
5.00	187.5	1 5/8" Fiber	1	1.63	1.61	0	Lin App	Individual	0.00	Ν	1.00	1.00	0.00
5.00	187.5	1/4" Coax	1	0.34	0.06	0	Lin App	Individual	0.00	Ν	1.00	1.00	0.00
5.00	187.5	Climbing Ladder	1	2.00	6.90	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
5.00	187.5	Wave Guide	1	2.00	6.00	0	3	Individual	0.00	N	1.00	1.00	0.00
5.00	182.0	Wave Guide	1	2.00	6.00	0	4	Individual	0.00	N	1.00	1.00	0.00
5.00	168.0	1 1/4" (1.25",	1	1.25	1.05	0	Lin App	Individual	0.00	Ν	1.00	1.00	0.00
5.00	168.0	1 1/4" Hybriflex	3	1.54	1.00	0	Lin App	Individual	0.00	Ν	1.00	1.00	0.00
5.00	160.0	0.28" (7mm) Fiber	1	0.28	0.04	0	Lin App	Individual	0.00	Ν	1.00	0.00	0.01
5.00	160.0	0.74" (18.7mm) 8	2	0.74	0.49	0	Lin App	Individual	0.00	Ν	1.00	0.00	0.01
5.00	160.0	1 5/8" Coax	6	1.98	0.82	0	3	Individual	0.00	Ν	0.00	1.00	0.00
5.00	160.0	3" conduit	1	3.50	7.58	0	Lin App	Individual	0.00	Ν	1.00	1.00	0.00
5.00	160.0	Wave Guide	1	2.00	6.00	0	3	Individual	0.00	N	1.00	1.00	0.00
5.00	145.0	1 5/8" Coax	12	1.98	0.82	0	1	Individual	0.00	N	1.00	1.00	0.00
5.00	145.0	Wave Guide	1	2.00	6.00	0	1	Individual	0.00	N	1.00	1.00	0.00
0.00	70.00	7/8" Coax	1	1.09	0.33	0	Lin App	Individual	0.00	N	1.00	1.00	0.00
8.33	33.33	Coax Cage	4	12.0	25.0	0	2,4	Individual	0.00	Ν	1.00	1.00	0.00

Site Number:	88014	Code:	ANSI/TIA-222-G	© 2007 - 2018 by ATC IP LLC. All rights reserved.
Site Name:	New Fairfield, CT	Engineering Number:	OAA723223_C3_02	2/28/2018 1:59:51 PM
Customer:	T-Mobile			

## Equivalent Lateral Force Method

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

Spectral Response Acceleration for Short Period (S ):	0.22
Spectral Response Acceleration at 1.0 Second Period (S 1):	0.07
Long-Period Transition Period (T - Seconds):	6
Importance Factor (I <sub>e</sub> ):	1.00
Site Coefficient F ":	1.60
Site Coefficient F <sub>v</sub> :	2.40
Response Modification Coefficient (R):	3.00
Design Spectral Response Acceleration at Short Period (S ds):	0.23
Design Spectral Response Acceleration at 1.0 Second Period (S $d$ ):	0.11
Seismic Response Coefficient (C):	0.05
Upper Limit C <sub>s</sub> :	0.05
Lower Limit C s:	0.03
Period based on Rayleigh Method (sec):	0.65
Redundancy Factor (p):	1.30
Seismic Force Distribution Exponent (k):	1.08
Total Unfactored Dead Load:	106.66 k
Seismic Base Shear (E):	7.62 k

## LoadCase (1.2 + 0.2Sds) \* DL + E

.

16

Seismic

Section	Height Above Base (ft)	Weight (Ib)	Wz (lb-ft)	C <sub>vx</sub>	Horizontal Force (Ib)	Vertical Force (lb)
12	183.21	1,999	541,867	0.035	269	2,490
11	174.62	1,663	428,088	0.028	212	2,072
10	165.25	2,589	628,264	0.041	312	3,226
9	155.08	2,540	575,690	0.037	286	3,165
8	143.75	4,037	843,203	0.055	418	5,030
7	131.25	4,527	857,348	0.056	425	5,640
6	118.75	4,692	797,956	0.052	396	5,845
5	100.00	10,878	1,537,88	0.100	763	13,552
4	81.25	5,933	670,991	0.044	333	7,392
3	62.50	10,964	935,167	0.061	464	13,660
2	37.50	12,370	609,207	0.040	302	15,411
1	12.50	14,956	226,047	0.015	112	18,633
Ericsson KRY 112 144/1	187.50	33	9,171	0.001	5	41
Ericsson RRUS 11 B12	187.50	152	42,272	0.003	21	189
Pipe Mount	187.50	900	250,131	0.016	124	1,121
RFS SC2-W100AB	187.50	22	6,114	0.000	3	27
Ericsson AIR 21, 1.3 M, B2A B4P	187.50	249	69,203	0.005	34	310
Ericsson AIR 21, 1.3M, B4A B2P	187.50	244	67,952	0.004	34	305
Commscope LNX-6515DS-VTM	187.50	151	41,939	0.003	21	188
Platform	187.50	8,000	2,223,38	0.145	1,103	9,967
Catwalk	170.33	6,500	1,629,26	0.106	808	8,098
Alcatel-Lucent 2X50W RRH w/o Filter	168.00	159	39,268	0.003	19	198
Alcatel-Lucent 4x40W RRH	168.00	273	67,423	0.004	33	340

Site Number:	88014	Code:	ANSI/TIA-222-G	© 2007 - 2018 by ATC IP LLC, All rights reserved.
Site Name:	New Fairfield, CT	Engineering Number:	OAA723223_C3_02	2/28/2018 1:59:51 PM
Customer:	T-Mobile			

Equivalent	Lateral	Force	Method

		106,657	15,358,620	1.000	7,618	132,880
Rest Platform	50.00	500	33,550	0.002	17	623
Andrew DB616E-BC	70.00	51	4,914	0.000	2	64
Flat Side Arm	70.00	150	14,452	0.001	7	187
Rest Platform	87.50	500	61,237	0.004	30	623
Platform	100.00	5,500	777,602	0.051	386	6,852
Flat Side Arm	112.50	150	24,071	0.002	12	187
Dielectric TLP-16A-1E	112.50	290	46,536	0.003	23	361
Rest Platform	137.50	500	99,556	0.006	49	623
Flat Side Arm	137.50	150	29,867	0.002	15	187
Flat Light Sector Frames	145.00	1,200	252,976	0.016	125	1,495
Antel BXA-70063/6CF_	145.00	51	10,751	0.001	5	64
Antei LPA-80063/4CF	145.00	80	16,865	0.001	8	100
Antel LPA-80080/4CF	145.00	24	5,060	0.000	3	30
Amphenol Antel BXA-171085-8BF-EDIN-X	145.00	32	6,641	0.000	3	39
RFS FD9R6004/2C-3L	145.00	16	3,289	0.000	2	19
Flat Light Sector Frames	160.00	1,200	281,220	0.018	139	1,495
CCI HPA-65R-BUU-H6	160.00	153	35,855	0.002	18	191
Aligon 7770.00	160.00	105	24,607	0.002	12	131
Ericsson RRUS 32 B2	160.00	159	37,262	0.002	18	198
Ericsson RRUS 11 (Band 12) (55 lb)	160.00	165	38,668	0.003	19	206
Raycap DC6-48-60-18-8F	160.00	20	4,687	0.000	2	25
Powerwave LGP21401	160.00	85	19,826	0.001	10	105
Flat Light Sector Frames	168.00	1,200	296,366	0.019	147	1,495
RFS APXVSPP18-C-A20	168.00	171	42,232	0.003	21	213
RFS RFS APXV9TM14-ALU-I20	168.00	165	40,824	0.003	20	206
Alcatel-Lucent TD-RRH8x20-25 w/ Solar	168.00	210	51,864	0.003	26	262

#### LoadCase (0.9 - 0.2Sds) \* DL + E

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Seismic (Reduced DL)

		001011	,			
Section	Height Above Base (ft)	Weight (Ib)	W <sub>z</sub> (lb-ft)	C <sub>vx</sub>	Horizontal Force (Ib)	Vertical Force (lb)
12	183.21	1,999	541,867	0.035	269	1,707
11	174.62	1,663	428,088	0.028	212	1,420
10	165.25	2,589	628,264	0.041	312	2,212
9	155.08	2,540	575,690	0.037	286	2,170
8	143.75	4,037	843,203	0.055	418	3,448
7	131.25	4,527	857,349	0.056	425	3,866
6	118.75	4,692	797,956	0.052	396	4,007
5	100.00	10,878	1,537,88	0.100	763	9,291
4	81.25	5,933	670,991	0.044	333	5,068
3	62.50	10,964	935,167	0.061	464	9,365
2	37.50	12,370	609,207	0.040	302	10,566
1	12.50	14,956	226,047	0.015	112	12,774
Ericsson KRY 112 144/1	187.50	33	9,171	0.001	5	28
Ericsson RRUS 11 B12	187.50	152	42,272	0.003	21	130
Pipe Mount	187.50	900	250,131	0.016	124	769
RFS SC2-W100AB	187.50	22	6,114	0.000	3	19
Ericsson AIR 21, 1.3 M, B2A B4P	187.50	249	69,203	0.005	34	213
Ericsson AIR 21, 1.3M, B4A B2P	187.50	244	67,952	0.004	34	209
Commscope LNX-6515DS-VTM	187.50	151	41,939	0.003	21	129
Platform	187.50	8,000	2,223,38	0.145	1,103	6,833
Catwalk	170.33	6,500	1,629,26	0.106	808	5,552
Alcatel-Lucent 2X50W RRH w/o Filter	168.00	159	39,268	0.003	19	136

Site Number:	88014	Code:	ANSI/TIA-222-G	© 2007 - 2018 by ATC IP LLC. All rights reserved.
Site Name:	New Fairfield, CT	Engineering Number:	OAA723223_C3_02	2/28/2018 1:59:51 PM
Customer:	T-Mobile			
	Equ	ivalent Lateral Fo	orce Method	

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Alcatel-Lucent 4x40W RRH	168.00	273	67,423	0.004	33	233
Alcatel-Lucent TD-RRH8x20-25 w/ Solar	168.00	210	51,864	0.003	26	179
RFS RFS APXV9TM14-ALU-I20	168.00	165	40,824	0.003	20	141
RFS APXVSPP18-C-A20	168.00	171	42,232	0.003	21	146
Flat Light Sector Frames	168.00	1,200	296,366	0.019	147	1,025
Powerwave LGP21401	160.00	85	19,826	0.001	10	72
Raycap DC6-48-60-18-8F	160.00	20	4,687	0.000	2	17
Ericsson RRUS 11 (Band 12) (55 lb)	160.00	165	38,668	0.003	19	141
Ericsson RRUS 32 B2	160.00	159	37,262	0.002	18	136
Aligon 7770.00	160.00	105	24,607	0.002	12	90
CCI HPA-65R-BUU-H6	160.00	153	35,855	0.002	18	131
Flat Light Sector Frames	160.00	1,200	281,220	0.018	139	1,025
RFS FD9R6004/2C-3L	145.00	16	3,289	0.000	2	13
Amphenol Antel BXA-171085-8BF-EDIN-X	145.00	32	6,641	0.000	3	27
Antel LPA-80080/4CF	145.00	24	5,060	0.000	3	20
Antel LPA-80063/4CF	145.00	80	16,865	0.001	8	68
Antel BXA-70063/6CF_	145.00	51	10,751	0.001	5	44
Flat Light Sector Frames	145.00	1,200	252,976	0.016	125	1,025
Flat Side Arm	137.50	150	29,867	0.002	15	128
Rest Platform	137.50	500	99,556	0.006	49	427
Dielectric TLP-16A-1E	112.50	290	46,536	0.003	23	248
Flat Side Arm	112.50	150	24,071	0.002	12	128
Platform	100.00	5,500	777,602	0.051	386	4,698
Rest Platform	87.50	500	61,237	0.004	30	427
Flat Side Arm	70.00	150	14,452	0.001	7	128
Andrew DB616E-BC	70.00	51	4,914	0.000	2	44
Rest Platform	50.00	500	33,550	0.002	17	427
		106,657	15,358,620	1.000	7,618	91,099

Site Number:	88014	Code:	ANSI/TIA-222-G	© 2007 - 2018 by ATC IP LLC. All rights reserved.
Site Name:	New Fairfield, CT	Engineering Number:	OAA723223_C3_02	2/28/2018 1:59:51 PM
Customer:	T-Mobile			

## Equivalent Modal Analysis Method

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

•	
Spectral Response Acceleration for Short Period (S s):	0.22
Spectral Response Acceleration at 1.0 Second Period (S 1):	0.07
Importance Factor (I <sub>e</sub> ):	1.00
Site Coefficient F a:	1.60
Site Coefficient F v:	2.40
Response Modification Coefficient (R):	3.00
Design Spectral Response Acceleration at Short Period (S ds):	0.23
Desing Spectral Response Acceleration at 1.0 Second Period (S	<sub>d1</sub> ): 0.11
Period Based on Rayleigh Method (sec):	0.65
Redundancy Factor (p):	1.30

 $\mathbb{Q}_{k}$ 

	Height Above Base	Weight					Horizontal Force	Vertical Force
Section	(ft)	(lb)	а	b	С	Saz	(lb)	(lb)
2	183.21	1,999	1.804	1.559	0.985	0.466	404	2,490
1	174.62	1,663	1.639	0.905	0.725	0.361	260	2,072
0	165.25	2,589	1.468	0.425	0.506	0.269	301	3,226
	155.08	2,540	1.293	0.111	0.330	0.194	214	3,165
	143.75	4,037	1.111	-0.064	0.194	0.139	243	5,030
	131.25	4,527	0.926	-0.121	0.098	0.105	205	5,640
	118.75	4,692	0.758	-0.103	0.043	0.089	180	5,845
	100.00	10,878	0.538	-0.030	0.009	0.078	369	13,552
	81.25	5,933	0.355	0.031	0.008	0.068	175	7,392
	62.50	10,964	0.210	0.061	0.022	0.053	252	13,660
	37.50	12,370	0.076	0.072	0.040	0.034	182	15,411
	12.50	14,956	0.008	0.052	0.030	0.018	114	18,633
ricsson KRY 112 144/1	187.50	33	1.890	1.980	1.140	0.527	8	41
ricsson RRUS 11 B12	187.50	152	1.890	1.980	1.140	0.527	35	189
ipe Mount	187.50	900	1.890	1.980	1.140	0.527	205	1,121
FS SC2-W100AB	187.50	22	1.890	1.980	1.140	0.527	5	27
ricsson AIR 21, 1.3 M, B2A B4P	187.50	249	1.890	1.980	1.140	0.527	57	310
ricsson AIR 21, 1.3M, B4A B2P	187.50	244	1.890	1.980	1.140	0.527	56	305
ommscope LNX-6515DS-VTM	187.50	151	1.890	1.980	1.140	0.527	34	188
latform	187.50	8,000	1.890	1.980	1.140	0.527	1,826	9,967
atwaik	170.33	6,500	1.560	0.659	0.617	0.316	889	8,098
Icatel-Lucent 2X50W RRH w/o	168.00	159	1.517	0.545	0.564	0.293	20	198
Icatel-Lucent 4x40W RRH	168.00	273	1.517	0.545	0.564	0.293	35	340
Icatel-Lucent TD-RRH8x20-25	168.00	210	1.517	0.545	0.564	0.293	27	262
FS RFS APXV9TM14-ALU-I20	168.00	165	1.517	0.545	0.564	0.293	21	206
FS APXVSPP18-C-A20	168.00	171	1.517	0.545	0.564	0.293	22	213
lat Light Sector Frames	168.00	1,200	1.517	0.545	0.564	0.293	152	1,495
owerwave LGP21401	160.00	85	1.376	0.240	0.408	0.227	8	105
aycap DC6-48-60-18-8F	160.00	20	1.376	0.240	0.408	0.227	2	25
ricsson RRUS 11 (Band 12) (55	160.00	165	1.376	0.240	0.408	0.227	16	206
ricsson RRUS 32 B2	160.00	159	1.376	0.240	0.408	0.227	16	198
ligon 7770.00	160.00	105	1.376	0.240	0.408	0.227	10	131
CI HPA-65R-BUU-H6	160.00	153	1.376	0.240	0.408	0.227	15	191
lat Light Sector Frames	160.00	1,200	1.376	0.240	0.408	0.227	118	1.495
FS FD9R6004/2C-3L	145.00	16	1.130	-0.051	0.206	0.144	1	19
mphenoi Antel BXA-171085-	145.00	32	1.130	-0.051	0.206	0.144	2	39
ntel LPA-80080/4CF	145.00	24	1.130	-0.051	0.206	0.144	1	30
ntel LPA-80063/4CF	145.00	80	1.130	-0.051	0.206	0.144	5	100

Site Number: Site Name: Customer:	88014 New Fairfield, CT T-Mobile			ode: ngineering Num		51/TIA-222-G 4723223_C3_	02	© 2007 - 2018 by A	ATC IP LLC. All rights reserved. 2/28/2018 1:59:51 PM
			Equival	ent Modal	Analys	is Metho	d		
	-70063/6CF_	145.00	51	1.130	-0.051	0.206	0.144	3	64
Flat Light S	Sector Frames	145.00	1,200	1.130	-0.051	0.206	0.144	75	1,495
Flat Side A	rm	137.50	150	1.016	-0.105	0.140	0.119	8	187
Rest Platfo	) rm	137.50	500	1.016	-0.105	0.140	0.119	26	623
Dielectric 7	LP-16A-1E	112.50	290	0.680	-0.081	0.026	0.084	11	361
Flat Side A	.rm	112.50	150	0.680	-0.081	0.026	0.084	5	187
Platform		100.00	5,500	0.538	-0.030	0.009	0.078	187	6,852
Rest Platfo	nu	87.50	500	0.412	0.014	0.006	0.072	16	623

Flat Olde Alla	137.30	190	1.010	-0.105	U.14U	0.119	
Rest Platform	137.50	500	1.016	-0.105	0.140	0.119	
Dielectric TLP-16A-1E	112.50	290	0.680	-0.081	0.026	0.084	
Flat Side Arm	112.50	150	0.680	-0.081	0.026	0.084	
Platform	100.00	5,500	0.538	-0.030	0.009	0.078	
Rest Platform	87.50	500	0.412	0.014	0.006	0.072	
Flat Side Arm	70.00	150	0.263	0.053	0.016	0.059	
Andrew DB616E-BC	70.00	51	0.263	0.053	0.016	0.059	
Rest Platform	50.00	500	0.134	0.069	0.032	0.043	

106,657

# LoadCase (0.9 - 0.2Sds) \* DL + E Height

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Seismic (Reduced DL)

20.608

11.330

57.390 23.829

64 623

132,880

16 4 19

6,830

adcase (0.9 - 0.25ds) * DL	<u>+ E</u>		Seismic	(Reduce				
	Height						Horizontal	Vertical
	Above Base	Weight					Force	Force
Section	(ft)	(Ib)	а	b	C	Saz	(lb)	(Ib)
12	183.21	1,999	1.804	1.559	0.985	0.466	404	1,707
11	174.62	1,663	1.639	0.905	0.725	0.361	260	1,420
10	165.25	2,589	1.468	0.425	0.506	0.269	301	2,212
9	155.08	2,540	1.293	0.111	0.330	0.194	214	2,170
B	143.75	4,037	1.111	-0.064	0.194	0.139	243	3,448
7	131.25	4,527	0.926	-0.121	0.098	0.105	205	3,866
6	118.75	4,692	0.758	-0.103	0.043	0.089	180	4,007
5	100.00	10,878	0.538	-0.030	0.009	0.078	369	9,291
4	81.25	5,933	0.355	0.031	0.008	0.068	175	5,068
3	62.50	10,964	0.210	0.061	0.022	0.053	252	9,365
2	37.50	12,370	0.076	0.072	0.040	0.034	182	10,566
1	12.50	14,956	0.008	0.052	0.030	0.018	114	12,774
Ericsson KRY 112 144/1	187.50	33	1.890	1.980	1.140	0.527	8	28
Ericsson RRUS 11 B12	187.50	152	1.890	1.980	1.140	0.527	35	130
Pipe Mount	187.50	900	1.890	1.980	1.140	0.527	205	769
RFS SC2-W100AB	187.50	22	1.890	1.980	1.140	0.527	5	19
Ericsson AIR 21, 1.3 M, B2A B4P	187.50	249	1.890	1.980	1.140	0.527	57	213
Ericsson AIR 21, 1.3M, B4A B2P	187.50	244	1.890	1.980	1.140	0.527	56	209
Commscope LNX-6515DS-VTM	187.50	151	1.890	1.980	1.140	0.527	34	129
Platform	187.50	8,000	1.890	1.980	1.140	0.527	1,826	6,833
Catwalk	170.33	6,500	1.560	0.659	0.617	0.316	889	5,552
Alcatel-Lucent 2X50W RRH w/o	168.00	159	1.517	0.545	0.564	0.293	20	136
Alcatel-Lucent 4x40W RRH	168.00	273	1.517	0.545	0.564	0.293	35	233
Alcatel-Lucent TD-RRH8x20-25	168.00	210	1.517	0.545	0.564	0.293	27	179
RFS RFS APXV9TM14-ALU-I20	168.00	165	1.517	0.545	0.564	0.293	21	141
RFS APXVSPP18-C-A20	168.00	171	1.517	0.545	0.564	0.293	22	146
Flat Light Sector Frames	168.00	1,200	1.517	0.545	0.564	0.293	152	1,025
Powerwave LGP21401	160.00	85	1.376	0.240	0.408	0.227	8	72
Raycap DC6-48-60-18-8F	160.00	20	1.376	0.240	0.408	0.227	2	17
Ericsson RRUS 11 (Band 12) (55	160.00	165	1.376	0.240	0.408	0.227	16	141
Ericsson RRUS 32 B2	160.00	159	1.376	0.240	0.408	0.227	16	136
Allgon 7770.00	160.00	105	1.376	0.240	0.408	0.227	10	90
CCI HPA-65R-BUU-H6	160.00	153	1.376	0.240	0.408	0.227	15	131
Flat Light Sector Frames	160.00	1,200	1.376	0.240	0.408	0.227	118	1,025
RFS FD9R6004/2C-3L	145.00	16	1.130	-0.051	0.206	0.144	1	13
Amphenol Antel BXA-171085-	145.00	32	1.130	-0.051	0.206	0.144	2	27
Antel LPA-80080/4CF	145.00	24	1.130	-0.051	0.206	0.144	1	20
Antel LPA-80063/4CF	145.00	80	1.130	-0.051	0.206	0.144	5	68
Antel BXA-70063/6CF_	145.00	51	1.130	-0.051	0.206	0.144	3	44
Flat Light Sector Frames	145.00	1,200	1.130	-0.051	0.206	0.144	75	1,025
Flat Side Arm	137.50	150	1.016	-0.105	0.140	0.119	8	128
Rest Platform	137.50	500	1.016	-0.105	0.140	0.119	26	427
Dielectric TLP-16A-1E	112.50	290	0.680	-0.081	0.026	0.084	11	248
Flat Side Arm	112.50	150	0.680	-0.081	0.026	0.084	5	128
Platform	100.00	5,500	0.538	-0.030	0.009	0.078	187	4,698
Rest Platform	87.50	500	0.412	0.014	0.006	0.072	16	427

Site Number:	88014	Code:	ANSI/TIA-222-G	© 2007 - 2018 by ATC IP LLC. All rights reserved.
Site Name:	New Fairfield, CT	Engineering Number:	OAA723223_C3_02	2/28/2018 1:59:51 PM
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	Equi	valent Medal An	lucio Motheod	

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Flat Side Arm	70.00	150	0.263	0.053	0.016	0.059	4	128
Andrew DB616E-BC	70.00	51	0.263	0.053	0.016	0.059	1	44
Rest Platform	50.00	500	0.134	0.069	0.032	0.043	9	427
		106,657	57.390	23.829	20.608	11.330	6,830	91,099

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Section: 1 1		Bot Elev	(ft): 0.	00	1	Hei	ght (f	t): 25	.000						
	Pu		Len		cing			-			Num	•	phiRn	Use	
Max Compression Member	(kip)	Load Case	(ft)	<u>x</u>	Y	2	KL/R	(KSI)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls
LEG SAE - 8X8X0.875		1.2D + 1.6W 45			33	33		36.0			0	0.00	0.00		Member Z
HORIZDAL - 3X2.5X0.3125		1.2D + 1.6W	14.66		100		171.7				0	0.00	0.00		Member X
DIAG DAS - 3.5X3X0.25	-19.56	5 1.2D + 1.6W 90	29.84	33	66	8	145.0	36.0	33.6	10	0	0.00	0.00	58	Member Y
	Pu		Fv	Fu	Phi	it Pn	Num	Num	She phil		Bear phiRn		Shear t Pn	Use	
Max Tension Member		Load Case	(ksi)			ip)	Bolts				(kip)		ip)	%	Controls
LEG SAE - 8X8X0.875	132.52	0.9D + 1.6W 45	36	58	42	8.65	0	0		0.00	0.0	0		30	Member
HORIZ DAL - 3X2.5X0.3125	9.87	1.2D + 1.6W	36	51	8 104	4.98	0	0		0.00	0.0	0	0.00		Member
DIAG DAS - 3.5X3X0.25	17.69	1.2D + 1.6W	36	58	<b>10</b> <sup>4</sup>	1.41	0	0		0.00	0.0	0	0.00	17	Member
Nov O-line Francis	Pu			phiR	nt	U	se	Num							
Max Splice Forces	(kip)	Load Case		(kip			%	Bolts	Bolt T	уре					
Top Tension		0.9D + 1.6W 31	-	0.0			0	0							
Top Compression		' 1.2D + 1.6W 3		0.0			0								
Bot Tension		0.9D + 1.6W 3		602.7		-	2	4	2 1/4 /	436					
Bot Compression	209.22	1.2D + 1.6W 3	15	0.0	JO		0								
Section: 2 2		Bot Elev (	(ft): 25	5.00	l	Hei	ght (f	t): 25	.000						
	Pu		Len	Bra	cing ?	%		F'y	Phic Pr	Num	Num	Shear phiRnv		Use	
Max Compression Member	(kip)	Load Case	(ft)	Х	Y	z	KL/R	-			Holes	(kip)	(kip)	%	Controls
LEG SAE - 8X8X0.75	-154.58	1.2D + 1.6W 45	25.10	33	33	33	62.9	36.0	300.96	<u>5</u> 0	0	0.00	0.00	51	Member 2
HORIZDAL - 3X2.5X0.25	-8.96	1.2D + 1.6W	13.09	100	100	17	155.3	36.0	24.6	30	0	0.00	0.00	36	Member >
DIAG DAS - 3X2.5X0.25	-21.11	1.2D + 1.6W 90	29.02	33	65	8	156.7	36.0	24.19	90	0	0.00	0.00	87	Member \
	_								She		Bear		Shear		
Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)		t Pn ip)	Num Bolts	Num Hole:			phiRn (kip)	•	t Pn iip)	Use %	Controls
LEG SAE - 8X8X0.75	109.42	0.9D + 1.6W 45	36	58	370	D.66	0	0		0.00	0.0	0		29	Member
HORIZ DAL - 3X2.5X0.25		1.2D + 1.6W	36	58	<b>3 8</b>	5.21	0	0	I	0.00	0.0	0	0.00		Member
DIAG DAS - 3X2.5X0.25	18.85	1.2D + 1.6W	36	58	8	5.21	0	0	I	0.00	0.0	0	0.00	22	Member
Max Splice Forces	Pu			phiR				Num	_						
	(kip)	Load Case		(kip)	)		/6	Bolts	Bolt T	ype					
	400.50	0.9D + 1.6W 31	5	0.0	00		0	0							
Top Tension			-				-	-							
Top Compression	153.71	1.2D + 1.6W 4	5	0.0			0	•							
•	153.71 131.66	1.2D + 1.6W 4	5 15	0.0 0.0 0.0	00		-	Ū							

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## Force/Stress Summary

Engineering Number: OAA723223\_C3\_02

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Code:

Section: 3 3		Bot Elev	(ft): 50	0.00		Hei	ght (1	it): 25.	000						
	Pu		Len	Bra	cing ¶	%		F'y I	Phic Pn	Num	Num	Shear phiRnv		Use	
Max Compression Member	(kip)	Load Case	(ft)	х	Y	Ζ	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls
LEG SAE - 8X8X0.75	-124.20	5 1.2D + 1.6W 45			33	33	62.9	36.0	300.96	0	0	0.00	0.00	41	Member 2
HORIZDAE - 2.5X2.5X0.25		1 0.9D + 1.6W 90			100		165.7		19.57	-	0	0.00	0.00		Member >
DIAG DAS - 3X2.5X0.25	-21.10	0 1.2D + 1.6W	28.26	33	66	8	155.0	36.0	24.73	0	0	0.00	0.00	85	Member \
	Pu		Fy	Fu	Dhi	+ Dn	Num	Num	She phiR		Bear		Shear t Pn	Use	
Max Tension Member	(kip)	Load Case	(ksi)	(ksi)	(ki		Bolts				phiRn (kip)		ten (ip)	use %	Controls
LEG SAE - 8X8X0.75	85.55	0.9D + 1.6W 45	36	58	3 37(	).66	0	0		).00	0.0			23	Member
HORIZ DAE - 2.5X2.5X0.25	8.68	1.2D + 1.6W	36	5	8 73	7.11	0	0		0.00	0.0	0	0.00	11	Member
DIAG DAS - 3X2.5X0.25	19.24	1.2D + 1.6W	36	58	8 8	5.21	0	0	0	).00	0.0	0	0.00	22	Member
May Salias Foresa	Pu			phiR	nt	U	s <del>o</del>	Num							
Max Splice Forces	(kip)	Load Case		(kip	)	2	6	Bolts	Bolt T	ype					
Top Tension		0.9D + 1.6W 31		0.			0	0							
Top Compression Bot Tension		5 1.2D + 1.6W 4	-	0.0			0								
Bot Compression	108.5 153.71	9 0.9D + 1.6W 3 1 1.2D + 1.6W 4		0.( 0.(	00 D0		0 0								
Section: 4 4		Bot Elev	(ft): 75	5.00		leig	ght (f	t): 12.	500						
												Shear	Bear		
	Pu		Len		cing ?			-	Phic Pn				•		
Max Compression Member	(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls
LEG SAE - 6X6X0.875		6 1.2D + 1.6W 45			50	50	64.4	36.0	253.50	_	0	0.00	0.00	. –	Member 2
HORIZDAE - 2.5X2.5X0.25		6 1.2D + 1.6W	10.75		100		156.5		21.97	-	0	0.00	0.00		Member >
DIAG DAE - 2.5X2.5X0.25	-12.3	9 1.2D + 1.6W	17.02	50	100	12	167.1	36.0	19.26	0	0	0.00	0.00	64	Member `
			_	_	~				She		Bear		Shear		
Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phi (ki		Num Bolts	Num Holes	phiR ; (kip		phiRn (kip)		t Pn iip)	Use %	Controls
LEG SAE - 6X6X0.875		0.9D + 1.6W 45	36	58		5.25	0	0		00.00	0.0	-			Member
HORIZ DAE - 2.5X2.5X0.25		1.2D + 1.6W	36	51		7.11	0	0		).00	0.0		0.00		Member
DIAG DAE - 2.5X2.5X0.25	11.17	1.2D + 1.6W	36	58	3 77	7.11	0	0	(	0.00	0.0	0	0.00	14	Member
Max Splice Forces	Pu (kip)	Load Case		phiR		-	se %	Num Bolts	Dalt T						
			E	(kip					Bolt T	ha					
Ten Tenning	73.94	4 0.9D + 1.6W 31	13	0.0	JU		0	0							
Top Tension	409.04	1 1 20 + 1 414 4	5		00		0								
Top Tension Top Compression Bot Tension	108.04 84.8	1.2D + 1.6W 4	-	0.( 0.(			0								

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Section: 5 5	Bot Elev (ft): 87.50 Height (ft): 25.000														
	Pu		Lan		-1 0			E'v (			N	Shear		11	
Hay Compression Nember	ru (kip)	Load Case	Len (ft)	Х	cing % Y		KL/R		Phic Pn (kip)		Num Holes	(kip)	(kip)	Use %	Controls
Max Compression Member										_					
LEG SAE - 6X6X0.75 HORIZDAE - 2.5X2.5X0.25		1 1.2D + 1.6W 45 6 0.9D + 1.6W 90			50 100	50 20	64.4 147.2		219.89	-	0	0.00 0.00	0.00 0.00		Member Z Member X
DIAG DAE - 2.5X2.5X0.25		3 1.2D + 1.6W 90			100		162.8		20.29		Ő	0.00	0.00		Member Y
									She	ar	Bear	Bik :	Shear		
Max Tension Member	Pu	Load Case	Fy	Fu			Num	Num			phiRn		t Pn	Use	Controls
	(kip)		(ksi)	(ksi)	(ki		Bolts		- ()		(kip)		d <b>p)</b>	%	
LEG SAE - 6X6X0.75 HORIZ DAE - 2.5X2.5X0.25		0.9D + 1.6W 45 1.2D + 1.6W	36 36	-		3.46 7.11	0	0	-	).00 ).00	0.0	-	0.00		Member Member
DIAG DAE - 2.5X2.5X0.25		1.2D + 1.6W	36	-		7.11	0	Ő		).00 ).00	0.0	-	0.00	-	Member
				•				-			0.0	•	0.00		monnogr
	Pu			phiR	nt	U	se	Num							
Max Splice Forces	(kip)	Load Case		(kip		_	%	Bolts	Bolt T	ype					
Top Tension	52.2	2 0.9D + 1.6W 3	15	0.	00		0	0							
Top Compression		9 1.2D + 1.6W 3			00		0								
Bot Tension		4 0.9D + 1.6W 3			00		0								
Bot Compression	108.04	4 1.2D + 1.6W 4	5	0.	00		0								
Section: 6 6		Bot Elev	(ft): 11	2.5	I	Heig	ght (f	ť): 12.	.500						
	_			_								Shear			
	Pu		Len		cing 9			-	Phic Pn				•		
Max Compression Member	(kip)	Load Case	(ft)	<u>×</u>	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls
LEG SAE - 6X6X0.5625		0 1.2D + 1.6W 45			50	50		36.0	168.14		0	0.00	0.00		Member Z
HORIZDAE - 2.5X2.5X0.25		5 1.2D + 1.6W	8.408		100		128.6		32.30		0	0.00	0.00		Member X
DIAG DAL - 2.5X2X0.25	-10.93	3 1.2D + 1.6W	15.53	50	100	12	188.1	36.0	13.60	0	0	0.00	0.00	80	Member Y
									ŐL-		Beer	<b>B</b> 0. 4			
	Ри		Fy	Fu	Phi	t Pn	Num	Num	She phiF		Bear phiRn		Shear t Pn	Use	
Max Tension Member	(kip)	Load Case	(ksi)		(ki		Bolts				(kip)		ip)	%	Controls
LEG SAE - 6X6X0.5625	41.50	0.9D + 1.6W 45	36	5	3 208	3.33	0	0		0.00	0.0	0		19	Member
HORIZ DAE - 2.5X2.5X0.25		1.2D + 1.6W	36			7.11	0	0		0.00	0.0	0	0.00	7	Member
DIAG DAL - 2.5X2X0.25	10.06	1.2D + 1.6W	36	51	3 69	9.01	0	0	(	).00	0.0	0	0.00	14	Member
	Pu			phiR	nt	u	50	Num							
				(kip			%	Bolts	Bolt T	ype					
Max Splice Forces	(kip)	Load Case		· · · ·	•										
Max Splice Forces Top Tension	(kip) 40.9		5		00		0	0							
Top Tension Top Compression	,	9 0.9D + 1.6W 4		0,			0	0							
Top Tension	40.99 63.19 52.23	9 0.9D + 1.6W 4 5 1.2D + 1.6W 4	5 15	0, 0, 0,	00		-	0							

Site Number: 88014 Site Name: New Fairfield, CT

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Customer: T-Mobile

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Section: 7 6		Bot Elev	(ft): 12	25.0	H	leig	iht (f	t): 12.	500						
				_				<b>F</b> h				Shear			
	Pu	Load Case	Len		cing %						Num j		•	Use	0
Max Compression Member	(kip)		(ft)	X	Y	<u> </u>	KL/R	(KSI)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls
LEG SAE - 6X6X0.5625		0 1.2D + 1.6W 45			50	50	63.8	36.0	168.14	-	0	0.00	0.00		Member Z
HORIZDAE - 2.5X2.5X0.25 DIAG DAL - 2.5X2X0.25		7 1.2D + 1.6W 90 6 1.2D + 1.6W 90			120 100		119.0 183.4	36.0	36.59	-	0	0.00	0.00		Member X
DIAG DAL • 2.3A2A0.25	-10.7	0 1.20 + 1.644 90	15.08	50	100	12	183.4	36.0	14.30	U	U	0.00	0.00	75	Member Y
	<b>D</b>		-	-		_			She		Bear		Shear		
Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip		Num Bolts	Num Holes	phiR ; (kip		phiRn (kip)	•	t Pn lip)	Use %	Controls
LEG SAE - 6X6X0.5625		0.9D + 1.6W 45	36	5			0	0	(	.00	0.0	)		14	Member
HORIZ DAE - 2.5X2.5X0.25	5.27	1.2D + 1.6W	36	5		:11	0	0		00.	0.0	נ	0.00	-	Member
DIAG DAL - 2.5X2X0.25	9.74	1.2D + 1.6W	36	51	3 69	.01	0	0	(	.00	0.0	)	0.00	14	Member
May Splice Foress	Pu			phiR	nt	Us		Num							
Max Splice Forces	(kip)	Load Case		(kip	)	%	þ	Bolts	Bolt T	/pe					
Top Tension		8 0.9D + 1.6W 4	-		00	0	-	0							
Top Compression		1 1.2D + 1.6W 4	-		00	(	-								
Bot Tension Bot Compression	40.9	9 0.9D + 1.6W 4 5 1.2D + 1.6W 4	-		DO DO	0	)								
Bor compression		5 1.2U + 1.6VV 4	5	U.	00		,								
Section: 8 7		Bot Elev	(ft): 13	7.5	H	leig	ht (f	t): 12.	500						
	Pu		Len	Bra	cing %			F'y F	Phic Pn	Num	Num j	Shear biRov		lisa	
Max Compression Member	(kip)	Load Case	(ft)	X	_		(L/R				Holes	(kip)	(kip)	%	Controls
LEG SAE - 6X6X0.4375	-35.5	9 1.2D + 1.6W 45	12.55	50	50	50	63.3			0	0	0.00	0.00	26	Member Z
HORIZDAE - 2.5X2.5X0.25	-4.2	5 0.9D + 1.6W	6.845			au	03.3	36.0	132.79	U	v	0.00	0.00	20	
DIAG DAL - 2.5X2X0.25			0.040	100	107		106.8	36.0 36.0	132.79 42.29	-	Ő	0.00	0.00		Member X
	-10.2	1 1.2D + 1.6W	6.845 14.66		107 100	25				-	-			10	
			14.66	50	100	25 12	106.8 179.1	36.0 36.0	42.29 15.01 She	0 0 ar	0 0 Bear	0.00 0.00 Blk S	0.00 0.00 Shear	10 68	
Max Tension Member	-10.2 Pu (kip)			50 Fu	100	25 12 Pn	106.8	36.0	42.29 15.01 She phiR	0 0 ar	0	0.00 0.00 Bik S phi	0.00 0.00	10	
Max Tension Member LEG SAE - 6X6X0.4375	Pu (kip) 18.44	1 1.2D + 1.6W Load Case 0.9D + 1.6W 45	14.66 Fy (ksi) 36	50 Fu (ksi)	100 Phit (kip 163	25 · 12 · Pn 2) .94	106.8 179.1 Num Bolts 0	36.0 36.0 Num Holes	42.29 15.01 Shei phiR (kip	0 0 ar nv ))	0 0 Bear phiRn (kip) 0.00	0.00 0.00 Bik S phi (k	0.00 0.00 Shear t Pn ip}	10 68 Use % 11	Member Y Controls Member
LEG SAE - 6X6X0.4375 HORIZ DAE - 2.5X2.5X0.25	Pu (kip) 18.44 5.20	1 1.2D + 1.6W Load Case 0.9D + 1.6W 45 1.2D + 1.6W	14.66 Fy (ksi) 36	50 Fu (ksi) 51	100 Phit (kip 163. 3 77	25 12 Pn 5) .94	106.8 179.1 Num Bolts 0 0	36.0 36.0 Num Holes 0 0	42.29 15.01 She phiR (kip	0 0 nv nv )	0 0 Bear phiRn (kip) 0.00	0.00 0.00 Bik S phi (k	0.00 0.00 Shear t Pn ip} 0.00	10 68 Use % 11 6	Member Member
LEG SAE - 6X6X0.4375 HORIZ DAE - 2.5X2.5X0.25	Pu (kip) 18.44 5.20	1 1.2D + 1.6W Load Case 0.9D + 1.6W 45	14.66 Fy (ksi) 36	50 Fu (ksi)	100 Phit (kip 163. 3 77	25 · 12 · Pn 2) .94	106.8 179.1 Num Bolts 0	36.0 36.0 Num Holes	42.29 15.01 She phiR (kip	0 0 ar nv ))	0 0 Bear phiRn (kip) 0.00	0.00 0.00 Bik S phi (k	0.00 0.00 Shear t Pn ip}	10 68 Use % 11 6	Member Y Controls Member
LEG SAE - 6X6X0.4375 HORIZ DAE - 2.5X2.5X0.25	Pu (kip) 18.44 5.20 9.50 Pu	Load Case 0.9D + 1.6W 45 1.2D + 1.6W 45 1.2D + 1.6W 1.2D + 1.6W	14.66 Fy (ksi) 36	50 Fu (ksi) 51 51 51 9hiR	100 Phit (kip 163. 3 77 3 69 nt	25 12 Pn .94 .11 .01	106.8 179.1 Num Bolts 0 0 0	36.0 36.0 Num Holes 0 0 0 0	42.29 15.01 phiR (kip (	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 Bear phiRn (kip) 0.00	0.00 0.00 Bik S phi (k	0.00 0.00 Shear t Pn ip} 0.00	10 68 Use % 11 6	Member Y Controls Member Member
LEG SAE - 6X6X0.4375 HORIZ DAE - 2.5X2.5X0.25 DIAG DAL - 2.5X2X0.25 Max Splice Forces	Pu (kip) 18.44 5.20 9.50 Pu (kip)	Load Case 0.9D + 1.6W 45 1.2D + 1.6W 45 1.2D + 1.6W 1.2D + 1.6W Load Case	14.66 Fy (ksi) 36 36 36	50 Fu (ksi) 51 51 51 phiR (kip	100 Phit (kip 163. 3 163. 3 69 nt	25 12 Pn ) .94 .11 .01 Us	106.8 179.1 Num Bolts 0 0 0	36.0 36.0 Num Holes 0 0 0 Num Bolts	42.29 15.01 She phiR (kip	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 Bear phiRn (kip) 0.00	0.00 0.00 Bik S phi (k	0.00 0.00 Shear t Pn ip} 0.00	10 68 Use % 11 6	Member Y Controls Member Member
LEG SAE - 6X6X0.4375 HORIZ DAE - 2.5X2.5X0.25 DIAG DAL - 2.5X2X0.25 Max Splice Forces Top Tension	Pu (kip) 18.44 5.20 9.50 Pu (kip) 17.9	Load Case 0.9D + 1.6W 45 1.2D + 1.6W 45 1.2D + 1.6W Load Case 8 0.9D + 1.6W 45	14.66 Fy (ksi) 36 36 36	50 Fu (ksi) 51 51 51 9hiR (kip 0.	100 Phit (kip 163. 3 69 nt )	25 · 12 · .12 · .94 .11 .01	106.8 179.1 Num Bolts 0 0 0	36.0 36.0 Num Holes 0 0 0 0	42.29 15.01 phiR (kip (	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 Bear phiRn (kip) 0.00	0.00 0.00 Bik S phi (k	0.00 0.00 Shear t Pn ip} 0.00	10 68 Use % 11 6	Member Y Controls Member Member
LEG SAE - 6X6X0.4375 HORIZ DAE - 2.5X2.5X0.25 DIAG DAL - 2.5X2X0.25 Max Splice Forces	Pu (kip) 18.44 5.20 9.50 Pu (kip) 17.9	Load Case 0.9D + 1.6W 45 1.2D + 1.6W 45 1.2D + 1.6W Load Case 8 0.9D + 1.6W 43 0 1.2D + 1.6W 43	14.66 Fy (ksi) 36 36 36 5	50 Fu (ksi) 51 51 51 phiR (kip	100 Phit (kip 3 163 3 77 3 69 nt ) 00	25 12 Pn ) .94 .11 .01 Us	106.8 179.1 Bolts 0 0 0	36.0 36.0 Num Holes 0 0 0 Num Bolts	42.29 15.01 phiR (kip (	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 Bear phiRn (kip) 0.00	0.00 0.00 Bik S phi (k	0.00 0.00 Shear t Pn ip} 0.00	10 68 Use % 11 6	Member Y Controls Member Member

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Code: ANSI/TIA-222-G Engineering Number: OAA723223\_C3\_02

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Section: 9 8 - lower		Bot Elev	(ft): 15	0.0		Hei	ght (İ	it): 10.	167						
Max Compression Member	Pu (kip)	Load Case	Len (ft)	Bra X	cing ' Y		KL/R				Num   Holes	Shear phiRnv (kip)		Use %	Controls
LEG SAE - 5X5X0.4375	-27.8	3 1.2D + 1.6W 45	10.21	50	50	50		36.0	110.54	0	0	0.00	0.00	25	Member Z
HORIZSAU - 3X2.5X0.25	-1.07	0.9D + 1.6W	12.41	50	100	50	167.9		10.50		ō	0.00	0.00		Member Y
DIAG SAE - 3.5X3.5X0.25	-5.81	1.2D + 1.6W 90	16.55	50	50	50	138.6	36.0	19.86	i 0	0	0.00	0.00	29	Member Z
	Pu		Fy	Fu	Phi	it Pn	Num	Num	She phiR		Bear phiRn		Shear t Pn	Use	
Max Tension Member	(kip)	Load Case	(ksi)	(ksi)	(k	ip)	Bolts	Holes	s (kip	)	(kip)		ip)	%	Controls
LEG SAE - 5X5X0.4375		0.9D + 1.6W 45	36	58		5.43	0	0		0.00	0.0	-			Member
HORIZ SAU - 3X2.5X0.25		1.2D + 1.6W	36	51		2.44	0	0		0.00	0.0	_	0.00	_	Member
DIAG SAE - 3.5X3.5X0.25	4.39	0.9D + 1.6W 90	36	58	5	4.76	0	0	(	0.00	0.0	D	0.00	8	Member
Max Splice Forces	Pu			phiR	nt	-		Num							
	(kip)	Load Case		(kip)	_			Bolts	Bolt T	уре					
Top Tension	9.71	0.9D + 1.6W 45 1.2D + 1.6W 45		0.0			0	0							
Top Compression Bot Tension	24.93			0.( 0.(			0 0								
Bot Compression		) 1.2D + 1.6W 4	-	0.0			0								
Section: 10 8 - upper		Bot Elev (	(ft): 16	0.1		Heig	ght (f	t): 10.	167						
	Pu		Lan	P	_1 1			<b>E</b> 5				Shear			
Hen Composition Monthon	Pu (kip)	Load Case	Len (ft)	X	cing ' Y		KL/R				Num   Holes		•		Controls
Max Compression Member			• •			2	NUK	(Kal)	(wib)	DUILS	HOIRS	(kip)	(kip)	%	Controls
		3 1.2D + 1.6W 45		50 50	50	50		36.0	110.54	_	0	0.00	0.00		
HORIZDAL - 3X2.5X0.25	-0.62	2 0.9D + 1.6W	11.14	50	100	50	172.4	36.0	19.99	Ū	0	0.00	0.00	3	Member Y
HORIZDAL - 3X2.5X0.25	-0.62					50				Ū	-			3	Member Y
HORIZDAL - 3X2.5X0.25 DIAG SAE - 3.5X3.5X0.25	-0.62 -4.89	2 0.9D + 1.6W	11.14 15.57	50 50	100 50	50 50	172.4 132.1	36.0 36.0	19.99 21.85 She	0 5 0 ar	0 0 Bear	0.00 0.00 Bik S	0.00 0.00 Shear	3 22	Member \
HORIZDAL - 3X2.5X0.25 DIAG SAE - 3.5X3.5X0.25	-0.62 -4.89 Pu	2 0.9D + 1.6W	11.14	50 50 Fu	100 50 Phi	50 50	172.4	36.0 36.0 Num	19.99 21.85 She phiR	ar	0	0.00 0.00 Bik S phir	0.00 0.00 Shear	3 22 Use	Member \
HORIZDAL - 3X2.5X0.25 DIAG SAE - 3.5X3.5X0.25 Max Tension Member LEG SAE - 5X5X0.4375	-0.62 -4.89 Pu (kip) 7.17	2 0.9D + 1.6W 9 1.2D + 1.6W Load Case 0.9D + 1.6W 45	11.14 15.57 Fy (ksi) 36	50 50 Fu (ksi)	100 50 Phi (ki	50 50 t Pn p) 5.43	172.4 132.1 Num Bolts 0	36.0 36.0 Num	19.99 21.85 She phiR s (kip	ar	0 0 Bear phiRn	0.00 0.00 Bik S phit (k	0.00 0.00 Shear t Pn	3 22 Use %	Member Y Member Z
HORIZDAL - 3X2.5X0.25 DIAG SAE - 3.5X3.5X0.25 Max Tension Member LEG SAE - 5X5X0.4375 HORIZ DAL - 3X2.5X0.25	-0.62 -4.89 Pu (kip) 7.17 1.39	2 0.9D + 1.6W 1.2D + 1.6W Load Case 0.9D + 1.6W 45 1.2D + 1.6W	11.14 15.57 Fy (ksi) 36 36	50 50 Fu (ksi) 58 58	100 50 Phi (ki 3 8	50 50 t Pn p) 5.43 5.21	172.4 132.1 Num Bolts 0 0	36.0 36.0 Num Holes 0 0	19.99 21.85 She phiR (kip (	ar 200 200 200 200 200	0 0 Bear phiRn (kip) 0.00	0.00 0.00 Bik S phit (k	0.00 0.00 Shear t Pn tp) 0.00	3 22 Use % 5	
HORIZDAL - 3X2.5X0.25 DIAG SAE - 3.5X3.5X0.25 Max Tension Member LEG SAE - 5X5X0.4375 HORIZ DAL - 3X2.5X0.25	-0.62 -4.89 Pu (kip) 7.17 1.39	2 0.9D + 1.6W 9 1.2D + 1.6W Load Case 0.9D + 1.6W 45	11.14 15.57 Fy (ksi) 36	50 50 Fu (ksi)	100 50 Phi (ki 3 8	50 50 t Pn p) 5.43	172.4 132.1 Num Bolts 0	36.0 36.0 Num Holes 0	19.99 21.85 She phiR (kip (	ar 200 200 200 200	0 0 Bear phiRn (kip) 0.00	0.00 0.00 Bik S phit (k	0.00 0.00 Shear t Pn ip)	3 22 Use % 5 1	Member Y Member Z Controls Member
HORIZDAL - 3X2.5X0.25 DIAG SAE - 3.5X3.5X0.25 Max Tension Member LEG SAE - 5X5X0.4375 HORIZ DAL - 3X2.5X0.25 DIAG SAE - 3.5X3.5X0.25	-0.62 -4.89 Pu (kip) 7.17 1.39 3.33 Pu	2 0.9D + 1.6W 9 1.2D + 1.6W Load Case 0.9D + 1.6W 45 1.2D + 1.6W 1.2D + 1.6W	11.14 15.57 Fy (ksi) 36 36	50 50 Fu (ksi) 58 58 58 58 phiRi	100 50 Phi (ki 3 8: 3 8: 3 8: 3 8: 3 8: 3 8: 3 8: 3 8:	50 50 t Pn (p) 5.43 5.21 4.76	172.4 132.1 Num Bolts 0 0 0	36.0 36.0 Num Holes 0 0 0 0	19.99 21.85 phiR ; (kip ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	) 0 ar Inv )) ).00 ).00 ).00	0 0 Bear phiRn (kip) 0.00	0.00 0.00 Bik S phit (k	0.00 0.00 Shear t Pn tp) 0.00	3 22 Use % 5 1	Member Y Member Z Controls Member Member
HORIZDAL - 3X2.5X0.25 DIAG SAE - 3.5X3.5X0.25 Max Tension Member LEG SAE - 5X5X0.4375 HORIZ DAL - 3X2.5X0.25 DIAG SAE - 3.5X3.5X0.25 Max Splice Forces	-0.62 -4.89 (kip) 7.17 1.39 3.33 Pu (kip)	2 0.9D + 1.6W 1.2D + 1.6W Load Case 0.9D + 1.6W 45 1.2D + 1.6W 1.2D + 1.6W Load Case	11.14 15.57 Fy (ksi) 36 36 36	50 50 Fu (ksi) 58 58 phiRi (kip)	100 50 Phi (ki 3 13: 3 8: 3 8: 5 1 5:	50 50 50 t Pn p) 5.43 5.21 4.76	172.4 132.1 Num Bolts 0 0 0 0	36.0 36.0 Num Holes 0 0 0 Num Bolts	19.99 21.85 She phiR (kip (	) 0 ar Inv )) ).00 ).00 ).00	0 0 Bear phiRn (kip) 0.00	0.00 0.00 Bik S phit (k	0.00 0.00 Shear t Pn tp) 0.00	3 22 Use % 5 1	Member Y Member Z Controls Member Member
HORIZDAL - 3X2.5X0.25 DIAG SAE - 3.5X3.5X0.25 Max Tension Member LEG SAE - 5X5X0.4375 HORIZ DAL - 3X2.5X0.25 DIAG SAE - 3.5X3.5X0.25 Max Splice Forces Top Tension	-0.62 -4.89 (kip) 7.17 1.39 3.33 Pu (kip) 2.78	2 0.9D + 1.6W 0 1.2D + 1.6W Load Case 0.9D + 1.6W 45 1.2D + 1.6W 1.2D + 1.6W Load Case 0.9D + 1.6W 13	11.14 15.57 Fy (ksi) 36 36 36	50 50 Fu (ksi) 58 58 phiRi (kip) 0.0	100 50 Phi (ki 3 13: 3 8: 5 3 8: 5 1 5 1 1 20	50 50 50 50 50 50 50 50 50 50 50 50 50 5	172.4 132.1 Num Bolts 0 0 0 0 0	36.0 36.0 Num Holes 0 0 0 0	19.99 21.85 phiR ; (kip ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	) 0 ar Inv )) ).00 ).00 ).00	0 0 Bear phiRn (kip) 0.00	0.00 0.00 Bik S phit (k	0.00 0.00 Shear t Pn tp) 0.00	3 22 Use % 5 1	Member 1 Member 2 Controls Member Member
HORIZDAL - 3X2.5X0.25 DIAG SAE - 3.5X3.5X0.25 Max Tension Member LEG SAE - 5X5X0.4375 HORIZ DAL - 3X2.5X0.25 DIAG SAE - 3.5X3.5X0.25 Max Splice Forces	-0.62 -4.89 (kip) 7.17 1.39 3.33 Pu (kip) 2.78	2 0.9D + 1.6W 1.2D + 1.6W 1.2D + 1.6W Load Case 0.9D + 1.6W 1.2D + 1.6W Load Case 0.9D + 1.6W 13 1.2D + 1.0U +	11.14 15.57 Fy (ksi) 36 36 36 36	50 50 Fu (ksi) 58 58 phiRi (kip)	100 50 Phi (ki 133 3 83 3 83 3 5 1 5 10 10	50 50 50 t Pn (p) 5.43 5.21 4.76	172.4 132.1 Num Bolts 0 0 0 0	36.0 36.0 Num Holes 0 0 0 Num Bolts	19.99 21.85 phiR ; (kip ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	) 0 ar Inv )) ).00 ).00 ).00	0 0 Bear phiRn (kip) 0.00	0.00 0.00 Bik S phit (k	0.00 0.00 Shear t Pn tp) 0.00	3 22 Use % 5 1	Member Y Member Z Controls Member Member

Site Number: 88014 Site Name: New Fairfield, CT

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Customer: T-Mobile

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Section: 11 9 - lower		Bot Elev (	(ft): 17	0.3	H	leig	ht (fi	t): 8.5	83						
	Pu		Len	Bra	cing %	,		F'y p	Phic Pn	Num	Num	Shear phiRnv		Use	
Max Compression Member	(kip)	Load Case	(ft)	x	Y 2	z K	(L/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls
LEG SAE - 5X5X0.3125	-9.40	) 1.2D + 1.6W 45	8.62	50		50	52.0	35.9	84.92	0	0	0.00	0.00	11	Member Z
HORIZSAU - 3X2.5X0.25		0.9D + 1.6W	10.07				44.9	36.0	14.09		0	0.00	0.00	-	Member Y
DIAG SAE - 3X3X0.25	-2.96	5 1.2D + 1.6W 90	13.65	50	50	50 1	34.1	36.0	18.10	0	0	0.00	0.00	16	Member 2
	_			_					She		Bear		Shear		
Max Tension Member	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip		Num Bolts	Num Holes	phiR kip		phiRn (kip)		t Pn lip)	Use %	Controls
LEG SAE - 5X5X0.3125		0.9D + 1.6W 45	36	58			0	0	-	.00	0.0	0		3	Member
HORIZ SAU - 3X2.5X0.25		1.2D + 1.6W	36	58			0	0		.00	0.0		0.00	_	Member
DIAG SAE - 3X3X0.25	2.06	1.2D + 1.6W 90	36	58	46.	.66	0	0	C	.00	0.0	0	0.00	4	Member
New Selles Forest	Pu			phiRı	nt	Us	-	Num							
Max Splice Forces	(kip)	Load Case		(kip)	)	%		Bolts	Bolt Ty	/pe					
Top Tension		2 0.9D + 1.6W 13	15	0.0		0		0							
Top Compression		1.2D + 1.0Dl +		0.0		0									
Bot Tension	2.7		35	0.0		0									
Bot Compression	17.5	2 1.2D + 1.0Di +		0.0	10	0	,								
Section: 12 9 - upper		Bot Elev (	(ft): 17	8.9	Н	leig	ht (fi	t): 8.5	83						
	Pu		Len	Brad	cing %	1		F'y F	hic Pn	Num	Num	Shear phiRnv		Use	
Max Compression Member	(kip)	Load Case	(ft)	x	-		(L/R				Holes	(kip)	(kip)	%	Controls
LEG SAE - 5X5X0.3125	-6.1	5 1.2D + 1.0Di +	8.62	50	50	50	52.0	35.9	84.92	0	0	0.00	0.00	7	Member Z
HORIZCHN - C8 x 11.5	-0.03	3 1.2D + 1.6W	9.001	100	100 1									•	Member Y
DIAG SAE - 3X3X0.25						00 1	60.3	36.0	29.72	-	Ō	0.00	0.00		
	-2.9	) 1.2D + 1.6W	12.84	50			60.3  27.8	36.0 36.0	29.72 19.75	Ō	-	0.00 0.00	0.00 0.00	-	Member 2
		) 1.2D + 1.6W			50	50 1	27.8	36.0	19.75 Shei	0 0 ar	0 0 Bear	0.00 Bik S	0.00 Shear	15	Member Z
Max Tension Member	-2.99	) 1.2D + 1.6W Load Case	Fy	50 Fu (ksi)		50 1 Pn I	27.8		19.75 Shea phiR	0 0 ar	0	0.00 Bik S phi	0.00	-	Member 2 Controls
LEG	Pu (kip) 0.00	Load Case	Fy (ksi) 0	Fu (ksi) 0	50 Phit (kip	50 1 Pn I ) I	Num Bolts 0	36.0 Num Holes 0	19.75 Shea phiR (kip	0 0 ar nv ))	0 0 Bear phiRn (kip) 0.0	0.00 Bik S phi (k	0.00 Shear t Pn ip)	15 Use % 0	Controls
LEG HORIZ CHN - CB x 11.5	Pu (kip) 0.00 0.09	Load Case 1.2D + 1.6W	Fy (ksi) 0 36	Fu (ksi) 0 58	50 Phit (kip 0. 109.	50 1 Pn I ) I 00 51	Num Bolts 0 0	36.0 Num Holes 0	19.75 Shea phiR (kip 0 0	0 0 0 1 0 0 0 0 0 0 0 0	0 0 Bear phiRn (kip) 0.0 0.0	0.00 Bik S phi (k 0	0.00 Shear t Pn ip) 0.00	15 Use % 0	<b>Controls</b> Member
LEG HORIZ CHN - C8 x 11.5	Pu (kip) 0.00 0.09	Load Case	Fy (ksi) 0	Fu (ksi) 0	50 Phit (kip 0. 109.	50 1 Pn I ) I 00 51	Num Bolts 0	36.0 Num Holes 0	19.75 Shea phiR (kip 0 0	0 0 ar nv ))	0 0 Bear phiRn (kip) 0.0	0.00 Bik S phi (k 0	0.00 Shear t Pn ip)	15 Use % 0	Controls
LEG HORIZ CHN - CB x 11.5	Pu (kip) 0.00 0.09 2.02 Pu	Load Case 1.2D + 1.6W 1.2D + 1.6W	Fy (ksi) 0 36	Fu (ksi) 58 58 phiRi	50 Phit (kip 0. 109. 46.	50 1 Pn I ) I 00 51 .66	Num Bolts 0 0 0	36.0 Num Holes 0 0 0 Num	19.75 Shea phiR (kip 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 Bear phiRn (kip) 0.0 0.0	0.00 Bik S phi (k 0	0.00 Shear t Pn ip) 0.00	15 Use % 0	<b>Controls</b> Member
LEG HORIZ CHN - CB x 11.5 DIAG SAE - 3X3X0.25 Max Splice Forces	Pu (kip) 0.00 0.09 2.02 Pu (kip)	Load Case 1.2D + 1.6W 1.2D + 1.6W Load Case	Fy (ksi) 0 36	Fu (ksi) 0 58 58 phiRr (kip)	50 Phit (kip 0. 109. 46.	50 1 Pn I 00 51 .66 Us	Num Bolts 0 0 0	36.0 Num Holes 0 0 0 Num Bolts	19.75 Shea phiR (kip 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 Bear phiRn (kip) 0.0 0.0	0.00 Bik S phi (k 0	0.00 Shear t Pn ip) 0.00	15 Use % 0	<b>Controls</b> Member
Top Tension	Pu (kip) 0.00 0.09 2.02 Pu (kip) 0.00	Load Case 1.2D + 1.6W 1.2D + 1.6W Load Case	Fy (ksi) 0 36	Fu (ksi) 58 58 phiRr (kip) 0.0	50 Phit (kip) 0. 109. 46.	50 1 Pn 1 00 51 .66 Us %	Num Bolts 0 0 0	36.0 Num Holes 0 0 0 Num	19.75 Shea phiR (kip 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 Bear phiRn (kip) 0.0 0.0	0.00 Bik S phi (k 0	0.00 Shear t Pn ip) 0.00	15 Use % 0	<b>Controls</b> Member
LEG HORIZ CHN - CB x 11.5 DIAG SAE - 3X3X0.25 Max Splice Forces	Pu (kip) 0.00 0.09 2.02 Pu (kip)	Load Case 1.2D + 1.6W 1.2D + 1.6W Load Case 0 3 1.2D + 1.0Di +	Fy (ksi) 0 36 36	Fu (ksi) 0 58 58 phiRr (kip)	50 Phit (kip) 0. 3 109. 3 46. 3 109. 3 0. 3 0. 3 0. 3 0. 3 0. 3 0. 3 0. 3 0	50 1 Pn I 00 51 .66 Us	Num Bolts 0 0 0	36.0 Num Holes 0 0 0 Num Bolts	19.75 Shea phiR (kip 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 Bear phiRn (kip) 0.0 0.0	0.00 Bik S phi (k 0	0.00 Shear t Pn ip) 0.00	15 Use % 0	<b>Controls</b> Member

Site Number:	88014	Code:	ANSI/TIA-222-G	© 2007 - 2018 by ATC IP LLC. All rights reserved.
Site Name:	New Fairfield, CT	Engineering Number:	OAA723223_C3_02	2/28/2018 1:59:51 PM
Customer:	T-Mobile			

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# Detailed Reactions

	Radius	Elevation	Azimuth		FX	FY	FZ		
Load Case	(ft)	(ft)	(deg)	Node	(kip)	(kip)	(kip)	(-) = Uplift	(+) = Down
1.2D + 1.6W Normal	22.94	00.00	45	1	-9.80	151.34	-19.45		
	22.94	00.00	135	1a	5.11	-87.34	-14.87		
	22.94 22.94	00.00 00.00	225	1b	-5.11	-87.34	-14.87		
	22.34	00.00	315	1c	9.80	151.34	-19.45		
1.2D + 1.6W 45 deg	22.94	00.00	45	1	-20.57	209.01	-20.54		
	22.94	00.00	135	1a	-9.55	31.53	-4.88		
	22.94	00.00	225	1b	-16.01	-145.02	-15.98		
	22.94	00.00	315	1c	-4.85	32.46	-9.58		
1.2D + 1.6W 90 deg	22.94	00.00	45	1	-19.45	150.68	-9.76		
	22.94	00.00	135	1a	-19.45	150.68	9.76		
	22.94 22.94	00.00 00.00	225 315	1b	-14.87	-86.69	-5.07 5.07		
	22.34	00.00	219	1c	-14.87	-86.69	5.07		
1.2D + 1.6W 135 deg	22.94	00.00	45	1	-9.55	31.53	4.88		
	22.94	00.00	135	1a	-20.57	209.01	20.54		
	22.94	00.00	225	1b	-4.85	32.46	9.58		
	22.94	00.00	315	1c	-16.01	-145.02	15.98		
1.2D + 1.6W 180 deg	22.94	00.00	45	1	5.11	-87.34	14.87		
	22.94	00.00	135	1a	-9.80	151.34	19.45		
	22.94	00.00	225	16	9.80	151.34	19.45		
	22.94	00.00	315	1c	-5.11	-87.34	14.87		
1.2D + 1.6W 225 deg	22.94	00.00	45	1	16.01	-145.02	15.98		
	22.94	00.00	135	1a	4.85	32.46	9.58		
	22.94	00.00	225	1b	20.57	209.01	20.54		
	22.94	00.00	315	1c	9.55	31.53	4.88		
1.2D + 1.6W 270 deg	22.94	00.00	45	1	14.87	-86.69	5.07		
	22.94	00.00	135	1a	14.87	-86.69	-5.07		
	22.94	00.00	225	1b	19.45	150.68	9.76		
	22.94	00.00	315	1c	19.45	150.68	-9.76		
1.2D + 1.6W 315 deg	22.94	00.00	45	1	4.85	32.46	-9.58		
	22.94	00.00	135	1a	16.01	-145.02	-15.98		
	22.94	00.00	225	1b	9.55	31.53	-4.88		
	22.94	00.00	315	1c	20.57	209.01	-20.54		
0.9D + 1.6W Normal	22.94	00.00	45	1	-9.21	143.26	-18.86		
	22.94	00.00	135	1a	5.69	-95.27	-15.46		
	22.94 22.94	00.00 00.00	225 315	1b 1c	-5.69 9.21	-95.27 143.26	-15.46		
	22.34	00.00	210	10	3.21	143.20	-18.86		
0.9D + 1.6W 45 deg	22.94	00.00	45	1	-19.98	200.90	-19.95		
	22.94	00.00	135	1a	-8.97	23.53	-5.47		
	22.94 22.94	00.00	225	16	-16.59	-152.91	-16.56		
	22.34	00.00	315	1c	-5.44	24.46	-9.00		
0.9D + 1.6W 90 deg	22.94	00.00	45	1	-18.86	142.61	-9.17		
	22.94	00.00	135	1a	-18.86	142.61	9.17		
	22.94 22.94	00.00 00.00	225 315	1b 10	-15.46	-94.61	-5.65		
	£2.34	00.00	212	1c	-15.46	-94.61	5.65		
0.9D + 1.6W 135 deg	22.94	00.00	45	1	-8.97	23.53	5.47		
	22.94	00.00	135	1a	-19.98	200.90	19.95		
	22.94	00.00	225	1b 1a	-5.44	24.46	9.00		
	22.94	00.00	315	1c	-16.59	-152.91	16.56		

Site Number:	88014		Code:			ANSI/TIA-222-0	;	© 2007 - 2018 by A	ATC IP LLC. All rights reserved.
Site Name:	New Fairfield, CT		Engineer	ina Numb	~~	OAA723223_C	0.02		2/28/2018 4 50 54 044
			cuâmear	ing numu	er:	UMA123223_0.	02		2/28/2018 1:59:51 PM
Customer:	T-Mobile								
0.9D + 1.6W 1	neb 08	22.94	00.00	45	1	5.69	-95.27	15.46	
0.00 . 1.011 1		22.94	00.00	135	ia.	-9.21	143.26	18.86	
		22.94	00.00	225	1b	9.21	143.26	18.86	
		22.94	00.00	315	10	-5.69	-95.27	15.46	
0.9D + 1.6W 2	25 dea	22.94	00.00	45	1	16.59	-152.91	16.56	
		22.94	00.00	135	- İa	5.44	24.46	9.00	
		22.94	00.00	225	16	19.98	200.90	19.95	
		22.94	00.00	315	1c	8.97	23.53	5.47	
0.9D + 1.6W 2	70 dea	22.94	00.00	45	1	15.46	-94.61	5.65	
		22.94	00.00	135	1a	15.46	-94.61	-5.65	
		22.94	00.00	225	1b	18.86	142.61	9.17	
		22.94	00.00	315	10	18.86	142.61	-9.17	
0.9D + 1.6W 3	15 dea	22.94	00.00	45	1	5.44	24.46	-9.00	
0.00 - 1.017 3		22.94	00.00	45 135	1a	5.44 16.59	-152.91	-16.56	
		22.94	00.00	225	1b	8.97	23.53	-5.47	
		22.94	00.00	315	10	19.98	200.90	-19.95	
	4 MAR Manual		00.00		^		440.00	44	
1.20 + 1.00(+	1.0Wi Normal	22.94	00.00	45	1	-7.96	116.27	-11.59	
		22.94 22.94	00.00	135	1a	-2.60	30.68	-1.05	
		22.94 22.94	00.00 00.00	225 315	1b	2.60	30.68	-1.05	
		22.34	00.00	313	1c	7.96	116.27	-11.59	
1.2D + 1.0Di +	1.0Wi 45 deg	22.94	00.00	45	1	-12.01	137.60	-12.00	
	-	22.94	00.00	135	1a	-8.00	73.38	2.56	
		22.94	00.00	225	1b	-1.47	9.35	-1.46	
		22.94	00.00	315	10	2.56	73.57	-8.00	
1.2D + 1.0Di +	1.0Wi 90 dea	22.94	00.00	45	1	-11.59	116.14	-7.95	
	•	22.94	00.00	135	1a	-11.59	116.14	7.95	
		22.94	00.00	225	1b	-1.05	30.81	2.61	
		22.94	00.00	315	1c	-1.05	30.81	-2.61	
1.2D + 1.0Di +	1.0Wl 135 deg	22.94	00.00	45	1.	-8.00	73.38	-2.56	
HED F HODI -	1.000 100 009	22.94	00.00	135	1a	-12.01	137.60	12.00	
		22.94	00.00	225	16	2.56	73.57	8.00	
		22.94	00.00	315	10	-1.47	9.35	1.46	
1.2D + 1.0Di +	1.0Wi 180 deg	22.94	00.00	45	1	-2.60	30.68	1.05	
	1.0001 100 dog	22.94	00.00	135	la.	-7.96	116.27	11.59	
		22.94	00.00	225	1b	7.96	116.27	11.59	
		22.94	00.00	315	10	2.60	30.68	1.05	
1 20 + 1 001 +	1.0Wi 225 deg	22.94	00.00	45	4	4 47	9.35	4 46	
1.1.0 - 1.0017		22.94	00.00	45	1 1a	1.47 -2.56	9.35 73.57	1.46 8.00	
		22.94	00.00	225	16	-2.56	137.60	12.00	
		22.94	00.00	315	10	8.00	73.38	-2.56	
	1.0Wi 270 deg	22.04	00.00	45		4.05	20.04	0.54	
	1.4111 214 089	22.94 22.94	00.00 00.00	45 135	1 1a	1.05 1.05	30.81 30.81	-2.61 2.61	
		22.94	00.00	225	10	11.59	116.14	7.95	
		22.94	00.00	315	10	11.59	116.14	-7.95	
1 2D ± 1 0DJ ±	1.0Wi 315 deg	22.94	00.00	45	4	0.50	79 67	0.00	
	1.9441 9 19 UBÅ	22.94 22.94	00.00	45	1	-2.56	73.57	-8.00	
		22.94 22.94	00.00	135 225	1a 1b	1.47 8.00	9.35 73.38	-1.46	
		22.94	00.00	315	10 10			2.56	
		42.34	UU.UU	313	IĢ	12.01	137.60	-12.00	
(1.2 + 0.2Sds)	* DL + E Normal M1	22.94	00.00	45	1	-3.46	48.13	-4.32	
		22.94	00.00	135	1a	-1.41	15.21	0.55	
		22.94	00.00	225	1b	1.41	15.21	0.55	
		22.94	00.00	315	1c	3.46	48.13	-4.32	

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Site Number: 88014		Code:			ANSI/TIA-222-G		© 2007 - 2018 by A	TC IP LLC, All rights reserved.
Site Name: New Fairfield, CT		Engineer	ing Numb	er:	OAA723223_C3_0	12		2/28/2018 1:59:51 PM
Customer: T-Mobile					•••••	-		220/2010 1,00,011 11
(1.2 + 0.2Sds) * DL + E Normal M2	22.94 22.94	00.00 00.00	45 135	1	-3.46 -1.41	48.07	-4.12	
	22.94	00.00	225	1a 1b		15.26 15.26	0.75 0.75	
	22.94	00.00	315	10		48.07	-4.12	
(1.2 + 0.2Sds) * DL + E 45 deg M1	22.94	00.00	45	1	-4.50	54.94	-4.50	
	22.94	00.00	135	1a		31.67	1.83	
	22.94 22.94	00.00 00.00	225 315	1b 1c		8.39 31.67	0.37 -3.04	
	22.07	00.00	010		1.00	51.07	-3.04	
(1.2 + 0.2Sds) * DL + E 45 deg M2	22,94	00.00	45	1	-4.35	54.87	-4.35	
	22.94	00.00	135	1a		31.67	1.97	
	22,94	00.00	225	1b		8.47	0.51	
	22.94	00.00	315	1c	1.97	31.67	-2.90	
(1.2 + 0.2Sds) * DL + E 90 deg M1	22.94	00.00	45	1	-4.32	48.13	-3.46	
	22.94	00.00	135	ia		48.13	3.46	
	22.94	00.00	225	16		15.21	1.41	
	22.94	00.00	315	1c		15.21	-1.41	
(1.2 + 0.2Sds) * DL + E 90 deg M2	22.94	00.00	45	1	-4.12	48.07	-3.46	
	22.94	00.00	135	1a		48.07	3.46	
	22.94 22.94	00.00 00.00	225 315	1b 1c		15.26	1.41	
	22.34	00.00	313	16	0.75	15.26	-1.41	
(1.2 + 0.2Sds) * DL + E 135 deg M1	22.94	00.00	45	1	-3.04	31.67	-1.83	
· · · •	22.94	00.00	135	- 1a	-4.50	54.94	4.50	
	22.94	00.00	225	1b		31.67	3.04	
	22.94	00.00	315	1c	0.37	8.39	-0.37	
(1.2 + 0.2Sds) * DL + E 135 deg M2	22.94	00.00	45	1	-2.90	31.67	-1.97	
(m. miner) br - r me avg mi	22.94	00.00	135	ia.		54.87	4.35	
	22.94	00.00	225	16		31.67	2.90	
	22.94	00.00	315	1c		8.47	-0.51	
(1.2 + 0.2Sds) * DL + E 180 deg M1	22.94 22.94	00.00 00.00	45 135	1 1a	-1.41 -3.46	15.21 48.13	-0.55 4.32	
	22.94	00.00	225	16		48.13	4.32	
	22.94	00.00	315	1c		15.21	-0.55	
(1.2 + 0.2Sds) * DL + E 180 deg M2	22.94	00.00	45	1	-1.41	15.26	-0.75	
	22.94	00.00	135	1a		48.07	4.12	
	22.94 22.94	00.00 00.00	225 315	1b 1c		48.07	4.12	
	22.34	00.00	313	TC.	(.4)	15.26	-0.75	
(1.2 + 0.2Sds) * DL + E 225 deg M1	22.94	00.00	45	1	-0.37	8.39	-0.37	
	22.94	00.00	135	1a	-1.83	31.67	3.04	
	22.94	00.00	225	1b		54.94	4.50	
	22.94	00.00	315	1c	3.04	31.67	-1.83	
(1.2 + 0.2Sds) * DL + E 225 dea M2	22.94	00.00	45	1	-0.51	8.47	-0.51	
(1.2 + 0.2003) DE + E 225 089 MZ	22.94	00.00	45 135	1a	-1.97	31.67	-0.51	
	22.94	00.00	225	1b		54.87	4.35	
	22.94	00.00	315	10	2.90	31.67	-1.97	
						4=		
(1.2 + 0.2Sds) * DL + E 270 deg M1	22.94 22.94	00.00 00.00	45 135	1 1a	-0.55 -0.55	15.21 15.21	-1.41	
	22.94	00.00	135	1a 1b	-0.55 4.32	15.21 48.13	1.41 3.46	
	22.94	00.00	315	10	4.32	48.13	-3.46	
(1.2 + 0.2Sds) * DL + E 270 deg M2	22.94	00.00	45	1	-0.75	15.26	-1.41	
	22.94 22.94	00.00 00.00	135 225	1a 1b	-0.75 4.12	15.26 48.07	1.41 3.46	
	22.94	00.00	315	10	4.12	48.07	-3.46	
(1.2 + 0.2Sds) * DL + E 315 deg M1	22.94	00.00	45	1	-1.83	31.67	-3.04	
			<sup>2</sup> ane 22					

Site Number:	88014		Code:			ANSI/TIA-222-G		© 2007 - 2018 by A1	C IP LLC. All rights reserved.
Site Name:	New Fairfield, CT		Engineer	ing Numb	or	OAA723223_C3_02			2/28/2018 1:59:51 PM
	,		Culluga	ing sump	GI.	OAA123223_03_02			2/20/2010 1.59 51 PW
Customer:	T-Mobile								
		22.94	00.00	135	1a		8.39	0.37	
		22.94	00.00	225	1b		31.67	1.83	
		22.94	00.00	315	10	4.50	54.94	-4.50	
(1.2 ± 0.25de)	* DL + E 245 dog M2	22.04	00.00	48	4	4.07		0.00	
(1.2 + 0.2305)	* DL + E 315 deg M2	22.94 22.94	00.00 00.00	45 135	1 1a	-1.97 -0.51	31.67 8.47	-2.90 0.51	
		22.94	00.00	225	16		31.67	1.97	
		22.94	00.00	315	1c		54.87	-4.35	
(0.9 - 0.2Sds)	* DL + E Normal M1	22.94	00.00	45	1	-2.70	38.15	-3.56	
		22.94	00.00	135	1a		5.27	-0.22	
		22.94	00.00	225	1b		5.27	-0.22	
		22.94	00.00	315	1c	2.70	38.15	-3.56	
(0.9 - 0.2305)	* DL + E Normal M2	22.94 22.94	00.00 00.00	45 135	1 1a		38.10 5.32	-3.36 -0.02	
		22.94	00.00	225	16		5.32 5.32	-0.02	
		22.94	00.00	315	1c		38.10	-3.36	
(0.9 - 0.2Sds)	* DL + E 45 deg M1	22.94	00.00	45	1	-3.73	44.97	-3.73	
	Ū	22.94	00.00	135	1a		21.71	1.06	
		22.94	00.00	225	1b		-1.55	-0.39	
		22.94	00.00	315	1c	1.06	21.71	-2.28	
(0.9 - 0.2Sds) '	* DL + E 45 deg M2	22.94	00.00	45	1		44.89	-3.59	
		22.94	00.00	135	1a		21.71	1.20	
		22.94	00.00	225	1b		-1.47	-0.25	
		22.94	00.00	315	1c	1.20	21.71	-2.14	
(0.9 - 0.2Sds)	* DL + E 90 deg M1	22.94	00.00	45	1	-3.56	38.15	-2.70	
(		22.94	00.00	135	ia.		38.15	2.70	
		22.94	00.00	225	1b	-0.22	5.27	0.64	
		22.94	00.00	315	1c	-0.22	5.27	-0.64	
(0.9 - 0.2Sds) '	* DL + E 90 deg M2	22.94	00.00	45	1		38.10	-2.69	
		22.94	00.00	135	1a		38.10	2.69	
		22.94	00.00	225	1b	-0.02	5.32	0.64	
		22.94	00.00	315	10	-0.02	5.32	-0.64	
/0.9 . 0.25de)	* DL + E 135 deg M1	22.04	00.00	45	4	1 20	94 74	4.00	
(0.3 - 0.2305)	DC + C 135 deg MT	22.94 22.94	00.00	45 135	1 1a		21.71 44.97	-1.06 3.73	
		22.94	00.00	225	16		21.71	2.28	
		22.94	00.00	315	10		-1.55	0.39	
(0.9 - 0.2Sds) 1	* DL + E 135 deg M2	22.94	00.00	45	1		21.71	-1.20	
		22.94	00.00	135	<b>1a</b>		44.89	3.59	
		22.94	00.00	225	1b		21.71	2.14	
		22.94	00.00	315	10	-0.25	-1.47	0.25	
(00 03840)	• DL + E 180 deg M1	66 64	00.00	45	4	~ ~ 4	F 0-		
(0.9 - 0.2505)	DL + E 180 deg M1	22.94 22.94	00.00 00.00	45 135	1	-0.64	5.27	0.22	
		22.94	00.00	225	1a 1b		38.15 38.15	3.56 3.56	
		22.94	00.00	315	10	0.64	5.27	0.22	
(0.9 - 0.2Sds) '	* DL + E 180 deg M2	22.94	00.00	45	1	-0.64	5.32	0.02	
		22.94	00.00	135	1a		38.10	3.36	
		22.94	00.00	225	1b		38.10	3.36	
		22.94	00.00	315	1c	0.64	5.32	0.02	
100 0004-00		66 6 4	00.00						
(0.3 - 0.2305)	* DL + E 225 deg M1	22.94 22.94	00.00 00.00	45 135	1 1a		-1.55 21.71	0.39 2.28	
		22.94	00.00	225	1b		44.97	2.28 3.73	
		22.94	00.00	315	10		21.71	-1.06	
					-				
(0.9 - 0.2Sds) *	DL + E 225 deg M2	22.94	00.00	45	1	0.25	-1.47	0.25	
	-	22.94	00.00	135	1a		21.71	2.14	

Site Number: 88014		Code:			ANSI/TIA-222-G	© 2007 - 2018 by /	ATC IP LLC. All rights reserved.
Site Name: New Fairfield, CT		Engineeri	ina Numb	or:	OAA723223_C3_02		2/28/2018 1:59:51 PM
		Lugmaen	ng numb	. 191	ORA123225_03_02		2/20/2010 1.59,51 -10
Customer: T-Mobile							
	22.94	00.00	225	1b			
	22.94	00.00	315	1c	2.14 21.7	1 -1.20	
(0.9 - 0.2Sds) * DL + E 270 deg M1	22.94	00.00	45	1	0.22 5.23		
	22.94 22.94	00.00 00.00	135 225	1a 1b			
	22.94	00.00	315	10			
			010		0.00 00.1	-2.70	
(0.9 - 0.2Sds) * DL + E 270 deg M2	22.94	00.00	45	1	0.02 5.32	-0.64	
(0.0 - 0.2003) DE · E 270 003 ME	22.94	00.00	135	1a			
	22.94	00.00	225	16			
	22.94	00.00	315	1c			
(0.9 - 0.2Sds) * DL + E 315 deg M1	22.94	00.00	45	1	-1.06 21.7	l -2.28	
	22.94	00.00	135	1a			
	22.94	00.00	225	1b			
	22.94	00.00	315	1¢	3.73 44.9	7 -3.73	
			_				
(0.9 - 0.2Sds) * DL + E 315 deg M2	22.94	00.00	45	1	-1.20 21.7		
	22.94	00.00	135	1a			
	22.94 22.94	00.00 00.00	225	1b			
	22.34	00.00	315	1c	3.59 44.8	-3.59	
1.0D + 1.0W Service Normal	00.04	00.00	45		4.00 50.0		
1.00 + 1.000 Service Morrial	22.94 22.94	00.00 00.00	45 135	1 1a	-4.03 59.8 0.12 -6.50		
	22.94	00.00	225	16			
	22.94	00.00	315	10			
1.0D + 1.0W Service 45 deg	22.94	00.00	45	1	-7.04 75.8	-7.03	
	22.94	00.00	135	- 1a			
	22.94	00.00	225	1b			
	22.94	00.00	315	1c	-0.06 26.7	-3.98	
1.0D + 1.0W Service 90 deg	22.94	00.00	45	1	-6.74 59.6		
	22.94	00.00	135	1a			
	22.94	00.00	225	16			
	22.94	00.00	315	1c	-2.84 -6.32	. 0.11	
1.0D + 1.0W Service 135 deg							
1.00 + 1.044 Selaice 122 nag	22.94 22.94	00.00 00.00	45 135	1 1a	-3.97 26.53 -7.04 75.80		
	22.94	00.00	225	10			
	22.94	00.00	315	1c			
1.0D + 1.0W Service 180 deg	22.94	00.00	45	1	0.12 -6.50	2.84	
-	22.94	00.00	135	1a	-4.03 59.83		
	22.94	00.00	225	1b			
	22.94	00.00	315	1c	-0.12 -6.50	2.84	
1.0D + 1.0W Service 225 deg	22.94	00.00	45	1	3.14 -22.53		
	22.94	00.00	135	1a			
	22.94 22.94	00.00 00.00	225 315	1b 1c			
	22.37	00.00	313	IC.	3.87 20.04	0.07	
1.0D + 1.0W Service 270 deg	22.94	00.00	45	1	2.84 -6.32	. 0.11	
The second stand	22.94	00.00	135	1a			
	22.94	00.00	225	15			
	22.94	00.00	315	1c			
1.0D + 1.0W Service 315 deg	22.94	00.00	45	1	0.06 26.79	-3.98	
	22.94	00.00	135	- 1a	3.14 -22.53	-3.14	
	22.94	00.00	225	1b			
	22.94	00.00	315	1c	7.04 75.80	-7.03	

Site Number:	88014		Code:	A	NSI/TIA-222-G	© 2007 - 2018 by ATC IP LLC. All rights reserved.
Site Name:	New Fairfield, CT		Engineering	Number: O/	AA723223_C3_02	2/28/2018 1:59:51 PM
Customer:	T-Mobile					
Max Uplift:	152.91 (kip)	Moment Ice:	2,942.28 (kip-ft)	Moment:	8,122.47 (kip-ft)	1.2D + 1.6W 315 deg
Max Down:	209.01 (kip)	Total Down Ice:	293.90 (kip)	Total Down:	127.99 (kip)	-
Max Shear:	29.06 (kip)	Total Shear Ice:	26.74 (kip)	Total Shear:	72.09 (kip)	

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Site Number:	88014	Code:	ANSI/TIA-222-G	© 2007 - 2018 by ATC IP LLC. All rights reserved.
Site Name:	New Fairfield, CT	Engineering Number:	OAA723223_C3_02	2/28/2018 1:59:51 PM
Customer:	T-Mobile			

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# **Deflections and Rotations**

	Elevation	Deflection	Twist	Sway	Resultant	
Load Case	(ft)	(ft)	(deg)	(deg)	(deg)	
90 mph Normal to Face with No Ice	50.00	0.040	0.1074	0.0813	0.1346	
90 mph Normal to Face with No Ice	75.00	0.078	0.1658	0.1120	0.1999	
90 mph Normal to Face with No Ice	87.50	0.099	-0.2261	0.1130	0.2525	
90 mph Normal to Face with No Ice	100.00	0.121	0.2943	0.1188	0.3173	
90 mph Normal to Face with No Ice	112.50	0.147	-0.3601	0.1982	0.4106	
90 mph Normal to Face with No Ice	137.50	0.207	0.4829	0.1783	0.5145	
90 mph Normal to Face with No Ice	150.00	0.240	-0.5582	0.2254	0.6013	
90 mph Normal to Face with No Ice	160.17	0.268	-0.6543	0.1825	0.6789	
90 mph Normal to Face with No Ice	170.33	0.297	-0.7464	0.2843	0.7977	
90 mph Normal to Face with No Ice	187.50	0.347	-0.9155	0.6585	1.1265	
90 mph 45 degree with No Ice	50.00	0.042	0.1633	0.0809	0.1822	
90 mph 45 degree with No Ice	75.00	0.082	0.2496	0.1000	0.2689	
90 mph 45 degree with No Ice	87.50	0.103	0.3378	0.1061	0.3541	
90 mph 45 degree with No Ice	100.00	0.127	0.4385	0.1206	0.4548	
90 mph 45 degree with No Ice	112.50	0.154	0.5352	0.1505	0.5560	
90 mph 45 degree with No Ice	137.50	0.217	0.7169	0.1690	0.7366	
90 mph 45 degree with No Ice	150.00	0.252	0.8272	0.1901	0.8488	
90 mph 45 degree with No Ice	160.17	0.281	0.9679	0.1847	0.9854	
90 mph 45 degree with No Ice	170.33	0.311	1.1027	0.2245	1.1253	
90 mph 45 degree with No Ice	187.50	0.362	1.3497	0.6226	1.4092	
90 mph 90 degree with No Ice	50.00	0.040	0.1169	0.0720	0.1373	
90 mph 90 degree with No Ice	75.00	0.078	-0.1771	0.0716	0.1910	
90 mph 90 degree with No Ice	87.50	0.098	-0.2381	0.0823	0.2518	
90 mph 90 degree with No Ice 90 mph 90 degree with No Ice	100.00	0.121	-0.3080	0.1073	0.3260	
90 mph 90 degree with No Ice	112.50	0.146	0.3751	0.0463	0.3780	
90 mph 90 degree with No ice	137.50 150.00	0.205 0.238	0.5012 0.5772	0.1249 0.0878	0.5162	
90 mph 90 degree with No Ice	160.17	0.265	-0.6738	0.1536	0.5838	
90 mph 90 degree with No Ice	170.33	0.293	-0.8738	0.1536	0.6906 0.7679	
90 mph 90 degree with No Ice	187.50	0.341	-0.9364	0.3493	0.9970	
90 mph 135 degree with No Ice	50.00	0.042	0.1538	0.0809	0.1822	
90 mph 135 degree with No Ice	75.00	0.082	0.2352	0.1000	0.2689	
90 mph 135 degree with No Ice	87.50	0.103	0.3183	0.1061	0.3541	
90 mph 135 degree with No Ice	100.00	0.127	0.4130	0.1206	0.4548	
90 mph 135 degree with No Ice	112.50	0.154	0.5040	0.1505	0.5560	
90 mph 135 degree with No Ice	137.50	0.217	0.6741	0.1690	0.7366	
90 mph 135 degree with No Ice	150.00	0.252	0.7775	0.1901	0.8488	
90 mph 135 degree with No Ice	160.17	0.281	0.9093	0.1847	0.9854	
90 mph 135 degree with No Ice	170.33	0.311	1.0354	0.2245	1.1253	
90 mph 135 degree with No Ice	187.50	0.362	1.2665	0.6226	1.4092	
90 mph 180 degree with No Ice	50.00	0.040	0.1074	0.0813	0.1346	
90 mph 180 degree with No Ice	75.00	0.078	0.1658	0.1120	0.1999	
90 mph 180 degree with No Ice	87.50	0.099	0.2261	0.1130	0.2525	
90 mph 180 degree with No Ice	100.00	0.121	0.2943	0.1188	0.3173	
90 mph 180 degree with No Ice	112.50	0.147	0.3601	0.1982	0.4106	
90 mph 180 degree with No Ice	137.50	0.207	0.4829	0.1783	0.5145	
90 mph 180 degree with No Ice	150.00	0.240	0.5582	0.2254	0.6013	
90 mph 180 degree with No Ice	160.17	0.268	0.6543	0.1825	0.6789	
90 mph 180 degree with No Ice	170.33	0.297	0.7464	0.2843	0.7977	
90 mph 180 degree with No Ice	187.50	0.347	0.9155	0.6585	1.1265	
90 mph 225 degree with No Ice	50.00	0.042	0.1633	0.0809	0.1822	
90 mph 225 degree with No Ice 90 mph 225 degree with No Ice	75.00	0.082	0.2496	0.1000	0.2689	
90 mph 225 degree with No Ice 90 mph 225 degree with No Ice	87.50	0.103	0.3378	0.1061	0.3541	
90 mph 225 degree with No Ice	100.00 112.50	0.127	0.4385	0.1206	0.4548	
hii yyo aogiaa aitii ita isa	112.30	0.154	0.5352	0.1505	0.5560	

Site Number: 88014	Code:	ANSI/TIA-222-G	02	007 - 2018 by AT	C IP LLC, All rights reserved,
Site Name: New Fairfield, CT	Engineering Number:	OAA723223_C3_02	2		2/28/2018 1:59:51 PM
Customer: T-Mobile					
90 mph 225 degree with No Ice	137.50	0.217	0.7169	0.1690	0.7366
90 mph 225 degree with No Ice	150.00	0.252	0.8272	0.1901	0.8488
90 mph 225 degree with No Ice	160.17	0.281	0.9679	0.1847	0.9854
90 mph 225 degree with No Ice	170.33	0.311	1.1027	0.2245	1.1253
90 mph 225 degree with No Ice	187.50	0.362	1.3497	0.6226	1.4092
90 mph 270 degree with No Ice	50.00	0.040	0.1169	0.0720	0.1373
90 mph 270 degree with No Ice 90 mph 270 degree with No Ice	75.00 87.50	0.078 0.0 <del>9</del> 8	0.1771 0.2381	0.0716 0.0823	0.1910 0.2518
90 mph 270 degree with No Ice	100.00	0.121	0.2381	0.0023	0.3260
90 mph 270 degree with No Ice	112.50	0.146	0.3751	0.0463	0.3780
90 mph 270 degree with No Ice	137.50	0.205	0.5012	0.1249	0.5162
90 mph 270 degree with No Ice	150.00	0.238	0.5772	0.0878	0.5838
90 mph 270 degree with No Ice	160.17	0.265	0.6738	0.1536	0.6906
90 mph 270 degree with No Ice	170.33	0.293	0.7665	0.0459	0.7679
90 mph 270 degree with No Ice	187.50	0.341	0.9364	0.3493	0.9970
90 mph 315 degree with No Ice	50.00	0.042	0.1538	0.0809	0.1822
90 mph 315 degree with No Ice	75.00	0.082	0.2352	0.1000	0.2689
90 mph 315 degree with No Ice 90 mph 315 degree with No Ice	87.50 100.00	0.103 0.127	0.3183 0.4130	0.1061	0.3541 0.4548
90 mph 315 degree with No Ice	112.50	0.154	0.4130	0.1206 0.1505	0.5560
90 mph 315 degree with No Ice	137.50	0.217	0.6741	0.1690	0.7366
90 mph 315 degree with No Ice	150.00	0.252	0.7775	0.1901	0.8488
90 mph 315 degree with No Ice	160.17	0.281	0.9093	0.1847	0.9854
90 mph 315 degree with No Ice	170.33	0.311	1.0354	0.2245	1.1253
90 mph 315 degree with No Ice	187.50	0.362	1.2665	0.6226	1.4092
90 mph Normal to Face with No Ice (Reduced DL)	50.00	0.040	0.1074	0.0811	0.1345
90 mph Normal to Face with No Ice (Reduced DL)	75.00		-0.1658	0.1119	0.1998
90 mph Normal to Face with No Ice (Reduced DL)	87.50	0.098	0.2261	0.1128	0.2524
90 mph Normal to Face with No Ice (Reduced DL)	100.00	0.121	0.2943	0.1186	0.3173
90 mph Normal to Face with No Ice (Reduced DL) 90 mph Normal to Face with No Ice (Reduced DL)	112.50 137.50		-0.3601 -0.4829	0.1980 0.1781	0.4105 0.5144
90 mph Normal to Face with No Ice (Reduced DL)	150.00	0.240	0.5582	0.2252	0.6012
90 mph Normal to Face with No Ice (Reduced DL)	160.17	0.268	0.6543	0.1823	0.6788
90 mph Normal to Face with No Ice (Reduced DL)	170.33	0.297	0.7464	0.2840	0.7976
90 mph Normal to Face with No Ice (Reduced DL)	187.50	0.346	-0.9155	0.6581	1.1263
90 mph 45 deg with No Ice (Reduced DL)	50.00	0.042	0.1632	0.0808	0.1821
90 mph 45 deg with No Ice (Reduced DL)	75.00	0.082	0.2495	0.0999	0.2688
90 mph 45 deg with No Ice (Reduced DL)	87.50	0.103	0.3378	0.1059	0.3540
90 mph 45 deg with No Ice (Reduced DL)	100.00	0.127	0.4384	0.1204	0.4547
90 mph 45 deg with No Ice (Reduced DL)	112.50	0.154	0.5352	0.1504	0.5559
90 mph 45 deg with No ice (Reduced DL) 90 mph 45 deg with No ice (Reduced DL)	137.50 150.00	0.216 0.252	0.7169 0.8272	0.1687 0.1900	0.7365 0.8487
90 mph 45 deg with No ice (Reduced DL)	160.17	0.281	0.9678	0.1844	0.9852
90 mph 45 deg with No Ice (Reduced DL)	170.33	0.311	1.1026	0.2242	1.1252
90 mph 45 deg with No Ice (Reduced DL)	187.50	0.362	1.3496	0.6223	1.4090
90 mph 90 deg with No ice (Reduced DL)	50.00	0.040	0.1169	0.0719	0.1372
90 mph 90 deg with No Ice (Reduced DL)	75.00	0.078	-0.1771	0.0715	0.1910
90 mph 90 deg with No Ice (Reduced DL)	87.50	0.098	0.2381	0.0821	0.2517
90 mph 90 deg with No Ice (Reduced DL)	100.00	0.121	0.3080	0.1071	0.3260
90 mph 90 deg with No Ice (Reduced DL)	112.50		-0.3751	0.0463	0.3780
90 mph 90 deg with No Ice (Reduced DL)	137.50		-0.5011	0.1247	0.5161
90 mph 90 deg with No Ice (Reduced DL) 90 mph 90 deg with No Ice (Reduced DL)	150.00 160.17	0.238 0.265	-0.5772 0.6738	0.0876	0.5838
90 mph 90 deg with No Ice (Reduced DL)	170.33	0.293	0.7665	0.1534 0.0458	0.6905 0.7679
90 mph 90 deg with No Ice (Reduced DL)	187.50		-0.9364	0.3496	0.9971
90 mph 135 deg with No Ice (Reduced DL)	50.00	0.042	0.1538	0.0808	0.1821
90 mph 135 deg with No Ice (Reduced DL)	75.00	0.082	0.2352	0.0999	0.2688
90 mph 135 deg with No Ice (Reduced DL)	87.50	0.103	0.3183	0.1059	0.3540
90 mph 135 deg with No Ice (Reduced DL)	100.00	0.127	0.4130	0.1204	0.4547
90 mph 135 deg with No Ice (Reduced DL)	112.50	0.154	0.5040	0.1504	0.5559
90 mph 135 deg with No Ice (Reduced DL)	137.50	0.216	0.6741	0.1687	0.7365
90 mph 135 deg with No Ice (Reduced DL)	150.00	0.252	0.7775	0.1900	0.8487
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Bit Num     Num Variants, CT     Enginering Num.     0.4.21222, C1_02     D22010 1500 Fm (M)       Untermine     Table     100.17     0.001     0.002     0.1044     0.002     0.1044     0.002     0.1044     0.002     0.1044     0.002     0.001	Site Number: 88014	Code:	ANSI/TIA-222-G	@ 20	07 - 2018 by ATC	C IP LLC. All rights reserved.
90 mp 113 dog with No to [Reduced DL)   160.17   0.281   0.3023   0.1844   0.4862     90 mp 113 fing with No to [Reduced DL)   177.50   0.312   1.285   0.1281   0.1382     90 mp 113 dog with No to [Reduced DL)   75.00   0.078   0.1586   0.2171   0.1382     90 mp 113 dog with No to [Reduced DL)   75.00   0.078   0.1586   0.1188   0.2274     91 mp 113 dog with No to [Reduced DL)   175.00   0.286   0.2232   0.1188   0.3733     91 mp 113 dog with No to [Reduced DL)   175.00   0.286   0.2272   0.6161   0.1128   0.2274     91 mp 113 dog with No to [Reduced DL)   176.30   0.248   0.6862   0.7282   0.6172     91 mp 113 dog with No to [Reduced DL)   176.30   0.248   0.6786   0.1123   0.288     91 mp 113 dog with No to [Reduced DL)   176.30   0.442   0.5621   0.1237   0.444   0.2486   0.7776     91 mp 123 dog with No to [Reduced DL)   176.30   0.442   0.4724   0.2484   0.4581   0.1237     91 mp 123 dog with No to [Reduced DL)   176.33   0.2377   0.1690   0.	Site Name: New Fairfield, CT	Engineering Number:	OAA723223_C3_02	:		2/28/2018 1:59:51 PM
ab mp 113 drig with No to [Reduced DL]     170.33     0.311     1.0554     0.222     1.1252       90 mp 113 drig with No to [Reduced DL]     50.00     0.460     0.1074     0.0611     0.1345       90 mp 118 drig with No to [Reduced DL]     75.00     0.078     0.1563     0.1118     0.1398       90 mp 118 drig with No to [Reduced DL]     75.00     0.078     0.1624     0.1124     0.2524       91 mp 118 drig with No to [Reduced DL]     112.20     0.47     0.2684     0.1132     0.274       91 mp 118 drig with No to [Reduced DL]     117.50     0.266     0.4229     0.7134     0.5444       91 mp 118 drig with No to [Reduced DL]     116.07     0.284     0.5643     0.1521     0.5748       91 mp 118 drig with No to [Reduced DL]     117.03     0.279     0.7344     0.2840     0.2786     0.2840     0.1281     0.2840     0.2786     0.3378     0.0102     0.3378     0.0102     0.3378     0.0102     0.3461     0.1281     0.4847     0.1284     0.4287     0.7385     0.7385     0.7385     0.7385     0.7385     0.7385	Customer: T-Mobile					
90 mph 135 mg with No Lee (Reduced DL)     17.30     0.322     1.2865     0.623     1.4660       91 mph 136 dag with No Lee (Reduced DL)     75.00     0.078     0.1186     0.1119     0.1345       91 mph 136 dag with No Lee (Reduced DL)     75.00     0.078     0.1466     0.1118     0.2284       91 mph 136 dag with No Lee (Reduced DL)     197.50     0.264     0.2444     0.1168     0.3173       91 mph 136 dag with No Lee (Reduced DL)     197.50     0.264     0.4164     0.3173       91 mph 130 dag with No Lee (Reduced DL)     176.31     0.246     0.4164     0.7464     0.7464     0.7464     0.7464     0.7464     0.7765       91 mph 130 dag with No Lee (Reduced DL)     176.33     0.277     0.1632     0.6862     0.2281     0.6988     0.2681     0.1281     0.3378     0.1685     0.3164     0.3165     0.3164     0.3165     0.3264     0.7865     0.6988     0.2681     0.3278     0.1682     0.6989     0.2681     0.3178     0.1685     0.1126     0.367     0.1616     0.3178     0.1687     0.3164     0.3178		160.17	0.281	0.9093	0.1844	0.9852
add mph 160 deg with Noise (Reduced DL)   50.00   0.040   0.078   0.1074   0.0281   0.1383     add mph 160 deg with Noise (Reduced DL)   17.00   0.078   0.1685   0.1112   0.2284     add mph 160 deg with Noise (Reduced DL)   170.00   0.121   0.2284   0.1128   0.2284     add mph 160 deg with Noise (Reduced DL)   177.30   0.286   0.4223   0.1178   0.0144     add mph 160 deg with Noise (Reduced DL)   170.33   0.287   0.464   0.2484   0.1178   0.0144     add mph 160 deg with Noise (Reduced DL)   170.33   0.287   0.7464   1.2840   0.6783   0.6681   1.1283     add mph 120 deg with Noise (Reduced DL)   170.33   0.287   0.7464   0.2845   0.6783   0.6821 <td></td> <td></td> <td></td> <td></td> <td>0.2242</td> <td>1.1252</td>					0.2242	1.1252
9d mpi 100 deg with No ten (Reduced DL)     75.00     0.9789     0.1988       9d mpi 100 deg with No ten (Reduced DL)     105.00     0.147     0.2541     0.1180     0.2774       9d mpi 100 deg with No ten (Reduced DL)     112.80     0.147     0.2661     0.1580     0.2181       9d mpi 100 deg with No ten (Reduced DL)     112.80     0.147     0.2661     0.5274     0.5144       9d mpi 100 deg with No ten (Reduced DL)     173.50     0.266     0.4229     0.7174     0.5144       9d mpi 100 deg with No ten (Reduced DL)     173.50     0.297     0.7444     0.2661     0.7785       9d mpi 100 deg with No ten (Reduced DL)     173.50     0.627     0.7444     0.2881     1.1281       9d mpi 225 deg with No ten (Reduced DL)     75.00     0.012     0.5378     0.3383     0.3378     0.1391     0.3484       9d mpi 225 deg with No ten (Reduced DL)     176.50     0.131     0.3378     0.1394     0.5589       9d mpi 225 deg with No ten (Reduced DL)     177.63     0.321     0.3414     0.5322     0.2772     0.1687     0.7385       9d mpi 226 deg with No ten		187.50	0.362	1.2665	0.6223	1.4090
90 mph 110 deg with No ice (Reduced DL)   100,00   1.121   0.2244   0.1128   0.2254     90 mph 110 deg with No ice (Reduced DL)   112,50   0.414   0.2404   0.1188   0.4145     90 mph 110 deg with No ice (Reduced DL)   112,50   0.446   0.1188   0.4145     91 mph 110 deg with No ice (Reduced DL)   112,60   0.2248   0.6452   0.2523   0.6612     91 mph 110 deg with No ice (Reduced DL)   126,77   0.288   0.6463   0.1122   0.6788     91 mph 110 deg with No ice (Reduced DL)   127,70   0.344   0.1185   0.6681   1.1223     91 mph 110 deg with No ice (Reduced DL)   126,00   0.442   0.1632   0.0888   0.1821     91 mph 125 deg with No ice (Reduced DL)   170,00   0.447   0.2374   0.1084   0.1821     91 mph 125 deg with No ice (Reduced DL)   170,00   0.117   0.2374   0.1087   0.1687     91 mph 125 deg with No ice (Reduced DL)   137,50   0.246   0.7187   0.2468     91 mph 225 deg with No ice (Reduced DL)   137,50   0.322   1.4360   0.5523   1.4360   0.5523   1.4360   0.5553 <td>· · · · · · ·</td> <td></td> <td></td> <td>0.1074</td> <td>0.0811</td> <td>0.1345</td>	· · · · · · ·			0.1074	0.0811	0.1345
90 mpi 100 deg with No Les (Reduced DL)     100.00     0.3121     0.2543     0.3173       90 mpi 100 deg with No Les (Reduced DL)     137.50     0.266     0.4220     0.1781     0.5146       91 mpi 100 deg with No Les (Reduced DL)     137.50     0.266     0.4220     0.2781     0.5144       91 mpi 100 deg with No Les (Reduced DL)     170.33     0.2277     0.7464     0.2840     0.6783       91 mpi 100 deg with No Les (Reduced DL)     170.33     0.2277     0.7464     0.2840     0.6783       91 mpi 100 deg with No Les (Reduced DL)     150.00     0.422     0.1621     0.0899     0.1821       91 mpi 122 deg with No Les (Reduced DL)     170.00     0.1177     0.344     0.1824     0.4857       91 mpi 225 deg with No Les (Reduced DL)     170.50     0.1161     0.5352     0.1844     0.5352       91 mpi 225 deg with No Les (Reduced DL)     177.50     0.164     0.5352     0.1844     0.5352       91 mpi 225 deg with No Les (Reduced DL)     177.50     0.164     0.2827     0.1844     0.4852       91 mpi 225 deg with No Les (Reduced DL)     170.33     0.311		75.00	0.078	0.1658	0.1119	0.1998
96 mp.180 deg with No leg (Reduced DL)   112.80   0.147   0.380   0.4185     96 mp.180 deg with No leg (Reduced DL)   150.00   0.246   0.6428   0.7282   0.6012     96 mp.180 deg with No leg (Reduced DL)   160.01   0.266   0.6428   0.7282   0.6012     96 mp.180 deg with No leg (Reduced DL)   170.33   0.237   0.7464   0.2840   0.7376     96 mp.180 deg with No leg (Reduced DL)   177.00   0.346   0.6152   0.0888   0.1821     96 mp.225 deg with No leg (Reduced DL)   77.50   0.103   0.3377   0.1880   0.2668     96 mp.225 deg with No leg (Reduced DL)   177.50   0.103   0.3378   0.1821   0.4484     96 mp.225 deg with No leg (Reduced DL)   170.60   0.127   0.1810   0.5588     96 mp.225 deg with No leg (Reduced DL)   170.53   0.4174   0.2572   0.1807   0.5888     97 mp.225 deg with No leg (Reduced DL)   170.33   0.2471   0.2671   0.1817   0.5888     97 mp.225 deg with No leg (Reduced DL)   170.33   0.341   0.1127   0.5281   0.4189   0.7771   0.756   0.1837   0.6273			0.098	0.2261	0.1128	0.2524
96 mp 1180 dej with No Lea (Reduced DL)   137.60   0.2628   0.4232   0.1781   0.6184     96 mp 1180 dej with No Lea (Reduced DL)   160.01   0.240   0.6582   0.2222   0.6012     96 mp 1180 dej with No Lea (Reduced DL)   170.33   0.287   0.6484   0.2886   0.1821     90 mp 1281 dej with No Lea (Reduced DL)   187.50   0.346   0.9155   0.0581   1.1281     90 mp 1225 dej with No Lea (Reduced DL)   75.00   0.022   0.2486   0.3376   0.1337   0.1336   0.3240     90 mp 1225 dej with No Lea (Reduced DL)   175.00   0.022   0.4282   0.1687   0.7365     90 mp 1225 dej with No Lea (Reduced DL)   175.60   0.1632   0.1687   0.7365     90 mp 1225 dej with No Lea (Reduced DL)   175.60   0.241   0.4282   0.1644   0.9852     90 mp 1225 dej with No Lea (Reduced DL)   175.60   0.281   0.1627   0.1644   0.9852     90 mp 1225 dej with No Lea (Reduced DL)   170.50   0.281   0.1647   0.1647   0.1647     90 mp 1226 dej with No Lea (Reduced DL)   170.50   0.381   0.1677   0.1647   0.1647 <t< td=""><td></td><td></td><td>0.121</td><td>0.2943</td><td>0.1186</td><td>0.3173</td></t<>			0.121	0.2943	0.1186	0.3173
90 mph 180 deg with Note (Reduced DL)   190.00   0.552   0.2222   0.672     91 mph 180 deg with Note (Reduced DL)   170.33   0.237   0.744   0.2840   0.7776     90 mph 180 deg with Note (Reduced DL)   170.33   0.237   0.744   0.2840   0.7776     90 mph 225 deg with Note (Reduced DL)   50.00   0.042   0.1950   0.2888   0.0888   0.1821     90 mph 225 deg with Note (Reduced DL)   75.00   0.0132   0.4384   0.1269   0.2888     90 mph 225 deg with Note (Reduced DL)   17.50   0.113   0.3378   0.169   0.3540     90 mph 225 deg with Note (Reduced DL)   17.50   0.164   0.5522   0.1676   0.1687     90 mph 225 deg with Note (Reduced DL)   17.50   0.164   0.5522   0.1676   0.1687   0.7365     91 mph 225 deg with Note (Reduced DL)   17.50   0.322   0.1771   0.0715   0.1372     91 mph 225 deg with Note (Reduced DL)   17.50   0.638   0.3221   1.4096     91 mph 270 deg with Note (Reduced DL)   17.50   0.638   0.3211   0.0216   0.2317     91 mph 270 deg with Note (Reduced D		112.50	0.147	0.3601	0.1980	0.4105
90 mp1180 dej with No ics (Reduced DL)   160.17   0.2883   0.6583   0.7825     90 mp1180 dej with No ics (Reduced DL)   187.50   0.346   0.9165   0.6581   1.1263     90 mp1225 dej with No ics (Reduced DL)   75.00   0.0622   0.2426   0.0886   0.1621     90 mp1225 dej with No ics (Reduced DL)   75.00   0.052   0.2378   0.0563   0.3540     90 mp1225 dej with No ics (Reduced DL)   75.00   0.0131   0.1234   0.4447   0.4447     90 mp1225 dej with No ics (Reduced DL)   112.00   0.4252   0.1667   0.7365     90 mp1225 dej with No ics (Reduced DL)   112.00   0.4252   0.1667   0.7365     90 mp1225 dej with No ics (Reduced DL)   150.00   0.2271   0.1660   0.8467     90 mp1220 dej with No ics (Reduced DL)   150.01   0.2311   1.1026   0.2221   1.40922     90 mp1270 dej with No ics (Reduced DL)   150.07   0.231   0.1171   0.0175   0.1171   0.0175   0.1171   0.0175   0.1171   0.0175   0.1171   0.0175   0.1171   0.0175   0.1161   0.1161   0.10224   1.4282   1.4282 <td></td> <td>137.50</td> <td>0.206</td> <td>0.4829</td> <td>0.1781</td> <td>0.5144</td>		137.50	0.206	0.4829	0.1781	0.5144
90 mph 180 deg with No Les (Reduced DL)   170.33   0.297   0.7464   0.2840   0.7776     90 mph 225 deg with No Les (Reduced DL)   50.00   0.042   0.1635   0.0685   0.1221     90 mph 225 deg with No Les (Reduced DL)   75.00   0.082   0.2485   0.0885   0.2486     90 mph 225 deg with No Les (Reduced DL)   112.50   0.154   0.5552   0.1524   0.4447     90 mph 225 deg with No Les (Reduced DL)   112.50   0.154   0.5552   0.1564   0.5559     90 mph 225 deg with No Les (Reduced DL)   150.00   0.527   0.1644   0.9862     90 mph 225 deg with No Les (Reduced DL)   170.33   0.311   1.1026   0.2424   1.1252     90 mph 225 deg with No Les (Reduced DL)   170.33   0.311   1.1264   0.9872   0.1464   0.9862     90 mph 225 deg with No Les (Reduced DL)   170.33   0.311   1.1264   0.4101   0.312     91 mph 226 deg with No Les (Reduced DL)   170.30   0.317   0.3262   1.127   0.4164   0.3787     91 mph 270 deg with No Les (Reduced DL)   170.30   0.317   0.3260   0.1717   0.361   0.37				0.5582	0.2252	0.6012
90 mph 190 deg with No Lee (Reduced DL)   187.50   0.446   0.4532   0.0088   0.4281     90 mph 225 deg with No Lee (Reduced DL)   75.00   0.082   0.2484   0.1632   0.0898   0.2888     90 mph 225 deg with No Lee (Reduced DL)   100.00   0.127   0.4384   0.1204   0.4547     90 mph 225 deg with No Lee (Reduced DL)   110.00   0.127   0.4384   0.1204   0.4547     90 mph 225 deg with No Lee (Reduced DL)   137.50   0.716   0.1687   0.7365   0.669     90 mph 225 deg with No Lee (Reduced DL)   150.17   0.281   0.8872   0.1644   0.9852     90 mph 225 deg with No Lee (Reduced DL)   150.17   0.382   1.3486   0.6223   1.4090     90 mph 226 deg with No Lee (Reduced DL)   157.50   0.582   1.3486   0.6224   1.1252     90 mph 270 deg with No Lee (Reduced DL)   157.50   0.576   0.771   0.711   0.317     90 mph 270 deg with No Lee (Reduced DL)   175.60   0.698   0.5231   0.6961   0.5232   1.4990     90 mph 270 deg with No Lee (Reduced DL)   175.50   0.578   0.5771   0.371   0.324		160.17	0.268	0.6543	0.1823	0.6788
90 mph 225 deg with No Les (Reduced DL)   50.00   0.442   0.432   0.0888   0.288     90 mph 226 deg with No Les (Reduced DL)   87.50   0.183   0.3340   0.3540     90 mph 226 deg with No Les (Reduced DL)   112.60   0.154   0.555   0.555     90 mph 226 deg with No Les (Reduced DL)   112.60   0.154   0.555   0.565     90 mph 226 deg with No Les (Reduced DL)   112.60   0.576   0.1484   0.565     90 mph 226 deg with No Les (Reduced DL)   160.07   0.287   0.1484   0.9872     90 mph 226 deg with No Les (Reduced DL)   170.33   0.311   1.1080   0.2422   1.1582     90 mph 226 deg with No Les (Reduced DL)   170.33   0.311   1.1084   0.9872     90 mph 270 deg with No Les (Reduced DL)   170.50   0.078   0.1371   0.1372     90 mph 270 deg with No Les (Reduced DL)   170.50   0.078   0.1471   0.311   1.1028   0.3242   1.1582     90 mph 270 deg with No Les (Reduced DL)   170.33   0.261   0.3716   0.1372   0.0717   0.3510     90 mph 270 deg with No Les (Reduced DL)   112.50   0.448   0.		170.33	0.297	0.7464	0.2840	0.7976
90 mph 225 deg with No Les (Reduced DL)   75.00   0.022   0.228   0.0399   0.228     90 mph 225 deg with No Les (Reduced DL)   100.00   0.127   0.4344   0.1204   0.4647     90 mph 225 deg with No Les (Reduced DL)   112.60   0.157   0.1378   0.1657   0.7365     90 mph 225 deg with No Les (Reduced DL)   137.50   0.216   0.7578   0.1644   0.8677     90 mph 225 deg with No Les (Reduced DL)   160.01   0.522   1.8444   0.8952     90 mph 225 deg with No Les (Reduced DL)   160.17   0.281   0.9871   0.1444   0.9872     90 mph 225 deg with No Les (Reduced DL)   187.50   0.522   1.3464   0.5223   1.4490     90 mph 270 deg with No Les (Reduced DL)   187.50   0.676   0.1771   0.715   0.1310     90 mph 270 deg with No Les (Reduced DL)   175.00   0.678   0.7715   0.1321   0.3360     90 mph 270 deg with No Les (Reduced DL)   137.50   0.206   0.5371   0.4645   0.3780     90 mph 270 deg with No Les (Reduced DL)   137.50   0.206   0.5772   0.6561   0.5772     90 mph 270 deg with No Les (		187.50	0.346	0.9155	0.6581	1,1263
90 mph 225 dog with No Leo (Reduced DL)   97.50   0.103   0.3787   0.1058   0.1054     90 mph 225 dog with No Leo (Reduced DL)   112.60   0.154   0.5352   0.1687   0.5555     90 mph 225 dog with No Leo (Reduced DL)   112.60   0.154   0.5352   0.1687   0.7655     90 mph 225 dog with No Leo (Reduced DL)   150.00   0.252   0.2272   0.1600   0.4687     90 mph 226 dog with No Leo (Reduced DL)   170.33   0.311   1.1058   0.2224   1.1252     90 mph 226 dog with No Leo (Reduced DL)   167.50   0.5878   0.1544   0.9862     90 mph 270 dog with No Leo (Reduced DL)   67.500   0.0748   0.7179   0.1717   0.2181     90 mph 270 dog with No Leo (Reduced DL)   75.00   0.0748   0.7171   0.2481   0.2521   0.2517     90 mph 270 dog with No Leo (Reduced DL)   115.50   0.1646   0.5751   0.4633   0.3780     90 mph 270 dog with No Leo (Reduced DL)   137.50   0.248   0.5711   0.4683   0.3780     90 mph 270 dog with No Leo (Reduced DL)   157.60   0.364   0.5654   0.6773   0.5774   0.5838   <			0.042	0.1632	0.0808	0.1821
90 mph 225 dog with No Les (Raduced DL)   100.00   0.127   0.2384   0.1264     90 mph 225 dog with No Les (Raduced DL)   137.50   0.216   0.7169   0.1564   0.5559     90 mph 225 dog with No Les (Raduced DL)   150.00   0.252   0.3272   0.1807   0.1864   0.9852     90 mph 225 dog with No Les (Raduced DL)   160.17   0.281   0.3578   0.1844   0.9852     90 mph 226 dog with No Les (Raduced DL)   167.50   0.362   1.3464   0.92242   1.1552     90 mph 270 dog with No Les (Raduced DL)   75.50   0.078   0.7171   0.0715   0.1172     90 mph 270 dog with No Les (Raduced DL)   75.50   0.082   0.3320   0.0821   0.3281     90 mph 270 dog with No Les (Raduced DL)   112.50   0.166   0.3721   0.0463   0.3781     90 mph 270 dog with No Les (Raduced DL)   112.50   0.166   0.3721   0.0463   0.3781     90 mph 270 dog with No Les (Raduced DL)   112.50   0.166   0.3781   0.0463   0.3781     90 mph 270 dog with No Les (Raduced DL)   117.50   0.238   0.7772   0.6685   0.6685     91		75.00	0.082	0.2495	0.0999	0.2688
90 mph 225 dog with No Ice (Faduced DL)   112.00   0.154   0.2532   0.1567   0.5559     90 mph 225 dog with No Ice (Faduced DL)   150.00   0.252   0.2272   0.1690   0.4847     90 mph 225 dog with No Ice (Faduced DL)   160.17   0.281   0.8676   0.1644   0.9892     90 mph 225 dog with No Ice (Faduced DL)   170.33   0.311   1.1026   0.2224   1.1252     90 mph 270 dog with No Ice (Faduced DL)   170.33   0.311   1.1486   0.2224   1.4090     91 mph 270 dog with No Ice (Faduced DL)   05.00   0.040   0.1184   0.0719   0.1372     90 mph 270 dog with No Ice (Faduced DL)   07.50   0.078   0.1771   0.0715   0.1910     90 mph 270 dog with No Ice (Faduced DL)   100.00   0.121   0.0205   0.0111   0.3260     90 mph 270 dog with No Ice (Faduced DL)   137.50   0.205   0.0511   0.1247   0.5161     90 mph 270 dog with No Ice (Faduced DL)   175.30   0.228   0.7728   0.6468   0.9971     90 mph 270 dog with No Ice (Faduced DL)   175.30   0.241   0.3464   0.3464   0.3584   0.4686   0		87.50		0.3378	0.1059	0.3540
96 mph 225 deg with No ice (Reduced DL)   137.50   0.216   0.7169   0.16877   0.7385     96 mph 225 deg with No ice (Reduced DL)   160.17   0.281   0.8978   0.1644   0.9852     96 mph 225 deg with No ice (Reduced DL)   170.33   0.311   1.3086   0.2223   1.1252     96 mph 225 deg with No ice (Reduced DL)   177.50   0.322   1.3496   0.3223   1.4090     97 mph 270 deg with No ice (Reduced DL)   75.00   0.076   0.1371   0.7115   0.3110     98 mph 270 deg with No ice (Reduced DL)   135.50   0.146   0.3080   0.1071   0.2286     99 mph 270 deg with No ice (Reduced DL)   135.50   0.146   0.3080   0.1071   0.3286     99 mph 270 deg with No ice (Reduced DL)   135.50   0.285   0.5011   0.1245   0.5111     99 mph 270 deg with No ice (Reduced DL)   135.50   0.285   0.6772   0.8675   0.8638     99 mph 270 deg with No ice (Reduced DL)   170.33   0.281   0.3183   0.6905   0.9771     90 mph 370 deg with No ice (Reduced DL)   170.33   0.281   0.3183   0.6083   0.1221     90	90 mph 225 deg with No Ice (Reduced DL)	100.00	0.127	0.4384	0.1204	0.4547
90 mph 225 deg with No Ice (Reduced DL)   150.00   0.222   0.1807   0.4847     90 mph 225 deg with No Ice (Reduced DL)   170.33   0.311   1.1026   0.2242   1.1252     90 mph 225 deg with No Ice (Reduced DL)   187.50   0.312   1.1046   0.8713   0.311   1.1026   0.2242   1.1252     90 mph 270 deg with No Ice (Reduced DL)   50.00   0.040   0.1191   0.1171   0.1115   0.1171     90 mph 270 deg with No Ice (Reduced DL)   75.00   0.078   0.2381   0.0621   0.2617   0.0111   0.2617     90 mph 270 deg with No Ice (Reduced DL)   100.00   0.121   0.0308   0.1372   0.0871   0.2617   0.2848     90 mph 270 deg with No Ice (Reduced DL)   137.50   0.205   0.5011   0.1247   0.6161     90 mph 270 deg with No Ice (Reduced DL)   160.17   0.285   0.6738   0.1534   0.6995     90 mph 270 deg with No Ice (Reduced DL)   177.50   0.344   0.3964   0.3984   0.3984   0.3984   0.3984   0.3984   0.3984   0.3984   0.3984   0.3984   0.3984   0.3984   0.3984   0.3984		112.50	0.154	0.5352	0.1504	0.5559
90 mph 225 deg with No ice (Reduced DL)   160.17   0.281   0.9878   0.1844   0.9852     90 mph 225 deg with No ice (Reduced DL)   177.33   0.311   1.028   0.2242   1.1859     90 mph 270 deg with No ice (Reduced DL)   50.00   0.040   0.1199   0.0119   0.1372     90 mph 270 deg with No ice (Reduced DL)   87.50   0.0281   0.0281   0.2211   0.2301   0.2111     90 mph 270 deg with No ice (Reduced DL)   87.50   0.0478   0.1719   0.1372   0.2311   0.2621   0.2211   0.2261   0.2211   0.2261   0.2211   0.2261   0.2211   0.2261   0.2211   0.2261   0.2211   0.2261   0.2211   0.2361   0.2211   0.2361   0.2211   0.2361   0.2211   0.2361   0.2211   0.2361   0.2211   0.2361   0.2361   0.2371   0.265   0.4533   0.3776   0.2381   0.2964   0.3661   0.4563   0.7779   0.3776   0.3833   0   0.9971   0.9974   0.999   0.3464   0.3466   0.5971   0.2688   0.7679   0.3651   0.4530   0.99711   0.999   0.3664		137.50	0.216	0.7169	0.1687	0.7365
90 mph 226 deg with No Les (Raducad DL)   170.33   0.311   1.1026   0.2242   1.1222     90 mph 270 deg with No Les (Raducad DL)   187.50   0.362   1.3496   0.6223   1.4090     90 mph 270 deg with No Les (Raducad DL)   75.00   0.040   0.1199   0.1372     90 mph 270 deg with No Les (Raducad DL)   75.00   0.038   0.2311   0.0801   0.2242     90 mph 270 deg with No Les (Raducad DL)   170.00   0.121   0.0808   0.1771   0.0171   0.3260     90 mph 270 deg with No Les (Raducad DL)   112.50   0.146   0.3761   0.0463   0.3770     90 mph 270 deg with No Les (Raducad DL)   137.50   0.205   0.5611   0.1247   0.5161     90 mph 270 deg with No Les (Raducad DL)   160.17   0.288   0.6778   0.1534   0.6805     90 mph 270 deg with No Les (Raducad DL)   170.33   0.231   0.7665   0.0458   0.7679     90 mph 370 deg with No Les (Raducad DL)   175.50   0.341   0.5364   0.3424   0.5364     90 mph 315 deg with No Les (Raducad DL)   75.00   0.032   0.2625   0.0688   0.1821     90 mp		150.00	0.252	0.8272	0.1900	0.8487
90 mph 225 deg with No Les (Reduced DL)   197.50   0.352   1.4465   0.6723   1.4060     91 mph 270 deg with No Les (Reduced DL)   50.00   0.0460   0.1771   0.0715   0.1372     90 mph 270 deg with No Les (Reduced DL)   75.00   0.078   0.1771   0.0715   0.1310     90 mph 270 deg with No Les (Reduced DL)   87.50   0.088   0.2331   0.0821   0.2320     90 mph 270 deg with No Les (Reduced DL)   112.50   0.146   0.3751   0.0463   0.3780     90 mph 270 deg with No Les (Reduced DL)   117.50   0.225   0.5011   0.1247   0.5161     90 mph 270 deg with No Les (Reduced DL)   170.33   0.285   0.6738   0.1538   0.6805     90 mph 270 deg with No Les (Reduced DL)   170.33   0.283   0.7665   0.4648   0.7979     90 mph 315 deg with No Les (Reduced DL)   75.00   0.0422   0.1538   0.0468   0.1921     90 mph 315 deg with No Les (Reduced DL)   75.00   0.0422   0.1538   0.0458   0.7779     90 mph 315 deg with No Les (Reduced DL)   175.00   0.124   0.4547   0.6674     90 mph 315 deg with No Les		160.17	0.281	0.9678	0.1844	0.9852
90 mph 270 dag with No Lee (Raducad DL)   50.00   0.040   0.1189   0.0715   0.1372     90 mph 270 dag with No Lee (Raducad DL)   75.00   0.078   0.1771   0.0715   0.1310     90 mph 270 dag with No Lee (Raducad DL)   100.00   0.121   0.088   0.2311   0.0021   0.2261     90 mph 270 dag with No Lee (Raducad DL)   112.50   0.146   0.3761   0.0463   0.3780     90 mph 270 dag with No Lee (Raducad DL)   1137.50   0.265   0.5611   0.1247   0.5161     90 mph 270 dag with No Lee (Raducad DL)   150.00   0.238   0.5772   0.0876   0.5833     90 mph 270 dag with No Lee (Raducad DL)   170.33   0.283   0.7656   0.0468   0.7779     90 mph 270 dag with No Lee (Raducad DL)   177.50   0.341   0.3486   0.39871     90 mph 370 dag with No Lee (Raducad DL)   177.50   0.131   0.1504   0.3549     90 mph 316 dag with No Lee (Raducad DL)   100.00   0.127   0.4130   0.1224   0.4447     90 mph 315 dag with No Lee (Raducad DL)   177.50   0.216   0.5761   0.466     90 mph 315 dag with No Lee (Raducad DL)	• • • • • • • • • • • •	170.33	0.311	1.1026	0.2242	1.1252
90 mph 270 deg with No ice (Reduced DL)   75.00   0.078   0.1771   0.0715   0.1719     90 mph 270 deg with No ice (Reduced DL)   100.00   0.121   0.3060   0.0711   0.3260     90 mph 270 deg with No ice (Reduced DL)   112.50   0.144   0.3751   0.0443   0.3760     90 mph 270 deg with No ice (Reduced DL)   137.50   0.205   0.5011   0.1247   0.5161     90 mph 270 deg with No ice (Reduced DL)   135.60   0.252   0.6738   0.1534   0.6905     90 mph 270 deg with No ice (Reduced DL)   170.33   0.238   0.5772   0.0676   0.5838     90 mph 270 deg with No ice (Reduced DL)   170.33   0.238   0.7665   0.4486   0.7679     90 mph 315 deg with No ice (Reduced DL)   175.50   0.341   0.5848   0.3686   0.1321     90 mph 315 deg with No ice (Reduced DL)   87.50   0.103   0.3183   0.1999   0.3440     90 mph 315 deg with No ice (Reduced DL)   137.50   0.242   0.4547   0.3640     90 mph 315 deg with No ice (Reduced DL)   137.50   0.252   0.7776   0.1030   0.3440     90 mph 315 deg with No ice	90 mph 225 deg with No Ice (Reduced DL)	187.50	0.362	1.3496	0.6223	1.4090
90 mph 270 deg with No ice (Reduced DL)   75.00   0.078   0.1771   0.0715   0.1910     90 mph 270 deg with No ice (Reduced DL)   100.00   0.121   0.3080   0.1071   0.3260     90 mph 270 deg with No ice (Reduced DL)   112.50   0.146   0.3761   0.3780     90 mph 270 deg with No ice (Reduced DL)   137.50   0.205   0.5011   0.1247   0.6161     90 mph 270 deg with No ice (Reduced DL)   136.00   0.238   0.5772   0.0676   0.5838     90 mph 270 deg with No ice (Reduced DL)   160.17   0.285   0.6738   0.1534   0.6905     90 mph 270 deg with No ice (Reduced DL)   177.50   0.341   0.3844   0.3466   0.9971     90 mph 316 deg with No ice (Reduced DL)   187.50   0.163   0.1638   0.1639   0.3440     90 mph 316 deg with No ice (Reduced DL)   100.00   0.171   0.4130   0.124   0.4547     90 mph 316 deg with No ice (Reduced DL)   100.00   0.172   0.4130   0.124   0.4547     90 mph 315 deg with No ice (Reduced DL)   137.50   0.216   0.5775   0.1090   0.3540     90 mph 315 deg with No ice	90 mph 270 deg with No Ice (Reduced DL)	50.00	0.040	0.1169	0.0719	0.1372
90 mph 270 deg with No Lee (Reduced DL)   100.00   0.1221   0.3080   0.1077   0.3250     90 mph 270 deg with No Lee (Reduced DL)   112.50   0.146   0.3751   0.0463   0.5761     90 mph 270 deg with No Lee (Reduced DL)   137.50   0.208   0.5011   0.1247   0.6561     90 mph 270 deg with No Lee (Reduced DL)   160.17   0.265   0.6738   0.7579     90 mph 270 deg with No Lee (Reduced DL)   170.33   0.233   0.7665   0.0463   0.7679     90 mph 270 deg with No Lee (Reduced DL)   177.50   0.341   0.9354   0.3486   0.7679     90 mph 315 deg with No Lee (Reduced DL)   75.00   0.042   0.133   0.138   0.0888   0.1821     90 mph 315 deg with No Lee (Reduced DL)   100.00   0.127   0.4130   0.1244   0.4547     90 mph 315 deg with No Lee (Reduced DL)   137.50   0.216   0.6774   0.1584   0.8585     90 mph 315 deg with No Lee (Reduced DL)   137.50   0.216   0.6741   0.1847   0.7365     90 mph 315 deg with No Lee (Reduced DL)   150.00   0.282   0.7775   0.9804   0.5847     90 m	90 mph 270 deg with No Ice (Reduced DL)	75.00	0.078	0.1771	0.0715	
90 mph 270 deg with No Lee (Reduced DL)   100.00   0.121   0.3080   0.1071   0.2260     90 mph 270 deg with No Lee (Reduced DL)   137.50   0.205   0.5011   0.1247   0.5151     90 mph 270 deg with No Lee (Reduced DL)   156.00   0.238   0.5772   0.0676   0.5838     90 mph 270 deg with No Lee (Reduced DL)   160.17   0.265   0.0458   0.7779     90 mph 270 deg with No Lee (Reduced DL)   177.50   0.341   0.3934   0.3496   0.4971     90 mph 316 deg with No Lee (Reduced DL)   177.50   0.341   0.3934   0.3496   0.4971     90 mph 315 deg with No Lee (Reduced DL)   75.00   0.682   0.2352   0.0989   0.2568     90 mph 315 deg with No Lee (Reduced DL)   100.00   0.127   0.4130   0.1244   0.4547     90 mph 315 deg with No Lee (Reduced DL)   100.00   0.252   0.7775   0.9884   0.3569     90 mph 315 deg with No Lee (Reduced DL)   100.00   0.252   0.7775   0.1644   0.5559     90 mph 315 deg with No Lee (Reduced DL)   170.33   0.311   1.0354   0.2444   0.5552     90 mph 315 deg with No Le	90 mph 270 deg with No Ice (Reduced DL)	87.50	0.098	0.2381	0.0821	0.2517
90 mph 270 deg with No Lee (Reduced DL)   112.50   0.46   0.3751   0.0463   0.3780     90 mph 270 deg with No Lee (Reduced DL)   150.00   0.238   0.5772   0.0876   0.6533     90 mph 270 deg with No Lee (Reduced DL)   160.17   0.265   0.6733   0.1534   0.6905     90 mph 270 deg with No Lee (Reduced DL)   170.33   0.293   0.7655   0.0458   0.7777     90 mph 270 deg with No Lee (Reduced DL)   50.00   0.442   0.1538   0.0808   0.1821     90 mph 315 deg with No Lee (Reduced DL)   50.00   0.142   0.1538   0.1959   0.2588     90 mph 315 deg with No Lee (Reduced DL)   100.00   0.127   0.4130   0.1244   0.4447     90 mph 315 deg with No Lee (Reduced DL)   137.50   0.2164   0.5640   0.5649     90 mph 315 deg with No Lee (Reduced DL)   137.50   0.2164   0.5741   0.4847     90 mph 315 deg with No Lee (Reduced DL)   150.00   0.228   0.7775   0.1900   0.4847     90 mph 315 deg with No Lee (Reduced DL)   160.17   0.281   0.2848   0.2242   1.1252     90 mph 315 deg with No Lee (Reduced DL)	90 mph 270 deg with No Ice (Reduced DL)	100.00	0.121	0.3080		
90 mph 270 deg with No Lee (Reduced DL)   137.50   0.205   0.5011   0.1247   0.5161     90 mph 270 deg with No Lee (Reduced DL)   150.00   0.238   0.5772   0.0876   0.5838     90 mph 270 deg with No Lee (Reduced DL)   170.33   0.238   0.7566   0.0458   0.7579     90 mph 270 deg with No Lee (Reduced DL)   177.50   0.341   0.3364   0.4584   0.9971     90 mph 315 deg with No Lee (Reduced DL)   75.00   0.042   0.1538   0.0808   0.1621     90 mph 315 deg with No Lee (Reduced DL)   75.00   0.0103   0.3183   0.1039   0.3540     90 mph 315 deg with No Lee (Reduced DL)   112.50   0.154   0.5040   0.5559     90 mph 315 deg with No Lee (Reduced DL)   1137.50   0.216   0.6741   0.1687   0.7365     90 mph 315 deg with No Lee (Reduced DL)   150.00   0.2252   0.7775   0.1900   0.8487     90 mph 315 deg with No Lee (Reduced DL)   170.33   0.311   1.0354   0.2242   1.1222     90 mph 315 deg with No Lee (Reduced DL)   177.50   0.322   1.2685   0.0246   0.3270     90 mph 315 deg with No	90 mph 270 deg with No Ice (Reduced DL)	112.50	0.146		0.0463	
90 mph 270 dag with No Ice (Reduced DL)   160.01   0.288   0.5772   0.0876   0.8383     90 mph 270 dag with No Ice (Reduced DL)   170.33   0.295   0.6768   0.1534   0.6905     90 mph 270 dag with No Ice (Reduced DL)   187.50   0.341   0.9364   0.3466   0.9971     90 mph 315 dag with No Ice (Reduced DL)   75.00   0.062   0.3352   0.9999   0.26688     90 mph 315 dag with No Ice (Reduced DL)   75.00   0.154   0.6040   0.1504   0.4567     90 mph 315 dag with No Ice (Reduced DL)   112.50   0.154   0.5040   0.1504   0.5559     90 mph 315 dag with No Ice (Reduced DL)   150.00   0.272   0.7775   0.1900   0.8487     90 mph 315 dag with No Ice (Reduced DL)   175.50   0.216   0.6744   0.6852     90 mph 315 dag with No Ice (Reduced DL)   150.00   0.252   0.7775   0.1900   0.8487     90 mph 315 dag with No Ice (Reduced DL)   160.17   0.281   0.3038   0.4844   0.8852     90 mph 315 dag with No Ice (Reduced DL)   187.50   0.321   1.2865   0.6223   1.4090     50 mph 315 dag with No Ic	90 mph 270 deg with No Ice (Reduced DL)	137.50				
90 mph 270 deg with No Ice (Reduced DL)   160.17   0.265   0.6738   0.1534   0.6905     90 mph 270 deg with No Ice (Reduced DL)   170.33   0.293   0.7665   0.0458   0.7679     90 mph 270 deg with No Ice (Reduced DL)   187.60   0.341   0.9364   0.3496   0.9971     90 mph 315 deg with No Ice (Reduced DL)   75.00   0.062   0.252   0.0999   0.2688     90 mph 315 deg with No Ice (Reduced DL)   100.00   0.127   0.4130   0.1204   0.4547     90 mph 315 deg with No Ice (Reduced DL)   112.50   0.164   0.5040   0.1654   0.559     90 mph 315 deg with No Ice (Reduced DL)   137.50   0.216   0.6741   0.1664   0.5559     90 mph 315 deg with No Ice (Reduced DL)   160.17   0.281   0.9093   0.8487     90 mph 315 deg with No Ice (Reduced DL)   170.33   0.311   1.0354   0.2242   1.1252     90 mph 315 deg with No Ice (Reduced DL)   187.50   0.354   0.0426   0.0320   1.222     90 mph 315 deg with No Ice (Reduced DL)   187.50   0.354   0.0288   0.0228   1.1252     90 mph 315 deg with No Ice (	90 mph 270 deg with No Ice (Reduced DL)	150.00	0.238	0.5772		
90 mph 270 deg with No Ice (Reduced DL)   170.33   0.293   0.7665   0.0458   0.7679     90 mph 270 deg with No Ice (Reduced DL)   187.50   0.341   0.9364   0.03496   0.9971     90 mph 315 deg with No Ice (Reduced DL)   50.00   0.042   0.1538   0.0608   0.1621     90 mph 315 deg with No Ice (Reduced DL)   75.00   0.013   0.3183   0.1059   0.3540     90 mph 315 deg with No Ice (Reduced DL)   100.00   0.127   0.4130   0.1204   0.4547     90 mph 315 deg with No Ice (Reduced DL)   112.50   0.164   0.5569   0.990   0.3540     90 mph 315 deg with No Ice (Reduced DL)   150.00   0.252   0.7775   0.1900   0.8487     90 mph 315 deg with No Ice (Reduced DL)   170.33   0.311   1.0354   0.2242   1.1252     90 mph 315 deg with No Ice (Reduced DL)   170.33   0.311   1.0354   0.2242   1.1252     90 mph 315 deg with No Ice (Reduced DL)   170.33   0.311   1.0354   0.2242   1.1252     90 mph 315 deg with No Ice (Reduced DL)   170.33   0.311   0.0218   0.0320     90 mph 315 deg with No Ice	90 mph 270 deg with No Ice (Reduced DL)	160.17	0.265			
90 mph 270 deg with No lee (Reduced DL)   187.50   0.341   0.3364   0.3496   0.9971     90 mph 315 deg with No lee (Reduced DL)   75.00   0.082   0.2322   0.0999   0.2688     90 mph 315 deg with No lee (Reduced DL)   87.50   0.103   0.3183   0.1054   0.5540     90 mph 315 deg with No lee (Reduced DL)   100.00   0.127   0.4130   0.1204   0.4547     90 mph 315 deg with No lee (Reduced DL)   137.50   0.216   0.6741   0.1687   0.7365     90 mph 315 deg with No lee (Reduced DL)   137.50   0.221   0.7775   0.1900   0.8487     90 mph 315 deg with No lee (Reduced DL)   160.17   0.281   0.9993   0.1844   0.9952     90 mph 315 deg with No lee (Reduced DL)   170.33   0.311   1.0354   0.2242   1.1252     90 mph 315 deg with No lee (Reduced DL)   187.50   0.362   1.2665   0.6223   1.4090     90 mph 315 deg with No lee (Reduced DL)   187.50   0.0324   0.0328   0.0320     90 mph 315 deg with No lee (Reduced DL)   170.33   0.11   0.0218   0.0328   0.0320     90 mph 316 deg with 0.75 i	90 mph 270 deg with No Ice (Reduced DL)	170.33		0.7665		
90 mph 315 deg with No Ice (Reduced DL)   50.00   0.042   0.1538   0.0808   0.1821     90 mph 315 deg with No Ice (Reduced DL)   75.00   0.082   0.2352   0.0999   0.2688     90 mph 315 deg with No Ice (Reduced DL)   87.50   0.103   0.3183   0.1224   0.4547     90 mph 315 deg with No Ice (Reduced DL)   100.00   0.27   0.4130   0.1204   0.4547     90 mph 315 deg with No Ice (Reduced DL)   137.50   0.216   0.6741   0.1667   0.7365     90 mph 315 deg with No Ice (Reduced DL)   150.00   0.252   0.7775   0.1900   0.8487     90 mph 315 deg with No Ice (Reduced DL)   170.33   0.311   1.0364   0.2242   1.1252     90 mph 315 deg with No Ice (Reduced DL)   170.33   0.311   1.0364   0.2288   0.0320     90 mph 315 deg with No Ice (Reduced DL)   170.33   0.311   0.0218   0.0228   1.4490     90 mph 315 deg with No Ice (Reduced DL)   170.33   0.314   0.0328   0.0246     90 mph 315 deg with No Ice (Reduced DL)   170.33   0.314   0.0328   0.0248     90 mph 315 deg with No Ice (Reduced DL)	90 mph 270 deg with No Ice (Reduced DL)	187.50	0.341	0.9364	0.3496	
90 mph 315 deg with No Ice (Reduced DL)   87.50   0.103   0.3183   0.1059   0.3540     90 mph 315 deg with No Ice (Reduced DL)   100.00   0.127   0.4130   0.1244   0.4547     90 mph 315 deg with No Ice (Reduced DL)   112.50   0.154   0.5040   0.1564   0.5559     90 mph 315 deg with No Ice (Reduced DL)   137.50   0.216   0.6741   0.1687   0.7365     90 mph 315 deg with No Ice (Reduced DL)   160.017   0.282   0.7775   0.1900   0.8487     90 mph 315 deg with No Ice (Reduced DL)   160.17   0.281   0.9993   0.1844   0.9852     90 mph 315 deg with No Ice (Reduced DL)   170.33   0.311   1.0354   0.2242   1.1252     90 mph 315 deg with No Ice (Reduced DL)   187.50   0.352   1.2865   0.6223   1.4090     50 mph Normal with 0.75 in Radial Ice   50.00   0.017   -0.0139   0.0288   0.0320     50 mph Normal with 0.75 in Radial Ice   12.50   0.054   -0.0454   0.0471   0.0661     50 mph Normal with 0.75 in Radial Ice   137.50   0.074   0.0684   0.0333   0.0866     50 mph N	90 mph 315 deg with No Ice (Reduced DL)	50.00	0.042	0.1538	0.0808	
90 mph 315 deg with No Ice (Reduced DL)   100.00   0.127   0.4130   0.1204   0.4547     90 mph 315 deg with No Ice (Reduced DL)   112.50   0.154   0.5640   0.1504   0.5559     90 mph 315 deg with No Ice (Reduced DL)   137.50   0.216   0.6741   0.1684   0.993   0.8487     90 mph 315 deg with No Ice (Reduced DL)   160.00   0.252   0.7775   0.1900   0.8487     90 mph 315 deg with No Ice (Reduced DL)   160.17   0.281   0.9993   0.1844   0.9852     90 mph 315 deg with No Ice (Reduced DL)   170.33   0.311   1.0354   0.2282   1.1252     90 mph 315 deg with No Ice (Reduced DL)   187.50   0.362   1.2665   0.6223   1.4090     50 mph Normal with 0.75 in Radial Ice   50.00   0.017   -0.0139   0.0288   0.0320     50 mph Normal with 0.75 in Radial Ice   100.00   0.046   0.0378   0.0413   0.0560     50 mph Normal with 0.75 in Radial Ice   137.50   0.074   0.0684   0.0533   0.0866     50 mph Normal with 0.75 in Radial Ice   150.00   0.085   -0.0464   0.1049   0.0561 <tr< td=""><td>90 mph 315 deg with No Ice (Reduced DL)</td><td>75.00</td><td>0.082</td><td>0.2352</td><td>0.0999</td><td>0.2688</td></tr<>	90 mph 315 deg with No Ice (Reduced DL)	75.00	0.082	0.2352	0.0999	0.2688
90 mph 315 deg with No Ice (Reduced DL)   112.50   0.154   0.5040   0.1504   0.5559     90 mph 315 deg with No Ice (Reduced DL)   137.50   0.216   0.6741   0.1687   0.7365     90 mph 315 deg with No Ice (Reduced DL)   150.00   0.252   0.7775   0.1900   0.8487     90 mph 315 deg with No Ice (Reduced DL)   160.17   0.281   0.9093   0.1844   0.9852     90 mph 315 deg with No Ice (Reduced DL)   170.33   0.311   1.0354   0.2242   1.1252     90 mph 315 deg with No Ice (Reduced DL)   187.50   0.362   1.2665   0.6223   1.4090     90 mph Normal with 0.75 in Radial Ice   50.00   0.031   0.0218   0.0320   0.0466     50 mph Normal with 0.75 in Radial Ice   12.50   0.038   0.0294   0.0355   0.0460     50 mph Normal with 0.75 in Radial Ice   12.50   0.054   -0.0464   0.0471   0.0681     50 mph Normal with 0.75 in Radial Ice   12.50   0.054   -0.0464   0.0471   0.0686     50 mph Normal with 0.75 in Radial Ice   170.33   0.104   0.121   0.0536   0.1153     50 mph Normal w	90 mph 315 deg with No Ice (Reduced DL)	87.50	0.103	0.3183	0.1059	0.3540
90 mph 315 deg with No Ice (Reduced DL)   137.50   0.216   0.674   0.1687   0.7365     90 mph 315 deg with No Ice (Reduced DL)   150.00   0.222   0.7775   0.1900   0.8487     90 mph 315 deg with No Ice (Reduced DL)   160.17   0.281   0.9093   0.1844   0.9852     90 mph 315 deg with No Ice (Reduced DL)   170.33   0.311   1.0354   0.2242   1.1252     90 mph 315 deg with No Ice (Reduced DL)   187.50   0.362   1.2665   0.6223   1.4090     50 mph Normal with 0.75 in Radial Ice   50.00   0.017   -0.0139   0.0288   0.0320     50 mph Normal with 0.75 in Radial Ice   87.50   0.038   0.0244   0.0355   0.0460     50 mph Normal with 0.75 in Radial Ice   112.50   0.054   -0.0464   0.0471   0.0661     50 mph Normal with 0.75 in Radial Ice   137.50   0.074   0.0684   0.0533   0.0866     50 mph Normal with 0.75 in Radial Ice   150.00   0.085   -0.0829   0.0644   0.1049     50 mph Normal with 0.75 in Radial Ice   170.33   0.1021   0.0536   0.1153     50 mph Normal with 0.75 in Radial I	90 mph 315 deg with No Ice (Reduced DL)	100.00	0.127	0.4130	0.1204	0.4547
90 mph 315 deg with No Ice (Reduced DL)   150.00   0.252   0.7775   0.1900   0.2487     90 mph 315 deg with No Ice (Reduced DL)   160.17   0.281   0.9993   0.1844   0.9852     90 mph 315 deg with No Ice (Reduced DL)   170.33   0.311   1.0354   0.2222   1.1252     90 mph 315 deg with No Ice (Reduced DL)   187.50   0.362   1.2665   0.6223   1.4090     50 mph Normal with 0.75 In Radial Ice   50.00   0.017   -0.0139   0.0288   0.0320     50 mph Normal with 0.75 In Radial Ice   75.00   0.031   0.0218   0.0389   0.0446     50 mph Normal with 0.75 In Radial Ice   87.50   0.038   0.0294   0.0355   0.0460     50 mph Normal with 0.75 In Radial Ice   172.50   0.054   -0.0464   0.0471   0.0661     50 mph Normal with 0.75 In Radial Ice   173.50   0.074   0.0684   0.0533   0.0866     50 mph Normal with 0.75 In Radial Ice   150.00   0.085   -0.0829   0.0644   0.1049     50 mph Normal with 0.75 In Radial Ice   170.33   0.104   0.1216   0.0798   0.1453     50 mph As deg wi	90 mph 315 deg with No Ice (Reduced DL)	112.50	0.154	0.5040	0.1504	
90 mph 315 deg with No Ice (Reduced DL)   160.17   0.281   0.9093   0.1844   0.9852     90 mph 315 deg with No Ice (Reduced DL)   170.33   0.311   1.0354   0.2242   1.1252     90 mph 315 deg with No Ice (Reduced DL)   187.50   0.362   1.2665   0.6223   1.4090     90 mph Normal with 0.75 in Radial Ice   50.00   0.017   -0.0139   0.0288   0.0320     50 mph Normal with 0.75 in Radial Ice   87.50   0.038   0.0218   0.0389   0.0446     50 mph Normal with 0.75 in Radial Ice   100.00   0.046   0.0378   0.0413   0.0560     50 mph Normal with 0.75 in Radial Ice   112.50   0.054   -0.0464   0.0471   0.0661     50 mph Normal with 0.75 in Radial Ice   137.50   0.074   0.0684   0.0533   0.0866     50 mph Normal with 0.75 in Radial Ice   150.00   0.085   -0.029   0.6644   0.1049     50 mph Normal with 0.75 in Radial Ice   160.17   0.094   0.1021   0.0536   0.1153     50 mph Normal with 0.75 in Radial Ice   160.07   0.031   0.121   0.0536   0.11453     50 mph A5 deg with	90 mph 315 deg with No Ice (Reduced DL)	137.50	0.216	0.6741	0.1687	0.7365
90 mph 315 deg with No Ice (Reduced DL)   160.17   0.281   0.9093   0.1844   0.9852     90 mph 315 deg with No Ice (Reduced DL)   170.33   0.311   1.0354   0.2242   1.1252     90 mph 315 deg with No Ice (Reduced DL)   187.50   0.362   1.2665   0.6223   1.4090     50 mph Normal with 0.75 in Radial Ice   50.00   0.017   -0.0139   0.0288   0.0320     50 mph Normal with 0.75 in Radial Ice   87.50   0.038   0.0214   0.0355   0.0446     50 mph Normal with 0.75 in Radial Ice   100.00   0.044   0.0378   0.0413   0.0560     50 mph Normal with 0.75 in Radial Ice   112.50   0.054   -0.0684   0.0533   0.0866     50 mph Normal with 0.75 in Radial Ice   150.00   0.085   -0.0829   0.0644   0.1049     50 mph Normal with 0.75 in Radial Ice   170.33   0.104   0.121   0.0536   0.1153     50 mph Normal with 0.75 in Radial Ice   187.50   0.120   -0.1599   0.1749   0.2369     50 mph Normal with 0.75 in Radial Ice   170.33   0.104   0.121   0.0536   0.1153     50 mph A5 deg with	90 mph 315 deg with No Ice (Reduced DL)	150.00	0.252	0.7775	0.1900	0.8487
90 mph 315 deg with No Ice (Reduced DL)170.330.3111.03640.22421.125290 mph 315 deg with No Ice (Reduced DL)187.500.3621.26650.62231.409050 mph Normal with 0.75 in Radial Ice50.000.017-0.01390.02880.032050 mph Normal with 0.75 in Radial Ice75.000.0310.02180.03550.046050 mph Normal with 0.75 in Radial Ice100.000.0460.03780.04130.056050 mph Normal with 0.75 in Radial Ice112.500.054-0.04640.04710.066150 mph Normal with 0.75 in Radial Ice137.500.0740.06840.05330.086650 mph Normal with 0.75 in Radial Ice150.000.085-0.08290.06440.104950 mph Normal with 0.75 in Radial Ice150.000.085-0.08290.06440.104950 mph Normal with 0.75 in Radial Ice160.170.0940.10210.05360.115350 mph Normal with 0.75 in Radial Ice187.500.120-0.15990.17490.236950 mph Normal with 0.75 in Radial Ice187.500.0190.02500.03070.039350 mph Normal with 0.75 in Radial Ice187.500.0190.02600.03700.039350 mph As deg with 0.75 in Radial Ice170.330.1040.12150.07980.144350 mph 45 deg with 0.75 in Radial Ice170.000.0330.03810.03640.052750 mph 45 deg with 0.75 in Radial Ice175.000.0330.0381 <t< td=""><td>90 mph 315 deg with No Ice (Reduced DL)</td><td>160.17</td><td></td><td></td><td>0.1844</td><td></td></t<>	90 mph 315 deg with No Ice (Reduced DL)	160.17			0.1844	
90 mph 315 deg with No Ice (Reduced DL)187.500.3621.26650.62231.409050 mph Normal with 0.75 in Radial Ice50.000.017-0.01390.02880.032050 mph Normal with 0.75 in Radial Ice75.000.0310.02180.03850.046050 mph Normal with 0.75 in Radial Ice100.000.0460.03780.04130.056050 mph Normal with 0.75 in Radial Ice112.500.654-0.04640.04710.066150 mph Normal with 0.75 in Radial Ice137.500.0740.06840.05330.086650 mph Normal with 0.75 in Radial Ice150.000.085-0.08290.06440.104950 mph Normal with 0.75 in Radial Ice160.170.0940.10210.05360.115350 mph Normal with 0.75 in Radial Ice170.330.1040.12150.07980.145350 mph Normal with 0.75 in Radial Ice187.500.120-0.15990.145350 mph Normal with 0.75 in Radial Ice170.330.1040.12150.03780.145350 mph Normal with 0.75 in Radial Ice187.500.120-0.15990.145350 mph 45 deg with 0.75 in Radial Ice75.000.0330.03810.03640.052750 mph 45 deg with 0.75 in Radial Ice100.000.0490.06450.04190.076950 mph 45 deg with 0.75 in Radial Ice112.500.0580.07870.04580.091050 mph 45 deg with 0.75 in Radial Ice137.500.0580.07870.04580.0910	90 mph 315 deg with No Ice (Reduced DL)	170.33	0.311	1.0354		
50 mph Normal with 0.75 in Radial Ice50.000.017-0.01390.02880.032050 mph Normal with 0.75 in Radial Ice75.000.0310.02180.03890.044650 mph Normal with 0.75 in Radial Ice87.500.0380.02940.03550.046050 mph Normal with 0.75 in Radial Ice100.000.0460.03780.04130.056050 mph Normal with 0.75 in Radial Ice112.500.054-0.04640.04710.066150 mph Normal with 0.75 in Radial Ice137.500.0740.06840.05330.086650 mph Normal with 0.75 in Radial Ice150.000.885-0.08290.06440.104950 mph Normal with 0.75 in Radial Ice160.170.0940.10210.05360.115350 mph Normal with 0.75 in Radial Ice170.330.1040.12150.07980.145350 mph Normal with 0.75 in Radial Ice187.500.120-0.15990.17490.236950 mph Normal with 0.75 in Radial Ice187.500.120-0.15990.17490.236950 mph A5 deg with 0.75 in Radial Ice187.500.021-0.05050.03070.039350 mph 45 deg with 0.75 in Radial Ice75.000.0330.03810.03640.052750 mph 45 deg with 0.75 in Radial Ice112.500.0580.07870.04580.076950 mph 45 deg with 0.75 in Radial Ice112.500.0580.07870.04580.091050 mph 45 deg with 0.75 in Radial Ice112.500.0580.07870.0	90 mph 315 deg with No Ice (Reduced DL)	187.50	0.362	1.2665	0.6223	
50 mph Normal with 0.75 in Radial Ice75.000.0310.02180.03890.044650 mph Normal with 0.75 in Radial Ice87.500.0380.02940.03550.046050 mph Normal with 0.75 in Radial Ice100.000.0460.03780.04130.056050 mph Normal with 0.75 in Radial Ice112.500.054-0.04640.04710.066150 mph Normal with 0.75 in Radial Ice137.500.0740.06840.05330.086650 mph Normal with 0.75 in Radial Ice150.000.085-0.08290.06440.104950 mph Normal with 0.75 in Radial Ice160.170.0940.10210.05360.115350 mph Normal with 0.75 in Radial Ice170.330.1040.12150.07980.145350 mph Normal with 0.75 in Radial Ice187.500.120-0.15990.14540.236950 mph Normal with 0.75 in Radial Ice50.000.0190.02500.03070.039350 mph Normal with 0.75 in Radial Ice50.000.0190.02500.03070.039350 mph 45 deg with 0.75 in Radial Ice75.000.0330.03810.03640.052750 mph 45 deg with 0.75 in Radial Ice112.500.0580.07870.04550.041950 mph 45 deg with 0.75 in Radial Ice112.500.0580.07870.04540.126550 mph 45 deg with 0.75 in Radial Ice112.500.0580.07870.04540.126550 mph 45 deg with 0.75 in Radial Ice137.500.0790.11420.0544<	50 mph Normal with 0.75 in Radial Ice	50.00	0.017 -	0.0139	0.0288	
50 mph Normal with 0.75 in Radial Ice   100.00   0.046   0.0378   0.0413   0.0560     50 mph Normal with 0.75 in Radial Ice   112.50   0.054   -0.0464   0.0471   0.0661     50 mph Normal with 0.75 in Radial Ice   137.50   0.074   0.0684   0.0533   0.0866     50 mph Normal with 0.75 in Radial Ice   150.00   0.885   -0.0829   0.0644   0.1049     50 mph Normal with 0.75 in Radial Ice   160.17   0.094   0.1021   0.0536   0.1153     50 mph Normal with 0.75 in Radial Ice   170.33   0.104   0.1215   0.0798   0.1453     50 mph Normal with 0.75 in Radial Ice   187.50   0.120   -0.1599   0.1749   0.2369     50 mph A5 deg with 0.75 in Radial Ice   50.00   0.033   0.0381   0.0364   0.0527     50 mph 45 deg with 0.75 in Radial Ice   75.00   0.033   0.0381   0.0368   0.0625     50 mph 45 deg with 0.75 in Radial Ice   100.00   0.049   0.0645   0.0419   0.0769     50 mph 45 deg with 0.75 in Radial Ice   137.50   0.058   0.0787   0.0458   0.0910     50 mph 45 deg with 0.75	50 mph Normal with 0.75 in Radial Ice	75.00	0.031	0.0218	0.0389	
50 mph Normal with 0.75 in Radial Ice   112.50   0.054   -0.0464   0.0471   0.0661     50 mph Normal with 0.75 in Radial Ice   137.50   0.074   0.0684   0.0533   0.0866     50 mph Normal with 0.75 in Radial Ice   150.00   0.085   -0.0829   0.0644   0.1049     50 mph Normal with 0.75 in Radial Ice   160.17   0.094   0.1021   0.0536   0.1153     50 mph Normal with 0.75 in Radial Ice   170.33   0.104   0.1215   0.0798   0.1453     50 mph Normal with 0.75 in Radial Ice   187.50   0.120   -0.1599   0.1749   0.2369     50 mph As deg with 0.75 in Radial Ice   50.00   0.019   0.0250   0.0307   0.0393     50 mph 45 deg with 0.75 in Radial Ice   75.00   0.031   0.0368   0.0625     50 mph 45 deg with 0.75 in Radial Ice   87.50   0.041   0.0505   0.0368   0.0625     50 mph 45 deg with 0.75 in Radial Ice   100.00   0.049   0.0645   0.0419   0.0769     50 mph 45 deg with 0.75 in Radial Ice   12.50   0.058   0.0777   0.0458   0.0910     50 mph 45 deg with 0.75 in Radial Ice	50 mph Normal with 0.75 in Radial Ice	87.50	0.038	0.0294	0.0355	0.0460
50 mph Normal with 0.75 in Radial Ice   137.50   0.074   0.0684   0.0533   0.0866     50 mph Normal with 0.75 in Radial Ice   150.00   0.085   -0.0829   0.0644   0.1049     50 mph Normal with 0.75 in Radial Ice   160.17   0.094   0.1021   0.0536   0.1153     50 mph Normal with 0.75 in Radial Ice   170.33   0.104   0.1215   0.0798   0.1453     50 mph Normal with 0.75 in Radial Ice   187.50   0.120   -0.1599   0.1749   0.2369     50 mph A5 deg with 0.75 in Radial Ice   50.00   0.019   0.0250   0.0307   0.0393     50 mph 45 deg with 0.75 in Radial Ice   75.00   0.033   0.0381   0.0364   0.0527     50 mph 45 deg with 0.75 in Radial Ice   87.50   0.041   0.0505   0.0368   0.0625     50 mph 45 deg with 0.75 in Radial Ice   100.00   0.049   0.0645   0.0419   0.0769     50 mph 45 deg with 0.75 in Radial Ice   112.50   0.058   0.0787   0.0458   0.0910     50 mph 45 deg with 0.75 in Radial Ice   137.50   0.079   0.1142   0.0544   0.1265     50 mph 45 deg with 0.75 i	50 mph Normal with 0.75 in Radial Ice	100.00	0.046	0.0378	0.0413	0.0560
50 mph Normal with 0.75 in Radial Ice137.500.0740.06840.05330.086650 mph Normal with 0.75 in Radial Ice150.000.085-0.08290.06440.104950 mph Normal with 0.75 in Radial Ice160.170.0940.10210.05360.115350 mph Normal with 0.75 in Radial Ice170.330.1040.12150.07980.145350 mph Normal with 0.75 in Radial Ice187.500.120-0.15990.17490.236950 mph 45 deg with 0.75 in Radial Ice50.000.0190.02500.03070.039350 mph 45 deg with 0.75 in Radial Ice87.500.0410.05050.03640.052750 mph 45 deg with 0.75 in Radial Ice87.500.0410.05050.03680.062550 mph 45 deg with 0.75 in Radial Ice100.000.0490.06450.04190.076950 mph 45 deg with 0.75 in Radial Ice137.500.0790.11420.05440.126550 mph 45 deg with 0.75 in Radial Ice137.500.0790.11420.05440.126550 mph 45 deg with 0.75 in Radial Ice137.500.0790.11420.05440.126550 mph 45 deg with 0.75 in Radial Ice150.000.0910.13680.05740.148250 mph 45 deg with 0.75 in Radial Ice150.000.0910.13660.05740.148250 mph 45 deg with 0.75 in Radial Ice150.000.0910.13660.05740.148250 mph 45 deg with 0.75 in Radial Ice160.170.1000.16660.0574		112.50	0.054 -	0.0464	0.0471	0.0661
50 mph Normal with 0.75 in Radial Ice   160.17   0.094   0.1021   0.0536   0.1153     50 mph Normal with 0.75 in Radial Ice   170.33   0.104   0.1215   0.0798   0.1453     50 mph Normal with 0.75 in Radial Ice   187.50   0.120   -0.1599   0.1749   0.2369     50 mph Normal with 0.75 in Radial Ice   50.00   0.019   0.0250   0.0307   0.0393     50 mph 45 deg with 0.75 in Radial Ice   75.00   0.033   0.0381   0.0364   0.0527     50 mph 45 deg with 0.75 in Radial Ice   87.50   0.041   0.0505   0.0368   0.0625     50 mph 45 deg with 0.75 in Radial Ice   100.00   0.049   0.0645   0.0419   0.0769     50 mph 45 deg with 0.75 in Radial Ice   100.00   0.058   0.0787   0.0458   0.0910     50 mph 45 deg with 0.75 in Radial Ice   137.50   0.079   0.1142   0.0544   0.1265     50 mph 45 deg with 0.75 in Radial Ice   150.00   0.091   0.1368   0.0574   0.1482     50 mph 45 deg with 0.75 in Radial Ice   150.00   0.091   0.1368   0.0574   0.1762     50 mph 45 deg with 0.75 in	50 mph Normal with 0.75 in Radial Ice	137.50	0.074	0.0684	0.0533	
50 mph Normal with 0.75 in Radial Ice160.170.0940.10210.05360.115350 mph Normal with 0.75 in Radial Ice170.330.1040.12150.07980.145350 mph Normal with 0.75 in Radial Ice187.500.120-0.15990.17490.236950 mph 45 deg with 0.75 in Radial Ice50.000.0190.02500.03070.039350 mph 45 deg with 0.75 in Radial Ice75.000.0330.03810.06440.052750 mph 45 deg with 0.75 in Radial Ice87.500.0410.05050.03680.062550 mph 45 deg with 0.75 in Radial Ice100.000.0490.06450.04190.076950 mph 45 deg with 0.75 in Radial Ice112.500.0580.07870.04580.091050 mph 45 deg with 0.75 in Radial Ice137.500.0790.11420.05440.126550 mph 45 deg with 0.75 in Radial Ice150.000.09110.13680.05740.148250 mph 45 deg with 0.75 in Radial Ice150.000.09110.13660.05740.148250 mph 45 deg with 0.75 in Radial Ice160.170.1000.16660.05740.176250 mph 45 deg with 0.75 in Radial Ice170.330.1100.19610.06400.2063	50 mph Normal with 0.75 in Radial Ice	150.00	0.085 -	0.0829	0.0644	0.1049
50 mph Normal with 0.75 in Radial Ice   187.50   0.120   -0.1599   0.1749   0.2369     50 mph 45 deg with 0.75 in Radial Ice   50.00   0.019   0.0250   0.0307   0.0393     50 mph 45 deg with 0.75 in Radial Ice   75.00   0.033   0.0381   0.0364   0.0527     50 mph 45 deg with 0.75 in Radial Ice   75.00   0.041   0.0505   0.0368   0.0625     50 mph 45 deg with 0.75 in Radial Ice   100.00   0.049   0.0645   0.0419   0.0769     50 mph 45 deg with 0.75 in Radial Ice   112.50   0.058   0.0787   0.0458   0.0910     50 mph 45 deg with 0.75 in Radial Ice   137.50   0.079   0.1142   0.0544   0.1265     50 mph 45 deg with 0.75 in Radial Ice   150.00   0.091   0.1368   0.0574   0.1482     50 mph 45 deg with 0.75 in Radial Ice   160.17   0.100   0.1666   0.0574   0.1762     50 mph 45 deg with 0.75 in Radial Ice   170.33   0.110   0.1961   0.0640   0.2063	50 mph Normal with 0.75 in Radial Ice	160.17	0.094	0.1021	0.0536	
50 mph Normal with 0.75 in Radial Ice187.500.120-0.15990.17490.236950 mph 45 deg with 0.75 in Radial Ice50.000.0190.02500.03070.039350 mph 45 deg with 0.75 in Radial Ice75.000.0330.03810.03640.052750 mph 45 deg with 0.75 in Radial Ice87.500.0410.05050.03680.062550 mph 45 deg with 0.75 in Radial Ice100.000.0490.06450.04190.076950 mph 45 deg with 0.75 in Radial Ice112.500.0580.07870.04580.091050 mph 45 deg with 0.75 in Radial Ice137.500.0790.11420.05440.126550 mph 45 deg with 0.75 in Radial Ice150.000.0910.13680.05740.148250 mph 45 deg with 0.75 in Radial Ice160.170.1000.16660.05740.176250 mph 45 deg with 0.75 in Radial Ice160.170.1000.16660.05740.126550 mph 45 deg with 0.75 in Radial Ice160.170.1000.16660.05740.1263	50 mph Normal with 0.75 in Radial Ice	170.33	0.104	0.1215	0.0798	
50 mph 45 deg with 0.75 in Radial Ice50.000.0190.02500.03070.039350 mph 45 deg with 0.75 in Radial Ice75.000.0330.03810.03640.052750 mph 45 deg with 0.75 in Radial Ice87.500.0410.05050.03680.062550 mph 45 deg with 0.75 in Radial Ice100.000.0490.06450.04190.076950 mph 45 deg with 0.75 in Radial Ice112.500.0580.07870.04580.091050 mph 45 deg with 0.75 in Radial Ice137.500.0790.11420.05440.126550 mph 45 deg with 0.75 in Radial Ice150.000.09110.13680.05740.148250 mph 45 deg with 0.75 in Radial Ice160.170.1000.16660.05740.176250 mph 45 deg with 0.75 in Radial Ice170.330.1100.19610.06400.2063	50 mph Normal with 0.75 in Radial Ice	187.50	0.120 -	0.1599		
50 mph 45 deg with 0.75 in Radial Ice75.000.0330.03810.03640.052750 mph 45 deg with 0.75 in Radial Ice87.500.0410.05050.03680.062550 mph 45 deg with 0.75 in Radial Ice100.000.0490.06450.04190.076950 mph 45 deg with 0.75 in Radial Ice112.500.0580.07870.04580.091050 mph 45 deg with 0.75 in Radial Ice137.500.0790.11420.05440.126550 mph 45 deg with 0.75 in Radial Ice150.000.0910.13680.05740.148250 mph 45 deg with 0.75 in Radial Ice160.170.1000.16660.05740.176250 mph 45 deg with 0.75 in Radial Ice170.330.1100.19610.06400.2063	50 mph 45 deg with 0.75 in Radial Ice	50.00				
50 mph 45 deg with 0.75 in Radial Ice87.500.0410.05050.03680.062550 mph 45 deg with 0.75 in Radial Ice100.000.0490.06450.04190.076950 mph 45 deg with 0.75 in Radial Ice112.500.0580.07870.04580.091050 mph 45 deg with 0.75 in Radial Ice137.500.0790.11420.05440.126550 mph 45 deg with 0.75 in Radial Ice150.000.0910.13680.05740.148250 mph 45 deg with 0.75 in Radial Ice160.170.1000.16660.05740.176250 mph 45 deg with 0.75 in Radial Ice170.330.1100.19610.06400.2063						
50 mph 45 deg with 0.75 in Radial Ice100.000.0490.06450.04190.076950 mph 45 deg with 0.75 in Radial Ice112.500.0580.07870.04580.091050 mph 45 deg with 0.75 in Radial Ice137.500.0790.11420.05440.126550 mph 45 deg with 0.75 in Radial Ice150.000.0910.13680.05740.148250 mph 45 deg with 0.75 in Radial Ice160.170.1000.16660.05740.176250 mph 45 deg with 0.75 in Radial Ice170.330.1100.19610.06400.2063						
50 mph 45 deg with 0.75 in Radial Ice112.500.0580.07870.04580.091050 mph 45 deg with 0.75 in Radial Ice137.500.0790.11420.05440.126550 mph 45 deg with 0.75 in Radial Ice150.000.0910.13680.05740.148250 mph 45 deg with 0.75 in Radial Ice160.170.1000.16660.05740.176250 mph 45 deg with 0.75 in Radial Ice170.330.1100.19610.06400.2063	50 mph 45 deg with 0.75 in Radial Ice					
50 mph 45 deg with 0.75 in Radial Ice137.500.0790.11420.05440.126550 mph 45 deg with 0.75 in Radial Ice150.000.0910.13680.05740.148250 mph 45 deg with 0.75 in Radial Ice160.170.1000.16660.05740.176250 mph 45 deg with 0.75 in Radial Ice170.330.1100.19610.06400.2063		112.50				
50 mph 45 deg with 0.75 in Radial Ice150.000.0910.13680.05740.148250 mph 45 deg with 0.75 in Radial Ice160.170.1000.16660.05740.176250 mph 45 deg with 0.75 in Radial Ice170.330.1100.19610.06400.2063	50 mph 45 deg with 0.75 in Radial Ice					
50 mph 45 deg with 0.75 in Radial Ice     160.17     0.100     0.1666     0.0574     0.1762       50 mph 45 deg with 0.75 in Radial Ice     170.33     0.110     0.1961     0.0640     0.2063	50 mph 45 deg with 0.75 in Radial Ice					
50 mph 45 deg with 0.75 in Radial Ice 170.33 0.110 0.1961 0.0640 0.2063	50 mph 45 deg with 0.75 in Radial Ice					
	50 mph 45 deg with 0.75 in Radial Ice					
		Dago 28				

Site Number: 88014	Code:	ANSI/TIA-222-G	© 2007 - 2018 by ATC IP LLC. All rights reserved	d.
Site Name: New Fairfield, CT	Engineering Number:	OAA723223_C3_02	2/28/2018 1:59:51 PM	
Customer: T-Mobile				
50 mph 45 deg with 0.75 in Radial Ice	187.50	0.127 0.2	529 0.1626 0.2727	
50 mph 90 deg with 0.75 in Radial Ice	50.00		174 0.0288 0.0337	
50 mph 90 deg with 0.75 in Radial Ice	75.00	0.031 -0.0	259 0.0284 0.0384	
50 mph 90 deg with 0.75 in Radial Ice	87.50		336 0.0333 0.0473	
50 mph 90 deg with 0.75 in Radial Ice	100.00		425 0.0366 0.0561	
50 mph 90 deg with 0.75 in Radial ice 50 mph 90 deg with 0.75 in Radial ice	112.50 137.50		516 0.0374 0.0638	
50 mph 90 deg with 0.75 in Radial Ice	150.00		746 0.0474 0.0883 892 0.0383 0.0971	
50 mph 90 deg with 0.75 in Radial Ice	160.17		086 0.0531 0.1209	
50 mph 90 deg with 0.75 in Radial Ice	170.33		282 0.0276 0.1310	
50 mph 90 deg with 0.75 in Radial Ice	187.50		665 0.0718 0.1814	
50 mph 135 deg with 0.75 in Radial Ice	50.00		245 0.0307 0.0393	
50 mph 135 deg with 0.75 in Radial Ice	75.00	0.033 0.0	374 0.0364 0.0527	
50 mph 135 deg with 0.75 in Radial Ice	87.50		496 0.0368 0.0625	
50 mph 135 deg with 0.75 in Radial Ice	100.00		632 0.0419 0.0769	
50 mph 135 deg with 0.75 in Radial Ice	112.50		771 0.0458 0.0910	
50 mph 135 deg with 0.75 in Radial Ice	137.50		119 0.0544 0.1265	
50 mph 135 deg with 0.75 in Radial Ice 50 mph 135 deg with 0.75 in Radial Ice	150.00 160.17		340 0.0574 0.1482	
50 mph 135 deg with 0.75 in Radial Ice	170.33		632 0.0574 0.1762	
50 mph 135 deg with 0.75 in Radial Ice	187.50		921 0.0640 0.2063 476 0.1626 0.2727	
50 mph 180 deg with 0.75 in Radial Ice	50.00		139 0.0288 0.0320	
50 mph 180 deg with 0.75 in Radial Ice	75.00		218 0.0389 0.0446	
50 mph 180 deg with 0.75 in Radial ice	87.50		294 0.0355 0.0460	
50 mph 180 deg with 0.75 in Radial Ice	100.00	0.046 0.0	378 0.0413 0.0560	
50 mph 180 deg with 0.75 in Radial Ice	112.50	0.054 0.0	464 0.0471 0.0661	
50 mph 180 deg with 0.75 in Radial Ice	137.50	0.074 0.0	684 0.0533 0.0866	
50 mph 180 deg with 0.75 in Radiat Ice	150.00		829 0.0644 0.1049	
50 mph 180 deg with 0.75 in Radial Ice	160.17		021 0.0536 0.1153	
50 mph 180 deg with 0.75 in Radial Ice 50 mph 180 deg with 0.75 in Radial Ice	170.33		215 0.0798 0.1453	
50 mph 225 deg with 0.75 in Radial Ice	187.50 50.00		599 0.1749 0.2369 250 0.0707 0.0202	
50 mph 225 deg with 0.75 in Radial Ice	75.00		250 0.0307 0.0393 381 0.0364 0.0527	
50 mph 225 deg with 0.75 in Radial Ice	87.50		505 0.0368 0.0625	
50 mph 225 deg with 0.75 in Radial Ice	100.00		645 0.0419 0.0769	
50 mph 225 deg with 0.75 in Radial Ice	112.50		787 0.0458 0.0910	
50 mph 225 deg with 0.75 in Radial Ice	137.50	0.079 0.1	142 0.0544 0.1265	
50 mph 225 deg with 0.75 in Radial Ice	150.00	0.091 0.1	368 0.0574 0.1482	
50 mph 225 deg with 0.75 in Radial Ice	160.17		666 0.0574 0.1762	
50 mph 225 deg with 0.75 in Radial Ice	170.33		961 0.0640 0.2063	
50 mph 225 deg with 0.75 in Radial ice 50 mph 270 deg with 0.75 in Radial ice	187.50		529 0.1626 0.2727	
50 mph 270 deg with 0.75 in Radial Ice	50.00 75.00		174 0.0288 0.0337 259 0.0284 0.0384	
50 mph 270 deg with 0.75 in Radial Ice	87.50		336 0.0333 0.0473	
50 mph 270 deg with 0.75 in Radial Ice	100.00		425 0.0366 0.0561	
50 mph 270 deg with 0.75 in Radial Ice	112.50		516 0.0374 0.0638	
50 mph 270 deg with 0.75 in Radial Ice	137.50	0.074 0.0	746 0.0474 0.0883	
50 mph 270 deg with 0.75 in Radial Ice	150.00	0.085 0.0	892 0.0383 0.0971	
50 mph 270 deg with 0.75 in Radial Ice	160.17		086 0.0531 0.120 <del>9</del>	
50 mph 270 deg with 0.75 in Radial Ice	170.33		282 0.0276 0.1310	
50 mph 270 deg with 0.75 in Radial Ice	187.50		665 0.0718 0.1814	
50 mph 315 deg with 0.75 in Radial Ice 50 mph 315 deg with 0.75 in Radial Ice	50.00 75.00		245 0.0307 0.0393	
50 mph 315 deg with 0.75 in Radial Ice	87.50		374 0.0364 0.0527	
50 mph 315 deg with 0.75 in Radial Ice	100.00		496 0.0368 0.0625 632 0.041 <del>9</del> 0.0769	
50 mph 315 deg with 0.75 in Radial Ice	112.50		771 0.0458 0.0910	
50 mph 315 deg with 0.75 in Radial Ice	137.50		119 0.0544 0.1265	
50 mph 315 deg with 0.75 in Radial ice	150.00		340 0.0574 0.1482	
50 mph 315 deg with 0.75 in Radial Ice	160.17		632 0.0574 0.1762	
50 mph 315 deg with 0.75 in Radial ice	170.33	0.110 0.1	921 0.0640 0.2063	
50 mph 315 deg with 0.75 in Radial Ice	187.50		476 0.1626 0.2727	
Seismic Normal M1	50.00	0.005 0.0	006 0.0103 0.0103	

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Site Number: 88014	Code:	ANSI/TIA-222-G	© 2007 - 2018 by ATC IP LLC. All rights reserved.
Site Name: New Fairfield, CT	Engineering Number:	OAA723223_C3_02	2/28/2018 1:59:51 PM
Customer: T-Mobile			
Seismic Normal M1	75.00	0.010 0.00	008 0.0136 0.0136
Seismic Normal M1	87.50	0.013 0.00	010 0.0154 0.0154
Seismic Normal M1	100.00	0.017 0.00	011 0.0179 0.0179
Seismic Normal M1	112.50	0.021 0.00	0.0199 0.0200
Seismic Normal M1	137.50	0.031 0.00	016 0.0252 0.0252
Seismic Normal M1	150.00	0.036 0.00	017 0.0270 0.0271
Seismic Normal M1	160.17	0.041 0.00	018 0.0290 0.0291
Selsmic Normal M1	170.33	0.046 0.00	
Seismic Normal M1	187.50	0.055 0.00	
Seismic Normal M2	50.00	0.004 0.00	
Selsmic Normal M2	75.00	0.009 0.00	
Selsmic Normal M2	87.50	0.012 0.00	
Seismic Normai M2	100.00	0.016 0.00	
Seismic Norma! M2 Seismic Normal M2	112.50	0.020 0.00	
Seismic Normal M2 Seismic Normal M2	137.50	0.032 0.00	
Seismic Normai M2 Seismic Normai M2	150.00 160.17	0.038 0.00	
Seismic Normal M2		0.044 0.00	
Seismic Normal M2 Seismic Normal M2	170.33 187.50	0.051 0.00 0.062 0.00	
Seismic 45 deg M1	50.00	0.002 0.00	
Seismic 45 deg M1	75.00	0.005 0.00	
Seismic 45 deg M1	87.50	0.013 0.00	
Seismic 45 deg M1	100.00	0.017 0.00	
Seismic 45 deg M1	112.50	0.021 0.00	
Seismic 45 deg M1	137.50	0.031 0.00	
Seismic 45 deg M1	150.00	0.036 0.00	
Seismic 45 deg M1	160.17	0.041 0.00	
Seismic 45 deg M1	170.33	0.046 0.00	
Seismic 45 deg M1	187.50	0.055 0.00	
Seismic 45 deg M2	50.00	0.004 0.00	
Seismic 45 deg M2	75.00	0.009 0.00	
Seismic 45 deg M2	87.50	0.012 0.00	014 0.0161 0.0161
Seismic 45 deg M2	100.00	0.016 0.00	0.0192 0.0192
Seismic 45 deg M2	112.50	0.020 0.00	0.0219 0.0219
Seismic 45 deg M2	137.50	0.032 0.00	
Seismic 45 deg M2	150.00	0.038 0.00	28 0.0326 0.0326
Seismic 45 deg M2	160.17	0.045 0.00	
Seismic 45 deg M2	170.33	0.051 0.00	
Seismic 45 deg M2	187.50	0.062 0.00	
Seismic 90 deg M1	50.00	0.005 0.00	
Seismic 90 deg M1 Seismic 90 deg M4	75.00	0.010 0.00	
Selsmic 90 deg M1 Selsmic 90 deg M1	87.50	0.013 0.00	
Seismic 90 deg M1 Seismic 90 deg M1	100.00 112.50	0.017 0.00 0.021 0.00	
Selsmic 90 deg M1 Selsmic 90 deg M1	137.50	0.021 0.00 0.031 0.00	
Selsmic 90 deg M1	150.00	0.036 0.00	
Seismic 90 deg M1	160.17	0.041 0.00	
Seismic 90 deg M1	170.33	0.046 0.00	
Seismic 90 deg M1	187.50	0.055 0.00	
Seismic 90 deg M2	50.00	0.004 0.00	
Seismic 90 deg M2	75.00	0.009 0.00	
Selsmic 90 deg M2	87.50	0.012 0.00	
Seismic 90 deg M2	100.00	0.016 0.00	
Seismic 90 deg M2	112.50	0.020 0.00	
Selsmic 90 deg M2	137.50	0.032 0.00	
Selsmic 90 deg M2	150.00	0.038 0.00	
Selsmic 90 deg M2	160.17	0.044 0.00	
Selsmic 90 deg M2	170.33	0.051 0.00	
Seismic 90 deg M2	187.50	0.062 0.00	
Seismic 135 deg M1	50.00	0.005 -0.00	
Seismic 135 deg M1	75.00	0.010 -0.00	12 0.0136 0.0136
Seismic 135 deg M1	87.50	0.013 0.00	13 0.0154 0.0154

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Site Number: 88014	Code:	ANSI/TIA-222-G	© 2007 - 2018 by ATC IP	LLC. All rights reserved.
Site Name: New Fairfield, CT	Engineering Number:	OAA723223_C3_02	2/	28/2018 1:59:51 PM
Customer: T-Mobile				
Seismic 135 deg M1	100.00	0.017 0.0	0.0180	0.0180
Seismic 135 deg M1	112.50	0.021 -0.0	0.0200	0.0200
Seismic 135 deg M1	137.50	0.031 -0.00	0.0253	0.0253
Seismic 135 deg M1	150.00	0.036 -0.00		0.0273
Seismic 135 deg M1	160.17	0.041 0.00		0.0292
Seismic 135 deg M1	170.33	0.046 0.0		0.0300
Seismic 135 deg M1	187.50	0.055 -0.00		0.0312
Seismic 135 deg M2	50.00	0.004 0.00		0.0096
Seismic 135 deg M2 Seismic 435 deg M2	75.00	0.009 -0.00		D.0135
Seismic 135 deg M2 Seismic 135 deg M2	87.50 100.00	0.012 0.00 0.016 -0.00		0.0161 0.0102
Seismic 135 deg M2	112.50	0.016 -0.00 0.020 -0.00		D.0192 D.0219
Seismic 135 deg M2	137.50	0.032 -0.00		0.0292
Seismic 135 deg M2	150.00	0.038 0.00		D.0326
Seismic 135 deg M2	160.17	0.045 0.00		0.0357
Seismic 135 deg M2	170.33	0.051 -0.00		0.0373
Seismic 135 deg M2	187.50	0.062 -0.00		0.0394
Seismic 180 deg M1	50.00	0.005 0.06		0.0103
Seismic 180 deg M1	75.00	0.010 0.00		0.0136
Seismic 180 deg M1	87.50	0.013 -0.00	0.0154	0.0154
Seismic 180 deg M1	100.00	0.017 -0.00	0.0179	0.0179
Seismic 180 deg M1	112.50	0.021 -0.00		0.0200
Seismic 180 deg M1	137.50	0.031 0.00		0.0252
Seismic 180 deg M1	150.00	0.036 -0.00		0.0271
Seismic 180 deg M1 Seismic 180 deg M4	160.17	0.041 0.00		0.0291
Seismic 180 deg M1 Seismic 180 deg M1	170.33 187.50	0.046 0.00 0.055 0.00		0.0300
Seismic 180 deg M2	50.00	0.005 0.00		D.0311
Seismic 180 deg M2	75.00	0.009 0.00		D.0096 D.0135
Seismic 180 deg M2	87.50	0.012 -0.06		0.0161
Seismic 180 deg M2	100.00	0.016 0.00		D.0191
Seismic 180 deg M2	112.50	0.020 -0.00		0.0219
Seismic 180 deg M2	137.50	0.032 0.00		D.0291
Seismic 180 deg M2	150.00	0.038 0.00	0.0322	0.0323
Seismic 180 deg M2	160.17	0.044 -0.00	0.0356	D.0356
Seismic 180 deg M2	170.33	0.051 0.00	0.0373	0.0374
Seismic 180 deg M2	187.50	0.062 -0.00		D.0393
Seismic 225 deg M1	50.00	0.005 0.00		D.0104
Seismic 225 deg M1 Seismic 225 deg M1	75.00	0.010 0.00		D.0136
Seismic 225 deg M1	87.50	0.013 0.00		D.0154
Seismic 225 deg M1	100.00 112.50	0.017 0.00 0.021 0.00		D.0180 D.0200
Seismic 225 deg M1	137.50	0.031 0.00		0.0253
Seismic 225 deg M1	150.00	0.036 0.00		0.0273
Seismic 225 deg M1	160.17	0.041 0.00		0.0292
Seismic 225 deg M1	170.33	0.046 0.00		0.0300
Seismic 225 deg M1	187.50	0.055 0.00		0.0312
Seismic 225 deg M2	50.00	0.004 0.00	0.0096	0.0096
Seismic 225 deg M2	75.00	0.009 0.00		0.0135
Seismic 225 deg M2	87.50	0.012 0.00		D.0161
Seismic 225 deg M2	100.00	0.016 0.00		0.0192
Seismic 225 deg M2 Seismic 225 deg M2	112.50	0.020 0.00		D.0219
Seismic 225 deg M2 Seismic 225 deg M2	137.50	0.032 0.00		0.0292
Seismic 225 deg M2 Seismic 225 deg M2	150.00 160.17	0.038 0.00 0.045 0.00		D.0326 D.0357
Seismic 225 deg M2	170.33	0.045 0.00		D.0373
Seismic 225 deg M2 Seismic 225 deg M2	187.50	0.062 0.00		D.0394
Seismic 270 deg M1	50.00	0.005 0.00		D.0103
Seismic 270 deg M1	75.00	0.010 0.00		D.0136
Seismic 270 deg M1	87.50	0.013 0.00		0.0154
Selsmic 270 deg M1	100.00	0.017 0.00		D.0179
Seismic 270 deg M1	112.50	0.021 0.00		0.0200

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Site Number: 88014	Code:	ANSI/TIA-222-G	© 200	7 - 2018 by AT	C IP LLC. All rights reserved.
Site Name: New Fairfield, CT	Engineering Number:	OAA723223_C3_02			2/28/2018 1 59 51 PM
Customer: T-Mobile					
Seismic 270 deg M1	137.50	0.031	0.0016	0.0252	0.0252
Seismic 270 deg M1	150.00		0.0017	0.0270	0.0271
Seismic 270 deg M1	160.17	0.041	0.0018	0.0290	0.0291
Seismic 270 deg M1	170.33		0.0019	0.0300	0.0300
Seismic 270 deg M1	187.50		0.0019	0.0310	0.0311
Seismic 270 deg M2	50.00		0.0006	0.0096	0.0096
Selsmic 270 deg M2	75.00		0.0008	0.0135	0.0135
Seismic 270 deg M2	87.50		0.0010	0.0161	0.0161
Selsmic 270 deg M2 Selsmic 270 deg M2	100.00		0.0012	0.0191	0.0191
Seismic 270 deg M2 Seismic 270 deg M2	112.50 137.50		0.0014	0.0218	0.0219
Selsmic 270 deg M2	150.00		0.0018 0.0020	0.0291 0.0322	0.0291 0.0323
Seismic 270 deg M2	160.17		0.0022	0.0322	0.0356
Seismic 270 deg M2	170.33		0.0023	0.0373	0.0374
Seismic 270 deg M2	187.50		0.0024	0.0392	0.0393
Selsmic 315 deg M1	50.00		0.0009	0.0104	0.0104
Seismic 315 deg M1	75.00		0.0012	0.0136	0.0136
Selsmic 315 deg M1	87.50		0.0013	0.0154	0.0154
Seismic 315 deg M1	100.00	0.017	0.0016	0.0180	0.0180
Selsmic 315 deg M1	112.50	0.021	0.0017	0.0200	0.0200
Seismic 315 deg M1	137.50	0.031	0.0022	0.0253	0.0253
Seismic 315 deg M1	150.00		0.0024	0.0273	0.0273
Seismic 315 deg M1	160.17		0.0025	0.0292	0.0292
Seismic 315 deg M1	170.33		0.0026	0.0300	0.0300
Seismic 315 deg M1	187.50		0.0027	0.0312	0.0312
Selsmic 315 deg M2 Selsmic 345 deg M2	50.00		0.0008	0.0096	0.0096
Seismic 315 deg M2 Seismic 315 deg M2	75.00		0.0012	0.0135	0.0135
Seismic 315 deg M2 Seismic 315 deg M2	87.50 100.00		0.0014 0.0017	0.0161 0.0192	0.0161 0.0192
Seismic 315 deg M2	112.50		0.0019	0.0192	0.0219
Selsmic 315 deg M2	137.50		0.0026	0.0219	0.0292
Selsmic 315 deg M2	150.00		0.0028	0.0326	0.0326
Seismic 315 deg M2	160.17		0.0031	0.0357	0.0357
Seismic 315 deg M2	170.33		0.0033	0.0373	0.0373
Seismic 315 deg M2	187.50	0.062	0.0034	0.0394	0.0394
Seismic (Reduced DL) Normal M1	50.00	0.005	0.0006	0.0102	0.0102
Seismic (Reduced DL) Normal M1	75.00		0.0008	0.0135	0.0135
Seismic (Reduced DL) Normal M1	87.50	0.013	0.0010	0.0153	0.0153
Seismic (Reduced DL) Normal M1	100.00		0.0011	0.0177	0.0178
Seismic (Reduced DL) Normai M1	112.50		0.0012	0.0198	0.0198
Seismic (Reduced DL) Normal M1	137.50		0.0016	0.0251	0.0251
Seismic (Reduced DL) Normal M1 Seismic (Reduced DL) Normal M1	150.00 160.17		0.0017 0.0018	0.0270 0.0288	0.0270 0.0289
Seismic (Reduced DL) Normal M1	170.33		0.0019	0.0298	0.0298
Seismic (Reduced DL) Normal M1	187.50		0.0019	0.0258	0.0308
Seismic (Reduced DL) Normal M2	50.00		0.0006	0.0095	0.0095
Seismic (Reduced DL) Normal M2	75.00		0.0008	0.0134	0.0134
Seismic (Reduced DL) Normal M2	87.50		0.0010	0.0160	0.0160
Selsmic (Reduced DL) Normal M2	100.00	0.016	0.0012	0.0189	0.0190
Seismic (Reduced DL) Normal M2	112.50	0.020	0.0013	0.0217	0.0218
Seismic (Reduced DL) Normal M2	137.50	0.032	0.0018	0.0290	0.0290
Seismic (Reduced DL) Normal M2	150.00		0.0020	0.0322	0.0322
Seismic (Reduced DL) Normal M2	160.17		0.0022	0.0354	0.0355
Seismic (Reduced DL) Normal M2	170.33		0.0023	0.0371	0.0372
Seismic (Reduced DL) Normal M2 Seismic (Reduced DL) 45 dec M4	187.50		0.0024	0.0390	0.0390
Seismic (Reduced DL) 45 deg M1 Seismic (Reduced DL) 45 deg M1	50.00		0.0009	0.0102	0.0102
Seismic (Reduced DL) 45 deg M1 Seismic (Reduced DL) 45 deg M1	75.00 87.50		0.0012	0.0135	0.0135
Seismic (Reduced DL) 45 deg M1 Seismic (Reduced DL) 45 deg M1	87.50 100.00		0.0013 0.0015	0.0153 0.0178	0.0153 0.0178
Selsmic (Reduced DL) 45 deg M1	112.50		0.0015	0.0198	0.0198
Seismic (Reduced DL) 45 deg M1	137.50		0.0022	0.0252	0.0252
Seismic (Reduced DL) 45 deg M1	150.00		0.0024	0.0272	0.0272

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Site Number: 88014	Code:	ANSI/TIA-222-G	02	007 - 2018 by AT	C IP LLC. All rights reserved.
Site Name: New Fairfield, CT	Engineering Number:	OAA723223_C3_02	2		2/28/2018 1:59:51 PM
Customer: T-Mobile					
Seismic (Reduced DL) 45 deg M1	160.17	0.041	0.0025	0.0290	0.0290
Seismic (Reduced DL) 45 deg M1	170.33	0.046	0.0026	0.0298	0.0298
Seismic (Reduced DL) 45 deg M1	187.50	0.055	0.0027	0.0309	0.0309
Seismic (Reduced DL) 45 deg M2	50.00	0.004	8000.0	0.0094	0.0094
Seismic (Reduced DL) 45 deg M2	75.00	0.009	0.0012	0.0134	0.0134
Selsmic (Reduced DL) 45 deg M2	87.50	0.012	0.0014	0.0159	0.0160
Seismic (Reduced DL) 45 deg M2	100.00	0.016	0.0017	0.0190	0.0190
Selsmic (Reduced DL) 45 deg M2	112.50	0.020	0.0019	0.0217	0.0217
Seismic (Reduced DL) 45 deg M2	137.50	0.032	0.0025	0.0291	0.0291
Seismic (Reduced DL) 45 deg M2	150.00	0.038	0.0028	0.0325	0.0325
Seismic (Reduced DL) 45 deg M2	160.17	0.044	0.0031	0.0355	0.0355
Seismic (Reduced DL) 45 deg M2	170.33	0.051	0.0033	0.0371	0.0372
Seismic (Reduced DL) 45 deg M2	187.50	0.062	0.0034	0.0391	0.0391
Seismic (Reduced DL) 90 deg M1 Seismic (Reduced DL) 90 deg M4	50.00	0.005	0.0006	0.0102	0.0102
Seismic (Reduced DL) 90 deg M1 Seismic (Reduced DL) 90 deg M1	75.00	0.010	0.0008	0.0135	0.0135
Seismic (Reduced DL) 90 deg M1 Seismic (Reduced DL) 90 deg M1	87.50	0.013	0.0010	0.0153	0.0153
Seismic (Reduced DL) 90 deg M1	100.00	0.017	0.0011	0.0177	0.0178
Seismic (Reduced DL) 90 deg M1 Seismic (Reduced DL) 90 deg M1	112.50 137.50	0.021 0.030	0.0012	0.0198	0.0198
Seismic (Reduced DL) 90 deg M1	150.00		0.0016	0.0251	0.0251
Seismic (Reduced DL) 90 deg M1	160.17	0.036 0.041	0.0017 0.0018	0.0270 0.0288	0.0270 0.0289
Seismic (Reduced DL) 90 deg M1	170.33	0.046	0.0019	0.0288	0.0298
Seismic (Reduced DL) 90 deg M1	187.50	0.045	0.0019	0.0298	0.0298
Seismic (Reduced DL) 90 deg M2	50.00	0.004	0.0006	0.0095	0.0095
Seismic (Reduced DL) 90 deg M2	75.00	0.009	0.0008	0.0134	0.0134
Seismic (Reduced DL) 90 deg M2	87.50	0.012	0.0010	0.0160	0.0160
Seismic (Reduced DL) 90 deg M2	100.00	0.016	0.0012	0.0189	0.0190
Seismic (Reduced DL) 90 deg M2	112.50	0.020	0.0013	0.0217	0.0218
Seismic (Reduced DL) 90 deg M2	137.50	0.032	0.0018	0.0290	0.0290
Seismic (Reduced DL) 90 deg M2	150.00	0.038	0.0020	0.0322	0.0322
Seismic (Reduced DL) 90 deg M2	160.17	0.044	0.0022	0.0354	0.0355
Seismic (Reduced DL) 90 deg M2	170.33	0.051	0.0023	0.0371	0.0372
Seismic (Reduced DL) 90 deg M2	187.50	0.062	0.0024	0.0390	0.0390
Seismic (Reduced DL) 135 deg M1	50.00	0.005	-0.0009	0.0102	0.0102
Seismic (Reduced DL) 135 deg M1	75.00	0.010	-0.0012	0.0135	0.0135
Seismic (Reduced DL) 135 deg M1	87.50	0.013	0.0013	0.0153	0.0153
Seismic (Reduced DL) 135 deg M1	100.00	0.017	-0.0015	0.0178	0.0178
Seismic (Reduced DL) 135 deg M1	112.50	0.021	0.0017	0.0198	0.0198
Seismic (Reduced DL) 135 deg M1	137.50		-0.0022	0.0252	0.0252
Seismic (Reduced DL) 135 deg M1	150.00	0.036	-0.0024	0.0272	0.0272
Seismic (Reduced DL) 135 deg M1	160.17	0.041	0.0025	0.0290	0.0290
Seismic (Reduced DL) 135 deg M1	170.33		-0.0026	0.0298	0.0298
Seismic (Reduced DL) 135 deg M1	187.50		-0.0027	0.0309	0.0309
Seismic (Reduced DL) 135 deg M2	50.00	0.004	0.0008	0.0094	0.0094
Seismic (Reduced DL) 135 deg M2 Seismic (Reduced DL) 135 deg M2	75.00	0.009	0.0012	0.0134	0.0134
Seismic (Reduced DL) 135 deg M2 Seismic (Reduced DL) 135 deg M2	87.50	0.012	0.0014	0.0159	0.0160
Seismic (Reduced DL) 135 deg M2 Seismic (Reduced DL) 135 deg M2	100.00 112.50	0.016 0.020	0.0017	0.0190	0.0190
Seismic (Reduced DL) 135 deg M2	137.50		0.0019 -0.0025	0.0217 0.0291	0.0217 0.0291
Seismic (Reduced DL) 135 deg M2	150.00	0.038	0.0028	0.025	0.0325
Seismic (Reduced DL) 135 deg M2	160.17	0.044	0.0031	0.0325	0.0355
Seismic (Reduced DL) 135 deg M2	170.33	0.051	0.0033	0.0355	0.0372
Seismic (Reduced DL) 135 deg M2	187.50		-0.0034	0.0371	0.0391
Seismic (Reduced DL) 180 deg M1	50.00		-0.0006	0.0102	0.0102
Seismic (Reduced DL) 180 deg M1	75.00	0.010	0.0008	0.0135	0.0135
Seismic (Reduced DL) 180 deg M1	87.50	0.013	0.0010	0.0153	0.0153
Seismic (Reduced DL) 180 deg M1	100.00		-0.0011	0.0177	0.0178
Seismic (Reduced DL) 180 deg M1	112.50		-0.0012	0.0198	0.0198
Seismic (Reduced DL) 180 deg M1	137.50		-0.0016	0.0251	0.0251
Seismic (Reduced DL) 180 deg M1	150.00		-0.0017	0.0270	0.0270
Seismic (Reduced DL) 180 deg M1	160.17	0.041	0.0018	0.0288	0.0289
Seismic (Reduced DL) 180 deg M1	170.33		-0.0019	0.0298	0.0298

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Site Number: 88014	Code:	ANSI/TIA-222-G	© 2007 - 2018 by AT	C IP LLC. All rights reserved.
Site Name: New Fairfield, CT	Engineering Number:	OAA723223_C3_02		2/28/2018 1:59:51 PM
Customer: T-Mobile				
Seismic (Reduced DL) 180 deg M1	187.50	0.055 -0.0	019 0.0308	0.0308
Seismic (Reduced DL) 180 deg M2	50.00	0.004 0.0	0.0095	0.0095
Seismic (Reduced DL) 180 deg M2	75.00	0.009 0.0	0008 0.0134	0.0134
Seismic (Reduced DL) 180 deg M2	87.50	0.012 0.0	0.010 0.0160	0.0160
Seismic (Reduced DL) 180 deg M2	100.00	0.016 -0.0	0.012 0.0189	0.0190
Seismic (Reduced DL) 180 deg M2	112.50	0.020 -0.0	013 0.0217	0.0218
Seismic (Reduced DL) 180 deg M2	137.50	0.032 0.0	0.0290	0.0290
Seismic (Reduced DL) 180 deg M2	150.00	0.038 -0.0	0.0322	0.0322
Seismic (Reduced DL) 180 deg M2	160.17		022 0.0354	0.0355
Seismic (Reduced DL) 180 deg M2	170.33		023 0.0371	0.0372
Seismic (Reduced DL) 180 deg M2	187.50		0.0390	0.0390
Seismic (Reduced DL) 225 deg M1	50.00		009 0.0102	0.0102
Seismic (Reduced DL) 225 deg M1	75.00		0.012 0.0135	0.0135
Seismic (Reduced DL) 225 deg M1	87.50		013 0.0153	0.0153
Seismic (Reduced DL) 225 deg M1	100.00		015 0.0178	0.0178
Seismic (Reduced DL) 225 deg M1	112.50		0.017 0.0198	0.0198
Seismic (Reduced DL) 225 deg M1	137.50		0.0252	0.0252
Seismic (Reduced DL) 225 deg M1	150.00		0.0272	0.0272
Seismic (Reduced DL) 225 deg M1	160.17		0.025 0.0290	0.0290
Seismic (Reduced DL) 225 deg M1	170.33		0.0298	0.0298
Seismic (Reduced DL) 225 deg M1	187.50		0.0309	0.0309
Seismic (Reduced DL) 225 deg M2 Seismic (Reduced DL) 225 deg M2	50.00 75.00		)008 0.0094 )012 0.0134	0.0094
Seismic (Reduced DL) 225 deg M2 Seismic (Reduced DL) 225 deg M2	87.50			0.0134
Seismic (Reduced DL) 225 deg M2 Seismic (Reduced DL) 225 deg M2	100.00		0014 0.0159 0017 0.0190	0.0160 0.0190
Seismic (Reduced DL) 225 deg M2 Seismic (Reduced DL) 225 deg M2	112.50			
Seismic (Reduced DL) 225 deg M2 Seismic (Reduced DL) 225 deg M2	137.50		)019 0.0217 )025 0.0291	0.0217 0.0291
Seismic (Reduced DL) 225 deg M2	150.00		028 0.0325	0.0325
Seismic (Reduced DL) 225 deg M2	160.17		0.0355	0.0355
Selsmic (Reduced DL) 225 deg M2	170.33		033 0.0371	0.0372
Seismic (Reduced DL) 225 deg M2	187.50		034 0.0391	0.0391
Seismic (Reduced DL) 270 deg M1	50.00		0006 0.0102	0.0102
Seismic (Reduced DL) 270 deg M1	75.00		008 0.0135	0.0135
Seismic (Reduced DL) 270 deg M1	87.50		010 0.0153	0.0153
Seismic (Reduced DL) 270 deg M1	100.00	0.017 0.0	0011 0.0177	0.0178
Seismic (Reduced DL) 270 deg M1	112.50		0.0198	0.0198
Seismic (Reduced DL) 270 deg M1	137.50	0.030 0.0	016 0.0251	0.0251
Seismic (Reduced DL) 270 deg M1	150.00	0.036 0.0	017 0.0270	0.0270
Seismic (Reduced DL) 270 deg M1	160.17	0.041 0.0	018 0.0288	0.0289
Seismic (Reduced DL) 270 deg M1	170.33	0.046 0.0	0.0298	0.0298
Seismic (Reduced DL) 270 deg M1	187.50	0.055 0.0	0.0308	0.0308
Seismic (Reduced DL) 270 deg M2	50.00		0006 0.0095	0.0095
Seismic (Reduced DL) 270 deg M2	75.00		0008 0.0134	0.0134
Seismic (Reduced DL) 270 deg M2	87.50		010 0.0160	0.0160
Seismic (Reduced DL) 270 deg M2	100.00		012 0.0189	0.0190
Seismic (Reduced DL) 270 deg M2	112.50		013 0.0217	0.0218
Seismic (Reduced DL) 270 deg M2	137.50		018 0.0290	0.0290
Seismic (Reduced DL) 270 deg M2 Seismic (Reduced DL) 270 deg M2	150.00		020 0.0322	0.0322
Seismic (Reduced DL) 270 deg M2	160.17		022 0.0354	0.0355
Seismic (Reduced DL) 270 deg M2 Seismic (Reduced DL) 270 deg M2	170.33		023 0.0371	0.0372
Seismic (Reduced DL) 315 deg M1	187.50		024 0.0390	0.0390
Seismic (Reduced DL) 315 deg M1 Seismic (Reduced DL) 315 deg M1	50.00 75.00		009 0.0102	0.0102
Seismic (Reduced DL) 315 deg M1 Seismic (Reduced DL) 315 deg M1	87.50		0012 0.0135 0013 0.0153	0.0135
Seismic (Reduced DL) 315 deg M1 Seismic (Reduced DL) 315 deg M1	100.00		013 0.0153 015 0.0178	0.0153 0.0178
Seismic (Reduced DL) 315 deg M1	112.50		0.0178	0.0198
Seismic (Reduced DL) 315 deg M1	137.50		022 0.0252	0.0252
Seismic (Reduced DL) 315 deg M1	150.00		0.0252	0.0232
Seismic (Reduced DL) 315 deg M1	160.17		025 0.0290	0.0290
Seismic (Reduced DL) 315 deg M1	170.33		0.0298	0.0298
Selsmic (Reduced DL) 315 deg M1	187.50		0.020	0.0309
Seismic (Reduced DL) 315 deg M2	50.00		0008 0.0094	0.0094

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Site Number: 88014	Code:	ANSI/TIA-222-G	<b>©</b> 2001	7 - 2018 by ATC	IP LLC. All rights reserved.
Site Name: New Fairfield, CT	Engineering Number:	OAA723223_C3_02			2/28/2018 1:59:51 PM
Customer: T-Mobile					
Seismic (Reduced DL) 315 deg M2	75.00	0.009	0.0012	0.0134	0.0134
Seismic (Reduced DL) 315 deg M2	87.50	0.012	0.0014	0.0159	0.0160
Seismic (Reduced DL) 315 deg M2	100.00	0.016	0.0017	0.0190	0.0190
Seismic (Reduced DL) 315 deg M2	112.50	0.020	0.0019	0.0217	0.0217
Seismic (Reduced DL) 315 deg M2	137.50	0.032	0.0025	0.0291	0.0291
Seismic (Reduced DL) 315 deg M2	150.00		0.0028	0.0325	0.0325
Seismic (Reduced DL) 315 deg M2	160.17		0.0031	0.0355	0.0355
Seismic (Reduced DL) 315 deg M2	170.33	0.051 (	0.0033	0.0371	0.0372
Seismic (Reduced DL) 315 deg M2	187.50		0.0034	0.0391	0.0391
Serviceability - 60 mph Wind Normal	50.00		0.0241	0.0223	0.0328
Serviceability - 60 mph Wind Normal	75.00		0.0373	0.0306	0.0482
Serviceability - 60 mph Wind Normal	87.50		0.0509	0.0307	0.0594
Serviceability - 60 mph Wind Normal	100.00		0.0664	0.0320	0.0737
Serviceability - 60 mph Wind Normal Serviceability - 60 mph Wind Normal	112.50		0.0814	0.0537	0.0975
	137.50		0.1082	0.0476	0.1182
Serviceability - 60 mph Wind Normal Serviceability - 60 mph Wind Normal	150.00		0.1252	0.0603	0.1390
Serviceability - 60 mph Wind Normal	160.17		0.1473	0.0480	0.1549
Serviceability - 60 mph Wind Normal	170.33 187.50		D.1693	0.0762	0.1856
Serviceability - 60 mph Wind 45 deg			D.2121	0.1795	0.2778
Serviceability - 60 mph Wind 45 deg	50.00 75.00		D.0391	0.0226	0.0451
Serviceability - 60 mph Wind 45 deg	87.50		D.0598	0.0277	0.0659
Serviceability - 60 mph Wind 45 deg	100.00		D.0809	0.0293	0.0860
Serviceability - 60 mph Wind 45 deg	112.50		D.1051	0.0332	0.1102
Serviceability - 60 mph Wind 45 deg	137.50		D.1284 D.1710	0.0412 0.0459	0.1347 0.1770
Serviceability - 60 mph Wind 45 deg	150.00		D.1974		
Serviceability - 60 mph Wind 45 deg	160.17		).2314	0.0508 0.0496	0.2038 0.2366
Serviceability - 60 mph Wind 45 deg	170.33		).264 <del>6</del>	0.0594	0.2712
Serviceability - 60 mph Wind 45 deg	187.50		0.3278	0.0334	0.3451
Serviceability - 60 mph Wind 90 deg	50.00		0.0267	0.0205	0.0337
Serviceability - 60 mph Wind 90 deg	75.00		).0404	0.0205	0.0454
Serviceability - 60 mph Wind 90 deg	87.50		0.0542	0.0236	0.0591
Serviceability - 60 mph Wind 90 deg	100.00	+	0.0702	0.0306	0.0765
Serviceability - 60 mph Wind 90 deg	112.50		0.0856	0.0136	0.0867
Serviceability - 60 mph Wind 90 deg	137.50		).1133	0.0358	0.1188
Serviceability - 60 mph Wind 90 deg	150.00	0.066 0	0.1305	0.0257	0.1331
Serviceability - 60 mph Wind 90 deg	160.17	0.074 -0	0.1528	0.0436	0.1589
Serviceability - 60 mph Wind 90 deg	170.33	0.082 0	0.1749	0.0142	0.1755
Serviceability - 60 mph Wind 90 deg	187.50	0.095 -0	).2178	0.0916	0.2361
Serviceability - 60 mph Wind 135 deg	50.00	0.012 0	).0385	0.0226	0.0451
Serviceability - 60 mph Wind 135 deg	75.00	0.023 0	).0589	0.0277	0.0659
Serviceability - 60 mph Wind 135 deg	87.50		0.0796	0.0293	0.0860
Serviceability - 60 mph Wind 135 deg	100.00	0.035 0	0.1034	0.0332	0.1102
Serviceability - 60 mph Wind 135 deg	112.50		).1263	0.0412	0.1347
Serviceability - 60 mph Wind 135 deg	137.50		0.1681	0.0459	0.1770
Serviceability - 60 mph Wind 135 deg	150.00		).1941	0.0508	0.2038
Serviceability - 60 mph Wind 135 deg	160.17		).2275	0.0496	0.2366
Serviceability - 60 mph Wind 135 deg	170.33		0.2601	0.0594	0.2712
Serviceability - 60 mph Wind 135 deg Serviceability - 60 mph Wind 180 deg	187.50		).3221	0.1725	0.3451
Serviceability - 60 mph Wind 180 deg	50.00		).0241	0.0223	0.0328
Serviceability - 60 mph Wind 180 deg	75.00		).0373	0.0306	0.0482
Serviceability - 60 mph Wind 180 deg	87.50		).0509	0.0307	0.0594
Serviceability - 60 mph Wind 180 deg	100.00 112.50		).0664	0.0320	0.0737
Serviceability - 60 mph Wind 180 deg	137.50		).0814 ).1082	0.0537	0.0975
Serviceability - 60 mph Wind 180 deg	150.00		1.1082	0.0476 0.0603	0.1182 0.1390
Serviceability - 60 mph Wind 180 deg	160.17		).1252 ).1473	0.0603	0.1390
Serviceability - 60 mph Wind 180 deg	170.33		).1693	0.0460	0.1856
Serviceability - 60 mph Wind 180 deg	187.50		).2121	0.0782	0.2778
Serviceability - 60 mph Wind 225 deg	50.00		.0391	0.0226	0.0451
Serviceability - 60 mph Wind 225 deg	75.00		.0598	0.0223	0.0659
Serviceability - 60 mph Wind 225 deg	87.50		.0809	0.0293	0.0860
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Site Number:	88014	Code:	ANSI/TIA-222-G	¢	2007 - 2018 by ATC	CIPLLC. All rights reserved.
Site Name:	New Fairfield, CT	Engineering Number:	OAA723223_C3_02	2		2/28/2018 1:59:51 PM
Customer:	T-Mobile					
Serviceability	- 60 mph Wind 225 deg	100.00	0.035	0.1051	0.0332	0.1102
Serviceability	- 60 mph Wind 225 deg	112.50	0.043	0.1284	0.0412	0.1347
Serviceability	- 60 mph Wind 225 deg	137.50	0.060	0.1710	0.0459	0.1770
Serviceability	- 60 mph Wind 225 deg	150.00	0.070	0.1974	0.0508	0.2038
Serviceability	- 60 mph Wind 225 deg	160.17	0.078	0.2314	0.0496	0.2366
Serviceability	- 60 mph Wind 225 deg	170.33	0.086	0.2646	0.0594	0.2712
Serviceability	- 60 mph Wind 225 deg	187.50	0.101	0.3278	0.1725	0.3451
Serviceability	- 60 mph Wind 270 deg	50.00	0.011	0.0267	0.0205	0.0337
Serviceability	- 60 mph Wind 270 deg	75.00	0.022	0.0404	0.0205	0.0454
Serviceability	- 60 mph Wind 270 deg	87.50	0.027	0.0542	0.0236	0.0591
Serviceability	- 60 mph Wind 270 deg	100.00	0.034	0.0702	0.0306	0.0765
Serviceability	- 60 mph Wind 270 deg	112.50	0.041	0.0856	0.0136	0.0867
Serviceability	- 60 mph Wind 270 deg	137.50	0.057	0.1133	0.0358	0.1188
Serviceability	- 60 mph Wind 270 deg	150.00	0.066	0.1305	0.0257	0.1331
Serviceability	- 60 mph Wind 270 deg	160.17	0.074	0.1528	0.0436	0.1589
Serviceability	- 60 mph Wind 270 deg	170.33	0.082	0.1749	0.0142	0.1755
Serviceability	- 60 mph Wind 270 deg	187.50	0.095	0.2178	0.0916	0.2361
Serviceability	- 60 mph Wind 315 deg	50.00	0.012	0.0385	0.0226	0.0451
Serviceability	- 60 mph Wind 315 deg	75.00	0.023	0.0589	0.0277	0.0659
Serviceability	- 60 mph Wind 315 deg	87.50	0.029	0.0796	0.0293	0.0860
Serviceability	- 60 mph Wind 315 deg	100.00	0.035	0.1034	0.0332	0.1102
Serviceability	- 60 mph Wind 315 deg	112.50	0.043	0.1263	0.0412	0.1347
Serviceability	- 60 mph Wind 315 deg	137.50	0.060	0.1681	0.0459	0.1770
Serviceability	- 60 mph Wind 315 deg	150.00	0.070	0.1941	0.0508	0.2038
Serviceability	- 60 mph Wind 315 deg	160.17	0.078	0.2275	0.0496	0.2366
Serviceability	- 60 mph Wind 315 deg	170.33	0.086	0.2601	0.0594	0.2712
Serviceability	- 60 mph Wind 315 deg	187.50	0.101	0.3221	0.1725	0.3451

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Site Name:	
Site Number:	
Engineering Number:	
Engineer:	
Date:	

New Fairfield, CT 88014 OAA723223 Aaron.Black 02/28/18

#### Foundation

#### **Design Loads (Factored)**

Compression/Leg:	209.01	k
Uplift/Leg:	152.91	k
Face Width @ Top of Pier (d1):	3.58	£4.
Face Width @ Bottom of Pier $(d_2)$ :	6.00	
Total Length of Pier (I):	6.50	ft
Height of Pedestal Above Ground (h):	0.63	ft
Width of Pad (W):	16.00	ft
Length of Pad (L):	16.00	ft
Thickness of Pad (t):	3.00	ft
Water Table Depth (w):	99.00	ft
Unit Weight of Concrete:	150.0	pcf
Unit Weight of Soil (Above Water Table):	120.0	pcf
Unit Weight of Soil (Below Water Table):	55.0	pcf
Friction Angle of Uplift (A):	22	•
Ultimate Compressive Bearing Pressure:	4500	psf
Ultimate Skin Friction:	0	psf

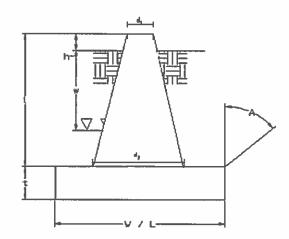
Volume Pier (Total):	152.40	ft <sup>3</sup>
Volume Pad (Total):	768.00	ft <sup>3</sup>
Volume Soil (Total):	1841.06	ft <sup>3</sup>
Volume Pier (Buoyant):	0.00	ft³
Volume Pad (Buoyant):	0.00	ft <sup>3</sup>
Volume Soil (Buoyant):	0.00	ft <sup>3</sup>
Weight Pier:	22.86	k
Weight Pad:	115.20	k
Weight Soil:	220.93	k
Ultimate Skin Friction:	0.00	k
Difference in Soil Volume	572.10	ft <sup>3</sup>
Difference in Soil Volume	84.83	ft³
Difference in Soil Weight:	78.83	k

#### Uplift Check

φs Uplift		
Resistance	Ratio	Result
269.24	0.57	ОК

#### **Axial Check**

φs Axial		
Resistance	Ratio	Result
864.00	0.24	OK





# RADIO FREQUENCY EMISSIONS ANALYSIS REPORT EVALUATION OF HUMAN EXPOSURE POTENTIAL TO NON-IONIZING EMISSIONS

**T-Mobile Existing Facility** 

Site ID: CT11106A

New Fairfield (AT&T) 16 Titicus Mountain Road New Fairfield, CT 06812

March 2, 2018

## EBI Project Number: 6218000557

Site Complian	ce Summary
Compliance Status:	COMPLIANT
Site total MPE% of	
FCC general	8.680%
population	0.00070
allowable limit:	



March 2, 2018

T-Mobile USA Attn: Jason Overbey, RF Manager 35 Griffin Road South Bloomfield, CT 06002

Emissions Analysis for Site: CT11106A – New Fairfield (AT&T)

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **16 Titicus Mountain Road, New Fairfield, CT**, for the purpose of determining whether the emissions from the Proposed T-Mobile 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 ( $\mu$ W/cm2). The number of  $\mu$ W/cm<sup>2</sup> 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.

<u>General population/uncontrolled exposure</u> 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 ( $\mu$ W/cm<sup>2</sup>). The general population exposure limit for the 700 MHz Band is approximately 467  $\mu$ W/cm<sup>2</sup>, and the general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 10 GHz microwave bands is 1000  $\mu$ W/cm<sup>2</sup>. 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.



<u>Occupational/controlled exposure</u> 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 their exposure and can exercise control over the potential for exposure and can exercise 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 done for the proposed T-Mobile Wireless antenna facility located at **16 Titicus Mountain Road, New Fairfield, CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-Mobile is proposing highly focused directional panel and microwave 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 for panel antennas and 20 dB for parabolic microwave antennas, 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.

For all calculations, all equipment was calculated using the following assumptions:

- 1) 2 GSM channels (PCS Band 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 2) 2 UMTS channels (PCS Band 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 3) 2 UMTS channels (AWS Band 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 4) 2 LTE channels (PCS Band 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.
- 5) 2 LTE channels (AWS Band 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel
- 6) 1 LTE channel (700 MHz Band) was considered for each sector of the proposed installation. This channel has a transmit power of 30 Watts.



- 7) 1 microwave backhaul channel (10 GHz) was considered for the microwave Link. This channel has a transmit power of 0.63 Watts.
- 8) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. 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. This is rarely the case, and if so, is never continuous.
- 9) For the following calculations, the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB for panel antennas and 20 dB for parabolic microwave antennas, was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 10) The antennas used in this modeling are the Ericsson AIR21 B4A/B2P for 1900 MHz (PCS) and 2100 MHz (AWS) channels, the Commscope LNX-6515DS-A1M for 700 MHz channels and the RFS SC2-W100AB for 10 GHz microwave backhaul. This is based on feedback from the carrier with regards to anticipated antenna selection. The Ericsson AIR21 B4A/B2P has a maximum gain of 15.9 dBd at its main lobe at 1900 MHz and 2100 MHz. The Commscope LNX-6515DS-A1M has a maximum gain of 14.6 dBd at its main lobe at 700 MHz. the RFS SC2-W100AB antenna has a maximum gain of 31.65 dBd at 10 GHz. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB for panel antennas and 20 dB for parabolic microwave antennas, 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.
- 11) The antenna mounting height centerlines of the proposed antennas are **193 feet & 191 feet** above ground level (AGL) for all standard panel antennas and **193 feet** above ground level for the proposed 10 GHz parabolic microwave antenna.
- 12) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.
- 13) All calculations were done with respect to uncontrolled / general population threshold limits.



### **T-Mobile Site Inventory and Power Data**

			-		
Sector:	A	Sector:	В	Sector:	С
Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	Ericsson	Make / Model:	Ericsson	Make / Model:	Ericsson
~ .	AIR21 B4A/B2P		AIR21 B4A/B2P	~ .	AIR21 B4A/B2P
Gain:	15.9 dBd	Gain:	15.9 dBd	Gain:	15.9 dBd
Height (AGL):	193	Height (AGL):	193	Height (AGL):	193
Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)
Channel Count	2	Channel Count	2	Channel Count	2
Total TX	120	Total TX	120	Total TX	120
Power(W):	120	Power(W):	120	Power(W):	-
ERP (W):	4,668.54	ERP (W):	4,668.54	ERP (W):	4,668.54
Antenna A1 MPE%	0.480	Antenna B1 MPE%	0.480	Antenna C1 MPE%	0.480
Antenna #:	2	Antenna #:	2	Antenna #:	2
Make / Model:	Ericsson AIR21 B4A/B2P	Make / Model:	Ericsson AIR21 B4A/B2P	Make / Model:	Ericsson AIR21 B4A/B2P
Gain:	15.9 dBd	Gain:	15.9 dBd	Gain:	15.9 dBd
Height (AGL):	193	Height (AGL):	193	Height (AGL):	193
	1900 MHz (PCS) /		1900 MHz (PCS) /		1900 MHz (PCS) /
Frequency Bands	2100 MHz (AWS)	Frequency Bands	2100 MHz (AWS)	Frequency Bands	2100 MHz (AWS)
Channel Count	6	Channel Count	6	Channel Count	6
Total TX	180	Total TX	180	Total TX	180
Power(W):		Power(W):		Power(W):	
ERP (W):	7,002.81	ERP (W):	7,002.81	ERP (W):	7,002.81
Antenna A2 MPE%	0.720	Antenna B2 MPE%	0.720	Antenna C2 MPE%	0.720
Antenna #:	3	Antenna #:	3	Antenna #:	3
Make / Model:	Commscope LNX-6515DS-A1M	Make / Model:	Commscope LNX-6515DS-A1M	Make / Model:	Commscope LNX-6515DS-A1M
Gain:	14.6 dBd	Gain:	14.6 dBd	Gain:	14.6 dBd
Height (AGL):	191	Height (AGL):	191	Height (AGL):	191
Frequency Bands	700 MHz	Frequency Bands	700 MHz	Frequency Bands	700 MHz
Channel Count	1	Channel Count	1	Channel Count	1
Total TX	30	Total TX	30	Total TX	30
Power(W):		Power(W):		Power(W):	
ERP (W):	865.21	ERP (W):	865.21	ERP (W):	865.21
Antenna A3 MPE%	0.195	Antenna B3 MPE%	0.195	Antenna C3 MPE%	0.195
Antenna #:	4 (Microwave)				
Make / Model:	RFS SC2-W100AB				
Gain:	31.65 dBd				
Height (AGL):	193				
Frequency Bands	10.0 GHz				
Channel Count	1				
Total TX Power(W):	0.63				
ERP (W):	1083.2 W				
Antenna A4 MPE%	0.114				
7 intenna 744 ivil 1270	0.117				



Site Composite M	PE%
Carrier	MPE%
T-Mobile (Sector A)	1.510%
Sprint	0.580%
Clearwire	0.060%
Verizon Wireless	3.290%
AT&T	1.800%
Dept Homeland Security - ICE	1.440%
Site Total MPE %:	8.68%

T-Mobile Sector A Total:	1.510%
T-Mobile Sector B Total:	1.395%
T-Mobile Sector C Total:	1.395%
Site Total:	8.68%

## **T-Mobile Per Sector Maximum Power Values**

T-Mobile _Max Values per sector (Sector A)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density (µW/cm <sup>2</sup> )	Frequency (MHz)	Allowable MPE (µW/cm²)	Calculated % MPE
T-Mobile AWS - 2100 MHz LTE	2	2,334.27	193	4.80	AWS - 2100 MHz	1000	0.480%
T-Mobile AWS - 2100 MHz UMTS	2	1,167.14	193	2.40	AWS - 2100 MHz	1000	0.240%
T-Mobile PCS - 1900 MHz UMTS	2	1,167.14	193	2.40	PCS - 1900 MHz	1000	0.240%
T-Mobile PCS - 1900 MHz GSM	2	1,167.14	193	2.40	PCS - 1900 MHz	1000	0.240%
T-Mobile 700 MHz LTE	1	865.21	191	0.91	700 MHz	467	0.195%
T-Mobile 10 GHz Microwave	1	10	193	0.25	5 GHz Microwave	1000	0.114%
						Total*:	1.510%

\*NOTE: Totals may vary by 0.01% due to summing of remainders



## **Summary**

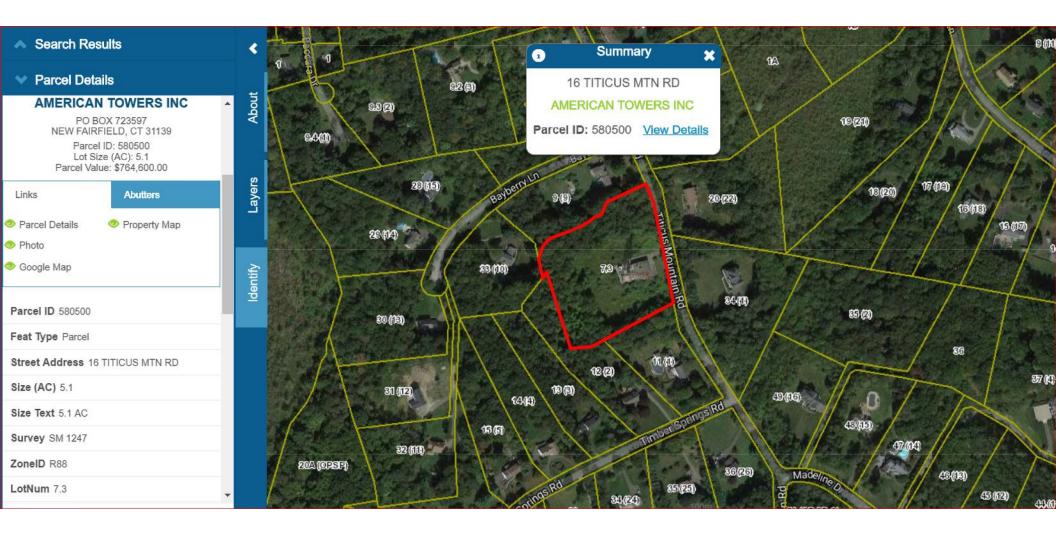
All calculations performed for this analysis yielded results that were **within** the allowable limits for general population exposure to RF Emissions.

The anticipated maximum composite contributions from the T-Mobile 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:

T-Mobile Sector	Power Density Value (%)
Sector A:	1.510%
Sector B:	1.395%
Sector C:	1.395%
T-Mobile Per Sector Maximum:	1.510%
Site Total:	8.680%
Site Compliance Status:	COMPLIANT

The anticipated composite MPE value for this site assuming all carriers present is **8.680%** 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.



Location	16 TITICUS MTN RD	Mblu	27/ 2/ 7.3/ /
Acct#	00580500	Owner	AMERICAN TOWERS INC
Assessment	\$764,600	Appraisal	\$1,092,300
PID	5837	<b>Building Count</b>	1

#### Assessing Distr...

#### **Current Value**

	Appraisal		
Valuation Year	Improvements	Land	Total
2016	\$835,100	\$257,200	\$1,092,300
	Assessment		
Valuation Year	Improvements	Land	Total
2016	\$584,60	0 \$180,00	\$764,600

#### **Owner of Record**

Owner	AMERICAN TOWERS INC	Sale Price	\$359,641
Co-Owner	C/O AMERICAN TOWER CORPORATION	Certificate	
Address	PO BOX 723597	Book & Page	301/ 274
	ATLANTA, GA 31139	Sale Date	02/17/2000

### **Ownership History**

	Owners	hip History		
Owner	Sale Price	Certificate	Book & Page	Sale Date
AMERICAN TOWERS INC	\$359,641		301/ 274	02/17/2000

#### **Building Information**

#### Building 1 : Section 1

Year Built:	1967	,
Living Area:	3,24	9
Replacement Cost:	\$332	2,990
Building Percent	38	
Good:		
Replacement Cost		
Less Depreciation:	\$126	,500
В	uilding	Attributes
Field		Description
STYLE		Tower support
MODEL		Commercial
Grade		с
Stories:		1
Occupancy		1
Exterior Wall 1		Concr/Cinder
Exterior Wall 2		

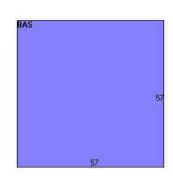
#### **Building Photo**



(http://images.vgsi.com/photos/NewFairfieldCTPhotos//\00\00\12

Roof Structure	Flat
Roof Cover	Tar & Gravel
Interior Wall 1	Minim/Masonry
Interior Wall 2	
Interior Floor 1	Concr-Finished
Interior Floor 2	
Heating Fuel	Typical
Heating Type	None
АС Туре	Central
Bldg Use	Pub. Utility
1st Floor Use:	504
Heat/AC	HEAT/AC SPLIT
Frame Type	MASONRY
Baths/Plumbing	AVERAGE
Ceiling/Wall	SUSP-CEIL ONLY
Rooms/Prtns	AVERAGE
Wall Height	14
% Comn Wall	

#### **Building Layout**



	Building Sub-Areas	(sq ft)	<u>Legend</u>
Code	Description	Gross Area	Living Area
BAS	First Floor	3,249	3,249
		3,249	3,249

•

#### **Extra Features**

Extra Features	Legend
No Data for Extra Features	

#### Land

Land Use		Land Line Valua	tion
Use Code	400	Size (Acres)	5.1
Description	Pub. Utility	Depth	
Zone	2	Assessed Value	\$180,000
Neighborhood	D	Appraised Value	\$257,200
Alt Land Appr	No		
Category			

### Outbuildings

		0	outbuildings			<u>Legend</u>
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
PAV1	PAVING-ASPHALT			3200 S.F.	\$1,700	1
SHD1	Shed			100 S.F.	\$1,300	1
CELL	Cell Tenant			4 UNITS	\$705,600	1

### Valuation History

	Appraisal		
Valuation Year	Improvements	Land	Total
2017	\$835,100	\$257,200	\$1,092,300
2016	\$835,100	\$257,200	\$1,092,300
2014	\$835,100	\$257,200	\$1,092,300

Valuation Year Improvements Land Tota	al

2017	\$584,600	\$180,000	\$764,600
2016	\$584,600	\$180,000	\$764,600
2014	\$584,600	\$180,000	\$764,600

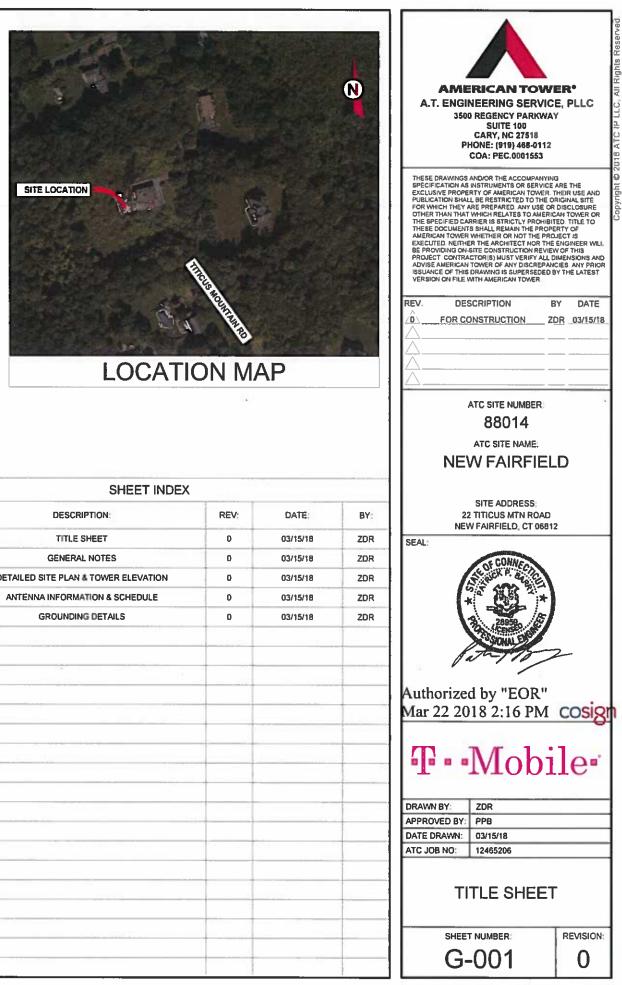
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# **AMERICAN TOWER®**

ATC SITE NAME: NEW FAIRFIELD ATC SITE NUMBER: 88014 T-MOBILE SITE ID: CT11106A SITE ADDRESS: 22 TITICUS MTN ROAD NEW FAIRFIELD, CT 06812



# **T-MOBILE MICROWAVE ADD**

COMPLIANCE CODE	PROJECT SUMMARY	PROJECT DESCRIPTION		SHEET INDEX	
ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE	SITE ADDRESS:	THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW:	SHEET NO:	DESCRIPTION	REV:
FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNMENT AUTHORITIES, NOTHING IN THESE PLANS IS	22 TITICUS MTN ROAD NEW FAIRFIELD, CT 06812	INSTALL (1) MICROWAVE DISH AND (1) 1/4" COAX CABLE.	G-001	TITLE SHEET	0
TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES	COUNTY: FAIRFIELD		G-002	GENERAL NOTES	0
	GEOGRAPHIC COORDINATES:	EXISTING (9) PANELS, (6) TTAs, AND (12) 1-5/8" COAX CABLES TO REMAIN	C-101	DETAILED SITE PLAN & TOWER ELEVATION	O
1. INTERNATIONAL BUILDING CODE (IBC)	LATITUDE: 41.45055	PROJECT NOTES	C-501	ANTENNA INFORMATION & SCHEDULE	0
2. NATIONAL ELECTRIC CODE (NEC)	LONGITUDE: -73.51598 GROUND ELEVATION: 890 ' AMSL	PROJECT NOTES	E-501	GROUNDING DETAILS	D
3. LOCAL BUILDING CODE	GROUND ELEVATION 650 AMSL	1. THE FACILITY IS UNMANNED.			
4. CITY/COUNTY ORDINANCES		2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE.			
	22	3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE.			
		4. NO SANITARY SEWER, POTABLE WATER OR TRASH			
UTILITY COMPANIES	PROJECT TEAM	DISPOSAL IS REQUIRED. 5. HANDICAP ACCESS IS NOT REQUIRED.			
POWER COMPANY: EVERSOURCE PHONE: (877) 659-6326	TOWER OWNER: APPLICANT:				
TELEPHONE COMPANY: FRONTIER COMMUNICATIONS	AMERICAN TOWER T-MOBILE 10 PRESIDENTIAL WAY 15 COMMERCE WAY, SUITE B WOBURN, MA 01801 NORTON, MA 02766	ESIDENTIAL WAY 15 COMMERCE WAY, SUITE B			
PHONE: (800) 376-6843	ENGINEER: CARRIER CONTACT:				_
	A.T. ENGINEERING SERVICE, PLLC 3500 REGENCY PKWY STE 100 RICH BANCROFT	PROJECT LOCATION DIRECTIONS			
	CARY, NC 27518 (617) 586-6776				
000	PROPERTY OWNER:				
	AMERICAN TOWER 116 HUNTINGTON AVE BOSTON. MA 02116	FROM DANBURY, CT: TAKE I-84 TO EXIT 5. TURN LEFT ONTO RT 39 AND PROCEED 5.3			
		MILES TO GILLOTTI RD. TURN RIGHT ONTO GILLOTTI RD AND PROCEED 0.3 MILES TO TITTICUS RD. TURN RIGHT ONTO			
Know what's below.		TITTICUS RD. PROCEED 0.3 MILES TO SITE ON RIGHT.			
Call before you dig.					

#### GENERAL CONSTRUCTION NOTES:

- ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC MASTER SPECIFICATIONS.
- CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
- 3. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
- ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
- 5. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
- DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
- THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- B. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
- CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
- INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE T-MOBILE WRELESS REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION, ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE T-MOBILE WRELESS REP PRIOR TO PROCEEDING.
- 11. EACH CONTRACTOR SHALL COOPERATE WITH THE T-MOBILE WIRELESS REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
- 12. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE T-MOBILE WIRELESS CONSTRUCTION MANAGER.
- 13. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
- WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE T-MOBILE WIRELESS REP IMMEDIATELY.
- 15. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
- 16. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
- CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH LANDLORD AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
- 18. CONTRACTOR SHALL FURNISH T-MOBILE WIRELESS WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
- 19. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH T-MOBILE WIRELESS REP TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED.
- 20. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH T-MOBILE WIRELESS REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY T-MOBILE WIRELESS MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
- 21. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH T-MOBILE WIRELESS SPECIFICATIONS AND REQUIREMENTS.
- 22. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO T-MOBILE WRELESS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
- ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO T-MOBILE WIRELESS SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
- 24. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
- CONTRACTOR SHALL NOTIFY T-MOBILE WIRELESS REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
- 25. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.

- 27. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD, ANY DAMAGE CAUSED BY NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPARED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
- 28. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE T-MOBILE WIRELESS REP. ANY WORK FOUND BY THE T-MOBILE WIRELESS REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
- 29. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURER'S AS SPECIFIED.

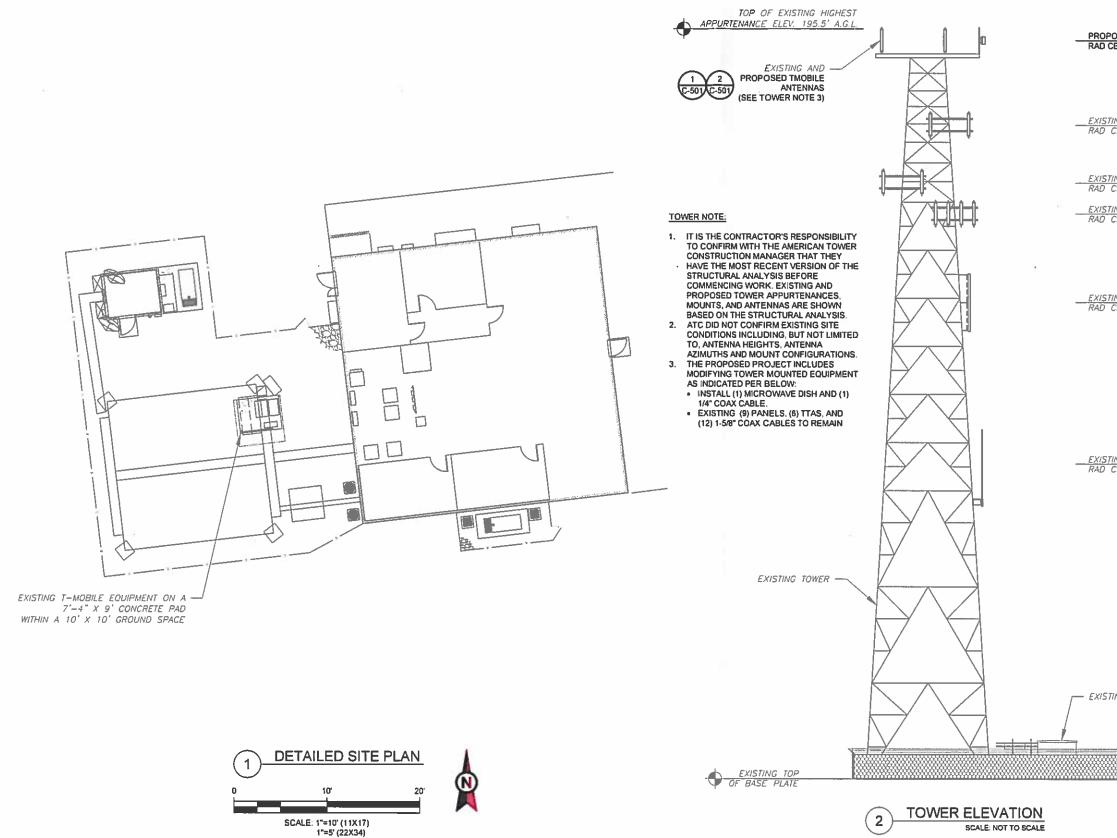
#### STRUCTURAL STEEL NOTES:

- STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS."
- 2. STRUCTURAL STEEL ROLLED SHAPES, PLATES AND BARS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS:
  - A. ASTM A-572, GRADE 50 ALL W SHAPES, UNLESS NOTED OR A992 OTHERWISE
  - B. ASTM A-36 ALL OTHER ROLLED SHAPES, PLATES AND BARS UNLESS NOTED OTHERWISE.
  - C. ASTM A-500, GRADE B HSS SECTION (SQUARE, RECTANGULAR, AND ROUND)
  - D. ASTM A-325, TYPE SC OR N ALL BOLTS FOR CONNECTING STRUCTURAL MEMBERS
  - E. ASTM F-1554 07 ALL ANCHOR BOLTS, UNLESS NOTED OTHERWISE
- ALL EXPOSED STRUCTURAL STEEL MEMBERS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123. EXPOSED STEEL HARDWARE AND ANCHOR BOLTS SHALL BE GALVANIZED PER ASTM A153 OR B695.
- ALL FIELD CUT SURFACES, FIELD DRILLED HOLES AND GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPARED WITH (2) BRUSHED COATS OF ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.
- 5. DO NOT DRILL HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.
- 6. CONNECTIONS
  - A. ALL WELDING TO BE PERFORMED BY AWS CERTIFIED WELDERS AND CONDUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1.
  - B. ALL WELDS SHALL BE INSPECTED VISUALLY. 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. REPAIR ALL WELDS AS NECESSARY.
  - C. INSPECTION SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
  - D. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE BURNINGAVELDING PERMITS AS REQUIRED BY LOCAL GOVERNING AUTHORITY AND IF REQUIRED SHALL HAVE FIRE DEPARTMENT DETAIL FOR ANY WELDING ACTIVITY.
  - E. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNLESS NOTED OTHERWISE.
  - F. MINIMUM WELD SIZE TO BE 0.1875 INCH FILLET WELDS, UNLESS NOTED OTHERWISE.
  - G. PRIOR TO FIELD WELDING GALVANIZING MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING ½" BEYOND ALL FIELD WELD SURFACES. AFTER WELD AND WELD INSPECTION IS COMPLETE, REPAIR ALL GROUND AND WELDED SURFACES WITH ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS RECOMMENDATIONS.

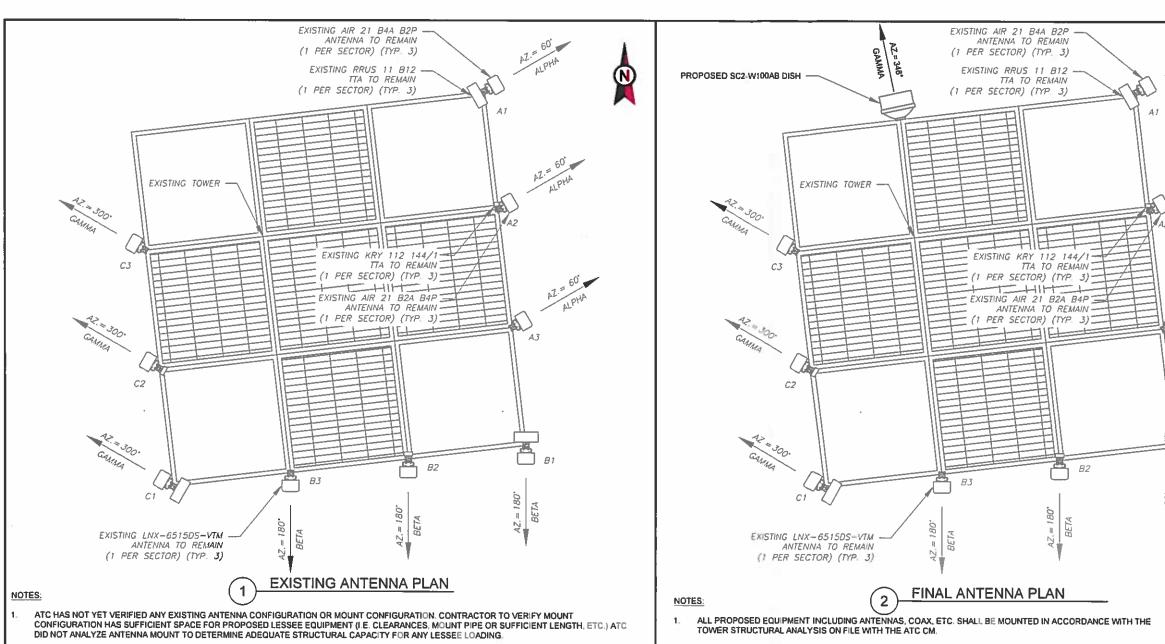


#### SITE PLAN NOTES:

- 1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.
- 2. ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE UTILIZING EXISTING CABLE SUPPORTS, COAX PORTS, INSTALLING NEW PORTS OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.
- 3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE T-MOBILE REPRESENTATIVE AND LOCAL UTILITY COMPANY FOR THE INSTALLATION OF CONDUITS, CONDUCTORS, BREAKERS, DISCONNECTS, OR ANY OTHER EQUIPMENT REQUIRED FOR ELECTRICAL SERVICE. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH LATEST EDITION OF THE STATE AND NATIONAL CODES, ORDINANCES AND REGULATIONS APPLICABLE TO THIS PROJECT.



	AMERICAN TOWER* A.T. ENGINEERING SERVICE, PLLC 3500 REGENCY PARKWAY SUITE 100 CARY, NC 27518 PHONE: (919) 468-0112 COA: PEC.0001553 THESE DRAWINGS AND/OR THE ACCOMPANYING SPECIFICATION AS INSTRUMENTS OR SERVICE ARE THE EXCLUSIVE PROPERTY OF AMERICAN TOWER THESE AND PUBLICATION SHALL BE RESTRUCTED TO THE ONGINAL SITE FOR WHICH THEY ARE PREPARED ANY USE OR DISCLOSURE OR OTHER THAN THAT WHICH RELATES TO AMERICAN TOWER OR
DSED ANTENNA ENTER @ 193' A.G.L.	THESE DRAWINGS AND/OR THE ACCOMPANYING SPECIFICATION AS INSTRUMENTS OR SERVICE ARE THE
NG <u>CARRIER ANTENNAS</u> EENTER © 170' A.G.L.	DISCHIGUENCE PROPERTY OF AMERICAN TOWER. THEIR USE AND PUBLICATION SHALL BE RESTRICTED TO THE ORGANAL SITE FOR WHICH THEY ARE PREPARED. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO AMERICAN TOWER OR THE SPECIFIED CARRIER IS STRUCTLY PROHIBITED. TITLE TO THESE DOCUMENTS SHALL REMAIN THE PROPERTY OF AMERICAN TOWER WHETHER OR NOT THE PROJECT IS EXECUTED. NEITHER THE ARCHITECT NOR THE ENGINEER WILL BE PROVIDING ON-SITE CONSTRUCTION REVIEW OF THIS PROJECT. CONTRACTOR(S) MUST VERIFY ALL DIMENSIONS AND AUSIE AMERICAN TOWER OF ANY DISCREPANCIES. ANY PROR ISSUANCE OF THIS DRAWING IS SUPERSEDED BY THE LATEST VERSION ON FILE WITH AMERICAN TOWER.
NG CARRIER ANTENNAS	REV. DESCRIPTION BY DATE
ENTER @ 155' A.G.L.	FOR CONSTRUCTION ZDR _03/15/18
NG CARRIER ANTENNAS TENTER © 147' A.G.L	
	ATC SITE NUMBER:
NG CARRIER ANTENNAS	88014
ENTER @ 124' A.G.L	ATC SITE NAME:
	NEW FAIRFIELD
	SITE ADDRESS: 22 TITICUS MTN ROAD NEW FAIRFIELD, CT 06812
NG CARRIER ANTENNAS ENTER © 82° A.G.L.	SEAL
	Authorized by "EOR" Mar 22 2018 2:16 PM cosign
	<b>T</b> ••Mobile•
	DRAWN BY: ZDR
NG SHELTER	APPROVED BY: PPB
NG SHELTER	
NG SHELTER	APPROVED BY: PPB DATE DRAWN: 03/15/18
NG SHELTER	APPROVED BY: PPB DATE DRAWN: 03/15/18 ATC JOB NO: 12465206 DETAILED SITE PLAN &



SECTOR	ANT.	MANUFACTURER (MODEL #)	RAD CENTER	AZIMUTH (TN)	MECH. D-TILT	ELEC. D-TILT	ADDITIONAL TOWER MOUNTED EQUIPMENT	ANTENNA COAX DESCRIPTION
ALPHA	AT	AIR 21 B4A B2P	193'-0"	60'	-	-	RRUS 11 B12	(2) 1-5/8"
ALPHA	A2	AIR 21 B2A B4 <b>P</b>	193'-0"	60*	-	-	KRY 112 144/1	(2) 1-5/8"
ALPHA	A3	LNX-6515DS-VT <b>M</b>	193'-0"	60*	_	-	(m)	-
BETA	B1	AIR 21 B4A B2 <b>P</b>	193'-0"	180*	-	-	RRUS 11 B12	(2) 1-5/8"
BETA	82	AIR 21 B2A B4 <b>P</b>	193'-0"	180*	-	-	KRY 112 144/1	(2) 1-5/8"
BETA	83	LNX-6515DS-VTM	193'-0"	180°	-	-		-
GAMMA	C1	AIR 21 B4A B2P	193'-0"	300°	-	-	RRUS 11 B12	(2) 1-5/8"
GA <b>M</b> MA	C2	AIR 21 B2A B4 <b>P</b>	193'-0"	300°	-	-	KRY 112 144/1	(2) 1-5/8"
GA <b>M</b> MA	С3	LNX-6515DS-VTM	193'-0"	300°	-	-	0 <del>8</del> 3	-
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FINAL ANTENNA/ COAX SCHEDULE AZIMUTH ADDITIONAL TO MECH. ELEC. SECTOR ANT. MANUFACTURER (MODEL #) RAD CENTER (TN) D-TILT D-TILT MOUNTED EQUIP AI ALPHA AIR 21 B4A B2P 193'--0" 60° -RRUS 11 B A2 ALPHA AIR 21 B2A B4P 193'-0" 60° KRY 112 144 \_ -----ALPHA A3 LNX-6515DS-VTM 193'-0" 60° \_ --BETA 81 AIR 21 B4A B2P 180\* 193'-0" -RRUS 11 BI ..... B2 BETA AIR 21 B2A B4P 193'-0" 180° --KRY 112 14-*B3* BETA LNX-6515DS-VTM 193'-0" 180\* ---C1 AIR 21 B4A B2P GAMMA 193'-0" 300\* --RRUS 11 B1 C2 AIR 21 B2A B4P GAMMA 300° KRY 112 144 193'-0" -\_ GAMMA C3 LNX-6515DS-VTM 193'-0" 300" --1 GAMMA C4 SC2-W100AB 193'-0" 348\* . --

1. BASED ON APPROVED ATC APPLICATION OAA723223, DATED 02-14-2018. CONFIRM WITH T-MOBILE REP FOR APPLICABLE L MOST RECENT RFDS

AZ ALP	<u>е</u> й <b>~</b>	AMERICAN TOWER® A.T. ENGINEERING SERVICE, PLLC 3500 REGENCY PARKWAY SUITE 100 CARY, NC 27518 PHONE: (919) 468-0112 COA: PEC.0001553				
2	ALPHA ALPHA ALPHA	THESE DRAWINGS AND/OR THE ACCOMPANYING SPECIFICATION AS INSTRUMENTS OR SERVICE ARE THE EXCLUSIVE PROPERTY OF AMERICAN TOWER. THEIR USE AND PUBLICATION SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH THEY ARE PREPARED ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO AMERICAN TOWER OR THE SPECIFIED CARRIER IS STRICTLY PROVIDED THIS EXECUTED NEITHER THE ARCHITECT TO THE PROJECT IS EXECUTED NEITHER THE ARCHITECT NOR THE ENGINEER WILL BE PROVIDING ON-SITE CONSTRUCTION REVIEW OF THIS PROJECT. CONTRACTOR(S) MUST VERIFY ALL DIMENSIONS AND ADVISE AMERICAN TOWER OF ANY DISCREPANCIES ANY PRIOR SUSAIL ANT OWNER OF ANY DISCREPANCIES ANY PRIOR ISSUANCE OF THIS DRAWING IS BUPERSEDED BY THE LATEST VERSION ON FILE WITH AMERICAN TOWER.				
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AJ		D     FOR CONSTRUCTION     ZDR     03/15/18       D				
	•	ATC SITE NUMBER:				
11		88014				
<b>-18</b> — в	1	ATC SITE NAME:				
1		NEW FAIRFIELD				
BETA		SITE ADDRESS: 22 TITICUS MTN ROAD NEW FAIRFIELD, CT 06812 SEAL:				
	····	SEAC				
WER	ANTENNA COAX	Authorized by "EOR"				
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C		APPROVED BY: PPB				
		DATE DRAWN: 03/15/18 ATC JOB NO: 12465206				
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	(2) 1-5/8" (2) 1-5/8"					
		ANTENNA INFORMATION				
12		ANTENNA INFORMATION & SCHEDULE				
/1	(2) 1~5/8" -					

