



ATC SITE NAME: HARGRAY BULL ST.
ATC SITE NUMBER: 370859
T-MOBILE SITE NAME: 8SV0766A
T-MOBILE SITE NUMBER: 8SV0766A
SITE ADDRESS: 1315 BULL STREET
SAVANNAH,GA 31415-0000
SITE CLASS: SELF SUPPORT



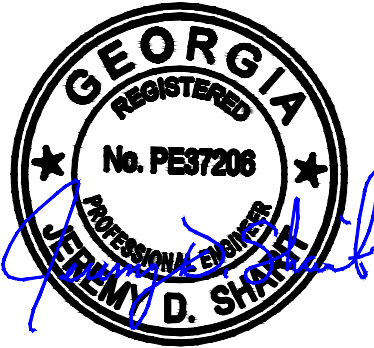
T-MOBILE 8SV0766A_L600 AMENDMENT PLAN
67E5A998E 6160 CONFIGURATION

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REV.	DESCRIPTION	BY	DATE
A	PRELIM	RA	05/14/25
0	FINAL	RA	05/27/25

ATC SITE NUMBER:
370859
ATC SITE NAME:
HARGRAY BULL ST.
T-MOBILE SITE NAME:
8SV0766A
SITE ADDRESS:
1315 BULL STREET
SAVANNAH,GA 31415-0000

SEAL:



05/27/2025



ATC PROJ. #:	15315416_G0
CUST. ID:	8SV0766A
CUST. #:	8SV0766A

TITLE SHEET

SHEET NUMBER:
G-001

REVISION:

0

GENERAL CONSTRUCTION NOTES:

1.

OWNER FURNISHED MATERIALS, T-MOBILE "THE COMPANY" WILL PROVIDE AND THE CONTRACTOR WILL INSTALL
- A.

BTS EQUIPMENT FRAME (PLATFORM) AND ICEBRIDGE SHELTER (GROUND BUILD/CO-LOCATE ONLY)
- B.

AC/TELCO INTERFACE BOX (PPC)
- C.

ICE BRIDGE (CABLE TRAY WITH COVER) (GROUND BUILD/CO-LOCATE ONLY, GC TO FURNISH AND INSTALL FOR ROOFTOP INSTALLATION)
- D.

TOWERS, MONOPOLES
- E.

TOWER LIGHTING
- F.

GENERATORS & LIQUID PROPANE TANK
- G.

ANTENNA STANDARD BRACKETS, FRAMES AND PIPES FOR MOUNTING
- H.

ANTENNAS (INSTALLED BY OTHERS)
- I.

TRANSMISSION LINE
- J.

TRANSMISSION LINE JUMPERS
- K.

TRANSMISSION LINE CONNECTORS WITH WEATHERPROOFING KITS
- L.

TRANSMISSION LINE GROUND KITS
- M.

HANGERS
- N.

HOISTING GRIPS
- O.

BTS EQUIPMENT
2.

THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL OTHER MATERIALS FOR THE COMPLETE INSTALLATION OF THE SITE INCLUDING, BUT NOT LIMITED TO, SUCH MATERIALS AS FENCING, STRUCTURAL STEEL SUPPORTING SUB-FRAME FOR PLATFORM, ROOFING LABOR AND MATERIALS, GROUNDING RINGS, GROUNDING WIRES, COPPER-CLAD OR XIT CHEMICAL GROUND ROD(S), BUSS BARS, TRANSFORMERS AND DISCONNECT SWITCHES WHERE APPLICABLE, TEMPORARY ELECTRICAL POWER, CONDUIT, LANDSCAPING COMPOUND STONE, CRANES, CORE DRILLING, SLEEPERS AND RUBBER MATTING, REBAR, CONCRETE CAISSONS, PADS AND/OR AUGER MOUNTS, MISCELLANEOUS FASTENERS, CABLE TRAYS, NON-STANDARD ANTENNA FRAMES AND ALL OTHER MATERIAL AND LABOR REQUIRED TO COMPLETE THE JOB ACCORDING TO THE DRAWINGS AND SPECIFICATIONS. IT IS THE POSITION OF T-MOBILE TO APPLY FOR PERMITTING AND CONTRACTOR RESPONSIBLE FOR PICKUP AND PAYMENT OF REQUIRED PERMITS.
3.

ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC CONSTRUCTION SPECIFICATIONS.
4.

CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
5.

CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
6.

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.
7.

DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
8.

DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
9.

THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10.

CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
11.

CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
12.

INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE T-MOBILE REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE T-MOBILE REP PRIOR TO PROCEEDING.
13.

EACH CONTRACTOR SHALL COOPERATE WITH THE T-MOBILE REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
14.

CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE T-MOBILE CONSTRUCTION MANAGER.
15.

ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
16.

WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE T-MOBILE REP AND ENGINEER OF RECORD IMMEDIATELY.
17.

CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
18.

CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
19.

CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH AMERICAN TOWER CORPORATION (ATC) AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
20.

CONTRACTOR SHALL FURNISH T-MOBILE AND AMERICAN TOWER CORPORATION (ATC) WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
21.

PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH T-MOBILE 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.

22.

PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH T-MOBILE REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY T-MOBILE MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
23.

CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH T-MOBILE SPECIFICATIONS AND REQUIREMENTS.
24.

CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO T-MOBILE FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
25.

ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO T-MOBILE SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
26.

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.
27.

CONTRACTOR SHALL NOTIFY T-MOBILE 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.
28.

WHEN THE PROJECT SCOPE REQUIRES THE USE OF THE SAFETY CLIMB, THE GENERAL CONTRACTOR SHALL ENSURE THE SAFETY CLIMB IS FREE OF OBSTRUCTIONS, NOT RUBBING ON OR TRAPPED BY ANY INSTALLED CUSTOMER EQUIPMENT, IS VISUALLY TAUT, MEETS MANUFACTURER INSTALLATION SPECIFICATIONS, AND IS FIRMLY SECURED AT ALL CABLE GUIDE LOCATIONS UPON PROJECT COMPLETION.
29.

COMPLETION OF PROJECT SHALL NOT OBSTRUCT, TRAP, LOOSEN, OR OTHERWISE CAUSE FAILURE TO MEET MANUFACTURER INSTALLATION REQUIREMENTS FOR THE SAFETY CLIMB.
30.

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.
31.

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 REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
32.

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 REP. ANY WORK FOUND BY THE T-MOBILE REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
33.

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 MANUFACTURERS AS SPECIFIED.
34.

T-MOBILE FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE T-MOBILE WAREHOUSE, NO LATER THAN 48HR AFTER BEING NOTIFIED INSURED, STORED, UNCRATE, PROTECTED AND INSTALLED BY THE CONTRACTOR WITH ALL APPURTENANCES REQUIRED TO PLACE THE EQUIPMENT IN OPERATION, READY FOR USE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EQUIPMENT AFTER PICKING IT UP.
35.

T-MOBILE OR HIS ARCHITECT/ENGINEER RESERVES THE RIGHT TO REJECT ANY EQUIPMENT OR MATERIALS WHICH, IN HIS OWN OPINION ARE NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS, EITHER BEFORE OR AFTER INSTALLATION AND THE EQUIPMENT SHALL BE REPLACED WITH EQUIPMENT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE CONTRACTOR AT NO COST TO T-MOBILE OR THEIR ARCHITECT/ENGINEER.

SPECIAL CONSTRUCTION

ANTENNA INSTALLATION NOTES:

1.

WORK INCLUDED:
- A.

ANTENNA AND COAXIAL/HYBRID CABLES ARE FURNISHED BY T-MOBILE UNDER A SEPARATE CONTRACT. THE CONTRACTOR SHALL ASSIST ANTENNA INSTALLATION CONTRACTOR IN TERMS OF COORDINATION AND SITE ACCESS. ERECTION SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONNEL.
- B.

INSTALL ANTENNAS AS INDICATED ON DRAWINGS AND T-MOBILE SPECIFICATIONS.
- C.

INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS.
- D.

INSTALL FURNISHED GALVANIZED STEEL OR ALUMINUM WAVEGUIDE.
- E.

INSTALL COAXIAL/HYBRID CABLES AND TERMINATING BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. WEATHERPROOF ALL CONNECTIONS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL/HYBRID CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.
2.

ANTENNA AND COAXIAL/HYBRID CABLE GROUNDING:
- A.

ALL EXTERIOR #6 GREEN GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH RFS CONNECTORS/SPICE WEATHERPROOFING KIT #221213 OR EQUAL.

- B.

ALL COAXIAL/HYBRID CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL/HYBRID CABLE (NOT WITHIN BENDS)

ALL DISCREPANCIES FROM WHAT IS SHOWN ON THESE CONSTRUCTION DRAWINGS SHALL BE COMMUNICATED TO ATC ENGINEERING IMMEDIATELY FOR CORRECTION OR RE-DESIGN. FAILURE TO COMMUNICATE DIRECTLY WITH ATC ENGINEERING OR ANY CHANGES FROM THE DESIGN CONDUCTED WITHOUT PRIOR APPROVAL FROM ATC ENGINEERING SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR.



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CUST. ID:	8SV0766A
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GENERAL NOTES

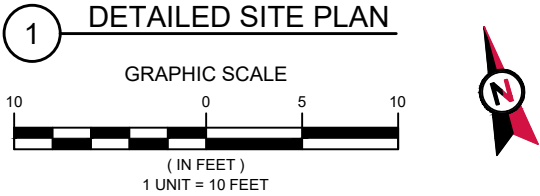
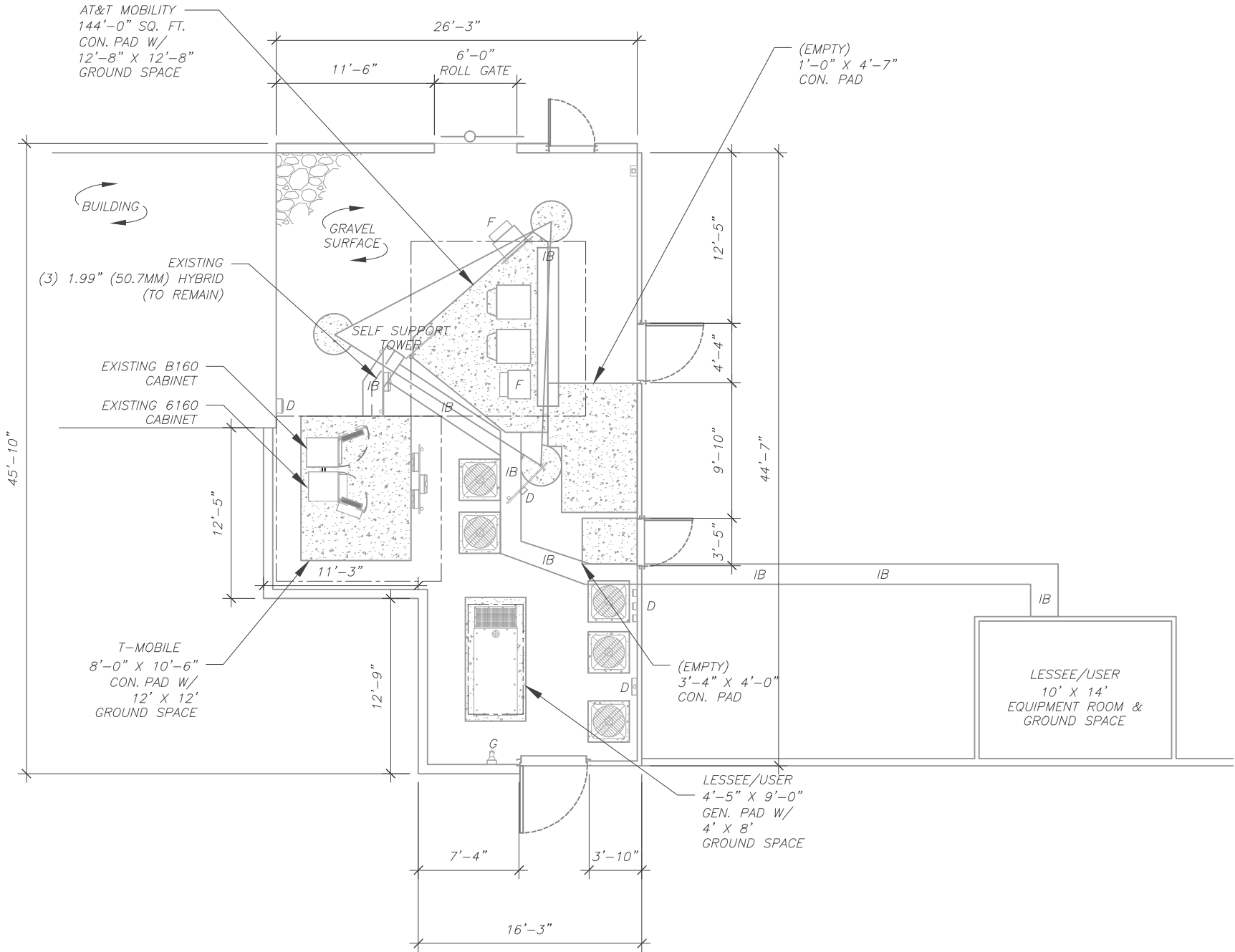
SHEET NUMBER: G-002	REVISION: 0
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SITE PLAN NOTES:

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. NO ELECTRICAL SCOPE IS INCLUDED IN THIS PROJECT.

LEGEND	
⊗	GROUNDING TEST WELL
ATS	AUTOMATIC TRANSFER SWITCH
B	BOLLARD
CSC	CELL SITE CABINET
D	DISCONNECT
E	ELECTRICAL
F	FIBER
GEN	GENERATOR
G	GENERATOR RECEPTACLE
HH, V	HAND HOLE, VAULT
IB	ICE BRIDGE
K	KENTROX BOX
LC	LIGHTING CONTROL
M	METER
PB	PULL BOX
PP	POWER POLE
T	TELCO
TRN	TRANSFORMER
—	CHAINLINK FENCE

- PROPOSED CABLE NOTES:**
1. ESTIMATED LENGTH OF PROPOSED CABLE IS **200'**. ESTIMATED LENGTH OF CABLE WAS PROVIDED BY CUSTOMER OR CALCULATED BY ADDING THE RAD CENTER AND THE DISTANCE FROM THE SHELTER ENTRY PLATE TO THE TOWER (ALONG THE ICE BRIDGE) AND A SAFETY FACTOR MEASUREMENT OF 15% (OF THE TWO PREVIOUS VALUES). CDS DEFER TO GREATEST CABLE LENGTH.
2. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. WHERE POSSIBLE UTILIZE EXISTING CABLE SUPPORT STRUCTURES AS PROVIDED FOR CARRIER TO ADEQUATELY SECURE CABLES, USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER. OTHERWISE, ATTACH CABLES TO HORIZONTAL OR DIAGONAL TOWER MEMBERS USING PROPOSED STAINLESS STEEL ADAPTERS (DO NOT ATTACH TO TOWER LEG).



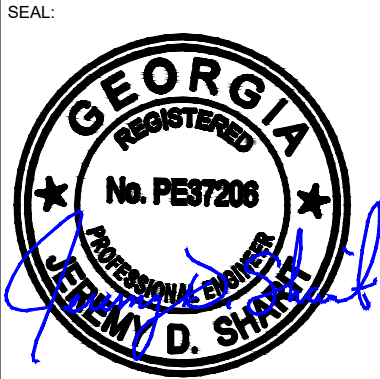
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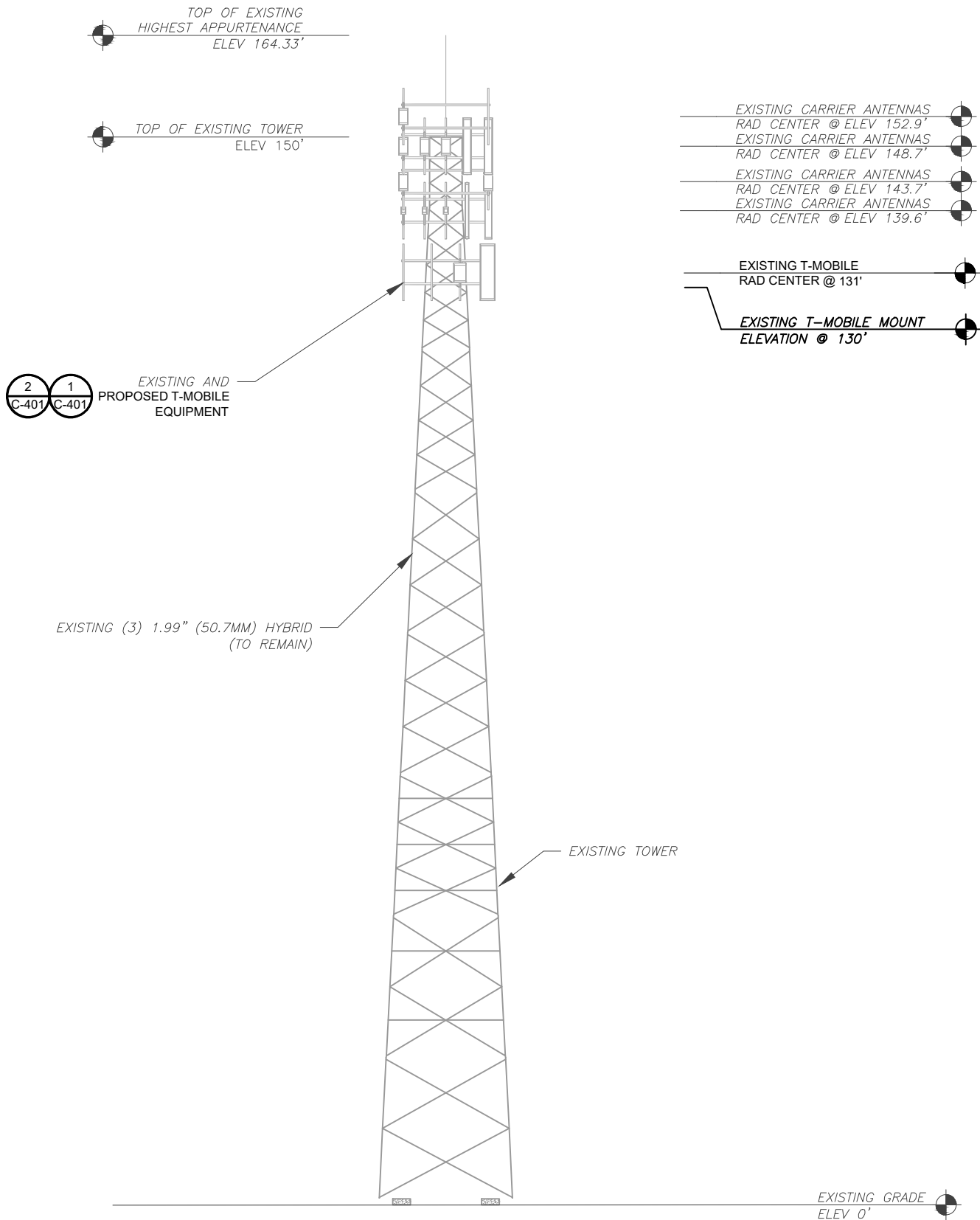
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DETAILED SITE PLAN

SHEET NUMBER:	REVISION:
C-101	0



1 TOWER ELEVATION
SCALE: N.T.S.

PER MOUNT ANALYSIS COMPLETED BY ATC, DATED 05/05/2025, THE EXISTING MOUNT CAN ADEQUATELY SUPPORT THE PROPOSED LOADING.

ALL ELEVATIONS REFLECT ABOVE GROUND LEVEL (A.G.L.)

- TOWER NOTE:
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE PROJECT MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS. WHERE APPLICABLE, ALL NEW ANTENNAS, EQUIPMENT, MOUNTS, CABLING, ETC. SHALL BE PAINTED/SOCKED TO MATCH EXISTING EQUIPMENT IN ACCORDANCE WITH FAA, JURISDICTION, AND/OR OTHER LOCAL REQUIREMENTS.
 - ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. WHERE POSSIBLE UTILIZE EXISTING CABLE SUPPORT STRUCTURES AS PROVIDED FOR CARRIER TO ADEQUATELY SECURE CABLES, USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER. OTHERWISE, ATTACH CABLES TO HORIZONTAL OR DIAGONAL TOWER MEMBERS USING PROPOSED STAINLESS STEEL ADAPTERS (DO NOT ATTACH TO TOWER LEG).
 - TOWER ELEVATION DEPICTION MAY NOT REFLECT ALL EQUIPMENT INCLUDED IN STRUCTURAL ANALYSIS. REFER TO STRUCTURAL ANALYSIS FOR FULL TOWER LOADING.



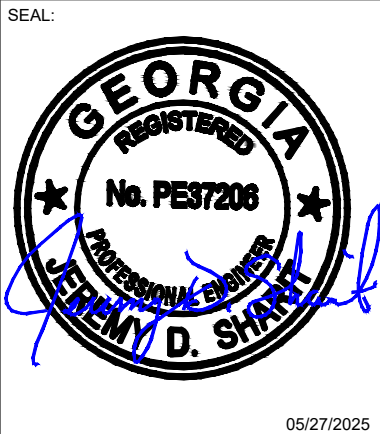
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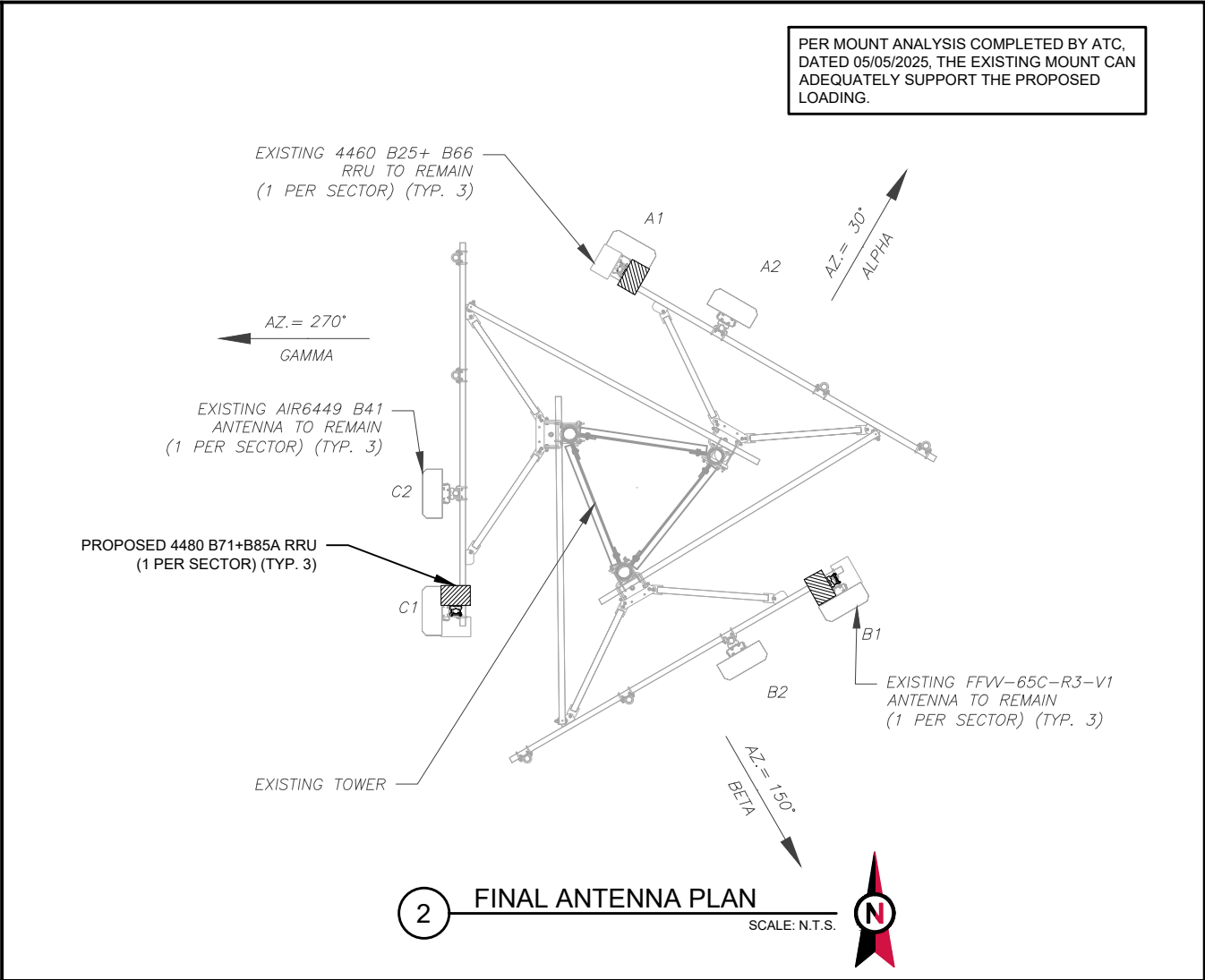
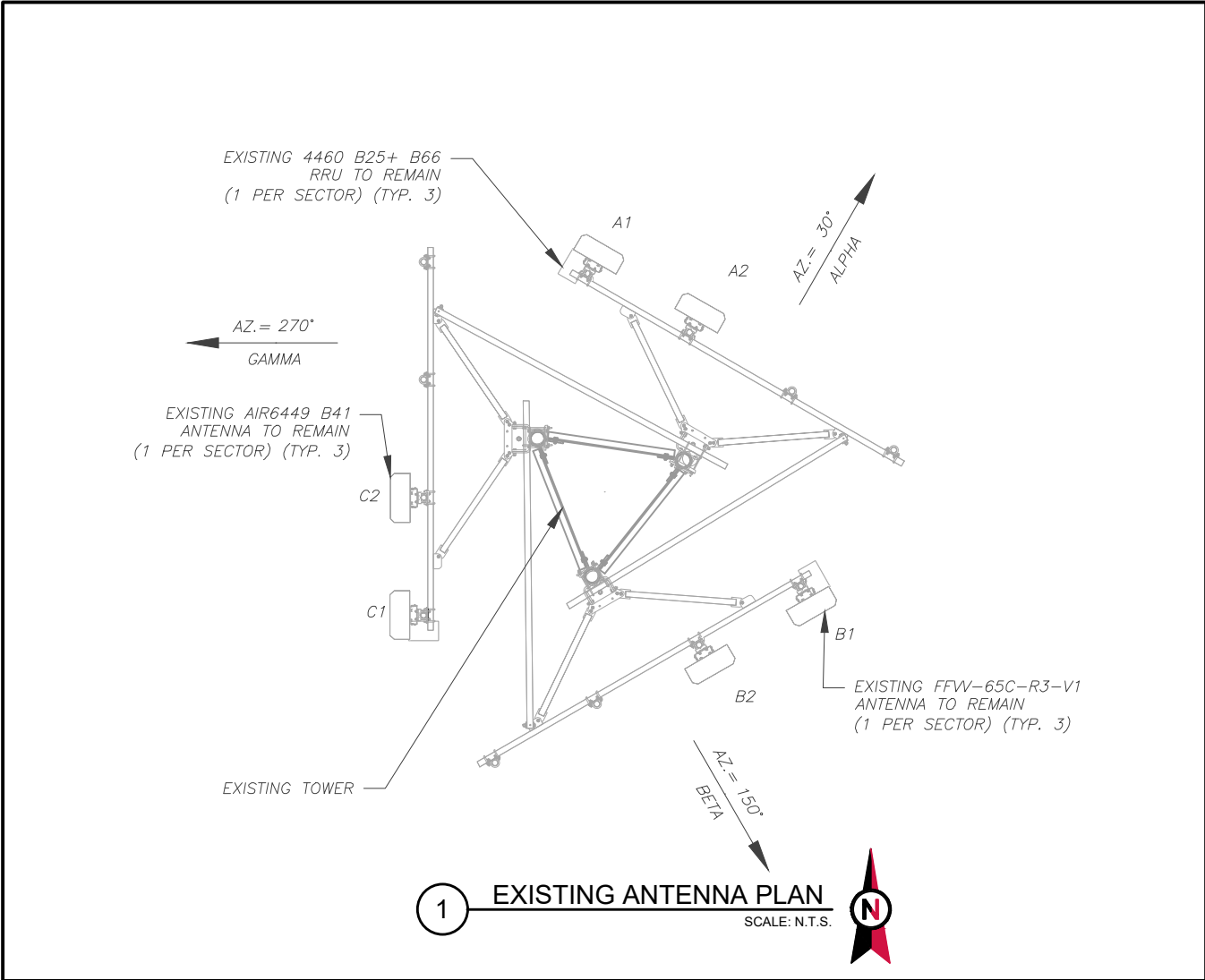
05/27/2025



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TOWER ELEVATION

SHEET NUMBER:	REVISION:
C-201	0



EXISTING ANTENNA SCHEDULE								
LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	MECH/ELEC D-TILT	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT
ALPHA	131'	30°	A1	FFV-65C-R3-V1	L1900,G1900,L2100,N1900	-	RMN	4460 B25+ B66
			A2	AIR6449 B41	N2500	-	RMN	-
BETA	131'	150°	B1	FFV-65C-R3-V1	L1900,G1900,L2100,N1900	-	RMN	4460 B25+ B66
			B2	AIR6449 B41	N2500	-	RMN	-
GAMMA	131'	270°	C1	FFV-65C-R3-V1	L1900,G1900,L2100,N1900	-	RMN	4460 B25+ B66
			C2	AIR6449 B41	N2500	-	RMN	-

- NOTES
1. GC TO VERIFY THE FINAL RFDS MATCHES THE FINAL CONSTRUCTION DRAWINGS. GC TO NOTIFY ATC PM OF ANY DISCREPANCY PRIOR TO INSTALLING THE EQUIPMENT.

2. GC TO CAP ALL UNUSED PORTS.

3. GC TO CONFIRM SPACING OF PROPOSED EQUIP DOES NOT CAUSE TOWER CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.
- STATUS ABBREVIATIONS
- RMV: TO BE REMOVED

RMN: TO REMAIN

REL: TO BE RELOCATED

ADD: TO BE ADDED

CABLE LENGTHS FOR JUMPERS

JUNCTION BOX TO RRU: 15'

RRU TO ANTENNA: 10'

FINAL ANTENNA SCHEDULE									
LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY		
SECTOR	RAD	AZ	POS	ANTENNA	BAND	MECH/ELEC D-TILT	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	131'	30°	A1	FFV-65C-R3-V1	L1900,G1900,L2100,N1900	-	RMN	4480 B71+B85A 4460 B25+ B66	ADD RMN
			A2	AIR6449 B41	N2500	-	RMN	-	-
BETA	131'	150°	B1	FFV-65C-R3-V1	L1900,G1900,L2100,N1900	-	RMN	4480 B71+B85A 4460 B25+ B66	ADD RMN
			B2	AIR6449 B41	N2500	-	RMN	-	-
GAMMA	131'	270°	C1	FFV-65C-R3-V1	L1900,G1900,L2100,N1900	-	RMN	4480 B71+B85A 4460 B25+ B66	ADD RMN
			C2	AIR6449 B41	N2500	-	RMN	-	-

EXISTING FIBER DISTRIBUTION / OVP BOX		EXISTING CABLING SUMMARY	
MODEL NUMBER	STATUS	CABLE QTY, SIZE, TYPE	STATUS
-	RMN	(3) 1.99" (50.7MM) HYBRID	RMN
-	RMV	----	RMV

3 EQUIPMENT SCHEDULES

FINAL FIBER DISTRIBUTION / OVP BOX		FINAL CABLING SUMMARY	
MODEL NUMBER	STATUS	CABLE QTY, SIZE, TYPE	STATUS
-	RMN	(3) 1.99" (50.7MM) HYBRID	RMN
-	ADD	----	ADD

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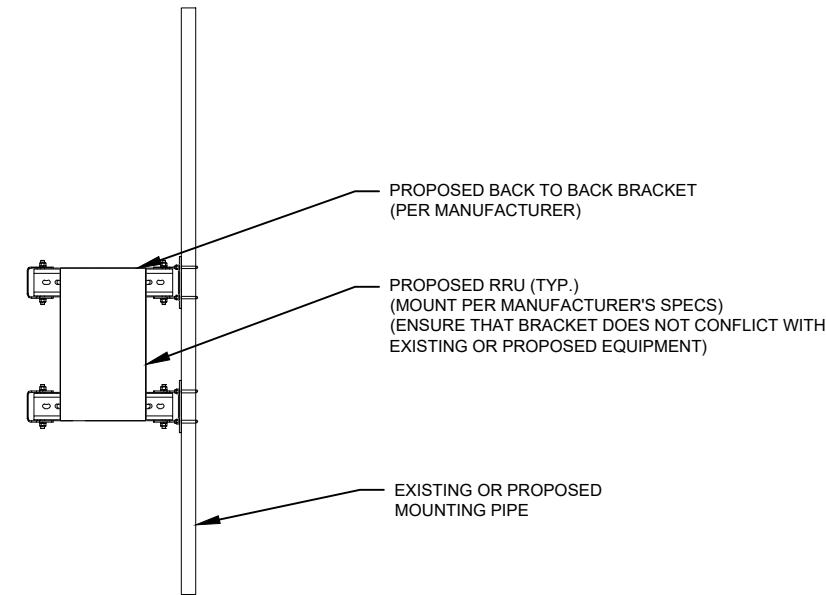
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ANTENNA INFORMATION & SCHEDULE

SHEET NUMBER:
C-401
REVISION:
0

EXISTING/PROPOSED MOUNTS AND/OR MOUNT MODIFICATIONS NOT SHOWN FOR CLARITY. REFER TO ANTENNA PLANS, MOUNT ANALYSES AND/OR MOUNT MODIFICATION DOCUMENTS FOR ADDITIONAL DETAIL.



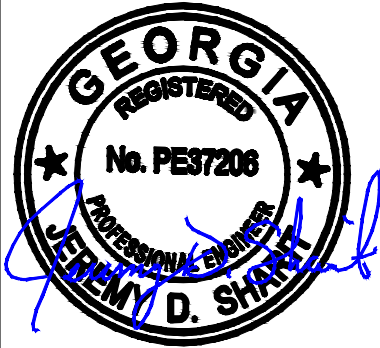
1 PROPOSED RRU MOUNTING DETAIL - TYPICAL
SCALE: N.T.S.



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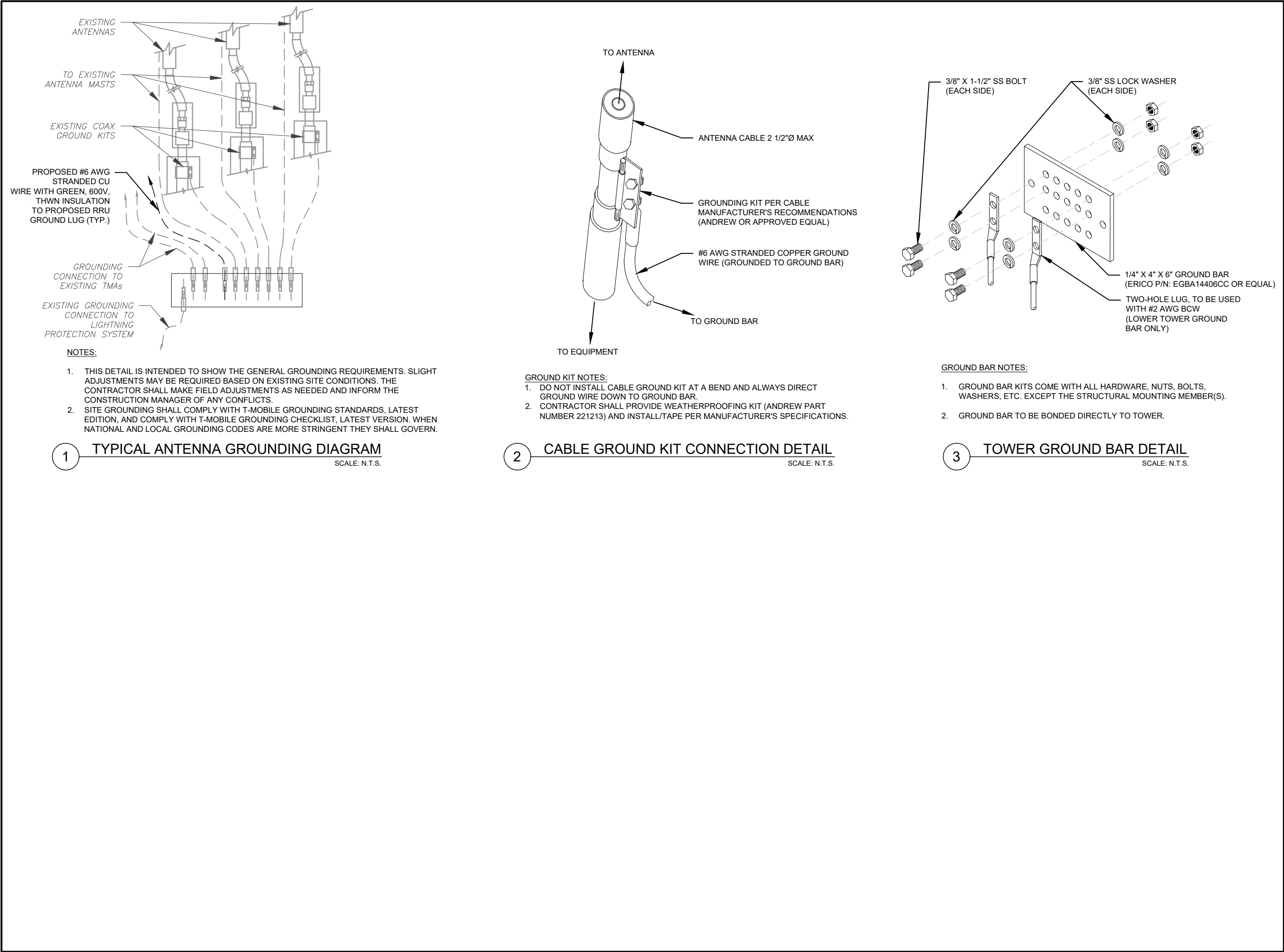
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CONSTRUCTION
DETAILS

SHEET NUMBER:	REVISION:
C-501	0



AMERICAN TOWER®

SMW
ENGINEERING GROUP, LLC
TOGETHER PLANNING A BETTER TOMORROW
158 BUSINESS CENTER DRIVE
BIRMINGHAM, AL 35244
TEL: 205-252-6965 www.smweng.com

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A	PRELIM	RA	05/14/25
0	FINAL	RA	05/27/25

ATC SITE NUMBER:
370859

ATC SITE NAME:
HARGRAY BULL ST.

T-MOBILE SITE NAME:
8SV0766A

SITE ADDRESS:
1315 BULL STREET
SAVANNAH,GA 31415-0000

SEAL:

05/27/2025

ATC PROJ. #:	15315416_G0
CUST. ID:	8SV0766A
CUST. #:	8SV0766A

GROUNDING DETAILS

SHEET NUMBER: E-501	REVISION: 0
-------------------------------	-----------------------

RAN Template: 67E5A998E 6160

A&L Template: 67E5998E_1xAIR+1OP

8SV0766A_L600_5_Scoping_Approved

PORs: 8SV0766A-0002485123 (POR0952997)

L600_Regional Capacity

Section 1 - Site Information

Site ID: 8SV0766A

Purpose: Scoping

Status: Approved

Version: 5

Project Type: L600

Approved:

Approved By:

Last Modified: 03/18/2025 8:49:28 AM

Last Modified By: Ernest.Shuman@T-Mobile.com

Site Name: Savanah 766

Site Class: Self Support Tower

Site Type: Structure Non Building

Plan Year:

Market: JACKSONVILLE FL

Vendor: Ericsson

Landlord: American Tower

Latitude: 32.062777

Longitude: -81.098339

Address: 1315 Bull Street

City, State: Savannah, GA

Region: SOUTH

RAN Template: 67E5A998E 6160

AL Template: 67E5998E_1xAIR+1OP

Sector Count: 3

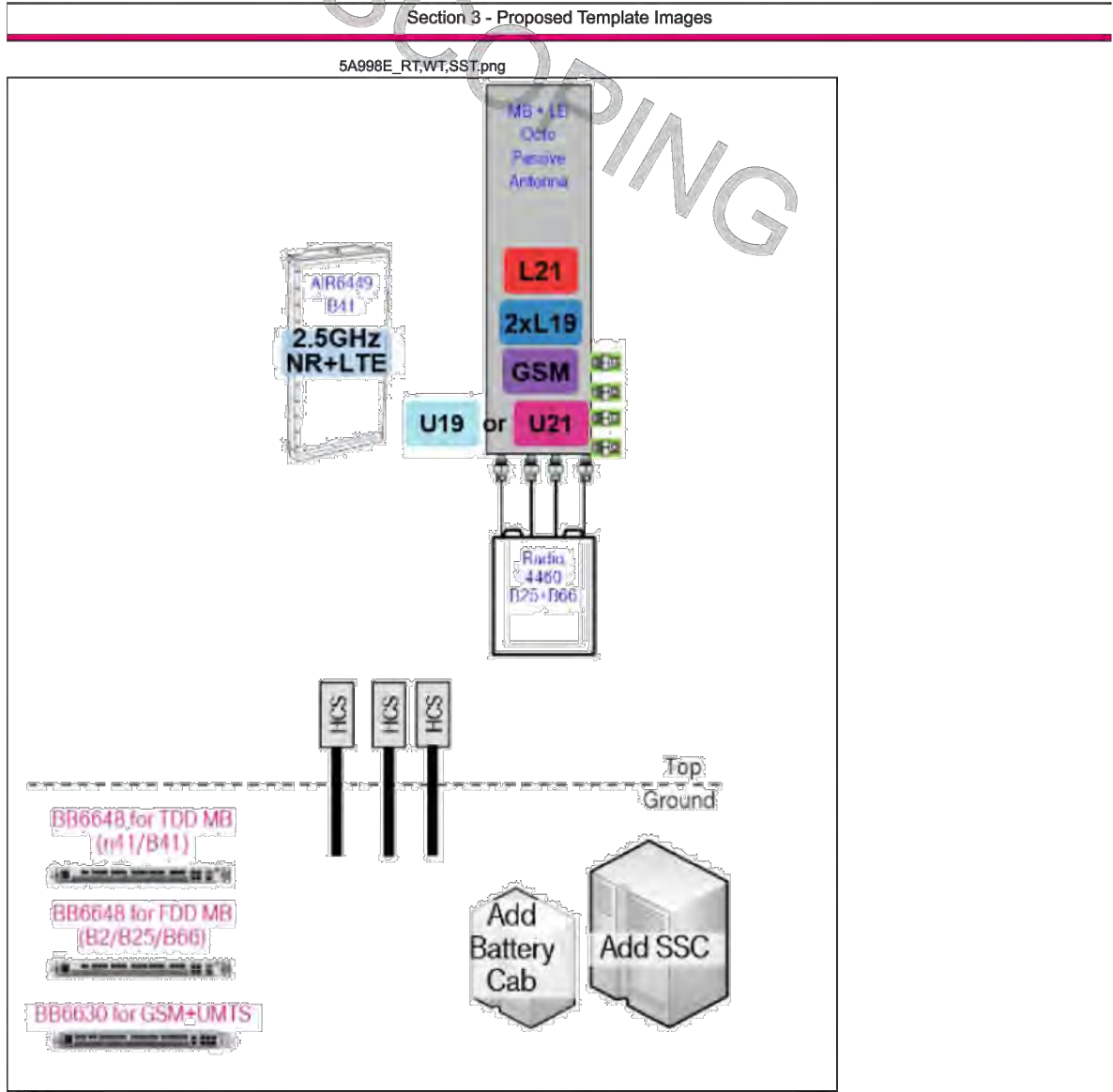
Antenna Count: 6

Coax Line Count: 0

TMA Count: 0

RRU Count: 6

Proposed RAN Equipment		
Template: 67E5A998E 6160		
Enclosure	1	2
Enclosure Type	Enclosure 6160 AC V1	B160
Baseband	BB 6630 U1900 (DECOMMISSIONED) G1900 BB 6648 N600 N1900 L700 L1900 L2100 BB 6648 N2500 L2500 (DARK)	
Transport System	CSR IXRe V2 (Gen2)	
Hybrid Cable System	Hybrid Trunk 6/24 4AWG 60m (x3) PSU 4813 vR2A (Kit)	
RAN Scope of Work:		



Sector 3 (Proposed) view from behind

Coverage Type	A - Outdoor Macro									
Antenna	1					2				
Antenna Model	FFVW-65C-R3-V1 (Octo)					AIR_8449_B41 (Active Antenna - Massive MIMO)				
Azimuth	270					270				
M. Tilt	0					0				
RAD Center (ft.)	131					131				
Ports	P1	P2	P3	P4	P5	P6				
Active Tech	N800 L700	N800 L700	L1900 L2100 G1900 N1900	L1900 L2100 G1900 N1900	N2500	N2500				
Dark Tech					L2500	L2500				
Restricted Tech										
Decomm. Tech			U1900	U1900						
E. Tilt										
Cables										
TMMs										
Diplexer / Combiners										
Radio	Radio 4490 B71+B85 (AI Antenna)	Radio 4490 B71+B85 (AI Antenna)	Radio 4490 B25+B66 (AI Antenna)	Radio 4490 B25+B66 (AI Antenna)						
Sector Equipment										
Unconnected Equipment:										
Scope of Work:										

*A dashed border indicates shared connected equipment. Any shared equipment, besides the first, is denoted with the SHARED keyword.

Sector 1 (Proposed) view from behind

Coverage Type	A - Outdoor Macro												
Antenna	1					2							
Antenna Model	FFVW-65C-R3-V1 (Octo)					AIR_8449_B41 (Active Antenna - Massive MIMO)							
Azimuth	30					30							
M. Tilt	0					0							
RAD Center (ft.)	131					131							
Ports	P1		P2		P3		P4		P5			P6	
Active Tech	N800 L700		N800 L700		L1900 G1900 N1900 L2100		L1900 G1900 N1900 L2100		N2500			N2500	
Dark Tech									L2500			L2500	
Restricted Tech													
Decomm. Tech					U1900		U1900						
E. Tilt													
Cables													
TMMs													
Diplexer / Combiners													
Radio	Radio 4490 B71+B85 (AI Antenna)		Radio 4490 B71+B85 (AI Antenna)		Radio 4490 B25+B66 (AI Antenna)		Radio 4490 B25+B66 (AI Antenna)						
Sector Equipment													
Unconnected Equipment:													
Scope of Work:													

*A dashed border indicates shared connected equipment. Any shared equipment, besides the first, is denoted with the SHARED keyword.

L800_Regional Capacity

Sector 2 (Proposed) view from behind

Coverage Type	A - Outdoor Macro													
Antenna	1					2								
Antenna Model	FFVW-65C-R3-V1 (Octo)					AIR_8449_B41 (Active Antenna - Massive MIMO)								
Azimuth	150					150								
M. Tilt	0					0								
RAD Center (ft.)	131					131								
Ports	P1		P2		P3	P4	P5		P6					
Active Tech	N800 L700	N800 L700	L2100 N1900 G1900 L1900	L2100 N1900 G1900 L1900	N2500	N2500								
Dark Tech					L2500	L2500								
Restricted Tech														
Decomm. Tech			U1900	U1900										
E. Tilt														
Cables														
TMMs														
Diplexer / Combiners														
Radio	Radio 4490 B71+B85 (AI Antenna)	Radio 4490 B71+B85 (AI Antenna)	Radio 4490 B25+B66 (AI Antenna)	Radio 4490 B25+B66 (AI Antenna)										
Sector Equipment														

Unconnected Equipment:

Scope of Work:

*A dashed border indicates shared connected equipment. Any shared equipment, besides the first, is denoted with the SHARED keyword.

NOTE: THIS SHEET CREATED BY OTHERS AND PROVIDED BY REQUEST OF CUSTOMER WITHOUT EDIT.

SUPPLEMENTAL

SHEET NUMBER:

R-602

REVISION:

0



This report was prepared for American Tower Corporation by



Eng. Number 15315416_C8_01
May 5, 2025
Page 3

Antenna Mount Analysis Report

Mount Type : 13.0 ft Sector Frame
ATC Asset Name : Hargray Bull St., GA
ATC Asset Number : 370859
Engineering Number : 15315416_C8_01
Mount Elevation : 130 ft
Carrier : T-Mobile
Carrier Site Name : Savannah 766
Carrier Site Number : 8SV0766A
Site Location : 1315 Bull Street
Savannah, GA 31415-0000
32.0629, -81.0984
County : Chatham
Date : May 5, 2025
Max Usage : 71%
Result : Pass

Prepared By:
Dmitriy Albul
Professional Engineer

Reviewed By:



05-05-25
Expiration Date: 12-31-25

SMJ International, LLC - 49030 Pontiac Trail, Suite 100 - Wixom, MI 48393 – 616.745.4777 Office - info@smj-llc.com

SMJ International, LLC - 49030 Pontiac Trail, Suite 100 - Wixom, MI 48393 – 616.745.4777 Office - info@smj-llc.com

Introduction

The purpose of this report is to summarize the results of the antenna mount analysis performed for T-Mobile at 130 ft.

Supporting Documents

RFDS	RFDS (Ver. 5), dated March 18, 2025
Other	Preview Exhibit by American Tower Corporation, dated April 24, 2025
Photos	Site photos from 2023
Spec. Sheet	Spec Sheet for Sabre C10857001C, dated February 5, 2016

Analysis

This antenna mount was analyzed using RISA-3D v22 analysis software.

Basic Wind Speed:	135 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	31 mph (3-Second Gust) w/ 0.37" radial ice concurrent
Codes:	ANSI / TIA-222-I
Structure Class:	II
Exposure Category:	B
Topographic Procedure:	Method 1
Topographic Feature:	Flat
Crest Height:	0 ft
Crest Length:	0 ft
Spectral Response:	Ss = 0.45, S1 = 0.12
Site Class:	D - Stiff Soil - Default
Live Loads*:	Lm = 500 lbs, Lv = 250 lbs

*Live Load(s) reduction is confirmed to either not govern or not be applicable.

Conclusion

Based on the analysis results, the antenna mount meets the requirements per the applicable codes listed. The mount can support the equipment as described in this report.

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

NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT. PLEASE REFERENCE THE MOUNT ANALYSIS REPORT FOR COMPLETE MOUNT ANALYSIS CALCULATIONS AND DETAILS. SUPPLEMENTAL PAGES INCLUDED IN THE CONSTRUCTION DRAWINGS ARE FOR REFERENCE ONLY. GENERAL CONTRACTOR IS TO VERIFY THEY HAVE THE MOST RECENT MOUNT ANALYSIS PRIOR TO CONTRUCTION.

SUPPLEMENTAL

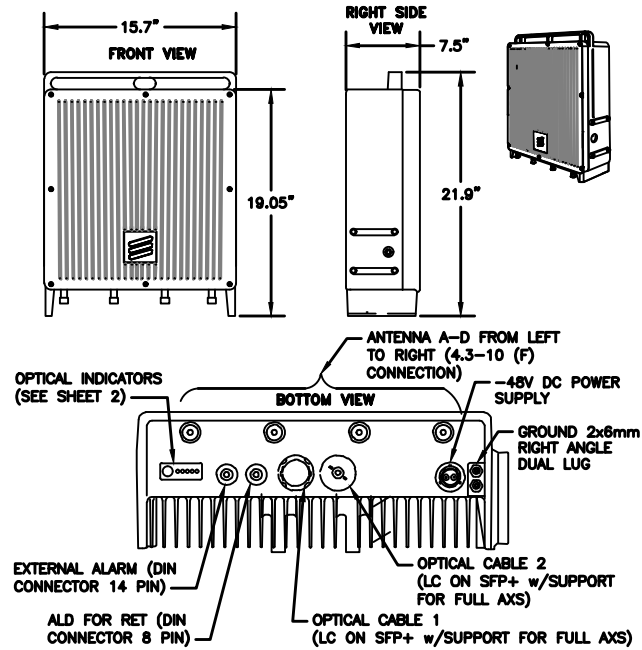
SHEET NUMBER:

R-603

REVISION:

0

MANUFACTURER:	ERICSSON
MODEL:	4480 RADIO (KRC 161 922/1)
DIMENSIONS:	21.9" x 15.7" x 7.5" (H x W x D)
MODEL BAND:	B71, B85 FOR NR AND LTE
WEIGHT:	81 LBS
BRACKET WEIGHT:	3.75 LBS (MULTI ERS #109 1973/2)



1 34372 - ERICSSON 4480 RADIO

SCALE: N.T.S.

NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT. PLEASE REFERENCE THE MOUNT ANALYSIS REPORT FOR COMPLETE MOUNT ANALYSIS CALCULATIONS AND DETAILS. SUPPLEMENTAL PAGES INCLUDED IN THE CONSTRUCTION DRAWINGS ARE FOR REFERENCE ONLY. GENERAL CONTRACTOR IS TO VERIFY THEY HAVE THE MOST RECENT MOUNT ANALYSIS PRIOR TO CONTRUCTION.

SUPPLEMENTAL

SHEET NUMBER:

R-604

REVISION:

0



LETTER OF AUTHORIZATION FOR PERMITTING

Licensee Name: T-MOBILE SOUTH LLC d/b/a & T-MOBILE
@ ATC Site Name: Hargray Bull St. ATC Site #: 370859 Project # 15315416
Site Address: 1315 Bull Street Georgia, Georgia 31415-0000
Site Coordinates: 32.06289202, -81.09839724
Site Acquisition Vendor (Applicant Representative): TRUNORTHE LLC

I, Regan Buckley, Vice President, Property Management for American Tower*, owner/operator of the tower facility located at the address identified above (the "Tower Facility"), do hereby authorize T-MOBILE, TRUNORTHE LLC and their successor(s), assign(s), and/or agent(s), (collectively, the "Licensee") to act as American Tower's non-exclusive agent for the sole purpose of filing and consummating any land-use, building, or electrical permit application(s) as may be required by the applicable permitting authorities for T-MOBILE SOUTH LLC d/b/a & T-MOBILE's telecommunications' installation on the Tower Facility.

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

Signature:

Print Name: Regan Buckley
Vice President, Property Management
American Tower*

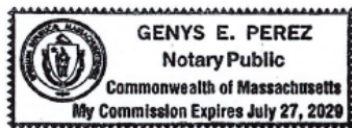
NOTARY BLOCK

Commonwealth of MASSACHUSETTS
County of Middlesex

This instrument was acknowledged before me by Regan Buckley, Vice President, Property Management for American Tower*, personally known to me (or proved to me based on satisfactory evidence of identification) to be the person whose name is signed on the preceding or attached document and acknowledged to me that they signed it voluntarily for its stated purpose.

WITNESS my hand and official seal, this 28th day of May 2025

Notary Seal



Notary Public
Genys E. Perez
My Commission Expires: July 27, 2029

* American Tower is defined as American Tower Corporation and any of its affiliates or subsidiaries.



This report was prepared for American Tower Corporation by



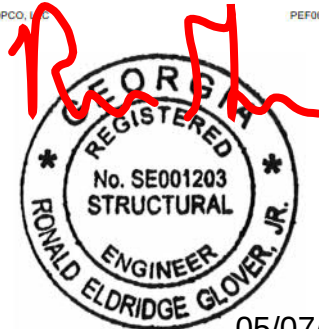
Structural Analysis Report

Structure : 150 ft Self Support Tower
ATC Asset Name : Hargray Bull St.
ATC Asset Number : 370859
Engineering Number : 15315416_C3_02
Proposed Carrier : T-MOBILE
Carrier Site Name : 8SV0766A
Carrier Site Number : 8SV0766A
Site Location : 1315 Bull Street
Savannah, GA 31415-0000
32.0629° N, 81.0984° W
County : Chatham
Date : May 7, 2025
Max Usage : 98%
Analysis Result : Pass

Created By:

Anil Rathod
TEP

TEP OPCO, INC. PEF006651



05/07/2025

COA: PEF003669



Table of Contents

Introduction	3
Supporting Documents	3
Analysis	3
Conclusion	3
Structure Usages	4
Maximum Reactions	4
Tower Loading	5
Standard Conditions	Attached
Calculations	Attached

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 150 ft Self Support tower to reflect the change in loading by T-MOBILE.

Supporting Documents

Tower:	Rohn Drawing #B890933, dated March 13, 1989 SCI Mapping Job #090038, dated March 9, 2009
Foundation:	Mapping by TEP Project #130453, dated February 12, 2013
Geotechnical:	TEP Project #130453.10, dated April 11, 2013
Modification:	SCI Job #090038, dated March 9, 2009

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:	135 mph (3-second gust)
Basic Wind Speed w/ Ice:	31 mph (3-second gust) w/ 0.37" radial ice concurrent
Code(s):	ANSI/TIA-222-I / 2018 IBC / Georgia State Amendments
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 1
Feature:	Flat
Crest Height (H):	0 ft
Crest Length (L):	0 ft
Spectral Response:	$S_{DS} = 0.32$, $S_{D1} = 0.17$
Site Class:	Default

Conclusion

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

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

Structure Usages

Structural Component	Usage	Control	Location	Result
Leg	97.5%	Member X	Section 5	Pass
Diagonal	76.4%	Block Shear	Section 7	Pass
Horizontal	17.6%	Block Shear	Section 8	Pass
Bolt	75.5%	-	Section 3	Pass
Serviceability Usage	7.8%	Rotation	Elevation 144 ft	Pass
Foundation	88.6%	Down	Base	Pass
Foundation	87.9%	Moment	Base	Pass
Foundation	76.9%	Shear	Base	Pass
Foundation	82.3%	Uplift	Base	Pass

Maximum Reactions

Foundation	Moment (k-ft)	Axial (k)	Uplift (k)	Shear (k)
Self Support Base (Global)	3,705.6	37.7	-	39.4
Self Support Base (Local)	-	239.5	208.3	24.2

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

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

T-MOBILE Final Loading

Elev (ft)	Qty	Equipment	Lines
131.0	3	Commscope FFVV-65C-R3-V1	(3) 1.99" (50.7mm) Hybrid
	3	Ericsson Air6449 B41	
	3	Ericsson Radio 4460 B25+B66	
	3	Ericsson Radio 4480 B71+B85A	
	3	Sabre C10857001C	

Install proposed lines alongside existing T-MOBILE lines.

Other Existing/Reserved Loading

Elev (ft)	Qty	Equipment	Lines
154.0	3	Ericsson AIR 6419 B77G	(2) 0.39" (10mm) Fiber Trunk (1) 0.41" (10.3mm) Fiber (5) 0.78" (19.7mm) 8 AWG 6 (2) 0.96" (24.3mm) Cable (6) 1 5/8" Coax (1) 3/8" (0.38"- 9.5mm) RET Control Cable
152.0	1	Commscope WCS-IMFQ-AMT-43	
	1	Raycap DC9-48-60-24-8C-EV (Enclosure)	
	3	Commscope NNH4-65B-R6	
	3	Commscope NNH4-65B-R6H4	
	3	Commscope SBJAH4-1D65C-DL	
	3	Ericsson 4478 B12A	
	3	Ericsson RRUS 11 B12	
	3	Ericsson RRUS 32 B30 (53 lbs)	
	3	Ericsson RRUS 32 B66	
	3	Ericsson RRUS 4415 B25	
	3	Ericsson RRUS 4478 B14 (18.1" Height)	
	3	Raycap DC6-48-60-18-8C-EV (Enclosure)	
	4	Raycap DC2-48-60-0-9E	
	6	Andrew ETM190G-12UB	
150.0	3	Commscope SFG23HD	
	3	Ericsson Air 6449 B77D	
142.0	1	Mount Reinforcement	(6) 1 5/8" Coax (3) 1 5/8" Hybriflex
	1	Antel LPA-80063/8CF ____ 2°	
	2	Antel LPA-80080/8CF ____	
	2	Raycap RCMD6-6627-PF-48	
	3	Ericsson 8843 Rev 2	
	3	Ericsson AIR 6449 B77D/C-Band	
	3	Ericsson Radio 4408 w/ Integrated Panel	
	3	Sector Frame	
	6	Commscope CBC1921Y-DS-2X	
	6	Commscope SBNHH-1D65C	
	6	Ericsson Radio 2212 B2/B66A (w/o fan)	
	6	Ericsson Radio 4449 - B13&B5	

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



Standard Conditions

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

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

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

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

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

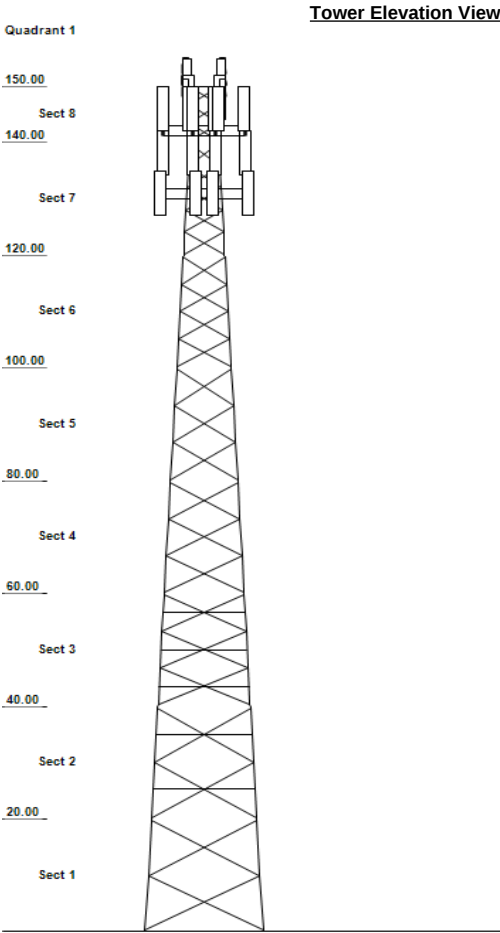
All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. ATC Tower Services, LLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.

ASSET: Hargray Bull St., 370859
CUSTOMER: T-MOBILE

CODE: ANSI/TIA-222-I
PROJECT: 15315416

ANALYSIS PARAMETERS			
Design Wind:	135 mph	Ice Wind:	31 mph w/ 0.37" ice
Risk Category	II	Exposure:	B
Topo Factor:	Method 1	Topo Feature:	Flat
Structure Height:	150 ft	Base Elevation:	0 ft
Base Width:	18.85 ft	Top Width:	4.60 ft
Service Wind:	60 mph	S _{DS} :	0.320
		S _{D1} :	0.170
		Shape:	Triangle

TOWER SECTION PROPERTIES			
Section	Leg Members	Diagonal Members	Horizontal Members
1	PSP 50 ksi ROHN 6 EHS	SAE 50 ksi 3.5x3.5x0.25	
2	PX 50 ksi 5" DIA PIPE	SAE 50 ksi 3X3X0.25	
3	PX 50 ksi 5" DIA PIPE	SAE 50 ksi 3X3X0.1875	
4	PX 50 ksi 4" DIA PIPE	SAE 36 ksi 2.5X2.5X0.1875	
5	PX 50 ksi 3-1/2" DIA PIPE	SAE 36 ksi 2.5X2.5X0.1875	
6	PX 50 ksi 3" DIA PIPE	SAE 36 ksi 2X2X0.1875	
7	PST 50 ksi 2-1/2" DIA PIPE	SAE 36 ksi 1.75X1.75X0.1875	
8	PST 50 ksi 2" DIA PIPE	SAE 36 ksi 2X2X0.25	SAE 36 ksi 2X2X0.25



SECONDARY BRACING MEMBERS			
Section	Sub Diagonal 1	Sub Diagonal 2	Sub Diagonal 3
2 - 3	-	-	-
Section	Sub Horizontal 1	Sub Horizontal 2	Sub Horizontal 3
2 - 3	S2.5X2.5X0.1875	-	-

DISCRETE APPURTENANCE		LINEAR APPURTENANCE	
Elev (ft)	Description	Elev (ft)	Description
154.0	(3) Ericsson AIR 6419 B77G	152.0	(2) 0.96" (24.3mm) Cable
152.0	(6) Andrew ETM190G-12UB	152.0	(1) 0.41" (10.3mm) Fiber
152.0	(1) Commscope WCS-IMFQ-AMT-43	152.0	(1) 3/8" (0.38"- 9.5mm) RET Cont
152.0	(3) Ericsson RRUS 4415 B25	152.0	(6) 1 5/8" Coax
152.0	(3) Ericsson RRUS 4478 B14 (18.1" Heig	152.0	(1) Waveguide
152.0	(3) Ericsson 4478 B12A	152.0	(5) 0.78" (19.7mm) 8 AWG 6
152.0	(3) Raycap DC6-48-60-18-8C-EV (Enclos	152.0	(2) 0.39" (10mm) Fiber Trunk
152.0	(4) Raycap DC2-48-60-0-9E	150.0	(1) Climbing Ladder
152.0	(3) Ericsson RRUS 32 B66	142.0	(6) 1 5/8" Coax
152.0	(3) Ericsson RRUS 11 B12	142.0	(1) Waveguide
152.0	(3) Commscope SBJAH4-1D65C-DL	142.0	(3) 1 5/8" Hybriflex
152.0	(3) Commscope NNH4-65B-R6H4	131.0	(3) 1.99" (50.7mm) Hybrid
152.0	(1) Raycap DC9-48-60-24-8C-EV (Enclos	131.0	(1) Waveguide
152.0	(3) Ericsson RRUS 32 B30 (53 lbs)		
152.0	(3) Commscope NNH4-65B-R6		
150.0	(3) Commscope SFG23HD		
150.0	(3) Ericsson Air 6449 B77D		
142.0	(3) Ericsson AIR 6449 B77D/C-Band		
142.0	(6) Commscope SBNHH-1D65C		
142.0	(1) Antel LPA-80063/8CF ____ 2°		
142.0	(3) Ericsson 8843 Rev 2		
142.0	(2) Antel LPA-80080/8CF ____		
142.0	(2) Raycap RCMDC-6627-PF-48		
142.0	(3) Generic Round Sector Frame		
142.0	(6) Commscope CBC1921Y-DS-2X		
142.0	(1) Generic Mount Reinforcement		
142.0	(6) Ericsson Radio 4449 - B13&B5		
142.0	(6) Ericsson Radio 2212 B2/B66A (w/o fa		
142.0	(3) Ericsson Radio 4408 w/ Integrated Pa		
131.0	(3) Commscope FFVV-65C-R3-V1		
131.0	(3) Ericsson Radio 4460 B25+B66		
131.0	(3) Ericsson Air6449 B41		
131.0	(3) Ericsson Radio 4480 B71+B85A		
131.0	(3) Sabre C10857001C		

GLOBAL BASE REACTIONS		
	DL+WL	DL+WL+IL
Moment (k-ft):	3,705.57	258.89
Axial (k):	37.70	50.62
Shear (k):	39.43	2.84

INDIVIDUAL BASE REACTIONS	
Comp (k):	239.51
Uplift (k):	208.33
Shear (k):	24.19

ANALYSIS PARAMETERS			
Location:	Chatham County, GA	Height:	150 ft
Type and Shape:	Self Support, Triangle	Base Elevation:	0.00 ft
Manufacturer:	Rohn	Bottom Face Width:	18.85 ft
Kd	0.85	Top Face Width:	4.60 ft
Ke:	1.00	Anchor Bolt Detail Type:	c

ICE & WIND PARAMETERS			
Exposure Category:	B	Design Wind Speed Without Ice:	135 mph
		Design Wind Speed with Ice:	31 mph
Risk Category:	II	Operational Windspeed:	60 mph
Topographic Factor Procedure:	Method 1		
Crest Height(H):	0 ft	Design Ice Thickness:	0.37 in
Crest Length(L):	0 ft	HMSL:	43 ft
Feature:	Flat	Distance from Apex (x):	0
		Upwind/Downwind:	Upwind

SEISMIC PARAMETERS					
Analysis Method:	Equivalent Lateral Force Method				
Site Class:	Default		Period Based on Rayleigh Method (sec):	1.08	
T _L (sec):	8	P:	1.3	C _s :	0.052
S _{ds} :	0.320	S _{d1} :	0.170	C _s Max:	0.052
				C _s Min:	0.030

LOAD CASES	
1.2D + 1.0W Normal	1.2D + 1.0W Normal - 135 mph Wind with No Ice
1.2D + 1.0W 60°	1.2D + 1.0W 60° - 135 mph Wind with No Ice
1.2D + 1.0W 90°	1.2D + 1.0W 90° - 135 mph Wind with No Ice
1.2D + 1.0W 120°	1.2D + 1.0W 120° - 135 mph Wind with No Ice
1.2D + 1.0W 180°	1.2D + 1.0W 180° - 135 mph Wind with No Ice
1.2D + 1.0W 210°	1.2D + 1.0W 210° - 135 mph Wind with No Ice
1.2D + 1.0W 240°	1.2D + 1.0W 240° - 135 mph Wind with No Ice
1.2D + 1.0W 300°	1.2D + 1.0W 300° - 135 mph Wind with No Ice
1.2D + 1.0W 330°	1.2D + 1.0W 330° - 135 mph Wind with No Ice
0.9D + 1.0W Normal	0.9D + 1.0W Normal - 135 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 60°	0.9D + 1.0W 60° - 135 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 90°	0.9D + 1.0W 90° - 135 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 120°	0.9D + 1.0W 120° - 135 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 180°	0.9D + 1.0W 180° - 135 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 210°	0.9D + 1.0W 210° - 135 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 240°	0.9D + 1.0W 240° - 135 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 300°	0.9D + 1.0W 300° - 135 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 330°	0.9D + 1.0W 330° - 135 mph Wind with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi Normal	1.2D + 1.0Di + 1.0Wi Normal - 31 mph Wind with 0.37" Radial Ice
1.2D + 1.0Di + 1.0Wi 60°	1.2D + 1.0Di + 1.0Wi 60° - 31 mph Wind with 0.37" Radial Ice
1.2D + 1.0Di + 1.0Wi 90°	1.2D + 1.0Di + 1.0Wi 90° - 31 mph Wind with 0.37" Radial Ice
1.2D + 1.0Di + 1.0Wi 120°	1.2D + 1.0Di + 1.0Wi 120° - 31 mph Wind with 0.37" Radial Ice
1.2D + 1.0Di + 1.0Wi 180°	1.2D + 1.0Di + 1.0Wi 180° - 31 mph Wind with 0.37" Radial Ice
1.2D + 1.0Di + 1.0Wi 210°	1.2D + 1.0Di + 1.0Wi 210° - 31 mph Wind with 0.37" Radial Ice
1.2D + 1.0Di + 1.0Wi 240°	1.2D + 1.0Di + 1.0Wi 240° - 31 mph Wind with 0.37" Radial Ice
1.2D + 1.0Di + 1.0Wi 300°	1.2D + 1.0Di + 1.0Wi 300° - 31 mph Wind with 0.37" Radial Ice

ASSET: 370859, Hargray Bull St.
CUSTOMER: T-MOBILE

CODE: ANSI/TIA-222-I
PROJECT: 15315416_C3_02

LOAD CASES

1.2D + 1.0Di + 1.0Wi 330°	1.2D + 1.0Di + 1.0Wi 330° - 31 mph Wind with 0.37" Radial Ice
1.2D + 1.0Ev + 1.0Eh Normal	1.2D + 1.0Ev + 1.0Eh Normal - Seismic
1.2D + 1.0Ev + 1.0Eh 60°	1.2D + 1.0Ev + 1.0Eh 60° - Seismic
1.2D + 1.0Ev + 1.0Eh 90°	1.2D + 1.0Ev + 1.0Eh 90° - Seismic
1.2D + 1.0Ev + 1.0Eh 120°	1.2D + 1.0Ev + 1.0Eh 120° - Seismic
1.2D + 1.0Ev + 1.0Eh 180°	1.2D + 1.0Ev + 1.0Eh 180° - Seismic
1.2D + 1.0Ev + 1.0Eh 210°	1.2D + 1.0Ev + 1.0Eh 210° - Seismic
1.2D + 1.0Ev + 1.0Eh 240°	1.2D + 1.0Ev + 1.0Eh 240° - Seismic
1.2D + 1.0Ev + 1.0Eh 300°	1.2D + 1.0Ev + 1.0Eh 300° - Seismic
1.2D + 1.0Ev + 1.0Eh 330°	1.2D + 1.0Ev + 1.0Eh 330° - Seismic
0.9D - 1.0Ev + 1.0Eh Normal	0.9D - 1.0Ev + 1.0Eh Normal - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 60°	0.9D - 1.0Ev + 1.0Eh 60° - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 90°	0.9D - 1.0Ev + 1.0Eh 90° - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 120°	0.9D - 1.0Ev + 1.0Eh 120° - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 180°	0.9D - 1.0Ev + 1.0Eh 180° - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 210°	0.9D - 1.0Ev + 1.0Eh 210° - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 240°	0.9D - 1.0Ev + 1.0Eh 240° - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 300°	0.9D - 1.0Ev + 1.0Eh 300° - Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 330°	0.9D - 1.0Ev + 1.0Eh 330° - Seismic (Reduced DL)
1.0D + 1.0W Service Normal	1.0D + 1.0W Service Normal - 60 mph Wind with No Ice
1.0D + 1.0W Service 60°	1.0D + 1.0W Service 60° - 60 mph Wind with No Ice
1.0D + 1.0W Service 90°	1.0D + 1.0W Service 90° - 60 mph Wind with No Ice
1.0D + 1.0W Service 120°	1.0D + 1.0W Service 120° - 60 mph Wind with No Ice
1.0D + 1.0W Service 180°	1.0D + 1.0W Service 180° - 60 mph Wind with No Ice
1.0D + 1.0W Service 210°	1.0D + 1.0W Service 210° - 60 mph Wind with No Ice
1.0D + 1.0W Service 240°	1.0D + 1.0W Service 240° - 60 mph Wind with No Ice
1.0D + 1.0W Service 300°	1.0D + 1.0W Service 300° - 60 mph Wind with No Ice
1.0D + 1.0W Service 330°	1.0D + 1.0W Service 330° - 60 mph Wind with No Ice
1.2D + 1.0Ev + 1.5Eh Normal	1.2D + 1.0Ev + 1.5Eh Normal - Seismic Overstrength
1.2D + 1.0Ev + 1.5Eh 60°	1.2D + 1.0Ev + 1.5Eh 60° - Seismic Overstrength
1.2D + 1.0Ev + 1.5Eh 90°	1.2D + 1.0Ev + 1.5Eh 90° - Seismic Overstrength
1.2D + 1.0Ev + 1.5Eh 120°	1.2D + 1.0Ev + 1.5Eh 120° - Seismic Overstrength
1.2D + 1.0Ev + 1.5Eh 180°	1.2D + 1.0Ev + 1.5Eh 180° - Seismic Overstrength
1.2D + 1.0Ev + 1.5Eh 210°	1.2D + 1.0Ev + 1.5Eh 210° - Seismic Overstrength
1.2D + 1.0Ev + 1.5Eh 240°	1.2D + 1.0Ev + 1.5Eh 240° - Seismic Overstrength
1.2D + 1.0Ev + 1.5Eh 300°	1.2D + 1.0Ev + 1.5Eh 300° - Seismic Overstrength
1.2D + 1.0Ev + 1.5Eh 330°	1.2D + 1.0Ev + 1.5Eh 330° - Seismic Overstrength
0.9D - 1.0Ev + 1.5Eh Normal	0.9D - 1.0Ev + 1.5Eh Normal - Seismic Overstrength (Reduced DL)
0.9D - 1.0Ev + 1.5Eh 60°	0.9D - 1.0Ev + 1.5Eh 60° - Seismic Overstrength (Reduced DL)
0.9D - 1.0Ev + 1.5Eh 90°	0.9D - 1.0Ev + 1.5Eh 90° - Seismic Overstrength (Reduced DL)
0.9D - 1.0Ev + 1.5Eh 120°	0.9D - 1.0Ev + 1.5Eh 120° - Seismic Overstrength (Reduced DL)
0.9D - 1.0Ev + 1.5Eh 180°	0.9D - 1.0Ev + 1.5Eh 180° - Seismic Overstrength (Reduced DL)
0.9D - 1.0Ev + 1.5Eh 210°	0.9D - 1.0Ev + 1.5Eh 210° - Seismic Overstrength (Reduced DL)
0.9D - 1.0Ev + 1.5Eh 240°	0.9D - 1.0Ev + 1.5Eh 240° - Seismic Overstrength (Reduced DL)
0.9D - 1.0Ev + 1.5Eh 300°	0.9D - 1.0Ev + 1.5Eh 300° - Seismic Overstrength (Reduced DL)
0.9D - 1.0Ev + 1.5Eh 330°	0.9D - 1.0Ev + 1.5Eh 330° - Seismic Overstrength (Reduced DL)

ASSET: 370859, Hargray Bull St.

CODE: ANSI/TIA-222-I

CUSTOMER: T-MOBILE

PROJECT: 15315416_C3_02

TOWER LOADING - DISCRETE APPURTENANCE

Discrete Appurtenance Properties for LC: 1.2D + 1.0W

Elev (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc. (ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
154.0	Ericsson AIR 6419 B77G	3	66	3.8	2.4	16.1	7.9	0.80	0.65	0.0	0.00	42.21	213	238
152.0	Commscope WCS-IMFQ-AMT-43	1	18	0.6	0.7	8.1	5.7	0.80	1.00	-2.3	36.30	41.89	16	21
152.0	Raycap DC2-48-60-0-9E	4	16	0.9	0.9	10.3	6.2	0.80	0.50	0.0	0.00	42.07	51	77
152.0	Andrew ETM190G-12UB	6	20	0.9	1.3	6.9	2.9	0.80	0.50	-1.1	85.64	41.98	78	144
152.0	Ericsson RRUS 4415 B25	3	46	1.8	1.4	13.4	5.9	0.80	0.50	0.0	0.00	42.07	79	166
152.0	Ericsson 4478 B12A	3	56	2.0	1.5	13.2	7.9	0.80	0.67	2.2	254.20	42.23	116	202
152.0	Ericsson RRUS 4478 B14 (18.1"	3	59	2.0	1.5	13.4	8.3	0.80	0.67	0.0	0.00	42.07	116	214
152.0	Raycap DC9-48-60-24-8C-EV (Enc	1	19	2.7	2.2	12.4	9.7	0.80	1.00	0.0	0.00	42.07	77	22
152.0	Raycap DC6-48-60-18-8C-EV (Enc	3	16	2.7	2.2	12.4	9.7	0.80	0.67	1.8	278.96	42.20	155	58
152.0	Ericsson RRUS 32 B30 (53 lbs)	3	53	2.7	2.3	12.1	7.0	0.80	0.67	1.5	237.18	42.18	158	191
152.0	Ericsson RRUS 32 B66	3	53	2.7	2.3	12.1	7.0	0.80	0.67	1.5	237.18	42.18	158	191
152.0	Ericsson RRUS 11 B12	3	51	2.8	1.6	17.0	7.2	0.80	0.67	2.0	322.06	42.21	161	183
152.0	Commscope NNH4-65B-R6	3	90	12.3	6.0	19.6	7.8	0.80	0.64	0.0	0.00	42.07	674	323
152.0	Commscope NNH4-65B-R6H4	3	83	12.3	6.0	19.6	7.8	0.80	0.64	0.0	0.00	42.07	674	300
152.0	Commscope SBJAH4-1D65C-DL	3	74	12.9	8.0	13.8	8.2	0.80	0.69	-0.4	304.42	42.04	761	267
150.0	Ericsson Air 6449 B77D	3	82	4.0	2.5	15.9	8.1	0.80	0.65	0.0	0.00	41.92	224	294
150.0	Commscope SFG23HD	3	368	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	41.92	773	1325
142.0	Commscope CBC1921Y-DS-2X	6	17	0.5	0.6	7.6	5.5	0.80	0.50	-3.0	120.91	41.07	40	119
142.0	Ericsson Radio 4408 w/ Integra	3	11	0.6	0.7	7.9	5.0	0.80	0.50	0.0	0.00	41.31	23	40
142.0	Ericsson 8843 Rev 2	3	75	1.6	1.3	13.2	11.1	0.80	0.50	-3.0	207.38	41.07	69	270
142.0	Ericsson Radio 4449 - B13&B5	6	70	1.6	1.3	13.2	9.3	0.80	0.50	-3.0	414.77	41.07	138	504
142.0	Ericsson Radio 2212 B2/B66A (w	6	40	1.9	1.4	13.5	5.9	0.80	0.50	-3.0	466.55	41.07	156	286
142.0	Raycap RCMDC-6627-PF-48	2	32	4.1	2.5	16.5	12.6	0.80	0.50	-3.0	339.86	41.07	113	77
142.0	Ericsson AIR 6449 B77D/C-Band	3	88	4.1	2.6	16.1	10.8	0.80	0.70	0.0	0.00	41.31	244	317
142.0	Generic Mount Reinforcement	1	200	7.5	0.0	0.0	0.0	0.75	0.67	0.0	0.00	41.31	132	240
142.0	Commscope SBNHH-1D65C	6	50	11.4	8.0	11.9	7.1	0.80	0.70	-3.0	4,026.03	41.07	1342	357
142.0	Antel LPA-80080/8CF	2	24	12.2	7.9	5.5	13.2	0.80	0.62	0.2	84.81	41.32	424	58
142.0	Antel LPA-80063/8CF 2°	1	38	13.6	7.9	15.2	13.2	0.80	0.82	0.5	156.98	41.35	314	46
142.0	Generic Round Sector Frame	3	700	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	41.31	762	2520
131.0	Ericsson Radio 4460 B25+B66	3	109	2.6	1.6	15.7	12.1	0.80	0.50	0.0	0.00	40.43	106	392
131.0	Ericsson Radio 4480 B71+B85A	3	84	2.9	1.8	15.7	7.5	0.80	0.67	0.0	0.00	40.43	158	302
131.0	Ericsson Air6449 B41	3	104	5.7	2.8	20.6	8.6	0.80	0.63	0.0	0.00	40.43	295	374
131.0	Sabre C10857001C	3	689	13.0	0.0	0.0	0.0	0.75	0.75	0.0	0.00	40.43	754	2480
131.0	Commscope FFVV-65C-R3-V1	3	125	21.1	8.0	25.2	9.3	0.80	0.63	0.0	0.00	40.43	1097	449
Totals		108	10,871	585.6									10,650	13,045

Discrete Appurtenance Properties for LC: 0.9D + 1.0W

Elev (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc. (ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
154.0	Ericsson AIR 6419 B77G	3	66	3.8	2.4	16.1	7.9	0.80	0.65	0.0	0.00	42.21	213	178
152.0	Commscope WCS-IMFQ-AMT-43	1	18	0.6	0.7	8.1	5.7	0.80	1.00	-2.3	36.30	41.89	16	16
152.0	Raycap DC2-48-60-0-9E	4	16	0.9	0.9	10.3	6.2	0.80	0.50	0.0	0.00	42.07	51	58
152.0	Andrew ETM190G-12UB	6	20	0.9	1.3	6.9	2.9	0.80	0.50	-1.1	85.64	41.98	78	108
152.0	Ericsson RRUS 4415 B25	3	46	1.8	1.4	13.4	5.9	0.80	0.50	0.0	0.00	42.07	79	124
152.0	Ericsson 4478 B12A	3	56	2.0	1.5	13.2	7.9	0.80	0.67	2.2	254.20	42.23	116	151
152.0	Ericsson RRUS 4478 B14 (18.1"	3	59	2.0	1.5	13.4	8.3	0.80	0.67	0.0	0.00	42.07	116	160
152.0	Raycap DC9-48-60-24-8C-EV (Enc	1	19	2.7	2.2	12.4	9.7	0.80	1.00	0.0	0.00	42.07	77	17
152.0	Raycap DC6-48-60-18-8C-EV (Enc	3	16	2.7	2.2	12.4	9.7	0.80	0.67	1.8	278.96	42.20	155	43
152.0	Ericsson RRUS 32 B30 (53 lbs)	3	53	2.7	2.3	12.1	7.0	0.80	0.67	1.5	237.18	42.18	158	143
152.0	Ericsson RRUS 32 B66	3	53	2.7	2.3	12.1	7.0	0.80	0.67	1.5	237.18	42.18	158	143
152.0	Ericsson RRUS 11 B12	3	51	2.8	1.6	17.0	7.2	0.80	0.67	2.0	322.06	42.21	161	137
152.0	Commscope NNH4-65B-R6	3	90	12.3	6.0	19.6	7.8	0.80	0.64	0.0	0.00	42.07	674	242
152.0	Commscope NNH4-65B-R6H4	3	83	12.3	6.0	19.6	7.8	0.80	0.64	0.0	0.00	42.07	674	225
152.0	Commscope SBJAH4-1D65C-DL	3	74	12.9	8.0	13.8	8.2	0.80	0.69	-0.4	304.42	42.04	761	201
150.0	Ericsson Air 6449 B77D	3	82	4.0	2.5	15.9	8.1	0.80	0.65	0.0	0.00	41.92	224	220
150.0	Commscope SFG23HD	3	368	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	41.92	773	994
142.0	Commscope CBC1921Y-DS-2X	6	17	0.5	0.6	7.6	5.5	0.80	0.50	-3.0	120.91	41.07	40	89
142.0	Ericsson Radio 4408 w/ Integra	3	11	0.6	0.7	7.9	5.0	0.80	0.50	0.0	0.00	41.31	23	30
142.0	Ericsson 8843 Rev 2	3	75	1.6	1.3	13.2	11.1	0.80	0.50	-3.0	207.38	41.07	69	202
142.0	Ericsson Radio 4449 - B13&B5	6	70	1.6	1.3	13.2	9.3	0.80	0.50	-3.0	414.77	41.07	138	378
142.0	Ericsson Radio 2212 B2/B66A (w	6	40	1.9	1.4	13.5	5.9	0.80	0.50	-3.0	466.55	41.07	156	214
142.0	Raycap RCMDC-6627-PF-48	2	32	4.1	2.5	16.5	12.6	0.80	0.50	-3.0	339.86	41.07	113	58
142.0	Ericsson AIR 6449 B77D/C-Band	3	88	4.1	2.6	16.1	10.8	0.80	0.70	0.0	0.00	41.31	244	238
142.0	Generic Mount Reinforcement	1	200	7.5	0.0	0.0	0.0	0.75	0.67	0.0	0.00	41.31	132	180
142.0	Commscope SBNHH-1D65C	6	50	11.4	8.0	11.9	7.1	0.80	0.70	-3.0	4,026.03	41.07	1342	268
142.0	Antel LPA-80080/8CF	2	24	12.2	7.9	5.5	13.2	0.80	0.62	0.2	84.81	41.32	424	43
142.0	Antel LPA-80063/8CF 2°	1	38	13.6	7.9	15.2	13.2	0.80	0.82	0.5	156.98	41.35	314	34
142.0	Generic Round Sector Frame	3	700	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	41.31	762	1890
131.0	Ericsson Radio 4460 B25+B66	3	109	2.6	1.6	15.7	12.1	0.80	0.50	0.0	0.00	40.43	106	294
131.0	Ericsson Radio 4480 B71+B85A	3	84	2.9	1.8	15.7	7.5	0.80	0.67	0.0	0.00	40.43	158	227
131.0	Ericsson Air6449 B41	3	104	5.7	2.8	20.6	8.6	0.80	0.63	0.0	0.00	40.43	295	281
131.0	Sabre C10857001C	3	689	13.0	0.0	0.0	0.0	0.75	0.75	0.0	0.00	40.43	754	1860
131.0	Commscope FFVV-65C-R3-V1	3	125	21.1	8.0	25.2	9.3	0.80	0.63	0.0	0.00	40.43	1097	336
Totals		108	10,871	585.6									10,650	9,784

ASSET: 370859, Hargray Bull St.

CODE: ANSI/TIA-222-I

CUSTOMER: T-MOBILE

PROJECT: 15315416_C3_02

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

Elev (ft)	Description	Qty	Ice Wt (lb)	Ice EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc. (ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
154.0	Ericsson AIR 6419 B77G	3	90	4.1	2.4	16.1	7.9	0.80	0.65	0.0	0.00	2.23	12	310
152.0	Commscope WCS-IMFQ-AMT-43	1	23	0.7	0.7	8.1	5.7	0.80	1.00	-2.3	2.34	2.21	1	26
152.0	Raycap DC2-48-60-0-9E	4	23	1.0	0.9	10.3	6.2	0.80	0.50	0.0	0.00	2.22	3	106
152.0	Andrew ETM190G-12UB	6	26	1.1	1.3	6.9	2.9	0.80	0.50	-1.1	5.36	2.21	5	178
152.0	Ericsson RRUS 4415 B25	3	58	2.1	1.4	13.4	5.9	0.80	0.50	0.0	0.00	2.22	5	202
152.0	Ericsson 4478 B12A	3	71	2.2	1.5	13.2	7.9	0.80	0.67	2.2	14.95	2.23	7	246
152.0	Ericsson RRUS 4478 B14 (18.1"	3	75	2.3	1.5	13.4	8.3	0.80	0.67	0.0	0.00	2.22	7	259
152.0	Raycap DC9-48-60-24-8C-EV (Enc	1	39	3.0	2.2	12.4	9.7	0.80	1.00	0.0	0.00	2.22	4	43
152.0	Raycap DC6-48-60-18-8C-EV (Enc	3	37	3.0	2.2	12.4	9.7	0.80	0.67	1.8	16.25	2.23	9	120
152.0	Ericsson RRUS 32 B30 (53 lbs)	3	71	3.0	2.3	12.1	7.0	0.80	0.67	1.5	13.82	2.22	9	245
152.0	Ericsson RRUS 32 B66	3	71	3.0	2.3	12.1	7.0	0.80	0.67	1.5	13.82	2.22	9	245
152.0	Ericsson RRUS 11 B12	3	69	3.1	1.6	17.0	7.2	0.80	0.67	2.0	18.63	2.23	9	236
152.0	Commscope NNH4-65B-R6	3	152	13.0	6.0	19.6	7.8	0.80	0.64	0.0	0.00	2.22	38	509
152.0	Commscope NNH4-65B-R6H4	3	145	13.0	6.0	19.6	7.8	0.80	0.64	0.0	0.00	2.22	38	486
152.0	Commscope SBJA4-1D65C-DL	3	139	13.8	8.0	13.8	8.2	0.80	0.69	-0.4	17.20	2.22	43	463
150.0	Ericsson Air 6449 B77D	3	107	4.4	2.5	15.9	8.1	0.80	0.65	0.0	0.00	2.21	13	370
150.0	Commscope SFG23HD	3	431	16.9	0.0	0.0	0.0	0.75	0.67	0.0	0.00	2.21	48	1514
142.0	Commscope CBC1921Y-DS-2X	6	21	0.6	0.6	7.6	5.5	0.80	0.50	-3.0	7.91	2.17	3	146
142.0	Ericsson Radio 4408 w/ Integra	3	16	0.7	0.7	7.9	5.0	0.80	0.50	0.0	0.00	2.18	2	54
142.0	Ericsson 8843 Rev 2	3	90	1.9	1.3	13.2	11.1	0.80	0.50	-3.0	12.32	2.17	4	316
142.0	Ericsson Radio 4449 - B13&B5	6	84	1.9	1.3	13.2	9.3	0.80	0.50	-3.0	24.64	2.17	8	587
142.0	Ericsson Radio 2212 B2/B66A (w	6	52	2.1	1.4	13.5	5.9	0.80	0.50	-3.0	27.54	2.17	9	359
142.0	Raycap RCMDC-6627-PF-48	2	63	4.4	2.5	16.5	12.6	0.80	0.50	-3.0	19.41	2.17	6	139
142.0	Ericsson AIR 6449 B77D/C-Band	3	118	4.5	2.6	16.1	10.8	0.80	0.70	0.0	0.00	2.18	14	405
142.0	Generic Mount Reinforcement	1	248	9.3	0.0	0.0	0.0	0.75	0.67	0.0	0.00	2.18	9	288
142.0	Commscope SBNHH-1D65C	6	106	12.2	8.0	11.9	7.1	0.80	0.70	-3.0	227.08	2.17	76	696
142.0	Antel LPA-80080/8CF	2	78	6.6	7.9	5.5	13.2	0.80	0.62	0.2	2.43	2.18	12	165
142.0	Antel LPA-80063/8CF 2°	1	121	14.0	7.9	15.2	13.2	0.80	0.82	0.5	8.51	2.18	17	129
142.0	Generic Round Sector Frame	3	940	18.5	0.0	0.0	0.0	0.75	0.67	0.0	0.00	2.18	52	3241
131.0	Ericsson Radio 4460 B25+B66	3	131	2.8	1.6	15.7	12.1	0.80	0.50	0.0	0.00	2.13	6	457
131.0	Ericsson Radio 4480 B71+B85A	3	102	3.1	1.8	15.7	7.5	0.80	0.67	0.0	0.00	2.13	9	358
131.0	Ericsson Air6449 B41	3	137	6.1	2.8	20.6	8.6	0.80	0.63	0.0	0.00	2.13	17	474
131.0	Sabre C10857001C	3	932	16.3	0.0	0.0	0.0	0.75	0.75	0.0	0.00	2.13	50	3209
131.0	Commscope FFVV-65C-R3-V1	3	225	22.0	8.0	25.2	9.3	0.80	0.63	0.0	0.00	2.13	60	751
Totals		108	15,156	638.7									612	17,330

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

Elev (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc. (ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
154.0	Ericsson AIR 6419 B77G	3	66	3.8	2.4	16.1	7.9	0.80	0.65	0.0	0.00	8.34	42	198
152.0	Commscope WCS-IMFQ-AMT-43	1	18	0.6	0.7	8.1	5.7	0.80	1.00	-2.3	7.17	8.28	3	18
152.0	Raycap DC2-48-60-0-9E	4	16	0.9	0.9	10.3	6.2	0.80	0.50	0.0	0.00	8.31	10	64
152.0	Andrew ETM190G-12UB	6	20	0.9	1.3	6.9	2.9	0.80	0.50	-1.1	16.92	8.29	15	120
152.0	Ericsson RRUS 4415 B25	3	46	1.8	1.4	13.4	5.9	0.80	0.50	0.0	0.00	8.31	16	138
152.0	Ericsson 4478 B12A	3	56	2.0	1.5	13.2	7.9	0.80	0.67	2.2	50.21	8.34	23	168
152.0	Ericsson RRUS 4478 B14 (18.1"	3	59	2.0	1.5	13.4	8.3	0.80	0.67	0.0	0.00	8.31	23	178
152.0	Raycap DC9-48-60-24-8C-EV (Enc	1	19	2.7	2.2	12.4	9.7	0.80	1.00	0.0	0.00	8.31	15	18
152.0	Raycap DC6-48-60-18-8C-EV (Enc	3	16	2.7	2.2	12.4	9.7	0.80	0.67	1.8	55.10	8.34	31	48
152.0	Ericsson RRUS 32 B30 (53 lbs)	3	53	2.7	2.3	12.1	7.0	0.80	0.67	1.5	46.85	8.33	31	159
152.0	Ericsson RRUS 32 B66	3	53	2.7	2.3	12.1	7.0	0.80	0.67	1.5	46.85	8.33	31	159
152.0	Ericsson RRUS 11 B12	3	51	2.8	1.6	17.0	7.2	0.80	0.67	2.0	63.62	8.34	32	152
152.0	Commscope NNH4-65B-R6	3	90	12.3	6.0	19.6	7.8	0.80	0.64	0.0	0.00	8.31	133	269
152.0	Commscope NNH4-65B-R6H4	3	83	12.3	6.0	19.6	7.8	0.80	0.64	0.0	0.00	8.31	133	250
152.0	Commscope SBJA4-1D65C-DL	3	74	12.9	8.0	13.8	8.2	0.80	0.69	-0.4	60.13	8.30	150	223
150.0	Ericsson Air 6449 B77D	3	82	4.0	2.5	15.9	8.1	0.80	0.65	0.0	0.00	8.28	44	245
150.0	Commscope SFG23HD	3	368	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	8.28	153	1104
142.0	Commscope CBC1921Y-DS-2X	6	17	0.5	0.6	7.6	5.5	0.80	0.50	-3.0	23.88	8.11	8	99
142.0	Ericsson Radio 4408 w/ Integra	3	11	0.6	0.7	7.9	5.0	0.80	0.50	0.0	0.00	8.16	5	33
142.0	Ericsson 8843 Rev 2	3	75	1.6	1.3	13.2	11.1	0.80	0.50	-3.0	40.96	8.11	14	225
142.0	Ericsson Radio 4449 - B13&B5	6	70	1.6	1.3	13.2	9.3	0.80	0.50	-3.0	81.93	8.11	27	420
142.0	Ericsson Radio 2212 B2/B66A (w	6	40	1.9	1.4	13.5	5.9	0.80	0.50	-3.0	92.16	8.11	31	238
142.0	Raycap RCMDC-6627-PF-48	2	32	4.1	2.5	16.5	12.6	0.80	0.50	-3.0	67.13	8.11	22	64
142.0	Ericsson AIR 6449 B77D/C-Band	3	88	4.1	2.6	16.1	10.8	0.80	0.70	0.0	0.00	8.16	48	264
142.0	Generic Mount Reinforcement	1	200	7.5	0.0	0.0	0.0	0.75	0.67	0.0	0.00	8.16	26	200
142.0	Commscope SBNHH-1D65C	6	50	11.4	8.0	11.9	7.1	0.80	0.70	-3.0	795.27	8.11	265	298
142.0	Antel LPA-80080/8CF	2	24	12.2	7.9	5.5	13.2	0.80	0.62	0.2	16.75	8.16	84	48
142.0	Antel LPA-80063/8CF 2°	1	38	13.6	7.9	15.2	13.2	0.80	0.82	0.5	31.01	8.17	62	38
142.0	Generic Round Sector Frame	3	700	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	8.16	151	2100
131.0	Ericsson Radio 4460 B25+B66	3	109	2.6	1.6	15.7	12.1	0.80	0.50	0.0	0.00	7.99	21	327
131.0	Ericsson Radio 4480 B71+B85A	3	84	2.9	1.8	15.7	7.5	0.80	0.67	0.0	0.00	7.99	31	252
131.0	Ericsson Air6449 B41	3	104	5.7	2.8	20.6	8.6	0.80	0.63	0.0	0.00	7.99	58	312
131.0	Sabre C10857001C	3	689	13.0	0.0	0.0	0.0	0.75	0.75	0.0	0.00	7.99	149	2067
131.0	Commscope FFVV-65C-R3-V1	3	125	21.1	8.0	25.2	9.3	0.80	0.63	0.0	0.00	7.99	217	374
Totals		108	10,871	585.6									2,104	10,871

TOWER LOADING - LINEAR APPURTENANCE

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	% In Wind	Spread On Faces	Bundling	Cluster Dia (in)	Out of Zone	Spacing (in)	Orient. Factor	K _a Override
5.0	152.0	1 5/8" Coax	6	1.98	0.82	100	1	Individual	0.00	N	1.00	1.00	0.00
5.0	152.0	0.39" (10mm) Fiber Trunk	2	0.39	0.06	100	1	Individual	0.00	N	1.00	1.00	0.00
5.0	152.0	0.78" (19.7mm) 8 AWG 6	5	0.78	0.59	100	1	Individual	0.00	N	1.00	1.00	0.00
5.0	142.0	1 5/8" Coax	6	1.98	0.82	67	2	Block	0.00	N	1.00	1.00	0.00
0.0	152.0	Waveguide	1	2.00	6.00	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	152.0	0.41" (10.3mm) Fiber	1	0.41	0.09	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	152.0	3/8" (0.38"- 9.5mm) RET Contro	1	0.38	0.23	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	152.0	0.96" (24.3mm) Cable	2	0.96	0.88	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	150.0	Climbing Ladder	1	2.00	6.90	100	3	Individual	0.00	N	1.00	1.00	0.00
0.0	142.0	Waveguide	1	2.00	6.00	100	2	Individual	0.00	N	1.00	1.00	0.00
0.0	142.0	1 5/8" Hybriflex	3	1.98	1.30	67	2	Block	0.00	N	1.00	1.00	0.00
0.0	131.0	Waveguide	1	2.00	6.00	100	3	Individual	0.00	N	1.00	1.00	0.00
0.0	131.0	1.99" (50.7mm) Hybrid	3	1.99	1.90	100	3	Individual	0.00	N	1.00	1.00	0.00

ASSET: 370859, Hargray Bull St.

CODE: ANSI/TIA-222-I

CUSTOMER: T-MOBILE

PROJECT: 15315416_C3_02

SECTION FORCES

1.2D + 1.0W Normal

Gust Response Factor (Gh): 0.85

135 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	145	41.54	6.189	3.958	0.00	0.210	2.56	1.00	1.00	0.0	8.47	21.70	0.00	885	0	766	639	1405
7	130	40.35	9.695	9.600	0.00	0.163	2.72	1.00	1.00	0.0	15.16	41.27	0.00	2005	0	1416	2149	3564
6	110	38.59	11.774	11.687	0.00	0.147	2.78	1.00	1.00	0.0	18.08	50.33	0.00	2568	0	1651	2220	3871
5	90	36.58	14.227	13.356	0.00	0.137	2.82	1.00	1.00	0.0	21.16	59.67	0.00	2866	0	1855	2104	3959
4	70	34.21	16.373	15.027	0.00	0.129	2.85	1.00	1.00	0.0	23.91	68.16	0.00	3162	0	1982	1968	3950
3	50	31.27	30.815	18.572	0.00	0.173	2.69	1.00	1.00	0.0	39.76	106.88	0.00	4366	0	2841	1799	4640
2	30	27.72	24.699	18.577	0.00	0.133	2.84	1.00	1.00	0.0	33.37	94.62	0.00	4347	0	2229	1594	3824
1	10	27.72	23.093	22.120	0.00	0.123	2.87	1.00	1.00	0.0	32.06	92.14	0.00	4457	0	2171	1393	3564
Totals															24,656	0		28,777

1.2D + 1.0W 60°

Gust Response Factor (Gh): 0.85

135 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	145	41.54	6.189	3.958	0.00	0.210	2.56	0.80	1.00	0.0	7.23	18.53	0.00	885	0	654	639	1293
7	130	40.35	9.695	9.600	0.00	0.163	2.72	0.80	1.00	0.0	13.22	35.99	0.00	2005	0	1234	2149	3383
6	110	38.59	11.774	11.687	0.00	0.147	2.78	0.80	1.00	0.0	15.73	43.78	0.00	2568	0	1436	2220	3656
5	90	36.58	14.227	13.356	0.00	0.137	2.82	0.80	1.00	0.0	18.31	51.65	0.00	2866	0	1606	2104	3710
4	70	34.21	16.373	15.027	0.00	0.129	2.85	0.80	1.00	0.0	20.64	58.83	0.00	3162	0	1711	1968	3678
3	50	31.27	30.815	18.572	0.00	0.173	2.69	0.80	1.00	0.0	33.60	90.31	0.00	4366	0	2401	1799	4200
2	30	27.72	24.699	18.577	0.00	0.133	2.84	0.80	1.00	0.0	28.43	80.61	0.00	4347	0	1899	1594	3494
1	10	27.72	23.093	22.120	0.00	0.123	2.87	0.80	1.00	0.0	27.44	78.87	0.00	4457	0	1858	1393	3251
Totals															24,656	0		26,665

1.2D + 1.0W 90°

Gust Response Factor (Gh): 0.85

135 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	145	41.54	6.189	3.958	0.00	0.210	2.56	0.85	1.00	0.0	7.54	19.32	0.00	885	0	682	639	1321
7	130	40.35	9.695	9.600	0.00	0.163	2.72	0.85	1.00	0.0	13.70	37.31	0.00	2005	0	1280	2149	3428
6	110	38.59	11.774	11.687	0.00	0.147	2.78	0.85	1.00	0.0	16.32	45.42	0.00	2568	0	1490	2220	3709
5	90	36.58	14.227	13.356	0.00	0.137	2.82	0.85	1.00	0.0	19.02	53.65	0.00	2866	0	1668	2104	3772
4	70	34.21	16.373	15.027	0.00	0.129	2.85	0.85	1.00	0.0	21.46	61.16	0.00	3162	0	1778	1968	3746
3	50	31.27	30.815	18.572	0.00	0.173	2.69	0.85	1.00	0.0	35.14	94.46	0.00	4366	0	2511	1799	4310
2	30	27.72	24.699	18.577	0.00	0.133	2.84	0.85	1.00	0.0	29.67	84.12	0.00	4347	0	1982	1594	3576
1	10	27.72	23.093	22.120	0.00	0.123	2.87	0.85	1.00	0.0	28.60	82.19	0.00	4457	0	1936	1393	3330
Totals															24,656	0		27,193

1.2D + 1.0W 120°

Gust Response Factor (Gh): 0.85

135 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	145	41.54	6.189	3.958	0.00	0.210	2.56	1.00	1.00	0.0	8.47	21.70	0.00	885	0	766	639	1405
7	130	40.35	9.695	9.600	0.00	0.163	2.72	1.00	1.00	0.0	15.16	41.27	0.00	2005	0	1416	2149	3564
6	110	38.59	11.774	11.687	0.00	0.147	2.78	1.00	1.00	0.0	18.08	50.33	0.00	2568	0	1651	2220	3871
5	90	36.58	14.227	13.356	0.00	0.137	2.82	1.00	1.00	0.0	21.16	59.67	0.00	2866	0	1855	2104	3959
4	70	34.21	16.373	15.027	0.00	0.129	2.85	1.00	1.00	0.0	23.91	68.16	0.00	3162	0	1982	1968	3950
3	50	31.27	30.815	18.572	0.00	0.173	2.69	1.00	1.00	0.0	39.76	106.88	0.00	4366	0	2841	1799	4640
2	30	27.72	24.699	18.577	0.00	0.133	2.84	1.00	1.00	0.0	33.37	94.62	0.00	4347	0	2229	1594	3824
1	10	27.72	23.093	22.120	0.00	0.123	2.87	1.00	1.00	0.0	32.06	92.14	0.00	4457	0	2171	1393	3564
Totals															24,656	0		28,777

1.2D + 1.0W 180°

Gust Response Factor (Gh): 0.85

135 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	145	41.54	6.189	3.958	0.00	0.210	2.56	0.80	1.00	0.0	7.23	18.53	0.00	885	0	654	639	1293
7	130	40.35	9.695	9.600	0.00	0.163	2.72	0.80	1.00	0.0	13.22	35.99	0.00	2005	0	1234	2149	3383
6	110	38.59	11.774	11.687	0.00	0.147	2.78	0.80	1.00	0.0	15.73	43.78	0.00	2568	0	1436	2220	3656
5	90	36.58	14.227	13.356	0.00	0.137	2.82	0.80	1.00	0.0	18.31	51.65	0.00	2866	0	1606	2104	3710
4	70	34.21	16.373	15.027	0.00	0.129	2.85	0.80	1.00	0.0	20.64	58.83	0.00	3162	0	1711	1968	3678
3	50	31.27	30.815	18.572	0.00	0.173	2.69	0.80	1.00	0.0	33.60	90.31	0.00	4366	0	2401	1799	4200
2	30	27.72	24.699	18.577	0.00	0.133	2.84	0.80	1.00	0.0	28.43	80.61	0.00	4347	0	1899	1594	3494
1	10	27.72	23.093	22.120	0.00	0.123	2.87	0.80	1.00	0.0	27.44	78.87	0.00	4457	0	1858	1393	3251
Totals															24,656	0		26,665

1.2D + 1.0W 210°

Gust Response Factor (Gh): 0.85

135 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	145	41.54	6.189	3.958	0.00	0.210	2.56	0.85	1.00	0.0	7.54	19.32	0.00	885	0	682	639	1321
7	130	40.35	9.695	9.600	0.00	0.163	2.72	0.85	1.00	0.0	13.70	37.31	0.00	2005	0	1280	2149	3428

ASSET: 370859, Hargray Bull St.

CODE: ANSI/TIA-222-I

CUSTOMER: T-MOBILE

PROJECT: 15315416_C3_02

SECTION FORCES

1.2D + 1.0W 210°

Gust Response Factor (Gh): 0.85

135 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
6	110	38.59	11.774	11.687	0.00	0.147	2.78	0.85	1.00	0.0	16.32	45.42	0.00	2568	0	1490	2220	3709
5	90	36.58	14.227	13.356	0.00	0.137	2.82	0.85	1.00	0.0	19.02	53.65	0.00	2866	0	1668	2104	3772
4	70	34.21	16.373	15.027	0.00	0.129	2.85	0.85	1.00	0.0	21.46	61.16	0.00	3162	0	1778	1968	3746
3	50	31.27	30.815	18.572	0.00	0.173	2.69	0.85	1.00	0.0	35.14	94.46	0.00	4366	0	2511	1799	4310
2	30	27.72	24.699	18.577	0.00	0.133	2.84	0.85	1.00	0.0	29.67	84.12	0.00	4347	0	1982	1594	3576
1	10	27.72	23.093	22.120	0.00	0.123	2.87	0.85	1.00	0.0	28.60	82.19	0.00	4457	0	1936	1393	3330
Totals														24,656	0			27,193

1.2D + 1.0W 240°

Gust Response Factor (Gh): 0.85

135 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	145	41.54	6.189	3.958	0.00	0.210	2.56	1.00	1.00	0.0	8.47	21.70	0.00	885	0	766	639	1405
7	130	40.35	9.695	9.600	0.00	0.163	2.72	1.00	1.00	0.0	15.16	41.27	0.00	2005	0	1416	2149	3564
6	110	38.59	11.774	11.687	0.00	0.147	2.78	1.00	1.00	0.0	18.08	50.33	0.00	2568	0	1651	2220	3871
5	90	36.58	14.227	13.356	0.00	0.137	2.82	1.00	1.00	0.0	21.16	59.67	0.00	2866	0	1855	2104	3959
4	70	34.21	16.373	15.027	0.00	0.129	2.85	1.00	1.00	0.0	23.91	68.16	0.00	3162	0	1982	1968	3950
3	50	31.27	30.815	18.572	0.00	0.173	2.69	1.00	1.00	0.0	39.76	106.88	0.00	4366	0	2841	1799	4640
2	30	27.72	24.699	18.577	0.00	0.133	2.84	1.00	1.00	0.0	33.37	94.62	0.00	4347	0	2229	1594	3824
1	10	27.72	23.093	22.120	0.00	0.123	2.87	1.00	1.00	0.0	32.06	92.14	0.00	4457	0	2171	1393	3564
Totals														24,656	0			28,777

1.2D + 1.0W 300°

Gust Response Factor (Gh): 0.85

135 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	145	41.54	6.189	3.958	0.00	0.210	2.56	0.80	1.00	0.0	7.23	18.53	0.00	885	0	654	639	1293
7	130	40.35	9.695	9.600	0.00	0.163	2.72	0.80	1.00	0.0	13.22	35.99	0.00	2005	0	1234	2149	3383
6	110	38.59	11.774	11.687	0.00	0.147	2.78	0.80	1.00	0.0	15.73	43.78	0.00	2568	0	1436	2220	3656
5	90	36.58	14.227	13.356	0.00	0.137	2.82	0.80	1.00	0.0	18.31	51.65	0.00	2866	0	1606	2104	3710
4	70	34.21	16.373	15.027	0.00	0.129	2.85	0.80	1.00	0.0	20.64	58.83	0.00	3162	0	1711	1968	3678
3	50	31.27	30.815	18.572	0.00	0.173	2.69	0.80	1.00	0.0	33.60	90.31	0.00	4366	0	2401	1799	4200
2	30	27.72	24.699	18.577	0.00	0.133	2.84	0.80	1.00	0.0	28.43	80.61	0.00	4347	0	1899	1594	3494
1	10	27.72	23.093	22.120	0.00	0.123	2.87	0.80	1.00	0.0	27.44	78.87	0.00	4457	0	1858	1393	3251
Totals														24,656	0			26,665

1.2D + 1.0W 330°

Gust Response Factor (Gh): 0.85

135 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	145	41.54	6.189	3.958	0.00	0.210	2.56	0.85	1.00	0.0	7.54	19.32	0.00	885	0	682	639	1321
7	130	40.35	9.695	9.600	0.00	0.163	2.72	0.85	1.00	0.0	13.70	37.31	0.00	2005	0	1280	2149	3428
6	110	38.59	11.774	11.687	0.00	0.147	2.78	0.85	1.00	0.0	16.32	45.42	0.00	2568	0	1490	2220	3709
5	90	36.58	14.227	13.356	0.00	0.137	2.82	0.85	1.00	0.0	19.02	53.65	0.00	2866	0	1668	2104	3772
4	70	34.21	16.373	15.027	0.00	0.129	2.85	0.85	1.00	0.0	21.46	61.16	0.00	3162	0	1778	1968	3746
3	50	31.27	30.815	18.572	0.00	0.173	2.69	0.85	1.00	0.0	35.14	94.46	0.00	4366	0	2511	1799	4310
2	30	27.72	24.699	18.577	0.00	0.133	2.84	0.85	1.00	0.0	29.67	84.12	0.00	4347	0	1982	1594	3576
1	10	27.72	23.093	22.120	0.00	0.123	2.87	0.85	1.00	0.0	28.60	82.19	0.00	4457	0	1936	1393	3330
Totals														24,656	0			27,193

0.9D + 1.0W Normal

Gust Response Factor (Gh): 0.85

135 mph Wind with No Ice (Reduced DL)

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	145	41.54	6.189	3.958	0.00	0.210	2.56	1.00	1.00	0.0	8.47	21.70	0.00	664	0	766	639	1405
7	130	40.35	9.695	9.600	0.00	0.163	2.72	1.00	1.00	0.0	15.16	41.27	0.00	1503	0	1416	2149	3564
6	110	38.59	11.774	11.687	0.00	0.147	2.78	1.00	1.00	0.0	18.08	50.33	0.00	1926	0	1651	2220	3871
5	90	36.58	14.227	13.356	0.00	0.137	2.82	1.00	1.00	0.0	21.16	59.67	0.00	2150	0	1855	2104	3959
4	70	34.21	16.373	15.027	0.00	0.129	2.85	1.00	1.00	0.0	23.91	68.16	0.00	2371	0	1982	1968	3950
3	50	31.27	30.815	18.572	0.00	0.173	2.69	1.00	1.00	0.0	39.76	106.88	0.00	3275	0	2841	1799	4640
2	30	27.72	24.699	18.577	0.00	0.133	2.84	1.00	1.00	0.0	33.37	94.62	0.00	3260	0	2229	1594	3824
1	10	27.72	23.093	22.120	0.00	0.123	2.87	1.00	1.00	0.0	32.06	92.14	0.00	3343	0	2171	1393	3564
Totals														18,492	0			28,777

0.9D + 1.0W 60°

Gust Response Factor (Gh): 0.85

135 mph Wind with No Ice (Reduced DL)

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	145	41.54	6.189	3.958	0.00	0.210	2.56	0.80	1.00	0.0	7.23	18.53	0.00	664	0	654	639	1293
7	130	40.35	9.695	9.600	0.00	0.163	2.72	0.80	1.00	0.0	13.22	35.99	0.00	1503	0	1234	2149	3383
6	110	38.59	11.774	11.687	0.00	0.147	2.78	0.80	1.00	0.0	15.73	43.78	0.00	1926	0	1436	2220	3656
5	90	36.58	14.227	13.356	0.00	0.137	2.82	0.80	1.00	0.0	18.31	51.65	0.00	2150	0	1606	2104	3710

ASSET: 370859, Hargray Bull St.

CODE: ANSI/TIA-222-I

CUSTOMER: T-MOBILE

PROJECT: 15315416_C3_02

SECTION FORCES

0.9D + 1.0W 60°

Gust Response Factor (Gh): 0.85

135 mph Wind with No Ice (Reduced DL)

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
4	70	34.21	16.373	15.027	0.00	0.129	2.85	0.80	1.00	0.0	20.64	58.83	0.00	2371	0	1711	1968	3678
3	50	31.27	30.815	18.572	0.00	0.173	2.69	0.80	1.00	0.0	33.60	90.31	0.00	3275	0	2401	1799	4200
2	30	27.72	24.699	18.577	0.00	0.133	2.84	0.80	1.00	0.0	28.43	80.61	0.00	3260	0	1899	1594	3494
1	10	27.72	23.093	22.120	0.00	0.123	2.87	0.80	1.00	0.0	27.44	78.87	0.00	3343	0	1858	1393	3251
Totals															18,492	0		26,665

0.9D + 1.0W 90°

Gust Response Factor (Gh): 0.85

135 mph Wind with No Ice (Reduced DL)

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	145	41.54	6.189	3.958	0.00	0.210	2.56	0.85	1.00	0.0	7.54	19.32	0.00	664	0	682	639	1321
7	130	40.35	9.695	9.600	0.00	0.163	2.72	0.85	1.00	0.0	13.70	37.31	0.00	1503	0	1280	2149	3428
6	110	38.59	11.774	11.687	0.00	0.147	2.78	0.85	1.00	0.0	16.32	45.42	0.00	1926	0	1490	2220	3709
5	90	36.58	14.227	13.356	0.00	0.137	2.82	0.85	1.00	0.0	19.02	53.65	0.00	2150	0	1668	2104	3772
4	70	34.21	16.373	15.027	0.00	0.129	2.85	0.85	1.00	0.0	21.46	61.16	0.00	2371	0	1778	1968	3746
3	50	31.27	30.815	18.572	0.00	0.173	2.69	0.85	1.00	0.0	35.14	94.46	0.00	3275	0	2511	1799	4310
2	30	27.72	24.699	18.577	0.00	0.133	2.84	0.85	1.00	0.0	29.67	84.12	0.00	3260	0	1982	1594	3576
1	10	27.72	23.093	22.120	0.00	0.123	2.87	0.85	1.00	0.0	28.60	82.19	0.00	3343	0	1936	1393	3330
Totals															18,492	0		27,193

0.9D + 1.0W 120°

Gust Response Factor (Gh): 0.85

135 mph Wind with No Ice (Reduced DL)

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	145	41.54	6.189	3.958	0.00	0.210	2.56	1.00	1.00	0.0	8.47	21.70	0.00	664	0	766	639	1405
7	130	40.35	9.695	9.600	0.00	0.163	2.72	1.00	1.00	0.0	15.16	41.27	0.00	1503	0	1416	2149	3564
6	110	38.59	11.774	11.687	0.00	0.147	2.78	1.00	1.00	0.0	18.08	50.33	0.00	1926	0	1651	2220	3871
5	90	36.58	14.227	13.356	0.00	0.137	2.82	1.00	1.00	0.0	21.16	59.67	0.00	2150	0	1855	2104	3959
4	70	34.21	16.373	15.027	0.00	0.129	2.85	1.00	1.00	0.0	23.91	68.16	0.00	2371	0	1982	1968	3950
3	50	31.27	30.815	18.572	0.00	0.173	2.69	1.00	1.00	0.0	39.76	106.88	0.00	3275	0	2841	1799	4640
2	30	27.72	24.699	18.577	0.00	0.133	2.84	1.00	1.00	0.0	33.37	94.62	0.00	3260	0	2229	1594	3824
1	10	27.72	23.093	22.120	0.00	0.123	2.87	1.00	1.00	0.0	32.06	92.14	0.00	3343	0	2171	1393	3564
Totals															18,492	0		28,777

0.9D + 1.0W 180°

Gust Response Factor (Gh): 0.85

135 mph Wind with No Ice (Reduced DL)

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	145	41.54	6.189	3.958	0.00	0.210	2.56	0.80	1.00	0.0	7.23	18.53	0.00	664	0	654	639	1293
7	130	40.35	9.695	9.600	0.00	0.163	2.72	0.80	1.00	0.0	13.22	35.99	0.00	1503	0	1234	2149	3383
6	110	38.59	11.774	11.687	0.00	0.147	2.78	0.80	1.00	0.0	15.73	43.78	0.00	1926	0	1436	2220	3656
5	90	36.58	14.227	13.356	0.00	0.137	2.82	0.80	1.00	0.0	18.31	51.65	0.00	2150	0	1606	2104	3710
4	70	34.21	16.373	15.027	0.00	0.129	2.85	0.80	1.00	0.0	20.64	58.83	0.00	2371	0	1711	1968	3678
3	50	31.27	30.815	18.572	0.00	0.173	2.69	0.80	1.00	0.0	33.60	90.31	0.00	3275	0	2401	1799	4200
2	30	27.72	24.699	18.577	0.00	0.133	2.84	0.80	1.00	0.0	28.43	80.61	0.00	3260	0	1899	1594	3494
1	10	27.72	23.093	22.120	0.00	0.123	2.87	0.80	1.00	0.0	27.44	78.87	0.00	3343	0	1858	1393	3251
Totals															18,492	0		26,665

0.9D + 1.0W 210°

Gust Response Factor (Gh): 0.85

135 mph Wind with No Ice (Reduced DL)

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	145	41.54	6.189	3.958	0.00	0.210	2.56	0.85	1.00	0.0	7.54	19.32	0.00	664	0	682	639	1321
7	130	40.35	9.695	9.600	0.00	0.163	2.72	0.85	1.00	0.0	13.70	37.31	0.00	1503	0	1280	2149	3428
6	110	38.59	11.774	11.687	0.00	0.147	2.78	0.85	1.00	0.0	16.32	45.42	0.00	1926	0	1490	2220	3709
5	90	36.58	14.227	13.356	0.00	0.137	2.82	0.85	1.00	0.0	19.02	53.65	0.00	2150	0	1668	2104	3772
4	70	34.21	16.373	15.027	0.00	0.129	2.85	0.85	1.00	0.0	21.46	61.16	0.00	2371	0	1778	1968	3746
3	50	31.27	30.815	18.572	0.00	0.173	2.69	0.85	1.00	0.0	35.14	94.46	0.00	3275	0	2511	1799	4310
2	30	27.72	24.699	18.577	0.00	0.133	2.84	0.85	1.00	0.0	29.67	84.12	0.00	3260	0	1982	1594	3576
1	10	27.72	23.093	22.120	0.00	0.123	2.87	0.85	1.00	0.0	28.60	82.19	0.00	3343	0	1936	1393	3330
Totals															18,492	0		27,193

0.9D + 1.0W 240°

Gust Response Factor (Gh): 0.85

135 mph Wind with No Ice (Reduced DL)

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	145	41.54	6.189	3.958	0.00	0.210	2.56	1.00	1.00	0.0	8.47	21.70	0.00	664	0	766	639	1405
7	130	40.35	9.695	9.600	0.00	0.163	2.72	1.00	1.00	0.0	15.16	41.27	0.00	1503	0	1416	2149	3564
6	110	38.59	11.774	11.687	0.00	0.147	2.78	1.00	1.00	0.0	18.08	50.33	0.00	1926	0	1651	2220	3871
5	90	36.58	14.227	13.356	0.00	0.137	2.82	1.00	1.00	0.0	21.16	59.67	0.00	2150	0	1855	2104	3959
4	70	34.21	16.373	15.027	0.00	0.129	2.85	1.00	1.00	0.0	23.91	68.16	0.00	2371	0	1982	1968	3950
3	50	31.27	30.815	18.572	0.00	0.173	2.69	1.00	1.00	0.0	39.76	106.88	0.00	3275	0	2841	1799	4640

SECTION FORCES																						
0.9D + 1.0W 240°																						
Gust Response Factor (Gh):										0.85												
135 mph Wind with No Ice (Reduced DL)										Wind Importance Factor (Iw): 1.00												
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)				
2	30	27.72	24.699	18.577	0.00	0.133	2.84	1.00	1.00	0.0	33.37	94.62	0.00	3260	0	2229	1594	3824				
1	10	27.72	23.093	22.120	0.00	0.123	2.87	1.00	1.00	0.0	32.06	92.14	0.00	3343	0	2171	1393	3564				
Totals														18,492	0	28,777						
0.9D + 1.0W 300°																						
Gust Response Factor (Gh):										0.85												
135 mph Wind with No Ice (Reduced DL)										Wind Importance Factor (Iw): 1.00												
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)				
8	145	41.54	6.189	3.958	0.00	0.210	2.56	0.80	1.00	0.0	7.23	18.53	0.00	664	0	654	639	1293				
7	130	40.35	9.695	9.600	0.00	0.163	2.72	0.80	1.00	0.0	13.22	35.99	0.00	1503	0	1234	2149	3383				
6	110	38.59	11.774	11.687	0.00	0.147	2.78	0.80	1.00	0.0	15.73	43.78	0.00	1926	0	1436	2220	3656				
5	90	36.58	14.227	13.356	0.00	0.137	2.82	0.80	1.00	0.0	18.31	51.65	0.00	2150	0	1606	2104	3710				
4	70	34.21	16.373	15.027	0.00	0.129	2.85	0.80	1.00	0.0	20.64	58.83	0.00	2371	0	1711	1968	3678				
3	50	31.27	30.815	18.572	0.00	0.173	2.69	0.80	1.00	0.0	33.60	90.31	0.00	3275	0	2401	1799	4200				
2	30	27.72	24.699	18.577	0.00	0.133	2.84	0.80	1.00	0.0	28.43	80.61	0.00	3260	0	1899	1594	3494				
1	10	27.72	23.093	22.120	0.00	0.123	2.87	0.80	1.00	0.0	27.44	78.87	0.00	3343	0	1858	1393	3251				
Totals														18,492	0	26,665						
0.9D + 1.0W 330°																						
Gust Response Factor (Gh):										0.85												
135 mph Wind with No Ice (Reduced DL)										Wind Importance Factor (Iw): 1.00												
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)				
8	145	41.54	6.189	3.958	0.00	0.210	2.56	0.85	1.00	0.0	7.54	19.32	0.00	664	0	682	639	1321				
7	130	40.35	9.695	9.600	0.00	0.163	2.72	0.85	1.00	0.0	13.70	37.31	0.00	1503	0	1280	2149	3428				
6	110	38.59	11.774	11.687	0.00	0.147	2.78	0.85	1.00	0.0	16.32	45.42	0.00	1926	0	1490	2220	3709				
5	90	36.58	14.227	13.356	0.00	0.137	2.82	0.85	1.00	0.0	19.02	53.65	0.00	2150	0	1668	2104	3772				
4	70	34.21	16.373	15.027	0.00	0.129	2.85	0.85	1.00	0.0	21.46	61.16	0.00	2371	0	1778	1968	3746				
3	50	31.27	30.815	18.572	0.00	0.173	2.69	0.85	1.00	0.0	35.14	94.46	0.00	3275	0	2511	1799	4310				
2	30	27.72	24.699	18.577	0.00	0.133	2.84	0.85	1.00	0.0	29.67	84.12	0.00	3260	0	1982	1594	3576				
1	10	27.72	23.093	22.120	0.00	0.123	2.87	0.85	1.00	0.0	28.60	82.19	0.00	3343	0	1936	1393	3330				
Totals														18,492	0	27,193						
1.2D + 1.0Di + 1.0Wi Normal																						
Gust Response Factor (Gh):										0.85												
31 mph Wind with 0.37" Radial Ice										Wind Importance Factor (Iw): 1.00												
															Ice Dead Load Factor:				1.00			
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)				
8	145	2.19	6.189	8.143	4.18	0.293	2.32	1.00	1.00	0.4	11.05	25.58	4.18	1290	405	48	63	110				
7	130	2.13	9.695	17.305	7.71	0.226	2.51	1.00	1.00	0.4	19.72	49.54	7.71	3005	1000	90	208	297				
6	110	2.03	11.774	19.550	7.86	0.194	2.62	1.00	1.00	0.4	22.99	60.12	7.86	3663	1095	104	217	321				
5	90	1.93	14.227	20.880	7.52	0.173	2.69	1.00	1.00	0.4	26.13	70.26	7.52	4007	1141	115	207	323				
4	70	1.80	16.373	23.065	8.04	0.161	2.73	1.00	1.00	0.4	29.49	80.54	8.04	4337	1176	123	194	318				
3	50	1.65	30.815	27.033	8.46	0.202	2.59	1.00	1.00	0.4	46.35	120.05	8.46	5863	1496	168	171	339				
2	30	1.46	24.699	25.564	6.99	0.154	2.76	1.00	1.00	0.4	39.22	108.14	6.99	5622	1275	134	154	289				
1	10	1.46	23.093	28.767	6.65	0.140	2.81	1.00	1.00	0.3	39.39	110.57	6.65	5508	1052	137	131	269				
Totals														33,295	8,639	2,266						
1.2D + 1.0Di + 1.0Wi 60°																						
Gust Response Factor (Gh):										0.85												
31 mph Wind with 0.37" Radial Ice										Wind Importance Factor (Iw): 1.00												
															Ice Dead Load Factor:				1.00			
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)				
8	145	2.19	6.189	8.143	4.18	0.293	2.32	0.80	1.00	0.4	9.81	22.71	4.18	1290	405	42	63	105				
7	130	2.13	9.695	17.305	7.71	0.226	2.51	0.80	1.00	0.4	17.78	44.67	7.71	3005	1000	81	208	289				
6	110	2.03	11.774	19.550	7.86	0.194	2.62	0.80	1.00	0.4	20.63	53.96	7.86	3663	1095	93	217	310				
5	90	1.93	14.227	20.880	7.52	0.173	2.69	0.80	1.00	0.4	23.29	62.61	7.52	4007	1141	103	207	310				
4	70	1.80	16.373	23.065	8.04	0.161	2.73	0.80	1.00	0.4	26.22	71.60	8.04	4337	1176	110	194	304				
3	50	1.65	30.815	27.033	8.46	0.202	2.59	0.80	1.00	0.4	40.19	104.09	8.46	5863	1496	146	171	317				
2	30	1.46	24.699	25.564	6.99	0.154	2.76	0.80	1.00	0.4	34.28	94.52	6.99	5622	1275	117	154	272				
1	10	1.46	23.093	28.767	6.65	0.140	2.81	0.80	1.00	0.3	34.77	97.61	6.65	5508	1052	121	131	253				
Totals														33,295	8,639	2,160						
1.2D + 1.0Di + 1.0Wi 90°																						
Gust Response Factor (Gh):										0.85												
31 mph Wind with 0.37" Radial Ice										Wind Importance Factor (Iw): 1.00												
															Ice Dead Load Factor:				1.00			
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)				
8	145	2.19	6.189	8.143	4.18	0.293	2.32	0.85	1.00	0.4	10.12	23.43	4.18	1290	405	44	63	106				
7	130	2.13	9.695	17.305	7.71	0.226	2.51	0.85	1.00	0.4	18.27	45.89	7.71	3005	1000	83	208	291				
6	110	2.03	11.774	19.550	7.86	0.194	2.62	0.85	1.00	0.4	21.22	55.50	7.86	3663	1095	96	217	313				
5	90	1.93	14.227	20.880	7.52	0.173	2.69	0.85	1.00	0.4	24.00	64.52	7.52	4007	1141	106	207	313				
4	70	1.80	16.373	23.065	8.04	0.161	2.73	0.85	1.00	0.4	27.04	73.83	8.04	4337	1176	113	194	307				
3	50	1.65	30.815	27.033	8.46	0.202	2.59	0.85	1.00	0.4	41.73	108.08	8.46	5863	1496	151	171	323				
2	30	1.46	24.699	25.564	6.99	0.154	2.76	0.85	1.00	0.4	35.51	97.93	6.99	5622	1275	122	154	276				
1	10	1.46	23.093	28.767	6.65	0.140	2.81	0.85	1.00	0.3	35.93	100.85	6.65	5508	1052	125	131	257				

ASSET: 370859, Hargray Bull St.

CODE: ANSI/TIA-222-I

CUSTOMER: T-MOBILE

PROJECT: 15315416_C3_02

SECTION FORCES

1.2D + 1.0Di + 1.0Wi 90°

Gust Response Factor (Gh): 0.85

31 mph Wind with 0.37" Radial Ice

Wind Importance Factor (Iw): 1.00

Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
Totals														33,295	8,639			2,186

1.2D + 1.0Di + 1.0Wi 120°

Gust Response Factor (Gh): 0.85

31 mph Wind with 0.37" Radial Ice

Wind Importance Factor (Iw): 1.00

Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	145	2.19	6.189	8.143	4.18	0.293	2.32	1.00	1.00	0.4	11.05	25.58	4.18	1290	405	48	63	110
7	130	2.13	9.695	17.305	7.71	0.226	2.51	1.00	1.00	0.4	19.72	49.54	7.71	3005	1000	90	208	297
6	110	2.03	11.774	19.550	7.86	0.194	2.62	1.00	1.00	0.4	22.99	60.12	7.86	3663	1095	104	217	321
5	90	1.93	14.227	20.880	7.52	0.173	2.69	1.00	1.00	0.4	26.13	70.26	7.52	4007	1141	115	207	323
4	70	1.80	16.373	23.065	8.04	0.161	2.73	1.00	1.00	0.4	29.49	80.54	8.04	4337	1176	123	194	318
3	50	1.65	30.815	27.033	8.46	0.202	2.59	1.00	1.00	0.4	46.35	120.05	8.46	5863	1496	168	171	339
2	30	1.46	24.699	25.564	6.99	0.154	2.76	1.00	1.00	0.4	39.22	108.14	6.99	5622	1275	134	154	289
1	10	1.46	23.093	28.767	6.65	0.140	2.81	1.00	1.00	0.3	39.39	110.57	6.65	5508	1052	137	131	269
Totals														33,295	8,639			2,266

1.2D + 1.0Di + 1.0Wi 180°

Gust Response Factor (Gh): 0.85

31 mph Wind with 0.37" Radial Ice

Wind Importance Factor (Iw): 1.00

Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	145	2.19	6.189	8.143	4.18	0.293	2.32	0.80	1.00	0.4	9.81	22.71	4.18	1290	405	42	63	105
7	130	2.13	9.695	17.305	7.71	0.226	2.51	0.80	1.00	0.4	17.78	44.67	7.71	3005	1000	81	208	289
6	110	2.03	11.774	19.550	7.86	0.194	2.62	0.80	1.00	0.4	20.63	53.96	7.86	3663	1095	93	217	310
5	90	1.93	14.227	20.880	7.52	0.173	2.69	0.80	1.00	0.4	23.29	62.61	7.52	4007	1141	103	207	310
4	70	1.80	16.373	23.065	8.04	0.161	2.73	0.80	1.00	0.4	26.22	71.60	8.04	4337	1176	110	194	304
3	50	1.65	30.815	27.033	8.46	0.202	2.59	0.80	1.00	0.4	40.19	104.09	8.46	5863	1496	146	171	317
2	30	1.46	24.699	25.564	6.99	0.154	2.76	0.80	1.00	0.4	34.28	94.52	6.99	5622	1275	117	154	272
1	10	1.46	23.093	28.767	6.65	0.140	2.81	0.80	1.00	0.3	34.77	97.61	6.65	5508	1052	121	131	253
Totals														33,295	8,639			2,160

1.2D + 1.0Di + 1.0Wi 210°

Gust Response Factor (Gh): 0.85

31 mph Wind with 0.37" Radial Ice

Wind Importance Factor (Iw): 1.00

Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	145	2.19	6.189	8.143	4.18	0.293	2.32	0.85	1.00	0.4	10.12	23.43	4.18	1290	405	44	63	106
7	130	2.13	9.695	17.305	7.71	0.226	2.51	0.85	1.00	0.4	18.27	45.89	7.71	3005	1000	83	208	291
6	110	2.03	11.774	19.550	7.86	0.194	2.62	0.85	1.00	0.4	21.22	55.50	7.86	3663	1095	96	217	313
5	90	1.93	14.227	20.880	7.52	0.173	2.69	0.85	1.00	0.4	24.00	64.52	7.52	4007	1141	106	207	313
4	70	1.80	16.373	23.065	8.04	0.161	2.73	0.85	1.00	0.4	27.04	73.83	8.04	4337	1176	113	194	307
3	50	1.65	30.815	27.033	8.46	0.202	2.59	0.85	1.00	0.4	41.73	108.08	8.46	5863	1496	151	171	323
2	30	1.46	24.699	25.564	6.99	0.154	2.76	0.85	1.00	0.4	35.51	97.93	6.99	5622	1275	122	154	276
1	10	1.46	23.093	28.767	6.65	0.140	2.81	0.85	1.00	0.3	35.93	100.85	6.65	5508	1052	125	131	257
Totals														33,295	8,639			2,186

1.2D + 1.0Di + 1.0Wi 240°

Gust Response Factor (Gh): 0.85

31 mph Wind with 0.37" Radial Ice

Wind Importance Factor (Iw): 1.00

Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	145	2.19	6.189	8.143	4.18	0.293	2.32	1.00	1.00	0.4	11.05	25.58	4.18	1290	405	48	63	110
7	130	2.13	9.695	17.305	7.71	0.226	2.51	1.00	1.00	0.4	19.72	49.54	7.71	3005	1000	90	208	297
6	110	2.03	11.774	19.550	7.86	0.194	2.62	1.00	1.00	0.4	22.99	60.12	7.86	3663	1095	104	217	321
5	90	1.93	14.227	20.880	7.52	0.173	2.69	1.00	1.00	0.4	26.13	70.26	7.52	4007	1141	115	207	323
4	70	1.80	16.373	23.065	8.04	0.161	2.73	1.00	1.00	0.4	29.49	80.54	8.04	4337	1176	123	194	318
3	50	1.65	30.815	27.033	8.46	0.202	2.59	1.00	1.00	0.4	46.35	120.05	8.46	5863	1496	168	171	339
2	30	1.46	24.699	25.564	6.99	0.154	2.76	1.00	1.00	0.4	39.22	108.14	6.99	5622	1275	134	154	289
1	10	1.46	23.093	28.767	6.65	0.140	2.81	1.00	1.00	0.3	39.39	110.57	6.65	5508	1052	137	131	269
Totals														33,295	8,639			2,266

1.2D + 1.0Di + 1.0Wi 300°

Gust Response Factor (Gh): 0.85

31 mph Wind with 0.37" Radial Ice

Wind Importance Factor (Iw): 1.00

Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	145	2.19	6.189	8.143	4.18	0.293	2.32	0.80	1.00	0.4	9.81	22.71	4.18	1290	405	42	63	105
7	130	2.13	9.695	17.305	7.71	0.226	2.51	0.80	1.00	0.4	17.78	44.67	7.71	3005	1000	81	208	289
6	110	2.03	11.774	19.550	7.86	0.194	2.62	0.80	1.00	0.4	20.63	53.96	7.86	3663	1095	93	217	310
5	90	1.93	14.227	20.880	7.52	0.173	2.69	0.80	1.00	0.4	23.29	62.61	7.52	4007	1141	103	207	310
4	70	1.80	16.373	23.065	8.04	0.161	2.73	0.80	1.00	0.4	26.22	71.60	8.04	4337	1176	110	194	304
3	50	1.65	30.815	27.033	8.46	0.202	2.59	0.80	1.00	0.4	40.19	104.09	8.46	5863	1496	146	171	317
2	30	1.46	24.699	25.564	6.99	0.154	2.76	0.80	1.00	0.4	34.28	94.52	6.99	5622	1275	117	154	272
1	10	1.46	23.093	28.767	6.65	0.140	2.81	0.80	1.00	0.3	34.77	97.61	6.65	5508	1052	121	131	253
Totals														33,295	8,639			2,160

SECTION FORCES																		
1.2D + 1.0Di + 1.0Wi 330°																		
Gust Response Factor (Gh): 0.85																		
31 mph Wind with 0.37" Radial Ice																		
Wind Importance Factor (Iw): 1.00											Ice Dead Load Factor: 1.00							
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	145	2.19	6.189	8.143	4.18	0.293	2.32	0.85	1.00	0.4	10.12	23.43	4.18	1290	405	44	63	106
7	130	2.13	9.695	17.305	7.71	0.226	2.51	0.85	1.00	0.4	18.27	45.89	7.71	3005	1000	83	208	291
6	110	2.03	11.774	19.550	7.86	0.194	2.62	0.85	1.00	0.4	21.22	55.50	7.86	3663	1095	96	217	313
5	90	1.93	14.227	20.880	7.52	0.173	2.69	0.85	1.00	0.4	24.00	64.52	7.52	4007	1141	106	207	313
4	70	1.80	16.373	23.065	8.04	0.161	2.73	0.85	1.00	0.4	27.04	73.83	8.04	4337	1176	113	194	307
3	50	1.65	30.815	27.033	8.46	0.202	2.59	0.85	1.00	0.4	41.73	108.08	8.46	5863	1496	151	171	323
2	30	1.46	24.699	25.564	6.99	0.154	2.76	0.85	1.00	0.4	35.51	97.93	6.99	5622	1275	122	154	276
1	10	1.46	23.093	28.767	6.65	0.140	2.81	0.85	1.00	0.3	35.93	100.85	6.65	5508	1052	125	131	257
Totals														33,295	8,639	2,186		
1.0D + 1.0W Service Normal																		
Gust Response Factor (Gh): 0.85																		
60 mph Wind with No Ice																		
Wind Importance Factor (Iw): 1.00																		
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	145	8.21	6.189	3.958	0.00	0.210	2.56	1.00	1.00	0.0	8.47	21.70	0.00	738	0	151	126	278
7	130	7.97	9.695	9.600	0.00	0.163	2.72	1.00	1.00	0.0	15.16	41.27	0.00	1671	0	280	424	704
6	110	7.62	11.774	11.687	0.00	0.147	2.78	1.00	1.00	0.0	18.40	51.23	0.00	2140	0	332	438	770
5	90	7.23	14.227	13.356	0.00	0.137	2.82	1.00	1.00	0.0	21.79	61.46	0.00	2388	0	377	416	793
4	70	6.76	16.373	15.027	0.00	0.129	2.85	1.00	1.00	0.0	24.87	70.90	0.00	2635	0	407	389	796
3	50	6.18	30.815	18.572	0.00	0.173	2.69	1.00	1.00	0.0	41.41	111.31	0.00	3639	0	584	355	940
2	30	5.48	24.699	18.577	0.00	0.133	2.84	1.00	1.00	0.0	35.21	99.84	0.00	3622	0	465	315	780
1	10	5.48	23.093	22.120	0.00	0.123	2.87	1.00	1.00	0.0	35.44	101.84	0.00	3714	0	474	275	749
Totals														20,547	0	5,809		
1.0D + 1.0W Service 60°																		
Gust Response Factor (Gh): 0.85																		
60 mph Wind with No Ice																		
Wind Importance Factor (Iw): 1.00																		
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	145	8.21	6.189	3.958	0.00	0.210	2.56	0.80	1.00	0.0	7.23	18.53	0.00	738	0	129	126	255
7	130	7.97	9.695	9.600	0.00	0.163	2.72	0.80	1.00	0.0	13.22	35.99	0.00	1671	0	244	424	668
6	110	7.62	11.774	11.687	0.00	0.147	2.78	0.80	1.00	0.0	16.05	44.67	0.00	2140	0	289	438	728
5	90	7.23	14.227	13.356	0.00	0.137	2.82	0.80	1.00	0.0	18.95	53.43	0.00	2388	0	328	416	744
4	70	6.76	16.373	15.027	0.00	0.129	2.85	0.80	1.00	0.0	21.60	61.57	0.00	2635	0	354	389	742
3	50	6.18	30.815	18.572	0.00	0.173	2.69	0.80	1.00	0.0	35.24	94.75	0.00	3639	0	497	355	853
2	30	5.48	24.699	18.577	0.00	0.133	2.84	0.80	1.00	0.0	30.27	85.84	0.00	3622	0	399	315	714
1	10	5.48	23.093	22.120	0.00	0.123	2.87	0.80	1.00	0.0	30.82	88.57	0.00	3714	0	412	275	687
Totals														20,547	0	5,392		
1.0D + 1.0W Service 90°																		
Gust Response Factor (Gh): 0.85																		
60 mph Wind with No Ice																		
Wind Importance Factor (Iw): 1.00																		
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	145	8.21	6.189	3.958	0.00	0.210	2.56	0.85	1.00	0.0	7.54	19.32	0.00	738	0	135	126	261
7	130	7.97	9.695	9.600	0.00	0.163	2.72	0.85	1.00	0.0	13.70	37.31	0.00	1671	0	253	424	677
6	110	7.62	11.774	11.687	0.00	0.147	2.78	0.85	1.00	0.0	16.64	46.31	0.00	2140	0	300	438	739
5	90	7.23	14.227	13.356	0.00	0.137	2.82	0.85	1.00	0.0	19.66	55.44	0.00	2388	0	340	416	756
4	70	6.76	16.373	15.027	0.00	0.129	2.85	0.85	1.00	0.0	22.42	63.90	0.00	2635	0	367	389	756
3	50	6.18	30.815	18.572	0.00	0.173	2.69	0.85	1.00	0.0	36.78	98.89	0.00	3639	0	519	355	875
2	30	5.48	24.699	18.577	0.00	0.133	2.84	0.85	1.00	0.0	31.51	89.34	0.00	3622	0	416	315	731
1	10	5.48	23.093	22.120	0.00	0.123	2.87	0.85	1.00	0.0	31.97	91.89	0.00	3714	0	428	275	703
Totals														20,547	0	5,497		
1.0D + 1.0W Service 120°																		
Gust Response Factor (Gh): 0.85																		
60 mph Wind with No Ice																		
Wind Importance Factor (Iw): 1.00																		
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	145	8.21	6.189	3.958	0.00	0.210	2.56	1.00	1.00	0.0	8.47	21.70	0.00	738	0	151	126	278
7	130	7.97	9.695	9.600	0.00	0.163	2.72	1.00	1.00	0.0	15.16	41.27	0.00	1671	0	280	424	704
6	110	7.62	11.774	11.687	0.00	0.147	2.78	1.00	1.00	0.0	18.40	51.23	0.00	2140	0	332	438	770
5	90	7.23	14.227	13.356	0.00	0.137	2.82	1.00	1.00	0.0	21.79	61.46	0.00	2388	0	377	416	793
4	70	6.76	16.373	15.027	0.00	0.129	2.85	1.00	1.00	0.0	24.87	70.90	0.00	2635	0	407	389	796
3	50	6.18	30.815	18.572	0.00	0.173	2.69	1.00	1.00	0.0	41.41	111.31	0.00	3639	0	584	355	940
2	30	5.48	24.699	18.577	0.00	0.133	2.84	1.00	1.00	0.0	35.21	99.84	0.00	3622	0	465	315	780
1	10	5.48	23.093	22.120	0.00	0.123	2.87	1.00	1.00	0.0	35.44	101.84	0.00	3714	0	474	275	749
Totals														20,547	0	5,809		
1.0D + 1.0W Service 180°																		
Gust Response Factor (Gh): 0.85																		
60 mph Wind with No Ice																		
Wind Importance Factor (Iw): 1.00																		
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	145	8.21	6.189	3.958	0.00	0.210	2.56	0.80	1.00	0.0	7.23	18.53	0.00	738	0	129	126	255
7	130	7.97	9.695	9.600	0.00	0.163	2.72	0.80	1.00	0.0	13.22	35.99	0.00	1671	0	244	424	668

SECTION FORCES																		
1.0D + 1.0W Service 180°																		
Gust Response Factor (Gh):											0.85							
60 mph Wind with No Ice											Wind Importance Factor (Iw): 1.00							
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
6	110	7.62	11.774	11.687	0.00	0.147	2.78	0.80	1.00	0.0	16.05	44.67	0.00	2140	0	289	438	728
5	90	7.23	14.227	13.356	0.00	0.137	2.82	0.80	1.00	0.0	18.95	53.43	0.00	2388	0	328	416	744
4	70	6.76	16.373	15.027	0.00	0.129	2.85	0.80	1.00	0.0	21.60	61.57	0.00	2635	0	354	389	742
3	50	6.18	30.815	18.572	0.00	0.173	2.69	0.80	1.00	0.0	35.24	94.75	0.00	3639	0	497	355	853
2	30	5.48	24.699	18.577	0.00	0.133	2.84	0.80	1.00	0.0	30.27	85.84	0.00	3622	0	399	315	714
1	10	5.48	23.093	22.120	0.00	0.123	2.87	0.80	1.00	0.0	30.82	88.57	0.00	3714	0	412	275	687
Totals														20,547	0			5,392
1.0D + 1.0W Service 210°																		
Gust Response Factor (Gh):											0.85							
60 mph Wind with No Ice											Wind Importance Factor (Iw): 1.00							
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	145	8.21	6.189	3.958	0.00	0.210	2.56	0.85	1.00	0.0	7.54	19.32	0.00	738	0	135	126	261
7	130	7.97	9.695	9.600	0.00	0.163	2.72	0.85	1.00	0.0	13.70	37.31	0.00	1671	0	253	424	677
6	110	7.62	11.774	11.687	0.00	0.147	2.78	0.85	1.00	0.0	16.64	46.31	0.00	2140	0	300	438	739
5	90	7.23	14.227	13.356	0.00	0.137	2.82	0.85	1.00	0.0	19.66	55.44	0.00	2388	0	340	416	756
4	70	6.76	16.373	15.027	0.00	0.129	2.85	0.85	1.00	0.0	22.42	63.90	0.00	2635	0	367	389	756
3	50	6.18	30.815	18.572	0.00	0.173	2.69	0.85	1.00	0.0	36.78	98.89	0.00	3639	0	519	355	875
2	30	5.48	24.699	18.577	0.00	0.133	2.84	0.85	1.00	0.0	31.51	89.34	0.00	3622	0	416	315	731
1	10	5.48	23.093	22.120	0.00	0.123	2.87	0.85	1.00	0.0	31.97	91.89	0.00	3714	0	428	275	703
Totals														20,547	0			5,497
1.0D + 1.0W Service 240°																		
Gust Response Factor (Gh):											0.85							
60 mph Wind with No Ice											Wind Importance Factor (Iw): 1.00							
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	145	8.21	6.189	3.958	0.00	0.210	2.56	1.00	1.00	0.0	8.47	21.70	0.00	738	0	151	126	278
7	130	7.97	9.695	9.600	0.00	0.163	2.72	1.00	1.00	0.0	15.16	41.27	0.00	1671	0	280	424	704
6	110	7.62	11.774	11.687	0.00	0.147	2.78	1.00	1.00	0.0	18.40	51.23	0.00	2140	0	332	438	770
5	90	7.23	14.227	13.356	0.00	0.137	2.82	1.00	1.00	0.0	21.79	61.46	0.00	2388	0	377	416	793
4	70	6.76	16.373	15.027	0.00	0.129	2.85	1.00	1.00	0.0	24.87	70.90	0.00	2635	0	407	389	796
3	50	6.18	30.815	18.572	0.00	0.173	2.69	1.00	1.00	0.0	41.41	111.31	0.00	3639	0	584	355	940
2	30	5.48	24.699	18.577	0.00	0.133	2.84	1.00	1.00	0.0	35.21	99.84	0.00	3622	0	465	315	780
1	10	5.48	23.093	22.120	0.00	0.123	2.87	1.00	1.00	0.0	35.44	101.84	0.00	3714	0	474	275	749
Totals														20,547	0			5,809
1.0D + 1.0W Service 300°																		
Gust Response Factor (Gh):											0.85							
60 mph Wind with No Ice											Wind Importance Factor (Iw): 1.00							
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	145	8.21	6.189	3.958	0.00	0.210	2.56	0.80	1.00	0.0	7.23	18.53	0.00	738	0	129	126	255
7	130	7.97	9.695	9.600	0.00	0.163	2.72	0.80	1.00	0.0	13.22	35.99	0.00	1671	0	244	424	668
6	110	7.62	11.774	11.687	0.00	0.147	2.78	0.80	1.00	0.0	16.05	44.67	0.00	2140	0	289	438	728
5	90	7.23	14.227	13.356	0.00	0.137	2.82	0.80	1.00	0.0	18.95	53.43	0.00	2388	0	328	416	744
4	70	6.76	16.373	15.027	0.00	0.129	2.85	0.80	1.00	0.0	21.60	61.57	0.00	2635	0	354	389	742
3	50	6.18	30.815	18.572	0.00	0.173	2.69	0.80	1.00	0.0	35.24	94.75	0.00	3639	0	497	355	853
2	30	5.48	24.699	18.577	0.00	0.133	2.84	0.80	1.00	0.0	30.27	85.84	0.00	3622	0	399	315	714
1	10	5.48	23.093	22.120	0.00	0.123	2.87	0.80	1.00	0.0	30.82	88.57	0.00	3714	0	412	275	687
Totals														20,547	0			5,392
1.0D + 1.0W Service 330°																		
Gust Response Factor (Gh):											0.85							
60 mph Wind with No Ice											Wind Importance Factor (Iw): 1.00							
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
8	145	8.21	6.189	3.958	0.00	0.210	2.56	0.85	1.00	0.0	7.54	19.32	0.00	738	0	135	126	261
7	130	7.97	9.695	9.600	0.00	0.163	2.72	0.85	1.00	0.0	13.70	37.31	0.00	1671	0	253	424	677
6	110	7.62	11.774	11.687	0.00	0.147	2.78	0.85	1.00	0.0	16.64	46.31	0.00	2140	0	300	438	739
5	90	7.23	14.227	13.356	0.00	0.137	2.82	0.85	1.00	0.0	19.66	55.44	0.00	2388	0	340	416	756
4	70	6.76	16.373	15.027	0.00	0.129	2.85	0.85	1.00	0.0	22.42	63.90	0.00	2635	0	367	389	756
3	50	6.18	30.815	18.572	0.00	0.173	2.69	0.85	1.00	0.0	36.78	98.89	0.00	3639	0	519	355	875
2	30	5.48	24.699	18.577	0.00	0.133	2.84	0.85	1.00	0.0	31.51	89.34	0.00	3622	0	416	315	731
1	10	5.48	23.093	22.120	0.00	0.123	2.87	0.85	1.00	0.0	31.97	91.89	0.00	3714	0	428	275	703
Totals														20,547	0			5,497

ASSET: 370859, Hargray Bull St.
CUSTOMER: T-MOBILE

CODE: ANSI/TIA-222-I
PROJECT: 15315416_C3_02

EQUIVALENT LATERAL FORCE METHOD

Long-Period Transition Period (T_L - Seconds): 8
Importance Factor (I_e): 1.00
Response Modification Coefficient (R): 3.00
Design Spectral Response Acceleration at Short Period (S_{ds}): 0.32
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}): 0.17
Seismic Response Coefficient (C_s): 0.05
Upper Limit C_s : 0.05
Lower Limit C_s : 0.03
Period based on Rayleigh Method (sec): 1.08
Redundancy Factor (ρ): 1.30
Seismic Force Distribution Exponent (k): 1.29
Total Unfactored Dead Load: 31.42 k
Seismic Base Shear (E): 2.14 k

SEISMIC FORCES

0.9D - 1.0Ev + 1.0Eh

Section/Appurtenance	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	Cvx	Horizontal Force (lb)	Vertical Force (lb)
8	145.00	738	455,893	0.041	87	617
7	130.00	1,671	896,547	0.080	172	1,397
6	110.00	2,140	925,665	0.083	178	1,789
5	90.00	2,388	797,282	0.072	153	1,997
4	70.00	2,635	635,760	0.057	122	2,203
3	50.00	3,639	568,602	0.051	109	3,042
2	30.00	3,622	292,675	0.026	56	3,028
1	10.00	3,714	72,633	0.006	14	3,105
Ericsson AIR 6419 B77G	150.00	198	128,023	0.012	25	166
Commscope WCS-IMFQ-AMT-43	150.00	18	11,363	0.001	2	15
Raycap DC2-48-60-0-9E	150.00	64	41,319	0.004	8	54
Andrew ETM190G-12UB	150.00	120	77,472	0.007	15	100
Ericsson RRUS 4415 B25	150.00	138	89,093	0.008	17	115
Ericsson 4478 B12A	150.00	168	108,655	0.010	21	141
Ericsson RRUS 4478 B14 (18.1" Height)	150.00	178	115,046	0.010	22	149
Raycap DC9-48-60-24-8C-EV (Enclosure)	150.00	18	11,944	0.001	2	15
Raycap DC6-48-60-18-8C-EV (Enclosure)	150.00	48	30,989	0.003	6	40
Ericsson RRUS 32 B30 (53 lbs)	150.00	159	102,651	0.009	20	133
Ericsson RRUS 32 B66	150.00	159	102,651	0.009	20	133
Ericsson RRUS 11 B12	150.00	152	98,196	0.009	19	127
Commscope NNH4-65B-R6	150.00	269	173,732	0.016	33	225
Commscope NNH4-65B-R6H4	150.00	250	161,336	0.014	31	209
Commscope SBJAH4-1D65C-DL	150.00	223	143,905	0.013	28	186
Ericsson Air 6449 B77D	150.00	245	158,044	0.014	30	205
Commscope SFG23HD	150.00	1,104	712,745	0.064	137	923
Commscope CBC1921Y-DS-2X	142.00	99	59,548	0.005	11	83
Ericsson Radio 4408 w/ Integrated Panel	142.00	33	20,030	0.002	4	28
Ericsson 8843 Rev 2	142.00	225	135,335	0.012	26	188
Ericsson Radio 4449 - B13&B5	142.00	420	252,626	0.023	48	351
Ericsson Radio 2212 B2/B66A (w/o fan)	142.00	238	143,275	0.013	27	199
Raycap RCMDC-6627-PF-48	142.00	64	38,495	0.004	7	54
Ericsson AIR 6449 B77D/C-Band	142.00	264	158,794	0.014	30	221
Generic Mount Reinforcement	142.00	200	120,298	0.011	23	167
Commscope SBNHH-1D65C	142.00	298	179,004	0.016	34	249
Antel LPA-80080/8CF	142.00	48	28,872	0.003	6	40
Antel LPA-80063/8CF 2°	142.00	38	22,857	0.002	4	32
Generic Round Sector Frame	142.00	2,100	1,263,130	0.113	242	1,756
Ericsson Radio 4460 B25+B66	131.00	327	177,239	0.016	34	273
Ericsson Radio 4480 B71+B85A	131.00	252	136,588	0.012	26	211
Ericsson Air6449 B41	131.00	312	169,109	0.015	32	261
Sabre C10857001C	131.00	2,067	1,120,346	0.101	215	1,728
Commscope FFVV-65C-R3-V1	131.00	374	202,605	0.018	39	312
Totals		31,417	11,140,370	1.000	2,138	26,265

0.9D - 1.0Ev + 1.5Eh

Section/Appurtenance	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	Cvx	Horizontal Force (lb)	Vertical Force (lb)
8	145.00	738	455,893	0.041	131	617

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7	130.00	1,671	896,547	0.080	258	1,397
6	110.00	2,140	925,665	0.083	266	1,789
5	90.00	2,388	797,282	0.072	229	1,997
4	70.00	2,635	635,760	0.057	183	2,203
3	50.00	3,639	568,602	0.051	164	3,042
2	30.00	3,622	292,675	0.026	84	3,028
1	10.00	3,714	72,633	0.006	21	3,105
Ericsson AIR 6419 B77G	150.00	198	128,023	0.012	37	166
Commscope WCS-IMFQ-AMT-43	150.00	18	11,363	0.001	3	15
Raycap DC2-48-60-0-9E	150.00	64	41,319	0.004	12	54
Andrew ETM190G-12UB	150.00	120	77,472	0.007	22	100
Ericsson RRUS 4415 B25	150.00	138	89,093	0.008	26	115
Ericsson 4478 B12A	150.00	168	108,655	0.010	31	141
Ericsson RRUS 4478 B14 (18.1" Height)	150.00	178	115,046	0.010	33	149
Raycap DC9-48-60-24-8C-EV (Enclosure)	150.00	18	11,944	0.001	3	15
Raycap DC6-48-60-18-8C-EV (Enclosure)	150.00	48	30,989	0.003	9	40
Ericsson RRUS 32 B30 (53 lbs)	150.00	159	102,651	0.009	30	133
Ericsson RRUS 32 B66	150.00	159	102,651	0.009	30	133
Ericsson RRUS 11 B12	150.00	152	98,196	0.009	28	127
Commscope NNH4-65B-R6	150.00	269	173,732	0.016	50	225
Commscope NNH4-65B-R6H4	150.00	250	161,336	0.014	46	209
Commscope SBJAH4-1D65C-DL	150.00	223	143,905	0.013	41	186
Ericsson Air 6449 B77D	150.00	245	158,044	0.014	45	205
Commscope SFG23HD	150.00	1,104	712,745	0.064	205	923
Commscope CBC1921Y-DS-2X	142.00	99	59,548	0.005	17	83
Ericsson Radio 4408 w/ Integrated Panel	142.00	33	20,030	0.002	6	28
Ericsson 8843 Rev 2	142.00	225	135,335	0.012	39	188
Ericsson Radio 4449 - B13&B5	142.00	420	252,626	0.023	73	351
Ericsson Radio 2212 B2/B66A (w/o fan)	142.00	238	143,275	0.013	41	199
Raycap RCMDC-6627-PF-48	142.00	64	38,495	0.004	11	54
Ericsson AIR 6449 B77D/C-Band	142.00	264	158,794	0.014	46	221
Generic Mount Reinforcement	142.00	200	120,298	0.011	35	167
Commscope SBNHH-1D65C	142.00	298	179,004	0.016	52	249
Antel LPA-80080/8CF ____	142.00	48	28,872	0.003	8	40
Antel LPA-80063/8CF ____ 2°	142.00	38	22,857	0.002	7	32
Generic Round Sector Frame	142.00	2,100	1,263,130	0.113	364	1,756
Ericsson Radio 4460 B25+B66	131.00	327	177,239	0.016	51	273
Ericsson Radio 4480 B71+B85A	131.00	252	136,588	0.012	39	211
Ericsson Air6449 B41	131.00	312	169,109	0.015	49	261
Sabre C10857001C	131.00	2,067	1,120,346	0.101	322	1,728
Commscope FFV-65C-R3-V1	131.00	374	202,605	0.018	58	312
Totals		31,417	11,140,370	1.000	3,207	26,265

1.2D + 1.0Ev + 1.0Eh

Section/Appurtenance	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	Cvx	Horizontal Force (lb)	Vertical Force (lb)
8	145.00	738	455,893	0.041	87	933
7	130.00	1,671	896,547	0.080	172	2,112
6	110.00	2,140	925,665	0.083	178	2,705
5	90.00	2,388	797,282	0.072	153	3,019
4	70.00	2,635	635,760	0.057	122	3,330
3	50.00	3,639	568,602	0.051	109	4,599
2	30.00	3,622	292,675	0.026	56	4,579
1	10.00	3,714	72,633	0.006	14	4,695
Ericsson AIR 6419 B77G	150.00	198	128,023	0.012	25	251
Commscope WCS-IMFQ-AMT-43	150.00	18	11,363	0.001	2	22
Raycap DC2-48-60-0-9E	150.00	64	41,319	0.004	8	81
Andrew ETM190G-12UB	150.00	120	77,472	0.007	15	152
Ericsson RRUS 4415 B25	150.00	138	89,093	0.008	17	174
Ericsson 4478 B12A	150.00	168	108,655	0.010	21	213
Ericsson RRUS 4478 B14 (18.1" Height)	150.00	178	115,046	0.010	22	225
Raycap DC9-48-60-24-8C-EV (Enclosure)	150.00	18	11,944	0.001	2	23
Raycap DC6-48-60-18-8C-EV (Enclosure)	150.00	48	30,989	0.003	6	61
Ericsson RRUS 32 B30 (53 lbs)	150.00	159	102,651	0.009	20	201
Ericsson RRUS 32 B66	150.00	159	102,651	0.009	20	201
Ericsson RRUS 11 B12	150.00	152	98,196	0.009	19	192
Commscope NNH4-65B-R6	150.00	269	173,732	0.016	33	340
Commscope NNH4-65B-R6H4	150.00	250	161,336	0.014	31	316
Commscope SBJAH4-1D65C-DL	150.00	223	143,905	0.013	28	282
Ericsson Air 6449 B77D	150.00	245	158,044	0.014	30	309
Commscope SFG23HD	150.00	1,104	712,745	0.064	137	1,395
Commscope CBC1921Y-DS-2X	142.00	99	59,548	0.005	11	125
Ericsson Radio 4408 w/ Integrated Panel	142.00	33	20,030	0.002	4	42
Ericsson 8843 Rev 2	142.00	225	135,335	0.012	26	284
Ericsson Radio 4449 - B13&B5	142.00	420	252,626	0.023	48	531
Ericsson Radio 2212 B2/B66A (w/o fan)	142.00	238	143,275	0.013	27	301
Raycap RCMDC-6627-PF-48	142.00	64	38,495	0.004	7	81
Ericsson AIR 6449 B77D/C-Band	142.00	264	158,794	0.014	30	334
Generic Mount Reinforcement	142.00	200	120,298	0.011	23	253
Commscope SBNHH-1D65C	142.00	298	179,004	0.016	34	376
Antel LPA-80080/8CF ____	142.00	48	28,872	0.003	6	61
Antel LPA-80063/8CF ____ 2°	142.00	38	22,857	0.002	4	48

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Generic Round Sector Frame	142.00	2,100	1,263,130	0.113	242	2,654
Ericsson Radio 4460 B25+B66	131.00	327	177,239	0.016	34	413
Ericsson Radio 4480 B71+B85A	131.00	252	136,588	0.012	26	319
Ericsson Air6449 B41	131.00	312	169,109	0.015	32	394
Sabre C10857001C	131.00	2,067	1,120,346	0.101	215	2,613
Commscope FFV-65C-R3-V1	131.00	374	202,605	0.018	39	472
Totals		31,417	11,140,370	1.000	2,138	39,711

1.2D + 1.0Ev + 1.5Eh

Section/Appurtenance	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	Cvx	Horizontal Force (lb)	Vertical Force (lb)
8	145.00	738	455,893	0.041	131	933
7	130.00	1,671	896,547	0.080	258	2,112
6	110.00	2,140	925,665	0.083	266	2,705
5	90.00	2,388	797,282	0.072	229	3,019
4	70.00	2,635	635,760	0.057	183	3,330
3	50.00	3,639	568,602	0.051	164	4,599
2	30.00	3,622	292,675	0.026	84	4,579
1	10.00	3,714	72,633	0.006	21	4,695
Ericsson AIR 6419 B77G	150.00	198	128,023	0.012	37	251
Commscope WCS-IMFQ-AMT-43	150.00	18	11,363	0.001	3	22
Raycap DC2-48-60-0-9E	150.00	64	41,319	0.004	12	81
Andrew ETM190G-12UB	150.00	120	77,472	0.007	22	152
Ericsson RRUS 4415 B25	150.00	138	89,093	0.008	26	174
Ericsson 4478 B12A	150.00	168	108,655	0.010	31	213
Ericsson RRUS 4478 B14 (18.1" Height)	150.00	178	115,046	0.010	33	225
Raycap DC9-48-60-24-8C-EV (Enclosure)	150.00	18	11,944	0.001	3	23
Raycap DC6-48-60-18-8C-EV (Enclosure)	150.00	48	30,989	0.003	9	61
Ericsson RRUS 32 B30 (53 lbs)	150.00	159	102,651	0.009	30	201
Ericsson RRUS 32 B66	150.00	159	102,651	0.009	30	201
Ericsson RRUS 11 B12	150.00	152	98,196	0.009	28	192
Commscope NNH4-65B-R6	150.00	269	173,732	0.016	50	340
Commscope NNH4-65B-R6H4	150.00	250	161,336	0.014	46	316
Commscope SBJA4-1D65C-DL	150.00	223	143,905	0.013	41	282
Ericsson Air 6449 B77D	150.00	245	158,044	0.014	45	309
Commscope SFG23HD	150.00	1,104	712,745	0.064	205	1,395
Commscope CBC1921Y-DS-2X	142.00	99	59,548	0.005	17	125
Ericsson Radio 4408 w/ Integrated Panel	142.00	33	20,030	0.002	6	42
Ericsson 8843 Rev 2	142.00	225	135,335	0.012	39	284
Ericsson Radio 4449 - B13&B5	142.00	420	252,626	0.023	73	531
Ericsson Radio 2212 B2/B66A (w/o fan)	142.00	238	143,275	0.013	41	301
Raycap RCMD-6627-PF-48	142.00	64	38,495	0.004	11	81
Ericsson AIR 6449 B77D/C-Band	142.00	264	158,794	0.014	46	334
Generic Mount Reinforcement	142.00	200	120,298	0.011	35	253
Commscope SBNHH-1D65C	142.00	298	179,004	0.016	52	376
Antel LPA-80080/8CF	142.00	48	28,872	0.003	8	61
Antel LPA-80063/8CF 2°	142.00	38	22,857	0.002	7	48
Generic Round Sector Frame	142.00	2,100	1,263,130	0.113	364	2,654
Ericsson Radio 4460 B25+B66	131.00	327	177,239	0.016	51	413
Ericsson Radio 4480 B71+B85A	131.00	252	136,588	0.012	39	319
Ericsson Air6449 B41	131.00	312	169,109	0.015	49	394
Sabre C10857001C	131.00	2,067	1,120,346	0.101	322	2,613
Commscope FFV-65C-R3-V1	131.00	374	202,605	0.018	58	472
Totals		31,417	11,140,370	1.000	3,207	39,711

FORCE/STRESS SUMMARY

Section 1 – 0.0' to 20.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			KL/R	F'y (ksi)	Φc Pn (kip)	Shear	Bear	# Bolt	# Hole	Use %	Controls
	X			Y	Z	ΦRnv (kip)				ΦRn (kip)					
L PSP - ROHN 6 EHS	-233.09	1.2D + 1.0W 120°	9.766	100	100	100	52.67	50.00	246.51	0.00	0.00	0	0	95	Member X
D SAE - 3.5x3.5x0.25	-7.32	0.9D + 1.0W 330°	19.918	50	50	50	173.71	50.00	16.03	13.81	19.50	1	1	53	Bolt Shear
Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	Blk Shear Φt Pn (kip)	# Bolt	# Hole	Use %	Controls			
L PSP - ROHN 6 EHS	209.45	0.9D + 1.0W 60°	50.0	65	301.95	0.00	0.00		0	0	69	Member			
D SAE - 3.5x3.5x0.25	7.11	0.9D + 1.0W 210°	50.0	65	55.51	13.81	11.70	17.82	1	1	61	Bolt Bear			
Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type									
Bot Tension	209.46														
Bot Compression	240.21	0.9D + 1.0W 60°	340.73	38	6	1" A354-BC									
		1.2D + 1.0W 120°	396.16	1	0										

Section 2 – 20.0' to 40.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			KL/R	F' _y (ksi)	Φ _c P _n (kip)	Shear	Bear	# Bolt	# Hole	Use %	Controls
	X			Y	Z	ΦR _{nv} (kip)				ΦR _n (kip)					
L PX - 5" DIA PIPE	-207.46	1.2D + 1.0W 120°	9.768	50	50	50	31.85	50.00	254.88	0.00	0.00	0	0	81	Member X
D SAE - 3X3X0.25	-6.66	0.9D + 1.0W 210°	19.013	50	50	50	192.70	50.00	11.10	13.81	19.50	1	1	60	Member Z
Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	Blk Shear Φ _t P _n (kip)	# Bolt	# Hole	Use %	Controls			
L PX - 5" DIA PIPE	187.59	0.9D + 1.0W 60°	50.0	65	274.50	0.00	0.00		0	0	68	Member			
D SAE - 3X3X0.25	6.54	0.9D + 1.0W 210°	50.0	65	46.37	13.81	11.70	14.78	1	1	56	Bolt Bear			
Max Splice Forces	Pu (kip)	Load Case	ΦR _{nt} (kip)	Use %	Num Bolts	Bolt Type									
Bot Tension	187.38						0.9D + 1.0W 60°	327.10	57	6	1 A325				

FORCE/STRESS SUMMARY

Section 3 – 40.0' to 60.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			KL/R	F' _y (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	# Bolt	# Hole	Use %	Controls
	X			Y	Z	Φ _t P _n (kip)		Blk Shear Φ _t P _n (kip)	# Bolt	# Hole	Use %				
L PX - 5" DIA PIPE	-182.11	1.2D + 1.0W 120°	6.51	50	50	50	21.23	50.00	265.60	0.00	0.00	0	0	69	Member X
D SAE - 3X3X0.1875	-6.32	1.2D + 1.0W 210°	15.829	50	50	50	159.35	43.99	12.29	13.81	14.62	1	1	51	Member Z
Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	Blk Shear Φ _t P _n (kip)	# Bolt	# Hole	Use %	Controls			
L PX - 5" DIA PIPE	164.86		0.9D + 1.0W 60°	50.0	65	274.50	0.00	0.00		0	0		60	Member	
D SAE - 3X3X0.1875	6.21	0.9D + 1.0W 330°	50.0	65	35.14	13.81	8.78	11.08	1	1	71	Bolt Bear			
Max Splice Forces	Pu (kip)	Load Case	ΦR _{nt} (kip)	Use %	Num Bolts	Bolt Type									
Bot Tension	164.61		0.9D + 1.0W 60°	218.07	75	4	1 A325								

Section 4 – 60.0' to 80.00'

										Shear	Bear				
Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Φc Pn (kip)	ΦRnv (kip)	ΦRn (kip)	# Bolt	# Hole	Use %	Controls	
	X			Y	Z	KL/R									
L PX - 4" DIA PIPE	-153.06	1.2D + 1.0W 120°	6.512	100	100	100	52.80	50.00	161.86	0.00	0.00	0	0	95	Member X
D SAE - 2.5X2.5X0.1875	-5.26	1.2D + 1.0W 210°	14.064	50	50	50	170.48	36.00	8.88	13.81	13.05	1	1	59	Member Z
										Blk Shear					
Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	ΦRnv (kip)	ΦRn (kip)	Φt Pn (kip)	# Bolt	# Hole	Use %	Controls			
L PX - 4" DIA PIPE	139.43		0.9D + 1.0W 60°	50.0	65	198.45	0.00	0.00		0	0	70	Member		
D SAE - 2.5X2.5X0.1875	5.38	1.2D + 1.0W 210°	36.0	58	25.22	13.81	7.83	8.87	1	1	69	Bolt Bear			
Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type									
Bot Tension	139.20		0.9D + 1.0W 60°	218.07	64	4	1 A325								

Section 5 – 80.0' to 100.00'

										Shear	Bear				
Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			F _y (ksi)	Φ _c P _n (kip)	ΦR _{nv} (kip)	ΦR _n (kip)	# Bolt	# Hole	Use %	Controls	
	X			Y	Z										
L PX - 3-1/2" DIA PIPE	-124.45	1.2D + 1.0W 120°	6.511	100	100	100	59.65	50.00	127.67	0.00	0.00	0	0	97	Member X
D SAE - 2.5X2.5X0.1875	-5.07	1.2D + 1.0W 210°	12.268	50	50	50	148.71	36.00	11.67	13.81	13.05	1	1	43	Member Z
Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	Blk Shear Φ _t P _n (kip)	# Bolt	# Hole	Use %	Controls			
L PX - 3-1/2" DIA PIPE	114.39	0.9D + 1.0W 60°	50.0	65	165.60	0.00	0.00		0	0	69	Member			
D SAE - 2.5X2.5X0.1875	5.24	1.2D + 1.0W 330°	36.0	58	25.22	13.81	7.83	8.87	1	1	67	Bolt Bear			
Max Splice Forces	Pu (kip)	Load Case	ΦR _{nt} (kip)	Use %	Num Bolts	Bolt Type									
Bot Tension	114.27	0.9D + 1.0W 60°	166.22	69	4	0.875" A325									

FORCE/STRESS SUMMARY

Section 6 – 100.0' to 120.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			KL/R	F'y (ksi)	Φc Pn (kip)	Shear	Bear	# Bolt	# Hole	Use %	Controls
	X			Y	Z	ΦRnv (kip)				ΦRn (kip)					
L PX - 3" DIA PIPE	-94.60	1.2D + 1.0W 120°	4.883	100	100	100	51.40	50.00	112.02	0.00	0.00	0	0	84	Member X
D SAE - 2X2X0.1875	-4.56	1.2D + 1.0W 330°	9.753	50	50	50	148.52	36.00	9.28	13.81	13.05	1	1	49	Member Z
Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	Blk Shear Φt Pn (kip)	# Bolt	# Hole	Use %	Controls			
L PX - 3" DIA PIPE	86.30	0.9D + 1.0W 60°	50.0	65	135.90	0.00	0.00		0	0	64	Member			
D SAE - 2X2X0.1875	5.02	1.2D + 1.0W 330°	36.0	58	19.12	13.81	7.83	6.83	1	1	74	Blk Shear			
Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type									
Bot Tension	86.19	0.9D + 1.0W 60°	166.22	52	4	0.875" A325									

Section 7 – 120.0' to 140.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Φc Pn (kip)	Shear	Bear	# Bolt	# Hole	Use %	Controls	
	X			Y	Z	ΦRnv (kip)			ΦRn (kip)						
L PST - 2-1/2" DIA PIPE	-59.09	1.2D + 1.0W 120°	3.907	100	100	100	49.51	50.00	64.10	0.00	0.00	0	0	92	Member X
D SAE - 1.75X1.75X0.1875	-4.37	1.2D + 1.0W 330°	7.549	50	50	50	132.06	36.00	10.19	13.81	13.05	1	1	43	Member Z
Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	Blk Shear	# Bolt	# Hole	Use %	Controls			
	Φt Pn (kip)														
L PST - 2-1/2" DIA PIPE	53.30	0.9D + 1.0W 60°	50.0	65	76.68	0.00	0.00		0	0	70	Member			
D SAE - 1.75X1.75X0.1875	4.44	1.2D + 1.0W 210°	36.0	58	16.05	13.81	7.83	5.81	1	1	76	Blk Shear			
Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type									
Bot Tension	53.21						0.9D + 1.0W 60°	120.41	44	4	0.75" A325				

Section 8 – 140.0' to 150.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			KL/R	F'y (ksi)	Φc Pn (kip)	Shear	Bear	# Bolt	# Hole	Use %	Controls
	X			Y	Z	ΦRnv (kip)				ΦRn (kip)					
L PST - 2" DIA PIPE	-20.18	1.2D + 1.0W 120°	0.25	100	100	100	3.81	50.00	48.10	0.00	0.00	0	0	42	Member X
H SAE - 2X2X0.25	-1.40	0.9D + 1.0W 180°	4.604	100	100	100	141.30	36.00	13.48	13.81	17.40	1	1	10	Member Z
D SAE - 2X2X0.25	-4.55	1.2D + 1.0W 90°	5.663	50	50	50	95.18	36.00	24.20	13.81	17.40	1	1	33	Bolt Shear
Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	Blk Shear	# Bolt	# Hole	Use %	Controls			
	Φt Pn (kip)														
L PST - 2" DIA PIPE	14.38	0.9D + 1.0W 60°	50.0	65	48.15	0.00	0.00		0	0	30	Member			
H SAE - 2X2X0.25	1.60	1.2D + 1.0W N	36.0	58	25.06	13.81	10.44	9.11	1	1	18	Blk Shear			
D SAE - 2X2X0.25	4.36	0.9D + 1.0W 90°	36.0	58	25.06	13.81	10.44	9.11	1	1	48	Blk Shear			
Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type									
Bot Tension	14.58						0.9D + 1.0W 60°	81.36	18	4	5/8 A325				

ASSET: 370859, Hargray Bull St.

CODE: ANSI/TIA-222-I

CUSTOMER: T-MOBILE

PROJECT: 15315416_C3_02

DEFLECTIONS AND ROTATIONS					
Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	131.95	0.2276	0.0115	0.2297	0.2297
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	143.50	0.2758	0.0150	0.2108	0.2109
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	150.00	0.3036	0.0144	0.2581	0.2582
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	131.95	0.227	0.0186	0.2301	0.2301
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	143.50	0.2753	0.0229	0.2798	0.2807
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	150.00	0.3032	0.0224	0.2420	0.243
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	131.95	0.2338	-0.0149	0.2344	0.2348
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	143.50	0.2832	-0.0191	0.2856	0.2857
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	150.00	0.3118	-0.0186	0.2483	0.2484
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	131.95	0.228	-0.0142	0.2300	0.23
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	143.50	0.2762	-0.0186	0.2118	0.212
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	150.00	0.3039	-0.0181	0.2577	0.2579
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	131.95	0.2249	0.0017	0.2278	0.2278
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	143.50	0.2725	0.0019	0.1592	0.1592
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	150.00	0.2997	0.0019	0.2593	0.2593
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	131.95	0.2338	0.0149	0.2344	0.2348
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	143.50	0.2832	0.0191	0.2856	0.2857
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	150.00	0.3118	0.0186	0.2483	0.2484
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	131.95	0.2286	-0.0145	0.2306	0.2307
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	143.50	0.2773	-0.0154	0.3120	0.3124
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	150.00	0.3055	-0.0154	0.2401	0.2406
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	131.95	0.227	-0.0186	0.2301	0.2301
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	143.50	0.2753	-0.0229	0.2798	0.2807
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	150.00	0.3032	-0.0224	0.2420	0.243
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	131.95	0.2318	0.0016	0.2325	0.2325
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	143.50	0.2806	0.0018	0.1665	0.1665
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	150.00	0.3086	0.0017	0.2667	0.2667
0.9D - 1.0Ev + 1.0Eh 330° Seismic (Reduced DL)	131.95	0.0936	-0.0036	0.1012	0.1012
0.9D - 1.0Ev + 1.0Eh 330° Seismic (Reduced DL)	143.50	0.1149	-0.0042	0.1025	0.1026
0.9D - 1.0Ev + 1.0Eh 330° Seismic (Reduced DL)	150.00	0.1269	-0.0041	0.1061	0.1062
0.9D - 1.0Ev + 1.0Eh 300° Seismic (Reduced DL)	131.95	0.0935	-0.0032	0.1011	0.1011
0.9D - 1.0Ev + 1.0Eh 300° Seismic (Reduced DL)	143.50	0.1148	-0.0037	0.1013	0.1014
0.9D - 1.0Ev + 1.0Eh 300° Seismic (Reduced DL)	150.00	0.1269	-0.0036	0.1061	0.1062
0.9D - 1.0Ev + 1.0Eh 240° Seismic (Reduced DL)	131.95	0.0936	-0.0032	0.1016	0.1016
0.9D - 1.0Ev + 1.0Eh 240° Seismic (Reduced DL)	143.50	0.1149	-0.0037	0.1013	0.1014
0.9D - 1.0Ev + 1.0Eh 240° Seismic (Reduced DL)	150.00	0.1269	-0.0036	0.1060	0.106
0.9D - 1.0Ev + 1.0Eh 210° Seismic (Reduced DL)	131.95	0.0936	-0.0037	0.1011	0.1012
0.9D - 1.0Ev + 1.0Eh 210° Seismic (Reduced DL)	143.50	0.1149	-0.0042	0.1025	0.1026
0.9D - 1.0Ev + 1.0Eh 210° Seismic (Reduced DL)	150.00	0.1269	-0.0041	0.1061	0.1062
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	131.95	0.0935	0.0032	0.1011	0.1011
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	143.50	0.1148	0.0036	0.1013	0.1014
0.9D - 1.0Ev + 1.0Eh 180° Seismic (Reduced DL)	150.00	0.1269	0.0035	0.1061	0.1061
0.9D - 1.0Ev + 1.0Eh 120° Seismic (Reduced DL)	131.95	0.0936	0.0032	0.1016	0.1016
0.9D - 1.0Ev + 1.0Eh 120° Seismic (Reduced DL)	143.50	0.1149	0.0037	0.1013	0.1014
0.9D - 1.0Ev + 1.0Eh 120° Seismic (Reduced DL)	150.00	0.1269	0.0036	0.1060	0.106
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	131.95	0.0936	-0.0036	0.1011	0.1012
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	143.50	0.1149	-0.0041	0.1025	0.1026
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	150.00	0.1269	-0.0040	0.1061	0.1062
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	131.95	0.0935	0.0032	0.1011	0.1011
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	143.50	0.1148	0.0037	0.1013	0.1014
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	150.00	0.1269	0.0036	0.1061	0.1062
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	131.95	0.0936	0.0032	0.1016	0.1016
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	143.50	0.1149	0.0036	0.1013	0.1014
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	150.00	0.1269	0.0035	0.1060	0.106
1.2D + 1.0Ev + 1.0Eh 330° Seismic	131.95	0.094	-0.0037	0.1018	0.1018
1.2D + 1.0Ev + 1.0Eh 330° Seismic	143.50	0.1154	-0.0042	0.1030	0.1031
1.2D + 1.0Ev + 1.0Eh 330° Seismic	150.00	0.1274	-0.0041	0.1067	0.1068
1.2D + 1.0Ev + 1.0Eh 300° Seismic	131.95	0.0939	-0.0032	0.1014	0.1014
1.2D + 1.0Ev + 1.0Eh 300° Seismic	143.50	0.1153	-0.0037	0.1018	0.1019

ASSET: 370859, Hargray Bull St.

CODE: ANSI/TIA-222-I

CUSTOMER: T-MOBILE

PROJECT: 15315416_C3_02

DEFLECTIONS AND ROTATIONS					
Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0Ev + 1.0Eh 300° Seismic	150.00	0.1275	-0.0036	0.1067	0.1067
1.2D + 1.0Ev + 1.0Eh 240° Seismic	131.95	0.094	-0.0032	0.1023	0.1023
1.2D + 1.0Ev + 1.0Eh 240° Seismic	143.50	0.1154	-0.0037	0.1018	0.1019
1.2D + 1.0Ev + 1.0Eh 240° Seismic	150.00	0.1274	-0.0036	0.1065	0.1065
1.2D + 1.0Ev + 1.0Eh 210° Seismic	131.95	0.094	-0.0037	0.1018	0.1018
1.2D + 1.0Ev + 1.0Eh 210° Seismic	143.50	0.1154	-0.0043	0.1030	0.1031
1.2D + 1.0Ev + 1.0Eh 210° Seismic	150.00	0.1274	-0.0041	0.1067	0.1068
1.2D + 1.0Ev + 1.0Eh 180° Seismic	131.95	0.0939	0.0032	0.1014	0.1014
1.2D + 1.0Ev + 1.0Eh 180° Seismic	143.50	0.1153	0.0037	0.1018	0.1019
1.2D + 1.0Ev + 1.0Eh 180° Seismic	150.00	0.1275	0.0036	0.1067	0.1067
1.2D + 1.0Ev + 1.0Eh 120° Seismic	131.95	0.094	0.0032	0.1023	0.1023
1.2D + 1.0Ev + 1.0Eh 120° Seismic	143.50	0.1154	0.0037	0.1018	0.1019
1.2D + 1.0Ev + 1.0Eh 120° Seismic	150.00	0.1274	0.0036	0.1065	0.1065
1.2D + 1.0Ev + 1.0Eh 90° Seismic	131.95	0.094	-0.0036	0.1018	0.1018
1.2D + 1.0Ev + 1.0Eh 90° Seismic	143.50	0.1154	-0.0042	0.1030	0.1031
1.2D + 1.0Ev + 1.0Eh 90° Seismic	150.00	0.1274	-0.0041	0.1067	0.1068
1.2D + 1.0Ev + 1.0Eh 60° Seismic	131.95	0.0939	0.0032	0.1014	0.1014
1.2D + 1.0Ev + 1.0Eh 60° Seismic	143.50	0.1153	0.0037	0.1018	0.1019
1.2D + 1.0Ev + 1.0Eh 60° Seismic	150.00	0.1275	0.0036	0.1067	0.1067
1.2D + 1.0Ev + 1.0Eh Normal Seismic	131.95	0.094	0.0032	0.1023	0.1023
1.2D + 1.0Ev + 1.0Eh Normal Seismic	143.50	0.1154	0.0037	0.1018	0.1019
1.2D + 1.0Ev + 1.0Eh Normal Seismic	150.00	0.1274	0.0036	0.1065	0.1065
1.2D + 1.0Di + 1.0Wi 330° 31 mph Wind with 0.37" Radial Ice	131.95	0.0792	0.0024	0.0777	0.0777
1.2D + 1.0Di + 1.0Wi 330° 31 mph Wind with 0.37" Radial Ice	143.50	0.0952	0.0027	0.0710	0.071
1.2D + 1.0Di + 1.0Wi 330° 31 mph Wind with 0.37" Radial Ice	150.00	0.1046	0.0026	0.0860	0.086
1.2D + 1.0Di + 1.0Wi 300° 31 mph Wind with 0.37" Radial Ice	131.95	0.079	0.0040	0.0778	0.0778
1.2D + 1.0Di + 1.0Wi 300° 31 mph Wind with 0.37" Radial Ice	143.50	0.095	0.0043	0.0908	0.0909
1.2D + 1.0Di + 1.0Wi 300° 31 mph Wind with 0.37" Radial Ice	150.00	0.1044	0.0041	0.0809	0.0809
1.2D + 1.0Di + 1.0Wi 240° 31 mph Wind with 0.37" Radial Ice	131.95	0.0803	0.0035	0.0778	0.0779
1.2D + 1.0Di + 1.0Wi 240° 31 mph Wind with 0.37" Radial Ice	143.50	0.0966	0.0033	0.0931	0.0931
1.2D + 1.0Di + 1.0Wi 240° 31 mph Wind with 0.37" Radial Ice	150.00	0.106	0.0033	0.0825	0.0826
1.2D + 1.0Di + 1.0Wi 210° 31 mph Wind with 0.37" Radial Ice	131.95	0.0789	0.0019	0.0772	0.0772
1.2D + 1.0Di + 1.0Wi 210° 31 mph Wind with 0.37" Radial Ice	143.50	0.0948	-0.0020	0.0713	0.0713
1.2D + 1.0Di + 1.0Wi 210° 31 mph Wind with 0.37" Radial Ice	150.00	0.1041	-0.0019	0.0845	0.0845
1.2D + 1.0Di + 1.0Wi 180° 31 mph Wind with 0.37" Radial Ice	131.95	0.0784	0.0004	0.0770	0.077
1.2D + 1.0Di + 1.0Wi 180° 31 mph Wind with 0.37" Radial Ice	143.50	0.0942	0.0004	0.0558	0.0558
1.2D + 1.0Di + 1.0Wi 180° 31 mph Wind with 0.37" Radial Ice	150.00	0.1034	0.0004	0.0847	0.0847
1.2D + 1.0Di + 1.0Wi 120° 31 mph Wind with 0.37" Radial Ice	131.95	0.0803	-0.0035	0.0778	0.0779
1.2D + 1.0Di + 1.0Wi 120° 31 mph Wind with 0.37" Radial Ice	143.50	0.0966	-0.0033	0.0931	0.0931
1.2D + 1.0Di + 1.0Wi 120° 31 mph Wind with 0.37" Radial Ice	150.00	0.106	-0.0033	0.0825	0.0826
1.2D + 1.0Di + 1.0Wi 90° 31 mph Wind with 0.37" Radial Ice	131.95	0.0793	-0.0043	0.0778	0.0778
1.2D + 1.0Di + 1.0Wi 90° 31 mph Wind with 0.37" Radial Ice	143.50	0.0954	-0.0044	0.1010	0.1011
1.2D + 1.0Di + 1.0Wi 90° 31 mph Wind with 0.37" Radial Ice	150.00	0.1049	-0.0043	0.0801	0.0802
1.2D + 1.0Di + 1.0Wi 60° 31 mph Wind with 0.37" Radial Ice	131.95	0.079	-0.0040	0.0778	0.0778
1.2D + 1.0Di + 1.0Wi 60° 31 mph Wind with 0.37" Radial Ice	143.50	0.095	-0.0043	0.0908	0.0909
1.2D + 1.0Di + 1.0Wi 60° 31 mph Wind with 0.37" Radial Ice	150.00	0.1044	-0.0041	0.0809	0.0809
1.2D + 1.0Di + 1.0Wi Normal 31 mph Wind with 0.37" Radial Ice	131.95	0.0802	0.0005	0.0780	0.078
1.2D + 1.0Di + 1.0Wi Normal 31 mph Wind with 0.37" Radial Ice	143.50	0.0965	0.0005	0.0598	0.0598
1.2D + 1.0Di + 1.0Wi Normal 31 mph Wind with 0.37" Radial Ice	150.00	0.1059	0.0005	0.0892	0.0892
0.9D + 1.0W 330° 135 mph Wind with No Ice (Reduced DL)	131.95	1.1492	0.2332	1.1619	1.179
0.9D + 1.0W 330° 135 mph Wind with No Ice (Reduced DL)	143.50	1.3927	0.3328	1.0702	1.1109
0.9D + 1.0W 330° 135 mph Wind with No Ice (Reduced DL)	150.00	1.533	0.3228	1.3036	1.3344
0.9D + 1.0W 300° 135 mph Wind with No Ice (Reduced DL)	131.95	1.1446	0.2691	1.1591	1.1707
0.9D + 1.0W 300° 135 mph Wind with No Ice (Reduced DL)	143.50	1.3881	0.3722	1.4191	1.4671
0.9D + 1.0W 300° 135 mph Wind with No Ice (Reduced DL)	150.00	1.5294	0.3629	1.2220	1.2746
0.9D + 1.0W 240° 135 mph Wind with No Ice (Reduced DL)	131.95	1.178	-0.2382	1.1847	1.2085
0.9D + 1.0W 240° 135 mph Wind with No Ice (Reduced DL)	143.50	1.4275	-0.3379	1.4434	1.4669
0.9D + 1.0W 240° 135 mph Wind with No Ice (Reduced DL)	150.00	1.5716	-0.3263	1.2510	1.2876
0.9D + 1.0W 210° 135 mph Wind with No Ice (Reduced DL)	131.95	1.149	-0.2319	1.1645	1.1874

ASSET: 370859, Hargray Bull St.

CODE: ANSI/TIA-222-I

CUSTOMER: T-MOBILE

PROJECT: 15315416_C3_02

DEFLECTIONS AND ROTATIONS					
Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
0.9D + 1.0W 210° 135 mph Wind with No Ice (Reduced DL)	143.50	1.3925	-0.3312	1.0729	1.1088
0.9D + 1.0W 210° 135 mph Wind with No Ice (Reduced DL)	150.00	1.5328	-0.3199	1.3018	1.3285
0.9D + 1.0W 180° 135 mph Wind with No Ice (Reduced DL)	131.95	1.1391	0.0318	1.1532	1.1532
0.9D + 1.0W 180° 135 mph Wind with No Ice (Reduced DL)	143.50	1.3804	0.0371	0.8108	0.8116
0.9D + 1.0W 180° 135 mph Wind with No Ice (Reduced DL)	150.00	1.5191	0.0388	1.3179	1.3185
0.9D + 1.0W 120° 135 mph Wind with No Ice (Reduced DL)	131.95	1.178	0.2382	1.1847	1.2085
0.9D + 1.0W 120° 135 mph Wind with No Ice (Reduced DL)	143.50	1.4275	0.3379	1.4434	1.4669
0.9D + 1.0W 120° 135 mph Wind with No Ice (Reduced DL)	150.00	1.5716	0.3263	1.2510	1.2876
0.9D + 1.0W 90° 135 mph Wind with No Ice (Reduced DL)	131.95	1.1542	-0.0918	1.1632	1.1644
0.9D + 1.0W 90° 135 mph Wind with No Ice (Reduced DL)	143.50	1.4003	-0.1009	1.5782	1.5814
0.9D + 1.0W 90° 135 mph Wind with No Ice (Reduced DL)	150.00	1.5428	-0.1024	1.2136	1.218
0.9D + 1.0W 60° 135 mph Wind with No Ice (Reduced DL)	131.95	1.1446	-0.2691	1.1591	1.1707
0.9D + 1.0W 60° 135 mph Wind with No Ice (Reduced DL)	143.50	1.3881	-0.3722	1.4191	1.4671
0.9D + 1.0W 60° 135 mph Wind with No Ice (Reduced DL)	150.00	1.5294	-0.3629	1.2220	1.2746
0.9D + 1.0W Normal 135 mph Wind with No Ice (Reduced DL)	131.95	1.1728	0.0379	1.1795	1.1795
0.9D + 1.0W Normal 135 mph Wind with No Ice (Reduced DL)	143.50	1.4199	0.0439	0.8399	0.8411
0.9D + 1.0W Normal 135 mph Wind with No Ice (Reduced DL)	150.00	1.5616	0.0448	1.3475	1.3482
1.2D + 1.0W 330° 135 mph Wind with No Ice	131.95	1.1527	0.2339	1.1664	1.1836
1.2D + 1.0W 330° 135 mph Wind with No Ice	143.50	1.3971	0.3338	1.0746	1.1154
1.2D + 1.0W 330° 135 mph Wind with No Ice	150.00	1.538	0.3238	1.3088	1.3397
1.2D + 1.0W 300° 135 mph Wind with No Ice	131.95	1.148	0.2698	1.1638	1.1752
1.2D + 1.0W 300° 135 mph Wind with No Ice	143.50	1.3925	0.3732	1.4235	1.4717
1.2D + 1.0W 300° 135 mph Wind with No Ice	150.00	1.5344	0.3639	1.2269	1.2795
1.2D + 1.0W 240° 135 mph Wind with No Ice	131.95	1.1815	-0.2388	1.1893	1.2129
1.2D + 1.0W 240° 135 mph Wind with No Ice	143.50	1.432	-0.3387	1.4481	1.4718
1.2D + 1.0W 240° 135 mph Wind with No Ice	150.00	1.5766	-0.3271	1.2562	1.2929
1.2D + 1.0W 210° 135 mph Wind with No Ice	131.95	1.1524	-0.2324	1.1689	1.1918
1.2D + 1.0W 210° 135 mph Wind with No Ice	143.50	1.3969	-0.3321	1.0775	1.1135
1.2D + 1.0W 210° 135 mph Wind with No Ice	150.00	1.5377	-0.3207	1.3067	1.3336
1.2D + 1.0W 180° 135 mph Wind with No Ice	131.95	1.1425	0.0317	1.1578	1.1578
1.2D + 1.0W 180° 135 mph Wind with No Ice	143.50	1.3847	0.0370	0.8150	0.8158
1.2D + 1.0W 180° 135 mph Wind with No Ice	150.00	1.524	0.0386	1.3226	1.3231
1.2D + 1.0W 120° 135 mph Wind with No Ice	131.95	1.1815	0.2388	1.1893	1.2129
1.2D + 1.0W 120° 135 mph Wind with No Ice	143.50	1.432	0.3387	1.4481	1.4718
1.2D + 1.0W 120° 135 mph Wind with No Ice	150.00	1.5766	0.3271	1.2562	1.2929
1.2D + 1.0W 90° 135 mph Wind with No Ice	131.95	1.1577	-0.0918	1.1679	1.1691
1.2D + 1.0W 90° 135 mph Wind with No Ice	143.50	1.4048	-0.1008	1.5829	1.5861
1.2D + 1.0W 90° 135 mph Wind with No Ice	150.00	1.5478	-0.1024	1.2187	1.223
1.2D + 1.0W 60° 135 mph Wind with No Ice	131.95	1.148	-0.2698	1.1638	1.1752
1.2D + 1.0W 60° 135 mph Wind with No Ice	143.50	1.3925	-0.3732	1.4235	1.4717
1.2D + 1.0W 60° 135 mph Wind with No Ice	150.00	1.5344	-0.3639	1.2269	1.2795
1.2D + 1.0W Normal 135 mph Wind with No Ice	131.95	1.1763	0.0379	1.1840	1.184
1.2D + 1.0W Normal 135 mph Wind with No Ice	143.50	1.4244	0.0439	0.8448	0.846
1.2D + 1.0W Normal 135 mph Wind with No Ice	150.00	1.5667	0.0447	1.3528	1.3535

ASSET: 370859, Hargray Bull St.
CUSTOMER: T-MOBILE

CODE: ANSI/TIA-222-I
PROJECT: 15315416_C3_02

DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	*(-) Uplift and (+) Down		
					FX* (kip)	FY* (kip)	FZ* (kip)
1.2D + 1.0W Normal	10.89	0.00	0	1	0.00	239.10	-24.18
	10.89	0.00	120	1a	8.40	-100.70	-7.62
	10.89	0.00	240	1b	-8.40	-100.70	-7.62
1.2D + 1.0W 60°	10.89	0.00	0	1	-2.26	121.45	-11.81
	10.89	0.00	120	1a	-11.36	121.85	3.96
	10.89	0.00	240	1b	-18.69	-205.60	-10.81
1.2D + 1.0W 90°	10.89	0.00	0	1	-2.63	12.58	-0.64
	10.89	0.00	120	1a	-18.22	203.51	8.98
	10.89	0.00	240	1b	-16.99	-178.39	-8.33
1.2D + 1.0W 120°	10.89	0.00	0	1	-2.40	-100.69	11.08
	10.89	0.00	120	1a	-20.95	239.51	12.11
	10.89	0.00	240	1b	-10.80	-101.12	-3.48
1.2D + 1.0W 180°	10.89	0.00	0	1	0.00	-205.17	21.58
	10.89	0.00	120	1a	-9.10	121.44	7.87
	10.89	0.00	240	1b	9.10	121.44	7.87
1.2D + 1.0W 210°	10.89	0.00	0	1	1.29	-177.90	18.87
	10.89	0.00	120	1a	0.76	12.33	2.60
	10.89	0.00	240	1b	16.87	203.28	11.30
1.2D + 1.0W 240°	10.89	0.00	0	1	2.40	-100.69	11.08
	10.89	0.00	120	1a	10.80	-101.12	-3.48
	10.89	0.00	240	1b	20.95	239.51	12.11
1.2D + 1.0W 300°	10.89	0.00	0	1	2.26	121.45	-11.81
	10.89	0.00	120	1a	18.69	-205.60	-10.81
	10.89	0.00	240	1b	11.36	121.85	3.96
1.2D + 1.0W 330°	10.89	0.00	0	1	1.35	203.05	-20.26
	10.89	0.00	120	1a	15.70	-178.15	-10.56
	10.89	0.00	240	1b	1.88	12.81	-1.96
0.9D + 1.0W Normal	10.89	0.00	0	1	0.00	235.54	-23.98
	10.89	0.00	120	1a	8.56	-103.63	-7.72
	10.89	0.00	240	1b	-8.56	-103.63	-7.72
0.9D + 1.0W 60°	10.89	0.00	0	1	-2.26	118.10	-11.61
	10.89	0.00	120	1a	-11.19	118.50	3.86
	10.89	0.00	240	1b	-18.86	-208.33	-10.90
0.9D + 1.0W 90°	10.89	0.00	0	1	-2.64	9.44	-0.45
	10.89	0.00	120	1a	-18.05	200.01	8.88
	10.89	0.00	240	1b	-17.16	-181.17	-8.43
0.9D + 1.0W 120°	10.89	0.00	0	1	-2.40	-103.62	11.27
	10.89	0.00	120	1a	-20.77	235.94	12.01
	10.89	0.00	240	1b	-10.97	-104.04	-3.57
0.9D + 1.0W 180°	10.89	0.00	0	1	0.00	-207.91	21.77
	10.89	0.00	120	1a	-8.92	118.09	7.77
	10.89	0.00	240	1b	8.92	118.09	7.77
0.9D + 1.0W 210°	10.89	0.00	0	1	1.29	-180.69	19.06
	10.89	0.00	120	1a	0.93	9.19	2.51
	10.89	0.00	240	1b	16.70	199.77	11.21
0.9D + 1.0W 240°	10.89	0.00	0	1	2.40	-103.62	11.27
	10.89	0.00	120	1a	10.97	-104.04	-3.57
	10.89	0.00	240	1b	20.77	235.94	12.01
0.9D + 1.0W 300°	10.89	0.00	0	1	2.26	118.10	-11.61
	10.89	0.00	120	1a	18.86	-208.33	-10.90
	10.89	0.00	240	1b	11.19	118.50	3.86
0.9D + 1.0W 330°	10.89	0.00	0	1	1.35	199.54	-20.06
	10.89	0.00	120	1a	15.86	-180.93	-10.66
	10.89	0.00	240	1b	1.71	9.67	-2.06
1.2D + 1.0Di + 1.0Wi Normal	10.89	0.00	0	1	0.00	32.72	-1.31
	10.89	0.00	120	1a	0.97	8.95	-0.77
	10.89	0.00	240	1b	-0.97	8.95	-0.77
1.2D + 1.0Di + 1.0Wi 60°	10.89	0.00	0	1	-0.17	24.59	-0.44
	10.89	0.00	120	1a	-0.46	24.59	0.07

ASSET: 370859, Hargray Bull St.
CUSTOMER: T-MOBILE

CODE: ANSI/TIA-222-I
PROJECT: 15315416_C3_02

DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	*(-) Uplift and (+) Down		
					FX* (kip)	FY* (kip)	FZ* (kip)
1.2D + 1.0Di + 1.0Wi 90°	10.89	0.00	240	1b	-1.74	1.44	-1.00
	10.89	0.00	0	1	-0.20	16.89	0.38
	10.89	0.00	120	1a	-0.95	30.33	0.44
	10.89	0.00	240	1b	-1.61	3.41	-0.81
1.2D + 1.0Di + 1.0Wi 120°	10.89	0.00	0	1	-0.18	8.97	1.22
	10.89	0.00	120	1a	-1.13	32.73	0.66
	10.89	0.00	240	1b	-1.15	8.93	-0.45
	10.89	0.00	0	1	0.00	1.48	2.00
1.2D + 1.0Di + 1.0Wi 180°	10.89	0.00	120	1a	-0.29	24.57	0.37
	10.89	0.00	240	1b	0.29	24.57	0.37
	10.89	0.00	0	1	0.10	3.45	1.80
	10.89	0.00	120	1a	0.43	16.86	-0.02
1.2D + 1.0Di + 1.0Wi 210°	10.89	0.00	240	1b	0.85	30.32	0.61
	10.89	0.00	0	1	0.18	8.97	1.22
	10.89	0.00	120	1a	1.15	8.93	-0.45
	10.89	0.00	240	1b	1.13	32.73	0.66
1.2D + 1.0Di + 1.0Wi 240°	10.89	0.00	0	1	0.17	24.59	-0.44
	10.89	0.00	120	1a	1.74	1.44	-1.00
	10.89	0.00	240	1b	0.46	24.59	0.07
	10.89	0.00	0	1	0.10	30.32	-1.04
1.2D + 1.0Di + 1.0Wi 330°	10.89	0.00	120	1a	1.51	3.42	-0.99
	10.89	0.00	240	1b	-0.23	16.88	-0.36
	10.89	0.00	0	1	0.00	28.78	-2.16
	10.89	0.00	120	1a	-0.16	5.00	0.03
1.2D + 1.0Ev + 1.0Eh Normal	10.89	0.00	240	1b	0.16	5.00	0.03
	10.89	0.00	0	1	-0.05	20.85	-1.49
	10.89	0.00	120	1a	-1.31	20.85	0.70
	10.89	0.00	240	1b	-0.45	-2.93	-0.26
1.2D + 1.0Ev + 1.0Eh 60°	10.89	0.00	0	1	-0.06	12.92	-0.82
	10.89	0.00	120	1a	-1.73	26.65	0.96
	10.89	0.00	240	1b	-0.31	-0.81	-0.14
	10.89	0.00	0	1	-0.05	5.00	-0.15
1.2D + 1.0Ev + 1.0Eh 120°	10.89	0.00	120	1a	-1.87	28.78	1.08
	10.89	0.00	240	1b	0.11	5.00	0.12
	10.89	0.00	0	1	0.00	-2.93	0.52
	10.89	0.00	120	1a	-1.26	20.85	0.79
1.2D + 1.0Ev + 1.0Eh 180°	10.89	0.00	240	1b	1.26	20.85	0.79
	10.89	0.00	0	1	0.03	-0.81	0.34
	10.89	0.00	120	1a	-0.68	12.92	0.46
	10.89	0.00	240	1b	1.70	26.65	1.01
1.2D + 1.0Ev + 1.0Eh 210°	10.89	0.00	0	1	0.05	5.00	-0.15
	10.89	0.00	120	1a	-0.11	5.00	0.12
	10.89	0.00	240	1b	1.87	28.78	1.08
	10.89	0.00	0	1	0.05	20.85	-1.49
1.2D + 1.0Ev + 1.0Eh 240°	10.89	0.00	120	1a	0.45	-2.93	-0.26
	10.89	0.00	240	1b	1.31	20.85	0.70
	10.89	0.00	0	1	0.03	26.65	-1.98
	10.89	0.00	120	1a	0.28	-0.81	-0.19
1.2D + 1.0Ev + 1.0Eh 330°	10.89	0.00	240	1b	0.74	12.92	0.36
	10.89	0.00	0	1	0.00	24.36	-1.88
	10.89	0.00	120	1a	0.08	0.64	-0.11
	10.89	0.00	240	1b	-0.08	0.64	-0.11
0.9D - 1.0Ev + 1.0Eh Normal	10.89	0.00	0	1	-0.05	16.45	-1.21
	10.89	0.00	120	1a	-1.07	16.45	0.56
	10.89	0.00	240	1b	-0.69	-7.26	-0.40
	10.89	0.00	0	1	-0.06	8.55	-0.54
0.9D - 1.0Ev + 1.0Eh 60°	10.89	0.00	120	1a	-1.49	22.24	0.82
	10.89	0.00	240	1b	-0.55	-5.14	-0.28
	10.89	0.00	0	1	-0.05	0.64	0.13
	10.89	0.00	120	1a	-0.05	0.64	0.13

ASSET: 370859, Hargray Bull St.
CUSTOMER: T-MOBILE

CODE: ANSI/TIA-222-I
PROJECT: 15315416_C3_02

DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	*(-) Uplift and (+) Down		
					FX* (kip)	FY* (kip)	FZ* (kip)
0.9D - 1.0Ev + 1.0Eh 180°	10.89	0.00	120	1a	-1.63	24.36	0.94
	10.89	0.00	240	1b	-0.14	0.64	-0.02
	10.89	0.00	0	1	0.00	-7.26	0.79
	10.89	0.00	120	1a	-1.02	16.45	0.65
	10.89	0.00	240	1b	1.02	16.45	0.65
0.9D - 1.0Ev + 1.0Eh 210°	10.89	0.00	0	1	0.03	-5.14	0.61
	10.89	0.00	120	1a	-0.44	8.55	0.32
	10.89	0.00	240	1b	1.46	22.24	0.88
0.9D - 1.0Ev + 1.0Eh 240°	10.89	0.00	0	1	0.05	0.64	0.13
	10.89	0.00	120	1a	0.14	0.64	-0.02
	10.89	0.00	240	1b	1.63	24.36	0.94
0.9D - 1.0Ev + 1.0Eh 300°	10.89	0.00	0	1	0.05	16.45	-1.21
	10.89	0.00	120	1a	0.69	-7.26	-0.40
	10.89	0.00	240	1b	1.07	16.45	0.56
0.9D - 1.0Ev + 1.0Eh 330°	10.89	0.00	0	1	0.03	22.24	-1.70
	10.89	0.00	120	1a	0.52	-5.14	-0.33
	10.89	0.00	240	1b	0.50	8.55	0.22
1.0D + 1.0W Service Normal	10.89	0.00	0	1	0.00	55.31	-5.33
	10.89	0.00	120	1a	1.22	-11.95	-1.28
	10.89	0.00	240	1b	-1.22	-11.95	-1.28
1.0D + 1.0W Service 60°	10.89	0.00	0	1	-0.46	32.11	-2.88
	10.89	0.00	120	1a	-2.72	32.18	1.04
	10.89	0.00	240	1b	-3.31	-32.88	-1.91
1.0D + 1.0W Service 90°	10.89	0.00	0	1	-0.54	10.48	-0.64
	10.89	0.00	120	1a	-4.08	48.35	2.05
	10.89	0.00	240	1b	-2.97	-27.41	-1.40
1.0D + 1.0W Service 120°	10.89	0.00	0	1	-0.49	-12.03	1.71
	10.89	0.00	120	1a	-4.63	55.56	2.68
	10.89	0.00	240	1b	-1.73	-12.12	-0.43
1.0D + 1.0W Service 180°	10.89	0.00	0	1	0.00	-32.62	3.81
	10.89	0.00	120	1a	-2.26	32.02	1.83
	10.89	0.00	240	1b	2.26	32.02	1.83
1.0D + 1.0W Service 210°	10.89	0.00	0	1	0.27	-27.38	3.27
	10.89	0.00	120	1a	-0.29	10.42	0.79
	10.89	0.00	240	1b	3.82	48.37	2.52
1.0D + 1.0W Service 240°	10.89	0.00	0	1	0.49	-12.03	1.71
	10.89	0.00	120	1a	1.73	-12.12	-0.43
	10.89	0.00	240	1b	4.63	55.56	2.68
1.0D + 1.0W Service 300°	10.89	0.00	0	1	0.46	32.11	-2.88
	10.89	0.00	120	1a	3.31	-32.88	-1.91
	10.89	0.00	240	1b	2.72	32.18	1.04
1.0D + 1.0W Service 330°	10.89	0.00	0	1	0.27	48.26	-4.56
	10.89	0.00	120	1a	2.70	-27.36	-1.87
	10.89	0.00	240	1b	0.83	10.52	-0.14
1.2D + 1.0Ev + 1.5Eh Normal	10.89	0.00	0	1	0.00	36.92	-2.84
	10.89	0.00	120	1a	0.13	0.93	-0.16
	10.89	0.00	240	1b	-0.13	0.93	-0.16
1.2D + 1.0Ev + 1.5Eh 60°	10.89	0.00	0	1	-0.08	24.92	-1.83
	10.89	0.00	120	1a	-1.62	24.92	0.85
	10.89	0.00	240	1b	-1.04	-11.07	-0.60
1.2D + 1.0Ev + 1.5Eh 90°	10.89	0.00	0	1	-0.09	12.92	-0.82
	10.89	0.00	120	1a	-2.25	33.71	1.25
	10.89	0.00	240	1b	-0.83	-7.86	-0.43
1.2D + 1.0Ev + 1.5Eh 120°	10.89	0.00	0	1	-0.08	0.93	0.19
	10.89	0.00	120	1a	-2.46	36.92	1.42
	10.89	0.00	240	1b	-0.21	0.93	-0.03
1.2D + 1.0Ev + 1.5Eh 180°	10.89	0.00	0	1	0.00	-11.07	1.20
	10.89	0.00	120	1a	-1.55	24.92	0.98
	10.89	0.00	240	1b	1.55	24.92	0.98

ASSET: 370859, Hargray Bull St.
CUSTOMER: T-MOBILE

CODE: ANSI/TIA-222-I
PROJECT: 15315416_C3_02

DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	*(-) Uplift and (+) Down		
					FX* (kip)	FY* (kip)	FZ* (kip)
1.2D + 1.0Ev + 1.5Eh 210°	10.89	0.00	0	1	0.05	-7.86	0.93
	10.89	0.00	120	1a	-0.66	12.92	0.49
	10.89	0.00	240	1b	2.20	33.71	1.33
1.2D + 1.0Ev + 1.5Eh 240°	10.89	0.00	0	1	0.08	0.93	0.19
	10.89	0.00	120	1a	0.21	0.93	-0.03
	10.89	0.00	240	1b	2.46	36.92	1.42
1.2D + 1.0Ev + 1.5Eh 300°	10.89	0.00	0	1	0.08	24.92	-1.83
	10.89	0.00	120	1a	1.04	-11.07	-0.60
	10.89	0.00	240	1b	1.62	24.92	0.85
1.2D + 1.0Ev + 1.5Eh 330°	10.89	0.00	0	1	0.05	33.71	-2.57
	10.89	0.00	120	1a	0.78	-7.86	-0.51
	10.89	0.00	240	1b	0.75	12.92	0.33
0.9D - 1.0Ev + 1.5Eh Normal	10.89	0.00	0	1	0.00	32.48	-2.56
	10.89	0.00	120	1a	0.37	-3.42	-0.30
	10.89	0.00	240	1b	-0.37	-3.42	-0.30
0.9D - 1.0Ev + 1.5Eh 60°	10.89	0.00	0	1	-0.08	20.51	-1.55
	10.89	0.00	120	1a	-1.38	20.51	0.71
	10.89	0.00	240	1b	-1.28	-15.38	-0.74
0.9D - 1.0Ev + 1.5Eh 90°	10.89	0.00	0	1	-0.09	8.55	-0.54
	10.89	0.00	120	1a	-2.01	29.27	1.11
	10.89	0.00	240	1b	-1.07	-12.17	-0.56
0.9D - 1.0Ev + 1.5Eh 120°	10.89	0.00	0	1	-0.08	-3.42	0.47
	10.89	0.00	120	1a	-2.22	32.48	1.28
	10.89	0.00	240	1b	-0.45	-3.42	-0.17
0.9D - 1.0Ev + 1.5Eh 180°	10.89	0.00	0	1	0.00	-15.38	1.48
	10.89	0.00	120	1a	-1.30	20.51	0.85
	10.89	0.00	240	1b	1.30	20.51	0.85
0.9D - 1.0Ev + 1.5Eh 210°	10.89	0.00	0	1	0.05	-12.18	1.21
	10.89	0.00	120	1a	-0.42	8.55	0.35
	10.89	0.00	240	1b	1.96	29.27	1.19
0.9D - 1.0Ev + 1.5Eh 240°	10.89	0.00	0	1	0.08	-3.42	0.47
	10.89	0.00	120	1a	0.45	-3.42	-0.17
	10.89	0.00	240	1b	2.22	32.48	1.28
0.9D - 1.0Ev + 1.5Eh 300°	10.89	0.00	0	1	0.08	20.51	-1.55
	10.89	0.00	120	1a	1.28	-15.38	-0.74
	10.89	0.00	240	1b	1.38	20.51	0.71
0.9D - 1.0Ev + 1.5Eh 330°	10.89	0.00	0	1	0.05	29.27	-2.29
	10.89	0.00	120	1a	1.02	-12.17	-0.64
	10.89	0.00	240	1b	0.52	8.55	0.19

MAXIMUM REACTIONS SUMMARY					
	<u>Individual</u>	<u>Individual w/ Overstrength</u>	<u>Global (DL+WL+IL)</u>		<u>Global (DL+WL)</u>
Max Uplift:	208.33	208.33	Moment Ice:	258.89 (kip-ft)	Moment: 3705.57 (kip-ft)
Max Down:	239.51	239.51	Total Down Ice:	50.62 (kip)	Total Down: 37.7 (kip)
Max Shear:	24.19	24.19	Total Shear Ice:	2.84 (kip)	Total Shear: 39.43 (kip)
	1.2D + 1.0W 120°				