



Crown Castle
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065

April 18, 2025

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

RE: Notice of Exempt Modification for T Mobile
Crown #841294; T Mobile Site Number CTFF243A
230 Guinea Rd., Monroe, CT, 06468
Latitude: 41° 20' 30.70" / Longitude: -73° 16' 28.27"

Dear Ms. Bachman:

T Mobile seeks to install six (6) antennas at the 175-foot level of the existing 240-foot monopole tower at 230 Guinea Rd., Monroe, CT. The tower is owned by Crown Castle USA Inc. and the property is owned by the Town of Monroe. T Mobile now intends to install six (6) antennas and ancillary equipment at the 175-foot level. This modification may include B2, B5, B17, B14, B29, B30, B66 & n77 hardware that is 4G(LTE) and/or 5GNR capable through remote software configuration and either or both services may be turned on or off at various times.

Planned Modification:

Tower:

Install New:

- (3) SECTOR MOUNTS (VFA12-HD)
- (3) AMPHENOL – APXVAALL24M-U-J20 ANTENNAS
- (3) ERICSSON 4460 B25/B66 RADIOS
- (2) ERICSSON 4480 B71/B85 RADIOS
- (2) RFS/CELWAVE – HB158 – 21U6S24-XXM_TMO CABLES

Ground:

Install New:

- INSTALL 10' X 15' EQUIPMENT PAD WITHIN A PROPOSED 150 SQ. FT. LEASE AREA
- (1) ERICSSON – 6160 SITE SUPPORT CABINET
- (1) ERICSSON – B160 BATTERY CABINET
- (1) 200 AMP PPC
- (1) FIBER CABINET
- (1) FIBER HANDHOLE
- INSTALL ICE BRIDGE (112'+/-)
- (1) SLACK BOX
- (1) 200 AMP METER & DISCONNECT (LOCATION TBD)

The facility was approved by the Connecticut Siting Council on Docket No. 114 on January 16, 1990. Said approval given with conditions. T Mobile's proposed exempt modification complies with the conditions of approval.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Terrence Rooney, First Selectman for the Town of Monroe, as the municipality and property owner, and Kathleen Gallagher, Zoning & Planning Official, and Crown Castle is the tower owner.

1. The proposed modifications will not result in an increase in the height of the existing tower.
2. The proposed modifications will not require the extension of the site boundary.
3. The proposed modification will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communication Commission safety standard.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading.

For the foregoing reasons, T Mobile respectfully submits that the proposed modifications to the above-reference telecommunications facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2). Please send approval/rejection letter to Attn: Keenan Brinn.

Sincerely,



Keenan Brinn
Site Acquisition Specialist
1800 W. Park Drive
Westborough, MA 01581
(617) 680-5464/ Keenan.Brinn.Contractor@crowncastle.com

Attachments

cc:

Terrence Rooney, First Selectman
Monroe Town Hall
7 Fan Hill Rd.
Monroe, CT 06468
203-452-2821

Kathleen Gallagher, Planning & Zoning Administrator
Monroe Town Hall
7 Fan Hill Rd.
Monroe, CT 06468
203-452-2821

Crown Castle, Tower Owner

DOCKET NO. 114 - An application	:	Connecticut
of SNET Cellular, Inc., for a		
Certificate of Environmental	:	Siting
Compatibility and Public Need		
for a cellular telephone tower	:	Council
and associated equipment in the		
Town of Monroe, Connecticut.	:	January 16, 1990

DECISION AND ORDER

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council finds that the effects associated with the construction, operation, and maintenance of a cellular telephone facility at the proposed Monroe site, including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not significant either alone or cumulatively with other effects, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application, and therefore directs that a Certificate of Environmental Compatibility and Public Need, as provided by Section 16-50k of the General Statutes of Connecticut (CGS), be issued to SNET Cellular, Inc. (SNET), for the construction, operation, and maintenance of a cellular telecommunications tower, associated equipment, and building at the proposed site in Monroe, Connecticut.

The facility shall be constructed, operated, and maintained substantially as specified in the Council's record in this matter, and subject to the following conditions:

1. All SNET cellular antennas shall extend no higher than 252 feet above ground level (AGL). If the Town of Monroe and SNET reach an agreement to place the Town of Monroe's antennas for public radio station WMNR on the tower, then the tower shall be no higher than 260 feet AGL for the attachment of such town antennas; otherwise the tower shall be no higher than 240 feet AGL. Prior to the raising of the tower from 240 feet AGL to 260 feet AGL, notice of such sharing and raising of the tower shall be provided to the Council.
2. The facility shall be constructed in accordance with the State of Connecticut Basic Building Code.
3. The Certificate Holder shall prepare a Development and Management (D&M) Plan for this site in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of State Agencies. The D&M plan shall include detailed plans for site preparation including a profile and cross-section of the proposed access road, placement of the proposed tower and equipment building within the leased parcel, and erosion and sedimentation control.

4. The Certificate Holder shall comply with any future radio frequency (RF) standard, promulgated by State or federal regulatory agencies. Upon the establishment of any new governmental RF standards, the facility granted in this Decision and Order shall be brought into compliance with such standards.
5. The Certificate Holder or its successor shall provide the Council a recalculated report of power density if and when additional channels over the proposed 45 channels, higher wattage over the proposed 100 watts per channel, or other circumstances in operation cause a change in power density above the levels originally calculated in the application.
6. The Certificate Holder or its successor shall permit public or private entities to share space on the proposed Monroe tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.
7. If this facility does not initially provide, or permanently ceases to provide cellular service following completion of construction, this Decision and Order shall be void, and the tower and all associated equipment in this application shall be dismantled and removed or reapplication for any new use shall be made to the Council before any such new use is made.
8. Unless otherwise approved by the Council, this Decision and Order shall be void if all construction authorized herein is not completed within three years of the issuance of this Decision and Order, or within three years after the completion of any appeal from this Decision and Order.

Pursuant to Section 16-50p, we hereby direct that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below. A notice of issuance shall be published in the Bridgeport Post and the Monroe Courier.

By this Decision and Order, the Council disposes of the legal rights, duties, and privileges of each party named or admitted to the proceeding in accordance with section 16-50j-17 of the Regulations of State Agencies.

The parties or intervenors to this proceeding are:

SNET Cellular, Inc. (Applicant)
227 Church Street
New Haven, CT 06506

Peter J. Tyrrell (Its Representative)
SNET Cellular, Inc.
Room 1021
227 Church Street
New Haven, CT 06506

Metro Mobile CTS of (Intervenor)
Fairfield County, Inc.

Micheal W. Riley (Its Representatives)
Vice-President North East Region
Metro Mobile CTS, Inc.
110 East 59th Street
New York, New York 10022

Philip Mayberry, General Manager
David S. Malko
Metro Mobile CTS of
Fairfield County, Inc.
50 Rockland Road
South Norwalk, Connecticut 06854

Paul M. Hancock, General Partner (Party)
Housatonic Cable Vision Company
2 East Street
P.O. Box 1540
New Milford, Connecticut 06766



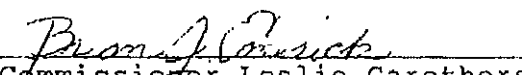
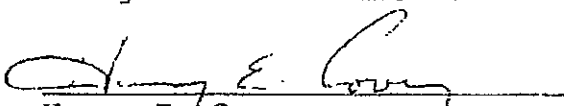

Howard L. Slater, Esq. (Its Representative)
Bryne, Slater, Sandler,
Shulman, & Rouse, P.C.
330 Main Street
P.O. Box 3216
Hartford, Connecticut 06103
Attn: Jennifer Young Gaudet, Esq.

3945E-8-10

CERTIFICATION

The undersigned members of the Connecticut Siting Council hereby certify that they have heard this case in Docket 114 or read the record thereof, and that we voted as follows:

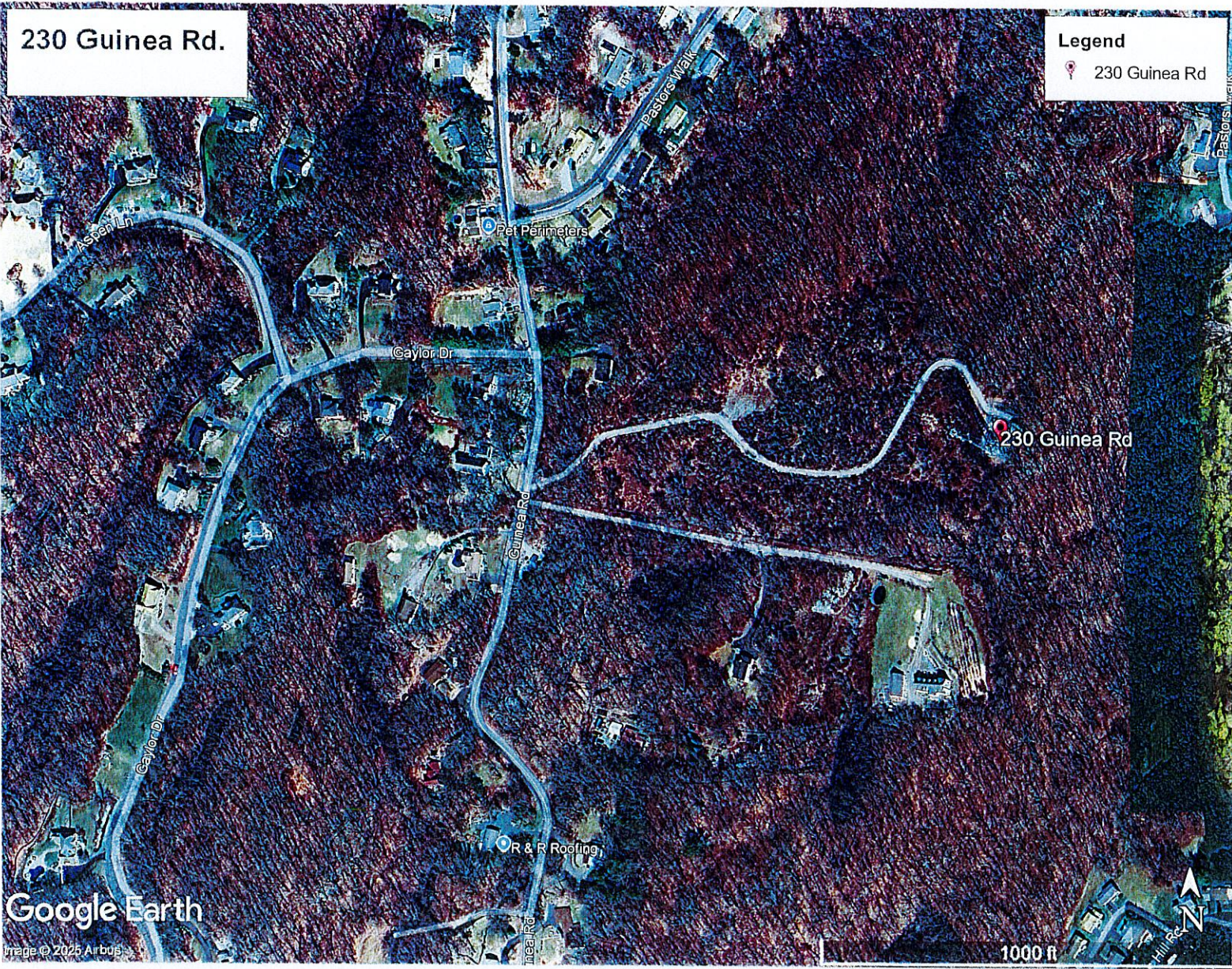
Dated at New Britain, Connecticut the 16 day of January, 1990.

<u>Council Members</u>	<u>Vote Cast</u>
 Gloria Dibble Pond Chairperson	Yes
 Commissioner Peter Boucher Designee: Robert A. Pulito	Yes
 Commissioner Leslie Carothers Designee: Brian Emerick	Yes
 Harry E. Covey	Yes
 Mortimer A. Gelston	Yes
 _____ Daniel P. Lynch, Jr.	Absent
 _____ Paulann H. Sheets	Absent
 _____ William H. Smith	Absent
 _____ Colin C. Tait	Absent

230 Guinea Rd.

Legend

230 Guinea Rd



Google Earth

Image © 2025 Airbus

1000 ft

230 GUINEA RD

Location 230 GUINEA RD

Map/Lot 080/ 013/ ZZ/ I

Acct# 080013ZZ

Owner SOUTHWESTERN BELL
MOBILE SYSTEMS LLC

Assessment \$600,500

Appraisal \$857,700

PID 8090

Building Count 1

Survey

Affordable

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2024	\$677,700	\$180,000	\$857,700
Assessment			
Valuation Year	Improvements	Land	Total
2024	\$474,500	\$126,000	\$600,500

Map Links

All locations identified on Google, Yahoo, and Bing maps are approximate and may not be exact

Go To Google Maps
([http://maps.google.com/?q=230 GUINEA RD MONROE, CT 06468](http://maps.google.com/?q=230%20GUINEA%20RD%20MONROE%20CT%2006468))

Go To Yahoo Maps
([http://maps.yahoo.com/#q=230 GUINEA RD MONROE, CT 06468](http://maps.yahoo.com/#q=230%20GUINEA%20RD%20MONROE%20CT%2006468))

Go To Microsoft Bing Maps
([http://www.bing.com/maps/?q=230 GUINEA RD MONROE, CT 06468](http://www.bing.com/maps/?q=230%20GUINEA%20RD%20MONROE%20CT%2006468))

Owner of Record

Owner SOUTHWESTERN BELL MOBILE SYSTEMS LLC
Co-Owner AT&T SERVICES INC - TOWER PROP TAX
Address 754 PEACHTREE ST NE 16TH FLR
ATLANTA, GA 30308

Sale Price \$0
Certificate 1
Book & Page 0/0
Sale Date 01/01/1900
Instrument

Ownership History

Ownership History					
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
SOUTHWESTERN BELL MOBILE SYSTEMS LLC	\$0	1	0/0		01/01/1900
SNET CELLULAR INC %SBC COM INC	\$0	2	0/0		

Building Information

Building 1 : Section 1

Year Built: 1990
Living Area: 360

Building Attributes	
Field	Description
Style:	Cell Bldg
Model	Industrial
Stories:	1

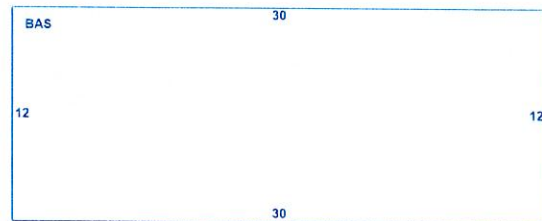
Occupancy	1.00
Exterior Wall 1	Pre-fin Metal
Exterior Wall 2	
Roof Structure	Flat
Roof Cover	T+G/Rubber
Interior Wall 1	Minim/Masonry
Interior Wall 2	
Interior Floor 1	Concr-Finished
Interior Floor 2	
Heating Fuel	Typical
Heating Type	Typical
AC Type	None
Struct Class	
Bldg Use	Tel X Sta
Total Rooms	
Total Bedrms	
Total Baths	
Fireplace	
Xtra Fireplaces	
1st Floor Use:	430
Heat/AC	None
Frame Type	Light Steel
Baths/Plumbing	Normal
Ceiling/Wall	Ceil and Wall
Rooms/Prtns	Average
Wall Height	0.00
% Conn Wall	

Building Photo



(https://images.vgsi.com/photos/MonroeCTPhotos///0017/100_0115_17617)

Building Layout



(ParcelSketch.ashx?pid=8090&bid=8090)

Building Sub-Areas (sq ft)			<u>Legend</u>
Code	Description	Gross Area	Living Area
BAS	First Floor	360	360
		360	360

Extra Features

Extra Features	<u>Legend</u>
No Data for Extra Features	

Parcel Information

Use Code 430
Description Tel X Sta
Deeded Acres 0.23

Land

Land Use

Use Code 430
Description Tel X Sta
Zone RF2
Neighborhood
Alt Land Approved No
Category

Land Line Valuation

Size (Acres) 0.23
Appraised Value \$180,000

Outbuildings

Outbuildings						Legend
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
RS1	Frame Utility Shed			900.00 S.F.	\$9,000	1
RS1	Frame Utility Shed			240.00 S.F.	\$2,400	1
CELL	Cell Tower Unit			3.00 UNIT	\$630,000	1
FN1	FENCE CHAIN			360.00 L.F.	\$2,500	1

Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
2023	\$673,100	\$180,000	\$853,100
2022	\$673,100	\$180,000	\$853,100
2021	\$673,100	\$180,000	\$853,100

Assessment			
Valuation Year	Improvements	Land	Total
2023	\$471,200	\$126,000	\$597,200
2022	\$471,200	\$126,000	\$597,200
2021	\$471,200	\$126,000	\$597,200

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

T-Mobile Existing Facility

Site ID: CTFF243A

**CTFF243A_Crown Castle Self Support
230 Guinea Road
Monroe, Connecticut 06468**

April 12, 2025

EBI Project Number: 048710-PR

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	0.42%

April 12, 2025

T-Mobile

Attn: Jason Overbey, RF Manager

35 Griffin Road South

Bloomfield, Connecticut 06002

Emissions Analysis for Site: CTFF243A - CTFF243A_Crown Castle Self Support

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **230 Guinea Road** in **Monroe, Connecticut** for the purpose of determining whether the emissions from the Proposed T-Mobile Antenna Installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01 and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The number of $\mu\text{W}/\text{cm}^2$ calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits; therefore, it is necessary to report results and limits in terms of percent MPE rather than power density.

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

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

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The general population exposure limits for the 600 MHz and 700 MHz frequency bands are approximately $400 \mu\text{W}/\text{cm}^2$ and $467 \mu\text{W}/\text{cm}^2$, respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 1.1 GHz frequency bands is $1000 \mu\text{W}/\text{cm}^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

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

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed T-Mobile Wireless antenna facility located at 230 Guinea Road in Monroe, Connecticut using the equipment information listed below. Modeling of the antennas and associated equipment was completed using RoofMaster™ software, which is a widely-used predictive modeling program that has been developed to predict RF power density values for rooftop and tower telecommunications sites produced by vertical collinear antennas that are typically used in the cellular, PCS, paging and other communications services. Using the computational methods set forth in Federal Communications (FCC) Office of Engineering & Technology (OET) Bulletin 65, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields" (OET-65), RoofMaster™ calculates predicted power density in a scalable grid based on the contributions of all RF sources characterized in the study scenario. At each grid location, the cumulative power density is expressed as a percentage of the FCC limits. Manufacturer antenna pattern data is utilized in these calculations. RoofMaster™ models consist of the Far Field model as specified in OET-65 and an implementation of the OET-65 Cylindrical Model (Sula9). The models utilize several operational specifications for different types of antennas to produce a plot of spatially-averaged power densities that can be expressed as a percentage of the applicable exposure limit.

Since T-Mobile is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufacturer's supplied specifications was focused at the base of the tower. For this report, the sample point is the top of a 6-foot person standing at the base of the tower.

For all calculations, telecommunications equipment was modeled using the following assumptions:

- 1) 1 NR channel (600 MHz Band) was considered for each sector of the proposed installation. This Channel has a transmit power of 80 Watts.
- 2) 1 LTE channel (PCS Band - 1900 MHz) was considered for each sector of the proposed installation. These Channels have a transmit power of 160 Watts per Channel.
- 3) 1 NR channel (PCS Band - 1900 MHz) was considered for each sector of the proposed installation. These Channels have a transmit power of 160 Watts per Channel.
- 4) 1 LTE channel (AWS Band – 2100 MHz) was considered for each sector of the proposed installation. These Channels have a transmit power of 160 Watts per Channel.
- 5) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
- 6) For the following calculations, the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufacturer's supplied specifications was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 7) The antennas used in this modeling is the AMPHENOL APXVAALL24M-U-J20 for the 600 MHz / 1900 MHz / 1900 MHz / 2100 MHz channel(s) in Sector A, the AMPHENOL APXVAALL24M-U-J20 for the 600 MHz / 1900 MHz / 1900 MHz / 2100 MHz channel(s) in Sector B, the AMPHENOL APXVAALL24M-U-J20 for the 600 MHz / 1900 MHz / 1900 MHz / 2100 MHz channel(s) in Sector C. This is based on feedback from the carrier with regard to anticipated antenna selection. All Antenna gain values and associated transmit power levels are shown in the Site Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufacturer's supplied specifications was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 8) The antenna mounting height centerline of the proposed antennas is 175 feet above ground level (AGL).

- 9) Emissions values for additional carriers were taken from the Connecticut Siting Council active database or documents available on the Connecticut Siting Council website (<https://portal.ct.gov/CSC>). Values in the database are provided by the individual carriers themselves.
- 10) All calculations were done in Far Field mode with respect to uncontrolled / general population threshold limits.

T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	I	Antenna #:	I	Antenna #:	I
Make / Model:	AMPHENOL APXVAALL24M-U- J20 02DT 600	Make / Model:	AMPHENOL APXVAALL24M-U- J20 02DT 600	Make / Model:	AMPHENOL APXVAALL24M-U- J20 02DT 600
Frequency Bands:	600 MHz / 600 MHz / 1900 MHz / 1900 MHz	Frequency Bands:	600 MHz / 1900 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	600 MHz / 1900 MHz / 1900 MHz / 2100 MHz
Gain:	13.3 dBd / 15.69 dBd / 15.69 dBd / 16.66 dBd	Gain:	13.3 dBd / 15.69 dBd / 15.69 dBd / 16.66 dBd	Gain:	13.3 dBd / 15.69 dBd / 15.69 dBd / 16.66 dBd
Height (AGL):	175 feet	Height (AGL):	175 feet	Height (AGL):	175 feet
Channel Count:	4	Channel Count:	4	Channel Count:	4
Total TX Power (W):	560.00 Watts	Total TX Power (W):	560.00 Watts	Total TX Power (W):	560.00 Watts
ERP (W):	18,207.19	ERP (W):	18,207.19	ERP (W):	18,207.19
Antenna A1 MPE %:	2.57%	Antenna B1 MPE %:	2.57%	Antenna C1 MPE %:	2.57%

Site Composite MPE %	
Carrier	MPE %
T-Mobile (Combined Sectors):	0.08%
AT&T	0.08%
Verizon	0.12%
Dish	0.05%
Unknown Carrier	0.09%
Site Total MPE % :	0.42%

T-Mobile MPE % Per Sector	
T-Mobile Sector A Total:	0.06%
T-Mobile Sector B Total:	0.08%
T-Mobile Sector C Total:	0.05%
T-Mobile Total MPE % :	0.08%

T-Mobile Maximum MPE Power Values (Sector B)							
T-Mobile Frequency Band / Technology (Sector B)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu\text{W}/\text{cm}^2$)	Frequency (MHz)	Allowable MPE ($\mu\text{W}/\text{cm}^2$)	Calculated % MPE
T-Mobile 600 MHz NR	1	1494.823742	175	1.881625193	600 MHz NR	400.0	0.47%
T-Mobile 1900 MHz LTE	1	5141.856862	175	6.472366702	1900 MHz LTE	1000.0	0.65%
T-Mobile 1900 MHz NR	1	5141.856862	175	6.472366702	1900 MHz NR	1000.0	0.65%
T-Mobile 2100 MHz LTE	1	6428.652974	175	8.092134916	2100 MHz LTE	1000.0	0.81%
						T-Mobile Total:	0.08%

- NOTE: Total T-Mobile MPE values reflect all T-Mobile antennas as reported by RoofMaster™ combined modeling.
- NOTE: Totals may vary by approximately 0.01% due to summation of remainders in calculations.

Summary

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

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

T-Mobile Sector	Power Density Value (%)
Sector A:	0.06%
Sector B:	0.08%
Sector C:	0.05%
T-Mobile Maximum MPE % (Sector B):	0.08%
T-Mobile Combined Sectors MPE %:	0.08%
Site Total:	0.42%
Site Compliance Status:	COMPLIANT

The anticipated composite MPE value for this site assuming all carriers present is **0.42%** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions or documents available on the Connecticut Siting Council website.

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

Date: December 03, 2024



Crown Castle
2000 Corporate Drive
Canonsburg, PA 15317
(724) 416-2000

Subject: Structural Analysis Report

Carrier Designation: T-Mobile Co-Locate

Site Number:

CTFF243A

Site Name:

CTFF243A_Crown Castle_Self Support

Tower_ Monroe

Crown Castle Designation:

BU Number:

841294

Site Name:

MONROE-GUINEA ROAD

JDE Job Number:

2127094

Work Order Number:

2340005

Order Number:

682284 Rev. 0

Engineering Firm Designation: Crown Castle Project Number: 2340005

Site Data:

230 Guinea Road, Monroe, Fairfield County, CT

Latitude: 41° 20' 30.68" Longitude: -73° 16' 28.28"

240.0 ft - Self Support Tower

Crown Castle is pleased to submit this "Structural Analysis Report" to determine the structural integrity of the above-mentioned tower.

The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

LC7: Proposed Equipment Configuration

Sufficient - 88.7% Capacity

This analysis has been performed in accordance with the 2022 Connecticut State Building Code based upon an ultimate 3-second gust wind speed of 117 mph. Applicable Standard references and design criteria are listed in Section 2 – Analysis Criteria.

Structural analysis prepared by: Steven Hu

Respectfully submitted by:

Rohit Soni, P.E.
Senior Project Engineer



Digitally signed by
Rohit Soni
Date: 2024.12.04
11:03:27 -05'00'

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tnxTower Output

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Additional Calculations

1) INTRODUCTION

This tower is a 240.0 ft Self Support Tower designed by Rohn. The tower has been modified in the past to accommodate additional loading.

2) ANALYSIS CRITERIA

TIA-222 Revision: TIA-222-H
Risk Category: II
Wind Speed: 117 mph
Exposure Category: B
Topographic Factor: 1
Ice Thickness: 1.00 in
Wind Speed with Ice: 50 mph
Service Wind Speed: 60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
175	175	3	amphenol	APXVAALL24M-U-J20 w/ Mount Pipe	2	1-5/8
		3	ericsson	RADIO 4460 B2/B25 B66_20210820_TMO		
		3	ericsson	Radio 4480_TMOV2		
		3	sitepro1	VFA12-HD		

Table 2 - Other Considered Equipment

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
239	239	1	tower mounts	Side Arm Mount [SO 302-3]	1	1/2
	237	1	decibel	DB806-XC		
		1	kathrein	FMO		
235	237	1	raycap	DC6-48-60-18-8F	12	3/8 3/4 1-5/8
	235	2	cci antennas	DMP65R-BU6D		
		2	cci antennas	HPA-65R-BUU-H6		
		2	cci antennas	OPA65R-BU6D		
		2	ericsson	RADIO 4449 B5/B12		
		2	ericsson	RRUS 32 B2		
		2	ericsson	RRUS 4478 B14		
		1	tower mounts	Sector Mount [SM 201-3]		
	234	1	cci antennas	DMP65R-BU6D		
		1	cci antennas	HPA-65R-BUU-H6		
		1	cci antennas	OPA65R-BU6D		
		1	ericsson	RADIO 4449 B5/B12		
		1	ericsson	RRUS 32 B2		
		1	ericsson	RRUS 4478 B14		
		2	powerwave technologies	7770.00		
		4	powerwave technologies	LGP13519		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
	233	1	raycap	DC6-48-60-18-8F		
		1	powerwave technologies	7770.00		
		2	powerwave technologies	LGP13519		
217	217	1	tower mounts	Sector Mount [SM 505-3]	8	1-5/8
	212	3	andrew	LNx-8514DS-A1M w/ Mount Pipe		
		6	jma wireless	MX06FRO660-03 w/ Mount Pipe		
		4	kaelus	BSF0020F3V1		
		2	raycap	RRFDC-3315-PF-48		
		3	samsung telecommunications	MT6407-77A w/ Mount Pipe		
		3	samsung telecommunications	RFV01U-D1A		
		3	samsung telecommunications	RFV01U-D2A		
200	206	2	kathrein	OG-4	2	1-1/4
	200	2	tower mounts	Side Arm Mount [SO 306-1]		
187	189	1	andrew	DB589-A	1 2	1/2 7/8
	187	1	tower mounts	Side Arm Mount [SO 306-1]		
	185	1	andrew	DB589-A		
165	165	1	ceragon	IP-50C	2 1	1/2 1-3/4
		6	samsung telecommunications	RF4450t-71A		
		1	tower mounts	Commscope MTC3975083 (3)		
	163	3	commscope	FFVV-65B-R2 w/ Mount Pipe		
		1	Commscope	VHLP2-11W/A		
		1	raycap	RDIDC-9181-PF-48		
11	11	1	kathrein	TY-840	1	1/2

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Reference	Source
4-GEOTECHNICAL REPORTS	4468666	CCISITES
4-TOWER FOUNDATION DRAWINGS/DESIGN/SPECS	4468667	CCISITES
4-TOWER MANUFACTURER DRAWINGS	4841385	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	5306639	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	4601540	CCISITES
4-POST-MODIFICATION INSPECTION	5750961	CCISITES
4-POST-MODIFICATION INSPECTION	4601541	CCISITES

3.1) Analysis Method

tnxTower (version 8.2.4.3), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A. When applicable, Crown Castle has calculated and provided the effective area for panel antennas using approved methods following the intent of the TIA-222 standard.

tnxTower was used to determine the loads on the modified structure. Additional calculations were performed to determine the stresses in the reinforcing elements. These calculations are included in Appendix C.

3.2) Assumptions

- 1) Tower and structures were maintained in accordance with the TIA-222 Standard.
- 2) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.

This analysis may be affected if any assumptions are not valid or have been made in error. Crown Castle should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P _{allow} (K)	% Capacity	Pass/Fail
T1	240 - 220	Leg	ROHN 2.5 STD	1	-12.76	66.74	19.1	Pass
T2	220 - 200	Leg	ROHN 3 EH	37	-34.65	116.14	29.8	Pass
T3	200 - 180	Leg	ROHN 3.5 EH	69	-56.59	132.01	42.9	Pass
T4	180 - 160	Leg	ROHN 4 EH	90	-83.20	167.90	49.6	Pass
T5	160 - 140	Leg	ROHN 5 EH	111	-111.49	251.36	44.4	Pass
T6	140 - 120	Leg	ROHN 5 EH	132	-135.86	211.29	64.3	Pass
T7	120 - 100	Leg	ROHN 6 EH	147	-162.05	318.94	50.8	Pass
T8	100 - 80	Leg	ROHN 6 EH	162	-188.04	318.93	59.0	Pass
T9	80 - 60	Leg	ROHN 6 EH	177	-213.20	318.90	66.9	Pass
T10	60 - 40	Leg	ROHN 8 EHS	192	-237.65	405.69	58.6	Pass
T11	40 - 20	Leg	ROHN 8 EHS	207	-242.58	405.62	59.8	Pass
T12	20 - 0	Leg	ROHN 8 EH	240	-263.57	530.71	49.7	Pass
T1	240 - 220	Diagonal	L1 3/4x1 3/4x3/16	11	-2.56	11.69	21.9	Pass
T2	220 - 200	Diagonal	L1 3/4x1 3/4x3/16	47	-3.57	6.76	52.8	Pass
T3	200 - 180	Diagonal	L2 1/2x2 1/2x3/16	71	-4.10	12.60	32.6	Pass
T4	180 - 160	Diagonal	L2 1/2x2 1/2x1/4	92	-5.60	12.50	44.8	Pass
T5	160 - 140	Diagonal	L2 1/2x2 1/2x5/16	113	-6.03	12.08	49.9	Pass
T6	140 - 120	Diagonal	L3x3x5/16	134	-6.78	14.36	47.2	Pass
T7	120 - 100	Diagonal	L3 1/2x3 1/2x1/4	149	-7.32	16.02	45.7	Pass
T8	100 - 80	Diagonal	L3 1/2x3 1/2x1/4	164	-7.71	13.59	56.7	Pass
T9	80 - 60	Diagonal	L4x4x5/16	179	-7.90	21.23	37.2	Pass
T10	60 - 40	Diagonal	L4x4x5/16	194	-8.36	18.36	45.5	Pass
T11	40 - 20	Diagonal	ROHN 3 STD	212	-13.20	33.58	39.3	Pass
T12	20 - 0	Diagonal	ROHN 3 STD	245	-12.40	31.65	39.2	Pass
T11	40 - 20	Horizontal	ROHN 2.5 STD	208	-6.69	16.85	39.7	Pass
T12	20 - 0	Horizontal	ROHN 3 STD	241	-6.95	27.36	25.4	Pass
T1	240 - 220	Top Girt	L2x2x1/8	5	-0.25	4.27	6.0	Pass
T2	220 - 200	Top Girt	L2x2x1/8	40	-0.60	4.29	14.0	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass/Fail
T11	40 - 20	Redund Horz 1 Bracing	ROHN 1.5 TUBE (11ga)	220	-4.21	5.84	72.1	Pass
T12	20 - 0	Redund Horz 1 Bracing	ROHN 1.5 STD	253	-4.57	11.86	38.6	Pass
T11	40 - 20	Redund Diag 1 Bracing	ROHN 1.5 STD	221	-3.85	4.40	87.4	Pass
T12	20 - 0	Redund Diag 1 Bracing	ROHN 2.25 TUBE (14GA)	254	-3.91	4.40	88.7	Pass
T11	40 - 20	Redund Hip 1 Bracing	ROHN 1.5 TUBE (11ga)	233	-0.02	5.19	0.5	Pass
T12	20 - 0	Redund Hip 1 Bracing	ROHN 1.5 STD	266	-0.02	10.66	0.2	Pass
T11	40 - 20	Redund Hip Diagonal 1 Bracing	ROHN 2.5 STD	234	-0.07	11.09	0.6	Pass
T12	20 - 0	Redund Hip Diagonal 1 Bracing	ROHN 2.5 STD	267	-0.06	9.97	0.6	Pass
T11	40 - 20	Inner Bracing	ROHN 2 STD	236	-0.01	6.92	0.4	Pass
T12	20 - 0	Inner Bracing	ROHN 3 STD	268	-0.01	25.95	0.3	Pass
							Summary	
						Leg (T9)	66.9	Pass
						Diagonal (T8)	56.7	Pass
						Horizontal (T11)	39.7	Pass
						Top Girt (T2)	14.0	Pass
						Redund Horz 1 Bracing (T11)	72.1	Pass
						Redund Diag 1 Bracing (T12)	88.7	Pass
						Redund Hip 1 Bracing (T11)	0.5	Pass
						Redund Hip Diagonal 1 Bracing (T12)	0.6	Pass
						Inner Bracing (T11)	0.4	Pass
						Bolt Checks	63.5	Pass
						RATING =	88.7	Pass

Table 5 - Tower Component Stresses vs. Capacity - LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Anchor Rods	0	38.1	Pass
1	Base Foundation (Structural)	0	46.8	Pass
1	Base Foundation (Soil)	0	45.6	Pass

Structure Rating (max from all components) =	88.7%
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Notes:

- 1) See additional documentation in "Appendix C – Additional Calculations" for calculations supporting the % capacity consumed

4.1) Recommendations

The tower and its foundation have sufficient capacity to carry the considered equipment configuration.
No modifications are required at this time.

Date: **November 7, 2024**

INFINIGY®

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Subject: Mount Analysis Report

Carrier Designation: T-Mobile Co-Locate
Carrier Site Number: CTFF243A
Carrier Site Name: CTFF243A_Crown Castle_Self Support Tower_Monroe

Crown Castle Designation: Crown Castle BU Number: 841294
Crown Castle Site Name: MONROE-GUINEA ROAD
Crown Castle JDE Job Number: 2127094
Crown Castle Order Number: 682284 Rev. 0

Engineering Firm Designation: Infinigy Report Designation: 1039-Z0001-B

Site Data: 230 Guinea Road, Monroe, Fairfield County, CT, 06468
Latitude 41°20'30.68" Longitude -73°16'28.28"

Structure Information: Tower Height & Type: 240.0 ft Self Support
Mount Elevation: 175.0 ft
Mount Type: 12.5 ft Sector Frame

Infinigy is pleased to submit this "**Mount Analysis Report**" to determine the structural integrity of T-Mobile's antenna mounting system with the proposed appurtenance and equipment addition on the abovementioned supporting tower structure. Analysis of the existing supporting tower structure is to be completed by others and therefore is not part of this analysis. Analysis of the antenna mounting system as a tie-off point for fall protection or rigging is not part of this document.

The purpose of the analysis is to determine acceptability of the mount stress level. Based on our analysis we have determined the mount stress level to be:

Sector Frame

Sufficient

***See Section 4.1 of this report for the loading and structural modifications required in order for the mount to support the loading listed in Table 1.**

This analysis utilizes an ultimate 3-second gust wind speed of 117 mph as required by the 2022 Connecticut State Building Code. Applicable standard references and design criteria are listed in Section 2 - Analysis Criteria.

Mount analysis prepared by: Christopher H. Lee, P.E., M.S.

Respectfully Submitted by: Emmanuel Poulin, P.E.

structural@infinigy.com



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Mount Modification Design Drawings (MDD) / Supplemental Drawings

1) INTRODUCTION

This is a proposed 3 sector 12.5 ft Sector Frame, designed by Site Pro 1.

2) ANALYSIS CRITERIA

Building Code:	2021 IBC / 2022 Connecticut State Building Code
TIA-222 Revision:	TIA-222-H
Risk Category:	II
Ultimate Wind Speed:	117 mph
Exposure Category:	B
Topographic Factor at Base:	1.0
Topographic Factor at Mount:	1.0
Ice Thickness:	1.0 in
Wind Speed with Ice:	50 mph
Seismic S_s:	0.212
Seismic S₁:	0.055
Live Loading Wind Speed:	30 mph
Man Live Load at Mid/End-Points:	250 lb
Man Live Load at Mount Pipes:	500 lb

Table 1 - Proposed Equipment Configuration

Mount Centerline (ft)	Antenna Centerline (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount / Modification Details
175.0	175.0	3	Amphenol	APXVAALL24M-U-J20	12.5 ft Sector Frame [VFA12-HD]
		3	Ericsson	RADIO 4460 B2/B25 B66_20210820_TMO	
		3	Ericsson	RADIO 4480_TMOV2	

3) ANALYSIS PROCEDURE

Table 2 - Documents Provided

Document	Remarks	Reference	Source
Crown Application	T-Mobile Application	682284 Rev. 0	CCI Sites
Loading Document	T-Mobile	RFDS Version:1	Infinigy
Mount Manufacturer Drawings	Site Pro 1	Part No. VFA12-HD	Infinigy

3.1) Analysis Method

RISA-3D (Version 22.0.2), a commercially available analysis software package, was used to create a three-dimensional model of the antenna mounting system and calculate member stresses for various loading cases.

Infinigy Mount Analysis Tool V2.3.4, a tool internally developed by Infinigy, was used to calculate wind loading on all appurtenances, dishes and mount members for various loading cases. Selected output from the analysis is included in Appendix B "Software Input Calculations".

This analysis was performed in accordance with Crown Castle's ENG-SOW-10208 *Mount Analysis* (Revision E).

3.2) Assumptions

- 1) The antenna mounting system was properly fabricated, installed and maintained in good condition in accordance with its original design and manufacturer's specifications.
- 2) The configuration of antennas, mounts, and other appurtenances are as specified in Table 1 and the referenced drawings.
- 3) All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
- 4) The analysis will be required to be revised if the existing conditions in the field differ from those shown in the above-referenced documents or assumed in this analysis. No allowance was made for any damaged, missing, or rusted members.
- 5) Prior structural modifications to the tower mounting system are assumed to be installed as shown per available data.
- 6) Steel grades have been assumed as follows, unless noted otherwise:

Channel, Solid Round, Angle, Plate	Q345 (GR 36)
HSS (Rectangular)	Q235-GB (GR 35)
Pipe	Q235-GB (GR 35)
Threaded Rods	SAE J429 GR 2

This analysis may be affected if any assumptions are not valid or have been made in error. Infinigy should be notified to determine the effect on the structural integrity of the antenna mounting system.

4) ANALYSIS RESULTS

Table 3 - Mount Component Stresses vs. Capacity (Sector Frame, Worst Case Sector)

Notes	Component	Critical Member	Centerline (ft)	% Capacity	Pass / Fail
1, 2, 3	Mount Pipe(s)	MP1	175.0	50.5	Pass
	Horizontal(s)	MH1		41.7	Pass
	Sidearm(s)	M35		33.4	Pass
	Bracing(s)	MV3		14.0	Pass
	Mount Connection(s)	-		16.0	Pass

Structure Rating (max from all components) =	50.5%
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Notes:

- 1) See additional documentation in "Appendix C - Software Analysis Output" for calculations supporting the % capacity consumed.
- 2) See additional documentation in "Appendix D - Additional Calculations" for detailed mount connection calculations.
- 3) All sectors are typical.

Table 4 - Tieback Connection Data Table

Tower Connection Node No.	Existing / Proposed	Resultant End Reaction (lb)	Connected Member Type	Connected Member Size	Member Compressive Capacity (lb) ²	Notes
N68	Proposed	841.6	Leg	ROHN 4 EH	8,395.0	1, 2
N69	Proposed	1,010.4				

Notes:

- 1) Tieback connection point is within 25% of either end of the connected tower member.
- 2) Reduced member compressive capacity according to CED-STD-10294 *Standard for Installation of Mounts and Appurtenances*.

4.1) Recommendations

The mount has sufficient capacity to carry the proposed loading configuration. In order for the results of the analysis to be considered valid, the proposed mount listed below must be installed.

1. Installation of (3) Site Pro 1 VFA12-HD Sector Frames.
2. Installation of (4) 8' long pipe 2.0 STD per sector for proposed antennas.

No structural modifications are required at this time, provided that the above-listed changes are implemented.

T-1	1
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CROWN CASTLE USA INC. SITE ACTIVITY REQUIREMENTS:

1. NOTICE TO PROCEED-- NO WORK SHALL COMMENCE PRIOR TO CROWN CASTLE USA INC. WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER PRIOR TO ACCESSING/ENTERING THE SITE. YOU MUST CONTACT THE CROWN CASTLE USA INC. NOC AT 800-788-7011 & THE CROWN CASTLE USA INC. CONSTRUCTION MANAGER.
2. "LOOK UP"-- CROWN CASTLE USA INC. SAFETY CLIMB REQUIREMENT: THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE MAINTAINED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OF THE FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. WORK SHALL INCLUDE, BUT NOT BE LIMITED TO: TYPING OF THE WIRE ROPE, REMOVAL OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE, AND/OR ANY WIRE TO IMPROVE/REPAIR ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR CROWN CASTLE USA INC. POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.
3. PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED INSURANCE PERMITS SHALL BE OBTAINED. THIS INCLUDES BUT IS NOT LIMITED TO: BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. ALL OTHER ACTIVITIES AND CONSTRUCTION ARE COMPLETED. ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSURE OUT ACCORDING TO LOCAL JURISDICTIONS, CODES, AND REGULATIONS.
4. ALL CONSTRUCTION MEANS AND METHODS, INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBER PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK. CONFINED HAZARD, AND SHALL MEET AND AVOIDANCE (A) LATER, FEDERAL, STATE, AND LOCAL REGULATIONS AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A14.4 (LATEST EDITION) AND CROWN CASTLE USA INC. STANDARD CSD-STD-10253, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURES) IN COMPLIANCE WITH ANSI/ISA-322 (LATEST EDITION).
5. ALL SITE WORK TO COMPLY WITH CAG-STD-1008 "INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON CROWN CASTLE USA INC. TOWER SITE" CSD-STD-10254 "STANDARD FOR INSTALLATION OF MOUNTS AND APPURTENANCES," AND LATEST VERSION OF ANSI/TIA-1018-4-2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS." IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL SUBMIT AN ALTERNATE INSTALLATION FOR APPROVAL BY CROWN CASTLE USA INC. PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
6. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLIANCE WITH ALL LOCAL, NATIONAL, AND INTERNATIONAL RULES, REGULATIONS, AND ANY PUBLIC APPLICABLE MUNICIPAL, STATE, AND LOCAL JURISDICTIONS, CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
7. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
8. THE CONTRACTOR SHALL INSTALL UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHICH ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND BE REQUIRED FOR THE PROPER EXECUTION OF THE WORK. SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING HOLES AND/OR FOR OTHER UTILITIES.
9. PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO: A FALL PROTECTION BY CORRODED STEEL ELECTRICAL SAFETY (D) TRECHING AND ELEVATION (E) CONSTRUCTION SAFETY PROCEDURES.
10. ALL SITE WORK SHALL BE AS INDICATED ON THE STAFFED CONSTRUCTION DRAWINGS AND PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.
11. THE CONTRACTOR SHALL KEEP THE SITE FREE OF ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBERIZED TIRE, STICKS, STONES AND OTHER MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
12. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF THE CONTRACTOR. TOWER OWNER, CROWN CASTLE USA INC. AND/OR LOCAL UTILITIES.
13. THE CONTRACTOR SHALL PROVIDE SITE SURFACE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR THE SURFACE REQUIRED BY LOCAL JURISDICTION AND SURFACE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROADS, AND SHELTERS.
14. THE SITE SHALL BE GRADED TO GRADE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.
15. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
16. THE AREA OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRINKING, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.
17. THE CONTRACTOR SHALL MAINTAIN DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
18. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
19. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COVIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
20. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION, TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.
21. NO FILL OR ENHANCEMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND, FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR ENHANCEMENT.

GREENFIELD GROUNDING NOTES:

1. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GDS) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO (2) OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
2. THE CONTRACTOR SHALL PERFORM BONDING OF ALL OF POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS. THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUNDING AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
3. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.
4. METAL CONDUIT AND TRAY SHALL BE GROUNDING AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMP.
5. METAL MOUNT SHALL NOT BE USED AS THE RED REDUCED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CONDUITS TO ITS EQUIPMENT.
6. ALL CARRIER TRAYS SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR 800A BRS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BRS.
7. CONNECTIONS TO THE GROUND BUS SHALL NOT BE SOLDERED UP OR SOLDERED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.
8. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
9. ALUMINUM CONDUIT OR COPPER GALV. STEEL CONDUIT SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
11. EXISTING WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
12. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
13. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXTERIOR WELD CONNECTIONS.
14. ICE BRIDGE BONDING CONNECTIONS SHALL BE EXTERNALLY BONDED OR SOLDERED TO THE BRIDGE AND THE TOWER GROUND BAR.
15. APPROVED ANTIOXIDANT COMPOUND (A) CONDUCTIVE GEL OR PASTE SHALL BE USED ON ALL COMPRESSION AND WELDED GROUND CONNECTIONS.
16. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
17. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BODIES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
18. BOND ALL METALLIC OBJECTS WITHIN 6' OF A MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUIT.
19. GROUND CONDUCTORS USED FOR THE FASTENING PROTECTION SYSTEM SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT COLUMNS OR BULWARKS THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL, SUCH AS PVC CONDUIT SHALL BE USED. INSIDE USE OF METAL CONDUIT IS UNDESIRABLE (A) NON-METALLIC CONDUIT PERMITTED BY LOCAL CODES. THE GROUND CONDUIT SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
20. ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4" NON-METALLIC FLEXIBLE CONDUIT 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELDED TERMINAL POINT. THE EXPOSED END OF THE CONDUIT MUST BE GALVANIZED (CAD TRANSITIONING GROUND STANDARD DETAIL AS WELL).
21. BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM. THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY).

GENERAL NOTES:

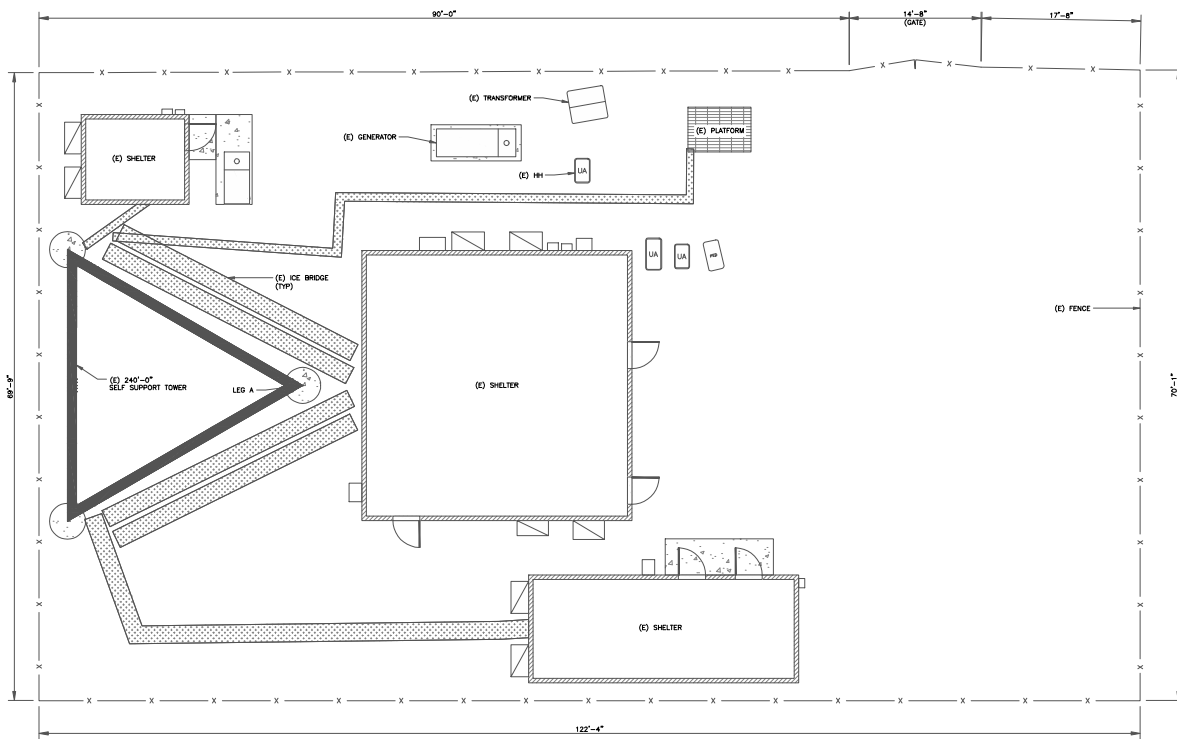
1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
CONTRACTOR: GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION.
CARRIER: TOWER CARRIER.
TOWER CARRIER: HAS BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY DERIVED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCATIONS. IT IS ASSUMED THAT THE WORK DESCRIBED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKFORCE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICES. AS NOT EVERY CONDITION OR ELEMENT IS OR CAN BE EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MODIFICATIONS AND/OR IMPROVEMENTS.
2. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, FORMWORK, SHORING, ETC. SITE VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.
3. NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE GREATEST MORE STRICT REQUIREMENTS SHALL GOVERN. IF FURTHER CLARIFICATION IS REQUIRED CONTACT THE ENGINEER OF RECORD.
4. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CROWN CASTLE USA INC. PRIOR TO SUBMITTING BIDS. REGULATIONS AND ORDINANCES, CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLIANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS AND ANY PUBLIC APPLICABLE MUNICIPAL, STATE, AND LOCAL JURISDICTIONS, CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
5. THE CONTRACTOR SHALL CARRY OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONS, CODES, ORDINANCES AND APPLICABLE REGULATIONS.
6. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AND/OR CONSULTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SUCH AS POSSIBLE.
7. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CROWN CASTLE USA INC. PRIOR TO SUBMITTING BIDS.
8. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLIANCE WITH ALL LOCAL, NATIONAL, AND INTERNATIONAL RULES, REGULATIONS, AND ANY PUBLIC APPLICABLE MUNICIPAL, STATE, AND LOCAL JURISDICTIONS, CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
9. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
10. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL SUBMIT AN ALTERNATE INSTALLATION FOR APPROVAL BY THE CARRIER AND CROWN CASTLE USA INC. PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
11. THE CONTRACTOR SHALL PERFORM A SITE INVESTIGATION AND IS TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN DRAWINGS.
12. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF CROWN CASTLE USA INC.
13. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COVIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
14. THE CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION, TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A186, ASTM A185 AND ACI 308. ALL CONSTRUCTION SPECIFICATIONS FOR CONCRETE SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, AND ACI 308. ALL CONSTRUCTION SPECIFICATIONS FOR CONCRETE SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, AND ACI 308. ALL CONSTRUCTION SPECIFICATIONS FOR CONCRETE SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, AND ACI 308.
2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (F') OF 3000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. ALL CONSTRUCTION SPECIFICATIONS FOR CONCRETE SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, AND ACI 308.
3. ALL CONCRETE SHALL BE PLACED IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, AND ACI 308. ALL CONSTRUCTION SPECIFICATIONS FOR CONCRETE SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, AND ACI 308.
4. CONCRETE EXPOSED TO FREEZE-THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADJUNCTS, AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). ADMIXTURE USED TO BE TYPE 1 PORTLAND CEMENT WITH A MAXIMUM WATER-TO-CEMENT RATIO (W/C) OF 0.45.
5. ALL STEEL REINFORCING SHALL CONFORM TO ASTM A618, ALL WELDED WIRE FABRIC (WFB) SHALL CONFORM TO ASTM A186, ALL SPACERS SHALL BE CLASS "B" TENSION STUDS, UNLESS NOTED OTHERWISE, ALL HOOKS SHALL BE AS FOLLOWS:
#4 BARS AND SMALLER: 4D
#5 BARS AND LARGER: 6D
#6 BARS AND LARGER: 8D
CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
#4 BARS AND SMALLER: 1-1/2"
#5 BARS AND LARGER: 1-1/2"
#6 BARS AND LARGER: 1-1/2"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
#4 BARS AND SMALLER: 1-1/2"
#5 BARS AND LARGER: 1-1/2"
#6 BARS AND LARGER: 1-1/2"
7. A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

ELECTRICAL INSTALLATION NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
2. CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
3. BRACING, RACKING, AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
4. ALL CIRCUITS SHALL BE IDENTIFIED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
5. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORY LABEL OF APPROVAL, AND SHALL CONFORM TO THE LISTED EQUIPMENT IN THE GENERAL ELECTRICAL CODE.
6. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED. 22,000 AC MAXIMUM VOLTAGE AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE FOR THE GENERAL ELECTRICAL CODE.
7. EACH END OF EVERY POWER PHASE CONDUIT, GROUNDING CONDUIT, AND TELCO CONDUIT OR CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (CM BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL), THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND CSA.
8. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMINATED TAPS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR, AS, AT, AU, AV, AW, AX, AY, AZ, BA, BB, BC, BD, BE, BF, BG, BH, BI, BJ, BK, BL, BM, BN, BO, BP, BQ, BR, BS, BT, BU, BV, BW, BX, BY, BZ, CA, CB, CC, CD, CE, CF, CG, CH, CI, CJ, CK, CL, CM, CN, CO, CP, CQ, CR, CS, CT, CU, CV, CW, CX, CY, CZ, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, DK, DL, DM, DN, DO, DP, DQ, DR, DS, DT, DU, DV, DW, DX, DY, DZ, EA, EB, EC, ED, EE, EF, EG, EH, EI, EJ, EK, EL, EM, EN, EO, EP, EQ, ER, ES, ET, EU, EV, EW, EX, EY, EZ, FA, FB, FC, FD, FE, FF, FG, FH, FI, FJ, FK, FL, FM, FN, FO, FP, FQ, FR, FS, FT, FU, FV, FW, FX, FY, FZ, GA, GB, GC, GD, GE, GF, GG, GH, GI, GJ, GK, GL, GM, GN, GO, GP, GQ, GR, GS, GT, GU, GV, GW, GX, GY, GZ, HA, HB, HC, HD, HE, HF, HG, HH, HI, HJ, HK, HL, HM, HN, HO, HP, HQ, HR, HS, HT, HU, HV, HW, HX, HY, HZ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, IK, IL, IM, IN, IO, IP, IQ, IR, IS, IT, IU, IV, IW, IX, IY, IZ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, JK, JL, JM, JN, JO, JP, JQ, JR, JS, JT, JU, JV, JW, JX, JY, JZ, KA, KB, KC, KD, KE, KF, KG, KH, KI, KJ, KK, KL, KM, KN, KO, KP, KQ, KR, KS, KT, KU, KV, KW, KX, KY, KZ, LA, LB, LC, LD, LE, LF, LG, LH, LI, LJ, LK, LL, LM, LN, LO, LP, LQ, LR, LS, LT, LU, LV, LW, LX, LY, LZ, MA, MB, MC, MD, ME, MF, MG, MH, MI, MJ, MK, ML, MM, MN, MO, MP, MQ, MR, MS, MT, MU, MV, MW, MX, MY, MZ, NA, NB, NC, ND, NE, NF, NG, NH, NI, NJ, NK, NL, NM, NN, NO, NP, NQ, NR, NS, NT, NU, NV, NW, NX, NY, NZ, OA, OB, OC, OD, OE, OF, OG, OH, OI, OJ, OK, OL, OM, ON, OO, OP, OQ, OR, OS, OT, OU, OV, OW, OX, OY, OZ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, PK, PL, PM, PN, PO, PP, PQ, PR, PS, PT, PU, PV, PW, PX, PY, PZ, QA, QB, QC, QD, QE, QF, QG, QH, QI, QJ, QK, QL, QM, QN, QO, QP, QQ, QR, QS, QT, QU, QV, QW, QX, QY, QZ, RA, RB, RC, RD, RE, RF, RG, RH, RI, RJ, RK, RL, RM, RN, RO, RP, RQ, RR, RS, RT, RU, RV, RW, RX, RY, RZ, SA, SB, SC, SD, SE, SF, SG, SH, SI, SJ, SK, SL, SM, SN, SO, SP, SQ, SR, SS, ST, SU, SV, SW, SX, SY, SZ, TA, TB, TC, TD, TE, TF, TG, TH, TI, TJ, TK, TL, TM, TN, TO, TP, TQ, TR, TS, TT, TU, TV, TW, TX, TY, TZ, UA, UB, UC, UD, UE, UF, UG, UH, UI, UJ, UK, UL, UM, UN, UO, UP, UQ, UR, US, UT, UV, UW, UX, UY, UZ, VA, VB, VC, VD, VE, VF, VG, VH, VI, VJ, VK, VL, VM, VN, VO, VP, VQ, VR, VS, VT, VU, VV, VW, VX, VY, VZ, WA, WB, WC, WD, WE, WF, WG, WH, WI, WJ, WK, WL, WM, WN, WO, WP, WQ, WR, WS, WT, WU, WV, WW, WX, WY, WZ, XA, XB, XC, XD, XE, XF, XG, XH, XI, XJ, XK, XL, XM, XN, XO, XP, XQ, XR, XS, XT, XU, XV, XW, XX, XY, XZ, YA, YB, YC, YD, YE, YF, YG, YH, YI, YJ, YK, YL, YM, YN, YO, YP, YQ, YR, YS, YT, YU, YV, YW, YX, YY, YZ, ZA, ZB, ZC, ZD, ZE, ZF, ZG, ZH, ZI, ZJ, ZK, ZL, ZM, ZN, ZO, ZP, ZQ, ZR, ZS, ZT, ZU, ZV, ZW, ZX, ZY, ZZ).
9. PANEL BOARDS (IN NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
10. ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUIT (#14 OR LARGER) WITH TYPE THHN, THWN, THWN-2, THWN-3, THWN-4, THWN-5, THWN-6, THWN-7, THWN-8, THWN-9, THWN-10, THWN-11, THWN-12, THWN-13, THWN-14, THWN-15, THWN-16, THWN-17, THWN-18, THWN-19, THWN-20, THWN-21, THWN-22, THWN-23, THWN-24, THWN-25, THWN-26, THWN-27, THWN-28, THWN-29, THWN-30, THWN-31, THWN-32, THWN-33, THWN-34, THWN-35, THWN-36, THWN-37, THWN-38, THWN-39, THWN-40, THWN-41, THWN-42, THWN-43, THWN-44, THWN-45, THWN-46, THWN-47, THWN-48, THWN-49, THWN-50, THWN-51, THWN-52, THWN-53, THWN-54, THWN-55, THWN-56, THWN-57, THWN-58, THWN-59, THWN-60, THWN-61, THWN-62, THWN-63, THWN-64, THWN-65, THWN-66, THWN-67, THWN-68, THWN-69, THWN-70, THWN-71, THWN-72, THWN-73, THWN-74, THWN-75, THWN-76, THWN-77, THWN-78, THWN-79, THWN-80, THWN-81, THWN-82, THWN-83, THWN-84, THWN-85, THWN-86, THWN-87, THWN-88, THWN-89, THWN-90, THWN-91, THWN-92, THWN-93, THWN-94, THWN-95, THWN-96, THWN-97, THWN-98, THWN-99, THWN-100, THWN-101, THWN-102, THWN-103, THWN-104, THWN-105, THWN-106, THWN-107, THWN-108, THWN-109, THWN-110, THWN-111, THWN-112, THWN-113, THWN-114, THWN-115, THWN-116, THWN-117, THWN-118, THWN-119, THWN-120, THWN-121, THWN-122, THWN-123, THWN-124, THWN-125, THWN-126, THWN-127, THWN-128, THWN-129, THWN-130, THWN-131, THWN-132, THWN-133, THWN-134, THWN-135, THWN-136, THWN-137, THWN-138, THWN-139, THWN-140, THWN-141, THWN-142, THWN-143, THWN-144, THWN-145, THWN-146, THWN-147, THWN-148, THWN-149, THWN-150, THWN-151, THWN-152, THWN-153, THWN-154, THWN-155, THWN-156, THWN-157, THWN-158, THWN-159, THWN-160, THWN-161, THWN-162, THWN-163, THWN-164, THWN-165, THWN-166, THWN-167, THWN-168, THWN-169, THWN-170, THWN-171, THWN-172, THWN-173, THWN-174, THWN-175, THWN-176, THWN-177, THWN-178, THWN-179, THWN-180, THWN-181, THWN-182, THWN-183, THWN-184, THWN-185, THWN-186, THWN-187, THWN-188, THWN-189, THWN-190, THWN-191, THWN-192, THWN-193, THWN-194, THWN-195, THWN-196, THWN-197, THWN-198, THWN-199, THWN-200, THWN-201, THWN-202, THWN-203, THWN-204, THWN-205, THWN-206, THWN-207, THWN-208, THWN-209, THWN-210, THWN-211, THWN-212, THWN-213, THWN-214, THWN-215, THWN-216, THWN-217, THWN-218, THWN-219, THWN-220, THWN-221, THWN-222, THWN-223, THWN-224, THWN-225, THWN-226, THWN-227, THWN-228, THWN-229, THWN-230, THWN-231, THWN-232, THWN-233, THWN-234, THWN-235, THWN-236, THWN-237, THWN-238, THWN-239, THWN-240, THWN-241, THWN-242, THWN-243, THWN-244, THWN-245, THWN-246, THWN-247, THWN-248, THWN-249, THWN-250, THWN-251, THWN-252, THWN-253, THWN-254, THWN-255, THWN-256, THWN-257, THWN-258, THWN-259, THWN-260, THWN-261, THWN-262, THWN-263, THWN-264, THWN-265, THWN-266, THWN-267, THWN-268, THWN-269, THWN-270, THWN-271, THWN-272, THWN-273, THWN-274, THWN-275, THWN-276, THWN-277, THWN-278, THWN-279, THWN-280, THWN-281, THWN-282, THWN-283, THWN-284, THWN-285, THWN-286, THWN-287, THWN-288, THWN-289, THWN-290, THWN-291, THWN-292, THWN-293, THWN-294, THWN-295, THWN-296, THWN-297, THWN-298, 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EQUIPMENT LEGEND		
[White Box]	EXISTING	
[Orange Box]	TO BE RELOCATED/REMOVED	
[Blue Box]	NEW/RELOCATED	



T-MOBILE SITE NUMBER:
CTFF243A

BU #: **841294**

CROWN CASTLE SITE NAME:
MONROE-GUINEA ROAD

230 GUINEA ROAD
MONROE, CT 06468

EXISTING 240'-0"
SELF SUPPORT TOWER

ISSUED FOR:				
REV	DATE	CHG	DESCRIPTION	DR/CL
1	03/07/2025	01	CONSTRUCTION	AM
2	10/07/2025	02	CONSTRUCTION	AM





03/07/2025

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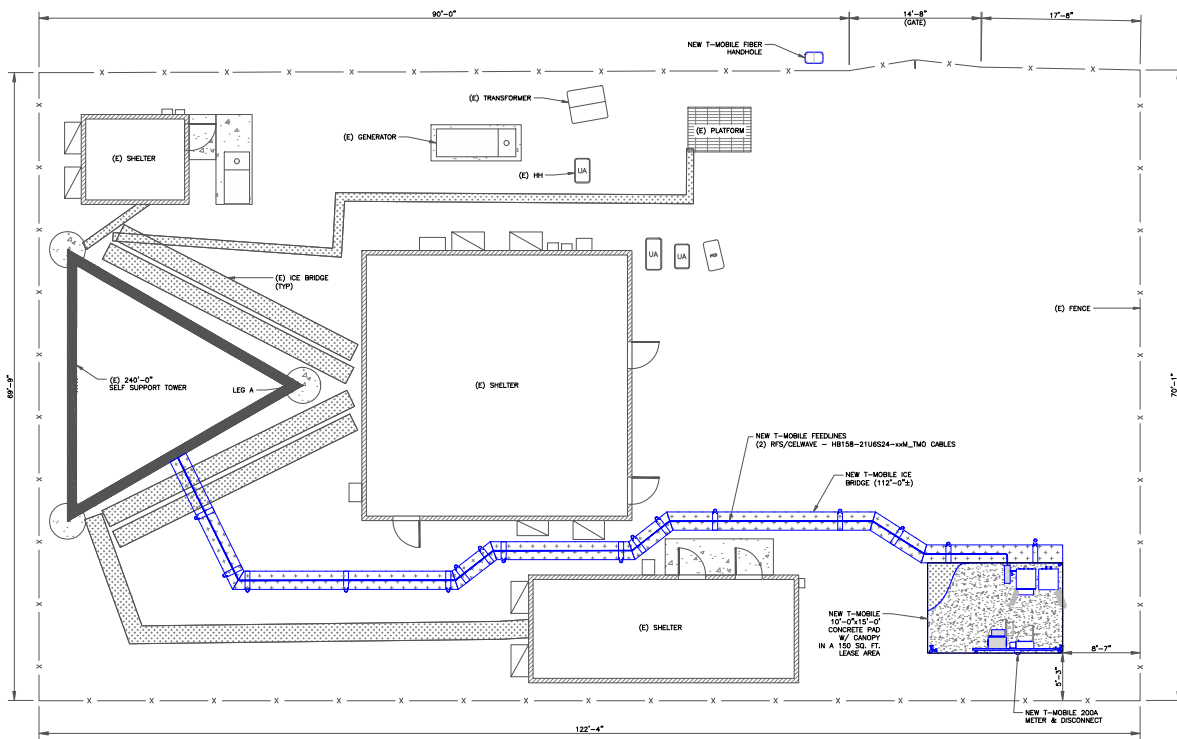
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EXISTING SITE PLAN

SCALE:  3/16"=1'-0" (FULL SIZE)
3/32"=1'-0" (1/4"=1")



SHEET NUMBER:	REVISION:
C-1.1	1



1 EXISTING SITE PLAN
SCALE: 3/16"=1'-0" (P&L 890)
3/16"=1'-0" (1/4"=1')

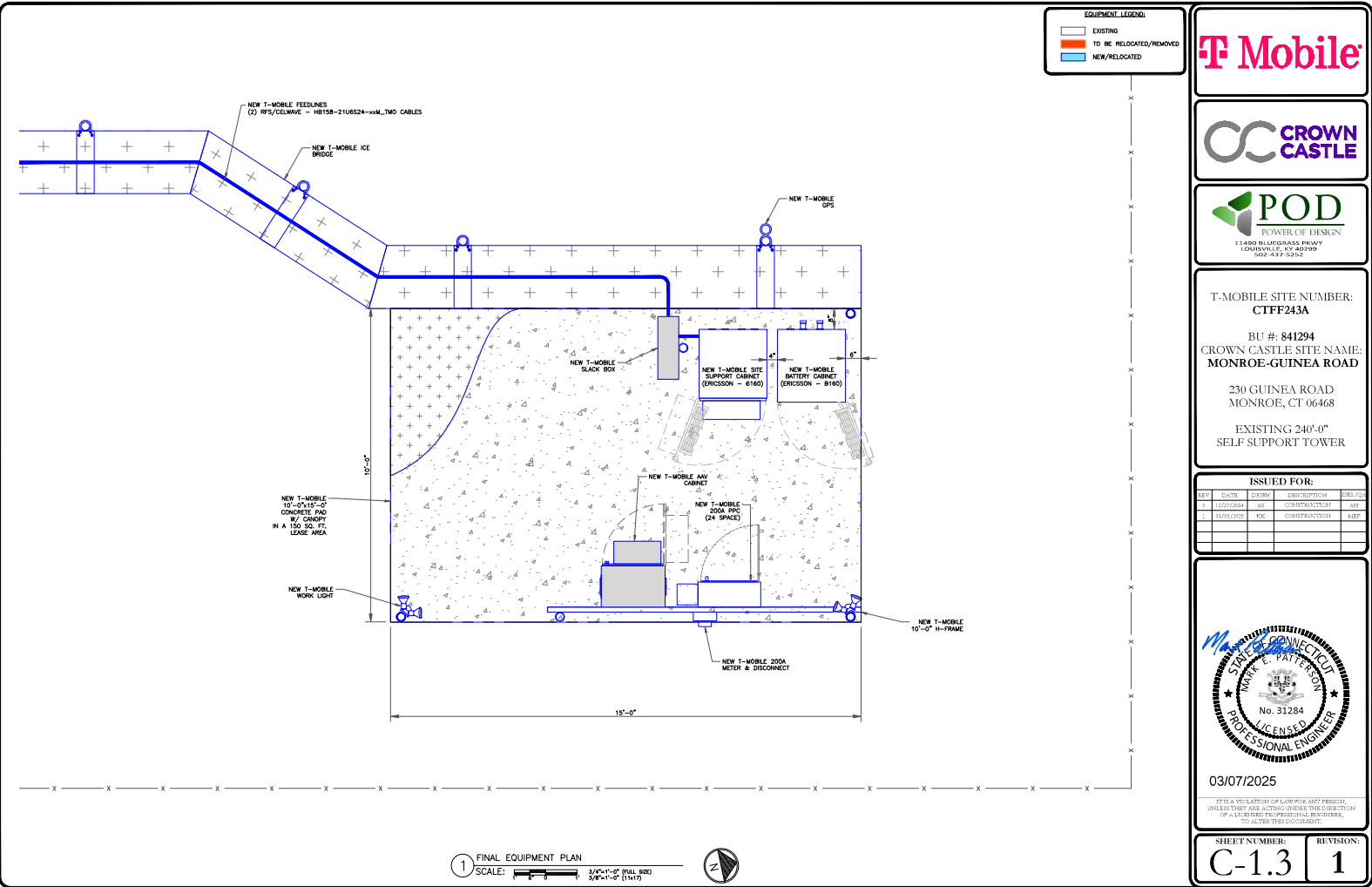


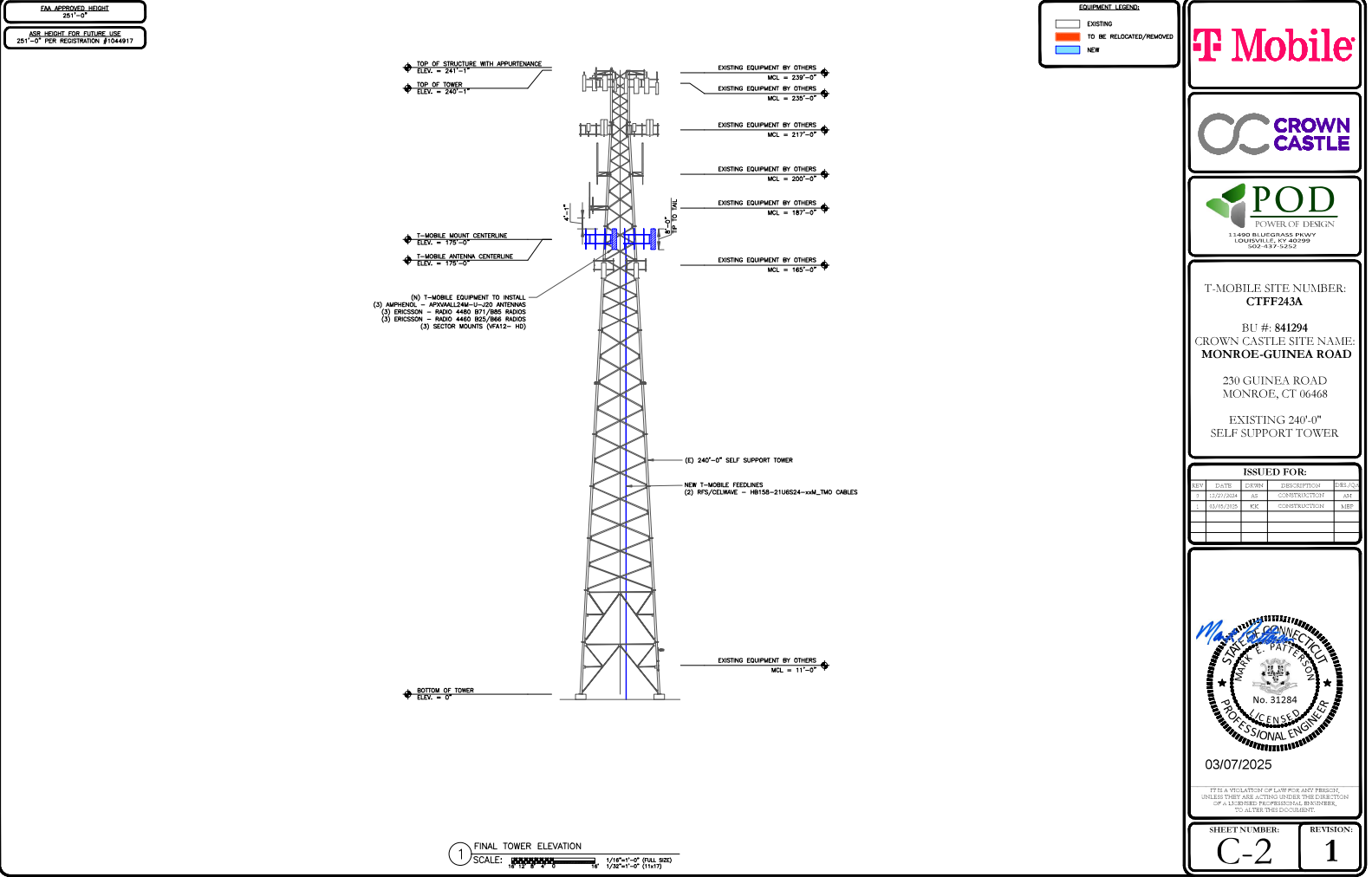
T-MOBILE SITE NUMBER:
CTFF243A
BU #: 841294
CROWN CASTLE SITE NAME:
MONROE-GUINEA ROAD
230 GUINEA ROAD
MONROE, CT 06468
EXISTING 240'-0"
SELF SUPPORT TOWER

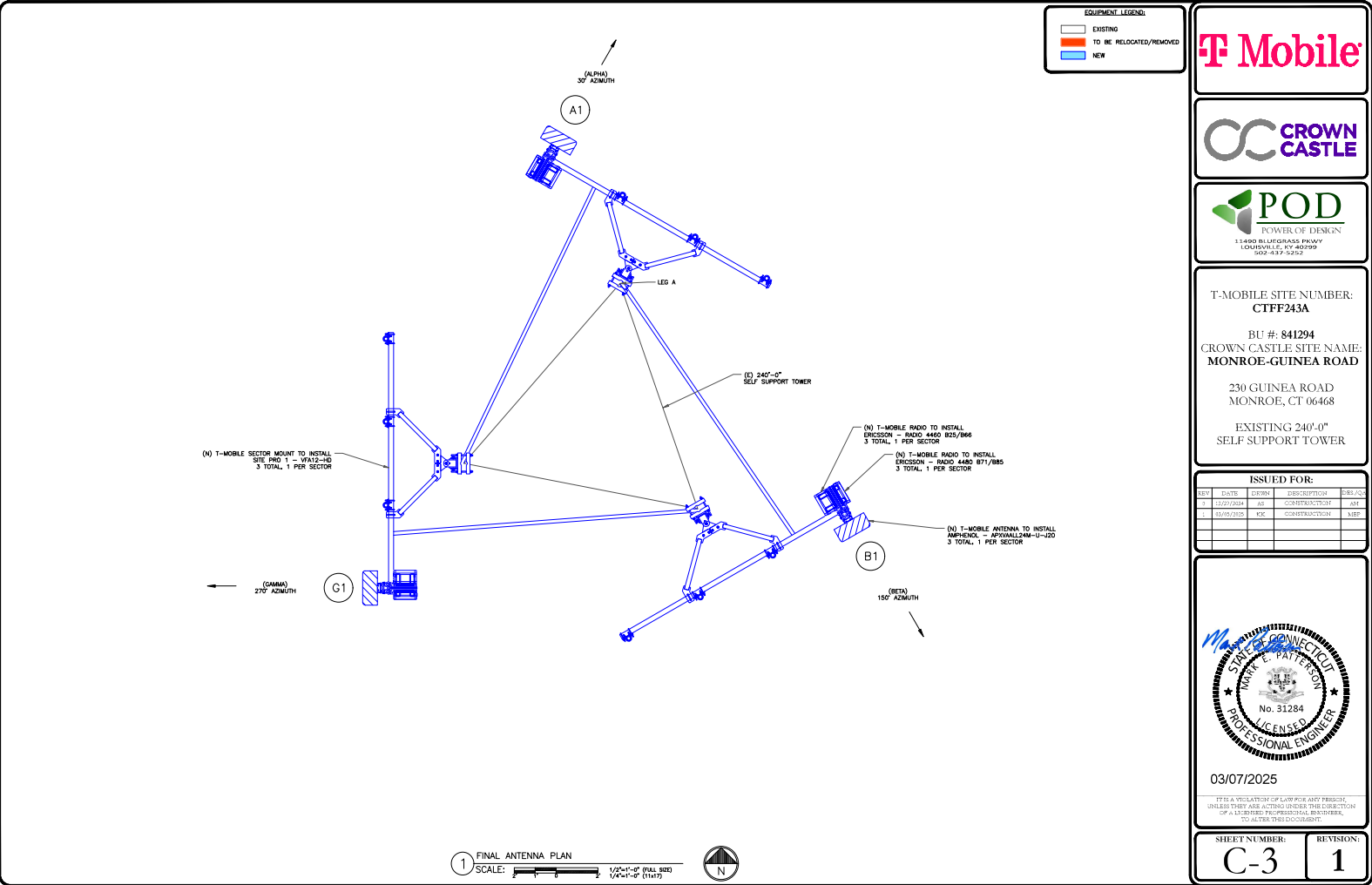
ISSUED FOR:				
REV	DATE	CHG	DESCRIPTION	DR/CL
1	03/07/2024	RD	CONSTRUCTION	AMT
2	10/01/2025	PR	CONSTRUCTION	AMT



03/07/2025
IT IS A VIOLATION OF LAW FOR ANY PERSON
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TO ALTER THIS DOCUMENT.
SHEET NUMBER: C-1.2
REVISION: 1







FINAL EQUIPMENT SCHEDULE
(GC TO VERIFY WITH CURRENT RFDS)

POSITION	ANTENNA				RADIO			DIPLEXER			TMA		SURGE PROTECTION		CABLES			
	TECH	STATUS/MANUFACTURER MODEL	AZIMUTH	RAD. CENTER	QTY.	STATUS/MODEL	LOCATION	QTY.	STATUS	LOCATION	QTY.	STATUS	QTY.	STATUS/MODEL	QTY.	STATUS/TYPER	SIZE	LENGTH
A1	N600/L700 L600/L2100 L1900/R1900 N2100	(N) AMPHENOL - APXWALL24M-U-20	30°	175°-0°	1	(N) ERICSSON - RADIO 4480 871/B85	TOWER	-	-	-	-	-	-	-	2	(N) HYBRID	1-5/8"	225'-0"
					1	(N) ERICSSON - RADIO 4460 825/B65	TOWER	-	-	-	-	-	-	-	-	-	-	-
B1	N600/L700 L600/L2100 L1900/R1900 N2100	(N) AMPHENOL - APXWALL24M-U-20	150°	175°-0°	1	(N) ERICSSON - RADIO 4480 871/B85	TOWER	-	-	-	-	-	-	-	-	-	-	-
					1	(N) ERICSSON - RADIO 4460 825/B65	TOWER	-	-	-	-	-	-	-	-	-	-	-
C1	N600/L700 L600/L2100 L1900/R1900 N2100	(N) AMPHENOL - APXWALL24M-U-20	270°	175°-0°	1	(N) ERICSSON - RADIO 4480 871/B85	TOWER	-	-	-	-	-	-	-	-	-	-	-
					1	(N) ERICSSON - RADIO 4460 825/B65	TOWER	-	-	-	-	-	-	-	-	-	-	-

UNUSED FEEDLINES

-	-	-	-
-	-	-	-



T-MOBILE SITE NUMBER:
CTFF243A

BU #: 841294
CROWN CASTLE SITE NAME:
MONROE-GUINEA ROAD

230 GUINEA ROAD
MONROE, CT 06468

EXISTING 240'-0"
SELF SUPPORT TOWER

ISSUED FOR:

REV	DATE	BY	DESCRIPTION	DATE
1	03/07/2024	ME	CONSTRUCTION	AM
2	10/09/2025	ME	CONSTRUCTION	AM



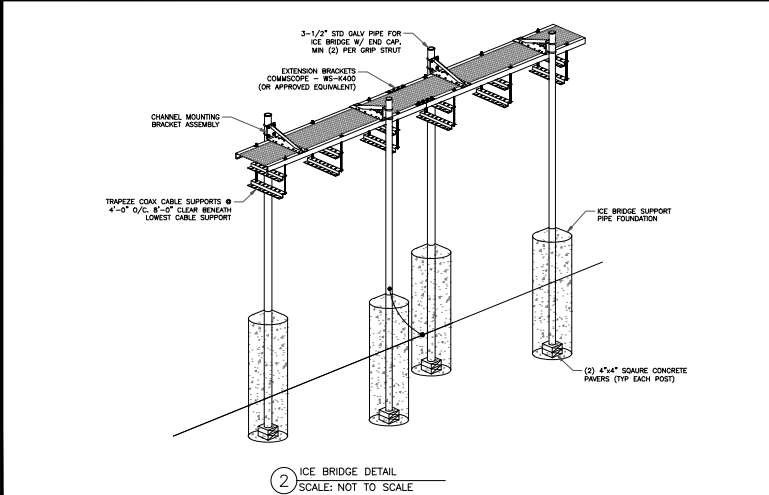
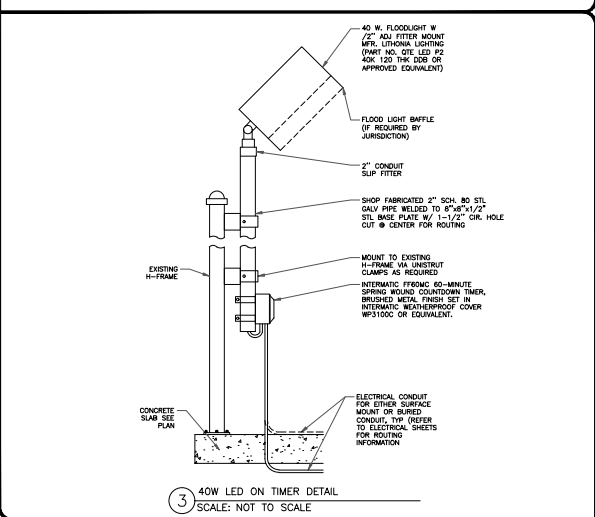
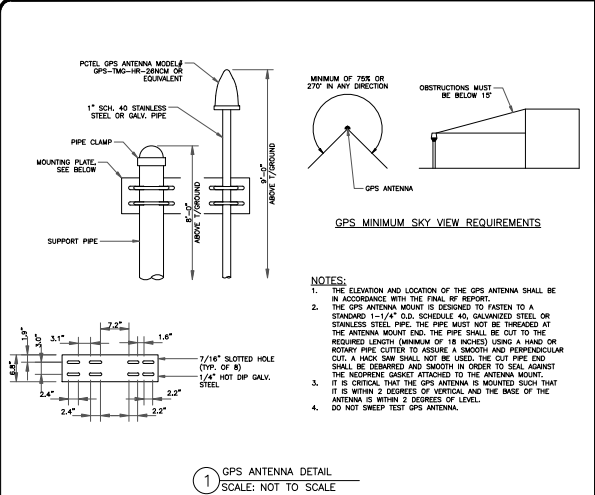
03/07/2025

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TO ALTER THIS DOCUMENT.

SHEET NUMBER: C-4

REVISION: 1

1 FINAL EQUIPMENT SCHEDULE
SCALE: NOT TO SCALE



T-MOBILE SITE NUMBER:
CTFF243A

BU #: **841294**

CROWN CASTLE SITE NAME:
MONROE-GUINEA ROAD

230 GUINEA ROAD
MONROE, CT 06468

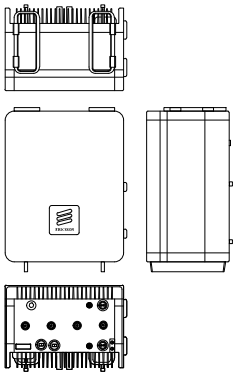
EXISTING 240'-0"
SELF SUPPORT TOWER

ISSUED FOR:				
REV	DATE	CHG	DESCRIPTION	DR/CL
1	12/07/2014	RD	CONSTRUCTION	AMT
2	10/09/2015	PKR	CONSTRUCTION	AMT

03/07/2025

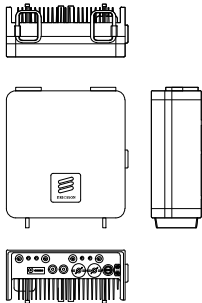
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER:	REVISION:
C-5.1	1



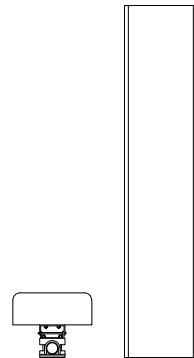
ERICSSON - RADIO 4480 B25/B66
WEIGHT: 109 LBS
SIZE (HxWxD): 17.0x15.1x11.9 IN.

① ERICSSON - RADIO 4480 B25/B66
SCALE: NOT TO SCALE



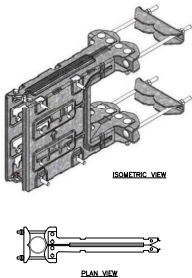
ERICSSON - RADIO 4480 B71/B85
WEIGHT: 92.8 LBS
SIZE (HxWxD): 21.0x15.7x7.5 IN.

② ERICSSON - RADIO 4480 B71/B85
SCALE: NOT TO SCALE



AMPHENOL - APXVALL24M-U-J20
WEIGHT (WITHOUT MOUNTING HARDWARE): 66 LBS
SIZE (HxWxD): 95.7 x 19.7 x 6.0 IN.

③ AMPHENOL - APXVALL24M-U-J20
SCALE: NOT TO SCALE



ERICSSON - SXK 1255394/2
BACK-TO-BACK RADIO BRACKET
MOUNTING POE
MATERIAL: GALVANIZED STEEL
SUPPORTED WEIGHT: 220 LBS (110 LBS EACH SIDE)

④ ERICSSON - SXK 1255394/2
SCALE: NOT TO SCALE

⑤ NOT USED
SCALE: NOT TO SCALE

⑥ NOT USED
SCALE: NOT TO SCALE

T-Mobile

CROWN CASTLE

POD
POWER OF DESIGN
11490 BLUEGRASS PIKE
LOUISVILLE, KY 40299
502-437-5252

T-MOBILE SITE NUMBER:
CTFF243A
BU #: 841294
CROWN CASTLE SITE NAME:
MONROE-GUINEA ROAD
230 GUINEA ROAD
MONROE, CT 06468
EXISTING 240'-0"
SELF SUPPORT TOWER

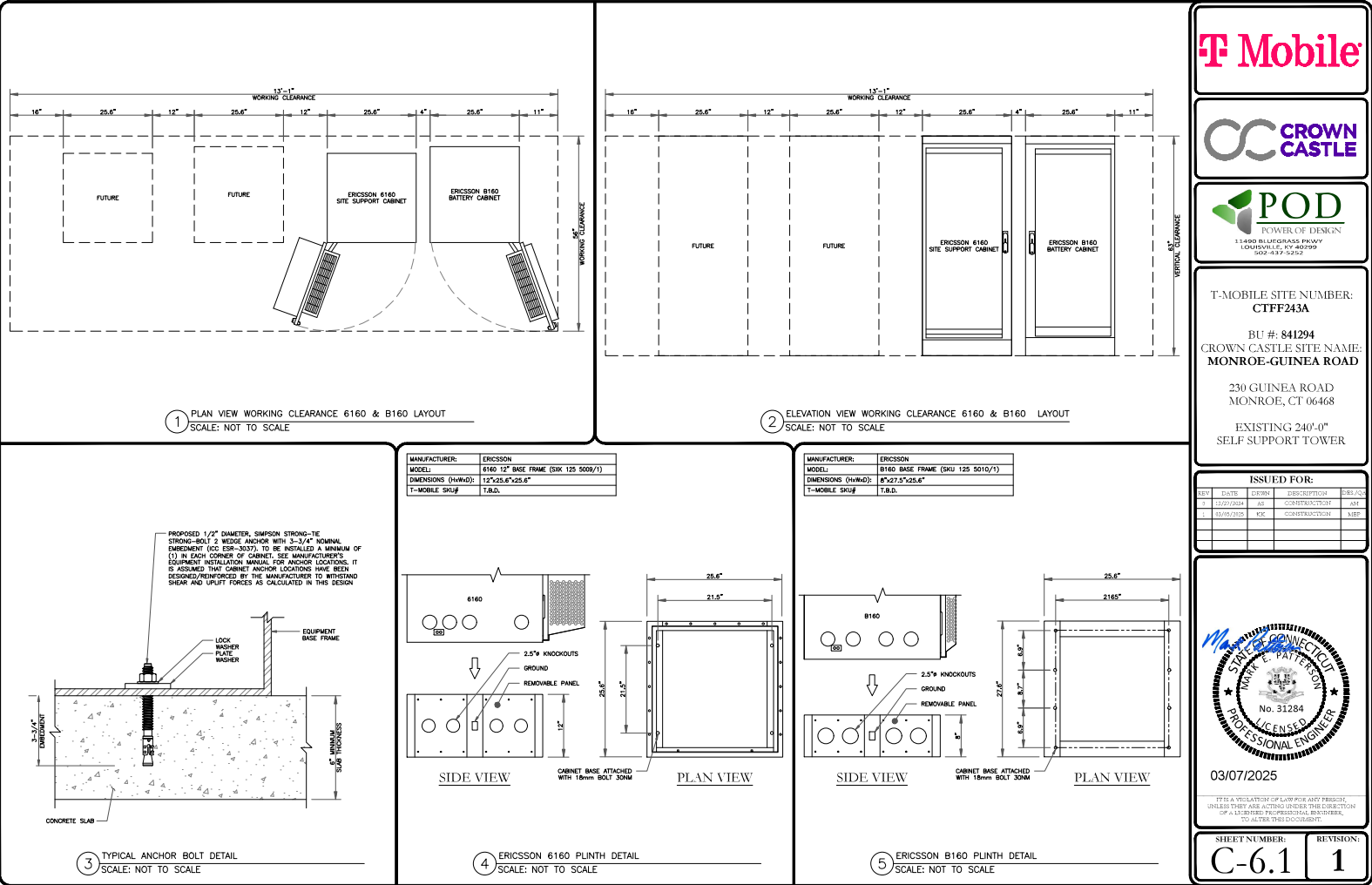
ISSUED FOR:				
REV	DATE	CHG	DESCRIPTION	DR/CL
1	03/07/2024	RD	CONSTRUCTION	AM
2	10/09/2025	PR	CONSTRUCTION	AM

03/07/2025

STATE OF CONNECTICUT
MARK E. PATTERSON
No. 31284
LICENSED PROFESSIONAL ENGINEER

IT IS A VIOLATION OF LAW FOR ANY PERSON
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

SHEET NUMBER: C-5.2
REVISION: 1



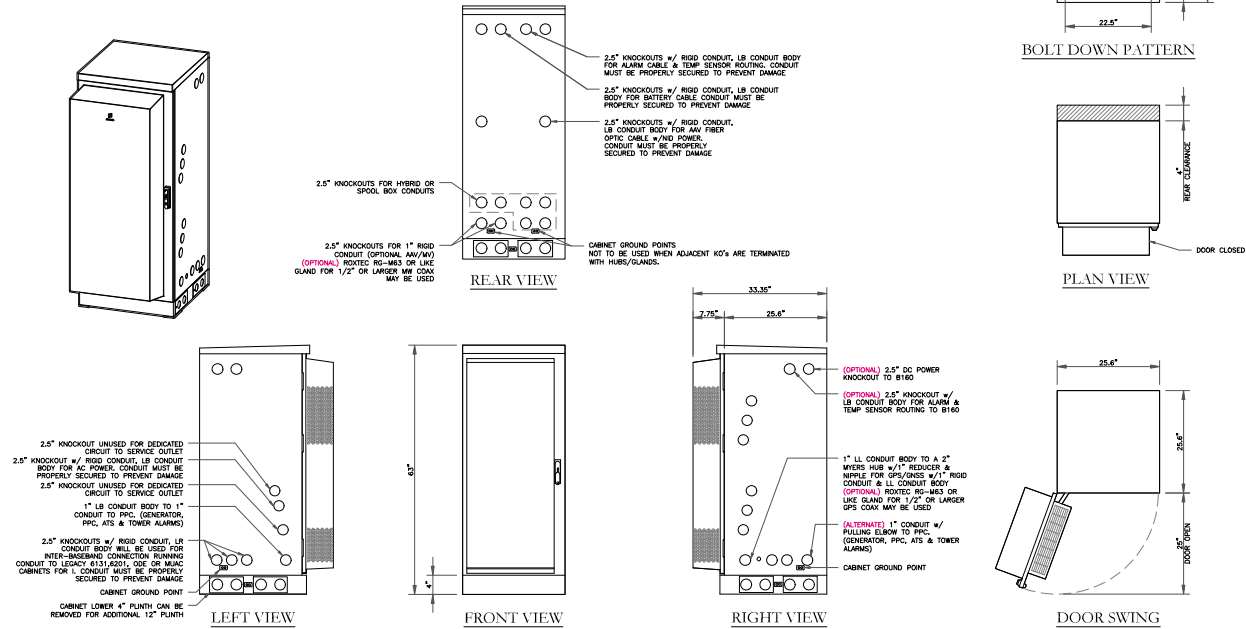
MANUFACTURER:	ERICSSON
MODEL:	(UTE6160_AC_V2) V2 CABINET
DIMENSIONS (HxWxD):	63"x25.6"x25.6"
WEIGHT:	433 LBS
SKU #:	T.B.D.

NOTE:

- CORRECT KNOCKOUT TOOL REQUIRED FOR PUNCHING KNOCKOUTS. DO NOT DRILL THROUGH KNOCKOUTS
- CONDUIT MUST BE PROPERLY SECURED TO PREVENT DAMAGE TO CABINETS AND/OR CABLEING

GROUNDING NOTE:

CABINET GROUNDING TO USE A SINGLE #2 BTCW CONDUCTOR, W/ 2-HOLE, 1" C-C LONG BARREL, WINDOW LUG, IN 3/4" PLUNG TO GROUND RING. PLINTH GROUNDING IS NOT REQUIRED.



1 ERICSSON - 6160 V2 SITE SUPPORT CABINET
SCALE: NOT TO SCALE

T-Mobile

CROWN CASTLE

POD
POWER OF DESIGN
11490 BLUEGRASS HWY
LOUISVILLE, KY 40258
502-457-5252

T-MOBILE SITE NUMBER:
CTFF243A

BU #: 841294
CROWN CASTLE SITE NAME:
MONROE-GUINEA ROAD

230 GUINEA ROAD
MONROE, CT 06468

EXISTING 240'-0"
SELF SUPPORT TOWER

ISSUED FOR:

REV	DATE	CHG	DESCRIPTION	ORIGIN
1	03/07/2024	ED	CONSTRUCTION	AMT
2	10/09/2025	ED	CONSTRUCTION	AMT
3				
4				
5				



03/07/2025

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UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

SHEET NUMBER:

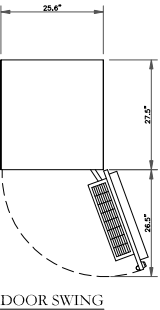
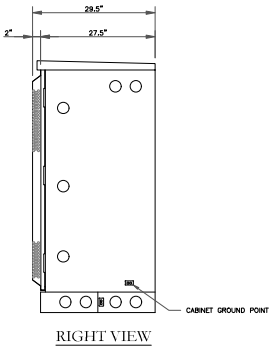
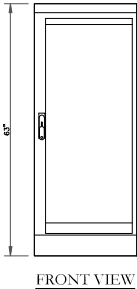
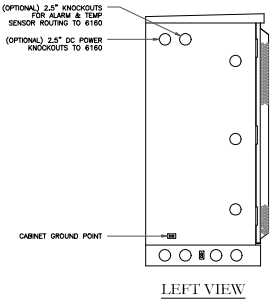
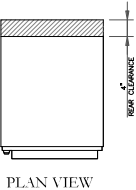
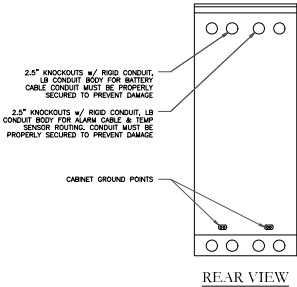
C-6.2

REVISION:

1

MANUFACTURER:	ERICSSON
MODEL:	B160 BATTERY CABINET
DIMENSIONS (HxWxD):	63"x25.6"x29.5"
WEIGHT:	295 LBS
SKU #:	T.B.D.

NOTE:
CORRECT KNOCKOUT TOOL REQUIRED FOR PUNCHING KNOCKOUTS.
DO NOT DRILL THROUGH KNOCKOUTS
CONDUIT MUST BE PROPERLY SECURED TO PREVENT DAMAGE TO CABINETS AND/OR CABLING
GROUNDING NOTE:
CABINET GROUNDING TO USE A SINGLE #2 BTCW CONDUCTOR, W/ 2-HOLE 1" C-C LONG
BAREL W/ 3/4" LUNC TO GROUND RING. PLINTH GROUNDING IS NOT REQUIRED.



1 ERICSSON - B160 BATTERY CABINET
SCALE: NOT TO SCALE


T Mobile

CROWN CASTLE

POD
POWER OF DESIGN
11490 BLUEGRASS PKWY
LOUISVILLE, KY 40299
502-437-5252

T-MOBILE SITE NUMBER:
CTFF243A
BU #: 841294
CROWN CASTLE SITE NAME:
MONROE-GUINEA ROAD
230 GUINEA ROAD
MONROE, CT 06468
EXISTING 240'-0"
SELF SUPPORT TOWER

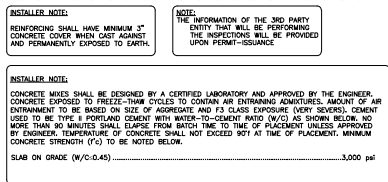
ISSUED FOR:				
REV	DATE	CHG	DESCRIPTION	DR/CL
1	03/07/2024	EC	CONSTRUCTION	AMT
2	10/01/2025	EC	CONSTRUCTION	AMT



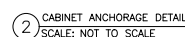
03/07/2025

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TO ALTER THIS DOCUMENT.

SHEET NUMBER:	REVISION:
C-6.3	1



3 NOT USED
SCALE: NOT TO SCALE



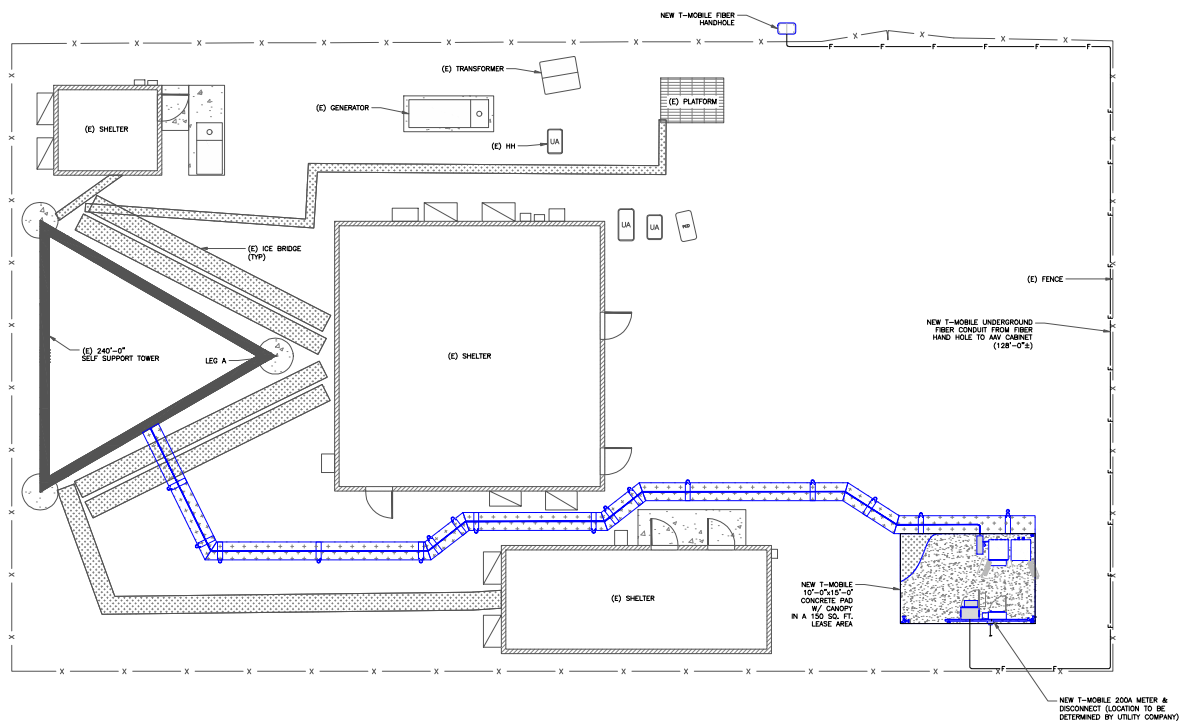
3 NOT USED
SCALE: NOT TO SCALE



C-6.4

REVISION

1



1 CONDUIT ROUTING PLAN
SCALE: 3/16"=1'-0" (FULL SIZE)
3/32"=1'-0" (1/4"=1')



T-MOBILE SITE NUMBER:
CTFF243A
BU #: 841294
CROWN CASTLE SITE NAME:
MONROE-GUINEA ROAD
230 GUINEA ROAD
MONROE, CT 06468
EXISTING 240'-0"
SELF-SUPPORT TOWER

ISSUED FOR:

REV	DATE	CHG	DESCRIPTION	DRG/CL
1	03/07/2024	RD	CONSTRUCTION	AMT
2	10/09/2025	WR	CONSTRUCTION	AMT



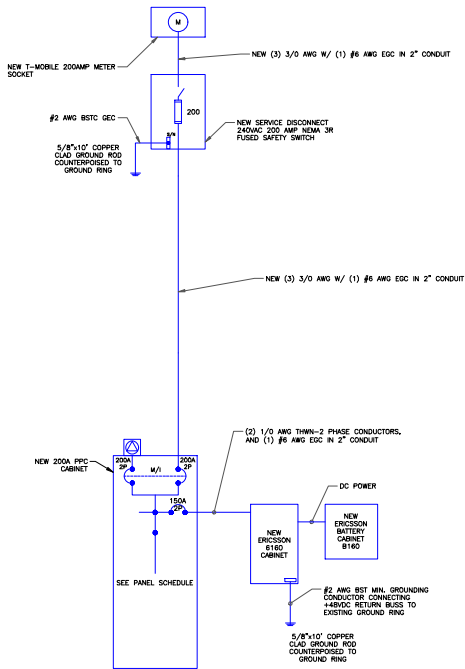
03/07/2025

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UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

SHEET NUMBER: E-1
REVISION: 1

NOTES:

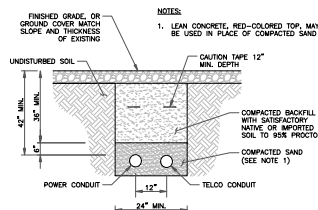
1. ALL NEW CONDUCTORS TO BE INSTALLED SHALL BE COPPER. ALL CONDUCTORS SHALL BE THWN, THWN-2, XHHW, OR XHHW-2 UNLESS NOTED OTHERWISE.
2. CONTRACTOR IS TO FIELD VERIFY ALL EXISTING ITEMS SHOWN ON THE ELECTRICAL ONE-LINE DIAGRAM AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
3. ALL GROUNDING AND BONDING PER THE NEC.



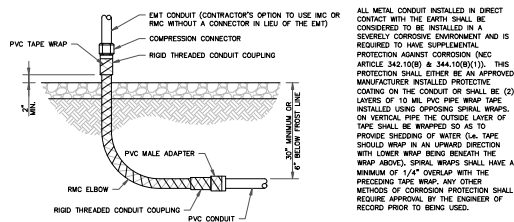
1 ONE LINE DIAGRAM
SCALE: NOT TO SCALE

T-MOBILE PANEL SCHEDULE											
MAIN: 200 AMP MAIN BREAKER MOUNTING: INSIDE PPC ENCLOSURE			VOLTAGE/PHASE: 120/240V, 1-PHASE, 3-WIRE ENCLOSURE: NEMA 3R						SHORT CIRCUIT CURRENT RATING: NA SURGE PROTECTION DEVICE: YES		
DESCRIPTION	LOAD (VA)	C/B	C/B No.	LOAD (VA)		C/B	C/B No.	LOAD (VA)	C/B	C/B No.	DESCRIPTION
				A-PHASE	B-PHASE			C			
SURGE PROTECTION DEVICE	0	NC	60	1	180	8500	2	20	NC	180	GFCI
LIGHTS	200	NC	20	5	8700	0	6	150	C	8500	NEW 6160 CABINET
				7	0	0	8		C		
				9	0	0	10		C		
				11	0	180	12	20	NC	180	TELCO CABINET GFCI
				13	0	0	14				
				15	0	0	16				
				17	0	0	18				
				19	0	0	20				
				21	0	0	22				
				23	0	0	24				
BASE LOAD (VA) =				8880	8880	C = CONTINUOUS LOAD; NC = NON-CONTINUOUS LOAD					
25% OF CONTINUOUS LOAD (VA) =				2125	2125						
TOTAL LOAD (VA) =				11005	10805						
TOTAL LOAD (VA) =				92	91						

2 FINAL AC PANEL SCHEDULE
SCALE: NOT TO SCALE



3 TYP TRENCH DETAIL
SCALE: NOT TO SCALE



4 CONDUIT STUB UP DETAIL
SCALE: NOT TO SCALE

T Mobile

CROWN CASTLE

POD
POWER OF DESIGN
11490 BLUEGRASS PIKE
LOUISVILLE, KY 40299
502-437-5252

T-MOBILE SITE NUMBER:
CTFF243A

BU #: 841294
CROWN CASTLE SITE NAME:
MONROE-GUINEA ROAD

230 GUINEA ROAD
MONROE, CT 06468

EXISTING 240'-0"
SELF SUPPORT TOWER

ISSUED FOR:				
REV	DATE	CHG	DESCRIPTION	DR/CL
1	03/07/2025	0	CONSTRUCTION	AMT
2	03/07/2025	0	CONSTRUCTION	AMT
3				
4				
5				



03/07/2025

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OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

SHEET NUMBER: E-2
REVISION: 1

1. ANTENNA SECTOR GROUND BAR DETAIL
SCALE: NOT TO SCALE

2. TOWER/SHELTER GROUND BAR DETAIL
SCALE: NOT TO SCALE

3. INSPECTION WELL DETAIL
SCALE: NOT TO SCALE

4. TYPICAL ANTENNA CABLE GROUNDING
SCALE: NOT TO SCALE

5. HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: NOT TO SCALE

6. GROUND ROD DETAIL
SCALE: NOT TO SCALE



T-MOBILE SITE NUMBER:
C1FF243A

BU #: 841294
CROWN CASTLE SITE NAME:
MONROE-GUINEA ROAD

230 GUINEA ROAD
MONROE, CT 06468


EXISTING 240'-0"
SELF SUPPORT TOWER

ISSUED FOR:				
REV	DATE	CHG	DESCRIPTION	DR/CHK
1	10/07/2014	01	CONSTRUCTION	AMT
2	10/07/2015	02	CONSTRUCTION	AMT


03/07/2025

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SHEET NUMBER: **G-1** REVISION: **1**




TYPE HS




TYPE 2-1A-2




TYPE XA




TYPE 1A-2




TYPE GY




TYPE XV




TYPE VN




TYPE NC




TYPE SS




TYPE GR




TYPE JS



TYPE VB



TYPE PT



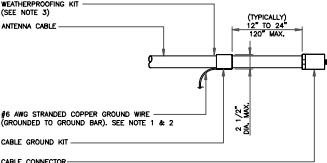
TYPE GT

NOTE:

- ERCO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH CONSTRUCTION MANAGER FOR SPECIFIC MOLD TO BE USED FOR THIS PROJECT.
- MOLD TYPE ONLY TO BE USED BELOW GRADE WHEN CONNECTING GROUND RING TO GROUND ROD.

1 CADWELD GROUNDING CONNECTIONS

SCALE: NOT TO SCALE



WEATHERPROOFING KIT (SEE NOTE 3)

ANTENNA CABLE

(TYPICALLY) 1/2" TO 3/4" MAX.

6 AWG STRANDED COPPER GROUND WIRE (GROUNDING TO GROUND BAR). SEE NOTE 1 & 2

CABLE GROUND KIT

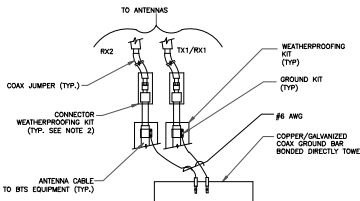
CABLE CONNECTOR

NOTES:

- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
- GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
- WEATHER PROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

3 CABLE GROUND KIT CONNECTION

SCALE: NOT TO SCALE



TO ANTENNAS

RX2

TX1/RX1

COAX JUMPER (TYP.)

CONNECTOR

WEATHERPROOFING KIT (TYP. SEE NOTE 2)

WEATHERPROOFING KIT (TYP.)

GROUND KIT (TYP.)

6 AWG

COPPER/SALVANIZED COAX GROUND BAR BONDED DIRECTLY TOWER

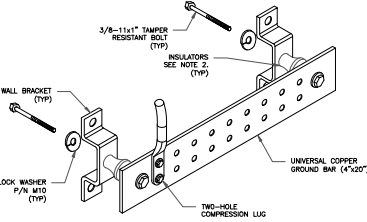
ANTENNA CABLE TO BITS EQUIPMENT (TYP.)

NOTES:

- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
- WEATHER PROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

4 GROUND CABLE CONNECTION

SCALE: NOT TO SCALE



3/8"-11x1" TAMPER RESISTANT BOLT (TYP.)

INSULATORS (SEE NOTE 2, (TYP.)

WALL BRACKET (TYP.)

LOCK WASHER 7/8" INTO (TYP.)

UNIVERSAL COPPER GROUND BAR (4"x20")

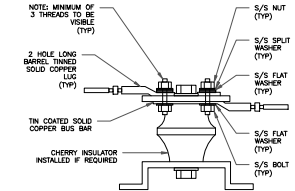
TWO-HOLE COMPRESSION LUG

NOTES:

- DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, FOR THE GROUNDING DOWN CONDUCTOR POLICY CAG-STD-10091. NO WELDING OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION, CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.
- OMIT INSULATOR WHEN MOUNTING TO TOWER STEEL OR PLATFORM STEEL. USE INSULATORS WHEN ATTACHING TO BUILDING OR SHELTERS.

6 GROUND BAR DETAIL

SCALE: NOT TO SCALE



NOTES: MINIMUM OF 3 THREADS TO BE VISIBLE (TYP.)

2 HOLE LONG BARREL TUNED SOLID COPPER LUG (TYP.)

TIN COATED SOLID COPPER BUS BAR

CHERRY INSULATOR INSTALLED IF REQUIRED

5/8" NUT (TYP.)

5/8" SPLIT WASHER (TYP.)

5/8" FLAT WASHER (TYP.)

5/8" FLAT WASHER (TYP.)

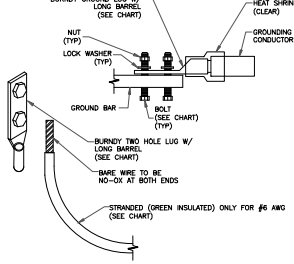
5/8" BOLT (TYP.)

NOTES:

- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
- WEATHER PROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

7 LUG DETAIL

SCALE: NOT TO SCALE



BURNDY GROUND LUG W/ LONG BARREL (SEE CHART)

NUT (TYP.)

LOCK WASHER (TYP.)

GROUND BAR

BOLT (SEE CHART) (TYP.)

BURNDY TWO HOLE LUG W/ LONG BARREL (SEE CHART)

HEAT SHRINK (CLEAR)

GROUNDING CONDUCTOR

STRANDED (GREEN INSULATED) ONLY FOR 6 AWG (SEE CHART)

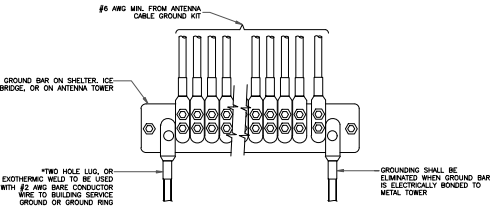
BARE WIRE TO BE NO-OK AT BOTH ENDS

NOTES:

- ALL GROUNDING LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER, GROUND BAR, GROUND LUG, FLAT WASHER AND NUT.

2 MECHANICAL LUG CONNECTION

SCALE: NOT TO SCALE



6 AWG WIRE FROM ANTENNA CABLE GROUND KIT

GROUND BAR ON SHELTER, ICE BRIDGE, OR ON ANTENNA TOWER

TWO HOLE LUG, OR EXOTHERMIC WELD TO BE USED WITH 6 AWG BARE CONDUCTOR WIRE TO BUILDING SERVICE GROUND OR GROUND RING

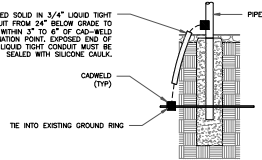
GROUNDING SHALL BE ELIMINATED WHEN GROUND BAR IS ELECTRICALLY BONDED TO METAL TOWER

NOTES:

- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
- WEATHER PROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

5 GROUNDWIRE INSTALLATION

SCALE: NOT TO SCALE



PIPE

6 AWG TUNED SOLID IN 3/4" LIQUID TIGHT CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. EXPOSED END OF THE LIQUID TIGHT CONDUIT MUST BE SEALED WITH SILICONE GEL.

CADWELD (TYP.)


TE INTO EXISTING GROUND RING

NOTES:


- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
- WEATHER PROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

8 TRANSITIONING GROUND DETAIL


SCALE: NOT TO SCALE



T-Mobile



CROWN CASTLE



POD
POWER OF DESIGN
11490 BLUEGRASS PKWY
LOUISVILLE, KY 40299
502-457-5252

T-MOBILE SITE NUMBER:
C1FF243A

BU #: 841294


CROWN CASTLE SITE NAME:
MONROE-GUINEA ROAD

230 GUINEA ROAD
MONROE, CT 06468

EXISTING 240'-0"
SELF SUPPORT TOWER

ISSUED FOR:

REV	DATE	CHG	DESCRIPTION	DRG/EN
1	10/07/2014	01	CONSTRUCTION	AMT
2	10/07/2015	02	CONSTRUCTION	AMT



STATE OF CONNECTICUT
MARK E. PATTERSON
No. 31284
LICENSED PROFESSIONAL ENGINEER

03/07/2025

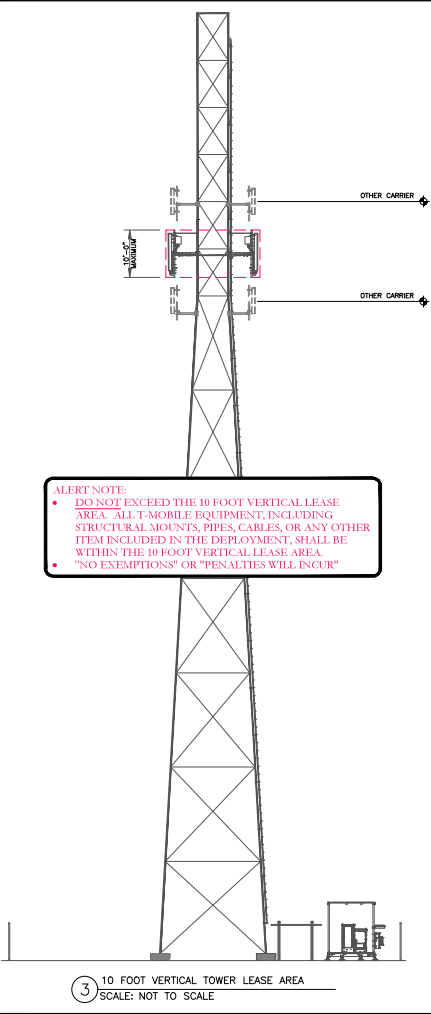
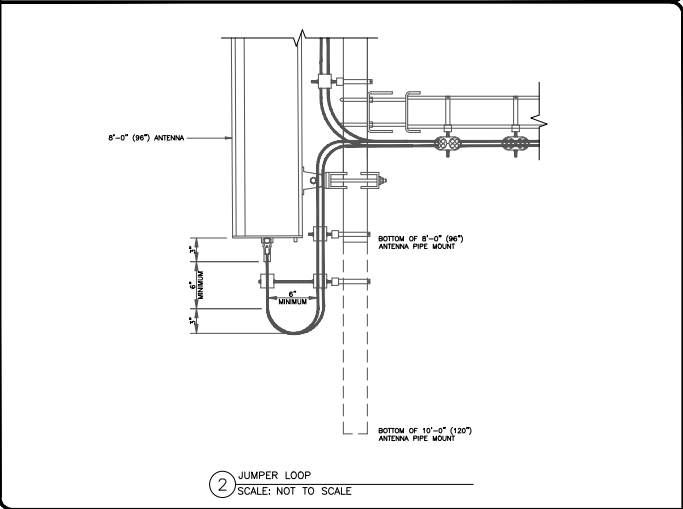
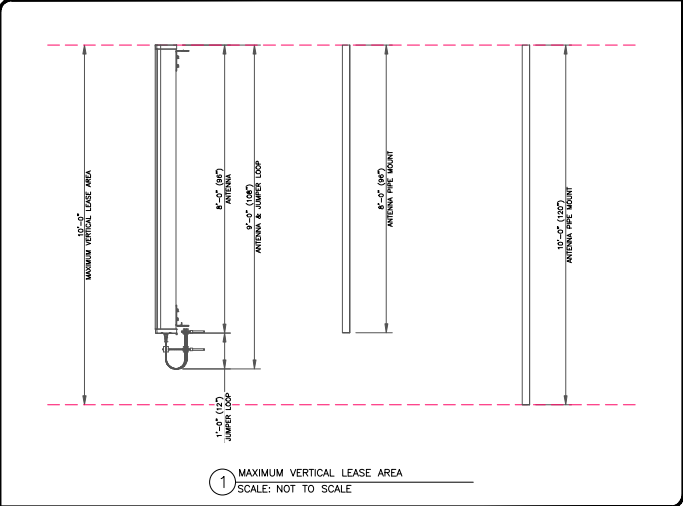
IT IS A VIOLATION OF LAW FOR ANY PERSON UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER:

G-2

REVISION:

1



T Mobile

CROWN CASTLE

10 FOOT VERTICAL
TOWER LEASE AREA

ISSUED FOR:

REV	DATE	DESCRIPTION	PREPARED BY	DATE
1	10/11/2014	ISSUE	PREPARED BY	DATE

APPENDED
DOCUMENT

IT IS A VIOLATION OF LAW FOR ANY PERSON
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL REGISTERED
TO ALTER THIS DOCUMENT.

SHEET NUMBER:

REF

REVISION:

1

Print Name:
Standard
Project IDs with associated PORs:
CTFH243A-00024328JA
Coverage Strategy: Regional Coverage

Site ID: CTF243A	Site Name: CTF243A_Crown Castle_Self Support	Latitude: 41.34186
Status: Draft	Tower: Monroe	Longitude: -73.27452
Version: 1	Site Class: Self Support Tower	Address: 231 Guinea Road
Project Type: Coverage Strategy	Site Type: Structure Non Building	City/State: Monroe, CT
Approved: Not approved	Plan Year:	Region: NORTHHEAST
Marked By: Not approved	Approved: CONNECTICUT CT	
Last Modified: 09/25/2024 1:03:06 PM	Vendor: Ericsson	
Last Modified By: PERCIVAL.VILLANUEVA@T-MOBILE.COM	Landlord: Crown Castle	

RAN Template: 67E998E 6160 (LRP)		AL Template: 67E998E_10P (LRP)		
Sector Count: 3	Antenna Count: 3	Coax Line Count: 0	TMA Count: 0	RRU Count: 6

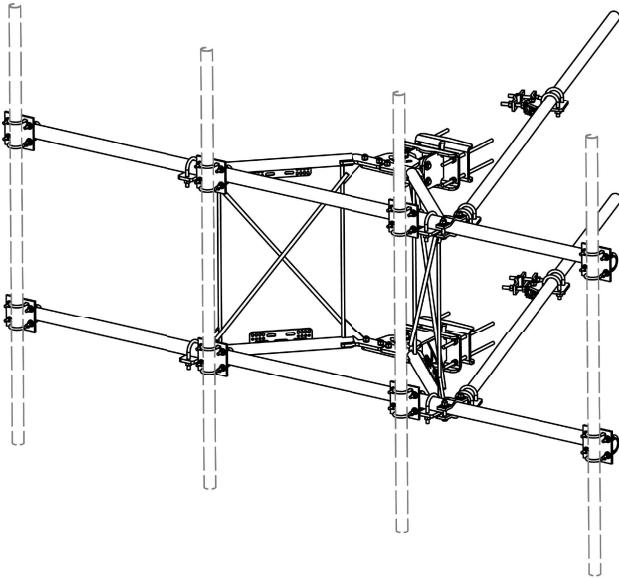
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Print Name: Standard
Project IDs with associated PORs:
C1H+243A-0002432E04
Coverage Strategy: Regional Coverage

Existing RAN Equipment	
----- This section is intentionally blank -----	

Template 07E990E 6160 (LRP)		
Enclosure	1	2
Enclosure Type	B160	Enclosure 6160_v2 AC
Transport System		CSR IXRe V2 (Gen2)
Hybrid Cat6e System		Hybrid Trunk 6/24 4AWG 60m (x2)
Baseband		<div> RP 6672 </div> <div> N600 </div> <div> N1900 </div> <div> N2100 (RESTRICTED) </div> <div> L600 (RESTRICTED) </div> <div> L700 (RESTRICTED) </div> <div> L1900 </div> <div> L2100 </div>

RF Notes
Huntington Road runs through a hilly area with a 60-foot drop, leading to some coverage gaps along this route. The proposed MDT for the Gamma Sector is set at 2 degrees to account for the terrain's topography and provide at least outdoor coverage around this area.



PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	2	X-VFAW	SUPPORT ARM		71.41	142.81
2	1	X-HDCAMTBW	CLAMP WELDMENT FOR BCAM-HD		33.86	33.86
3	1	X-MHTPHD	MULTI-HOLE TAPER PLATE WELDMENT		36.24	36.24
4	2	X-VFAPL4	VFA-HD PIVOT PLATE	12 in	15.88	31.77
5	2	X-LCBP4	BENT BACKING PLATE	13 in	20.04	40.09
6	1	X-HDCAMSS	ANGLE ADJUSTMENT WELDMENT FOR BCAM-HD		16.39	16.39
7	4	X-SPTB	SLIDING PPE TIE BACK PLATE	5 1/2 in	5.87	23.49
8	1	X-HDCAMSP	POSITIONING PLATE WELDMENT FOR BCAM-HD		2.58	2.58
9	4	X-TBCA	TIE BACK CLIP ANGLE		2.01	8.02
10	8	SCX2	CROSSOVER PLATE	7 in	4.80	38.37
11	4	MCP	CLAMP HALF 1/2" THICK, 11-5/8" LONG	12 1/16 in	3.59	14.37
12	8	DCP	1/2" THICK, 5-3/4" CTR TO CENTER CLAMP HALF	8 1/8 in	2.35	18.90
13	2	P2126	2-3/8" X 126" (2" SCH. 40) GALVANIZED PIPE	126 in	40.75	81.50
14	2	P30150	2-7/8" X 150" (2-1/2" SCH. 40) GALVANIZED PIPE	150 in	76.94	153.87
15	4	A34212	3/4" X 2-1/2" UNC HEX BOLT (A325)	2 1/2 in	0.48	1.92
16	4	G34FW	3/4" HDG USS FLATWASHER		0.06	0.24
17	4	G34LW	3/4" HDG LOCKWASHER		0.04	0.17
18	4	G34NUT	3/4" HDG HEAVY 2H HEX NUT		0.21	0.85
19	8	G58R-18	5/8" x 18" THREADED ROD (HDG.)		1.57	12.54
20	4	G58R-12	5/8" x 12" THREADED ROD (HDG.)		1.05	4.18
21	4	G58R-8	5/8" x 8" THREADED ROD (HDG.)		0.70	2.79
22	4	X-UB5300	5/8" X 3" X 5-1/4" X 2-1/2" U-BOLT (HDG.)		1.15	4.60
23	8	X-UB5258	5/8" X 2-5/8" X 4-1/2" X 2" U-BOLT (HDG.)		1.00	8.00
24	2	G5807	5/8" x 7" HDG HEX BOLT GR5 FULL THREAD	7 in	0.70	1.41
25	1	G5806	5/8" x 6" HDG HEX BOLT GR5 FULL THREAD	6 in	0.62	0.62
26	8	G5804	5/8" x 4" HDG HEX BOLT GR5		0.44	3.55
27	4	G5802	5/8" x 2" HDG HEX BOLT GR5		0.27	1.08
28	8	A582114	5/8" x 2-1/4" HDG A325 HEX BOLT	2 1/4 in	0.31	2.50
29	25	G58FW	5/8" HDG USS FLATWASHER	1/8 in	0.07	1.76
30	66	G58LW	5/8" HDG LOCKWASHER		0.03	1.72
31	71	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	9.22
32	32	X-UB1300	1/2" X 3" X 3" X 2" GALV U-BOLT		0.74	23.64
33	16	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.60	9.56
34	64	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	2.18
35	64	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	0.89
36	64	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	4.58
TOTAL WT. #						740.26

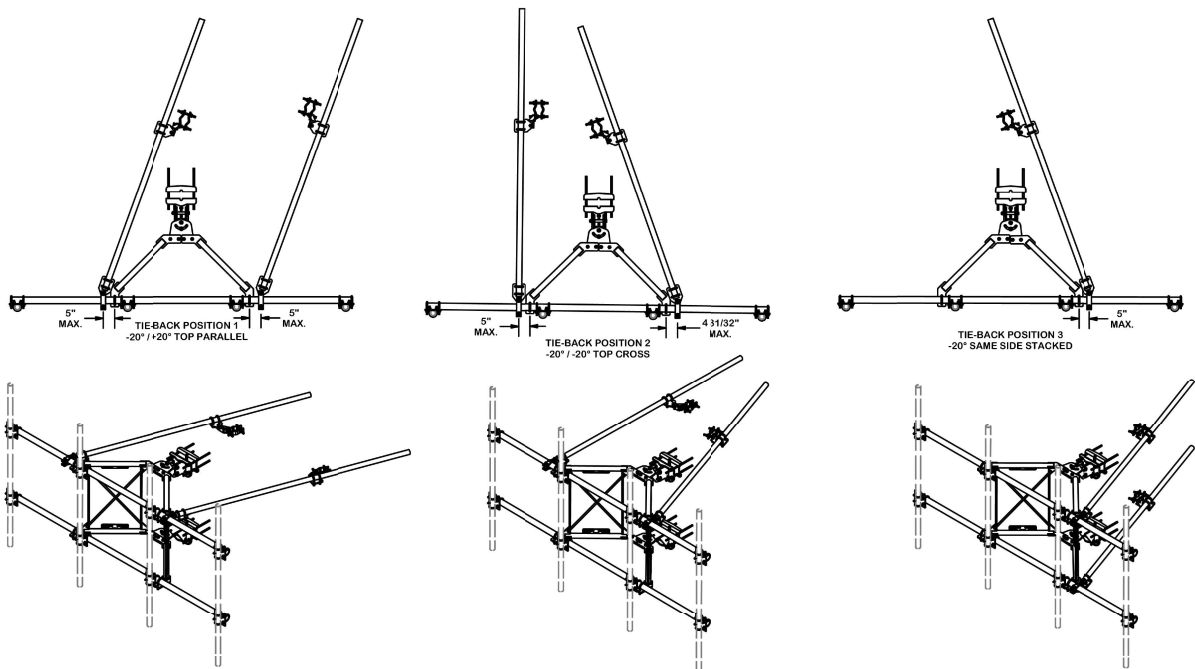
D	UPDATED BCAM VERSION 1 TO BCAM VERSION 2	CEK	6/29/2018
C	UPDATED PIN LEG CONNECTION TO B-CAM CONNECTION	CEK	12/7/2017
B	CHANGED TIE-BACK BACK CONNECTION	CEK	7/31/2017
A	CHANGED TIE-BACK FRONT CONNECTION	CEK	2/2/2017
REV	DESCRIPTION OF REVISIONS	CPD	BY DATE
REVISION HISTORY			

TOLERANCE NOTES	
TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE: SAWED, SHEARED AND GAS CUT EDGES ($\pm 0.030"$) DRILLED AND GAS CUT HOLES ($\pm 0.030"$) - NO CONING OF HOLES LASER CUT EDGES AND HOLES ($\pm 0.010"$) - NO CONING OF HOLES BENDS ARE $\pm 1/2$ DEGREE ALL OTHER MACHINING ($\pm 0.030"$) ALL OTHER ASSEMBLY ($\pm 0.060"$)	
PROPRIETARY NOTE: THE DATA AND TECHNOLOGIES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.	

DESCRIPTION	
12' 6" HEAVY DUTY V-FRAME ASSEMBLY WITH TWO STIFF ARMS	
CPD NO.	DRAWN BY
CEK	1/25/2017
CLASS	DRAWING USAGE
81	CUSTOMER
SUB	CHECKED BY
02	BMC 12/13/2017

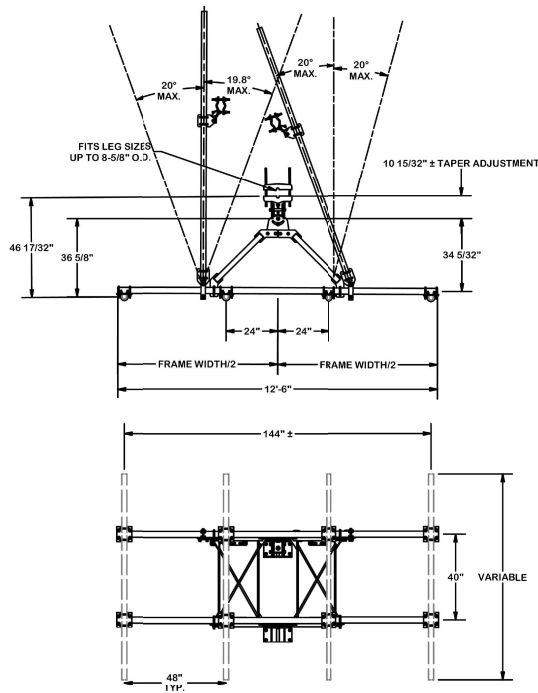
 A valmont COMPANY	Locations: New York, NY Atlanta, GA Los Angeles, CA Plymouth, IN Salem, OR Dallas, TX	
	Engineering Support Team 1-888-753-7446	
PART NO.		VFA12-HD
DWG. NO.		VFA12-HD

TIE-BACK POSITIONS



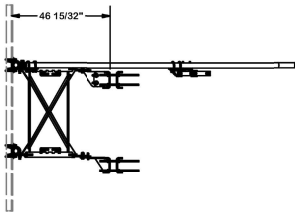
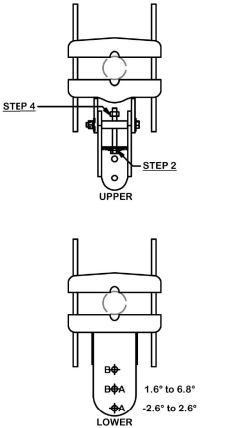
<div>TOLERANCE NOTES</div> <div>TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE: SAWED, SHEARED AND GAS CUT EDGES ($\pm 0.030"$) DRILLED AND GAS CUT HOLES ($\pm 0.030"$) - NO CONING OF HOLES LASER CUT EDGES AND HOLES ($\pm 0.010"$) - NO CONING OF HOLES BENDS ARE $\pm 1/2$ DEGREE ALL OTHER MACHINING ($\pm 0.030"$) ALL OTHER ASSEMBLY ($\pm 0.060"$)</div> <div>PROPRIETARY NOTE: THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.</div>			<div>DESCRIPTION</div> <div>12" 6" HEAVY DUTY V-FRAME ASSEMBLY WITH TWO STIFF ARMS</div>			<div><div><div>SITE PRO</div><div>A valmont COMPANY</div></div><div>Locations: New York, NY Atlanta, GA Los Angeles, CA Plymouth, IN Salem, OR Dallas, TX</div></div>		
			CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.	VFA12-HD	
			CLASS	DRAWING USAGE	CHECKED BY	DWG. NO.	VFA12-HD	
			81	02	CUSTOMER	BMC 12/13/2017		

D	UPDATED BCAM VERSION 1 TO BCAM VERSION 2		CEK	6/29/2018
C	UPDATED PIN LEG CONNECTION TO B-CAM CONNECTION		CEK	12/7/2017
B	CHANGED TIE-BACK BACK CONNECTION		CEK	7/31/2017
A	CHANGED TIE-BACK FRONT CONNECTION		CEK	2/2/2017
REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
REVISION HISTORY				



ANGLE CALIBRATING PROCEDURE:

1. MEASURE TOWER TAPER AND PICK LOWER BRACKET HOLE:
 - HOLE A = -2.6° TO 2.6°
 - HOLE B = 1.6° TO 6.8°
2. USE CALIBRATING BOLT TO ADJUST FRAME TO DESIRED TAPER
3. TORQUE LOCKING BOLTS TO 100 ft.-lbs.
4. ADVANCE LOCKING NUT TO POSITIONING PLATE, THEN TIGHTEN.



TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
SAWED, SHEARED AND GAS CUT EDGES ($\pm 0.030"$)
DRILLED AND GAS CUT HOLES ($\pm 0.030"$) - NO CONING OF HOLES
LASER CUT EDGES AND HOLES ($\pm 0.010"$) - NO CONING OF HOLES
BENDS ARE $\pm 1/2$ DEGREE
ALL OTHER MACHINING ($\pm 0.030"$)
ALL OTHER ASSEMBLY ($\pm 0.060"$)

PROPRIETARY NOTE:
THE DATA AND TECHNOLOGIES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.

DESCRIPTION

12' 6" HEAVY DUTY
V-FRAME ASSEMBLY
WITH TWO STIFF ARMS



Locations:
New York, NY
Atlanta, GA
Los Angeles, CA
Plymouth, IN
Salem, OR
Dallas, TX

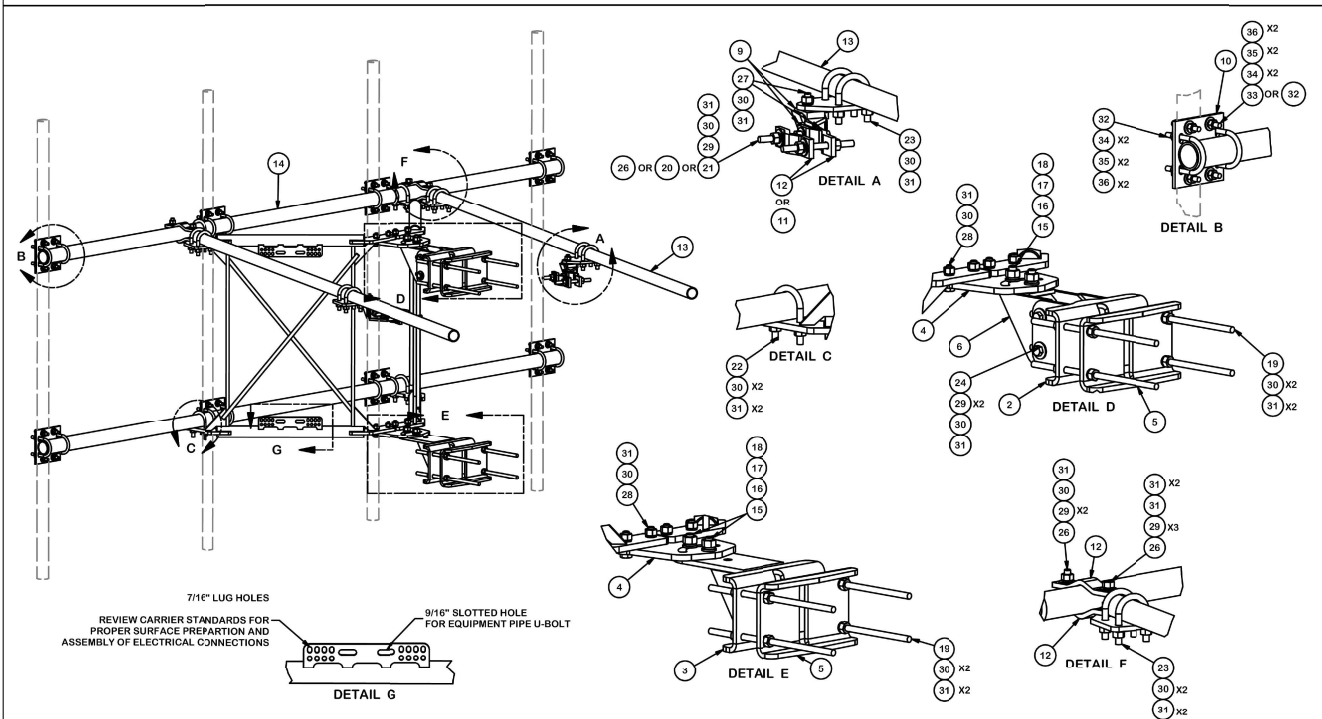
Engineering
Support Team:
1-888-753-7446

A valmont COMPANY

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
D	UPDATED BCAM VERSION 1 TO BCAM VERSION 2		CEK	6/29/2018
C	UPDATED PIN LEG CONNECTION TO B-CAM CONNECTION		CEK	12/7/2017
B	CHANGED TIE-BACK BACK CONNECTION		CEK	7/31/2017
A	CHANGED TIE-BACK FRONT CONNECTION		CEK	2/2/2017
REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
REVISION HISTORY				

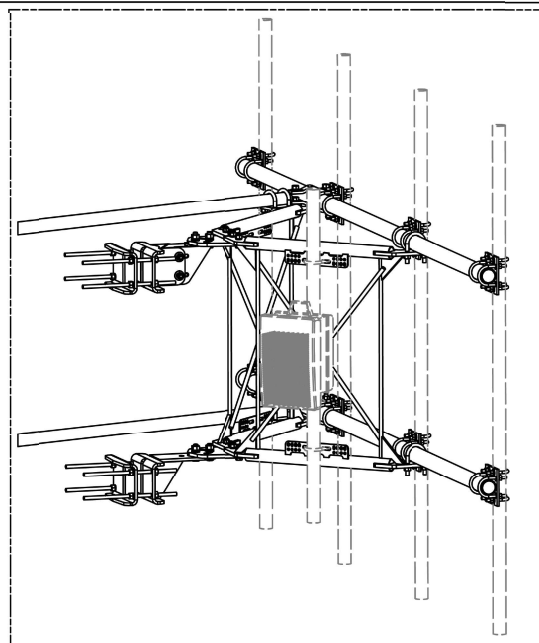
CPD NO.	DRAWN BY	ENG. APPROVAL
81	CEK 1/25/2017	
CLASS	SUB	DRAWING USAGE
81	02	CUSTOMER
CHECKED BY	DATE	
BMC	12/13/2017	

PART NO.	DWG. NO.
VFA12-HD	VFA12-HD



				TOLERANCE NOTES TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE: SAWED, SHEARED AND GAS CUT EDGES ($\pm 0.030"$) DRILLED AND GAS CUT HOLES ($\pm 0.030"$) - NO CONING OF HOLES LASER CUT EDGES AND HOLES ($\pm 0.010"$) - NO CONING OF HOLES BENDS ARE $\pm 1/2$ DEGREE ALL OTHER MACHINING ($\pm 0.030"$) ALL OTHER ASSEMBLY ($\pm 0.060"$) <small>PROPRIETARY NOTE: THE DATA AND TECHNOLOGIES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.</small>				DESCRIPTION 12' 6" HEAVY DUTY V-FRAME ASSEMBLY WITH TWO STIFF ARMS				<div><div><div>SITE PRO</div><div>A valmont COMPANY</div></div><div>Locations: New York, NY Atlanta, GA Los Angeles, CA Plymouth, IN Salem, OR Dallas, TX</div><div>Engineering Support Team: 1-888-755-7446</div></div>			
D	UPDATED BCAM VERSION 1 TO BCAM VERSION 2	CEK	6/29/2018					CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.				
C	UPDATED PIN LEG CONNECTION TO B-CAM CONNECTION	CEK	12/7/2017						CEK	1/25/2017		VFA12-HD	Page		
B	CHANGED TIE-BACK BACK CONNECTION	CEK	7/31/2017					CLASS	SUB	CHECKED BY	DWG. NO.	4 OF 5			
A	CHANGED TIE-BACK FRONT CONNECTION	CEK	2/2/2017					81	02	CUSTOMER	BMC	12/13/2017	VFA12-HD		
REV	DESCRIPTION OF REVISIONS	CPD	BY DATE												
REVISION HISTORY															

REQUIRES 3/8" HARDWARE



**REQUIRES 1/2" HARDWARE
AND 2-3/8" TO 4-1/2" O.D. PIPE**

D	UPDATED BCAM VERSION 1 TO BCAM VERSION 2		CEK	6/29/2018
C	UPDATED PIN LEG CONNECTION TO B-CAM CONNECTION		CEK	12/7/2017
B	CHANGED TIE-BACK BACK CONNECTION		CEK	7/31/2017
A	CHANGED TIE-BACK FRONT CONNECTION		CEK	2/2/2017
REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
REVISION HISTORY				

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
 SAWED, SHEARED AND GAS CUT EDGES (± 0.030)
 DRILLED AND GAS CUT HOLES (± 0.030) - NO CONING OF HOLES
 LASER CUT EDGES AND HOLES (± 0.010) - NO CONING OF HOLES
 BENDS ARE $\pm 1/2$ DEGREE
 ALL OTHER MACHINING (± 0.030)
 ALL OTHER ASSEMBLY (± 0.060)

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DESCRIPTION		
12" 6" HEAVY DUTY V-FRAME ASSEMBLY WITH TWO STIFF ARMS		
CPD NO.	DRAWN BY CEK 1/25/2017	ENG. APPROVAL
CLASS 81	SUB 02	DRAWING USAGE CUSTOMER
		CHECKED BY BMC 12/13/2017



Engineering Support Team:
1-888-753-7446

Locations:
New York, NY
Atlanta, GA
Los Angeles, CA
Plymouth, IN
Salem, OR
Dallas, TX

PART NO.	VFA12-HD	5 OF 5
DWG. NO.	VFA12-HD	



April 18, 2025

Dear Customer,

The following is the proof-of-delivery for tracking number: 880602135679

Delivery Information:

Status:	Delivered	Delivered To:	Shipping/Receiving
Signed for by:	M.MORLEY	Delivery Location:	
Service type:	FedEx Priority Overnight		
Special Handling:	Deliver Weekday		MONROE, CT,
		Delivery date:	Apr 17, 2025 09:57

Shipping Information:

Tracking number:	880602135679	Ship Date:	Apr 16, 2025
		Weight:	1.0 LB/0.45 KG
Recipient:		Shipper:	
MONROE, CT, US,		WESTBOROUGH, MA, US,	

FedEx Express proof-of-delivery details appear below; however, no signature is currently available for this shipment. Please check again later for a signature.

Thank you for choosing FedEx



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